UK Covid-19 Inquiry

Module 3:

The impact of the Covid-19 pandemic on the healthcare systems of the United Kingdom

A report by The Rt Hon the Baroness Hallett DBE
Chair of the UK Covid-19 Inquiry

March 2026

HC 1730

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A report by The Rt Hon the Baroness Hallett DBE
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Presented to Parliament pursuant to section 26 of the Inquiries Act 2005

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Corrections:

Text currently reads (Chapter 1, para 1.49):

In April 2020, the Environmental Modelling Group estimated that the virus that causes Covid-19 was about 6 to 14 microns in diameter.

Text should read (Chapter 1, para 1.49):

In April 2020, the Environmental Modelling Group estimated that the virus that causes Covid-19 was about 0.06 to 0.14 microns in diameter.

Date of correction: 13 May 2026

Contents

Introduction by The Rt Hon the Baroness Hallett DBE ix

Voices xii

Executive summary 1

Chapter 1: Infection prevention and control guidance 8
- Introduction 9
- Core features of infection prevention and control 9
- Infection prevention and control guidance during the Covid-19 pandemic 12
- Fundamental flaws in the UK's approach 20

Chapter 2: Infection prevention and control in practice 49
- Introduction 50
- Covid-19 testing of patients and staff 50
- Visiting restrictions 53
- Personal protective equipment 62
- Hospital-acquired infections 78

Chapter 3: Protecting the vulnerable 83
- Introduction 84
- The shielding programme 84
- The impact of the shielding programme on people's mental health and wellbeing 86
- Identifying the clinically extremely vulnerable 87
- Communication about clinical risk 94
- Access to healthcare for clinically extremely vulnerable and clinically vulnerable people 102
- Reviews of the shielding programme 107

Chapter 4: Urgent and emergency care 111
- Introduction 112
- 111 services in England, Scotland and Wales 112
- Northern Ireland 123
- Emergency ambulance services 124
- Conveyance to hospital 133

Handover delays 135
Delays in the emergency department 138

Chapter 5: Increasing hospital capacity 141
Introduction 142
Hospital capacity prior to the pandemic 142
The gap between capacity and predicted demand 143
Measures taken to expand existing hospital capacity 144
Measures taken to maximise existing workforce capacity 148
Measures taken to create additional hospital capacity 154
Additional capacity in subsequent waves 170
Measures taken to expand the healthcare workforce 174
Surge capacity in the future 180

Chapter 6: Care for patients with Covid-19 184
Introduction 185
Adaptations to care 185
Capacity issues and the impact on quality of care 197

Chapter 7: Death and end-of-life care 220
Introduction 221
Deaths from Covid-19 221
End-of-life care 232
Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions 240

Chapter 8: Long Covid 258
Introduction 259
Developing awareness of Long Covid 259
Difficulties in diagnosis 263
Research and data 265
Long Covid in healthcare workers 270
Treatment for Long Covid 271
Long Covid in children and young people 276
Future pandemics 277

Chapter 9: Healthcare for non-Covid-19 conditions 280
Introduction 281
Barriers to accessing healthcare for non-Covid-19 conditions 282

Changes in rates of diagnosis, referral and treatment of non-Covid-19 conditions 293
Approaches to continuing non-Covid-19 healthcare 302
Non-pandemic healthcare in future pandemics 314

Chapter 10: Impact on healthcare workers and 'overwhelm' 317
Introduction 318
Impact on the mental health and wellbeing of healthcare workers 318
Factors impacting workers' wellbeing 320
Staff risk assessments 336
Abuse of healthcare workers 340
Support provided for healthcare workers 341
'Overwhelm' 345

Appendix 1: The background to this module and the Inquiry's methodology 350

Appendix 2: Glossary 369

Appendix 3: List of recommendations 381

List of figures

Figure 1: A standard fluid-resistant surgical mask 11

Figure 2: A standard FFP3 mask 12

Figure 3: A typical powered air-purifying respirator hood 12

Figure 4: Historical dichotomous model of respiratory transmission 22

Figure 5: Social media post by the World Health Organization, 28 March 2020 30

Figure 6: Illustration of the effects of poor and good ventilation 33

Figure 7: The hierarchy of controls 39

Figure 8: Royal College of Nursing survey responses concerning access to PPE for those working in aerosol generating procedure areas 66

Figure 9: Number and proportion of NHS 111 calls abandoned per month in England, from April 2019 to June 2022 115

Figure 10: Number of confirmed Covid-19 patients in NHS hospital beds from March 2020 to October 2022 171

Figure 11: An example of a pulse oximeter 194

Figure 12: Mean of daily patients admitted to critical care in the UK, from 1 June 2018 to 30 June 2022 198

Figure 13: Mean of daily patients in critical care in the UK, from 1 June 2018 to 30 June 2022 199

Figure 14: Mean of daily interhospital transfers between critical care units in the UK, from 1 June 2018 to 30 June 2022 201

Figure 15: Mean of daily transfers between critical care units in England, Wales and Northern Ireland combined, by reason for transfer, from April 2020 to June 2022 202

Figure 16: Proportion of intensive care units at each CRITCON score on a daily basis, from April 2020 to July 2022 209

Figure 17: Clinical Frailty Scale 213

Figure 18: Number of death registrations by five-year age group in the UK, from March 2020 to February 2022 224

Figure 19: Mortality rates by disability status in England, from January 2020 to February 2022 225

Figure 20: Number of studies by topic, funded by the National Institute for Health and Care Research, looking into the long-term impact of Long Covid 266

Figure 21: Appointments in general practice in England and Scotland, from July 2018 to April 2022 326

Figure 22: Frequency with which respondents acted in a way that conflicted with their values when at work during the pandemic 333

List of tables

Table 1:	Number of additional staff required to comply with recommended staffing standards	151
Table 2:	Summary of activity in Nightingale hospitals in England	159
Table 3:	CRITCON levels during the Covid-19 pandemic	204
Table 4:	CRITCON 4 declarations, from April 2020 to November 2021	206
Table 5:	Deaths involving Covid-19 in the UK, from 30 January 2020 to 28 June 2022	221
Table 6:	Module 3 Core Participants	354
Table 7:	Expert witnesses	359
Table 8:	Module 3 witnesses from whom the Inquiry heard evidence	361
Table 9:	Module 3 Counsel team	366

Introduction by The Rt Hon the Baroness Hallett DBE

The UK entered the Covid-19 pandemic ill-prepared and with its healthcare systems in a parlous state, with severe workforce shortages, an ageing hospital estate, low numbers of hospital beds and high bed occupancy rates. It is unsurprising therefore that the impact on the healthcare systems of the four nations was devastating.

The healthcare systems coped with the pandemic, but only just. On a number of occasions, they teetered on the brink of collapse and only coped thanks to the almost superhuman efforts of healthcare workers and all the staff who support them.

Healthcare workers and support staff were obliged (often at considerable cost to themselves and their families) to work under intolerable pressure for months on end. Some patients suffering from Covid-19 did not get the quality of treatment they needed and some non-Covid-19 patients had their diagnoses and treatments delayed to the point where their conditions became untreatable.

Many thousands of people died in hospitals and died alone. As one hospital porter explained to the Inquiry's listening exercise, Every Story Matters:

> "*The fact that people were in ITU* [intensive therapy unit]*, and they were alone was horrible because you could just see it in their eyes. You could see it in the eyes of the staff, the nurses, the doctors. At the height, it was a really horrible place to be … that was probably the thing that will stick with me the most, is that so many people died on their own, or so many people died on their own with only one family member around them, which was horrific.*"[1]

Politicians, including the Secretary of State for Health and Social Care, Matt Hancock, were reluctant to accept that healthcare systems were 'overwhelmed', as they chose this to mean total collapse. Ultimately, in my view, it is a question of semantics. Whatever word one chooses, healthcare systems were placed under intolerable strain.

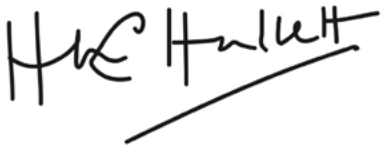
Strain on the UK's healthcare systems is nothing new. People have been urging wholesale reform for years and those calls were repeated during the Inquiry. However, my Terms of Reference are limited to "*preparations and the response to the pandemic*" across the UK.[2] It is not, therefore, within the Inquiry's remit to consider reform on such a wide scale. I must leave it to others far better qualified – for example, Professor Ara Darzi, Lord Darzi of Denham, who published his report *Independent Investigation of the National Health Service in England* in September 2024.

Nonetheless, there are many lessons to be learned from the experiences of the UK's healthcare systems during the Covid-19 pandemic and many areas for improvement. I have made 10 recommendations focused on steps that can be taken now to improve the response of the healthcare systems to a future pandemic. These recommendations cover many aspects of the pandemic response, from planning and data collection to infection

1 *Every Story Matters: Healthcare*, p67 (INQ000474233)
2 'Covid-19 Inquiry Terms of Reference', UK Covid-19 Inquiry, 20 July 2022 (https://covid19.public-inquiry.uk/documents/terms-of-reference)

prevention and control, and support for healthcare workers. I urge the governments of the UK to implement my recommendations and to do so as a matter of urgency. When the next pandemic strikes, there may not be a workforce in the healthcare systems able or willing to work under the conditions that arose during the Covid-19 pandemic.

Module 3 has been critical to this Inquiry in understanding the impact of the pandemic and its consequences. More than 300 written statements and 300,000 pages of evidence were received and 93 witnesses gave evidence in a 10-week hearing in the autumn of 2024. This required significant work and support from the witnesses and material providers, the 36 Core Participant groups, their members and representatives and, of course, the Inquiry's secretariat and legal team. I am very grateful to them all. I should also like to thank those who contributed to the Inquiry's listening exercise, Every Story Matters, and to the impact films. Your accounts were extremely moving and, at times, distressing but they serve to remind us of the devastating consequences of a pandemic and why it is so important to implement the recommendations I have made.



The Rt Hon the Baroness Hallett DBE

19 March 2026

Voices

> *"I received a call from the doctor who told us that he had deteriorated and that he was dying. To not be able to be with my father and to hear that news was completely devastating. He was with a nurse and so I was constrained to saying my farewell to my father by text message, with the hope that it would be read out to him. It is truly difficult to put into words how painful it is to say farewell to a loved one by text message."*[3]
>
> **Sam Smith-Higgins, Covid-19 Bereaved Families for Justice Cymru, speaking about her father**

> *"When I was with Mum, I would talk with her and hold her hand. I could not hug her as I was not allowed to. Wearing full PPE, all that Mum could see of my face were my eyes. I had to make sure that I spoke as clearly as possible through the mask and visor. Holding hands when wearing double gloves is far from the 'skin to skin' contact that is so comforting. Those would be the last things my Mum would see, me dressed in full PPE, not able to hug her or kiss her or properly hold her hand."*[4]
>
> **Margaret Waterton, Scottish Covid Bereaved, speaking about her mother**

> *"It was beyond distressing that we were required to wear PPE to visit Ziggy, and to have photos with him taken while we were wearing PPE, I do not understand the reasoning behind this. This has obviously had a very lasting impact, and we are reminded of this every time we look at any photos with him."*[5]
>
> **Catherine Todd, Northern Ireland Covid-19 Bereaved Families for Justice, speaking about her newborn son Ziggy, who died during the pandemic**

> "[A]*s a healthcare worker, you could never simply escape it. I lived on my own, away from family and friends during the pandemic. This meant that I rarely saw people in real life (other than my colleagues on the front line) for any form of decompression or support. My fear of potentially passing on any infection meant that I was reluctant, even when able to meet with others outdoors, to do so."*[6]
>
> **Dr Stuart Edwardson, Specialty Registrar in Anaesthesia and Intensive Care Medicine, speaking about the impact of the pandemic on healthcare workers**

3 INQ000486273_0009
4 INQ000492936_0012
5 INQ000494257_0007
6 INQ000485986_0002-0003

> "*It was hard at times to manage all this extra work, support my family, keep going at work and manage my own anxieties; it was a lot. I think something that made it harder as well was that my patients are, by the nature of my speciality, vulnerable individuals. I wanted to do the best I could to care for them but it felt like there was so much standing in the way of that. We all did our best, and put ourselves at risk to continue to work and care for people, but it has come at a high cost.*"[7]
>
> **Member of the Federation of Ethnic Minority Healthcare Organisations, speaking about the impact of the pandemic on healthcare workers**

> "*I was minimising things to my GP on the phone because I was absolutely terrified of going into hospital, believing if I did I would catch Covid and die. Every night I would be awake for hours struggling to breathe and fearful that I might die of my asthma, but I was too scared to do what I would have done previously and go to hospital. Reading about increased deaths at that time at home did not surprise me and I was very fearful I would not survive the pandemic.*"[8]
>
> **Dr Adrian Warnock, member of Clinically Vulnerable Families (a Core Participant), speaking about the impact of the pandemic on vulnerable people**

> "*Many of us were exposed to death on a daily basis. When I was working in ICU* [intensive care unit]*, I saw huge numbers of patients dying. It was usual to arrive for a proning shift, only to become aware that none of the patients from my previous shift were still there; and for it to transpire that none of them had survived. I did not see any patients recover and be discharged from COVID-19 ICU during my shifts working there. It had become commonplace to see body bags containing people that had died being moved around the hospital, to the mortuary.*"[9]
>
> **Gillian Higgins, member of COVID-19 Airborne Transmission Alliance, speaking about the impact of the pandemic on healthcare workers ('proning' involves turning a critically ill patient onto their stomach, ie a prone position)**

7 INQ000494256_0012
8 INQ000490087_0007
9 INQ000421873_0004

> *"Long Covid has impacted the way in which I can be with my daughter. When she was born, I could not stand up and walk with her around in my arms, I could not walk and bounce with her. All I could do was sit and hold her. During maternity leave, I had no option but to care for her so I had to try to manage my persistent symptoms, sleep as much as I could when I could and look after her around that. I was worried when I was pregnant that I was housebound and my symptoms were so extreme that it would impact my baby."*[10]
>
> **Nicola Ritchie, member of Long COVID Physio (one of the Long Covid Groups, a Core Participant), speaking about the impact of Covid-19**

> *"A nurse telephoned us and told us that Susan was not tolerating her oxygen mask and kept taking it off. The nurse kindly took the phone to Susan so that we could speak to her. Both Ida and Clifford tried to speak with Susan over the phone to calm her and convince her to keep the mask on her face. Unfortunately, she was crying too hard by that point, and I did not get the chance to speak with Susan one last time."*[11]
>
> **John Sullivan, member of Covid-19 Bereaved Families for Justice, speaking about his daughter Susan**

10 INQ000492258_0014-0015
11 INQ000489906_0004

Executive summary

The message across the UK at the start of the Covid-19 pandemic was 'Stay Home, Protect the NHS, Save Lives'. The need to protect the healthcare systems of the four nations from being overwhelmed became a key priority for politicians.

While not officially defined, the term 'overwhelm' was used to describe a situation where patients could not be admitted to hospital and, in particular, into intensive care units. Health ministers maintained that the UK never reached that state but there can be no doubt that the enormous strain placed upon the healthcare systems was unprecedented, as was the anxiety and distress for those working within it. The pressure was, at times, intolerable. This continued for wave after wave of the virus. For many healthcare workers, it was the demands of the later pandemic waves that were the hardest to cope with.

There was clearly overwhelm. While the Inquiry may not be using the word 'overwhelm' in the same way that politicians did, lower levels of care were provided to patients and patients did not always get the care they needed, notwithstanding the efforts of healthcare workers. This caused often unbearable stress and distress to patients, their loved ones and the healthcare workers looking after them.

The number of vacancies in the healthcare workforce at the start of 2020 meant the UK entered the pandemic with a lack of resilience. This fact, combined with staff witnessing death on a scale not hitherto seen and the increase in workload, meant that the mental health of staff was severely impacted, with many healthcare workers exhibiting signs of post-traumatic stress disorder. 'Burn-out' was common, with greater numbers of staff leaving than ever before, feeling unable to continue in their jobs.

The Inquiry's listening exercise, Every Story Matters, brought together the contributions of more than 32,000 people and sets out the huge personal impact that the pandemic had on people receiving and providing healthcare or on their family members. It is a powerful reminder of the devastation wreaked by Covid-19 and pays tribute to the huge commitment and sacrifices made by the UK's healthcare workforce.

The need to prevent the spread of Covid-19 in healthcare settings was of paramount importance to protect both patients and healthcare workers alike, with infection prevention and control guidance playing a pivotal role in what protective measures should be taken. Initial guidance was flawed because it assumed that Covid-19 was spread by contact transmission and failed properly to consider the extent to which the virus was also spread by aerosol transmission. This had important consequences for the infection prevention and control measures that were adopted in healthcare settings. In future, such guidance should assume that all routes of transmission are possible until sufficient evidence emerges to prove otherwise.

Personal protective equipment (PPE) – such as gloves, gowns and masks – plays a vital role in reducing the spread of the virus between patients, visitors and healthcare workers. The pandemic brought about a worldwide demand for PPE, and the UK was not alone in experiencing shortages. Supplies of PPE were particularly constrained at the start of the pandemic, causing healthcare workers sometimes to work in inadequate and unsuitable

PPE and put themselves at risk to care for patients. Dangerously low supply levels also caused healthcare workers immense worry and stress.

The significant numbers of people infected with Covid-19 who required treatment and, in many cases, hospitalisation meant that terrible trade-offs were required – for example, the decision to refuse and/or restrict end-of-life visits for loved ones.

The imposition of restrictions preventing visiting in healthcare settings, save in a small number of limited circumstances, necessarily required decision-makers to balance the need to prevent the spread of Covid-19 with the harm caused to patients and their loved ones who could not be with the person needing care and treatment. This was a particular issue in the early stages of the pandemic, where restrictions meant that many patients died without the comfort of being surrounded by their loved ones and were deprived of the opportunity to say goodbye. This has had a devastating impact on bereaved family members.

Visiting restrictions also left some vulnerable patients, such as those with dementia or a learning disability, without vital support when attending medical appointments or receiving care. Pregnant women were sometimes required to attend maternity appointments without their partners and families, including to appointments where they had to receive difficult news about pregnancy complications or even the loss of their baby. Inconsistent application of the visiting guidance left many loved ones feeling that they had been unfairly treated where visits were refused.

People with certain underlying health conditions were particularly vulnerable to Covid-19 infection. The introduction of the shielding programme was intended to provide additional protection and support for those most vulnerable to the virus, but the advice to stay at home and avoid face-to-face contact led to many struggling to cope. Shielding required wholesale changes to the lives of millions of people, disrupting their personal lives, affecting their access to healthcare and altering their daily routines. It inevitably resulted in many people who were shielding becoming lonely and socially isolated, and negatively affected their mental health and wellbeing. Communications with people who were shielding were not always appropriately handled. Some people were incorrectly advised to shield, while others were not advised to shield when they should have been. For many people, the content of the communications did not properly address the specific steps they needed to take to keep themselves safe, including once the shielding programme had ended.

Demand for advice and information about Covid-19 and non-urgent health conditions increased dramatically, such that 111 services were not able to cope with the level of need, particularly in the early stages of the pandemic. Although efforts were made to increase capacity by recruiting more staff and directing some patients to newly created Covid-19 triage services, they were not enough to meet demand.

Following an initial decline in the number of calls for emergency ambulances, the pressures on ambulance services remained high due to staff absences. Waiting times grew, even for the most life-threatening calls. Some ambulance services had to recruit retired staff and volunteers and to resort to military aid in order to ensure there was not a significant risk to

life. There was immense strain on ambulance workers, significantly longer handover delays and consequential harm for patients waiting to be admitted to emergency departments and, in turn, to be admitted to a hospital ward. There needs to be further planning to ensure that the urgent and emergency care capacity – and in particular 111 and 999 services and ambulance capacity – can be scaled up when needed. The need for better pre-pandemic planning is a theme that runs throughout this Report.

Entering the pandemic with low numbers of beds and high bed occupancy, particularly in critical care, gave little if any room to expand. In addition, there was a need for more oxygen to be supplied to wards, more ventilators for patients who needed help to breathe and more kidney dialysis machines. These factors, when combined with high numbers of staff vacancies and sickness absences, meant that the healthcare systems of the four nations were in a precarious position, given the projected numbers of people likely to be hospitalised and in particular to need critical care. Each nation therefore took urgent steps to increase hospital capacity (including intensive care capacity), which included:

- repurposing existing space and equipment to treat more acutely unwell patients;
- redeploying staff from other clinical specialties and allied health professions to acute and critical care wards, introducing a temporary register for returning healthcare workers, and using trainee doctors and student nurses to increase staffing capacity;
- discharging patients who were medically fit;
- establishing temporary hospitals, including Nightingale hospitals in England and Northern Ireland, NHS Louisa Jordan in Scotland and field hospitals in Wales; and
- using the private healthcare sector to create additional capacity to treat patients.

Freeing up occupied hospital beds through the implementation of the expedited discharge policy meant that many of the patients were discharged into care homes (the consequences of this policy on the adult social care sector is being separately examined in Module 6: Care sector). The pressures brought to bear on hospitals, and on critical care in particular, demonstrate the need for plans to be in place setting out how beds, space, equipment and staffing capacity can all be expanded. This should not have to be done in the turbulent early stages of a pandemic. These plans must be developed with appropriate stakeholder involvement well in advance of the next pandemic and be regularly updated.

There also needs to be better planning for end-of-life care. Discussions about Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) notices and advance care planning are necessarily sensitive and personal matters best discussed before someone enters end-of-life care and before a pandemic strikes.

During the course of the pandemic, there were reports of inappropriate and/or blanket DNACPR notices being imposed on groups of people, such as those with learning disabilities or older people. A range of communications were issued to healthcare professionals to reiterate that DNACPR decisions should be based on the particular and individual circumstances of each patient and that it was unacceptable to apply DNACPR

notices to particular groups of people. Nonetheless, concerns about the use of DNACPR notices were undoubtedly compounded by the often poor communication with patients and their families and loved ones.

The absence of a single UK-wide advance care planning document has also led to a lack of consistency and is problematic given the frequency of movement of people between the nations. The adoption of a standardised advance care planning document for use across the UK would help encourage people to discuss their wishes for treatment at the end of life and help ensure there is individualised decision-making for each and every patient.

The Inquiry also examined the long-term health consequences for some of those infected with Covid-19 and for non-Covid-19 patients.

Long Covid is one of the direct long-term impacts of the virus. While the symptoms vary, for some people Long Covid can be life-changing. During the pandemic, there were concerns about the length of time taken for sufferers to have their symptoms taken seriously and to be diagnosed. Access to healthcare for Long Covid has been and remains variable across the four nations, with each nation adopting its own approach about how best to provide care and treatment for Long Covid. Although research into Long Covid continues, it has been significantly scaled back while the need to develop a greater understanding of Long Covid remains.

Another long-term impact was on people who needed care for non-Covid-19 conditions. Hospital capacity was increased, in part, through the suspension of non-urgent elective care (ie planned surgery and diagnostic testing). This was a decision taken in each nation just before the UK went into lockdown. It had significant consequences for the many millions of people awaiting treatment and operations. For example, hip replacements were paused. This had a debilitating effect on patients' lives and their mobility – in some cases, it led to such a deterioration in the patient's condition that they were no longer eligible for surgery.

Cancer screening programmes were paused in some countries. For example, the bowel cancer screening programme was formally paused in Scotland, Wales and Northern Ireland, leading to a steep drop in diagnosis in 2020. Missed and late diagnoses and longer waits for treatment for colorectal cancer during the pandemic resulted in loss of life and increased mortality rates. Once elective care resumed across the UK, there was significant variation in the speed with which the backlog was addressed, thereby adding to the already lengthy waiting lists.

People were also deterred from accessing healthcare. There were several different reasons for this, including the public messaging that was intended to keep them safe ('Stay Home'), the fear of catching Covid-19 in healthcare settings, a feeling that they did not want to 'overburden' the NHS or because they were worried about attending appointments without a loved one being able to attend with them. This last concern was particularly prevalent in maternity services where, in addition, staff absence from sickness and self-isolation led to the closure of some maternity units and the suspension of home births in some areas.

There was a decline in attendances at emergency departments and other healthcare settings for non-Covid-19 conditions, even for life-threatening medical emergencies such as heart attacks. This suggests that the public messaging of Stay Home, Protect the NHS, Save Lives may have, inadvertently, sent the message that healthcare was closed.

This Report makes a total of 10 recommendations. A number of the recommendations in this Report seek to better prepare the UK's healthcare systems for 'pandemic disease X', irrespective of the mode of transmission. However, some recommendations are necessarily focused on the response to a future respiratory virus, reflecting the evidence we received on Covid-19. The Inquiry considers that this combination of recommendations provides the necessary balance in order to improve the healthcare sector's response to a future pandemic.

In summary, the Inquiry recommends:

- **increasing capacity in urgent and emergency care** and ensuring that hospitals have the ability to implement surge capacity;
- **strengthening the body responsible for infection prevention and control guidance**, broadening its membership to enhance its decision-making and improving the guidance itself;
- **improving data collection**, enabling individuals at highest risk of harm from infection to be more easily identified and recording deaths of healthcare workers more accurately;
- **promoting a standardised process and documentation for advance care planning**, recording patients' preferences for future care and treatment;
- **increasing support for healthcare workers**, improving retention and increasing resilience; and
- **publishing guidance to assist decision-makers**, providing clear criteria for clinical decisions if critical care resources become completely exhausted.

A full list of the Inquiry's recommendations is included in Appendix 3.

The Inquiry judges them all to be necessary to prevent 'overwhelm' of the healthcare systems in the next pandemic.

It is vital to record just how close these healthcare systems came to collapse. That collapse was only narrowly avoided because of the extraordinary efforts of all those working in the healthcare systems across the UK, who carried the burden of caring for the sick and dying in unprecedented numbers. This came but:

"*only at the expense of degrading NHS staffing and capability. We would have failed if the pandemic had doubled for even one more week, or if a higher proportion of the NHS workforce had fallen sick. Through the prism of critical care, it is crucial to understand how very close we came to a catastrophic failure of the healthcare system.*"[1]

1 INQ000474255_0009 para xii

Chapter 1: Infection prevention and control guidance

Introduction

1.1. When coronavirus (Covid-19) began to spread rapidly across the world in early 2020, it soon became clear that thousands of people would become infected and many would die. The number of people who would die or suffer serious illness depended, to a large extent, on the response of the healthcare systems in the four nations of the UK. As Professor Sir Stephen Powis (National Medical Director at NHS England from 2018 to July 2025) rightly acknowledged, responding to the Covid-19 pandemic was "*the single biggest challenge that the NHS has faced in its history*".[1]

1.2. To deal with that challenge, the UK's healthcare systems needed to function as effectively as possible. This requires healthcare workers to be available to provide care and vulnerable patients requiring medical treatment to be protected from further infection. As explained by the Inquiry's expert witnesses on infection prevention and control, Dr Gee Yen Shin, Professor Dinah Gould and Dr Ben Warne:

> "*IPC* [infection prevention and control] *is central. All frontline staff need to know how to protect patients, everybody visiting premises where healthcare is delivered and themselves from infection.*"[2]

Infection prevention and control measures affected almost every aspect of the healthcare systems' response to Covid-19, including the type of protective equipment healthcare workers were required to use, the visiting restrictions that prevented families from seeing unwell loved ones and the limits on access to care for non-Covid-19 conditions.

1.3. This chapter sets out the background to those measures and the guidance given to the healthcare sector to respond to the challenge posed by a novel virus. It explores the underlying rationale for infection prevention and control guidance in healthcare settings and the development of infection prevention and control guidance. The chapter also considers the impact of the approach taken to transmission of Covid-19 on the UK's ability to adapt to developing scientific understanding and ensure that patients and healthcare workers were properly protected. Subsequent chapters examine the practical impact of the infection prevention and control measures.

Core features of infection prevention and control

1.4. Infection prevention and control measures aim to stop a virus from reaching its intended target or prevent it from causing an infection.[3] The strategies used to do so fall into two broad categories:

1 INQ000412890_0004 para 1
2 INQ000474282_0012 para 1.15
3 INQ000474276_0008 para 15

- **Standard infection control precautions:** These are basic measures used to limit transmission of all viruses, such as regular handwashing, safe management of blood and other bodily fluids, cleaning of surfaces and safe disposal of waste.[4] These steps are almost always essential for providing safe care but are unlikely to be sufficient on their own to halt the spread of a highly transmissible virus.
- **Transmission-based precautions:** Viruses can be transmitted in a variety of ways, including through the air, by contact, orally from water or food, by vector (transmitted from other living organisms such as insects), sexually or intravenously.[5] Transmission-based precautions are targeted measures aimed at reducing the spread of a known or suspected virus, based on the way in which it may transmit (known as its mode(s) of transmission).[6]

Modes of transmission of respiratory viruses

1.5. Historically, transmission of respiratory viruses has been described as occurring through contact transmission and through the air via respiratory particles (droplets or aerosols) exhaled from the mouth or nose.[7]

1.6. Contact transmission includes both direct human touch – for example, shaking hands or bodily fluids entering another person's body through cuts or abrasions – and indirect contact through an infected person touching and contaminating a surface or object (a fomite) which is then touched by another person (also known as fomite transmission).[8]

1.7. The term 'droplet' refers to the larger, heavier respiratory particles that behave ballistically – "*like throwing a stone … these are so large that they will fall rapidly to the floor*" – and typically cannot travel more than approximately 1.5 metres.[9] 'Aerosols' are smaller, lighter respiratory particles that are slow moving and, depending on size, have the potential to remain airborne for many hours and to travel considerable distances.[10] The term 'airborne' may be used interchangeably with 'aerosol' and is intended to refer to the same type of transmission; for consistency, the Inquiry refers to aerosol transmission wherever possible.

1.8. As a result of the distinction between how droplets and aerosols behave, appropriate infection prevention and control measures differ. Fluid-resistant surgical masks (discussed further below) are often used for droplet protection, while respiratory protective equipment, such as respirator masks, is used to protect against inhalation of infectious aerosols. Likewise, ventilation may reduce transmission of a virus

4 INQ000474282_0020 paras 1.35-1.36
5 INQ000410237_0033 para 4.2; INQ000474282_0015 para 1.24
6 INQ000474282_0020, 0043 paras 1.38, 4.8
7 INQ000474282_0015-0016, 0021 paras 1.24-1.25, 1.39
8 INQ000421939_0013 para 41; INQ000474282_0015 para 1.24; INQ000474276_0008 para 17
9 Clive Beggs 11 September 2024 36/25-37/11; INQ000474282_0021 para 1.39
10 INQ000474276_0024-0025, 0028 paras 57, 59, 66

spread by aerosols, which can remain suspended in the air for long periods, but has limited effect against droplets which fall to the ground quickly.[11]

Source control and personal protection

1.9. Measures used to protect against infection are designed either to prevent transmission from an infected person (known as source control) or to protect an individual from other people who may be infectious (known as personal protection).[12]

1.10. Source control measures include steps such as isolating infectious patients and healthcare workers, cohorting infected individuals in a single ward, decontaminating areas and equipment, and practising good hand hygiene.[13] The use of fluid-resistant surgical masks (see Figure 1) – heavily relied on during the Covid-19 pandemic – is also considered by the Health and Safety Executive to be a form of source control, as these masks are not deemed to amount to personal protective equipment (PPE).[14] While they have been commonly used in healthcare for many years (including when looking after influenza patients) and do provide some protection – such as against splashes and large infectious droplets – they are primarily designed to protect others rather than the wearer.[15]

Figure 1: A standard fluid-resistant surgical mask

Source: INQ000474282_0026 figure 5

1.11. Measures classed as personal protection include the use of respirators (both masks and hoods), gloves and protective clothing.[16] Respirator masks fit closely to a wearer's face and are designed to protect them by filtering out air particles, preventing inhalation of both large droplets and small aerosols.[17] The main types of respirator masks in use in the UK are filtering facepiece respirators (FFPs).[18]

11 INQ000474276_0062, 0090 paras 152, 238; *Role of Ventilation in Controlling SARS-CoV-2 Transmission*, SAGE Environmental Modelling Group, undated, p2 (https://www.gov.uk/government/publications/emg-role-of-ventilation-in-controlling-sars-cov-2-transmission-30-september-2020; INQ000203993); INQ000410237_0034 para 4.6
12 INQ000474282_0012-0013 paras 1.16-1.17
13 INQ000474282_0012 para 1.16
14 Richard Brunt 12 September 2024 79/3-12
15 INQ000474282_0025 paras 1.47-1.48; Richard Brunt 12 September 2024 78/25-79/12
16 INQ000474282_0013 para 1.17
17 INQ000474276_0070 para 179
18 INQ000347822_0058 para 256

These are graded from 1 to 3. All are designed to protect against inhalation of aerosols to varying degrees, with FFP class 3 or 'FFP3 masks' (see Figure 2) believed to filter out 99% of aerosols, compared with 95% for FFP class 2 or 'FFP2 masks'.[19]

Figure 2: A standard FFP3 mask

Source: INQ000474282_0028 figure 6

1.12. As the effectiveness of a respirator mask in protecting against aerosol inhalation relies on a tight seal between the mask and the user's face, healthcare workers must be 'fit-tested' to ensure that the mask fits properly (discussed further in Chapter 2: Infection prevention and control in practice). Although FFP3 masks come in different makes and models, it is not always possible for a healthcare worker to find a mask that fits effectively. Workers who cannot wear a properly fitting FFP3 mask may be able to use respirator hoods (also known as powered air-purifying respirator hoods).[20] These hoods, however, are large and bulky (see Figure 3) and the built-in ventilation system can be noisy, affecting communication with patients and other staff.[21]

Figure 3: A typical powered air-purifying respirator hood

Source: INQ000474282_0032 figure 8

Infection prevention and control guidance during the Covid-19 pandemic

1.13. Prior to 2020, infection prevention and control guidance differed across the four nations of the UK. In England and Northern Ireland, guidance was published by various different bodies (including public health bodies and professional organisations such as the Infection Prevention Society and the Royal College of

19 INQ000389241_0056 paras 182-183; INQ000273913_0039-0040 para 135
20 INQ000474282_0031 para 1.73
21 INQ000474282_0079 para 7.12

Nursing) for specific settings or specialties.[22] Since 2012 in Scotland, guidance has been contained in one consolidated document, the *National Infection Prevention and Control Manual*.[23] A version of this manual was subsequently adopted in Wales in 2018, with similar versions adopted in England in April 2022 and Northern Ireland in 2023.[24]

Designation of Covid-19 as a high consequence infectious disease

1.14. On 16 January 2020, the Four Nations Public Health HCID Definition and List Group – consisting of representatives from Public Health England, Health Protection Scotland, Public Health Wales and the Public Health Agency (Northern Ireland) – made an interim recommendation that Covid-19 should be classified as an airborne high consequence infectious disease.[25]

1.15. A high consequence infectious disease typically has a high case fatality ratio (the percentage of people diagnosed with a disease who die from it), may be difficult to recognise and detect rapidly, can transmit in the community and may not have an effective means of prevention or treatment.[26] Such diseases are classified as either 'contact' or 'airborne'.[27] The contact category includes viruses (eg Ebola) which are primarily spread by direct contact or indirect contact with a fomite, while the airborne category includes diseases (eg Middle East Respiratory Syndrome or MERS) believed to be spread by aerosols or droplets (or both) and those which can additionally be transmitted by contact.[28]

1.16. The designation of Covid-19 as a high consequence infectious disease was described as a "*precautionary measure*", subject to further information emerging about the risks associated with the disease.[29] From an infection prevention and control perspective, it carried with it specific requirements for treating suspected or confirmed cases of Covid-19, including the use of FFP3 masks, gloves, gowns, eye protection and managing patients in specialist facilities (including high-level isolation units).[30] Such requirements are applicable to all high consequence infectious diseases, both contact and airborne.

1.17. Nonetheless, categorising Covid-19 as an airborne high consequence infectious disease in January 2020 created some scope for confusion. As the term 'airborne' has been used interchangeably with 'aerosol' within healthcare settings, this categorisation – coupled with advice to wear FFP3 masks – might have appeared

22 INQ000474282_0038-0039 paras 3.5, 3.9
23 INQ000421939_0023 para 81
24 INQ000474282_0039 paras 3.8-3.9
25 INQ000421939_0025 paras 91-92; INQ000119498
26 INQ000148429_0059 para 234; *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 3 (https://covid19.public-inquiry.uk/documents/module-1-full-report)
27 INQ000474282_0035 para 2.7
28 INQ000474282_0035-0036 para 2.7; Lisa Ritchie 16 September 2024 94/19-24
29 INQ000023107_0009
30 INQ000474282_0062 para 6.3.2; INQ000412890_0107 para 374; INQ000409250_0050 paras 190-192

to signal that Covid-19 had been recognised as being spread by aerosols.[31] In reality, the perceived mode of transmission had no bearing on the infection prevention and control measures that were advised at this stage when dealing with Covid-19 patients. The recommendations for healthcare workers to wear respiratory protective equipment arose solely from Covid-19's designation as a high consequence infectious disease.[32]

1.18. On 19 March 2020, Covid-19 was declassified officially as a high consequence infectious disease, following a recommendation from the Advisory Committee on Dangerous Pathogens.[33] The case fatality ratio was no longer believed to be high; nor was Covid-19 viewed as being difficult to recognise or rapidly detect.[34] From this point, the source of the advised precautionary measures for healthcare settings became the specific Covid-19 infection prevention and control guidance developed by the UK Infection Prevention and Control Cell (UK IPC Cell).

Developments in the understanding of transmission

1.19. As Covid-19 was a novel virus, the limited evidence base in the early part of the pandemic meant that scientists and infection prevention and control professionals faced a considerable challenge in understanding how the virus was transmitted.

1.20. The initial assumption in March 2020 was that Covid-19 was transmitted solely through droplets and contact. The belief as to the mode of transmission was informed in part by the understanding of severe acute respiratory syndrome coronavirus 1 (SARS-CoV-1) – the virus that caused the 2002 to 2003 severe acute respiratory syndrome (SARS) outbreak – due to genomic similarity between the viruses.[35]

1.21. On 29 March 2020, the World Health Organization provided a scientific brief stating that "*transmission of the COVID-19 virus can occur by direct contact with infected people and indirect contact with surfaces in the immediate environment or with objects used on the infected person (e.g., stethoscope or thermometer)*".[36] It acknowledged that Covid-19 transmission via aerosols, referred to as 'airborne transmission', "*may be possible*" during specific procedures (often referred to as aerosol generating procedures).[37] The term 'aerosol generating procedures' refers to medical procedures (such as intubation) that were considered, by virtue of the activity itself, to cause the production of infectious aerosols even where ordinary aerosol transmission was not considered to be occurring.

31 Barry Jones 12 September 2024 9/13-16
32 INQ000421939_0026 para 96
33 INQ000115534; INQ000119498; INQ000087332
34 INQ000226885
35 INQ000325350_0002
36 INQ000300534_0002
37 INQ000300534_0002

1.22. However, evidence subsequently began to accumulate globally which indicated that Covid-19 could be transmitted more generally via aerosols and beyond aerosol generating procedures.[38]

1.23. On 14 April 2020, Professor Catherine Noakes, Professor of Environmental Engineering at the University of Leeds and Chair of the Environmental Modelling Group (a sub-group of the Scientific Advisory Group for Emergencies or SAGE), provided a presentation to SAGE indicating that Covid-19 might be transmitted through the airborne route.[39]

1.24. In June and July 2020, SAGE considered two papers relating to the role of aerosol transmission: *Transmission of SARS-CoV-2 and Mitigating Measures* and *Role of Aerosol Transmission in Covid-19*.[40] The first paper indicated that there was "*weak evidence*" that aerosol transmission played a part in transmission in poorly ventilated areas,[41] while the second paper concluded that aerosol transmission was most likely to occur within two metres. Neither paper indicated that aerosol transmission predominantly or substantially contributed to the way Covid-19 was spread; they highlighted merely the possibility that it might do so.

1.25. On 15 September 2020, an epidemiological analysis was published of a 'superspreading' event that occurred following a community choir rehearsal in Skagit Valley in Washington State, USA on 10 March 2020. It concluded that there was evidence indicating that long-range airborne or aerosol transmission was likely to make an important contribution to transmission and that fomite or droplet transmission was unlikely to explain a substantial proportion of cases.[42]

1.26. In January 2021, a paper by the Environmental Modelling Group accepted that aerosol transmission beyond two metres (known as far-field transmission) could occur, though to *"a lesser extent"* than close contact transmission.[43] From January 2021 onwards, unions and interest groups representing healthcare workers called for amendments to the infection prevention and control guidance to reflect the "*growing evidence of aerosol transmission*".[44]

38 INQ000474276_0053-0057 table 2
39 INQ000192047
40 INQ000474276_0058; INQ000192101; INQ000070870; INQ000236261_0049 para 10.9. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the virus that causes the disease Covid-19.
41 INQ000192101
42 'Transmission of SARS-CoV-2 by inhalation of respiratory aerosol in the Skagit Valley Chorale superspreading event', SL Miller, WW Nazaroff, JL Jimenez, A Boerstra, G Buonanno, SJ Dancer, et al, *Indoor Air* (2020), 31(2), 314-323 (https://pmc.ncbi.nlm.nih.gov/articles/PMC7537089; INQ000130656)
43 *Application of Physical Distancing and Fabric Face Coverings in Mitigating the B117 Variant SARS-CoV2 Virus in Public, Workplace and Community*, SAGE Environmental Modelling Group, 13 January 2021 (https://www.gov.uk/government/publications/emg-application-of-physical-distancing-and-fabric-face-coverings-in-mitigating-the-b117-variant-sars-cov-2-virus-in-public-workplace-and-community; INQ000074962)
44 INQ000097875; INQ000114283

1.27. In February 2021, guidance from the European Centre for Disease Prevention and Control described transmission of Covid-19 as:

> "*occurring via respiratory droplets, either by being inhaled or deposited on mucosal surfaces, including aerosols produced when coughing and speaking*".[45]

It acknowledged that the relative roles of large droplet, aerosol and fomite transmission remained unclear.

1.28. In April 2021, SAGE published a paper highlighting, with "*medium confidence*", that the understanding of aerosol risks supported the need for greater consideration of this mode of transmission within risk assessment and infection prevention and control strategies.[46] There was also partial acknowledgement by the World Health Organization that aerosol transmission was occurring.[47]

1.29. In May 2021, the US Centers for Disease Control and Prevention stated that inhaling "*fine droplets and aerosol particles*" could lead to exposure to the virus.[48] The US Centers for Disease Control and Prevention also stated that "*airborne transmission may be possible*" in enclosed spaces where there is inadequate ventilation or air handling, during prolonged exposure to respiratory particles and where "*increased exhalation may have occurred (exercising, singing, shouting)*".[49]

1.30. In December 2021, the World Health Organization acknowledged the potential for both short-range aerosol transmission and long-range aerosol transmission in "*poorly ventilated and/or crowded indoor settings*".[50]

1.31. As at September 2024, there remained a divergence of opinion as to what the 'predominant' mode of transmission of Covid-19 was. For example, Dr Lisa Ritchie (National Deputy Director of Infection Prevention and Control at NHS England from April 2020) said that she continued to consider that "*for Covid-19 the predominant mode of spread is droplet and contact*".[51] On the other hand, Professor Clive Beggs (expert witness on the physical sciences underpinning Covid-19 transmission) made clear that he considered that the "*inhalation of infectious aerosol particles is the dominant route*".[52] Regardless of its level of contribution, however, there was broad agreement that aerosol transmission has a notable role in transmission of Covid-19.

45 *Infection Prevention and Control and Preparedness for COVID-19 in Healthcare Settings*, European Centre for Disease Prevention and Control, 9 February 2021, p3 (https://www.ecdc.europa.eu/sites/default/files/documents/Infection-prevention-and-control-in-healthcare-settings-COVID-19_6th_update_9_Feb_2021.pdf; INQ000650757)
46 INQ000192109_0001-0014
47 Clive Beggs 11 September 2024 110/13-14; INQ000474276_0046 para 116; *Coronavirus Disease (COVID-19): How Is It Transmitted?*, World Health Organization, 13 December 2020 (https://web.archive.org/web/20211112201838/https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted; INQ000300554)
48 INQ000300661_0007
49 INQ000300661_0007
50 *Coronavirus Disease (COVID-19): How Is It Transmitted?*, World Health Organization, 23 December 2021, pp1-2 (https://www.who.int/news-room/questions-and-answers/item/coronavirus-disease-covid-19-how-is-it-transmitted; INQ000300377)
51 Lisa Ritchie 16 September 2024 117/1-2
52 INQ000474276_0009 para 18

The UK Infection Prevention and Control Cell

1.32. In February 2020, the UK IPC Cell was formed. It evolved informally, from NHS England's Infection Prevention and Control team inviting the lead clinical infection prevention and control organisations from each of the four nations to join NHS England cell meetings.[53] The creation of the UK IPC Cell was intended to ensure that a coordinated approach was taken to infection prevention and control guidance for Covid-19 across the UK.[54] It met roughly every week from February 2020 until March 2022. Membership of the UK IPC Cell consisted of representatives from:

- NHS England;
- Public Health England (which was replaced by the UK Health Security Agency in October 2021);
- Public Health Wales;
- the Public Health Agency (Northern Ireland);
- Antimicrobial Resistance and Healthcare Associated Infection Scotland;
- the Scottish Government Healthcare Associated Infection Policy Unit;[55]
- the Association of Ambulance Chief Executives; and
- the Department of Health and Social Care (from May 2021).[56]

Key infection prevention and control guidance for Covid-19

1.33. Once it became clear that Covid-19 was likely to be declassified as a high consequence infectious disease, bespoke Covid-19 infection prevention and control guidance was required.

1.34. In early March 2020, Professor (later Sir) Jonathan Van-Tam, Deputy Chief Medical Officer for England from October 2017 to March 2022, commissioned a small group in the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG, an expert scientific committee of the Department of Health and Social Care) to produce an amended version of the existing pandemic influenza guidance (which had been revised in 2019).[57] This group included Dr Ritchie, who was a member of the UK IPC Cell and its Chair from June 2020 to June 2021. The group worked with members of the UK IPC Cell to finalise the guidance, which was subsequently approved by Professor Van-Tam.[58]

53 Lisa Ritchie 16 September 2024 65/11-18, 66/21-22; Susan Hopkins 18 September 2024 106/5-11, 107/10-11
54 Lisa Ritchie 16 September 2024 65/24-66/3
55 Also known as the Healthcare Associated Infection/Antimicrobial Resistance Policy Unit
56 INQ000421939_0036 para 134
57 INQ000410867_0120 para 296; INQ000421939_0008 para 22
58 INQ000224002; INQ000421939_0008 para 22

1.35. On 13 March 2020, the guidance was published jointly by the public health bodies in the four nations and the Department of Health and Social Care as the *Covid-19 Guidance for Infection Prevention and Control in Healthcare Settings*, applicable across healthcare settings in the UK.[59] It stated:

> "[T]*ransmission of COVID-19 is thought to occur mainly through respiratory droplets generated by coughing and sneezing, and through contact with contaminated surfaces.*"[60]

1.36. As a result, precautions against aerosol transmission, including wearing FFP3 masks, were recommended only when conducting aerosol generating procedures on suspected or confirmed Covid-19 patients and in "*hot spots*" where these procedures were performed (intensive care units and high dependency units that were treating Covid-19 patients).[61] The need for respiratory protective equipment when conducting these procedures was advised because there was said to be:

> "*an increased risk of aerosol spread of infectious agents irrespective of the mode of transmission (contact, droplet, or airborne)*".[62]

Healthcare workers caring for patients with suspected or confirmed Covid-19 but not conducting aerosol generating procedures, nor working in so-called 'hotspots', were advised to wear standard fluid-resistant surgical masks for close patient contact.

1.37. While there were various iterations of Covid-19-related infection prevention and control guidance between March 2020 and June 2022, there were relatively few changes made to the substance of the guidance or the nature of the precautions advised.

1.38. On 27 March 2020, a revised version of the guidance was published that included an updated list of procedures deemed to amount to aerosol generating procedures.[63]

1.39. From mid-June 2020 until June 2022, all hospital staff in England and Scotland were required to wear fluid-resistant surgical masks at all times, and all visitors and outpatients were required to wear face coverings while in healthcare settings.[64] The same was mandated in Northern Ireland from 10 August 2020.[65] In Wales, use of face masks in healthcare settings was advised from 28 September 2020, but was never mandated.[66]

59 INQ000325350
60 INQ000325350_0007 para 2.1
61 INQ000325350_0007, 0025-0027
62 INQ000325350_0007
63 INQ000412890_0109 para 385; INQ000251675_0029
64 INQ000261247; INQ000330936
65 INQ000588205_0001
66 INQ000485721_0126 para 315; INQ000392008

1.40. In October 2020, NHS Scotland began publishing guidance in its own *Covid-19 Acute Addendum*.[67] The guidance was essentially the same as that which was produced by the UK IPC Cell, though it included some additional guidance, specifically allowing staff to wear an FFP3 mask rather than a fluid-resistant surgical mask where:

> "*prevalence is high, and where staff have concerns about potential exposure to themselves … when performing an AGP* [aerosol generating procedure] *on a patient in the low-risk pathway*".[68]

1.41. On 1 June 2021, the guidance for healthcare settings (at this point titled *Covid-19: Guidance for Maintaining Services Within Health and Care Settings*) was published, following amendments by the UK IPC Cell. This guidance appeared to recognise a greater level of risk from aerosol transmission and recommended that organisations:

> "*undertake local risk assessments based on the measures as prioritised in the hierarchy of controls. If an unacceptable risk of transmission remains following this risk assessment, it may be necessary to consider the extended use of RPE* [respiratory protective equipment] *for patient care in specific situations. The risk assessment should include evaluation of the ventilation in the area, and prevalence of infection/new variants of concern in the local area.*"[69]

1.42. In November 2021, the title of the four nations' guidance changed to *Infection Prevention and Control for Seasonal Respiratory Infections in Health and Care Settings (Including SARS-CoV-2) for Winter 2021 to 2022*, incorporating guidance for other respiratory infections in addition to Covid-19.[70] The guidance for healthcare settings subsequently underwent a series of changes which appeared to indicate, in different iterations, that there was a need to protect against viruses spread either wholly, predominantly or generally via "*the airborne route*".[71] However, the degree to which Covid-19 fell into any of these categories was not expressly set out (as discussed further below).

1.43. On 27 May 2022 – at which point the UK IPC Cell was no longer meeting – the Covid-19 infection prevention and control guidance for healthcare settings was archived and replaced by *Covid-19: Information and Advice for Health and Care Professionals*.[72] The publication provided an onward hyperlink to the national infection prevention and control manual for England for advice on transmission-based precautions.

67 INQ000474225_0020 para 53; INQ000410953
68 INQ000474225_0043
69 *COVID-19: Guidance for Maintaining Services Within Health and Care Settings*, Department of Health and Social Care, Public Health Wales, Public Health Agency Northern Ireland, Health Protection Scotland/National Services Scotland, Public Health England and NHS England, 1 June 2021, p5 (INQ000271659)
70 INQ000412890_0115 para 411
71 See INQ000348433; INQ000300678_0018; INQ000130584_0006, 0017
72 *Covid-19: Information and Advice for Health and Care Professionals*, UK Health Security Agency, 27 May 2022 (https://www.gov.uk/guidance/covid-19-information-and-advice-for-health-and-care-professionals; INQ000421222); INQ000421939_0023 para 84

Fundamental flaws in the UK's approach

1.44. Despite knowledge accumulating of how Covid-19 may have been transmitted as the pandemic progressed (as set out above), insufficient steps were taken to adapt the infection prevention and control guidance for healthcare settings across the UK. This placed healthcare workers and patients at greater risk.

1.45. The UK's approach to infection prevention and control in healthcare settings during the Covid-19 pandemic suffered from three fundamental flaws:

- **Assumptions about respiratory viruses:** There was an over-reliance on historical assumptions about how to distinguish between modes of transmission for respiratory viruses. This led to an initial misunderstanding of the level of risk posed by aerosol transmission and a failure to recommend sufficient protections against it.
- **Insufficient caution:** Alternative routes of transmission other than droplet or contact were prematurely ruled out. This meant that pre-existing assumptions that Covid-19 was not ordinarily spread by aerosols became the received wisdom until the contrary was proved.
- **Lack of structure and expertise of the UK IPC Cell:** In reality, the UK IPC Cell acted as the decision-maker as to the content of guidance. However, its remit was insufficiently defined, leading to uncertainty over its role and a lack of accountability. The backgrounds of its experts were also insufficiently broad. These factors created a bias towards maintaining the status quo, rather than responding to emerging evidence dynamically.

1.46. The combined effect of these interconnected flaws led to a failure properly to protect patients and healthcare workers against the risks posed by Covid-19.

Assumptions about respiratory viruses

1.47. The March 2020 *Covid-19 Guidance for Infection Prevention and Control in Healthcare Settings* was underpinned by the belief that Covid-19 was spread predominantly via droplets (with a contribution from contact transmission). This was influenced by the following:

- Early studies identified that Covid-19 had roughly 80% genomic similarity to SARS-CoV-1.[73] As SARS was believed to transmit predominantly following close contact with infected people in healthcare and household settings, it was considered reasonable to extrapolate from this to understand the likely route of transmission for Covid-19.[74]
- International medical reports and studies (such as those following early outbreaks from China) suggested that the highest risk of infection was likely to be for those with the closest proximity to the source of the infection.[75]
- Analysis published by the World Health Organization included a report known as the WHO-China Joint Mission Analysis, which concluded that Covid-19 was likely to be primarily transmitted through respiratory droplets during close unprotected contact and also by fomites.[76]

1.48. In addition, the UK Covid-19 infection prevention and control guidance was adapted from the *Pandemic Influenza Guidance for Infection Prevention and Control in Healthcare Settings*.[77] As set out in the Inquiry's Module 1 Report, pre-pandemic preparations were predicated on an influenza pandemic.[78] While a pandemic influenza preparedness report produced in 2011 recognised that aerosols may play a role in the spread of influenza, the *Pandemic Influenza Guidance for Infection Prevention and Control in Healthcare Settings* assumed that the principal transmission route was via droplets.[79] As a result, the starting point when the March 2020 guidance was drafted was that aerosol transmission did not ordinarily play a role in the spread of Covid-19. This analysis, however, relied upon the accuracy of historical assumptions about the way in which respiratory viruses behave and how droplet and aerosol transmission are distinguished.

The aerosol–droplet dichotomy

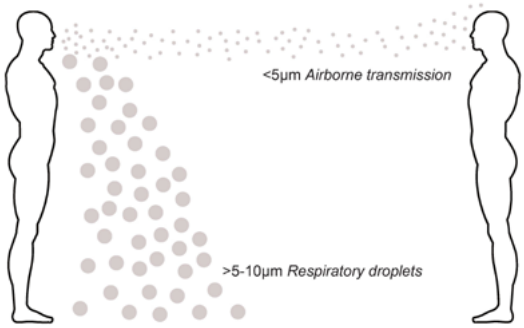
1.49. Respiratory particles are extremely small.[80] Their size is measured in microns (also known as micrometres), which equate to a thousandth of a millimetre. In April 2020, the Environmental Modelling Group estimated that the virus that causes Covid-19 was about 0.06 to 0.14 microns in diameter.[81] By way of comparison, 50 micron

73 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, pp23, 48 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
74 *Review of Data on Persistence of SARS-CoV-2 in the Environment and Potential Infection Risk*, Virology Cell with input from Guidance Cell, Public Health England National Infection Service, 14 February 2020, p2 (https://assets.publishing.service.gov.uk/media/5eccf940d3bf7f460515d178/30-review-data-persistence-sars-cov-2-in-environment-14022020.pdf; INQ000047771)
75 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, pp48-49 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642); Susan Hopkins 18 September 2024 76/2-6
76 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, p49 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
77 INQ000421939_0008 para 22
78 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 1 (https://covid19.public-inquiry.uk/documents/module-1-full-report)
79 INQ000474276_0064-0066 paras 162-169
80 INQ000474276_0012 para 24: "*Respiratory particles exhaled by a person can range from 0.01 to 1000µm in diameter.*"
81 INQ000192047_0003

particles are roughly the same diameter as a human hair, while particles of 1,000 microns (1 millimetre) are equivalent in diameter to a grain of coarse sand.[82]

1.50. While clinical research has struggled to distinguish conclusively between aerosol and droplet transmission, for decades prior to the pandemic medical literature drew a distinction between the perceived sizes of infectious respiratory particles to identify whether a virus was spread via droplets or aerosols.[83] Particles more than five microns in diameter were categorised as droplets, with particles under five microns deemed aerosols (see Figure 4).[84] These cut-off points were repeated in various iterations of the UK's Covid-19 infection prevention and control guidance.[85]

Figure 4: Historical dichotomous model of respiratory transmission



Source: INQ000657841

1.51. This categorisation of respiratory particle sizes and their perceived relevance to routes of transmission was reinforced by an expectation that viruses were likely to be evenly distributed throughout any particle. Professor Beggs explained that "*it was historically assumed that the vast majority (i.e. about 99%) of viruses were contained in larger particles >10µm* [the symbol for a micron] *diameter*", which were thought to be droplets, only travelling about 1.5 metres.[86] He said that, with respect to influenza, uncertainty about the degree to which transmission occurred via aerosols or droplets led researchers to "*fall back on the a priori assumption that the vast majority of the exhaled viral load is in the larger droplets*" and that transmission was therefore likely to be via droplets.[87] These beliefs influenced the further assumption (prevalent in early reports about Covid-19) that "*short-range transmission*" amounted to "*evidence of droplet transmission*", despite the possibility that "*near-field*" (ie short-range) aerosol transmission might be occurring.[88]

82 INQ000474276_0015 para 29
83 INQ000474276_0047, 0049 paras 119, 125; Lisa Ritchie 16 September 2024 86/19-22
84 INQ000474276_0016 para 34
85 For example, INQ000251675_0013-0014
86 INQ000474276_0049 para 124
87 INQ000474276_0049-0050 para 125
88 INQ000474276_0031-0033, 0050 paras 75-81, 126-127

1.52. The clinical community's reliance on these assumptions and the associated emphasis on cut-off points was flawed.[89] The Inquiry acknowledges that this was a widespread failure and that there was a general belief within clinical spheres at the outset of the pandemic that droplets were the most likely source of Covid-19 transmission. However, it was a clear failure by the public health bodies of the four nations and the UK IPC Cell not to account for the fact that the assumptions made may have been wrong.

1.53. According to Professor Beggs, before the Covid-19 pandemic other scientists such as physicists and engineers had recognised that transmission could occur across a spectrum (and that there are not just two distinct particle sizes), but this had been overlooked or not appreciated within medical circles.[90] He further explained that the threshold of a 5-micron diameter for distinguishing between a droplet and an aerosol has no basis in physics and is arbitrary because even "*respiratory particles as large as 20µm in diameter are so light that they can remain suspended in air for over two minutes*".[91]

1.54. This difference in understanding meant that, for many years, scientists from different disciplines used different terms to describe identical objects. Professor Beggs gave as an example:

> "[A] *12µm diameter respiratory particle might be called a droplet by clinicians and microbiologists, whereas the same object would be an aerosol particle to an engineer or physicist.*"[92]

While both groups would be talking about the same particle, their understanding of how it behaved would differ (as either rapidly falling to the ground or as remaining in the air for some time and being able to travel considerable distances).

1.55. A number of witnesses told the Inquiry that, as a result of the Covid-19 pandemic, it was now accepted within clinical spheres that there was a 'spectrum' or 'continuum' of particles and that historical descriptions of modes of transmission were inappropriate.[93] Professor Susan Hopkins (Chief Medical Adviser to the UK Health Security Agency from June 2022) acknowledged that "*binary dichotomies*" were not helpful and that transmission should be thought about as occurring through a range of particles, emitted through a range of procedures.[94] Dr Ritchie said:

> "[W]*hat we recognise is that there is now probably a continuum of those droplet sizes and not the demarcations that we had before.*"[95]

89 INQ000474276_0048 para 121
90 INQ000474276_0048 para 121
91 INQ000474276_0016, 0047 paras 34, 119
92 INQ000474276_0048-0049 para 122
93 This was not only limited to witnesses the Inquiry heard from. In its final publication in April 2022, Antimicrobial Resistance and Healthcare Associated Infection Scotland recognised that it was now "*widely acknowledged that respiratory emissions are emitted in a spectrum of particle sizes that include larger droplets and smaller aerosols*" (INQ000240467_0015).
94 Susan Hopkins 18 September 2024 69/1-3, 72/12-20
95 Lisa Ritchie 16 September 2024 124/21-125/9

Dr Ritchie agreed that, where possible, steps should be taken to protect against all plausible routes of transmission.[96] Dr Shin, Professor Gould and Dr Warne agreed, stating that the "*dichotomy between droplet and airborne spread*" should be removed from healthcare guidance.[97]

1.56. Reliance on the historical misunderstanding that it was possible to clearly distinguish between aerosol and droplet transmission directly affected infection prevention and control guidance, as well as the precautions that were advised. As particles larger than five microns were seen as more likely to contain the virus, behaving ballistically and only travelling about 1.5 metres before falling to the ground (see Figure 4), fluid-resistant surgical masks were considered capable of acting as a boundary against inhalation of particles. Similarly, keeping beds two metres apart was considered sufficient to prevent particles from reaching patients in other beds.[98] This did not account, however, for the possibility that an infectious particle more than five microns in size may not behave as a droplet but as an aerosol – which could remain airborne for some time, travel further than 1.5 metres and permeate a fluid-resistant surgical mask.

1.57. The failure to appreciate and guard against the risk posed by routes of transmission other than droplet or contact put healthcare workers and patients at unnecessary risk of infection. When asked whether the Covid-19 infection prevention and control guidance took a sufficiently cautious approach to the risk of aerosol transmission outside of aerosol generating procedures, Laura Imrie (Clinical Lead for NHS Scotland Assure and Antimicrobial Resistance and Healthcare Associated Infection Scotland from 2018, and member of the UK IPC Cell) said:

> "*I think the position we were in, it was very constrained by the dichotomy of describing something as 'droplet' or 'airborne'.*"[99]

1.58. It is no longer appropriate to rely on this dichotomy. References to cut-off points based on particle size and the belief that it was possible to distinguish clearly between droplet and aerosol transmission – and the precautions required as a result – were and are wrong. They should no longer be relied on in healthcare guidance.

1.59. The *Technical Report on the COVID-19 Pandemic in the UK* produced in 2022 by the Chief Medical Officers and Chief Scientific Advisers for the four nations acknowledged that reduced focus on masks that protect against inhalation at close proximity arose from the fact that:

96 Lisa Ritchie 16 September 2024 91/12-21, 93/3
97 INQ000474282_0137-0138 para 13.8(ii)
98 Clive Beggs 11 September 2024 103/18-104/20; INQ000410237_0034 para 4.6
99 Laura Imrie 5 November 2024 116/25-117/2

> "[T]*ransmission at close range was subject to prior assumptions, with the belief that the risk was posed by large droplets rather than the more concentrated small aerosols.*"[100]

1.60. The World Health Organization published a report in April 2024 titled *Global Technical Consultation Report on Proposed Terminology for Pathogens that Transmit Through the Air*, in which it advocated for a descriptor of "*infectious respiratory particles*" – noting the range of sizes and factors that influence how they travel – and for use of the umbrella term "*transmission through the air*".[101] The health departments and relevant bodies across the UK responsible for infection prevention and control guidance should work together to agree on the appropriate terminology to describe the transmission of respiratory viruses, to ensure that guidance is capable of being understood and implemented across healthcare.

Aerosol generating procedures

1.61. The concept of aerosol generating procedures has been commonplace within medical literature for many years. Professor Gould told the Inquiry that prioritising respiratory protective equipment for these procedures felt as if it was "*always done*" and had been continued because "*people don't dare to change*".[102]

1.62. During the pandemic, the fact that this protective equipment was advised only in areas where aerosol generating procedures were occurring led to contention over which procedures were truly 'aerosol generating'. The *Technical Report on the COVID-19 Pandemic in the UK* described this as:

> "*probably the biggest source of tension within the otherwise largely unified healthcare professions in the initial months*".[103]

1.63. The decision not to recognise cardiopulmonary resuscitation (CPR) as an aerosol generating procedure caused particular concern and led to conflicting advice about how to approach it.[104]

1.64. The Covid-19 infection prevention and control guidance for healthcare settings, as amended on 27 March 2020, did not include reference to chest compressions or CPR as a whole within its list of aerosol generating procedures.[105] However, the Resuscitation Council UK Anaphylaxis Working Group was of the view that CPR

100 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, p51 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
101 *Global Technical Consultation Report on Proposed Terminology for Pathogens that Transmit Through the Air*, World Health Organization, 18 April 2024, pp15-17 (https://cdn.who.int/media/docs/default-source/documents/emergencies/global-technical-consultation-report-on-proposed-terminology-for-pathogens-that-transmit-through-the-air.pdf; INQ000492325)
102 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 43/15-44/3
103 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, p364 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
104 See, for example, the conflict in position between NERVTAG and Resuscitation Council UK, the Royal College of Nursing and the British Medical Association (INQ000257933); INQ000097926
105 INQ000412890_0109 para 385; INQ000251675_0029

should be classified as an aerosol generating procedure and published a statement to this effect on 4 March 2020.[106]

1.65. On 24 April 2020, NERVTAG stated that it was:

> "*biologically plausible that chest compressions could generate an aerosol, but only in the same way that an exhalation breath would do … and an expiration breath, much like a cough, is not currently recognised as a high-risk event or an AGP*".[107]

On 27 April, Public Health England confirmed that, although chest compressions would not be added to the list of aerosol generating procedures, healthcare organisations may choose to advise their clinical staff, when performing chest compressions, to wear enhanced PPE, such as FFP3 masks, gowns, eye protection and gloves.[108] On 28 April, Resuscitation Council UK published an updated statement confirming that, despite NERVTAG's position, it continued to recommend the use of respiratory protection when performing chest compressions:

> "*in the absence of high-quality evidence to state that anything less than AGP PPE is sufficient for healthcare professional safety*".[109]

1.66. The differing advice caused confusion among healthcare workers over what amounted to an aerosol generating procedure.[110] Alastair Henderson, Chief Executive of the Academy of Medical Royal Colleges from 2010 to March 2023, said that the conflict in positions between two highly respected scientific groups created "*dilemmas for individual clinicians and healthcare organisations*".[111] Some ambulance trusts maintained support for the use of FFP3 masks for chest compressions.[112] The London Ambulance Service NHS Trust took this approach because:

> "[T]*he conflicting advice and the high number of covid-19 cases in London was causing significant anxiety to clinicians and therefore the LAS* [London Ambulance Service] *adopted the safest possible method of care both for our patients and our frontline clinicians.*"[113]

1.67. Rozanne Foyer, General Secretary of the Scottish Trades Union Congress from February 2020, said that the decision not to deem chest compressions (a key part of CPR) aerosol generating "*caused a lot of resentment*" and a "*feeling of unfair practice among the workforce*".[114]

106 INQ000343994_0006 para 24; INQ000251658
107 INQ000257933
108 INQ000348359_0008
109 INQ000251676_0001
110 For example, INQ000470854_0025 para 62; INQ000398219_0001
111 INQ000396735_0032 para 105
112 The Welsh Ambulance Services NHS Trust issued guidance that "*level 3 PPE must be worn … for any patient under cardiac arrest*" (INQ000485168_0102-0103 para 323).
113 INQ000303177_0093 para 335
114 Rozanne Foyer 16 September 2024 53/13-21

1.68. The dispute about whether CPR was an aerosol generating procedure not only damaged the trust and confidence of healthcare workers in the guidance, but also impacted patient and staff safety. The Covid-19 infection prevention and control guidance of 27 March 2020 stated:

> "[F]*irst responders can commence chest compressions and defibrillation without the need for AGP PPE while awaiting arrival of other personnel who will undertake airway manoeuvres … first responders should leave the scene before any airway procedures are carried out and only return if needed and wearing AGP PPE.*"[115]

1.69. Mark Tilley, an ambulance technician, explained that, in practice, ambulance crews would arrive in fluid-resistant surgical masks to assess a patient but would have to return to their vehicle should they need to don higher-level PPE.[116] Professor Jean White, Chief Nursing Officer for Wales from October 2010 to April 2021, considered that confusion over guidance on the ground "*probably*" put patients and staff at risk.[117] The College of Paramedics told the Inquiry that it was aware of cases where staff had decided to care for patients without the correct level of PPE in order to avoid risking a three to five-minute delay caused by having to pause care to put on high-level PPE.[118]

1.70. Several healthcare workers also described their experiences, particularly in hospitals and ambulances, as leading them to believe that aerosol transmission of Covid-19 was occurring outside of aerosol generating procedures. Professor Colin McKay, Chief of Medicine at the Glasgow Royal Infirmary from June 2019 to March 2023, told the Inquiry that, as early as April 2020, his hospital's infection prevention and control team was reporting patterns of transmission within its "*Nightingale wards*" that were indicative of "*airborne spread*".[119] Nonetheless, the hospital continued to follow the national guidance, causing tension between staff 'on the ground' and senior management.[120] Tracy Nicholls, Chief Executive of the College of Paramedics from January 2020, said that most of the members of her organisation were able to identify which patients they caught Covid-19 from and that:

> "*it was not -- when they were doing an AGP, it was because … a patient was coughing, or they were having a conversation with the patient if they were well enough*".[121]

1.71. There is, in any event, difficulty in precisely ascertaining whether a procedure generates aerosols.[122] Even as late as September 2024, Professor Sir Christopher Whitty (Chief Medical Officer for England from October 2019) noted that "*if you look*

115 INQ000251675_0029
116 Mark Tilley 1 October 2024 7/10-16, 11/23-12/5
117 Jean White 17 September 2024 161/8-25
118 Tracy Nicholls 23 September 2024 112/22-113/10
119 Colin McKay 14 November 2024 8/24-9/18
120 Colin McKay 14 November 2024 9/22-10/6
121 Tracy Nicholls 23 September 2024 115/24-116-14
122 Laura Imrie 5 November 2024 144/5-11

at expert bodies around the world they have not come to a settled view" on whether CPR ought to be considered an aerosol generating procedure.[123] Additionally, some studies conducted during the pandemic indicated that breathing, speaking and coughing can produce more aerosol particles than some of the procedures defined as aerosol generating.[124] Professor Beggs, the COVID-19 Airborne Transmission Alliance (a voluntary organisation consisting of various professional bodies in the health sector) and Professor Philip Banfield (Chair of the British Medical Association UK council from July 2022 to June 2025) all considered the distinction drawn between aerosol generating procedures and ordinary activities to be a "*false dichotomy*".[125]

1.72. Specifying only certain medical procedures as aerosol generating was overly simplistic. Dr Ganesh Suntharalingam, expert witness on intensive care (an area deemed to be an aerosol generating procedure hotspot within Covid-19 guidance), told the Inquiry:

> "*I think the focus on procedures, rather than risk, is a problem because it means when there is no procedure going on, but you are in front of the infected patient, that risk is sort of diminished in the guidance.*"[126]

1.73. A more holistic approach is needed to assess the level of risk involved in care. The concept of aerosol generating procedures ought to be avoided in future iterations of infection prevention and control guidance. Guidance should instead highlight the combination of factors likely to influence transmission. The Inquiry notes that the World Health Organization has suggested that emphasis be placed on situational factors, such as the transmissibility of the agent, the care environment in general and the level of ventilation in a particular area, in addition to the procedure involved.[127] Such an approach is logical and avoids the inevitable debate over which specific procedures fall into a particular category.

Insufficient caution

1.74. Beliefs about the modes of transmission of Covid-19 in March 2020 relied on limited reporting and extrapolation from historical examples of biologically similar viruses.[128] The evidence base for identifying how Covid-19 was spread was weak, circumstances were novel and considerable uncertainty remained.

123 Christopher Whitty 26 September 2024 169/13-17
124 INQ000474276_0063 para 156; Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 51/2-16
125 INQ000474276_0063 para 158; INQ000273913_0074-0075 para 231; INQ000477304_0115 para 264
126 Ganesh Suntharalingam 9 October 2024 76/1-18
127 *Global Technical Consultation Report on Proposed Terminology for Pathogens that Transmit Through the Air*, World Health Organization, 18 April 2024, p12 (https://cdn.who.int/media/docs/default-source/documents/emergencies/global-technical-consultation-report-on-proposed-terminology-for-pathogens-that-transmit-through-the-air.pdf; INQ000492325)
128 *Technical Report on the COVID-19 Pandemic in the UK*, Office of the Chief Medical Officer, 1 December 2022, pp22, 40 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)

1.75. Despite this, senior clinical leaders and those within the UK IPC Cell committed to the proposition that Covid-19 was ordinarily spread only by droplets and contact transmission – and remained wedded to this contention for the majority of the pandemic. The guidance therefore failed to recommend measures, such as wider use of respiratory protective equipment and increased ventilation, that might have reduced the level of infections.

Attitudes towards transmission

1.76. The approach taken towards transmission of Covid-19 led to guidance and communications which failed to account for the possibility of alternatives to droplet and contact transmission. While the UK was not alone in this respect, and the stance taken initially was consistent with that of the World Health Organization, the approach was flawed.

1.77. The initial infection prevention and control guidance of March 2020 expressly stated that it had been produced on the basis of the "*reasonable assumption*" that the characteristics of Covid-19 would be similar to SARS-CoV-1.[129] Despite this, there were notable differences between the precautionary measures advised for dealing with the two viruses. For example, while Covid-19 guidance limited the use of respirators to aerosol generating procedures and surrounding hotspots, a different approach was advised for SARS. The Inquiry was made aware of a medical report from 2013 which recommended that FFP3 masks be used at all times when dealing with suspected SARS patients, and described the routes of transmission for SARS as "*droplet/aerosol*".[130]

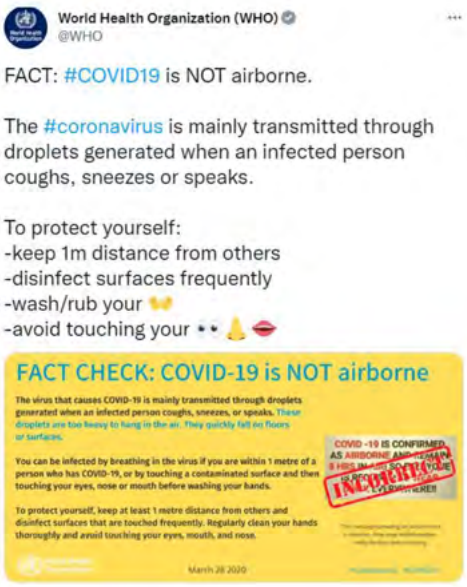
1.78. Professor Hopkins said that "*the majority of evidence from the SARS epidemic from 2003 was that the majority* [of] *transmission was through droplet*".[131] Dr Ritchie agreed and explained that the reason for recommending different measures for Covid-19 when compared with SARS was, in fact, due to the high consequence nature of SARS, not due to a difference in perceived route of transmission.[132]

1.79. This may explain potential differences in recommendations for use of respiratory protective equipment, but it does not explain why SARS was categorised in 2013 as (at least partially) being ordinarily spread by aerosols, while Covid-19 was not. It appears that, because Covid-19 had a lower case fatality ratio than SARS, it was not seen as necessary to respond to Covid-19 in the same way.

1.80. On 28 March 2020, the World Health Organization published a social media post (see Figure 5) which stated as a "*FACT*" that Covid-19 was "*NOT airborne*" (intended to refer to aerosol transmission).

129 INQ000251675_0008-0009
130 'Guidance on the use of respiratory and facial protection equipment', JE Coia, L Ritchie, A Adisesh, C Makison Booth, C Bradley, D Bunyan, et al, *Journal of Hospital Infection* (2013), 85(3), pp170-182 (https://researchportal.ukhsa.gov.uk/en/publications/guidance-on-the-use-of-respiratory-and-facial-protection-equipmen; INQ000130561) (other authors included Dr Ritchie and Professor Van-Tam)
131 Susan Hopkins 18 September 2024 77/23-78/10
132 Lisa Ritchie 16 September 2024 102/2-103/1

Figure 5: Social media post by the World Health Organization, 28 March 2020



Source: INQ000300579

1.81. According to Professor Whitty:

> "[W]e *all knew that the data were not yet clear enough to make a decision one way or the other. So this seemed surprisingly definitive.*"[133]

Professor Sir Gregor Smith, Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020, agreed that it was "*unhelpful*" that the World Health Organization had been so unequivocal.[134] The Inquiry agrees.

1.82. A letter was also sent on behalf of NHS England, Public Health England and the Academy of Medical Royal Colleges to all NHS trusts, the Royal College Presidents, the British Medical Association, the Royal College of Nursing and others on 28 March 2020, which included the statement "*COVID-19 is not airborne, it is droplet carried*".[135] An identical phrase was used in a letter sent on behalf of the Chief Medical Officer for Northern Ireland and Chief Nursing Officer for Northern Ireland to various Health and Social Care boards and GP practices in Northern Ireland on the same date.[136] On 3 April 2020, the phrase was included in an annex to a letter sent on behalf of the Chief Medical Officer for Scotland, the Chief Nursing Officer for Scotland and the Director of Health Workforce to all Scottish NHS health boards.[137] While not directly connected to the World Health Organization post, these letters were also too definitive. The UK is not bound to follow the World Health

133 Christopher Whitty 26 September 2024 82/17-19
134 Gregor Smith 25 September 2024 36/14-21
135 INQ000130506_0003
136 INQ000477522
137 INQ000659860

Organization's statements or guidance.[138] It is free to depart from the World Health Organization's approach and ought to have done so in these circumstances.

1.83. Dr Barry Jones, Chair of the COVID-19 Airborne Transmission Alliance, was of the view that publications of this kind "*had devastating effects, and led to inappropriate and ineffective risk control measures being implemented*".[139]

1.84. Statements such as those contained within the letters sent in March 2020 suggest that some individuals in senior positions may have fallen victim to the fallacy that absence of evidence equates to evidence of absence – in other words, because there was a lack of evidence to demonstrate the risk of ordinary aerosol transmission, it was assumed that no such risk existed.[140] It was unwise to make such definitive statements about the mode of transmission, particularly in communications to healthcare workers at an early stage of a pandemic, given the potential for Covid-19 to behave differently from other viruses.

1.85. Professor Noakes told the Inquiry in Module 2: Core decision-making and political governance that:

> "[T]*here was just a tendency to assume the other transmission routes, and then require the evidence for airborne transmission.*"[141]

Such a mindset was consistent with Ms Imrie's defence of the initial position of infection prevention and control guidance, which was that "*there wasn't enough good evidence to say that we were uncertain*".[142] Members of the UK IPC Cell thus appeared to consider that it was necessary to disprove pre-existing beliefs rather than keeping an open mind to the potential risks of all plausible transmission routes.

1.86. This led to delay and a failure to respond dynamically to emerging evidence. It was not a logical approach. A lack of evidence ought to equate to uncertainty and therefore demand a cautious approach. As a matter of common sense, the assumption should be that a potential risk exists until proven otherwise, rather than requiring evidence that there is such a risk before taking any precautions. Although scientific evidence was being regularly reviewed, the default position became that the existence of aerosol transmission needed to be proven before it was acted upon. This made it more difficult to change course, requiring an unnecessary hurdle to be overcome before appropriate precautions were advised.

138 Susan Hopkins 18 September 2024 63/16-21
139 INQ000273913_0045 para 149
140 This is despite such a risk being directly acknowledged, for example, by Professor Sir Gregor Smith (see INQ000484783_0009 para 36).
141 Catherine Noakes 19 October 2023 17/20-18/5
142 Laura Imrie 5 November 2024 157/6-7

Relevance of personal protective equipment supplies

1.87. There were concerns that the initial guidance in March 2020 was directly influenced by limited supplies of PPE. Dr Catherine McDonnell, Medical Director of the Western Health and Social Care Trust Northern Ireland from March 2020 to June 2022, explained:

> "*The biggest challenge to implementing IPC guidance was concern in the early stages of the pandemic that guidance was developed around supply issues rather than safety and that safety measures being advised were inadequate.*"[143]

1.88. A 2019 pandemic influenza review chaired by Dr Ritchie emphasised that, during a pandemic, supplies of PPE and respiratory protective equipment may become scarce, making it essential to avoid unnecessary or inappropriate use.[144] The Covid-19 infection prevention and control guidance was adapted from the pandemic influenza guidance, indicating that this principle would have remained influential.[145] However, Dr Ritchie was adamant that, despite being guided by a desire to avoid unnecessary use, actual supplies and availability of PPE did not influence the content of guidance.[146] Professor Hopkins, Professor Smith and Richard Brunt (Director of the Engagement and Policy Division at the Health and Safety Executive from April 2022) provided similar accounts.[147]

1.89. Ms Imrie, however, suggested that guidance was influenced by issues with the supply of FFP3 masks and a lack of resources to carry out fit tests.[148] According to Professor Dame Jenny Harries (Deputy Chief Medical Officer for England from July 2019 to March 2021), in March 2020 there were "*extremely constrained supplies of respirators, and so they were prioritised for staff performing the highest risk activities*".[149] Matt Hancock MP (Secretary of State for Health and Social Care from July 2018 to June 2021) also told the Inquiry that he understood that those drawing up the guidance "*had to balance what was available, and realistically available to buy, with what was needed" and that it was "essentially a clinical decision, taking into account available stock*".[150]

1.90. In light of the conflicting accounts provided and a lack of contemporaneous evidence to demonstrate the influence of supply on decisions taken, the Inquiry cannot determine whether the UK IPC Cell drafted guidance with precise supply levels in mind. However, practical considerations of supply should have been irrelevant to

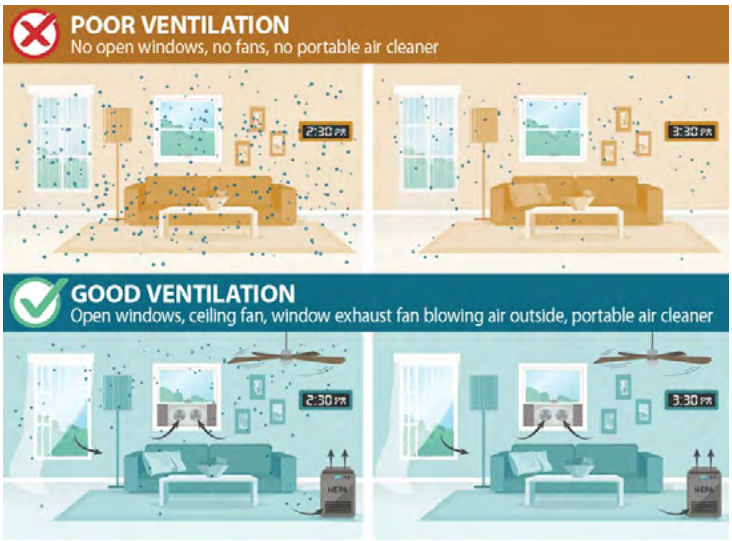
143 INQ000477593_0020 para 41
144 INQ000421939_0024 para 89
145 Lisa Ritchie 16 September 2024 118/8-119/3
146 Lisa Ritchie 16 September 2024 118/21-119/3, 184/2-7
147 Susan Hopkins 18 September 2024 111/18-112/9; Gregor Smith 25 September 2024 168/19-23; Richard Brunt 12 September 2024 118/11-25
148 Laura Imrie 5 November 2024 149/6-150/8
149 INQ000489907_0031 para 6.33. On a similar point, see also INQ000383997 (correspondence between the Academy of Royal Medical Colleges Wales and Dr (later Sir) Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025), which states: "*Frank made it clear that it is important that we all follow the PHE guidance so that high levels of PPE are not used unnecessarily, risking the supply chain at a later date.*"
150 Matt Hancock 21 November 2024 111/3-16

assessing the level of risk posed by specific routes of transmission. The guidance should have recognised the risk of all potential routes of transmission and been open with healthcare organisations about the level of uncertainty and the potential for guidance to change – even if the view taken was that it was sensible to limit potentially unnecessary use of respirators. This would have encouraged other precautionary measures to be prioritised, while continuing to increase supplies of respirators.

Ventilation

1.91. One of the measures that should have received greater emphasis was ventilation. Professor Beggs described ventilation as the "*introduction of fresh air from outside into an indoor space to dilute and remove contaminants*".[151] Infectious aerosol particles can build up in a poorly ventilated room (as shown in Figure 6). In a well-ventilated room, while aerosol build-up still occurs, the concentrations reached are lower and, once the source of infection has been removed, the infectious particles clear more quickly.

Figure 6: Illustration of the effects of poor and good ventilation



Source: INQ000474276_0034 figure 10

1.92. While it may be difficult to demonstrate accurately the precise extent to which ventilation reduces the spread of infection, there was widespread agreement among witnesses about the importance of ventilation in providing safe healthcare environments.[152] For example, Professor Hopkins described improving ventilation as "*one of the biggest things we can do to reduce respiratory infections*".[153] Despite this,

151 INQ000474276_0087 para 234
152 INQ000588180_0013-0014 para 6.8. Examples of evidence on the importance of ventilation include INQ000474276_0113; INQ000474282_0135-0136 paras 13.10-13.11; INQ000477304_0118 para 272; Christopher Whitty 26 September 2024 210/5-211/34.
153 Susan Hopkins 18 September 2024 94/14-18

limited emphasis was placed on it in the UK-wide infection prevention and control guidance for healthcare settings until June 2021.

1.93. When the guidance was amended in June 2021 to advise that local risk assessments be undertaken to assess whether respiratory protective equipment was appropriate, healthcare organisations were expressly directed to evaluate the levels of ventilation in the area, implicitly acknowledging that it played a role in reducing transmission.[154] However, that guidance did not make clear that Covid-19 might be spread by aerosols or via the airborne route. Dr Ritchie told the Inquiry that the amendment was not intended to recognise that aerosol transmission of Covid-19 was considered a more significant risk. Rather, the emphasis on assessing ventilation was due to its benefit generally as "*an important part of healthcare buildings*".[155]

1.94. Professor Beggs explained:

> "[R]*oom ventilation is a measure designed to mitigate the transmission of disease by the airborne route. Therefore, there is an inherent inconsistency in saying that room ventilation is important, while simultaneously arguing that airborne transmission does not occur.*"[156]

1.95. The limited emphasis placed on ventilation within Covid-19 infection prevention and control guidance for healthcare settings was difficult for some healthcare workers to understand, because this appeared inconsistent with advice to the general public. On 18 November 2020, with the aim of increasing awareness of the importance of ventilation, the UK government posted a video which depicted Covid-19 vapours permeating around a room and advised opening windows to promote the importance of fresh air.[157] Rosemary Gallagher, Professional Lead for Infection Prevention and Control and Nursing Sustainability at the Royal College of Nursing from July 2009 to July 2025, said that some nurses saw the video aimed at the public "*talking about the need to open windows, have good ventilation*" and were concerned by "*the stark difference in hospital settings*".[158]

1.96. These specific concerns were raised by the Royal College of Nursing with the Chair of the UK IPC Cell and Public Health England on 23 and 24 November 2020, but this did not lead to an amendment to the guidance to highlight the need for increased ventilation.[159]

154 *COVID-19: Guidance for Maintaining Services Within Health and Care Settings*, Department of Health and Social Care, Public Health Wales, Public Health Agency (Northern Ireland), Health Protection Scotland/National Services Scotland, Public Health England and NHS England, 1 June 2021, p5 (INQ000271659)
155 Lisa Ritchie 16 September 2024 115/8-19
156 INQ000474276_0090 para 238
157 'New film shows importance of ventilation to reduce spread of COVID-19', Department of Health and Social Care, 18 November 2020, pp1-3 (https://www.gov.uk/government/news/new-film-shows-importance-of-ventilation-to-reduce-spread-of-covid-19; INQ000573858)
158 Rosemary Gallagher 4 November 2024 71/12-72/3
159 INQ000417625; INQ000417639

1.97. From a practical perspective, the age and condition of each hospital estate affected the methods of ventilation that it was possible to deploy.[160] Modern hospitals tend to have a significant number of side rooms and isolation capacity, as well as good ventilation with multiple air changes per hour. They are also required to conform to standards including the health technical memoranda on the design, installation and operation of specialised building and engineering technology (hospital ventilation guidelines which set out the ventilation that is required).[161] Older hospitals tend to have fewer single rooms and rely on ventilation by opening windows (which during winter months poses its own health challenges).[162]

1.98. Some hospitals indicated that it was not possible to install effective ventilation systems efficiently or at reasonable cost.[163] However, there were available alternatives to large-scale reconstruction of the hospital estate. These included the use of portable air filters that can be used to remove virus particles from the air.[164] Professor Beggs commended the use of portable High Efficiency Particulate Air (HEPA) filters, which are "*cheap*", easy to install and "*do a similar job to ventilation*".[165]

1.99. Given the relatively low cost of HEPA filters and the advice being given to the public in November 2020, the guidance for healthcare settings ought to have emphasised the importance of ventilation far earlier than June 2021. The fact that it did not is likely to be due to the belief among members of the UK IPC Cell that Covid-19 was not ordinarily spread by aerosols and that, consequently, it was not necessary to advise adaptations to healthcare settings. This rationale is consistent with the content of a paper published by SAGE's Environmental Modelling Group on 30 September 2020 entitled *Role of Ventilation in Controlling SARS-CoV-2 Transmission*, which stated with "*high confidence*" that:

> "*Ventilation is an important factor in mitigating against the risk of far-field (>2m) aerosol transmission, but has no impact on other transmission routes.*"[166]

1.100. NHS England's lessons learned report of June 2023 noted that "[v]*entilation was, and still is, vital in the management of Covid-19*".[167] Guidance should have emphasised this as soon as it became clear, at the latest by November 2020. However, although in Scotland the *Covid-19 Acute Addendum* did mention ventilation in November 2020, the UK IPC Cell's guidance did not emphasise it sufficiently until June 2021 (as discussed above).[168]

160 See, for example, INQ000475209_0014 para 95; INQ000477436_0021-0022 para 53; INQ000477351_0032 para 136; INQ000474259_0110 para 292
161 INQ000474276_0087
162 INQ000474282_0131 para 12.38; INQ000477304_0118 para 272; INQ000475209_0015 paras 95-96
163 See, for example, INQ000474221_0022 paras 94-95; INQ000480136_0036-0037, 0063 paras 154, 309; INQ000477304_0118 para 272
164 INQ000474276_0098 paras 270-271
165 Clive Beggs 11 September 2024 176/1-4
166 *Role of Ventilation in Controlling SARS-CoV-2 Transmission*, SAGE Environmental Modelling Group, undated, p2 (https://www.gov.uk/government/publications/emg-role-of-ventilation-in-controlling-sars-cov-2-transmission-30-september-2020; INQ000203993)
167 INQ000226890_0052 para 121
168 INQ000410955_0016-0017

1.101. The Inquiry acknowledges that there was a single reference in the guidance amended by the UK IPC Cell in January 2021 which advised giving consideration to opening windows.[169] However, given the time of year this change was made and the number of vulnerable patients in hospitals with Covid-19 at that time (discussed further in Chapter 6: Care for patients with Covid-19), this is unlikely to have been a sensible option for many healthcare providers. Other than this, very little emphasis was placed on the importance of ventilation within the UK-wide guidance.

1.102. The lack of prominence given to ventilation as an advised infection prevention and control measure can only have been because, as Ms Gallagher surmised, "*the guidance was so wedded to being predicated on droplets that it didn't change*".[170]

1.103. The changes to emphasise ventilation came too late. Amendments should have been made at an earlier stage, given that knowledge was increasing, various calls were being made for a more cautious approach, and guidance to the public had emphasised ventilation as an important precautionary measure in November 2020.

1.104. Although it is not possible to predict the nature of a future pandemic, improving the NHS estate and the capacity to utilise various forms of ventilation would provide significant benefit in responding to respiratory diseases. Dr Shin emphasised:

> "*In facing any epidemic or future pandemic, if the legacy inadequacies of our NHS estate across the country, which in some places is very old, if that is not improved we will face the next emergency with the same difficulties that we encountered this Covid pandemic.*"[171]

1.105. All hospitals built in England in the context of the UK government's New Hospital Programme – and any new facilities built in Scotland, Wales and Northern Ireland – ought to be designed in a way that maximises the opportunities for effective ventilation. In the short term, the use of HEPA filters should be prioritised within healthcare across the UK.

Lack of structure and expertise of the UK IPC Cell

A lack of formal governance

1.106. The UK IPC Cell was the central source of advice in relation to infection prevention and control matters during the pandemic, and recommendations made at its meetings were routinely incorporated into guidance.[172] This meant that its members were the effective decision-makers as to what was or was not included in guidance. However, the UK IPC Cell was not a feature of any specific pandemic plans and there

169 INQ000330903_0014
170 Rosemary Gallagher 4 November 2024 100/22-24
171 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 5/24-6/7
172 Lisa Ritchie 16 September 2024; Jean White 17 September 2024 156/12-22; Charlotte McArdle 18 September 2024 10/18-24; Susan Hopkins 18 September 2024 107/6-11

was no record of which body was ultimately responsible for signing off guidance or where individual responsibility for its contents lay.[173]

1.107. Dr Ritchie suggested that Public Health England "*had the power to come back at any point*" and make amendments to guidance produced by the UK IPC Cell.[174] Dame Ruth May, Chief Nursing Officer for England from January 2019 to July 2024, thought responsibility for "*sign off*" of the guidance lay with Public Health England.[175] However, Professor Hopkins said that the responsibility for signing off infection prevention and control guidance lay with the UK IPC Cell itself, with the role of Public Health England (which became the UK Health Security Agency) limited to ensuring it was consistent with existing guidance already on the GOV.UK website. She said that, where there was any concern about consistency, Public Health England would ask "*the IPC cell to reconsider it and gain consensus*".[176]

1.108. The lack of clarity over the precise extent of the UK IPC Cell's responsibilities appears to have created, on the one hand, a scenario in which its members operated on the understanding that their work was subject to a process of amendment and approval. On the other hand, bodies such as Public Health England saw the finalisation of guidance as the remit of the UK IPC Cell (save for the role played by Public Health England in ensuring consistency with existing guidelines).[177] This meant that there was no express responsibility assigned to any particular group to ensure that the guidance accurately reflected scientific developments. As Professor Whitty said, guidance at the outset of the pandemic was affected by the fact that:

> "[Q]*uite a lot of people thought they were partially responsible, and that's always an extremely difficult and dangerous situation to find yourself in.*"[178]

1.109. Given the importance of guidance in protecting healthcare workers and patients, the lack of formal mechanisms for decision-making and the uncertainty about responsibilities were failures in the system. They led to a lack of accountability for decisions taken. In such circumstances, it is unsurprising that there were delays in responding to emerging evidence.

1.110. In August 2022, NHS England, the UK Health Security Agency and the Department of Health and Social Care set out organisational responsibilities for infection prevention and control matters in England.[179] The structure broadly clarified that the UK Health Security Agency was responsible for clinical, scientific and technical expertise for communicable diseases; NHS England was to produce and publish operational infection prevention and control guidance; and the Department of Health

173 Lisa Ritchie 16 September 2024 66/11-22
174 Lisa Ritchie 16 September 2024 78/9-11
175 Ruth May 17 September 2024 7/9-14
176 Susan Hopkins 18 September 2024 107/7-22, 108/6-110/18
177 Susan Hopkins 18 September 2024 109/21-110/18
178 Christopher Whitty 26 September 2024 79/22-25
179 INQ000421847

and Social Care had responsibility for commissioning reviews and updates, such as the code of practice on the prevention and control of infections. This structure is intended for non-pandemic times, but the fact that it was not in place prior to the Covid-19 pandemic is indicative of a more general lack of planning and coordination in the development of infection prevention and control guidance. It is surprising that it took until August 2022 to formalise lines of responsibility for infection prevention.

1.111. In any event, the structure is only intended for 'business as usual' and so does not specify the position in the event of a future pandemic.[180] It remains the case therefore that there is no clear planning document currently in place that sets out how a vital function of healthcare governance will be handled in a pandemic. Additionally, given the UK government's announcement that NHS England is to be abolished, there is a need to reassign its responsibilities elsewhere.

Clarity and accessibility of guidance

1.112. Although infection prevention and control guidance contained some explanatory commentary, the basis for beliefs about routes of transmission was not consistently set out and, given the informality of its origins, the UK IPC Cell did not publish minutes of its meetings.[181] This meant that the underlying rationale for the decisions of the UK IPC Cell and the basis for recommendations made could not always be ascertained.

1.113. Organisations that were not involved with the UK IPC Cell or other government advisory groups told the Inquiry that they struggled to understand the basis upon which decisions had been made and did not feel that concerns they raised were properly engaged with. Ms Nicholls said: "[W]*e will have a generation of workforce who feel undervalued and not listened to.*"[182] Dr Jones said that the COVID-19 Airborne Transmission Alliance was left with the feeling that "[w]*e were managed, we were pushed away*" whenever attempts were made to challenge aspects of the guidance.[183] This view was shared by the Royal College of Nursing, which "*felt compelled by the inaction of the UK IPC cell, PHE* [Public Health England] *and the UK government*" to commission its own independent review of the UK's infection prevention and control guidance.[184]

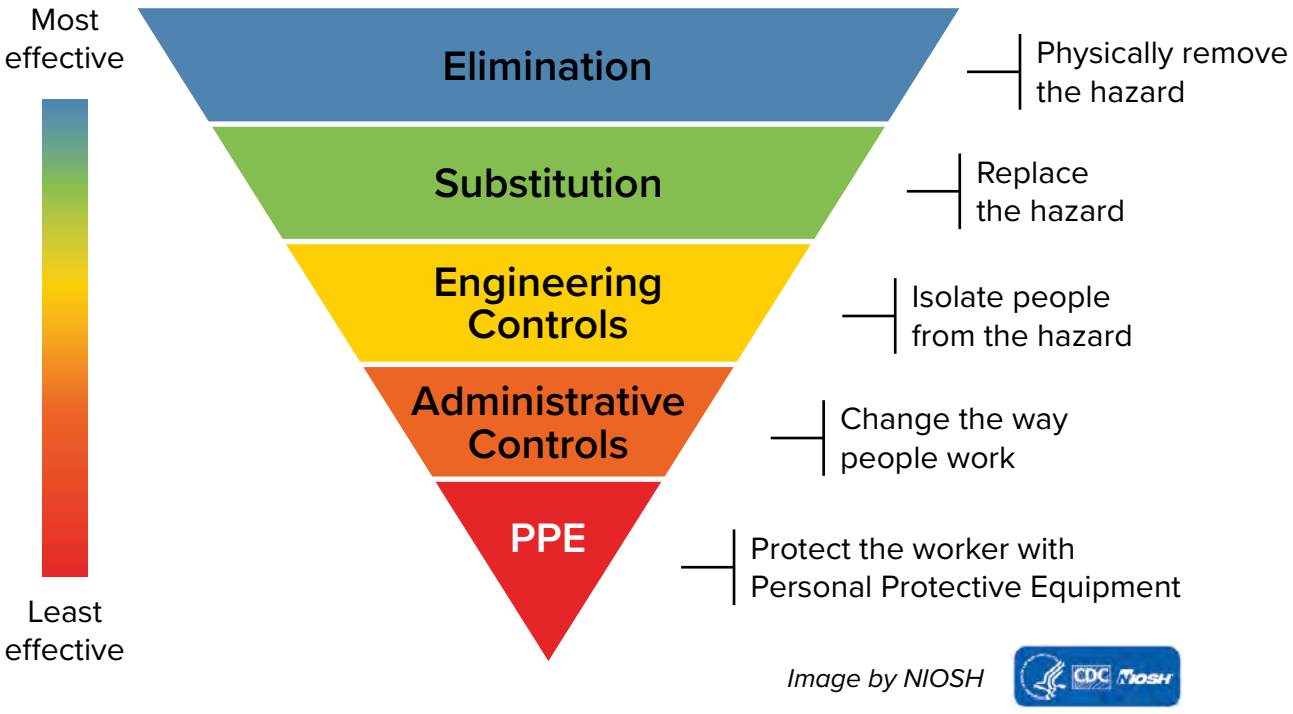
180 INQ000421847_0001 para 4
181 See *COVID-19: Guidance for Maintaining Services Within Health and Care Settings*, Department of Health and Social Care, Public Health Wales, Public Health Agency (Northern Ireland), Health Protection Scotland/National Services Scotland, Public Health England and NHS England, 1 June 2021, p29 (INQ000271659); see also Lisa Ritchie 16 September 2024 79/11-21
182 Tracy Nicholls 23 September 2024 102/14-16
183 Barry Jones 12 September 2024 44/11-12
184 INQ000475580_0035 para 93; *RCN Independent Review of Guidelines for the Prevention and Control of COVID-19 in Health Care Settings in the UK*, Royal College of Nursing, 7 March 2021 (https://www.rcn.org.uk/Professional-Development/publications/rcn-independent-review-control-of-covid-19-in-health-care-settings-uk-pub-009-627; INQ000114357)

Local risk assessments

1.114. A particular concern about how to apply guidance arose in June 2021, when emphasis was placed on the need to conduct local risk assessments based on the 'hierarchy of controls'.[185]

1.115. The hierarchy of controls is a concept used in workplace environments, including healthcare settings, to rank the efficacy of control measures.[186] The first measure taken, according to this method, should be to seek to eliminate (ie physically remove) the relevant hazard. If elimination is not possible, this dictates moving down the hierarchy to the next level of intervention. PPE is the lowest protection measure, described by the Health and Safety Executive as the least effective action that can be taken to protect workers and as a "*last resort*".[187]

Figure 7: The hierarchy of controls



Source: INQ000421939_0017

1.116. The Inquiry heard that there were concerns that some healthcare organisations in the UK did not fully understand how to apply the hierarchy of controls, leading to inconsistency in application of the guidance. Particular issues were raised within the context of ambulances. The public health bodies, NHS England and the Association of Ambulance Chief Executives agreed with the use of the hierarchy of controls in

185 *COVID-19: Guidance for Maintaining Services Within Health and Care Settings*, Department of Health and Social Care, Public Health Wales, Public Health Agency (Northern Ireland), Health Protection Scotland/National Services Scotland, Public Health England and NHS England, 1 June 2021, p5 (INQ000271659)
186 Richard Brunt 12 September 2024 71/12-72/13
187 INQ000347822_0053 para 238; INQ00587775_0031 para 102

ambulances.[188] However, the College of Paramedics challenged its appropriateness, describing its use as a "*complete misnomer*" because:

> "*You can't eliminate the hazard … the ability for those working in the ambulance sector to have any effect from the hierarchy of controls is really around lateral flow testing for administration controls or … donning and doffing training* [putting on and taking off PPE] *… then you're left with PPE which is the last resort and even that wasn't adequate.*"[189]

1.117. On 9 June 2021, the UK IPC Cell discussed a position paper by Public Health England which stated that it was difficult to apply the hierarchy of controls in an ambulance.[190] The representative on the UK IPC Cell from the Association of Ambulance Chief Executives did not agree that applying the hierarchy of controls was "*significantly more difficult*" in ambulances and felt that referencing ambulances specifically (as a setting in which the hierarchy was not appropriate) could cause "*undue concern*" within the sector.[191] The concept was therefore retained for all healthcare settings but without an explanation as to how it was to be applied.

1.118. Professor Gould stated that she considered the concept of the hierarchy of controls to be "*simplistic*" in the context of healthcare, noting that it may be possible to put in place more than one tier of the hierarchy at a time, rather than only attempting the next measure once the tier above has failed.[192] The Inquiry agrees. Responding to a pandemic is likely to require a package of different measures to be taken simultaneously. It will not always be the case that it is appropriate to apply the hierarchy of controls to all healthcare environments. A 'one size fits all' approach in this regard risked confusing some healthcare workers, as several of the steps, such as 'elimination' and 'substitution', were never capable of being achieved in all healthcare environments. Alternatively, given the vast difference between a modern ventilation system in a new hospital and, for example, an ambulance, clear explanations were needed as to how to adapt the steps required to particular settings.

Opaque terminology

1.119. Certain terms used within guidance were also difficult for healthcare workers to interpret. For example, an amended version of infection prevention and control guidance was published on 17 January 2022.[193] This update included advice on influenza and respiratory syncytial virus (a common cause of coughs and colds), in addition to Covid-19. The guidance removed the word "*wholly*" (present in previous iterations of guidance) when advising on the circumstances in which a respirator

188 Anthony Marsh 1 October 2024 84/17-24
189 Tracy Nicholls 23 September 2024 86-21-87/16
190 INQ000398163_0003
191 INQ000398163_0003
192 INQ000474282_0024 para 1.45
193 INQ000348433

should be worn.[194] It stated that an FFP3 respirator (or equivalent) must be worn by staff when:

> *"caring for patients with a suspected or confirmed infection spread* [~~wholly~~] *by the airborne route (during the infectious period)*".[195] (The word struck through indicates where it appeared in the previous guidance.)

This change was made without the guidance containing any explanation of the transmission route of Covid-19.[196] As Professor Hopkins noted, this created significant confusion as many healthcare workers understood it to mean that respirators should be worn at all times when caring for patients with suspected and confirmed Covid-19 infection, as there was by this point a widespread belief that Covid-19 was, at least partially, spread through exhalation of aerosols.[197]

1.120. Following a discussion at a UK IPC Cell meeting, the guidance was then amended on 15 March 2022.[198] The guidance changed and recommended the use of FFP3 masks when:

> "*caring for patients with a suspected or confirmed infection spread predominantly by the airborne route (during the infectious period). Note that 'predominantly' has been added to clarify this.*"[199]

1.121. However, this amendment did not resolve the problem. The guidance did not set out the proportion of Covid-19 infections that were believed to be attributable to airborne transmission, or what the threshold was for establishing that the virus was predominantly spread by a particular route. As a result, individual organisations and healthcare workers had to decide for themselves whether the threshold was met for wearing respiratory protective equipment when dealing with suspected or confirmed Covid-19 patients – again, causing inconsistency in application of the guidance.

1.122. Infection prevention and control guidance needs to be easily understood to ensure that it can be consistently applied and trusted by front-line healthcare workers.[200] Terms such as 'wholly' or 'predominantly' airborne, without further guidance as to how a virus is spread or what the threshold is to justify the predominance of a particular mode of transmission, are not capable of being easily applied and serve to increase the risk of the precautions being applied inconsistently. Guidance should be written in clear and direct language, capable of being easily understood by a range of healthcare workers. Jargon, euphemisms or opaque concepts ought to be avoided.

194 INQ000300678_0018
195 INQ000348433_0020
196 It appears that a deliberate decision was made not to include this – see INQ000398190_0004.
197 INQ000410867_0141 para 353; INQ000348434_0003
198 INQ000398194_0002
199 INQ000130584_0006, 0017
200 INQ000474282_0012 para 1.15

1.123. It may not be possible or desirable to publish minutes of meetings that take place under intense time pressure. However, guidance would benefit from a clear accompanying explanation which sets out the basis for recommendations made, how to apply relevant concepts in different settings, and what the working understanding is of the modes of transmission of a specific virus.

Expertise of the UK IPC Cell

1.124. The organisations that made up the UK IPC Cell chose individual representatives to attend meetings.[201] Those individuals were experienced infection prevention and control professionals with a clinical background, predominantly in nursing.[202] The Health and Safety Executive was not a member of the UK IPC Cell, though the Inquiry was told that members of the UK IPC Cell did "*engage*" with it where appropriate.[203] There were no members of the UK IPC Cell with expertise in the science underpinning routes of transmission, such as engineers, aerobiologists or physicists.[204]

1.125. Antimicrobial Resistance and Healthcare Associated Infection Scotland, a member of the UK IPC Cell, produced several rapid literature reviews assessing infection prevention and control measures for the management of Covid-19 in healthcare settings. This was not a formal arrangement but became one of the main sources of evidence for the UK IPC Cell's decisions.[205] The UK IPC Cell considered these reviews, along with separate, non-healthcare-specific output from groups such as NERVTAG and SAGE, to inform its guidance.[206]

1.126. The ultimate approach taken by the UK IPC Cell during the Covid-19 pandemic was informed by the view that, in Dr Ritchie's words:

> "[T]*he epidemiology and the scientific literature did not support that airborne spread was the predominant mode of transmission.*"[207]

1.127. This stance is itself likely to have been influenced by views informed predominantly from epidemiology, which (as discussed above) was initially reliant on assumptions about the aerosol–droplet dichotomy. It was Professor Beggs' view that a mindset had developed in clinical circles that was "*highly resistant to new ideas from other disciplines*" and that this manifested itself in opposition to the idea that Covid-19 might be spread through aerosol transmission.[208] Whether this mindset applied to members of the UK IPC Cell or not, its members were from clinical backgrounds

201 Lisa Ritchie 16 September 2024 67/17-20
202 Lisa Ritchie 16 September 2024 70/3-8
203 Lisa Ritchie 16 September 2024 67/21-68/4
204 Lisa Ritchie 16 September 2024 70/3-15; 71/20-72/12
205 Laura Imrie 5 November 2024 129/2-24
206 Lisa Ritchie 16 September 2024 104/24-105/4; Laura Imrie 5 November 2024 127/19-24
207 Lisa Ritchie 16 September 2024 89/3-8
208 INQ000474276_0050 para 127

which limited opportunities for experts in other relevant scientific areas to challenge the perceived consensus about transmission of the virus.

1.128. The Inquiry heard conflicting views on whether the UK IPC Cell was itself responsible for assessing routes of transmission. Professor Fu-Meng Khaw, National Director of Health Protection and Screening Services and Executive Medical Director of Public Health Wales from June 2021 (an organisation represented on the UK IPC Cell), was asked whether Wales had the independent capability to assess issues such as routes of transmission or the benefits of masks. He responded:

> "[T]*here was no need to because of the construct of the UK IPC cell and how it looked to emerging evidence and considered it in issuing updates and guidance.*"[209]

This suggests a belief on the part of Professor Khaw that the UK IPC Cell was assessing the science underpinning infection prevention and control measures.

1.129. Other members of the UK IPC Cell clearly believed that responsibility for assessing routes of transmission lay elsewhere. Ms Imrie explained:

> "*I don't think the infection prevention and control cell had the role, remit or authority to change what the mode of transmission was for a pathogen when it's been decided internationally by international experts and we have NERVTAG, ACDP* [Advisory Committee on Dangerous Pathogens]*, the senior clinicians, UKHSA* [UK Health Security Agency]."[210]

1.130. Ms Imrie also said that some of the more technical aspects of infection prevention and control were outside the remit of the UK IPC Cell, as it did not have a "*membership that would have allowed in-depth discussion around ventilation*".[211] Instead, she considered that there were:

> "*separate technical groups that were looking at ventilation who were probably more qualified to look at ventilation, including our engineering colleagues*".[212]

Similarly, Dr Ritchie, who chaired the UK IPC Cell until June 2021, said:

> "[H]*ad our science evidence groups, such as NERVTAG and SAGE, said that that evidence was available in the literature … or that was the mode of transmission, it was airborne, then that is what we would have put into the IPC guidance.*"[213]

1.131. The lack of clarity as to whether the UK IPC Cell was responsible for assessing routes of transmission appears to have led to a situation where no single body took

209 Fu-Meng Khaw 5 November 2024 26/16-18
210 Laura Imrie 5 November 2024 122/6-13
211 Laura Imrie 5 November 2024 171/2-4
212 Laura Imrie 5 November 2024 169/11-13
213 Lisa Ritchie 16 September 2024 105/7-13

a coordinated approach to both assessing the underlying science relating to transmission and translating this into practical changes to healthcare guidance. Rather, the UK IPC Cell tended to focus on more minor changes to the content of guidance, as members felt that they needed to be informed by other groups that the science had changed in order to justify substantive amendments. This created an inherent bias towards maintaining the status quo.

1.132. The hesitancy of the UK IPC Cell to make substantive adaptations to guidance was particularly notable in December 2020. On 22 December, it met and considered a rapid literature review produced by Antimicrobial Resistance and Healthcare Associated Infection Scotland in response to a new variant of Covid-19 (subsequently known as the Delta variant). During this meeting, a representative from Public Health England proposed an amendment to the Covid-19 infection prevention and control guidance, stating:

> "[O]*ur understanding of aerosol transmission has changed. A precautionary approach to move to FFP3 masks whilst we are awaiting evidence should be advised.*"[214]

This reflected a cautious approach, but it was not widely supported by the UK IPC Cell. One member expressed that it would be necessary to have a "*clear rationale for the use of FFP3 masks in different areas*".[215] Another member noted that some organisations had already chosen to recommend the wider use of FFP3 masks.[216] The meeting minutes are not a verbatim record of discussions, but Dr Ritchie considered a consensus was reached that there was insufficient evidence to change the level of PPE/respiratory protective equipment recommended.[217]

1.133. The following day, Public Health England published a report entitled *The Use of FFP3 Respirators for all Suspected and Confirmed COVID-19 Patients in Non AGP Settings*.[218] This recommended changes to the infection prevention and control Covid-19 guidance to ensure wider use of FFP3 masks in non-aerosol generating procedure settings, particularly where there was poor ventilation. The rationale was based on:

- an increase in the number of Covid-19 cases and hospitalisations in London and the south-east;
- NERVTAG advising that the Delta variant was more transmissible;
- increasing evidence of aerosol transmission through coughing, sneezing and speaking loudly in a variety of non-aerosol generating procedure settings; and

214 INQ000398244_0003
215 INQ000398244_0003
216 INQ000398244_0003
217 INQ000398244_0004
218 INQ000408934_0001

- anecdotal evidence from a variety of NHS trusts of outbreaks on wards (presumed to be non-aerosol generating procedure settings).

Public Health England noted that there was:

> "*currently no substantive evidence to suggest that the new variant has a different mode of transmission, other than it being more transmissible*".[219]

It advocated for a cautious approach rather than stating definitively that there was scientific evidence of aerosol transmission outside of aerosol generating procedures.

1.134. The UK IPC Cell met again on 23 December 2020 to discuss whether the guidance required amendment.[220] Representatives of Antimicrobial Resistance and Healthcare Associated Infection Scotland and Public Health Wales proposed that existing infection prevention and control measures be re-emphasised, as non-compliance may have been an explanation for increased infection rates.[221]

1.135. A representative of the Public Health Agency (Northern Ireland) was concerned that a lack of "*robust evidence to support the move*" to advise wider use of FFP3 masks may lead people to:

> "*think that they have not been appropriately protected with what has been previously recommended*".[222]

A member from NHS England said that if:

> "*higher levels of Personal Protective Equipment* [are] *recommended at this time, in the absence of evidence, it would be difficult to go back on this*".[223]

The Public Health England representative maintained that:

> "*FFP3 masks should be recommended in all medium/high risk pathways (irrespective of aerosol generating procedures) as there could be increased airborne transmission in these pathways.*"[224]

The consensus reached was that there was insufficient evidence to change the infection prevention and control Covid-19 guidance in response to the emergence of the new variant (based on the rapid review conducted by Antimicrobial Resistance and Healthcare Associated Infection Scotland). As such, no changes were proposed.[225]

219 INQ000408934_0002
220 INQ000398242
221 INQ000398242_0001
222 INQ000398242_0002
223 INQ000398242_0003
224 INQ000398242_0002
225 INQ000398242

1.136. Dr Ritchie told the Inquiry that the UK IPC Cell had not been influenced by fears about the difficulty in going back on decisions to increase the standard level of precautionary measures, or worries that a change would indicate to healthcare workers that they had previously not been appropriately protected. Rather, she said:

> "[T]*he mode of transmission had not changed and, therefore, we weren't going to recommend the use of FFP3 respirators more broadly than what was already stated in the guidance.*"[226]

1.137. Dr Ritchie's evidence accords with the discussions on 22 and 23 December 2020, which demonstrate the reluctance within the UK IPC Cell to change course in the absence of a conclusive statement from other scientific groups that the route of transmission had changed.[227] As Dr Ritchie put it:

> "[I]*f we had been advised by the scientific advisers from SAGE, from NERVTAG … that actually we needed to move, then we would have moved to that position.*"[228]

1.138. Given that the efficacy of infection prevention and control measures was linked to correctly responding to the route(s) by which Covid-19 was transmitted, this approach hindered the response to the threat posed.

1.139. Had the role and structure of the UK IPC Cell been clearer before the pandemic, including the need for it to have multidisciplinary input, it is likely that the UK IPC Cell would have functioned more effectively. As Dr Shin, Dr Warne and Professor Gould set out in their report:

> "*At a time of national emergency where IPC can prevent, or fail to prevent, hundreds of thousands of hospital-acquired infections,* ***interpretation*** *of a rapidly changing evidence base must be as skilled, comprehensive, and unbiased as possible to ensure that guidance is of the highest possible quality. This requires a diverse and large team.*"[229] (emphasis in original)

1.140. The Inquiry recommends that the body responsible for infection prevention and control matters should be clearly defined, with lines of responsibility established ahead of a future pandemic. The existing structure in place between the UK Health Security Agency, NHS England and the Department of Health and Social Care will require amendment in any event to account for the abolition of NHS England. It is recommended that a new structure sets out which body is responsible for drafting guidance and for reviewing and approving it – with provisions for how this structure is to be adapted in the event of a pandemic.

226 Lisa Ritchie 16 September 2024 141/19-22
227 Lisa Ritchie 16 September 2024 116/9-18
228 Lisa Ritchie 16 September 2024 158/17-20
229 INQ000474282_0138-0139 para 13.18(viii)

1.141. In its combined Report relating to Modules 2, 2A, 2B and 2C, the Inquiry emphasised the importance of experts being drawn from a diverse range of disciplines, backgrounds and experience.[230] Any future body responsible for infection prevention and control guidance during a pandemic should have broader multidisciplinary membership than was the case with the UK IPC Cell.[231] The Inquiry does not dictate the precise backgrounds of these experts or how many non-clinical members are necessary, but does recommend that there should be some representation from those with expertise in the science underpinning transmission (such as bioengineers, physicists or other physical scientists). This will ensure that the most up-to-date scientific understanding of transmission can inform the guidance drafted, in addition to practical clinical considerations.

1.142. Any infection prevention and control cell or equivalent body, responsible for formulating the content of infection prevention and control guidance, should ensure that guidance clearly explains the rationale for the approach taken. This would aid trust and understanding of decision-making, as well as ensuring that decisions are properly rationalised. The methodology for developing guidance should be clearly stated and made publicly available, alongside any published guidance, to allow healthcare workers to understand the reasoning underpinning the guidance.

Recommendation 1: Ensure that decision-making on infection prevention and control is underpinned by clear structures and a cautious approach to transmission risk

The UK government must ensure that there is a body (equivalent to the UK Infection Prevention and Control Cell) in place ready to be convened at the outset of any future pandemic, to consider and draft infection prevention and control guidance for healthcare settings. This body must:

- have clear lines of responsibility and a clear, pre-defined role and remit during a pandemic;
- have multidisciplinary membership, including experts in the science of viral transmission as well as those with clinical expertise;
- ensure that its guidance accounts for the risk of all plausible routes of transmission until sufficient evidence emerges to rule out specific routes; and
- ensure that guidance clearly explains the underlying rationale for the precautions recommended.

230 *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025, Vol II, Chapter 9 (https://covid19.public-inquiry.uk/documents/module-2-full-report)
231 See, for example, Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 54/5-21, 87/16-89/7

Separately, the Department of Health and Social Care, NHS National Services Scotland, Public Health Wales and the Public Health Agency (Northern Ireland) should review the national infection prevention and control manuals and any future guidance to ensure that the approach to identifying risk of transmission is not confined solely to specific procedures. Emphasis should be placed on a combination of risk factors, such as rates of transmissibility, environment, setting and procedure.

Chapter 2: Infection prevention and control in practice

Introduction

2.1. Infection prevention and control measures were of vital importance during the pandemic. They were necessary to protect healthcare workers and to prevent the spread of hospital-acquired infections among patients who had been admitted for reasons other than Covid-19. The risks to these patients were often particularly acute because they may have been rendered more vulnerable to infection by their health condition and were entirely dependent on the hospital's effective implementation of these measures for their protection.

2.2. Some infection prevention and control measures, such as visiting restrictions, attracted considerable press attention and public concern. They were introduced as an additional measure to minimise the spread of infection in hospitals. Preventing people from visiting their loved ones in hospital or accompanying a loved one to a necessary medical appointment undoubtedly caused distress to patients, families and staff and prompted concerns as to whether the right balance had been struck. There were also concerns, particularly in early 2020, as to whether there were sufficient levels of suitable and well-fitting personal protective equipment (PPE) provided to healthcare workers in line with the Covid-19 infection prevention and control guidance. Healthcare workers raised concerns about whether there was enough PPE to fit the diverse needs of the healthcare workforce and the level of protection offered by different levels of respirators compared with face masks. There were also challenges in expanding at sufficient speed the capacity to fit-test healthcare workers for respirators.

2.3. This chapter examines the application of infection prevention and control in relation to visiting restrictions, PPE and hospital-acquired infections.

Covid-19 testing of patients and staff

2.4. Testing is considered in far greater detail by the Inquiry in Module 7: Test, trace and isolate. However, it played a significant part in the attempt to prevent the spread of Covid-19 in hospitals. It is, therefore, necessary to deal with it here in summary.

2.5. Testing was important to identify whether patients or staff were themselves infectious. When community infection rates were high, there was a risk that staff living in the community, as well as patients admitted to hospital for reasons other than Covid-19, may have been infected and be infectious, enabling Covid-19 to spread among patients, many of whom were already weak and therefore more clinically vulnerable.

2.6. Testing both symptomatic and asymptomatic patients and staff was therefore of key importance in preventing or controlling the spread of hospital-acquired infection. Asymptomatic testing enables "*routine detection of asymptomatic or pre-symptomatic cases … for some critical infrastructure roles such as health and social*

care staff".[1] Patients could then be separated (or 'cohorted') according to their test results and staff could be sent home to isolate until they were no longer infectious.[2]

2.7. During the pandemic, several types of test were used to identify an infection for Covid-19.[3] These included:

- **Polymerase chain reaction (PCR) tests:** These are inherently sensitive and have relatively few 'false negatives' (test results suggesting, incorrectly, that a person does not have Covid-19), as well as having high specificity (very few false positives).[4] However, in the early stages of the pandemic, results would take more than 24 hours.[5] In time, rapid PCR tests became available that provided results within one hour.[6] However, PCR tests could also return positive results long after infection had resolved, making PCR tests less suitable for infection prevention and control purposes.[7]
- **Lateral flow tests:** By September 2020, rapid Covid-19 testing was available in UK hospitals due to the introduction of lateral flow tests.[8] These tests are relatively inexpensive and provide rapid results within 30 minutes, but they lack sensitivity compared with PCR tests and there is a range of opinion about their accuracy.[9] However, they have been shown to be effective in indicating high viral load – and so were used as an indication of likely infectiousness. Their ease of use and the speed of their results therefore had to be balanced with careful interpretation of results.[10]

2.8. Although a paper presented to the Scientific Advisory Group for Emergencies (SAGE) on 31 March 2020 suggested testing asymptomatic staff and patients as a measure to reduce transmission in healthcare settings, constraints on the testing capacity at that time limited the implementation of these recommendations, and tests were prioritised for symptomatic staff.[11] As hospital Covid-19 PCR test capacity increased across the NHS, it became possible to recommend routine PCR testing of asymptomatic inpatients. This allowed NHS hospitals to identify asymptomatic or mildly symptomatic cases of Covid-19 that could be infectious. These patients could then be isolated to protect other patients. Similarly, patients who were initially asymptomatic but who became symptomatic for Covid-19 after admission could be

1 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p185 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
2 INQ000412890_0119 paras 428-430
3 Reverse-transcription loop-mediated isothermal amplification (RT-LAMP) tests were also predominantly deployed for asymptomatic testing for staff members, after the assay or test had been validated in December 2020. See *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p198 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642).
4 INQ000474282_0087 paras 9.3-9.4; INQ000248853_0095 para 6.31
5 INQ000474282_0089 para 9.11
6 INQ000474282_0089 para 9.13
7 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, pp192, 197 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642); INQ000474282_0090 para 9.24
8 INQ000280198_0007 para 1.7
9 INQ000474282_0088 paras 9.5-9.6
10 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
11 INQ000412890_0120 para 434

tested by PCR. A modelling study estimated that a policy of PCR testing of symptomatic patients on admission would detect 26% of hospital-acquired infections, while adding asymptomatic PCR testing on days three and six after admission would increase the proportion detected to 33%.[12]

2.9. From 24 June 2020, hospitals in England were required to undertake testing of asymptomatic patients upon admission and subsequently.[13] In the autumn of 2020, increased testing capacity permitted more frequent testing of asymptomatic patients. In hospitals in Wales, from 15 July 2020, the testing strategy specified that all patients admitted as an emergency be tested on admission and elective patients prior to admission.[14] In Scotland, all emergency admissions were to be tested for Covid-19 from late November 2020 and all elective admissions from mid-December 2020.[15] In Northern Ireland, emergency admissions were tested "*once tests became available*" and cancer patients were tested prior to admission for surgery from 20 April 2020.[16]

2.10. The *Technical Report on the Covid-19 Pandemic in the UK*, authored by the Chief Medical Officers and Chief Scientific Advisers for the four nations of the UK, reported that testing patients on admission was identified as one of the three most effective interventions in the first wave of the pandemic for preventing hospital-acquired Covid-19 infections in patients.[17]

2.11. Testing of patients also enabled the healthcare systems to provide elective treatment for non-Covid-19 conditions safely (discussed further in Chapter 9: Healthcare for non-Covid-19 conditions). Dr Gee Yen Shin, expert witness on infection prevention and control, provided this example:

> "[W]*hen we had sufficient rapid testing capability patients may even come in, say, two, three, four hours before the procedure to get a final PCR and if that's green -- negative, then they can go ahead.*"[18]

2.12. By November 2020, sufficient lateral flow tests were available to enable the UK government to introduce regular asymptomatic Covid-19 testing in England using those tests for all patient-facing NHS staff.[19] Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, described this as "*a game changer*".[20] The introduction of lateral flow tests allowed healthcare staff to "*assess their likelihood of infectiousness on a day-to-day basis*", which helped healthcare

12 INQ000474282_0090 paras 9.20-9.22
13 INQ000412890_0124 para 452; INQ000145891
14 INQ000416178_0062-0063 para 181; INQ000275673
15 'Testing expansion update', Scottish Government, 25 November 2020 (https://www.gov.scot/news/testing-expansion-update; INQ000571255)
16 INQ000421800_0060 para 170; INQ000103724
17 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p363 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
18 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 134/22-135/1
19 INQ000412890_0125 paras 455-456; INQ000485652_0143 para 537
20 Stephen Powis 7 November 2024 127/16

workers reduce the risk that they would spread Covid-19 while at work.[21] Regular asymptomatic Covid-19 testing using those tests for all patient-facing NHS staff was introduced in Scotland and Wales in December 2020 and in Northern Ireland in January 2021.[22]

Visiting restrictions

2.13. Preventing visitors from entering hospitals was seen as a necessary step to reduce the risks of potentially infectious people inadvertently spreading the virus. This was particularly important early in the pandemic, before testing was widely available. Nevertheless, visiting restrictions were among the most contentious infection and prevention control measures introduced during the pandemic. At times throughout the pandemic, the restrictions prevented or severely limited people from being with their loved ones in hospital, which led to deeply distressing experiences for patients and their family and friends.[23] One bereaved family member told the Inquiry's listening exercise, Every Story Matters:

> "*I didn't want Dad to go into hospital, my dad didn't want to go into hospital either … he loved being at home, if he's going to die, he wanted to die at home. We knew if he went into hospital, I would wave goodbye at the door and the chances are I would never see him again and he would die alone in hospital.*"[24]

2.14. Dr Shin, Professor Dinah Gould and Dr Ben Warne, expert witnesses on infection prevention and control, commented on the importance of visits "*for patients' mental health and wellbeing*" and how visitors can improve communication between patients and healthcare workers while also helping care for patients, "*often more effectively than staff in the hospital who may never have met the patient before, enabling healthcare staff to spend more time on other tasks*".[25]

The introduction of restrictions

2.15. Visiting restrictions in healthcare settings, especially in hospitals, have long been recognised as an important way to prevent the spread of disease.[26] Visiting restrictions were therefore imposed across the UK to address the threat posed by Covid-19. In late March 2020 (24 March in Scotland, 25 March in England and Wales, and 26 March in Northern Ireland), hospital visiting was suspended across the UK for all visitors other than:

21 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p192 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
22 INQ000485721_0126 para 316; INQ000421784_0236 para 408; INQ000485979_0084 para 312
23 Visiting restrictions for end-of-life care are considered in Chapter 7: Death and end-of-life care and the impact of the visiting restrictions on healthcare workers is addressed further in Chapter 10: Impact on healthcare workers and 'overwhelm'.
24 *Every Story Matters: Healthcare*, p8 (INQ000474233)
25 INQ000474282_0083 para 8.1
26 INQ000474282_0083 para 8.6

- an immediate family member or carer visiting a patient receiving end-of-life care;
- a birthing partner during labour; or
- a parent visiting a child.

In very exceptional cases, staff were able to exercise some discretion about whether to allow a visit to a patient in hospital.[27]

2.16. Prior to the imposition of the nationwide visiting restrictions, some steps had already been taken in England and Northern Ireland and by some health boards in Scotland and Wales to limit visits.[28]

2.17. Professor Powis said that the novel nature of the virus:

> "*particularly in the early stages when little was known about transmission of the virus except that it was infectious, meant that visiting restrictions were an essential way to reduce the spread of the virus and necessitated a centrally coordinated approach*".[29]

2.18. Visiting restrictions changed throughout the course of the pandemic, which included varying who was permitted to visit and lifting and reimposing restrictions, depending on the peaks and waves of infection.

Visiting in maternity care

2.19. Visiting restrictions in maternity care created difficulties. In particular, the initial guidance only permitted a birthing partner during labour and a parent visiting a child. This led to examples of:

- pregnant women not being supported by a partner during care and treatment for miscarriage;
- some birthing partners being present for the entire birthing period but others only during 'active labour', which meant in practice when a woman moved from the antenatal ward into the labour suite;[30] and
- only one parent being allowed to visit a newborn.

2.20. Visiting restrictions also meant that some women had to face alone news of pregnancy complications and potential health issues concerning their child. This included partners not being able to accompany pregnant women to antenatal scans,

27 INQ000412890_0179 para 686; INQ000399381_0001; INQ000486014_0120 para 326; INQ000399385; INQ000492281_0080 para 238; INQ000325159_0003; INQ000319468_0001
28 INQ000412890_0179 paras 684-685; INQ000492281_0080 paras 236-237; INQ000475209_0020 para 141; INQ000478114_0036 para 128
29 INQ000412890_0178 para 679
30 Ruth May 17 September 2024 72/23-25

when there may be difficult news such as the loss of a baby. One woman who used maternity services told Every Story Matters:

> "*I went to a routine midwife appointment, but she was worried about the baby and said she couldn't hear a heartbeat. She said I needed an emergency ambulance or to make my way to hospital quickly. We drove quickly to* [the] *hospital where they were expecting me. At the doors I was told I was the only one allowed in … we thought* [the] *baby had died at 32 weeks gestation, yet I had to go in alone. This was one of the scariest moments of my entire life. Meanwhile* [my partner] *had to wait outside the hospital waiting to be told if his baby was alive or not.*"[31]

2.21. In Scotland, from the outset of the pandemic, the guidance outlined that birthing partners were essential visitors to maternity services, including neonatal units, and outlined practical steps to enable visiting to take place.[32] However, in England and Wales, fathers or other birthing partners were initially considered to be 'visitors' and were not permitted to accompany pregnant women to antenatal appointments or to visit after birth.[33] In Northern Ireland, while it was recognised that partners accompanying women to maternity care were not 'visitors', the guidance allowed for restrictions "*dependent on the assessed level of risk at any given time*", leading to an "*unpredictable variance of access*" for partners of pregnant women.[34]

2.22. Mothers were therefore, at times, alone in the period before and after giving birth, without any help from their partner to care for their baby or support them physically.[35] Jenny Ward, Chair of the Pregnancy and Baby Charities Network, on behalf of 13 Pregnancy, Baby and Parent Organisations (a Core Participant), described the importance of a partner/supporter "*both for the mother, for the baby, being the support, the advocacy and trying to understand the advice that they had*".[36] Ms Ward considered that visiting restrictions should not apply to birthing partners and parents of children in neonatal units.[37] Gill Walton, Chief Executive of the Royal College of Midwives from 2017, agreed with that view.[38]

2.23. Visiting guidance in England and Wales subsequently changed to designate fathers or other birthing support partners as 'partners in care' and therefore not subject to restrictions as 'visitors'. NHS England first made this change clear in guidance on 14 December 2020.[39] However, this approach was not adopted in Wales until 9 May 2022, when Eluned Morgan MS, Baroness Morgan of Ely, Minister for Health and Social Services in the Welsh Government from May 2021 to March 2024, amended

31 *Every Story Matters: Healthcare*, p201 (INQ000474233)
32 INQ000474225_0051 para 169; INQ000485984_0037-0038 paras 114-115
33 INQ000399381; INQ000399385; Jenny Ward 7 October 2024 45/15-46/19
34 INQ000474226_0083-0084 paras 317-319
35 INQ000408656_0040 para 130; INQ000494257_0003 para 11
36 Jenny Ward 7 October 2024 48/16-18
37 Jenny Ward 7 October 2024 53/5-8
38 Gill Walton 7 October 2024 90/3-6
39 INQ000412890_0181 para 697

the visiting guidance.[40] Baroness Morgan considered that the Welsh Government "*took too long to make those changes*".[41] The Inquiry agrees. The clarification could, and should, have been made much earlier.

2.24. The Inquiry agrees that, as a general rule, parents should not be seen as visitors but as an essential part of the care and support of a child. However, it accepts that there may be exceptional circumstances – for example, if a pathogen does not affect adults but affects babies and children – when restrictions may be appropriate.

2.25. Dame Ruth May, Chief Nursing Officer for England from January 2019 to July 2024, stated that earlier introduction of Covid-19 testing for visitors would "*without doubt*" have affected visiting guidance in maternity care:

> "*If we'd had lateral flow tests at the beginning, with us being able to say whether a partner was positive or not, gosh, that would have relieved a lot of anxiety and tension between staff and women and families, and provided better outcomes -- or experience.*"[42]

Visiting restrictions for carers

2.26. Concerns that visiting restrictions acted as a barrier to the wellbeing of patients were not limited to maternity. Visits by carers and loved ones are especially important for patients with cognitive impairments (such as dementia or learning disabilities) or those with communication difficulties (such as deaf or autistic patients). Carers and family members may be the only people who understand their particular communication needs and how to explain what is happening to them and the medical treatment they need.

2.27. Susan, the daughter of John Sullivan (a member of Covid-19 Bereaved Families for Justice), died in hospital from Covid-19. Susan had Down's syndrome and Mr Sullivan explained how she struggled to tolerate the non-invasive oxygen mask and kept taking it off. He felt that, if her family had been able to visit, they would have been able to help her understand the importance of wearing the mask:

> "*I mean, she would have kept the mask on and -- you know, you've got to understand, she was frightened, she's frightened, everybody in the place is running around with a mask on their face, she's been forced to put a mask on her face and she hated anything on her face and if we'd have been there just to comfort her, give her that little bit of support, because that's all Susie ever needed was that little bit of support, you know, the outcome could have been -- could have been very different.*"[43]

40 Eluned Morgan 20 November 2024 143/4-17
41 Eluned Morgan 20 November 2024 183/3-11
42 Ruth May 17 September 2024 76/10-15
43 John Sullivan 10 September 2024 136/12-21

2.28. This effect on more vulnerable patients was recognised across the UK and so changes were also made to allow visitors to support patients with autism or cognitive impairments such as dementia or learning disabilities. The first version of the visiting guidance in Scotland, dated 24 March 2020, was the only guidance to allow a visitor:

> "*to support someone with a mental health issue such as dementia, a learning disability or autism where not being present would cause the patient to be distressed*".[44]

2.29. On 9 April 2020, guidance in England and Northern Ireland was updated to allow for the same or similar exceptions and NHS Wales followed suit on 20 April 2020.[45]

Inconsistent application of the visiting guidance

2.30. Following the first wave of the pandemic, the nationwide visiting restrictions in each of the four nations were removed and the guidance was updated to set out broad principles and encourage a localised approach as to what, if any, restrictions were to be imposed.[46] This led to variation across the UK, and between trusts and health boards, as to the timing of changes to the guidance and the visiting policies in place in individual hospitals.

2.31. Some hospitals, patients and their visitors considered that, on occasion, there had been inconsistent application of visiting guidance across the UK.[47] While some contributors to Every Story Matters "*sometimes welcomed this flexibility*", the Every Story Matters record noted:

> "*On the other hand, many contributors also said rules being applied inconsistently caused problems and uncertainty. For example, one patient described how healthcare professionals allowed a family member to be with her in hospital, but later in the day another staff member made them leave. The next day a third healthcare professional allowed them back again.*
>
> *When this happened, patients found the mixed messages hard to understand and frustrating. This was particularly difficult when the inconsistency had an impact on their experience of patient care or meant they were not able to see loved ones.*"[48]

44 INQ000319468_0001
45 INQ000412890_0179 para 687; INQ000486014_0120 para 328; INQ000659853
46 INQ000103667_0005 paras 5.9-5.12; INQ000492281_0083-0085 paras 247, 254, 255-260; INQ000486014_0118, 0123-0124, Table 15, paras 334-338; *Hospital Visiting During the Coronavirus Outbreak: Visiting with a Purpose*, Welsh Government, 30 November 2020 (INQ000469208); INQ000319460; INQ000241407; INQ000241976_0002-0003; INQ000412890_0181-0182 paras 695-698
47 See, for example, INQ000474221_0034 para 155; INQ000343992_0014 para 49; INQ000425385_0030 para 107; INQ000470853_0027 para 71; Gill Walton 7 October 2024 86/25-87/9; Julia Jones 29 October 2024 8/16-25
48 *Every Story Matters: Healthcare*, pp136-137 (INQ000474233)

2.32. Inconsistencies in approach were recognised by NHS England, particularly in maternity settings and for those who were carers for patients.[49] Northern Ireland also experienced inconsistent application of the guidance when, for example, in mid to late April 2020, only two out of seven intensive care units were facilitating visits at the end of life.[50] The Scottish Government also became aware that, at times, the restrictions were being applied in an overly restrictive manner, which prompted the Scottish Government to remind the healthcare setting of the current guidance and how to address any infection prevention and control concerns.[51]

2.33. To address concerns about unfairness or inconsistency in the application of visiting restrictions, the former Chief Medical Officer of one hospital considered:

> "*Clearer advice with a consistent approach would have been preferred to strike a better balance and to gain better public support.*"[52]

A Chief Medical Officer of another hospital suggested that it would have been preferable for the government to have said that:

> "*visiting is suspended as the default position, but individual organisations would be supported to take a local, risk assessed view to do something different*".[53]

2.34. The Medical Director of an NHS trust told the Inquiry that "*there could have been more emphasis in the national guidance related to using discretion*".[54] Julia Jones, co-founder of John's Campaign and member of the NHS England Advisory Board for Care Partner Policy, also believed that better guidance should have been given to those working on wards about how to exercise discretion in allowing visits.[55]

2.35. Those responsible for formulating visiting policies in hospitals recognised that the application of the visiting restrictions depended on the circumstances that the hospitals faced. For example, in Birmingham, some decisions were taken to delay easing visitor restrictions "*until there was confidence in the capacity of staff and facilities to deliver safe care*".[56] The Chief Medical Officer of Bradford Royal Infirmary acknowledged that:

> "*It was difficult at times in Bradford to adhere fully to the national guidance when Covid figures in other parts of the country were not the same as Bradford.*"[57]

49 INQ000485652_0342 paras 1241-1242; Stephen Powis 7 November 2024 117/17-22
50 INQ000376875_0003
51 Jeane Freeman 19 November 2024 76/12-77/1
52 INQ000474217_0036 para 33.3
53 INQ000421793_0070 para 358
54 INQ000472879_0033 para 153
55 Julia Jones 29 October 2024 10/18-11/6
56 INQ000477597_0048 para 158
57 INQ000421793_0069 para 351

2.36. Healthcare leaders reflected on what they had learned about visiting restrictions and how they developed over the course of the pandemic. Professor Powis told the Inquiry:

> "[W]*e could have been clearer, and I think this is a lesson for next time … in making those distinctions as to who is part of the healthcare support team if you wish, faith leaders, carers, birthing partners, and who is a visitor. And I think you saw that in the guidance as we iterated it, but I absolutely agree that one of the reflections that we would have coming out is to do that sooner and be clearer.*"[58]

2.37. Judith Paget, Chief Executive Officer at NHS Wales and Director General of the Health, Social Care and Early Years Group in the Welsh Government from November 2021 to July 2025, said that "*there should be consistency around what we deem to be essential visiting*" but accepted that "*it would be very difficult to have an approach that was absolutely consistent at all times, at all days, in all wards, in all hospitals, because there will be variation*" arising from the circumstances of each location.[59]

2.38. The Inquiry accepts that there cannot be complete consistency across the UK because there is likely to be variation arising from a difference in, for example, infection rates and staffing capacity. However, greater clarity in the guidance as to who should be considered a visitor and who should be considered part of the healthcare support team would reduce the inconsistencies and ensure better care for some categories of patients.

Whether visiting restrictions struck the correct balance

2.39. In their report for the Inquiry, Dr Shin, Professor Gould and Dr Warne concluded:

> "*Overall, taking into account the exceptions made for special circumstances like end-of-life care, maternity services, patients with cognitive impairment or additional care needs, and paediatrics and the fact that visiting guidance evolved to be more flexible over time, we believe a reasonable balance was struck, but with variation in local practice that contributed to differing experience. It is unlikely any iteration of visiting guidance would satisfy all relevant stakeholders who have very different priorities and responsibilities.*"[60]

In the opinion of Dr Shin: "[S]*ome form of control was reasonable, logical and I think the right – probably the right decision.*"[61]

58 Stephen Powis 7 November 2024 119/20-120/3
59 Judith Paget 13 November 2024 149/19-150/4
60 INQ000474282_0086 para 8.22
61 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 121/13-15

2.40. Some hospitals agreed that, generally, visiting restrictions struck the right balance.[62] Others mentioned the difficulties they encountered in balancing competing concerns.[63] Professors Meriel Jenny and Stuart Walker, on behalf of Cardiff and Vale University Health Board, said:

> "[S]*ome felt that the visiting restrictions did not strike the right balance … and believed that this could have been managed in a more proportionate and individualised basis. An example would have been to allow a patient to have fewer visitors, but with scheduled visiting appointments and appropriate PPE.*"[64]

The Cumberland Infirmary in Carlisle considered that:

> "[N]*ational guidance may not have been flexible enough at times, and certainly, as vaccination became more widespread, visiting could perhaps have been cautiously reintroduced sooner.*"[65]

2.41. One contributor to Every Story Matters said:

> "*The staff in hospital were incredible. But that doesn't make up for the lack of your nearest and dearest at crucial, life changing times. The impact of the restrictions will last for generations. Next time, we need to be better prepared, and we need to ensure that even when restrictions are in place, we're human and we allow others to also be human and have connections with those they need most in their most difficult times.*"[66]

2.42. The move from nationwide visiting restrictions to a localised approach was a positive development. The importance of visiting has now been recognised in England in legislation that gives patients a legal right to receive visits "*unless there are exceptional circumstances*".[67] Since 6 April 2024, it has been a requirement that anyone staying overnight in a hospital (or care home or hospice) as part of their care or treatment "*must be facilitated to receive visits at those premises*", or if they are not staying overnight they "*must be enabled to be accompanied at those premises by a family member, friend or a person who is otherwise providing support*".[68] The Inquiry welcomes the fact that patients in England now have a legal right to be visited or to be accompanied. The Welsh Government, Scottish Government and Northern Ireland Executive should consider introducing an equivalent legal right.

62 INQ000477511_0017 para 56; INQ000474221_0035 para 157; INQ000477448_0029 para 129; INQ000478114_0038 para 137
63 INQ000421793_0069 para 352; INQ000480136_0044 para 198
64 INQ000480136_0046 para 214
65 INQ000471398_0025 para 104
66 *Every Story Matters: Healthcare*, p91 (INQ000474233)
67 The Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, regulation 9A (https://www.legislation.gov.uk/uksi/2014/2936/contents)
68 The Health and Social Care Act 2008 (Regulated Activities) Regulations 2014, regulation 9A (https://www.legislation.gov.uk/uksi/2014/2936/contents)

Planning for visiting restrictions in a future pandemic

2.43. Visiting restrictions were inevitable and striking the right balance was an enormous challenge in the face of a novel virus spreading rapidly around the UK. Had there been guidance ready which outlined key principles underpinning visiting restrictions, drafted as part of pre-pandemic planning, the challenge might have been more easily navigated.

2.44. Guidance should draw a distinction between 'visits' that may bring benefits to the patient but are not essential and the attendance of 'partners in care', such as birthing support partners or carers for patients with disabilities or communication needs, which is essential. These essential visits should be maintained throughout any pandemic, unless the circumstances make it absolutely impossible.

2.45. It is likely that, in any future pandemic, infection rates will differ across the UK and within each nation. Decisions about what restrictions apply should therefore be taken at as local a level as possible, to take account of the circumstances that exist in and around the healthcare setting. These would include factors such as local infection rates, the nature of the healthcare setting estate and the availability of PPE. Restrictions should be reviewed and relaxed as soon as circumstances allow.

2.46. Discretion must be exercised fairly and the principles underpinning restrictions should be widely understood. Better guidance on the applicable principles would have been helpful for staff formulating and implementing hospital policy and ensured better communication with those wishing to visit a loved one.

2.47. The guidance should also include which exemptions should apply and when (if ever) the exemptions should be withdrawn. The guidance should be created with input from government departments, healthcare bodies, Royal Colleges and those impacted by the guidance. Trusts and health boards should then review the guidance to make sure they know how they would implement that guidance in practice.

Recommendation 2: Guidance for visiting restrictions

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should publish guidance for the implementation of visiting restrictions in hospitals in the event of a future pandemic.

The guidance should identify the circumstances in which visiting restrictions should be introduced, escalated, decreased and removed alongside the measures and exemptions at each level. The guidance should be led by the following core principles:

1. Measures applied should be the least restrictive possible, both in terms of severity and the length of time for which they apply.
2. Restrictions should be decided upon and applied at the most local level possible.
3. Unless restrictions are applied at a specified level, trusts and health boards should take decisions on the severity of restrictions based on local risk assessments.
4. Communications with the public must clearly explain the measures in place and the reasons why restrictions apply.

The guidance should be reviewed every three years, in line with the Inquiry's Module 1 Report (Recommendation 4).

Personal protective equipment

2.48. As discussed in Chapter 1: Infection prevention and control guidance, Covid-19 infection prevention and control guidance for healthcare settings specified varying levels and types of PPE for healthcare workers, depending on the nature and area of their work and the risks involved. PPE was an important element of infection prevention and control and provided assurance for patients, but also for hospital staff to know that they were protected, to some degree, from the virus.

2.49. A central question during the pandemic, particularly in early 2020, was whether there were sufficient levels of suitable and well-fitting PPE for healthcare workers. As Dr Andrew Goodall, Chief Executive Officer at NHS Wales and Director General of the Health and Social Services Group in the Welsh Government from June 2014 to November 2021, observed:

> "*The provision of appropriate and high-quality personal protective equipment ('PPE') was undoubtedly one of the most significant challenges in ensuring the safety and wellbeing of the health care workforce.*"[69]

2.50. Save for PPE procured for the Pandemic Influenza Preparedness Programme stockpile (referred to below as the pandemic stockpile), both before and during the pandemic there was no organisation or body procuring PPE on behalf of the UK as a whole. Each nation maintained its own supply chain for PPE that would be used in secondary care and was responsible for its nationwide distribution.[70]

2.51. The pandemic brought about a worldwide clamour for PPE, such that the normal routes by which PPE was procured in the UK became constrained, and this inevitably

69 INQ000485721_0131 para 331
70 *Coronavirus (COVID-19): Personal Protective Equipment (PPE) Plan*, Department of Health and Social Care, 10 April 2020, pp19-20, para 1.53 (https://www.gov.uk/government/publications/coronavirus-covid-19-personal-protective-equipment-ppe-plan; INQ000050008)

led to shortages of this vital resource. The changes to the way in which PPE was procured, the stockpile was managed and PPE was distributed during the pandemic are being considered in more detail in Module 5: Procurement.

The pandemic stockpile

2.52. Pursuant to the *UK Influenza Pandemic Preparedness Strategy 2011*, the UK government bought PPE for the pandemic stockpile on behalf of the UK.[71] Each nation was then allocated a percentage of that stockpile.[72]

2.53. In March 2020, Public Health England maintained the PPE stockpile.[73] Professor Susan Hopkins, Deputy Director of the National Infection Service at Public Health England from 2018 to 2020, said that "*the stockpiles were insufficient for the scale of the pandemic and the scale of the Personal Protective Equipment that was being used*".[74] Professor Hopkins also noted that some PPE had been in the stockpile "*for many years*" and was not fit for purpose.[75]

2.54. A further reason for the insufficiency was the supply of PPE to GP surgeries (and care homes). Prior to the pandemic, GPs and other primary care providers sourced their own PPE, but from January 2020 onwards the governments started to supply GP surgeries. On 24 January 2020, the Scottish Government supplied face masks to GP practices in Scotland and from March 2020 PPE was provided to primary care from central supplies through National Services Scotland.[76] In Northern Ireland, PPE was supplied to GP practices from a central supply from 31 January 2020.[77] In Wales, GP practices were supplied with PPE through the NHS Wales Shared Services Partnership from mid-March 2020.[78] In England, the Department of Health and Social Care supplied GP practices through the Parallel Supply Chain, established in late March 2020.[79] This "*unprecedented delivery*" to GP surgeries (and to care homes, as considered further in Module 6: Care sector) inevitably depleted the stockpile far sooner than had been anticipated.[80]

2.55. As discussed below, the impact of the stockpile not lasting as long as expected was that it led to shortages of PPE for healthcare workers, especially at the start of the pandemic.

71 INQ000485721_0132 para 335
72 INQ000485979_0050 para 194. The proportion is based on the Barnett formula, which is a mechanism used in the UK to determine how much each nation receives based on the relative populations of the devolved nations and the extent to which UK government departments' services are devolved. In 2018 this was England 83%; Scotland 9%; Wales 5%; and Northern Ireland 3% (INQ000177454_0017).
73 INQ000410867_0150 para 379; INQ000409265_0004 para 3.5.2
74 Susan Hopkins 18 September 2024 130/8-11; see also Caroline Lamb 14 November 2024 81/19-24; Andrew Goodall 13 November 2024 48/10-14
75 Susan Hopkins 18 September 2024 130/11-13
76 INQ000485979_0157-0158 para 571
77 INQ000480738_0004 para 8
78 INQ000485721_0133 para 337; INQ000339027_0023 para 126
79 INQ000412890_0141-0146 paras 535, 545, 551
80 Susan Hopkins 18 September 2024 130/18-131/1

Shortages of personal protective equipment

2.56. Matt Hancock MP (Secretary of State for Health and Social Care from July 2018 to June 2021), Jeane Freeman MSP (Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021), Vaughan Gething MS (Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021) and Robin Swann MLA (Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024) each acknowledged that, at times during the pandemic, some healthcare workers had difficulties accessing sufficient levels of PPE.[81] However, each of the four health ministers stated that there was never a shortage of PPE in their nation.[82] The ministers therefore drew a distinction between their nation running out of PPE entirely and healthcare workers in local areas facing challenges accessing the PPE they needed.

2.57. Ministers recognised that, during the pandemic, healthcare workers experienced shortages of PPE. When asked about his acknowledgement that there were individual shortages but no national shortage, Mr Hancock said:

> "*Well, it is better to be down to the last hour's worth than to run out, and in some places they did run out and that was awful. And my job was to ensure that that happened as little as possible, and nationally we never ran out of it … What happened was there were individual stock outs in individual places, there was not a national stock out. In a way, one of the lessons we can draw is even if there isn't a national stock out, there still are problems in local areas and, therefore, not running out isn't good enough, we need to make sure PPE is widely available, easy to get hold of.*"[83]

Ms Freeman accepted that "*at times healthcare workers in Scotland treating Covid patients did not have the ease of access to PPE that I would expect them to have, and those were the issues that I set out to resolve*".[84] Mr Gething observed:

> "[E]*ach of those areas where it appeared that stocks hadn't got to the front line was a concern for me because, again, you still get into inadequate PPE should not be what our staff are expected to deal with, even if we think we have national stocks available.*"[85]

Mr Swann acknowledged that access to PPE by healthcare workers within hospitals was a problem at the start of the pandemic.[86]

81 INQ000421858_0032-0033 para 131; Jeane Freeman 19 November 2024 36/20-22; Vaughan Gething 20 November 2024 36/6-25; Robin Swann 18 November 2024 82/9-21
82 INQ000474252_0124 para 323; Matt Hancock 21 November 2024 51/17-18; INQ000492281_0087 para 268; Jeane Freeman 19 November 2024 33/18-34/4
83 Matt Hancock 21 November 2024 129/2-130/15
84 Jeane Freeman 19 November 2024 36/20-22
85 Vaughan Gething 20 November 2024 37/9-13
86 Robin Swann 18 November 2024 82/9-12

2.58. The reliance of health ministers on the fact that none of the four nations entirely ran out of PPE provides cold comfort to the healthcare workers who experienced the fear and anxiety of working without the PPE that made them feel safe, and also to those who were worried that they would not have PPE for their next shift.

2.59. It is clear that healthcare workers at times lacked access to appropriate PPE, as shown in the following examples:

- A member of staff at a hospital in England reported: "[I]*n the first wave PPE was a real issue, it was shocking. We had to go to Screwfix to get visors, we ran out of* [theatre] *scrubs to wear. We went round the private hospitals asking them to donate theirs to us … there was one Sunday night when we had nothing, no scrubs, and we had to go around in underwear and* [patient] *gowns.*"[87]
- A consultant in Wales recalled: "*At the start, despite knowing of the virus spread, no PPE was provided. Not even masks let alone thinking of level 2 PPE for aerosol generating procedures. This was when many of my colleagues and I became ill.*"[88]
- Staff at another unit in England described "*wearing cagoules and waterproof trousers that the chief exec had bought from an outdoor shop*".[89] Similar accounts were given to Every Story Matters. For example, one community nurse said she had "*friends working in ICU* [intensive care unit] *wearing bin bags*".[90]
- Dr Tilna Tilakkumar (a GP, redeployed to a continuing care adult ward in England during the first wave of the pandemic) said: "*A lack of PPE meant staff (who were predominantly from Black and ethnic minority backgrounds) had to source their own PPE. I sourced scrubs from another Trust and offered it to ward staff. We bought goggles off Amazon. This resulted in a feeling amongst staff on the ground that we were not being heard and we did not feel safe.*"[91]
- Professor Kevin Fong (National Clinical Adviser in Emergency Preparedness, Resilience and Response for Covid-19 to NHS England during the pandemic) highlighted that shortages tended to be in smaller hospitals, as these were not as well resourced as larger hospitals.[92]

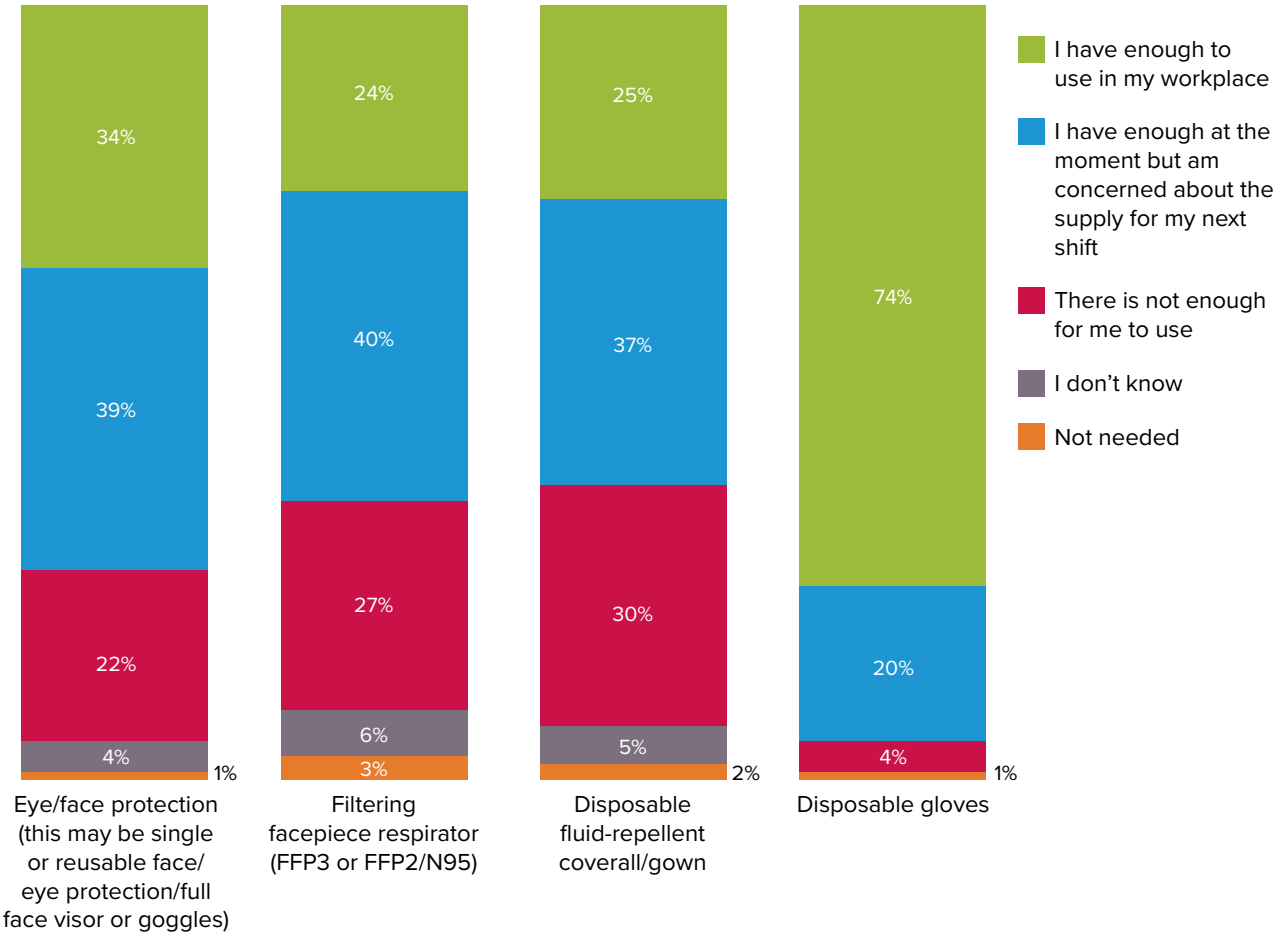
2.60. Surveys provided a broader understanding of the extent of the shortages that healthcare workers experienced. Between 10 and 13 April 2020, the Royal College of Nursing surveyed its members to understand the issues that they were facing with PPE, receiving 13,605 responses from across the UK.[93] For nurses not working in areas where aerosol generating procedures were being performed (as discussed in Chapter 1: Infection prevention and control guidance), 30% did not have enough eye or face protection for their shift, 27% did not have enough fluid-resistant surgical

87 INQ000474327_0027 para 148
88 *How Well Protected Was the Medical Profession from COVID-19?*, British Medical Association, 19 May 2022, p18 (INQ000118474)
89 Kevin Fong 26 September 2024 41/5-6
90 *Every Story Matters: Healthcare*, p23 (INQ000474233)
91 INQ000492278_0009 para 31
92 Kevin Fong 26 September 2024 41/6-9
93 *Personal Protective Equipment: Use and Availability During the Covid-19 Pandemic*, Royal College of Nursing, 18 April 2020, pp4-5 (https://www.rcn.org.uk/Professional-Development/PDFs/RCN-PPE-Survey-covid-19-uk-pub-009235; INQ000114401)

masks and 14% did not have enough surgical masks. Similar percentages had sufficient amounts of eye or face protection or fluid-resistant surgical masks for their shift but were concerned about future access.[94]

2.61. A similar picture existed for nurses who needed access to filtering facepiece respirators class 3 (FFP3) because they worked in aerosol generating procedure areas (see Figure 8). In the survey, 27% did not have enough FFP3 masks for their shift and 40% were concerned about future supply of FFP3 masks.[95]

Figure 8: Royal College of Nursing survey responses concerning access to PPE for those working in aerosol generating procedure areas



Source: Personal Protective Equipment: Use and Availability During the Covid-19 Pandemic, Royal College of Nursing, 18 April 2020, pp4-5 (https://www.rcn.org.uk/Professional-Development/PDFs/RCN-PPE-Survey-covid-19-uk-pub-009235; INQ000114401)

94 *Personal Protective Equipment: Use and Availability During the Covid-19 Pandemic*, Royal College of Nursing, 18 April 2020, p7 (https://www.rcn.org.uk/Professional-Development/PDFs/RCN-PPE-Survey-covid-19-uk-pub-009235; INQ000114401). As set out in Chapter 1: Infection prevention and control guidance, the main types of respirator masks in use in the UK are types of filtering facepiece, with FFP3 masks providing the highest level of protection.

95 *Personal Protective Equipment: Use and Availability During the Covid-19 Pandemic*, Royal College of Nursing, 18 April 2020, p11 (https://www.rcn.org.uk/Professional-Development/PDFs/RCN-PPE-Survey-covid-19-uk-pub-009235; INQ000114401)

2.62. A British Medical Association survey of doctors across the UK on 6 April 2020 found that only 39% of doctors working in settings where aerosol generating procedures were performed felt they had an adequate supply of FFP3 masks.[96]

2.63. Those surveys reveal that, in early April 2020, only approximately a third of doctors and nurses across the UK felt that they had sufficient access to the masks that the Covid-19 infection prevention and control guidance said they required.

2.64. A lack of PPE not only increased the risk of infection from Covid-19 but also led to fear, stress and anxiety among healthcare workers across the UK.[97] Professor Colin McKay (Chief of Medicine at the Glasgow Royal Infirmary from June 2019 to March 2023) said that, on occasion, his hospital was reduced to one or two days' worth of supply of PPE, "*which created a great deal of anxiety for those of us who were in charge of running the organisation*".[98] Every Story Matters received a similar account from a healthcare professional:

> "*There was a lot of anger amongst the hospital staff, of all grades. Much of this was caused by the sporadic supplies of Personal Protective Equipment and the lack of information about whether we would have enough to keep us safe for the duration of the pandemic.*"[99]

2.65. Non-hospital settings also reported shortages of suitable PPE. Mark Tilley, an ambulance technician in England, said that at various points during the pandemic aprons were in short supply and he and his colleagues considered using bin bags as an alternative.[100] The College of Paramedics received reports from members that they were buying their own PPE online and that, in some cases, stock was very short.[101] This was coupled with concerns held by the College of Paramedics, in particular about the lack of ventilation in ambulance vehicles and the level of PPE that ambulance staff were advised to wear (fluid-resistant surgical masks), even if the patient was Covid-19 positive.[102]

2.66. Notwithstanding the inclusion of primary care in the supply and distribution of PPE, there were still concerns about shortages of PPE in primary care settings. For example, a GP contractor/principal from Northern Ireland described how they "*were sent 6 pairs of gloves and 6 aprons in an envelope approximately 3 weeks after the start of lockdown*".[103]

96 INQ000477304_0139
97 See, for example, Rozanne Foyer 16 September 2024 54/3-5; INQ000474214_0025 para 5.10; INQ000477597_0069 para 225; INQ000474282_0047 para 4.23; INQ000477577_0028 paras 124, 126
98 Colin McKay 14 November 2024 16/20-23
99 *Every Story Matters: Healthcare*, p115 (INQ000474233)
100 Mark Tilley 1 October 2024 9/13-15
101 Tracy Nicholls 23 September 2024 83/11-13, 103/23-25
102 INQ000281189_0016 para 47
103 *How Well Protected Was the Medical Profession from COVID-19?*, British Medical Association, 19 May 2022, p18 (INQ000118474)

2.67. A shortage of gowns in April 2020 led directly to England creating guidance that applied in the event of acute shortages of PPE. This was an example of shortages driving the guidance that applied.

Acute shortages guidance

2.68. In February 2020, there had been a target for the pandemic stockpile to contain nearly 10.1 million surgical gowns, but the UK entered the pandemic with no gowns in the stockpile.[104] By April 2020, PPE supplies were dangerously low and, in particular, there was a lack of gowns available.[105]

2.69. On 10 April 2020, Professor Hopkins emailed the Health and Safety Executive noting that "*supplies of gowns have not arrived into the country as expected*" and that the Health and Safety Executive had assessed the gowns that had arrived as unsuitable.[106] Professor Hopkins confirmed that, at that time, supplies in England:

> "*were down to days … if supplies didn't come into* [the] *country on Wednesday … there would be no supply to deliver at the weekend*".[107]

2.70. On 12 April 2020, Public Health England, NHS England and the Chief Medical Officers and Chief Nursing Officers for the four nations met to consider the options if gowns could not be sourced.[108] After the meeting, Professor Hopkins authored a document that "*set out options for preserving personal protective equipment (PPE) use*".[109] The document proposed that, in the event of shortages, there could be both sessional use ("*the use of Personal Protective Equipment by one health or care worker during one shift in the clinical area*") and reuse ("*using the same item again, with appropriate precautions, by the same or another healthcare worker*") of PPE such as masks, gowns, eye protection and gloves.[110] The document stated:

> "*These are last resort alternatives but given the current in-country stock and the reduced ability to re-supply, we are suggesting that these are implemented until confirmation of adequate re-supply is in place.*"[111]

2.71. As Professor Hopkins accepted, the acute shortages guidance was introduced due to a lack of available PPE.[112] In particular, Dame Ruth May considered that these shortages were a direct consequence of the lack of gowns in the PPE stockpile.[113] Dame Ruth May did not support the proposals for sessional use and reuse of PPE and said at that meeting of 12 April 2020: "*I could not support Personal Protective*

104 INQ000389241_0057 para 186; INQ000528391_0053 para 197
105 INQ000528391_0006-0007 para 20
106 INQ000408929_0005
107 Susan Hopkins 18 September 2024 124/24-125/1; see also INQ000478872_0001
108 INQ000408930_0001
109 INQ000348352_0001
110 INQ000348352_0001
111 INQ000348352_0001
112 Susan Hopkins 18 September 2024 132/21-24
113 Ruth May 17 September 2024 57/1-5

Equipment proposals which could potentially impact staff safety."[114] The UK Infection Prevention and Control Cell (UK IPC Cell) also did not support the proposals for the same reasons as Dame Ruth May.[115]

2.72. The Health and Safety Executive approved the guidance.[116] The Health and Safety Executive emphasised that the guidance permitted PPE reuse provided that:

> "*a. it remained adequate and suitable and is undamaged*
>
> *b. it continues to provide the intended protection, and;*
>
> *c. workers can put it back on without being exposed to risk.*"[117]

2.73. Given the exceptional nature of the guidance, Mr Hancock was asked to approve the guidance before it was published. He did so and on 17 April 2020 Public Health England published *Considerations for Acute Personal Protective Equipment (PPE) Shortages*.[118] A central alert was also issued across the NHS on 17 April 2020, stating:

> "*The reuse of Personal Protective Equipment should be implemented until confirmation of adequate re-supply is in place.*"[119]

The guidance remained in place until it was withdrawn on 16 September 2020.[120]

2.74. Wales, Northern Ireland and Scotland "*chose not to accept the acute shortages guidance and relied instead on their supply of PPE*".[121]

2.75. The Royal College of Nursing considered the reuse of single-use PPE "*unacceptable*" and did not support the guidance.[122] Rosemary Gallagher (Professional Lead for Infection Prevention and Control and Nursing Sustainability at the Royal College of Nursing from July 2009 to July 2025) said the guidance "*added to the concern and … the confusion and further eroded that confidence*" that healthcare workers had in PPE.[123] The British Medical Association also raised "*serious concerns*" about it.[124]

2.76. Professor Powis considered that, "*in hindsight*", instead of general publication, the guidance would have been better targeted at organisations which had multiple sites and where deliveries to each of those sites "*may have been incomplete*".[125]

114 INQ000479043_0056 para 256
115 INQ000479043_0056 para 257
116 INQ000389241_0080 para 266
117 INQ000347822_0071 para 338
118 INQ000410867_0127-0128 paras 317-318
119 INQ000106357_0001
120 INQ000389241_0080 para 266
121 Rosemary Gallagher 4 November 2024 53/20-22
122 INQ000475580_0024 para 62
123 Rosemary Gallagher 4 November 2024 53/6-9
124 INQ000117758_0001
125 INQ000412890_0111 para 393

Lack of a diverse range of personal protective equipment

Personal protective equipment for women and ethnic minorities

2.77. The NHS is reported to be one of the largest employers in the world, with approximately 1.5 million full-time equivalent staff.[126] In England it is the largest employer of ethnic minority people, with 20% to 24% of staff from ethnic minority backgrounds.[127] From March 2020 to March 2022, approximately 75% of the NHS workforce in England was female.[128] However, the Inquiry heard that during the pandemic there were concerns about the lack of a diverse range of PPE for female healthcare workers and for healthcare workers from ethnic minorities.

2.78. PPE has historically been "*primarily designed for industrial use in fields such as construction and, as such, is poorly adapted to a diverse healthcare workforce*".[129] This has resulted in PPE which "*continues to rely on European fitting standards for its respiratory protection, which are based on a standard, clean-shaven Caucasian male 'Sheffield Head'*".[130]

2.79. Female and ethnic minority healthcare workers generally had less opportunity than their White, male colleagues to find an FFP3 mask that would pass a fit test.[131] Given the large percentage of female and ethnic minority healthcare workers working in the NHS and the lack of access to FFP3 masks that were designed to fit their facial shapes, women and ethnic minority healthcare workers were more likely to be left inadequately protected.

2.80. In April 2020, a series of teleconferences were held across England with front-line staff.[132] Dame Ruth May received information from those teleconferences that:

> "[T]*here were some people, particularly from a Filipino background and particularly women, that some of the masks weren't fitting properly because of the shape of faces were different.*"[133]

2.81. These problems occurred in primary care as well as in hospitals. For example, a female GP in Scotland commented:

> "*I had initially struggled to get a face fit mask which worked for me as a small woman. When I did have a successful face fit, masks were never delivered to my workplace in the correct size and style.*"[134]

126 'The NHS workforce in numbers', Nuffield Trust, 7 February 2025 (https://www.nuffieldtrust.org.uk/resource/the-nhs-workforce-in-numbers; INQ000659852)
127 INQ000399526_0024 para 70. Equivalent statistics are not so clearly accessible for Scotland, Wales and Northern Ireland.
128 INQ000412890_0186 paras 715-716
129 INQ000474255_0081 para 209
130 INQ000474255_0081 para 209; see also Rosemary Gallagher 4 November 2024 62/24-25
131 *How Well Protected Was the Medical Profession from COVID-19?*, British Medical Association, 19 May 2022, p19 (INQ000118474)
132 Ruth May 17 September 2024 11/25-12/1
133 Ruth May 17 September 2024 12/2-12/6
134 *How Well Protected Was the Medical Profession from COVID-19?*, British Medical Association, 19 May 2022, p19 (INQ000118474)

2.82. Mr Hancock stated that he was "*not sure*" the availability of PPE for Black, Asian and ethnic minority healthcare workers was monitored at the start of the pandemic but he said that monitoring "*got better over time*".[135] He added:

> "[O]*ne of the key lessons is we need to make sure that the PPE that is stockpiled and then bought in any future pandemic fits the workforce that we have.*"[136]

2.83. A briefing paper produced by the Department of Health and Social Care in July 2020 found that the:

> "*respirators which had been provided for frequently fitted white faces but the ones which were better off for black staff were purchased in much smaller quantity*".[137]

Sir Christopher Wormald, Permanent Secretary to the Department of Health and Social Care from May 2016 to December 2024, indicated that this finding was "*acted on during the pandemic*".[138]

2.84. As a result of the issues raised by healthcare workers concerning problems with the fit of respiratory protective equipment, a programme was created which increased the number of types of FFP3 masks available from 4 to 12.[139]

2.85. Masks were not the only type of PPE where there were issues with size and fit for some of the workforce. For example, one healthcare worker told Every Story Matters that PPE was:

> "*ordered in sizes primarily fitting the average male, not the average NHS worker, I was often so swamped in my Personal Protective Equipment that it was uncomfortable and restrictive*".[140]

2.86. In the early stages of the pandemic, suitable PPE was not available for all healthcare workers in the NHS. In particular, there needed to be a broader range of face masks to fit the diversity of face shapes among healthcare workers. There were difficulties in obtaining appropriate PPE in the early stages of the pandemic, but had there been better planning, more workers could have been given the appropriate level of PPE protection, in keeping with their role within healthcare – regardless of their sex, ethnicity, disability, size or employment status. This is being considered further in Module 5: Procurement.

135 Matt Hancock 21 November 2024 195/1-5
136 Matt Hancock 21 November 2024 195/1-5
137 Christopher Wormald 19 June 2023 148/23-149/7. Exercise Cygnus was an October 2016 exercise assessing the UK's preparedness and response to a pandemic influenza outbreak.
138 Christopher Wormald 19 June 2023 149/5-7
139 Ruth May 17 September 2024 12/6-10; INQ000528391_0007 para 22
140 *Every Story Matters: Healthcare*, p119 (INQ000474233)

Communication difficulties

2.87. Opaque masks and respirators caused difficulties for healthcare workers and patients who had a hearing impairment or relied on lip-reading for communication.[141] They also inhibited patients (or people supporting them) who were neurodivergent or deaf from establishing a rapport with healthcare professionals.[142] As one contributor to Every Story Matters recounted:

> "*You say, 'I'm deaf,' and they're talking to you through a mask, and I'll say, 'I'm deaf.' They're, like, 'Oh, no, no, I can't take my mask off. You might give me Covid-19.' I'm like, 'Well, you know, I'll stand over here, you stand over there. Please take your mask down, I'll be more than 2 metres away,' and they still refused. That was really difficult and then you literally can't see their mouth or their face, so you've got no hope of understanding them.*"[143]

2.88. Prior to the pandemic there were no transparent masks that provided an equivalent or higher level of protection to that offered by a fluid-resistant surgical mask, nor was there a standard to aid development of such a mask.[144] Early on in the pandemic, healthcare systems in the four nations recognised the benefit of transparent masks.[145] A pilot scheme using clear masks occurred across the UK in late 2020, although those masks were not intended to replace fluid-resistant surgical masks or FFPs. The masks used in the pilot were not taken forward.[146]

2.89. On 1 April 2021, a specification for single-use transparent face masks was published.[147] That specification had been drawn up with the involvement of bodies including the NHS, Public Health England and the Health and Safety Executive and approved by the infection prevention and control leads from all four nations.[148] Those standards were:

> "*needed to enable manufacturers to upgrade transparent face coverings into transparent face masks suitable for medical use*".[149]

By March 2022, "*a number of products*" comparable to fluid-resistant surgical masks had been created using that specification.[150]

2.90. Transparent masks provide an obvious benefit to both patients and healthcare workers. Work on developing transparent masks that offer protection equivalent

141 See, for example, INQ000477304_0143 para 340; Sarah Powell 28 October 2024 6/10-22
142 Julie Pashley 31 October 2024 120/8-24
143 *Every Story Matters: Healthcare*, p123 (INQ000474233)
144 INQ000417097_0015 para 62; INQ000485024_0024 para 73
145 For example, INQ000343927_0001; INQ000485024_0024 para 73; INQ000474217_0047 paras 41.1-41.3
146 INQ000410219_0001; INQ000474738_0004 paras 15-17; INQ000343927_0002; INQ000527814_0002; INQ000409047_0001; INQ000409045_0001-0002
147 INQ000417097_0012
148 INQ000474738_0004 para 17
149 INQ000474738_0004 para 16
150 INQ000474738_0005 para 18

to fluid-resistant surgical masks and FFP3 masks should continue and effective models should be widely stocked across the UK. The four nations should also consider whether there are other forms of PPE that could be redesigned in order to help those with a disability and, if necessary, create appropriate specifications.

Extending the expiry date of personal protective equipment

2.91. In January 2020, a Public Health England audit of the PPE stockpile revealed that some of the stock was past its expiry date.[151] That led to a process by which Public Health England, on behalf of all four nations, coordinated the "*revalidation*" of some of the PPE stock.[152] The revalidation involved assessment by the Health and Safety Executive to ensure that the PPE complied with the relevant regulatory requirements.[153] If the PPE passed that fresh assessment, it was restamped or rebadged, extending its use-by date.[154]

2.92. The British Medical Association recognised that, in times of short supply, it was not unreasonable to use revalidated PPE that was still fit for purpose.[155] However, it appears that healthcare workers were not always informed that the PPE had been revalidated, which affected their confidence that the PPE was safe to use.[156] For example, one nurse who had volunteered to work in an intensive care unit complained to her trust about the use of out-of-date PPE:

> "*You are accountable for our health. Not informing us, trying to cover dates and taking no action to improve the situation is putting my life at tremendous risk. Don't you think we deserve to know our masks are expired? Don't you think we should have to consent to that risk?*"[157]

2.93. Richard Brunt, Director of the Engagement and Policy Division at the Health and Safety Executive from April 2022, said that the Health and Safety Executive considered that it was for the employer to explain the steps that had been taken to ensure that PPE was suitable for use.[158] Healthcare providers should ensure that out-of-date PPE has been properly revalidated and that this is clearly communicated to healthcare workers.

2.94. Some PPE that had been rebadged turned out not to be fit for purpose. For example, one health board in Scotland received a batch of FFP3 masks:

151 INQ000421858_0030 para 121
152 INQ000485979_0166 para 578
153 Richard Brunt 12 September 2024 80/20-81/2; INQ000347822_0082 para 386
154 See, for example, INQ000475209_0018 para 125
155 Philip Banfield 28 October 2024 117/14-17
156 See, for example, INQ000471161_0027 para 119
157 INQ000417105_0002
158 Richard Brunt 12 September 2024 82/1-6

> "*which had* [sic] *failure rate of 45%. These dated from 2012 and although they had been revalidated for clinical use, there were concerns that the elastic had lost its resilience there was evidence that some of the straps snapped when donning these mask*[s]."[159]

Mr Tilley recalled gloves being provided that had passed a previous expiration date and which also "*ripped and tore quite easily*".[160]

2.95. As the revalidation process necessarily relied on testing a sample within each batch of out-of-date PPE, there may have been some untested PPE items which were not fit for purpose.[161] The combined effect of poor communication about the extended use of revalidated PPE and instances of substandard rebadged PPE left healthcare workers feeling anxious that they were not properly protected at work.

The protection afforded by filtering facepiece respirators

2.96. FFP class 2 (referred to as FFP2) masks have a filtration efficiency of up to 94, compared with up to 99% for FFP3 masks.[162] Prior to the pandemic, FFP2 masks were not used in UK healthcare settings because of the marginally less effective filtration compared with FFP3 masks.[163] They were, however, commonly used in other European countries.[164] In March 2020, the Health and Safety Executive adopted the position that "*whilst FFP3 was the usual recommended control measure*", if global supplies of FFP3 masks were low, FFP2 masks could be used as an alternative.[165] The Covid-19 infection prevention and control guidance of 2 April 2020 and 21 May 2020 therefore included advice to use FFP2 masks if FFP3 masks were not available.[166]

2.97. As discussed in Chapter 1: Infection prevention and control guidance, the Covid-19 infection prevention and control guidance for healthcare settings (at least until June 2021) stated that FFP3 masks were only to be worn in areas where it was considered that aerosols were likely to be generated. This arose from a belief that FFP3 masks provided better protection against aerosol transmission than surgical masks.

2.98. However, the Inquiry was told that there was, in fact, no conclusive scientific evidence that supported that belief. For example, Professor Hopkins explained that laboratory studies had shown FFP3 masks to "*offer a higher degree of protection*" than fluid-resistant surgical masks, but when compared during clinical trials, the

159 INQ000478114_0035 para 124
160 Mark Tilley 1 October 2024 20/16-21/1
161 INQ000347822_0082 paras 382-386
162 INQ000474276_0074 para 187
163 INQ000389241_0056 para 183; Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 27/11-12
164 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 27/7-9; INQ000347822_0058 para 256
165 Richard Brunt 12 September 2024 77/21-24; see also INQ000347822_0060 para 269
166 INQ000389241_0070 para 228; INQ000412890_0112 para 398

results were "*very mixed*" and in some cases "*there is no difference between them*".[167]

2.99. Observational studies (in which researchers record what happens to participants without trying to affect the outcome) have tended to demonstrate that FFPs are more protective than surgical face masks. For example, Professor Clive Beggs (expert witness on the physical sciences underpinning Covid-19 transmission) referenced the findings of a review conducted by the Royal Society (a fellowship of eminent scientists) which identified that:

> "*A further seven observational studies found that respirators (FFP2, FFP3 and N95) were more protective than surgical masks; five found no statistically significant difference between the two mask types, and two studies found increases in transmission, though these were not statistically significant.*"[168]

2.100. For a variety of reasons, including the difficulties both ethically and practically in setting up a randomised control trial (where researchers evaluate the effects of a specific intervention, such as a medical treatment, by randomly assigning participants into groups, one of which receives the intervention while the control group does not), there is a lack of 'gold standard' evidence to support widespread use of FFP3 masks in reducing the spread of aerosols. The lack of clear evidence means scientific confidence in the widespread use of FFP3 masks has not been established.

2.101. Given the potential difference in safety provided by effective respiratory protection, there is an urgent need for good-quality scientific research on the effectiveness of widespread use of FFP masks as against fluid-resistant surgical masks and identification of the most effective precautions. The Inquiry agrees with Professors Hopkins and Beggs that further research in this area is required.[169]

Fit-testing

2.102. FFP masks do not offer maximum protection unless the wearer has passed a 'fit test'. Fit-testing ensures that the mask provides a sufficient seal around the nose and mouth of the wearer, which prevents particles entering around the side of the mask. As the Health and Safety Executive stated:

> "*In short, fit testing is essential to ensure that respiratory protective equipment actually protects.*"[170]

167 Susan Hopkins 18 September 2024 83/19-23; see also Jenny Harries 6 November 2024 162/9-13
168 INQ000474276_0080 para 215
169 Susan Hopkins 18 September 2024 86/22-24; INQ000474276_0086 para 228
170 INQ000347822_0066 para 302

It is also "*required as a control measure to comply with health and safety legislation*".[171] The Health and Safety Executive also provides guidance on fit-testing.[172]

Alternative respirators

2.103. Facial hair, glasses and religious head coverings (and other PPE such as visors or goggles) worn by healthcare workers can affect the tight fit of respirators such that the Health and Safety Executive recognises that FFPs "*would not be suitable*" for these workers.[173]

2.104. Ahead of the pandemic, Health and Safety Executive guidance stated that, if a worker could not be clean-shaven for religious reasons, the employer should make alternative arrangements to either prevent or adequately control the risk.[174] Both the Advisory Committee on Dangerous Pathogens (on 13 February 2020) and the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) (on 27 March 2020) stated that, if a healthcare worker did not shave their beard, they should be provided with powered respirator hoods.[175] If a healthcare worker did not have access to a mask that had passed a fit test, then their employer should have put contingency arrangements in place, such as not deploying the healthcare worker to a high-incidence area or providing them with a loose-fitting powered respirator hood (which does not require fit-testing).[176] The Inquiry heard evidence that this did not always happen.[177]

Fit-testing capacity

2.105. At the start of the pandemic, "*staff trained to perform fit-testing were few and far between*".[178] Dr Shin, Professor Gould and Dr Warne explained that, before the pandemic, FFP3 masks were only used in a small number of areas, whereas, during the pandemic, FFP3 use increased to include "*perhaps most clinical staff*".[179] As a result of the increased use of FFP3 masks, the number of healthcare workers who required a fit test in March 2020 rapidly grew and more healthcare workers had to be trained to conduct fit-testing.[180] Several hospitals described the difficulties in carrying

171 INQ000347822_0065 para 296; see also the Approved Code of Practice to the Control of Substances Hazardous to Health Regulations 2002, p40, para 160 (https://www.hse.gov.uk/pubns/books/l5.htm; INQ000269676). The Code gives advice on how to comply with relevant health and safety law, although employers can use alternative methods to meet their legal obligations (p2). Inspectors for the Health and Safety Executive may inspect the provision of fit-testing to ensure compliance. See *Guidance on Respiratory Protective Equipment (RPE) Fit Testing*, Health and Safety Executive, March 2019, p1 (INQ000269542).
172 *Guidance on Respiratory Protective Equipment (RPE) Fit Testing*, Health and Safety Executive, March 2019, p1 (INQ000269542)
173 INQ000347822_0068 para 317
174 For example, INQ000130552_0032 para 109
175 INQ000251902_0009; INQ000220132_0007
176 INQ000347822_0066 paras 303-305; Christopher Wormald 12 November 2024 41/11-15
177 Jaswinder Singh Bamrah 8 October 2024 28/5-10
178 INQ000474282_0080 para 7.21
179 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 38/1-5
180 INQ000474282_0080 para 7.17

out fit-testing at a sufficient scale to meet demand and how, on occasion, demand outstripped supply.[181]

2.106. The potential difficulties with scaling up fit-testing at the start of the pandemic were foreseen ahead of the pandemic. In 2016, the NERVTAG Facemask and Respirators sub-committee noted that "*just in time*" fit-testing (ie carrying out a fit test when it is required rather than in advance) may not work in a pandemic, as there may:

> "*not be sufficient time to put this in place, between pandemic virus emergence and the first UK impact. It was agreed that there is no substitute for a rolling programme of fit-testing in NHS trusts during inter-pandemic periods.*"[182]

2.107. A rolling programme of fit-testing is required across the UK in all healthcare settings where either healthcare workers will need respirators in the event of a pandemic or healthcare workers may be redeployed to a setting that requires respirators. In the event of a respiratory pandemic, those workers are all likely to require respirators. This programme would minimise the spike in the number of healthcare workers requiring a fit test in the event of a pandemic and also increase the opportunities for healthcare workers to identify a type of mask that fits them ahead of a surge in demand during a pandemic.

Recommendation 3: Better preparation for fit-testing

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with employers, including health boards and trusts, to review the availability of qualified fit testers and take steps to increase the number of fit testers accordingly. Availability should be reviewed every three years in line with the Inquiry's Module 1 Report (Recommendation 4).

The Health and Safety Executive and the Health and Safety Executive for Northern Ireland should update their guidance to employers to emphasise the need to ensure that sufficient fit-testing capacity is available.

Recording fit-test results

2.108. Before the pandemic, the Health and Safety Executive's *Guidance on Respiratory Protective Equipment (RPE) Fit Testing* (which applied in England, Wales and Scotland) advised that a fit-test report should be produced after a fit test and be retained "*for at least five years*".[183] The Health and Safety Executive for Northern

181 For example, INQ000477597_0033 para 113; INQ000471398_0023-0024 paras 94-95; INQ000471161_0027 para 121; INQ000480136_0043 para 192; INQ000474259_0138-0139 para 334
182 INQ000257946_0002
183 *Guidance on Respiratory Protective Equipment (RPE) Fit Testing*, Health and Safety Executive, March 2019, p5 (INQ000269542). RPE is a type of PPE designed to protect the wearer from inhaling hazardous substances in the workplace.

Ireland also referred to the Health and Safety Executive's guidance in its own documentation.[184]

2.109. In June 2022, the Department of Health and Social Care worked with the NHS Electronic Staff Record team to record centrally "*data on trained fit testers*" and FFP3 mask fit-testing and outcomes for NHS staff working in England. In addition, the information "*can be used to inform procurement and supply decisions as well as following staff members should they move between NHS organisations*".[185]

2.110. It is not known whether that information is also centrally recorded in the other three nations. There are clear benefits to doing so. The fit-testing record of a healthcare worker can travel with them if they move to a different trust or health board. Healthcare employers can understand the number and types of masks that are required to meet the needs of their workforce and plan for their needs in the event of a future pandemic. It would reduce the need for a healthcare worker to undergo further fit-testing when they start work in a new location, saving time and the expense of tests. Finally, it would identify if an employee has passed fit-testing on a mask that a trust does not stock, enabling those types of masks to be obtained.

2.111. Healthcare employers across the UK should make fit-test reports available to a healthcare worker's new employer whenever a healthcare worker moves to a different trust or health board. While this could be done through, for example, the Electronic Staff Record, the four governments of the UK are best placed to decide how to record that fit-testing information, taking into account their current systems and in the knowledge of any planned changes to those systems.

Hospital-acquired infections

2.112. Regardless of whether there is a pandemic, there is always a degree of hospital-acquired infection from different pathogens. The high transmissibility of Covid-19, the challenges of the hospital estate and the inherent vulnerability of unwell patients meant that some level of hospital-acquired (also known as 'nosocomial') infection of Covid-19 was inevitable. This is an issue of great concern raised by many bereaved family members.

Prevalence of hospital-acquired Covid-19 infections

2.113. Dr Shin, Professor Gould and Dr Warne observed:

> "[I]*t is difficult to confidently state whether a Covid-19 infection in hospitalised patients was acquired nosocomially, even using the most sophisticated scientific methods.*"[186]

184 INQ000650758_0003
185 INQ000389241_0084 para 286; see also INQ000339334_0001
186 INQ000474282_0108 para 11.9

The most frequently used definition of a hospital-acquired infection is where the disease develops more than 48 hours after admission to hospital.[187] However, that definition was "*inappropriate*" for patients with Covid-19, as the mean incubation period of Covid-19 is approximately five days.[188] Accordingly, alternative definitions were adopted.[189]

2.114. Dr Shin, Professor Gould and Dr Warne stated:

> "*Estimates of the proportion of SARS-CoV-2 infections acquired in hospital range between 5 to 20% of all Covid-19 cases identified in acute hospitals. This number varies based on their timing in the pandemic, geography, patient population, and study methodology.*"[190]

They noted that it is:

> "*challenging to quote an exact number of people who acquired their infection in hospital in the UK … Overall, it is therefore highly likely that the true number of patients who contracted a hospital-acquired Covid-19 infection in the UK is well over 100,000.*"[191]

Severity of hospital-acquired infections

2.115. Dr Shin, Professor Gould and Dr Warne stated: "[T]*he evidence that hospital acquired infection led to worse outcomes is inconsistent*."[192] This inconsistency appears to have arisen because data from the first wave of the Covid-19 pandemic in England found a difference in mortality rates between hospital-acquired infection and community-acquired infection but did not adjust for other factors, such as increased age and comorbidities.[193] When the data were adjusted, studies found the mortality rate of hospital-acquired infection was "*the same as a community-acquired infection*".[194] Analysis of nationwide surveillance data in Wales reached the same conclusion.[195]

2.116. While the mortality of patients with hospital-acquired infection was very high with the original strain of the virus, the mortality rate reduced with each subsequent variant:

187 INQ000474282_0103 para 11.3
188 INQ000474282_0103 para 11.3
189 INQ000474282_0103 para 11.4
190 INQ000474282_0111 para 11.17. Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is the virus that causes the disease Covid-19.
191 INQ000474282_0111 para 11.17
192 INQ000474282_0113 para 11.26
193 INQ000474282_0111-0112 paras 11.19, 11.21
194 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 151/18-152/3; see also IN0000474282_0112 para 11.21
195 INQ000474282_0112 para 11.22

- A paper produced by the UK Health Security Agency on 23 June 2021 analysed data up to the end of April 2021. The paper identified that there had been 29,950 hospital onset cases (ie a positive specimen was returned 15 or more days after hospital admission), of which one-third (9,854 patients) died.[196]
- Scottish all-cause mortality data for definite hospital onset infection were 31.2% for what the study defined as the pre-Alpha wave (before 3 January 2021), 21.8% for the Delta wave (between 16 May and 12 December 2021) and 10.7% for the Omicron wave (after 12 December 2021).[197]
- Data from Wales were similar and showed mortality for definite hospital onset infection of 30.7% for what that study defined as the first wave (up to 26 July 2020), 25.9% for the second wave (27 July 2020 to 16 May 2021), 15.5% for the third wave (17 May to 19 December 2021) and 12.2% for the fourth wave (20 December 2021 to 31 March 2022).[198]

2.117. Dr Warne attributed the reduction in the mortality rate to:

> "*probably a combination of things. There was a significant drop in mortality associated with vaccination, once the vaccines were rolled out. There also appeared to be -- each subsequent variant to an extent was less virulent than the prior one, so less likely to cause severe disease.*"[199]

The factors that affect the number of hospital-acquired infections

2.118. The evidence suggests that the source of hospital-acquired infections for patients and healthcare workers varied. As Dr Shin, Professor Gould and Dr Warne explained, the "*majority of patient healthcare-associated infections comes from other patients*".[200] However, "*the source of Covid-19 infections in staff is more complicated, with roles for both hospital and community infection, from other* [healthcare workers] *and patients*" and different studies found varying levels of importance of each of those factors.[201]

2.119. Transmission from patient to patient is "*either directly or via indirect spread in the environment, or* [healthcare workers] *as vectors*".[202] The main source of transmission to other patients was those "*who themselves acquired SARS-CoV-2 infection in hospital*".[203] For example, one study found that "*40%–50% of hospital onset patient cases resulted in onward transmission compared to 4% of community acquired cases*".[204] Dr Shin, Professor Gould and Dr Warne believed the "*most likely*

196 *Covid LoS and Mortality: Descriptive Analyses of SUS Data*, UK Health Security Agency, 22 June 2021, p11 (INQ000348633); INQ000410867_0083
197 INQ000474282_0112 para 11.23
198 INQ000474282_0113 para 11.24. Comparable data for England and Northern Ireland have not been provided.
199 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 152/22-153/10
200 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 46/25-47/2
201 INQ000474282_0120-0121 para 11.36
202 INQ000474282_0119 para 11.35.1
203 INQ000474282_0119 para 11.35.1
204 INQ000474282_0119 para 11.35.1

explanation" was because patients with community-acquired infections who arrive in hospital:

> "*are likely past their peak infectivity but are more likely to be effectively isolated with appropriate PPE precautions; whereas hospital acquired cases are likely to reach peak infectivity at, or just before, the time of symptom onset and are less likely to be effectively isolated*".[205]

2.120. The role of visitors in the transmission of Covid-19 in hospitals is unclear, with "*limited evidence to quantify the impact of restricted visiting on nosocomial transmission*".[206] There were no national surveillance studies or routinely collected data for hospital visitors and so the studies performed in relation to both healthcare workers and patients could not be undertaken for visitors.[207]

2.121. Dr Shin, Professor Gould and Dr Warne identified two groups of factors that contributed to hospital-acquired infections:

> "*individual factors (where individuals with Covid-19 were able to transmit the virus within hospital) and environmental factors (where the hospital environment facilitated transmission)*".[208]

2.122. The individual factors included:

- the infection not being identified on admission or transfer – for example, the patient was asymptomatic, symptoms had not yet developed or the infection was not promptly diagnosed;
- a Covid-19 patient not being able to be isolated quickly or adequately – for example, when side-room isolation capacity was exceeded;
- the infection being brought into the hospital by a healthcare worker or a visitor; and
- visitors failing to adhere to Covid-19 infection prevention and control guidance.[209]

2.123. The environmental factors included:

- the nature of the hospital buildings – for example, where ventilation systems in older NHS hospitals did not meet modern standards, where there was a lack of isolation side-room capacity and where open-plan wards were not well segmented;

205 INQ000474282_0119 para 11.35.1
206 INQ000474282_0122 para 11.38.1
207 INQ000474282_0122 para 11.38.2
208 INQ000474282_0123 para 11.39
209 INQ000474282_0123 para 11.40

- sub-optimal infection prevention and control practices on hospital wards – for example, poor adherence to PPE guidance or poor cleaning of high-touch surfaces on wards;
- equipment being shared between Covid-19 patients and non-Covid-19 patients; and
- staff outbreaks linked to rest areas where it was difficult, if not impossible, to socially distance and there were many common high-touch surfaces.[210]

2.124. Dr Warne also highlighted that patients over 60 years of age and patients with a higher number of comorbidities "*were more likely to have hospital-acquired infections*", as were hospitals "*where patients are resident for longer and wouldn't generally admit community-acquired cases*".[211]

2.125. There is no clear evidence that wider use of FFP3 masks would have significantly reduced the number of hospital-acquired infections. As set out above, Dr Shin, Professor Gould and Dr Warne stated that most patient infections come from other patients and therefore:

> "*the use of FFP3 respirators by healthcare workers is unlikely to have substantially changed the number. It may have done a small amount.*"[212]

2.126. Although hospital-acquired infections were not necessarily the result of infection prevention and control failures, it is clear that these measures did play an important role in reducing hospital-acquired infection rates.[213] As noted by Dr Shin, Professor Gould and Dr Warne:

> "*Whatever their individual contribution, it is likely that a combination of* [infection prevention and control] *approaches was effective in reducing transmission. A modelling study from authors affiliated with UKHSA* [UK Health Security Agency] *estimated that the combination of interventions used to reduce nosocomial transmission from March 2020 to July 2022 averted 400,000 infections in inpatients and 410,000* [healthcare worker] *infections.*"[214]

2.127. Even after considering the inherent uncertainty involved in models, the overall finding of this study reinforces the need for good adherence to infection prevention and control measures. They are an effective tool in reducing the number of hospital-acquired infections that occur during a pandemic and also provide a measure of assurance for healthcare workers and patients that a level of protection is in place.

210 INQ000474282_0123-0124 para 11.41
211 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 150/8-20; INQ000474282_0110 para 11.15.2
212 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 47/2-4
213 See also Frank Atherton 30 September 2024 52/4-10, 52/23-53/1
214 INQ000474282_0087 para 9.2

Chapter 3: Protecting the vulnerable

Introduction

3.1. In March 2020, the shielding programme was introduced across the UK to try and protect people who, due to their age or underlying health conditions, were at greater risk of serious illness or death from Covid-19. It resulted in more than 2 million people identified as 'clinically extremely vulnerable' being advised not just to stay at home but to avoid non-essential face-to-face contact. Although this was intended as a protective measure, many people who followed the shielding programme became socially isolated.

3.2. In addition to the shielding programme, approximately 17 million people who were 'clinically vulnerable' were advised to minimise contact with people outside their household and to follow social distancing measures strictly. They were not part of the shielding programme and were encouraged to manage their own risk.[1]

3.3. This chapter examines the impact of the shielding programme on people's mental health and wellbeing and considers the problems encountered in identifying people who were clinically extremely vulnerable. It also looks at some of the practical challenges faced by people who were shielding, which included accessing healthcare, and considers the effectiveness of the shielding programme overall.

The shielding programme

3.4. The shielding programme aimed to protect the most vulnerable people from Covid-19-related serious illness and death.[2] However, the novel nature of Covid-19 meant that, initially, there was limited evidence as to who would be most vulnerable to the virus.

3.5. In early March 2020, the Clinical Oversight Group – consisting of representatives from the Department of Health and Social Care, NHS England, NHS Digital, Public Health England, the devolved administrations and the Scientific Advisory Group for Emergencies (SAGE) – agreed that there would be a two-tiered approach to identifying people at the highest risk from Covid-19.[3] The separation of risk into two distinct groups followed recognition that people who were clinically extremely vulnerable would be advised to shield for a long period of time and it would not be appropriate to advise nearly 17 million clinically vulnerable people to do this.[4]

3.6. The clinically extremely vulnerable group comprised people who were immunosuppressed or had a condition which put them at a very high risk of illness from infection with Covid-19.[5] An initial list of six medical conditions formed the

1 INQ000410865_0009-0010 para 25
2 INQ000410865_0009 para 24
3 INQ000410865_0007-0008, 0013-0014 paras 19, 22, 32. The terms 'clinically vulnerable' and 'clinically extremely vulnerable' were not included in guidance until 21 March 2020. NHS Digital became part of NHS England in February 2023.
4 INQ000348020_0008-0009; INQ000410865_0007 para 19
5 INQ000410237_0084 para 9.8

clinical criteria as agreed by the Chief Medical Officers for the four nations of the UK, including, for example, people who had received organ donations, people with some specific cancers and people with severe respiratory diseases or rare diseases. This list formed the basis of determining who met the criteria for inclusion in the shielding programme and who would be added to the Shielded Patient List.[6]

3.7. The clinically vulnerable group included people aged 70 or older, people under 70 with an underlying health condition that meant they were eligible for the flu vaccination, and pregnant women.[7]

3.8. On 16 March 2020, Boris Johnson MP (Prime Minister from July 2019 to September 2022) announced that "*those with the most serious health conditions* … [would be] *largely shielded from social contact for around twelve weeks*".[8] This was followed, on 22 March 2020, by Robert Jenrick MP (Secretary of State for Housing, Communities and Local Government from July 2019 to September 2021) urging people in England who faced the highest risk of being hospitalised by the virus to shield themselves and stay at home from that date.[9] This marked the beginning of the shielding programme, and between 22 and 26 March 2020 the shielding programme was rolled out across the UK.[10]

3.9. Clinically extremely vulnerable people with a condition on the list received 'shielding letters' advising them to stay at home and to avoid face-to-face contact with anyone unless it was essential, for an initial period of 12 weeks (until mid to late June 2020). This period was subsequently extended until August 2020 across the UK.[11] It resumed in England on 6 January 2021 and ran until 1 April 2021 but was not formally reintroduced in Wales, Scotland or Northern Ireland.[12]

3.10. The UK Clinical Panel for Shielded Patients was established in April 2020, chaired by Professor (later Dame) Jenny Harries (Deputy Chief Medical Officer for England from July 2019 to March 2021) and attended by senior clinical representatives from the offices of the UK's four Chief Medical Officers. The panel had responsibility for reviewing the evidence that formed the basis of the clinical criteria for inclusion on the Shielded Patient List. It also advised the Chief Medical Officers on whether the criteria should be changed.[13] The clinical criteria were only changed if all the Chief Medical Officers agreed.[14] While some changes to the clinical criteria for inclusion were applied simultaneously across the UK throughout the pandemic, there were

6 INQ000410237_0086-0087 para 9.15
7 INQ000410237_0085-0086 para 9.14
8 'Prime Minister's Statement on Coronavirus (COVID-19): 16 March 2020', UK Government, 16 March 2020 (https://www.gov.uk/government/speeches/pm-statement-on-coronavirus-16-march-2020; INQ000203947_0003)
9 INQ000410237_0081
10 INQ000410237_0081: 22 March 2020 in England; INQ000421784_0079 para 112: 25 March 2020 in Northern Ireland; INQ000416178_0071-0072 para 207: 24 March 2020 in Wales; INQ000485979_0250: 26 March 2020 in Scotland.
11 It continued until 5 October 2020 in some areas of England due to high rates of transmission (INQ000410237_0082; INQ000421784_0081 para 114; INQ000485979_0252; INQ000416178_0074 para 218).
12 INQ000410237_0083
13 INQ000410865_0018 para 48. The Chief Medical Officers for the four nations of the UK and Office of the Chief Medical Officer (for England) led the development of the clinical criteria for inclusion in the shielding programme and were responsible for updating guidance and oversight of processes used to identify those most at risk.
14 INQ000410865_0018 para 48

instances when this did not occur.[15] For example, motor neurone disease was included in the criteria in Northern Ireland from 2 April 2020 but not until 28 April 2020 in England.[16]

The impact of the shielding programme on people's mental health and wellbeing

3.11. At the outset, it was recognised that the protective aim of the shielding programme would nonetheless have both short and long-term impacts on people's mental health and wellbeing. As Professor Sir Christopher Whitty, Chief Medical Officer for England from October 2019, stated:

> "*Shielding conceptually was likely to reduce the incidence of infection and therefore reduce the risk of severe disease in the most vulnerable. On the other hand it led to significant distress, loneliness, risk of increased fear and practical limitations on the lives of those shielded even in addition to the effects of lockdown … Clinicians, including in OCMO* [Office of Chief Medical Officer]*, recognised these risks from before the start of the programme.*"[17]

3.12. These concerns echoed some of the accounts given by clinically extremely vulnerable people to the Inquiry's listening exercise, Every Story Matters:

> "*I was told not to even go outside to my own bin because it was deemed too dangerous. This was incredibly scary, being told that I was likely to become seriously ill or die if I were to be exposed to Covid-19.*"[18]

> "*I was so scared of catching Covid-19 and dying; so many people died. I have this very rare eye cancer … I was so scared of getting Covid-19. I didn't leave* [my town] *except for one time, which was an appointment for my diabetes.*"[19]

3.13. Early in the pandemic, attention was drawn to the mental health risks of shielding – for example, by Professor Harries during 10 Downing Street briefings.[20] Efforts were also made to signpost services that could support clinically extremely vulnerable people to protect their mental health and wellbeing. For example, mental health helpline The C.A.L.L. was set up in Wales from 24 March 2020, Northern Ireland introduced a Covid-19 Community Helpline from March 2020 (which included support for mental health concerns) and Public Health England regularly updated the guidance for the general public on mental health and wellbeing.[21] The services and

15 INQ000410237_0081; INQ000416178_0073 para 213; INQ000485979_0261
16 INQ000421784_0075, 0082-0083 paras 103, 115; INQ000389241_0092 para 309
17 INQ000410237_0079 para 9.1
18 *Every Story Matters: Healthcare*, p190 (INQ000474233)
19 *Every Story Matters: Healthcare*, p192 (INQ000474233)
20 Jenny Harries 6 November 2024 107/24-108/3
21 INQ000226987_0004; INQ000421784_0085 para 120; INQ000485652_0551-0552 paras 1911-1912

guidance, however, were designed for the general public and were not specifically intended for the clinically extremely vulnerable population.

3.14. Despite the initiatives and support offered, many people found that the isolation and loneliness of shielding negatively affected their mental health.[22] In June 2020, a study of clinically extremely vulnerable people conducted by the Office for National Statistics in England found that 35% of these individuals reported their mental health and wellbeing as worsening during the pandemic.[23] This was reflected in accounts provided to Every Story Matters:

> "*My sisters were able to go places together and do things, and my daughter and her children and stuff … and I just had to watch them, so we became more isolated as the time went on and you had less people to talk to. And it got to the stage then where … you ended up getting into bed and you didn't want to come out, even on the most beautiful day of the year, because I had nothing to get up for.*"[24]

> "*I was getting to the stage where I couldn't cope … and only having* [my mother] *really to speak to, that was a big thing because my whole life was quite social. I was lonely, and I tried not to let that affect me too much. It was driving me absolutely crazy.*"[25]

3.15. The Inquiry does not underestimate the difficult balancing exercise that was required to protect people at the highest risk from Covid-19. From the inception of the shielding programme, it was appreciated that asking people to shield would cause significant disruption and that some people's mental health and wellbeing would suffer. However, as discussed below, difficulties in identifying who should shield and a lack of engagement and poor communication with clinically extremely vulnerable and clinically vulnerable people undoubtedly contributed to the feelings of fear, confusion and isolation experienced by so many.

Identifying the clinically extremely vulnerable

3.16. At the outset of a pandemic, prompt identification of people who are at a higher risk of serious illness (morbidity) or death (mortality) from the pandemic disease is vital so that they can be advised on how best to protect themselves. During the Covid-19 pandemic, clinically extremely vulnerable people were identified either through digital cohorting or manually by a GP or other clinician.

22 INQ000401271_0123 para 9.3.6
23 'Coronavirus and shielding of clinically extremely vulnerable people in England: 28 May to 3 June 2020', Office for National Statistics, 15 June 2020 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/coronavirusandshieldingofclinicallyextremelyvulnerablepeopleinengland/28mayto3june2020; INQ000339238_0003)
24 *Every Story Matters: Healthcare*, pp192-193 (INQ000474233)
25 *Every Story Matters: Healthcare*, p192 (INQ000474233)

Digital cohorting

3.17. In March 2020, identifying clinically extremely vulnerable people was largely based on medical records and data systems. The list of clinical conditions included in the clinically extremely vulnerable group was translated into clinical codes, which were applied to electronic patient records to identify which patients satisfied the clinical criteria for inclusion in the group. This process is known as 'digital cohorting'.[26]

3.18. Each healthcare system in the four nations has its own data systems and the Inquiry heard that these records were not always easily accessible or accurate.[27] For example, the Royal College of General Practitioners stated:

> "*None of the individual databases were fully 'accurate' and they were not properly linked up, causing delays. For example, if someone was prescribed an immunosuppressant in a hospital setting, it did not appear automatically in either their GP record or a hospital record.*"[28]

The *Technical Report on the Covid-19 Pandemic in the UK*, prepared by the Chief Medical Officers and Chief Scientific Advisers for the four nations of the UK in December 2022, noted:

> "*The quality, breadth and completeness of data and evidence available on clinical vulnerability impacted the accuracy of the shielding list, and these improved throughout the pandemic.*"[29]

3.19. NHS England worked with NHS Digital to create and maintain the Shielded Patient List in England, which required connecting seven databases. The first iteration of the list was available within seven days.[30] Professor Harries said that "*the data foundry in the NHS has improved significantly*" but indicated that she still considered that if a pandemic struck again "*we would hit many of the problems that we had before*".[31] Sir Christopher Wormald (Permanent Secretary to the Department of Health and Social Care from May 2016 to December 2024) acknowledged that, as of November 2024, access to data was "*better but not good enough*".[32]

3.20. In Scotland, the initial identification exercise took "*some weeks*", as the process required analysis of healthcare and prescription records, which were held both centrally and locally.[33]

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26 INQ000410237_0087-0088 para 9.17
27 INQ000485979_0232 para 822; *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642); Jenny Harries 6 November 2024 74/6-14; INQ000416178_0069 para 198; Robin Swann 18 November 2024 132/22-133/2; INQ000421784_0085-0086 para 121
28 INQ000339027_0028 para 161
29 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
30 Jenny Harries 6 November 2024 74/6-14; INQ000412890_0160-0161 paras 607, 609
31 Jenny Harries 6 November 2024 78/9-14
32 Christopher Wormald 12 November 2024 59/15
33 INQ000485979_0232 para 822

3.21. In Wales, the identification of clinically extremely vulnerable people through electronic data records was a "*significant and complex task*" that required analysis of 11 nationwide datasets collected by NHS Wales.[34] The time it took to produce the letters led to a delay of at least two weeks in shielding letters arriving. The 'Shielding Lessons Learned Review – March 2020 to June 2021' said that this was "*not ideal given the immediacy of the message some of the letters needed to convey*".[35] It also concluded that the Welsh Government's pre-pandemic planning was inadequate, which made the planning and delivery of the shielding programme even more challenging. This was exacerbated by a change in ministerial responsibility in June 2020.[36] The review recommended:

> "*clear governance … reporting structures and decision-making processes* [from] *the outset … prioritise use of accessible formats … an 'emergency response' objective for the Data Sharing powers*".[37]

3.22. Sir Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025, told the Inquiry that there had been a "*huge effort to try to improve*" the data systems required to identify at-risk people rapidly but that they were still not in place in September 2024.[38] He told the Inquiry: "[W]*e are behind the curve in Wales on digital records.*"[39]

3.23. In Northern Ireland, 370 databases had to be checked manually to identify clinically extremely vulnerable people through clinical records. Professor Sir Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, believed that due to "*information and IT challenges … it may have taken a couple of weeks for all of these letters to be issued*".[40]

3.24. At the start of the Covid-19 pandemic, the data systems used in each of the four nations were not sufficiently connected to allow for prompt identification of clinically extremely vulnerable people, leading to delays in notifying some individuals in March and April 2020 that they should shield. Clearly, the later a clinically extremely vulnerable person starts to shield, the higher the risk that they might become infected.

3.25. Difficulties in sharing and linking data also affected healthcare professionals' ability to provide clinically extremely vulnerable patients with appropriate and timely support during the first shielding period. For example, it was not until October 2020 that mental health providers in England could apply for information about which of their patients were on the Shielded Patient List so that providers could "*proactively*

34 INQ000416178_0069 paras 198, 200
35 INQ000066553_0005
36 INQ000066553_0005-0006
37 INQ000066553_0008
38 Frank Atherton 30 September 2024 77/13
39 Frank Atherton 30 September 2024 77/11-12
40 Robin Swann 18 November 2024 132/22-133/2; INQ000421784_0079 para 112

contact their CEV [clinically extremely vulnerable] *patients, where appropriate, and … tailor those patients' care plans as needed*".[41]

Improvements to data systems

3.26. NHS England subsequently launched a pilot of the software known as the Federated Data Platform in 2022, with full rollout from April 2024, to "*link systems and provide a consistent technical means of linking data that is already collected for patient care*" and to allow trusts and integrated care boards to connect and share information.[42] Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, said that "*early evidence from pilot sites shows significant and measurable benefits being realised*".[43] Sir Christopher Wormald understood that the Federated Data Platform included "*collation and deployment of disability-related data*".[44] The Inquiry encourages widespread use of the Federated Data Platform and equivalent data-linking systems to ensure that individuals who are at high risk from a pandemic disease are accurately and quickly identified.

3.27. The November 2024 report produced by Professor Cathie Sudlow (Chair of Neurology and Clinical Epidemiology at the University of Edinburgh) on the UK health data landscape, made a series of important recommendations to address the complex systems and governance arrangements that prevented multiple sources of data being securely accessed.[45] The report highlighted the need for electronic patient record systems in NHS hospitals to be compatible at a national level, for more granular coding of hospital data and to allow for real-time access.[46] This would increase the detail and timeliness of accurate patient data and is likely to assist in identifying those most at risk in any future pandemic.

3.28. In May 2025, in Northern Ireland, a new electronic clinical record system (known as 'encompass') was introduced in all Health and Social Care trusts, allowing health and social care staff to access patient information in one place.[47] Robin Swann MLA, Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024, said that he hoped the introduction of encompass would make identification of who should receive a shielding letter a "*more efficient and easier system to use because of that data and it actually being held centrally*".[48]

41 INQ000412890_0175 para 668
42 INQ000485652_0551-0552 paras 1911-1912; INQ000655845_0002
43 INQ000485652_0551-0552 paras 1911-1913
44 Christopher Wormald 12 November 2024 99/7-19
45 *Uniting the UK's Health Data: A Huge Opportunity for Society*, C Sudlow, 8 November 2024, pp18-21 (https://www.hdruk.ac.uk/helping-with-health-data/the-sudlow-review; INQ000474861)
46 *Uniting the UK's Health Data: A Huge Opportunity for Society*, C Sudlow, 8 November 2024, pp143, 209 (https://www.hdruk.ac.uk/helping-with-health-data/the-sudlow-review; INQ000474861)
47 INQ000421784_0086 para 121; 'A new era in Northern Ireland's health service as all Trusts "Go-Live" on encompass', Department of Health, 8 May 2025 (INQ000655844_0001-0002)
48 Robin Swann 18 November 2024 71/2-9

3.29. In England, the Data (Use and Access) Act 2025 is also intended to improve sharing and linkage of patient health data across healthcare IT systems.[49] Steps are being taken in Wales and Scotland to improve the digitalisation of healthcare records. In Scotland, the Care Reform Bill was passed in June 2025 and provides for the creation of a digital care record for every individual receiving healthcare in Scotland.[50] In Wales, although an implementation date is not yet available, the Integrated Care Record is intended to integrate patient and service user data across health and social care.[51] These changes are positive and could support timely access to patient health data across healthcare providers.

Manual identification by GPs and clinicians

3.30. At the start of the shielding programme, GPs and specialist clinicians across the UK in primary and secondary care were asked to identify patients who met the clinical shielding criteria, or who were considered to be at very high risk and were not already on the Shielded Patient List.[52] This led to a substantial increase in the Shielded Patient List. In May 2020, the list grew to 2.2 million in England, and in Wales about 4,300 patients were added by GPs while estimates suggested that about 13,000 people were to be added by secondary care professionals.[53]

3.31. The Inquiry heard how the opportunity for some GPs to identify their patients as clinically extremely vulnerable and add them to the Shielded Patient List was beneficial. As one mother of a clinically extremely vulnerable disabled child explained:

> "*I had to fight to get my son identified as vulnerable during the early days of Covid. He never received an official shielding letter initially but thankfully my GP gave me one as he could see that he was vulnerable.*"[54]

3.32. However, some patients were confused about which conditions were included in or excluded from the clinical criteria.[55] One member of Clinically Vulnerable Families, a Core Participant, said:

49 Data (Use and Access) Act 2025, Schedule 15 (https://www.legislation.gov.uk/ukpga/2025/18/contents)
50 Care Reform (Scotland) Act 2025, section 1 (https://www.legislation.gov.uk/asp/2025/9/contents)
51 'Integrated Care Record', Digital Health and Care Wales, undated (https://dhcw.nhs.wales/product-directory/our-digital-services/connecting-care/integrated-care-record; INQ000655846)
52 INQ000410237_0088 para 9.17; INQ000416178 _0069-0070 paras 200-201. The searching of secondary care records was adopted from the end of April 2020 in Wales, which was later than in England; see INQ000484783_0048 para 204; INQ000421784_0079 para 112.
53 INQ000410237_0081; INQ000227084_0001, 0004. The Inquiry was not provided with evidence that confirms the number of people that were in fact added to the list by secondary care professionals.
54 INQ000409574_0032 para 76
55 INQ000409574_0011 para 16; *Protecting and Supporting the Clinically Extremely Vulnerable During Lockdown*, Ministry of Housing, Communities and Local Government, 10 February 2021, p32, paras 2.11-213 (https://www.nao.org.uk/reports/protecting-and-supporting-the-vulnerable-during-lockdown; INQ000059879)

> "*We started shielding a couple of weeks prior to lockdown as it was obvious what was going to happen, and I knew I was highly vulnerable. I was happy to shield but I was not happy to be erroneously missed off the shielding list. It took me about 3 weeks and many emails to the GP and consultants to finally get on it, despite an absolutely cut and dried reason.*"[56]

3.33. Dr Michael Mulholland, Honorary Secretary of the Royal College of General Practitioners, told the Inquiry that GPs had "*many, many calls from patients*" who thought that they were clinically extremely vulnerable but who in fact did not meet the criteria.[57] He said this led to:

> "*some difficult conversations … trying to explain why someone who felt vulnerable wasn't in … one of these extremely vulnerable lists*".[58]

Every Story Matters reported that some GPs had said that it was "*difficult to advise patients because the risks for different conditions were not well understood*".[59]

3.34. In a future pandemic, the manual identification of patients by clinicians may be needed alongside any digital process of identification. Guidance with clear instructions should be provided to clinicians so that they can correctly advise patients who should be on the list and provide information to patients to help them understand why they may not have been advised to shield.

'QCovid' risk stratification tool

3.35. Following initial identification of the clinically extremely vulnerable and developments in the scientific understanding of Covid-19, Professor Whitty commissioned a "*predictive risk model*" in May 2020 to estimate the risk of contracting and being hospitalised or dying from Covid-19.[60] In calculating a person's risk, the resulting QCovid tool took account of factors such as age, ethnicity, deprivation, homelessness and sex, in addition to clinical conditions.[61] This was important for understanding who in the population was at risk, to "*better target interventions*" and to "*address health inequalities which had been exacerbated by Covid-19*".[62]

3.36. Early QCovid data were reviewed by the UK's Chief Medical Officers, who agreed that QCovid should be used to "*risk stratify the population*".[63] Professor Whitty explained:

56 INQ000409574_0011 para 16
57 Michael Mulholland 23 September 2024 167/14-15
58 Michael Mulholland 23 September 2024 167/23-25, 168/1
59 *Every Story Matters: Healthcare*, p190 (INQ000474233)
60 INQ000410237_0089 para 9.21
61 INQ000410237_0089-0090 paras 9.21-9.22
62 INQ000410237_0082, 0089 para 9.21
63 INQ000410237_0090 para 9.24

> *"A precautionary approach was taken to records with missing data, in which the highest risk category for ethnicity (Black African) and a higher than average BMI (31) were used as default values to ensure that patients with missing demographic data were not inadvertently disadvantaged by the use of average values."*[64]

3.37. In February 2021, the QCovid data resulted in a major expansion of the Shielded Patient List in England, especially of people from ethnic minority backgrounds. An additional 1.7 million people were added to the list, of which "*86% had an ethnicity recorded, of whom 36% were non-white, compared to 17% non-white ethnicity recorded in the adult population*".[65] The largest increases in the Shielded Patient List were in local authorities with high rates of disparities. The QCovid tool was commended for its focus on addressing inequalities and, in the summer of 2021, it was validated to be performing well in predicting Covid-19 mortality.[66]

3.38. In Wales, Scotland and Northern Ireland, the data from the QCovid research were used to update the clinical criteria categorising a person as clinically extremely vulnerable.[67] Sir Frank Atherton told the Inquiry that, in Wales, they did not initially have an IT system that was able automatically and rapidly to identify people that QCovid had shown were clinically extremely vulnerable, but they were eventually able to do so (a date was not provided to the Inquiry).[68] QCovid was not compatible with some of Scotland's data structures, and thus the tool was not applied to population records.[69]

3.39. Professor Whitty stressed the importance of accurate risk stratification to determine an individual's risk of dying from a pandemic disease, based on more than just specific health conditions.[70] Professor Harries agreed with Professor Whitty and said that it must be clear from the outset of a pandemic who has responsibility and oversight of any future risk stratification tool to ensure swift implementation, as currently it would "*probably*" take months to set up again.[71]

3.40. The value of a risk stratification tool like QCovid relies on accurate and complete patient data and coding in patient records so that people at highest risk from a new disease can be identified quickly and to reduce the risk of worsening health and socio-economic inequalities.

64 INQ000410237_0089-0090 para 9.22
65 INQ000410237_0090 para 9.23
66 INQ000410237_0090 para 9.25; *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
67 INQ000410237_0080 para 9.3
68 Frank Atherton 30 September 2024 76/4-13
69 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
70 Christopher Whitty 26 September 2024 116/16-22, 131/7-12
71 Jenny Harries 6 November 2024 98/19-22, 99/24-100/9, 100/12-21

3.41. The Inquiry acknowledges that some steps have been taken since the Covid-19 pandemic to improve the recording, sharing and linking of patient data. However, the development and implementation of changes is not uniform across the UK and has been too slow. Further substantial work must be undertaken now to improve data systems to ensure that each nation is able to identify individuals at high risk during a pandemic.

Recommendation 4: Improve data systems to identify individuals at high risk during a pandemic

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive must ensure that health data and digital systems have the capability to identify individuals at high risk of morbidity or mortality from a pandemic disease quickly and accurately in a future pandemic. This should include action to improve health data systems and patient record-keeping by:

- improving patient data by enabling more granular diagnostic coding;
- ensuring that care records are compatible across primary and secondary care; and
- enabling secure data-sharing and linkage across multiple health datasets and systems for identifying individuals at high risk.

Communication about clinical risk

3.42. Methods of communicating advice and guidance to the clinically vulnerable and clinically extremely vulnerable differed.

Communication with the clinically vulnerable

3.43. Clinically vulnerable people (who were not advised to shield but were at increased risk from Covid-19) were not provided with separate advice on how to protect themselves, but were referred to within the national guidance. This meant that they had to source advice independently, usually online, to understand the additional precautionary measures they should be taking.

3.44. Not all clinically vulnerable people would have had the ability or the facilities to find the additional information themselves, and this caused some people to feel unsupported, confused and unsure as to how they should protect themselves.[72] A member of Clinically Vulnerable Families said that "[t]*he lack of specific guidance and support made the situation challenging*" and emphasised the need for "*comprehensive assistance and clearer guidelines*" for clinically vulnerable

72 INQ000532396_0005, 0007 paras 18, 22; INQ000409574_0034 para 80

individuals.[73] The government's emphasis on protecting the clinically extremely vulnerable was felt to have led to a lack of understanding from members of the wider public, who made "*dismissive remarks such as 'You are only CV* [clinically vulnerable]*, what are you worried about?'*"[74]

3.45. It would have been a huge administrative burden to attempt to communicate individually with the many millions of clinically vulnerable people. However, it is important that any person who is at risk can access information to understand why they have been identified and how best to protect themselves. In future – and where possible – the people at risk should be consulted on the content of communications and on how best to ensure that the information is widely available and accessible.

Communication with the clinically extremely vulnerable

3.46. Details of the shielding programme were communicated to clinically extremely vulnerable people by letter, in some cases by text message, through guidance made available online, in press conferences, and via medical professionals such as GPs.[75] However, problems with data systems and record-keeping had an impact on both the content and timing of official communications with clinically extremely vulnerable people during the Covid-19 pandemic. For example:

- In March 2020, the Scottish Government wrongly identified people as clinically extremely vulnerable (and thus advised them to shield unnecessarily) but this was not discovered until May 2020, when the individuals were informed of the mistake. The witness statement does not indicate the number of people affected by this error.[76]
- In Wales, the Welsh Government sent 13,000 of the 91,000 shielding letters to the wrong addresses.[77]
- Initially, 375,000 of the 867,789 people in England who had been identified as clinically extremely vulnerable by NHS Digital using NHS England data could not be contacted, as they had missing or inaccurate telephone numbers on their patient records.[78]

3.47. In England, guidance for clinically extremely vulnerable people was not available in large print, audio and British Sign Language video format until 9 December 2020.[79] This was too long after the shielding advice was first given. The Department of Health and Social Care, which had responsibility for communication with the clinically

73 INQ000409574_0035
74 INQ000409574_0035
75 INQ000421784_0079 para 111; INQ000485979_0250; INQ000226987_0001; INQ000408803
76 INQ000485979_0241 para 854
77 INQ000485721_0279 para 725
78 *Protecting and Supporting the Clinically Extremely Vulnerable During Lockdown*, Ministry of Housing, Communities and Local Government, 10 February 2021, p32, paras 2.11-213 (https://www.nao.org.uk/reports/protecting-and-supporting-the-vulnerable-during-lockdown; INQ000059879)
79 INQ000410865_0038 para 102

extremely vulnerable, should have made it available in different formats at the time the shielding programme was announced or very shortly thereafter.[80]

3.48. The Inquiry heard particular concerns about communications with adults with Down's syndrome following the decision of the UK's Chief Medical Officers on 30 September 2020 to add them to the Shielded Patient List.[81]

3.49. Firstly, adults with Down's syndrome were not promptly notified of the Chief Medical Officers' decision, and notification dates differed across the UK. A letter was sent by the Chief Medical Officer in Scotland on 30 October 2020.[82] By 31 October 2020, the Department of Health and Social Care had not notified the individuals affected in England (the date they were notified in England was not provided to the Inquiry).[83] In Northern Ireland and Wales, no contact was made by the Chief Medical Officers until November 2020.[84] The reasons for the delay in notification and the divergence between nations could not be explained to the Inquiry. The delay, however, risked clinically extremely vulnerable individuals not taking sufficient precautions to protect themselves in the autumn of 2020, at a time when, although the shielding programme had been paused, infection rates were rising.

3.50. Secondly, when adults with Down's syndrome in Wales were notified that they were being added to the Shielded Patient List in November 2020, children with Down's syndrome also received shielding letters from Sir Frank Atherton by mistake. It should not have applied to those under 18. They were not notified of the error until 5 January 2021.[85]

3.51. Some people who were shielding reported that there was a lack of information provided in communications, including, for example, guidance on what to do if a carer for a clinically extremely vulnerable person became sick.[86]

3.52. It was also reported that communications could have been more "*empowering*".[87] Dr Catherine Finnis, deputy leader of Clinically Vulnerable Families, described receiving text messages with shielding advice before the shielding letter had been received. She said these were:

> "*very frightening messages to a group of people who hadn't really been given any information on how to reduce their risk … Many clinically extremely vulnerable people didn't see themselves as vulnerable, as indeed I didn't …*

80 INQ000410865_0012
81 INQ000410237_0082
82 INQ000485979_0254; INQ000470017
83 INQ000410865_0020-0021 para 55
84 INQ000421784_0092 para 129; INQ000276298; INQ000469845
85 INQ000469066_0001
86 INQ000224000_0003
87 INQ000224000_0003

> *a lot of us were in those situations and then suddenly we were disempowered hugely by really being told to just 'Stay at Home' … We really didn't know what to do. We felt really stuck.*"[88]

Professor McBride acknowledged the sense of disempowerment felt by some people when he told the Inquiry:

> "[T]*he approach that was taken – in good faith initially – did not fully think through the loss of agency and the loss of control that people would experience.*"[89]

3.53. Advising people at high risk on how to protect themselves will be vital in any future pandemic. The *Technical Report on the Covid-19 Pandemic in the UK* acknowledged that communicating with people about clinical vulnerability can be "*complex*"; therefore, communications needed to be "*clear as to who was vulnerable and why this was changing, as well as what was being asked and why*".[90] As Professor Whitty stated:

> "[Y]*ou cannot overcommunicate in a situation like this, where someone has been essentially taken out of society, and information is very important.*"[91]

3.54. Given the severity of the measures being advised in shielding letters, the content and tone of communication and guidance for clinically extremely vulnerable people must be appropriate and sensitive. Communications will be improved if they are developed in collaboration with people impacted by the shielding advice, which is discussed further below.

Engagement with clinically extremely vulnerable people

3.55. Some of the problems identified with the communications sent to people who were shielding could have been alleviated or minimised had there been better engagement with clinically extremely vulnerable people. The timing of engagement with representative groups and those impacted by the shielding programme varied across all four nations. For example:

88 Catherine Finnis 8 October 2024 81/1-11, 81/24
89 Michael McBride 24 September 2024 103/23-25
90 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
91 Christopher Whitty 26 September 2024 124/2-5

- From the end of April 2020, Public Health England held focus groups with individuals who were clinically extremely vulnerable or clinically vulnerable, or who provided support to a person shielding, to gain feedback on the guidance.[92] Involving the public in the creation of future guidance emerged as a common suggestion.[93] Some of the feedback was implemented in guidance issued between the end of April and June 2020.[94]
- The Welsh Government held ad hoc "*forums*" with representatives from third sector groups, local authorities and community voluntary councils from June 2020.[95] The 'Shielding Lessons Learned Review – March 2020 to June 2021' concluded that the forums provided a "*two-way relationship* [which] *supported policy officials to be able to respond to the needs of the shielding community, while clarifying any areas of ambiguity or consolidating understanding*".[96]
- The Department of Health (Northern Ireland) launched a nationwide survey in June 2020 through the Patient and Client Council, encouraging feedback from individuals advised to shield and those who supported them. The survey showed that "[a] *considerable number of respondents felt that the shielding community was often 'forgotten' or 'ignored' as changes to guidance and restrictions for the wider population were announced*".[97]

3.56. The section below examines the decisions and communications about the future of the shielding programme and highlights the benefit of engagement and impact of non-engagement on those who were shielding.

Pausing of the shielding programme in the summer of 2020

3.57. On 1 August 2020, the shielding programme was paused in England, Northern Ireland and Scotland. This decision was taken primarily due to low community transmission rates and feedback about the adverse mental, psychological and social impacts of shielding.[98]

3.58. In Wales, contrary to the advice of Sir Frank Atherton, who advised that there should be alignment with the rest of the UK, Vaughan Gething MS (Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021) delayed pausing the shielding programme until 16 August 2020.[99] The 'Shielding Lessons Learned Review – March 2020 to June 2021' found that divergence from the rest of the UK may have caused "*confusion*".[100] However, Mr Gething's decision to delay pausing the programme was informed by feedback he had received from

92 INQ000410865_0038 para 100
93 INQ000224000_0003
94 INQ000348087
95 INQ000066553_0005
96 INQ000066553_0005
97 INQ000421784_0088 para 126
98 INQ000410237_0082; INQ000484783_0050 para 212; INQ000421784_0081 para 114; INQ000485979_0228 para 803. It continued until 5 October 2020 in some areas of England due to high rates of transmission.
99 INQ000416178_0074 para 218
100 INQ000066553_0005

the Disability Equality Forum (which advises on issues affecting disabled people in Wales) emphasising the need for adequate warning before pausing the programme and his concern that people may feel "*abandoned rather than liberated by being taken out of shielding*".[101]

3.59. In July 2020, Professor Harries advised the Department of Health and Social Care that pausing the shielding programme could have "*significant associated psychological* [and] *physical impacts*" and recommended that this be "*managed gradually*", with "*detailed clinical professional as well as patient and public communications*".[102] Despite warnings sent to those shielding that the programme would be paused at the end of July 2020, Dr Finnis told the Inquiry that many people felt they "*were really left to their own devices without any help and support at all, either advice or practical support*".[103]

3.60. In July 2020, the Scottish Government sought feedback from people who had been advised to shield to inform its "*ongoing communications strategy*" with this group.[104] During this period, Professor Sir Gregor Smith (Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020) said that it had become clear that "*substantial work was first needed to foster the conditions in communities which could support personal choice*".[105] Caroline Lamb, Director General for Health and Social Care in the Scottish Government and Chief Executive of NHS Scotland from January 2021, accepted that the Health and Social Care Directorate had only "*partially achieved*" this.[106] This was reflected in some of the feedback provided to a user research survey established in Scotland to engage with clinically extremely vulnerable people. An online survey was undertaken between 21 December 2020 and 11 January 2021 (4,590 people responded). It found that 96% of respondents were aware of shielding guidance and 88% found it very or quite clear. However, 15% said that there was not enough communication, and interviews following the survey highlighted that some felt "*unsupported once shielding was paused*".[107]

3.61. Ms Lamb said that the Scottish Government's shielding policy and communications strategy were informed by the feedback, including the decision to continue to support the clinically extremely vulnerable after the shielding advice had ended.[108]

3.62. Similar feedback was received from people shielding in Northern Ireland, who said that "*clear, concise, consistent and regularly updated advice to the shielding population, along with the scientific rationale for such advice*", including information

101 INQ000474252_0042-0043 para 138
102 INQ000410865_0019 para 52
103 INQ000421858_0094 para 313; INQ000106491; Catherine Finnis 8 October 2024 112/14-18
104 INQ000485979_0239-0240 paras 846, 850
105 INQ000484783_0049 para 209
106 Caroline Lamb 14 November 2024 189/17-19
107 INQ000147410_0006, 0008, 0020
108 INQ000485979_0267 paras 899-900

about local infection rates, would have helped "*empower and support them to make their own informed decisions about whether and how to emerge from shielding*".[109]

Approach to shielding from the autumn of 2020

3.63. After August 2020, the shielding programme was not formally reintroduced in Wales, Scotland or Northern Ireland. This was due, in part, to the reported impact that shielding was having on clinically extremely vulnerable people, and the subsequent rollout of the vaccination programme and the development of new treatments.[110] Instead, clinically extremely vulnerable people were advised to undertake a personal risk assessment and to take additional precautions when transmission rates were high. The dates of the advice differed in accordance with the variation in transmission rates across the three nations.[111]

3.64. Professor McBride acknowledged that it had been difficult to support people to make informed choices about the level of risk they were willing to accept:

> "[I]*t proved difficult to provide appropriate reassurance to those who had been previously shielding to resume more normal social interactions, navigate everyday activities and dynamically assess personal risk with appropriate precautions in keeping with the decision to pause shielding … a significant number of those who were previously shielding felt that they were less than fully informed and supported and remained extremely anxious.*"[112]

3.65. A Public Health Scotland survey of 13,581 individuals in October and November 2021 found that the guidance for clinically extremely vulnerable people may, at times, have been "*too generic*", with scope for more targeted risk management guidance to:

> "*help counter the impression of ambiguity in the advice offer*[ed] *or the sense of abandonment among some*".[113]

3.66. The shielding programme was reintroduced in England on 6 January 2021 to coincide with the third lockdown. It was due to end on 21 February 2021 but was extended until 1 April 2021, by which time it was considered that the risks that clinically extremely vulnerable people faced had been mitigated by vaccines.[114] (Module 4: Vaccines and therapeutics is considering eligibility for vaccines in more detail.)

109 INQ000344088_0032-0033
110 INQ000484783_0050 para 213; INQ000421784_0081 para 114; INQ000485979_0228 para 803; INQ000416178_0074 para 219
111 INQ000416178_0074-0075 paras 221-225; INQ000421784_0092-0093 paras 130-131; INQ000485979_0255
112 INQ000421784_0082 para 114
113 *COVID-19 Shielding Programme (Scotland) Impact and Experience Survey – Part Two*, Public Health Scotland, 3 March 2022, p63 (https://publichealthscotland.scot/publications/covid-19-shielding-programme-scotland-impact-and-experience-survey-part-two/covid-19-shielding-programme-scotland-impact-and-experience-survey-part-two-30-march-2022; INQ000147531)
114 INQ000410237_0083

3.67. The shielding programme was not introduced again in England. Subsequently, the Enhanced Protection Programme was implemented in January 2022 in England, which was intended to provide "*appropriate interventions, support and communication*" to individuals with weak immune systems who remained at high risk from Covid-19 following the vaccination.[115]

3.68. One of many emails and letters sent to Professor Whitty by a clinically extremely vulnerable person encapsulated the confusion and challenges that some clinically extremely vulnerable people felt when shielding ended:

> "*I have struggled to get any kind of fresh guidance from the government about the current risks that Omicron, or indeed any newer variants, now pose to me. I have repeatedly told myself to remain patient … and to hope that in the near future, I would be offered an informed view and/or information that would help me to make some kind of judgement about the risks to me, and allow me to make some cautious moves back towards a life, if not a 'normal' life. And still, nothing. No perspective. No parameters … How do I go about making a practical assessment of the risks to myself of 'ending restrictions'? I feel entirely disregarded.*"[116]

3.69. The Inquiry heard that some clinically extremely vulnerable people were still shielding and feared mixing with others because of the continued risks associated with Covid-19. As one contributor told Every Story Matters:

> "[One] *of my friends is older, she's in her 70s, she's not come back to church … she really has no social life whatsoever anymore … her biggest challenge is around the fact that she feels that she's being given this information, that tells her she's vulnerable, that she needs to protect herself, she needs to stay away from people, she is at risk, and that her risk hasn't changed, and that Covid-19 is still around. And so, she struggles to reconcile the fact that it feels like the advice has changed, and yet, the risk is still the same … And so, I think there's a lot of, still, fear wrapped up around all of that for people.*"[117]

3.70. The Scottish Government acknowledged that a "*considerable number*" of the approximately 185,000 people who were on the list may be continuing to restrict contact and "*may not feel supported*".[118] However, it said that, since the shielding programme had ended, it had:

> "*no means of understanding the scale of this issue and how* [it] *might be able to support those individuals so they can start to regain a better quality of life*".[119]

115 INQ000410865_0012-0013
116 INQ000074822_0001-0002
117 *Every Story Matters: Healthcare*, p197 (INQ000474233)
118 INQ000485979_0269 para 910
119 INQ000485979_0269 para 910

3.71. Professor Harries said that the Office of the Chief Medical Officer had worked with a behavioural insight group which had informed the shielding guidance.[120] However, Professor Harries, Sir Frank Atherton and Mr Swann accepted that communication with clinically extremely vulnerable people could have been improved during the pandemic.[121] In November 2024, the UK Health Security Agency, together with the World Health Organization Europe, co-chaired work on risk communication during pandemics.[122] The Inquiry understands that some of this work is ongoing.

3.72. The health departments in each government should ensure that they consult behavioural insight experts when developing communication and advice about clinical risk and seek advice so that they can communicate practical risk prevention steps clearly, both during and at the end of any programme. There should be consultation with people impacted by the shielding advice and representative groups to ensure that appropriate transitional advice and support is available.

Access to healthcare for clinically extremely vulnerable and clinically vulnerable people

3.73. Clinically extremely vulnerable and clinically vulnerable people are more likely to require access to healthcare than the general population due to their age or pre-existing health conditions. This was recognised early on in the pandemic and support with the delivery of prescribed medications formed part of the shielding programme.[123] Some people faced challenges accessing care and treatment during the pandemic, and/or were hesitant to enter healthcare settings due to the risk of catching Covid-19 and messaging to 'Stay Home'.

Support with delivery of medications

3.74. When shielding was introduced in March 2020, clinically extremely vulnerable people were advised to arrange for someone they knew to collect and deliver their medications to them. Alternatively, they could contact their pharmacy directly to make arrangements and could use online services to order repeat prescriptions.[124] In Scotland, the second shielding letter included a unique patient number which enabled people to access support with food and medicine via a text messaging service.[125] Late delivery or non-receipt of the letter meant people might have been unable to benefit from this support.[126]

120 Jenny Harries 6 November 2024 105/11-15
121 Frank Atherton 30 September 2024 137/6-9; Robin Swann 18 November 2024 167/1-20; Jenny Harries 6 November 2024 118/23-25
122 Jenny Harries 6 November 2024 105/15-25
123 INQ000474285_0040 para 107
124 'Guidance on shielding and protecting people defined on medical grounds as extremely vulnerable from COVID-19', Public Health England, 21 March 2020 (INQ000106266_0003, 0009); INQ000120706_0003; INQ000226987_0002; INQ000117028_0004; INQ000408799
125 INQ000117028_0004-0005
126 *COVID-19 Shielding Programme (Scotland) Rapid Evaluation*, Public Health Scotland, 27 January 2021, pp58-59 (https://publichealthscotland.scot/publications/covid-19-shielding-programme-scotland-rapid-evaluation; INQ000202564)

3.75. During March and April 2020, medicine delivery services for clinically extremely vulnerable people were established across the UK.[127] These were intended to be run using community pharmacies and volunteers, with funding provided by each government. Mr Johnson first announced the scheme on 25 March 2020 before a plan or additional funding from the UK government was in place, so initial deliveries were carried out by community pharmacies as a "*discretionary goodwill service*".[128] There were more than 400,000 medicine deliveries in England during the first month.[129]

3.76. The medicine delivery service was a vast undertaking by community pharmacies. Jonathan Rees, a community pharmacist in Wales, told the Inquiry:

> "*My wife and I would walk around our village delivering on the weekend with our three young children to ensure everybody received what they needed.*"[130]

3.77. In England, Scotland and Northern Ireland, support with medicine delivery was funded and available throughout the second wave of the pandemic, but in Wales it ended on 16 August 2020 and was not reinstated.[131] In the summer of 2020, some community pharmacists in Wales were concerned that a "*dependency and expectation of delivery*" had developed.[132] The Welsh Government was advised to manage this through "*robust communications*" with the public and pharmacies.[133] It had intended to use a risk analysis tool to prioritise medicine delivery if it was required after August 2020, but did not know when the tool would be available.[134] The Inquiry has seen no evidence about whether the risk analysis tool was introduced or whether the decision to end medicine delivery was revisited during subsequent pandemic waves. It is clear that support would have been needed in Wales throughout the second wave of the pandemic and so withdrawing medicine delivery in August 2020 was premature.

3.78. The contribution of community pharmacists and the funding provided, albeit after the announcement of the scheme, were key to ensuring that clinically extremely vulnerable people could continue to access their medications without risking coming into contact with the virus. It is likely that funding for and support from community pharmacists will be a necessity if any future shielding programme is introduced.

127 INQ000410237_0081: from 9 April 2020 in England; INQ000485979_0266 paras 888-889: from 8 April 2020 in Scotland; INQ000421784_0078 para 110: the date deliveries started was not provided for Northern Ireland; INQ000226987_0002-0003: from 24 March 2020 in Wales, clinically extremely vulnerable people were advised to contact their pharmacy for delivery of their prescription if required.
128 INQ000409843_0019, 0026 paras 71, 97
129 INQ000340104_0017 para 65
130 INQ000492290_0003 para 13
131 INQ000485979_0256; INQ000492281_0122 para 369; INQ000328674_0002; INQ000066553_0001
132 INQ000136796_0005
133 INQ000136796_0004-0005
134 INQ000136796_0002, 0005

Changes in the use of healthcare services

3.79. During the Covid-19 pandemic, the number of clinically extremely vulnerable and clinically vulnerable people accessing healthcare services fell for three key reasons:

- Some people were reluctant to attend because of the risk of catching Covid-19 or were following government messaging to Stay Home.
- Planned admissions and outpatient appointments were cancelled or rescheduled.
- There was a greater reliance on remote triage systems and a reduction in face-to-face consultations.

Reluctance to attend healthcare settings

3.80. Many clinically extremely vulnerable people delayed, or avoided, attending healthcare settings during the pandemic because of fears that they would contract Covid-19. There was particular concern given the high rates of hospital-acquired infection.[135] A member of Clinically Vulnerable Families described their experience:

> *"Accessing healthcare has been and continues to be an utterly terrifying experience, which has now become considerably worse (with the increased lack of masking or any sensible precautions in place). We have had to postpone multiple appointments and balance up the risk of attending and being exposed to Covid versus our need to see a consultant."*[136]

3.81. As discussed in Chapter 1: Infection prevention and control guidance, all hospital staff in England and Scotland were required from June 2020 to wear fluid-resistant surgical masks at all times and all visitors and outpatients were required to wear face coverings while in healthcare settings.[137] In Northern Ireland, mandatory use of face masks was introduced on 10 August 2020.[138] In Wales, from 28 September 2020, all visitors to healthcare settings were required to wear face coverings, while staff were required to wear face coverings or fluid-resistant surgical masks, depending on the nature of their work and whether they were in a publicly accessible part of the hospital.[139]

3.82. One contributor told Every Story Matters that they felt safer in healthcare settings, where wearing personal protective equipment (PPE) "*was enforced and everybody was doing it, than in shops*".[140]

135 INQ000409574_0062 para 153
136 INQ000409574_0061
137 INQ000261247_0001-0002
138 INQ000588205_0001 para 1
139 INQ000485721_0126 para 315; INQ000392008
140 *Every Story Matters: Healthcare*, p197 (INQ000474233)

3.83. Dr Finnis said that members of Clinically Vulnerable Families had told her that they felt unsafe entering a hospital because staff and patients were not wearing face masks.[141] In May and June 2022, the advice and rules changed in England and Wales, removing the need for healthcare workers to wear a face mask in non-clinical areas and removing the routine requirement for visitors to wear a face covering (the advice continued in Scotland until May 2023).[142] From May 2022, the advice for staff, patients and visitors in Northern Ireland was to wear a face mask in "*patient facing clinical areas*" (the exact date that the advice changed was not provided to the Inquiry).[143] A survey of members of Clinically Vulnerable Families in 2022, before the advice changed, showed that 54% had delayed or cancelled a medical appointment. By October 2022, a further survey showed that this had increased to 91% after the advice changed.[144]

3.84. Some clinically extremely vulnerable people attended healthcare settings in their own face masks, such as FFP3 (filtering facepiece respirator class 3) masks, which they felt provided them with a higher degree of protection against the risk of Covid-19 than surgical masks. However, there were reports of clinically extremely vulnerable people being asked to remove their own FFP3 mask and replace it with a surgical mask when they entered a healthcare environment.[145] A member of Clinically Vulnerable Families said:

> "*Twice when entering hospital (in 2020 and 2021)* [I was] *requested at* [the] *entrance to remove my mask and use basic blue surgical masks. First time, I was wearing my own FFP3, second time wearing Cambridge Mask … I had to convince them, and a senior nurse was called over the first time to give consent.*"[146]

3.85. Dr Ben Warne, an expert witness on infection prevention and control, said that there was no "*good reason*" to prevent patients from wearing their own face masks.[147] He considered that the pandemic had demonstrated more needed to be done to ensure safe access to healthcare for vulnerable people. He identified that, in a future pandemic, measures utilised in some healthcare settings during the Covid-19 pandemic should be restarted, such as:

> "*staggered appointment times, greater social distancing in waiting rooms, guiding patients directly into clinic rooms, rather than being in open waiting areas*".[148]

141 Catherine Finnis 8 October 2024 100/15-20
142 INQ000330936_0001-0002; INQ000276005_0006; INQ000485979_0165
143 *Infection Prevention and Control Measures for SARS-CoV-2 (Covid-19) in Health and Care Settings*, Department of Health (Northern Ireland), May 2022, p6 (https://www.publichealth.hscni.net/sites/default/files/2022-05/IPC%20guidance%20for%20COVID-19.pdf; INQ000408137)
144 Catherine Finnis 8 October 2024 99/2-12, 100/7-18
145 Catherine Finnis 8 October 2024 97/24-98/11; INQ000409574_0051 para 128
146 INQ000409574_0052
147 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 197/14-21
148 Ben Warne, Dinah Gould and Gee Yen Shin 19 September 2024 198/3-12

3.86. In a future pandemic, healthcare providers will need to reassure clinically extremely vulnerable people that it is safe to attend healthcare appointments. This underlines the importance, from the outset of a pandemic, of infection prevention and control measures that protect individuals who are at high risk. This may include the need for additional protections, such as permitting clinically extremely vulnerable people at high risk to wear higher-grade face masks (or other PPE that is appropriate for the pandemic disease) in healthcare settings.

Cancellation or delay of planned admission and outpatient services

3.87. As noted above, clinically extremely vulnerable people are more likely to have pre-existing serious health conditions and require care that is not related to the pandemic disease. It is unsurprising, therefore, that data show a significant fall in planned admission and outpatient services within this group.

3.88. The Health Foundation, an independent think-tank, found that in England there had been a 51% decrease in planned admissions and a 48% decrease in outpatient appointments for clinically extremely vulnerable people in April 2020, when compared with April 2019.[149] In Scotland, almost one in five clinically extremely vulnerable respondents to a survey reported having a healthcare appointment postponed or cancelled by July 2020.[150] The Health Foundation considered that the pandemic had created "*a particularly high level of unmet health need and potential long term impacts concentrated within the clinically extremely vulnerable population*" and that steps should be taken to mitigate against this in a future pandemic.[151]

3.89. Chapter 9: Healthcare for non-Covid-19 conditions addresses the impact of delayed access to healthcare and how this can be improved in future. For people who are already vulnerable due to comorbidities or age, the risk of deterioration in their physical and mental health, wellbeing and quality of life is particularly acute.

Remote consultation

3.90. Across the UK, early guidance and communication with the clinically extremely vulnerable cohort encouraged remote access to healthcare.

3.91. In England and Northern Ireland, clinically extremely vulnerable people were advised to speak to their GP or treating clinician regarding ongoing treatment or care.[152] Public Health England guidance for the clinically extremely vulnerable published in March 2020 stated that face-to-face care should only be undertaken

149 'Research reveals devastating and lasting impact of the pandemic on those asked to shield', The Health Foundation, 20 October 2021 (https://www.health.org.uk/press-office/press-releases/research-reveals-devastating-and-lasting-impact-of-the-pandemic-on; INQ000408810_0001)
150 INQ000401271_0125 para 9.3.11
151 'Research reveals devastating and lasting impact of the pandemic on those asked to shield', The Health Foundation, 20 October 2021 (https://www.health.org.uk/press-office/press-releases/research-reveals-devastating-and-lasting-impact-of-the-pandemic-on; INQ000408810_0001)
152 INQ000410865_0039 para 104; INQ000130315_0004

if "*absolutely essential*".[153] The use of the term "*absolutely*" was removed in June 2020, recognising that this group of people needed to access healthcare services.[154] The shielding letter sent to the clinically extremely vulnerable cohort in Wales did not include explicit advice about seeking face-to-face consultations and encouraged patients to contact their GP or clinician by phone or internet.[155]

3.92. In Scotland, patients with ongoing care or treatment were advised in March 2020 to only get in touch with their GP if they had "*significant concerns*"; otherwise, they should wait for a GP to contact them.[156] GPs were encouraged to facilitate a face-to-face appointment if, in their clinical judgement, it was necessary.[157] Similarly, in Northern Ireland, advice stated that a GP would contact the patient to arrange a visit if they decided it was required.[158]

3.93. Some clinically extremely vulnerable people welcomed the convenience and accessibility that came with the increased use of digital technology for consultations and treatment.[159] One clinically extremely vulnerable person told Every Story Matters:

> "*I found that anytime I contacted them* [the GP] *about anything … because you do get things* [that] *go on with your arthritis and your diabetes … they would've asked me to send in a photograph of my joints or monitored me on the phone … they were very good. The doctor was on the phone constantly checking with me. Absolutely no hassle, I actually thought they were really on the ball.*"[160]

3.94. It is vital that, in a future pandemic, advice for and communication with clinically extremely vulnerable people makes clear that healthcare services remain open to them and that it is safe for them to attend if they require medical help. Both in-person and remote consultations will be needed. A patient's preferences and the views of healthcare professionals who are familiar with the patient should determine the appropriate method of consultation.

Reviews of the shielding programme

3.95. Public health interventions are usually evaluated in order to understand the impact and to inform the development of future interventions. However, there were several factors that made evaluation of the effectiveness of the shielding programme extremely difficult.[161]

153 INQ000410865_0039-0040 para 107
154 INQ000410865_0039-0040 para 107
155 INQ000226987
156 INQ000117028_0003
157 INQ000117028_0004; INQ000120706_0002
158 INQ000130315_0004
159 INQ000409574_0060 paras 148-149
160 *Every Story Matters: Healthcare*, p195 (INQ0004742335)
161 Jenny Harries 6 November 2024 111/15-112/20; INQ000410865_0017 paras 45-46

3.96. One barrier to assessing the effectiveness of the shielding programme was timing. Shielding was widely introduced early in the pandemic, which meant that there was no control group (a group of clinically extremely vulnerable people who did not shield).[162] Further, it was implemented at the same time as a UK-wide lockdown, which meant that it was difficult to separate the effectiveness of shielding from the wider Stay Home messaging and social distancing measures.[163] Therefore, a comprehensive evaluation of the effectiveness of the shielding programme was not undertaken in England, Wales or Northern Ireland.[164] Reviews based on research and other data were undertaken in Scotland and Wales.[165]

3.97. The second barrier was an ethical one – it would not have been ethical to establish a control group for the purpose of an evaluation as it would have left people without protection who needed it.[166]

Public Health Scotland reviews of the shielding programme

3.98. Public Health Scotland undertook reviews of the shielding programme in Scotland in January 2021 and March 2022. The review was based on feedback from surveys and interviews with those affected, analysis of various datasets, and research undertaken by the Scottish Government and other groups. The January 2021 review found "*clear evidence that the shielding advice changed people's behaviour*".[167] There was also evidence to suggest that the shielding group were at a higher risk of "*negative COVID-19 outcomes than the population at large*".[168] However, it discovered that some people who were not included in the Shielded Patient List were also at higher risk of negative Covid-19 outcomes – for example, older people.[169]

3.99. The review conducted in March 2022 focused on the guidance and support offered to clinically extremely vulnerable people once the shielding advice had been paused. The review found that, while "*the advice and support offered to the highest risk group had made a difference*" for some people, others had felt unsupported and that "*the shielding guidance was neither necessary nor sufficient to change behaviour in all instances*".[170]

162 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p258 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
163 INQ000474285_0052 para 146
164 INQ000416178_0077 para 237; Michael McBride 24 September 2024 99/10-14; INQ000410237_0090 para 9.26
165 INQ000416178_0078 para 238; INQ000485979_0245 para 873
166 *Technical Report on the Covid-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p257 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642); Jenny Harries 6 November 2024 113/21-25
167 INQ000401271_0125 para 9.3.9
168 INQ000485979_0247 para 877
169 *COVID-19 Shielding Programme (Scotland) Rapid Evaluation*, Public Health Scotland, 27 January 2021, p14 (https://publichealthscotland.scot/publications/covid-19-shielding-programme-scotland-rapid-evaluation; INQ000202564)
170 INQ000401271_0126-0127 paras 9.3.14, 9.3.16

3.100. Based on its findings, Public Health Scotland concluded that "*a repeat of shielding in its initial form was not recommended*" and there should be "*greater consideration to personal choice, multifaceted nature of risk, and hospital-onset infections*".[171]

Findings from the EVITE study in Wales

3.101. Professor Helen Snooks, expert witness on emergency pre-hospital care and shielding, led a retrospective study known as EVITE (facilitated by the Welsh Government), which aimed to measure the effects and costs of shielding in Wales.[172] She said that the comparator group used in the EVITE study was similar to the shielding group in terms of age, sex and past use of healthcare services, but accepted that it could not "*control for all factors* [and] *the groups may differ in other important ways*".[173] The EVITE study found that, during the peak of the pandemic, there were higher rates of healthcare-acquired Covid-19 infections (also referred to as 'hospital-acquired' in this Report) in the shielded population as compared with the general population.[174]

3.102. Professor Snooks said that the results of the EVITE study (and another small study) showed that there had not been an overall reduction in Covid-19 mortality and infection in the shielded group versus the rest of the population. This led her to cast doubt on the effectiveness of the shielding programme as a protective measure.[175] She considered the counter-position – namely, that Covid-19 mortality may have been higher among clinically extremely vulnerable people if shielding had not been implemented – but concluded that "*there is no evidence for this*".[176]

3.103. Professor Harries was critical of the comparator group used in the EVITE study, which she said consisted of people that were "*younger,* [and] *healthier*" than the shielding group, who would be "*going in and out of hospital … probably, with much, much higher mortality rates and being tested much more frequently*".[177] She also said it was a "*complete anomaly*" to link shielding and the rates of healthcare-acquired infections, as they are "*not necessarily linked*" – most of those shielding were "*not in hospital*".[178] Professor Harries reiterated her view that the shielding programme was intended "*to protect people who are clinically vulnerable, maximally, regardless of what is happening in the healthcare system*".[179]

3.104. Professor Whitty reflected on the overall effectiveness of the shielding programme and said that there was an "*absence of evidence one way or the other … rather than evidence that this did not work*".[180] He emphasised the importance of having "*a*

171 INQ000401271_0127 para 9.3.16
172 INQ000416178_0078 para 238
173 INQ000474285_0044 para 120
174 INQ000474285_0044 para 121
175 INQ000474285_0045, 0052 paras 124, 147-148; Helen Snooks 30 October 2024 146/9-147/11
176 INQ000474285_0052 para 148
177 Jenny Harries 6 November 2024 117/9-16
178 Jenny Harries 6 November 2024 120/1-11
179 Jenny Harries 6 November 2024 120/2-5
180 Christopher Whitty 26 September 2024 130/15-17

mechanism to support people who rationally have chosen to take themselves out of society to the best of their ability to protect themselves".[181] This was echoed by Professor Harries.[182] Professor Whitty added that it would "*depend on the situation*" as to whether he would advise introducing shielding again.[183]

3.105. The Inquiry agrees that the need for a shielding programme in any future pandemic will be difficult to determine until the pathogen emerges. However, planning for a future pandemic should include mechanisms to support and protect the members of society who are at highest risk from pandemic disease. The effectiveness of the support mechanism will be bolstered if nation-specific health data and digital systems are improved to ensure that people at high risk of morbidity or mortality from the pandemic disease are identified quickly and accurately. Planning must also include preparations for the mental health and psychological impacts that shielding may have and how they can be mitigated.

181 Christopher Whitty 26 September 2024 131/14-16
182 Jenny Harries 6 November 2024 118/12-119/9
183 Christopher Whitty 26 September 2024 131/4-6

Chapter 4: Urgent and emergency care

Introduction

4.1. The emergence of the Covid-19 pandemic was always likely to increase the demand on urgent and emergency care. Urgent care is for non-life-threatening illness or injury that does not require immediate attention; this is provided through 111 services or, in Northern Ireland, the Phone First service, as well as out-of-hours GP services and urgent treatment centres. Life-threatening conditions that require treatment immediately receive emergency care, usually accessed through calling 999.

4.2. The need for 999 and 111 calls to be answered promptly is obvious. Patients who call 111 can be deteriorating and may need emergency care. Delay in a 999 call being answered and an ambulance being dispatched can sometimes mean the difference between life and death. This chapter considers the additional demands placed on 111 and 999 services by the pandemic and the initiatives adopted to mitigate the pressure on these services.

4.3. The Covid-19 pandemic also resulted in significant delays to people being assessed in the emergency department. This led to ambulances and staff having to wait longer outside of hospital with the patient, which meant that there were fewer resources available to respond to emergency calls. The delays in ambulances attending led to people making repeated calls to 999 for an update or to report a change in condition and increased demand on 999 call-handling centres. As demand for emergency care increased outside lockdowns and later in the pandemic, this became even more of a problem. This chapter therefore also examines the impact the pandemic had on conveyance to hospital, on the increased handover delays from an ambulance to an emergency department and on already increasing waiting times in emergency departments.

111 services in England, Scotland and Wales

4.4. The NHS 111 service is delivered in England by a range of providers, which include local NHS ambulance trusts, companies and NHS trusts.[1] In Scotland, the equivalent 111 service is delivered by a special health board, NHS 24.[2] In Wales, it is delivered by the Welsh Ambulance Services University NHS Trust (known prior to April 2024 as the Welsh Ambulance Services NHS Trust).[3] At the start of the pandemic, only four of the seven local health boards had formally transitioned from NHS Direct Wales (a service for which the caller was charged to call) to NHS 111 (a freephone service). However, the NHS 111 service was made available in all local health boards in Wales during the pandemic for "*Covid related contacts*".[4] All local health boards had permanently implemented NHS 111 by March 2022.[5]

1 INQ000474285_0009 para 18
2 INQ000474285_0009 para 15
3 INQ000474285_0009 para 18
4 INQ000485168_0005-0006 para 16
5 INQ000485168_0005-0006 para 16. Cwm Taf Morgannwg by September 2020, Betsi Cadwaladr by June 2021, and Cardiff and Vale by March 2022.

4.5. Call handlers responding to 111 calls are not clinically trained but follow a script or algorithm when asking the caller questions. This leads to an outcome or 'disposition', including transfer to 999, a nurse or self-care advice if appropriate.[6]

Demand on 111 services during the pandemic

4.6. Pre-pandemic planning had established the UK-wide National Pandemic Flu Service. It lay dormant, ready to be deployed in the event of a pandemic, but was designed to distribute antiviral medicine via an online and telephone service delivered through 111 services.[7] The Welsh Ambulance Services NHS Trust Pandemic Influenza Plan included a similar model.[8] In Scotland, NHS 24 was responsible for establishing dedicated local or Scotland-wide advice and support helplines in the event of a health emergency.[9]

4.7. In February and March 2020, members of the public in England, Scotland and Wales were advised that, if they needed healthcare treatment or advice relating to Covid-19, they should first call 111 or consult 111 services online before contacting their GP, calling 999 or attending an emergency department.[10] NHS England advised GPs to encourage people to call NHS 111 for triage if they had Covid-19-related concerns.[11] The Scottish Government informed all healthcare professionals that, from 23 March 2020, 111 should be used as the point of entry for Covid-19 concerns.[12]

4.8. The rationale for this advice was to 'protect the NHS' by ensuring that only those patients who required urgent medical attention would attend healthcare services.[13] The 111 services would therefore act as a filter, providing advice and information to callers with less urgent symptoms. Given the novel nature of Covid-19, it was obvious that there would be a significant increase in demand on 111 services – demand which was compounded by the advice to use 111 as a first port of call.

4.9. Despite the pre-pandemic plans allowing for the scaling-up of services, the increased need for 111 services during the Covid-19 pandemic meant that there was not enough capacity in the service to meet this demand.[14] Data provided by the respective governments demonstrate the soaring numbers of calls to 111 in the first few months of the pandemic:

6 INQ000474285_0009-0010 paras 15, 19
7 INQ000485652_0199 para 737
8 INQ000373039_0027-0028
9 INQ000474258_0008 para 3.2
10 INQ000485652_0112 para 404; INQ000486014_0179-0180 paras 517-518; INQ000485979_0178 paras 628, 630
11 INQ000485652_0221 paras 815-816
12 INQ000485979_0178 para 630
13 INQ000421858_0024 para 93; INQ000485979_0178 para 630
14 INQ000485652_0200 para 742; INQ000485168_0020-0021 paras 56-57; INQ000474258_0008-0009 para 3.3

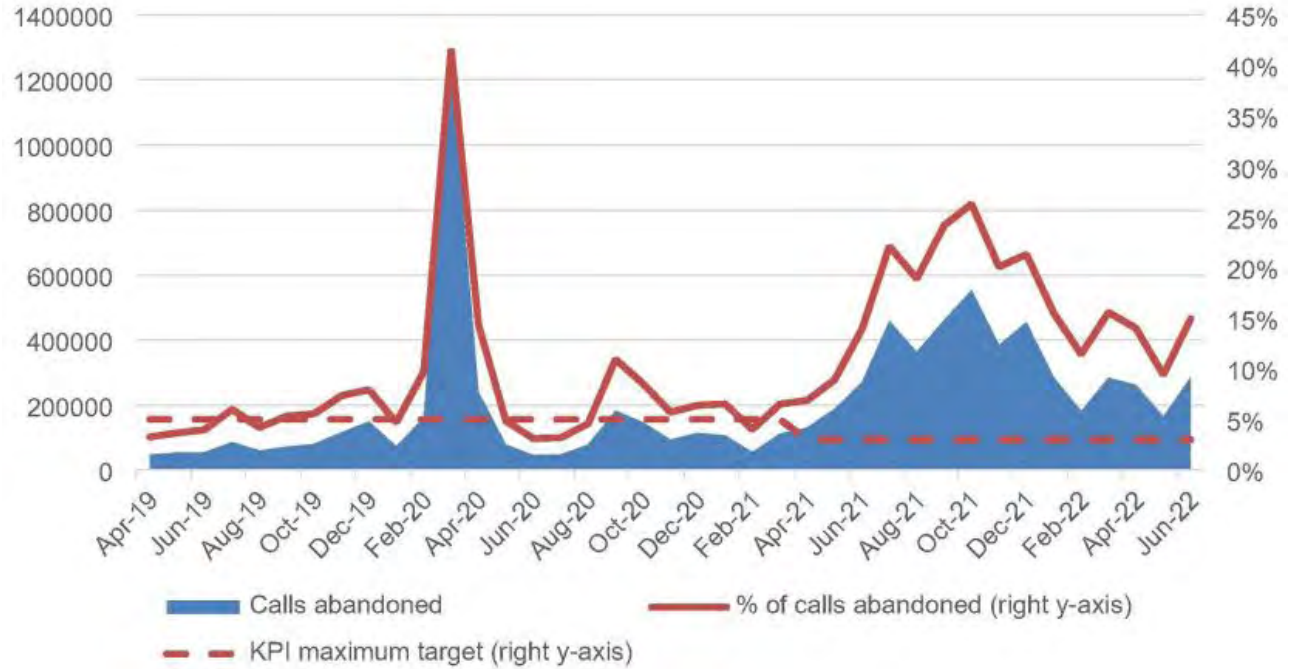
- NHS 111 in England received just under 3 million calls in March 2020, compared with 1.5 million calls in January 2020.[15]
- NHS 111 in Wales received more than three times the number of calls in March 2020 (103,285 calls) compared with March 2019 (30,900 calls).[16]
- In Scotland, the number of 111 calls received daily by NHS 24 was around 3,000 at the end of February 2020 and peaked at just over 14,000 in mid-March 2020.[17]

4.10. It quickly became apparent to the UK government and devolved administrations that there was an insufficient number of 111 call handlers to respond to the level of demand. This resulted in delayed call-answering and call-back times (patients may receive a call back from a clinician if a clinical assessment is required). The proportion of callers who received a call back from a clinician within 10 minutes of calling NHS 111 in England reduced from more than 30% at the start of 2020 to 20% in March 2020.[18] In Scotland, it took five times as long for 111 calls to be answered in March 2020 compared with the average time in the final week of February 2020.[19]

4.11. There was also an increasing number of calls being abandoned by the caller before they reached the front of the queue. In March 2020, approximately 1.1 million of the 3 million calls received by NHS 111 in England were abandoned by the caller after they had waited for more than 30 seconds and only 30% of calls were answered within 60 seconds (see Figure 9).[20] In Wales, 43.3% of calls to the NHS 111 service were abandoned in March 2020.[21]

15 INQ000474285_0016 para 42
16 INQ000485168_0067 para 210
17 INQ000474258_0032-0033
18 INQ000485652_0217
19 INQ000474258_0032-0033
20 INQ000474285_0016 para 42
21 INQ000485168_0067 para 210

Figure 9: Number and proportion of NHS 111 calls abandoned per month in England, from April 2019 to June 2022



Source: INQ000485652_0215

4.12. Demand on the NHS 111 service in England peaked in mid to late March 2020, when often fewer than 20% of calls were answered. The worst-performing day was 23 March 2020, when only 11% of NHS 111 calls were answered within 60 seconds.[22] Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, acknowledged that "*demand was greatly exceeding supply*" during this period.[23] Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, confirmed that he knew that NHS 111 was under pressure in March 2020.[24]

4.13. The high number of abandoned calls and the delays in receiving a call back from a clinician led to increased demand on services as the likelihood of repeat callers increased.[25]

4.14. In March 2020, the pre-hospital Pandemic Respiratory Infection Emergency System Triage (PRIEST) study, which had been "*hibernated*" since the 2009 to 2010 H1N1 influenza pandemic ('swine flu'), was adapted for Covid-19.[26] The PRIEST study analysed data from 40,261 adults who had contacted NHS 111 in England for the period from April to June 2020 and considered what the risk of an adverse outcome was for those callers, with an adverse outcome defined as being death or the need for major organ support.

22 INQ000348589_0002
23 Stephen Powis 7 November 2024 143/9-13
24 Matt Hancock 21 November 2024 91/5-8
25 INQ000469724_0024 para 98
26 INQ000474285_0022 para 60

4.15. The PRIEST study found that NHS 111 triage "*may have under-estimated the importance of … repeated calls to the service as predictors of adverse outcome*".[27] The study also found that 3% of people with suspected Covid-19 who had called NHS 111 in England from April to June 2020 had experienced an adverse outcome within 30 days.[28] Further, 60% of patients contacting NHS 111 were given self-care advice or were advised to seek non-urgent assessment, of which 1.3% had a risk of an adverse outcome.[29] The study identified this as a "*low but non-negligible risk of adverse outcome*".[30]

4.16. Commenting on the PRIEST study, Professor Helen Snooks, expert witness on emergency pre-hospital care and shielding, concluded that the evidence showed that, during the pandemic, the NHS 111 telephone triage service:

> "*diverted a substantial proportion of patients to self-care or non-urgent assessment, with a small risk of subsequent adverse outcome …* [and] *reduced the pressure on ambulance services and emergency departments*".[31]

4.17. While the PRIEST study findings indicate that most callers who received assistance from NHS 111 in England were highly unlikely to suffer an adverse outcome, this does not remove the need for calls to be answered promptly, as there was also a significant impact on the caller and the call handlers if callers had to make repeated calls. Call handlers told the Inquiry's listening exercise, Every Story Matters, that they had to deal with large numbers of calls from very anxious and unwell people and that they were not always able to offer help, particularly during peaks in Covid-19 infections.[32] As an NHS 111 call handler reported, this resulted in calls where:

> "*People* [were] *more panicked, fearful, exasperated, often calling back because they'd not had any follow up or help.*"[33]

Absence of safety-netting advice

4.18. Where remote triage advises the patient to manage their condition at home, it is particularly important to ensure that the person calling understands when and how they should seek further medical advice if the patient's condition deteriorates. This is known as 'safety-netting' advice.[34] However, the majority of NHS 111 call handlers are not clinically trained and do not usually have access to a patient's medical history, so

27 INQ000474285_0022-0023 paras 60, 67
28 INQ000474285_0022 para 61; Helen Snooks 30 October 2024 123/8-10; 'Accuracy of telephone triage for predicting adverse outcomes in suspected COVID-19: an observational cohort study', C Marincowitz, T Stone, P Bath, R Campbell, JK Turner, M Hasan, et al, *BMJ Quality & Safety* (2024), 33(6), 375-385 (https://www.doi.org/10.1136/bmjqs-2021-014382; INQ000497039_0004)
29 INQ000474285_0022 para 62
30 INQ000474285_0023 para 66
31 INQ000474285_0022-0023 paras 62, 66
32 *Every Story Matters: Healthcare*, p105 (INQ000474233)
33 *Every Story Matters: Healthcare*, p106 (INQ000474233)
34 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p8 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)

without additional training or a script to follow, they are unable to advise on the signs to look out for to establish whether a person's condition has deteriorated.[35]

4.19. In September 2022, the Healthcare Safety Investigation Branch, an independent body carrying out patient safety investigations across NHS England and independent healthcare settings, undertook an investigation into the delivery of NHS 111 and other telephone triage services during the Covid-19 pandemic and published a report.[36] It heard from four bereaved family members about the experience that they, or their loved ones, had of using NHS 111 in England in March and April 2020.[37] Families reported receiving safety-netting advice that was "*often unclear*" and, when they called back (in accordance with the safety-netting advice), the patient was "*again told to remain at home*".[38] They "*felt that insufficient action was taken given the deterioration in the patients' condition alongside comorbidities*".[39]

4.20. One member of Covid-19 Bereaved Families for Justice Cymru said that she received inadequate or no safety-netting advice when she called NHS 111 on behalf of her husband multiple times over one week and was consistently told that he was "*fine*" and should stay at home.[40] In fact, he required urgent medical attention and he was eventually rushed to hospital, where he died from Covid-19.[41]

4.21. It is important that safety-netting advice is clear and accessible. The Inquiry notes the Healthcare Safety Investigation Branch's recommendation that:

> "*In future events of novel viruses, where the messaging is for Patients to remain at home, safety-netting or worsening advice would benefit from being clear, specific and readily available.*"[42]

Further, all call handlers, but particularly those newly recruited during a pandemic, should be reminded, through regular training, of the heightened importance of safety-netting advice during a pandemic.

35 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p8 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
36 The Healthcare Safety Investigation Branch was replaced by the Health Services Safety Investigations Body on 1 October 2023.
37 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, pp3, 5 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204). The investigation started before the pandemic and was paused but restarted with a renewed focus on Covid-19.
38 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p61, para 4.3.8 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
39 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p61, para 4.3.8 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204). The Healthcare Safety Investigation Branch recorded that it was told that safety-netting arrangements were in place – it is not clear if it is referring to NHS 111, additional services established during the pandemic, or both.
40 INQ000343992_0004 para 13
41 INQ000343992_0003-0004 para 13
42 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p61, para 4.3.9 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)

Triage loop

4.22. Some symptomatic callers in England encountered a 'triage loop' between GP services and NHS 111, whereby a patient contacted their GP because an NHS 111 call handler had told them to do so if their condition worsened – or they contacted their GP as they were unable to get through to NHS 111 – and their GP (following the guidance) referred them back to the NHS 111 service. NHS England was aware of this and said that it "*posed a significant risk to unwell patients*".[43] An update to the guidance for GPs in England in April 2020 was intended to mitigate this and GPs were asked not to refer a patient back to NHS 111 if they had been unable to get through to the service or had been advised by it to contact their GP.[44]

Actions taken in response to increased demand on 111 services

4.23. In response to the significant and rapid increase in demand on 111 services, action was taken in an attempt to relieve some of the pressure. This included encouraging the increased use of online 111 service resources. For example, from the end of February 2020, patients in England could access an online service for Covid-19 concerns and, in mid-March 2020, GPs were encouraged to signpost patients to online resources.[45] The Welsh Government advice changed to encourage use of the NHS Direct Wales website, which halved the number of calls in April 2020 and resulted in fewer abandoned calls.[46]

4.24. In addition, steps were taken in England, Wales and Scotland to recruit more staff to answer 111 calls. Additional triage protocols and services were also introduced to try to ensure that patients were directed to the most appropriate service to deal with their call.

Workforce capacity in 111 services

4.25. From late February and March 2020, there were nationwide campaigns in England, Scotland and Wales to recruit more call handlers into the 111 services and local initiatives by ambulance services to increase capacity. For example, the South East Coast Ambulance Service NHS Foundation Trust and London Ambulance Service NHS Trust developed a fast-track training programme, while other ambulance services trained paramedic students for deployment.[47]

43 INQ000485652_0112 para 404
44 INQ000485652_0112 para 404
45 INQ000485652_0219, 0221-0222 paras 805, 817-818
46 INQ000485168_0067 para 210
47 INQ000232062_0004-0005 para 16; INQ000303177_0065 para 224; INQ000252494_0034 para 138; INQ000235260_0026 para 81; INQ000335968_0037 para 133

4.26. In February 2020, NHS England approved the recruitment of an additional 150 call agents and a further 117 full-time equivalents in March 2020.[48] However, a six-week training programme for call handlers meant that, by the end of March 2020, the new call handlers had not yet been deployed.[49] Public Health England briefed the Cabinet Office on 27 March 2020, stating that, had recruitment taken place earlier, there would have been additional core NHS 111 staff to meet demand during March 2020.[50]

4.27. Additional funding to recruit more call handlers was provided by NHS England in the summer of 2021.[51] However, by September 2021, 25.6% of calls were abandoned, suggesting that capacity was still not keeping up with the demand.[52] There was a reduction in the proportion of calls abandoned in England in January 2022, when 16.7% of calls were abandoned.[53]

4.28. In Scotland, in December 2020, NHS 24 transitioned to a 24/7 triage service, with projections indicating that this would require a 43% increase in the NHS 24 workforce (a further 222 full-time call handlers and 45 full-time nurses).[54] However, the redesign itself led to an additional 13,000 calls to 111 each week from December 2020. As a result of increased demand and changes to service delivery, the Scottish Government provided funding to recruit 500 call handlers in 2020/21.[55] Despite the increase in staff, only 38.4% of calls in 2020/21 were answered within five minutes. Performance worsened in 2021/22 to 25.9% (the target was 50%).[56] Furthermore, the target of fewer than 10% of calls abandoned by the caller after five minutes was not met throughout the period from April 2020 to April 2022.[57]

4.29. A recruitment campaign launched by the Welsh Ambulance Services NHS Trust in March 2020 led to "*several new recruits*" starting NHS 111 call handler and clinical training by early April 2020. By the end of May 2020, 14 additional call takers and 24 additional clinicians had been sourced temporarily.[58] The number of NHS 111 call handlers for Wales increased from 8 in September 2020 to 16 by June 2021.[59] As part of the transition to the NHS 111 service, all health boards undertook a "*readiness assessment*", which included plans on how they would respond to an increase in demand.[60] The permanent expansion of NHS 111 to the three remaining local health boards between September 2020 and March 2022 led to an additional 9,593 calls per month.[61]

48 INQ000485652_0196 para 719
49 INQ000532410_0010 para 48
50 INQ000348589_0004
51 INQ000485652_0208 para 786
52 INQ000372786_0004
53 INQ000479860_0003-0004
54 INQ000474258_0010, 0014 paras 3.23-3.26, 3.7. Before the pandemic, NHS 24 had been a "*triage route*", with the majority of calls received out of hours being referred to primary care services. It developed specific pathways for Covid-19 callers (discussed below) from 23 March 2020, which later informed the redesign of the 111 service.
55 INQ000493484_0034 para 139
56 INQ000485979_0191; INQ000474258_0036 para 12.4
57 INQ000485979_0191
58 INQ000485168_0075 para 235; INQ000373198_0003
59 INQ000373248_0012
60 INQ000485168_0005 para 16; INQ000410474
61 INQ000485168_0005 para 16

4.30. It was entirely foreseeable that, by advising the public to contact 111 services, pressure on these services would increase. NHS England accepted that, notwithstanding efforts made to increase capacity, this additional capacity was "*insufficient*" to cope with demands, particularly during the first wave of the pandemic.[62] The Scottish territorial and special health boards accepted that the increase in calls, coupled with difficulties in recruiting "*experienced clinicians*", affected call-answering performance.[63]

4.31. Future pandemic planning must consider the number and type of call handlers (clinical and non-clinical) that 111 services will require, their training requirements, and how to deploy them at pace to deal with an increase in demand.

Increase in telephone triage services

4.32. Triage is the process used to ascertain the order in which patients should be treated. Prioritising patients in this way enables healthcare systems to treat hundreds, if not thousands, of patients per day. Additional triage services were established for Covid-19 patients in England, Wales and Scotland to reduce the pressure on 111 services.

England

4.33. In England, three services were established: the Covid Response Service, the Public Health England Helpline and the Covid Clinical Assessment Service.

4.34. Callers to NHS 111 who had Covid-19 symptoms were directed to the Covid Response Service for non-clinical assessment of Covid-19 symptoms by non-clinical staff.[64] The Covid Response Service was operational from 5 March to 10 June 2020, from 13 September 2020 to 23 March 2021, and from 19 to 27 January 2022.[65] Its use peaked in March 2020 with approximately 850,000 calls (just under 800,000 of which were answered). The number of calls reduced as the pandemic progressed.[66]

4.35. People with comorbidities were more susceptible to becoming seriously unwell if they had Covid-19. It was therefore important for these callers to be identified. However, Covid Response Service call handlers followed a set of questions which did not enable the call handler to identify callers with comorbidities to establish if a clinical assessment would be appropriate. Although it was intended that these patients would be assessed by NHS 111, a high threshold was set for a clinical assessment – the patient had to be so ill that they had stopped doing all of their

62 INQ000532410_0010 para 51
63 INQ000532393_0010-0011 para 35
64 Non-Covid-19 queries were connected to the NHS 111 service and could not then be transferred to the Covid Response Service (INQ000485652_0202).
65 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, pp16, 19, para 1.4.4 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
66 INQ000485652_0211

usual daily activities – otherwise they received self-care advice.[67] Professor Powis understood that the set of questions was updated during the pandemic to include comorbidities and that, for patients calling for advice, "*getting that clinical input can be very important*".[68] He noted that setting the threshold for clinical assessment involved "*a balance of risks*" and that:

> "[W]*e endeavour to put as much clinical support into our call services and into 111 as we can, recognising that in doing that those clinicians are unable to do other things that we also might wish them to do.*"[69]

4.36. The investigation by the Healthcare Safety Investigation Branch established that the algorithm used by the Covid Response Service was "*never adapted to enable comorbidities to be considered and assessed*".[70] It recommended that NHS England should review the risks associated with the increased use of telephone triage in response to nationwide healthcare emergencies.[71] Professor Powis said that NHS England would work with partners to review risks and identify lessons learned.[72]

4.37. In addition to the Covid Response Service, the Public Health England Helpline provided non-clinical advice on Covid-19 to people without symptoms from February to June 2020.[73] It was staffed by independent contractors.[74] Callers to the helpline who needed advice on clinical symptoms were told to hang up and call NHS 111.[75] Although there was a proposal to merge the two telephone services' resources at the end of March 2020, this did not take place until 13 May 2020.[76]

4.38. Where the caller needed a clinical assessment, the Covid Clinical Assessment Service was set up to conduct the assessment and either direct the caller to their GP or provide advice on managing their condition at home. The Covid Clinical Assessment Service was operational from 1 April 2020 to 23 May 2021 and from 19 to 27 January 2022.[77] It was staffed by nurses, allied health professionals and GPs – at its peak, 2,000 active or recently retired GPs were recruited into the service.[78] It handled about 25,000 calls in April 2020 and more than 70,000 calls in January 2021.[79]

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67 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p7 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
68 INQ000485652_0225 para 830; Stephen Powis 11 November 2024 39/2-3
69 Stephen Powis 11 November 2024 38/16-22
70 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p53, para 4.2.2 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
71 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p8 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
72 Stephen Powis 7 November 2024 147/8-24
73 INQ000348589_0001. It was also available in Wales and Northern Ireland (INQ000485652_0202 para 751).
74 INQ000485652_0204 para 752
75 INQ000661488
76 INQ000485652_0204 para 753; INQ000348589_0003-0004; INQ000661493_0001
77 INQ000485652_0205 para 767
78 INQ000485652 _0205 para 768; INQ000661492
79 INQ000485652_0211

4.39. Call handlers were trained only in telephony skills, on the assumption that they would already have the necessary clinical skills.[80] However, the Healthcare Safety Investigation Branch review received reports that, due to a lack of training and information, Covid Clinical Assessment Service staff relied on informal networks and social media to stay up to date about Covid-19.[81] Professor Powis confirmed that NHS England was aware of this.[82] He accepted that some people felt that the training was insufficient and that it was "*a reflection for the future*".[83]

4.40. It was identified in the summer of 2020 that the nurses and allied health professionals working in the service needed additional training – they were temporarily removed from the service. During an internal audit in August 2020, 60% of calls handled were deemed "*not safe*".[84] Professor Powis said that the calls deemed unsafe were dealt with by nurses, who made up a "*very small part*" of the cohort of clinicians working in the service – who were mostly GPs.[85] All the nurses and allied health professionals were subsequently removed from the service.[86] The Inquiry would have expected there to have been a wider audit or additional training offered to the call handlers who remained in the service. However, there is no evidence to suggest that NHS England requested that this take place.

Wales

4.41. From mid-March 2020, an online symptom checker was available on NHS Direct Wales to support the 111 service.[87]

4.42. From about September 2020, the Welsh Ambulance Services NHS Trust introduced a receptionist into its 111 service who would undertake "*a pre-triage sift*" and redirect the caller to the online symptom checker or a 111 queue or escalate to 999.[88]

Scotland

4.43. Information about Covid-19 symptoms was provided on NHS inform (an online health information service) in Scotland.[89]

4.44. Scotland introduced triage services for callers with Covid-19 symptoms: the 111 Covid-19 Assessment Line and the Covid-19 General Information Helpline. The 111 Covid-19 Assessment Line was accessed through 111 and a call handler would use

80 Stephen Powis 7 November 2024 145/18-146/13; INQ000485652 _0205 para 768; INQ000661492
81 *Investigation Report: NHS 111's Response to Callers with Covid-19-Related Symptoms During the Pandemic*, Healthcare Safety Investigation Branch, 29 September 2022, p59, paras 4.2.14-4.2.15 (https://www.hssib.org.uk/patient-safety-investigations/response-of-nhs-111-to-the-covid-19-pandemic/investigation-report/pdf; INQ000320204)
82 Stephen Powis 7 November 2024 145/9-146/24
83 Stephen Powis 7 November 2024 146/14-22
84 INQ000661492
85 Stephen Powis 7 November 2024 148/1-18; INQ000661492
86 INQ000661492
87 INQ000486014_0180 para 519
88 INQ000485168_0065 paras 203-204
89 INQ000485979_0178 para 630

the Covid-19 Assessment Tool for triage.[90] It was operational from March 2020 to March 2022.[91] In the first two months, 200 call handlers were recruited or redeployed by NHS 24 and they received training focused on the Covid-19 Assessment Tool and pathway.[92] Following initial triage by the 111 Covid-19 Assessment Line, Covid Assessment Hubs provided clinical input and supervision through telephone and face-to-face consultation.[93] However, social distancing between call handlers and supervisors in the hubs made delivery of this service difficult and it was suggested that NHS 24 make greater use of remote technology in the future.[94]

4.45. The Covid-19 General Information Helpline was operational from 30 January 2020, with call handlers provided by a third party and NHS 24 staff supervising.[95] Performance was initially poor. It received 86,766 calls and answered only 48,669 in September 2020, but it improved marginally in October 2020, with 90,385 calls received and 70,866 answered.[96]

4.46. Government departments, working with 111 service providers, should plan in advance for the use of remote clinical triage and assessment during a pandemic. They need to consider the number of staff that will be required to deliver it, how to surge capacity, and the length and type of training that call handlers will receive.

Northern Ireland

4.47. Prior to the pandemic, Northern Ireland did not have a 111 service but, from 28 February 2020, NHS 111 was made available to the public.[97] However, within weeks, work commenced on establishing Primary Care Covid-19 Centres, which provided remote and face-to-face services to patients with moderate or severe Covid-19 symptoms or who were at a higher risk of complications (separate from non-Covid-19 patients).[98] They were resourced by GPs working on a rota.[99] The centres were in place from 9 April 2020 to March 2022, during which time almost 68,000 patients were seen. Professor Sir Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, considered that the Primary Care Covid-19 Centres were:

> "*effective in helping to maintain primary care for 'non Covid' patients and, in addition, alleviated pressure on Emergency Departments*".[100]

90 INQ000492934_0016; INQ000474258_0010 para 3.7
91 INQ000474258_0010 para 3.9
92 INQ000474258_0010 para 3.8
93 INQ000474258_0010 para 3.8
94 INQ000492934_0016, 0019
95 INQ000474258_0018-0019, 0022 paras 5.3-5.6
96 INQ000474258_0022
97 INQ000421784_0135 para 217
98 INQ000492281_0039-0040 paras 107-109
99 INQ000492281_0040 para 110
100 INQ000421784_0228 para 387

4.48. The Phone First service was also introduced from November 2020, where callers were medically assessed on the phone and thereafter directed to attend an urgent or community service if appropriate.[101]

4.49. Robin Swann MLA, Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024, acknowledged that people continued to experience difficulties accessing their GP throughout 2020 and 2021. In response, the Department of Health (Northern Ireland) provided additional funding in 2020/21 and in October 2021 to GP practices, to enable "*appropriate telephony and technology to be put in place*" and to increase capacity to provide GP services.[102]

4.50. Mr Swann said that NHS 111 would not be used in a future pandemic. He explained that the Primary Care Covid-19 Centres and the Phone First triage system were more effective than the NHS 111 service had been in Northern Ireland.[103]

4.51. The Department of Health (Northern Ireland), working with the Northern Ireland Ambulance Service, should also consider as part of advance planning how patients with symptoms of the pandemic disease will be able to access triage and clinical assessment from the outset of a pandemic. This should include an assessment of delivery of the service outside primary care to reduce the pressure on GP resources, how to reduce the burden on the 999 service (explored later in this chapter), the number of staff that will be required to provide the triage and clinical assessment, surge capacity, and the length and type of training that staff will receive.

Emergency ambulance services

4.52. At the start of the pandemic, particularly during the first lockdown, demand for ambulance services initially reduced and thereafter varied across the UK and by region or geographical location.[104] For example, demand returned to pre-pandemic levels by August 2020 in England, before decreasing again from November 2020 to March 2021, when demand began to increase.[105] Demand in Wales reduced during the first wave of the pandemic but increased during the later waves.[106] In Scotland, it remained below pre-pandemic levels until the summer of 2021, when it increased above the seasonal norm, while in Northern Ireland demand on services was reduced throughout the pandemic.[107]

4.53. Despite fluctuations in demand, ambulance response times deteriorated and ambulance handover delays universally increased.

101 INQ000492281_0118 para 358
102 INQ000492281_0037-0038 paras 98-99
103 Robin Swann 18 November 2024 98/18-99/20
104 INQ000474285_0015 figure 3, para 37
105 INQ000485652_0150 paras 562-564
106 INQ000485168_0004 para 13
107 INQ000335968_0026 para 102; INQ000273834_0031 para 99

Ambulance response times during the pandemic

4.54. Across the UK, 999 calls connect to an emergency operation centre where a non-clinical call handler asks a set of questions to determine the urgency of the response and whether an ambulance is required. The caller is assigned a priority category based on their symptoms, which dictates the ambulance response time (discussed below).[108] Calls can also be directed to a clinical adviser if appropriate.[109]

4.55. The ability to meet ambulance response time targets across the UK worsened as the Covid-19 pandemic progressed. This was inextricably connected to staff shortages later in the pandemic, meaning that there were fewer resourced ambulance vehicles and staff to respond. Moreover, a key driver of the deterioration in emergency response times later in the pandemic was handover delays at hospital.[110] This led to increased demand on 999 call-handling centres as people made repeated calls to find out when the ambulance would be arriving or to report a change in condition.

4.56. The target response time for the most serious incidents – category one (life-threatening conditions) and two (emergency) – in England are 7 minutes and 18 minutes, respectively.[111] During March 2020, the mean response times were 8 minutes and 7 seconds for category one calls and 32 minutes and 6 seconds for category two calls.[112] Although the response time targets for category two calls were met between May and July 2020, by October 2021, the mean response time had increased to 53 minutes and 55 seconds, and in March 2022, the mean response time for category one was 9 minutes and 35 seconds.[113]

4.57. In Wales, the target response is for 65% of 'red' calls (life-threatening) to get a response within 8 minutes.[114] However, from July 2020 to March 2022, the Welsh Ambulance Services NHS Trust did not meet the target response time for red calls and in October 2021 faced the longest response times on record (coupled with the highest number of red calls and staff absences).[115]

4.58. The Scottish Ambulance Service implemented plans in March 2020 that allowed it to limit the number of patients who received an ambulance response depending on the acuity of the patient (whether the symptoms were life-threatening) and the level of demand.[116] Despite this, in March, the Scottish Ambulance Service achieved a median response time for the most serious 'purple' calls of 7 minutes and 1 second (the target was 6 minutes and 20 seconds), and for the second most serious 'red' calls of 8 minutes and 31 seconds (the target was 7 minutes and 30 seconds).

108 INQ000474285_0006-0007 paras 7-9. The computerised systems are the Advanced Medical Priority Dispatch System and NHS Pathways.
109 INQ000474285_0007 para 9
110 INQ000281189_0022 para 68
111 INQ000469724_0022 para 84
112 INQ000469724_0022 para 89
113 INQ000469724_0023 para 90
114 INQ000474285_0009 para 14
115 INQ000474251_0059, 0064-0065 paras 180, 192-195; INQ000227407_0028
116 INQ000335968_0021-0022 para 84

The response time targets for purple and red were not met from March to August 2020.[117] Overall, the service did not achieve the target of answering 90% of all 999 calls in 10 seconds until November 2022.[118]

4.59. The pressures on the Northern Ireland Ambulance Service preceded and post-date the Covid-19 pandemic.[119] The Inquiry was told that the service is not resourced to achieve its response time targets and, despite a reduction in the demand on services, performance remained below the targets throughout the pandemic and was consistent with pre-pandemic performance levels.[120] For example, in the last week of February 2020, only 44.4% of category 1 calls (immediately life-threatening) met the target response time of 8 minutes.[121] During 2021/22, this target was not achieved in any month, and the longest mean response time was recorded in August 2021 at 13 minutes and 12 seconds.[122]

4.60. If the Northern Ireland Ambulance Service had been properly resourced by the Department of Health (Northern Ireland) before the pandemic, it might have been better able to manage the demand it faced during the pandemic. In particular, the response times in 2021/22 suggest that the resourcing of the service needs to be reviewed and improved as a matter of urgency. This would allow the service to have more resilience to respond during a pandemic. An investment announced by the Department of Health (Northern Ireland) of £10 million and new targets for the Northern Ireland Ambulance Service to improve handover times from an ambulance to the emergency department are positive steps towards ensuring that there is sufficient capacity for a timely response.[123]

4.61. Delays in response times put patients at risk and caused distress to them, their loved ones and call handlers. As one person who called 999 during the pandemic told Every Story Matters:

> "*One night I was sick over and over again. At 1am I called 999 and they said they would send an ambulance. By 6am it still had not arrived and I got back into bed, pregnant and exhausted. At 11am someone phoned to ask if I still needed the ambulance and that other cases were more 'urgent'. They advised me to contact my GP. I did and the GP refused to see me saying I should contact 999 again. At this point I gave up. There was no help.*"[124]

117 INQ000335968_0028-0029, 0031 paras 108, 113. The targets were amended (to extend response times) in 2022/23 as part of the Scottish Ambulance Service recovery plan.
118 INQ000335968_0025 para 95
119 Robin Swann 18 November 2024 108/17-21
120 INQ000273834_0023-0024, 0030-0031 paras 77, 97, 99; Robin Swann 18 November 2024 107/12-23. It is not appropriate to compare ambulance response data from before 12 November 2019 due to changes in the clinical response model. There was also a change in the recording of data on 18 October 2021.
121 INQ000273834_0030-0031 para 97
122 INQ000346780_0033
123 INQ000661726; INQ000661729; INQ000661730; INQ000661731; INQ000661732
124 *Every Story Matters: Healthcare*, p109 (INQ000474233)

4.62. An NHS 111 call handler told Every Story Matters how "*distressing*" it was to advise a caller that they needed an ambulance only to be told by 999 that "'*we've got nothing to send*'".[125]

4.63. The ambulance response times to the most serious, life-threatening calls during the Covid-19 pandemic are indicative of a system that was struggling to cope with the demands put upon it. At times, it was on the brink of collapse.

999 call handling during the pandemic

4.64. Anthony Marsh, Chair of the Association of Ambulance Chief Executives from 2014 to July 2020 and National Strategic Adviser for Ambulance Services at NHS England from 2018, told the Inquiry that, by 23 March 2020, there was a risk of services being "*overwhelmed by rising demand*" such that "[a]*mbulance services will not be able to triage or respond to incidents appropriately*".[126]

4.65. In order to reduce the pressure on hospitals and ambulances, changes were made to 999 triage processes to encourage the management of health conditions at home and more remote clinical assessments, and to ensure that an ambulance was available to respond to the most seriously ill and injured people.[127] As Professor Snooks explained:

> "[T]*riage or sorting patients out and the priority of patients is absolutely key to the provision of care to patients in an emergency … it's very important to not over-respond to people because that puts the whole system under pressure, as well as if the patient, for instance, has Covid-19 but does not need emergency transportation to hospital then it's exposing more people to the risk of transmission and the ambulance crew as well.*"[128]

Protocol 36 triage

4.66. Protocol 36, or Card 36, was a triage tool implemented across the UK around 3 April 2020.[129] Originally developed following the 2009 to 2010 H1N1 influenza pandemic ('swine flu'), it was revised for suspected Covid-19 patients calling 999.[130] Its aim was to ensure that there were front-line ambulances available to respond to those who were most seriously ill and injured.[131] Depending on the level of demand on ambulance services, a Covid-19 call would be assigned a lower priority level (with a slower response time) than it would otherwise have received, and instead of an

125 *Every Story Matters: Healthcare*, p27 (INQ000474233)
126 INQ000479041_0047 para 172d
127 INQ000479041_0049-0050 paras 181-182
128 Helen Snooks 30 October 2024 114/24-115/10
129 INQ000479041_0051 para 186; INQ000485168_0051 para 163: it was implemented in Wales on 2 April 2020; INQ000273834_0017 paras 49, 51: it was implemented on 3 April 2020 in Northern Ireland; INQ000335968_0022 para 86
130 INQ000474285_0011 para 27
131 INQ000479041_0046 para 172a

ambulance response, the caller might be directed to make their own way to hospital or be advised to manage their condition at home.[132]

4.67. According to Professor Snooks, the use of Protocol 36 resulted in "*relatively rare*" instances of under-response where a patient was not given enough priority (an ambulance was not sent or the response time was slower).[133] However, she explained that "*this was kind of at the cost of over-response to quite a lot of patients*".[134] An over-response occurs when a higher level of priority is given to the patient than is needed (an ambulance is sent).

4.68. However, medical directors of the ambulance services reported to Mr Marsh that the use of Protocol 36 led to "*many patients getting a more appropriate safe response*".[135]

4.69. The introduction of Protocol 36 was appropriate because it prioritised a response for the most unwell patients during periods of high demand to ensure access to urgent medical attention and to reduce face-to-face care where it was not needed. However, Professor Snooks' findings suggest that Protocol 36 did not always correctly identify the level of response required. This may have put patients and ambulance staff at risk. The Inquiry supports a review of the risks associated with the increased use of triage tools such as Protocol 36 in advance of a future pandemic. Any future triage tool will require updating promptly at the outset of a new virus and must be kept under regular review.

Adverse outcomes in the 999 service

4.70. The PRIEST study analysed the outcomes for 12,653 adults who had contacted the 999 service in England from April to June 2020, of whom 7,549 had been attended by an ambulance.[136] Professor Snooks summarised the study's findings in her report:

> "*The risk of adverse outcome (death or need for major organ support) was … 11.1% in adults calling 999, and 17.6% in adults transported to hospital by emergency ambulance. Offering 999 … as alternative routes for patients seeking help therefore allowed a useful degree of risk stratification before entering the urgent and emergency care system.*
>
> …
>
> *Most patients (84%) contacting 999 received an emergency response. Patients contacting 999 who did not receive an emergency response had a 3.5% risk of an adverse outcome.*"[137]

132 INQ000479041_0046-0047 paras 172b-172c
133 Helen Snooks 30 October 2024 115/21-22
134 Helen Snooks 30 October 2024 115/23-24
135 Anthony Marsh 1 October 2024 65/13-19
136 INQ000474285_0022 para 60
137 INQ000474285_0022-0023 paras 61, 63

4.71. Professor Snooks stated that there may have been many reasons why there was "*a slightly higher risk*" of an adverse outcome for people who did not receive an emergency response when compared with NHS 111.[138] These included the fact that there may not have been any ambulances available to attend, but also that "*people that called 999 were maybe sicker than people that were calling 111*".[139] As a result, she would expect to see this difference.[140]

Increasing capacity in ambulance services

4.72. Ambulance services provided the Inquiry with examples of how workforce capacity was rapidly increased, some of which are set out below:

- The London Ambulance Service NHS Trust utilised 900 volunteers, students, former staff members and "*hundreds*" of firefighters to assist with 999 call handling and to support the front line.[141]
- St John Ambulance deployed volunteers and ambulance crews to 10 of the 11 ambulance services in England.[142]
- The Scottish Ambulance Service utilised retired staff, the British Red Cross, the Scottish Fire and Rescue Service, the military and students.[143] However, it told the Inquiry that, although there were enough staff to meet demand, this was a result of the additional support received as well as prioritisation of resources for the sickest patients, which "*was also not without risk for lower acuity patients*".[144]
- The Northern Ireland Ambulance Service did not undertake any additional recruitment beyond that planned prior to the pandemic, but used funding from the Department of Health (Northern Ireland) to support additional overtime payments to staff and to engage independent ambulance providers.[145] The Department of Health (Northern Ireland) did not hold the information as to whether the funding it granted had in fact increased capacity.

4.73. The Welsh Ambulance Services NHS Trust redeployed clinicians from March 2020 and used students, overtime and bank staff (workers who fill shifts or cover absences on an ad hoc basis).[146] However, in December 2020, the workforce pressures had reached a level where it was impacting on "*its ability to sustain a community response to patients in a timely manner*" and the trust declared a critical incident on 3 December 2020.[147] Further, on 14 December, due to increasing staff absences, it raised a red status report (the second most serious) with the Welsh Government

138 Helen Snooks 30 October 2024 126/11-24
139 Helen Snooks 30 October 2024 126/18-20
140 Helen Snooks 30 October 2024 126/11-24
141 INQ000303177_0010-0011 paras 37e-37f
142 INQ000232063_0006 para 28
143 INQ000335968_0037 para 133
144 INQ000335968_0018-0019 para 69
145 INQ000273834_0008, 0023 paras 25, 76; INQ000492281_0036 para 94
146 INQ000485168_0043, 0075 paras 133, 237
147 INQ000485168_0037 para 110

to seek support from other agencies.[148] The Inquiry was not presented with evidence to confirm whether or not support was in fact provided.

4.74. In June 2021, Eluned Morgan MS, Baroness Morgan of Ely, Minister for Health and Social Services in the Welsh Government from May 2021 to March 2024, requested a delivery plan to improve performance of the ambulance services and, in particular, to address the fact that since July 2020, the nationwide target for immediately life-threatening (red) calls had not been met.[149] While various actions were undertaken, including the recruitment of an additional 136 front-line staff, on 22 September 2021, the Welsh Ambulance Services NHS Trust requested military assistance to provide 251 additional drivers. The request stated that "*if action is not taken quickly there is a significant risk to life*".[150] The Welsh Government supported the request, but on 25 October 2021, only 100 personnel were made available by the military authority (authorised by the Secretary of State for Defence in the UK government).[151]

4.75. The Welsh Ambulance Services NHS Trust made an additional military aid request for 251 drivers on 17 November 2021 on the grounds that:

> "[T]*here remains daily Serious Adverse Incidents being reported where patients are coming to harm or life is sadly lost before WAST* [the Welsh Ambulance Services NHS Trust] *can get to them.*"[152]

This request was granted on 15 December 2021. It included the existing deployment of 100 allocated drivers remaining on task, until the deployment of an additional 151 drivers and support personnel starting on 5 January 2022 for training and employment.[153] Military assistance to the Welsh Ambulance Services NHS Trust peaked at 235 personnel on 7 February 2022.[154]

4.76. The Welsh Government granted £5 million to the Welsh Ambulance Services NHS Trust on 22 November 2021, in part to increase capacity. However, the new recruits had to undergo training before they could be deployed and, in the meantime, additional external resources were necessary.[155]

Non-emergency patient transport services and the independent sector

4.77. The independent ambulance sector supports the NHS by transporting patients who are at low risk (non-emergency). Independent providers are funded to provide this service by the NHS and undertake 50% of non-emergency patient journeys each year in England.[156]

148 INQ000485168_0037-0038 paras 110-111
149 INQ000474251_0059-0060 paras 180-181
150 INQ000480061_0003 para 15
151 INQ000480061_0003 paras 14-15; INQ000485168_0035-0036 paras 103-104; INQ000480006_0001-0002
152 INQ000480066_0004
153 INQ000474251_0067 para 207
154 INQ000485168_0036 para 104
155 INQ000474251_0065 para 199; Eluned Morgan 20 November 2024 173/10-16
156 Independent Ambulance Association 28 November 2024 15/19-23

4.78. At the start of the pandemic, the pause in elective services meant that the number of non-emergency patient journeys reduced "*to less than 40% in the space of two weeks*".[157] This left a substantial gap in the workload and funding for the providers of these services. Independent ambulance providers responded quickly to deliver a vital service in conveying Covid-19 and non-Covid-19 patients to and from hospital for treatment.[158] This reduced the use of public transport and the risk of contracting Covid-19, in particular for the clinically extremely vulnerable. They also transported patients home who had been discharged from hospital and conveyed patients to and from Nightingale units.[159]

4.79. The Independent Ambulance Association told the Inquiry that the pandemic led to commissioners of NHS services in England engaging with providers "*to explore new service delivery models for patient transport services*", a development that it has welcomed.[160] However, it noted the lack of a "*permanent national team providing oversight*" and that leadership for non-emergency patient transport services within NHS England would bring "*consistency in approach*" to the commissioning of services.[161]

4.80. Sir Sajid Javid MP, Secretary of State for Health and Social Care from June 2021 to July 2022, considered that the capacity in the independent sector was not utilised to its full potential during the early stages of the pandemic. He said that he would support proposals by the Independent Ambulance Association for increased coordination between the public and independent sectors on non-emergency transport services and a national working protocol to promote rapid scaling-up of services in the future.[162]

4.81. The Scottish Ambulance Service could not use private or independent ambulance providers to support the Covid-19 response because the legislation was not in place.[163] Legislation has been drafted but has not yet been implemented, and the Scottish Government plans to "*look at* [it] *in 2025/2026*".[164]

4.82. Private or independent ambulance providers are a useful resource, especially in a pandemic. The Inquiry supports Sir Sajid Javid in his call for a national working protocol to enable them to fulfil their potential in the future.

Training

4.83. Training for 999 call handlers is provided by the ambulance services and varies across the four nations of the UK in both duration and content. The Inquiry heard that

157 INQ000474232_0017 para 55
158 INQ000474232_0018-0019 para 65
159 INQ000474232_0018-0019 para 65
160 INQ000474232_0020 paras 70-71
161 INQ000474232_0021 paras 79-80
162 Sajid Javid 25 November 2024 108/6-109/1
163 INQ000335968_0019 paras 73-75
164 Caroline Lamb 14 November 2024 131/5-14

during the pandemic, ambulance services made some changes to try to expedite the training process in order to increase staffing levels. For example:

- The North East Ambulance Service recruited NHS 111 and 999 call handlers and provided shorter training on a clinical risk management tool to assess patients, which did not include training on clinical skills or techniques to probe or question callers.[165]
- The Scottish Ambulance Service introduced a "*two-tier skill set*", so that call handlers who handled non-emergency calls received 4 weeks' training and 999 call handlers received 10 weeks' training.[166]

4.84. In England, training of 999 call handlers usually takes approximately five weeks, with an additional "*several weeks*" spent shadowing experienced staff.[167] However, during the early stages of the pandemic, at least one ambulance service in England shortened its training to one day.[168] In response, Mr Marsh sent an email to all ambulance service chief executives in England explaining that he did not support such changes, and emphasised that any changes to training must be safe. However, he told the Inquiry that "*it was a matter for individual ambulance services*" and training was not monitored at a national level in England.[169]

Planning to increase workforce capacity in future

4.85. The students, volunteers, independent ambulance providers, fire and rescue services, and military aid that were recruited throughout the pandemic to increase workforce capacity within ambulance services were all key contributors to the response. However, this additional capacity was insufficient to ensure a timely ambulance response, particularly when handover delays increased (explored further below), with fewer staff and vehicles available to respond.

4.86. Future planning by the UK government, Scottish Government, Welsh Government and Northern Ireland Executive, working with organisations responsible for delivering ambulance services, needs to consider the type and number of staff required to respond to an increase in operational and clinical demand in the 999 service and mechanisms to achieve this. Planning should also build on coordinating the public and independent sectors to improve capacity by utilising non-emergency transport services.

4.87. It is important that the planning also considers the type and length of training and information that will be provided to both new and experienced call handlers during a pandemic to ensure that training is consistent and appropriate. There should

165 INQ000346274_0009 para 3.11
166 INQ000335968_0023-0024 paras 89-90
167 Anthony Marsh 1 October 2024 50/19-25
168 Anthony Marsh 1 October 2024 51/1-8
169 Anthony Marsh 1 October 2024 51/9-52/7

be mechanisms in place to assure the quality and safety of the training, which will need to be regularly reviewed and updated as evidence of the pandemic disease develops.

Conveyance to hospital

4.88. During the pandemic, there was a decline in the number of people taken (conveyed) to hospital by ambulance. In Wales, there were approximately 5,000 fewer conveyances to emergency departments in April 2020 compared with April 2019 and, in England, there was a 28.6% reduction over the same period.[170] In Northern Ireland, there was a 41% reduction in ambulance conveyances to hospital at the end of March 2020 when compared with the end of March 2019.[171]

4.89. One of the reasons for this decline was patient refusal. While it is for the ambulance crew to decide whether to advise the patient to manage their condition at home or to attend hospital, some patients were reluctant to go to hospital, even where they had been advised to do so by an attending ambulance crew.[172]

4.90. However, decisions about which patients to convey to hospital also changed.[173] For example, a patient who would have been conveyed to hospital in non-pandemic times might have been advised to manage their symptoms at home during the pandemic. In most circumstances this would have been appropriate, in particular where the patient was vulnerable, as there was an increased risk of hospital-acquired Covid-19 infection. However, there was a risk of patients deteriorating at home when they should have been treated at a hospital.

4.91. Professor Snooks stated that the PRIEST study found that:

> "*Most patients (65%) attended by an emergency ambulance were transported to hospital. Patients who were not transported to hospital had a 7.9% risk of adverse outcome.*"[174]

She described the 7.9% risk of an adverse outcome as "*a bit … concerning*".[175] She noted, however, that this could have been because the patient did not need to go to hospital when they were seen but their health subsequently deteriorated after 30 days (the period used in the PRIEST study to define an adverse outcome), or the patient made a personal choice not to go to hospital.[176]

170 INQ000373198_0005 para 24; INQ000249085_0006
171 INQ000281174_0011
172 INQ000303177_0042 para 160; INQ000479041_0023 para 79
173 INQ000499523_0021; INQ000485168_0062-0063 paras 195-196
174 INQ000474285_0023 para 64
175 Helen Snooks 30 October 2024 127/1-14
176 INQ000474285_0023 para 65; Helen Snooks 30 October 2024 128/3-16

4.92. From the end of March to the start of April 2020, NHS England began work on draft guidance for ambulance conveyance protocols, which was:

> "*aimed at ensuring best use of front-line ambulance service resources in circumstances where those services might have otherwise become overrun with Covid-19 cases*".[177]

4.93. Separately, as the draft guidance was being developed, clinicians drafted a Specialty Guide for Emergency Medicine. On 10 April 2020, NHS England "*erroneously*" published the Specialty Guide, which included a "*non-conveyance*" graphic with the Clinical Frailty Score.[178] However, there were concerns that the non-conveyance graphic and reference to the Clinical Frailty Score might result in elderly patients or those with long-term disabilities who were otherwise stable not being taken to hospital. This led to the Specialty Guide being republished on 22 April 2020 without the non-conveyance graphic.[179]

4.94. On 15 April 2020, NHS England confirmed that it would not publish its draft guidance on ambulance conveyance as ambulance services by that stage were "*not overwhelmed*".[180] This was despite being advised by the Covid-19 Medical Risk Panel, following consultation with the sector, that they should consider the guidance "*as part of a longer-term strategy for managing hospital use*".[181]

4.95. The Inquiry commissioned research to investigate decision-making across the UK on escalating patients to a higher level of care during the first and second waves of the pandemic. It received 1,683 responses from healthcare professionals, with approximately one-third (579) from paramedics.[182] A quarter (25%) of the respondents said that guidance, advice or escalation criteria specific to the Covid-19 pandemic would have improved their confidence in decision-making.[183]

4.96. In the absence of centralised advice in England, a number of ambulance services developed new tools or amended their own existing guidance to support decision-making on conveyance to hospital for patients with confirmed or suspected Covid-19.[184] The local tools varied depending on the ambulance service.

4.97. The North West Ambulance Service removed a requirement for technicians at the scene to call a senior clinician before providing a patient with self-care advice in March 2020.[185] In contrast, the Yorkshire Ambulance Service introduced a Senior Clinical Support Cell to support decisions on conveyance from 3 November 2020, and in December 2021, due to extreme pressures, clinicians were instructed to

177 INQ000485652_0170-0171 paras 631-632
178 INQ000485652_0173 para 638g. See Chapter 6: Care for patients with Covid-19 for further detail about the Clinical Frailty Scale.
179 INQ000485652_0173 para 638h
180 INQ000485652_0173 para 638i
181 INQ000485652_0172-0173 paras 638d, 638i
182 INQ000499523_0008
183 INQ000499523_0027
184 INQ000303177_0043 para 164; INQ000421859_0015 para 37; INQ000235595_0010 para 32
185 INQ000252494_0025 para 100

contact the Senior Clinical Support Cell prior to conveyance unless certain criteria were met.[186]

4.98. On 27 January 2021, a decision-support tool for conveyance for confirmed or suspected Covid-19 patients was shared with ambulance services by NHS England, but its use was discretionary. Mr Marsh believed that it was introduced at this time in an "*attempt to standardise advice*" and provide paramedics with "*a clearer algorithm to follow*".[187] NHS England issued an updated tool in January 2022.[188]

4.99. In April 2020, the Scottish Ambulance Service and Welsh Ambulance Services NHS Trust provided their front-line responders with a decision-support tool that referred to the Clinical Frailty Scale to assist them in reaching decisions regarding conveyance to hospital. The tools were updated with guidance on when it was or was not appropriate to use the Clinical Frailty Scale.[189]

4.100. Ambulance hubs were also developed by the Scottish Ambulance Service to provide expert clinical advice and support to ambulance crews on conveyance decisions. The effect was that 50% of attendances led to the patient being managed at home.[190]

4.101. There were no changes to the guidance or additional advice provided on the conveyance of patients to hospital in Northern Ireland.[191]

4.102. To ensure consistent decision-making and to avoid undue pressure on ambulance staff in future, ambulance services in England, the Welsh Ambulance Services University NHS Trust, the Northern Ireland Ambulance Service and the Scottish Ambulance Service are encouraged to work together to develop guidance or a tool. It should be made available from the outset and throughout a pandemic to support paramedics and ambulance technicians when making decisions about conveyance to hospital.

Handover delays

4.103. The target for handover from ambulance to hospital is 15 minutes across the UK.[192] However, in the decade prior to the pandemic, handover delays increased, and they have continued to increase since the pandemic.[193] Handover delays put patients and

186 INQ000308293_0009 para 7.11
187 Anthony Marsh 1 October 2024 80/18-81/6
188 INQ000474223_0016 para 73
189 INQ000485168_0058-0059, 0062-0063 paras 187-189, 195-196; INQ000303185_0004-0005
190 Caroline Lamb 14 November 2024 129/6-23
191 INQ000273834_0020 para 64
192 INQ000474223_0040 para 149
193 INQ000474223_0040-0041 para 150; *Taking Stock: Assessing Patient Handover Delays a Decade After 'Zero Tolerance'*, Association of Ambulance Chief Executives, September 2023, p3 (https://aace.org.uk/wp-content/uploads/2023/09/AACE-TAKING-STOCK-09.2023.-1.0.pdf; INQ000409837); 'Ambulance handover delays in England may harm 1,000 patients a day', *The Guardian*, 5 January 2025 (https://www.theguardian.com/society/2025/jan/05/ambulance-handover-delays-may-harm-1000-patients-day-england; INQ000647958)

ambulance crew at risk, cause distress to the staff managing the patient and keep vital resources out of the system for long periods.

4.104. Despite a decline in attendance at emergency departments during the Covid-19 pandemic (whether conveyed by an ambulance or self-presenting), delays in being admitted to and discharged from hospital were a key contributory factor to growing handover delays. The situation worsened as the pandemic progressed and resources in hospitals were stretched even further. In England, people waiting in ambulances for more than 60 minutes outside hospitals rose from 6,000 at the start of the first lockdown to 37,000 in October 2021 and 45,000 in March 2022.[194] The Association of Ambulance Chief Executives estimated that during December 2021, when the longest delay in England was 20 hours, 30,000 patients could have experienced potential harm and 3,000 severe harm due to the delays.[195]

4.105. Mr Hancock and subsequently Mr Javid regularly met with Pauline Philip (National Director for Urgent and Emergency Care at NHS England from December 2015) to discuss handover delays.[196] Mr Hancock said that some ambulance services had reduced delays and he had sought to address the differences between services, but that ultimately this was an operational matter for the NHS.[197] NHS England stated that, since the summer of 2021, it had taken "*further steps*" to reduce the impact of hospital handover delays on ambulance services.[198] This included £55 million of funding from July 2021, which was granted to improve flow into emergency departments, but Mr Hancock acknowledged that flow out of hospital with appropriate and timely discharge was "*one of the biggest barriers*".[199]

4.106. In Wales, 32,699 patients waited more than 60 minutes between April 2020 and March 2021.[200] A review of the period from 1 April 2020 to 31 March 2021 by Healthcare Inspectorate Wales found that handover delays were having a:

> "*detrimental impact upon the ability of the healthcare system to provide responsive, safe, effective and dignified care to patients*".[201]

194 *Ambulance Services and the Pandemic: A Review of 2020-2021*, Association of Ambulance Chief Executives, December 2021, p9 (https://aace.org.uk/wp-content/uploads/2024/03/Ambulance-services-and-the-pandemic-%E2%80%93-AACE-annual-review-2020-21-FINAL.pdf; INQ000226613); *National Ambulance Data – Final: Data Period to End March 2022*, Association of Ambulance Chief Executives, 27 April 2022, p24 (https://aace.org.uk/wp-content/uploads/2022/06/National-Ambulance-Data-to-March-2022-FFa.pdf; INQ000472386)
195 *National Ambulance Data – Final: Data Period to End December 2021,* Association of Ambulance Chief Executives, 19 January 2022, p2 (https://aace.org.uk/wp-content/uploads/2022/06/National-Ambulance-Data-to-December-2021-VFFa.pdf; INQ000472383)
196 INQ000485736_0053 para 112; Matt Hancock 21 November 2024 103/4-10
197 Matt Hancock 21 November 2024 101/25-102/21
198 INQ000485652_0181 para 665
199 INQ000485652_0182 para 666; Matt Hancock 21 November 2024 105/2-18
200 *Welsh Ambulance Services NHS Trust: Patient Safety, Privacy, Dignity and Experience Whilst Waiting in Ambulances During Delayed Handover*, Healthcare Inspectorate Wales, 7 October 2021, p14 (https://www.hiw.org.uk/local-review-welsh-ambulance-service-trust-delayed-handover; INQ000410465)
201 *Welsh Ambulance Services NHS Trust: Patient Safety, Privacy, Dignity and Experience Whilst Waiting in Ambulances During Delayed Handover*, Healthcare Inspectorate Wales, 7 October 2021, p6 (https://www.hiw.org.uk/local-review-welsh-ambulance-service-trust-delayed-handover; INQ000410465)

Delays in Wales also occurred during and after the third wave of the pandemic.[202] However, they remained much less severe than in England.

4.107. In Northern Ireland, handover delays of more than three hours increased significantly between July and September 2020, and, in one case, the Department of Health (Northern Ireland) was aware of a patient who spent 12 hours waiting in the back of an ambulance before being admitted. As Richard Pengelly, Permanent Secretary to the Department of Health (Northern Ireland) from July 2014 to April 2022, noted:

> "*The description of the patient's experience made for difficult reading. I can only imagine the impact it may have had on the patient and on the ambulance crews looking after him.*"[203]

4.108. Scotland faced a sustained increase in handover delays throughout the pandemic, which continued to increase steadily from the spring of 2021.[204] The Scottish Ambulance Service received funding from the Scottish Government to introduce additional hospital liaison officers to support, among other things, the handover of patients from the ambulance to the hospital, but delays still peaked in December 2022.[205]

Impact on ambulance workers

4.109. Handover delays led to ambulance workers spending longer in an ambulance with a patient who may have had confirmed or suspected Covid-19 during the peaks of the second and third waves (coinciding with the winter period). This led to "*more ambulance staff infected and more … taking sickness absence*" and, in the Welsh Ambulance Services NHS Trust, for example, contributed to issues with retention and recruitment.[206]

4.110. Increased delays in handover had a significant impact on the mental health of ambulance crew. Mark Tilley, an ambulance technician, summarised one of his experiences of handover delays during the peak of the second wave:

> "[W]*e were doing ten-hour shifts … we were there by 8 o'clock but when our shift had finished we were still there with the patient in the back of the ambulance. We had run out of oxygen so we'd had to scan the hospital to try to find oxygen. The consultant or doctor had been out to take bloods. Our patient had deteriorated quite heavily. It was a snowy, cold, icy day … we couldn't be in the*

202 INQ000485168_0077-0078 para 246
203 INQ000655987
204 INQ000335968_0029 para 109
205 Caroline Lamb 14 November 2024 128/1-4; INQ000335968_0029-0030 paras 109-110
206 INQ000281189_0016 para 47; INQ000485168_0072 para 226

back of the ambulance with the patient because of the exposure because we had to be out -- so slightly outside the back, watching in to them, and the patient, trying to look after their bodily functions, their well-being."[207]

Delays in the emergency department

4.111. Patients arriving at hospital will be triaged by a medical professional in the emergency department to determine whether or not they are admitted or are discharged back home.

4.112. Although long waiting times and overcrowding in emergency departments pre-date and post-date the pandemic, during the first wave fewer people attended hospitals and demand on services declined. In the week following the first lockdown announcement, there was a 34.5% reduction in attendance at emergency departments in England compared with 2019 (likely to have been attributable in part to the reduction in travel and leisure activities and fewer trauma injuries).[208]

4.113. Similarly, in the early part of the pandemic, there was a reduction in the number of attendances at emergency departments in Wales, Northern Ireland and Scotland.[209] Those working in or managing emergency departments reported to the Royal College of Emergency Medicine that this had provided an opportunity to "*redefine the role* [of the emergency department]*, preventing overcrowding, and maximising clinical capabilities while ensuring patient safety*".[210]

4.114. From May 2020 onwards, the Royal College of Emergency Medicine asked the UK government and the Welsh and Scottish Governments to prepare for the winter of 2020/21, which included redesigning emergency departments to "*promote better patient flow*" and expand capacity.[211]

4.115. In July 2020, a 'phone first' approach was promoted in Wales. It was intended to reduce overcrowding in emergency departments and reduce the spread of infection by encouraging people to use NHS 111 or 999, as appropriate, or to contact a different call-handling service, from which the patient would be signposted to self-care or community services or be booked into an emergency department. However, it was only implemented by two (of seven) local health boards.[212]

4.116. The Department of Health (Northern Ireland) produced *COVID-19 Urgent and Emergency Care Action Plan: No More Silos* in October 2020, which sought to

207 Mark Tilley 1 October 2024 13/23-14/15
208 INQ000485652_0079 para 303
209 INQ000485721_0207 para 516; INQ000493484_0052 para 229; INQ000421784_0136 para 217
210 INQ000412904_0009 para 26(iii)
211 INQ000412904_0011-0012 paras 27(i), 27(vi), 27(vii)
212 INQ000485721_0195-0197 paras 480, 487

address the overcrowding in emergency departments and hospitals.[213] In response, the Phone First service was developed (discussed above), but the Inquiry did not receive any evidence as to whether or not it reduced overcrowding in the emergency department.

4.117. In England, a service that enabled call handlers and members of the public to pre-book attendance at accident and emergency departments directly – NHS 111 First – was initially discussed in May 2020 and rolled out in December 2020. The Inquiry understands the delay was due to IT infrastructure issues.[214] By April 2021, it was available to all NHS 111 and online services and 100,000 bookings had been made.[215]

4.118. During the second wave of the pandemic, there was a significant increase in emergency department waiting times, despite fewer people attending, caused by the "*dual challenge of the pandemic and managing persistent winter pressures*".[216] In January 2021, the Royal College of Emergency Medicine declared a "'*national emergency*'" in light of "*record numbers of patients waiting 12 hours or more from the decision to admit*" due to longer waits for inpatient beds.[217] This led to concerns that there was a lack of focus on the system operating "*as an integrated whole*" and the Royal College called for "*embedding unscheduled care firmly into recovery plans*" (see Chapter 9: Healthcare for non-Covid-19 conditions).[218]

4.119. The Royal College of Emergency Medicine published a report, *RCEM Acute Insight Series: Crowding and Its Consequences*, on the impact of delays in emergency care in 2021, which found that, of those who waited 8 to 12 hours in an emergency department, there were 303 excess deaths in Scotland and 709 in Wales. In 2020/21, there were 4,519 excess deaths in England and 566 in Northern Ireland associated with long waiting times in emergency departments.[219]

4.120. Looking to the future, the Royal College of Emergency Medicine recommended that in order to build resilience in the emergency care system, there should be "*an expansion of hospital capacity by increasing the number of staffed hospital beds and ensuring hospital occupancy levels do not exceed 85%*".[220]

4.121. A deterioration in service in one area creates a domino effect – delays in the emergency department exacerbate handover delays, which leads to slower ambulance response times – demonstrating that each part of the urgent and emergency care system cannot be viewed in isolation. From May 2021, these problems became more acute as attendance at emergency departments grew,

213 INQ000492281_0117-0118 paras 355-356; *COVID-19 Urgent and Emergency Care Action Plan: No More Silos*, Department of Health (Northern Ireland), October 2020 (https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-no-more-silos.pdf; INQ000276387)
214 INQ000409864_0002; Matt Hancock 21 November 2024 98/23-99/5
215 INQ000485652_0222 paras 821-823
216 INQ000412904_0015 para 29
217 INQ000412904_0015 para 29(i)
218 INQ000412904_0015-0016 para 29(iii)
219 INQ000412904_0018 para 31(ii)
220 INQ000412904_0032 para 72(i)

in part due to people turning to urgent and emergency care when they found it increasingly difficult to access primary and secondary care.

4.122. The risk to patients increases the longer it takes for a call to be answered, for an ambulance to arrive, waiting outside hospital in an ambulance or for a decision on admission to be made. Any future pandemic will inevitably place additional pressure on already stretched urgent and emergency care services. It is essential that the UK government and devolved administrations act now to plan for the scaling-up of these services to address the inevitable increase in demand.

Recommendation 5: Prepare to scale up urgent and emergency care capacity

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, in conjunction with organisations responsible for delivering services, should plan for surge capacity in urgent and emergency care during a pandemic.

Plans must ensure that there is sufficient workforce capacity and the ability to surge, including the number and type of staff required, recruitment and training provision.

This should be completed as part of the whole-system civil emergency strategy recommended in the Inquiry's Module 1 Report (Recommendation 4). Plans should be published and subject to review every three years.

Chapter 5: Increasing hospital capacity

Introduction

5.1. Much of the focus of the response to the Covid-19 pandemic from the healthcare systems in the four nations was on ensuring that the UK never 'ran out' of hospital beds. However, beds must be staffed and equipped. As Amanda Pritchard (Chief Operating Officer of NHS England and NHS Improvement and Chief Executive Officer of NHS Improvement from August 2019 to July 2021, and Chief Executive Officer of NHS England from August 2021 to April 2025) told the Inquiry, "*a bed is not a bed if it hasn't got staff*".[1]

5.2. This chapter examines some of the measures taken across the UK to increase existing hospital capacity, including expediting hospital discharges and pausing non-urgent and elective care. It also considers the ways in which the existing workforce was stretched and redeployed, how additional capacity was created and more healthcare workers were recruited, and hospital capacity as the UK entered the Covid-19 pandemic.

Hospital capacity prior to the pandemic

5.3. The UK government and the devolved administrations were aware, before entering the pandemic, that a moderate or severe influenza pandemic may mean that intensive care capacity was breached. Indeed, as the *UK Influenza Pandemic Preparedness Strategy 2011* explicitly set out:

> "*Critical care services are both small and specialist so have limited capacity and capability to expand. They are likely to see increases in demand during even a mild influenza pandemic. In a moderate or severe influenza pandemic demand may outstrip supply, even when capacity is maximised.*"[2]

5.4. Nonetheless, the UK entered the Covid-19 pandemic with a low number of hospital beds and high bed occupancy, as well as significant shortages of healthcare workers to care for the patients in those beds. This included intensive care (also referred to as critical care):

> "*The UK entered the pandemic with less ICU* [intensive care unit] *capacity (in other words, fewer staffed, equipped ICU beds) than other developed economies and healthcare systems.*"[3]

1 Amanda Pritchard 11 November 2024 136/9-10

2 *UK Influenza Pandemic Preparedness Strategy 2011*, Department of Health, November 2011, page 54, para 6.29 (https://assets.publishing.service.gov.uk/media/5a7c4767e5274a2041cf2ee3/dh_131040.pdf; INQ000022708). This strategy was considered in the Inquiry's previous reports: *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 4 (https://covid19.public-inquiry.uk/documents/module-1-full-report); and *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025, Chapter 2 (https://covid19.public-inquiry.uk/documents/module-2-full-report).

3 INQ000474255_0007 para iv. See also data from the Organisation for Economic Co-operation and Development (https://www.oecd.org/en/data/indicators/hospital-beds.html; INQ000655986).

5.5. Senior politicians acknowledged this and accepted that it put hospitals under further strain.[4] As Professor Sir Christopher Whitty (Chief Medical Officer for England from October 2019) said, running healthcare capacity in this way was:

> "*a choice. That's a political choice. It's system configuration choice, but it is a choice. But, therefore, you have less reserve when a major emergency happens, even if it's short of something of the scale of Covid.*"[5]

5.6. As a consequence, when modelling in March 2020 (see below) indicated that the number of Covid-19 patients needing a hospital bed would exceed the number of available beds, there was an urgent need to maximise existing capacity and to create additional capacity.

The gap between capacity and predicted demand

5.7. The Scientific Pandemic Influenza Group on Modelling (SPI-M) was responsible for providing the UK government with advice based on modelling data.[6] Its early models differed in their projections as to how many people would require treatment in hospital.

5.8. One model dated 1 March 2020 indicated that, without any mitigations, the 'reasonable worst-case scenario' (ie a planning tool used to illustrate the worst manifestation of a risk that could reasonably be expected to occur) could result in up to 1 million hospital beds being needed at the peak of the first wave of the pandemic.[7] At this time, there were only about 160,000 beds across the UK.[8]

5.9. In relation to critical care, later models, which aimed to take into account the impact of lockdowns and social distancing, suggested that, by the end of April 2020, in England alone between 6,300 and 11,700 ventilated beds could be required.[9] However, as at 30 January 2020, England had only 3,654 intensive care unit beds available, of which 83.3% were occupied (unrelated to Covid-19), and not all of those beds were equipped to provide invasive mechanical ventilation.[10]

5.10. Scotland entered the pandemic with 173 intensive care beds and approximately 13,000 general and acute hospital beds.[11] Modelling forecast a significant mismatch between supply and demand, such that health boards were asked to double and

4 Matt Hancock 21 November 2024 5/6-10; Jeane Freeman 19 November 2024 49/5-11; Vaughan Gething 20 November 2024 19/12-20
5 Christopher Whitty 26 September 2024 68/13-17
6 *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025 (https://covid19.public-inquiry.uk/documents/module-2-full-report)
7 INQ000409251_0079 para 324
8 INQ000657602_0003
9 INQ000409251_0083 para 345
10 INQ000474255_0057 para 147
11 INQ000485984_0005-0006 para 10

then quadruple their intensive care unit capacity to approximately 700 beds by March 2020.[12]

5.11. As at 1 March 2020, there were 4,027 hospital beds and 88 critical care beds in Northern Ireland.[13] Planning assumptions indicated that 180 critical care beds were needed and that the peak number of Covid-19 hospital admissions would be 500 per week.

5.12. In Wales on 15 March 2020, there were reported to be 148 intensive care beds. The Technical Advisory Cell indicated that, if all three social interventions (ie self-isolation, household quarantining, and shielding vulnerable groups and people aged over 70) were in place in Wales early in the pandemic:

> "[T]*here would be a peak need for 1,595 intensive care beds and 16,552 hospital beds. This meant that, if every single NHS Wales bed was available to Covid-19 patients, there would be a deficit of 5,989 beds at peak and 1,447 intensive care beds (if all current NHS capacity was available). The advice was that the deficit was likely to be higher.*"[14]

5.13. Although modelling projections changed as further knowledge about the virus and data became available, it was clear across the UK by March 2020 that the likely number of people needing treatment in hospital, particularly in intensive care, was far in excess of the usual availability (not taking into account the non-Covid-19 patients who might require care or critical care).

5.14. Urgent measures were therefore needed to increase existing hospital capacity and to redeploy existing staff to ensure that the anticipated influx of Covid-19 patients could be cared for. Steps were also taken to create additional hospital capacity and to expand the workforce by the recruitment of additional staff.

Measures taken to expand existing hospital capacity

5.15. In early to mid-March 2020, English NHS trusts, Scottish health boards and Welsh local health boards were asked by NHS England and the Welsh and Scottish governments to review critical care capacity and ensure that they had plans in place to increase capacity.[15]

5.16. In response, all four nations were able to increase their critical care capacity. In Scotland, intensive care unit bed capacity was "*rapidly*" expanded from 173 beds to 585 beds capable of providing mechanical ventilation.[16] In England, during the first peak of the pandemic, critical care beds were increased from approximately 3,600 to

12 INQ000485984_009 paras 19, 21
13 INQ000421800_0107 paras 313-314
14 INQ000485721_0168 para 421
15 INQ000485979_0131 para 522; INQ000087445; INQ000269899; INQ000486014_0040 paras 117-118
16 INQ000485984_0006 para 11

more than 6,000.[17] In Northern Ireland, the Critical Care Network for Northern Ireland updated a pre-existing critical care surge plan that had been developed in response to the 2009 to 2010 H1N1 influenza pandemic ('swine flu').[18] The plan (dated March 2020) included expanding the normal capacity of 88 critical care beds to 126 beds.[19] The number of mechanical ventilators was increased from 139 to 179.[20]

5.17. In Wales, by 4 April 2020, capacity for mechanically ventilated patients had more than doubled from 148 to 356 beds, 106 of which were outside intensive care units. However, the additional bed numbers were reported as being available "*regardless of whether they could be staffed*".[21] Sir Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025, accepted that there were not "*the staff trained to be able to move into those positions*".[22] He said:

> "*The big lesson to me was that the system didn't have enough capacity to be able to respond in the way that we needed it to and in a way that's because -- we've tried to make our NHS, and it's true in Wales as in the rest of the UK, as efficient as possible, and in some ways efficiency is the enemy of preparedness, because we don't have the sufficient expanse in capacity.*"[23]

5.18. Given the acknowledgement that efficiency meant there was not enough capacity, it remains unclear how the additional critical care beds would be staffed, and it was not until 13 November 2020 that reporting on bed capacity in Wales reflected whether or not beds could be staffed.[24]

5.19. By March 2020, in addition to expanding the bed base in critical care, there was a pressing need to free up existing hospital capacity. The UK government and devolved administrations therefore took the following common key decisions:

- to expedite discharges from hospital of those who were medically fit; and
- to suspend non-urgent and elective care and procedures.

Expediting hospital discharge

5.20. The ability to discharge patients, especially older patients, as soon as they are medically fit has been a longstanding issue in the UK's healthcare systems and demonstrates the close connection with, and interplay between, the health and social care sectors. Older and infirm patients may be medically fit to be discharged

17 INQ000409251_0125 para 481
18 INQ000485720_0011 para 22
19 INQ000485720_0011-0012 para 24
20 INQ000492281_0046 para 129
21 INQ000485721_0167, 0157 para 399
22 Frank Atherton 30 September 2024 113/23-24
23 Frank Atherton 30 September 2024 113/11-18. On 1 March 2020, the Health and Social Services Group stated that there were approximately 152 Level 3 beds and so the local health boards were asked to provide critical care capacity data. The responses showed that, by 30 March 2020, there were 304 critical care beds (INQ000486014_0091 paras 264-265).
24 INQ000485721_0179 para 449

but require a package of care and support to be put in place at home, or in a residential care setting.[25] Delayed discharges affect not only the bed capacity and flow of patients through a hospital but, for older people in particular, longer stays in hospital can lead to poorer health outcomes and can increase their long-term care needs due to loss of muscle strength and mobility.[26] They can also increase the patient's chance of contracting a hospital-acquired infection.

5.21. Each of the four nations therefore took steps to expedite hospital discharges. In England and Scotland, targets were set for the number of discharges that would be required:

- In Scotland, on 6 March 2020, the health and social care sector was asked to reduce the overall Scottish delayed discharge position from 1,650 to 1,250 by 9 April 2020, thereby freeing up 400 beds.[27] By 27 March 2020, this target had been met and a further reduction of 500 delayed discharges was requested by the end of April 2020.[28]
- On 17 March 2020, NHS England asked hospitals urgently to discharge those who were medically fit to leave. NHS England considered that this "*could potentially free up to 15,000 acute beds currently occupied by patients awaiting discharge or with lengths of stay over 21 days*".[29]

5.22. Towards the end of April 2020, NHS England assessed the impact of the discharge measures over the course of the first wave, which indicated that, although there was regional variation, there had been "*an overall significant reduction*" (against a 2018 March baseline) in hospital "*long length*" stays of more than 21 days. The analysis also showed that daily numbers of beds occupied by adult patients for more than 7 days in an acute hospital reduced from 42,666 to 19,833, and daily numbers of beds occupied by adult patients for more than 14 days in an acute hospital dropped from 25,075 to 10,506.[30]

5.23. In Wales, on 13 March 2020, Vaughan Gething MS, Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021, published a ministerial statement setting out a framework of actions that included expedited hospital discharges, along with other measures to increase hospital capacity.[31] The framework document did not provide an estimate of the number of beds that might be freed up. Mr Gething said that to do so "*would have been us trying to numerically manage things in a way that would have been artificial*".[32] From 30 March 2020, some health boards provided the number of patients discharged in a Situation Report (SitRep) to the NHS Wales Informatics Service for onward submission to the

25 INQ000409251_0058 para 233c; Matt Hancock 21 November 2024 105/13-18
26 INQ000409251_0143 para 532c
27 INQ000470123_0001
28 INQ000485979_0195 para 680
29 INQ000087317_0002
30 INQ000409251_0150 para 559
31 INQ000320755
32 Vaughan Gething 20 November 2024 20/22-24

Welsh Government.[33] It was not until the end of April 2020 that the health boards were asked to provide data on the number of patients discharged and these data were modelled to work out how many patients might need adult social care.[34]

5.24. On 19 March 2020, the Department of Health (Northern Ireland) published the *Health and Social Care (NI) Summary Covid-19 Plan for the Period mid-March to mid-April 2020*.[35] The plan included expedited discharges (and suspension of all non-urgent care) to ensure that there was sufficient capacity within the system to meet the expected increase in demand.[36] The plan made no reference to how much additional capacity these measures might create, and the Inquiry has not seen any data setting out the number of patients that were discharged.

5.25. As set out above, modelling projections as to the number of people requiring hospital treatment made clear that a failure to increase the number of hospital beds, particularly in intensive care units, could lead to many thousands of people dying. The decision to expedite discharges for medically fit patients was therefore necessary to free up hospital bed capacity. The impact of this decision on the adult social care sector is considered in Module 6: Care sector.

Pausing non-urgent and elective care

5.26. In March 2020, across the UK, all non-urgent elective care was paused, with only urgent care and 'essential services' to continue.

5.27. NHS England's letter of 17 March 2020 expressly stated that "[e]*mergency admissions, cancer treatment and other clinically urgent care should continue unaffected*".[37] Mr Gething also confirmed that "[a]*ccess to cancer and other essential treatments … will of course be maintained*".[38] Robin Swann MLA (Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024) said that, in Northern Ireland:

> "[E]*fforts were made to minimise any disruption to treatment for cancer and other urgent procedures, but, unfortunately, there was some impact on their treatment.*"[39]

5.28. In Scotland, in addition to pausing non-urgent elective activity, the five adult screening programmes (including cancer) were also paused. Jeane Freeman MSP, Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021, said that these measures were all undertaken to:

33 INQ000300701_0005 paras 21-23; INQ000492257_0002-0003 paras 12-14; INQ000421872_0005
34 INQ000551798_0090 para 314
35 INQ000103714
36 INQ000103714_0009-0010
37 INQ000087317_0002
38 INQ000320755_0002
39 INQ000492281_0100 para 310

> "*free resource and redeploy staff to ensure we were able to cope in the acute setting including in ICU and HDU* [high dependency units]".[40]

5.29. While the postponement of non-urgent elective care helped to free up healthcare workers to be redeployed to support, in particular, critical care, determining precisely how many beds it freed up is not straightforward as projected additional bed numbers were often based on all the other steps being taken to increase capacity.[41] While the decision itself may have been a reasonable one in light of the very real risk that demand would exceed capacity, there can be no doubt, as set out in Chapter 9: Healthcare for non-Covid-19 conditions, that the repercussions of this decision were significant. Further, as is explored in Chapter 10: Impact on healthcare workers and 'overwhelm', delaying treatments for patients in need suggests that the system had in many respects become overwhelmed.

Measures taken to maximise existing workforce capacity

5.30. In order to meet the growing pressures in intensive care units, staff-to-patient ratios of care were changed and staff were redeployed from other areas of healthcare to critical care. Testing healthcare workers for Covid-19 also contributed to workforce capacity by ensuring that staff who tested negative could return to work.

Changes to intensive care staffing ratios

5.31. The pandemic saw changes to intensive care staffing ratios which meant that specially trained critical care nurses could care for more patients than would ordinarily be the case. However, the dilution of staff ratios for intensive care came at a risk to the patients. Intensive care nursing requires highly specialised skills, and increasing the number of patients for whom a specialist intensive care nurse had responsibility increased the burden on an already overburdened cadre of nurses. As Professor Charlotte Summers and Dr Ganesh Suntharalingam, expert witnesses on intensive care, stated:

> "*When staffing and skills are necessarily spread more thinly, in some places and at some times, then effectively, critical care is potentially being delivered in a compromised way and at a lower level for everybody.*"[42]

5.32. At the start of the pandemic, *Guidelines for the Provision of Intensive Care Services in the UK* set out the minimum standards for the type and number of healthcare professionals involved in providing intensive care and aimed to produce a positive

40 INQ000493484_0024, 0026 paras 88, 99
41 INQ000493484_0028 para 104; INQ000485721_0207 para 516. NHS England's 'Phase 1 letter' stated that the postponement of non-urgent elective care "*could free up 12,000-15,000 hospital beds*" (INQ000087317_0002).
42 INQ000474255_0021 para 32

impact on both quality of care and safety for critically ill patients.[43] The guidelines set out levels of care applicable in critical care:

- **Level 2 care:** This is for patients with single organ failure who require post-operative care or who are stepping down from Level 3 care. Level 2 beds are often located within intensive care units (so that the system can flex according to patient needs) or in high dependency units. Level 2 care is staffed by specially trained healthcare workers, and patients can expect to receive nursing at a ratio of one trained nurse to every two patients (a ratio of 1:2).
- **Level 3 care:** This is provided to patients who require multi-organ support and those who require invasive mechanical ventilation. It is designed to be provided through a ratio of one trained intensive care nurse for each patient (1:1 ratio).[44]

5.33. As a result of the increasing demand on capacity and projections that intensive care capacity may be exceeded, on 25 March 2020 guidance was issued across the UK which advised:

> "[I]*n the event of doubling/trebling/quadrupling of intensive care capacity, a team approach should be taken to staffing ratios to allow experienced critical care staff to concentrate on technical/clinical aspects of delivery.*"[45]

The guidance also set out that, in extreme scenarios, intensive care units could stretch to a ratio of one trained critical care nurse to up to six Level 3 patients (1:6), with support from four other registered nurses and a further team of four healthcare support workers.[46]

5.34. Dame Ruth May, Chief Nursing Officer for England from January 2019 to July 2024, led the National Incident Response Board decision to 'dilute' the staff-to-patient ratios, describing it as a decision that would stay with her "*forever*".[47] She accepted that the stretched nursing ratios affected the care patients received, but explained that she made the decision because:

> "*In critical care the capacity was doubling, trebling, quadrupling, ten times the capacity in other places. We were seeing reports in Italy where patients weren't able to get into hospital.*"[48]

5.35. Professor Jean White, Chief Nursing Officer for Wales from October 2010 to April 2021, also acknowledged the impact of stretching ratios on nursing staff:

43 INQ000269890_0036. The guidelines were produced by the Faculty of Intensive Care Medicine and the Intensive Care Society.
44 INQ000474255_0018-0019 para 28. Level 0 and Level 1 apply to care given on a ward, including care given to patients who may be at risk of deteriorating.
45 INQ000479043_0037-0038 para 171; INQ000421219
46 INQ000421219
47 Dame Ruth May 17 September 2024 43/8. The National Incident Response Board set the strategic direction and oversaw NHS England's pandemic response.
48 Dame Ruth May 17 September 2024 43/20-23

> "*It added to the stress of the staff … if you're looking after twice the number of patients it's going to be difficult.*"[49]

5.36. The impact on the nursing staff was one of the reasons why, on 10 December 2020, guidance was issued which revised critical care nursing ratios.[50] The guidance advised that trusts should maintain staffing ratios at a minimum of one critical care nurse to two Level 3 beds (1:2) and:

> "[T]*his should not be exceeded unless local and regional mutual aid options have been explored, exhausted and escalated appropriately.*"[51]

5.37. A number of hospitals confirmed that during the pandemic they had to stretch their nursing ratios. Queen Elizabeth Hospital (Lewisham and Greenwich NHS Trust) and King George Hospital (Barking, Havering and Redbridge University Hospitals NHS Trust) described having to operate with ratios of 1:4.[52] The Royal London Hospital (Barts Health NHS Trust) told the Inquiry that during the peak of the pandemic ratios stretched to 1:5.[53] The Inquiry heard that some intensive care areas reached one specialist care nurse to six mechanically ventilated patients.[54] Notwithstanding the revised critical care ratio guideline, there was evidence that stretched nursing ratios were still occurring in December 2020 and January 2021.[55]

5.38. In January 2021, during the peak of the second wave across the UK, 2,251 intensive care beds above baseline capacity were occupied (equivalent to 141 new 16-bedded intensive care units).[56] A report by the Intensive Care Society in February 2021 set out the large numbers of additional trained staff, including nearly 2,500 critical care nurses, that would be required to deliver the recommended staff-to-patient ratio of safe care in those additional beds (see Table 1).[57]

49 Jean White 17 September 2024 105/25-106/14-15
50 INQ000269986. The guidance was titled *Advice on Acute Sector Workforce Models During COVID-19*.
51 INQ000479043_0038 para 172
52 INQ000474214_0006 para 2.4; INQ000477351_0013 para 55
53 INQ000471161_0018 para 80
54 Kevin Fong 26 September 2024 9/3-7
55 INQ000474327_0019, 0024 paras 97, 128
56 INQ000395297_0003
57 INQ000472300_0057-0058 para 132

Table 1: Number of additional staff required to comply with recommended staffing standards

An extra 2,251 intensive care unit beds would require the following **additional** staff for every 12-hour shift when mapped to the recommended *Guidelines for the Provision of Intensive Care Services* staffing standards:	
2,476	Critical care nurses, 1,238 with a postgraduate qualification
563	Physiotherapists
281	Junior doctors (now resident doctors)
225	Pharmacists
225	Dietitians
225	Speech and language therapists
225	Occupational therapists
225	Clinical psychologists
187	Intensive care unit consultants
Total staff: 4,632	

Source: Drawn from INQ000395297_0003

5.39. These additional staff did not exist.[58] To staff these additional beds, staff-to-patient nursing ratios were stretched, intensive care staff had to work longer hours and more frequently, and other staff were redeployed. As examined in Chapter 10: Impact on healthcare workers and 'overwhelm', this had an inevitably damaging effect on both patients and healthcare workers.

Redeployment

5.40. There was extensive redeployment (assigning healthcare workers to a new role or task) during the pandemic. A report prepared for the General Medical Council found that, during the pandemic, 39% of doctors were redeployed in England, 56% in Northern Ireland, 52% in Scotland and 54% in Wales.[59]

5.41. To prepare for redeployment, a variety of approaches were taken to identify staff suitable for and capable of being redeployed. For example:

- Cardiff and Vale University Health Board increased critical care by delaying the planned opening of the Major Trauma Centre from April 2020 to September 2020, enabling the nursing staff to be redeployed to intensive care units. Paediatric intensive care nurses were asked to support adult critical care and a variety of

58 INQ000472300_0058 para 133
59 INQ000433873_0009

clinical staff, including theatre scrub nurses, were used to create 'turn teams' to support regular 'proning' of patients (turning patients so they lie on their front) requiring critical care.[60]

- Bedford Hospital sent a request to all consultants on 18 March 2020 to establish "*whether there was any previous experience in critical care and … any relevant practical skills*". The hospital also established daily training for around three weeks for redeployed staff to cover oxygen therapy, airway management and other types of oxygen support.[61]
- On 19 March, the Royal Victoria Hospital in Belfast established a Central Medical Workforce Redeployment Team. During the first two surges, the downturn in elective activity meant that staff in this team were redeployed from areas of elective care to support areas providing care for Covid-19 patients, including intensive care units.[62]

5.42. Redeployment of staff bolstered the number of people working in critical care but at the expense of other areas of healthcare. For example, the redeployment of operating theatre staff to critical care increased the critical care medical workforce by approximately 38% in October 2020, "*rising to, approximately, a 125% increase (ie more than doubling) in January 2021*".[63] Most members of staff redeployed were taken from other duties.

5.43. Some healthcare workers, for example anaesthetists, had more easily transferable skills and so were better suited to assist patients needing critical care. Other healthcare workers, such as nursing staff and healthcare assistants recruited through the Staff Bank (a pool of temporary or part-time workers available to fill in staffing gaps on an as-needed basis), needed additional training and support to ensure that they had the appropriate skills.[64] Professor Simon Ball, Chief Medical Officer of University Hospitals Birmingham NHS Foundation Trust from January 2019 to January 2024, said:

> "*Despite the training, clinical materials and support offered to staff working in new areas, unfamiliarity with new clinical areas was associated with delays and sometimes deficiencies in care, such as timely transfer of patients from wards.*"[65]

5.44. Further, Dr Lucia Parjea-Cebrian (Associate Medical Director at the Newcastle upon Tyne Hospitals NHS Foundation Trust from March 2018) described how "[o]*ne of the most significant challenges was training nursing staff from general acute wards to work on ITUs* [intensive therapy units]".[66] As is explored in Chapter 10: Impact on healthcare workers and 'overwhelm', notwithstanding the necessity of redeployment,

60 INQ000480136_0015 para 47
61 INQ000477436_0007 para 18
62 INQ000474259_0045-0046 paras 138, 142
63 INQ000474255_0077 para 197
64 INQ000474259_0089 paras 247-249; INQ000479890_0004 para 12e
65 INQ000477597_0007 para 21
66 INQ000479890_0014 para 53. Also known as intensive care units.

working in critical care during times of extreme strain had a significant impact on redeployed healthcare workers, many of whom had not previously experienced the pressurised nature of the critical care working environment nor the sheer number of deaths that sadly occurred.

Covid-19 testing of healthcare workers

5.45. Healthcare workers with Covid-19 symptoms were required to self-isolate in exactly the same way as the public was required to do (ie 14 days at the start of the pandemic in March 2020, reducing to 5 days by February 2022). This inevitably had an impact on the numbers of staff available to work and so testing for Covid-19 was an important way to ensure that staff who were no longer infected could safely return to work. However, when Covid-19 arrived in the UK at the end of January 2020, testing capacity was limited.[67]

5.46. In March 2020, when testing capacity was limited, England, Northern Ireland and Wales devised a list of the patient-facing clinical roles and healthcare settings that should be prioritised for symptomatic Covid-19 testing.[68] This generally included tests for workers in high-risk areas such as emergency departments, intensive care and front-line ambulance staff, but did not include GPs.[69] Between late March and May 2020, Covid-19 testing capacity had increased such that the offer of testing was extended to all healthcare workers (and their household members) in England, Wales and Northern Ireland.[70] Subsequently, there were multiple changes to testing guidance as testing capacity expanded.[71]

5.47. The Scottish Government did not produce a similar list but instead encouraged NHS boards to:

> "*adopt a flexible and dynamic approach to identifying which … services have the most serious staffing challenges and prioritise using testing to enable staff … to return to work*".[72]

NHS Scotland acknowledged that this approach meant that the advice would change "*frequently*" (ie weekly) and could include GPs if it supported the delivery of critical services.[73]

5.48. The Inquiry heard mixed evidence about the effect that testing healthcare workers had on increasing workforce capacity. At the start of the pandemic and before the introduction of lateral flow tests, testing had an adverse impact on workforce

67 INQ000474282_0091 para 9.25
68 INQ000421784_0233-0204 paras 404-405; INQ000362314; INQ000416178_0061 para 176; INQ000410867_0152-0153 para 386
69 INQ000120705
70 INQ000421784_0234 para 405; INQ000416178_0061-0062 paras 176, 180; INQ000410237_0075 para 8.2; INQ000410867_0153 para 387
71 INQ000416178_0062 para 179; INQ000421784_0233 para 405
72 INQ000398888_0002
73 INQ000398888_0002

capacity, as healthcare workers could not work while they waited (generally 5 to 14 days) for a test result. However, increased testing capacity led to improved testing turnaround times as the pandemic progressed.[74] In addition, a study in 2021 showed that periodic testing of healthcare workers "*reduced infections by up to 37%*", leading to fewer staff absences (0.3%) per day.[75]

5.49. Dr Magda Smith, Deputy Group Chief Medical Officer at Barts Health NHS Trust from April 2022, said that the introduction of lateral flow tests in November 2020 led to more staff absences as it coincided with a spike in Covid-19 cases. However, if Covid-19 cases had not increased, lateral flow devices would have had "*an overall positive impact on workforce capacity*".[76]

5.50. It is likely that, in any future pandemic, non-infected healthcare workers will need to be promptly identified in order for the workforce capacity to be maintained at as high a level as possible, and so the ability to scale up testing capacity will be a key feature of any pandemic response.

Measures taken to create additional hospital capacity

5.51. In addition to expanding capacity within the existing NHS estate, steps were taken to create additional hospital capacity. This was done in two ways, both of which were costly. Independent healthcare sector organisations entered into arrangements with the NHS bodies to make private hospitals and their staff available to provide care and treatment for NHS patients with conditions other than Covid-19. Temporary 'field' hospitals were also established across the UK to create additional surge capacity. The temporary hospitals created greater physical capacity but required staffing from an already overstretched workforce.

Arrangements with the independent sector

5.52. Arrangements with the independent sector to use private healthcare facilities for specific healthcare services and procedures were commonplace before the pandemic. The increased demands caused by the pandemic meant that the UK healthcare systems entered into 'block contracts' with the independent healthcare providers to utilise all their hospital capacity and staff.[77]

5.53. In March 2020, each of the four nations of the UK adopted its own arrangements to secure additional hospital capacity by contracting with the independent sector. These initial contracts were then subsequently extended, with contracts in Scotland

74 INQ000477597_0011 para 38; INQ000474221_0006 para 27
75 INQ000474282_0091 para 9.26
76 INQ000477351_0009 para 37
77 INQ000472172_0047 para 152; INQ000485979_0207 para 722

and Wales ending in 2021 and contracts in England and Northern Ireland ending in 2022.[78] The use to which this capacity was put varied by nation.

5.54. In England, the initial aim was that this capacity would be:

> "*flexibly available … for urgent surgery, as well as for repurposing their beds, operating theatres and recovery facilities to provide respiratory support for COVID-19 patients*".[79]

This arrangement provided "*8000 beds across England, nearly 1200 more ventilators, more than 10000 nurses, over 700 doctors and over 8000 other clinical staff*".[80]

5.55. From May 2020 onwards, many independent sector providers became 'green pathway' sites (ie healthcare settings which were free from Covid-19) and were used for non-Covid-19 treatment, including cancer and cardiac care.[81] The cost of the contracts was approximately £1.65 billion in 2020 and approximately £0.46 billion in 2021.[82] The 2022 contracts had more complicated funding arrangements. Funding for the 2022 contracts was already included in the trusts' budgets but NHS England agreed to cover any remaining balances, which amounted to about £10 million.[83]

5.56. In Scotland, independent hospital capacity was used for urgent elective procedures and urgent cancer cases. Five private hospitals provided a total of 239 additional beds, 16 theatres and just over 300 nurses.[84] Direct funding from the Scottish Government for use of private hospitals between March 2020 and March 2021 cost just over £30.6 million.[85] In early January 2021, further capacity from the independent healthcare sector in Scotland was secured to provide support for breast surgery, urology and gynaecology up to March 2021.[86]

5.57. Arrangements were made with the three independent hospitals in Northern Ireland. This provided a combined total of 112 inpatient beds, recovery areas, day case bed space and outpatient space and was used to treat urgent non-Covid-19 patients across a number of elective specialties.[87] This was expected to ensure that 120 to 135 procedures would be carried out per week across a range of 'red flag' cases (ie cancer or specific medical cases that GPs had indicated needed urgent assessment).[88] The Department of Health (Northern Ireland) did not provide an

78 INQ000409251_0304 para 1216 (England); INQ000492281_0070 para 202 (Northern Ireland); INQ000474260_0003 para 7 (Wales); INQ000485979_0212 para 731 (Scotland)
79 INQ000087317_0002
80 INQ000409251_0291 para 1167
81 INQ000235208_0008 para 22
82 INQ000409251_0312 para 1231
83 INQ000409251_0312 para 1233
84 INQ000485979_0206 para 720
85 INQ000485979_0213 para 731
86 INQ000485979_0205 para 720
87 INQ000485167_0022 para 63. The independent sector in Northern Ireland did not have critical care capacity (Robin Swann 18 November 2024 124/5-6).
88 Robin Swann 18 November 2024 123/9-10

overall figure for the costs involved. However, the Inquiry was told that the three independent hospitals sought full cost recovery of £3.5 million per month in the period from April to June 2020 and that the contracts had variable costs depending on the theatre session access that was made available.

5.58. The independent healthcare sector in Wales is comparatively small, with six inpatient hospitals, none of which had intensive care facilities.[89] NHS Wales block-booked all six private hospitals and used some independent sector capacity in England.[90] This provided facilities, staff and equipment, including an additional 152 beds, effectively used as 'green sites' providing additional outpatient, diagnostic and inpatient capacity for non-Covid-19 care.[91] NHS Wales was allocated £77.8 million by the Welsh Government in respect of independent healthcare providers in 2020/21.[92]

Use of the independent sector

5.59. Data provided by each nation demonstrate the use to which this additional capacity was put. For example, in England, the independent sector provided 2.15 million outpatient appointments and 103,332 inpatient procedures.[93] In Scotland, more than 12,200 inpatient and day case patients were treated and more than 5,000 outpatient appointments provided.[94] In Wales, private providers were used for 3,254 inpatient cases, 1,605 day cases and 11,827 outpatient treatments as well as various other areas of activity.[95] In Northern Ireland, a total of 84,000 patients were admitted electively (either as inpatients or day cases) through the independent sector, with 65,000 patients admitted electively in 2022.[96]

5.60. In September 2021, the Centre for Health and the Public Interest, a health and social care think-tank, published a report which suggested that, during the first year of the pandemic, very few Covid-19 patients were treated in private hospitals and the amount of NHS-funded elective care carried out in private hospitals fell by 45% compared with the 12 months before the pandemic. The report considered that the private hospital sector was under-utilised for a number of reasons, including the fact that few private hospitals had intensive care beds which were needed for the most severely unwell Covid-19 patients. The report also noted that, because NHS surgeons and anaesthetists working within the private sector were redeployed to assist the wider response to Covid-19 in hospitals, this meant that private hospitals did not have the staff to treat more NHS patients.[97]

89 INQ000485721_0217 para 541
90 Eluned Morgan 20 November 2024 146/4-15; INQ000485721_0216-0217 para 541
91 Andrew Goodall 13 November 2024 45/15-21; INQ000485721 paras 538, 544
92 INQ000485721_0219 para 549
93 INQ000235208_0012 para 37
94 INQ000485979_0209-0210 paras 725-726
95 INQ000474620_0003 para 7
96 INQ000485167_0022 para 62. The figure of 84,000 includes patients treated at the three green sites of Belfast City Hospital, Musgrave Park Hospital and Lagan Valley Hospital.
97 INQ000377861_0005

5.61. Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, said:

> "*It is quite right that often the same staff who are undertaking procedures in the independent sector are the NHS staff who are undertaking work in NHS hospitals and they clearly cannot be in two places at once and they may have been redeployed into Covid activity.*"[98]

He acknowledged these staffing difficulties and said:

> "[B]*ut, in general, we are very grateful to our colleagues in the independent sector who supported and lent their support.*"[99]

5.62. Assessing whether the contractual and financial arrangements adopted across the UK amounted to value for money would require detailed consideration of each contract and the services provided under it. However, during the Covid-19 pandemic use of the private sector undoubtedly provided additional capacity to ensure that some treatment for non-Covid-19 conditions could continue. The option to use the private sector is therefore a valuable resource to have in both pandemic and non-pandemic times. In future, pandemic planning should include the use to be made of independent sector capacity, with careful consideration of the staff and resources that are available and how best they may be utilised in the circumstances of a pandemic.

Temporary surge hospitals

5.63. The type of care provided in temporary hospitals varied, as did the size, number and model adopted in each country.

England: Nightingale hospitals

5.64. By mid-March 2020, there was concern that London would be the first city in the UK where hospital capacity would be exceeded. At that time, London had approximately 800 intensive care beds, whereas modelling indicated that approximately 4,000 beds would be needed. While it was anticipated that the other surge measures examined in this chapter would help to increase intensive care capacity, it was obvious that this capacity needed to be increased yet further.[100]

5.65. The creation of 'Nightingale' hospitals was first considered over the weekend of 21 and 22 March 2020.[101] On 23 March 2020, Boris Johnson MP, Prime Minister from July 2019 to September 2022, and other senior ministers discussed the proposition,

98 Stephen Powis 7 November 2024 159/2-4
99 Stephen Powis 7 November 2024 159/2-4
100 INQ000409251_0260 para 1038
101 INQ000409251_0260 para 1040

after which Mr Johnson confirmed approval for the creation of the first Nightingale hospital.[102] It was intended that this hospital would only treat Covid-19 patients who needed mechanical ventilation, and so each bed would need piped oxygen, a ventilator and healthcare workers experienced in critical care. An open plan setting with rows of beds would mean that fewer senior staff would be needed to oversee junior staff as compared with a usual hospital. The NHS Nightingale Hospital London opened at the Excel centre in east London on 3 April 2020.[103]

5.66. NHS England also considered the additional surge capacity that was required across the other six NHS England regions.[104] Known as the Nightingale Expansion Programme, by July 2020 there were seven Nightingale hospitals operational across England.[105] In total, more than £358 million was spent on setting up, running and decommissioning the Nightingale hospitals.[106]

5.67. The use to which the Nightingale hospitals were put varied across England (see Table 2). Some (eg London and Manchester) were used to treat Covid-19 patients, with more than 380 patients with Covid-19 admitted to the Nightingales.[107] Others (eg Sunderland and Bristol) were on standby, ready to be used in the event they were needed.

102 INQ000280647_0012 para 33; INQ000056096_0001
103 INQ000409251_0262 para 1048
104 INQ000472172_0061 para 204
105 INQ000409251_0266 para 1061
106 INQ000474444
107 According to the Department of Health and Social Care, between 19 March 2020 and 6 April 2021, 381 patients with Covid-19 were admitted to Nightingale hospitals (INQ000472172_0063 para 211). Figures provided by NHS England may differ due to different accounting periods.

Table 2: Summary of activity in Nightingale hospitals in England

Nightingale	Date of approval	Date of operation	Activity during the first wave	Activity during the second wave
London	23 March 2020	3 April 2020	• 57 patients admitted, all with Covid-19. • Open until 4 May 2020, then on standby.	• Did not admit Covid-19 patients but 71 non-Covid-19 patients treated. • From 11 January 2021 until late June 2021, operated as a mass Covid-19 vaccination centre.
Birmingham	10 April 2020	16 April 2020	• No patients admitted due to reducing Covid-19 infection levels and regional hospitals not reaching capacity. • Opened on standby and could be stood up with 72 hours' notice to provide Level 2/ Level 3 treatment and intensive rehabilitation but not ventilation.	• No patients admitted. • Ready to admit patients with 48–72 hours' notice in November 2020 in preparation for Wave 2.
Manchester	10 April 2020	13 April 2020	• 84 patients admitted, all with Covid-19. • Placed on standby as regional acute hospitals were considered to have capacity. • Intended to provide 'step-down' Level 2 treatment from intensive care units.	• No Covid-19 patients, even though the site was able to admit patients. • 350 non-Covid-19 patients treated. • Intended to offer a step-down facility for these patients and, from October 2020 to March 2021, provided various services to non-Covid-19 patients.

Nightingale	Date of approval	Date of operation	Activity during the first wave	Activity during the second wave
Harrogate	15 April 2020	21 April 2020	• No patients admitted as the region had sufficient intensive care capacity. • Opened on standby with the ability to be reactivated in a week to treat patients who had deteriorated but were stabilised on ventilation or continuous positive airway pressure and transferred for Level 2/Level 3 care. From 4 June 2020, it provided clinical computed tomography (CT) scans and diagnostic tests to regional patients. • By end of 2020, more than 3,000 patients had received a scan or test, reaching 5,044 by March 2021.	• No patients admitted but was asked to be ready to accept patients if necessary.

Nightingale	Date of approval	Date of operation	Activity during the first wave	Activity during the second wave
Bristol	17 April 2020	27 April 2020	• No patients admitted as activation threshold not reached. • Opened on standby with ability to be reactivated within 72 hours. • Site was stood down by end of June 2020, meaning reactivation would take approximately 7 days as staff and resources were returned to other services and hospitals. • Intended to provide step-across Level 3 care for mechanically ventilated patients if capacity in local hospitals was reached.	• No patients admitted but retained the ability to be reactivated. • On 25 November 2020, the site stated that it would host outpatient clinics and day case services. 107 paediatric day cases were treated by March 2021 for patients from Bristol Royal Hospital for Children, and 6,554 high-volume eye assessments for patients at Bristol Eye Hospital.
Sunderland	29 April 2020	5 May 2020	• No patients admitted due to reducing levels of Covid-19 in regional hospitals. • Opened on standby to relieve pressure on acute hospitals, with ability to admit stabilised Covid-19 patients requiring Level 1 step-down care in under 2 weeks. Could be stepped up to a more intensive model if needed.	• No patients admitted. • From 12 October 2020, it could mobilise to be ready to accept patients if needed. • From 25 January 2021 until 31 March 2022, used as a mass Covid-19 vaccination centre.

Nightingale	Date of approval	Date of operation	Activity during the first wave	Activity during the second wave
Exeter	1 July 2020	6 July 2020	• No patients admitted due to reducing levels of infection. • Opened on standby to provide mechanical and non-invasive ventilation and ward-based oxygen treatment for Covid-19 patients. Until mid-November 2020, it delivered approximately 3,412 CT scans, trained overseas nurses and hosted a Covid-19 vaccine study.	• By March 2021, 247 patients had been admitted, all with Covid-19. 322 further scans conducted. • Purchased by the Royal Devon University Healthcare NHS Foundation Trust after Wave 2 to offer orthopaedic, ophthalmology, diagnostic and rheumatology services.

Source: Based on INQ000474444

5.68. The relatively small number of Covid-19 patients admitted to Nightingale hospitals was in part due to the fact that some of these hospitals were designed only to take intubated Covid-19 patients – known as a single organ support model. However, as the pandemic progressed it became clear that Covid-19 was a multi-system disease affecting multiple organs in the body.[108]

5.69. In some regions, the Nightingale hospital was not needed as the existing surge capacity was able to cope with the increased number of patients. For example, no patients were admitted to the NHS Nightingale Hospital Birmingham in either wave because the hospitals in Birmingham had stretched their existing capacity in order to cope with demand (see Table 2). The main part of Queen Elizabeth Hospital Birmingham was opened relatively recently (in 2011) with 67 intensive care beds and the ability to expand this to 100 intensive care beds if needed. This demonstrates how newer hospitals built with the capability to scale up capacity will be an important feature to be considered when new hospitals are commissioned.

5.70. Ms Pritchard explained that, from as early as April 2020, consideration was given to the longer-term use of the capacity provided by the Nightingale hospitals and whether they should remain available for their current use. This included assessing whether they should be repurposed to provide different or additional types of care, be placed on standby or be decommissioned.[109] A number of the Nightingale hospitals – in London, Manchester, Bristol and Exeter – were used in the second

108 INQ000409251_0281 paras 1130-1131
109 INQ000409251_0275 para 1104

wave to treat non-Covid-19 patients, and some were used as vaccination centres – for example, in London and Sunderland (see Table 2).

5.71. When asked about the money spent on the English Nightingale hospitals when set against the number of Covid-19 patients, Ms Pritchard said that, in her view:

> "[I]*t was better to have them in place, as a contingency in extreme circumstances, but one which NHS England hoped never to use.*"[110]

She described how "*terrifying*" it was over the weekend of 21 and 22 March 2020 seeing reports from Italy and knowing what the reasonable worst-case scenario was suggesting.[111]

5.72. Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, told the Inquiry that he considered the Nightingale hospitals "*a vital insurance against the pandemic being even worse than it was*".[112] He disagreed with the suggestion that the Nightingale hospitals were unnecessary, pointing out that not only were nearly 400 people admitted to a Nightingale hospital in England with Covid-19 but that, at the time the Nightingale hospitals were commissioned, "*it was unknowable how bad the pandemic would get*".[113] When asked about whether the Nightingale hospitals were repurposed in a timely way, Mr Hancock expressed his "*frustration at the time that they weren't being used for other purposes*", but considered that it was important that the Nightingales were available in case they were needed.[114]

Northern Ireland

5.73. There were 88 critical care beds available in Northern Ireland at the outset of the Covid-19 pandemic.[115] When modelling suggested that the peak of the first wave of the pandemic would occur between 6 and 20 April 2020 and would lead to 180 Covid-19 patients requiring ventilation, Belfast City Hospital was identified as a facility that could be adapted to provide additional intensive care unit capacity. The hospital already had an intensive care unit and could provide up to 40 additional beds to be staffed by mutual aid supplied by five health and social care trusts.[116] On 2 April 2020, the Belfast City Hospital Nightingale facility was designated as the regional Nightingale hospital.[117]

5.74. Covid-19-related critical care occupancy peaked at 57 patients between 6 and 11 April 2020, such that by 13 May 2020, the Department of Health (Northern Ireland)

110 INQ000409251_0261 para 1040
111 Amanda Pritchard 11 November 2024 123/23-124/9
112 INQ000421858_0017 para 68
113 INQ000421858_0017 para 68
114 Matt Hancock 21 November 2024 81/23-82/11
115 INQ000421800_0107 para 314
116 INQ000485167_0009 para 17
117 INQ000474259_0017 para 53

announced that the Nightingale hospital would therefore be temporarily stood down. This enabled nurses from outside the Belfast Health and Social Care Trust to return to their own hospital unit or trust, as well as theatre nurses from the Northern Ireland Cancer Centre (housed within the hospital) to return to theatre to enable complex cancer surgeries to start again.[118]

5.75. In April 2020, Mr Swann approved work on a second Nightingale facility. This was done in advance of an anticipated second wave of the pandemic, which it was believed could coincide with winter pressures and concerns that Belfast City Hospital would not be able to provide sufficient capacity.[119] Whiteabbey Hospital was identified and was to provide "*intermediate care*", which meant that there was no need for critical care staff and facilities at this site.[120] The Whiteabbey Nightingale facility was originally intended to provide 100 beds. By mid-January 2021, 28 beds had opened but lack of workforce availability meant that capacity never increased beyond 28 beds.[121]

5.76. Between 20 November 2020 and 2 April 2021, 146 Covid-19 patients were treated at the Whiteabbey Nightingale facility. The final capital costs for the Whiteabbey Nightingale facility were approximately £4.2 million, with resource costs in the region of £2.3 million for the period from November 2020 to early April 2021. Mr Swann stated:

> "*While the costs appear high, they must be balanced against the number of patients who were treated in Whiteabbey thereby freeing up beds in more acute facilities and utilising staff more efficiently. The capital costs ultimately remain of benefit as the hospital still operates a number of services.*"[122]

The Department of Health (Northern Ireland) stated that the ability to offer treatment there saved an estimated 1,662 acute bed days in other hospitals over the period.[123]

5.77. In January and February 2021, the Belfast City Hospital Nightingale facility reopened as surge volumes were such that Nightingale beds were needed. It was staffed by nursing staff from across Northern Ireland. There were 66 patients admitted to, and treated by, the Nightingale hospital during this period.[124] In addition to staffing costs, the Department of Health allocated £3 million to the hospital for estates work.[125]

118 INQ000421800_0120 para 352
119 INQ000485167_0013 para 32
120 INQ000492281_0065 para 190
121 INQ000485167_0014-0015 para 37
122 INQ000492281_0067 para 194
123 INQ000485167_0015 para 39
124 INQ000485167_0009 para 15. It is unclear whether the patients had Covid-19.
125 INQ000653641_0007 para 14

Scotland: NHS Louisa Jordan

5.78. At the end of March 2020, modelling in Scotland predicted that, depending on compliance with other measures being taken to prevent the spread of Covid-19, there could be a deficit of between 1,300 and 3,000 hospital beds, with the numbers of Covid-19 patients expected to peak in mid-April.[126] The Scottish Government agreed to explore a temporary hospital for Scotland. This led to the establishment of the NHS Louisa Jordan in Glasgow. It was envisaged that the facility would have an initial capacity of 300 beds, with the potential to expand to 1,000 beds if needed, and would treat non-critical care patients with a typical length of stay of up to eight days.[127] Ms Freeman said:

> "*Whilst I believed that the existing NHS estate could cope with the challenges presented by the pandemic, I considered that not to proceed with a temporary facility presented too great a risk in the circumstances.*"[128]

5.79. Caroline Lamb, Director General for Health and Social Care in the Scottish Government and Chief Executive of NHS Scotland from January 2021, explained that there was sufficient general hospital capacity not to need NHS Louisa Jordan for non-critical patients and so the hospital was used to support the delivery of outpatient orthopaedic and plastic surgery consultations.[129] By 27 July 2020, 315 patients had been seen.[130] Subsequently, NHS Louisa Jordan expanded its activity and by 31 March 2021 the hospital had been used to conduct 32,000 outpatient and diagnostic appointments, train more than 6,900 healthcare staff and students, and vaccinate approximately 175,000 people across the Greater Glasgow and Clyde area. If required, the hospital remained ready to accept Covid-19 patients at a few days' notice.[131]

5.80. NHS Louisa Jordan closed on 31 March 2021 and vaccination clinics were relocated. The total costs of NHS Louisa Jordan, including building, commissioning, operational costs and decommissioning, were in the region of £70 million.[132] Humza Yousaf MSP, Cabinet Secretary for Health and Social Care in the Scottish Government from May 2021 to March 2023, said that, while there was no formal evaluation, he was of the view that NHS Louisa Jordan was value for money given the additional capacity that it provided, along with its use as a vaccination centre.[133]

126 INQ000261872_0001
127 INQ000485979_0199-0200 paras 697-699
128 INQ000493484_0035 para 148
129 Caroline Lamb 14 November 2024 177/11-20
130 INQ000485979_0202 para 706
131 INQ000493484_0038 para 160
132 INQ000493484_0037 para 157
133 Humza Yousaf 19 November 2024 173/5-19

Wales: Field hospitals

5.81. The Welsh Government's Health and Social Services Group considered "*the option of a larger 'Nightingale style' central hospital*", but this was discounted:

> "*partly due to concerns about ensuring equity of access from across Wales and concerns about patient outcomes associated with longer transfers*".[134]

5.82. Instead, each health board conducted a local capacity assessment to assess the anticipated reasonable worst-case scenario and the needs for their area. The health board then developed its own local plans for building the extra surge capacity required, by using either existing hospital sites or private healthcare providers, or through the creation of field hospitals.[135]

5.83. Field hospitals were used for 'step-down' facilities, ie where patients from acute wards are transferred to a field hospital to continue recovery, or for palliative care.[136] The decision to create and plan for a field hospital was for each local health board, with Welsh ministers having responsibility for funding, oversight and monitoring.[137] By May 2020, 6,000 beds had been planned across 19 separate facilities, but these were "*a mix of 'theoretical and functional' surge capacity beds*". Only the functional beds had the staff, equipment and consumables required to deliver care.[138] The Welsh Government did not have data on the number of fully functioning beds contained in the local health boards' plans.[139] The surge capacity within field hospitals was, however, included in SitReps from April 2020.[140]

5.84. On 24 April 2020, Dr Andrew Goodall, Chief Executive Officer at NHS Wales and Director General of the Health and Social Services Group in the Welsh Government from June 2014 to November 2021, asked local health boards not to proceed with the commissioning and operationalisation of field hospitals unless this was needed because, by that stage, there was "*a considerable amount of additional capacity available*".[141]

5.85. A paper-based 'high-level' review of field hospitals, undertaken in June 2020, concluded that the measures such as suspending electives, improving hospital flow and other non-pharmaceutical interventions meant that field hospitals had been largely unused – three hospitals had received 60 patients. The review considered

134 INQ000485721_0200 para 495
135 A field hospital is a temporary, self-contained, self-sufficient healthcare facility that can be rapidly deployed for a specified period and its capacity expanded or contracted to meet immediate emergency requirements (INQ000227392_0002).
136 INQ000485721_0203-0204 para 504; INQ000227055_0001-0011
137 INQ000485721_0197 para 488; INQ000474252_0102, 0105 paras 252, 261. Mr Gething approved capital funding for a 2,000-bed field hospital at the Principality Stadium of up to £8 million for equipment and enabling works on 27 March 2020 and, on 27 April 2020, further funding of up to £79 million was agreed for set-up and construction costs.
138 INQ000485721_0197-0198 para 489. Beds which were 'functional' had the staff, equipment and consumables to deliver care, and 'theoretical beds' did not have all three present (INQ000227392_0004-0005).
139 INQ000485721_0197-0198 para 489
140 INQ000486014_0055, 0067 paras 158, 199
141 INQ000365661_0001

that this was positive "*given the reasonable worst-case scenario*" and stated that field hospitals continued to be an "*essential option*" to support existing capacity.[142]

5.86. By the end of September 2020, Mr Gething asked the local health boards to retain 5,000 beds as it was highly likely that additional capacity would be needed in the winter of 2020.[143] During the second wave, four field hospitals admitted patients (three of the field hospitals were in the same local health board).[144] However, local health boards found it challenging to provide sufficient staff to increase capacity in field hospitals due to sickness absences.[145] Six of the field hospitals retained over the second wave were used in other ways, such as vaccination centres, testing hubs and training facilities.[146] The Welsh Government stated that more than 930 patients had been admitted to a field hospital by 22 March 2021.[147]

5.87. The Welsh Government allocated £166 million to field hospitals and the revenue costs were £136 million.[148] Mr Gething said:

> "[W]e *could not take the risk that the pandemic would develop in a way which left hospitals overwhelmed and patients without beds. I believe it was the right decision to establish the field hospitals. They should be considered in terms of risks addressed not just beds used.*"[149]

5.88. In August 2021, feedback obtained from local health boards on the field hospital programme in Wales found that the field hospital programme did provide additional capacity, which "*more than met the actual need on the ground*".[150] The local health boards suggested that "*consideration could be given at a strategic planning level as to how / whether this could have been avoided to some degree*".[151]

Use of temporary hospitals in the event of a future pandemic

5.89. The Inquiry heard criticisms that the temporary hospitals could never have been adequately staffed and were under-used, especially after the first wave. This gave rise to a belief that they were too expensive and did not represent value for money. As one contributor to the Inquiry's listening exercise, Every Story Matters, commented:

142 INQ000227392_0007
143 INQ000474252_0106 para 266
144 Ysbyty Enfys Deeside (November 2020 to March 2021) admitted 121 patients (INQ000421872_0009-0011 paras 13-15). Ysbyty Enfys Carreg Las Bluestone (7 December 2020 to 1 April 2021) admitted 85 patients (INQ000492257_0007 paras 54-55). Ysbyty Enfys Selwyn Samuel (16 November 2020 to 30 June 2021) admitted 264 patients (INQ000492257_0007 paras 44-49). Ysbyty'r Seren Field Hospital (October 2020 to February 2021 and January 2022) admitted 521 patients (INQ000399063_0005; INQ000421865_0007).
145 INQ000421679_0002
146 INQ000421679_0002
147 INQ000474252_0107 para 271. Some field hospitals remained open after this date and so data provided by the local health boards reflect the number of admissions over a longer period of time.
148 This included £101 million set-up costs, £23 million decommissioning costs and £12 million consequential losses (INQ000485721_0208 para 521).
149 INQ000474252_0108 para 274
150 INQ000421883_0003
151 INQ000421883_0003

> "*We set up huge Nightingale hospitals with ICU capabilities which were underused, likely due to lack of highly trained staff or ICU need. A bit of lateral thinking could have meant these being used for less intensive care such as care of the elderly, rehab beds or Covid+ intermediate care beds, freeing up hospital beds for patients that needed them.*"[152]

The Trades Union Congress considered that the Nightingale hospitals could:

> "*in theory, have alleviated the strain on the NHS and/or offered an alternative to care homes for those discharged from hospital to free up beds. However, the reality is that there were not enough numbers to staff them – entering the pandemic with over 100,000 vacancies in the NHS there was little chance of the Nightingale hospitals ever being able to operate in any meaningful way.*"[153]

5.90. By way of example, NHS England projected that approximately 28,000 medical and nursing staff and 5,000 non-clinical staff would be required to staff the 4,000 beds in the NHS Nightingale Hospital in London.[154] Given that workforce capacity was already severely stretched, it is unsurprising that, to support NHS core staff, NHS England had to scope and prepare for the use of the military to staff Nightingale hospitals.[155]

5.91. Sir Sajid Javid MP, Secretary of State for Health and Social Care from June 2021 to July 2022, said that it was "*well known*" that there were insufficient numbers of staff for the Nightingale hospitals.[156] He had been informed that:

> "[T]*he way in which Nightingale hospitals were set up during the first wave of the pandemic in 2020 had not been effective as a primary reason was we simply did not have sufficient doctors and nurses to operate them.*"[157]

5.92. Inevitably, as Ms Pritchard acknowledged, the availability of appropriately experienced and qualified staff was a major factor in providing additional capacity, creating a tension between the staffing needs of pre-existing hospitals and the need to staff the Nightingale hospitals. Indeed, Ms Pritchard accepted that:

> "[W]*here Nightingales were used or would have been used for their primary purpose, this would have entailed much reduced clinical staffing ratios.*"[158]

152 *Every Story Matters: Healthcare*, pp60-61 (INQ000474233)
153 INQ000471985_0020 para 70. Note that INQ000226890_0018 para 25 states that in March 2020 there were "*just over 88,000 substantive posts that were unfilled in NHS organisations*".
154 INQ000109220_0013
155 INQ000109220_0013
156 Sajid Javid 25 November 2024 50/4-7
157 INQ000485736_0047 para 102e
158 INQ000409251_0282 para 1133

5.93. The stretching of nursing ratios in critical care, in conjunction with other measures taken to increase the number of staff, enabled staff to be deployed to the Nightingale hospitals. However, this would have resulted in a dilution of care being provided to patients in the hospital supplying the staff and in the Nightingale hospitals. As Ms Pritchard stated:

> "*So we had done surge. This is super-surge … this is not critical care as we understand it … this is field hospital medicine. And the alternative is that you do not treat people at all.*"[159]

5.94. In Northern Ireland, redeploying staff to Belfast City Hospital was difficult as many staff wanted to be nearer their family and to work locally, there were issues with preparation training, and staff felt "*pulled between supporting critical care and providing a service to their core patients and teams back at base*".[160]

5.95. Ms Lamb accepted that, in Scotland, there were "*concerns about the potential difficulty in fully staffing a large field hospital like the Louisa Jordan alongside the existing estate*".[161] Ms Lamb explained that, as a consequence of the fact that NHS Louisa Jordan was never fully utilised, there were "*no conclusive data*" on the full staffing complement that would be needed.[162] However, as Ms Freeman stated, it is likely that the staff needed to work in NHS Louisa Jordan would come from returning retirees and from other parts of the health service where services had been paused. Ms Freeman said:

> "*I think entering the pandemic with fewer beds capable of modification to be ICU beds, as -- for example, there was a case, I understand, in Germany where more beds in a hospital setting are equipped, for example, with an oxygen supply for use if needed. So entering the pandemic without that circumstance put greater pressure on our system, and it would be one of the lessons I would hope we would learn, that we have greater capacity to increase that level of care, not just in the beds we have but also in the trained staff that we have.*"[163]

5.96. As the Chief Medical Officers and Chief Scientific Advisers for the four nations noted in their *Technical Report on the COVID-19 Pandemic in the UK*, "*it was not a foregone conclusion*" that there would be enough hospital beds to cope with the rising numbers of patients and that:

> "*There may well be a similar need to manage the risk of hospital capacity being exceeded in a future pandemic.*"[164]

159 Amanda Pritchard 11 November 2024 128/10-15
160 INQ000485167_0013 para 31
161 INQ000485979_0201 para 701
162 INQ000485979_0200 para 700
163 Jeane Freeman 19 November 2024 49/5-14
164 *Technical Report on the COVID-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p355 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)

5.97. The Inquiry considers that the establishment of temporary hospitals was an important and necessary step, taken at a time when reasonable worst-case scenarios indicated that demand for hospital beds – and intensive care beds in particular – would significantly exceed capacity. Had steps not been taken to establish temporary hospitals, governments ran the risk that large numbers of Covid-19 patients would not have been treated. That was a risk that no politician or senior decision-maker could sensibly be expected to take. However, staffing the temporary hospitals was always going to be challenging, particularly where critical care was going to be provided, and would likely have involved stretching staff ratios far beyond pre-pandemic ratios.

5.98. Temporary hospitals may well be needed as part of an emergency response to future pandemics, but they come at significant cost. There needs to be better pre-pandemic planning to assess whether temporary hospitals could and should be used to treat people with the pandemic virus or used to treat people with non-pandemic conditions, and the nature and level of care that can be provided in these facilities. There also needs to be a realistic assessment as to how such facilities will be staffed, particularly if staff ratios have already been diluted in existing hospitals. Further, proper planning would consider how temporary hospitals can be utilised and repurposed post-pandemic so that the huge financial cost is maximised.

Additional capacity in subsequent waves

Winter 2020/21

5.99. After the first wave of the pandemic, as discussed in Chapter 9: Healthcare for non-Covid-19 conditions, elective care resumed and many redeployed healthcare workers returned to their original roles. However, there remained a need for surge capacity after the first wave, particularly to deal with anticipated winter pressures. The emergence of Covid-19 variants of concern added to these pressures. As Figure 10 demonstrates, NHS England considered that:

> "*The NHS was even more severely impacted by Wave 2 than it was in Wave 1 … the peak of Covid-19 patients in Wave 2 was nearly double that experienced in the first wave.*"[165]

165 INQ000409251_0131 para 488

Figure 10: Number of confirmed Covid-19 patients in NHS hospital beds from March 2020 to October 2022

Source: INQ000409251_0015

5.100. The need for additional hospital beds in England had been predicted. On 29 June 2020, the Prime Minister's Private Office requested that NHS England, the Department of Health and Social Care and the Treasury provide:

> "*a detailed plan on managing Covid-19 through winter, which should include the continuation of Nightingale and IS* [independent sector] *capacity and that medically fit patients are discharged quickly*".[166]

5.101. In response, NHS England (with the support of the Department of Health and Social Care) sought funding to secure an additional 10,000 non-temporary beds to reduce the impact on non-Covid-19 patient care in the event that Covid-19 spiked over the winter of 2020/21 (or in future years) and also to aid the recovery of non-elective care.[167] Mr Hancock told the Inquiry that he was "*deeply involved*" in this request.[168] He said that he was keen not only for there to be capacity in case of a surge in the winter of 2020/21, but also because he wanted to increase the NHS's resilience rather than, as he put it, "*running at 100% all the time*".[169]

5.102. This funding request was not approved.[170] In an email dated 14 July 2020, the Prime Minister's Private Office confirmed that in relation to the additional 10,000 beds and per:

> "*the previous steer from the PM … we should focus on the measures above [ie. Nightingales, IS capacity; discharge and flu vaccinations] and any additional permanent capacity should be considered in the SR [Spending Review]*".[171]

5.103. Ms Pritchard said the decision was "*very disappointing*".[172] She considered that the additional beds would have assisted the recovery of elective care and meant that the

166 INQ000409251_0176 para 674
167 INQ000409251_0168 para 630
168 Matt Hancock 21 November 2024 83/19
169 Matt Hancock 21 November 2024 85/5
170 INQ000409251_0169 para 630
171 INQ000409251_0177 para 676
172 Amanda Pritchard 11 November 2024 96/6

NHS would have been "*more resilient going into the second wave and into winter more generally*".[173] Likewise, Mr Hancock believed that the consequence of this decision was that the "*pressures on the NHS were greater in the second wave than they would have been otherwise*".[174]

5.104. In Northern Ireland, occupancy in critical care "*at or below 85%*" was considered to "*maximise responsiveness and reduce unnecessary pressure on staff and services*", but there were a number of days in January 2021 where 85% occupancy was breached.[175] Staff absences due to either Covid-19 or self-isolation, coupled with the vacancies that already existed, necessitated a request (which was approved by the Ministry of Defence) for military assistance. This led to 110 combat medical technicians being deployed to three hospitals in Northern Ireland from 25 January 2021 to 28 February 2021.[176]

Winter 2021/22

5.105. In November 2021, the Omicron variant of Covid-19 emerged. Although Omicron had less severe symptoms and a lower case mortality rate, it was more transmissible. Despite the high numbers of people who were vaccinated, this resulted in a significant increase in the number of people with Covid-19 and, in turn, an increase in the number of people requiring hospital care.[177] There were also high numbers of healthcare workforce absences. It was therefore necessary for healthcare systems to implement surge capacity plans or to increase capacity by other means.

5.106. In addition to the surge plans already in place, some additional steps were taken in advance of the winter of 2021/22. For example, in April 2021, Ms Freeman agreed to an additional 30 Level 3 intensive care beds across Scotland on a permanent basis, in preparation for the winter of 2021/22.[178] However, as Ms Lamb acknowledged, "*there may well have been challenges and delays in recruiting to staff those beds*",[179] not least because, as a December 2021 report showed:

> "[T]*he level of available workforce to support surge capacity was now less than at the start of the pandemic due to the restarting of previously paused services, high levels of non-Covid-19 service pressure, increased staff absence in conjunction with the impact of sustained pressure on staff wellbeing and ability to recruit and retain staff.*"[180]

173 Amanda Pritchard 11 November 2024 96/6-12. From 2023, NHS England had provided an additional 4,000 acute beds, which were partially funded by reducing investments in other areas (INQ000409251_0169 para 633).
174 Matt Hancock 21 November 2024 85/17-18
175 INQ000346749_0003, 0009
176 INQ000492281_0056 para 162. Fifty technicians were deployed to Belfast City Hospital, 20 to Ulster Hospital and 40 to Antrim Area Hospital or Whiteabbey Hospital.
177 *Technical Report on the COVID-19 Pandemic in the UK*, Department of Health and Social Care, 1 December 2022, p39 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642)
178 INQ000485979_0174 para 613
179 Caroline Lamb 14 November 2024 113/13-16
180 INQ000485984_0017 para 49

5.107. In Northern Ireland, in October 2021 a 'Fourth Wave Surge Plan' proposed an additional 12 Level 3 critical care beds by reducing the number of Level 2 patients. However, the plan recognised that, by reducing Level 2 beds, additional pressures would be placed on respiratory teams "*who are already under significant pressure*".[181] Moreover, the plan described the critical care staffing situation in most trusts as "*unstable*", with stretched staff ratios, increased levels of sickness absence and redeployed nurses left feeling anxious and stressed, reporting:

> "*Feedback from managers and staff at the frontline suggest that the energy and capacity to keep delivering surge capacity is unlikely to be sustained in the coming months.*"[182]

5.108. Demands on critical care capacity rose in England throughout the autumn of 2021, with a number of trusts "*operating significantly above baseline bed capacity, and close to surge capacity*".[183] On 21 December 2021, NHS England provided the Department of Health and Social Care with its plan entitled *NHS: Preparedness for Omicron*.[184] This set out the pre-existing measures which were being taken, and NHS trusts were asked to identify additional clinical space (such as outpatient areas) and non-clinical space (such as training facilities) which could be used as super-surge capacity to create an additional 2,000 beds.[185]

5.109. On 30 December 2021, NHS England also announced that it was setting up eight 'Nightingale surge hubs' at hospitals across the country.[186] The hubs were located within acute hospital sites and provided step-down beds in order to free up capacity for more acute admissions. Care was provided by a wider pool of staff, including but not limited to healthcare students, therapists, healthcare assistants and volunteers with a health background, including St John Ambulance volunteers and those willing to come out of retirement.[187] The hubs were established because of concerns that admissions would exceed available capacity given high levels of staff absence due to Covid-19, coupled with a rise in infections driven by the Omicron variant and uncertainty over whether hospitalisation rates would be similar to previous waves.

5.110. The initial Nightingale surge hubs each had a capacity of approximately 100 patients (except Lister Hospital, Stevenage, which had a capacity of 55 beds) and there was potential to set up further Nightingale surge hubs that could provide up to 4,000 "*super surge*" beds across the country. By May 2022, all but one of the surge hubs had been decommissioned as they were no longer considered necessary.[188] The Nightingale hub in the north-west was the only one to have received patients from

181 INQ000346762_0002 paras 2.6-2.7
182 INQ000346762_0003 para 3.5
183 INQ000409251_0139 para 517
184 INQ000270042
185 INQ000409251_0141 para 526
186 INQ000409251_0283 paras 1137-1139
187 INQ000409251_0283-0284 para 1141
188 INQ000409251_0284-0285 paras 1142-1144

late January 2022 and it continued to be used to reduce pressure on local services after the others had closed.[189]

5.111. It does not appear that bed capacity in Wales was as acutely affected by the Omicron variant as in other nations because, notwithstanding a peak in the number of patients occupying critical care beds in November 2021, there were still a number of available critical care beds at this time.[190] Dr Goodall told the Inquiry that "*additional surge capacity remained available if required*".[191] Similarly, data published by the Department of Health (Northern Ireland) suggest that intensive care unit occupancy remained relatively stable throughout December 2020 into January 2021.[192] No information was provided about the position in Scotland.

5.112. The need to create and/or maintain surge capacity in the winters of 2020/21 and 2021/22 came at a time when healthcare systems were already under extreme pressure and staff were struggling to cope (see Chapter 10: Impact on healthcare workers and 'overwhelm'). The assumption that trusts had the ability to stretch their workforce and infrastructure further than they already had underestimated the impact that the earlier waves of the pandemic had had on healthcare workers.

Measures taken to expand the healthcare workforce

5.113. Pre-pandemic, there were a considerable number of healthcare worker vacancies.[193] In England, for example, the staff vacancy rate across the NHS at the start of the pandemic was just under 7%, rising to nearly 10% by June 2022.[194] Vacancies were particularly acute in nursing where, in March 2020, the UK nursing vacancy rate was 9.9%.[195] The Department of Health and Social Care accepted that:

> "*Had there been more staff available during the pandemic and had the system not already been running at capacity without the additional strain of the pandemic, there would have been less of a need for staff redeployment and less of a need to reduce some forms of elective care.*"[196]

5.114. While there were some long-term recruitment initiatives in place, the Covid-19 pandemic created an urgent need to increase the numbers of healthcare workers available to treat the rising number of patients and to mitigate the anticipated numbers of staff absent through sickness and self-isolation.[197] This led to the creation

189 INQ000409251_0284-0285 para 1144
190 INQ000486014_0103 table 13
191 INQ000485721_0182 para 455
192 *Modelling the COVID-19 Epidemic and the Reproduction Number – R*, Department of Health (Northern Ireland), 14 December 2021 and 18 January 2022 (https://www.health-ni.gov.uk/publications/r-number-papers; INQ000375837; INQ000441866)
193 INQ000485721_0240 para 600; INQ000485984_0007-0008 para 16
194 INQ000409251_0063 para 250
195 INQ000475581_0007 para 13c
196 INQ000532392_0005-0006 para 23
197 These initiatives included the Department of Health and Social Care's December 2019 '50,000 Nurses Programme', which aimed to deliver 50,000 nurses in England by 2024/25 (INQ000479043_0021 para 89); and the 'New Decade, New Agreement' (January 2020) in Northern Ireland, which set out a key priority of providing a further 900 pre-registration nursing and midwifery training places over a three-year period, commencing in 2020/21 (INQ000492281_0041 para 114).

of temporary registers for healthcare workers returning to practice, the use of students and trainees to provide some levels of care, and the recruitment of overseas staff.

Temporary registers

5.115. Healthcare workers in the UK are required to register with their regulator in order to practise. For example, the General Medical Council maintains the register for doctors, the Nursing and Midwifery Council is the regulator for nurses and midwives in the UK and the General Pharmaceutical Council and the Pharmaceutical Society of Northern Ireland maintain the register of pharmacists. By mid-March 2020, proposals were developed to enable staff who had recently retired, or who had voluntarily resigned from the register for reasons that did not constitute a risk, to rejoin the register on a temporary basis.

5.116. The Coronavirus Act 2020 was used to enable the Nursing and Midwifery Council and the Pharmaceutical Society of Northern Ireland (as well as other regulators) to register temporarily.[198] The General Medical Council and the General Pharmaceutical Council made use of existing powers to establish emergency registers. The temporary registers were limited to those who had practised recently, with each regulator determining what was to be considered 'recent'. For example:

- The General Medical Council granted temporary registration to doctors of 'good standing' who had left the register in the last six years.
- The General Pharmaceutical Council did the same for pharmacists who had left the profession within the last three years.[199]
- The Nursing and Midwifery Council opened its temporary register to nurses and midwives who had left the register in the last five years.[200]

5.117. Each nation adopted different schemes to add healthcare workers to the temporary registers, but across the UK there were clear difficulties and challenges with converting the number of expressions of interest into substantive roles.

5.118. In March 2020, NHS England set up the 'Bring Back Staff' programme and established regional hubs to help identify the positions at local level that returnees might be able to fill. By the end of June 2020 there had been 47,000 expressions of interest which, following vetting and removal of duplicate applications, resulted in 34,000 applications being passed to the regional hubs.[201] This resulted in 4,098 people being employed in front-line settings.[202] NHS England stated that, although the conversion rate from expression of interest to being employed was "*relatively low*

198 INQ000326300_0077; Coronavirus Act 2020 (https://www.legislation.gov.uk/ukpga/2020/7/contents)
199 INQ000340104_0025 para 100
200 INQ000472172_0074 para 254
201 INQ000409251_0230 para 912
202 INQ000409251_0232 para 921

as was the demand for returners (at least relative to initial expectations)", the contribution of those who did return was "*significant*".[203]

5.119. On 20 March 2020, the Department of Health (Northern Ireland) launched the Health and Social Care Workforce Appeal, generating 19,100 formal applications which resulted in 1,702 doctors, nurses and other ancillary staff being successful in their application.[204] From April 2020, and throughout the second wave of the pandemic, the Workforce Appeal handled almost 60,000 expressions of interest, and generated more than 35,000 formal applications. This level of interest delivered a total of 5,949 new temporary appointments across health and social care.[205] The appeal also resulted in 271 healthcare professionals being appointed to the vaccination programme, reducing the burden on healthcare workers.[206]

5.120. On 21 March 2020, in Wales, the Chief Medical Officer, Chief Nursing Officer and Director of Social Services and Integration made a statement encouraging health and care workers to return. Once temporary emergency registrants were identified by the regulators and a list of volunteers produced, this was passed to the NHS Wales Shared Services Partnership, which was responsible for contacting the volunteers directly.[207] According to the General Medical Council, 1,123 doctors in Wales had joined the temporary register as of November 2020.[208]

5.121. On 18 March 2020, the Scottish Government issued a nationwide call for returners to NHS Scotland, such that by the end of March 2020 approximately 2,000 individuals had registered their interest.[209] An accelerated recruitment portal was set up through which there were 18,369 expressions of interest, resulting in the deployment of 6,767 individuals, including 5,346 students.[210]

Effectiveness of re-registration

5.122. There were myriad reasons why it was not always possible to convert the expressions of interest into substantive roles, including the length of time taken to join the temporary registers. For example, in the British Medical Association's 2021 UK-wide Covid-19 call for evidence survey, a retired doctor in Scotland who volunteered to return as a GP wrote that they were "*disappointed in the re-registration process which was over complicated and cumbersome*" and withdrew their offer to volunteer as a result.[211] Another doctor in England commented that it was "[w]*oefully slow to deploy returning doctors in any roles*".[212] Dame Ruth May acknowledged that the Bring Back Staff regional capacity was "*initially insufficient*"

203 INQ000409251_0233 para 922
204 INQ000421800_0163 para 488
205 INQ000421800_0163-0164 para 488
206 INQ000421800_0164 para 490
207 INQ000485721_0241 para 607
208 INQ000477304_0078 para 172b. The Inquiry was not told whether these doctors were in fact deployed.
209 INQ000485979_0073 para 262
210 INQ000485979_0075 para 266
211 INQ000477304_0081 para 183
212 INQ000477304_0081 para 183

to process the applications which started to come through in late March 2020 and that there was a "*bottleneck*" caused by pre-employment checks.[213]

5.123. Other reasons included the fact that the onboarding process was slow and there were a significant number of mandatory training modules to complete.[214] Some 'returnees' had age or health-related reasons why they could not be employed, or had limited availability due to caring or home schooling responsibilities which did not match the demands of the positions being offered.[215] Other returnees were not suitably qualified for the vacancy or needed to undergo some training to ensure that they were competent for the role.[216] In Northern Ireland, some candidates sought permanent employment when the Workforce Appeal was designed with the aim of securing temporary roles.[217]

5.124. The British Medical Association considered that doctors were "*not utilised as effectively as they could have been*" and that there needed to be better preparation with "*existing processes for returning, vetting and matching large numbers of staff to areas of need*".[218] The General Pharmaceutical Council queried whether NHS communications were "*effective*" in signposting opportunities for deployment, and considered that communications needed to be clearer in order to make "*temporary registration as impactful as possible during a period of national emergency*".[219]

5.125. From March to June 2021, the Department of Health and Social Care ran a consultation on the regulation of healthcare professionals which included asking whether all regulators should be given a permanent emergency registration power. The majority of responses were in favour, including from the Nursing and Midwifery Council, which noted that this would ensure that all regulators are "*fully prepared to respond flexibly and rapidly to future emergencies*".[220] While some respondents were concerned that such powers "*could be misused, for example to fill staff vacancies or to address winter pressures on the NHS*", the response from the UK government and devolved administrations in February 2023 was that such powers would be extended to all regulators.[221] The Inquiry understands that, as of December 2025, not all regulators (including the Nursing and Midwifery Council and the Health and Care Professions Council) have this permanent emergency power.

5.126. That comparatively small numbers of returning staff were employed during the Covid-19 pandemic does not diminish the extraordinary commitment that tens of thousands of former healthcare workers displayed by expressing their interest in

213 INQ000479043_0024 paras 104a-104b
214 INQ000339027_0024-0025 paras 135-136
215 INQ000477304_0080 para 182; INQ000480133_0088 para 232
216 INQ000409251_0231 para 916; INQ000472172_0075 para 258
217 INQ000421800_0164 para 489
218 INQ000477304_0082 para 186
219 INQ000274193_0020 para 38
220 *Better, Safer Regulation: Our Response to the DHSC Consultation on Regulating Healthcare Professionals, Protecting the Public*, Nursing and Midwifery Council, June 2021, p22 (https://www.nmc.org.uk/globalassets/sitedocuments/consultations/nmc-responses/2021/nmc-response-to-the-dhsc-consultation-on-regulating-healthcare-professionals-protecting-the-public.pdf; INQ000650759); INQ000326300_0077-0078
221 INQ000326300_0079

joining the temporary registers. Nor does it diminish the importance of having the regulatory capability to establish temporary registers at speed and having plans in place for how applicants will be assessed, vetted and made available to be deployed in the areas where they are needed most.

5.127. The emergency registers, therefore, are a beneficial tool in ensuring that additional healthcare professionals can return to work and deliver care during a pandemic. However, there needs to be better planning for returning healthcare workers to ensure that they can be deployed as quickly as possible to the settings most in need.

Student healthcare workers

5.128. Throughout the pandemic, changes were made to education programmes to enable student nurses and midwives and final year medical students to undertake some clinical placements to form part of the Covid-19 response:

- On 25 March 2020, the Nursing and Midwifery Council issued emergency education standards which applied across the UK and allowed students to continue their education programme alongside supporting the workforce. The emergency standards resulted in 23,000 students on paid placements in England, 880 final year nursing and midwifery students in Northern Ireland, 2,346 students in Wales and approximately 5,000 additional personnel in Scotland, whom the Scottish Government considered to have provided "*a significant staffing mitigation in spring 2020*".[222] On 13 January 2021, the emergency standards were reinstated in England alone, which resulted in 5,247 students taking up paid placements from January to May 2021 in England.[223] Nursing students were not deployed from September 2021 in England.[224] The emergency standards for student nurses and midwifery staff were not reinstated in Wales, Northern Ireland or Scotland, where it was deemed that the pressures on staff resources were not as significant as in England.[225]
- In spring 2020, the General Medical Council granted provisional registration to final year medical students who met the requirements of their degree.[226] As a result of this initiative, approximately 5,000 Foundation Interim Year 1 posts were filled between April and July 2020 (UK-wide).[227] There was no request from the Department of Health and Social Care to extend the programme beyond 2020.[228]

5.129. A review undertaken by the Nursing and Midwifery Council in the autumn of 2021 showed that student nurses and midwives had a mixed experience of clinical placements. Some found that there was a lack of preparation and induction, limited

222 INQ000479043_0028 para 124; INQ000474226_0042 para 149; INQ000410913_0003; INQ000485979_007 para 265
223 INQ000479043_0029 paras 130-132
224 INQ000479043_0029-0030 para 133
225 INQ000480133_0047 para 103d; INQ000474226_0046 para 170; INQ000474225_0028 para 77
226 INQ000472172_0075 para 263
227 INQ000410862_0009 para 35; INQ000472172_0075 para 261. The vast majority (4,000) were in England.
228 INQ000410862_0008 para 31

time with supervisors and challenges dealing with death at scale, while others spoke more positively and found the experience enhanced their skills.[229] Health Education and Improvement Wales, the strategic workforce body for NHS Wales, conducted a survey of nursing and midwifery students in November 2020. The survey found that, of these students who were deployed during the first wave, a small proportion (96 out of 1,038) said that they did not feel supported in their placement.[230]

5.130. A General Medical Council review of the Foundation Interim Year 1 programme also found that it had many benefits, including "*increasing capacity in the health service and easing the transition from education to practice*".[231]

5.131. The changes to students' education programmes resulted in an additional cadre of personnel who helped to alleviate some of the pressures on the healthcare workforce. Such measures may be needed in the event of a future pandemic. However, planning for the future should ensure that the concerns of students are addressed and student nurses and midwives do not lose support and a vital part of their training.

Recruitment of nurses and midwives from overseas

5.132. Pre-pandemic, the UK healthcare systems recruited nurses and midwives from overseas.[232] During the pandemic, changes were made to the registration requirements to allow overseas nurses and midwives to join the temporary register more quickly.[233] As of July 2020, approximately 2,500 of the people on the UK-wide Covid-19 temporary register were overseas recruits.[234]

5.133. In England, just under 5,000 internationally educated nurses joined the temporary register, and NHS England provided funding to all trusts plus additional grants to increase pastoral care for overseas recruits.[235] Dame Ruth May was of the view that the overseas nurses and midwives had "*a positive impact on the NHS' ability to support the pandemic response and restore services*".[236]

Immigration Health Surcharge

5.134. The Immigration Health Surcharge (introduced in 2015) is a charge levied on individuals not ordinarily resident in the UK coming to the UK for a temporary stay of more than six months. Once paid, and once a visa is granted, the individual can use

229 INQ000292480_0041-0042 paras 158-163
230 INQ000410913_0005
231 INQ000410862_0008 para 32
232 INQ000479043_0031 para 140; INQ000475581_0033 para 93
233 INQ000480133_0083 para 217
234 INQ000475581_0040 para 124
235 INQ000409251_0246 para 975b; INQ000409251_0247-0248 paras 978-979
236 INQ000479043_0035 para 160

NHS services. The surcharge must be paid at the time of making a visa application and must be paid to cover the full duration of the visa.[237]

5.135. On 21 May 2020, Mr Johnson announced that NHS health and care staff coming to the UK would be exempt from paying the Immigration Health Surcharge to try to ensure that the payment of the surcharge was not a barrier to recruitment of health and care workers. Mr Johnson also decided that health (and care) workers should have their Immigration Health Surcharge payment reimbursed due to the exceptional contribution they were making to support the demands on the NHS and the care system.[238]

5.136. Given the unprecedented demands on the health and care workforce and the obvious need to expedite recruitment, the decision to remove the surcharge was a reasonable one.

Surge capacity in the future

5.137. As the Inquiry noted in its Module 1 Report:

> "*Issues of funding are political decisions that properly fall to elected politicians. However, it remains the case that the surge capacity of the four nations' public health and healthcare systems to respond to a pandemic was constrained by their funding.*"[239]

Moreover, running the UK's healthcare systems at close to full capacity, coupled with staff shortages, had a:

> "*directly negative impact on infection control measures and on the ability of the NHS (and the care sector) to 'surge up' capacity during a pandemic*".[240]

5.138. The Department of Health and Social Care accepted that:

> "[T]*he better the state of the system prior to the pandemic, the better it can cope with shocks and use spare capacity. Investment in the system is therefore essential in 'peacetime'.*"[241]

It described the inability to scale up rapidly as "*one of the main learnings from the early part of the Pandemic*" and said that it was difficult to make up for the lack of investment in capacity once the pandemic had begun.[242]

237 INQ000409251_0258 paras 1026-1027
238 INQ000472172_0080 para 279
239 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 5 (https://covid19.public-inquiry.uk/documents/module-1-full-report)
240 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 5 (https://covid19.public-inquiry.uk/documents/module-1-full-report)
241 INQ000532392_0006 para 27
242 INQ000532392_0006 para 28

5.139. A number of witnesses also acknowledged that one of the most important factors in facilitating surge capacity is the need to create resilience by increasing baseline capacity, especially in the healthcare workforce.[243] Sir Christopher Wormald, Permanent Secretary to the Department of Health and Social Care from May 2016 to December 2024, stated that it was important to consider building resilience into the day-to-day running of the NHS in order to:

> "*have a much more resilient workforce, that doesn't have the kind of workforce gaps in it that we see at the moment … that's how you get a great NHS, it has the corollary that you are better prepared for emergencies of all types*".[244]

5.140. The Inquiry notes that the 2025 *Fit for the Future: 10 Year Health Plan for England* proposes a specific 10 Year Workforce Plan, which:

> "*takes a decidedly different approach. Instead of asking 'how many staff do we need to maintain our current care model over the next 10 years?', it will ask 'given our reform Plan, what workforce do we need, what should they do, where should they be deployed and what skills should they have?'.*"[245]

Those are pertinent questions to ask, particularly in the context of critical care where it takes years to train skilled specialist staff. As Mr Swann said:

> "[I]*t is my belief that there was, and remains, insufficient critical care capacity in Northern Ireland and this was due to a lack of trained staff and the physical capacity of hospitals.*"[246]

He was of the view that "*the only way*" to address this was through the ongoing transformation programme in Northern Ireland, much of which had to be paused during the pandemic.[247]

5.141. The Group of Welsh NHS Bodies (a Core Participant) told the Inquiry that in future "*the development of surge capacity, whether through field hospitals or otherwise, should be decided nationally and funded centrally*".[248] In contrast, the Scottish Health Boards (a Core Participant) emphasised the need for "*local planning*" of intensive care expansion.[249]

5.142. The capacity to surge is itself based on healthcare systems having access to accurate and up-to-date information about the existing capacity in the system in

243 Catherine McDonnell 30 September 2024 180/22-181/1; INQ000532392_0007 para 33; Stephen Powis 7 November 2024 194/5; INQ000346095_0007 para 16b
244 Christopher Wormald 12 November 2024 89/23-90/7
245 *Fit for the Future: 10 Year Health Plan for England*, HM Government, July 2025, p97 (https://assets.publishing.service.gov.uk/media/6888a0b1a11f859994409147/fit-for-the-future-10-year-health-plan-for-england.pdf; INQ0000650755)
246 INQ000492281_0041 para 114
247 INQ000492281_0041 para 115. This programme is known as 'Health and Wellbeing 2026: Delivering Together'.
248 INQ000532399_0010 para 26(xi)
249 INQ000532393_0034-0035 para 113

terms of beds, staff, equipment and supplies for different levels of patient care. It also requires:

- timely information on occupancy rates and available (ie staffed) beds;
- an understanding of how many additional beds could be created; and
- detail on how many staff would be needed to provide care for those beds – particularly when surging intensive care capacity, which may include plans to put in place additional training in order to create a cohort of healthcare workers with the skills to assist in the provision of critical care.

5.143. The redeployment of non-critical care staff to support intensive care units is likely to be required again in a future pandemic. Professor Powis said that it was important to have staff with more "*generalist skills*" to allow a flexible response.[250] The Intensive Care Society recognised that it was not possible to have intensive care staff who may be required during a pandemic on standby every day, so would support healthcare staff in other areas undergoing a programme of training on intensive care skills to ensure that they were better prepared for supporting fully trained intensive care staff if the need arose.[251] Sir Frank Atherton also supported staff developing "*multi-professional skills*" to ensure that they could be flexible in the workplace.[252] The British Medical Association encouraged workforce planning to increase resilience in intensive care to start immediately.[253]

5.144. It is difficult to predict the precise type of care that might be needed in the event of a future pandemic, or whether temporary hospitals should be used to provide critical care, intermediate care or step-down facilities. If the next pandemic results in severe infection, however, it is likely that patients will also require complex multi-organ support. Healthcare systems must have surge plans to enable them to scale up hospital capacity in general and especially intensive care capacity, while considering the impact of these surge plans on the continuation of essential services for non-pandemic conditions.

5.145. The pandemic amply demonstrated both the need for hospital capacity to be capable of being scaled up at speed and the challenges in doing so where there is a lack of equipment, space and workforce capacity. In scaling up hospital capacity, the human cost must not be forgotten. Chapter 6: Care for patients with Covid-19 examines the impact on patients, but caring for significantly more patients over a sustained period of time, coupled with redeployment and stretching of staffing ratios, all placed considerable demands on already overstretched healthcare workers. The solution is not simply a question of pre-pandemic financial resourcing because, as Professor Powis told the Inquiry: "*Even if the NHS had an increased baseline*

250 Stephen Powis 7 November 2024 194/15-18
251 Stephen Mathieu 9 October 2024 136/4-19
252 Frank Atherton 30 September 2024 114/3-8
253 Charlotte Summers and Ganesh Suntharalingam 2 October 2024 59/13-23; INQ000532394_0002 para 7a

capacity, a surge plan would still be needed, which would inevitably involve different ways of working."[254]

5.146. The need for pandemic plans to set out how hospital capacity, including beds, space, equipment and staff, is to be scaled up and staff are to be redeployed is therefore paramount. The Inquiry therefore recommends that pandemic plans include the practical steps to do so. This must be done in advance of (not during) the next pandemic.

Recommendation 6: Prepare for and test the ability to scale up hospital capacity

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with trusts and health boards to ensure that pandemic plans include practical steps to rapidly scale up hospital capacity to treat acutely unwell patients. This should include critical care services that can deliver multiple levels and types of organ support. It should also cover necessary equipment, supplies, space and staff, including redeployment and training.

All trusts and health boards must keep an easily accessible, up-to-date record of the information needed to implement these plans in the hospital sites they operate. This should include technical aspects of critical care expansion such as power, ventilation, oxygen and waste management systems.

Plans for expanding capacity should be published, subject to review every three years and tested as part of the pandemic response exercises recommended in the Inquiry's Module 1 Report (Recommendation 6).

254 INQ000485652_0026 para 101

Chapter 6: Care for patients with Covid-19

Introduction

6.1. At the start of the Covid-19 pandemic, it was not known precisely how the virus affected the human body or which treatments would be effective against it. Modelling in early 2020, however, clearly indicated that huge numbers of people would become infected with Covid-19 and that this would lead to an unprecedented number of hospitalisations.[1] Healthcare workers thus faced the dual challenge of learning how to treat a novel virus and of providing care for patients as resources were stretched to extraordinary levels.

6.2. Many more patients than normal had to be transferred rapidly from the intensive care units (also known as 'intensive therapy units' or 'critical care units') to which they had first been admitted, some hospitals had to adapt the way treatment was provided and, in some cases, decisions about which patients to treat became influenced by resources rather than solely by clinical assessment. This had an obvious effect on the quality of care provided to patients and placed a burden on healthcare workers, who were faced with the ethical dilemma of how best to provide care in such circumstances and which patients to prioritise.

6.3. This chapter explores how patient care and treatment developed during the pandemic and the impact of capacity pressures on the way it was delivered.

Adaptations to care

6.4. Responding to the virus at the start of the pandemic was particularly challenging, as Covid-19 can affect the human body in numerous ways. Those with severe infection can experience symptoms including, but not limited to, respiratory failure, blood clots, altered neurological state and cardiovascular compromise.[2]

6.5. Thousands of Covid-19 patients were admitted to intensive care units between March 2020 and June 2022, often requiring organ support.[3] In many cases, patients had respiratory failure and required assistance to help deliver oxygen to their organs.[4] Oxygen support can be provided in various ways, ranging from relatively simple methods, such as via masks or nasal prongs, to:

- continuous positive airway pressure, which is delivered via a tight-fitting mask or hood while the patient continues to breathe for themselves;
- non-invasive ventilation, which involves oxygen and pressure delivered via a tight-fitting mask so that, when the patient initiates a breath for themselves, the machine provides increased pressure to support breathing; or

1 INQ000409251_0079 para 324
2 INQ000474255_0010 para 2
3 INQ000480138_0019-0020. There are minor differences between the terms 'intensive care' and 'critical care': the latter can include care delivered outside of intensive care units and throughout the patient journey. See INQ000474255_0020 para 29.
4 INQ000474255_0012 para 9

- invasive mechanical ventilation, where a patient is sedated and intubated to allow a mechanical ventilator to support the patient to breathe in and out.[5]

6.6. In the early stages of the pandemic, there were differences of opinion about the benefits of early intubation and mechanical ventilation over prolonged, non-invasive respiratory support.[6] There were concerns that the latter, although less invasive, might result in poorer clinical outcomes, increase the risk of Covid-19 transmission and consume more oxygen at a time when a very high number of patients were requiring oxygen.[7] Dr Stephen Mathieu, President of the Intensive Care Society from December 2022, summarised the position:

> "*There were a number of different factors for ICUs* [intensive care units] *to consider in relation to oxygen supply methods. As a priority, intensive care professionals had to consider the patient's needs and medical condition. In addition to that, we had to consider the repercussions on other patients and staff due to the risk of aerosolisation of the virus and the possibility of subsequent contamination and spread.*"[8]

6.7. A hospital doctor who contributed to the Inquiry's listening exercise, Every Story Matters, described the questions which clinicians faced as:

> "*What's the best way to treat these patients? Should you persevere with the continuous positive airway pressure for as long as you can or intubate them?*"[9]

Research and trials into Covid-19

6.8. Research undertaken by the Intensive Care National Audit & Research Centre (which collects data from all intensive care and high dependency units in England, Wales and Northern Ireland) indicated that the percentage of patients receiving advanced respiratory support (also known as 'invasive ventilation') "*reduced from over 80% in March 2020 to around 45% by June 2020*".[10] This was suggestive of a 'learning curve' effect as clinicians became more familiar with managing the disease.[11]

6.9. The uncertainty over how to treat Covid-19 was recognised within government. In March 2020, the Chancellor of the Exchequer's budget provided the National Institute for Health and Care Research with £30 million of new funding to enable further rapid research into Covid-19.[12] In clinical terms, rapid progress was made in understanding the disease, finding new therapies and rolling out improvements in supportive care. Some key steps included:

5 INQ000474255_0012 para 9
6 INQ000472300_0016 para 47; INQ000474255_0013 para 10
7 INQ000474255_0013 para 10; INQ000472300_0016 para 47
8 INQ000472300_0016 para 48
9 *Every Story Matters: Healthcare*, p64 (INQ000474233)
10 INQ000480139_0010 para 7.4
11 INQ000480139_0010 para 7.4
12 INQ000410237_0028 para 3.88

- **The RECOVERY trial:** This trial began recruiting patients in March 2020.[13] By June 2020, it had demonstrated that the drug dexamethasone could be used to treat acutely unwell Covid-19 patients, reducing deaths by roughly one-third in ventilated patients and one-fifth in other patients receiving oxygen alone.[14] This was the first drug shown to reduce mortality. The trial also found that the drug hydroxychloroquine, widely proposed as effective at the time, was in fact of no benefit.[15]
- **The RECOVERY-RS trial:** In April 2020, this trial was launched to compare the effectiveness of three different ways of ventilating patients. It found that, in Covid-19 patients with acute hypoxaemic respiratory failure (an inability to oxygenate the blood adequately due to inflammation of the lungs), the use of continuous positive airway pressure reduced the risk of a subsequent need for invasive mechanical ventilation and of mortality compared with conventional oxygen therapy.[16] These findings helped inform improvements to treatment from late 2021.[17]
- **The REMAP-CAP trial:** On 2 September 2020, the REMAP-CAP international platform trial confirmed that the drug hydrocortisone reduced mortality in critically ill patients with Covid-19.[18]

6.10. Several of the UK's clinical research projects were vital in the development of treatment for Covid-19 and provided clarity about the best way to care for patients. For example, the pace at which the RECOVERY trial identified the benefits of dexamethasone, which was straightforward to administer and familiar to intensive care staff, enabled medical professionals to adapt their approach to treatment quickly.[19] This saved many lives in the UK and internationally.[20]

6.11. Advances in Covid-19 treatments and care could not have been achieved without the UK's research capabilities. Professor Charlotte Summers and Dr Ganesh Suntharalingam, expert witnesses on intensive care, stated:

> "[W]*ithout large-scale, appropriately resourced research capacity across the NHS, academia, and the broader life sciences sector, we would not have been able to change the trajectory of the pandemic in any meaningful way.*"[21]

6.12. Professor Sir Christopher Whitty, Chief Medical Officer for England from October 2019, agreed, noting that the UK was "*ahead of virtually every other country in terms*

13 INQ000410237_0029 para 3.89
14 INQ000410237_0029 para 3.90
15 INQ000474255_0014 para 14
16 INQ000474255_0013 para 11
17 INQ000474255_0013 para 11. No benefit was observed with the use of high-flow nasal oxygen therapy.
18 INQ000474255_0014, 0016 paras 15, 18
19 INQ000389244_0021; INQ000410237_0029 para 3.90
20 INQ000410237_0029 para 3.90
21 INQ000474255_0082 para 211

of studies that finally got to see the light of day".[22] He considered that "*having the mechanism to be able to do research very, very fast*" is a vital feature of any pandemic response.[23]

6.13. It is essential that the UK maintains its clinical research capabilities to ensure that it can move swiftly in the event of a future pandemic. In its Module 1 Report, the Inquiry recommended that the UK should commission a wider range of research projects ready to commence in the event of a future pandemic.[24] This must include clinical research to assist in the development or understanding of the types of care that might be required. The Inquiry is encouraged that the UK government has published a cross-UK framework for research and development concerning pandemic prevention, preparedness and response, which recognises the importance of understanding clinical characterisation as one of the research areas for a new or emerging threat.[25] Further, the Inquiry endorses the National Institute for Health and Care Research's new requirement, as of November 2024, that all applicants for research must demonstrate how they will address existing inequalities in health and social care as a condition of receiving funding.[26]

The impact of supply pressures and shortages of equipment

6.14. As well as a lack of knowledge as to the most effective methods of providing care, the supply of medical equipment was a significant concern, impacting how patients were treated in many hospitals. Particular concerns related to supplies of oxygen, mechanical ventilators (given the increased number of people requiring assistance from them) and renal support (with Covid-19 often impacting the kidneys).

Oxygen

6.15. The design and build of hospitals across the UK, some of which are more than 100 years old, did not account for very high numbers of patients requiring oxygen at the same time. This led to significant challenges and "*multiple incidents and near misses*".[27]

6.16. NHS hospitals typically rely on bulk liquid supply of oxygen through piped systems.[28] Dr Mathieu explained that, in many hospitals, the diameter of supply pipes in

22 Christopher Whitty 26 September 2024 90/3-6. For further evidence on the utility of research, see also *Technical Report on the Covid-19 Pandemic in the UK*, 1 December 2022, pp109-120 (https://assets.publishing.service.gov.uk/media/63bd35b78fa8f55e3ac750c4/Technical-report-on-the-COVID-19-pandemic-in-the-UK-PRINT.pdf; INQ000101642)
23 Christopher Whitty 26 September 2024 176/14-177/3
24 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Chapter 4, Recommendation 5 (https://covid19.public-inquiry.uk/documents/module-1-full-report)
25 *Health and Care Research and Development Framework for Pandemic Preparedness, Prevention and Response*, Cabinet Office and Department of Health and Social Care, 8 July 2025 (https://www.gov.uk/government/publications/pandemic-preparedness-prevention-and-response-health-and-care-research-and-development-framework/health-and-care-research-and-development-framework-for-pandemic-preparedness-prevention-and-response; INQ000653645)
26 INQ000653644
27 INQ000474255_0067 para 173
28 INQ000409251_0189 para 728

intensive care units differed from that in other areas.[29] When hospitals expanded their intensive care capacity to include repurposed spaces or certain ward areas (as discussed in Chapter 5: Increasing hospital capacity), these areas could not tolerate the level of oxygen demand required for intensive care.[30]

6.17. The potential impact of demand for oxygen exceeding capacity was set out plainly in an alert from NHS England to all English trusts on 31 March 2020:

> "[T]*here is a risk of a rapid pressure drop in oxygen supply pipes. This could lead to a failure of oxygen delivery systems throughout the hospital, including to patients on face masks, continuous positive airway pressure, ventilators and operating theatres … these situations present a potentially significant risk to multiple patients simultaneously.*"[31]

6.18. Some hospitals experienced particular oxygen-related issues. On 4 April 2020, Watford General Hospital declared a critical incident due to issues with its oxygen supply. This led to 60 ambulances being diverted and seven inpatients being transferred out of intensive care.[32] As Professor Summers and Dr Suntharalingam noted, this "*will have exposed the patients, who required urgent transfer to other hospitals, to avoidable risk*".[33] In January 2021, as a greater number of patients required treatment for Covid-19, both Medway Maritime Hospital and Bedford Hospital were at risk of not having the oxygen supply or staffing capacity to deliver non-invasive ventilation or invasive ventilation safely.[34] David Sulch, Chief Medical Officer at Medway NHS Foundation Trust from September 2018 to November 2021, told the Inquiry that there was some "*rationing*" of the provision of oxygen at the trust "*during peak times*".[35] This aligns with wider reports to the British Medical Association that the need to ration oxygen had impacted options for care.[36]

6.19. Hospitals faced challenges in accessing documentation, such as building plans that identified the oxygen delivery systems.[37] This necessitated further work at the start of the pandemic. For example:

- Cardiff and Vale University Health Board had to undertake an assessment of piped oxygen and air provision in all non-intensive care areas.[38]

29 Stephen Mathieu 9 October 2024 139/24-141/0
30 INQ000472300_0017 para 50
31 INQ000443868_0001
32 INQ000477511_0023-0024 paras 84-85
33 INQ000474255_0068 para 176
34 INQ000474217_0015 paras 17.3-17.4; INQ000477436_0015 para 36
35 INQ000474217_0015 para 17.7
36 INQ000477304_0060 para 128
37 INQ000474255_0067 para 174
38 INQ000480136_0027 para 101

- In early 2020, Royal Cornwall Hospital had to test its oxygen capacity on an empty ward which was being prepared for critical care expansion.[39]
- Warwick Hospital developed a "*ventilation map*" during the pandemic to monitor the demands on the oxygen supply throughout the building.[40]

Had this information been accessible across hospitals in the UK earlier, it is likely that safer and quicker decisions could have been taken about where best to care for patients.[41]

6.20. In Chapter 5: Increasing hospital capacity, the Inquiry recommends that trusts and health boards should have plans in place to scale up multiple levels and types of organ support rapidly and must ensure that technical information, including information about oxygen delivery systems, is readily accessible. This would alleviate some of the issues outlined above, enabling hospitals to make efficient and informed choices about which areas are most suitable to deliver oxygen support and how many patients can be safely supported.

Ventilators

6.21. At an early stage, there was an acknowledged shortage of invasive and non-invasive ventilators. Initial modelling in England in March 2020 forecast that the reasonable worst-case scenario would lead to the number of ventilators required exceeding the capacity of the NHS many times over.[42] Each nation sought to increase the number of mechanical ventilators available. In Module 5: Procurement, the Inquiry is examining the steps taken to procure this equipment in greater detail. In summary:

- In England, there were 6,669 ventilators in March 2020.[43] By September 2020, this had increased to 31,400.[44]
- As at 15 March 2020, there were "*363 ICU ventilators available across NHS Scotland*".[45] This had risen to 740 by September 2022.[46]
- In Wales, a further 1,238 ventilators were procured by NHS Wales during 2020, in addition to the 415 ventilators available to provide invasive ventilation in Welsh hospitals at the start of the pandemic.[47]

39 INQ000474039_0028 para 86b
40 INQ000472879_0018 para 82
41 Stephen Mathieu 9 October 2024 140/18-24
42 INQ000409251_0080 para 327
43 INQ000409251_0202 para 783c. There were additional paediatric ventilators and more available in the private sector.
44 INQ000409251_0202 para 783d-g
45 INQ000485979_0170 para 593. There were approximately 1,056 machines with intensive care unit ventilation capacity by 28 March 2020, including the repurposed anaesthetic machines.
46 INQ000485979_0170 para 596
47 INQ000485721_0152 paras 386-387. Additional ventilators procured included 450 invasive ventilators, 270 dual purpose (invasive or non-invasive) machines and 518 non-invasive machines, procured through the Department of Health and Social Care and NHS Wales Shared Services (INQ000485721_0136 para 345).

- In Northern Ireland, there was an initial stock of 139 mechanical ventilators.[48] Due to geographical challenges in transferring patients to other nations in the UK, a greater number of ventilators were required for any surge.[49] By 15 April 2020, 188 ventilators were available.[50]

6.22. In the short term, limited availability of ventilators directly affected the ability of hospitals to provide appropriate care to patients. The Inquiry's Escalation of Care Survey of 1,683 healthcare professionals found that 50% of respondents said they could not escalate patients due to a lack of beds for invasive mechanical ventilation.[51]

6.23. A nurse who worked in a Nightingale hospital's intensive care unit for Covid-19 patients described to Every Story Matters running:

> "*from one place to another, looking for equipment, 'Does this patient no longer need equipment? Can we take it from that patient and give it to this patient?' You could be running around the whole hospital looking for additional resources, like respiratory resources, so I know it was very stressful.*"[52]

6.24. While a significant number of ventilators were purchased and distributed to hospitals, this did not adequately resolve matters. Some of the ventilators provided through national supply programmes were entirely unsuitable. Those delivered to Queen Elizabeth Hospital Birmingham were portable and not appropriate for long-term use, Manchester Royal Infirmary received ventilators that were out of date, having been in storage for 15 years, and Hywel Dda University Health Board received ventilators which it had no means of servicing.[53]

6.25. In the spring of 2020, anaesthetic machines that were not being used for elective procedures were repurposed as mechanical ventilators. This was done locally by individual trusts in England and at the nation level in Wales and Scotland.[54] Professor Summers and Dr Suntharalingam said that the practical consequence of this was that clinical staff were required to use machines on critically ill adults that were "*designed to provide only a few hours of mechanical ventilation at a time*".[55]

6.26. The result was that healthcare workers required rapid training to make use of unfamiliar machines.[56] Professor Alistair Chesser, Group Chief Medical Officer of Barts Health NHS Trust, said:

48 INQ000492281_0046 para 129
49 INQ000421784_0180 para 293
50 INQ000421784_0178 para 286
51 INQ000499523_0018
52 *Every Story Matters: Healthcare*, p65 (INQ000474233)
53 INQ000477597_0028 para 95; INQ000478213_0028 para 145; INQ000475209_0010-0011 paras 69-70
54 See, for example, INQ000477448_0011 para 46; INQ000471161_0020 para 89; INQ000485721_0151 para 382d; INQ000485979_0095, 0170 paras 359, 593
55 INQ000474255_0068 para 171
56 INQ000474255_0067 paras 171-172

> "[S]*enior clinicians did not feel the use of anaesthetic machines for this purpose was optimal but in the face of no alternative, did their best to make this as safe and effective as possible.*"[57]

Reliance on unfamiliar equipment is likely to have translated into greater risk to patients. As Professor Ramani Moonesinghe (Clinical Lead for the national critical care response to the Covid-19 pandemic at NHS England) observed, healthcare workers are "*less likely to make errors*" if they are working with equipment they are familiar with.[58]

Renal replacement therapy and support

6.27. Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, explained how, as the pandemic progressed, "*evidence subsequently confirmed that the kidneys … were more affected by the virus than previously thought*".[59] On 17 April 2020, the Intensive Care National Audit & Research Centre published a report which identified that 28.8% of patients on advanced respiratory support needed renal support for a number of days.[60] Equipment and consumables relating to renal replacement therapy (which encompasses various forms of dialysis) were thus in increased demand.[61]

6.28. Professor Sir Gregor Smith, Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020, stated:

> "[I]*n the first wave, in many ICUs it was the availability of RRT* [renal replacement therapy] *(machines and disposables) rather than ventilators that was most challenging in terms of equipment provision.*"[62]

In Scotland, 93 renal replacement therapy machines were procured in August 2020 and delivered in tranches.[63]

6.29. NHS England wrote to NHS trusts on 21 April 2020, advising them of the steps being taken to maintain renal support capacity, and asked clinicians to conserve both fluids and sets used in renal replacement therapy.[64] A number of hospitals explained how they were required to change the way they provided renal treatment during the first wave of the pandemic. Queen Elizabeth Hospital (Lewisham and Greenwich NHS Trust) could only provide six patients with renal replacement therapy at one time, so therapy was limited to 24 hours of treatment per patient and machines were rotated

57 INQ000471161_0020 para 89
58 Ramani Moonesinghe 17 March 2025 154/14-17
59 INQ000412890_0021-0022 para 71
60 INQ000412890_0024 para 78
61 INQ000474255_0067 para 179.1
62 INQ000484783_0034 para 136
63 INQ000485979_0170 para 599
64 INQ000412890_0024 para 78; INQ000330989

between patients.[65] At the Royal London Hospital, machines were rotated every 12 hours, as it had a peak of 36 patients requiring treatment at the same time, compared with the usual 5.[66]

Impact of adaptations to care

6.30. While the Inquiry received no specific evidence of reported adverse outcomes as a direct result of adaptations to care or insufficient oxygen or ventilators, shortages and ongoing uncertainty over supplies created additional risk and led to inconsistency in the type of care patients received in different hospitals. This meant that, for non-clinical reasons, the manner of care and level of risk to which a patient was exposed differed depending on where their care occurred.

Pulse oximetry

6.31. As infection rates rose in March and April 2020, medical professionals identified that Covid-19 could cause a patient's oxygen saturation levels to drop dangerously low and that, in some cases, this could occur before patients felt unwell.[67] Healthy oxygen saturation levels vary among individuals but typically fall within a range between 95% and 100% saturation.[68]

6.32. In November 2020, NHS England introduced the 'COVID Oximetry @home' programme, which provided a pulse oximeter to patients for use at home.[69] The programme aimed to identify and treat patients with low oxygen saturation levels before they deteriorated and thereby reduce the risk of poor outcomes and reduce admissions to hospital where a patient appeared well and their condition could be safely managed at home.[70] A separate but complementary 'Covid Virtual Ward' pathway was implemented from early 2021 to support the earlier and safe discharge of Covid-19 patients from hospital. This required the active monitoring of patients at home.[71]

6.33. In general terms, pulse oximeters (see Figure 11) measure the level of oxygen in a patient's blood (ie the oxygen saturation level) and heart rate. They are routinely used in hospitals and as part of clinical assessment in general practice, especially when treating patients with a respiratory infection.[72]

65 INQ000474214_0018 para 3.18
66 INQ000471161_0016 para 74
67 INQ000485652_0241 para 891
68 INQ000485652_0241 para 890
69 INQ000485652_0240 para 884
70 INQ000474283_0053 para 191
71 INQ000485652_0240 para 886
72 INQ000474283_0054 para 192

Figure 11: An example of a pulse oximeter

Source: INQ000474283_0054

Rollout across the UK

6.34. To be eligible for England's COVID Oximetry @home programme, a patient had to be diagnosed with Covid-19 (either clinically or via a positive test), be symptomatic and be either aged 65 or over or aged under 65 and clinically extremely vulnerable.[73] By 4 January 2021, all clinical commissioning groups (now known as integrated care boards) in England were offering the COVID Oximetry @home programme to eligible patients.[74]

6.35. The use of pulse oximeters to monitor Covid-19 patients at home was piloted by two health boards in Scotland from the autumn of 2020.[75] As part of the Scottish Government's 'Covid-19 Remote Monitoring Pathway', health boards had discretion as to whether to use pulse oximeters, leading to some not prioritising this service.[76]

6.36. The Welsh Government commissioned a nationwide rollout of pulse oximeters for use in general practice to support clinical management of people with Covid-19.[77] In terms of at-home use, reviews by Health Technology Wales in June 2020 and the Technical Advisory Group (which advised Welsh ministers) in late 2020 both considered that there was insufficient evidence to support self-monitoring of Covid-19 patients through the use of pulse oximeters.[78] Sir Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025, also considered that there were downsides to using pulse oximeters, including challenges in "*interpretation, false reassurance and inappropriate escalations of care*".[79] The Welsh Government therefore did not actively endorse remote use.

73 INQ000485652_0245 para 914
74 INQ000485652_0248 para 935
75 INQ000469973_0006, 0010
76 INQ000469969
77 INQ000416178_0050 para 140
78 *Rapid Summary: Oximetry to Guide COVID-19 Management*, Health Technology Wales, 17 June 2020 (https://www.healthtechnology.wales/wp-content/uploads/2020/06/Rapid-Summary-Oximetry.pdf; INQ000226160); INQ000474283_0055 para 195
79 INQ000416178_0051 para 142

6.37. Despite this, Professor Adrian Edwards, expert witness on general medical practice during the pandemic, explained that his GP surgery received a series of pulse oximeters without "*very much instruction about how they were intended to be used*".[80] Professor Edwards' practice made use of the oximeters by providing them to patients at home, in much the same way as the programme in England.[81]

6.38. The Inquiry did not receive any evidence as to the use of pulse oximeters at home for Covid-19 patients during the pandemic in Northern Ireland. Professor Sir Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, confirmed that he had no involvement with their use.[82]

6.39. A retrospective study of the use of remote pulse oximetry in England was published in 2023, looking at results based on people with Covid-19 who attended emergency departments. The study found that the odds of dying were 52% lower in those enrolled in the programme than those who were not. The study also found that remote monitoring "*may be a clinically effective and safe*" way to detect low oxygen levels and patients who need escalation of care.[83] However, other studies showed only a very small possible mortality reduction of about 2%, which was not statistically significant, making it difficult to assess the effectiveness of the programme accurately.[84]

Concerns about inaccuracies in pulse oximeter readings

6.40. On 21 December 2020, the *British Medical Journal* reported concerns that oximetry may fail to detect true low oxygen levels to the same degree of accuracy in Black patients when compared with White patients. The *British Medical Journal* referred to an article in the *New England Journal of Medicine* which indicated that the inaccuracy of readings was 11.4% in Black patients and only 3.6% in White patients.[85]

6.41. Professor Powis told the Inquiry that NHS England took the concerns raised by the *British Medical Journal* very seriously. He explained that there was a risk that questions about the accuracy of pulse oximeters could have deterred patients with darker skins from enrolling in the programme, who would therefore not benefit from it, "*where, in fact, what we wanted was a programme that was more holistic than simply a reading of a single oxygen or a set of absolute oxygen levels*".[86] NHS England therefore published a COVID Oximetry @home operational update on

80 Adrian Edwards 23 September 2024 46/4-20
81 Adrian Edwards 23 September 2024 46/22-47/15
82 INQ000421784_0150 para 236
83 'Evaluating the impact of a pulse oximetry remote monitoring programme on mortality and healthcare utilisation in patients with COVID-19 assessed in emergency departments in England: A retrospective matched cohort study', T Beaney, J Clarke, A Alboksmaty, K Flott, A Fowler, J Benger et al, *Emergency Medicine Journal* (2023), 40(6), 460-465 (https://pmc.ncbi.nlm.nih.gov/articles/PMC10313966; INQ000470663_0001)
84 INQ000474283_0059 para 213
85 INQ000474283_0055 para 196; INQ000485652_0258 paras 979-980
86 Stephen Powis 7 November 2024 132/1-5

23 December 2020 to mitigate the risks of inaccurate oximeter readings by ensuring that clinicians and patients understood that pulse oximetry should be used in the context of:

> "*other signs that the patient might be displaying of deterioration, that absolute readings of oxygen levels through oximeters were maybe not as important as looking at a trend, so a falling trend in readings rather than an absolute trend*".[87]

6.42. Professor Powis also raised the matter with the Medicines and Healthcare products Regulatory Agency, which regulates medical devices. On 26 March 2021, the Medicines and Healthcare products Regulatory Agency published a review in which it noted that darker skin "*may cause an overestimate of SpO2 saturations*".[88] It indicated that it:

> "*was not aware of any incidents where skin colour had had an adverse effect on the use of pulse oximeters when providing effective clinical care*".[89]

6.43. However, prior to the pandemic, there had already been concerns about the accuracy of oximeters. Sir Christopher Wormald, Permanent Secretary to the Department of Health and Social Care from May 2016 to December 2024, acknowledged that there had been awareness of the potential for inaccurate readings in patients with darker skin pigmentation prior to the pandemic, as the issue had been aired publicly, although it had not been specifically raised with the Department of Health and Social Care.[90] He said that, across a range of medical equipment (not just oximeters):

> "[T]*here is a bias in how devices are created by world markets and tested, which is to the disadvantage of people with darker skin.*"[91]

6.44. The Intensive Care Society issued a statement in June 2021 noting that it had been known for 30 years that oxygen saturation measurements were less accurate when taken from patients with darker skin pigmentation using oximeters.[92] Dr Mathieu explained that the purpose behind this statement was to "*put some pressure on industry to actually make equipment that is useful and is calibrated for all*".[93]

6.45. Although the Inquiry received no evidence demonstrating a direct link to adverse outcomes for people with darker skin as a result of using pulse oximeters during the Covid-19 pandemic, such events were a real risk. Reports of inaccuracies in pulse

87 Stephen Powis 7 November 2024 130/19-131/14; 132/6-10
88 INQ000410863_0048 para 154. SpO2 is a measurement of oxygen saturation provided by a pulse oximeter (see INQ000410863_0045 para 149).
89 'The use and regulation of pulse oximeters (information for healthcare professionals)', Medicines and Healthcare products Regulatory Agency, 26 March 2021 (https://www.gov.uk/guidance/the-use-and-regulation-of-pulse-oximeters-information-for-healthcare-professionals; INQ000283587); INQ000485652_0261 para 990
90 Christopher Wormald 12 November 2024 48/20-25
91 Christopher Wormald 12 November 2024 114/8-10
92 INQ000395299
93 Stephen Mathieu 9 October 2024 143/13-144/1

oximeter readings caused considerable concern among patients and healthcare workers with darker skin tones, and damaged trust in healthcare systems in the four nations among several ethnic minority groups. Professor JS Bamrah, former Chairperson of the British Association of Physicians of Indian Origin, said the issue was indicative of the fact that medical devices "*are not really designed for dark-skinned people*".[94]

6.46. In April 2022, Sajid Javid MP (later Sir Sajid Javid), Secretary of State for Health and Social Care from June 2021 to July 2022, commissioned an independent report on equity in medical devices, including the use of pulse oximeters, for patients with black or dark skin.[95] The report, published in March 2024, recommended that regulators, developers and manufacturers take immediate action to ensure that existing pulse oximeters could be used "*safely and equitably for all patient groups across the range of skin tones*".[96] It also recommended that the Medicines and Healthcare products Regulatory Agency should strengthen standards for approval of new pulse oximeter devices to include sufficient clinical data to demonstrate accuracy.[97] The Inquiry understands that the Department of Health and Social Care has accepted the recommendations.[98]

6.47. Mr Javid also spoke with his counterpart in the USA to propose that the UK and USA "*only procure medical equipment which had been tested on all ethnicities and races*", to incentivise manufacturers to undertake the necessary testing.[99] The Inquiry agrees that increased testing is required for all new medical devices to ensure accuracy when used on a range of skin tones.

Capacity issues and the impact on quality of care

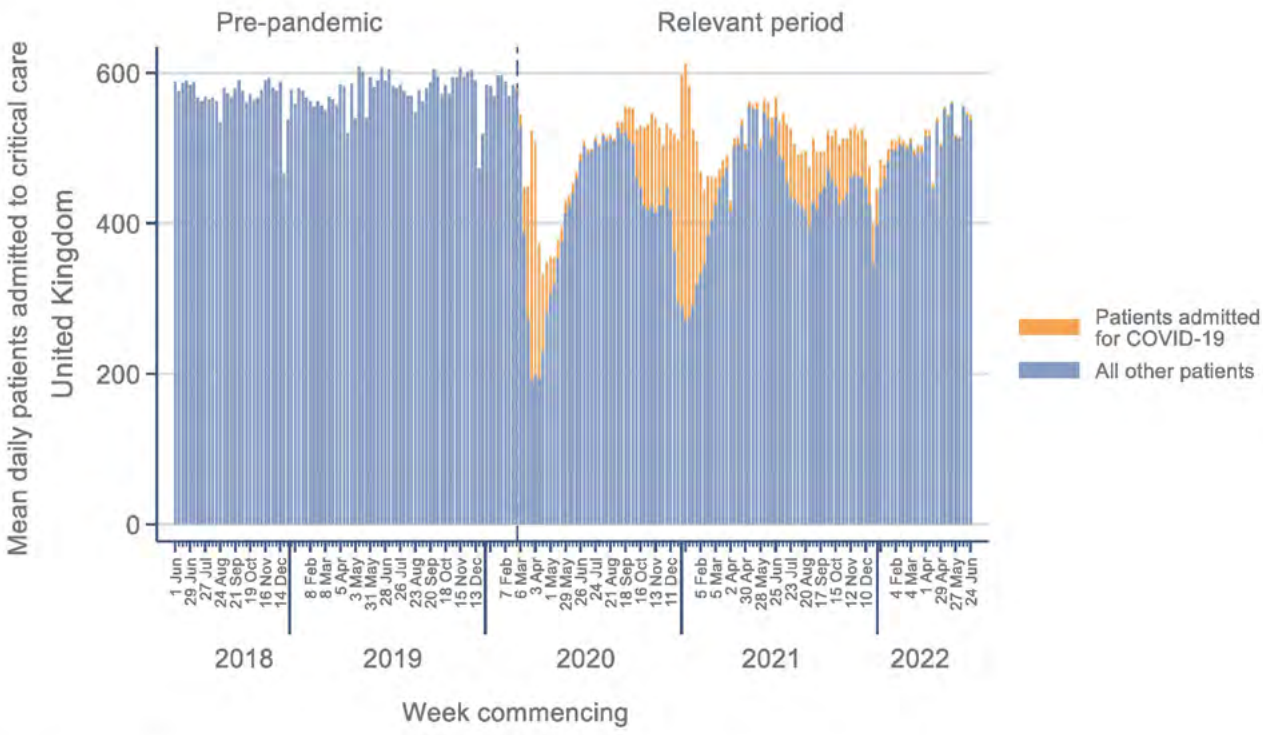
6.48. Notwithstanding measures taken to increase beds and staffing capacity (discussed in Chapter 5: Increasing hospital capacity), the increased number of people requiring hospital care for Covid-19 meant that healthcare capacity was stretched in ways that bore little or no resemblance to pre-pandemic pressures on the UK's healthcare systems.

94 Jaswinder Singh Bamrah 8 October 2024 56/2-4
95 *Equity in Medical Devices Independent Review: Terms of Reference*, Department of Health and Social Care, April 2022 (https://assets.publishing.service.gov.uk/media/6261283de90e071693964362/equity-in-medical-devices-independent-review-terms-of-reference.pdf; INQ000339294); Sajid Javid 25 November 2024 79/9-80/7, 86/12-23
96 *Equity in Medical Devices: Independent Review*, Department of Health and Social Care, 14 March 2022, p11 (https://www.gov.uk/government/groups/equity-in-medical-devices-independent-review; INQ000438237)
97 *Equity in Medical Devices: Independent Review*, Department of Health and Social Care, 14 March 2022, p12 (https://www.gov.uk/government/groups/equity-in-medical-devices-independent-review; INQ000438237)
98 *Government Response to the Report of the Equity in Medical Devices: Independent Review*, Department of Health and Social Care, 11 March 2024 (https://www.gov.uk/government/publications/government-response-to-the-report-of-the-equity-in-medical-devices-independent-review/government-response-to-the-report-of-the-equity-in-medical-devices-independent-review; INQ000468614_0008-0009)
99 INQ000485736_0029 para 68

Admissions to intensive care units

6.49. As Figure 12 sets out, the average (mean) number of daily admissions to critical care in fact decreased for most of the pandemic and particularly in March and April 2020.[100]

Figure 12: Mean of daily patients admitted to critical care in the UK, from 1 June 2018 to 30 June 2022

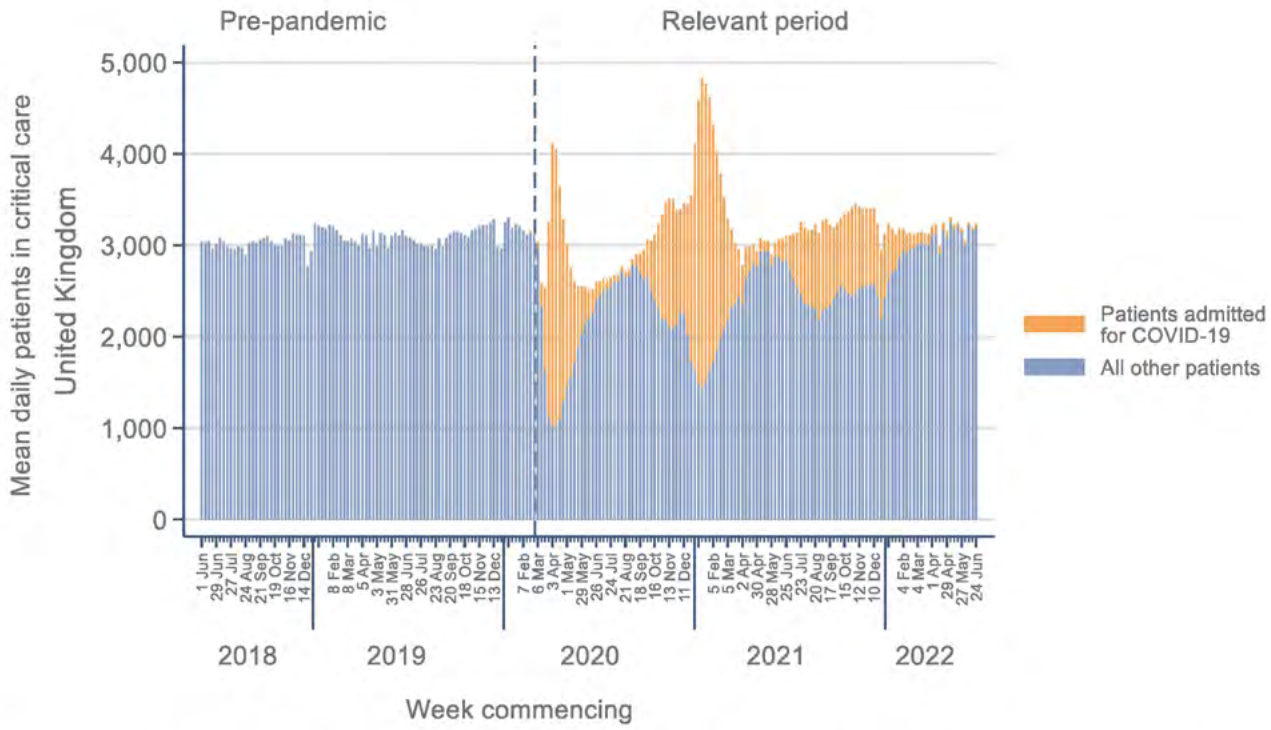


Source: INQ000474239_0006

6.50. Fewer daily admissions did not mean less pressure on intensive care units. Covid-19 patients (who represented more than half of those in critical care during the first and second peaks) spent far longer in intensive care than patients admitted before the pandemic.[101] This caused a large increase in the numbers of patients in intensive care units during peaks of the pandemic, when compared with pre-pandemic times. As Figure 13 shows, the mean number of patients actually in intensive care was considerably higher than pre-pandemic norms during both March to April 2020 and January to February 2021.

100 INQ000474239_0008; INQ000480139_0009 para 7.2
101 INQ000480139_0009 para 7.2. The mean length of stay for a Covid-19 patient in critical care was 16 days, compared with 7 days for non-elective patients admitted for other reasons.

Figure 13: Mean of daily patients in critical care in the UK, from 1 June 2018 to 30 June 2022



Source: *INQ000474239_0009*

The effect of capacity pressures on care

6.51. As set out in more detail in Chapter 5: Increasing hospital capacity, to cope with increases in the number of patients in intensive care, trained intensive care staff to patient ratios were stretched and staff were redeployed from other areas to support delivery of intensive care. A number of witnesses, including Dame Ruth May, Chief Nursing Officer for England from January 2019 to July 2024, acknowledged that the dilution of staff ratios affected the care that patients received.[102] Professor Colin McKay, Chief of Medicine at the Glasgow Royal Infirmary from June 2019 to March 2023, said that, when intensive care ratios in his hospital were stretched to one trained intensive care nurse supervising four non-intensive care nurses, staff reported feeling unable to maintain the same quality of care.[103] Dr Mathieu noted:

> "[D]*eviation from pre-pandemic standards may have had as-yet unquantified effects on patient safety, recovery from critical illness, and longer term outcomes.*"[104]

102 Ruth May 17 September 2024 43/9-11; Kevin Fong 26 September 2024 54/18-55/4
103 Colin McKay 14 November 2024 4/24-5-13
104 INQ000472300_0059 para 137

6.52. Professor Kathryn Rowan, founder and Director of the Intensive Care National Audit & Research Centre from 1994 to September 2023, explained that analysis undertaken by her organisation indicated that the prospect of a patient dying in an intensive care unit was affected by its occupancy levels. For the purposes of the analysis, peaks of the pandemic were labelled as either 'pandemic high' or 'pandemic extreme'. For patients "*admitted in pandemic high and pandemic extreme*" in the second wave of the pandemic, "*the association with the likelihood of dying before discharge from hospital was greater*".[105] Specifically, those admitted to intensive care during a period considered to be 'busy' (high bed occupancy) during the second wave of the pandemic were found to be between 15% and 30% more likely to die when compared with those admitted during "*typical*" intensive care unit capacity strain.[106]

6.53. The association between the level of strain a critical care unit was experiencing and the patient's prospects of dying strongly suggests that factors such as stretching staff ratios had a tangible effect on clinical outcomes.

Mutual aid

6.54. During the pandemic it was necessary for healthcare institutions to support each other in order to meet demand. The process of different healthcare organisations sharing resources at times of high demand is often referred to as "*mutual aid*".[107]

Critical care transfers

6.55. Interhospital critical care transfers, which involve moving a patient out of one hospital's intensive care unit and into another, were used to try to ease pressure (see Figure 14). These transfers carry a significant degree of risk, as patients in critical care are necessarily seriously unwell. Professor Summers and Dr Suntharalingam said:

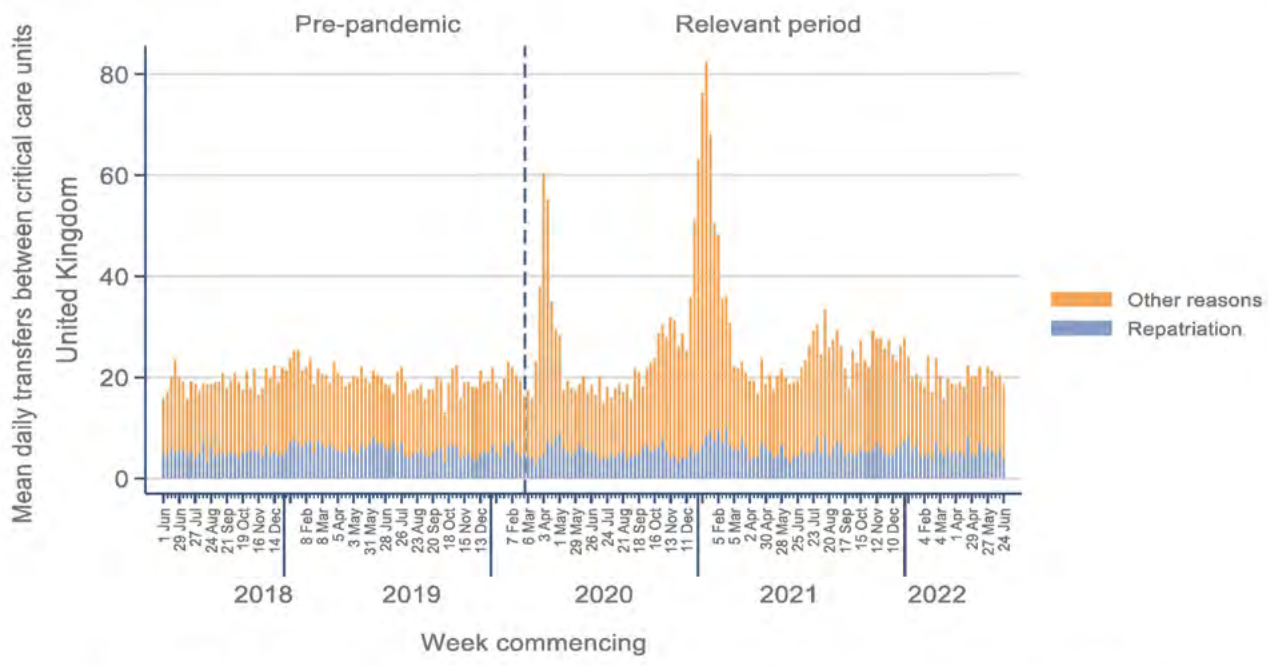
> "*Critically ill patients are intrinsically physiologically unstable,* [their condition] *can change rapidly, and patients are thus highly dependent on close observation, continuous nursing and medical care, and continuity of technological support … The physical effects of movement … can be potentially harmful. All of these aspects are amplified with greater distance and duration of travel.*"[108]

6.56. As Figure 14 shows, before the pandemic there was an average of 20 critical care transfers per day. In January 2021, this peaked at more than 80 per day.[109] There was, however, substantial variation between nations in the frequency of transfers, both before and during the pandemic, with England and Northern Ireland having

105 Kathryn Rowan 2 October 2024 2/3-6
106 Kathryn Rowan 1 October 2024 157/6-17; INQ000480139_0008-0009 para 6.4
107 INQ000474255_0008-0009 para viii
108 INQ000474255_0036-0037 para 77
109 INQ000474239_0018

higher rates of transfer than Scotland and Wales.[110] Across the UK, local critical care networks act as a way of connecting multiple hospitals more directly to ensure the efficient sharing of facilities and resources.[111] These were relied on heavily in England and Northern Ireland. For example, about 1,500 patients were transferred in the 2020 to 2021 period between intensive care units across south-east London, using specially equipped ambulances and highly trained staff to transfer patients between hospitals.[112] In Northern Ireland, the Belfast Health and Social Care Trust received 213 regional transfers of patients into its intensive care units in 2020 and 341 in 2021.[113]

Figure 14: Mean of daily interhospital transfers between critical care units in the UK, from 1 June 2018 to 30 June 2022

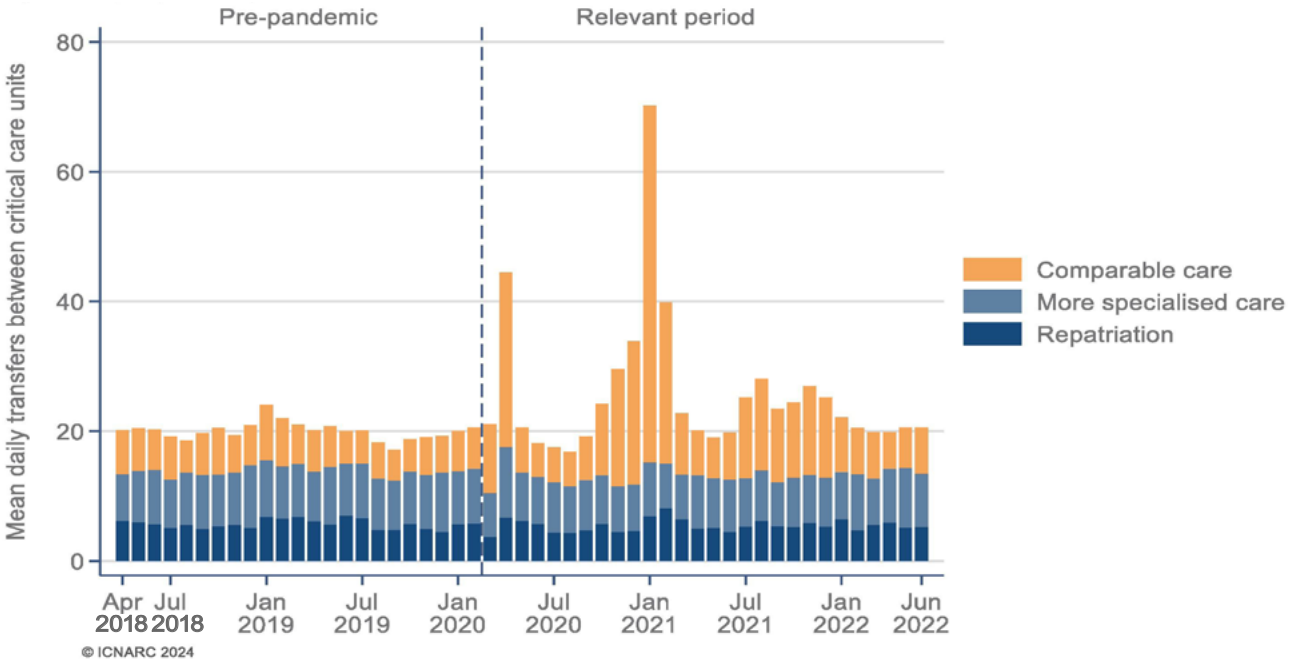


Source: *INQ000474239_0018*

6.57. A significant number of transfers were for 'comparable care' (ie care that the original critical care unit was theoretically capable of providing), indicating that the transfers were likely to have been for capacity reasons (see Figure 15).[114]

110 INQ000474239_0017
111 See, for example, Charlotte McArdle 18 September 2024 21/3-11 describing the Critical Care Network for Northern Ireland
112 INQ000474214_0016 para 3.8
113 INQ000474259_0095 para 258
114 INQ000480138_0028

Figure 15: Mean of daily transfers between critical care units in England, Wales and Northern Ireland combined, by reason for transfer, from April 2020 to June 2022



Source: INQ000480138_0043

6.58. These data were supported by evidence gathered by Professor Kevin Fong, National Clinical Adviser in Emergency Preparedness, Resilience and Response for Covid-19 to NHS England during the pandemic. Professor Fong established a series of 'peer support visits' to intensive care units across England by a team of clinicians who worked alongside staff in intensive care and gathered information about their experiences (discussed further in Chapter 10: Impact on healthcare workers and 'overwhelm').[115] He said that, during a visit in December 2020, intensive care staff told him that they had transferred 28 patients in 10 days, which was "*an unprecedented number of transfers to undertake in that period of time*".[116]

6.59. Capacity-related transfers are regarded as a "*last resort*" in UK adult critical care.[117] However, the specific harm to patients who were transferred due to capacity issues is difficult to measure.[118] Some studies have found no significant difference in the mortality rates of people transferred for capacity reasons compared with those who were not.[119] This may suggest that those who were transferred were carefully selected on the basis that they had greater prospects of surviving if moved.

6.60. While the increased number of transfers may not, in itself, have resulted in increased mortality, a number of patients were exposed to the risk that a transfer carries with it

115 INQ000474327_0008 para 40
116 Kevin Fong 26 September 2024 17/11-14
117 INQ000474255_0037 para 78
118 INQ000474255_0041-0042 paras 90-93
119 INQ000474255_0042 paras 91-92

in circumstances in which this would have been unnecessary but for capacity pressures. It is also likely to have caused distress to the families of patients who may have lived miles away from a receiving hospital. Professor Summers and Dr Suntharalingam considered that, although the benefits of transfers may have outweighed the risks for appropriately selected patients, this came at a cost as patients:

> "*woke up in a different town often some distance away from their families, who (albeit visiting was already restricted) had the added anxiety of knowing their loved ones were not only isolated from them but physically far from home*".[120]

6.61. Critical care transfers are a helpful mechanism for managing capacity strain which healthcare systems may need to rely on in a future pandemic. However, given the inherent risk involved, transfers made solely for capacity reasons ought to remain a last resort.

Understanding intensive care strain

CRITCON in England

6.62. Assessing whether a critical care transfer is appropriate requires an accurate understanding of the level of capacity in intensive care units in the surrounding area. In addition to qualitative reports from hospitals (such as through peer support visits, surveys and trust communications), NHS England relied on 'CRITCON' reporting to monitor strain on intensive care units and encourage sharing of regional resources.[121] This system was not in place in any other nation of the UK prior to the pandemic.

6.63. NHS critical care units in England were required to make CRITCON declarations to NHS England twice a day, in order to ensure that a system-wide picture of pressures on critical care capacity was obtained.[122] This requirement, in addition to other quantitative reporting obligations such as through Situation Reports (known as 'SitReps'), placed an inevitable reporting burden on staff. Professor Fong said that, based on the information he gathered from his peer support visits to intensive care units, staff found complying with data collection requirements during the pandemic to be "*incredibly onerous*".[123] He considered that there was a "*gap between the data and the information and the insight*".[124]

6.64. Hospitals reported their CRITCON status to NHS England based on senior clinicians' real-time observation of the strain on their hospital, translated into a numerical score.[125] Scores are designed to demonstrate the 'real-world' pressure experienced

120 INQ000474255_0043 para 98
121 INQ000497473_0007-0008 para 13; INQ000474255_0044-0045 paras 102-104
122 INQ000497473_0003 para 5
123 Kevin Fong 26 September 2024 10/22-25
124 Kevin Fong 26 September 2024 5/21-6/2
125 *CRITCON Levels*, Intensive Care Society, August 2023 (https://ics.ac.uk/resource/critcon-levels.html; INQ000409942)

by intensive care units, reflecting a subjective assessment of capacity that is not solely dependent on bed numbers and occupancy levels.[126] The system in place during the pandemic ranked levels of capacity from 0 to 4 (see Table 3).[127]

Table 3: CRITCON levels during the Covid-19 pandemic

DEFINITION	STATUS
Normal – *'Business as usual'*	
• Normal, able to meet all critical care needs, without impact on other services • Normal winter levels of non-clinical transfer and other overflow activity	**CRITCON 0**
Low Surge – *'Bad winter'*	
• Usual funded critical care capacity full. Some non-clinical transfers	**CRITCON 1**
Medium Surge – *'Unprecedented'*	
• Usual funded critical care capacity full – overflow into quasi-critical care areas (theatre recovery, other acute care areas). High level of non-clinical transfers • Trusts beginning mutual aid	**CRITCON 2**
High Surge – *'Full stretch'*	
• Expansion into non-critical care areas (e.g. wards) and/or use of paediatric facilities for adult critical care. Trust operating at or near maximum physical capacity • Maximum mutual aid between Trusts, with network and regional NHSE co-ordination • The prime imperative in CRITCON 3 is to prevent any single trust entering CRITCON 4	**CRITCON 3**
Triage – *'Emergency'*	
• Resources overwhelmed. Possibility of triage by resource (non-clinical refusal or withdrawal of critical care due to resource limitation) • This must **only** be implemented on national directive from NHSE and in accordance with national guidance	**CRITCON 4**
Staff Declaration: CRITCON 1, 2 & 3 SHOULD BE FURTHER CATEGORISED A OR B	
• Adhering to BACCN/ICS staffing recommendations or unit norm	**A**
• Staffing below BACCN/ICS staffing recommendations or unit norm	**B**

Source: INQ000409921

126 INQ000497473_0003 para 5
127 INQ000409921

6.65. The aim of the CRITCON system is to avoid a situation in which the highest level (CRITCON 4) has been reached and decisions about care can no longer be based on clinical need alone but are directly impacted by available resources (referred to as 'triage by resource').[128] Professor Whitty said:

> "*CRITCON 4 means essentially the whole* [intensive care] *system can't offload … nowhere is full until everywhere is full -- nowhere is overwhelmed, rather, until everywhere is overwhelmed.*"[129]

6.66. The regional nature of mutual aid means that, for CRITCON 4 to apply, there would be no capacity in the intensive care unit in question and no realistic possibility of a transfer within the relevant critical care network or surrounding region. For example, spare capacity in Manchester is unlikely to have assisted a patient in – or requiring intensive care in – Southampton. In simple terms, if CRITCON 4 were reached in a particular trust or region, some patients who would ordinarily receive intensive care would not be admitted because of a lack of resources – rather than because intensive treatment would be futile from a clinical perspective. Any decisions taken about restricting admissions on this basis would require external authorisation by NHS England.

6.67. During the Covid-19 pandemic, several trusts and hospitals in England reported that they had reached CRITCON 4. There were 22 days in which units declared CRITCON 4 (about 2.6% of the 850 days between March 2020 and June 2022 – see Table 4), though there was never an occasion on which more than one trust declared CRITCON 4 at any one time.[130]

128 Ganesh Suntharalingam 2 October 2024 89/10-19
129 Christopher Whitty 26 September 2024 173/17-23
130 INQ000532410_0018 para 86

Table 4: CRITCON 4 declarations, from April 2020 to November 2021

	East of England				London	Midlands	North East and Yorkshire	North West	South East
	Cambridge University Hospitals NHS Foundation Trust		James Paget University Hospitals NHS Foundation Trust	The Princess Alexandra Hospital NHS Trust	North Middlesex University Hospital NHS Trust	University Hospitals of North Midlands NHS Trust	South Tyneside and Sunderland NHS Foundation Trust	Manchester University NHS Foundation Trust	Dartford and Gravesham NHS Trust
	Addenbrooke's Hospital CCU	Addenbrooke's Hospital ICU	James Paget Hospital	The Princess Alexandra Hospital	North Middlesex Sterling Way	Royal Stoke University Hospital	Sunderland Royal Hospital	Wythenshawe Hospital CICU	Darent Valley Hospital, Dartford
15 Apr 2020								■	
16 Apr 2020								■	
1 May 2020								■	
2 May 2020								■	
3 May 2020								■	
4 May 2020								■	
5 May 2020								■	
6 May 2020								■	
7 May 2020								■	
8 May 2020								■	
9 May 2020								■	
10 May 2020								■	
10 Nov 2020			■						
30 Dec 2020					■				
31 Dec 2020					■				
1 Jan 2021					■				
2 Jan 2021					■				
7 Jan 2021									■
14 Jan 2021	■	■							
22 Jan 2021							■		
6 Aug 2021				■					
1 Nov 2021						■			

Source: INQ000497473_0004

6.68. The Inquiry was told that NHS England believed several of the CRITCON 4 declarations in Figure 17 had been made in error. If so, the number of genuine CRITCON 4 situations may have been lower than recorded in the table.[131] On the other hand, Professor Fong said that, during the first wave of the pandemic, his experience was that:

> "[T]*hose units under the most stress provided the poorest data returns, and indeed until the point that they became so operationally stressed that they provided no returns at all.*"[132]

This indicates that it is possible that intensive care capacity pressures may have been greater than is demonstrated by the data submitted, and there may in fact have been a greater number of intensive care units meeting the criteria for CRITCON 4.

6.69. The burden placed on staff by reporting requirements and the potential impact of this on accuracy of reporting highlights the need for investment to ensure that, wherever possible, a nation's healthcare IT, data and digital systems can automatically extract objective data that inform understanding of critical care

131 INQ000497473_0003-0004 para 6
132 Kevin Fong 26 September 2024 10/22-11/6

capacity. This would relieve some of the burden on healthcare workers, enabling them to concentrate on reporting subjective measures, such as CRITCON scores, which cannot be gleaned from quantitative data alone. It also emphasises the importance of wider measures to understand front-line capacity pressures that do not depend on manually submitting data or information. For example, the peer support visits led by Professor Fong may have bridged some of the gap between "*daily reports*" and healthcare worker experiences, though it is not a programme that is routinely in operation.[133]

Reporting capacity strain in Wales, Scotland and Northern Ireland

6.70. As noted above, prior to the pandemic there was no equivalent system to CRITCON formally in use in Wales, Scotland or Northern Ireland.

6.71. In Wales, specific guidance, *Principles for Critical Care Mutual Aid During the Covid-19 Pandemic*, was issued for the purposes of use during the pandemic.[134] The guidance defined and relied on five levels of CRITCON status, using identical terms to those already used in England.[135] From December 2020, CRITCON levels were reported in Wales on the Welsh Government's unscheduled care dashboard.[136]

6.72. In Scotland, the Scottish Intensive Care Society Audit Group (which is part of Public Health Scotland and performs a similar role to the Intensive Care National Audit & Research Centre) repurposed its reporting systems (which usually operate on a monthly basis) and published daily reports of the number of patients in intensive care units across Scotland.[137] In addition, use was made of "*long-standing arrangements of providing resilience and support*" among Scotland's three established west, east and north critical care networks.[138]

6.73. The Department of Health (Northern Ireland) relied on the Critical Care Network for Northern Ireland, which is made up of senior officials within each Health and Social Care trust, to assist with management of critical care capacity.[139] The Critical Care Network published updates to admission schedules to identify which hospitals had intensive care capacity.[140]

6.74. The lack of a single system for recording critical care capacity strain means that, ordinarily, there is no common language used to describe contemporaneous capacity pressures across the UK. Dr Andrew Goodall, Permanent Secretary to the

133 INQ000474327_0003, 0030 paras 13, 166
134 *Principles for Critical Care Mutual Aid During the Covid-19 Pandemic*, Wales Critical Care and Trauma Network, undated (https://www2.nphs.wales.nhs.uk/contacts.nsf/HealthAlerts/3A983047FBD5630C80258688003F4B52/$file/Mutual%20aid%20transfer%20principles%20final%20February%202021.pdf; INQ000081877)
135 *Principles for Critical Care Mutual Aid During the Covid-19 Pandemic*, Wales Critical Care and Trauma Network, undated (https://www2.nphs.wales.nhs.uk/contacts.nsf/HealthAlerts/3A983047FBD5630C80258688003F4B52/$file/Mutual%20aid%20transfer%20principles%20final%20February%202021.pdf; INQ000081877); INQ000485721_0210-0214 paras 527-529
136 INQ000485721_0214-0215 para 531
137 INQ000401271_0047 para 4.5.10
138 Caroline Lamb 14 November 2024 91/21-24
139 Robin Swann 18 November 2024 21/8-22/10
140 INQ000474259_0093-0094 para 257

Welsh Government from September 2021, acknowledged that having a formal CRITCON system available for Welsh intensive care units would provide an additional level of useful information for the Welsh healthcare system.[141] The Inquiry agrees. There would be significant benefits to uniformity in the approach used to assess strain on critical care across the UK, particularly given the likely need for transfers to occur across land borders in England, Wales and Scotland in times of extreme demand for critical care.

6.75. The Inquiry considers that a comprehensive understanding of intensive care capacity strain at regional and national levels is needed during a pandemic to facilitate necessary mutual aid. Multiple sources of intelligence are required to enable this but there is likely to be particular reliance on tools such as CRITCON, which measure and report front-line assessments of capacity strain in real time and have the potential to provide a system-wide overview.

Limits on escalation to the next level of care – triage by resource

6.76. While there were no formal national triage by resource policies applied in any nation in the UK, the Inquiry heard evidence from various sources which indicates that, in practice, a lack of available resources led to some patients not receiving the level of care they would have received in non-pandemic times.

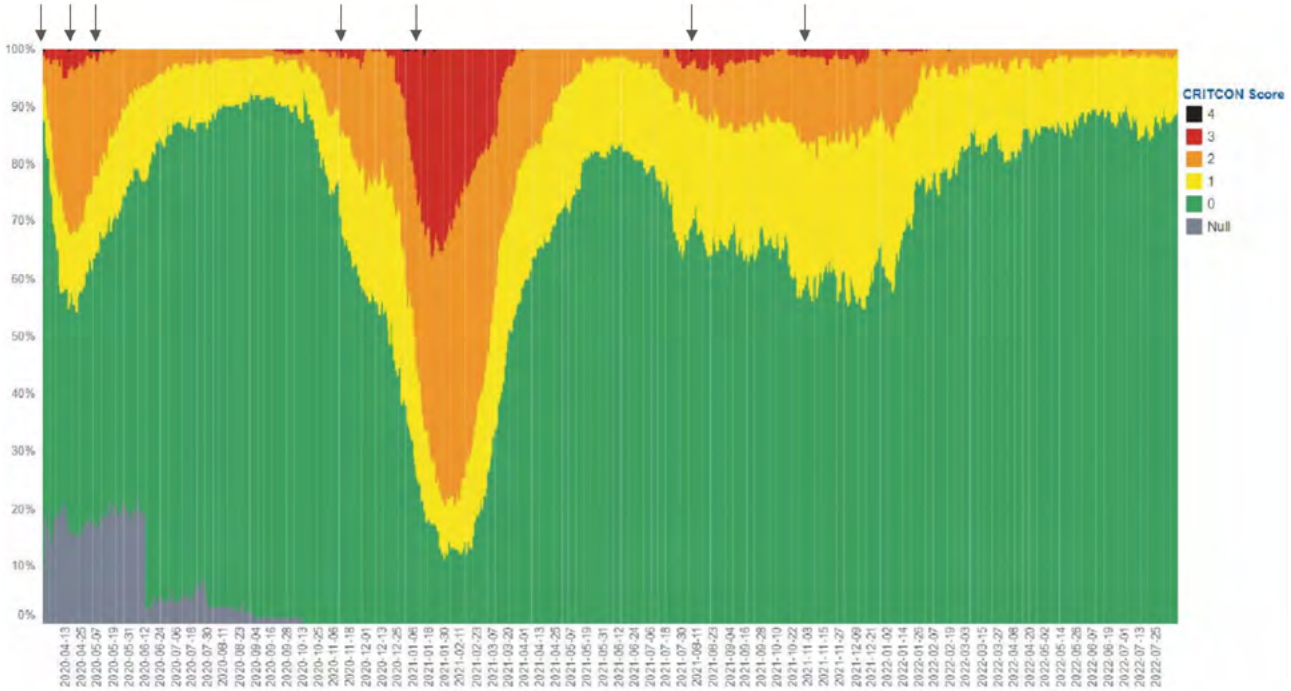
6.77. Professor Summers and Dr Suntharalingam told the Inquiry:

> "[T]*he criteria for ICU admission changed via local informal processes (conscious or unconscious alterations in decision-making by individual clinicians rather than due to policies or guidelines being issued) when capacity was stretched, meaning those who might usually be admitted to ICU were not.*"[142]

6.78. Although there was no point at which reports indicated that England had run out of intensive care beds nationwide, the fact that some critical care units declared CRITCON 4 indicates that staff within those hospitals are likely to have felt that they had reached the stage at which transfers were not possible regionally and that triage by resource had – or was about to – become a necessity. There were also a considerable number of CRITCON 3 declarations, indicating that many English intensive care units felt they were at 'full stretch'. As can be seen from Figure 16, CRITCON declarations showed that there was particular strain on intensive care units in England in around April 2020 and January 2021, when the majority of CRITCON 4 declarations (identifiable as the black dots at the top of the figure) were made.

141 Andrew Goodall 13 November 2024 14/21
142 INQ000474255_0061 para 156

Figure 16: Proportion of intensive care units at each CRITCON score on a daily basis, from April 2020 to July 2022



Source: INQ000474486_0007

6.79. Professor Jean White, Chief Nursing Officer for Wales from October 2010 to April 2021, insisted that all patients in Wales:

> "*who needed level 3 care* [multi organ support and/or invasive mechanical ventilation in intensive care] *got level 3 care, there was never a moment when there wasn't a bed available*".[143]

6.80. However, Dr Goodall told the Inquiry that, in December 2020 and January 2021, health boards in South Wales "*regularly reported CRITCON statuses of level 3*" and in December 2020 "*Prince Charles Hospital, Cwm Taf Morgannwg, was close to declaring CRITCON 4*".[144] Additionally, a critical care doctor in Wales who responded to the Inquiry's Escalation of Care Survey said that some patients who otherwise may have been admitted to intensive care were not, as there was not "*enough space to 'give people a go' who had a very remote chance of getting better*".[145]

6.81. Professor Smith said that he was "*slightly surprised*" that the Inquiry's survey indicated that some patients had not been escalated to intensive care, as his view was that in Scotland there had been an ability to "*expand the capacity for care further, particularly with ICU capacity*".[146] Although not necessarily indicative of an inability to escalate patients to intensive care, Caroline Lamb (Director General for

143 Jean White 17 September 2024 105/12-14
144 INQ000485721_0215 para 533
145 INQ000499523_0022
146 Gregor Smith 25 September 2024 140/14-21

Health and Social Care in the Scottish Government and Chief Executive of NHS Scotland from January 2021) did acknowledge that in Scotland:

> "[B]*aseline capacity was exceeded on 8 occasions between 1 March 2020 and 15 March 2022. The highest peak was 44% above baseline on 10 April 2020.*"[147]

6.82. In Northern Ireland, between 20 March 2020 and 20 May 2022, there were 651 dates when, in at least one hospital, all intensive care (Level 1, 2 and 3) beds were occupied.[148] In October 2020, staffing capacity became sufficiently stretched that Professor Charlotte McArdle (Chief Nursing Officer for Northern Ireland from April 2013 to October 2021) asked for support from England, Wales and Scotland with more intensive care nurses.[149] She explained that this request reflected the fact that:

> "[I]*f we had a sudden surge or an event that -- where a number of ICU beds would be required ... that would be very challenging for us.*"[150]

6.83. The Inquiry's Escalation of Care Survey found that 58% of respondents reported that "*some patients could not be escalated to the next level of care due to a lack of resources during either wave of the pandemic*".[151] The most common reason provided for being unable to escalate care was a lack of beds for high dependency care (56%), followed by a lack of staff (53%).[152]

6.84. Data from the Intensive Care National Audit & Research Centre highlight that there were significant changes to the characteristics of patients admitted to intensive care during peaks of the pandemic.[153] Professor Rowan explained that, when compared with pre-pandemic times (including periods of winter pressure), there were changes to the characteristics of the patients admitted to intensive care during peaks in the first two waves of the pandemic. These changes indicated that younger patients without pre-existing health conditions were being prioritised for intensive care and that the proportion of patients admitted to intensive care for non-Covid-19-related issues who were aged 75 or older had fallen.[154] Among non-elective intensive care admissions, there were also fewer patients who had "*any prior dependency or any advanced chronic condition*".[155]

6.85. While there may be alternative explanations for changes in patient characteristics, including the suspension of elective care impacting the mean age of non-Covid-19 patient admissions, these changes are, at least in part, likely to reflect decisions being made by clinicians to ration care. Professor Summers and Dr Suntharalingam's view was that, although never an explicit policy:

147 INQ000485979_0174 para 612
148 INQ000474243_0005 para 6
149 Charlotte McArdle 18 September 2024 45/22-46/3
150 Charlotte McArdle 18 September 2024 46/9-24
151 INQ000499523_0016
152 INQ000499523_0018
153 INQ000474239_0012; Kathryn Rowan 2 October 2024 5/19-22
154 INQ000480139_0011 para 7.6
155 INQ000480139_0011 para 7.6

> "[E]*fforts were directed at saving patients with the greatest chance of survival (those who were younger and previously fitter but with the most severe illness) during the peak of the first wave.*"[156]

6.86. The Inquiry also heard accounts from bereaved individuals of specific decisions not to admit their loved ones to intensive care. Dr Saleyha Ahsan, a member of Covid-19 Bereaved Families for Justice, said that she understood a decision had been made to impose a "*ward-based ceiling of care*" on her father due to the strain on intensive care capacity across the region.[157] Another member of Covid-19 Bereaved Families for Justice, John Sullivan, told the Inquiry about the death of his daughter Susan, a 56-year-old who had Down's syndrome. In March 2020, Susan contracted Covid-19 and was taken to hospital. Her medical notes recorded that she had been "*declined ITU admission due to cardiac co-morbidities and Down's Syndrome*".[158] A serious incident report produced by the hospital noted that neither the presence of a cardiac pacemaker nor Down's syndrome was a valid reason not to review her for possible admission to intensive care or admit her to the intensive care unit.[159] The report noted that a contributory factor which impacted the decision not to escalate Susan to intensive care was that "*pressures on hospital infrastructure and staff were unprecedented*".[160]

6.87. Despite the public messaging that intensive care was accessible to all patients who needed it, the evidence indicates that both during and after the Covid-19 pandemic it is likely that some decisions taken in the UK about whether to escalate patients to intensive care were materially influenced by resources rather than solely by clinical assessment, meaning triage by resource did occur.[161] At no point did any of the nations declare that this ought to occur. Rather, it is likely that, during periods of intense strain, local decisions were taken by individual clinicians to prioritise resources for the patients considered most likely to survive.

Guidelines for prioritisation of care

6.88. At the outset of the pandemic, there was considerable concern among patients and healthcare workers as to how decisions would be taken in circumstances of extreme demand. In particular, many healthcare professionals wanted guidance to be developed to ensure that they knew how to make ethical decisions about triage in circumstances where there were insufficient resources to meet demand.[162]

6.89. Dr Daniele Bryden, Dean of the Faculty of Intensive Care Medicine from July 2020, said that members of her organisation were concerned about what would happen

156 INQ000474255_0064 para 162
157 Saleyha Ahsan 26 November 2024 86/4-6
158 INQ000489906_0006 para 24
159 INQ000483295_0008
160 INQ000483295_0004
161 'NHS and other professional bodies' response to the Sunday Times, 25 October 2020', NHS England, 25 October 2020 (https://www.england.nhs.uk/2020/10/nhs-and-other-professional-bodies-response-to-sunday-times; INQ000087543)
162 INQ000477304_0058-0059 para 126

if they were faced with this scenario and could no longer "*use their normal ethical and decision-making processes*", which focus on whether or not a patient will benefit from receiving intensive care.[163]

6.90. During the early stages of the pandemic, work was undertaken to develop new guidelines for intensive care treatment decisions, as well as a tool to be used in the event that intensive care capacity was saturated. This was (and remains) controversial.

Use of the Clinical Frailty Scale in Covid-19 guidelines

6.91. On 20 March 2020, the National Institute for Health and Care Excellence (NICE), whose guidelines are applicable in England, Wales and Northern Ireland, published *NG 159 COVID-19 Rapid Guideline: Critical Care in Adults* (the guideline).[164] This was intended to facilitate staff decision-making regarding intensive care treatment during the pandemic.[165] It was not designed for triage by resource but "*related to making normal ethical decision-making processes more effective and efficient*".[166]

6.92. The guideline stated:

> "*On admission to hospital, assess all adults for frailty, irrespective of age and COVID-19 status. Consider comorbidities and underlying health conditions.*"[167]

It directed clinicians to "[u]*se the Clinical Frailty Scale (CFS) for frailty assessment*" and to record their findings.[168] There was no further information on how to conduct this assessment.

6.93. The Clinical Frailty Scale (see Figure 19) is a tool that has been used for many years.[169] It aims to:

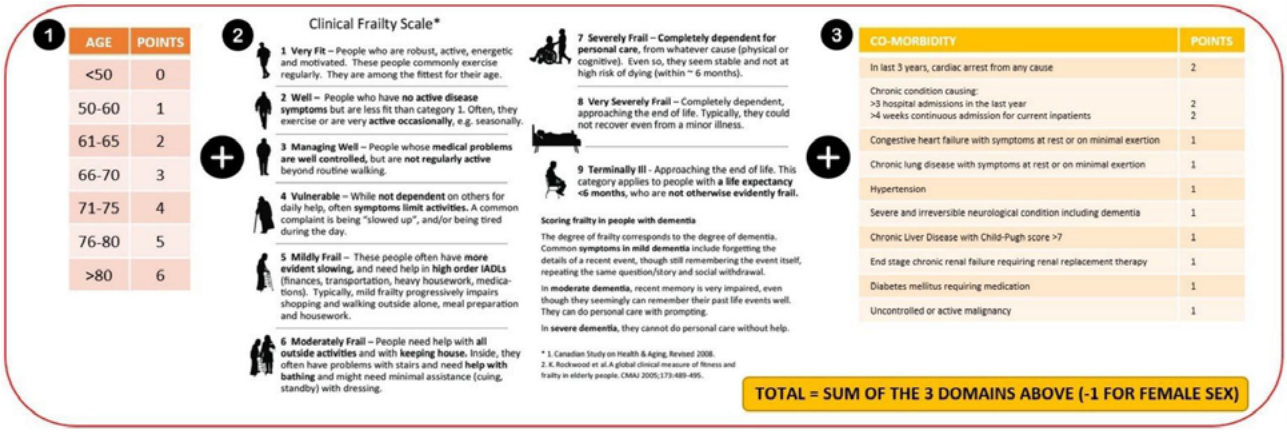
> "*capture and describe, in short, numerical form, a patient's background state of health, biological reserve, and likely ability to recover from an acute event*".[170]

Scores are based on a combination of age, perceived frailty and the existence of any "*co-morbidity*", such as a chronic condition or "*uncontrolled or active malignancy*".[171] Patients who receive above a certain score may be deemed

163 Daniele Bryden 8 October 2024 150/19-24
164 INQ000474301. The Scottish Intercollegiate Guidelines Network did not produce an equivalent guideline which relied on the Clinical Frailty Scale (INQ000409591_0032 para 99).
165 INQ000438429_0002 para 9; INQ000485721_0220-0221 para 555; INQ000421784_0182 para 297. Note that the Faculty of Intensive Care Medicine also provided advice and input into the guideline; see Daniele Bryden 8 October 2024 146/9-22.
166 INQ000389244_0012 para 55
167 INQ000474301_0002
168 INQ000474301_0002
169 INQ000438429_0051 para 98
170 INQ000474255_0034 para 74.3
171 INQ000087353_0001

inappropriate for escalation to intensive care on the basis that it is unlikely to lead to a positive outcome.

Figure 17: Clinical Frailty Scale



Source: INQ000087353_0001

6.94. As Professor Summers and Dr Suntharalingam explained, the numerical score produced by the Clinical Frailty Scale must be "*used cautiously and only as part of a holistic assessment*" and the scale is not validated in patients aged under 65.[172] They also noted that its emphasis:

> "*on activity, mobility and independence may overestimate the risk of a poor outcome in people with stable conditions such as cerebral palsy or learning disability. In these patients, a higher clinical frailty score may reflect their stable disability and not, as intended, the overall ability of the body to recover from biological stresses at tissue and organ levels.*"[173]

6.95. As NICE accepted, the guideline issued on 20 March 2020 lacked clarity as to when the Clinical Frailty Scale should not be used.[174] It potentially denied intensive care to patients who were otherwise stable but had long-term disabilities on the basis of a high frailty score which did not reflect their actual prospects for survival.

6.96. The guideline therefore caused significant concern, particularly among people with disabilities. On 23 March 2020, both the National Autistic Society and the Royal Mencap Society (Mencap) wrote directly to NICE, highlighting that relying on the Clinical Frailty Scale without referencing its inappropriateness for use on those with stable disabilities could be discriminatory.[175] In response, on 25 March 2020, the guideline was amended and relevant caveats for use of the Clinical Frailty Scale were added.[176] Jackie O'Sullivan, Acting Chief Executive Officer of Mencap from August 2023 to June 2024, said that, notwithstanding these changes, there were

172 INQ000474255_0034 para 74.4; Daniele Bryden 8 October 2024 146/3-4
173 INQ000474255_0034 para 74.4
174 See INQ000532385_0003 para 8
175 INQ000479878_0003 para 5; INQ000228378; INQ000235594_0008-0009 para 22
176 INQ000315780

concerns that the "*genie was out of the bottle*", as some of Mencap's services reported receiving letters dated 24 March 2020:

> "*that essentially said: if anyone in your service gets Covid, they are unlikely to be treated and therefore please don't bring them to hospital*".[177]

6.97. Dr Paul Chrisp, Director of the Centre for Guidelines at NICE from September 2018 to April 2023, accepted that the initial guideline failed to specify the circumstances in which the Clinical Frailty Scale should not be used. The public sector equality duty (which applies in England, Scotland and Wales) requires public bodies such as NICE to have due regard to certain equality considerations when exercising their functions.[178] The initial guideline, however, was published without following NICE's standard development process, meaning that the equality impact assessment "*wasn't as thorough because of the speed*" at which it was produced.[179] The flaw in the initial iteration of the guideline emphasises the dangers in drafting guidelines at speed and the potential impact of doing so. It is important that frameworks or templates on foreseeable issues, such as the principles applicable to admission to intensive care in circumstances of extreme pressure, are drafted well in advance of a future pandemic.

Guidance for use in the event that resources became saturated

6.98. On 21 March 2020, the Department of Health and Social Care convened an expert working group including Professor Sir Jonathan Montgomery (Professor of Health Care Law at University College London), Professor (later Dame) Helen Stokes-Lampard (former Chair of the Royal College of General Practitioners) and Dr Suntharalingam (as President of the Intensive Care Society) to develop UK-wide guidance for clinicians on clinical prioritisation, "*to be used in the event of saturation of NHS critical care resources*".[180]

6.99. A draft framework was produced. This emphasised that normal, individualised clinical decision-making would apply as long as any available critical care capacity remained (CRITCON 0 to CRITCON 3). In the event that CRITCON 4 (or equivalent) was reached in one or more regions/nations, "*clinical prioritisation, using thresholds outside usual practice*" would apply.[181] To trigger this, a high-level governmental or NHS-wide declaration was required, only to be issued once all possible sources of mutual aid between all hospitals had been exhausted. In short, there was to be "[n]*o triage* [by resource] *until every (accessible) ICU is full*".[182]

177 Jackie O'Sullivan 28 October 2024 65/14-66/1
178 See sections 149-157 of the Equality Act 2010 (https://www.legislation.gov.uk/ukpga/2010/15/contents)
179 INQ000474301_0001; Paul Chrisp 30 October 2024 81/6-8 (see also 75/16-23)
180 INQ000474255_0046 para 109
181 INQ000474255_0047 para 110.1
182 INQ000474255_0047 para 110.2; INQ000087353_0001

6.100. If a nation's critical care resources were exhausted and there was a need to prioritise one patient over another, the saturation tool proposed ranking patients based on the best available evidence of likelihood of survival.[183] Dr Suntharalingam explained:

> "[T]*his is not about triaging people in the sense of saying they will never get an intensive care bed unless that is the clinically appropriate scenario in any case, but under pandemic conditions it is not about ruling people in or out, it is saying for the next available bed who should take precedence over somebody else on the grounds of survivability using these principles.*"[184]

6.101. On 29 March 2020, the decision was taken to pause development of the tool. The Inquiry was told that the reason provided for this was that it was not needed, as, by then, it was anticipated that there would be sufficient critical care capacity.[185] However, email correspondence states that there were also concerns from ministers and Sir Simon Stevens (later Lord Stevens of Birmingham), Chief Executive of NHS England from April 2014 to July 2021, about "*how potentially controversial it is/ difficult landing*".[186] Ultimately, no guidance of this kind was issued or endorsed during the pandemic by any of the four governments.

Escalation decisions taken in the absence of resource saturation guidance

6.102. The absence of any UK-wide resource saturation guidance caused some clinicians anxiety and greater psychological distress, as the burden of determining the criteria to apply – if required to triage by resource – was left to their individual assessment. An Associate Medical Director at Cumberland Infirmary in Carlisle stated that worries about how to reach a fair and equitable decision "*should it come to a point where rationing were necessary … appeared to weigh on the minds of colleagues*".[187]

6.103. Paul Tisi, Medical Director at Bedfordshire Hospitals NHS Foundation Trust, felt that there ought to have been guidance to assist staff in navigating these "*very difficult and emotionally challenging decisions*".[188] Christopher Hagan, Medical Director of the Belfast Health and Social Care Trust from January 2020 to January 2024, agreed and expressed his view that "*the UK Government avoided providing guidance*" on these difficult issues.[189]

6.104. The lack of national guidance meant that other organisations and bodies developed their own tools, guidelines or policies. Examples include the following:

183 INQ000474255_0047 paras 110.4-110.6; INQ000087353_0001
184 Ganesh Suntharalingam 9 October 2024 46/16-24
185 INQ000474255_0048 para 114
186 INQ000048276_0002
187 INQ000471398_0032 para 132
188 INQ000477436_0049 para 123
189 INQ000474259_0217 para 503

- The British Medical Association produced a guidance note in March 2020 on ethical issues in which it set out the factors upon which resource allocation decisions should be based.[190]
- The Medical Director at South Warwickshire University NHS Foundation Trust developed a tool, issued on 27 March 2020, for "*assisting with level of care decisions in the Covid-19 crisis in the presence of limited resources*".[191]
- The Intensive Care Society produced its own guidance in May 2020 based on the initial draft prioritisation tool proposed by the Department of Health and Social Care's expert working group.[192]
- The Medway NHS Foundation Trust established an Ethics Committee which reviewed a Critical Care Triage Tool created in January 2021 on the basis that it would be used as a "*filtering tool for patients who could not be considered for critical care but also those that did not need to be considered*".[193]

The content of these tools and guidelines inevitably varied, meaning that there was a risk of different approaches being taken to resource-based decision-making – depending on where a patient attended hospital.

The need for UK-wide guidance

6.105. On the face of it, the existence of UK-wide guidance setting out who is to be prioritised in the case of a national emergency is likely to be unpalatable to many. A range of views were provided to the Inquiry on the benefits and drawbacks of developing such guidance. Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, who was involved in the initial decision to pause the publication of the draft saturation tool, considered that staff are trained to a high standard and are capable of making these decisions individually in the best interests of patients.[194] For the same reasons, Ms Lamb also felt that such a national prioritisation plan would not "*have been welcomed or have been helpful*".[195] Clinically Vulnerable Families, a Core Participant, opposed the production of guidance of this kind, citing concerns that it may not be possible to develop a tool "*in a way that does not embed oversimplified or biased criteria*".[196]

6.106. On the other hand, the pre-pandemic development of guidelines to provide practical and ethical advice to inform decisions when resources are depleted was supported by several clinical groups. The British Medical Association submitted that it would "*mitigate moral distress, ensure equitable care delivery and give staff more protection*".[197] The Royal College of Anaesthetists, the Faculty of Intensive Care

190 INQ000117773
191 INQ000472879_0041 para 197; INQ000421763
192 INQ000395282_0012; Ganesh Suntharalingam 9 October 2024 51/5-9
193 INQ000474217_0041, 0044 paras 37.1, 37.11
194 Matt Hancock 21 November 2024 67/7-21
195 Caroline Lamb 14 November 2024 25/10-21
196 INQ000532396_0040 paras 111-113
197 INQ000532394_0031-0033 para 75-79

Medicine and the Association of Anaesthetists considered that UK-wide guidance, providing it is issued by a national statutory body, would provide:

> "*reassurance to doctors concerned about legal challenge to their decisions, ensuring consistent nationwide advice, and maintaining patient and public confidence through transparent and consistent decision-making*".[198]

6.107. Dr Mathieu felt it was important that this type of guidance was in the public domain and that all the right tools were in place, so that it is clear what the right thing to do is, in the "*hope that we never will need them*".[199] This aligned with the views of Dr Suntharalingam, who described the potential benefits of a tool as ensuring transparency and efficacy of decision-making and reassuring clinicians that a plan is in place in the event that such decisions need to be made.[200] He considered that a tool, only utilised in extreme circumstances, was also beneficial to the public and patients, providing "*the safety that people aren't going to find themselves in a position of being triaged inappropriately*" and preventing "*unseen*" decisions from being taken.[201]

6.108. Both Professor Summers and Dr Suntharalingam warned that, absent the "*guardrails*" of defined plans and a clear trigger for when to use them, there was a risk that decision-making may happen spontaneously and inconsistently. They considered that having an "*open, safe, candid discussion*" about a potential tool would be beneficial, provided that there was appropriate scrutiny and publicly accountable oversight.[202]

6.109. The Disability Charities Consortium did not oppose a decision-making tool in principle, acknowledging that extreme capacity issues may occur again, but said that "*all reasonable steps must always be deployed*" to avoid the need to rely on it.[203] It suggested that there needs to be public debate with relevant stakeholders, clarity about when the tool should be used, a commitment to ensuring that it does not disadvantage individuals with disabilities and monitoring to ensure that it is not misused.[204]

6.110. Professor Whitty said that issuing the proposed saturation tool drafted in March 2020 would have been inappropriate, as it would have involved an "*essentially mechanistic system that deviates from normal practice*".[205] His preference was that, in less time-pressurised circumstances:

198 INQ000532389_0004 para 24
199 Stephen Mathieu 9 October 2024 139/2-15
200 Ganesh Suntharalingam 9 October 2024 49/8-12
201 Ganesh Suntharalingam 9 October 2024 49/13-20
202 INQ000474255_0049 para 118
203 INQ000532402_0016 para 53
204 INQ000532402_0016 para 53
205 Christopher Whitty 26 September 2024 171/20-172/1

> "*we are open about it, have a proper discussion, and work* [it] *out, in the very, very strong hope and expectation you will never use it*".[206]

6.111. NHS England agreed that a "*national stakeholder debate*" on this issue may now be required. Professor Powis said that there ought to be a societal discussion about the appropriateness of the tool and that work should be undertaken to agree mechanisms to balance transparency against speed and practicality.[207]

6.112. Conceiving of a scenario in which intensive care resources become saturated and triage by resource is required – leading to one eligible patient being prioritised for intensive care over another – may be deeply uncomfortable for many. However, the Covid-19 pandemic has made clear that very difficult choices can become necessary. There are demonstrable benefits to having an open conversation about how to navigate these potential decisions prior to the next pandemic occurring. Such a conversation should act as the gateway to the production of formal guidance setting out the principles to be applied in the extreme event that all other options are exhausted and it becomes necessary to triage by resource.

6.113. The Inquiry therefore recommends that the UK government and devolved administrations prepare a clinical prioritisation framework to guide the allocation of intensive care resources – for use only in the extreme event that capacity becomes saturated. Should the governments choose to publish separate frameworks, these should be aligned as far as possible. The framework must be informed by comprehensive engagement with the public to ascertain the values underpinning it. Guidance should then be developed in conjunction with professionals across healthcare, law and ethics.

6.114. Provided that the triggers for its use are clearly set out, the existence of guidance to assist decision-making in these exceptionally difficult circumstances should ease the psychological burden on healthcare workers, ensure a greater degree of consistency of approach, and enable patients and their families to understand the basis on which clinicians will allocate intensive care resources.

206 Christopher Whitty 26 September 2024 173/4-7
207 Stephen Powis 7 November 2024 93/19-24

Recommendation 7: A framework to guide the allocation of intensive care resources in the extreme event of saturation

The UK government and devolved administrations should publish a UK-wide framework setting out ethical and operational principles to guide the allocation of adult intensive care resources in the extreme event that they are saturated during a pandemic.

That framework must:

- be informed by comprehensive engagement with the public and developed in conjunction with professionals across healthcare, law and ethics, as well as with regulators of healthcare professionals;
- set out clearly established triggers for its use, based at least in part on a UK-wide system that measures critical care capacity strain and facilitates mutual aid (such as the CRITCON tool used in England);
- establish clinicians' legal and professional duties in applying the framework, which should be clearly explained to clinicians through guidance; and
- be regularly reviewed with reference to contemporary patient data during a pandemic, and any future use of it must be evaluated and reported on publicly.

A plan and timeline for completing this work should be published within six months of this Report.

Application of the framework should be tested as part of the pandemic response exercises recommended in the Inquiry's Module 1 Report (Recommendation 6).

Chapter 7: Death and end-of-life care

Introduction

7.1. By the end of June 2022, more than 200,000 people had died from Covid-19 in the UK. This left a lasting impact on their grieving loved ones and on the healthcare staff who cared for them in their final days and hours.

7.2. This chapter examines some of the issues that arose in healthcare settings in relation to death and dying from Covid-19. Notwithstanding differences in the healthcare systems in the four nations, the themes and concerns which emerged were common across the UK. These included disparities in mortality rates according to age, ethnicity, disability and socio-economic deprivation, concerns about the processes for the collection, analysis and surveillance of Covid-19 mortality data, and, in particular, the importance of accurate nation-specific recording of the deaths of NHS workers.

7.3. This chapter also considers the experiences of loved ones and hospital staff when Covid-19 patients were nearing the end of life. It examines concerns about the capacity to provide quality palliative care in hospitals and about the use of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions and advance care plans in hospitals.

Deaths from Covid-19

7.4. Between 30 January 2020 and 28 June 2022, there were more than 200,000 Covid-19-related deaths of people in the UK (where Covid-19 was mentioned on the death certificate, whether as an underlying cause or not).

Table 5: Deaths involving Covid-19 in the UK, from 30 January 2020 to 28 June 2022

Nation	Number of deaths
England	170,570
Scotland	15,056
Wales	10,465
Northern Ireland	4,681
Total	200,772

Source: UK Health Security Agency Covid-19 data dashboard archive (https://ukhsa-dashboard.data.gov.uk/covid-19-archive-data-download)

7.5. Approximately 70% of all Covid-19-related deaths in England and Wales and in Northern Ireland occurred in hospital and about 64% of Covid-19-related deaths

in Scotland.[1] Some of these deaths were due to infections acquired while in hospital for other conditions. Between March 2020 and April 2021, one-third of the hospital patients with hospital-acquired Covid-19 in England died.[2] (See Chapter 2: Infection prevention and control in practice for discussion of hospital-acquired Covid-19.)

7.6. Statistics on Covid-19-related deaths were collected and compiled by the Office for National Statistics in England and Wales, by the Northern Ireland Statistics and Research Agency and by National Records of Scotland.[3] These mortality data were based on information recorded on the death certificate and were published weekly for deaths recorded in the previous week.[4]

7.7. In anticipation of a surge in the number of deaths to be certified by medical practitioners and to be reported to the coroner, various temporary changes to death registration requirements were introduced in the Coronavirus Act 2020 to expedite the process.[5]

7.8. After a decline in the number of deaths reported to coroners for investigation in 2020 and 2021, there was an increase in 2022. His Honour Judge Thomas Teague KC, Chief Coroner for England and Wales from December 2020 to May 2024, explained that one of the reasons for the increase in notifications was because families were more likely to have concerns about the treatment their loved ones received in hospital, leading to reports to coroners about deaths that would normally be considered natural. He observed that hospital visiting restrictions meant that families and loved ones "*did not witness any gradual deterioration in their loved ones' health or build up relationships with doctors/carers*". He also noted:

> "[T]*he enormous pressure the pandemic put on health and care systems also meant resources were stretched, compromising standards of care in some cases.*"[6]

7.9. To overcome the delay in collation by the Office for National Statistics and enable rapid tracking of trends, daily UK Covid-19 mortality figures were published by the Department of Health and Social Care, based on data from NHS England, Public Health Wales, Health Protection Scotland and the Public Health Agency (Northern

1 'Weekly provisional figures on deaths registered in England and Wales', Office for National Statistics, December 2020 (INQ000271322); 'Weekly provisional figures on deaths registered in England and Wales', Office for National Statistics, December 2021 (INQ000271323); 'Deaths registered weekly in England and Wales, provisional', Office for National Statistics, December 2022 (INQ000271324); 'Excess mortality and Covid-19 deaths in Northern Ireland: March 2020 to August 2022', Northern Ireland Statistics and Research Agency, 27 October 2022 (https://www.nisra.gov.uk/files/nisra/publications/Excess%20mortality%20and%20Covid-19%20deaths%20in%20Northern%20Ireland%20-%20August%202022.pdf; INQ000520311); 'Deaths involving Coronavirus (Covid-19) in Scotland 2020', Scottish Government, 12 January 2021 (INQ000415334); 'Deaths involving Coronavirus (Covid-19) in Scotland 2021', Scottish Government, 7 July 2022 (INQ000653040); 'Deaths involving Coronavirus (Covid-19) in Scotland 2022', Scottish Government, 27 July 2023 (INQ000652768)
2 There were 29,950 patients with hospital-acquired infections, of whom 9,854 died; Susan Hopkins 18 September 2024 194/11-195/17; *Covid LoS and Mortality: Descriptive Analyses of SUS Data*, UK Health Security Agency, 22 June 2021, p11 (INQ000348633)
3 INQ000271436_0004-0005 para 6
4 INQ000271436_0009 paras 30, 33
5 Coronavirus Act 2020, section 18 (https://www.legislation.gov.uk/ukpga/2020/7/contents); INQ000479888_0010-0011 para 37
6 INQ000479888_0022-0023 para 69

Ireland).[7] These data showed the number of deaths (initially, only in hospitals) where the patient had tested positive, although Covid-19 might not have been the cause of death.[8]

7.10. Some difficulties were encountered when collecting mortality data from hospitals. For example, early in the pandemic, Public Health Wales identified that the notification of deaths from hospitals was not reliable and created a new notification system, which was used from 23 April 2020.[9] However, there remained a problem with delays and under-reporting from some local health boards, and sections of the new 'Covid mortality surveillance e-form' were often left incomplete.[10] In Northern Ireland, the Public Health Agency (Northern Ireland) acknowledged that there were difficulties in setting up a rapid mortality surveillance system during the pandemic and that, while the system enabled the tracking of mortality trends, it was not wholly accurate.[11]

7.11. During a pandemic, timely and accurate hospital mortality data are of key importance in tracking the impact of the disease and in informing the pandemic response. Healthcare systems across the UK must ensure that rapid mortality surveillance systems are available to be put in place and that hospitals' data returns are complete.

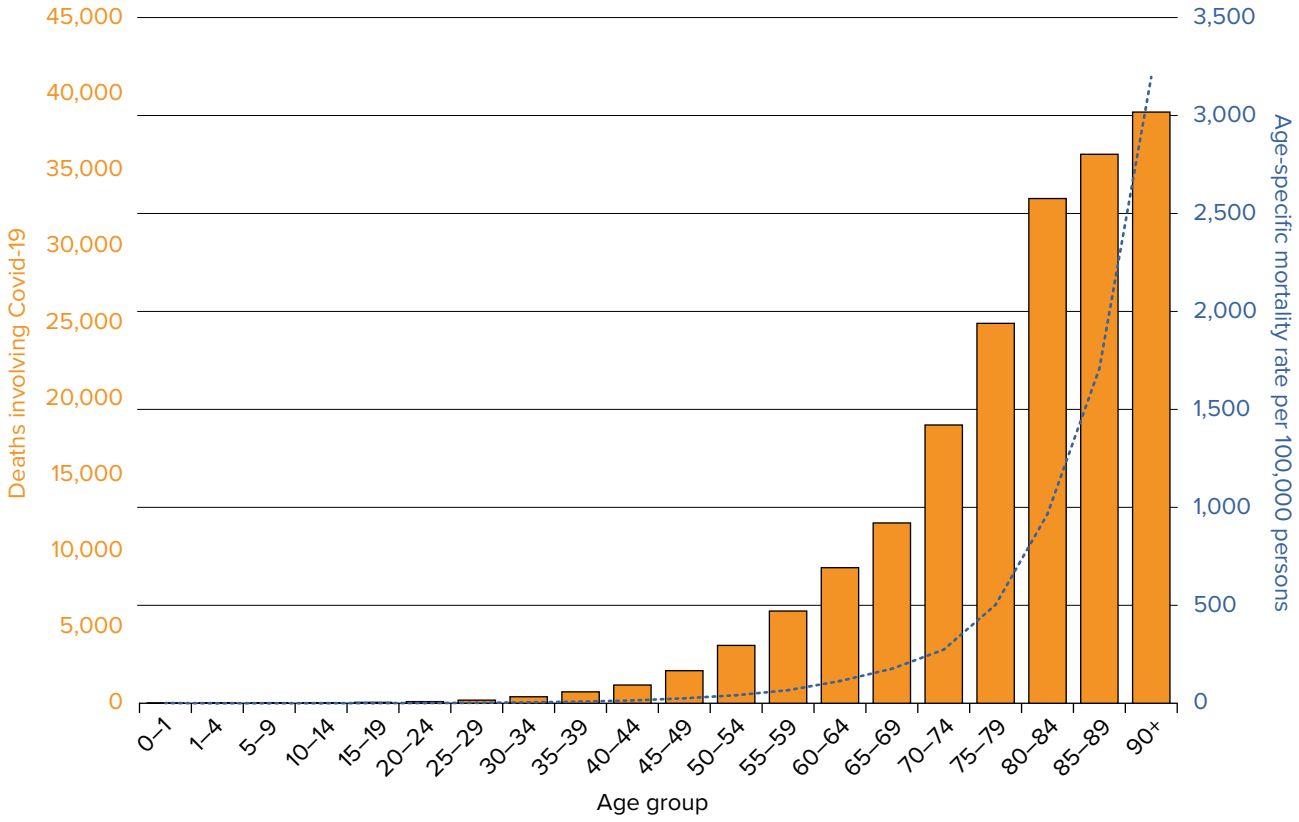
Risk factors for Covid-19 mortality

7.12. Covid-19 mortality statistics show that the risk of death varied across different sections of the population.

7.13. Age was by far the greatest risk factor, with the risk of death increasing markedly with age (see Figure 18).[12] Of the Covid-19-related deaths from March 2020 to the spring of 2021, 99% were recorded in people over the age of 45.[13]

7 INQ000271436_0009 para 32
8 The mortality figures provided by the Department of Health and Social Care therefore do not correlate exactly with the higher figures published by the Office for National Statistics. INQ000271436_0009 paras 34-35; INQ000412890_0236 paras 889-890
9 Fu-Meng Khaw 5 November 2024 11/7-12/2
10 Fu-Meng Khaw 5 November 2024 12/17-25
11 Aidan Dawson 5 November 2024 71/2-72/20, 73/13-16
12 Christopher Whitty 26 September 2024 157/12-158/6; Kathryn Rowan 2 October 2024 3/1-16
13 *Direct and Indirect Health Impacts of COVID-19 in England*, Department of Health and Social Care and Office for National Statistics, 17 September 2021, p2 (https://assets.publishing.service.gov.uk/media/614486f0e90e070441639f92/S1373_Direct_and_Indirect_Health_Impacts_of_C19_Detailed_Paper_.pdf; INQ000220215)

Figure 18: Number of death registrations by five-year age group in the UK, from March 2020 to February 2022



Source: INQ000292765_0001 (data taken from INQ000271436_0016 table 6)

7.14. Disabled people were also disproportionately impacted by Covid-19. People living with disabilities were more likely to be older, poorer and have comorbidities. People with learning disabilities may have found it more difficult to adhere to measures such as social distancing and mask wearing to reduce the risk of infection.[14] Office for National Statistics data show that disabled people comprised 60% of the deaths from January to November 2020 but make up just 20% of the population.[15] Working-age people with both a hearing and a sight impairment were 12 times more likely to die than those without either impairment.[16] Between March 2020 and February 2022, disabled people had a significantly greater risk of dying from Covid-19 than non-disabled people (see Figure 19), even after accounting for factors including socio-economic and demographic characteristics and vaccination status.[17]

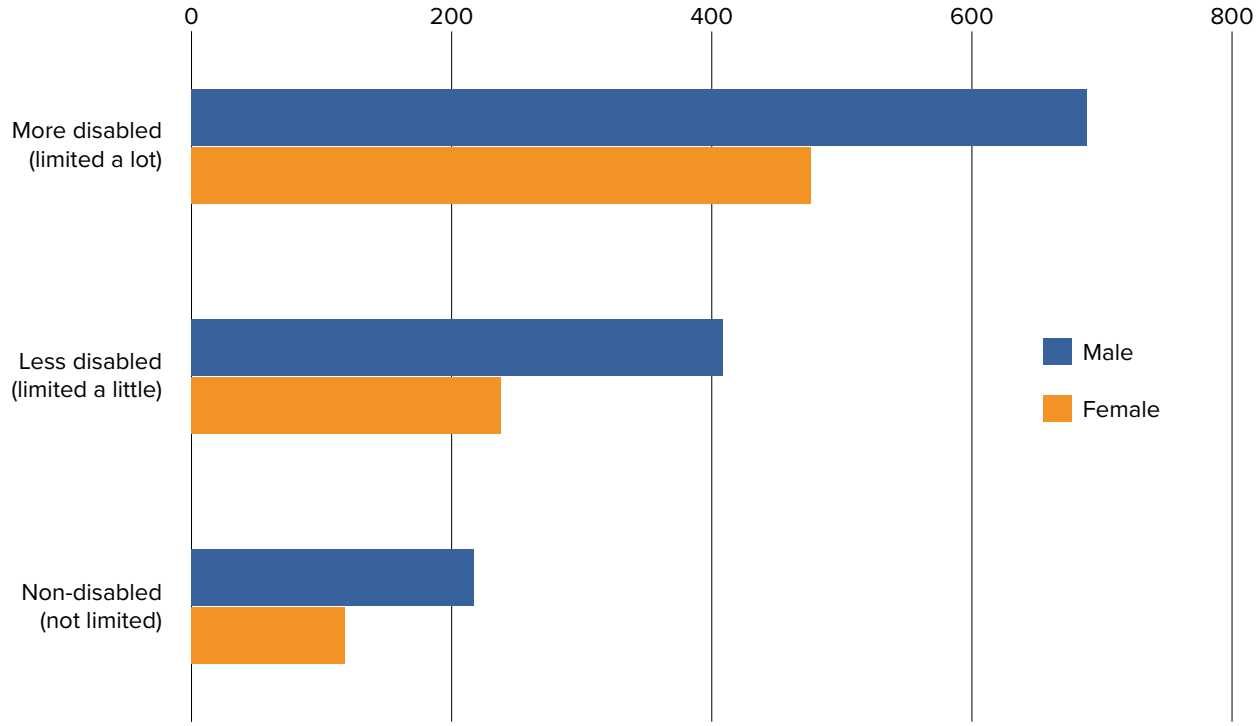
7.15. A report from Public Health England on deaths of people with learning disabilities in the spring of 2020 estimated that (allowing for under-reporting and incomplete data)

14 INQ000569128_0002 para 1b
15 Matt Stringer 10 October 2024 65/8-12; INQ000271436_0032-0033 paras 102-105, table 11
16 Matt Stringer 10 October 2024 65/15-22
17 INQ000271436_0005 para 7d

people with learning disabilities died at six times the rate of the general population.[18] The Office for National Statistics found that, even after adjusting for personal and household characteristics, mortality rates for people with learning disabilities from January to November 2020 were 1.7 times the rate for people with no learning disability.[19]

Figure 19: Mortality rates by disability status in England, from January 2020 to February 2022

Age-standardised mortality rates per 100,000 people of deaths involving Covid-19, by self-reported disability status and sex. January 2020 to February 2022, England only.



Source: INQ000292765_0004 (data taken from INQ000271436_0033 table 11)

7.16. However, mortality data for some disabilities were not always reliable. The Public Health Agency (Northern Ireland) accepted that there was "*very poor data on both disability and ethnicity in Northern Ireland*" and that it did not have any access to Covid-19 mortality data that could identify individuals with a disability.[20] The National Autistic Society noted that there was poor recording of autism in health and social care datasets and that death certificates do not record autism, so it was difficult to obtain reliable mortality data for autistic people.[21]

18 *Deaths of People Identified as Having Learning Disabilities with COVID-19 in England in the Spring of 2020*, Public Health England, November 2020, p34 (https://assets.publishing.service.gov.uk/media/5fa91fcc8fa8f578988a866c/COVID-19__learning_disabilities_mortality_report.pdf; INQ000089700)
19 'Updated estimates of coronavirus (COVID-19) related deaths by disability status, England: 24 January to 20 November 2020', Office for National Statistics, 11 February 2021, p10 (https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/coronaviruscovid19relateddeathsbydisabilitystatusenglandandwales/24januaryto20november2020; INQ000089756)
20 Aidan Dawson 5 November 2024 73/17-20; INQ000514069_0002 para 4
21 INQ000235594_0007 para 19

7.17. Poverty was also a significant risk factor. People living in economically deprived areas already had poorer health outcomes than those living in more affluent areas and were more likely to smoke and to have long-term health conditions such as obesity, diabetes and hypertension, which were known to increase the risk of severe illness from Covid-19.[22] From March 2020 to April 2021, the mortality rate in the most deprived 20% of the population (after adjusting for age and population size) was almost double that of the least deprived 20%.[23]

7.18. Throughout the pandemic, mortality rates were higher in ethnic minority groups than in the White population in the UK. Black African and Black Caribbean ethnic groups had the highest mortality rates from March to September 2020 (during the first wave).[24] From September 2020 to January 2021 (during the second wave), the highest mortality rate was seen in the Bangladeshi group followed by the Pakistani group.[25] Professor Sir Christopher Whitty, Chief Medical Officer for England from October 2019, noted that these groups were at higher risk of contracting Covid-19 in the first and second waves respectively. He considered that this:

> "*was largely to do with where the waves were at their worst. So in the first wave, London, which has a large proportion of the British black population, and the second wave, the Midlands, where a higher proportion of the British Asian population live.*"[26]

7.19. Public Health England's review of disparities in the risk and outcomes of Covid-19 noted that people from ethnic minorities were more likely to be exposed to the virus through their occupation. The review also noted that they were more likely to live in conditions that made it easier for the virus to spread and to have health conditions that made them more vulnerable to developing severe illness with Covid-19.[27] Many of the pre-existing health conditions that increased the risk of becoming severely ill from Covid-19 were more common in ethnic minority groups and were linked to socio-economic factors.[28] When Public Health England adjusted the statistics to account for comorbidities, the difference in risk of death between White and other ethnic groups among hospitalised patients was greatly reduced.[29]

22 *Beyond the Data: Understanding the Impact of COVID-19 on BAME Groups*, Public Health England, June 2020, p6 (https://assets.publishing.service.gov.uk/media/5ee761fce90e070435f5a9dd/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf; INQ000176354)
23 *Direct and Indirect Health Impacts of COVID-19 in England*, Department of Health and Social Care and Office for National Statistics, 17 September 2021, p2 (https://assets.publishing.service.gov.uk/media/614486f0e90e070441639f92/S1373_Direct_and_Indirect_Health_Impacts_of_C19_Detailed_Paper_.pdf; INQ000220215)
24 INQ000271436_0006 para 9
25 INQ000271436_0006 para 15
26 Christopher Whitty 26 September 2024 160/18-161/2
27 'Ethnic minority deaths and Covid-19: what are we to do?', The King's Fund, 30 April 2020 [blog] (https://www.kingsfund.org.uk/insight-and-analysis/blogs/ethnic-minority-deaths-covid-19; INQ000215522_0002)
28 *Beyond the Data: Understanding the Impact of COVID-19 on BAME Groups*, Public Health England, June 2020, p7 (https://assets.publishing.service.gov.uk/media/5ee761fce90e070435f5a9dd/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf; INQ000176354)
29 *Beyond the Data: Understanding the Impact of COVID-19 on BAME Groups*, Public Health England, June 2020, p4 (https://assets.publishing.service.gov.uk/media/5ee761fce90e070435f5a9dd/COVID_stakeholder_engagement_synthesis_beyond_the_data.pdf; INQ000176354)

7.20. Public Health Scotland published data six times between May 2020 and October 2021 outlining variations in outcomes by ethnic group of those who had tested positive for Covid-19. Although most reports found differences in outcomes between the White and other ethnic groups, none of the reports suggested that healthcare inequalities (variations in healthcare quality including access, effectiveness and safety) contributed to variations in Covid-19 outcomes by ethnic group.[30]

7.21. Professor Dame Jenny Harries (Deputy Chief Medical Officer for England from July 2019 to March 2021 and Chief Executive of the UK Health Security Agency from April 2021 to May 2025) cautioned against drawing conclusions and adopting "*tick-box exercises*" when assessing risk from Covid-19 without understanding the underlying causation of the evident disproportionate impact on particular ethnic groups.[31] She considered that "*it's very clear that that is not a biological ethnicity issue*".[32] She also warned of the danger of creating an erroneous perception of the impact of ethnicity alone on an individual's risk of death or serious harm from Covid-19.[33]

7.22. As discussed in the Inquiry's combined Report relating to Modules 2, 2A, 2B and 2C, the disparities in Covid-19 mortality rates between ethnic minority and White populations across the UK were, in part, manifestations of longstanding inequalities across society as a whole, which the pandemic exacerbated but did not create.[34] Professor Whitty said that many of the drivers of this disparity were predictable but irremediable in the immediate crisis of a pandemic, as they require "*many years*" to address.[35] Until each government addresses these inequalities, the same disparities will inevitably be a feature of a future pandemic.[36]

Deaths of healthcare workers

7.23. Healthcare workers are "*in the first line of people who will be potentially exposed to an infection*" and it is important, therefore, to monitor deaths of healthcare workers to receive an early warning that a new infection is both severe and transmissible.[37]

7.24. Despite its importance, the recording of deaths of healthcare workers from Covid-19 varied across the UK. Only England and Scotland had a central repository of such data reported from NHS bodies.

7.25. Public Health England used Office for National Statistics data to monitor deaths of healthcare workers. By the end of 2020, the Office for National Statistics had

30 INQ000401271_0116
31 Jenny Harries 6 November 2024 141/9-16
32 Jenny Harries 6 November 2024 142/2-3
33 Jenny Harries 6 November 2024 144/24-145/6, 145/16-146/5
34 See *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025, Vol II, Chapter 10 (https://covid19.public-inquiry.uk/documents/module-2-full-report)
35 Christopher Whitty 26 September 2024 164/15-23
36 See further the recommendations made in the expert report of Professor Clare Bambra (Professor of Public Health at Newcastle University) and Professor Sir Michael Marmot (Professor of Epidemiology and Public Health at University College London) for Module 1 of this Inquiry (INQ000195843).
37 Christopher Whitty 26 September 2024 72/4-73/2

recorded 414 healthcare workers as dying with Covid-19 in England and Wales.[38] These data relied on the occupation given on the death certificate, which was not verified by the employer and may have been out of date or inaccurate.[39] To address this, NHS England put a "*considerable amount of effort*" into setting up a new system for collecting data on deaths of healthcare workers directly from NHS organisations, with healthcare worker status validated by the employer organisation or, in the case of primary care workers, the relevant clinical commissioning group.[40] The collated data on healthcare worker deaths were reported regularly to the Chief Executive Officer of NHS England and to the Secretary of State for Health and Social Care.[41] As at 3 July 2023, 559 Covid-19-related deaths of healthcare workers had been recorded by NHS England, with ethnicity recorded where this was known.[42]

7.26. At the request of Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, a desktop review of each healthcare (and social care) worker's death with Covid-19 was carried out by a regional medical examiner from July 2020.[43] The National Medical Examiner's report of 2022 showed that, of 474 deaths reviewed, the worker was suspected of having been exposed to Covid-19 at work in 357 cases.[44] Mr Hancock told the Inquiry that none of the statistics for deaths of healthcare workers were accurate at the beginning of the pandemic and that the true number of deaths of healthcare workers from Covid-19 infections acquired through occupational exposure during the pandemic was "*unknowable*".[45]

7.27. Professor Susan Hopkins (Deputy Director of the National Infection Service at Public Health England from 2018 to 2020 and National Strategic Response Director for COVID-19 at Public Health England from September 2020 to September 2021) considered that better reporting and more detailed data on deaths of healthcare workers would be beneficial in a future pandemic.[46]

7.28. The Scottish Government kept data on the number of deaths of healthcare workers from Covid-19, which were provided to it by the territorial health boards.[47] From 13 April 2020 to 20 July 2022, the Scottish Government was notified of 27 deaths of NHS Scotland workers caused by, or suspected to be related to, Covid-19. It was noted that the source of the infection may be difficult to determine.[48] Public Health Scotland did not hold or have access to these data on the deaths of healthcare workers.[49]

38 'Coronavirus (COVID-19) related deaths by occupation, England and Wales', Office for National Statistics, 25 January 2021, table 7 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/causesofdeath/datasets/coronaviruscovid19relateddeathsbyoccupationenglandandwales; INQ000257958)
39 INQ000412890_0236 paras 888-890; Amanda Pritchard 11 November 2024 146/2-15
40 Stephen Powis 7 November 2024 81/17-82/6; Amanda Pritchard 11 November 2024 146/2-15
41 INQ000412890_0323 para 882
42 INQ000412890_0230-0231 para 876
43 Matt Hancock 21 November 2024 157/1-158/5; INQ000412890_0237-0238 paras 893-900. Medical examiners provide independent scrutiny of the causes of death.
44 INQ000412890_0240 para 903
45 Matt Hancock 21 November 2024 159/21-160/11
46 Susan Hopkins 18 September 2024 192/8-193/15
47 Caroline Lamb 14 November 2024 72/12-17; INQ000485984_0021 para 52
48 INQ000485984_0021 paras 52-53
49 INQ000401271_0074-0075 para 5.6.14

7.29. On 12 May 2020, all Health and Social Care trusts in Northern Ireland were requested to report the number of health and social care workers who had died from Covid-19 to the Department of Health (Northern Ireland) on a daily basis.[50] Professor Sir Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, explained that although staff deaths in trusts were reported to the Department of Health (Northern Ireland), these data were not necessarily validated or collated. On reflection, he considered that they should have been.[51] Aidan Dawson, Chief Executive of the Public Health Agency (Northern Ireland) from July 2021, thought that the reason the Public Health Agency (Northern Ireland) did not record deaths of healthcare workers from Covid-19 was because it was not possible to ascertain whether the deceased acquired the infection at work. At the time of the Module 3 public hearing in November 2024, planning was in progress to enable the Public Health Agency (Northern Ireland) to record and monitor these data in a future pandemic.[52]

7.30. The Welsh Government did not hold or publish verified data on the number of NHS staff who died from Covid-19.[53] Although deaths may have been recorded by local health boards, there was no requirement to do so and no mechanism to report these deaths to the Welsh Government. Instead, it relied on Office for National Statistics data on deaths of healthcare workers. As noted above, these data had not been validated by NHS employers and may not have been accurate.[54] Eluned Morgan MS, Baroness Morgan of Ely (Minister for Health and Social Services in the Welsh Government from May 2021 to March 2024), took the view that, during the pandemic, the Welsh Government ought to have been gathering and monitoring data from local health boards on the deaths of healthcare workers from Covid-19.[55]

7.31. From the data that were gathered on deaths of healthcare workers, it is apparent that mortality rates varied by occupation or job role. For example, among allied health professionals, the ambulance sector experienced the highest rate of deaths from Covid-19.[56] Analysis undertaken in April 2020 of the deaths of 106 health and social care workers in England showed that 61% were based in hospitals, with 58% of those who died working in nursing or healthcare support roles, 17% were doctors and 6% worked in non-clinical roles of portering or cleaning.[57]

7.32. The same risk factors for mortality from Covid-19 identified in the general population were observed in healthcare workers. The first 10 doctors to die from Covid-19 were from ethnic minority backgrounds.[58] By the end of April 2020, an analysis of reported

50 Robin Swann 18 November 2024 62/18-23; INQ000490088
51 Michael McBride 24 September 2024 78/1-79/2
52 Aidan Dawson 5 November 2024 76/6-77/21
53 Judith Paget 13 November 2024 114/12-115/15
54 Judith Paget 13 November 2024 115/9-19
55 Eluned Morgan 20 November 2024 178/11-23
56 INQ000281189_0013 para 39. The 14 allied health professions support doctors and nurses in providing care and treatment for patients; they include paramedics, physiotherapists, speech and language therapists, dietitians, occupational therapists and radiographers.
57 'Exclusive: deaths of NHS staff from Covid-19 analysed', T Cook, E Kursumovic and S Lennane, *Health Service Journal*, 22 April 2020 (https://www.hsj.co.uk/exclusive-deaths-of-nhs-staff-from-covid-19-analysed/7027471.article; INQ000251650_0003)
58 Jaswinder Singh Bamrah 8 October 2024 5/9-10

deaths of NHS workers showed that 63% were from ethnic minorities, most of whom were born outside the UK.[59] The link between ethnicity and increased risk of mortality was of particular concern in the context of the diverse NHS workforce, of which approximately 20% were from an ethnic background other than White.[60] In the first wave of the pandemic, the most affected ethnic group was Black African or Caribbean people.[61] About 45% of the NHS workforce in London come from ethnic minority backgrounds.[62]

7.33. Professor Philip Banfield, Chair of the British Medical Association UK council from July 2022 to June 2025, stressed the importance of recording the deaths of healthcare workers during a pandemic to monitor the harm to the workforce. The lack of a central repository of these data contributed to a sense among doctors that they were undervalued during the pandemic and seen as "*disposable commodities*".[63] Professor Banfield considered that the question of which organisation or government body should hold these data was less important than the imperative to establish a centralised system for recording deaths.[64] Rosemary Gallagher (Professional Lead for Infection Prevention and Control and Nursing Sustainability at the Royal College of Nursing from July 2009 to July 2025) concurred, stating that it was important that the information was gathered in a standardised way across all four nations of the UK.[65]

7.34. The Inquiry agrees. The failure to collect and monitor data on the deaths of healthcare workers from Covid-19 in Wales and in Northern Ireland meant that those governments lacked an important additional source of information about the severity and transmissibility of the virus and its subsequent variants and the risks it posed to different groups within the healthcare workforce. It risked conveying the impression to healthcare workers that they were expendable and not valued.

The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013

7.35. The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (known as RIDDOR) are part of health and safety at work law and provide the reporting framework for employers (and those in control of work premises) to report certain cases of injury, disease and specified dangerous occurrences to the Health and Safety Executive.[66] A report is not an admission of blame or wrongdoing.[67]

59 'Exclusive: deaths of NHS staff from Covid-19 analysed', T Cook, E Kursumovic and S Lennane, *Health Service Journal*, 22 April 2020 (https://www.hsj.co.uk/exclusive-deaths-of-nhs-staff-from-covid-19-analysed/7027471.article; INQ000352887_0007)
60 INQ000412890_0210 para 803
61 Jenny Harries 6 November 2024 141/18-24
62 *London Workforce Race Strategy*, NHS England and NHS Improvement – London, October 2020, p33 (https://www.england.nhs.uk/london/our-work/equality-and-inclusion/london-workforce-race-strategy; INQ000657744)
63 Philip Banfield 28 October 2024 127/10-128/3
64 Philip Banfield 28 October 2024 150/5-9
65 Rosemary Gallagher 4 November 2024 77/3-25
66 The Reporting of Injuries, Diseases and Dangerous Occurrences Regulations 2013 (https://www.legislation.gov.uk/uksi/2013/1471/contents)
67 INQ000347822_0036-0037 paras 143-148

RIDDOR applies to all sectors and workplaces in Great Britain, including healthcare settings.

7.36. The Health and Safety Executive has statutory responsibility to monitor and enforce compliance with health and safety law in Great Britain. It issued guidance throughout the pandemic to assist employers, including in healthcare settings, to understand their duty under RIDDOR to report deaths or serious harm to workers from Covid-19 infections. Employers were required to report Covid-19-related deaths and infections under RIDDOR where there was reasonable evidence of occupational exposure (ie that the worker had been exposed to the virus in the course of work activity – rather than, for example, from a colleague in a staff area).[68] Richard Brunt, Director of the Engagement and Policy Division at the Health and Safety Executive from April 2022, told the Inquiry that there were several iterations of the guidance as it was apparent that employers were struggling to apply it.[69]

7.37. There were concerns, including from the Trades Union Congress, the British Medical Association and the Royal College of Nursing, that employers under-reported Covid-19 infections contracted by healthcare workers.[70] Some argued that a requirement of reasonable evidence of occupational exposure was too restrictive and that all deaths from Covid-19 or even all infections in healthcare workers ought to have been reported to the Health and Safety Executive.[71]

7.38. Mr Brunt accepted that, during the pandemic, there was both under-reporting and over-reporting of Covid-19 infections from healthcare settings, but he stated that inconsistent reporting was a feature of compliance with RIDDOR generally.[72] Although it was recognised that these were "*difficult judgements*" for employers to make, Mr Brunt considered that the requirement to provide reasonable evidence of occupational exposure was "*correct*".[73] He explained that the RIDDOR scheme was not designed for a pandemic – its purpose was to capture unexpected incidents and accidents within a workplace, not to enable surveillance of the progress of a virus across the country.[74]

7.39. It would not have been practicable for the Health and Safety Executive to have received reports on every healthcare worker who was infected with, or died from, Covid-19, regardless of the source of the infection. Nor would this have given effect to the regulations or achieved their intended purpose. However, it is imperative that, in a future pandemic, there is accurate, reliable and comparable centralised data collection of healthcare workers' deaths in each of the four nations of the UK. This will enable public health agencies better to identify signs that a new pandemic

68 Richard Brunt 12 September 2024 90/3-18
69 Richard Brunt 12 September 2024 92/5-21
70 INQ000397188_0019-0023 paras 65-78; INQ000477304_0126-0128 paras 292-294; INQ000475580_0051-0053 paras 133, 138
71 INQ000477304_0131 para 305; INQ000475580_0076 para 220; Rosemary Gallagher 4 November 2024 84/17-85/8
72 Richard Brunt 12 September 2024 92/18-21
73 Richard Brunt 12 September 2024 93/15-25, 88/21-89/4, 125/6-126/4
74 Richard Brunt 12 September 2024 88/21-89/4

pathogen is both severe and transmissible. It is also vital to monitor the harm to the healthcare workforce and to acknowledge those who died.

Recommendation 8: Systematically recording and publishing healthcare worker deaths

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with their respective public health agencies and healthcare employers to develop nation-specific mechanisms to collect, analyse and publish data systematically on the deaths of healthcare workers in the event of a pandemic outbreak.

The UK Statistics Authority should work with data providers to ensure that the data are comparable across the four nations of the UK.

End-of-life care

7.40. In a pandemic, it is inevitable that there will be an increased demand for end-of-life and palliative care in hospitals. Palliative care provides personalised care for a terminally ill person to make them as comfortable as possible using a holistic approach.[75] End-of-life care is a form of palliative care when a person is approaching death.

Palliative care for Covid-19 patients

7.41. Specialist palliative care teams supported Covid-19 patients with medication to help them tolerate non-invasive ventilation masks and also to provide symptom control when non-invasive ventilation failed, so that patients could take off the oxygen mask without distress at the end of life.[76]

7.42. Healthcare organisations took steps to try to ensure that these services could be maintained and could meet the anticipated increase in demand. For example, on 3 March 2020, NHS England established an End-of-Life Covid-19 Cell to ensure the security of the supply chain for essential palliative medicines and equipment, to explore capacity in non-hospital and Nightingale hospital provision, and to develop additional end-of-life care guidance and training for staff.[77] Additional clinical guidance and weekly bulletins were produced to support NHS service providers, and the National Clinical Director for Palliative and End of Life Care chaired weekly seminars during the pandemic to share best practice.[78] In Scotland, in April 2020, the

75 INQ000412890_0063 para 215
76 INQ000257329_0005 para 17
77 INQ000412890_0064-0066 paras 218-227
78 INQ000412890_0066-0067 paras 228-232

Scottish Chief Medical Officer's Directorate published *COVID-19: Palliative Care Toolkit* to assist health boards.[79]

7.43. The Welsh Government identified palliative care as an 'essential service', with access to palliative care and interventions "*where it is possible and safe … according to the local context*".[80] It said it was not made aware of any specific reports of Covid-19 patients failing to receive palliative care due to concerns about safety or for other reasons.[81] However, a February 2021 report from the National Clinical Lead for Palliative and End-of-Life Care in Wales to the Director General of Health and Social Services noted, among other issues, that most palliative care facilities were not well set up to control transmission and that keeping visitors away made it harder to provide good care for patients and support for families.[82] It identified an increased need for inpatient palliative care services during the pandemic but greater difficulty in admitting patients to hospital. It concluded that "*the social, the psychological and the spiritual domains of health*" had all been "*relatively neglected at times in the last year*".[83] Healthcare Inspectorate Wales also identified a number of failings in respect of end-of-life care provided to patients at a field hospital in March 2021, although the Welsh Government had not previously been made aware of these concerns.[84]

7.44. Despite efforts to ensure quality end-of-life care for Covid-19 patients, Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, accepted that although NHS England was not aware of "*a system issue with capacity*" for end-of-life hospital care during the pandemic, staff were "*stretched*".[85]

7.45. According to the Association for Palliative Medicine of Great Britain and Ireland, from March 2020 many UK palliative care services "*were very rapidly overwhelmed*", leading to "*gaps in care*" for some patients.[86] During surge periods there were not enough palliative care specialists in hospitals to see all the patients who needed palliative care, even with many specialists working six days a week to increase capacity.[87] As deterioration in Covid-19 patients was often very rapid – with many dying within 12 to 24 hours after admission to hospital – palliative care teams were receiving frequent calls to attend multiple patients in emergency departments.[88] At times of surge demand, the limited availability of specialist palliative care was likely to have impacted on the quality of care received by some patients at the end of their lives.

79 INQ000485979_0029-0030 para 108; *COVID-19: Palliative Care Toolkit*, Scottish Palliative Care Pharmacy Association and Scottish Government, 27 April 2020 (https://webarchive.nrscotland.gov.uk/20200505182330/https://www.gov.scot/publications/coronavirus-covid-19-palliative-care-toolkit)
80 *Maintaining Essential Health Services During the COVID 19 Pandemic – Summary of Services Deemed Essential*, NHS Wales and Welsh Government, 12 June 2020 (INQ000182461_0022); Judith Paget 13 November 2024 121/2-20
81 Judith Paget 13 November 2024 120/13-23
82 INQ000469089_0003; Judith Paget 13 November 2024 124/6-8
83 INQ000469089_0003
84 *Field Hospital Quality Check: Ysbyty Enfys Deeside, Betsi Cadwaladr University Health Board. Quality Check Date: 10-11 February 2021*, Healthcare Inspectorate Wales, 25 March 2021, pp7-8, 25-26 (https://www.hiw.org.uk/system/files/2023-06/20210325YsbytyEnfysEN.pdf; INQ000182532); Andrew Goodall 13 November 2024 43/3-20
85 Stephen Powis 7 November 2024 108/7-110/10
86 INQ000257329_0003-0004, 0006 paras 11, 13, 24
87 INQ000257329_0004-0007 paras 13, 24, 27
88 INQ000257329_0004-0005 para 15

Impact on patients and their loved ones

7.46. Stretched resources and insufficient specialist staff undertaking palliative care impacted communication with patients and their loved ones and the ability to offer dignity in death. A lack of communication from some hospitals about a patient's condition exacerbated the anxiety and stress of family members and loved ones and made their experience of loss more distressing. These experiences were more common early in the pandemic, when many contributors to the Inquiry's listening exercise, Every Story Matters, described difficulties in trying to contact their loved ones or to find out what was happening.[89] One contributor said:

> "*We were terrified not knowing what was happening. I do feel like we could have been informed more throughout the whole process.*"[90]

7.47. The Inquiry received evidence of good communication with families when patients were nearing the end of life.[91] However, some families and loved ones of patients at the end of life at times perceived a lack of compassion in hospital staff, particularly in the apparently "*casual*" way in which difficult news was conveyed by healthcare staff.[92] Anna-Louise Marsh-Rees, co-leader of Covid-19 Bereaved Families for Justice Cymru, considered that all NHS staff should receive "*compassionate training*" on how to communicate with patients and their loved ones at the end of life, because "*words really matter*".[93]

7.48. Bereaved groups felt that their loved ones were not always afforded dignity in death. The Inquiry heard that belongings were sometimes returned to families long after their loved ones had died, in a bin liner, with items that were soiled or which belonged to another patient.[94] Sometimes items of great sentimental value were lost or missing. One family recalled that they were told to burn their loved one's belongings.[95] Ms Marsh-Rees told the Inquiry:

> "[I]*t's back to that dignity in death. These are people's lives and I think that was largely forgotten. I think the individual was forgotten, you know, in amongst all of the confusion and chaos.*"[96]

7.49. Dr Sarah Cox, President of the Association for Palliative Medicine of Great Britain and Ireland from March 2023, identified unmet religious and faith needs at the end of life, especially for Muslim or Jewish patients, as important rituals that would normally be performed by family or members of their religious community were prevented by pandemic restrictions.[97]

89 *Every Story Matters: Healthcare*, p164 (INQ000474233)
90 *Every Story Matters: Healthcare*, p164 (INQ000474233)
91 INQ000492936_0010 para 45; *Every Story Matters: Healthcare*, pp162-163 (INQ000474233)
92 Anna-Louise Marsh-Rees 26 November 2024 14/15-22, 30/21-31/4
93 Anna-Louise Marsh-Rees 26 November 2024 30/12-22
94 Anna-Louise Marsh-Rees 26 November 2024 17/20-18/4
95 INQ000343992_0008 para 29
96 Anna-Louise Marsh-Rees 26 November 2024 18/5-8
97 INQ000257329_0010 para 40

7.50. Pandemic planning for increased mortality must strive to preserve the dignity of the dying and the deceased and to accommodate the needs of bereaved people with sensitivity and kindness. While safety is the paramount consideration, this must be balanced with a compassionate approach.

Impact on healthcare workers

7.51. Psychological trauma was experienced both by specialist palliative care staff, who were not able to facilitate the 'good death' they had been trained to provide, and by non-palliative care staff, who were not used to dealing with patients at the end of life and were distressed that they could not provide optimal palliative care for patients.[98]

7.52. Professor Kevin Fong, National Clinical Adviser in Emergency Preparedness, Resilience and Response for Covid-19 to NHS England during the pandemic, was among a number of witnesses who explained that intensive care staff suffered 'moral injury' when they could not ensure "*a good quality of death*" for a dying patient or support the patient's family.[99] He noted that pandemic restrictions meant that healthcare staff were unable to build rapport with the patient's loved ones in the usual way.[100]

7.53. Palliative care for patients at the end of life is vitally important, particularly during a pandemic. Reflecting on her experiences as a doctor during the pandemic and on her father's death from Covid-19, Dr Saleyha Ahsan, a member of Covid-19 Bereaved Families for Justice, told the Inquiry:

> "*The illness is not an easy death illness and, at that point in time, where the system was under so much pressure, that it would not have been an easy journey, it would have been a frightening journey for all involved.*"[101]

7.54. Specialist palliative care services had essential, front-line roles in hospitals during the pandemic.[102] Palliative care must be included as an essential part of any pandemic planning. Professor Powis identified a need for palliative care to be flexible to meet the potentially different challenges of a future pandemic.[103] Improved training in palliative and end-of-life care for generalist healthcare professionals would support better and more adaptable palliative care services in the event of a pandemic.[104] The role of palliative care in adult social care settings is being explored further by the Inquiry in Module 6: Care sector.

7.55. Future pandemic plans must make provision for expanding palliative and end-of-life services to meet surges in demand. This includes training for additional staff to

98 INQ000257329_0007 para 28; Kevin Fong 26 September 2024 20/17-21/2; Rozanne Foyer 16 September 2024 60/23-61/21
99 Ganesh Suntharalingam 9 October 2024 66/11-24; Kevin Fong 26 September 2024 20/17-21/2; INQ000257329_0009 para 36
100 Kevin Fong 26 September 2024 30/13-22
101 Saleyha Ahsan 26 November 2024 105/15-23
102 INQ000257329_0011 para 41(a)
103 Stephen Powis 7 November 2024 112/11-113/1
104 INQ000257329_0011 para 41(i)

provide appropriate palliative care and ensure the comfort and dignity of patients at the end of life. Staff need to be skilled in compassionate and sensitive communication, especially when conveying difficult news to patients' loved ones.

Hospital visiting restrictions at end of life

7.56. As discussed in Chapter 2: Infection prevention and control in practice, restrictions or bans on hospital visitors were part of infection prevention and control measures throughout the pandemic. Although some exceptions were made for end-of-life visiting, there were restrictions on the duration and frequency of end-of-life visits and on the number of visitors.

7.57. Dr Gee Yen Shin, expert witness on infection prevention and control, considered that, while it was necessary to have visiting restrictions in place during the pandemic, end of life was a situation where the risks of infection may be outweighed by the benefits of allowing visitors.[105] As the Inquiry heard:

> "*Harm from visiting can occur to the visitor, to those they subsequently come in contact with, or to others in the care facility. The patient themselves may experience harm if they feel guilt about exposing family visitors to the infection. That harm must however be balanced against harm to the dying person occasioned by absence of family, harm to family who are unable to be present (both immediate and longer-term in bereavement), and harm caused to care staff who substitute themselves for absent family and undertake difficult telephone communication.*"[106]

7.58. Many patients who died in hospital, particularly those with learning disabilities or dementia, had additional needs that made them dependent on loved ones as carers. The impact of visiting restrictions was especially acute for these patients, who were reliant on visits from those who knew them well to communicate their needs and to explain things to them.

7.59. National guidance on visiting during the pandemic provided a broad set of principles that gave local providers discretion to formulate policies that could adapt to the local situation and the individual circumstances of patients and visitors.

7.60. Professor Colin McKay, Chief of Medicine at the Glasgow Royal Infirmary from June 2019 to March 2023, considered that "*asking individual staff members to manage that complex risk assessment is a step too far*".[107] A member of Scottish Covid Bereaved (a Core Participant) told the Inquiry that, at times, the guidance was not applied compassionately, with loved ones sometimes given impossible choices between visiting their dying relative and attending their funeral.[108]

105 Gee Yen Shin 19 September 2024 120/21-121/19
106 Colin McKay 14 November 2024 26/5-24
107 Colin McKay 14 November 2024 28/13-14
108 Margaret Waterton 26 November 2024 45/15-25

7.61. In Northern Ireland, although "*very early on*" exceptions were made to the general ban on hospital visiting to allow end-of-life visits, from 9 April 2020, no visitors were permitted in intensive care units, even for patients at the end of life.[109] A review of intensive care units on 21 April 2020 showed that there was inconsistency across Northern Ireland – with two out of seven units allowing some end-of-life visits – although Professor Charlotte McArdle, Chief Nursing Officer for Northern Ireland from April 2013 to October 2021, was "*absolutely certain*" that staff tried to accommodate visits at end of life wherever possible.[110] By 11 May 2020, guidance stated that people in Northern Ireland had the right to have loved ones with them at the end of life, including the right to touch and hold hands, and that this should be accommodated in all but extreme cases.[111] Professor McArdle thought that, in the summer of 2020, Health and Social Care trusts were complying with those principles wherever possible.[112]

7.62. Dr Catherine McDonnell, Medical Director of the Western Health and Social Care Trust from March 2020 to June 2022, explained that the increased frequency of death in intensive care units in Northern Ireland made the management of end-of-life visiting much more difficult.[113] She gave the example of deploying a staff member to bring a visitor through the hospital's Covid-19 safe routes and to assist with donning (putting on) and doffing (taking off) personal protective equipment (PPE), which would not always be possible due to pressure on staffing.[114]

7.63. Professor McBride accepted that the right balance was not always achieved for visiting at the end of life and considered that a more nuanced approach was needed, providing greater flexibility in particular circumstances rather than a blanket approach.[115] Mr Dawson was unable to explain why the testing of visitors to facilitate safe visiting at the end of life was not considered in Northern Ireland until July 2021 and was not made available until September 2021, eight months after it had been made available in England.[116] Although it was recognised that replacing end-of-life visiting with remote communications was particularly difficult for loved ones, little was done to address those concerns.[117] Mr Dawson stated that there was a need for the Public Health Agency (Northern Ireland) to "*reflect further*" in order to identify what could be done better in a future pandemic.[118]

109 Charlotte McArdle 18 September 2024 21/20-23/11
110 INQ000376875_0003; Charlotte McArdle 18 September 2024 26/7-25
111 Charlotte McArdle 18 September 2024 33/7-34/15
112 Charlotte McArdle 18 September 2024 35/16-19
113 Catherine McDonnell 30 September 2024 165/19-22
114 Catherine McDonnell 30 September 2024 171/19-173/5
115 Michael McBride 24 September 2024 147/16-148/15
116 Aidan Dawson 5 November 2024 107/10-108/24
117 Aidan Dawson 5 November 2024 95/20-96/12
118 Aidan Dawson 5 November 2024 96/13-17

Use of telephone and video calls

7.64. Visiting guidance across the UK encouraged greater use of telephone and video calls in place of in-person visits.[119] Some patients and their loved ones were reassured and comforted by seeing each other on a video call, but the Inquiry heard that this was not always made available, whether due to a lack of devices or Wi-Fi, or because of staffing pressures.[120] Patients at the end of life may also have been too unwell to be able to participate in a video call.[121] Staff were stretched on busy wards, which meant that it was not always possible to facilitate calls with families and loved ones. One bereaved family member had to say goodbye to their loved one by text message, hoping that a nurse would read it out.[122] There were also communication challenges for patients with disabilities and for patients or their families who did not have English as their first language, with limited availability of telephone interpreters.[123]

7.65. Healthcare staff and bereaved families were clear that, practical difficulties aside, remote communications are no substitute for the physical presence of loved ones at the end of life and may have exacerbated distress and anguish. However, some communication by remote means was better than no contact at all. Pandemic planning must include processes to enable remote communications between patients and their loved ones in the event that visits are restricted or suspended and must take account of the needs of those with language or communication issues.

Impact of visiting restrictions on patients and loved ones

7.66. Dame Ruth May, Chief Nursing Officer for England from January 2019 to July 2024, told the Inquiry that the impact of visiting restrictions was "*awful*", both for patients at the end of their lives and for staff.[124] Patients' families and loved ones felt confused and frustrated by the visiting restrictions, sometimes venting this frustration on hospital staff. Staff felt an unfair burden of interpreting the guidance on how to apply their discretion in individual cases.[125]

7.67. Often, visitor numbers were severely restricted. Those who shared their experiences with Every Story Matters spoke of how difficult and upsetting it was to have to decide who should visit. In some cases, this led to conflict within families.[126]

7.68. Bereaved families told the Inquiry that visiting restrictions at the end of life caused immense distress to patients, their families and loved ones. As a bereaved family member told Every Story Matters:

119 Stephen Powis 7 November 2024 114/2-3; INQ000412890_0179 para 686
120 Margaret Waterton 26 November 2024 49/3-14, 50/4-10; Anna-Louise Marsh-Rees 26 November 2024 11/21-12/13
121 Margaret Waterton 26 November 2024 50/22-25
122 INQ000343992_0007 para 26
123 INQ000257329_0010 para 40
124 Ruth May 17 September 2024 77/18-24
125 INQ000257329_0009 paras 35-36
126 *Every Story Matters: Healthcare*, pp167-168 (INQ000474233)

> "*My mother was lying on a bed with something out of space standing by her* [staff in PPE], *she was being told to wave to her family on an iPad, she waved like a child and the zoom call ended. The doctor told her she's not going to wake up again, so she waved so hard to say goodbye to her family. I couldn't believe the doctors told her that, that she wouldn't wake up after the ventilator. We watched our mother on an iPad on a ventilator dying.*"[127]

7.69. Julia Jones, co-founder of John's Campaign, was concerned that infection prevention and control measures had a huge impact on quality of care at the end of life, which has left behind a "*legacy of grief, guilt, anger, and mistrust*".[128] Ms Jones said:

> "[I]*f one could do just one thing, it would be to say if you are dying you have the right to have somebody with you and we will facilitate that and that is our legal duty.*"[129]

7.70. As noted earlier, pressure on staff meant that there was reduced capacity for discussions with patients' families and loved ones at the end of life. Poor or limited communication from the hospital exacerbated the anxiety felt by families when they were separated from their loved ones and unable to visit, and left some patients feeling frightened and abandoned.[130] Better and clearer communication from hospitals would have helped loved ones to understand why visits were not permitted and may have avoided some of this anger and mistrust.

7.71. Despite the pressure on healthcare staff, the Inquiry received some accounts of excellent and compassionate end-of-life care for Covid-19 patients. Some contributors to Every Story Matters recalled the humanity and kindness of nurses who went out of their way to facilitate lengthy video calls or to provide physical comfort to patients. They acknowledged the trauma experienced by healthcare staff providing end-of-life care in the extraordinary circumstances of the pandemic.[131] A contributor to Every Story Matters said:

> "*I got a phone call to say she didn't have long and did I want to video call again. Of course, I did, and this time Dad spoke to her via the phone against the laptop. I was on the call for a long time and could see the care she was getting from the amazing nursing staff.*"[132]

Impact of visiting restrictions on healthcare staff

7.72. One of the most difficult aspects of end-of-life care for healthcare professionals was updating families by telephone when their loved ones were dying. The lack of face-to-face contact with people who had not met the clinical team previously made this

127 *Every Story Matters: Healthcare*, pp165-166 (INQ000474233)
128 Julia Jones 29 October 2024 42/1-19
129 Julia Jones 29 October 2024 42/19-22
130 Julia Jones 29 October 2024 22/1-6
131 *Every Story Matters: Healthcare*, pp163-164 (INQ000474233)
132 *Every Story Matters: Healthcare*, p162 (INQ000474233)

"*an incredibly impersonal experience for many people*" and "*quite distressing for junior doctors and other healthcare workers*".[133]

7.73. Restrictions on visiting meant that an additional burden fell on staff to try to provide comfort and a physical presence for patients at the end of life in the absence of their loved ones, which caused 'moral distress' to many (this is discussed further in Chapter 10: Impact on healthcare workers and 'overwhelm'). Patricia Temple, a Staff Nurse on a cardiac care unit from March to November 2020, told the Inquiry how difficult it was for nurses to see patients dying alone and suffering without the comfort of their loved ones. She recalled hearing a patient with learning disabilities speaking to his mother on the phone, asking her to come and being unable to understand why she could not visit.[134] Ms Temple felt that nurses did not have the flexibility to adjust the rules to individual circumstances, which left a lasting impact, as this "*went against our nursing ethics and against our need to advocate for patients and their best interests*".[135]

7.74. Professor Fong told the Inquiry how harrowing it could be for staff to facilitate video calls between dying patients and their loved ones, recording the account of one staff member:

> "*Showing someone their family member, dying, on an iPad was awful, that's what I can't get out of my head. The family are crying and I'm holding the iPad and crying. For me it was too much.*"[136]

7.75. While visiting restrictions may be unavoidable in a pandemic due to local risk assessments, lack of staff or shortages of PPE, in-person visits for patients at the end of life should be suspended for the shortest time possible and alternative means of contact should be provided. Given the potentially devastating impact on both staff and loved ones, as well as on patients themselves, it is vital that in-person, end-of-life visits are facilitated as far as possible (see Chapter 2: Infection prevention and control in practice).

Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) decisions

7.76. Cardiopulmonary resuscitation (CPR) is the process of attempting to restart a patient's heart in the event that it stops pumping (ie a cardiac arrest). CPR involves chest compressions, ventilation breaths and defibrillation and may include advanced airway procedures that breathe for the patient.[137] The process of resuscitation is invasive and has the potential to harm the patient (such as causing broken ribs,

133 Ben Warne 19 September 2024 125/7-19
134 Patricia Temple 4 November 2024 11/13-22
135 Patricia Temple 4 November 2024 11/23-25; INQ000486012_0005 para 18
136 INQ000474327_0020 para 109
137 Jonathan Wyllie 10 October 2024 4/7-13

damage to organs or infection) or to leave the patient with severely impaired quality of life.[138] Most attempts to restart the heart through CPR are unsuccessful; only 23% of patients who have received CPR in hospitals survive to be discharged.[139] Data from a study in Wuhan, China, published in April 2020, indicated that CPR for hospital patients with Covid-19 had an extremely low success rate, with only 1 of 136 patients surviving.[140]

7.77. A DNACPR notice may be recorded on the patient's file where a patient with capacity wishes to record their preference not to undergo CPR in the event of a cardiac arrest, or where the treating clinician considers that CPR would be futile in the circumstances.[141] A DNACPR notice is signed by the clinician, not the patient.[142] Although the Inquiry heard many references to 'DNACPR orders', a DNACPR notice is not legally binding, nor is it an 'order' – it is a form that records a clinical decision for an emergency.[143] In the absence of a DNACPR form, clinicians are not obliged to attempt CPR if a patient suffers a cardiac arrest.[144] That is a clinical decision for a doctor to take based on an assessment of the risks and benefits in each case.[145]

7.78. Since 2001, there has been UK-wide professional guidance on DNACPR decision-making published jointly by the British Medical Association, the Royal College of Nursing and Resuscitation Council UK.[146] The guidance in place at the beginning of the pandemic (published in 2016) made clear that:

- DNACPR decisions should be based on an individualised assessment of the patient's health.[147]
- "*Blanket policies that deny CPR … to groups of people, for example, to all patients in a hospice, nursing home or particular hospital ward, or to people above or below a certain age, are unethical and probably unlawful.*"[148]

138 Jonathan Wyllie 10 October 2024 5/18-6/14
139 Jonathan Wyllie 10 October 2024 5/6-10
140 Jonathan Wyllie 10 October 2024 12/21-25; 'In-hospital cardiac arrest outcomes among patients with COVID-19 pneumonia in Wuhan, China', F Shao, S Xu, X Ma, Z Xu, J Lyu, M Ng, et al, *Resuscitation* (2020) 151, 18-23 (https://www.sciencedirect.com/science/article/pii/S0300957220301428; INQ000251679)
141 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p10 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
142 INQ000343994_0014 para 60
143 INQ000343994_0015 para 65
144 Ganesh Suntharalingam 9 October 2024 23/5-13
145 Jonathan Wyllie 10 October 2024 6/7-8
146 INQ000412890_0053-0054 paras 187-190; *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
147 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p4, para 4 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
148 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p9 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)

- Where there is no realistic prospect of success, it is not necessary to obtain the consent of a patient or of those close to a patient for a decision not to attempt CPR.[149]
- There should be "*clear, accurate, honest and timely communication*" with the patient and (unless the patient has requested confidentiality) those close to the patient, so that they are made aware of the decision.[150]
- A DNACPR decision applies only to CPR and does not equate to a decision to decline any other element of care or treatment.[151]
- Clear and full documentation of DNACPR decisions and the reasons for them is "*essential*".[152]
- DNACPR decisions should be kept under review at appropriately frequent intervals and especially when a patient's condition or expressed wishes change.[153]

7.79. Many clinical witnesses told the Inquiry that, ideally, DNACPR should be discussed with the patient well in advance of a significant deterioration in their condition, as part of a broader 'advance care planning' discussion about the patient's wishes and preferences for their future medical care and treatment. Advance care planning is considered further below.

Concerns about DNACPR notices during the pandemic

'Blanket' DNACPRs

7.80. In March and April 2020, the media reported concerns that 'blanket' DNACPR notices were being issued for patients on the basis of age, disability or health conditions, rather than on the basis of a clinical assessment of the individual patient.

7.81. In response to the concerns in the media, on 1 April 2020 the Royal College of General Practitioners issued a UK-wide joint statement on DNACPR with the British Medical Association, the Care Provider Alliance and the Care Quality Commission. The statement emphasised the importance of making DNACPR decisions on an individual basis and in consultation with the patient or the family members of patients

149 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p4, para 10 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
150 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p4, paras 9-11, 13 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016); Ganesh Suntharalingam 9 October 2024 22/14-22, 24/5-12
151 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p5, para 16 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
152 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p5, paras 19, 23 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)
153 *Decisions Relating to Cardiopulmonary Resuscitation*, British Medical Association, Resuscitation Council UK and Royal College of Nursing, 3rd edition (1st revision), 2016, p4, para 5-6 (https://www.resus.org.uk/publications/publication-decisions-relating-cardiopulmonary-resuscitation-3rd; INQ000331016)

lacking capacity.[154] Dr Michael Mulholland, Honorary Secretary of the Royal College of General Practitioners, told the Inquiry that this joint statement was triggered by members who voiced concerns that they were under pressure to make DNACPR decisions in the community without adequate time for discussion with patients and families.[155] The Royal College of General Practitioners subsequently produced guidance for GPs on best practice regarding advance care planning decisions.[156]

7.82. In each of the four nations, senior healthcare leaders reminded clinicians that the blanket application of DNACPR notices to groups of people was never appropriate.

England

7.83. Professor Powis told the Inquiry that he did not believe that inappropriate use of DNACPRs was widespread during the pandemic but that, in March and April 2020, "*there were enough anecdotes and information coming to us through a variety of channels that we felt it was important to address*".[157]

7.84. Dame Ruth May recalled the issue being raised directly with her by the media in a 10 Downing Street press briefing on 3 April 2020.[158] On the same day, NHS England wrote to all English acute trusts, community trusts and primary care to reiterate previous NHS England guidance (from May 2019) that "[t]*he terms 'learning disability' and 'Down's syndrome' should never be a reason for issuing a DNACPR order*".[159] On 7 April 2020, further correspondence was sent to the NHS which emphasised that DNACPR notices:

> "*should only ever be made on an individual basis and in consultation with the individual or their family*".[160]

7.85. Similar reminders were sent to GPs in April and May 2020. In September 2020, NHS England incentivised GPs, via the Quality and Outcomes Framework, to review any DNACPRs for patients on their lists with learning disabilities or autism.[161] NHS England wrote again to leaders of primary and secondary care on 4 March 2021, apparently prompted by communications from the Royal Mencap Society (Mencap), a charity that works with people with learning disabilities, setting out concerns reported to them about the improper use of DNACPRs.[162] Mencap conveyed the reports to NHS England but acknowledged that the information was limited and it

154 'Joint statement on advance care planning', British Medical Association, Care Provider Alliance, Care Quality Commission and Royal College of General Practice, 1 April 2020 (https://www.cqc.org.uk/news/stories/joint-statement-advance-care-planning; INQ000400508)
155 Michael Mulholland 23 September 2024 169/8-171/3
156 Michael Mulholland 23 September 2024 174/5-19
157 Stephen Powis 7 November 2024 102/4-15
158 INQ000479043_0077 para 364
159 INQ000216427
160 INQ000192705
161 INQ000412890_0058 paras 201-202; Stephen Powis 7 November 2024 103/19-105/20
162 INQ000339282

was not clear whether these concerns were based on contemporaneous events or dated back to the early part of the pandemic.[163]

7.86. In October 2020, the Department of Health and Social Care commissioned the Care Quality Commission to undertake a review of how DNACPR decisions were made in the context of advance care planning during the pandemic in care homes, primary care and hospitals in England.[164] The Care Quality Commission's interim report, published in November 2020, found that there was "*confusion and miscommunication about the application of DNACPRs*" and "*evidence of inappropriate DNACPRs*" being made at the start of the pandemic. However, there was "*a quick response from multiple agencies to highlight the issue*" and since then it had found "*no evidence to suggest that this had continued as a widespread problem*". The Care Quality Commission recommended that care providers should check DNACPR notices and discuss them with patients to make sure decisions were appropriate.[165]

7.87. The Care Quality Commission's final report, *Protect, Respect, Connect – Decisions About Living and Dying Well During COVID-19* (*Protect, Respect, Connect*), was published in March 2021. It noted:

> "*a worrying picture of poor involvement, poor record-keeping, and a lack of oversight and scrutiny of the decisions being made*".[166]

This meant that there was a lack of assurance that decisions were being made on an individual basis. The Care Quality Commission concluded that DNACPR decisions should be recognised as part of wider discussions about advance care planning, which need to be had in a safe way that respects human rights.[167]

7.88. While the providers interviewed for the Care Quality Commission review were unaware of DNACPR decisions being applied to groups of people, it was clear that some patients, families and carers felt that "*blanket*" decisions had been taking place.[168] The concerns identified by the Care Quality Commission echo those heard by the Inquiry and indicate that further scrutiny and training are necessary regarding DNACPR decisions and how they are communicated to patients and their families.

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163 INQ000474664_0002-0003 paras 4-8
164 INQ000412890_0059 para 205
165 *Review of Do Not Attempt Cardiopulmonary Resuscitation Decisions During the COVID-19 Pandemic*, Care Quality Commission, November 2020, p2, para 5 (https://www.cqc.org.uk/sites/default/files/20201204%20DNACPR%20Interim%20Report%20-%20FINAL.pdf; INQ000235491)
166 *Protect, Respect, Connect – Decisions About Living and Dying Well During COVID-19; CQC's Review of 'Do Not Attempt Cardiopulmonary Resuscitation' Decisions During the COVID-19 Pandemic*, Care Quality Commission, 18 March 2021, p3 (https://www.cqc.org.uk/sites/default/files/20210318_dnacpr_printer-version.pdf; INQ000235492)
167 *Protect, Respect, Connect – Decisions About Living and Dying Well During COVID-19; CQC's Review of 'Do Not Attempt Cardiopulmonary Resuscitation' Decisions During the COVID-19 Pandemic*, Care Quality Commission, 18 March 2021, p42 (https://www.cqc.org.uk/sites/default/files/20210318_dnacpr_printer-version.pdf; INQ000235492)
168 *Protect, Respect, Connect – Decisions About Living and Dying Well During COVID-19; CQC's Review of 'Do Not Attempt Cardiopulmonary Resuscitation' Decisions During the COVID-19 Pandemic*, Care Quality Commission, 18 March 2021, p4 (https://www.cqc.org.uk/sites/default/files/20210318_dnacpr_printer-version.pdf; INQ000235492)

Wales

7.89. Since February 2015, there has been an all-Wales clinical policy, *'Sharing and Involving': A Clinical Policy for Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) for Adults in Wales*. This policy was updated in November 2020, in response to the concerns that had emerged during the pandemic. The policy stated:

> "*DNACPR decisions should always involve experienced professionals, with knowledge of this policy and training in communication of serious illness conversations … all decisions should be made based on individual situations, and must never be made in a discriminatory fashion.*"[169]

7.90. Early in the pandemic, concerns about blanket DNACPRs were raised with the Chief Nursing Officer for Wales. She was informed by Healthcare Inspectorate Wales that one general practice had sent letters about DNACPRs to certain groups of patients, which she considered was "*completely inappropriate*".[170] Vaughan Gething MS, Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021, became aware in early April 2020 of a report that a GP surgery had sent a letter to all patients with a life-limiting illness, asking them to sign a DNACPR form.[171] It is not clear from the evidence placed before the Inquiry whether the letters brought to the attention of the Chief Nursing Officer were the same as those brought to the attention of Mr Gething.

7.91. The Chief Nursing Officer and Chief Medical Officer for Wales responded to concerns about DNACPRs raised by the Older People's Commissioner for Wales and disability rights groups in Wales by writing to local health boards on 17 April 2020. The letter stated:

> "[W]*e are not aware that DNACPR decisions are being made purely on the basis of an individual's age, having a disability, learning disability, autism, mental illness or other condition.*"[172]

It reminded the NHS Wales bodies that:

> "[I]*t remains essential that decisions are made on an individual and consultative basis with people.*"[173]

Similar letters were sent to the NHS Wales bodies on 10 March 2021 and 14 April 2022 which reiterated the need for individualised decisions.[174]

169 '*Sharing and Involving': A Clinical Policy for Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) for Adults in Wales. Version 4*, NHS Wales, 2020, pp4-5 (INQ000283301)
170 Jean White 17 September 2024 137/5-15
171 INQ000474252_0132 para 352
172 INQ000300106_0002
173 INQ000300106_0002
174 INQ000227370; INQ000475209_0028 para 189; INQ000412593

7.92. Professor Philip John Kloer, Medical Director and Deputy Chief Executive of Hywel Dda University Health Board during the pandemic period and Chief Executive Officer from October 2024, told the Inquiry that he was aware of two examples of inappropriate DNACPRs being made within his own health board, in February 2021. Both were considered by him to be isolated incidents and not indicative of widespread practice or to have resulted from a perceived need to 'ration' intensive care or other resources.[175] One incident occurred in Glangwili Hospital when a junior doctor had attempted to complete a DNACPR notice for a patient with learning disabilities on the grounds of "*poor quality of life*", but was stopped by a nurse.[176] Professor Kloer was also made aware of a formal complaint on the same issue in a different hospital within the health board, which prompted the Chief Nursing Officer and Chief Medical Officer to write to the NHS bodies on 14 April 2022 seeking assurance that DNACPR decisions were not being made purely on the basis of age, disability, learning disability, autism, mental illness or other condition.[177]

7.93. None of the three joint letters from the Chief Nursing Officer and Chief Medical Officer for Wales referred to the UK-wide professional guidance published jointly by the British Medical Association, the Royal College of Nursing and Resuscitation Council UK. Nor did they include or refer to the all-Wales policy on DNACPR.

7.94. Sir Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025, told the Inquiry that the incidents in Wales that had triggered the letters to the NHS bodies were "*rare events*" and not widespread practice.[178] He said, however, that the Welsh Government had not undertaken or commissioned any review or investigation of DNACPR practice in Wales during the pandemic. He considered that this was "*really a job for the local health boards*", but accepted that the local health boards had not been requested to undertake any such review of either practice or policy.[179] He said that there was an "*expectation*" that local health boards' DNACPR policies would be in accordance with the all-Wales DNACPR policy, but that it was the responsibility of the local health boards to monitor their own policies and their implementation. He considered that the Welsh policy on DNACPR was "*robust*" and he was satisfied that the policy was "*widely available*" to local health boards to include in staff training.[180]

7.95. The evidence suggests that, however robust the DNACPR policy may have been, some clinicians were not fully aware of the all-Wales DNACPR policy or the ethical principles that underpinned it. On each occasion that the Chief Nursing Officer and Chief Medical Officer for Wales wrote to the NHS bodies there was a missed opportunity to remind clinicians of the existing DNACPR policy, which provided clear guidance on this complex issue at a time of considerable strain on the healthcare system.

175 INQ000475209_0028 paras 191-192; Philip Kloer 12 November 2024 159/3-20
176 INQ000475209_0028 para 191
177 INQ000475209_0027-0028 para 189; INQ000412593
178 Frank Atherton 30 September 2024 109/11-15
179 Frank Atherton 30 September 2024 109/19-110/13
180 Frank Atherton 30 September 2024 112/21-25, 110/14-111/3

7.96. In late 2023, Healthcare Inspectorate Wales undertook a limited review of DNACPR practice in Wales, reporting in May 2024 that it was:

> "*not assured, based on the records we reviewed, that the DNACPR decision-making process is always completed in line with the all-Wales Policy, for patients who were deemed to lack capacity*".[181]

7.97. Healthcare Inspectorate Wales did not appear to have reviewed DNACPR decisions made during the pandemic.[182] Judith Paget, Chief Executive Officer at NHS Wales and Director General of the Health, Social Care and Early Years Group in the Welsh Government from November 2021 to July 2025, told the Inquiry that she was "*not aware of any indication that a wholescale review is required or requested*".[183] She said that the NHS Wales bodies had also undertaken a thematic review of DNACPR issues under NHS Wales' Mortality Review framework, which required organisations to review four cases, from January 2022 to June 2023.[184] Key issues identified included:

- a need to increase understanding and knowledge of the DNACPR framework;[185]
- a need to improve record-keeping so that all parts of the DNACPR form were completed, in particular to document discussion;[186] and
- that time allocated to discussing DNACPR decisions was often insufficient.[187]

Scotland

7.98. Scotland has had a nationwide DNACPR policy since 2010. The 2016 version, which was applicable at the start of the pandemic, made clear that DNACPR decisions should be made on an individual basis and that blanket policies were never justified.[188] Fiona McQueen, Chief Nursing Officer for Scotland from November 2014 to February 2021, told the Inquiry that she was not aware of any blanket issuing of DNACPR notices, but she was aware of disquiet about a reminder sent by the Chief

181 *Review of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Decisions for Adults in Wales*, Healthcare Inspectorate Wales, May 2024, p8 (https://www.hiw.org.uk/system/files/2024-05/Review%20of%20Do%20Not%20Attempt%20Cardiopulmonary%20Resuscitation%20%28DNACPR%29%20Decisions%20for%20Adults%20in%20Wales.pdf; INQ000485929); Judith Paget 13 November 2024 129/15-18

182 *Review of Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) Decisions for Adults in Wales*, Healthcare Inspectorate Wales, May 2024, pp11-12 (https://www.hiw.org.uk/system/files/2024-05/Review%20of%20Do%20Not%20Attempt%20Cardiopulmonary%20Resuscitation%20%28DNACPR%29%20Decisions%20for%20Adults%20in%20Wales.pdf; INQ000485929); Judith Paget 13 November 2024 127/23-128/14

183 Judith Paget 13 November 2024 134/1-7

184 *An All-Wales Thematic Review Learning Report: Mortality Review – Do Not Attempt Cardiopulmonary Resuscitation (DNACPR)*, NHS Wales, undated (INQ000514009_0004)

185 *An All-Wales Thematic Review Learning Report: Mortality Review – Do Not Attempt Cardiopulmonary Resuscitation (DNACPR)*, NHS Wales, undated (INQ000514009_0007)

186 *An All-Wales Thematic Review Learning Report: Mortality Review – Do Not Attempt Cardiopulmonary Resuscitation (DNACPR)*, NHS Wales, undated (INQ000514009_0008-0009)

187 *An All-Wales Thematic Review Learning Report: Mortality Review – Do Not Attempt Cardiopulmonary Resuscitation (DNACPR)*, NHS Wales, undated (INQ000514009_0011)

188 *Do Not Attempt Cardiopulmonary Resuscitation (DNACPR): Integrated Adult Policy*, Scottish Government, May 2010, p17 (https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2010/05/attempt-cardiopulmonary-resuscitation-dnacpr-integrated-adult-policy-decision-making-communication/documents/0098903-pdf/0098903-pdf/govscot%3Adocument/0098903.pdf; INQ000429278); Gregor Smith 25 September 2024 146/10-14

Medical Officer for Scotland early in the pandemic to ensure that, where appropriate, patients should have DNACPR decisions in place.[189]

7.99. Ms McQueen told the Inquiry that the Chief Medical Officer's letter may have caused distress "*but all it said was: make sure your ACPs* [advance care plans] *were in place. It didn't say anything else.*"[190] A follow-up letter was sent in April 2020 to clarify that there was no requirement to have DNACPR discussions as part of the advance care planning conversation with patients.[191] Ms McQueen told the Inquiry that advance care planning was "*important*" but must be "*done sensitively*" and in partnership with the patient and their family.[192]

7.100. Scottish Covid Bereaved had a "*significant number*" of members who expressed concerns in relation to DNACPR. The issues raised centred on communication: ensuring that patients and relatives clearly understood what DNACPR meant; raising questions around patients' mental capacity to participate in these discussions; clinical decision-making and the involvement of families; and ensuring that decisions were recorded in patient notes.[193]

7.101. Professor Sir Gregor Smith, Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020, told the Inquiry that he was not made aware of any breaches of professional codes of practice or breaches of ethical practice in Scotland in relation to the use of DNACPRs.[194] He said that he did not see any evidence of a correlation between the use of DNACPR notices during the pandemic and the availability of beds, staff or medical care.[195] However, he accepted that no review had been undertaken in Scotland of DNACPR decisions taken during the pandemic and indicated that there was an absence of data on the number of DNACPR decisions made.[196]

Northern Ireland

7.102. Guidance on DNACPR in Northern Ireland made clear that each case must be decided on an individual basis, that conversations with patients and relatives were critically important, and that DNACPR notices applied only to CPR and not to other forms of treatment.[197] In Northern Ireland, DNACPR notices made in the community are not transferable to a different healthcare setting, such as an acute hospital. Professor McBride told the Inquiry that, although work had been undertaken early in the pandemic to develop a DNACPR form that was transferable between healthcare

189 INQ000474225_0047 para 149
190 Fiona McQueen 17 September 2024 193/1-4
191 INQ000429276
192 Fiona McQueen 17 September 2024 192/20-25
193 INQ000425385_0014 para 40
194 Gregor Smith 25 September 2024 163/20-25
195 Gregor Smith 25 September 2024 151/14-17
196 Gregor Smith 25 September 2024 152/4-25
197 Michael McBride 24 September 2024 132/19-133/2, 133/25-134/7

settings, the form had not been issued to practitioners as further training was required to ensure that appropriate safeguards were in place.[198]

7.103. Martina Ferguson, co-lead of Northern Ireland Covid-19 Bereaved Families for Justice, expressed the concern of several members of the group about DNACPR decisions made during the pandemic. Some families only became aware of the existence of the notice after the death of their loved one and their requests for information as to the reasons for a DNACPR notice went unanswered.[199]

7.104. Professor McBride was concerned that there may have been circumstances during the pandemic where full consultation on DNACPR had not taken place with the patient or their family. However, neither he nor Professor McArdle were aware of any specific instances of inappropriate use of DNACPR notices.[200] Robin Swann MLA, Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024, was made aware of concerns in relation to the blanket use of DNACPRs as questions had been raised with him by fellow members of the Northern Ireland Assembly.[201] He told the Inquiry that he was satisfied, on receipt of documentation from the Health and Social Care trusts, that DNACPRs were applied appropriately in Northern Ireland and that there was no "*blanket response*", although no review of DNACPR decisions was undertaken.[202]

7.105. A number of clinical witnesses, including Professor Charlotte Summers and Dr Ganesh Suntharalingam (expert witnesses on intensive care), told the Inquiry that they had not encountered blanket DNACPR use in hospitals.[203] Professor Simon Ball, Chief Medical Officer of University Hospitals Birmingham NHS Foundation Trust from January 2019 to January 2024, explained that, during the pandemic, there was a small increase in the number of patients being admitted from the community with a DNACPR form in place, with no concerns raised that they were not clinically appropriate.[204] Similarly, evidence provided to the Inquiry from several hospitals indicated no concerns that inappropriate blanket DNACPRs had been made for patients admitted to hospital.[205]

7.106. While there was no formal policy in the UK that encouraged or sanctioned the imposition of blanket DNACPRs during the pandemic, concerns remain that some individual DNACPR decisions may have been made on an inappropriate basis, such as a patient's learning disability, or without proper consultation with the patient (where possible) or their loved ones (where not). This would indicate that clinicians were not always fully aware of national or local policies and guidance and suggests

198 Michael McBride 24 September 2024 130/4-131/10
199 INQ000360941_0010 para 50
200 Michael McBride 24 September 2024 133/3-16, 134/18-23; Charlotte McArdle 18 September 2024 41/6-21
201 Robin Swann 18 November 2024 92/10-19
202 Robin Swann 18 November 2024 92/20-94/22
203 Charlotte Summers and Ganesh Suntharalingam 9 October 2024 34/15-21
204 Simon Ball 7 November 2024 23/20-24/3; INQ000477597_0064 para 207
205 See, for example, INQ000478213_0055 paras 310-311; INQ000477511_0022 para 80; INQ000477448_0035 para 153; INQ000471161_0042 paras 192-193; INQ000421793_0077 para 398

that steps taken by healthcare leaders to reiterate the guidance and the importance of following it were not effective.

7.107. Some Core Participant organisations suggested a review of every DNACPR decision made during the pandemic to ensure that all decisions were appropriate.[206] However, this would require a manual check of each and every patient's hospital notes as DNACPR decisions often do not form part of a patient's electronic record. This would be disproportionately resource intensive.[207]

DNACPR notices and ceilings of treatment

7.108. The Inquiry heard that DNACPR notices can sometimes be misunderstood as implying that the patient would not be considered for other forms of treatment, such as escalation of care to mechanical ventilation or intensive care. Professor Jonathan Wyllie, President of Resuscitation Council UK from 2018 to 2021, told the Inquiry that he had "*certainly*" encountered this misunderstanding from patients' families, but not from clinicians.[208] Dr Paul Chrisp, Director of the Centre for Guidelines at the National Institute for Health and Care Excellence from September 2018 to April 2023, stated that he was not aware of any reports of a patient being refused escalation to intensive care on the basis of a DNACPR notice.[209] Dr Suntharalingam considered that there could be potential for a clinician to misinterpret a DNACPR notice as a generalised treatment limitation option, but this was "*theoretical*".[210]

7.109. Nonetheless, during the pandemic, Mencap received reports from families and carers that patients with learning disabilities were denied conveyance to hospital or not provided with active treatment in hospital, reportedly on the basis of a DNACPR notice.[211]

7.110. Jackie O'Sullivan, Acting Chief Executive Officer of Mencap from August 2023 to June 2024, voiced concerns that the Clinical Frailty Scale, a tool that assesses a person's illnesses, function and cognition to generate a frailty score that determines their suitability for clinical interventions, may have been applied to determine DNACPR decisions for people with learning disabilities.[212] (The Clinical Frailty Scale is discussed further in Chapter 6: Care for patients with Covid-19.) Professor Powis told the Inquiry that a letter was sent to NHS organisations in England on 3 April 2020 to remind clinicians that the Clinical Frailty Scale was not applicable to younger people when making DNACPR decisions.[213] All the clinicians from whom the Inquiry heard were clear that escalation of care decisions are separate from decisions about DNACPR. However, Ms O'Sullivan told the Inquiry that reports to Mencap indicated

206 Matt Stringer 10 October 2024 83/25-84/4 (Disability Charities Consortium); Judith Paget 13 November 2024 188/15-20 (Disability Charities Consortium); Matt Hancock 22 November 2024 19/17-24 (Clinically Vulnerable Families)
207 Jonathan Wyllie 10 October 2024 24/23-25/24
208 Jonathan Wyllie 10 October 2024 19/1-20
209 Paul Chrisp 30 October 2024 84/15-18
210 Ganesh Suntharalingam 9 October 2024 90/10-19; INQ000474255_0024 para 40
211 Jackie O'Sullivan 28 October 2024 71/22-74/22
212 INQ000479878_0009-0013 paras 12-15
213 Stephen Powis 7 November 2024 99/20-101/9; INQ000216427

that families remained concerned that there may be a link between the Clinical Frailty Scale and DNACPR decision-making.[214]

7.111. Lesley Jean Moore, a member of Clinically Vulnerable Families (a Core Participant), told the Inquiry that when she received a letter in about July 2020 that suggested a DNACPR should be considered for her severely disabled son, she felt that this meant "*we're not going to take care of your young person's medical needs*".[215] The absence of full discussion and careful explanation of a DNACPR decision may have led patients and their loved ones to interpret a DNACPR notice as a decision not to actively treat the patient.

7.112. It is not possible for this Inquiry to investigate whether any DNACPR notices were interpreted as 'do not treat' notices. However, the concerns of relatives of patients suggest that clinicians who make treatment decisions about patients with a DNACPR notice in place should receive better training about their effect and how to explain this sensitively to families and loved ones.

Communication about DNACPR decisions

7.113. Many of the concerns raised during the pandemic about DNACPR decisions could have been allayed by appropriate and sensitive communication with patients and their families or carers to explain the meaning and extent of a DNACPR decision. Although medical professionals were under exceptional pressure of time, such discussions would have promoted better understanding and trust.

7.114. Bereaved groups told the Inquiry that DNACPR decisions in hospitals were not always discussed with the patient, or the family where the patient lacked capacity, as required in the guidance. Professor Summers and Dr Suntharalingam had not encountered such situations and considered that such failures to consult would be "*very unusual*" in intensive care settings, where discussion of treatment options with patients or their families was "*part and parcel*" of normal care. They surmised that problems might have been more likely in settings where these discussions were less usual and where fewer staff were looking after larger numbers of patients.[216] Both agreed with the conclusions of the Care Quality Commission in *Protect, Respect, Connect* that it is essential to give patients or their loved ones the time and information to talk about DNACPR and what care and support they need to have a dignified and peaceful death.[217]

7.115. When a DNACPR decision is made in hospital, it is preferable for discussions to take place with the patient (or their loved ones if the patient lacks capacity) as soon as possible after admission.[218] Dr Suntharalingam considered that the absence of loved

214 Jackie O'Sullivan 28 October 2024 74/17-75/5; INQ000176402_0003
215 Lesley Moore 30 October 2024 13/5-14/1
216 Ganesh Suntharalingam 9 October 2024 36/1-37/14
217 Ganesh Suntharalingam 9 October 2024 38/9-22
218 Jonathan Wyllie 10 October 2024 14/14-15/3

ones due to visiting restrictions increased the risk that family members may not have been consulted in the process of DNACPR decision-making.[219] For example, at the Queen Elizabeth Hospital Birmingham, while the proportion of DNACPR discussions involving patients was unchanged at 96%, there were fewer discussions with family members at the time of the decision (51% compared with 75% before the pandemic), mainly due to visitor restrictions.[220] When families and carers cannot be consulted, it is of particular importance that the reasons for the decision are clearly recorded in the notes.

7.116. Professor Summers stated that discussions about DNACPR decisions with patients' loved ones were one of the most difficult aspects of critical care during the pandemic.[221] It was particularly difficult to have these conversations over the telephone or via a video call when family members had not previously met the clinician in charge of their loved one and had not witnessed the deterioration in their condition to the point where CPR would be unlikely to succeed.[222]

7.117. Contributors to Every Story Matters wanted to see more open, clear and compassionate communication with patients or their loved ones regarding DNACPR decisions.[223] One participant recalled asking the clinician about the reasons for a DNACPR notice and receiving a peremptory response:

> "[T]*he consultant said 'you can argue if you like I've made a decision', he has since apologised to me.*"[224]

7.118. Several witnesses related experiences of patients or their families or carers only finding out that a DNACPR had been in place after the patient had died or been discharged from hospital.[225] As a carer of a Covid-19 patient told Every Story Matters:

> "*We didn't know he had a DNR* [Do Not Resuscitate] *… and my mum had power of attorney … The only reason we know is because when he was discharged, it was in his pack. But the fact that we weren't involved in the decision and knowing that dad's got Alzheimer's. It kind of felt like they were throwing away old people. It was like they're not a priority because they're old.*"[226]

7.119. This lack of communication led to mistrust from families and fuelled fears that their loved ones had not received adequate care while in hospital.[227] The Parliamentary and Health Service Ombudsman identified a number of complaints from March to

219 Ganesh Suntharalingam 9 October 2024 90/20-91/17
220 INQ000477597_0063-0064 para 206
221 Charlotte Summers 9 October 32/8-13
222 Charlotte Summers 9 October 2024 32/14-34/3
223 *Every Story Matters: Healthcare*, p173 (INQ000474233)
224 *Every Story Matters: Healthcare*, p169 (INQ000474233)
225 Matt Stringer 10 October 2024 79/14-16; Catherine Finnis 8 October 2024 122/10-15; Jackie O'Sullivan 28 October 2024 73/23-74/10; Anna-Louise Marsh-Rees 26 November 2024 16/17-25; Margaret Waterton 26 November 2024 40/23-41/4
226 *Every Story Matters: Healthcare*, p168 (INQ000474233)
227 *Every Story Matters: Healthcare*, p169 (INQ000474233)

April 2020 relating to a lack of, or inadequate, communication with patients and their loved ones around DNACPR decisions.[228]

7.120. It is essential that these conversations are approached in a compassionate and individualised manner. However, it is clear that, during the pandemic, communications with patients and their families were not always as sensitive as they could have been.

7.121. Professor Wyllie said that training on how to discuss and explain DNACPR needs to be embedded in medical and nursing training. He suggested that training on how to conduct these difficult conversations by remote means should form part of pandemic planning and preparedness for the healthcare system.[229]

7.122. It is vital that doctors involved in making or implementing DNACPR decisions receive sufficient training on DNACPR notices and how to conduct discussions about them, how to assess capacity and who to consult if a patient lacks capacity to discuss a DNACPR decision. It is important that conversations with patients or their family members are sensitive, timely and not rushed.

Advance care planning

7.123. An advance care plan is an umbrella term for any document in which an individual records, in advance, what matters to them and their priorities and decisions about the future care and treatment they would prefer to have or would wish to avoid.[230] Advance care planning considers a range of treatment options relevant to the patient, not only CPR – thus one of the benefits of an advance care plan is that it avoids the risk of a DNACPR notice in isolation being seen as a proxy for wider treatment decisions.[231]

7.124. During a pandemic, it is not only appropriate but essential for clinicians to have advance care planning conversations – including about DNACPR – with patients who are elderly or otherwise likely to be clinically vulnerable. Dr Cox said that, in a pandemic, early discussions with patients about their treatment options – if their condition deteriorated – should be encouraged.[232] The Resuscitation Council UK website encouraged clinicians to have advance care planning discussions with all patients who were admitted to hospital with Covid-19, while the patient was able to communicate what care they would or would not want to receive in an emergency.[233]

7.125. Professor Banfield explained that, even prior to the pandemic, the British Medical Association advocated for the greater use of advance care planning as a

228 INQ000251928_0009-0010 para 3.3(a)-(c)
229 Jonathan Wyllie 10 October 2024 26/6-29/18
230 INQ000343994_0013 para 56
231 Ganesh Suntharalingam 9 October 2024 15/2-9
232 INQ000257329_0011 para 41(h)
233 'Frequently asked questions about the ReSPECT process and COVID-19', Resuscitation Council UK, 28 March 2020, p1 (https://www.resus.org.uk/sites/default/files/2020-06/COVID%20ReSPECT%20FAQs%20080420%20%281%29.pdf; INQ000251668)

collaborative discussion with patients and their families, rather than as a unilateral decision being taken on a clinical basis at the point of crisis. He said that such planning "*avoids the confusion and it avoids the surprise*".[234]

7.126. The Inquiry heard that the ReSPECT (Recommended Summary Plan for Emergency Care and Treatment) form is an advance care planning document that "*encapsulates what is already good practice*". It enables a patient with their clinician to establish a shared understanding of the patient's condition, what outcomes they value and fear, and which specific realistic interventions may or may not be wanted.[235] ReSPECT contextualises the CPR recommendation within the overall goals of care and priorities for the patient, whether those are to "*prioritise extending life*", to "*prioritise comfort*" or to "*balance extending life with comfort and valued outcomes*".[236] ReSPECT can be instigated in hospitals, in care homes, or in the community by the primary care provider. The form is signed by the clinician and can be countersigned by the patient or others who were involved in the discussion if they wish.[237]

7.127. During the pandemic, the ReSPECT form was in use across many but not all regions of England and Scotland. It was not used at all in Wales or Northern Ireland.[238] The second version of the ReSPECT form was in use at the beginning of the pandemic. In October 2020, the third version was published after consultation with patients, carers and families and was written in the first person to ensure the direct participation of the patient.[239] Feedback on the third version has been positive and has noted the patient-centred approach.[240]

7.128. Professor Ball told the Inquiry that the University Hospitals Birmingham NHS Foundation Trust did not use the ReSPECT form but did encourage the use of treatment escalation and limitation forms to ensure that patients' views on CPR were not conflated with views about other treatment. He also noted that there was a considerable increase in the use of treatment escalation and limitation forms, from 20% of patients prior to the pandemic to 60% during the pandemic.[241] Many patients used the form to document their preference for active interventions, with a three-fold increase recorded in the affirmation for all active treatment.[242]

7.129. The Inquiry heard evidence which suggests that, in Wales, there may have been some confusion between DNACPR and advance care planning. Evidence provided by Covid-19 Bereaved Families for Justice Cymru indicated that, on occasion, the separate forms for DNACPR and treatment escalation plans were contradictory – for

234 Philip Banfield 28 October 2014 126/22-127/8
235 INQ000251666; Ganesh Suntharalingam 9 October 2024 11/20-21; INQ000343994_0014 paras 61-62
236 INQ000343994_0015-0016 para 67
237 INQ000343994_0015 para 64
238 INQ000343994_0016 paras 71-73
239 INQ000343994_0016 para 68; Jonathan Wyllie 10 October 2024 17/5-25; INQ000251666
240 INQ000343994_0019-0020 para 81
241 Simon Ball 7 November 2024 47/7-14
242 Simon Ball 7 November 2024 47/16-24

example, a DNACPR form was completed for a patient whose treatment escalation plan indicated that CPR should be considered.[243]

7.130. There is currently no universal advance care planning document in use across the UK. Since October 2022, the ReSPECT form has been used in Northern Ireland as part of its advance care planning policy.[244] Sir Frank Atherton told the Inquiry that in Wales there is a "*comprehensive suite of documents*" for advance care planning and that he did not think the ReSPECT process needed to be adopted in Wales because the Welsh documents and tools incorporated the principles of ReSPECT but were "*in many ways, more comprehensive*".[245]

7.131. The Care Quality Commission report *Protect, Respect, Connect* recommended:

> "[a] *consistent national approach to advance care planning* … [and to] … *establish and assure a national unified approach to policy, guidance and tools that supports a positive experience of DNACPR decisions for people*".[246]

7.132. In March 2022, in response to the recommendations made in *Protect, Respect, Connect*, NHS England published the *Universal Principles for Advance Care Planning*. This was a statement of six principles to be applied in advance care planning conversations, rather than a document to record those discussions between patients and clinicians.[247] Professor Powis considered that "*the ReSPECT form would be one implication of those six principles*".[248]

7.133. Dr Suntharalingam considered that, with frequent cross-border travel within the UK, there were advantages to a UK-wide advance care planning form. As the principles underlying advance care planning apply across the four nations, a single form would also be of benefit for "*establishing shared best practice*".[249] Resuscitation Council UK is strongly in favour of a standardised process for advance care planning across the UK and Professor Wyllie considered that standardising the process across the UK – whether through the adoption of ReSPECT or another form – was one of the lessons from the pandemic.[250] Professor Powis agreed that there was some merit in standardisation of the advance care planning form, as did Professor Whitty.[251] Baroness Morgan accepted that there were advantages to having a common form across the UK, provided that the policies and principles were consistent.[252]

243 Anna-Louise Marsh-Rees 26 November 2024 17/1-5
244 Michael McBride 24 September 2024 132/2-12; *For Now and For the Future: An Advance Care Planning Policy for Adults in Northern Ireland*, Department of Health, October 2022, pp1, 36-37 (https://www.health-ni.gov.uk/sites/default/files/publications/health/doh-acp-now-future-advance-care-plan-polcy.pdf; INQ000571094)
245 Frank Atherton 30 September 2024 106/5-8, 112/8-25
246 *Protect, Respect, Connect – Decisions About Living and Dying Well During COVID-19; CQC's Review of 'Do Not Attempt Cardiopulmonary Resuscitation' Decisions During the COVID-19 Pandemic*, Care Quality Commission, 18 March 2021, pp42-43 (https://www.cqc.org.uk/sites/default/files/20210318_dnacpr_printer-version.pdf; INQ000235492)
247 *Universal Principles for Advance Care Planning (ACP)*, NHS England, March 2022 (https://www.england.nhs.uk/publication/universal-principles-for-advance-care-planning; INQ000339327)
248 Stephen Powis 7 November 2024 105/21-106/13
249 Ganesh Suntharalingam 9 October 2024 18/1-12
250 INQ000343994_0021-0022 para 89c-e; Jonathan Wyllie 10 October 2024 20/17-21/3
251 Stephen Powis 7 November 2024 107/20-108/1; Christopher Whitty 26 September 2024 204/23-205/16
252 Eluned Morgan 20 November 2024 166/11-167/6

7.134. Professor Powis noted that DNACPR and advance care planning are likely to be an issue going into the next pandemic and thought that one lesson was to act early to remind people of the importance of the appropriate use of DNACPRs and advance care planning during a pandemic.[253] This means engaging with the public as well as with clinicians, so that there is a better public understanding of the process and its benefits.

7.135. Professor Wyllie observed:

> "[F]*amilies have not been prepared for that kind of discussion and too many will see it as a negative thing when in actual fact it could be a wholly positive thing about understanding what somebody wants at several stages of their lives.*"[254]

He noted a need to normalise conversations about the end of life and proposed a public health campaign to encourage patients to discuss their feelings and preferences for end-of-life care with their families as well as with their clinicians.[255] Dr Suntharalingam also spoke of the importance of "*a positive discussion*" about individuals' values and wishes about CPR as part of a "*society-wide discussion about death*", so that advance decisions could be made to avoid difficult situations arising in a crisis.[256]

7.136. While it is understandable that, for many people, advance care planning and patient preferences are difficult or even painful issues to discuss, it would be better for all if conversations about death and end-of-life care – both within families and between patients and their clinicians – became the norm. Better understanding of the importance of advance care planning among health professionals and the wider public would help to bring assurance and peace of mind for patients approaching the end of life and their families and loved ones. The Inquiry considers that discussions within families about treatment preferences and wishes at the end of life should be encouraged through public health campaigns to raise awareness of the importance and benefits of advance care planning, particularly in the context of a pandemic.

7.137. This is not only a matter for pandemic planning and preparedness. Advance care planning empowers patients to express their preferences for treatment and care, including DNACPR decisions, as they near death and it can help those close to them to understand treatment decisions in this context. Improvements in this area will therefore benefit patients and their loved ones in normal times as well as in a pandemic.

7.138. The Inquiry recommends the adoption of a single, consistent advance care planning form across the UK, such as the ReSPECT form. The form must ascertain and record the patient's wishes and preferences for future care and treatment to inform

253 Stephen Powis 11 November 2024 27/13-17
254 Jonathan Wyllie 10 October 2024 26/15-19
255 Jonathan Wyllie 10 October 2024 29/22-31/21
256 Ganesh Suntharalingam 9 October 2024 39/4-17

individualised decision-making, including DNACPR. Relevant health professionals should receive training on the process of advance care planning and DNACPR decisions and training to enable them to communicate sensitively with patients and families concerning these decisions.

Recommendation 9: A standardised process for advance care planning across the UK

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, working with trusts and health boards, should establish and promote one standardised process across the UK (such as ReSPECT, the Recommended Summary Plan for Emergency Care and Treatment) for clinicians to ascertain and record their patients' wishes and preferences for future care and treatment in order to inform individualised decision-making, including Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) notices.

Chapter 8: Long Covid

Introduction

8.1. Many viruses result in long-term illnesses, especially for individuals who have been severely ill.[1] This was well known before the pandemic. The novel nature of Covid-19, however, meant it was not easy to predict exactly what long-term consequences it would have or that individuals with mild or moderate infections could potentially suffer long-term effects.[2]

8.2. Just as individuals with Covid-19 may have many different symptoms, so Long Covid covers a wide range of lasting symptoms. Research published by the Office for National Statistics in April 2024 estimated that there were 2 million people living with Long Covid in England and Scotland.[3] It is more prevalent than chronic obstructive pulmonary disease and heart failure.[4] For this reason, Professor Chris Brightling and Dr Rachael Evans, expert witnesses on the treatment of Long Covid, said that Long Covid remains a significant public health priority.[5] It is therefore critical to be able quickly to capture data, fund research, reach diagnoses and provide treatment for those suffering with long-term consequences of a pandemic illness.

8.3. This chapter explores the emergence and recognition of Long Covid and the response of the healthcare systems in the four nations of the UK to it.

Developing awareness of Long Covid

8.4. In January 2020, Professor (later Sir) Christopher Whitty, Chief Medical Officer for England from October 2019, advised Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, that Covid-19 infections were likely to produce long-term effects but that initial understanding of the longer-lasting effects of Covid-19 was limited.[6]

8.5. Early in the pandemic, little was known about the condition and which groups were most likely to be impacted. Senior decision-makers in the healthcare systems expressed the view that public health messaging about Long Covid would have detracted from the clarity of messaging aimed at reducing Covid-19 infections.[7] As Professor Whitty told the Inquiry:

1 Chris Brightling and Rachael Evans 29 October 2024 74/13-75/22
2 Christopher Whitty 26 September 2024 92/16-23
3 'Self-reported coronavirus (COVID-19) infections and associated symptoms, England and Scotland: November 2023 to March 2024', Office for National Statistics, 25 April 2024 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/selfreportedcoronaviruscovid19infectionsandassociatedsymptomsenglandandscotland/november2023tomarch2024; INQ000652457). The last UK-wide figures were published in March 2023, when an estimated 1.9 million people were experiencing Long Covid; see 'Prevalence of ongoing symptoms following coronavirus (COVID-19) infection in the UK: 30 March 2023', Office for National Statistics, 30 March 2023 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/prevalenceofongoingsymptomsfollowingcoronaviruscovid19infectionintheuk/30march2023; INQ000271375).
4 Chris Brightling and Rachael Evans 29 October 2024 73/7-21
5 Chris Brightling and Rachael Evans 29 October 2024 128/7-129/4
6 Matt Hancock 21 November 2024 180/9-13
7 Susan Hopkins 18 September 2024 191/14-19

> "*The main thing we could do at the beginning, before we understood it slightly better, was to reduce the amount of Covid. If you don't get Covid, you don't get Long Covid.*"[8]

8.6. Early in the pandemic, some clinicians became concerned about patients experiencing prolonged symptoms following hospitalisation for Covid-19 infection, in part due to pre-existing knowledge of post-intensive care syndrome. However, the existence of a post-viral syndrome in adults who were not hospitalised was less clear.[9]

8.7. Many of those affected came together on social media to share their experiences of the long-term effects of Covid-19. On 2 May 2020, the group Long Covid Support was set up.[10] Long Covid Support was soon followed by the creation of Long Covid SOS in June 2020, Long Covid Kids in October 2020 and Long COVID Physio in November 2020.[11] These patient advocacy groups played a vital role in raising awareness about the long-term consequences of Covid-19 infections. As a contributor to the Inquiry's listening exercise, Every Story Matters, said:

> "*When I got online and started finding the Long Covid groups, there were other people having similar experiences to me, so I didn't feel like it was just me going nuts, which is how I felt.*"[12]

8.8. In May 2020, growing feedback from Respiratory Clinical Networks led to NHS England commissioning an online service to support patients experiencing long-term symptoms.[13]

8.9. On 14 July 2020, the *British Medical Journal* published an article entitled 'COVID-19: What do we know about "long COVID"?'.[14] This reported on the growing number of people, including doctors, who had been infected with Covid-19 and were still reporting lasting effects of the infection or had experienced the usual symptoms for far longer than would be expected. The article acknowledged that, aside from anecdotal evidence, there was as yet little research on this issue.[15]

8.10. In August 2020, members of Long Covid SOS wrote to Professor (later Sir) Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, highlighting the long-term effects following a Covid-19 infection. He met them a month later.[16] Professor Powis told the Inquiry that this meeting was "*a turning point for me in terms of Long Covid*" and it represented the start of a regular and ongoing

8 Christopher Whitty 26 September 2024 94/19-95/24
9 Michael Mulholland 23 September 2024 175/13-16; Caroline Lamb 14 November 2024 142/22-143/14; INQ000280198_0005-0006 paras 1.2, 1.4-1.5
10 INQ000370954_0011-0012 para 3.2
11 INQ000370954_0011-0012 para 3.2
12 *Every Story Matters: Healthcare*, p84 (INQ000474233)
13 INQ000485652_0268 para 1027
14 INQ000051231
15 INQ000485652_0269 para 1031
16 Stephen Powis 7 November 2024 164/18-21

dialogue about how to provide better care for people with Long Covid.[17] Professor Powis, while acknowledging the understandable frustration of those he met in September 2020, reflected that "*at that early stage it's maybe not surprising that all clinicians didn't have the information they needed*".[18]

8.11. On 7 September 2020, the *British Medical Journal* reported on an online webinar with a panel of experts on how to define and manage Long Covid. This defined Long Covid patients as "*not recovering for several weeks or months following the start of symptoms that were suggestive of Covid, whether you were tested or not*".[19]

8.12. On 30 September 2020, Professor Powis wrote to the National Institute for Health and Care Excellence (NICE), requesting the production of guidelines to support the identification and treatment of patients with Long Covid.[20] As most patients reported their symptoms to their GP for advice in managing the condition, the Royal College of General Practitioners collaborated with NICE and its counterpart, the Scottish Intercollegiate Guidelines Network, to produce this guidance.[21]

8.13. In October 2020, NHS England launched a National Taskforce for Long Covid to bring together patients, clinicians, academics and policy-makers to address the healthcare challenge Long Covid presented.[22]

8.14. NICE issued a clinical case definition for Long Covid on 18 December 2020, which remains in use today:

> "*Signs and symptoms that develop during or after an infection consistent with COVID-19, continue for more than 12 weeks and are not explained by an alternative diagnosis. It usually presents with clusters of symptoms, often overlapping, which can fluctuate and change over time and can affect any system in the body.*"[23]

8.15. The wide variation in early reported Long Covid symptoms (and the difficulties in differentiating symptoms from sufferers' other conditions) meant clinical communities took a long time to reach consensus on diagnosing and managing the condition. In addition, the lack of Covid-19 testing for patients who were not hospitalised led to uncertainty as to whether their long-term symptoms were the result of a Covid-19 infection.[24] This impeded the ability of UK bodies to coordinate an immediate response to the emerging risks. Professor Powis took the view that NHS England and NICE "*acted very quickly in terms of our response to Long Covid*", particularly

17 Stephen Powis 7 November 2024 164/21-23; INQ000370954_0022 para 3.17.8; Natalie Rogers 30 October 2024 38/2-24
18 Stephen Powis 7 November 2024 165/3-7
19 'Long covid: How to define it and how to manage it', N Nabavi, *British Medical Journal* (2020), 370(3489) (https://www.doi.org/10.1136/bmj.m3489; INQ000661675)
20 INQ000485652_0270-0271 para 1036
21 Michael Mulholland 23 September 2024 175/10-176/5
22 INQ000485652_0273 para 1045
23 *COVID-19 Rapid Guideline: Managing the Long-Term Effects of COVID-19*, National Institute for Health and Care Excellence, 18 December 2020, p5 (https://www.nice.org.uk/guidance/ng188; INQ000238545); see also INQ000280198_0006 para 1.6
24 Stephen Powis 7 November 2024 164/8-15

in view of the still-evolving evidence base.[25] He noted that, in England, a nationally commissioned healthcare service for Long Covid had been put in place within 10 months of Covid-19 arriving in the UK.[26]

8.16. In the absence of an early clinical consensus on Long Covid, patients' voices played a crucial role in identifying the condition. NHS England met with patient advocacy groups and developed a forum, in which the healthcare needs of Long Covid patients could be addressed, earlier than its counterparts in the devolved nations.

8.17. The health ministers in Scotland, Wales and Northern Ireland were alerted to the fact that Covid-19 infections could have long-term effects in late spring to early summer of 2020.[27]

8.18. In Scotland, Jeane Freeman MSP (Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021) said that she was reminded by Professor (later Sir) Gregor Smith (Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020) in late spring or early summer of 2020 that "*viruses can leave a longer-lasting impact*" but she was not advised to take any further steps beyond keeping an "*eye out*" for whether Covid-19 did so.[28] On 2 September 2020, a paper prepared by the Scottish Intercollegiate Guidelines Network set out the need for clinical guidelines on Long Covid, which led to its subsequent collaboration with NICE.[29] On 30 September 2020, the office of Scotland's Chief Scientist (Health) issued a research call to invite applications for Scottish-led projects to investigate the longer-term effects of Covid-19 infection, noting that:

> "*Currently data are limited on the prevalence and nature of long-COVID to inform clinical management and support rehabilitation.*"[30]

8.19. In Wales, Vaughan Gething MS (Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021) recalled discussing with the Chief Therapies Adviser for Wales how to support people suffering from the long-term consequences of Covid-19.[31] This led to *Rehabilitation: A Framework for Continuity and Recovery 2020 to 2021* in May 2020.[32] However, this broad framework was not solely focused on those recovering from Covid-19 and did not set out how or when specific health services would be provided for patients suffering long-term health consequences due to Covid-19 infection. Although the framework anticipated that "*specialist rehabilitation units may be needed to support those who have been*

25 Stephen Powis 7 November 2024 164/1-14, 166/1-8
26 INQ000485652_0282 para 1079
27 Robin Swann 18 November 2024 136/14-23, 171/12-25; Jeane Freeman 19 November 2024 56/1-11; Gregor Smith 25 September 2024 66/1-5; Vaughan Gething 20 November 2024 48/8-49/10
28 Jeane Freeman 19 November 2024 56/1-11
29 INQ000365757
30 INQ000661530
31 Vaughan Gething 20 November 2024 48/8-49/107. Mr Gething could not recall the date of this discussion.
32 INQ000474252_0129-0130 para 344

affected the most", no specialist Long Covid clinics were established in Wales.[33] In March 2021, Mr Gething agreed funding of up to £216,000 for the Long Covid pathway to provide online resources to health and care professionals to help and advise people recovering from Covid-19.[34]

8.20. In Northern Ireland, when Robin Swann MLA (Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024) became aware of Long Covid in the summer of 2020, he asked Professor (later Sir) Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, to establish a Clinical Working Group to review the needs of individuals recovering from Covid-19 following hospital admission.[35] In December 2020, in response to NICE rapid guidelines, the Health and Social Care Board (Northern Ireland) was asked to develop plans for a multidisciplinary clinic to manage the long-term effects of Covid-19.[36]

8.21. It was not possible to predict precisely the nature, scale or severity of the post-viral conditions emerging from Covid-19 infections. However, as soon as it was understood that Covid-19 was likely to lead to longer-term health impacts for some of those infected, earlier consideration and surveillance would have helped to identify the emergence of Long Covid more quickly and enable healthcare systems to take swifter action in response.

Difficulties in diagnosis

8.22. Many people with Long Covid – which has more than 200 reported symptoms – experienced difficulty obtaining a diagnosis.[37] The following accounts were given to Every Story Matters:

> "*I've been passed around specialties, from pillar to post, waiting two years for cardiology, I do not know where to turn.*"[38]

> "*So, we still feel that we're being sent to the GP and the GPs don't know what to do with us, GPs are busy with lots of other things. And even the sympathetic GPs with the best will in the world haven't got a clue what to do with us. We need something more specialised basically.*"[39]

8.23. The most common clusters of symptoms include fatigue, breathlessness and difficulty sleeping but they can also include chest pain and vertigo.[40] The persistence

33 *Rehabilitation: A Framework for Continuity and Recovery 2020 to 2021*, Welsh Government, 29 May 2020 (INQ000369596)
34 INQ000474252_0131 para 348
35 INQ000492281_0126 para 381
36 INQ000492281_0126 para 383
37 Natalie Rogers 30 October 2024 26/6-11; Sarah Powell 28 October 2024 6/1-24; Patricia Temple 4 November 2024 16/16-17/1; Chris Brightling and Rachael Evans 29 October 2024 76/7-25
38 *Every Story Matters: Healthcare*, p177 (INQ000474233)
39 *Every Story Matters: Healthcare*, p177 (INQ000474233)
40 Chris Brightling and Rachael Evans 29 October 2024 76/7-25; Natalie Rogers 30 October 2024 29/16-30/18

of the symptoms varies. Some people recover from Long Covid within a year. For others, Long Covid symptoms can continue for much longer.[41] In some patients, there is evidence of viral persistence (where the Covid-19 virus remains in the cells of infected individuals).[42] Individuals who have had a more severe acute Covid-19 infection are more likely to develop Long Covid. However, it is possible for individuals who have had a mild infection – or even an asymptomatic infection – to develop Long Covid symptoms, including severe Long Covid symptoms.[43]

8.24. For a significant number of people, the range and severity of Long Covid symptoms can be utterly debilitating, forcing them to re-evaluate every aspect of their daily lives. Contributors to Every Story Matters shared their experiences of Long Covid symptoms:

> "*Just sitting here, I would start wheezing and be unable to breathe … I would get random infections on my fingers; I've become allergic to things that I was never allergic to before. Both my ears are completely compacted.*"[44]

> "*I am now a wheelchair user due to neuropathy in my lower left leg/foot, fatigue and breathlessness caused by Long Covid.*"[45]

> "*Life should not be like this; I don't know what's wrong with me. I have three kids, all grown up. I am not the same anymore. I want to cry; I am not sure why I am so down, not sure why I am not the same man.*"[46]

8.25. For most people suffering with Long Covid, the first medical professional they speak to will be their GP.[47] According to a survey conducted by the Royal College of General Practitioners between August and September 2020, very few GPs were confident in diagnosing and treating patients with Long Covid.[48] At this time, NICE was yet to publish its clinical definition and there was very little guidance about Long Covid available.[49]

8.26. Many patients felt that their concerns about their ongoing symptoms were being dismissed by GPs and other medical professionals.[50] Dr Sarah Powell, a member of the Disability Charities Consortium who suffers from Long Covid, told the Inquiry that she "*will never forget one particular person, one doctor said, 'Oh, Long Covid isn't even a thing'*".[51] Nicola Ritchie, a member of Long COVID Physio, said:

41 Chris Brightling and Rachael Evans 29 October 2024 77/2-22
42 Chris Brightling and Rachael Evans 29 October 2024 78/15-79/4
43 Chris Brightling and Rachael Evans 29 October 2024 69/6-17
44 *Every Story Matters: Healthcare*, p175 (INQ000474233)
45 *Every Story Matters: Healthcare*, p186 (INQ000474233)
46 *Every Story Matters: Healthcare*, p187 (INQ000474233)
47 Chris Brightling and Rachael Evans 29 October 2024 83/6-12
48 Michael Mulholland 23 September 2024 174/20-176/5; INQ000492271_0002-0007
49 INQ000339027_0033 para 197
50 INQ000370954_0068 para 10.1
51 Sarah Powell 28 October 2024 8/17-25

> "*I have had multiple contacts with the GP, to the point that I've stopped contacting them because every time I did it was a case of 'There are online resources, there's nothing that we can do.'*"[52]

8.27. Conversations about Long Covid were difficult for both patients and clinicians. Many patients had never tested positive for Covid-19 because they had not been hospitalised during their acute Covid-19 infection.[53] Some patients found it hard to describe the diverse range of symptoms they were experiencing. Natalie Rogers, a founding member of Long Covid Support, told the Inquiry:

> "*One of the problems when you were seeking healthcare was articulating the symptoms that you were having. It was really difficult to describe.*"[54]

8.28. In June 2021, NHS England published its Long Covid Enhanced Service Specification.[55] This offered GP practices additional funding to support workforce education and training for treating patients with Long Covid.[56] No equivalent service was established in Scotland, Wales or Northern Ireland.

8.29. The research projects set out in the section below played their part in improving public awareness of Long Covid and in turn assisted those seeking and providing diagnosis of the condition.

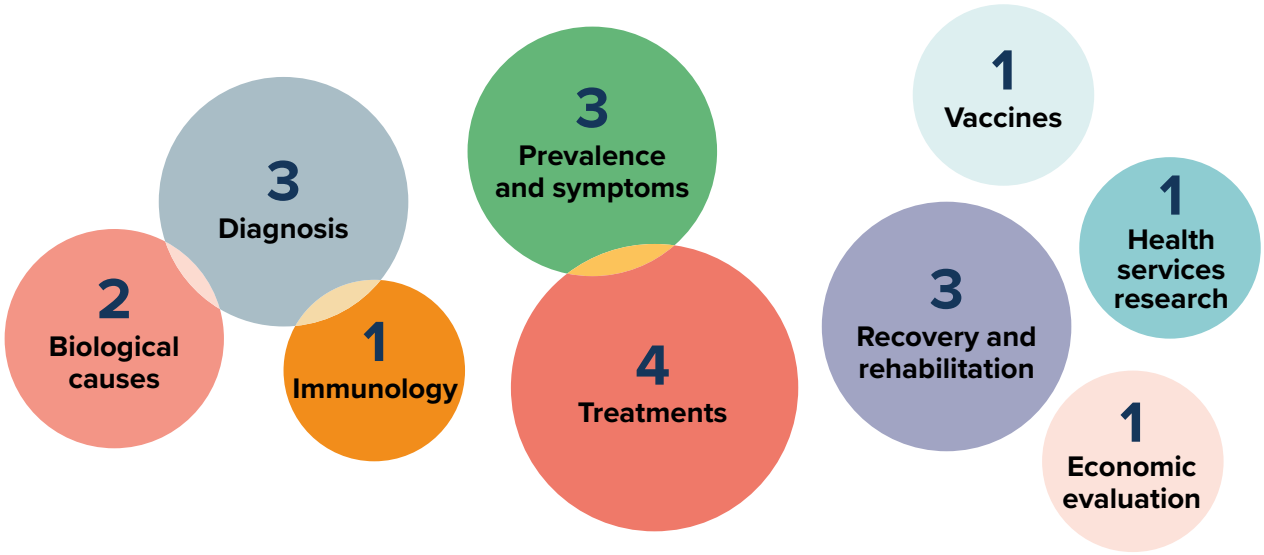
Research and data

Funding research

8.30. Research into Long Covid in the UK has predominantly been funded by the National Institute for Health and Care Research and UK Research and Innovation.[57] As Figure 20 sets out, research has been conducted into the underlying causes of Long Covid, its symptoms and possible treatments.[58]

52 Nicola Ritchie 29 October 2024 52/13-53/7
53 Stephen Powis 7 November 2024 165/8-12
54 Natalie Rogers 30 October 2024 30/19-23
55 INQ000485652_0280 para 1070
56 INQ000421758_0029 para 78
57 INQ000421758_0006 para 7
58 INQ000421758_0008 para 11

Figure 20: Number of studies by topic, funded by the National Institute for Health and Care Research, looking into the long-term impact of Long Covid



Source: INQ000421758_0008

8.31. In total, more than £50 million has been invested in research projects into Long Covid in the UK.[59] The first funded study was set up in July 2020 and the last funding award for dedicated research projects was made in July 2021.[60] This funding could be drawn down over a period of two to three years.[61] Professor Brightling and Dr Evans stated that, when compared with other countries, the UK was quick to fund research into Long Covid.[62] However, specific funding for research projects into Long Covid was stopped in 2021. As Professor Brightling summarised:

> "*The research for Long Covid is very much a marathon and the UK has won the first 400 metres, but has now paused.*"[63]

8.32. However, the causes of Long Covid continue to be identified, including disruption of the nervous system and the activation of the lining of the blood vessels, which can cause damage to the brain and other organs.[64] As a contributor to Every Story Matters noted:

59 INQ000421758_0008 para 10
60 INQ000421758_0006 para 8; Chris Brightling and Rachael Evans 29 October 2024 104/12-18
61 Chris Brightling and Rachael Evans 29 October 2024 104/20-105/17
62 INQ000421758_0006 para 7
63 Chris Brightling and Rachael Evans 29 October 2024 103/10-12
64 Chris Brightling and Rachael Evans 29 October 2024 78/15-79/16

> "*Further research into Long Covid and cardiovascular complications could help with rapid diagnosis and treatment, also sharing good practice and patient findings between consultants and doctors across England and Wales/whole of UK and other countries too to get the best patient care pathways set up early on, so patients get treated quickly before a physical and mental decline, and a financial effect on families.*"[65]

8.33. Clinical trials of pharmacological (ie drug) interventions for Long Covid are ongoing. This includes studies into the impact of Covid-19 vaccination on the incidence and severity of Long Covid.[66] Research into rehabilitative interventions continues.[67] Research into whether, and if so how, Long Covid disproportionately affects people from ethnic minority groups is also ongoing.[68] These studies and research remain important in developing a greater understanding of Long Covid and its impact.

Collecting data

8.34. Understanding the prevalence of a condition is a key factor in determining the services that are required to treat it.[69] It is particularly important to collect data about the number of healthcare workers with Long Covid in order to understand its impact on the workforce and the capacity of the healthcare system.[70] There were a number of ways of collecting data on Long Covid:

- by surveys;
- by the use of a Long Covid code in patient records in primary and secondary care;
- by collecting data on the patients accessing Long Covid clinics; and
- by collecting data in the course of research studies.

8.35. The Office for National Statistics led the collection of Long Covid data as part of the Coronavirus (Covid-19) Infection Survey, which provided key data from which to estimate the prevalence of Long Covid and subsequent activity limitation across the UK.[71]

8.36. The Welsh Government, NHS Wales and Public Health Wales, and the Public Health Agency (Northern Ireland) did not routinely gather data on Long Covid.[72] Public Health England also did not routinely gather data on Long Covid, but it did use two

65 *Every Story Matters: Healthcare*, p189 (INQ000474233)
66 Chris Brightling and Rachael Evans 29 October 2024 105/22-108/7, 125/4-15; INQ000421758_0020 paras 50-53
67 Chris Brightling and Rachael Evans 29 October 2024 110/17-111/23; INQ000421758_0024 para 66
68 Chris Brightling and Rachael Evans 29 October 2024 156/18-157/5, 161/13-18; Habib Naqvi 10 October 2024 120/5-15
69 Stephen Powis 11 November 2024 42/5-43/14
70 Amanda Pritchard 11 November 2024 173/15-23; Matt Hancock 21 November 2024 184/24-185/8
71 INQ000585984_0086 paras 238-239
72 Judith Paget 13 November 2024 175/21-178/3; Fu-Meng Khaw 5 November 2024 37/21-38/8; Aidan Dawson 5 November 2024 77/22-25

external data sources to try to understand the prevalence and impact of the condition:[73]

- The first data source was the Office for National Statistics' COVID-19 and Respiratory Infections Survey about individuals who were experiencing prolonged Covid-19 symptoms in the community. The Office for National Statistics published its last COVID-19 and Respiratory Infections Survey data report in respect of the four nations of the UK in July 2023 and its last in respect of England and Scotland in April 2024.[74]
- The second data source was the SARS-COV2 Immunity and Reinfection Evaluation (SIREN) study from early autumn 2020, which gathered data from healthcare workers about their ongoing Covid-19 symptoms.[75]

8.37. A clinical code for Long Covid in primary and secondary care medical records was not created until December 2020.[76] Even after codes for Long Covid were introduced in England, it was not consistently recorded in medical records using a standard clinical code.[77] In Scotland, clinical codes for Long Covid were rarely recorded in patients' health records.[78] Dr Evans explained the consequences of this:

> "*It's been a real issue around getting data at large scale using electronic healthcare records because of the poor quality of coding. And when electronic studies have reported on Long Covid it really does underestimate the prevalence of Long Covid and the impact.*"[79]

8.38. NHS England kept a record of patients attending Long Covid clinics from January 2021.[80] Professor Susan Hopkins, National Strategic Response Director for COVID-19 at Public Health England from September 2020 to September 2021, explained that the predominant data collected for Long Covid were from these clinics.[81] However, Dr Evans told the Inquiry:

> "*NHS England were keeping a good record of who was being seen in the Long Covid clinics, so at least we had some idea of the demographics of the people that were actually receiving care through the clinics, but I don't think we have that any longer.*"[82]

73 Susan Hopkins 18 September 2024 224/23-225/5
74 'Self-reported long COVID symptoms, UK: 10 July 2023', Office for National Statistics, 10 July 2023 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/bulletins/selfreportedlongcovidsymptomsuk/10july2023; INQ000656292); 'Self-reported coronavirus (COVID-19) infections and associated symptoms, England and Scotland: November 2023 to March 2024', Office for National Statistics, 25 April 2024 (https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/selfreportedcoronaviruscovid19infectionsandassociatedsymptomsenglandandscotland/november2023tomarch2024; INQ000652457)
75 Susan Hopkins 18 September 2024 222/18-25
76 Michael Mulholland 23 September 2024 183/7-13
77 Susan Hopkins 18 September 2024 224/11-18
78 INQ000468127_0001
79 Chris Brightling and Rachael Evans 29 October 2024 138/13-18
80 INQ000485652_0277 para 1065
81 Susan Hopkins 18 September 2024 224/19-225/19
82 Chris Brightling and Rachael Evans 29 October 2024 114/19-23

Neither the Department of Health and Social Care nor NHS England collected data about the number, age, sex and ethnicity of healthcare workers with Long Covid in England.[83] However, NHS England's Long Covid Registry does include information about the number of NHS employees accessing Long Covid services for the first time.[84]

8.39. No central reporting to the Welsh Government or NHS Wales was established in respect of the number of healthcare workers with Long Covid.[85] In Scotland, local health boards collected data on workforce absence due to Long Covid and reported these figures to the Scottish Government between December 2020 and September 2022.[86] As the Public Health Agency (Northern Ireland) did not routinely gather data on Long Covid, it did not hold data about the number of healthcare workers with Long Covid.[87] However, records of staff absences due to Long Covid were kept by some Health and Social Care trusts in Northern Ireland.[88] Across the UK, data on absent healthcare workers who were not directly employed by the NHS or by Health and Social Care trusts – such as GPs – were not collected.[89]

8.40. Current understanding of the inequalities associated with Long Covid is limited by the absence of comprehensive data.[90] Although the lack of clear data prevents conclusions to be drawn with certainty, some witnesses expressed their concern that Long Covid disproportionately affects ethnic minorities and, in particular, ethnic minority healthcare workers.[91] In addition, the unequal impacts of Long Covid can be observed by the fact that some people are more likely to develop Long Covid than others. Long Covid is more common in women, people in middle age, those "*from lower socio-economic status*" and those with comorbidities (pre-existing health conditions) such as obesity.[92] Individuals with these characteristics are also more likely to develop severe Long Covid symptoms.[93] However, anyone who has had Covid-19 is at risk of developing Long Covid.[94]

8.41. In each of the UK's healthcare systems, there was a lack of comprehensive data about Long Covid and, in particular, a failure to collect data about healthcare workers who were absent due to Long Covid. In order to understand the long-term illnesses resulting from a future pandemic disease, the importance of the timely collection, analysis, secure sharing and use of reliable data cannot be overstated.

83 Stephen Powis 7 November 2024 169/3-7; Amanda Pritchard 11 November 2024 172/21-173/1; Sajid Javid 25 November 2024 97/23-98/5
84 INQ000474664_0003 para 10
85 Vaughan Gething 20 November 2024 55/13-16; Jean White 17 September 2024 139/10-17
86 INQ000661967; INQ000661968
87 Aidan Dawson 5 November 2024 77/22-25, 109/15-18
88 INQ000477593_0009 para 19; INQ000474259_0071 para 206
89 INQ000474283_0067 para 243
90 Chris Brightling and Rachael Evans 29 October 2024 113/25-114/18; Sajid Javid 25 November 2024 128/14-20
91 Chris Brightling and Rachael Evans 29 October 2024 143/5-145/10; Jaswinder Singh Bamrah 8 October 2024 14/5-10
92 Chris Brightling and Rachael Evans 29 October 2024 70/17-23
93 Chris Brightling and Rachael Evans 29 October 2024 70/10-71/15; INQ000421758_0032 para 87
94 Chris Brightling and Rachael Evans 29 October 2024 71/4-7

8.42. Accordingly, the provision of resources for capturing data and funding research for the potential long-term illnesses resulting from a pandemic disease will be an important feature of pre-pandemic planning. As noted in the Inquiry's Module 1 Report, planning for future pandemics should establish:

- a framework for the timely collection and analysis of reliable data about long-term illnesses resulting from a future pandemic disease; and
- 'hibernated' studies – which can rapidly be stood up – to research the impact of long-term illnesses and evaluate the effectiveness of treatments.[95]

Long Covid in healthcare workers

8.43. Notwithstanding the absence of reliable data about the prevalence of Long Covid, the evidence suggests that healthcare workers were at a higher risk of developing Long Covid during the pandemic as a consequence of their greater exposure to Covid-19.[96] Professor Philip Banfield, Chair of the British Medical Association UK council from July 2022 to June 2025, told the Inquiry: "[W]*e know of many hundreds* [of healthcare workers] *who have still got Long Covid*."[97]

8.44. A number of hospitals described the impact of Long Covid on their workforces and their responses. For example, between 1 March 2020 and 30 June 2022, the University Hospitals of Leicester NHS Trust had a total of 692 staff requiring time off as a result of Long Covid.[98] The University Hospital of Wales had 113 members of staff absent and 29 staff who left due to Long Covid during the same time period.[99] The Cumberland Infirmary in Carlisle and the Queen Elizabeth Hospital Birmingham were able to support staff via occupational health, while the Royal Victoria Infirmary in Newcastle and the Royal Cornwall Hospitals NHS Trust developed specific Long Covid pathways to provide treatment.[100]

8.45. The Inquiry heard that "*the vast majority*" of healthcare workers with Long Covid want to return to work but require support to do so.[101] A personalised, phased return to work is necessary in order to avoid exacerbating symptoms and slowing down or reversing recovery.[102] Many healthcare workers with Long Covid had to return to

95 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024, Recommendation 5 (https://covid19.public-inquiry.uk/documents/module-1-full-report); INQ000421758_0039-0040, 0043 paras 115-120, 134-135
96 Chris Brightling and Rachael Evans 29 October 2024 71/19-24; INQ000421758_0033 para 94; Stephen Powis 11 November 2024 16/9-13
97 Philip Banfield 28 October 2024 105/10-12
98 INQ000474221_0009 para 41; INQ000477436_0008 para 22
99 INQ000480136_0019 para 61
100 INQ000471398_0009 para 30; INQ000477597_0016 para 49; INQ000479890_0011 para 39; INQ000474039_0066 paras 234-235
101 Chris Brightling and Rachael Evans 29 October 2024 117/17-20, 118/14-17
102 Chris Brightling and Rachael Evans 29 October 2024 126/10-17; Nicola Ritchie 29 October 2024 48/7-19; INQ000421758_0042 para 129

work part time or in less physically demanding roles.[103] For example, some front-line paramedics returned to a less physical role in the control room.[104]

8.46. It is likely that significant clinical expertise was lost as a result of healthcare workers developing Long Covid, at a time when workload was already high.[105] Patricia Temple, a Staff Nurse on a cardiac care unit from March to November 2020, who developed Long Covid, said:

> "*I have a lot of nurses that I know who are trying very, very hard to stay in the workplace and are unable to do so … They are a valuable resource, they are not disposable. Having Covid and Long Covid, you can't be clapped for one minute and declared disposable the next.*"[106]

Treatment for Long Covid

8.47. There has not been a consistent, UK-wide approach to the treatment of Long Covid in adults, and some people who were diagnosed subsequently struggled to access treatment.[107]

England

8.48. In England, Long Covid clinics were funded from 7 October 2020 as part of NHS England's Five Point Plan to increase support for those suffering with Long Covid.[108] By December 2020, there were 69 Long Covid clinics operating in England.[109] Those clinics were spread out geographically to a reasonable degree.[110] Before this, GPs had to manage patients presenting with Long Covid symptoms as best they could with the information available to them.[111]

8.49. Long Covid clinics offer patients holistic treatment by a multidisciplinary team of healthcare professionals (including doctors, nurses, occupational therapists and physiotherapists) with access to different specialists (eg rheumatologists, neurologists and cardiologists).[112] This model enables an individual, who might be experiencing a number of Long Covid symptoms, to have all those symptoms treated at the same clinic, with the management of their care coordinated by a single clinician.[113] They have been described as "*one stop shops*".[114] The alternative would

103 Ruth May 17 September 2024 25/4-9; Tracy Nicholls 23 September 2024 123/19-24
104 Anthony Marsh 1 October 2024 102/8-18; Gill Walton 7 October 2024 138/19-139/2
105 Chris Brightling and Rachael Evans 29 October 2024 149/18-150/25
106 Patricia Temple 4 November 2024 19/11-17
107 INQ000421758_0011 para 22, Table 1; Nicola Ritchie 29 October 2024 53/1-7; Natalie Rogers 30 October 2024 61/23-63/9
108 INQ000421758_0014 para 32; INQ000485652_0275-0276 para 1056
109 INQ000421758_0014 para 32
110 INQ000421758_0029-0030 paras 75-76, Figure 7
111 Michael Mulholland 23 September 2024 175/6-12; Natalie Rogers 30 October 2024 28/1-14
112 Chris Brightling and Rachael Evans 29 October 2024 81/2-82/9
113 Natalie Rogers 30 October 2024 46/17-47/25
114 INQ000370954_0041 para 4.22

be to refer an individual to a different specialist for each symptom they are experiencing, leading to multiple appointments in different parts of the country.[115]

8.50. Long Covid clinics provide clinical management and rehabilitation treatment.[116] Physical rehabilitation must be carefully approached because exercise can exacerbate Long Covid symptoms.[117] The technique of 'pacing' is used to ensure that physical activity is introduced incrementally, without triggering a level of fatigue that would slow down or reverse recovery.[118] As Dr Powell said:

> "*I think one of the big reasons I had Long Covid* [is] *because I carried on exercising … You know, I couldn't function, as I've explained, and the doctor said, 'Okay, well, it's better that you exercise some more, just carry on'. … I honestly believe that if I hadn't exercised then these symptoms – I wouldn't have these symptoms today.*"[119]

8.51. Dr Evans considered that Long Covid clinics "*are clinically effective and cost effective*".[120] They act as a centre for training healthcare professionals and provide a foundation for further research into Long Covid treatment.[121] There is currently no formal training for healthcare professionals in treating Long Covid.[122] The absence of formal training can, in some circumstances, lead to variations in approach by healthcare professionals working in Long Covid clinics because of their different clinical backgrounds.[123] A lack of consistency in the services offered by Long Covid clinics has been observed by Long Covid advocacy groups.[124]

8.52. By July 2021, there were 89 Long Covid clinics but this number has since reduced.[125] Specialists who had come together to provide multidisciplinary treatment at Long Covid clinics are also returning to their original areas of specialty.[126] The clinics that remain are becoming stretched and there is a risk that treatment is not being delivered in a timely and effective way.[127] By April 2024, more than 113,000 patients had been assessed at a Long Covid clinic in England.[128] However, given the significant number of people suffering with Long Covid symptoms, it would appear that only a small proportion have accessed the treatment available.[129]

115 Chris Brightling and Rachael Evans 29 October 2024 82/1-18, 130/11-131/4; Sajid Javid 25 November 2024 32/12-33/1
116 Chris Brightling and Rachael Evans 29 October 2024 129/5-130/6
117 Chris Brightling and Rachael Evans 29 October 2024 133/7-23; INQ000421758_0024 para 64
118 Chris Brightling and Rachael Evans 29 October 2024 110/3-19
119 Sarah Powell 28 October 2024 10/8-21
120 Chris Brightling and Rachael Evans 29 October 2024 99/5-8
121 Chris Brightling and Rachael Evans 29 October 2024 96/15-21
122 Chris Brightling and Rachael Evans 29 October 2024 86/7-14
123 Chris Brightling and Rachael Evans 29 October 2024 88/4-9
124 INQ000370954_0042 para 4.23
125 INQ000485652_0279 para 1069; Chris Brightling and Rachael Evans 29 October 2024 82/22-83/5
126 Chris Brightling and Rachael Evans 29 October 2024 96/4-21
127 Chris Brightling and Rachael Evans 29 October 2024 131/10-24
128 INQ000421758_0015-0016 para 37
129 Stephen Powis 11 November 2024 41/18-25

8.53. The need for dedicated, specialist Long Covid clinics remains and it is a cause for concern that the network of Long Covid clinics is diminishing.[130] Professor Brightling told the Inquiry:

> "*One thing that really worries me is how all of the voices that we hear from the patients' testimonies could end up falling silent, because if the clinics slowly start to evaporate, the expertise is not kept and expanded, you then have a situation where patients then don't have a service to support them and they're then just falling into whatever the local system is that is currently there, which is very likely inadequate.*"[131]

Northern Ireland

8.54. In Northern Ireland, in the absence of central funding, a single Long Covid clinic was set up by the Belfast Health and Social Care Trust in 2020.[132] Centrally funded Long Covid services were not announced until June 2021 and were launched in November 2021.[133] Professor McBride acknowledged that the provision of Long Covid services across Northern Ireland prior to November 2021 was "*not adequate*".[134]

8.55. The Belfast clinic provided the model for the centrally commissioned Long Covid clinics, after a Clinical Working Group in February 2021 endorsed its integrated, multidisciplinary approach.[135] This was the same approach used by Long Covid clinics in England.[136]

Scotland

8.56. In Scotland, central funding for Long Covid services was not announced until 30 September 2021, when £10 million was provided.[137] Prior to this, the provision of Long Covid treatment was left to the discretion of local health boards, which led to variation in both access to services and their quality.[138] One Long Covid service established prior to September 2021 was unable to meet demand and closed due to a lack of funding.[139]

8.57. Health boards were not instructed, or encouraged, to set up dedicated Long Covid clinics.[140] Ms Freeman said that she did not perceive a demand for Long Covid clinics.[141] Her successor, Humza Yousaf MSP, Cabinet Secretary for Health and Social

130 INQ000421758_0038 para 113
131 Chris Brightling and Rachael Evans 29 October 2024 123/13-124/24
132 INQ000492281_0126 para 381
133 Michael McBride 24 September 2024 138/19-23; Chris Brightling and Rachael Evans 29 October 2024 94/9-16
134 Michael McBride 24 September 2024 135/23-25
135 Robin Swann 18 November 2024 173/4-9; INQ000492281_0126 para 381
136 INQ000485702
137 INQ000421758_0013 para 28
138 Caroline Lamb 14 November 2024 133/12-134/12; Gregor Smith 25 September 2024 71/16-72/9
139 INQ000421758_0013 para 29; Caroline Lamb 14 November 2024 134/13-135/13
140 Humza Yousaf 19 November 2024 146/17-148/3
141 Jeane Freeman 19 November 2024 61/20-24

Care in the Scottish Government from May 2021 to March 2023, viewed Long Covid clinics as creating an additional step a patient had to go through in order to receive treatment:

> "*The feedback that we were hearing and the anecdotal evidence, particularly from clinical colleagues in Scotland who were talking to their clinical colleagues in England, was that the Long Covid clinics were essentially creating a middleman.*"[142]

8.58. Given that some health boards serve large urban populations, while others serve small island populations, senior decision-makers in the Scottish healthcare system believed that health boards should have the flexibility to tailor their Long Covid services to the demographics of the local population.[143] However, central funding was provided partly to remedy the inconsistency of services between health boards.[144]

8.59. Long Covid pathways were subsequently developed, although there was a delay in doing so. While some progress was made during 2023, it was not until 2024 that a dedicated Long Covid pathway was established by every health board.[145]

Wales

8.60. A markedly different approach to the provision of Long Covid services has been taken in Wales.[146] In June 2021, £5 million was invested in the Adferiad (which translates as 'Recovery') programme to support those recovering from the direct or indirect impacts of the pandemic, including those with Long Covid.[147] The approach of the programme was to deliver Long Covid treatment through existing primary and community care structures.[148] As of April 2024, the investment had risen to £18.4 million.[149]

8.61. Long Covid services were provided through primary care in accordance with the Welsh Government's aim of treating patients as close to their homes as possible.[150] Sir Frank Atherton, Chief Medical Officer for Wales from August 2016 to January 2025, explained:

> "*We are trying to shift many of our services into the community … The vast majority of people with Long Covid I think should be treated and treatable within the community. Those few who cannot should have access to specialist care.*"[151]

142 Humza Yousaf 19 November 2024 146/17-148/3
143 Caroline Lamb 14 November 2024 133/12-134/12
144 Humza Yousaf 19 November 2024 144/2-15
145 Caroline Lamb 14 November 2024 137/19-138/1
146 INQ000421758_0013 para 27
147 INQ000474251_0094 para 284
148 INQ000474251_0095 para 285
149 INQ000421758_0013 para 27
150 INQ000474251_0014 para 46; Eluned Morgan 20 November 2024 159/4-7; Vaughan Gething 20 November 2024 51/22-52/6
151 Frank Atherton 30 September 2024 133/2-14

8.62. Judith Paget, Chief Executive Officer at NHS Wales and Director General of the Health and Social Services Group in the Welsh Government from November 2021 to July 2025, said that the geography and population density of Wales meant that many people would have to travel long distances to specialised Long Covid clinics, if they were established.[152]

8.63. However, there is a contrary argument. The provision of Long Covid services through primary care – instead of via specialised Long Covid services – risks leading to the very outcome that the Welsh Government has sought to avoid. The diverse range of symptoms of Long Covid, many of which require specialist clinical treatments that are rarely available locally, means, for example, that someone experiencing several different symptoms may be referred to a number of specialisms, such as cardiology, neurology and rheumatology.[153] A Long Covid clinic brings together the advice of different specialists so that a patient can access treatment for the range of symptoms they are experiencing in one place.

8.64. In contrast, in primary care a GP has to refer a patient to secondary care so they can access specialist clinical support. Patients with multiple symptoms will be referred to multiple specialists and they will have to travel to appointments with different specialists for each of the symptoms they are experiencing.[154] As Professor Brightling said:

> "*We heard that there are 200-plus symptoms. We cannot and mustn't send poor individual people to 200 different specialists.*"[155]

8.65. This approach may also result in clinicians missing out on the opportunity to conduct research on how best to treat Long Covid symptoms holistically.[156]

8.66. There are obviously challenges with whatever approach is adopted and NHS Wales has rightly kept this model under evaluation.[157]

8.67. All four nations took steps to create care and treatment pathways for people living with Long Covid. It is reasonable that different approaches were taken in different parts of the UK given geographical and demographic differences. However, all four nations should ensure that whatever model of treatment they adopt, sufferers of long-term effects of a virus such as Covid-19 promptly receive (and continue to receive) the treatment they need.

152 Judith Paget 13 November 2024 173/13-22
153 Chris Brightling and Rachael Evans 29 October 2024 82/3-9
154 Chris Brightling and Rachael Evans 29 October 2024 82/10-17
155 Chris Brightling and Rachael Evans 29 October 2024 82/1-3
156 Chris Brightling and Rachael Evans 29 October 2024 90/23-91/14
157 Judith Paget 13 November 2024 151/12-23

Long Covid in children and young people

8.68. In March 2023, the Office for National Statistics estimated that there were 52,000 children and young people (aged between 2 and 16 years) living in the UK who had suffered with Long Covid for more than a year.[158] Ms Rogers said that this figure was thought to have doubled by October 2024.[159]

8.69. Long Covid in children and young people has profound impacts on their lives at an important stage in their development. One teenager described the impacts:

> "*Unable to attend school, isolated from society, fearful of being reinfected, lost opportunities, lost friendships, unable to carry out my hobbies like horse riding or helping at the stables.*"[160]

8.70. A parent of a child with Long Covid explained how it affected daily life:

> "[S]*he still, nearly 2 years later, endures daily pain and cannot walk properly. She has no real 'life' as such, and always feels unwell. Certainly not a life that any normal 15yr old should be able to enjoy … Daily she struggles. Daily she is in pain. Daily she picks herself up and keeps trying to be positive – despite this horrendous illness.*"[161]

8.71. Children and young people experienced the same main clusters of symptoms as adults.[162] However, the recognition of Long Covid in children and young people was much slower than it was for adults. Ms Rogers thought this was partly a result of a narrative that children did not become unwell from Covid-19.[163]

8.72. There are no dedicated Long Covid clinics for children and young people in Scotland, Wales or Northern Ireland:[164]

- In Northern Ireland, children and young people with Long Covid symptoms are referred to existing paediatric services and there is no specialised provision for children and young people with Long Covid.[165]
- In Wales, a similar approach was adopted.[166] However, a Long Covid pathway for children and young people was subsequently developed by Aneurin Bevan University Health Board. This has been shared with all the other health boards in Wales.[167]

158 INQ000370954_0052 para 5.11
159 Natalie Rogers 30 October 2024 48/24-49/8
160 INQ000370934_0048
161 INQ000370934_0048
162 Chris Brightling and Rachael Evans 29 October 2024 99/16-25
163 Natalie Rogers 30 October 2024 49/9-21
164 INQ000421758_0017 para 43; Chris Brightling and Rachael Evans 29 October 2024 100/1-8
165 Michael McBride 24 September 2024 182/23-183/3; Robin Swann 18 November 2024 176/25-177/12
166 INQ000421758_0017 para 43
167 Judith Paget 13 November 2024 174/24-175/3

- In Scotland, funding was allocated to one health board to support the development of a Long Covid service for children and young people. However, the health board was unable to establish the service because of low numbers of referrals and an inability to recruit clinicians.[168] In April 2023, the Strategic Network on Long Covid's Children and Young People Group met for the first time.[169] In the summer of 2024, the first and only Long Covid pathway for children and young people was established.[170]

8.73. In England, Long Covid services for children and young people were developed at a slower rate than those for adults.[171] In July 2021, 15 Long Covid hubs were established to treat children and young people with Long Covid.[172] The hubs operate using a 'hub and spoke' model.[173] The 'hub' is a virtual, multidisciplinary team meeting of specialists that provides advice to local teams (the 'spokes') to enable them to treat patients.[174] This model has the advantage of enabling children and young people to access specialist treatment remotely without having to travel long distances.[175] By July 2023, 1,265 children and young people had been assessed at a Long Covid hub.[176] Given the estimated prevalence, it appears that the vast majority of children and young people with Long Covid have not accessed treatment.

8.74. In respect of Long Covid hubs for children and young people in England, there are disproportionately more patients from higher socio-economic backgrounds attending than the local demographic would suggest.[177] This might be because the parents of these children are more likely, and able, to persevere in navigating the healthcare system to access Long Covid services.[178]

Future pandemics

8.75. The best way to limit the number of people who suffer post-viral conditions is obviously to limit the number of people who get infected. However, governments must plan on the basis that, as the virus will spread, many people will be infected and many will suffer long-term consequences. None of the four nations currently has a plan in place to respond rapidly to the long-term health consequences resulting from a future pandemic disease.[179] UK healthcare systems must be equipped to deliver care for patients affected by long-term illnesses resulting from a future pandemic disease and play their role in improving understanding about such

168 INQ000421758_0017 para 43
169 Caroline Lamb 14 November 2024 138/2-25. The Strategic Network on Long Covid supports NHS boards and health and social care partnerships to deliver services for people with Long Covid (IN0000401271_0019 para 2.4.9).
170 Humza Yousaf 19 November 2024 184/3-10
171 Chris Brightling and Rachael Evans 29 October 2024 100/19-22
172 INQ000485652_0279 para 1069; INQ000421758_0018 para 46
173 Chris Brightling and Rachael Evans 29 October 2024 101/5-16
174 INQ000421758_0018 para 47
175 INQ000421758_0031 para 84
176 INQ000421758_0018 para 46
177 INQ000421758_0031 para 85
178 Chris Brightling and Rachael Evans 29 October 2024 152/13-24
179 Chris Brightling and Rachael Evans 29 October 2024 121/17-122/9; Judith Paget 13 November 2024 152/20-153/9; Michael McBride 24 September 2024 137/5-10; Caroline Lamb 14 November 2024 142/4-14

illnesses and the effectiveness of interventions. This requires the timely collection and analysis of reliable data, research into the impact of long-term illnesses and the evaluation of treatments as they develop.

8.76. The experience of Long Covid clinics demonstrates that "*one stop shop*" services, which offer patients holistic treatment from a multidisciplinary team of healthcare professionals, are both clinically effective and cost-effective. Furthermore, they provide a centre for training healthcare professionals and a foundation for further research into the treatment of a pandemic illness, as the understanding of it evolves. This model of care should be considered in the event that a future pandemic disease results in long-term illnesses.

8.77. Pandemic planning for the future should be built on an assumption that long-term post-infection conditions are likely to increase significantly from the very earliest stages of the next pandemic disease. Surveillance of post-infection conditions must be built into pandemic planning so healthcare systems are actively monitoring them from the outset. Healthcare systems must be supported and prepared to meet the increased demand for care and treatment that will inevitably occur when large numbers of people are affected by post-infection conditions, not just during the peak of a pandemic, but for years to come, and potentially the rest of their lives.

8.78. Until these steps are taken, the UK will not be equipped to respond effectively and promptly to the long-term post-viral conditions that emerge during the next pandemic. Ms Temple explained that some will continue to suffer "*life changing and soul-destroying*" impacts.[180] Ms Rogers described her experience:

> "*Having previously been a hardworking, lively, sociable person, Long Covid completely altered my life, taking away my career, my independence, and above all, my identity.*"[181]

8.79. This impact was mirrored by others:

> "*Long Covid still dictates my life. I get post-exertional symptom exacerbation and fatigue, have difficulty in pretty much everything I do including work, and I can definitely do less around the house than I could in 2020 or 2021. I definitely feel like I am deteriorating and hugely exhausted from trying to keep going at work. I don't think I could change jobs because no-one would employ me.*"[182]

180 INQ000486012_0006 para 21
181 INQ000421868_0021 para 60
182 INQ000370954_0011

"*I am made to feel like a time waster for asking to see multiple specialists for my multi system issues, even though as a previously healthy 40 yr old I now faint every day, have chronic fatigue, breathing difficulties, and rashes all over my body. I am on the verge of giving up my career as a scientist because my symptoms seem to be getting worse not better, 10 months on.*"[183]

"[R]*ehab and gaining access to services has been a real battle – I say that as a senior Nurse with many years' experience of the system.* [Long Covid] *patients have had to be their own advocates – at a time when many like me have been just struggling to survive and get through each day.*"[184]

183 INQ000370954_0016
184 INQ000370954_0010

Chapter 9: Healthcare for non-Covid-19 conditions

Introduction

9.1. During the Covid-19 pandemic, the imperative for healthcare services was to treat and save the lives of those who were desperately ill with Covid-19, but non-Covid-19 conditions remained a serious threat to life and the quality of life for many. Even at the peaks of the pandemic, there were at least twice as many patients in hospital receiving treatment for non-Covid-19 conditions as for Covid-19.[1]

9.2. The Inquiry selected examples of both chronic and acute conditions that have a serious impact to investigate how well the system responded to the pandemic in relation to non-Covid-19 conditions and provided the necessary services for their diagnosis and treatment.

9.3. In addition to maternity care and services, the Inquiry examined four areas of non-Covid-19 healthcare. Experts were instructed to assist with the impact of the pandemic on:

- services for (elective) hip replacement surgery – report led by Professor Andrew Metcalfe (Professor of Orthopaedics at the University of Warwick) and Chloe Scott (Consultant Hip, Knee and Trauma Surgeon at the Royal Infirmary of Edinburgh);[2]
- services for ischaemic heart disease (also known as coronary artery disease) – report led by Professor Christopher Gale (Professor of Cardiovascular Medicine at the University of Leeds);[3]
- services for colorectal cancer during the pandemic – report provided by Professor Aneel Bhangu (Professor of Global Surgery at the University of Birmingham) and Dr Dmitri Nepogodiev (Academic Clinical Lecturer in Public Health at the University of Birmingham);[4] and
- inpatient treatment within children and young people's mental health services – report produced by Dr Guy Northover (Consultant Child and Adolescent Psychiatrist and Lead Clinical Director at Berkshire Healthcare NHS Trust) and Dr Sacha Evans (Consultant Child and Adolescent Psychiatrist at Great Ormond Street Hospital).[5]

9.4. In this chapter, the Inquiry examines how non-Covid-19 healthcare was affected by the pandemic. This includes examining the barriers to accessing healthcare, such as the constraints on capacity and the reluctance of some patients to access healthcare, how services were maintained or reconfigured, the reduction in the number of patients receiving diagnoses or treatment, and how patients were impacted.

1 INQ000051407_0001 (England); INQ000485721_0177-0178, 0181-0182 paras 445-446, 452, figures 3-4, 7 (Wales); INQ000492281_0050 (Northern Ireland)
2 IN0000474262
3 INQ000494739
4 INQ000474244
5 INQ000474300. The impact of the pandemic on children and young people, and services for children and young people more generally, is being examined by the Inquiry in Module 8: Children and young people.

Barriers to accessing healthcare for non-Covid-19 conditions

9.5. The healthcare systems of the four nations identified 'essential' services, such as urgent and emergency care, maternity and neonatal services, general practice and mental health services. These services continued, but had to be reconfigured to take account of reduced capacity due to sickness absence or redeployment, as well as the infection prevention and control measures in place for healthcare settings.

Pausing elective or 'planned' care

9.6. To help increase the capacity of hospitals to care for Covid-19 patients, in mid-March 2020, healthcare systems across the UK were instructed to pause all non-urgent elective or 'planned' care.

9.7. On 16 March 2020, NHS England issued the instruction to postpone "*all non-urgent elective operations*" from 15 April 2020 at the latest, with local discretion to pause before that date.[6] Similar instructions to pause non-urgent elective activity were issued to healthcare systems in Scotland, Wales and Northern Ireland in mid-March 2020.[7]

9.8. Two of the Inquiry's expert witnesses considered that pausing elective care was necessary. Professor Bhangu stated:

> "*Without cessation of elective care, unbridled elective surgery in Covid-19-infected environments was likely to have been extremely dangerous (24% post-operative mortality rate in un-selected patients) and led to many hundreds or thousands more deaths than would have been accepted.*"[8]

Professor Metcalfe agreed. He described the decision as "*justified* [and] *entirely appropriate*", in light of the resource burden on the NHS and the increased mortality risk for patients undergoing elective hip replacement surgery when also (perhaps unknowingly) infected with Covid-19.[9]

9.9. However, as discussed below, the decision had serious consequences for some patients, impacting the quality of life for many and sometimes leading to loss of life or mobility.

6 INQ000087317_0002
7 This occurred on 11 March 2020 in Scotland (INQ000493484_0026 para 99); 13 March 2020 in Wales (INQ000485721_0186 para 459); 19 March 2020 in Northern Ireland: this was a "*clinical decision*" taken by individual trusts without instruction from the Health Minister (INQ000417091_0015; INQ000492281_0100-0102 paras 309, 314).
8 INQ000474244_0039 para 62
9 Andrew Metcalfe 31 October 2024 60/12-61/5; INQ000474262_0018 para 43

Redeployment of staff and repurposing of resources

9.10. Early in the pandemic, some healthcare staff were redeployed to meet the anticipated surge in Covid-19 patients requiring hospital care. Staff redeployment had a significant impact on the ability of hospitals to maintain other, non-Covid-19 healthcare services. In the first wave of the pandemic, the level of uncertainty regarding the extent of the anticipated surge meant that some services that had not been formally suspended could not be maintained. For example, cancer screening in England could not be continued because of redeployment of staff to support intensive care or urgent emergency care.[10]

9.11. The redeployment of anaesthetists and other operating theatre staff affected the restoration of elective surgery, cardiac care and maternity services.[11] Some were not returned to their usual roles even after the peaks.[12] The redeployment of anaesthetists led to concerns about the level of care in maternity services. Maternity services in England were instructed from 29 April 2020 to ensure that there were sufficient levels of anaesthetic cover in obstetric units.[13] The evidence suggests, however, that this did not always happen, leading to delays in the administering of epidural pain relief for some women during labour and potential risks for women requiring emergency caesarean sections.[14] This was less of an issue in Scotland, where most territorial health boards were able to provide 100% consultant anaesthetic cover.[15]

9.12. In England, Wales and Northern Ireland, there was a nationwide instruction at the start of April 2020 not to redeploy midwives outside maternity services, following a request from the Royal College of Midwives that maternity staff be ring-fenced as providing an essential service.[16] A survey of maternity staff in Scotland found that a quarter of respondents were redeployed to a different role at some point during the pandemic.[17]

9.13. NHS England acknowledged that the frequent redeployment of staff meant that cardiac services were "*significantly reduced or paused*".[18] Almost 80% of cardiac rehabilitation programmes across England, Northern Ireland and Wales had some or all of their team redeployed between January and December 2020. This figure

10 Amanda Pritchard 11 November 2024 83/5-20, 85/9-15; Stephen Powis 11 November 2024 159/15-20
11 INQ000485652_0022 para 86; INQ000421793_0071 para 361; Andrew Metcalfe and Chloe Scott 31 October 2024 79/9-23; Aneel Bhangu 31 October 2024 35/10-19; INQ000474262_0031-0032 paras 86-90
12 INQ000399047_0005
13 INQ000087412_0007
14 INQ000485652_0336 para 1219; INQ000408656_0025 paras 81-82; Ruth May 17 September 2024 67/11-68/2; Gill Walton 7 October 2024 115/8-24; Jenny Ward 7 October 2024 34/1-17
15 INQ000468047_0007-0008
16 INQ000479043_0071 paras 325, 328 (England); INQ000474226_0085 para 325 (Northern Ireland); INQ000480133_0084 para 220 (Wales); Gill Walton 7 October 2024 77/16-21; INQ000347411_0014 para 34
17 *Perinatal Experiences During the COVID-19 Pandemic in Scotland: Exploring the Impact of Changes in Maternity Services on Women and Staff*, Public Health Scotland, April 2022, p10 (https://publichealthscotland.scot/media/12577/perinatal-experiences-during-the-covid-19-pandemic-in-scotland.pdf; INQ000202968)
18 INQ000485652_0434-0435 para 1539

reduced to 54.8% in 2021, with 12% of programmes ceasing to run completely because of staff redeployment in their teams.[19]

9.14. In Wales, after the first wave of the pandemic, health boards "*struggled to release staff back to substantive cardiac roles from redeployment*".[20] A review by the Welsh Government's Essential Services Steering Group found that this difficulty came about because intensive care facilities had not had a full staff quota prior to the pandemic and "*there was a corresponding reluctance to release staff that had been re-assigned*".[21]

9.15. In addition to the redeployment of staff, the repurposing of surgical beds and theatre space for Covid-19 care was also a barrier to the restoration of elective surgery.[22] Professor Metcalfe noted, however, that physical spaces such as theatre wards were restored for use in elective care more promptly than redeployed staff were returned to elective care services.[23]

Staff sickness and absence rates

Maternity services

9.16. Respecting maternal choice regarding the nature and location of labour and birth wherever possible is important, but constraints on staffing capacity during the pandemic necessitated the closing of some services to enable the remaining maternity services to operate safely for mothers and babies.

9.17. Sickness absence was a significant issue for the maternity workforce in England throughout the pandemic.[24] Modelling in England indicated that nursing and midwifery staff would be the worst affected group in the NHS (in part due to higher rates of pregnancy in this workforce), with estimates suggesting that 21% to 38.4% of staff would be absent as a result of illness or self-isolation.[25] In response to the anticipated staff shortages, on 23 March 2020, the Royal College of Obstetricians and Gynaecologists issued guidance that advised a reduction in the minimum number of antenatal consultations and postnatal contacts.[26]

9.18. From late March 2020, services such as home births were suspended and units were temporarily closed, meaning that choices about labour and delivery were reduced and some women had to travel further to a maternity unit.[27] In maternity care in

19 INQ000485652_0459 para 1596
20 INQ000399047_0005
21 INQ000399047_0007
22 Andrew Metcalfe and Chloe Scott 31 October 2024 79/9-23; Aneel Bhangu 31 October 2024 35/7-23; INQ000474262_0031 paras 81-82
23 Andrew Metcalfe and Chloe Scott 31 October 2024 79/3-23, 81/2-11
24 INQ000485652_0291, 0333-0334 paras 1093d, 1212
25 INQ000409251_0227 para 896
26 Gill Walton 7 October 2024 79/4-18
27 INQ000347411_0010 para 23; INQ000474225_0049 paras 160-161 (Scotland); INQ000485652_0315-0316 paras 1166-1167 (England); INQ000408656_0035-0036 para 117

England, 57% of home birth services and 16 midwifery units were closed in April 2020, although these services were largely restored by August 2020.[28] Between May and July 2020, 70% of obstetric units reported a reduction in antenatal appointments.[29] These closures and suspensions continued throughout the pandemic and peaked in the winter of 2021/22.[30]

9.19. The Welsh health boards reported significant challenges within maternity services throughout the summer of 2021 and until March 2022, with staff absences peaking at between 30% and 37%, resulting in the temporary closure of some units.[31]

9.20. Public messaging sought to discourage home births taking place without the assistance of a midwife (known as 'free births'), as these present significant risks to the mother and baby. However, there was an increase in free births in England and Wales during the pandemic period.[32] Gill Walton, Chief Executive of the Royal College of Midwives from 2017, considered that this increase was the result of the suspension of home birth services in some areas as well as fear of contracting Covid-19 in healthcare settings.[33]

9.21. In Scotland, the most commonly cited reasons for maternity service changes were staffing challenges (owing to Covid-19-related absence and staff shielding) and infection prevention and control advice.[34] The Scottish health boards were excused from reporting maternity service changes until June 2020, to reduce the administrative burden on them.[35] Data from June 2020 show that, across 14 health boards, 2 provided a full antenatal care service, 2 provided a full postnatal service, 6 offered a full home birth service, and only 1 had resumed full birthing services.[36] Five free births were known to have taken place in Scotland by June 2020.[37] The Scottish Government issued guidance to encourage a phased remobilisation of maternity services from 19 June 2020.[38]

9.22. In Northern Ireland, lack of staff led to the suspension of birthing services at one hospital during the first wave of the pandemic.[39] In January 2021, one trust suspended home births because of pressure on the ambulance service.[40]

28 INQ000479043_0071 para 326
29 INQ000470853_0019 para 51; INQ000485652_0307-0308 para 1148
30 INQ000485652_0313-0315 paras 1163, 1166-1167
31 INQ000480133_0150-0152 para 396
32 INQ000408656_0023-0024 paras 76-77; INQ000480133_0166-0168 paras 432-433, 437; INQ000280453
33 Gill Walton 7 October 2024 107/3-13
34 INQ000474225_0049 para 161
35 INQ000474225_0049-0051 paras 161-162, 166
36 INQ000468047_0010-0020
37 INQ000468047_0017
38 INQ000467905_0005, 0007
39 INQ000474226_0085 para 324
40 INQ000474226_0082-0083 para 314

Inpatient mental health services for children and young people

9.23. Mental health has historically been one of the areas of healthcare with the greatest staff shortages, in which demand far outstrips supply in both adult and children and young people's services.[41] Inpatient children and young people's mental health units are normally intensively staffed. During the pandemic, increased staff absence due to sickness and self-isolation reduced the number of beneficial and therapeutic activities for inpatients and led to some units being temporarily closed.[42]

9.24. Some units relied on agency workers to cover staff sickness absence, resulting in changing personnel. This made it more difficult for children and young people in inpatient units to establish a rapport with individual staff members and to develop the necessary therapeutic relationships.[43]

9.25. Dr Northover attributed a rise in the number of discharges from children and young people's mental health inpatient units in March 2020 to an anticipated rise in staff absence, which could have rendered the service less effective or even unsafe.[44] He was concerned that, in an effort to reduce occupancy rates in inpatient units, some patients were discharged before their treatment had been completed, thereby increasing the risk of a future relapse and readmission.[45]

The impact of infection prevention and control measures

9.26. Covid-19 infection prevention and control measures (explored in Chapter 1: Infection prevention and control guidance and Chapter 2: Infection prevention and control in practice) had a significant impact on the provision of healthcare for conditions other than Covid-19. This included the suspension of some procedures or treatments and a marked decrease in the number of patients who could be seen.

9.27. In colorectal cancer care, there were concerns about risks to medical staff undertaking diagnostic endoscopies and colonoscopies, as it was thought that these procedures might generate aerosols, which presented an increased risk of transmission of Covid-19. Most services across the UK followed the advice of the British Society of Gastroenterology to pause all non-emergency endoscopies and colonoscopies for six weeks from 3 April 2020.[46] Although these procedures were resumed from 1 May 2020 (when the British Society of Gastroenterology updated its guidance), Public Health England advice on the additional infection prevention and control precautions required to carry out an endoscopy greatly affected the number

41 Amanda Pritchard 11 November 2024 169/1-20
42 Guy Northover 31 October 2024 158/13-160/18
43 Guy Northover 31 October 2024 158/16-22
44 Guy Northover 31 October 2024 153/17-154/7
45 Guy Northover 31 October 2024 154/17-155/12
46 INQ000485652_0367 paras 1332-1333; INQ000453785_0001-0004; Aneel Bhangu 31 October 2024 14/10-22

of patients that could be seen.[47] Services did not recover to pre-pandemic levels until October 2020.[48]

9.28. Concerns about the aerosol generating potential of some of the instruments used in hip surgery meant that only essential surgery was performed during the early stages of the pandemic.[49] Subsequent research in 2020 and 2021 shows that the risk of hip procedures generating aerosols was low and personal protective equipment (PPE) was used to protect staff. However, the infection prevention and control measures then in place still limited the number of procedures that could be performed per day.[50] Furthermore, studies from the first wave of the pandemic show a marked increase in mortality at 30 days post-surgery for patients who underwent orthopaedic surgery for hip fractures while infected with Covid-19, which meant that it was essential to test patients for Covid-19 immediately prior to surgery.[51] This is likely to have led to some operations being cancelled.

9.29. Many hospitals provided elective care alongside acute and emergency services, with high levels of Covid-19 patients at these sites. In these hospitals, recovery of orthopaedic surgery was often delayed or prevented because of the risk of cross-infection between patients, especially where deployment of staff across different wards and clinical pathways increased the risk.[52]

9.30. Separation of patients into cohorts depending on their Covid-19 infection status also reduced hospital capacity. For example, areas set aside for Covid-19-positive patients could not always be fully utilised when there were insufficient positive patients.[53] The need to deep-clean rooms between patients – with the time the room was unavailable for use dependent on the number of air changes per hour that could be achieved – also negatively impacted capacity for elective procedures.[54]

9.31. Implementation of infection prevention and control measures inevitably led to less efficient use of resources for elective procedures, which contributed to backlogs of care. In future pandemics, it is important that both infection prevention and control guidance and the transmission risks created by specific procedures are kept under review so as to enable resumption of normal or increased case volumes as soon as it is safe to do so.

47 INQ000485652_0368 para 1336; INQ000474244_0024 para 52(d)
48 INQ000474244_0026-0027 figure 8
49 INQ000474262_0028-0029 paras 72-74
50 INQ000474262_0029 para 75
51 INQ000474262_0018 paras 43-44
52 Andrew Metcalfe and Chloe Scott 31 October 2024 92/20-93/5; INQ000474262_0035 para 102
53 INQ000409251_0120 para 473b
54 INQ000485652_0015, 0020 paras 53, 79a

Impact of infection prevention and control measures on children and young people as inpatients in mental health units

9.32. The specific needs and vulnerabilities of inpatients in mental health units for children and young people meant that infection prevention and control measures introduced in these settings during the pandemic had far-reaching impacts.

9.33. New inpatients were required to isolate alone for 7 to 14 days, which meant that:[55]

- There was an increased risk of deterioration for a young person with an already fragile state of mind, who was isolating and alone.[56]
- The limited availability of self-isolation facilities in paediatric psychiatric units led to children waiting on acute paediatric wards or adult psychiatric wards, which were "*inappropriate environments*" and delayed the start of therapeutic interventions.[57]
- Visits from friends and family, which were "*absolutely crucial*" to a young person's progress, were restricted, negatively impacting therapeutic delivery of care.[58]
- Patients could not have periods of home leave in advance of discharge. This slowed patients' progress towards recovery and led to longer stays, which are associated with poorer outcomes for patients.[59]

9.34. The mother of an autistic teenager admitted to an inpatient psychiatric unit during the pandemic described her daughter's experience of isolating alone after a period of home leave as "*soul-destroying*".[60] She explained:

> "*I can't even begin to imagine what it must be like as a healthy teenager to be stuck in a room on your own for that length of time, never mind a mentally unwell teenager to be stuck in a room on your own with all your own thoughts and all those things that have led you to be in that place in the first place.*"[61]

9.35. Social distancing rules (to keep two metres away from other people, where possible) affected the treatment that could be offered. Those rules restricted or sometimes precluded family visits, with the loss of important family therapy sessions in the unit.[62] In many units, group therapy could no longer be undertaken due to the size of rooms, which was considered to be "*a big hindrance to their delivery of care*".[63]

55 Guy Northover 31 October 2024 163/3-10
56 Guy Northover 31 October 2024 144/12-17, 163/11-25
57 Guy Northover 31 October 2024 147/17-149/20
58 Guy Northover 31 October 2024 164/1-15
59 Guy Northover 31 October 2024 156/2-157/11
60 Julie Pashley 31 October 2024 119/9
61 Julie Pashley 31 October 2024 119/7-15
62 INQ000474300_0037 para 143; Guy Northover 31 October 2024 164/16-24
63 INQ000474300_0036 para 138; Guy Northover 31 October 2024 166/3-7

9.36. Contact between inpatients is regarded as beneficial in creating a "*therapeutic milieu*".[64] A reduction in this contact because of social distancing rules impacted patients' progress towards recovery.[65] Psychotherapy that was usually delivered face-to-face was delivered remotely, which could make it more difficult to engage with the young person.[66] Neurodivergent young people in particular may have found it more difficult to engage with and benefit from remote therapy.[67]

9.37. Face masks had to be worn by staff, which hindered communication, particularly for young people with autism and other communication difficulties, and also made establishing trust and rapport more difficult, exacerbating feelings of isolation and loneliness for inpatients.[68] Face masks and other PPE also carried the risk that patients might use them to self-harm.[69]

9.38. Dr Northover told the Inquiry that the cumulative effect of the various infection prevention and control measures in inpatient units affected the clinical assessment of whether it was appropriate to admit a young person to inpatient care. The damaging impacts of long periods of self-isolation, the restriction of visits, the move to remote delivery of talking therapies and the inability to have periods of home leave before discharge all changed the balance of risks and benefits that clinicians had to assess when deciding whether admission to a restrictive inpatient unit was in the best interests of the child or young person.[70] This meant that intensive community services, such as home treatment teams, may have been more effective and beneficial than inpatient care. However, arranging alternatives to inpatient care could take considerable time when young people were in crisis and in need of immediate intervention.[71]

9.39. Dr Northover accepted that infection prevention and control policies are essential during a pandemic to protect both staff and patients. However, despite their potentially negative impacts on mental health patients in particular, he was not aware of any national guidance or policies aimed at mitigating the negative impacts on inpatients in these settings.[72] He emphasised the importance in future pandemic planning of establishing a process whereby the impact of infection prevention and control measures on the quality of care for mental health inpatients can be assessed and properly mitigated.[73]

9.40. The Inquiry agrees. Pandemic planning for the delivery of mental health services while countermeasures are in place must take account of the very different needs and risks of this patient group.

64 Guy Northover 31 October 2024 165/14
65 Guy Northover 31 October 2024 165/1-19
66 Guy Northover 31 October 2024 166/16-167/3
67 Julie Pashley 31 October 2024 122/1-7
68 Guy Northover 31 October 2024 168/13-19; Julie Pashley 31 October 2024 120/6-24
69 Guy Northover 31 October 2024 167/24-168/12
70 Guy Northover 31 October 2024 141/10-142/12, 144/1-17
71 Guy Northover 31 October 2024 146/19-147/7, 173/21-174/3
72 Guy Northover 31 October 2024 169/3-12
73 Guy Northover 31 October 2024 174/20-175/5

Factors that deterred patients from attending healthcare settings

9.41. Early in the pandemic, fewer patients presented to primary and secondary healthcare services, compared with pre-pandemic numbers.

9.42. General practice, described as the "*front door*" of the NHS for non-emergency care, experienced a marked decline in the number of GP appointments in the first year of the pandemic. In England, 31 million fewer appointments were booked between April 2020 and March 2021, which amounts to a 10% reduction compared with the previous 12 months.[74] The same trend was identified in data from Scotland.[75]

9.43. One study found that a general practice of 10,000 patients might have more than 400 undiagnosed long-term conditions that would, in normal times, have been diagnosed – representing a large backlog of undiagnosed (and therefore untreated) patients with multiple long-term conditions.[76] Dr Michael Mulholland, Honorary Secretary of the Royal College of General Practitioners, accepted that the care of patients with chronic and long-term conditions "*probably did take a back seat*" to the demands of the vaccine clinics and the needs of acutely unwell patients.[77]

9.44. Antenatal care was also affected. NHS England data indicate that there was an initial decline in attendance at antenatal scans, raising concerns that women were not reporting issues during pregnancy and that women from ethnic minority groups were particularly reluctant to access maternity services.[78] On 29 April 2020, maternity providers in England were asked to make "*direct and regular contact with all women receiving antenatal and postnatal care*" and to encourage them to come forward with any concerns.[79] Nevertheless, in a poll conducted for NHS England in September 2020, 22% of pregnant women reported that they would have hesitated seeking help from their midwife as a result of Covid-19.[80]

9.45. The Scottish health boards also reported a decline in women seeking antenatal care during the first wave because of a fear of catching Covid-19.[81] The Scottish Chief Medical Officer and Chief Nursing Officer used the daily briefings to encourage attendance.[82]

9.46. Professor Charlotte McArdle, Chief Nursing Officer for Northern Ireland from April 2013 to October 2021, stated that she was aware of pregnant women being reluctant to attend healthcare appointments, in part because of restrictions on being accompanied.[83]

74 INQ000474283_0030 para 95; INQ000339027_0015
75 INQ000474283_0031 para 97. Data were not available from Wales or Northern Ireland.
76 INQ000474283_0049 paras 170-174
77 Michael Mulholland 23 September 2024 153/15-154/10
78 INQ000485652_0308 graph; Gill Walton 7 October 2024 82/14-83/6; INQ000479043_0073 para 339
79 INQ000479043_0073 para 338
80 INQ000479043_0074 para 341
81 INQ000468047_0014
82 INQ000474225_0054 para 180
83 INQ000474226_0083 para 315

9.47. There is evidence that patients with acute heart conditions (such as heart attacks) and those with chronic (long-term) heart conditions avoided or delayed attending healthcare settings during the pandemic.[84] A British Heart Foundation survey in 2021 reported that 66% of UK adults with a heart condition had avoided accessing care during the pandemic despite their condition worsening. The two main reasons cited were wanting to avoid putting pressure on the NHS and concerns about catching Covid-19 in healthcare settings.[85]

9.48. There were a number of factors, across the UK, that were likely to have deterred patients from seeking healthcare:[86]

- the 'Stay Home, Protect the NHS, Save Lives' public health messaging led some people to feel they must avoid burdening the NHS;[87]
- a perception that general practice and services for conditions other than Covid-19 were not available;[88]
- fear of potential exposure to Covid-19 in healthcare settings, especially for people who were clinically vulnerable;[89] and
- reluctance to attend alone, without the support of a partner, family or friends, because of restrictions on visitors.[90]

9.49. Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, explained that NHS leaders were "*worried*" that the 'Stay Home, Protect the NHS, Save Lives' messaging might have been interpreted as "*stay away from the NHS*", which was not what was intended.[91] He noted that the public messaging strategy was developed by the Cabinet Office, without input from the NHS or healthcare leaders.[92] Sir Simon Stevens (later Lord Stevens of Birmingham), Chief Executive of NHS England from April 2014 to July 2021, voiced concerns that the messaging might be understood to imply that the NHS needed protection from the public and could lead members of the public to delay seeking medical care for conditions other than Covid-19.[93]

9.50. In response to evidence of a reluctance to seek help from healthcare services, public health communication campaigns were launched to encourage people to come forward. For example:

84 Christopher Whitty 26 September 2024 175/3-6
85 INQ000469218_0003
86 Stephen Powis 11 November 2024 6/23-7/15; INQ000486014_0235 para 669
87 INQ000485652_0079-0081 paras 301, 306-311
88 INQ000485652_0080-0081 para 307; Aneel Bhangu 31 October 2024 22/17-23/2; INQ000474283_0017-0018 para 44
89 INQ000409574_0060-0062 paras 150-153
90 INQ000474226_0083 para 315; Gill Walton 7 October 2024 82/18-22; INQ000485652_0307 para 1146
91 Stephen Powis 7 November 2024 160/25-161/14
92 Stephen Powis 7 November 2024 160/25-161/1, 161/14-163/11
93 *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025, Vol II, Chapter 12 (https://covid19.public-inquiry.uk/documents/module-2-full-report)

- NHS England led the 'Help Us, Help You' campaign on 25 April 2020, urging members of the public to get help for non-Covid-19 health matters if required.[94] The campaign had several phases that focused on particular health needs, such as cancer and heart conditions, and targeted specific patient groups, such as ethnic minority communities and pregnant women.[95]
- NHS Wales led a campaign in April 2020 through social media and adverts in the press and on radio to communicate to the public that the NHS was open for those who needed urgent non-Covid-19 care. It initially prioritised emergency departments, general practice, maternity services, child health, mental health and cancer services.[96]
- In April 2020, the Scottish Government launched the 'NHS is Open' campaign, and the 'If It's Urgent, It's Urgent' messaging ran between 24 April and 7 June 2020. This campaign had a positive impact on both urgent cancer referrals and accident and emergency attendance.[97]
- The Royal College of General Practitioners and the British Medical Association's Northern Ireland general practitioners committee issued a statement to reassure patients that general practice remained open in September 2020.[98]
- Robin Swann MLA, Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024, made a public statement in June 2020 to reiterate that people should come forward if they required medical intervention.[99] The Department of Health (Northern Ireland) reinforced the message with a 'General Practice Mythbuster' in December 2020.[100]
- In early April 2020, the British Heart Foundation and British Cardiovascular Society produced publicity campaigns advising people with symptoms of a heart attack to attend hospital. NHS England produced a similar campaign in May 2020.[101]
- Press conferences were used by leaders in England, Scotland and Wales to deliver key messages about the importance of accessing healthcare services if required.[102]

9.51. Public information campaigns by healthcare bodies appear to have been successful in encouraging those in need of healthcare to come forward. For example, admissions for heart attack increased from the low point in April 2020 to a peak towards the end of June 2020. Professor Gale considered that this "*suggests that the public messaging is likely to have been effective*".[103] However, Professor Adrian

94 INQ000470444; INQ000485652_0079 para 299
95 INQ000479043_0072, 0074 paras 337, 342; INQ000485652_0346-0348, 0373-0374, 0466 paras 1247b, 1250-1252, 1352, 1616
96 INQ000485721_0259-0260 paras 658-659
97 INQ000493484_0052-0053 paras 229-231
98 INQ000492281_0119-0120 para 362; Michael Mulholland 23 September 2024 143/18-144/23
99 INQ000485700_0002
100 INQ000492281_0120 para 363
101 INQ000494739_0082 para 245
102 INQ000479043_0072 para 334; INQ000493484_0053 para 231; INQ000485721_0260-0261 para 662
103 INQ000494739_0082 paras 246-247

Edwards, expert witness on general medical practice during the pandemic, thought that efforts to encourage people to contact their GP did not always get through to the public. He suggested the messaging that general practice was open could and should have been clearer, with "*a more coherent or stronger campaign to convey what was available in general practice*".[104]

9.52. Professor Sir Christopher Whitty, Chief Medical Officer for England from October 2019, observed that it was difficult to achieve a "*perfect balance*" in the public messaging between encouraging people to stay at home and telling them the NHS was open. He said that, although there were efforts to ensure that there was a strong message to encourage people to access healthcare, if necessary, "*we didn't get it across well enough*".[105]

9.53. During a pandemic, it is imperative that patients know when and how to seek treatment. In some cases, the risk of leaving a condition or health emergency untreated may outweigh the risk posed by the pandemic virus. Public messaging must emphasise the importance of seeking treatment – particularly in the event of a health emergency and for at-risk patient groups – and it should reassure the public that healthcare services remain open and available and are safe to use. It is important that government communication campaigns do not deter those in need from accessing healthcare. Health departments should be involved in the development of government messaging for the public. As noted in the Inquiry's combined Report relating to Modules 2, 2A, 2B and 2C, it is vital that governments also have due regard to the advice of behavioural scientists in the formulation of key communications to the public, to ensure effective messaging and avoid unintended consequences.[106]

Changes in rates of diagnosis, referral and treatment of non-Covid-19 conditions

9.54. During the pandemic, barriers to accessing healthcare for non-Covid-19 conditions and changes to the delivery of services led to marked declines in rates of diagnosis, referrals and specialist treatment. This section examines how such changes affected patient outcomes in colorectal cancer, ischaemic heart disease, hip replacement surgery and inpatient mental health services for children and young people.

104 INQ000474283_0017-0018 para 44; Adrian Edwards 23 September 2024 25/6-10
105 Christopher Whitty 26 September 2024 174/16-175/13
106 *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025, Vol II, Chapter 12 (https://covid19.public-inquiry.uk/documents/module-2-full-report)

Colorectal cancer

Screening and diagnostics

9.55. Bowel screening programmes are proven to reduce the risk of dying from colorectal cancer by up to 40%.[107] In the UK, bowel cancer screening is undertaken through a faecal immunochemical test (a stool test), which is sent to a patient's home and then returned to a laboratory for analysis.[108]

9.56. In March 2020, bowel screening programmes were paused in Scotland, Wales and Northern Ireland.[109] These services were resumed in Scotland with a phased restart between June and October 2020, in Wales from July 2020 with services fully resumed from August 2020, and in Northern Ireland from August 2020.[110]

9.57. Jeane Freeman MSP, Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021, told the Inquiry that she was advised to pause cancer screening programmes so that staff could be redeployed.[111] She said this was:

> "*one of the hardest decisions I had to take, and I think exemplifies the core dilemma of the response to the pandemic for all governments in that there was no risk free decision available*".[112]

9.58. The rollout of faecal immunochemical test kits had begun before the pandemic in England and was expedited during the pandemic. Such screening tests were more widely used across the UK by the end of 2021.[113] Although bowel screening was not formally paused in England, during the early stages of the pandemic, it was not offered and people were instructed not to complete their faecal immunochemical test even if they had received it before the pandemic.[114]

9.59. If a faecal immunochemical test is positive, procedures such as colonoscopies and endoscopies are conducted to determine whether cancerous cells are present. During the first wave of the pandemic, there was a "*steep drop in diagnosis*" of colorectal cancer, which led to approximately 4,725 fewer diagnoses across the UK in 2020.[115] Professor Bhangu thought that some, but not necessarily all, of these patients will have returned to seek healthcare.[116] Those who did not were described

107 INQ000474244_0013 para 29
108 INQ000474244_0013 paras 27-32
109 INQ000485984_0047-0048 paras 157-159 (Scotland); INQ000486014_0201 para 574 (Wales); INQ000492281_0106-0110 paras 332-337 (Northern Ireland)
110 INQ000485984_0048-0050 paras 163-167; INQ000486014_0205 para 582; INQ000492281_0111 para 339
111 INQ000493484_0026 para 99
112 INQ000493484_0018 para 65
113 Since April 2019 in England (INQ000485652_0371 para 1245); since approximately April 2020 in Northern Ireland (INQ000485720_0028 para 66); from July 2020 in Scotland (INQ000485984_0048-0049 para 163). No data were provided for Wales.
114 INQ000485652_0363 para 1320
115 INQ000474244_0048, 0065 figure 21(A), para 98
116 Aneel Bhangu 31 October 2024 8/6-15

as "*one of the key groups of patients who were lost in this pandemic*".[117] Data show that from April to June 2020, when there were fewer diagnoses, there was a small increase in the proportion of patients presenting for the first time with advanced disease.[118]

9.60. Professor Bhangu said that, in future pandemics, screening programmes should continue with the focus on matching those with a positive test to the capacity available at the time, allowing for further clinical investigations to take place.[119] Professor Powis noted that there had been challenges to maintaining screening services, but stated:

> "[W]e *would do as much as possible to preserve screening services during a future pandemic.*"[120]

9.61. The Inquiry agrees that the maintenance of cancer screening programmes is of the utmost importance and that planning must prioritise the continuation of these services as far as possible.

Referrals and treatment

9.62. In England, from April to October 2020, more than 3,500 fewer people were diagnosed and treated for colorectal cancer than would have been expected.[121]

9.63. Notwithstanding the use of private hospitals for some colorectal surgery, there was a reduction in operations for colorectal cancer during the first wave.[122] Although the rates of surgery had begun to recover by the end of 2020, they remained lower than would have been expected during 2021.[123]

9.64. Across the devolved nations, there was a noticeable decline in the percentage of colorectal cancer patients receiving their first treatment within the 62-day target during the pandemic. In Wales, between January 2021 and June 2022, only 44% of patients with colorectal cancer received treatment within 62 days of referral (the target was 75%).[124] In Scotland, there was a decline in the percentage of patients treated within the 62-day timeframe, from 84.7% in March 2020 to 76.3% by June 2022, against a target of 95%.[125] In Northern Ireland, there had been a downward trend prior to the pandemic in the proportion of patients receiving treatment within the 62-day timeframe. This persisted during the pandemic, with a decline in the

117 Aneel Bhangu 31 October 2024 6/1-4
118 INQ000474244_0042 para 68
119 Aneel Bhangu 31 October 2024 5/4-11, 12/19-24
120 Stephen Powis 7 November 2024 159/10-25
121 INQ000474244_0045 para 71
122 INQ000474244_0047-0048 (the data are for England only); INQ000481140_0008 paras 18, 20; Aneel Bhangu 31 October 2024 30/15-20
123 Data are for England and Wales (INQ000474244_0045-0046 para 71).
124 INQ000486014_0217-0218 para 616
125 INQ000485984_0052

percentage of patients seen within the target timeframe from 60% in 2020 to below 40% in 2022.[126]

Impact on patients

9.65. Missed and late diagnoses and longer waits for treatment for colorectal cancer resulted in loss of life and increased mortality rates. The Office for National Statistics article, 'Excess deaths in England and Wales', shows that, from March to December 2022, there were 1,630 excess deaths from colorectal and anal cancer, compared with what would be expected based on a five-year average.[127]

9.66. Professor Bhangu told the Inquiry that it was not yet possible to know the long-term impact on patient survival rates of the longer waits for care during the pandemic because the five-year survival data for these patients will not be available for a few years.[128]

Ischaemic heart disease

9.67. Ischaemic heart disease can lead to acute illness (ie heart attack) requiring urgent emergency treatment, as well as chronic (long-term) illness such as angina, which requires monitoring and may necessitate elective treatment, including surgery.

Emergency care for heart attacks

9.68. Professor Gale noted that, unlike other countries, the UK maintained its processes for treating heart attacks by continuing to provide "*high-quality*", life-saving care for those patients, with these services being prioritised.[129]

9.69. However, although services for heart attacks remained available throughout the pandemic, there was a steep decline in admissions for heart attacks in England in early March 2020, reaching their lowest level in April 2020.[130] In early May 2020, it was reported that there was a one-third drop in people presenting with a heart attack.[131] The reduction in the number of heart attack admissions during the second lockdown in England was less marked than in the first lockdown.[132]

126 INQ000474244_0033-0036 para 58, figures 14-16
127 'Excess deaths in England and Wales: March 2020 to December 2022', Office for National Statistics, 9 March 2023 (https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/excessdeathsinenglandandwalesmarch2020todecember2022/2023-03-09; INQ000520281); INQ000474244_0049 para 77
128 Aneel Bhangu 31 October 2024 19/1-13
129 INQ000494739_0064, 0119, 0124, 0132 paras 213.14, 402, 405, 414, 442
130 INQ000494739_0080 paras 238-239
131 INQ000485652_0079 para 303
132 INQ000494739_0082 para 249

9.70. Over the course of April 2020 to March 2021, there was a drop of 14.8% from the previous year for admissions for heart attacks across England, Wales and Northern Ireland.[133] Scotland had a 15.8% decline in heart attack admissions in 2020/21, compared with 2018/19.[134]

Elective care for chronic heart conditions

9.71. Professor Gale noted a lack of data as to the impact of the pandemic on chronic cardiac conditions and diagnosis rates. However, he concluded that nationwide and local-level studies indicated a substantial decline in elective admissions and associated procedures for patients with chronic coronary syndromes.[135] There were 23% fewer elective admissions for all cardiovascular conditions in England, Wales and Scotland in 2020, compared with the pre-pandemic period (2016 to 2019).[136] Comparable data are not available from Northern Ireland.

9.72. A study of data from hospitals in England from January to May 2020 found that coronary artery bypass grafting surgery declined from 93 operations per week in 2019 to 19 by the end of March 2020, due to lack of availability of intensive care beds.[137]

9.73. In Wales, during the first wave of the pandemic, virtually all cardiac surgery ceased apart from emergency cases, although the Welsh Government did not collect data on the number of operations performed.[138] The Wales Cardiac Network, which played a key role in the restoration of elective cardiac care in Wales, noted that a survey (undated) carried out by the British Heart Foundation showed that:

> "[A]*lmost half of people with cardiovascular disease have found it harder to get medical treatment since the pandemic began and at the very least tens of thousands of procedures and tests have been delayed (across the UK).*"[139]

9.74. Some of the difficulties in accessing medical treatment for chronic (ongoing) cardiac conditions may have been caused by a lack of data to identify where there was available capacity in the system. Professor Gale noted the importance of accurate, real-time data on the use of NHS clinical services to enable continuation of elective care.[140]

133 *Myocardial Ischaemia National Audit Project (MINAP): 2022 Summary Report*, National Institute for Cardiovascular Outcomes Research (NICOR), 16 June 2022, p3 (https://www.nicor.org.uk/national-cardiac-audit-programme/previous-reports/heart-attack-minap-1/2022-3/nicor-minap-2022-final?layout=file; INQ000470571); see also INQ000485652_0455
134 INQ000494739_0062 para 21
135 INQ000494739_0099 para 311
136 INQ000494739_0094-0095 para 300.1, figure 12
137 INQ000494739_0060 paras 211.19-211.20
138 INQ000486014_0239 para 680
139 INQ000469191_0002; see also INQ000486014_0233 para 662
140 INQ000494739_0138 paras 471, 473

9.75. Delays and cancellations led to increased waiting times for elective cardiac care across the UK. Drawing from data collated by NHS England, Professor Powis noted:

> "[T]*he cardiology RTT* [referral to treatment] *waiting list was gradually increasing before the pandemic and fell briefly following the pandemic onset (as fewer people presented to their GPs). It subsequently increased to above pre-pandemic levels. The proportion of people on the waiting list who were within the 18-week RTT target declined as the waiting list increased, to 69% by June 2022.*"[141]

9.76. In Scotland, the number of patients waiting for inpatient treatment for ischaemic heart disease increased from 2,239 at the end of December 2019 to 3,300 by the end of June 2022. Over the same period, the percentage of those receiving treatment within the target of 12 weeks reduced from 82.4% to 63%.[142]

9.77. In Northern Ireland, the pre-pandemic waiting-time targets for inpatient/day case treatment for ischaemic heart disease were that 55% of patients should wait no longer than 13 weeks for treatment and no patient should wait longer than 52 weeks.[143] By the end of December 2019, 50% of patients had waited more than 13 weeks for treatment. While those targets did not change over the course of the pandemic, the number who met those targets reduced significantly:[144]

- By 30 June 2020, 73% of patients had waited more than 13 weeks.
- By 30 June 2022, 63.5% of patients had waited more than 13 weeks for treatment.

The percentage of patients who had waited more than one year for treatment increased from 4.1% in December 2019 to 27.3% by the end of June 2021.[145]

9.78. Professor Gale concluded that "*clinical services for acute coronary syndrome were protected at the expense of those for chronic coronary syndrome*", but thought that this was:

> "*a logical and appropriate decision given the fact that chronic coronary syndromes are associated with a much lower risk of major adverse clinical outcomes when compared with acute coronary syndromes*".[146]

Impact on patients

9.79. Despite services for acute heart conditions being available, data show that, during the pandemic, there were more deaths than expected in England and Wales from

141 INQ000485652_0451 para 1582
142 INQ000485984_0066 table
143 INQ000474243_0021 para 38
144 INQ000474243_0021 para 38
145 INQ000474243_0024 table 9
146 INQ000494739_0121, 128 paras 412.4, 424

acute cardiovascular causes, with a peak in early April 2020.[147] Professor Gale concluded that the increased rate of deaths in the community from heart attacks suggested that, during the pandemic, people with heart attacks were less likely to attend hospital and thus did not receive time-dependent heart attack treatments, which led to their death.[148]

9.80. Any delay in seeking treatment for a heart attack would inevitably have a negative impact on patients: they would either die before going to hospital or survive only to seek help at a later date "*with more advanced disease or a clinical complication of a heart attack*".[149]

9.81. Professor Gale noted a lack of data on the impact of the pandemic on patients with chronic coronary conditions. However, he observed that this is a progressive disease and, therefore, it is likely that patients will have experienced a worse quality of life, more symptoms, psychological stress, acute cardiovascular events and fatalities – although to a lesser extent than patients with acute heart conditions.[150]

Hip replacements

9.82. Before the pandemic, approximately 100,000 people in the UK had a hip replacement each year.[151] There was a calculated deficit of 43,845 hip replacement operations in England, Wales and Northern Ireland in 2020, which, when compared with the number performed in 2019, is a reduction of 42.9%.[152]

9.83. The reduction in the number of hip replacement operations performed across the UK in 2021 was less significant than in 2020, but there was a more marked reduction in Wales, Northern Ireland and Scotland than in England.[153] Although England in general was better able to restore services, there were considerable regional variations within England.[154]

9.84. Unmet pre-pandemic demand and the delay in restarting elective procedures exacerbated the waiting list and backlogs, with the result that the UK was the worst-performing country in the Organisation for Economic Co-operation and Development for the number of hip replacement operations conducted in 2020, compared with 2019.[155]

147 INQ000494739_0090-0091 para 269
148 INQ000494739_0090 paras 266-268
149 INQ000494739_0008 para 11
150 INQ000494739_0099 paras 313-314
151 INQ000474262_0008 para 2
152 These figures were based on the National Joint Registry, which does not include data from Scotland (INQ000474262_0050 para 118).
153 INQ000474262_0008, 0036-0038, 0040-0041 para 3, figures 8-13; Andrew Metcalfe and Chloe Scott 31 October 2024 82/19-24
154 Andrew Metcalfe and Chloe Scott 31 October 2024 82/7-83/8; INQ000474262_0041
155 INQ000474262_0061-0062 para 146

9.85. When elective surgery was restarted, waiting times for surgery were more than one year in England, more than two years in some parts of Scotland, and "*consistently over two years*" across Wales and Northern Ireland.[156] By October 2024, some patients in Northern Ireland were waiting three to four years for hip replacement surgery.[157] During 2020 and 2021, Wales and Northern Ireland failed to achieve greater than 60% of the pre-pandemic volume of hip replacements. Professor Metcalfe described both nations as "*clearly struggling*" with very substantial waiting lists.[158]

Impact on patients

9.86. Ms Scott explained that a total hip replacement is a highly effective form of treatment. She said that "*patient satisfaction a year after having a hip replacement is 93-95%*".[159] However, without timely diagnosis and surgery, a patient's mobility and day-to-day functioning will deteriorate. Longer waits may lead to a decline in mental health, particularly if the pain increases or they become housebound.[160] Additionally, the outcome of a hip replacement is likely to be worse if a patient suffers from severe hip pain and significantly reduced function and quality of life prior to the operation.[161]

9.87. Data in England show that patients who underwent a hip replacement in 2020/21 were in a worse state of health prior to their operation than patients in previous years, reflecting the deterioration in symptoms and quality of life caused by longer waits.[162] The evidence shows a similar trend in Scotland and Wales.[163] In particular, the number of people experiencing symptoms 'worse than death' (ie the general population would not be willing to carry on living in that state of health) increased from one-fifth to one-third during the pandemic.[164] A study in Northern Ireland of a group of people waiting three years for a hip replacement shows that their level of depression and use of opiates increased simultaneously.[165]

9.88. Professor Metcalfe and Ms Scott described how the pandemic has created:

> "*a silent, unseen group of people suffering with severe pain and disability, and much reduced quality of life*".[166]

They identified that significant delays in treatment could result in patients no longer being suitable for surgery:

156 INQ000474262_0008 para 4
157 Andrew Metcalfe and Chloe Scott 31 October 2024 72/14-18
158 INQ000474262_0043-0044 para 108, figure 16; Andrew Metcalfe and Chloe Scott 31 October 2024 72/21-25
159 Andrew Metcalfe and Chloe Scott 31 October 2024 57/19-58/5
160 INQ000474262_0015 paras 32-35
161 INQ000474262_0008, 0016 paras 2, 37-38
162 INQ000474262_0054 para 128
163 INQ000474262_0055 para 129
164 Andrew Metcalfe and Chloe Scott 31 October 2024 53/14-23, 54/22-55/103; INQ000474262_0012-0013 paras 18-20
165 Andrew Metcalfe and Chloe Scott 31 October 2024 59/11-20
166 INQ000474262_0008 para 4

> "[M]*ultiple experts report an increased phenomenon of patients attending orthopaedic clinics for the first time in wheelchairs who have already lost their mobility and independence. Some people, who missed the opportunity to have a hip replacement in a timely fashion, are now not suitable for a hip replacement due to their frailty. These patients have missed an opportunity to maintain their independence and mobility.*"[167]

9.89. One patient who experienced long delays to their planned surgery told the Inquiry's listening exercise, Every Story Matters:

> "*The precautionary hospital ward closures in 2020 and 2021 has significantly degraded my quality of life and mental health … now I have little to no hope of making a full recovery any more, since my overall health has declined due to my inability to exercise and the intolerable side-effects of the prescribed medication to manage my pain while I still wait for the postponed operation that I was going to be having in the spring of 2020.*"[168]

9.90. It is clear that, during the pandemic, worsening delays in diagnosis and treatment led to increased ill-health and suffering and, in some cases, cost lives. Some patients waited so long that they were no longer suitable for surgery and have been left with permanent loss of mobility.

9.91. Healthcare systems must provide accurate real-time data to identify backlogs of care and areas under strain and to enable reallocation of resources where available.

Children and young people's mental health services

9.92. Data show an initial decrease in admissions to children and young people's mental health services, especially during the first lockdown and to a lesser degree during the second lockdown. Members of the Royal College of Psychiatrists' Faculty of Child and Adolescent Psychiatry stated that children and young people who subsequently presented to mental health services were more unwell than had ever been seen before and were presenting in a greater volume: "[T]*he nature and severity of mental ill-health among those presenting had worsened markedly.*"[169]

9.93. Dr Northover identified that similar findings were made in the 2023 surveillance study 'Far Away from Home', which showed that while ethnic minority children and young people in England were less likely to access mental health services during the first lockdown, there was a marked increase in admissions during the second lockdown.[170] The study suggested that the lack of early mental health

167 INQ000474262_0016 para 39
168 *Every Story Matters: Healthcare*, p82 (INQ000474233)
169 INQ000472876_0009 para 31
170 '"Far Away from Home": adolescent inpatient admissions far from home, out of area or to adult wards: a national surveillance study', J Holland, J Roe, B Guo, M Dasilva-Ellimah, A-M Burn, B Dubicka, et al, *BMJ Mental Health* (2023), 26(1), 1-9 (https://doi.org/10.1136/bmjment-2023-300843; INQ000652361); Guy Northover 31 October 2024 152/5-15

support had resulted in an exacerbation of their condition, leading to inpatient admission at a point of crisis.[171]

Approaches to continuing non-Covid-19 healthcare

9.94. In order to maintain care for non-Covid-19 patients during a sustained period of increased demand for hospital care and with the constraints on capacity noted above, healthcare systems adopted a variety of approaches in order to achieve maximum efficiency while trying to ensure equitable access to healthcare for those in need. This included the setting of targets in England, the prioritisation of surgeries based on clinical urgency, the use of Covid-19-free pathways and elective hubs, and greater use of technology to enable remote consultations.

Restarting elective care

9.95. Although non-urgent elective care was paused at approximately the same time across the UK, the timing, planning and implementation of programmes for the recovery of elective healthcare varied by nation. In the devolved nations, the health boards and trusts were granted more flexibility depending on the local circumstances (and remobilisation plans were not as timely as in England).[172]

9.96. On 4 May 2020, the Welsh Government issued guidance – *Maintaining Essential Health Services During the COVID 19 Pandemic* (updated on 12 June 2020).[173] Local health boards were required to provide the Welsh Government with quarterly plans for maintaining essential healthcare services.[174] The Welsh Government issued additional guidance and frameworks in March and October 2021 and in April 2022 to encourage the reinstatement of elective services (including cancer care) and to reduce waiting lists, without including specific targets or incentives.[175]

9.97. From May 2020, Scottish health boards were asked to consider their remobilisation plans with the aim of restarting some paused activity. This was subject to workforce availability and redeployment to "*deliver as many of its normal services as possible as safely as possible*" over the following 100 days.[176] On 21 July 2020, the health boards were encouraged to take a:

171 Guy Northover 31 October 2024 152/16-153/2
172 INQ000474262_0024-0025 paras 61-63
173 INQ000485721_0255-0257 paras 649-650; INQ000182443
174 INQ000486014_0045 para 126
175 INQ000486014_0206 para 586; *Health and Social Care in Wales – COVID-19: Looking Forward*, Welsh Government, March 2021 (INQ000066129); *Health and Social Care Winter Plan 2021 to 2022*, Welsh Government, October 2021 (https://www.gov.wales/sites/default/files/publications/2021-10/health-and-social-care--winter-plan-2021-to-2022.pdf; INQ000480015); *Our Programme for Transforming and Modernising Planned Care and Reducing Waiting Lists in Wales*, NHS Wales, April 2022, pp1-8 (https://www.gov.wales/sites/default/files/publications/2022-04/our-programme-for-transforming--and-modernising-planned-care-and-reducing-waiting-lists-in-wales.pdf; INQ000270477); INQ000353461
176 INQ000485984_0014 para 41; INQ000468135_0001-0003

"*consistent national approach to clinical prioritisation for elective activity while allowing for flexibility to reflect local circumstances*".[177]

9.98. The Scottish Government gave Scottish health boards permission to pause all non-urgent elective and routine services again during January and February 2021.[178] The pause was extended by NHS Scotland, "*due to the extended pressures of Covid-19*", until the end of September 2021.[179] NHS Scotland did not issue a remobilisation plan or set targets for the recovery of non-urgent and elective services.[180]

9.99. The Department of Health (Northern Ireland) issued remobilisation plans for elective care in February 2021, followed in June 2021 by a framework for elective care over a five-year period, subject to additional funding.[181] Responsibility for implementing these plans lay with the Health and Social Care trusts and there were no specific targets or incentives set nationally for the recovery of services in Northern Ireland.[182]

England

9.100. England adopted a different model from the other nations by providing targets for the resumption of elective care.

9.101. Prior to the instruction to pause elective care in March 2020, NHS England had set out "*very detailed planning*" for managing elective delays and restoring services.[183] On 29 April 2020, NHS England asked NHS providers to "*step up*" non-Covid-19 urgent care as soon as possible over the following six weeks and consider whether they had further capacity "*for at least some routine non-urgent elective care*".[184]

9.102. On 31 July 2020, following consultation with patient groups and clinical leaders, NHS England set out priorities focused on utilising the pre-winter window of opportunity to return to "*near-normal levels*" of non-Covid-19 health services.[185] Members of the NHS Confederation (a membership body for organisations that commission and provide healthcare services) described the targets set out by NHS England as being "*extremely challenging*", "*naive*", "*unachievable*" and "*ultimately demotivating*", at a time when the NHS was under immense pressure.[186]

9.103. On 20 August 2020, NHS England set monthly targets for overnight and day case elective procedures relative to the same period in 2019. The target was to conduct 70% of the procedures that had taken place in August 2019 during August 2020,

177 INQ000485984_0015 para 43
178 INQ000485984_0015 para 44
179 INQ000485979_0059-0060 para 216
180 INQ000474262_0024, 0065 paras 61, 160
181 INQ000492281_0077-0078, 0116-0117 paras 229-231, 343
182 INQ000474262_0025, 0065 paras 63, 160
183 INQ000474262_0024 para 61
184 INQ000087412_0005
185 Amanda Pritchard 11 November 2024 91/17-92/3; INQ000051407_0002-0003
186 INQ000410447_0028 para 76

80% in September 2020 and 90% in October 2020.[187] Although the targets were not achieved, there was a "*massive increase in non-urgent elective activity*" as elective day cases went from roughly 60% to 80% over that period.[188]

9.104. On 25 March 2021, NHS England published an elective recovery framework. This encouraged full use of available NHS and independent sector capacity and sought to incentivise trusts to restore elective care activity by setting defined targets. The targets were set nationally against 2019 activity and funding from the Elective Recovery Fund was offered if targets were met.[189] Amanda Pritchard (Chief Operating Officer of NHS England and NHS Improvement and Chief Executive Officer of NHS Improvement from August 2019 to July 2021, and Chief Executive Officer of NHS England from August 2021 to April 2025) told the Inquiry that this step was taken having heard from clinical staff and patient groups that:

> "*the potential impact from having had to pause non-urgent work was now becoming really problematic for patients and that we were in danger of not doing enough to recover those incredibly important services for patients, with detriment arising*".[190]

9.105. The delivery plan for tackling the COVID-19 backlog of elective care, announced by NHS England in February 2022, aimed to maximise NHS capacity to enable 30% more elective activity to be delivered by 2024/25 than prior to the pandemic.[191]

9.106. Professor Metcalfe and Ms Scott concluded that, in 2020 and 2021, healthcare services in England were better able to restore elective activity than in the other nations of the UK. There were some "*pockets of excellence*" in Scotland, particularly where an elective care hub model was used, but performance continued to be "*patchy*" in both nations, depending on the region or hospital.[192] The resumption of services in Wales was "*quite a long way behind*" England and Scotland, while recovery of elective care was slowest in Northern Ireland.[193]

9.107. Professor Metcalfe said that, in England, "*central management and incentivisation was quite a powerful thing*".[194] In Scotland, Wales and Northern Ireland, there were no specific targets with financial incentives to restore elective care and the decision to do so was at the discretion of the local health board or trust, which contributed to local variation and increased waiting times (discussed further below).[195] Ms Scott

187 INQ000485652_0034 para 131
188 Amanda Pritchard 11 November 2024 91/6-10
189 Andrew Metcalfe and Chloe Scott 31 October 2024 65/16-13; INQ000474262_0022-0024 paras 56-60; *2021/22 Priorities and Operational Planning Guidance: Implementation Guidance*, NHS England, 25 March 2021, pp7-10 (https://www.england.nhs.uk/wp-content/uploads/2021/03/B0468-implementation-guidance-21-22-priorities-and-operational-planning-guidance.pdf; INQ000470529)
190 Amanda Pritchard 11 November 2024 90/13-91/5
191 INQ000485652_0038 paras 148-149
192 Andrew Metcalfe and Chloe Scott 31 October 2024 83/13-23, 84/1-22
193 Andrew Metcalfe and Chloe Scott 31 October 2024 83/18-23; INQ000474262_0040 figure 12
194 Andrew Metcalfe and Chloe Scott 31 October 2024 73/19-20
195 Andrew Metcalfe and Chloe Scott 31 October 2024 66/13-71/3; INQ000474262_0025 para 63

concluded that, in future, recovery should be mandated at a national level, as it was in England, to ensure that elective care is restored more consistently and quickly.[196]

9.108. Pandemic planning should include criteria for deciding when to suspend and restart non-urgent elective activity and how to address the backlogs caused by pausing or reorganising services. Plans must enable the resumption of elective care as quickly as possible once the initial waves of a pandemic have passed. The need to restart elective care as a priority must be communicated clearly to healthcare providers. Recovery should be mandated at national level and include consideration of higher-than-normal case volumes, where possible, to avoid extended waiting lists and to clear backlogs of care. Sustainable plans must be put in place to ensure that sufficient staffing is available to meet these targets, noting the impact that meeting acute demands during pandemic peaks may have had on healthcare workers. Pandemic planning should carefully consider the impact of redeployment of specialist staff on essential and elective healthcare services, and ensure that staff, as well as facilities and equipment, that have been redeployed to provide pandemic care are restored as soon as possible.

Prioritisation guidance

9.109. During March and April 2020, guidance on how to prioritise elective surgery and other procedures was issued by NHS organisations, government departments, the medical Royal Colleges and medical specialty organisations.[197]

9.110. The first nation-specific guide to surgical prioritisation for all surgical specialties (with the exception of obstetrics, gynaecology and ophthalmology) was published by NHS England on 11 April 2020.[198] Professor Bhangu commented that there had been a delay in this guidance reaching the front line due to a "*lack of system wide preparation*" for its dissemination.[199]

9.111. The Federation of Surgical Specialty Associations produced further versions of the clinical guide to surgical prioritisation during the pandemic at NHS England's request.[200] The guidance sets out five levels of priority, based on urgency:

- Priority level 1a Emergency: operation needed within 24 hours;
- Priority level 1b Urgent: operation needed within 72 hours;
- Priority level 2 Surgery: could be deferred for up to four weeks;

196 Andrew Metcalfe and Chloe Scott 31 October 2024 95/22-96/7
197 INQ000485652_0357-0358 paras 1288-1291 (England); INQ000485721_0261 para 664; INQ000486014_0207, 0209, 0221 paras 589, 591, 629-630
198 INQ000226460
199 INQ000474244_0064 para 95
200 INQ000485652_0041 para 160. The Federation of Surgical Specialty Associations comprises the Presidents of the 10 Surgical Specialty Associations recognised by the General Medical Council.

- Priority level 3 Surgery: could be delayed for up to three months; and
- Priority level 4 Surgery: could be delayed for more than three months.[201]

9.112. This guidance was used across the UK, having been adopted as the basis of clinical prioritisation in Scotland, Wales and Northern Ireland.[202] In Northern Ireland, the guidance had to be amended by the addition of three further sub-categories because of the high number of patients waiting for surgery to be performed within one month.[203] Public Health Scotland identified that the prioritisation of 'urgent' procedures had led to an 81.2% increase in the number of patients waiting to be admitted as inpatient or day cases compared with June 2019.[204] Consequently, the prioritisation guidance was withdrawn in Scotland in July 2022 to allow flexibility to prioritise patients who had experienced very long waits.

9.113. While the Federation of Surgical Specialty Associations' guidance was intended to bring objectivity to the prioritisation of patients, there was a range of other guidance published at local and nation level, which caused confusion for those responsible for implementing it and may have led to regional variation.[205]

9.114. Professor Metcalfe and Ms Scott told the Inquiry that the prioritisation criteria in the guidance were less appropriate for orthopaedic conditions, as these are rarely life or limb-threatening.[206] Hip replacements were defined as the lowest priority, with all surgery, except for emergencies, to be performed in three months or more (priority level 4).[207] As Ms Scott explained, because the majority of patients awaiting hip replacement surgeries were categorised as priority level 4:

> "[T]*he problem is with this system and limited capacity, if you're not urgent you'll never get to the top of the list and you'll never get your hip replacement.*"[208]

9.115. Implementation of the prioritisation guidance meant that orthopaedic surgery was the second lowest volume of surgery conducted during the pandemic, with the result that patients were waiting longer on waiting lists.[209] Later in the Covid-19 pandemic, some hip replacement patients were recategorised as 'Urgent' if they had been waiting more than two years.[210] This was a result of local decision-making based on British Hip Society advice, rather than being officially incorporated into the

201 INQ000226460_0001
202 INQ000474262_0026 para 67; INQ000357276_0056; INQ000480776; INQ000485721_0257-0258 para 651; INQ000492281_0106 para 331
203 INQ000492281_0106 para 331
204 INQ000401271_0152-0153 paras 11.3.8-11.3.11; Caroline Lamb 14 November 2024 163/19-164/1
205 Aneel Bhangu 31 October 2024 33/14-34/6. For example, specific guidance for the planning and delivery of surgery within specialisms was also published by clinical specialty associations, such as the British Society of Gastroenterology, the British Cardiovascular Society and the British Hip Society (INQ000474244_0063-0064 para 94; INQ000494739_0107 para 343; INQ000474262_0027-0028 paras 68-70, table 3).
206 Andrew Metcalfe and Chloe Scott 31 October 2024 76/21-77/3; INQ000474262_0026 para 67
207 Andrew Metcalfe and Chloe Scott 31 October 2024 74/10-75/5; INQ000474262_0026 para 66, table 2
208 Andrew Metcalfe and Chloe Scott 31 October 2024 77/22-25
209 Andrew Metcalfe and Chloe Scott 31 October 2024 78/12-24; INQ000474262_0027 para 71
210 Andrew Metcalfe and Chloe Scott 31 October 2024 77/15-25

prioritisation guidance.[211] The Inquiry heard that there was no guidance for clinicians as to how to prioritise between long-waiting patients, with the result that these decisions were a matter of individual judgement for clinicians.[212]

9.116. The NHS England surgical prioritisation guidance published in April 2020 recognised that it would be likely to lead to longer waits for patients and therefore "*greater risk of an adverse outcome due to progression or worsening of the condition*", but noted: "[W]*e have to work within the resources available locally and nationally during the crisis.*"[213]

9.117. Prioritisation guidance for surgery, treatment and diagnostics is important when resuming elective care. This should form part of pre-pandemic planning, including deciding which organisation will be responsible for developing and issuing guidance within specialties, and to ensure that it is widely and rapidly disseminated.

Covid-19-free pathways

9.118. In order to protect elective patients from the risk of contracting Covid-19 from infected patients in acute hospitals, 'green' or 'cold' pathways (ie a pathway that is Covid-19-free) were used to separate them from patients known to have Covid-19 or those whose Covid-19 status was uncertain. This required patient isolation before surgery, a Covid-19 test approximately three days prior to surgery, and a dedicated team of staff delivering care in a separate ward with a separate entrance, corridors, theatres and recovery space.[214]

9.119. In March 2020, the Barts Heart Centre created green pathways to offer emergency cardiac surgery. Those protocols were adopted by other cardiac centres in England and Wales.[215] There was only one "*purely elective NHS green site*" in Scotland at the start of the pandemic and it restarted elective surgery in June 2020 on a phased basis, but it was not accessible to everyone.[216]

9.120. Hospitals found it was easier to implement green pathways where a separate building was available within the hospital estate. It was recognised that it was "*extremely difficult*" to set up green zones in hospitals that have emergency departments and unscheduled care admissions.[217] Orthopaedic care is generally delivered in acute hospitals, where both elective and emergency patients are treated. Professor Metcalfe said that implementing green pathways for orthopaedic care was therefore more challenging and "*hugely variable*", as some hospitals were not set up for it.[218] The "*elective-focused sites*" were better at restoring services

211 INQ000474262_0027 para 68
212 Andrew Metcalfe and Chloe Scott 31 October 2024 78/3-11; INQ000474262_0026-0027 para 67
213 INQ000226460_0001
214 Andrew Metcalfe and Chloe Scott 31 October 2024 80/4-20
215 INQ000485652_0438 paras 1549-1551
216 INQ000474262_0034 para 99. This was the Golden Jubilee National Hospital.
217 INQ000399047_0012
218 Andrew Metcalfe and Chloe Scott 31 October 2024 80/4-81/23

during the pandemic, as they had the physical space and the ability to deliver green pathways.[219]

Elective hubs

9.121. One way of ensuring a Covid-19-free pathway was by providing care and treatment at elective hubs, which were separated from acute services with ring-fenced staff and facilities.[220] NHS England estimated that the use of elective hubs would enable a 30% increase in elective activity in England (compared with 2019/20) as well as:

> "*more efficient use of theatre capacity and increased throughput, increased resilience against winter pressures, shorter length of stay leading to improved patient outcomes, and reduced pressure on staff*".[221]

9.122. From 30 March 2020 in England, clinical guidance from NHS England for the management of essential cancer surgery recommended "*urgent consideration be given to consolidating cancer surgery in a Covid-free hub*", including making use of contracted independent sector facilities.[222]

9.123. The Royal Marsden cancer hub was commissioned by NHS England on 25 March 2020 to support hospitals in London to deliver urgent cancer surgery and treatment. Working with a number of trusts as well as private hospitals, it secured 12 operating theatres, an intensive care unit and ward beds. By November 2020, the cancer hub had operated on approximately 7,200 patients, surgery which would not have been possible without the hub. The model was used to establish further hubs across England.[223]

9.124. Professor Metcalfe and Ms Scott analysed the performance of two "*ring-fenced elective orthopaedic units*" in England that were used during the pandemic and found they were successful in reducing waiting lists and increasing capacity.[224] Professor Metcalfe endorsed their use of staff from across the whole region as a way of supporting trusts to deliver services more efficiently.[225]

9.125. Additionally, in England, from around May 2021, the 'high-volume, low-complexity' programme introduced dedicated elective surgery 'fast-track' centres. These elective theatre units, physically separate from emergency theatres, increased elective surgical capacity during the pandemic and continue to be utilised.[226]

219 Andrew Metcalfe and Chloe Scott 31 October 2024 80/21-81/1, 81/10-23
220 INQ000485652_0423 para 1496
221 INQ000485652_0423-0424 paras 1497-1498
222 INQ000485652_0357-0358 paras 1288-1289, 1293
223 INQ000474235_0002-0003 paras 3-10
224 INQ000474262_0063-0064 paras 153-156; Andrew Metcalfe and Chloe Scott 31 October 2024 93/13-94/7
225 Andrew Metcalfe and Chloe Scott 31 October 2024 94/8-95/16
226 INQ000485652_0424 paras 1500-1502

9.126. There were fewer elective hubs in Scotland, Wales and Northern Ireland. Although there were some units with ring-fenced beds, these were mostly co-located with acute and emergency care services. This co-location is likely to have contributed to delayed recovery of elective care at times when acute and emergency care was struggling to meet demand.[227]

9.127. Between May and November 2020, University Hospital of Wales developed a protected elective surgery unit for non-Covid-19 patients, including eight theatres, two wards and a post-anaesthetic care unit. The unit had its own admission policy, Covid-19 testing and rules on staffing.[228] The unit enabled a significant proportion of elective care to be delivered, although it was noted that the separation of facilities did entail a risk that there was less space for treating other patients. This made it harder to implement the required infection prevention and control measures, such as isolation of patients.[229]

9.128. The first surgical hub in Northern Ireland, separated from acute services as a 'Covid-light pathway', was established in July 2020 to deliver high-volume, low-complexity routine procedures.[230]

9.129. Professor Bhangu told the Inquiry that elective hubs were being expanded across the country to increase elective care capacity.[231] Professor Metcalfe said that the use of elective hubs in a future pandemic would ensure more resilience and allow for efficient and effective care delivery.[232] The Inquiry agrees.

Use of field hospitals and independent sector facilities

9.130. As set out in Chapter 5: Increasing hospital capacity, although Nightingale and field hospitals were initially planned to provide additional capacity for Covid-19 patients, from the second wave onwards, several Nightingale hospitals in England were used as cold pathways to provide non-Covid-19 diagnostics and care. At the point that the NHS Louisa Jordan in Scotland came into operation, it was not needed for Covid-19 patients and instead provided a variety of diagnostic and outpatient services, including orthopaedic clinics.[233]

9.131. Almost all independent hospitals in England were secured by the NHS during the pandemic to provide additional capacity and were predominantly used as Covid-19-free pathways for non-Covid-19 diagnostics and treatment. Cancer treatments and cardiac care were prioritised.[234]

227 INQ000474262_0063 paras 151-152
228 INQ000480136_0047-0048 paras 220-223
229 INQ000480136_0047 para 219
230 INQ000492281_0077 para 227
231 Aneel Bhangu 31 October 2024 26/7-10, 36/12-18
232 Andrew Metcalfe and Chloe Scott 31 October 2024 93/6-11
233 INQ000493484_0038 para 160; Caroline Lamb 14 November 2024 177/18-24
234 INQ000474244_0063 para 90; INQ000485652_0383, 0463 paras 1371, 1605

9.132. On 20 March 2020, a decision was made to utilise capacity in the five private hospitals in Scotland for urgent elective procedures (predominantly cancer cases) for NHS patients.[235]

9.133. On 25 March 2020, the Welsh Government agreed to contribute to the costs of commissioning additional private sector capacity, including elective care.[236] However, the Welsh Government was unable to provide the Inquiry with any data regarding the number or type of NHS patients receiving care in private hospitals during the pandemic.[237]

9.134. In Northern Ireland, use of the independent sector was initially to support hospitals with providing urgent care to Covid-19 patients, but some elective care capacity was available from mid-April 2020.[238]

9.135. NHS health boards, integrated care boards and Health and Social Care trusts should develop pandemic planning to consider effective use of space and infection prevention and control measures in the absence of substantial modifications to existing infrastructure, and should facilitate infection-free pathways where there are mixed facilities that deliver pandemic and non-pandemic care. Hospitals without the necessary estate to enable separate green and red pathways (the latter being pathways for patients with Covid-19) should make use of external sites, including private and field hospital sites, to enable elective care to continue safely. Plans should be developed to scale up the network of elective care hubs in the event of a pandemic, in order to provide infection-free settings and dedicated resources for diagnostics, treatment and operations. Careful management of the workforce will be required to ensure that staff in appropriate roles are located in the most suitable place to facilitate safe patient care. Provisional working agreements should be prepared to facilitate the use of additional sites, including independent sector facilities and temporary field hospitals where appropriate, to act as hubs if required during times of significant pressure.

Use of technology

9.136. The use of remote technology – telephone and video calls and online services – enabled advice, monitoring and care for patients with conditions other than Covid-19 to continue without exposing them (or the clinician) to the risk of infection. Remote technology also enabled the more efficient use of time and resources, increasing the volume of patients seen. There was a significant and rapid increase in the use of technology for consultation in primary, community and secondary care across a wide range of specialties during the pandemic.

235 INQ000485984_0009, 0012 paras 20, 32
236 INQ000485721_0216-0217 para 541
237 INQ000486014_0218 para 618
238 INQ000492281_0102 para 316

Remote consultations in general practice

9.137. On 5 March 2020, NHS England instructed GPs to switch to remote consultations as far as possible, with face-to-face appointments only where clinically necessary.[239] This meant that approximately 70% of GP appointments in England took place by telephone or video during the first national lockdown.[240]

9.138. Data from Scotland showed a similar trend towards remote consultations in general practice.[241] Although the number of remote consultations decreased from a peak in early 2021, throughout the rest of the pandemic they remained above pre-pandemic levels.[242]

9.139. This move to remote consultations was replicated in Wales and Northern Ireland, although specific data on the use of remote consultations in primary care were not collected.[243]

9.140. In Wales, a pilot video consultation service, named 'Attend Anywhere', had been introduced before the pandemic.[244] On 11 March 2020, the pilot service was expanded to provide a video consultation service to all GPs in Wales.[245] By October 2021, more than 250,000 remote video consultations had been delivered.[246]

9.141. In Northern Ireland, a 'telephone first' triage system, "*ask my GP*", had been introduced before the pandemic, but only a small number of practices had implemented it.[247] Mr Swann told the Inquiry:

> "[W]*ithout the 'telephone first' system it would not have been possible to maintain General Practice services during the pandemic.*"[248]

9.142. The move to predominantly remote consultations was essential to enable GP services to continue during the pandemic. However, some patients, such as disabled people or those experiencing language barriers or digital exclusion (typically understood as those who are unable to use the internet in the ways needed to fully participate in a modern society), struggled to make use of services delivered remotely.[249] According to statistics produced by Age UK, only 54% of people aged 75

239 INQ000000039; INQ000485652_0112-0113 para 405; Philip Banfield 28 October 2024 108/21-25
240 INQ000339027_0017-0018 para 86; INQ000485652_0090 para 331b
241 INQ000474283_0032-0034 para 104, figures 8-9
242 INQ000474283_0032 para 104
243 INQ000474283_0031 para 97
244 INQ000486014_0161 para 463
245 INQ000486014_0162 para 464
246 INQ000485721_0189 para 465b
247 INQ000339027_0004 para 14
248 INQ000492281_0037 para 97
249 Michael Mulholland 23 September 2024 137/15-138/7, 141/22-142/17

and over were recent internet users at the start of the pandemic.[250] Even for those who did have internet access, many struggled to navigate online booking systems.[251]

9.143. Remote consultations were not always suitable for individuals with disabilities. It was a challenge for some people with autism to move to video or telephone appointments, which are more impersonal than face-to-face consultations.[252] People who were deaf or had hearing loss missed out on the visual cues that could be perceived during face-to-face consultations.[253] A patient told Every Story Matters:

> "*Understanding information, being deaf, not being able to communicate lots of things online, and having to use English and write, you know, e-mails and stuff like that and text messages wasn't really accessible for me.*"[254]

9.144. Clinicians and patients alike experienced problems with remote consultations. The picture quality of video consultations was not always sufficient to enable visual clinical examinations and clinicians faced particular difficulties in assessing whether patients with Covid-19 infections were deteriorating.[255] Contributors to Every Story Matters spoke of how difficult it was to assess patients without seeing them in person and said they lost valuable insights they would usually gain from in-person appointments. As one GP said:

> "*You can gain an awful lot more when you see a person face-to-face, so we felt that we were working with a much higher risk.*"[256]

9.145. His Honour Judge Thomas Teague KC, Chief Coroner for England and Wales from December 2020 to May 2024, said that concerns were raised in some prevention of future deaths reports made following inquests during the pandemic that telephone consultations with GPs had led to missed diagnoses.[257]

9.146. Dr Mulholland told the Inquiry:

> "*For patients, they had to get used to giving information that they normally wouldn't give on a telephone to healthcare staff, they usually keep private things for face-to-face, they had to get used to sharing these things.*"[258]

250 *Living in a Digital World After Covid-19 – The Experiences of Older People Who Don't Live Their Lives Online*, Age UK, December 2021, pp3-4 (https://www.ageuk.org.uk/siteassets/documents/reports-and-publications/reports-and-briefings/active-communities/policy-briefing--living-in-a-digital-world-after-covid-19-the-experience-of-older-people-who-dont-live-their-lives-online.pdf; INQ000217404)
251 INQ000319639_0007-0008 paras 26-27; INQ000474283_0042 para 136
252 Matt Stringer 10 October 2024 74/21-75/4
253 Matt Stringer 10 October 2024 76/5-16
254 *Every Story Matters: Healthcare*, p12 (INQ000474233)
255 INQ000474283_0035-0037 paras 109, 114
256 *Every Story Matters: Healthcare*, p48 (INQ000474233)
257 INQ000479888_0031 para 90
258 Michael Mulholland 23 September 2024 136/3-7

Remote consultations for other healthcare services

9.147. In inpatient children and young people's mental health units, therapy which had previously been face-to-face was delivered online. The drawbacks and benefits of remote therapy for these patients varied depending upon the characteristics of the individual patient.[259] However, as in general practice, the Inquiry heard that there was a blanket instruction to work remotely, if possible, rather than a patient-specific consideration of whether or not remote consultations would work.[260]

9.148. Early in the pandemic, there was a shift to remote provision of many antenatal services.[261] Between May and July 2020, 89% of maternity services in England reported using remote consultation methods.[262]

9.149. For postnatal healthcare, the initial guidance for health visitor contacts in England was that they should be "*virtual by default*", with face-to-face contact only advised for those with "*compelling need*".[263] The Institute of Health Visiting (the UK-wide professional membership organisation for health visitors) noted that there was a lack of evidence prior to implementation as to the potential impact on access to services.[264] The increase in remote care in maternity services during the pandemic allowed some women to receive more contact than they would otherwise have done, but others faced difficulties accessing services as a result of language difficulties or technical barriers such as a lack of equipment.[265] In Wales, health visiting was largely conducted by telephone during the pandemic. A review found that this had excluded many mothers who were deaf or had hearing loss and that perinatal mental health issues were less likely to be identified by telephone.[266] A report by the Disability Equality Forum on access to maternity services in Wales during the Covid-19 pandemic found that there were additional barriers to access for disabled women and recommends an assessment of any long-term effects.[267] By contrast, the evidence suggests that almost all women received face-to-face postnatal care at home in Scotland and had a positive experience.[268]

9.150. In cancer services, the use of virtual technology for follow-up consultations with patients (following surgery or a positive screening test) was encouraged from the start of the pandemic.[269] Remote technology was also utilised by staff to continue

259 Guy Northover 31 October 2024 166/16-167/3
260 Guy Northover 31 October 2024 167/4-23
261 INQ000470853_0017 para 48
262 INQ000470853_0019 para 51
263 INQ000411557_0026 para 68
264 INQ000411557_0026-0027, 0034 paras 68, 82
265 Gill Walton 7 October 2024 80/8-15
266 INQ000480133_0170 para 445
267 INQ000480133_0169-0170 paras 444-446
268 *Perinatal Experiences During the COVID-19 Pandemic in Scotland: Exploring the Impact of Changes in Maternity Services on Women and Staff*, Public Health Scotland, April 2022, pp17-18 (https://publichealthscotland.scot/media/12577/perinatal-experiences-during-the-covid-19-pandemic-in-scotland.pdf; INQ000202968)
269 INQ000485652_0363-0364 para 1320

multidisciplinary meetings to discuss surgery and treatments for cancer patients. This was seen as a positive change.[270]

9.151. Elective orthopaedic care also saw an increase in follow-up consultations by telephone and video. Some patients who underwent a hip replacement welcomed this, but others felt that it had limited their rehabilitation.[271]

9.152. Cardiac rehabilitation services were increasingly delivered at home via remote technology. In England, Wales and Northern Ireland, there was a marked increase in home-based rehabilitation, from 16% in 2019 to 47% in 2022.[272] Data from NHS England show that the percentage of first and follow-up outpatient appointments for cardiology and cardiac surgery conducted remotely increased from less than 5% prior to January 2020 to more than 40% by April 2020.[273] It was considered that delivery of outpatient cardiac care had recovered to pre-pandemic levels by March 2021, "*largely due to the use of remote consultations*".[274]

9.153. While remote methods of consultation enabled care to continue during the pandemic, and undoubtedly mitigated some of its impacts on non-urgent care, it was not suitable for all patients. For future pandemics, careful planning is required to ensure that some patient groups are not digitally excluded and that clinicians have appropriate training and guidance to identify when patients or clinical presentations require face-to-face appointments.

Non-pandemic healthcare in future pandemics

9.154. When the Covid-19 pandemic occurred, existing and significant constraints on capacity and resources meant that the healthcare systems lacked resilience. NHS resources were already severely stretched, with demand exceeding supply in all the areas of healthcare examined by the Inquiry.

9.155. There were backlogs of care prior to the pandemic in many areas of the healthcare systems across the UK, with increasing numbers of patients waiting longer for treatment, in pain and ill-health. There were also issues with recruitment and retention of healthcare workers and growing numbers of vacancies in the healthcare workforce. The pandemic exacerbated these pre-existing problems. It will be difficult to tackle these issues without significant investment in the healthcare systems, including expansion of the workforce, which has been heavily impacted by the extraordinary demands of the pandemic.

9.156. The lack of resilience also impacted strategies to maintain healthcare, such as the greater use of remote technology, the separation of Covid-19 and non-Covid-19

270 Aneel Bhangu 31 October 2024 24/3-8
271 INQ000474262_0058-0059 paras 137-140
272 INQ000485652_0459-0460 para 1598
273 INQ000485652_0462
274 INQ000485652_0428 para 1512d

patients, and the creation of Covid-19-free pathways. They were all dependent on the availability of sufficient resources and capacity in terms of equipment, workforce and the physical estate. It is unsurprising, therefore, that the system struggled to meet the needs of those with conditions other than Covid-19.

9.157. Had there been capacity, in terms of bed numbers, physical space, equipment and the workforce, this would have mitigated the need to pause or postpone treatments for non-Covid-19 conditions.[275] The constraints also hampered the recovery efforts once the peak surges in demand had passed.[276]

9.158. Ms Pritchard agreed with Dr Northover that future pandemic plans should include a surge capacity plan for mental health services, as there was for acute and critical care for physical health conditions.[277] Both acknowledged that, even prior to the pandemic, there was insufficient mental health service provision to meet demand.[278]

9.159. Ms Pritchard recommended "*planning for recovery right from the start*" of a pandemic.[279] However, flexible strategies to enable elective care to continue safely during a pandemic are very hard to implement without advanced planning.[280] There is a serious risk that, as senior healthcare professionals and specialists retire over the next 5 to 10 years, the experience and lessons learned during the pandemic regarding the maintenance of specific non-pandemic healthcare services will be lost.[281] It is essential that this detailed technical knowledge is incorporated into current pandemic planning.

9.160. Pandemic plans must take account of available resources and how these can be increased at pace in an emergency – for example, the healthcare workforce cannot be rapidly expanded because of the time it takes to recruit and train staff.[282] To ensure resilience, there must be sufficient capacity in the system to enable a stepping-up of healthcare services in the event of a pandemic. Professors Bhangu and Gale both endorsed the use of the Surgical Preparedness Index to enable hospitals to perform annual self-assessment of their surgical preparedness to identify areas that can be improved and to create resilience in local surgical systems.[283]

9.161. The Inquiry notes that the *Fit for the Future: 10 Year Health Plan for England* seeks to address some of these issues, together with a forthcoming workforce plan to boost recruitment and transform the workforce.[284] Similar commitments are made in the

275 INQ000485652_0553 para 1920; INQ000474262_0061 para 148
276 Stephen Powis 7 November 2024 195/15-17
277 Guy Northover 31 October 2024 173/7-16; Amanda Pritchard 11 November 2024 168/8-17
278 Amanda Pritchard 11 November 2024 167/15-20
279 Amanda Pritchard 11 November 2024 58/9-12, 167/15-16
280 INQ000474244_0062 para 79
281 See INQ000474244_0067 para 114
282 Christopher Whitty 26 September 2024 69/11-22
283 The Surgical Preparedness Index is a 23-point assessment tool to measure elective surgical system pandemic preparedness and support system strengthening (INQ000474244_0050, 0067 paras 80, 111; Aneel Bhangu 31 October 2024 34/21-25; INQ000494739_00137 para 470).
284 *Fit for the Future: 10 Year Health Plan for England*, Secretary of State for Health and Social Care, July 2025 (https://assets.publishing.service.gov.uk/media/6888a0b1a11f859994409147/fit-for-the-future-10-year-health-plan-for-england.pdf; INQ000650755)

NHS Scotland Operational Improvement Plan.[285] The extent to which these ambitious plans can be realised depends again on funding: the allocation of resources is a matter for the UK government and devolved administrations. However, it is clear that the publicly funded healthcare systems across the UK must receive appropriate investment to enable them to recover from the devastating impact of Covid-19 and to build the resilience needed to face the next pandemic in a better state than in 2020.

285 *NHS Scotland Operational Improvement Plan*, NHS Scotland, March 2025 (https://www.gov.scot/binaries/content/documents/govscot/publications/strategy-plan/2025/03/nhs-scotland-operational-improvement-plan/documents/nhs-scotland-operational-improvement-plan/nhs-scotland-operational-improvement-plan/govscot%3Adocument/nhs-scotland-operational-improvement-plan.pdf; INQ000650756)

Chapter 10: Impact on healthcare workers and ‘overwhelm’

Introduction

10.1. The phrase 'protect the NHS' was adopted by all four governments of the UK as they took steps to prevent the healthcare systems in the four nations from becoming 'overwhelmed'. Ministers used the word 'overwhelm' to describe a situation where there was a total collapse of healthcare systems and hospitals ran out of beds. The Inquiry accepts that, as a result of the efforts of those working in the healthcare systems, that risk never materialised. However, healthcare systems teetered on the brink of total collapse and the people working in them made huge sacrifices to ensure that the care of patients continued.

10.2. The commitment, dedication and sheer resolve of the healthcare workforce were remarkable. Both clinical and non-clinical staff endured considerable hardships, working long hours in extraordinarily difficult and pressured circumstances. For many healthcare workers, the Covid-19 pandemic had a significant and long-lasting impact on their mental health and wellbeing and exacerbated the stresses and strains of working in a healthcare system that lacked resilience. As a paramedic explained to the Inquiry's listening exercise, Every Story Matters:

> "*The expectation on us, as healthcare workers, was unreal. And it's almost like we were supposed to be superhuman, and not fall ill, know the answers to everything, encourage everyone, while we were feeling terrified ourselves.*"[1]

10.3. This chapter examines the ways in which the healthcare workforce was impacted by the pandemic, as well as the steps taken to protect and support healthcare workers' wellbeing and mental health. It considers how the healthcare workforce can be better supported in the event of a future pandemic. Finally, this chapter explores whether the publicly funded healthcare systems of the UK were 'overwhelmed'.

Impact on the mental health and wellbeing of healthcare workers

10.4. A number of surveys demonstrate the profoundly negative effect that the Covid-19 pandemic had on the mental health of healthcare workers.

10.5. UK-wide surveys conducted on behalf of the British Medical Association showed an increase in the number of doctors who experienced a decline in their mental health as the pandemic progressed. On 30 April 2020, 29% of respondents said that their mental health was worse than before the pandemic.[2] In April 2021, half of the respondents reported that their mental health suffered because of their work or

1 *Every Story Matters: Healthcare*, p151 (INQ000474233)
2 INQ000477304_0093 para 215(a)(i)

study.[3] By November 2021, 64% of respondents were suffering from a work or study-related mental health condition.[4]

10.6. A January 2021 survey that measured the prevalence of mental health symptoms among intensive care unit workers in England found that 52% of the more than 6,000 responses reported symptoms consistent with severe depression.[5] Some 47% reported symptoms consistent with probable post-traumatic stress disorder – a rate "*comparable with that seen in British military veterans deployed in combat roles during the Afghanistan war*".[6] The survey was repeated at roughly four to six-week intervals, during which time 12% to 15% of the surveyed staff expressed suicidal ideation or thoughts of self-harm.[7] The survey responses resonate with healthcare workers who have described the pandemic as resembling a "*terrorist attack*" or a "*war zone*".[8]

10.7. The findings of the surveys encapsulate both the severity of the impact of the pandemic on healthcare workers and the number of people who were affected by it. They highlight the need for governments and healthcare providers to protect the mental health of healthcare workers.

10.8. The negative impact of the pandemic upon the mental health of healthcare workers is likely to have affected patients. At the peak of the January 2021 surge, 69.1% of healthcare workers in intensive care units met the threshold criteria for moderate (27.9%) or severe (41.2%) functional impairment.[9] That impairment has the potential to impact the quality and safety of patient care, due to 'presenteeism':

> "[P]*resenteeism, in which staff continue to work while functionally impaired by the state of their mental health, may lead to an increased risk of errors and poorer performance, which in turn may impact the quality and safety of patient care*."[10]

Professor Charlotte Summers and Dr Ganesh Suntharalingam, expert witnesses on intensive care, commented:

> "[T]*he mental health of staff who worked in the ICU* [intensive care unit] *during the pandemic worsened as the rate and volume of admission of critically ill patients increased, with likely consequences for the quality and safety of patient care*."[11]

3 INQ000477304_0093 para 215(a)(ii)
4 INQ000477304_0093 para 215(a)(iii)
5 INQ000474327_0023 para 122
6 INQ000474327_0023 para 122
7 INQ000474327_0023 para 123
8 INQ000474327_0004 para 18; *Every Story Matters: Healthcare*, p143 (INQ000474233)
9 INQ000474327_0023 para 124
10 INQ000474255_0055 para 134
11 INQ000474255_0056 para 142

Factors impacting workers' wellbeing

10.9. There were a number of factors which contributed to increased stress and pressure on healthcare workers, with damaging consequences for their mental health and wellbeing. The rise in the number of severely ill patients needing hospital care meant that changes had to be made to the healthcare systems, as described in previous chapters. Many healthcare workers found that their role and working environment had changed dramatically from the pre-pandemic period.

Access to basic needs during a shift

10.10. The need to don (put on) and doff (take off) personal protective equipment (PPE) meant that it was not easy for healthcare workers to take regular breaks and maintain continuity of care.[12] A hospital healthcare assistant told Every Story Matters:

> "*Just the day-to-day things that we do – and you tend to neglect yourself, as in a drink or going to the toilet because you had to take all your PPE off and that was exhausting. Then you'd have to come back and put it all on. So that was hard …* [and] *that was over two years.*"[13]

10.11. A report by Hywel Dda University Health Board in June 2021 noted:

> "*The working environment was cited as being a source of work based anxiety. This was mostly due to a lack of breaks but also a lack of anywhere to take a break also loomed large in the reports. Quite a few staff took their breaks sat in their cars in the car park eating sandwiches with a flask of coffee.*"[14]

10.12. Some hospitals reported repurposing other rooms, such as seminar or meeting rooms, to provide additional space as staff rest areas.[15] A future pandemic may require social distancing and so healthcare providers should consider how to provide areas for healthcare workers to take socially distanced breaks during their shifts. Trusts and boards should identify any hospitals which, due to characteristics of their estate, could not accommodate space for breaks and should consider whether alternative arrangements are required.

10.13. Healthcare workers struggled to access other basic necessities. Dr Tilna Tilakkumar, a GP who was redeployed to a continuing care adult ward, described a lack of shower facilities and scrubs in her hospital and the need for food and drink deliveries since there was no canteen.[16] Dr Stuart Edwardson, a Specialty Registrar in

12 INQ000474282_0079 para 7.9
13 *Every Story Matters: Healthcare*, p119 (INQ000474233)
14 *Understanding the Staff Experience in Hywel Dda University Health Board During the 2020-2021 COVID 19 Pandemic: A Report to the Rest, Recovery and Recuperation Reference Group*, NHS Wales and Hywel Dda University Health Board, June 2021, p9 (INQ000466548)
15 INQ000478213_0037 para 196
16 INQ000492278_0013 paras 49-50

Anaesthesia and Intensive Care Medicine in Scotland, described the challenges he faced:

> "*The working pattern was exceptionally tough. We worked many chains of nightshifts and weekends with relatively few 'rest' periods. The hospital itself had basically no areas to get food or drink … Instead, a large plastic box was situated in the anaesthetic offices which was regularly replenished with snacks. This became a cornerstone of our nutrition on long days and nights at work. At night, due to minimal rest facilities for an enhanced registrar team, many of us slept on the floor or in sleeping bags or camp beds that we had brought in (if there was ever the chance to gain any rest).*"[17]

The impact of patient deaths

10.14. Some healthcare workers were redeployed into intensive care and emergency care from areas where they did not usually encounter critical illness and death, and they struggled to cope with frequent patient deaths. As one hospital manager put it:

> "*They weren't trained to be on the front line, to be in critical care, to see patients that were that ill. So, they were coming back with mental health issues and breakdowns, and going off sick, and sickness levels were quite high. The impact was massive.*"[18]

However, even those who stayed in their usual roles found the scale of death and suffering during the pandemic extraordinarily difficult. As one paramedic described:

> "*I know that I see a lot of trauma a lot of the time, but this … was on a different kind of level. It was something that none of us had experienced. And everyone was sort of just winging their way through this situation, that no one really knew how to handle it, but we were trying our best.*"[19]

10.15. At times during the pandemic, patients were dying in hospitals at an unprecedented rate. As a result, "*many staff in critical care saw levels of patient death in multiples of their previous experience*".[20] Dr Stephen Mathieu, President of the Intensive Care Society from December 2022, described:

> "*In ordinary circumstances outside of the Covid-19 pandemic, circa 20% of patients admitted to ICUs would die there; however, during wave 1 of the pandemic between February and August 2020, this increased to circa 43%.*"[21]

17 INQ000485986_0002 para 3
18 *Every Story Matters: Healthcare*, p79 (INQ000474233)
19 *Every Story Matters: Healthcare*, p140 (INQ000474233)
20 INQ000412890_0183 para 706; see also Kevin Fong 26 September 2024 21/12-14
21 INQ000472300_0045 para 94

10.16. In early 2020, Professor Kevin Fong, National Clinical Adviser in Emergency Preparedness, Resilience and Response for Covid-19 to NHS England during the pandemic, established a series of peer support visits by a team of doctors and nurses who had relevant experience to visit intensive care units across England.[22] The Inquiry is not aware of any equivalent schemes in Wales, Scotland or Northern Ireland.[23] An important part of the visits was to attend intensive care units alongside the clinical teams to understand the pressures those units were under (and relay those pressures to the centre) and to "*share best practice, lessons and experiences*".[24]

10.17. Professor Fong vividly described the accounts given by intensive care staff about the scale of death they experienced and its impact upon them:

> "*We had nurses talking about patients raining from the sky … one of the nurses told me that they'd just got tired of putting people in body bags, and at the hospital where they said sometimes they were so overwhelmed that they were … putting patients in body bags, lifting them from the bed, putting them on the floor, putting another patient in their bed straightaway because there wasn't time. We went to another unit where things got so bad, they were so short of resources, they ran out of body bags and they were instead issued with 9-foot clear plastic sacks and cable ties, and those nurses talk about being really traumatised by that because they had recurring nightmares about feeling like they were just throwing bodies away. These people are used to seeing death but not on that scale and not like that. And whatever the figures show you, the experience for them was indescribable.*"[25]

10.18. There were also occasions where healthcare workers had to care for their own colleagues who had Covid-19, some of whom died in their care. Dr Jack Parry-Jones, a consultant in adult intensive care medicine in Wales, said that caring for infected healthcare workers was "*traumatic*" and that:

> "[T]*he deaths of any healthcare workers admitted to critical care had a particularly heavy mental impact on those caring for them.*"[26]

Duration of the pandemic

10.19. The protracted duration of the pandemic and its multiple waves meant that healthcare workers were subject to heightened levels of workplace stress and pressure for an extended period of time. The British Medical Association said:

22 INQ000474327_0007-0009 paras 37, 39, 44, 46-47
23 Kevin Fong 26 September 2024 15/6-7
24 INQ000474327_0009 para 45
25 Kevin Fong 26 September 2024 21/24-22/17
26 INQ000421876_0006 para 22

> "[A]*t the beginning of the pandemic, the medical profession felt a sense of camaraderie, satisfaction from helping in a national emergency, and a sense of achievement from making radical changes to care delivery in a short amount of time … However, initial feelings of positivity and high morale amongst staff tended to wear off after the first wave*."[27]

10.20. One hospital that received a peer support visit reported that, in the second wave of the pandemic, senior nurses "*had more experience and were better equipped but were more fatigued*" and that, for its intensive care unit staff, after the first wave "*the adrenaline and the drive had gone, and were replaced by fear, anxiety and stress*".[28]

10.21. A lack of workforce capacity made it difficult for healthcare workers to take annual leave during the pandemic, which contributed to burn-out and fatigue within the profession.[29] The Hospital Consultants and Specialists Association (a union for hospital doctors) carried out a study between December 2020 and January 2021. The study found that the average number of leave days taken since the start of the pandemic was 16 and fewer than half of respondents thought they would be able to take their full annual leave allowance (on average between 25 and 30 days per year, depending on role).[30]

10.22. One hospital doctor told Every Story Matters:

> "*By the second year, the infrastructure, the staffing, the burnout was such that it really suffered. We were all so exhausted and I've never really met such a group of well-meaning humans as these … and yet, to see how little reserve was left and … there's always someone sick and, you know, it's really hard to be that person yourself as well, so no one goes off sick until they're* [an] *absolute mess which is pretty awful too*."[31]

Increase and changes in workload

10.23. Expanding hospital capacity, including the redeployment of staff and increasing the ratio of patients to staff, had a significant impact on healthcare workers. Those working in intensive care struggled to deal with the increase in numbers of patients. During one peer support visit, the intensive care nurses told the visiting team that they "*couldn't operate*" with "*diluted ratios, with one specialist ICU nurse covering four or six patients at a time*".[32] During another visit, Professor Fong said that nurses told him:

27 INQ000477304_0181 para 483
28 INQ000474327_0011, 0013 paras 59, 65j; see also INQ000474327_0015 para 76
29 INQ000477304_0100 paras 226-227
30 INQ000471985_0037 para 121
31 *Every Story Matters: Healthcare*, p150 (INQ000474233)
32 Kevin Fong 26 September 2024 9/19-21

> "[A]*ll you have time to do is to manage the alarms; you're not managing the patients. The alarms are going off constantly -- the syringe drivers, the ventilators, the beds, whatever you've got, the oxygen, and you're putting out fires, rather than caring for the patient*."[33]

10.24. The addition of untrained staff to intensive care units during the pandemic carried "*a considerable psychological burden*" for a number of intensive care nurses as those nurses had to supervise the untrained staff in addition to carrying out their own duties.[34]

10.25. One hospital nurse described the impact of the increased workload to Every Story Matters:

> "*It was really hard. I think you were rushed off your feet. Your breaks were reduced. You were hungry, you were tired. Then when you got home at night and knowing you've got to go and do it again, and you just, it's kind of, it was a dread you felt, thinking, what am I walking into tomorrow?*"[35]

10.26. A doctor who worked in an emergency department felt that there was no time to reflect or to consider their own mental health needs:

> "*You didn't have time for having mental health issues, you just needed to get on with it because you were doing a job and you were, you felt like you were fighting for your own life every day.*"[36]

10.27. The increase in workload was not felt solely in hospitals. Those working in primary care, such as GPs and pharmacists, also experienced an increase in their workload and the burden on them as a result of the pandemic.

General practice

10.28. General practice is the "*front door*" of the health service in the UK, where patients seek advice and treatment for non-emergency health concerns as well as referral to specialist healthcare services.[37]

10.29. During the pandemic, GPs experienced the burden of additional workload and changes to their working practice, such as the increased use of technology to enable remote consultations. However, the Inquiry heard that general practice was already in a precarious position prior to the pandemic.[38] While almost all residents in the UK are registered with a GP, the ageing population, coupled with rising numbers of health conditions per person and an insufficient number of GPs, meant that demand

33 Kevin Fong 26 September 2024 9/22-10/2
34 Daniele Bryden 8 October 2024 163/2-11
35 *Every Story Matters: Healthcare*, p145 (INQ000474233)
36 *Every Story Matters: Healthcare*, p45 (INQ000474233)
37 INQ000474283_0009 para 16
38 INQ000474283_0009 para 18; Michael Mulholland 23 September 2024 131/10-19

for primary care appointments had increased rapidly in the years leading up to the pandemic.[39] Dr Michael Mulholland, Honorary Secretary of the Royal College of General Practitioners, said:

> "[G]*eneral practice has kept going for many years despite always being underfunded, and GP resilience does keep the service running at that stage, but general practice was in a precarious place where the extra burden of a pandemic was not something we thought we would be able to deal with*."[40]

Professor Adrian Edwards, expert witness on general medical practice during the pandemic, told the Inquiry that very little had been done to prepare general practice for a pandemic.[41]

10.30. There were significant fluctuations in GP workloads during the different waves of the pandemic and across different parts of the country. Professor Edwards noted that a survey conducted by the Royal College of General Practitioners in Wales found that, prior to the pandemic, GPs worked on average at 108% capacity.[42] However, most GPs reported to the survey that their patient-facing workload initially reduced to about 40% between March and June 2020, returned to normal by August 2020, and by December 2020 was at an average of 127% capacity.[43]

10.31. It is likely that the initial drop in workload was related to the change in the number of appointments during 2020, with a noticeable drop in appointments in England and Scotland between January and July 2020 (see Figure 21). Data for Wales and Northern Ireland were not published.[44]

39 INQ000474283_0006 para 3
40 Michael Mulholland 23 September 2024 131/14-19
41 Adrian Edwards 23 September 2024 35/7-17
42 INQ000474283_0063 para 223
43 INQ000474283_0063 para 223
44 INQ000339027_0014 para 73

Figure 21: Appointments in general practice in England and Scotland, from July 2018 to April 2022

Source: INQ000339027_0015

10.32. With the introduction of the shielding programme, GPs were required to identify, advise and support clinically extremely vulnerable patients, which added significantly to their workload.[45] In mid-April 2020, GP practices in England were spending an average of 26 hours a week reviewing whether patients should be shielding.[46] Changes to guidance about who should shield increased the burden on GPs, as they were obliged to re-review their patient list to identify who was affected by the changes in guidance.[47] As one GP described the situation:

> "*We had to go through 3,300 patient records over Easter weekend. So that was Saturday and Sunday … it took hours.*"[48]

10.33. The need to provide Covid-19 vaccinations further increased the workload in primary care.[49] GP staff supported the vaccination effort, all of which was undertaken alongside their usual workload.

45 INQ000339027_0027 para 154; INQ000477304_0168 para 438
46 INQ000477304_0168 para 439
47 INQ000477304_0168 para 438
48 INQ000397298_0003
49 INQ000340104_0026 para 111b; INQ000477304_0068 para 153

10.34. Professor Edwards noted that the pandemic "*worsened GP wellbeing and increased levels of burnout*".[50] A GP practice manager told Every Story Matters:

> "*Lots of anxiety … I started smoking again due to the stress … I really struggled … I was tearful a lot. It almost felt quite manic trying to keep up with the latest rules as to what was happening, what we were allowed to do and what we couldn't. I did go through a period where I had work-based counselling to help me deal with the emotional stresses.*"[51]

Pharmacists

10.35. Nick Kaye, Chair of the National Pharmacy Association from April 2023, explained that during the pandemic, community pharmacy took "*on a bigger role as a first port of call for patients struggling to access other parts of the health service*".[52] A contributor to Every Story Matters told the Inquiry that there were days when there were "*80 or 90 people queuing*" outside the pharmacy.[53]

10.36. Despite the running costs of community pharmacies rising over recent years, funding had not increased since 2016.[54] The community pharmacy workforce was strained.[55] In August 2019, there were 14,296 registered pharmacies in Great Britain. By August 2022, this number had reduced to 13,846.[56]

10.37. During the pandemic, community pharmacies experienced an increase in the number of patients seeking advice for both minor and more serious conditions, a tripling of phone calls to pharmacies, and a rise in the number of prescriptions being dispensed and delivered.[57] The shielding programme also increased the workload of community pharmacies. In April 2020, pharmacies in England began delivering medicines to the shielded population as part of an NHS England service.[58] Similar schemes operated in Scotland, Wales and Northern Ireland.[59]

10.38. A survey of community pharmacists in England, Scotland and Wales showed that, across the pandemic, about 95% were at high risk of burn-out.[60] Jonathan Rees, a superintendent pharmacist for two family-run pharmacies in Wales, described how he regularly worked several hours of overtime per day.[61] His pharmacy remained

50 INQ000474283_0073 para 262
51 *Every Story Matters: Healthcare*, p156 (INQ000474233)
52 INQ000340104_0009 para 39
53 *Every Story Matters: Healthcare*, p42 (INQ000474233)
54 INQ000340104_0028 para 116
55 Nick Kaye 4 November 2024 114/18-19
56 INQ000340104_0006 para 27
57 INQ000340104_0009-0010 paras 40, 43-44
58 INQ000340104_0017 para 65
59 Nick Kaye 4 November 2024 118/11-13
60 *Workforce and Wellbeing Survey 2022: Survey Analysis by the RPS Research Team*, Royal Pharmaceutical Society, January 2023, p9 (https://www.rpharms.com/Portals/0/RPS%20document%20library/Open%20access/Workforce%20Wellbeing/Workforce%20and%20Wellbeing%20Survey%202022-120123.pdf; INQ000319535)
61 INQ000492290_0003 para 12

open seven days a week and "*every single day of the year*[.] *I did not have a day off in that period.*"[62]

10.39. Community pharmacists also felt underappreciated, particularly when they were not treated in the same way as those working in other areas of healthcare. For example, community pharmacists were not initially included in the life assurance scheme for "*NHS frontline health and social care staff*" in England that was announced in April 2020.[63] The scheme provided £60,000 to the families of healthcare workers who died after contracting Covid-19 at work.[64] Three days after the scheme was announced, Matt Hancock MP, Secretary of State for Health and Social Care from July 2018 to June 2021, posted a social media message stating that community pharmacists were included in the scheme.[65] The initial exclusion made individuals working in community pharmacy who were aware of it feel like an afterthought, which was "*demotivating and demoralising for those people giving that care*".[66]

Redeployment in secondary care

10.40. The redeployment of staff to increase capacity in certain areas of the healthcare systems took a significant toll on many healthcare workers. The British Medical Association commented that "*for many doctors, redeployment was a really stressful, difficult period in their working lives*".[67] Redeployment "*had a significant negative impact on the wellbeing and working lives of doctors, both physically and psychologically*", whether the doctors were redeployed themselves or were covering gaps that arose when others were redeployed.[68]

10.41. One nurse who was redeployed during the pandemic explained to Every Story Matters: "*I felt disempowered when forced into unfamiliar roles without proper training.*"[69]

10.42. Despite the potential consequences for patient safety, as well as the impact on staff anxiety, training or induction was not always provided to redeployed workers. One UK-wide British Medical Association survey in April 2020 found that:

> "[O]*f respondents who had been redeployed, 33% had not been provided with an induction into the new role and 32% had not been provided with training related to the new role.*"[70]

62 INQ000492290_0005 para 26
63 INQ000340104_0019 para 77. The scheme was announced in England. No decision was taken in the devolved administrations until after community pharmacists had been included in the scheme in England.
64 Nick Kaye 4 November 2024 133/9-11
65 INQ000319544_0001
66 Nick Kaye 4 November 2024 134/20-25
67 INQ000477304_0083 para 190
68 INQ000477304_0083 paras 190-191
69 *Every Story Matters: Healthcare*, p28 (INQ000474233)
70 INQ000477304_0084 para 193d

10.43. A hospital doctor told Every Story Matters:

> "*Many staff were redeployed to different clinical areas away from where they normally work to assist with the Covid response – these members of staff were 'thrown in at the deep end' with little additional training and no choice about where they were sent. This also had an impact on many junior doctors' training pathways*."[71]

A hospital nurse who was redeployed told Every Story Matters:

> "*I'd not worked on a hospital ward for over 20 years, so felt like a duck out of water, it was a steep learning curve to work in an area so stressful with little support*."[72]

10.44. Staff also experienced challenges with communication when wearing PPE. This was particularly difficult for workers who had been redeployed, as they were "*working in unfamiliar environments with people who all looked the same in PPE*".[73] This caused "*difficulty in knowing who had the right ICU expertise to ask for help*".[74]

Redeployment of ethnic minority healthcare workers

10.45. According to Professor JS Bamrah, a senior NHS consultant psychiatrist who gave evidence on behalf of the Federation of Ethnic Minority Healthcare Organisations:

> "[We] *heard anecdotal evidence from the frontlines as to a disproportionate amount of Black, Asian, and Minority Ethnic HCWs* [healthcare workers] *being redeployed into 'red zones'. Many of our members complained about unfair allocation to high-risk areas such as covid wards compared to their white counterparts*."[75]

He cited the Chairperson of the Muslim Doctors Association, who said:

> "[W]*hat that did was create a heightened level of anxiety and stress among minority ethnic colleagues, who were treated unfairly on the coal face*."[76]

10.46. Professor Philip Banfield, Chair of the British Medical Association UK council from July 2022 to June 2025, also told the Inquiry that doctors from ethnic minority backgrounds felt they were asked to work in higher-risk areas compared with healthcare workers of White ethnicity.[77]

71 *Every Story Matters: Healthcare*, p55 (INQ000474233)
72 *Every Story Matters: Healthcare*, p61 (INQ000474233)
73 INQ000474255_0080 para 206
74 INQ000474255_0080 para 206
75 INQ000399526_0014 para 42
76 INQ000399526_0014 para 43
77 INQ000477304_0176 para 471

10.47. The NHS Staff Survey 2021 for England (which had 648,594 responses) found:

- The proportion of staff who reported working on a Covid-19-specific ward/area during the pandemic was higher across staff from ethnicities other than White (49.2%) compared with White staff (34.7%).[78]
- A lower proportion of staff from ethnicities other than White were required to work remotely/from home (30.8%) compared with White staff (41.6%).[79]

10.48. Given that the NHS workforce in England was made up of 20% to 24% ethnic minority staff during the pandemic, the findings provide a degree of objective support for the views Professor Bamrah relayed to the Inquiry.[80]

10.49. However, the briefing on the results from the NHS Staff Survey 2021 in England expressly stated:

> "*Note that the relationship between occupation group, Covid-19 and ethnic background is not straightforward. Some roles are more or less likely to be redeployed, involve working in a Covid-19 ward or area, or work remotely, and the distribution of responses from staff across different ethnic backgrounds varies across occupation groups, which may explain some of the differences observed.*"[81]

10.50. The NHS Race and Health Observatory (an independent body established in April 2021 to tackle racial and ethnic inequalities) published a rapid review of ethnic inequalities in healthcare and the NHS workforce in February 2022. Among other findings, that review referred to a study of 500 UK healthcare workers which:

> "*indicated that ethnic minority healthcare workers were twice as likely as White healthcare workers to work in areas with Covid-19 cases*".[82]

10.51. Specifically, on redeployment, the study cited by the NHS Race and Health Observatory stated:

> "*Whilst minority ethnic HCWs* [healthcare workers] *overall were no more likely than White HCWs to be redeployed, minority ethnic in nursing roles were three times as likely to be redeployed than white nursing staff.*"[83]

78 'NHS Staff Survey 2021 National Results Briefing', NHS and Survey Coordination Centre, March 2022, p13 (INQ000330931). This is the terminology in the staff survey.
79 'NHS Staff Survey 2021 National Results Briefing', NHS and Survey Coordination Centre, March 2022, p14 (INQ000330931). This is the terminology in the staff survey.
80 INQ000412890_0186 para 715
81 'NHS Staff Survey 2021 National Results Briefing', NHS and Survey Coordination Centre, March 2022, pp13-14 (INQ000330931)
82 INQ000315604_0006 para 9c; see also *Ethnic Inequalities in Healthcare: A Rapid Evidence Review*, NHS Race and Health Observatory, February 2022, p82 (https://nhsrho.org/wp-content/uploads/2023/05/RHO-Rapid-Review-Final-Report_.pdf; INQ000249828)
83 'Ethnic disparities in health and social care workers' exposure, protection, and clinical management of the COVID-19 pandemic in the UK', A Kapilashrami, M Otis, D Omodara, A Nandi, A Vats, O Adeniyi, et al, *Critical Public Health* (2021), 32(1), 68-81 (https://doi.org/10.1080/09581596.2021.1959020; INQ000588168)

10.52. Professor Habib Naqvi, Chief Executive Officer of the NHS Race and Health Observatory from April 2021, was asked by the Inquiry whether the findings of the rapid review (albeit not explicitly the finding on the redeployment of healthcare workers) were "*a manifestation of structural or institutional racism in the NHS*", to which he replied:

> "[I]*t would be a combination of structural inequalities, the inequalities and structural racism that we see within society, how that plays out, for example, within the education system or the legal system, or within healthcare, as well as the interpersonal racism that we see on an everyday basis, the trauma, the bullying and harassment, what we call micro and macro aggressions, and how those two interact in terms of institutional racism, how that plays out within policies and processes within organisations, including, of course, our healthcare system.*"[84]

10.53. The pandemic undoubtedly gave rise to concerns about disproportionate redeployment of ethnic minority healthcare workers. However, this evidence is mainly anecdotal, with limited data analysis in support, such that the Inquiry is unable to properly draw conclusions about the extent to which ethnic minority healthcare workers were disproportionately redeployed, nor what the causes may have been for this.

Outsourced workers

10.54. Outsourced healthcare workers such as cleaners, porters, caterers and couriers faced additional pressures during the pandemic, often linked to their employment status as outsourced or agency workers, not directly employed by the NHS. M3/W1, a hospital cleaner (granted anonymity by the Inquiry), said that the number of areas she was asked to clean increased during the pandemic, which meant longer working hours.[85] She said she did not "*have the option to take time off work*" as she needed the money to live on and to support her family and felt unable to decline working extra hours for fear of being disciplined or sacked.[86] She said:

> "[I] *suffered with severe anxiety throughout the pandemic, and for a long time after. I was constantly worrying that I would catch the virus, about what might happen to my health, and how if I could not work that I might lose my home and end up destitute.*"[87]

10.55. Representatives of a number of migrant worker organisations told the Inquiry that many outsourced migrant healthcare workers felt that their concerns and complaints

84 Habib Naqvi 10 October 2024 112/7-113/13
85 The Inquiry's decision to give this witness anonymity is contained in its restriction order of 22 August 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-information-regarding-m3-w1-dated-22-08-2024).
86 INQ000474284_0002 para 3
87 INQ000474284_0005 para 16

about access to PPE or greater exposure to risk of Covid-19 infection were dismissed or ignored.[88] This led to increased anxiety for these workers, for whom their:

> "*migration status is tied to their work which has the effect of reducing their ability to challenge management decisions without risking their leave to remain in the country*".[89]

The Frontline Migrant Health Workers Group told the Inquiry:

> "*Whilst the conditions would have been challenging in any case, the lack of support, staffing shortages, lack of PPE and repeated surges of the virus aggravated the lasting impact on our members. Many felt their complaints and concerns were not listened to which contributed to a feeling of powerlessness.*"[90]

Moral distress and injury

10.56. Moral distress is defined as:

> "*psychological unease generated where professionals identify an ethically correct action to take but are constrained in their ability to take that action*".[91]

10.57. Moral injury can arise where sustained moral distress leads to impaired function or longer-term psychological harm. It can:

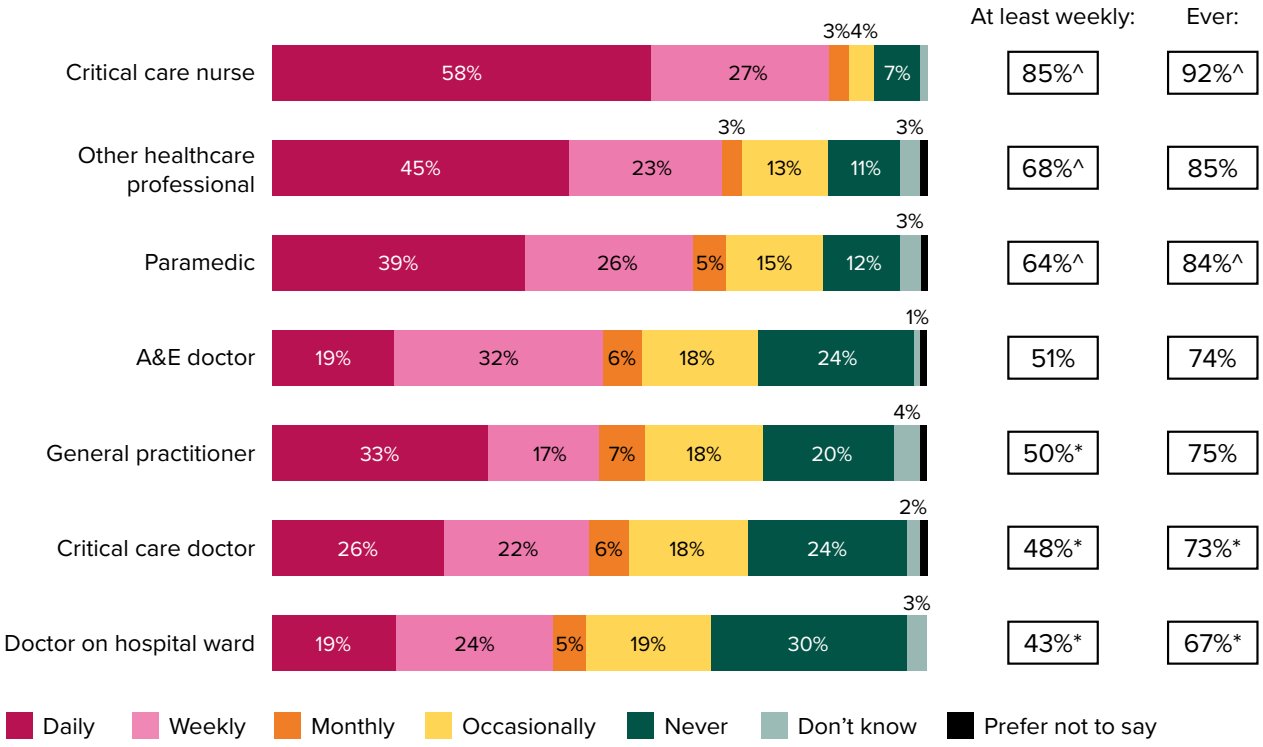
> "*produce profound guilt and shame, and in some cases also a sense of betrayal, anger and profound 'moral disorientation'. It has also been linked to severe mental health issues.*"[92]

10.58. A British Medical Association survey in the spring of 2021 found that "*insufficient staff to suitably treat all patients*" was the most common factor cited by respondents as contributing to their moral distress.[93] Other factors included mental and physical fatigue and an inability to provide timely treatment or give sufficient emotional support.[94]

10.59. The Inquiry's research analysing escalation of care decisions during the first two waves of the pandemic found that 80% of the 1,683 healthcare professionals who responded reported having to act in ways that conflicted with their values during the pandemic.[95] As Figure 22 shows, 85% of critical care nurses said this happened at least weekly.

88 INQ000477577_0013, 0028-0029 paras 60-62, 124-127
89 INQ000477577_0012 para 53
90 INQ000477577_0028 para 126
91 INQ000477304_0151 footnote 70
92 INQ000477304_0151 footnote 71
93 *The Impact of the Pandemic on the Medical Profession*, British Medical Association, 2022, p18 (INQ000118475)
94 *The Impact of the Pandemic on the Medical Profession*, British Medical Association, 2022, p18 (INQ000118475)
95 INQ000499523_0004

Figure 22: Frequency with which respondents acted in a way that conflicted with their values when at work during the pandemic



^ significantly higher than the average of other groups
* significantly lower than the average of other groups

Source: INQ000499523_0033

10.60. Every Story Matters was told about the impact on some healthcare workers of having to make decisions about prioritising care and transferring patients to intensive care, which is considered in more detail in Chapter 6: Care for patients with Covid-19. One hospital nurse recounted:

> "*We were being made to play God in deciding on who went to ITU* [intensive therapy unit] – *who was given a chance to live and who wasn't.*"[96]

10.61. A contributor to Every Story Matters reflected on her experience in an intensive care unit during the pandemic and how this had an impact on her:

> *"A lot of them didn't get the ultimate and optimal pathways they should have been on because of Covid-19. Therefore, that's led to detrimental impact on their, not just quality of life, but overall lifespan … which has an impact on us, personally, because you just feel like you haven't been able to deliver the service that you would have hoped."*[97]

96 *Every Story Matters: Healthcare*, p27 (INQ000474233). Intensive therapy units are also known as intensive care units.
97 *Every Story Matters: Healthcare*, p27 (INQ000474233)

10.62. Every Story Matters also heard about the differences in how the public perceived the healthcare workforce and healthcare workers' own experiences of working in hospitals during the pandemic. One nurse reflected:

> "*That was the expectation of working there, like you should feel proud, you're on the front line, you're a soldier, you're a hero … when in reality you wouldn't say what's going on behind closed doors. And I wouldn't be necessarily proud of everything that I'd done, or the decisions that had to be made at the time because of lack of equipment or staffing or whatever.*"[98]

10.63. Visiting restrictions were an important aspect of infection prevention and control measures, as examined in Chapter 2: Infection prevention and control in practice. Enforcing visiting restrictions and witnessing their impact on patients' families and loved ones greatly affected healthcare workers, who would ordinarily have tried to comfort distressed relatives. During a peer support visit, an intensive care matron described how:

> "*It was harrowing for the family but also for the nurse who was unable to provide any comfort to that relative in the form of a hug, hand hold, in the way they would do normally. Staff were, and still are, haunted by the cries of these loved ones – they felt helpless.*"[99]

10.64. Professor Fong stated that at "*every single unit*" his peer support programme visited, nurses told him how difficult it was to prevent or restrict visiting and to try to facilitate a virtual visit:

> "*Exactly at a time when you would recuse yourself to give the patient and their family some dignity, you are actually holding a phone or an iPad up, showing them the monitor, showing the family the patient, listening to families imploring the patient not to die and then the howling down the phone, and with nothing else that you can do other than to stay there and to be entrained into that grief … there wasn't a single nurse I spoke to who didn't talk about how traumatic that was.*"[100]

10.65. For many healthcare workers, being unable to offer comfort and support they had been trained to provide to patients and their loved ones caused moral distress. As one contributor to Every Story Matters explained:

> "*You can't underestimate what this did to nursing staff, not being able to offer comfort to patients was soul destroying.*"[101]

98 *Every Story Matters: Healthcare*, p150 (INQ000474233)
99 INQ000474327_0013 para 65f
100 Kevin Fong 26 September 2024 30/25-31/12
101 *Every Story Matters: Healthcare*, p143 (INQ000474233)

Concerns about infection risks and access to personal protective equipment

10.66. In addition to working in highly pressured environments during the pandemic, worries about their own risks of catching Covid-19 added to anxiety for healthcare workers. As set out in Chapter 2: Infection prevention and control in practice, healthcare workers raised significant concerns at the start of the pandemic about their ability to access sufficient levels of PPE. This was of particular concern for those who were shielding and for doctors from ethnic minority backgrounds, who felt especially at risk due to the higher mortality rates within their ethnic groups.[102]

10.67. Healthcare workers were concerned that they were putting their families at risk and some went to great lengths to try to protect them. This included staff checking into hotels and sleeping in their car or in a caravan to try to reduce the risk of bringing Covid-19 into the family home or to be near their place of work in case they were needed.[103] Professor Bamrah observed that, in many ethnic minority communities, older generations co-habit with younger members of the family and so, "*in many instances*", ethnic minority healthcare workers moved into temporary accommodation in order to mitigate the risk of infecting their own potentially vulnerable family members.[104]

10.68. These worries were exacerbated by the lack of testing at the outset of the pandemic, which meant that healthcare workers did not know whether they had Covid-19 and whether they were putting their families at risk.[105]

10.69. Balancing concern for themselves and their families with a sense of duty and a desire to help patients caused many healthcare workers significant stress and worry. As a children's community nurse told Every Story Matters:

> "*The mental anguish, you tell yourself you have to park it, you have to get on for your family, for your children, everyone looks to you because you're in healthcare, you have to hold it all together. I did feel for the children … you still have that guilt, but they were short* [of staff]*, so I had to go in.*"[106]

All of these factors contributed to an increase in staff absences later in the pandemic.

10.70. Further, wearing PPE for prolonged periods of time, sometimes for more than 12 hours, was uncomfortable and caused some healthcare workers to suffer from skin irritation, pressure ulcers and discomfort, and led to heat exhaustion or dehydration.[107] Dr Gee Yen Shin, Professor Dinah Gould and Dr Ben Warne, expert witnesses on infection prevention and control, said that wearing a fluid-repellent

102 *The Impact of the Pandemic on the Medical Profession*, British Medical Association, 2022, p19 (INQ000118475)
103 INQ000492278_0011 para 42; INQ000474327_0024, 0027 paras 130, 147; Tracy Nicholls 23 September 2024 89/7-10
104 INQ000399526_0005 para 16
105 INQ000399526_0022 para 64
106 *Every Story Matters: Healthcare*, p151 (INQ000474233)
107 INQ000474282_0078-0079 paras 7.1-7.8

gown was similar to wearing a "*full-body waterproof coat*".[108] They also endorsed one study that found that working in PPE for lengthy periods of time:

> "*led to physical and cognitive impairment manifested as increased fatigue, headaches and decision making/problem solving performance declined*".[109]

Staff risk assessments

10.71. Particularly in the early part of the pandemic, healthcare workers understandably felt considerable anxiety about the level of risk to which they were exposed when working in healthcare settings. Early reports of higher death rates from Covid-19 among people from ethnic minority backgrounds exacerbated these concerns. To comply with their duty to ensure a safe working environment, healthcare employers introduced individual risk assessments for those who came into direct contact with Covid-19 through their work to help identify which staff or roles required additional protection.

10.72. NHS Scotland and the Scottish Government jointly issued guidance for risk assessments for healthcare workers on 30 March 2020.[110] In May 2020, the Scottish Government issued an instruction that every ethnic minority member of NHS staff should have a risk assessment; further guidance in respect of those assessments was provided on 21 May 2020.[111]

10.73. On 29 April 2020, NHS England informed NHS colleagues that "*emerging UK and international data*" suggested there was a disproportionate impact of Covid-19 on ethnic minorities and advised:

> "*on a precautionary basis we recommend employers should risk-assess staff at potentially greater risk and make appropriate arrangements accordingly*".[112]

10.74. The next day, NHS Employers (an employers' organisation for the NHS in England) published the first version of the risk assessment guidance, which was:

> "*for employers on how to carry out risk assessments particularly for vulnerable groups, to understand the specific risks staff members face from exposure to COVID-19 and actions which employers can take to keep staff safe*".[113]

10.75. This pre-dated the Welsh Government's risk assessment tool for use in healthcare settings, which was issued on 27 May 2020.[114] While the Welsh Government's tool

108 INQ000474282_0079 para 7.8; INQ000474255_0080 para 204; Christopher Whitty 26 September 2024 141/9-11
109 INQ000474282_0079 para 7.10
110 Caroline Lamb 14 November 2024 50/23-51/1
111 Fiona McQueen 17 September 2024 188/14-23; Caroline Lamb 14 November 2024 51/1-3
112 INQ000087412_0003
113 INQ000331022_0001; INQ000412890_0187 para 719
114 INQ000023242; INQ000282020_0018

was "*designed to be suitable for use for all health and social care staff, regardless of ethnicity*", it was created by a Risk Assessment sub-group of the First Minister's Black, Asian and Minority Ethnic Covid-19 Advisory Group.[115] Factors that had a specific impact on ethnic minority groups were therefore taken into account when creating the tool. These included:

> "*bullying and microaggression regarding PPE availability … More Reluctant to speak out & ask for PPE; Less likely to be heard, if they raise concerns*".[116]

Professor Bamrah reported that the tool "*has been said to provide confidence to public sector workers to manage their risks and continue working*".[117]

10.76. Professor Bamrah reported that there was "*no prior plan to risk assess staff*" in Northern Ireland and that, in one trust, risk assessments took place because one ethnic minority healthcare worker found a risk assessment online and brought it to their manager's attention.[118] However, both the Belfast Health and Social Care Trust and the Western Health and Social Care Trust described a regional risk assessment, although the details of that assessment are not known.[119]

10.77. Following the introduction of risk assessments in England, Wales and Scotland, healthcare workers raised concerns about the length of time it took for them to be risk assessed. A British Medical Association member survey found that:

> "*By May 2020, 64% of respondents to a BMA* [British Medical Association] *COVID-19 tracker survey had not been risk assessed in relation to their potential contact with COVID-19.*"[120]

10.78. In relation to NHS England, Professor Sir Stephen Powis, National Medical Director at NHS England from 2018 to July 2025, agreed that:

> "[B]*y the time we got to June and July I think it was apparent to us organisations were not rolling this risk assessment tool or risk assessment process out as quickly as we would have liked.*"[121]

10.79. As a result, NHS England set up a Risk Assessment Delivery Unit on 6 July 2020, which monitored trusts' compliance with risk assessments for staff. By mid-July 2020, 73% of Black and ethnic minority staff had received a Covid-19 risk assessment, rising to 92% by the end of July 2020. By 2 September 2020, 96% of ethnic minority

115 INQ000474252_0056 para 160; INQ000282020_0002. The First Minister's Black, Asian and Minority Ethnic Covid-19 Advisory Group was first convened on 29 April 2020 in response to the concerns that some ethnic groups were disproportionately impacted by Covid-19 with consequent adverse health outcomes (see INQ000485721_0101 para 243).
116 INQ000282020_0016-0017
117 INQ000427706_0007 para 20
118 INQ000427706_0008 para 25
119 INQ000474259_0208 para 487; INQ000477593_0005 para 11
120 INQ000477304_0132 para 310
121 Stephen Powis 7 November 2024 171/23-172/2

healthcare workers in England had been risk assessed.[122] Risk assessments in England were carried out by a third party discussing the risk with a healthcare worker and reviewing medical records.[123] In contrast, risk assessments in Wales were self-administered and so could be conducted by healthcare workers themselves at a time of their choosing.[124] However, it was then incumbent on the worker to discuss their risk score with their employer, which may have been challenging in workplaces where, as noted above, ethnic minority staff already felt reluctant to speak out and ask for PPE.

10.80. Although NHS England conducted surveys of trusts to ensure that hospital workers were undergoing risk assessments, in other areas of healthcare there was lower take-up. In June 2020, a survey by the Royal Pharmaceutical Society and the UK Black Pharmacists Association found that more than two-thirds of Black, Asian and ethnic minority pharmacists had not had workplace risk assessments for Covid-19.[125] It also found that 78% of Black pharmacists and pharmacy students felt that they were at risk of Covid-19 and wanted changes to be made to the way they worked. The Royal Pharmaceutical Society called the results "*shocking*".[126]

10.81. The Inquiry also heard that, in general practice, there was a lack of support from health boards or clinical commissioning groups to enable staff risk assessments to take place, with the responsibility largely left to individuals.[127] In the ambulance sector, some ethnic minority staff felt that risk assessments were tokenistic and failed to lead to sustained change or action.[128]

Vaccination as a condition of deployment in England

10.82. In Module 3, the Inquiry heard evidence about the impact on healthcare workers of plans to implement a policy of mandatory Covid-19 vaccination for those working in healthcare settings. (Module 4: Vaccines and therapeutics is considering the reasons for the introduction of regulations which required vaccination of workers as a condition of deployment in care homes in England and the eventual decision not to implement similar regulations in healthcare settings.)

10.83. In November 2021, the UK government introduced regulations requiring staff working in registered care homes in England to be vaccinated as a condition of employment.[129] The Department of Health and Social Care proposed to extend the policy to the healthcare sector in England and drafted regulations that would require healthcare workers to be vaccinated against Covid-19 from 1 April 2022. Mr Hancock

122 INQ000412890_0217-0220 paras 822-832; INQ000330885_0003
123 INQ000282020_0018
124 INQ000427706_0007 para 20
125 INQ000409843_0016 paras 58-59
126 INQ000411604_0025
127 Adrian Edwards 23 September 2024 59/1-60/2; INQ000479041_0066 para 237
128 Anthony Marsh 1 October 2024 99/4-8
129 INQ000587736_0038 para 195. The governments of Scotland, Wales and Northern Ireland did not propose vaccination as a condition of deployment during the pandemic (INQ000396735_0034 para 113).

was of the view that there was a "*moral case*" for the introduction of this policy in healthcare settings, explaining:

> "[I]*f you are employed to care for others then you should take reasonable steps to ensure you are not harming those in your care. A clinically proven vaccine is a reasonable step that should be expected … for all those who then choose, through their employment, to put themselves in close proximity with people who may be very vulnerable to disease*."[130]

10.84. Although the regulations for healthcare workers were revoked before the date on which they were to come into force, planning for their implementation caused distress to many healthcare workers and also created tension between some workers and their employers.

10.85. As part of their preparations for the introduction of the policy, NHS trusts carefully assessed the potential impact on their workforce, including ascertaining the vaccination status of every member of staff and assessing the likely impact of the policy on capacity.[131] This caused tension between trusts and staff who did not wish to take up the vaccination but worried that they might lose their jobs if they did not agree to be vaccinated.[132] One trust warned that the impact of the policy on staff morale and relations "*could have been significant and long-lasting*".[133]

10.86. M3/W3, a healthcare worker (granted anonymity by the Inquiry), was hesitant to get the vaccine. She described the impact that the policy had upon her:

> "*I booked myself in and got the first vaccination and booster right at the tail end of the deadline even though I didn't want to. It was still unclear where I could be redeployed to without being vaccinated and VCOD* [vaccination as a proposed condition of deployment] *seemed to be firmly going ahead at this point so I was anxious and scared about losing my job. It felt like I had no option but to get the vaccine, regardless of the risk … The U-turn on the decision came too late for me. This is still a bitter regret and something I feel very strongly about given my personal risks*."[134]

10.87. On 1 March 2022, the UK government announced that, from 15 March 2022, the regulations mandating vaccination as a condition of deployment for health and social care workers would be revoked.[135] This meant that the requirement for healthcare workers to be vaccinated from 1 April 2022 never came into force. Sir Sajid Javid MP, Secretary of State for Health and Social Care from June 2021 to July 2022, told the

130 Matt Hancock 21 November 2024 152/11-23
131 See, for example, INQ000472879_0007 para 33
132 See, for example, INQ000474214_0013 para 2.38; INQ000472879_0008 paras 35-36; INQ000471398_0010 para 38; INQ000471161_0012 para 57
133 INQ000471161_0013 para 60
134 INQ000494256_0010-0011 para 39
135 'Regulations making COVID-19 vaccination a condition of deployment to end', Department of Health and Social Care, 1 March 2022 (https://www.gov.uk/government/news/regulations-making-covid-19-vaccination-a-condition-of-deployment-to-end; INQ000257312)

Inquiry that this was because "*the vaccine's ability to prevent transmission of Omicron was less than it was for other variants*".[136]

10.88. The negative impact caused by the announcement of the intention to introduce vaccination as a condition of deployment for healthcare workers and the planning that trusts had to do in response demonstrates the difficulties of imposing mandatory vaccinations on the health workforce. As Sara Gorton, Head of Health at UNISON and Co-Chair of the NHS Staff Council from 2017, observed in September 2021:

> "*The key to convincing hesitant staff is persuasion, not force. Pushing NHS staff to get vaccinated will create resentment, destroy already fragile morale and reduce take-up.*"[137]

Abuse of healthcare workers

10.89. Despite overwhelming support for healthcare workers from most members of the public and the widespread recognition of the enormous efforts – and sacrifices – being made, many healthcare workers experienced abuse during the pandemic.[138]

10.90. Surveys by the British Medical Association suggested that doctors experienced increasing levels of abuse from the public as the pandemic wore on:

> "*a. In August 2020, 10% of respondents to our COVID-19 tracker survey had experienced unusual levels of bullying, harassment or discrimination from patients or the public within the previous two weeks.*
>
> *b. Nearly a year later, by July 2021, almost half of our survey respondents (48%) said that instances of threatening behaviour, violence, or verbal abuse had increased over the past year. The same survey found that more than a third of doctors had faced recent abuse from patients or those close to them. For GPs, the number was higher, with half reporting verbal abuse in the past month.*"[139]

10.91. Seven out of ten midwives across the UK experienced abuse during the pandemic, which was mainly related to visitor restrictions.[140] An NHS 111 call handler told Every Story Matters:

136 INQ000485736_0056 para 119
137 INQ000471985_0045-0046 para 148
138 INQ000477304_0112 para 253
139 INQ000477304_0112 para 254
140 'Seven out of 10 midwives experience abuse from women and partners during pandemic, says RCM', Royal College of Midwives, 20 November 2020 (INQ000280495)

> "*During the pandemic I worked for NHS 111 as a health advisor. When we went into lockdown, and Covid started affecting people in the UK, NHS 111 was the place people would turn to prior to 119 being set up. We worked tirelessly, often facing abuse off people due to the uncertain times.*"[141]

10.92. The British Medical Association considered that the abuse of healthcare workers stemmed from public frustration at the changing rules for accessing healthcare, such as remote consultations and visiting restrictions, coupled with "*unhelpful media narratives*".[142] It was suggested that better explanation of these rules by the public bodies responsible, as well as vocal support from politicians for the efforts of the healthcare workforce, could have helped to improve public understanding and reduce frustration.[143]

10.93. It is unacceptable for healthcare workers to receive abuse. Those working in the healthcare systems during the pandemic did so in circumstances of unprecedented difficulty. Many made great personal sacrifices amid considerable worries for their own and their family's safety, as they strove to provide the best care they could. The public owes them a huge debt of gratitude.

Support provided for healthcare workers

10.94. It was clear that the extraordinary circumstances of the pandemic would impact upon the mental health and wellbeing of healthcare workers. Early in the pandemic, the UK government and devolved administrations recognised that healthcare workers would require a range of additional support measures and a number of steps were taken to increase the psychological support available.

10.95. Across the UK, helplines were set up to handle crisis calls or provide mental health support, and online resources were created to help healthcare workers manage their health and wellbeing.[144] By the end of 2022, Wales, Scotland and Northern Ireland had each made one-off 'thank you' payments to healthcare staff.[145]

10.96. On 16 April 2020, the Welsh Government extended a 'Health for Health Professionals Wales' mental health scheme – which had previously only been in place for doctors – to every front-line healthcare worker.[146] During the first wave of the pandemic, several health boards in Wales also offered additional psychological 'safe spaces'

141 *Every Story Matters: Healthcare*, p105 (INQ000474233). The 119 service was set up to enable vaccinations to be booked by telephone.
142 INQ000477304_0112 para 255
143 INQ000477304_0112 para 255
144 INQ000412890_0200, 0202 paras 770, 762b; INQ000474252_0134 para 362; INQ000474225_0029 para 80; INQ000477304_0099 paras 222-224
145 INQ000485979_0089 paras 337-338; INQ000485721_0244 para 618; INQ000421800_0052 para 147
146 'Mental health support scheme for doctors extended to every frontline healthcare worker in Wales', Welsh Government, 16 April 2020 (https://www.gov.wales/mental-health-support-scheme-doctors-extended-every-frontline-healthcare-worker-wales; INQ000480084)

staffed by redeployed clinical psychology teams. Those teams were withdrawn when they were required on front-line duties.[147]

10.97. Several hospitals in England adopted extra support for their healthcare workers, such as additional funded psychological support posts, wellbeing and support hubs, and extra staff who provided additional psychological support.[148] However, some hospitals told the Inquiry that they were unable to provide the psychological support to their staff that the trust would have wanted due to a lack of resources, including a lack of staff to fill the new roles.[149]

10.98. In October 2020, NHS England announced a plan to establish 40 mental health and wellbeing hubs for healthcare workers across the country. By early 2021, 22 hubs had been established.[150] Nearly 1,100 people had been referred to a hub and approximately one-third of those were referred for treatment.[151]

10.99. On 10 August 2020, Jeane Freeman MSP, Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021, agreed to establish the Workforce Specialist Service in Scotland. This programme was subsequently launched on 26 February 2021 and offered mental health assessment and treatment for healthcare professionals in Scotland.[152]

10.100. In Northern Ireland, a pilot known as Thrive was launched in the Belfast Health and Social Care Trust on 24 May 2021. It provided access to specialist psychological support and therapy for any staff who had worked in intensive care within the Belfast Trust or the Belfast City Hospital Nightingale facility, including those who had been redeployed from any trust.[153] During the pilot phase, 169 staff within the Belfast Trust self-referred to Thrive, with the Medical Director of the Belfast Trust describing "*very good outcomes*".[154]

10.101. A Professional Nurse Advocate Programme was launched in England in March 2021. It was set up to train nurses to listen to and help understand the challenges colleagues were facing and to provide and deliver quality improvement initiatives in response.[155] Early results showed that the programme improved staff wellbeing, with "*many examples of Nurses saying that it has literally saved their life*".[156] The programme also improved staff retention and patient outcomes.[157] This demonstrates the value of national support programmes.

147 INQ000477304_0099 para 222
148 INQ000479890_0010 para 36; INQ000477448_0036 para 161; INQ000421793_0082 para 427; INQ000474039_0018 para 55
149 See, for example, INQ000472879_0013 para 56; INQ000477597_0018, 0026 paras 57, 90
150 INQ000412890_0209 para 800
151 INQ000412890_0210 para 801
152 INQ000474225_0029 para 81
153 INQ000474226_0023 paras 70-71
154 INQ000474259_0206 para 481
155 INQ000474327_0032-0033 paras 181-182
156 INQ000474327_0033 para 183
157 INQ000474327_0032 para 181

10.102. Some sectors of the healthcare systems, however, experienced a lack of support from healthcare organisations during the pandemic. Professor Edwards told the Inquiry that there was a lack of primary care-specific support during the pandemic.[158] There were also similar examples from 111 and 999 services and from ambulance trusts. Call handlers for NHS 111 or 999 services who spoke to Every Story Matters gave mixed responses about whether they felt supported or unsupported during the pandemic.[159] A number of staff initiatives were introduced by ambulance trusts, such as 24-hour 'zen rooms' at clinical contact centres and bespoke wellbeing sessions.[160] In August 2021, ambulance trusts in England requested immediate nationwide support for staff mental health from NHS England, which was granted.[161]

10.103. Some healthcare workers felt that the support offered to staff was not always tailored to staff needs. As one hospital doctor told Every Story Matters:

> "*I feel that we kept getting told what the hospital were doing for staff and things, but I don't think they ever asked the staff what would make a difference to being at work. I think it was also the little things, like they would have said being able to park … being able to go for lunch in a chillout space.*"[162]

10.104. The long-lasting impact of the pandemic on the mental health and wellbeing of healthcare workers was encapsulated by a paramedic's account to Every Story Matters:

> "*I don't think I've come back to 100% of how I normally was. It takes its toll. But it's almost like having this piece of paper, that's nice, and flat, and straight, and then you've crumpled it and then you try and straighten out that piece of paper again. It's still creased up, no matter how much you try and straighten it out.*"[163]

10.105. Evidence and expert advice obtained by NHS England suggests that "*it may take between five and seven years to fully recover from the impact of the trauma that some staff have experienced*".[164] *Fit for the Future: 10 Year Health Plan for England* recognises the impact of 'trauma' from the pandemic on healthcare workers and sets out that NHS staff will benefit from staff treatment hubs that include mental health support.[165]

10.106. While ongoing support is required to deal with the consequences of the pandemic on healthcare workers, some staff told the Inquiry that they were not offered the support they needed. For example, a contributor to Every Story Matters said:

158 Adrian Edwards 23 September 2024 57/24-58/5
159 *Every Story Matters: Healthcare*, pp107-108 (INQ000474233)
160 INQ000485168_0076 paras 240-241
161 INQ000479041_0067 para 243
162 *Every Story Matters: Healthcare*, p30 (INQ000474233)
163 *Every Story Matters: Healthcare*, p157 (INQ000474233)
164 INQ000412890_0224 para 846
165 *Fit for the Future: 10 Year Health Plan for England*, Secretary of State for Health and Social Care, July 2025, pp96, 105 (https://assets.publishing.service.gov.uk/media/6888a0b1a11f859994409147/fit-for-the-future-10-year-health-plan-for-england.pdf; INQ000650755)

> "*I am still saddened that the NHS does not offer free counselling to staff who have an element of PTSD* [post-traumatic stress disorder] *from the pandemic. We have to pay privately to get any support, however, my colleagues and I are often priced out as private mental health support is very expensive*."[166]

10.107. Professor Sir Gregor Smith, Interim Chief Medical Officer for Scotland from April to December 2020 and Chief Medical Officer for Scotland from December 2020, acknowledged:

> "*We were too slow to provide support for those staff … particularly psychological support, safe space for them to debrief in particular after what was quite harrowing experiences for many of them, and that's something which I would like to have seen more of.*"[167]

10.108. Professor Sir Michael McBride, Chief Medical Officer for Northern Ireland from September 2006, observed:

> "*And I have no doubt that there's -- what was -- much more that we could've done. We did provide* [a] *number of online resources, mental health support, apps which offered access to and signposted to mental health services, but, you know, I don't think you can -- I mean, I don't think you can ever necessarily comprehend the impact that had or adequately address those impacts. And yes, I wish we -- I wish we could've done more.*"[168]

10.109. The Inquiry agrees that more support should have been offered to healthcare workers and that the support should have been available earlier. It is critical that support for the impacts of the pandemic is available to all healthcare workers from the outset of a pandemic. The health departments in the four nations should review the ongoing psychological and emotional support available to healthcare workers to ensure that staff have access to the help they need.

10.110. The healthcare workforce was at the heart of the healthcare response to Covid-19. Professor Powis told the Inquiry:

> "[O]*ur staff are everything in the NHS. However much capital investment there is, however much infrastructure we put in, at the end of the day this is a people service and it's the staff of the service … that make it what it is.*"[169]

Professor Fong considered that:

166 *Every Story Matters: Healthcare*, p159 (INQ000474233)
167 Gregor Smith 25 September 2024 155/15-20
168 Michael McBride 24 September 2024 158/7-15
169 Stephen Powis 11 November 2024 15/20-24

> "[A] *lasting legacy of the pandemic should be the recognition that the needs of our patients are aligned with the needs of the NHS staff; that if we do not care for our carers they will not be able to care for our patients.*"[170]

Recommendation 10: Psychological and emotional support for healthcare workers

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, working with healthcare employers and professional bodies, should put in place plans to deliver effective support for healthcare workers at scale from the outset of a pandemic. Plans should cover the nature and level of support that will be provided during and after a pandemic.

All four governments should develop a programme of peer support visits that can, from the outset of a pandemic, be targeted towards areas of acute hospitals under considerable strain. The purpose of the visits should be to support front-line staff, collect insights on the pressures that healthcare workers are facing and understand what further support they might need.

'Overwhelm'

10.111. Throughout the course of the pandemic, many witnesses – including ministers – spoke of the need to prevent healthcare systems from becoming 'overwhelmed'. As Sir Simon Stevens, Lord Stevens of Birmingham (Chief Executive of NHS England from April 2014 to July 2021), said:

> "[C]*ertainly by the beginning of March* [2020]*, it could be seen that, if action was not taken to reduce the growth of Covid, then the NHS would be overwhelmed.*"[171]

The Inquiry heard very different views as to whether at any point healthcare systems were overwhelmed from the perspectives of those responsible for the pandemic response and those involved in running and working in healthcare systems.

The views of ministers

10.112. When ministers spoke of healthcare systems being 'overwhelmed', they were contemplating a threshold of complete collapse of the healthcare systems.[172] For example, Mr Hancock told the Inquiry that 'overwhelm' was intended to convey the scenes from hospitals in northern Italy in February 2020.[173] He said:

170 INQ000474327_0034 para 188
171 Simon Stevens 2 November 2023 38/16-19
172 Humza Yousaf 19 November 2024 134/10-25; Vaughan Gething 20 November 2024 15/7-22; Jeane Freeman 19 November 2024 44/15-18
173 Matt Hancock 21 November 2024 2/10-14, 25/23-26/3

> "*The single most important fact about the NHS in the pandemic is that it was never overwhelmed. We collectively set this objective at the start, and achieved it throughout. Despite huge pressures, especially in particular areas at particular times, demand never exceeded capacity across the UK as a whole*."[174]

10.113. Like Mr Hancock, other ministers acknowledged that steps such as stopping elective care were taken to prevent the system being overwhelmed and that those steps caused harm to non-Covid-19 patients.[175] Vaughan Gething MS, Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021, accepted that "*we had to turn off parts of the NHS*" to prevent the system being overwhelmed.[176] Eluned Morgan MS, Baroness Morgan of Ely (Minister for Health and Social Services in the Welsh Government from May 2021 to March 2024), said:

> "[W]*e never ran out of beds but were the people working in the NHS overwhelmed? Yeah, I think there were a lot of people who were working in the NHS who were definitely overwhelmed and I'll never forget speaking to some of the people on the front line about how they were feeling, they were breaking down*."[177]

The views of others in the healthcare system

10.114. The Academy of Medical Royal Colleges shared the view of ministers:

> "*Despite fears as to what might happen, services did not collapse or become overwhelmed. The pressures on ICU and acute care and their staff were enormous but we are not aware of any cases of complete breakdown in care*."[178]

10.115. The UK may not have reached total collapse of the healthcare systems, but it teetered on the brink. Amanda Pritchard (Chief Operating Officer of NHS England and NHS Improvement and Chief Executive Officer of NHS Improvement from August 2019 to July 2021, and Chief Executive Officer of NHS England from August 2021 to April 2025) was all too aware of how close the system in England came to total collapse. She told the Inquiry:

174 INQ000421858_0001 para 4
175 Matt Hancock 21 November 2024 69/9-25; INQ000493484_0025 paras 92, 94; Jeane Freeman 19 November 2024 46/12-14; INQ000492281_0100, 0102 paras 309, 314-315
176 Vaughan Gething 20 November 2024 14/2-5
177 Eluned Morgan 20 November 2024 134/13-19
178 INQ000396735_0008 para 27

> "[I]*n terms of what we actually saw of the peak of demand and the level of pressure, wave 2 was completely terrifying at times … we were very close at times, very close … when trusts were -- and they were often -- getting to the peak, where they were right on the edge, there was the ability, because of the small number of times we see it flip over to level 4, to be able to relieve the pressure in that local place such that we didn't get to the position where there was widespread … active and systematic limitation of care*."[179]

10.116. Professor Sir Christopher Whitty, Chief Medical Officer for England from October 2019, stated that "*many places individually were overwhelmed at different points, in my judgment*".[180] A number of other witnesses told the Inquiry that, in their view, healthcare systems or parts of them (including the workforce) were at times overwhelmed during the pandemic.[181]

10.117. Professor Summers and Dr Suntharalingam stated that "*it is likely that in practice, ICU capacity was overwhelmed in some individual locations at certain times*".[182] They also noted that, since intensive care is the final pathway for many conditions, "*if critical care becomes overwhelmed, almost all healthcare is overwhelmed*".[183] Professor Fong observed:

> "[F]*rom the perspective of intensive care, if you ask yourself what intensive care is … it is the detail and the dedication, the ability to provide everything that can be provided in an effort to provide the best care for a patient who is critically unwell. If your definition of overwhelmed is your ability to provide that, then at many times and in many places the units were overwhelmed*."[184]

10.118. Dr Catherine McDonnell, Medical Director of the Western Health and Social Care Trust from March 2020 to June 2022, said that, at Altnagelvin Hospital in Northern Ireland, December 2021 to February 2022 "*was the second Christmas where the hospital was overwhelmed with admissions of patients with Covid*".[185] At that time, both nurses and doctors were telling their senior management that "*they felt they were not able to deliver care in the way that they usually would*".[186]

10.119. Preventing healthcare systems from being 'overwhelmed' – as ministers used the word – meant that it was not always possible to offer optimal care for Covid-19 patients and it came at the expense of people who had non-urgent but nonetheless

179 Amanda Pritchard 11 November 2024 106/11-107/2
180 Christopher Whitty 26 September 2024 173/24-25, discussing the 'CRITCON' system. CRITCON is a system of reporting used by hospitals to record the pressure on intensive care units, resulting in an assessment of available capacity.
181 See, for example, Philip Banfield 28 October 2024 106/22-25; INQ000346095_0016 para 37; Nick Kaye 4 November 2024 132/22-24; INQ000252494_0055 para 244; INQ000417461_0122 para 311; INQ000257329_0003 para 11; INQ000409093_0017-0018 para 40c
182 INQ000474255_0061 para 156
183 INQ000474255_0082 para 211
184 Kevin Fong 26 September 2024 52/6-19
185 INQ000477593_0041 para 100
186 Catherine McDonnell 30 September 2024 166/17-21

serious conditions and illnesses. It also placed an enormous burden on healthcare staff.

10.120. Healthcare systems faced extraordinary pressure and only just survived – they did so because so many healthcare workers made enormous sacrifices in putting their work before their own wellbeing and family life.

10.121. Professor Whitty observed that 'overwhelm' is:

> "*unfortunately, quite a loaded term, where people, depending on what point they're trying to make, either say things were or were not overwhelmed*".[187]

10.122. Nonetheless, the impacts described in this chapter and throughout the Report represent what most people would describe as 'overwhelming'. This is perhaps best illustrated by Professor Fong's visit in late December 2020 to a hospital that had a baseline intensive care capacity of 17 beds. He told the Inquiry:

> "[I]*t was a scene from hell. The chief exec, the chief operating officer, chief medical officer, nursing officer, they were all on the shop floor, all trying to do it, but this was a hospital in massive, massive trouble*."[188]

10.123. Professor Fong explained:

> "[T]*heir ICU was over full, accommodating 28 patients, 15 of whom were intubated. Another 19 more were present on their CPAP* [continuous positive airway pressure] *ward, which was also now also above its capacity.*
>
> *ICU Staff were nursing at 1:2 ratios in the side rooms and 1:4 in the open areas. There were no spare staff at all. Several of the ICU nurses themselves had resorted to wearing adult diapers or using patient commodes because they were so short of staff that nobody was available to give them toilet breaks.*
>
> *The overflow areas were full, the high dependency units and respiratory wards were also full, with patients on non-invasive ventilation. Here the staffing ratios were much lower while the mortality rate amongst patients was much higher and the impact on staff mental health and wellbeing more severe, even than that seen on the intensive care unit.*
>
> *I toured the hospital with the staff grade doctor covering critical care. He was wheezing and short of breath as we climbed the stairs. He had been seriously ill with Covid during the first wave and was still suffering with long Covid symptoms.*

187 Christopher Whitty 26 September 2024 62/16-19
188 Kevin Fong 26 September 2024 26/17-20

We reviewed the patients in the emergency department. All five of their resuscitation bays were full, three of those patients needed intubating and establishing on ventilators, and a further 6 patients on the acute wards were also deteriorating and in need of admission to ICU, but there was no room or spare staff to do so.

There was a queue of ambulances outside, and I was told that a patient had died in an ambulance while waiting to be admitted the night before and that the same had happened that morning.

Their oxygen control room display panel was showing caution and warning lights, suggesting that their main oxygen supply may be at risk. The Chief Operating Officer was in the process of troubleshooting that problem with the Estates department.

It is the closest I have ever seen a hospital to being in a state of operational collapse."[189]

10.124. Ultimately, it is a question of semantics. Whatever word is chosen, the impact of the pandemic on healthcare systems, their staff and their patients was devastating. We must never reach that point again. The recommendations set out in this Report are intended to minimise that risk.

189 INQ000474327_0018-0019 paras 96-103

Appendix 1: The background to this module and the Inquiry's methodology

Background

A1.1. The Right Honourable Boris Johnson MP, Prime Minister from July 2019 to September 2022, formally established the UK Covid-19 Inquiry in June 2022 to examine the preparations for and response to the Covid-19 pandemic in the UK and to learn lessons for the future. In December 2021, he had appointed The Right Honourable the Baroness Hallett DBE, a retired judge of the Court of Appeal, as its Chair.

A1.2. On 28 June 2022, the Prime Minister issued the final Terms of Reference for the Inquiry, establishing it under the Inquiries Act 2005.[1] The Inquiry formally opened on 21 July 2022 to:

> "*examine, consider and report on preparations and the response to the pandemic in England, Wales, Scotland and Northern Ireland, up to and including the Inquiry's formal setting-up date, 28 June 2022*".[2]

A1.3. To ensure a full and focused examination of the wide range of issues covered in the Terms of Reference and to produce regular reports, the Inquiry's investigation has been divided into sections or 'modules'. Each module gathers evidence, designates Core Participants and has both preliminary hearings (at which decisions about the procedure for the conduct of its investigations and public hearings are made) and full public hearings where evidence is heard. Details of public hearings are published by the Inquiry.[3]

A1.4. The Inquiry's Module 1, which considered the UK's resilience and preparedness, published its Report in July 2024.[4] The Inquiry's combined Report relating to Modules 2 (UK), 2A (Scotland), 2B (Wales) and 2C (Northern Ireland) – which addressed the UK's core political and administrative decision-making – was published in November 2025.[5] This Module 3 Report relates to the impact of the Covid-19 pandemic on the healthcare systems in the four nations of the UK.

1 See 'Covid-19 Inquiry Terms of Reference', UK Covid-19 Inquiry, 20 July 2022 (https://covid19.public-inquiry.uk/documents/terms-of-reference), which includes translations of the Inquiry's Terms of Reference; for the Inquiries Act 2005, see https://www.legislation.gov.uk/ukpga/2005/12/contents. A separate inquiry is taking place in Scotland, which will evaluate areas where policy was devolved to the Scottish Government, as set out in its Terms of Reference. The UK Inquiry works with the Scottish Inquiry to avoid duplication of work where possible.

2 'Covid-19 Inquiry Terms of Reference', UK Covid-19 Inquiry, 20 July 2022 (https://covid19.public-inquiry.uk/documents/terms-of-reference)

3 For further information, see 'Structure of the Inquiry', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/structure-of-the-inquiry).

4 *Module 1: The resilience and preparedness of the United Kingdom*, UK Covid-19 Inquiry, July 2024 (https://covid19.public-inquiry.uk/documents/module-1-full-report)

5 *Modules 2, 2A, 2B, 2C: Core decision-making and political governance*, UK Covid-19 Inquiry, November 2025 (https://covid19.public-inquiry.uk/documents/module-2-full-report)

A1.5. The Inquiry's currently active modules are as follows:

- Module 4: Vaccines and therapeutics[6]
- Module 5: Procurement[7]
- Module 6: Care sector[8]
- Module 7: Test, trace and isolate[9]
- Module 8: Children and young people[10]
- Module 9: Economic response[11]
- Module 10: Impact on society[12]

A1.6. A public inquiry is established to examine the facts and to find out exactly what happened. It is an inquisitorial, not an adversarial, process. This Report's conclusions and recommendations are based on an objective assessment of the totality of the evidence received by the Inquiry.

Module 3

A1.7. This Report concerns the impact of the Covid-19 pandemic on the healthcare systems in England, Wales, Scotland and Northern Ireland.

Outline of Scope

A1.8. As described in its Outline of Scope, Module 3 focused primarily on the period between 1 March 2020 and 28 June 2022 in considering the healthcare consequences of how the four governments of the UK and the general public responded to the pandemic.[13] In particular, the matters examined encompassed:

- The impact of the pandemic on healthcare providers, which included examining:
  - the impact on doctors, nurses, hospital staff, ambulance staff, pharmacists and medical staff in training;

6 'Vaccines and therapeutics (Module 4)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/vaccines-and-therapeutics-module-4)
7 'Procurement (Module 5)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/procurement-module-5)
8 'Care sector (Module 6)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/care-sector-module-6)
9 'Test, trace and isolate (Module 7)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/test-trace-and-isolate-module-7)
10 'Children and young people (Module 8)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/children-and-young-people-module-8)
11 'Economic response (Module 9)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/economic-response-module-9)
12 'Impact on society (Module 10)', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/modules/impact-on-society-module-10)
13 'Module 3: Provisional Outline of Scope', UK Covid-19 Inquiry, 8 November 2022 (https://covid19.public-inquiry.uk/documents/module-3-provisional-outline-of-scope)

  - staffing levels and critical care capacity; and
  - 111, 999 and ambulance services, GP services and hospitals.
- The impact of the Covid-19 pandemic on people's experience of healthcare, which included examining:
  - healthcare provision, treatment and critical care provision for patients with Covid-19;
  - healthcare provision and treatment for patients requiring care for reasons other than Covid-19 during the pandemic; and
  - the impact on identified services, including maternity services, children and young people's inpatient mental health services, hip replacement surgeries, ischaemic heart disease and colorectal cancer services.
- The characterisation, identification and treatment of the post-Covid-19 condition referred to as Long Covid.
- Core decision-making and leadership within healthcare systems during the pandemic.

A1.9. Module 3 prepared a list of issues to supplement the Provisional Outline of Scope, intended as a non-prescriptive guide to provide greater detail about the matters that might warrant investigation.

Core Participants

A1.10. In accordance with rule 5 of the Inquiry Rules 2006 and the Inquiry's Core Participant Protocol, the Chair designates a number of Core Participants – individuals, organisations or institutions with a specific interest in the matters being investigated – in each module.[14] Core Participants have enhanced rights in the Inquiry process, including receiving disclosure of documents, being represented, making legal submissions and suggesting lines of enquiry. They are also able to apply to the Inquiry for funding to cover legal and other costs.

A1.11. In Module 3, the Inquiry received 94 applications for Core Participant status, and the Chair appointed 36 Core Participants.

14 Inquiry Rules 2006 (https://www.legislation.gov.uk/uksi/2006/1838/contents/made); 'Core Participant Protocol', UK Covid-19 Inquiry, 21 July 2022 (https://covid19.public-inquiry.uk/wp-content/uploads/2023/05/Core-Participant-Protocol.docx-1.pdf)

Table 6: Module 3 Core Participants

Name of organisation/individual	Date of designation
Academy of Medical Royal Colleges	13 January 2023
Federation of Ethnic Minority Healthcare Organisations	13 January 2023
Royal College of Nursing	13 January 2023
Clinically Vulnerable Families	16 January 2023
Department of Health (Northern Ireland)	16 January 2023
Long Covid Kids, Long COVID Physio, Long Covid SOS and Long Covid Support (Long Covid Groups)	16 January 2023
National Institute for Health and Care Excellence (NICE)	16 January 2023
Public Health Scotland	16 January 2023
Scottish Health Boards: NHS 24; NHS Ayrshire and Arran; NHS Borders; NHS Dumfries and Galloway; NHS Education for Scotland; NHS Fife; NHS Forth Valley; NHS Grampian; NHS Greater Glasgow and Clyde; NHS Highland; NHS Lanarkshire; NHS Lothian; NHS National Waiting Times Centre Board; NHS Orkney; NHS Shetland; NHS Tayside; NHS Western Isles; Scottish Ambulance Service; and The State Hospital	16 January 2023
Scottish Ministers	16 January 2023
13 Pregnancy, Baby and Parent Organisations: Aching Arms; Baby Lifeline; Bliss; Ectopic Pregnancy Trust; Group B Strep Support; ICP Support; Lullaby Trust; Miscarriage Association; National Childbirth Trust; Pelvic Partnership; Pregnancy Sickness Support; Tommy's; and Twins Trust	17 January 2023
Covid-19 Bereaved Families for Justice	17 January 2023
Covid-19 Bereaved Families for Justice Cymru	17 January 2023
Northern Ireland Covid-19 Bereaved Families for Justice	17 January 2023
Public Health Agency (Northern Ireland)	17 January 2023
Scottish Covid Bereaved	17 January 2023
Trades Union Congress	17 January 2023
British Medical Association	18 January 2023
COVID-19 Airborne Transmission Alliance	18 January 2023
Disability Charities Consortium	18 January 2023

Name of organisation/individual	Date of designation
Group of Welsh NHS Bodies: Aneurin Bevan University Health Board; Betsi Cadwaladr University Health Board; Cwm Taf Morgannwg University Health Board; Hywel Dda University Health Board; Swansea Bay University Health Board; and Velindre University NHS Trust (excluding NHS Wales Shared Services Partnership)	18 January 2023
NHS England	18 January 2023
NHS National Services Scotland	18 January 2023
Office of the Chief Medical Officer	18 January 2023
Royal College of Anaesthetists, the Faculty of Intensive Care Medicine, and the Association of Anaesthetists	18 January 2023
Royal Pharmaceutical Society	18 January 2023
Secretary of State for Health and Social Care	18 January 2023
Welsh Ambulance Services NHS Trust	18 January 2023
Frontline Migrant Health Workers Group	16 February 2023
HM Treasury	16 February 2023
Independent Ambulance Association	16 February 2023
John's Campaign, Care Rights UK (formerly the Relatives and Residents Association) and the Patients Association	16 February 2023
Mind	16 February 2023
National Pharmacy Association	16 February 2023
UK Health Security Agency	16 February 2023
Welsh Government	21 February 2023

Public access to Inquiry proceedings

A1.12. In keeping with its public nature and the Chair's commitment to conduct the Inquiry in as open and transparent a manner as possible, arrangements were made for the hearings to be accessible to all who wished to follow them. The hearings were broadcast via livestream on the Inquiry's website or its YouTube channel (where they remain accessible) and members of the public were able to watch the hearings in person.[15]

15 'Impact of the Covid-19 pandemic on healthcare systems in the four nations of the UK (Module 3) – public hearings', UK Covid-19 Inquiry (https://covid19.public-inquiry.uk/hearings/impact-of-covid-19-pandemic-on-healthcare-systems-in-the-4-nations-of-the-uk-module-3; https://www.youtube.com/@UKCovid-19Inquiry/videos)

Evidence gathering

A1.13. In Module 3, the Inquiry issued approximately 250 requests for evidence, pursuant to rule 9 of the Inquiry Rules 2006, to organisations and individuals. It received and disclosed 361 written statements, which included 37 impact statements and 22 spotlight statements (discussed below). In addition, in Module 3, the Inquiry received and reviewed more than 20,000 documents, comprising exhibits to statements and documents forming part of general disclosure. These amounted to more than 315,000 pages, of which 234,226 were disclosed to Core Participants.

A1.14. The Inquiry also identified a sample of 22 individual spotlight hospitals from which it requested further evidence. The sample was chosen from a variety of trusts and health boards across the UK, taking into account factors including geographical spread, size and demography.[16] This enabled the Inquiry to gain a broader understanding of the experience of those working in hospitals and of the impact of the Covid-19 pandemic on healthcare systems across the UK.

A1.15. The Inquiry also commissioned an external research agency, IFF Research Ltd, to undertake a targeted survey of front-line healthcare professionals to investigate how escalation of care functioned during the pandemic. The final results of the survey were shared with Core Participants in advance of the Module 3 hearings and the 'Escalation of Care Survey Findings' by IFF Research Ltd has been published on the Inquiry website.[17]

A1.16. In Module 3, the Inquiry sent requests to a number of individuals from Core Participant groups who were particularly affected by the Covid-19 pandemic for evidence about the impact it had on them. Those contacted included: bereaved families; groups including the clinically vulnerable; those with, and supporting people with, Long Covid; charity groups; workers' organisations; professional membership organisations; and healthcare workers and, where applicable, their family members. The Inquiry received 37 statements, all of which have been published.

Every Story Matters

A1.17. As set out in the Terms of Reference, the Inquiry regards it as critical to its work to listen to and carefully consider the experiences of bereaved families and others who have suffered hardship or loss as a result of the pandemic. The Inquiry has done this in a number of ways, including through its listening exercise, Every Story Matters, the largest public engagement exercise by a UK public inquiry. It heard from thousands of people about their experiences of the pandemic.

16 'Ruling following the third Module 3 preliminary hearing on 10 April 2024', UK Covid-19 Inquiry, 25 April 2024 (https://covid19.public-inquiry.uk/documents/ruling-following-the-third-module-3-preliminary-hearing-on-10-april-2024)
17 INQ000499523

A1.18. Stories were shared with the Inquiry through a webform (including accessible versions), a series of events across the UK and interviews with under-represented groups.[18] Those aged 18 or older were invited to share as much or as little of their pandemic experience as they felt able, without the formality of giving evidence or attending a public hearing. Over 58,000 stories were shared with the Inquiry. The sharing of these experiences helped the Inquiry to understand events and their impact and has aided the development of recommendations that could reduce suffering in the future. Experiences shared with the Inquiry were analysed and reports – called records – have been produced, highlighting the themes that emerge and telling people's stories in their own words. Every Story Matters records have been used in evidence in relevant modules of the Inquiry.[19] The Inquiry also undertook a bespoke and targeted research project, hearing directly from some of the children and young people most affected by the pandemic, to help inform its findings and recommendations.[20]

A1.19. Module 3 was the first of the Inquiry's modules to prepare and publish an Every Story Matters record summarising what had been heard to date from this listening exercise – called *Every Story Matters: Healthcare*. This record has been referenced in this Report and has been published on the Inquiry website.[21]

Disclosure to Core Participants and publication of materials

A1.20. The Inquiry's approach to documents is set out in its Protocol on Documents, which explains key principles for the delivery of documents to the Inquiry, including requests for documents or witness statements pursuant to rule 9 of the Inquiry Rules 2006.[22] This should be read with the Inquiry's Protocol on the Redaction of Documents, which details the approach to the redaction of documents for the purposes of both disclosure to Core Participants and publication.[23]

A1.21. The Inquiry discloses all witness statements and documents it considers relevant to Core Participants in full, subject to any redactions applied in accordance with the Inquiry's Protocol on the Redaction of Documents.[24] To comply with section 18 of the Inquiries Act 2005, the Chair is taking reasonable steps to ensure that members of the public are able to view documents provided to the Inquiry and attend Inquiry hearings.[25] All documents shown on screen during the course of the hearings appear

18 'Every Story Matters', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/every-story-matters)
19 The Inquiry's Every Story Matters records can be found at https://covid19.public-inquiry.uk/every-story-matters/records.
20 See 'Hundreds of children and young people set to tell the Inquiry how the pandemic affected them', UK Covid-19 Inquiry, 15 April 2024 (https://covid19.public-inquiry.uk/news/hundreds-of-children-and-young-people-set-to-tell-the-inquiry-how-the-pandemic-affected-them)
21 *Every Story Matters: Healthcare*, UK Covid-19 Inquiry, June 2024 (https://covid19.public-inquiry.uk/documents/every-story-matters-healthcare-full-record; INQ000474233)
22 'Protocol on Documents', UK Covid-19 Inquiry, 29 July 2022 (https://covid19.public-inquiry.uk/documents/protocol-on-documents); Inquiry Rules 2006 (https://www.legislation.gov.uk/uksi/2006/1838/contents/made)
23 'Inquiry Protocol on the Redaction of Documents', UK Covid-19 Inquiry, 18 October 2022 (https://covid19.public-inquiry.uk/documents/inquiry-protocol-on-the-redaction-of-documents)
24 'Inquiry Protocol on the Redaction of Documents', UK Covid-19 Inquiry, 18 October 2022 (https://covid19.public-inquiry.uk/documents/inquiry-protocol-on-the-redaction-of-documents)
25 Inquiries Act 2005 (https://www.legislation.gov.uk/ukpga/2005/12/contents)

in the YouTube recording of the evidence and are published on the Inquiry's website at the end of each day. The witness statements of those who give evidence each day are also published in full. Since the conclusion of the hearings, the Chair has granted permission for the publication of further materials, including those referenced within this Report, where she has been satisfied it is necessary to do so.[26]

A1.22. In the event of an objection to the disclosure or publication of relevant material, an application must be made to the Chair for a restriction order in accordance with section 19 of the Inquiries Act 2005, following the Inquiry's Protocol on Applications for Restriction Orders.[27] In Module 3, the Chair issued six restriction orders concerning the publication of irrelevant and sensitive material and redacted material.[28]

The instruction of expert witnesses

A1.23. To assist the Inquiry, experts were appointed to cover a range of topics relevant to Module 3, including the impact of the Covid-19 pandemic on various aspects of medical care (including the treatment of Long Covid and some non-Covid-19 conditions identified for further investigation), infection prevention and control measures, as well as the science underpinning transmission.

26 'Documents', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk/documents)

27 Inquiries Act 2005 (https://www.legislation.gov.uk/ukpga/2005/12/contents); 'Inquiry Protocol on Applications for Restriction Orders', UK Covid-19 Inquiry, 18 October 2022 (https://covid19.public-inquiry.uk/documents/inquiry-protocol-on-applications-for-restriction-orders)

28 'Restriction Order', UK Covid-19 Inquiry, 22 August 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-information-regarding-m3-w2-dated-22-08-2024); 'Restriction Order', UK Covid-19 Inquiry, 22 August 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-information-regarding-m3-w1-dated-22-08-2024); 'Restriction Order', UK Covid-19 Inquiry, 30 August 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-information-regarding-m3-w4-dated-30-08-2024); 'Restriction Order', UK Covid-19 Inquiry, 30 August 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-information-regarding-m3-w3-dated-30-08-2024); 'Restriction Order', UK Covid-19 Inquiry, 16 September 2024 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-dated-16-09-2024); 'Decision on the application for a Restriction Order by UKHSA/01 and UKHSA/02', UK Covid-19 Inquiry, 18 September 2024 (https://covid19.public-inquiry.uk/documents/decision-on-the-application-for-a-restriction-order-by-ukhsa-01-and-ukhsa-02-dated-18-09-2024); 'Restriction Order', UK Covid-19 Inquiry, 30 January 2025 (https://covid19.public-inquiry.uk/documents/restriction-order-issued-by-the-chair-of-the-uk-covid-19-inquiry-regarding-the-publication-of-material-pursuant-to-section-19-of-the-inquiries-act-2005-dated-30-january-2025)

Table 7: Expert witnesses

Topic	Expert(s) appointed	Expert report
Physical sciences underpinning Covid-19 transmission	Professor Clive Beggs (Emeritus Professor of Applied Physiology at Leeds Beckett University)	INQ000474276
The treatment of Long Covid	Professor Chris Brightling (Professor of Respiratory Medicine at the University of Leicester) Dr Rachael Evans (Clinical Associate Professor and Honorary Consultant Respiratory Physician at the University of Leicester)	INQ000421758
Emergency pre-hospital care and shielding	Professor Helen Snooks (Professor of Health Services Research at Swansea University)	INQ000474285
General medical practice during the pandemic	Professor Adrian Edwards (Professor of General Practice at Cardiff University)	INQ000474283
The impact of the Covid-19 pandemic on healthcare systems in the UK: hip replacement	Professor Andrew Metcalfe (Professor of Orthopaedics at the University of Warwick) Chloe Scott (Consultant Hip, Knee and Trauma Surgeon at the Royal Infirmary of Edinburgh)	INQ000474262
Infection prevention and control	Dr Gee Yen Shin (Consultant Virologist at University College Hospitals NHS Foundation Trust) Professor Dinah Gould (registered nurse and nurse educator) Dr Ben Warne (Consultant in Infectious Diseases and General Medicine at Cambridge University Hospitals NHS Foundation Trust)	INQ000474282
Intensive care	Professor Charlotte Summers (Professor of Intensive Care Medicine at the University of Cambridge) Dr Ganesh Suntharalingam (ICU Consultant at London North West University Healthcare Trust)	INQ000474255

Topic	Expert(s) appointed	Expert report
Ischaemic heart disease	Professor Christopher Gale (Professor of Cardiovascular Medicine at the University of Leeds, Honorary Consultant Cardiologist at Leeds Teaching Hospitals NHS Trust) Dr Ramesh Nadarajah (Cardiology Specialty Registrar at Leeds Teaching Hospitals NHS Trust, Clinical Lecturer in Cardiology and Health Data Research UK Fellow at the University of Leeds)	INQ000494739
Non-Covid-19 conditions: child and adolescent mental health services	Dr Guy Northover (Consultant Child and Adolescent Psychiatrist and Lead Clinical Director at Berkshire Healthcare NHS Trust) Dr Sacha Evans (Consultant Child and Adolescent Psychiatrist at Great Ormond Street Hospital)	INQ000474300
Unveiling the hidden impact: colorectal cancer	Professor Aneel Bhangu (Consultant Colorectal Surgeon at University Hospitals Birmingham NHS Foundation Trust, Professor of Global Surgery at the University of Birmingham) Dr Dmitri Nepogodiev (Academic Clinical Lecturer in Public Health at the University of Birmingham)	INQ000474244

Witnesses at public hearings

A1.24. Witnesses are invited by the Inquiry to provide a statement if they have evidence relevant to a particular module. They give evidence under oath or affirmation and are questioned by Counsel to the Inquiry. Counsel to Core Participants can also ask questions with the Chair's permission pursuant to rule 10 of the Inquiry Rules 2006.

A1.25. At its public hearings in Module 3 between 9 September and 28 November 2024, the Inquiry heard evidence from 93 witnesses, including representatives of bereaved groups, charities and unions, healthcare workers, scientific advisers, medical directors, government ministers, government officials and expert witnesses.

Table 8: Module 3 witnesses from whom the Inquiry heard evidence

Witness (organisation)	Date of evidence
John Sullivan (member of Covid-19 Bereaved Families for Justice)	10 September 2024
Paul Jones (member of Covid-19 Bereaved Families for Justice Cymru)	10 September 2024
Carole Steele (member of Scottish Covid Bereaved)	10 September 2024
Catherine Todd (member of Northern Ireland Covid-19 Bereaved Families for Justice)	11 September 2024
Professor Clive Beggs (Emeritus Professor of Applied Physiology at Leeds Beckett University)	11 September 2024
Dr Barry Jones (Chair of the COVID-19 Airborne Transmission Alliance)	12 September 2024
Richard Brunt (Director of the Engagement and Policy Division at the Health and Safety Executive from April 2022)	12 September 2024
Sara Gorton (Head of Health at UNISON and Co-Chair of the NHS Staff Council from 2017)	12 September 2024
Professor Kevin Rowan (Head of the Organisation and Services Department of the Trades Union Congress from 2012)	16 September 2024
Rozanne Foyer (General Secretary of the Scottish Trades Union Congress from February 2020)	16 September 2024
Dr Lisa Ritchie OBE (National Deputy Director of Infection Prevention and Control at NHS England from April 2020)	16 September 2024
Dame Ruth May DBE (Chief Nursing Officer for England from January 2019 to July 2024)	17 September 2024
Professor Jean White CBE (Chief Nursing Officer for Wales from October 2010 to April 2021)	17 September 2024
Fiona McQueen CBE (Chief Nursing Officer for Scotland from November 2014 to February 2021)	17 September 2024
Professor Charlotte McArdle (Chief Nursing Officer for Northern Ireland from April 2013 to October 2021)	18 September 2024
Professor Susan Hopkins CBE (Deputy Director of the National Infection Service at Public Health England from 2018 to 2020, National Strategic Response Director for COVID-19 at Public Health England from September 2020 to September 2021, Chief Medical Adviser to the UK Health Security Agency from June 2022)	18 September 2024
Dr Gee Yen Shin (Consultant Virologist at University College Hospitals NHS Foundation Trust) Professor Dinah Gould (registered nurse and nurse educator) Dr Ben Warne (Consultant in Infectious Diseases and General Medicine at Cambridge University Hospitals NHS Foundation Trust)	19 September 2024

Witness (organisation)	Date of evidence
Professor Adrian Edwards (Professor of General Practice at Cardiff University)	23 September 2024
Tracy Nicholls OBE (Chief Executive of the College of Paramedics from January 2020)	23 September 2024
Dr Michael Mulholland (Honorary Secretary of the Royal College of General Practitioners)	23 September 2024
Professor Sir Michael McBride (Chief Medical Officer for Northern Ireland from September 2006)	24 September 2024
Professor Sir Gregor Smith (Interim Chief Medical Officer for Scotland from April to December 2020, Chief Medical Officer for Scotland from December 2020)	25 September 2024
Professor Kevin Fong (National Clinical Adviser in Emergency Preparedness, Resilience and Response for Covid-19 to NHS England during the pandemic)	26 September 2024
Professor Sir Christopher Whitty KCB (Chief Scientific Adviser for the Department of Health and Social Care from January 2016 to August 2021, Interim Government Chief Scientific Adviser from 2017 to 2018, Chief Medical Officer for England from October 2019)	26 September 2024
Sir Frank Atherton (Chief Medical Officer for Wales from August 2016 to January 2025)	30 September 2024
Dr Catherine McDonnell (Medical Director of the Western Health and Social Care Trust Northern Ireland from March 2020 to June 2022)	30 September 2024
Mark Tilley (ambulance technician working in an NHS ambulance services trust in the south of England)	1 October 2024
Anthony Marsh (National Strategic Adviser for Ambulance Services at NHS England from 2018, Chair of the Association of Ambulance Chief Executives from 2014 to July 2020)	1 October 2024
Dr Tilna Tilakkumar (GP, representative of the British Medical Association UK Junior Doctors Committee)	1 October 2024
Professor Kathryn Rowan (founder and Director of the Intensive Care National Audit & Research Centre from 1994 to September 2023)	1 October 2024; 2 October 2024
Professor Charlotte Summers (Professor of Intensive Care Medicine at the University of Cambridge) Dr Ganesh Suntharalingam (ICU Consultant at London North West University Healthcare Trust)	2 October 2024; 9 October 2024
Tamsin Mullen (member of 13 Pregnancy, Baby and Parent Organisations, a Core Participant)	7 October 2024
Gill Walton CBE (Chief Executive of the Royal College of Midwives from 2017)	7 October 2024
Jenny Ward (Chair of the Pregnancy and Baby Charities Network)	7 October 2024

Witness (organisation)	Date of evidence
Dr Daniele Bryden (Dean of the Faculty of Intensive Care Medicine from July 2020)	8 October 2024
Dr Catherine Finnis (deputy leader of Clinically Vulnerable Families, a Core Participant)	8 October 2024
Professor Jaswinder Singh Bamrah CBE (former Chairperson of the British Association of Physicians of Indian Origin, a member organisation of the Federation of Ethnic Minority Healthcare Organisations)	8 October 2024
Dr Stephen Mathieu (President of the Intensive Care Society from December 2022)	9 October 2024
M3/W1 (a hospital cleaner granted anonymity by the Inquiry)	9 October 2024
Professor Habib Naqvi MBE (Chief Executive Officer of the NHS Race and Health Observatory from April 2021)	10 October 2024
Professor Jonathan Wyllie (President of Resuscitation Council UK from 2018 to 2021)	10 October 2024
Alex Marshall (President of the Independent Workers' Union of Great Britain)	10 October 2024
Matt Stringer (Chief Executive Officer of the Royal National Institute of Blind People from May 2019)	10 October 2024
Jonathan Rees (member of the National Pharmacy Association)	10 October 2024
Dr Sarah Powell (member of the Disability Charities Consortium)	28 October 2024
Caroline Abrahams CBE (Charity Director of Age UK from September 2013)	28 October 2024
Jackie O'Sullivan (Acting Chief Executive Officer of the Royal Mencap Society from August 2023 to June 2024)	28 October 2024
Professor Philip Banfield (Chair of the British Medical Association UK council from July 2022 to June 2025)	28 October 2024
Julia Jones (co-founder of John's Campaign, member of the NHS England Advisory Board for Care Partner Policy)	29 October 2024
Nicola Ritchie (member of Long COVID Physio)	29 October 2024
Professor Chris Brightling (Professor of Respiratory Medicine at the University of Leicester) Dr Rachael Evans (Clinical Associate Professor and Honorary Consultant Respiratory Physician at the University of Leicester)	29 October 2024
Lesley Jean Moore (member of Clinically Vulnerable Families, a Core Participant)	30 October 2024
Natalie Rogers (founding member of Long Covid Support)	30 October 2024

Witness (organisation)	Date of evidence
Dr Paul Chrisp (Director of the Centre for Guidelines at the National Institute for Health and Care Excellence (NICE) from September 2018 to April 2023, Head of Publishing at NICE from April 2023 to March 2024)	30 October 2024
Professor Helen Snooks (Professor of Health Services Research at Swansea University)	30 October 2024
Professor Aneel Bhangu (Consultant Colorectal Surgeon at University Hospitals Birmingham NHS Foundation Trust, Professor of Global Surgery at the University of Birmingham)	31 October 2024
Professor Andrew Metcalfe (Professor of Orthopaedics at the University of Warwick) Chloe Scott (Consultant Hip, Knee and Trauma Surgeon at the Royal Infirmary of Edinburgh)	31 October 2024
Julie Pashley (member of Mind)	31 October 2024
Dr Guy Northover (Consultant Child and Adolescent Psychiatrist and Lead Clinical Director at Berkshire Healthcare NHS Trust) Dr Sacha Evans (Consultant Child and Adolescent Psychiatrist at Great Ormond Street Hospital)	31 October 2024
Patricia Temple (member of the Royal College of Nursing)	4 November 2024
Rosemary Gallagher MBE (Professional Lead for Infection Prevention and Control and Nursing Sustainability at the Royal College of Nursing from July 2009 to July 2025)	4 November 2024
Nick Kaye (Chair of the National Pharmacy Association from April 2023)	4 November 2024
Professor Fu-Meng Khaw (National Director of Health Protection and Screening Services and Executive Medical Director of Public Health Wales from June 2021)	5 November 2024
Aidan Dawson (Chief Executive of the Public Health Agency (Northern Ireland) from July 2021)	5 November 2024
Laura Imrie (Clinical Lead for NHS Scotland Assure and Antimicrobial Resistance and Healthcare Associated Infection Scotland from 2018, member of the UK Infection Prevention and Control Cell)	5 November 2024
Professor Nick Phin (Director of the Public Health England National Infection Service from January to December 2020, Director of Public Health Science at Public Health Scotland from January 2021)	6 November 2024
Professor Dame Jenny Harries DBE (Deputy Chief Medical Officer for England from July 2019 to March 2021, Chief Executive of the UK Health Security Agency from April 2021 to May 2025)	6 November 2024
Professor Simon Ball (Chief Medical Officer of University Hospitals Birmingham NHS Foundation Trust from January 2019 to January 2024)	7 November 2024

Witness (organisation)	Date of evidence
Professor Sir Stephen Powis (National Medical Director at NHS England from 2018 to July 2025, Interim Chief Executive Officer of NHS Improvement from August 2021 to July 2022)	7 November 2024; 11 November 2024
Amanda Pritchard (Chief Operating Officer of NHS England and NHS Improvement and Chief Executive Officer of NHS Improvement from August 2019 to July 2021, Chief Executive Officer of NHS England from August 2021 to April 2025)	11 November 2024
Sir Christopher Wormald KCB (Permanent Secretary to the Department of Health and Social Care from May 2016 to December 2024)	12 November 2024
Professor Philip John Kloer (Medical Director and Deputy Chief Executive of Hywel Dda University Health Board during the pandemic and, from October 2024, Chief Executive of Hywel Dda University Health Board)	12 November 2024
Dr Andrew Goodall CBE (Chief Executive Officer at NHS Wales and Director General of the Health and Social Services Group in the Welsh Government from June 2014 to November 2021, Permanent Secretary to the Welsh Government from September 2021)	12 November 2024; 13 November 2024
Judith Paget CBE (Chief Executive Officer at NHS Wales and Director General of the Health, Social Care and Early Years Group in the Welsh Government from November 2021 to July 2025)	13 November 2024
Professor Colin McKay (Chief of Medicine at the Glasgow Royal Infirmary from June 2019 to March 2023)	14 November 2024
Caroline Lamb (Director General for Health and Social Care in the Scottish Government and Chief Executive of NHS Scotland from January 2021)	14 November 2024
Robin Swann MLA (Minister of Health in Northern Ireland from January 2020 to October 2022 and from February to May 2024)	18 November 2024
Jeane Freeman MSP OBE (Cabinet Secretary for Health and Sport in the Scottish Government from June 2018 to May 2021)	19 November 2024
Humza Yousaf MSP (Cabinet Secretary for Justice in the Scottish Government from June 2018 to May 2021, Cabinet Secretary for Health and Social Care in the Scottish Government from May 2021 to March 2023)	19 November 2024
The Rt Hon Vaughan Gething MS (Minister for Health and Social Services in the Welsh Government from May 2016 to May 2021)	20 November 2024
Eluned Morgan MS, Baroness Morgan of Ely (Minister for International Relations and the Welsh Language from December 2018 to October 2020, Minister for Mental Health, Wellbeing and the Welsh Language from October 2020 to May 2021, Minister for Health and Social Services in the Welsh Government from May 2021 to March 2024, First Minister of Wales from August 2024)	20 November 2024

Witness (organisation)	Date of evidence
The Rt Hon Matt Hancock MP (Secretary of State for Health and Social Care from July 2018 to June 2021)	21 November 2024; 22 November 2024
The Rt Hon Sir Sajid Javid MP (Secretary of State for Health and Social Care from June 2021 to July 2022)	25 November 2024
Anna-Louise Marsh-Rees (co-leader of Covid-19 Bereaved Families for Justice Cymru)	26 November 2024
Margaret Waterton (member of Scottish Covid Bereaved)	26 November 2024
Martina Ferguson (co-leader of Northern Ireland Covid-19 Bereaved Families for Justice)	26 November 2024
Dr Saleyha Ahsan (member of Covid-19 Bereaved Families for Justice)	26 November 2024

Criticisms

A1.26. Rule 13(3) of the Inquiry Rules 2006 prevents the inclusion of any "*explicit or significant criticism of a person*" in this Report unless a warning letter has been sent and the relevant person has been given a reasonable opportunity to respond.[29] Warning letters were issued to persons identified in accordance with rule 13 and also with the Inquiry's Protocol on Warning Letters.[30] The Chair considered the responses to those letters before finalising this Report.

The Inquiry team

A1.27. The Chair was greatly assisted in Module 3 by the Inquiry team of counsel, solicitors, paralegals and other members of the Secretariat.

Table 9: Module 3 Counsel team

Role	Name
Lead Counsel	Jacqueline Carey KC
Junior Counsel	Zoe Nield
	Emma Price
	Nick Scott
	Jamie Fireman
	Alice Hands
	Max Mills

29 Inquiry Rules 2006, Rule 13(3) (https://www.legislation.gov.uk/uksi/2006/1838/contents/made)
30 'Inquiry Protocol on Warning Letters', UK Covid-19 Inquiry, 21 February 2025 (https://covid19.public-inquiry.uk/documents/inquiry-protocol-on-warning-letters)

Terminology and references

A1.28. The nature of the subject matter means that the evidence considered by the Inquiry contains technical and specialist language, which the Inquiry has tried to minimise in this Report. A number of witnesses and documents also used a range of abbreviations and acronyms. To avoid any confusion and to assist the reader, the Inquiry has set out names and other key phrases in full in this Report; a detailed glossary is also included at Appendix 2.

A1.29. Some terminology that is particularly key to understanding this Report is listed below for ease of reference.

Key terminology

A1.30. The virus that causes the coronavirus disease known as Covid-19 is SARS-CoV-2. However, where this specificity is not necessary, in accordance with the practice of the World Health Organization, the Inquiry uses 'Covid-19' to refer to both the virus and the disease.

A1.31. Although the first Covid-19 patients in the UK were announced on 31 January 2020 and the outbreak was not characterised by the World Health Organization as a pandemic until 11 March 2020, for clarity, this Report refers to the time period beginning with the arrival of Covid-19 in the UK as the 'Covid-19 pandemic'.

A1.32. The Covid-19 pandemic required action by both the UK government and devolved administrations. Wales, Scotland and Northern Ireland each have a legislature and executive elected by their own electorates (referred to in this Report as the 'devolved administrations'). Although each devolution settlement is different, each administration is responsible for a range of topics, including health, education and transport. England has no legislature of its own – instead, the UK Parliament legislates on both UK-wide, 'reserved' (ie not devolved) issues such as defence and foreign affairs and legislates for England on issues devolved to other nations. The UK Parliament also, at times, legislates for other groupings – for example, in England and Wales on issues of justice.

A1.33. The UK government is responsible for all aspects of government policy in England. At the time of the pandemic, the Department of Health and Social Care was responsible for policy on health and adult social care matters in England (and on a UK-wide basis for a few elements of the same matters that are not otherwise devolved). Prior to January 2018, the Department of Health and Social Care was known as the Department of Health – for clarity, the department is referred to throughout this Report using its current name.

A1.34. 'The NHS' is the term used to refer collectively to the publicly funded healthcare systems in England, Scotland and Wales, comprising NHS England, NHS Scotland and the NHS in Wales (also known as 'NHS Wales'). In Northern Ireland, the publicly funded healthcare system is Health and Social Care (Northern Ireland), with health and social care integrated under a single framework.

A1.35. Prior to the pandemic, responsibility for responding to public health challenges in Scotland was divided between a number of different bodies. As part of the Public Health Reform programme, Public Health Scotland was launched on 1 April 2020. It brought together three legacy bodies: NHS Health Scotland, Health Protection Scotland (formerly part of NHS National Services Scotland) and Information Services Division (also formerly part of NHS National Services Scotland). As a result, at an early stage of the pandemic, all staff and functions of those legacy bodies transferred to Public Health Scotland, with limited exceptions (the Antimicrobial Resistance and Healthcare Associated Infection function and a number of corporate services staff from NHS Health Scotland remained within NHS National Services Scotland). Accordingly, questions relating to the public health response in Scotland were directed by the Inquiry to both Public Health Scotland and NHS National Services Scotland.

References

A1.36. References such as 'Kevin Fong 26 September 2024 41/5-6' or 'INQ000492278_0009 para 31' in the footnotes of this Report relate to material that is available on the Inquiry's website.[31]

A1.37. The transcripts of the Inquiry's hearings are referenced by person, hearing date, and internal page and line numbers. For example, 'Kevin Fong 26 September 2024 41/5-6' refers to the evidence of Kevin Fong on 26 September 2024, transcript page 41, lines 5 to 6.

A1.38. Documentary evidence is referenced by the document's number and, where relevant, page and paragraph numbers. For example, 'INQ000492278_0009 para 31' refers to document INQ000492278, page 9, paragraph 31.

A1.39. Publicly available documents are listed in the footnotes with both their wider internet and Inquiry website links. For example:

Technical Report on the COVID-19 Pandemic in the UK, Office of the Chief Medical Officer, 1 December 2022, p49 (https://www.gov.uk/government/publications/technical-report-on-the-covid-19-pandemic-in-the-uk; INQ000101642).

31 'What is the UK Covid-19 Inquiry?', UK Covid-19 Inquiry, no date (https://covid19.public-inquiry.uk)

Appendix 2: Glossary

Term (acronym)	Description
Advance care plan	An umbrella term for a document in which an individual records their priorities and decisions about future medical care and treatment, in the event of a medical emergency or critical, life-threatening illness.
Advisory Committee on Dangerous Pathogens	A scientific advisory committee of the Department of Health and Social Care. Its work includes providing the UK government with independent scientific advice on the risks of exposure to pathogens.
Aerosol generating procedure	A medical procedure such as intubation that, by virtue of the activity itself, causes the production of aerosols.
Aerosols	Very small particles that can remain suspended in the air for long periods of time.
Airborne transmission	Transmission of a pathogen occurring across short or long distances through the air from very small virus-containing particles produced by an infected individual.
Alpha variant	A variant of Covid-19 that emerged in Kent during the autumn of 2020. Designated by the World Health Organization as a 'variant of concern' on 18 December 2020.
Antimicrobial Resistance and Healthcare Associated Infection (Scotland)	A clinical service that provides nationwide expertise for infection prevention and control, antimicrobial resistance and healthcare associated infection for Scotland.
Asymptomatic	Having an infection but not showing any symptoms.
British Medical Association	A trade union and professional body for doctors and medical students in the UK.
Cardiopulmonary resuscitation (CPR)	The process of attempting to restart a patient's heart in the event that it stops pumping (ie a cardiac arrest).
Case fatality ratio	The percentage of people diagnosed with a disease who die from it.
Chief Coroner of England and Wales	The most senior coroner in England and Wales, who supervises the work of other coroners in their jurisdiction.
Chief Medical Officer	A qualified medical practitioner, the most senior government adviser on health matters, and the professional head of all directors of public health in local government and the medical profession in government. There is a Chief Medical Officer for England, Wales, Scotland and Northern Ireland. The Chief Medical Officer for England is the UK government's chief medical adviser.
Chief Nursing Officer	A qualified nurse, the senior adviser on nursing matters in each of the four nations of the UK.
Clinical commissioning groups	They were responsible for the planning and commissioning of health services in local areas using funds allocated to them by NHS England. Replaced by integrated care boards.

Term (acronym)	Description
Clinical Frailty Scale	A tool used to capture an elderly patient's level of frailty and likely ability to recover from an acute medical event, based on the level of support the patient ordinarily requires to undertake everyday tasks.
Clinically extremely vulnerable	People identified by the UK government in March 2020 as having medical conditions that meant they were particularly likely to develop severe illness or to die from Covid-19 infection.
Clinically vulnerable	People identified by the UK government in March 2020 as having medical conditions that might make them likely to develop severe illness from Covid-19 infection, although not with the same predictability or to the same extent as the clinically extremely vulnerable.
COBR	The UK government's national crisis management centre for responding to whole-system civil emergencies. It provides the coordination mechanism through which the UK government responds quickly to emergencies that require urgent decision-making. Its name was originally derived from its location in the Cabinet Office Briefing Rooms.
Comorbidities	The co-occurrence of two or more long-term health conditions in a person.
Continuous positive airway pressure	Non-invasive oxygen support provided to patients with respiratory failure, delivered via a tight-fitting mask or hood. It does not require the patient to be sedated (unconscious).
Covid-19	The disease caused by the coronavirus, SARS-CoV-2.
CRITCON	A system of reporting used by hospitals to record the pressure on intensive care units, resulting in an assessment of available capacity.
Delta variant	A variant first detected in the UK in March 2021 and more transmissible than the Alpha variant. Led to a new wave of infections that peaked in July 2021.
Department of Health and Social Care	A ministerial UK government department with overall responsibility for health and care services. It sets strategy and funds and oversees the health and care system in England, with equivalent counterparts in the devolved nations. Known prior to January 2018 as the Department of Health – for clarity, the department is referred to throughout this Report using its current name.
Department of Health (Northern Ireland)	A devolved government department in the Northern Ireland Executive with a statutory responsibility to promote the physical and mental health and social wellbeing of people in Northern Ireland. Also responsible for the prevention, diagnosis and treatment of illness.

Term (acronym)	Description
Devolved administrations	The governments of Scotland, Wales and Northern Ireland.
Devolved nations	Scotland, Wales and Northern Ireland.
Disability	A physical or mental impairment which has a substantial and long-term adverse effect on a person's ability to carry out normal day-to-day activities.
Do Not Attempt Cardiopulmonary Resuscitation notice (DNACPR notice)	A DNACPR notice may be recorded on a patient's file where a patient with capacity wishes to record their preference not to undergo cardiopulmonary resuscitation (CPR) in the event of a cardiac arrest, or where the treating clinician considers that CPR would be futile in the circumstances.
Droplet transmission	Transmission occurring through large virus-containing droplets that are deposited close to an infected individual, with the risk that others nearby become infected.
Droplets	Respiratory particles that are larger and heavier than aerosols and so typically transmit within one to two metres of the person who exhales them.
Elective care	Planned, non-emergency services, including diagnostic tests, scans, outpatient appointments, surgery and cancer treatment.
Emergency preparedness, resilience and response strategy	NHS England was responsible for setting an emergency preparedness, resilience and response strategy for the NHS. This relates to incidents that are described in terms of the level of response and coordination required, which may change as the incident evolves.
End-of-life care	Holistic support for people nearing the end of life, including symptom control to make the patient more comfortable.
Environmental Modelling Group	A sub-group of the Scientific Advisory Group for Emergencies (SAGE).
Epidemiology	The study of the distribution, patterns and determinants of health and disease conditions in a defined population.
Ethnic minorities	All ethnic groups except the White British group (ethnic minorities include White minorities, such as Gypsy, Roma and Traveller groups).
Excess deaths	The number of additional deaths in a time period above the number that would usually be expected for that period, based on the mortality data of recent years.
The Executive Office, Northern Ireland	A devolved Northern Ireland government department in the Northern Ireland Executive with principal policy responsibility for civil contingencies matters. The ministers with overall responsibility for the department are the First Minister and deputy First Minister.

Term (acronym)	Description
Field hospital	A temporary, self-contained, self-sufficient healthcare facility that can be rapidly deployed for a specified period and its capacity expanded or contracted to meet immediate emergency requirements.
Filtering facepiece respirator (FFP)	A personal protection measure. FFP respirator masks fit closely to a wearer's face and are designed to protect them by filtering out air particles, preventing inhalation of both large droplets and small aerosols. Graded from class 1 to class 3, with class 3 providing the highest protection.
Fit-testing	The process that a person wearing a respirator mask (also known as an FFP) undergoes to ensure that the mask provides a sufficient seal around the nose and mouth to provide the wearer with the required protection. Not to be confused with faecal immunochemical tests (FIT tests), as discussed in Chapter 9: Healthcare for non-Covid-19 conditions.
Fluid-resistant surgical mask	A mask primarily designed to protect other people rather than the wearer from droplet transmission.
Fomite transmission	A form of indirect contact transmission whereby an infected person touches and contaminates a surface which is then touched by another person.
Four governments	The four governments of the UK: the UK government, Scottish Government, Welsh Government and Northern Ireland Executive.
Four nations	The four nations of the UK: England, Wales, Scotland and Northern Ireland.
Health and Safety Executive	Great Britain's national regulator for workplace health and safety, which monitors and enforces compliance with health and safety laws and regulations. The Health and Safety Executive for Northern Ireland is the equivalent regulator in Northern Ireland.
Health and Social Care (Northern Ireland)	The publicly funded healthcare system in Northern Ireland, with health and social care integrated under a single framework.
Health and Social Care trusts	Health and social care services in Northern Ireland are provided by five Health and Social Care trusts. A sixth trust, the Northern Ireland Ambulance Service, provides ambulance services for the region.

Term (acronym)	Description
Health Protection Scotland	Part of NHS National Services Scotland. Responsible for implementing operational decisions made by the Scottish Government, developing guidance and producing detailed statistics and analysis of data. On 1 April 2020, functions of Health Protection Scotland were transferred to a new body, Public Health Scotland.
Healthcare Safety Investigation Branch	An independent arm's length body of the Department of Health and Social Care which investigated patient safety concerns across the NHS in England and in independent healthcare settings. Replaced by the Health Services Safety Investigations Body on 1 October 2023.
Healthcare systems	The system of healthcare in each of the four nations of the UK, comprising NHS England, NHS in Wales (NHS Wales), NHS Scotland, and Health and Social Care (Northern Ireland).
Hierarchy of controls	A concept used in workplace environments, including healthcare settings, to prioritise safety measures from the most to least effective.
High Efficiency Particulate Air (HEPA) filters	Portable air cleaning devices.
Hospital-acquired infection	Infection from a healthcare setting. Also known as 'healthcare-acquired', 'hospital onset' or 'nosocomial infection'.
Infection prevention and control (IPC)	Measures which aim to stop a virus from spreading in a particular environment or to inactivate it so that it cannot cause an infection.
Influenza (flu)	A viral respiratory infection that infects humans and several other host species. It causes both seasonal endemic waves of infection and, when new strains emerge against which the population has little or no immunity, may cause epidemics or pandemics.
Integrated care boards	Responsible for the planning and commissioning of health services in local areas, using funds allocated to them by NHS England. They replaced clinical commissioning groups.
Intensive Care National Audit & Research Centre	An independent, scientific, not-for-profit organisation that works to facilitate improvements in the structure, process, outcomes and experiences of critical care. Its national audit programmes cover critical care units in England, Wales and Northern Ireland.
Intensive care unit (ICU)	A type of hospital ward that provides specialised care for critically ill patients, such as mechanical ventilation for respiratory failure. Also known as a 'critical care unit' or 'acute care unit'. Intensive care involves a significantly higher ratio of nursing care and support per patient than on a general ward.

Term (acronym)	Description
Invasive ventilation	Mechanical ventilation or assisted ventilation is the medical term for using a ventilator machine to fully or partially breathe for a sedated (unconscious) patient.
Lateral flow test	A type of molecular test to detect an active infection. These tests do not require processing in a laboratory and results are available within minutes.
Lockdown	A mandatory stay-at-home order, a legal prohibition placing blanket restrictions on the whole population (apart from specified activities) for the purpose of limiting the spread of a disease.
Long Covid	Signs and symptoms that develop during or after an infection consistent with Covid-19, continue for more than 12 weeks and are not explained by an alternative diagnosis.
Modelling	Using details of a population, characteristics of a pathogen and how these might interact, infectious disease modelling is used to investigate how a disease could unfold and what the consequences could be for the population. This includes how fast a disease may spread, how many individuals may become infected and may require treatment, and how many may die.
Mode(s) of transmission	The way(s) in which a virus transmits (spreads) between humans.
Morbidity	The condition of suffering from illness.
Mortality rate	An expression of the number of deaths for a given cause divided by the whole population.
Mutual aid	The process of different healthcare organisations sharing resources at times of high demand.
National Institute for Health and Care Excellence (NICE)	An executive non-departmental public body sponsored by the Department of Health and Social Care. Its role is to improve patient outcomes by producing national guidance and advice, and quality standards that set out what high-quality and cost-effective care should look like.
National Institute for Health and Care Research	One of the UK's major funders of health and care research, which invests in pandemic preparedness research, clinical research infrastructure and 'hibernated' research projects.
New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG)	An expert scientific committee of the Department of Health and Social Care which advises the Chief Medical Officer and, through them, the UK government. It provides scientific risk assessment and mitigation advice on the threat posed by new and emerging respiratory viruses and on options for their management.

Term (acronym)	Description
NHS	The term used to refer collectively to the publicly funded healthcare systems in England, Scotland and Wales, comprising NHS England, NHS Scotland and the NHS in Wales (also known as 'NHS Wales'). The publicly funded healthcare system in Northern Ireland is Health and Social Care (Northern Ireland).
NHS England	An executive non-departmental public body, sponsored by the Department of Health and Social Care, that leads and oversees the NHS in England. It is responsible for the operation of the NHS in England and for implementing healthcare strategy developed by the Department of Health and Social Care.
NHS in Wales (NHS Wales)	The NHS in Wales is made up of local health boards, trusts (including Public Health Wales) and special health authorities (Health Education and Improvement Wales and Digital Health and Care Wales). The local health boards are responsible for planning, securing and delivering all healthcare services for the benefit of their resident population in a specific geographical area. The term 'NHS Wales' is commonly used to refer collectively to local health boards, trusts and special health authorities in Wales, though there is no central legal entity with this name.
NHS Scotland	The publicly funded healthcare system in Scotland, made up of geographical health boards and non-geographical special boards, and supported by NHS National Services Scotland and Healthcare Improvement Scotland.
NHS trusts	NHS trusts can run multiple hospitals and community sites, and provide healthcare (including within the community), mental health services and ambulance services.
Non-invasive ventilation	Ventilation that supports a patient's breathing without the use of mechanical interventions, such as through an oxygen mask.
Northern Ireland Executive	The Northern Ireland Executive is the administrative branch of the Northern Ireland Assembly, the devolved legislature for Northern Ireland. It is responsible for matters including enterprise, trade and investment, agriculture and rural development, education, health, policing and justice, environment and regional development.
Nosocomial transmission	See 'Hospital-acquired infection'.
Office for National Statistics	The UK's largest independent producer of official statistics and the recognised national statistical institute of the UK.

Term (acronym)	Description
Omicron variant	A variant of SARS-CoV-2 which emerged in the autumn of 2021, causing a wave of infections that peaked in the UK on 4 January 2022.
Palliative care	Personalised holistic care for terminally ill people.
Pandemic	An epidemic occurring worldwide, or over a very wide area, crossing international boundaries and usually affecting a large number of people.
Pathogens	Infectious organisms, such as viruses, bacteria or parasites, that can produce a disease.
Personal protective equipment (PPE)	Equipment that minimises exposure to hazards. In health and social care, it ranges from basic items such as aprons, gowns and disposable gloves to specialised items such as face shields and respirator masks.
Polymerase chain reaction (PCR) test	A specialised laboratory method used to increase the amount of DNA (deoxyribonucleic acid) or RNA (ribonucleic acid) in a sample so that there is enough to test it. PCR tests are used to detect RNA in samples from people to see if the samples contain SARS-CoV-2 virus.
Powered air-purifying respirators	A powered hood to protect the wearer from inhaling droplets and aerosols.
Pre-symptomatic	When a person has been infected with a pathogen but no symptoms of disease have yet appeared.
Public health	The science and art of preventing disease, prolonging life and promoting health through organised efforts of society.
Public Health Agency (Northern Ireland)	Established under the Health and Social Care (Reform) Act (Northern Ireland) 2009. Responsible for the improvement of health and social wellbeing, reducing health inequalities in Northern Ireland, health protection and service development.
Public Health England	An executive agency of the Department of Health and Social Care responsible for all aspects of public health, replaced by the UK Health Security Agency and the Office for Health Improvement and Disparities in October 2021.
Public Health Scotland	Scotland's national public health body, working to prevent disease, prolong healthy life and promote health and wellbeing. Preceded prior to 1 April 2020 by Health Protection Scotland.
Public Health Wales	An NHS trust which aims to protect and improve health and wellbeing and reduce health inequalities in Wales.
Public sector equality duty	A duty under the Equality Act 2010 (which applies in England, Scotland and Wales) that requires public bodies to have due regard to certain equality considerations when exercising their functions.

Term (acronym)	Description
Pulse oximeter	A non-invasive medical device which uses light to measure the level of oxygen in a patient's blood (ie the oxygen saturation level) and heart rate.
QCovid	A risk stratification tool developed to calculate a person's risk of contracting, being hospitalised from or dying from Covid-19. It takes account of non-clinical factors such as age, sex, ethnicity and deprivation, in addition to clinical conditions.
Reasonable worst-case scenario	Used for planning purposes to illustrate the worst manifestation of a risk that can reasonably be expected potentially to occur based on current information and data.
Recommended Summary Plan for Emergency Care and Treatment (ReSPECT)	An advanced care planning document currently used in parts of England, parts of Scotland and in Northern Ireland.
Respirator masks	These fit closely to the wearer's face, filter out particles in the air and prevent inhalation of large droplets and small aerosols.
Respiratory particles	Transmission of respiratory viruses can be through the air via droplets or aerosols, which are both respiratory particles exhaled from the mouth or nose.
Risk assessment	A systematic process for evaluating the likelihood of a potential risk occurring and the potential impact it would have, were it to happen.
Scientific Advisory Group for Emergencies (SAGE)	An advisory group convened to provide independent scientific advice to support decision-making in COBR in the event of a national emergency.
Scottish Government	The devolved administration for Scotland.
Scottish Intensive Care Society Audit Group	Set up to improve the quality of care delivered to critically ill or injured patients in intensive care units by monitoring and comparing outcomes across the Scottish critical care sector. Performs a similar role to the Intensive Care National Audit & Research Centre.
Self-isolation	Staying at home and reducing contact with others because of a suspected or confirmed infection.
Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2)	The coronavirus that causes the disease known as Covid-19.
Social distancing	Measures to reduce the contact people have with each other, which may include temporary restrictions on socialising in public places such as entertainment or sports events, restricting use of non-essential public transport, or recommending more home working.

Term (acronym)	Description
Source control	Measures designed to prevent transmission from an infected person.
Surge capacity	The ability of a healthcare system to expand beyond normal capacity to manage and respond to sudden increases in demand for healthcare services.
Swine flu	A relatively mild influenza pandemic which began in 2009.
Symptomatic	Showing symptoms following an infection.
Transmissibility	The ability of a pathogen, such as a virus, to spread from one person to another.
Transmission	The process by which a pathogen, such as a virus, spreads from one infected person to another.
Transmission-based precautions	Targeted measures aimed at reducing the spread of a known or suspected virus, based on the way in which it may transmit.
UK government	The central government for the UK, headed by the Prime Minister. The UK government is responsible for non-devolved policy matters across the UK. (The Scottish Government, Welsh Government and Northern Ireland Executive are separate from the UK government and are responsible for devolved policy matters, such as health and social care, in their respective nations.)
UK Health Security Agency (UKHSA)	An executive agency, established in April 2021 and sponsored by the Department of Health and Social Care, responsible for public health protection and infectious disease capability.
UK Infection Prevention and Control Cell (UK IPC Cell)	A body created with the intended purpose of ensuring that a coordinated approach was taken to infection prevention and control guidance for Covid-19 across the UK. It consisted of representatives from NHS England, the public health bodies in England, Northern Ireland and Wales, Antimicrobial Resistance and Healthcare Associated Infection Scotland, the Scottish Government Healthcare Associated Infection Policy Unit, the Association of Ambulance Chief Executives and the Department of Health and Social Care.
Vaccination	Protecting individuals from a disease by administering a vaccine.
Vaccine	Vaccines train the immune system to recognise a pathogen and to produce antibodies to defend the body from it at the next encounter.

Term (acronym)	Description
Variant	As a virus replicates, it can accumulate mutations. A version of the virus with these mutations is called a 'variant'. Mutations may facilitate transmission or impact the effectiveness of vaccines, treatments or immunity resulting from previous infection. Notable Covid-19 variants during the pandemic included Alpha, Delta and Omicron.
Variant of concern	A variant that, following a risk assessment by expert committees, is believed to have the potential for causing more severe disease and more deaths. It may also have increased transmissibility or resistance to treatments, or evade immunity conferred by vaccination or previous infection.
Ventilator	A life support machine used to support breathing by mechanically pumping air into a patient's lungs.
Viral load	A measurement of the amount of a virus that is present in a person, an organism or a particular environment.
Virus	A parasitic infectious agent which replicates only inside the cells of an organism.
Welsh Government	The devolved administration for Wales.
Welsh Government Health and Social Services Group	The Welsh Government Health and Social Services Group is led by a senior civil servant who is the Director General Health and Social Services and Chief Executive of NHS Wales. The group delivers health and social care functions, advises Welsh ministers and puts into effect the ministers' policies and expectations.
World Health Organization (WHO)	A specialised agency of the United Nations responsible for international public health.

Appendix 3: List of recommendations

Chapter 1: Infection prevention and control guidance

Recommendation 1: Ensure that decision-making on infection prevention and control is underpinned by clear structures and a cautious approach to transmission risk

The UK government must ensure that there is a body (equivalent to the UK Infection Prevention and Control Cell) in place ready to be convened at the outset of any future pandemic, to consider and draft infection prevention and control guidance for healthcare settings. This body must:

- have clear lines of responsibility and a clear, pre-defined role and remit during a pandemic;
- have multidisciplinary membership, including experts in the science of viral transmission as well as those with clinical expertise;
- ensure that its guidance accounts for the risk of all plausible routes of transmission until sufficient evidence emerges to rule out specific routes; and
- ensure that guidance clearly explains the underlying rationale for the precautions recommended.

Separately, the Department of Health and Social Care, NHS National Services Scotland, Public Health Wales and the Public Health Agency (Northern Ireland) should review the national infection prevention and control manuals and any future guidance to ensure that the approach to identifying risk of transmission is not confined solely to specific procedures. Emphasis should be placed on a combination of risk factors, such as rates of transmissibility, environment, setting and procedure.

Chapter 2: Infection prevention and control in practice

Recommendation 2: Guidance for visiting restrictions

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should publish guidance for the implementation of visiting restrictions in hospitals in the event of a future pandemic.

The guidance should identify the circumstances in which visiting restrictions should be introduced, escalated, decreased and removed alongside the measures and exemptions at each level. The guidance should be led by the following core principles:

1. Measures applied should be the least restrictive possible, both in terms of severity and the length of time for which they apply.
2. Restrictions should be decided upon and applied at the most local level possible.
3. Unless restrictions are applied at a specified level, trusts and health boards should take decisions on the severity of restrictions based on local risk assessments.
4. Communications with the public must clearly explain the measures in place and the reasons why restrictions apply.

The guidance should be reviewed every three years in line with the Inquiry's Module 1 Report (Recommendation 4).

Recommendation 3: Better preparation for fit-testing

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with employers, including health boards and trusts, to review the availability of qualified fit testers and take steps to increase the number of fit testers accordingly. Availability should be reviewed every three years in line with the Inquiry's Module 1 Report (Recommendation 4).

The Health and Safety Executive and the Health and Safety Executive for Northern Ireland should update their guidance to employers to emphasise the need to ensure that sufficient fit-testing capacity is available.

Chapter 3: Protecting the vulnerable

Recommendation 4: Improve data systems to identify individuals at high risk during a pandemic

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive must ensure that health data and digital systems have the capability to identify individuals at high risk of morbidity or mortality from a pandemic disease quickly and accurately in a future pandemic. This should include action to improve health data systems and patient record-keeping by:

- improving patient data by enabling more granular diagnostic coding;
- ensuring that care records are compatible across primary and secondary care; and
- enabling secure data-sharing and linkage across multiple health datasets and systems for identifying individuals at high risk.

Chapter 4: Urgent and emergency care

Recommendation 5: Prepare to scale up urgent and emergency care capacity

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, in conjunction with organisations responsible for delivering services, should plan for surge capacity in urgent and emergency care during a pandemic.

Plans must ensure that there is sufficient workforce capacity and the ability to surge, including the number and type of staff required, recruitment and training provision.

This should be completed as part of the whole-system civil emergency strategy recommended in the Inquiry's Module 1 Report (Recommendation 4). Plans should be published and subject to review every three years.

Chapter 5: Increasing hospital capacity

Recommendation 6: Prepare for and test the ability to scale up hospital capacity

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with trusts and health boards to ensure that pandemic plans include practical steps to rapidly scale up hospital capacity to treat acutely unwell patients. This should include critical care services that can deliver multiple levels and types of organ support. It should also cover necessary equipment, supplies, space and staff, including redeployment and training.

All trusts and health boards must keep an easily accessible, up-to-date record of the information needed to implement these plans in the hospital sites they operate. This should include technical aspects of critical care expansion such as power, ventilation, oxygen and waste management systems.

Plans for expanding capacity should be published, subject to review every three years and tested as part of the pandemic response exercises recommended in the Inquiry's Module 1 Report (Recommendation 6).

Chapter 6: Care for patients with Covid-19

Recommendation 7: A framework to guide the allocation of intensive care resources in the extreme event of saturation

The UK government and devolved administrations should publish a UK-wide framework setting out ethical and operational principles to guide the allocation of adult intensive care resources in the extreme event that they are saturated during a pandemic.

That framework must:

- be informed by comprehensive engagement with the public and developed in conjunction with professionals across healthcare, law and ethics, as well as with regulators of healthcare professionals;
- set out clearly established triggers for its use, based at least in part on a UK-wide system that measures critical care capacity strain and facilitates mutual aid (such as the CRITCON tool used in England);
- establish clinicians' legal and professional duties in applying the framework, which should be clearly explained to clinicians through guidance; and
- be regularly reviewed with reference to contemporary patient data during a pandemic, and any future use of it must be evaluated and reported on publicly.

A plan and timeline for completing this work should be published within six months of this Report.

Application of the framework should be tested as part of the pandemic response exercises recommended in the Inquiry's Module 1 Report (Recommendation 6).

Chapter 7: Death and end-of-life care

Recommendation 8: Systematically recording and publishing healthcare worker deaths

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive should work with their respective public health agencies and healthcare employers to develop nation-specific mechanisms to collect, analyse and publish data systematically on the deaths of healthcare workers in the event of a pandemic outbreak.

The UK Statistics Authority should work with data providers to ensure that the data are comparable across the four nations of the UK.

Recommendation 9: A standardised process for advance care planning across the UK

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, working with trusts and health boards, should establish and promote one standardised process across the UK (such as ReSPECT, the Recommended Summary Plan for Emergency Care and Treatment) for clinicians to ascertain and record their patients' wishes and preferences for future care and treatment in order to inform individualised decision-making, including Do Not Attempt Cardiopulmonary Resuscitation (DNACPR) notices.

Chapter 10: Impact on healthcare workers and 'overwhelm'

Recommendation 10: Psychological and emotional support for healthcare workers

The UK government, Scottish Government, Welsh Government and Northern Ireland Executive, working with healthcare employers and professional bodies, should put in place plans to deliver effective support for healthcare workers at scale from the outset of a pandemic. Plans should cover the nature and level of support that will be provided during and after a pandemic.

All four governments should develop a programme of peer support visits that can, from the outset of a pandemic, be targeted towards areas of acute hospitals under considerable strain. The purpose of the visits should be to support front-line staff, collect insights on the pressures that healthcare workers are facing and understand what further support they might need.

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