Witness Name: Shona Arora
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UK COVID-19 INQUIRY

MODULE 8 CORPORATE WITNESS STATEMENT ON BEHALF OF THE UKHSA

I, Dr Shona Arora, of the UK Health Security Agency, 10 South Colonnade, Canary Wharf, London E14 4PU will say as follows:

1.1 I am employed by the UK Health Security Agency ("UKHSA") as Director of Health Equity and Clinical Governance.

1.2 My background is as a medical doctor. I have been registered with the General Medical Council as a Consultant in Public Health with a licence to practice since 1999 and as a General Practitioner since 2006 (although I no longer practise as a GP). I hold a medical degree (BA Cantab Hons and MBBChir from Cambridge University), and a Master's in Public Health ("MSc"). I am also a member of the Royal College of Physicians, London ("MRCP") and a Fellow of the Faculty of Public Health ("FFPH").

1.3 I have been employed by UKHSA since its inception in October 2021, when I became the interim Director of Health Equity (transition lead) for the Agency. In September 2022 I was

formally appointed to the post of Director of Health Equity and Clinical Governance, reporting to the Chief Medical Advisor in UKHSA. My role is to develop and lead UKHSA's Health Equity & Clinical Governance Directorate, ensuring that the Agency is continuing to progress its strategic goal of achieving more equitable health security outcomes through our Health Equity for Health Security Strategy and that we have robust clinical governance and safeguarding processes in place.

1.4 Prior to joining UKHSA I was employed by Public Health England ("PHE") from 2013 to 2021. During this time, I was Centre Director for Avon Gloucestershire and Wiltshire between 2013 and 2015, and Deputy Director and National Lead for Public Health Workforce between 2015 and 2021. Prior to this I was Director of Public Health at Gloucestershire Primary Care Trust ("PCT") and one of its predecessor organisations, Cheltenham and Tewkesbury PCT, from 2002 to 2013.

1.5 During the COVID-19 pandemic, I supported the COVID-19 PHE Parliamentarian Cell Telephone Helpline from March to August 2020, providing clinical and managerial leadership and oversight, establishing cell governance processes and providing COVID-19 public health advice to MP's offices and their caseworkers. In September 2020, I returned to my substantive role as Deputy Director for Public Health Workforce to support the design and implementation of the Public Health Reform Programme following the abolition of PHE.

1.6 UKHSA is an executive agency of the Department for Health and Social Care ("DHSC") and carries out certain statutory functions for the Secretary of State for DHSC ("Secretary of State"). Fully operational from October 2021, UKHSA's role is to protect the public not only from infectious diseases but also from external hazards such as chemical, radiological, nuclear and environmental threats. It brings together expertise from predecessor organisations including PHE, NHS Test and Trace ("NHSTT"), the Joint Biosecurity Centre ("JBC") and the Vaccine Task Force ("VTF").

1.7 This corporate statement is provided on behalf of UKHSA for Module 8 of the UK COVID-19 Inquiry ("the Inquiry"), which is investigating the impact of the COVID-19 pandemic on children and young people ("CYP") in England, Wales, Scotland and Northern Ireland. The statement responds to a request for evidence dated 24 April 2025 and, unless otherwise noted, focuses on the period of 1 January 2020 to 28 June 2022 ("the relevant period"). It also addresses questions asked by the Inquiry in July 2025 (see Section 5).

1.8 This is the sixteenth corporate witness statement which UKHSA has provided to the Inquiry. Professor Dame Jenny Harries, until recently Chief Executive of UKHSA, has provided eight corporate statements for Modules 1 to 4 and Module 7. Professor Isabel Oliver, formerly UKHSA's Chief Scientific Officer and now Chief Medical Officer for Wales, has made three corporate statements for Modules 1 and 5. Dr Mary Ramsay, UKHSA's Director of Public Health Programmes, provided a corporate statement for Module 4. Sarah Collins, UKHSA's Commercial Director, provided a corporate statement for Module 5. Professor Susan Hopkins, Chief Executive of UKHSA, formally Chief Medical Advisor to UKHSA, made corporate statements for Modules 3 and 6. Finally, UKHSA has supported a number of individuals, including former officers of predecessor organisations, in responding to personal Rule 9 requests from Inquiry.

1.9 I have been assisted in the preparation of this corporate statement by a team within UKHSA as well as UKHSA's legal team. The statement is necessarily lengthy because it responds to 61 questions, many of which consist of multiple sub-questions. UKHSA has endeavoured to address those questions where it is the right agency to do so. There are some requests where others are better placed to assist the Inquiry. Where this is the case, I have, if possible, indicated so.

1.10 Some requests concern matters which are outside my personal knowledge and that of colleagues currently within UKHSA. Not all those who worked for UKHSA's predecessor

organisations transferred to the Agency and subsequently others have left. In such instances, we have relied on available documents to respond as fully as possible to the Rule 9 Request.

1.11 As requested by the Inquiry, key documents are exhibited. In some instances, it has been necessary to repeat information to give full context. As the Inquiry appreciates, its modular nature means that some of the information sought is already to be found in previous corporate statements. Where appropriate therefore, I have repeated or adapted information contained in a previous corporate statement, albeit without exhibiting to this statement documents cited in any quoted extract.

1.12 This statement consists of the following additional sections:

Section 1: Role and responsibilities of PHE/UKHSA in relation to CYP.
Section 2: Pre-pandemic planning in relation to CYP.
Section 3: Significant decisions which affected children during the pandemic.
Section 4: Impact of the pandemic on CYP.
Section 5: Making schools safer.
Section 6: Reflections for the future.

SECTION 1: ROLE AND RESPONSIBILITIES OF PHE/UKHSA IN RELATION TO CYP

PHE's role prior to January 2020

1.13 PHE was established in 2013 as an Executive Agency of DHSC, to protect and improve the nation's health and wellbeing and reduce health inequalities. It primarily covered England but had some UK-wide responsibilities. PHE's roles and responsibilities were set out in a framework agreement between PHE and DHSC, as well as annual remit letters from Ministers.

1.14 The Secretary of State's duty to improve the health of the public in England was primarily delivered through DHSC, local government and the NHS, with PHE tasked with providing national advice to ministers and DHSC, and local advice and support to local bodies regarding measures to improve the public's health. PHE delivered a small number of specialist national health improvement functions on behalf of the Secretary of State and had a central supporting role in this function with the lead responsibility for delivery of specific programmes and tasks as set out in the annual remit letters.

1.15 Some of the public health priorities set out in the annual remit letters were aimed exclusively at CYP, for example: (i) ensuring every child has the best start in life; (ii) supporting delivery of the Healthy Child Programme; (iii) childhood and adolescent immunisation; and (iv) tackling childhood obesity. Others had wider applicability with a sub-focus on or relevance to CYP, for example: (i) reducing the gap in health and wellbeing between people with mental health problems and the population as a whole and (ii) improving recovery rates for alcohol and drug treatment.

1.16 As of January 2020, there were nine director-led teams within PHE reporting to the Chief Executive. Those whose functions concerned or related to CYP were as follows:

1.16.1 Nursing, Maternity and Early Years Directorate ("NME Directorate"): The NME Directorate provided leadership in the safeguarding of children and vulnerable adults. It led PHE's strategies and programmes for maternity and the early years of life and for optimising the impact of health and care professionals in protecting health, preventing avoidable illness and promoting wellbeing. The work of the NME Directorate included leading PHE's contribution to the "Best Start in Life" and "Healthy Child" programmes; Best Start in Life being one of PHE's ten core priorities published in its 2020-25 Strategy. PHE also published guidance as a resource for local authorities, health professionals and providers in relation to

commissioning, delivering and investing in CYP public health services.

1.16.2 Health Improvement Directorate ("HI Directorate"): The HI Directorate produced data, analysis and scientific research that provided authoritative information on the significant risk factors affecting the public's health and used this evidence to inform the priorities of national and local government and the NHS in actions to improve the public's health. The HI Directorate's work in relation to CYP included the Childhood Obesity Programme and the publication of guidance in conjunction with the Department for Education ("DfE") on promoting CYP's mental health and wellbeing in schools and colleges. PHE's ten core priorities for 2020-25 included healthier diets, healthier weights and better mental health, which involved a focus on CYP. The dedicated health inequalities team was based in the HI Directorate but worked across PHE. As inequalities in health begin early in life, the work of the team often focused on CYP. This included, for example, the publication of evidence reviews on health inequalities relating to CYP, such as the home to school transition and building CYP's resilience in schools.

1.16.3 Places and Regions Directorate: PHE's Health Protection Teams ("HPT") provided specialist health protection advice and operational support to the NHS, local authorities and other agencies locally in response to health protection related incidents, including in relation to CYP. This included advice and support offered to schools and educational settings. The HPTs all ran acute response desks where enquiries and concerns about health protection issues were received and answered/escalated as appropriate and carried out routine surveillance of acute respiratory infection outbreaks within schools.

1.16.4 National Infection Service ("NIS"): The NIS was responsible for protecting the population's health from infection. As of January 2020, the NIS comprised PHE's

microbiology capabilities and core capabilities across epidemiology, surveillance, management and research into infectious diseases. PHE's responsibilities in relation to CYP fulfilled by the NIS included: specialist clinical and public health advice on infectious diseases; childhood, maternal and teen vaccination schedules and vaccine procurement for all childhood programmes including seasonal flu; surveys of parental attitudes towards childhood vaccination (commissioned by DHSC); monitoring and reporting of routine childhood vaccination coverage and the publication of guidance on protecting children during outbreaks and on immunisation in schools. The "e-Bug" programme was operated within the NIS (and is now operated by UKHSA). It aims to promote positive behaviour change among CYP to support infection prevention and control ("IPC") efforts and provides free resources in relation to the prevention of outbreaks and appropriate use of antimicrobials. These resources included live webinars and guidance for education and childcare settings on how to prevent and control the spread of infections. Since August 2020, PHE (and now UKHSA, as set out below) has run an online course in the prevention and management of infection in childcare and pre-school.

1.16.5 Communication Directorate: The Communication Directorate ensured that PHE's messaging and information were targeted at the right audience, at the right time and using the right channel. Its main responsibilities included explaining PHE's positions on policy, evidence or science, promoting public health interventions that protected or improved health and informing the public of risks to health. This naturally included communications aimed at CYP and responses to health protection incidents impacting on CYP such as an outbreak of measles in a school.

1.17 PHE published both the Health Profile for England – a report combining data and knowledge with information to give a broad picture of the health of people in England,

including the health of children in early years and inequalities in health – and the Child Health Profiles. The latter have been published nationally since 2011 for each upper tier local authority in England and provide a snapshot report of child health. Since 2021, these are published by the Office for Health Improvement and Disparities ("OHID") – previously known as the Office for Health Promotion – in DHSC.

Transfer to UKHSA, October 2021 onwards

1.18 In August 2020, the Secretary of State announced that a new national body would be established to bring together the health protection elements of PHE with NHSTT (including JBC) under a single leadership team. This was initially referred to as the National Institute for Health Protection ("NIHP"), but Ministers later changed the name to UKHSA. PHE's functions were not all transferred to UKHSA. The exhibited document sets out where each of the functions of each Directorate were transferred **[Exhibit: SA/01 INQ000257090]**.

1.19 Upon becoming operational on 1 October 2021, UKHSA assumed responsibility for PHE's COVID-19 health-protection related response work in relation to CYP as well as the routine health protection functions that it fulfilled in relation to CYP. The NIS and the Communications Directorate both transferred to UKHSA. In brief, the Agency's main responsibilities in relation to CYP both during the pandemic and now are:

1.19.1 Immunisation programmes: UKHSA supports the delivery by NHS England ("NHSE") and NHS Improvement of childhood immunisation programmes (in collaboration with the Joint Committee on Vaccination and Immunisation ("JCVI") and DHSC) and is responsible for the monitoring and reporting of routine childhood vaccination coverage. UKHSA publishes related guidance; for example, for education and childcare settings on supporting immunisation programmes and during the COVID-19 pandemic a guide for parents of children aged 5-11 in relation to COVID-19 vaccination.

1.19.2 Scientific advice and research: UKHSA has continued PHE's role in undertaking research, surveillance and evaluation studies focused on health protection issues, including in relation to CYP and educational settings. UKHSA, along with NHS partners and academic collaborators, continued PHE's work in implementing and publishing a number of surveillance programmes to monitor the course, progression and outcomes of COVID-19 in children between 2020 and 2023.

1.19.3 Health protection guidance and education: UKHSA publishes, for example, practical guidance for staff on managing cases of infectious diseases (including COVID-19) in CYP settings and as noted above, runs the "e-Bug" programme and an online course in the prevention and management of infectious diseases in childcare and pre-school. UKHSA promotes education amongst CYP in relation to IPC.

1.19.4 Operational function: UKHSA provides direct public health and clinical advice, through its local HPTs, on managing health protection issues affecting CYP.

1.20 The NME Directorate and most of the functions of the HI Directorate moved to OHID which also became operational on 1 October 2021. Staff from the Places and Regions Directorate who were not involved in health protection moved to OHID/NHSE. OHID also assumed responsibility for the COVID-19 "recovery" work in relation to CYP.

PHE's role during the pandemic

1.21 DfE is the government department which leads on policy in relation to children's services and education. PHE did not make policy decisions in relation to CYP and educational settings. Rather, its two main functions were: (i) the provision of scientific research and

advice to inform Government decision making and policy development and (ii) the production of evidence-based guidance based on Government-agreed policy (both generic and a limited amount aimed specifically at CYP).

Scientific research and advice to inform Government decision making and policy

1.22 PHE (and later UKHSA) was one of the organisations that provided both clinical and public health advice and scientific advice and research to inform Government decision making and policy development during the COVID-19 pandemic.

1.23 The routes by which PHE provided such advice and research in relation to CYP included:

1.23.1 Direct to Government. PHE provided advice specifically commissioned by senior Government officials, the Chief Medical Officer ("CMO"), or the Secretary of State, cleared via formal incident, scientific and/or publication governance routes. It also provided advice via formal submission to DHSC Ministers (often incorporating expert PHE advice in submissions produced by NHSTT) and advice direct to policy leads at government departments such as DHSC and DfE.

1.23.2 Leadership and participation in Local Action Committee ("LAC") meetings. In June 2020, the ministerial group organised by the Cabinet Office to focus on the operational response to the pandemic, known as "COVID-O (Operations)", approved the establishment of a hierarchy of Bronze, Silver and Gold ("B/S/G") LAC meetings to provide a governance framework where local, regional and national data were reviewed and operational decisions around potential local support and/or restrictions were made. From August 2020, the secretariat for B/S/G was provided by the NHSTT-led National COVID-19 Response Centre ("NCRC"), a joint function resourced by PHE and NHSTT (including JBC) staff.

Feedback from Bronze meetings (which were held up to three times per week) was used to compile the information pack considered at Silver meetings, which took place at least weekly and were chaired by the CMO for England with input from PHE Regional Directors of Public Health. Silver LAC membership included at least one representative from each of: CMO, Cabinet Office Task Force, senior officials from NHSTT/JBC, PHE, regional partnership teams and stakeholders from across government departments. Silver was an epidemiologically focused meeting, and the operational aspects of potential public health interventions were returned to the Bronze group for further consideration, information or development, and then escalated to Gold. Gold meetings were chaired by the Secretary of State or a Minister from DHSC and were the last stage in the LAC governance structure before escalation to COVID-O, with the Secretary of State providing final approval of any escalations requiring the attention of COVID-O. Gold LAC recommendations were usually presented to COVID-O within a few hours of the conclusion of the Gold meeting. Membership included at least one representative from each of: Secretary of State, Cabinet Office Task Force, senior NHSTT, JBC and PHE officials, regional partnership teams, the devolved administrations and other government Ministers.

1.23.3 Scientific advisory groups. PHE was one of the organisations that provided input into the Scientific Advisory Group for Emergencies ("SAGE") and its sub-groups (including the Scientific Pandemic Insights Group on Behaviours ("SPI-B"), Scientific Pandemic Infections Group on Modelling ("SPI-M"), the Scientific Pandemic Influenza Group on Modelling ("SPI-M-O") and the Children's Task and Finish Working Group ("TFC")) and other advisory groups such as the New and Emerging Respiratory Virus Threats Advisory Group ("NERVTAG"). PHE also reported regularly to the JCVI on COVID-19 surveillance data. These groups all relied on a number of sources from different organisations to provide

input in the form of papers and contribution to discussions in meetings which resulted in a consensus view.

1.24 The scientific advice PHE provided was drawn from existing expertise, ongoing surveillance, internally funded operational science and research, research commissioned by Government or other external sources, and evidence reviews of independent research. PHE conducted and/or supported COVID-19 surveillance, research and evaluation studies in relation to CYP, schools and educational settings. Of note are the Schools Infection Survey ("SIS") and Surveillance in School Kids ("sKIDs"). These studies, and PHE/UKHSA's role in them, are dealt with in more detail in Section 3 below.

1.25 The advice provided by PHE via the above routes covered a range of issues including vaccination (PHE provided data, clinical advice and publications to support the recovery of routine childhood vaccination programmes impacted by the pandemic and supported the delivery of the COVID-19 vaccination programme to CYP) and non-pharmaceutical interventions ("NPIs"). NPIs are public health and/or behavioural interventions that aim to prevent and/or control transmission of infectious pathogens in the community and which are not solely dependent on medicines, antivirals and/or vaccines. They are routinely used to prevent transmission of infectious disease, not just in pandemics. Via the sources listed in the preceding paragraph, PHE provided the evidence base available at the time in relation to specific NPIs impacting upon CYP, including school closures.

1.26 At the start of a pandemic, when little is known about key characteristics of a particular pathogen, it is harder for usual modelling methods to be certain as to which NPIs will be most effective. Given the unknown and uncertain nature of the NPIs in relation to this particular virus, especially in the first few months of the pandemic, decisions surrounding the use of NPIs were complex, balancing trade-offs between the benefits of reducing transmission and severe consequences of infection to the population and potential harms of some NPIs, and variable levels of compliance. Multiple NPIs were rolled out

simultaneously and it is therefore difficult to assess their individual effectiveness in real life scenarios. Attempts to separate the effectiveness of individual NPIs was therefore difficult and potentially misleading especially in the first year of the pandemic, hence the need for multi-faceted approaches such as those outlined in the "System of Controls" contained in the DfE guidance to schools in July 2020 (see paragraph 3.28 onwards). UKHSA continues to regularly review evidence on NPIs.

Evidence-based guidance in relation to CYP/educational settings

1.27 DfE was responsible for providing specific operational guidance to schools and educational settings. PHE provided scientific and public health expertise to DfE to ensure that the guidance offered to schools and educational settings was consistent with the scientific evidence base at the time. Some of DfE's guidance was published jointly with PHE, such as the guidance for educational settings published in March 2020 (referred to in Section 3 below) and guidance for vulnerable CYP.

1.28 PHE also published guidance relevant to CYP and educational settings, such as cleaning in non-healthcare settings (exhibited at paragraph 3.10.1 below) and handwashing.

1.29 PHE's External Guidance Cell and Clinical Guidance Cell, which from September 2020 merged to become PHE's Advice and Guidance team ("PHAGE") translated the government agreed policy and consensus views of expert advisory groups on NPIs into PHE published guidance, alongside other functions.

Structures activated within PHE

1.30 In April 2020, the PHE COVID-19 Integrated and Social Care Cell ("ISCC") was established, to cover both adult social care (due to the scale of outbreaks in care homes) and CYP (due to significant concern in respect of the impact that the COVID-19 pandemic

and its management would have on CYP and their families, particularly those who were vulnerable). PHE's Chief Nurse and Director of Maternity and Early Years ("the Chief Nurse") led the CYP element of the ISCC and assumed the role of PHE's relationship manager with DfE. It quickly became clear, however, that there was a need to divide the work on adult social care and CYP.

1.31 As a result, in June 2020, the ISCC split to become the Adult Social Care Cell and the Children, Young People & Schools Cell ("CYPS Cell"). The Chief Nurse was appointed as the Senior Responsible Officer ("SRO") for the new CYPS Cell. Its remit included coordinating the PHE approach to the impacts of the COVID-19 pandemic on CYP and families **[Exhibit: SA/02 INQ000624305]**. A dedicated CYPS email address was set up as a single point of contact for DfE, to ensure that queries were appropriately logged.

1.32 In September 2020, the CYPS Cell was closed, and a Children, Young People and Schools COVID-19 Team ("CYPS Team") was established to sit within PHE's existing NME Directorate **[Exhibit: SA/03 INQ000624304]**. The CYPS Team's remit was to lead the NME Directorate's public health, nursing and clinical approach to the impacts of the COVID-19 pandemic on: (i) CYP; (ii) all-age safeguarding; (iii) families; and (iv) schools and other educational and care settings. PHE's Chief Nurse remained the SRO for the CYPS Team and was also associated with the PHAGE function of PHE. The team supported functions across the COVID-19 response and recovery, namely:

1.32.1 COVID-19 CYP response: relationship management with DfE, management of required functions in collaboration with the central PHE COVID-19 strategy team, responding to CYPS queries (including in relation to PHE guidance), contributing to guidance and providing specific public health advice on guidance where appropriate.

1.32.2 COVID-19 CYP recovery: provision of COVID-19 impact support for the NME

recovery initiatives across the Directorate, including Best Start in Life. PHE worked in collaboration with NHSE, DfE and other agencies in implementing the NHS's Long-Term Plan for CYP. PHE also published a vulnerability framework to support CYP-centred recovery for three broad groups: (i) children that may be more clinically vulnerable ("CV") to COVID-19 because of underlying health conditions or because the pandemic had delayed or curtailed their access to health services; (ii) children and families at increased risk due to family and social circumstances where there was a statutory entitlement for care; and support (iii) children who may be at higher risk due to wider determinants of health and/or family and social circumstances and may not be known to services **[Exhibit: SA/04 INQ000347121**. In broad terms, NHSE led on the first group, DfE on the second and PHE on the third. PHE published an action plan for local use, setting out a public health informed approach to improve outcomes for vulnerable CYP **[Exhibit: SA/05 INQ000593451**.

1.33 On 17 September 2020, a dedicated advice line for educational settings began its work. PHE established this service in order to relieve the pressure on its HPTs arising from the significant increase in calls for advice and assistance from schools and other educational settings. PHE commissioned the NHS Business Services Authority to provide the seven-days-a-week advice service. On 7 October 2020, a separate advice line for universities opened. These services enabled education settings and universities to receive timely advice on the management of single cases of COVID-19. Call handlers were provided with an advice script produced by HPT consultants in line with nationally agreed Standard Operating Procedures ("SOP"). The script was continually updated to ensure it remained in line with all relevant guidance. The advice lines reduced call volumes to HPTs, enabling them to prioritise the management of more complex cases in educational settings.

1.34 In April 2021, the Children, Young People, Schools and Universities Programme Board ("CYPSU Programme Board") was set up by PHE's Chief Nurse as SRO for CYP, to

provide leadership and governance for the PHE COVID-19 response as it related to CYP. This reflected the need to ensure there was a clear understanding of roles and responsibilities and a governance structure that supported rapid and effective decision making. The CYPSU Programme Board provided advice to the CYPS Team and reported into PHE's Incident Response structures for COVID-19 response matters and DHSC via the NME Directorate for recovery and other CYP-related matters. Membership included DfE and DHSC.

SECTION 2: PRE-PANDEMIC PLANNING IN RELATION TO CYP

2.1 Prior to the pandemic, DHSC led on Emergency Preparedness, Resilience and Response ("EPRR") for the health sector. As an Executive Agency of DHSC, PHE supported the department in the execution of its duties and in this capacity the Emergency Response Department ("ERD") acted as a specialist provider, delivering specific associated commissions from DHSC and others. PHE's EPRR activities also took place across several of its other directorates.

2.2 The CYP-specific pre-pandemic planning which PHE was commissioned to undertake centred around the impact of school closures as a mitigation strategy for pandemic influenza. In 2014, DHSC commissioned PHE to produce a report to inform the development of policy options during an influenza pandemic by collating and updating the evidence base concerning the effects of school closures on influenza transmission **[Exhibit: SA/06 INQ000514458]**.

2.3 PHE indicated that there was insufficient evidence to recommend a particular school closure policy (e.g., proactive or reactive) over another. In summary, school closure may form a useful component of a mitigation strategy during a pandemic influenza, but the timing and duration of such a closure needed to impact transmission was unclear. PHE advised that policy should be responsive to the particular features of a new pandemic

virus. It was also indicated that, in the early stages of a pandemic, a precautionary approach (i.e., closing schools in the absence of strong evidence that it would reduce transmission) may be considered, particularly if the virus was believed to be highly pathogenic. Although the social and economic implications of school closures were beyond the scope of PHE's review, the report highlighted their importance, and that the secondary adverse effects may not affect all sections of society equally. PHE pointed to the difficulty with planning and conducting high quality epidemiological studies on the topic, but recommended several areas in which further research, or the results of ongoing research, would be valuable.

2.4 PHE was also commissioned by DHSC to carry out Exercise Cygnus, which took place from 18 to 20 October 2016 and was designed to assess the UK's preparedness and response to a pandemic influenza outbreak. The scenario which formed the basis of Exercise Cygnus assumed that the Government had advised schools to remain open, but that 250 schools (1% of the schools across England) had taken the decision to close.

2.5 PHE's Exercise Cygnus report, dated 13 July 2017, **[Exhibit: SA/07 INQ000128983]** set out and considered a number of lessons which those organisations participating in the exercise were asked to consider might merit further action. Lesson 14 was directed at the DfE. It recommended that DfE "*in liaison with colleagues in the Devolved Administrations, should study the impact of school closures on society*". The report suggested that DfE "*examine the possibility of keeping schools open by getting retired teaching staff to return to support the profession and by the temporary upskilling of students. Any plans should include safeguarding procedures, the allocation of appropriate roles and the legislation that may be required to allow staff to return to the profession*". DfE is better placed than UKHSA to assist the Inquiry with what action, if any, that department took in relation to Lesson 14.

2.6 More generally, and in relation to the maintenance of CYP services within PHE's remit, it

was recognised prior to January 2020 that the clinical demands of a pandemic could potentially overwhelm routine primary care services and that the delivery of routine immunisation programmes – including those involving CYP – could be adversely affected. The scale of this disruption would depend on the clinical severity of the pandemic and the age groups affected. However, there was a risk that disruption to coverage for non-pandemic vaccination programmes, such as childhood vaccination, would risk co-circulation of other vaccine-preventable infections, with the possibility of outbreaks and hospitalisation. Accordingly, it remained important during the pandemic for PHE to use its resources in such a way as to facilitate and encourage non-COVID-19 related vaccination in CYP.

SECTION 3: SIGNIFICANT DECISIONS WHICH AFFECTED CHILDREN DURING THE PANDEMIC

3.1 The Inquiry has asked for an outline of PHE's contribution to the evidence base which informed ministerial decisions on CYP and the March 2020 decision to close schools to most children and of PHE's understanding of transmission as it related to children and schools.

School closures in March 2020

3.2 At this early stage of the pandemic, the evidence on the role of children in transmission and the impact of COVID-19 on children was limited. From February 2020, these issues were consistently reviewed by SAGE, together with what measures could be introduced to try to limit the spread of the virus.

3.3 On 16 March 2020, SAGE recorded that it would further review at its next meeting on 18 March 2020 "*whether, in the light of new data, school closures may also be required to prevent NHS capacity being exceeded*" **[Exhibit: SA/08 INQ000075664** SAGE also

requested that DfE work with DHSC and PHE on specific guidance for schools and universities, including personal hygiene measures and methods to apply social distancing within these settings, building on what had been done in other jurisdictions, such as Singapore. Following the meeting, on 17 March 2020, SPI-M-O considered that some countries such as Singapore had allowed schools to remain open whilst increasing social distancing within them but concluded that it was not something which could be meaningfully modelled.

3.4 Further modelling for the SAGE meeting on 18 March 2020 was conducted by Imperial College London, the University of Warwick and the London School of Hygiene & Tropical Medicine ("LSHTM"). Following that meeting, SAGE's advice to Government was that *"available evidence now supports implementing school closures on a national level as soon as practicable to prevent NHS intensive care capacity being exceeded*."

3.5 On 18 March 2020 the Government announced that most schools would be shut from 20 March 2020 other than for the children of key workers and vulnerable children.

3.6 As indicated above, PHE were one of the organisations that contributed to SAGE and SPI-M-O during the COVID-19 pandemic with the provision of scientific research and advice, however minutes from SPI-M-O and SAGE do not highlight any specific advice from PHE representatives on the particular topic of school closures between 16 and 18 March 2020.

3.7 It was part of DfE's remit to address operational matters relating to school closures. Whilst senior clinical and public health experts from PHE attended both meetings of SPI-M-O and SAGE in February and March 2020, they were not individuals with expertise specifically focused on CYP.

3.8 DfE was also responsible for providing specific operational guidance to schools and educational settings. The following guidance was published jointly with PHE. PHE's role

in this respect was to assist DfE with the provision of scientific and public health expertise, to ensure that the guidance offered to schools and educational settings was consistent with the scientific evidence base at the time:

3.8.1 Coronavirus (COVID-19): guidance on isolation for residential educational settings, published 21 March 2020 **[Exhibit: SA/09 INQ000625178]**;

3.8.2 Coronavirus (COVID-19): guidance on vulnerable children and young people, published 22 March 2020 **[Exhibit: SA/10 INQ000546874]**; and

3.8.3 Coronavirus (COVID-19): implementing social distancing in educational and childcare settings, published 24 March 2020 **[Exhibit: SA/11 INQ000624315]**.

3.9 DfE and PHE had also previously jointly published the following guidance for educational settings: COVID-19: guidance to educational settings (updated 19 March 2020) **[Exhibit: SA/12 INQ000624316]** with an accompanying poster published on 22 March 2020 **[Exhibit: SA/13 INQ000624317]**.

3.10 The following existing guidance from PHE was also available:

3.10.1 COVID-19: cleaning in non-healthcare settings (updated 19 March 2020) **[Exhibit: SA/14 INQ000624318].**

3.10.2 COVID-19: guidance for households with possible coronavirus infection (published on 12 March 2020, updated on 20 March 2020) **[Exhibit: SA/15 INQ000624319]**.

Role of children and schools in COVID- 19 transmission

3.11 In January 2020, as COVID-19 cases began to appear in the UK, the First Few Hundred enhanced surveillance protocol ("FF100 Protocol") was deployed by PHE, following World Health Organization ("WHO") protocols and in line with previous pandemic response for MERS-CoV and H7N9 influenza. The FF100 was an established enhanced surveillance system designed to investigate the clinical and epidemiological characteristics of at least the first 100 confirmed cases of an emerging infectious disease and their close contacts. The FF100 Protocol was implemented when a novel pathogen required assessment and was utilised during the 2009 H1N1 influenza pandemic.

3.12 The primary objectives of the FF100 Protocol were to collect data from laboratory confirmed cases of COVID-19 and provide estimates of (i) clinical presentation and course of disease; (ii) secondary attack rate (a measure of the frequency of new cases of an illness among the contacts of known cases in a defined period) overall; and by key factors such as by setting, age, and gender for various endpoints and (iii) serial interval (defined as the period from the onset of symptoms in the index case to the onset of symptoms in a contact case).

3.13 The data collected from the FF100 Protocol was used to assess the transmission dynamics of COVID-19 in household and community settings. The first analysis was shared with SPI-M on 27 April 2020 **[Exhibit: SA/16 INQ000223878]** and provided evidence of transmission from children. It was also included in a report to NERVTAG on transmission in children on 20 August 2020. The final report was submitted to Eurosurveillance.org (a European peer-reviewed scientific journal devoted to the epidemiology, surveillance, prevention and control of communicable diseases, with a focus on such topics that are of relevance to Europe) in August 2020 and published in April 2022 **[Exhibit: SA/17 INQ000223879]**.

3.14 On 28 April 2020 PHE submitted to SAGE via SPI-M a paper entitled *"Impact of gradual reopening strategies using POLYMOD contact data*" **[Exhibit: SA/18 INQ000120492]**. The paper looked at the impact on the reproduction ("R") number of various activities and concluded that re-opening schools, work and allowing social visits was most likely to negatively impact the R number, although re-opening libraries and parks was most likely to keep the R below 1. This paper, together with three other similar but separate modelling approaches from Imperial College London, the University of Bristol and the University of Warwick informed the SPI-M-O consensus statement of 27 April 2020 **[Exhibit: SA/19 INQ000223519]**.

3.15 The papers before SAGE for its meetings on 30 April and 1 May 2020 included a paper from the TFC ("*TFC: Modelling and behavioural science responses to scenarios for relaxing school closures*") **[Exhibit: SA/20 INQ000075418]**. The TFC provided consolidated scientific health advice to government focussing on the transmission of COVID-19 in children and within schools. Participants changed over time depending on the expertise needed. It was co-chaired by the Chief Scientific Advisors for DfE and the Department for International Development.

3.16 Annexed to the paper for the meeting on 1 May 2020 were several papers from other organisations including PHE:

3.16.1 PHE paper entitled *"Impact of gradual school reopening using POLYMOD contact data",* which modelled different scenarios for school reopening **[Exhibit: SA/21 INQ000075017]**.

3.16.2 LSHTM and University of Cambridge: SPI-Kids report – evaluating the increase in transmission for different back-to-back school scenarios, 30 April 2020 **[Exhibit: SA/22 INQ000075789]**.

3.16.3 University of Cambridge: Estimating R for intermittent interventions, 29 April 2020 **[Exhibit: SA/23 INQ000075788]**.

3.16.4 University of Bristol and University of Exeter: Impact of opening schools on the effective number – analysis of the Social Contact Survey published 30 April 2020 **[Exhibit: SA/24 INQ000074998]**.

3.16.5 University of Warwick: Impact of changes to school attendance 28 April 2020 **[Exhibit: SA/25 INQ000075773]**.

3.17 The relevant SAGE minute noted that *"evidence concerning the role of children in transmission and their susceptibility to infection remains inconclusive. Data suggest that children who are infected have similar viral loads to adults"*. There was also *"uncertainty about whether younger children may be less susceptible than older children and it is possible a differential policy between primary and secondary school might be supportable. This should be explored."* **[Exhibit: SA/26 INQ000075781**

3.18 SAGE held a dedicated meeting on 1 May 2020 to discuss issues relating to children and schools. It concluded that it was *"not clear whether transmissibility by children is lower than in adults, but some variable evidence indicates that this may be the case for younger (up to age 11-13) children (low confidence)."* There was a high degree of confidence that the evidence indicated the severity of the disease in children was lower than in adults. **[Exhibit: SA/27 INQ000120510**

3.19 In June 2020, PHE conducted a rapid review to identify and assess direct evidence on the transmission of COVID-19 within school settings and the effectiveness of school-based interventions in reducing transmission **[Exhibit: SA/28 INQ000223527]**.

3.19.1 The review considered epidemiological and modelling studies from a range of

other jurisdictions, as a variety of approaches had been adopted globally in relation to the reopening of schools (see Annex 1 of **Exhibit: SA/28 INQ000223527**). The purpose of the review was to provide the best available evidence to decision makers in a timely way. It concluded that there was limited and weak evidence from three epidemiological studies that the transmission of COVID-19 within school settings was low, and weak evidence from six modelling studies that the reopening of schools at a reduced capacity – particularly for younger children – may not be associated with a second epidemic wave. The review was shared with DHSC and DfE in July 2020.

3.19.2 PHE advised that the evidence base should be routinely monitored to capture new studies on transmission and interventions as they emerged. The review was updated in September 2020 and February 2021.

3.20 On 4 September 2020, the PHE "sKIDS" report *"Prospective active national surveillance of pre-schools and primary schools for SARS-CoV-2 infection and transmission in England"* was published. PHE initiated a prospective national study in 131 educational settings (preschools and primary schools) during the 4 to 6-week summer half-term from 1 June to mid-July 2020. The study found that infection and transmission rates were low in preschool and primary schools under surveillance. It also concluded that the rates of antibodies in students and staff were similar and not associated with school attendance during the lockdown **[Exhibit: SA/29 INQ000223828]**.

3.21 The results of the September 2020 update of the rapid review provided an indication that transmission within schools reflected wider community transmission. It was noted that in areas of high prevalence, COVID-19 transmission may occur within school settings for both primary and secondary school-aged children. However, local factors (such as contact with the infected person and the physical school environment) may well have influenced the results. There was no evidence of transmission within low prevalence areas. The results

were limited because the studies looked at were varied and they relied on antibody testing (which may not have picked up all COVID-19 cases as it was not certain who would maintain an antibody response – or for how long – post-infection, especially in asymptomatic and mild cases). Limited observational evidence also suggested that, in Sweden, keeping schools open for children younger than 15 years old was not associated with higher infection rates in these children. Evidence from modelling studies suggested that reopening of schools at reduced capacity or on alternative days might not be associated with a second epidemic wave **[Exhibit: SA/30 INQ000223532]**.

3.22 The February 2021 update of the rapid review concluded that, overall, transmission within school settings could be limited when IPC measures were in place. However, transmission may occur especially in areas of high community transmission or where inadequate measures were in place, but these results were mainly based on descriptive observational studies which have their limitations and may be prone to bias. The evidence on effectiveness of school-based interventions was mainly based on non-peer reviewed modelling studies that suggested implementing a combination of interventions (based on testing, isolation and cohorting, i.e., no mixing outside classrooms and/or reducing class size) in addition to other mitigation measures (such as physical distancing, face coverings and increased ventilation) were likely to reduce the likelihood and size of outbreaks within schools. That said, mathematical modelling had its limitations, particularly due to the uncertainty of COVID-19 transmission in children and the emergence of new variants. The review advised that higher quality, peer-reviewed evidence was needed to assess the transmission of COVID-19 and to assess the effectiveness of school-based interventions to reduce transmission in schools. It was also essential to closely monitor the transmission of COVID-19 within school settings, especially in the context of the emergence of new variants of concern **[Exhibit: SA/31 INQ000223565; Exhibit: SA/31a INQ000223566]**. DfE will be better placed to assist the Inquiry in terms of how this final recommendation was implemented in view of their operational responsibility for schools.

3.23 Initial findings from the February 2021 rapid review were shared with DfE on 11 February 2021 and then presented to an Educational Stakeholders meeting held by DfE on 18 February 2021. Lines based on the initial findings of the review were provided to DfE on 19 February 2021 to inform a DfE evidence summary published on 22 February 2021 (along with a number of different sources including SAGE, the Office of National Statistics ("ONS") and the JBC) **[Exhibit: SA/32 INQ000075546]**, in advance of schools reopening on 8 March 2021. The final version of the review was shared internally and with DfE in April 2021 before publication.

3.24 PHE experts also contributed to the paper, "*SARS-CoV-2 infections in children following the full re-opening of schools and the impact of national lockdown: Prospective, national observational cohort surveillance, July – December 2020, England*" a journal article which was published on behalf of the British Infection Association in February 2021 **[Exhibit: SA/33 INQ000624296]**. The authors monitored infection rates in school-aged children and compared them with adult infection rates before and after schools reopened in England for the period July to December 2020, (including the month-long lockdown in November 2020 whilst schools were kept open). The data only included cases that presented to a national testing centre and showed that infections of the virus causing COVID-19 in school-aged children followed a similar pattern to adult cases. It was noted that the only decline in infections between July and December 2020 took place after the national lockdown was implemented (at which point schools remained open). The authors concluded that the "*strong regional correlation between adult and childhood infection rates highlights the important [sic.] of maintaining low community infection rates to allow schools to remain open safely through the pandemic*".

<u>The Schools Infection Survey</u>

3.25 The SIS was a joint ONS, LSHTM and PHE survey conducted from November 2020 in England. The survey assessed the role of schools in COVID-19 transmission and how

transmission within and from school settings could be minimised. The survey closed on 31 March 2022.

3.26 There were five "rounds" published between December 2020 and August 2021 (round 3 did not proceed as schools were closed):

3.26.1 Round 1 (3 to 19 November 2020). Results suggested that the number of infection control measures implemented varied across schools. The most frequently implemented measures across primary and secondary schools included hand sanitisers, frequent hand washing and increased cleaning of frequently touched surfaces. The least frequently implemented measure was the wearing of face coverings by students in the classroom **[Exhibit: SA/34 INQ000223834]**.

3.26.2 Round 2 (2 to 10 December 2020). The estimated percentage of primary and secondary school-age children and staff testing positive for current COVID-19 infection was lower in the SIS compared with the Coronavirus (COVID-19) Infection Survey **[Exhibit: SA/35 INQ000223837]**.

3.26.3 Round 4 (15 to 31 March 2021). Published in May 2021, shortly after schools in England reopened following the third lockdown, the results suggested infections had fallen significantly among both staff and pupils compared to previous findings in November and December 2020 **[Exhibit: SA/36 INQ000223839]**.

3.26.4 Round 5 (5 to 21 May 2021). Very low numbers of positive cases were found in schools during this period **[Exhibit: SA/37 INQ000223841]**.

3.26.5 Round 6 (June 2021). It was found that infection and antibody positivity rates of children in school did not exceed those of the community. Prevalence of the

virus was lower in schools in June 2021 than in the autumn term of 2020. **[Exhibit: SA/38 INQ000223843]**.

Reopening of Schools in 2020

3.27 As outlined in the preceding section, PHE – among others – provided scientific advice, based on available evidence, on the role of children and schools in transmission and the impact of schools reopening to inform policymakers as they decided when and how to reopen schools.

"System of Controls"

3.28 To assist schools and educational settings on reopening and remaining open, DfE produced 'Guidance for full opening', which was first published on 2 July 2020 **[Exhibit: SA/39 INQ000497942]** and updated numerous times over the course of the year, in line with the rapidly evolving epidemiological picture and changes in Government policy. The guidance contained a set of principles for school leaders to follow to minimise the risk of transmission in their school. These were referred to as a "System of Controls", which were endorsed by PHE, who provided scientific expertise to ensure that the controls were in line with the understanding of transmission at the time. PHE also advised on measures which were not needed or appeared not to contribute materially to controlling the virus, such as routinely taking pupils' temperature, which was an unreliable method for identifying COVID-19.

3.29 The "System of Controls" divided into prevention (which included measures such as handwashing, enhanced cleaning and social distancing) and infection response (which provided schools with a step-by-step process to follow where a COVID-19 infection was identified in their school).

Face Coverings

3.30 By way of background, on 11 May 2020 DHSC published guidance – based on the advice of scientific advisory groups such as SAGE – advising the public to wear face coverings in enclosed spaces. It was made clear that face coverings did not need to be worn outdoors, in schools, or by those who may find them difficult to wear, such as children aged under two or primary aged children who could not use them without assistance or may have problems breathing while wearing them **[Exhibit: SA/40 INQ000624322]**.

3.31 As DfE were developing the initial "System of Controls" set out in its 2 July 2020 guidance, PHE advised that – based on current evidence, which would be kept under review – it did not recommend the use of face coverings in schools. This was because pupils and staff were mixing in consistent groups, and misuse of face coverings may inadvertently increase the risk of transmission. There may also be negative effects on communication and thus education. DfE's guidance reflected this and provided advice for schools on managing the removal of face coverings when pupils and staff who used them arrived at school. It was made clear that face coverings were required at all times on public transport for children over the age of 11.

3.32 On 24 July 2020, DHSC guidance was updated to make face coverings mandatory in shops, supermarkets, shopping centres and enclosed transport hubs, but this was not mandatory for anyone under the age of 11.

3.33 On 21 August 2020, the WHO issued a statement indicating that "*children aged 12 and over should wear a mask under the same conditions as adults, in particular when they cannot guarantee at least a 1-metre distance from others and there is widespread transmission in the area*."

3.34 On 23 August 2020, the UK CMOs published a consensus statement summarising the

current evidence of risks and benefits to health from schools and childcare settings reopening. It summarised the consensus view of the CMOs and Deputy CMOs ("DCMO") of the four nations that children, compared to adults *"may have a lower risk of catching COVID-19 (lowest in younger children), definitely have a much lower rate of hospitalisation and severe disease, and an exceptionally low risk of dying from COVID-19. Very few, if any children or teenagers will come to long-term harm from COVID-19 due solely to attending school."* It also stated that whilst transmission of COVID-19 did occur in schools, *"[on] current evidence it is probably not a common route of transmission"* and that control measures *"such as hand and surface hygiene, cohorting to reduce number of daily contacts, and directional controls to reduce face-to-face contact remain key elements of maintaining COVID-19 secure school environments and minimising risk".* On 24 August 2020, a meeting was held between the Cabinet Office, PHE, DHSC and DfE in relation to the use of face coverings in educational settings. Following the meeting, PHE provided a summary position based on the latest evidence and the statements from the WHO and UK CMOs **[Exhibit: SA/41 INQ000075466]**.

3.35 This document advised that (i) in respect of early years and childcare settings, children under 3 should not use face coverings for safety reasons; (ii) face coverings were not recommended for children in primary school settings when the 'System of Controls' was in place; and (iii) children over 11 should not be recommended to wear face coverings while attending educational settings. The advice in relation to children over 11 was given *"[in] light of the measures that educational settings are expected to have in place to reduce the risk of transmission of coronavirus infection in those settings, the potential educational problems that wearing face coverings might present through hindrance of communication and the currently generally low prevalence of infection in England".* PHE indicated that this view would be kept under review in light of the emerging evidence (including the experience of other countries). Further guidance was given in respect of teachers and other adults.

3.36 On 26 August 2020, DfE issued guidance on face coverings in education, stating that "*the government was not recommending face coverings are necessary in education settings generally because a system of controls, applicable to all education environments, provides additional mitigating measures. Schools and colleges will have the discretion to require face coverings in indoor communal areas where social distancing cannot be safely managed, if they believe that it is right in their particular circumstances.*" **[Exhibit: SA/42 INQ000624324]**.

3.37 On 28 August 2020, DfE updated its "Guidance for full opening" and included *"Where recommended – use of face coverings in schools"* as part of the 'System of controls' **[Exhibit: SA/43 INQ000624328** The guidance explained that the government were not recommending the universal use of face coverings in all schools, rather, it recommended that:

3.37.1 Inside the classroom: based on current evidence and the measures schools were already putting place, face coverings would not be required even where social distancing was not possible. It was indicated that face coverings could have a negative impact on teaching and their use in classrooms should be avoided.

3.37.2 Outside the classroom: Primary school children did not need to wear face coverings. In schools that taught children in Years 7 and above, the advice depended on whether local lockdowns or restrictions were in place. If such restrictions were in place, face coverings should be worn by pupils and adults when moving around the premises outside classrooms. In areas where such restrictions were not in place, schools had discretion to require face coverings for pupils, staff and visitors in indoor areas outside the classroom where social distancing could not be maintained.

3.38 DfE's guidance was updated numerous times throughout 2020. The advice in relation to face coverings remained as above (with later iterations referring to local alert levels and tiering to reflect current Government policy). The advice given in 2021, after the third lockdown, is dealt with below.

Ventilation

3.39 The early iterations of DfE's guidance for full opening emphasised the importance of ensuring good ventilation and keeping occupied spaces well-ventilated. This later became a mandatory preventative action in the 'System of Controls' which schools were required to follow. Schools were also referred to guidance from the Health and Safety Executive ("HSE") on air conditioning and ventilation during the COVID-19 outbreak.

3.40 PHE/UKHSA published guidance on the ventilation of indoor spaces to reduce the spread of respiratory infections including COVID-19, which was not specifically aimed at schools and educational settings but covered workplaces and non-domestic settings **[Exhibit: SA/44 INQ000624320]** and signposted to HSE guidance on ventilation. As indicated above, specific guidance for schools in relation to ventilation was contained in DfE's "System of Controls".

3.41 PHE/UKHSA's guidance (published on 4 March 2021 and last updated on 2 August 2022) advised that air cleaning devices were not a substitute for good ventilation, but where it was not possible to maintain good ventilation, air cleaning units utilising High Efficiency Particular Air ("HEPA") filters, or ultraviolet ("UV") technologies could be a useful alternative for reducing airborne transmission of viruses. DfE guidance states that a carbon dioxide ("CO2") level of under 800 parts per million ("ppm") is considered "good ventilation" **[Exhibit: SA/45 INQ000625937** However, there are various factors which go into assessing ventilation and CO2 meters are only one method. The guidance advised that air cleaning units "could" be useful rather than that they should be used as this reflected

the evidence base at the time. SAGE Environment and Modelling Group reviewed air cleaning devices in 2021 and found that they may be suitable for spaces where there was insufficient ventilation, and the ventilation could not be improved **[Exhibit: SA/46 INQ000625938** There was very little evidence that air cleaners were an effective control to prevent COVID-19, but the principles of air cleaning suggested that they may be useful in some cases. Further to this, the advice reflected that there were a vast number of different air cleaners on the market (those with a HEPA filter were likely to be most effective, and those with a UV lamp may also work) and that it was important to consider how much air the device could clean (for example, a small device in a large room would have very little effect).

3.42 Further guidance on air cleaning technologies was published by the Chartered Institute of Building Services Engineers ("CIBSE") and referenced in UKHSA's guidance. Whether air cleaning devices were provided to schools was a matter for DfE.

Local Support

3.43 As set out in Section 1 above PHE's HPTs provided specialist health protection advice and operational support to local authorities and other agencies locally. DfE's "Guidance for full opening" set out the process for schools to follow should an individual who had attended test positive for COVID-19, or a suspected outbreak be identified.

3.44 Schools were advised to ensure that they understood how to contact their local PHE HPT, and that the HPT would also contact schools directly if they became aware of a positive case. The processes that had been used prior to the COVID-19 pandemic to carry out routine surveillance of acute respiratory infection outbreaks in schools were adapted and utilised during the pandemic, and PHE supported local authorities by providing up to date epidemiological data in their area. From June 2020, the PHE Joint Modelling Cell and the PHE COVID Outbreak Surveillance Team (both cells within PHE's incident response

arrangements) adapted an existing algorithm to detect local authorities with high COVID-19 activity. This information was included in a detailed epidemiological summary produced by the Outbreak Surveillance Team for local authorities (via Directors of Public Health), HPTs and PHE regional teams, to help understand where clusters and outbreaks were likely happening and support local decision making. These reports were shared daily between July 2020 and August 2021, after which they were produced twice a week **[Exhibit: SA/47 INQ000223888; Exhibit: SA/48 INQ000223889]**.

3.45 Where a positive case or suspected outbreak was identified in a school, the relevant HPT would carry out a rapid risk assessment and provide guidance on necessary actions to reduce the risk of transmission and contain any potential outbreak. The intention was for schools to remain open wherever possible. That said, school closures may have been implemented on an operational basis by school and local authority per DfE guidance; this was not something which PHE/UKHSA advised on. Schools were required to follow DfE and national guidance.

3.46 As indicated above, in September 2020 an educational setting advice line was established by PHE to relieve the pressure on HPTs due to the significant increase in calls they were receiving from schools. The line provided a triage service to support HPT calls and to provide standard advice to settings about management of single cases, enabling HPTs to prioritise the management of more complex cases and outbreaks in educational settings.

The closure of schools in January 2021

3.47 The closure of schools in January 2021 must be understood in the context of the third national lockdown that was announced by the Prime Minister on 4 January 2021 and the events leading up to that decision, in particular the emergence of the Alpha variant and the data indicating its rapid spread in December 2020.

Alpha variant and run-up to third lockdown

3.48 On 5 November 2020, the second national lockdown was announced. Schools remained open and attendance was an exception to general "Stay at Home" restrictions. During this lockdown, JBC worked with the Cabinet Office to develop a revised tiering system aimed at ensuring that areas with different rates of infection had appropriate measures to manage outbreaks, suppress the virus and keep R below 1 without extending the duration of the lockdown. The policy on tiering and the formulation of the Tiering Regulations that were published on 30 November 2020 were led by DHSC's Social Distancing Strategy Directorate, with epidemiological evidence and analysis provided by JBC and PHE through LAC meetings. Three regional tiers were introduced as an update to the alert levels used by the Government prior to the second lockdown:

3.48.1 Tier 1 (replacing the "medium" alert level prior to lockdown) permitted hospitality businesses to stay open later than was permitted prior to the second lockdown and the "rule of six" to be relaxed for outdoor gatherings.

3.48.2 Tier 2 (replacing the "high" alert level) restricted the service of alcohol in hospitality settings other than with substantial meals.

3.48.3 Tier 3 (replacing the "very high" alert level) required the closing of hospitality services other than for delivery, drive-through and takeaway, the closure of indoor entertainment, as well as hotels and other short-term accommodation (subject to certain exemptions), and provided that elite sports could be played but only without spectators.

3.49 When the revised tiering system was introduced, it was not envisioned that any of the three tiers would require school closures as a strict policy.

3.50 By mid-December 2020, the Southeast of England had begun to demonstrate alarming and accelerating rates of new infection, driven by the emergence of the Alpha variant. DHSC, the Cabinet Office and JBC began discussing a new "Tier 4" being added to the tiering system out of concern for the new infection trends. This concern was reflected in LAC Gold recommendations to COVID-O, set out in a draft paper from the Secretary of State dated 13 December 2020 **[Exhibit: SA/49 INQ000223544]**. As the 13 December 2020 paper from the Secretary of State noted, Gold LAC considered whether further actions to close schools should be taken, given an observed rise in cases amongst school aged children, but school closures were not recommended to COVID-O at the time. This was due to the complexity of implementation and the fact that schools had only four days of term left before the Christmas holidays.

3.51 On 19 December 2020, the Prime Minister announced the introduction of "Tier 4". At this time, case rates exceeded 500 per 100,000 across a high number of local authorities that were to be placed in Tier 4. The data detailed in the Silver and Gold LAC situation report produced by the JBC and PHE for the week commencing 21 December 2020 (the "21 December Pack") confirmed an exponential increase in infections amongst school-aged children. Amongst the epidemiological trends noted in the 21 December Pack was that the highest prevalence of new infections nationally between 13 November and 3 December 2020 was in school-aged children, especially at ages 13-17 years, where 1 in 50 children were infected **[Exhibit: SA/50 INQ000223546]**. The evidence gathered by the JBC and PHE indicated that the new Alpha variant was becoming the predominant variant in London, as well as in the East and Southeast of England. The impact the new, more infectious, COVID-19 variant was having on case rates and doubling times was resulting in unsustainable pressures on the NHS.

3.52 In preparation for a SAGE meeting on 22 December 2020, an assessment by NERVTAG and PHE of the available evidence on the new Alpha variant was circulated to participants **[Exhibit: SA/51 INQ000075511]**. This assessment indicated, with high confidence, that

the new variant was spreading faster than other variants. The causes of that were unclear, but the evidence was consistent with an increase in transmissibility being a factor. There was also some evidence that the variant was more likely to transmit within households.

3.53 At the meeting on 22 December 2020, SAGE considered a paper prepared by the TFC dated 17 December 2020 which stated **[Exhibit: SA/52 INQ000074951]**: *"Overall, accumulating evidence is consistent with increased transmission occurring amongst school children when schools are open, particularly in children of secondary school age (high confidence): multiple data sources show a reduction in transmission in children following schools closing for half term, and transmission rates increasing again following the post-half term return to school (medium confidence). It is difficult to quantify the size of this effect, and it remains difficult to quantify the level of transmission taking place specifically within schools compared to other settings."*

3.54 SAGE recorded the view at the meeting that it was "*highly unlikely that measures with stringency and adherence in line with the measures in England in November (i.e. with schools open) would be sufficient to maintain R below 1 in the presence of the new variant*" and that "*[i]t It is not known whether measures with similar stringency and adherence as Spring, with both primary and secondary schools closed, would be sufficient to bring R below 1 in the presence of the new variant.*"

3.55 The subsequent Silver and Gold LAC situation report prepared by PHE and JBC for the week commencing 28 December 2020 recommended further geographical areas be moved to Tier 4, but did not comment on school closures **[Exhibit: SA/53 INQ000223548]**. As described above, the LAC situation reports compiled local, regional and national data (e.g. around case rates, bed occupancy, deaths) in order to inform decisions taken by COVID-O to the extent the Secretary of State considered information coming out of Gold LAC to require further escalation. The report therefore set out a snapshot of the current tiering of each region and area covered by the data set in the report, noting where re-

tiering (e.g. from tier 3 to tier 4) was recommended based on that data.

3.56 On 4 January 2021, the Prime Minister announced a new national lockdown and the closure of schools to most children from 5 January 2021, except for vulnerable children and children of key workers. This reflected concerns that the four-tier system was not containing the spread of the more transmissible Alpha variant, with a majority of the country now being in Tier 3 and more regions entering Tier 4. The decision by the Government to enter into a third national lockdown (including the closure of most schools) reflected a complex weighing of risks and balancing of priorities that considered, but necessarily went far beyond, the science-based guidance and advice provided by PHE.

3.57 Schools remained closed until 8 March 2021, when they re-opened as part of the first step in the Government's roadmap out of lockdown (described below).

PHE advice on schools preceding third lockdown in January 2021

3.58 In addition to its contributions to the LAC meetings described above, PHE continued to support DfE in preparing advice and guidance for schools, particularly with respect to face coverings and other NPIs recommended for when schools were to reopen after New Year. In light of the impact of the Alpha variant and the anticipated re-opening of schools in January, DfE sought advice and comments from PHE on material it had prepared for COVID-O and the Secretary of State for Education with a view to keeping schools open. In particular, DfE and PHE discussed DfE guidance on face coverings relating to different age groups **[Exhibit: SA/54 INQ000624294]**.

Development of mass testing in schools

3.59 After the Prime Minister announced the third national lockdown on 4 January 2021, public attention and government policy were focused on what conditions would support a return

to normal. Rollout of the vaccine and mass testing were key components of the lockdown exit strategy, but the Government had already positioned mass testing as important to keeping schools open even before the third lockdown.

3.60 In anticipation of the return of schools and colleges for the autumn term in September 2020, PHE and NHSTT sent a letter to school and college leaders informing them that testing had been made available throughout the country. They were advised that only those who were symptomatic or recommended to by a doctor should order tests **[Exhibit: SA/55 INQ000624302]**. At the same time, from 26 August 2020, all schools and further education providers were sent an initial supply of ten individual polymerase chain reaction ("PCR") test kits. These tests were intended to complement individuals being tested at dedicated testing sites and only to be used in exceptional circumstances. From 16 September 2020, schools were able to order additional PCR tests, but mass daily testing for asymptomatic students and school staff was not government policy at this point.

3.61 NHSTT sourced, procured and delivered testing for different use cases (i.e. the situation for which testing technology is to be used) as they emerged in the UK. These use cases included: diagnostic testing to gather information from individuals with symptoms and track outbreaks; asymptomatic screening of individuals without symptoms to support risk management in specific settings and groups (e.g., for international travel or attending events); large-scale diagnostic testing across the population (including surveying the virus genome); and wastewater testing. During autumn and winter of 2020, NHSTT worked increasingly closely with other government departments, including DfE, in relation to university student testing and schools testing. This was enabled by a significant increase in capacity during this period to deliver PCR tests to support larger-scale asymptomatic testing.

3.62 While NHSTT remained functionally independent of PHE prior to UKHSA becoming operational, with its own Executive Chair and different lines of accountability, PHE and

NHSTT worked closely together. There was operational overlap and NHSTT relied on PHE colleagues' scientific and public health expertise throughout its operations. While NHSTT was tasked with increasing the availability and speed of testing, it collaborated with other departments who were primarily responsible for operationalising testing within their respective areas of oversight and responsibility. For instance, NHSTT's work to procure and deliver test and trace technology practically then enabled departments such as DfE, responsible for the operational planning for testing in schools and colleges, the then Department for Business, Energy & Industrial Strategy ("BEIS"), responsible for workplace testing initiatives, and the Home Office, which oversaw testing in prisons and at the border, to implement testing strategies in the areas where they had oversight responsibility.

3.63 On 15 December 2020, the UK Government announced that lateral flow device ("LFD") tests would be deployed in secondary schools and further education colleges to support the return to education after the end of the second national lockdown. The development of LFD tests facilitated mass asymptomatic testing because LFD tests were easier to administer and were self-processed (unlike PCR tests which needed to be sent to laboratories for processing). This meant that LFD tests returned results quickly on the same day and were a better fit for use in schools. When purchased at scale, LFDs were considerably cheaper per test than PCRs.

3.64 In preparation for mass testing in schools to begin in January 2021 when schools reopened, DHSC produced a standard operating procedure ("SOP") for mass asymptomatic testing in schools and colleges. The SOP envisioned mass testing to have three components: (i) test on return for students, involving two tests performed 3 to 5 days apart; (ii) routine testing by staff on a weekly basis; and (iii) daily contact testing (by LFD) for 7 days after a positive test confirmed by PCR.

3.65 The SOP was prepared under the auspices of DHSC's National Testing Programme ("NTP"). The NTP was stood up initially in April 2020 through a combination of seconded

civil servants, the deployment of resources through the MoD's Military Aid to the Civil Authorities ("MACA") framework, and external consultants where neither the civil service or military had immediate capacity or capability. The NTP was integrated into NHSTT in May 2020. The 31 December 2020 version of the publication *"Clinical Standard Operating Procedure (SOP) for Mass Testing with Lateral Flow Antigen Devices in Schools and Colleges"* is exhibited to this statement **[Exhibit: SA/56 INQ000624306]**. The SOP was stated to apply to schools in England and was to be reviewed and adapted by the respective agencies of the Devolved Administrations for roll-out.

3.66 As set out by DHSC in the SOP for mass testing, the clinical oversight for mass testing was to be provided by NHSTT and DHSC. DfE had responsibility for delivery of the programme, ensuring clinical requirements would be in place with appropriate support, and providing information to NHSTT that would enable their oversight. The SOP notes that it is designed for mass LFD testing in schools and colleges where on-site clinical oversight is not required. The clinical oversight role of NHSTT therefore included: (i) standard setting, as reflected in the clinical governance framework set out in the SOP, to promote quality assurance for sampling and testing procedures adhered to by site staff; (ii) registering school and college testing sites with the Medicines and Healthcare products Regulatory Agency ("MHRA"), with DfE assuming responsibility for weekly incident reporting to MHRA for registered sites; (iii) reviewing reports to the NHSTT Mass Testing Quality Committee from site-designated quality leads; and (iv) national monitoring (via the NCRC) of outbreaks potentially associated with daily contact testing.

3.67 The SOP delineated accountability for mass testing in schools as follows:

> *"Department for Education will be responsible for the following:*
>
> 1. *Overall operational delivery and oversight of the programme*
> 2. *Helpline service for technical and operational aspects of lateral flow testing*

3. *Central incident tracking and triage system*
4. *Coordinate reporting back to DHSC on clinical assurance*
5. *Help MHRA on LFD testing*
6. *Support for local response by*
    - *Central team on-call operations support*
    - *Providing a crucial link between local, regional and national response*
    - *Providing advice and support for escalating critical issues*
    - *Issuing frequently asked questions and best practice advice*

Department of Health and Social Care (DHSC) will provide the following:

1. *Clinical Standard Operating Procedure (this document)*
2. *Test kits, PPE, test registration cards (physical or electronic format) and barcodes*
3. *Guidance for how to design, set up and run asymptomatic testing*
4. *Training for test site workforce (delivered digitally)*
5. *Example test area schematics to help design the testing site*
6. *Standard site collaterals (provided in electronic format)*
7. *Templates for Site Risk Assessment, staff competency checks, incident reporting, MHRA reporting*
8. *Registration and result notification system.*"

The SOP then also set out specific areas of accountability at the school level.

3.68 This division of responsibilities is also reflected in the 10 December 2020 paper from the Secretary of State for Education, *"Asymptomatic Testing in Schools, Colleges and Universities from January 2021"*, which set out DfE's plans for delivery of the programme **[Exhibit: SA/57 INQ000075484]**. DfE guidance as of January 2021 was that all schools and colleges should offer regular twice weekly testing to their staff and that testing would

be on a voluntary basis **[Exhibit: SA/58 INQ000624321** Staff would not be required to provide proof of a negative test result to attend school or college in person, although participation in testing was strongly encouraged.

3.69 As reflected in the SOP, PHE's primary role in mass testing was envisioned to be "downstream", receiving LFD results as a public health body to whom mandatory notifiable disease reporting had to be made as per Health Protection Regulations. Where PHE did provide input, it was in relation to the evolving epidemiological situation on the ground. For example, PHE issued a position statement in January 2021 advising that the rollout of daily contact testing in schools be paused because the spread of the Alpha variant made the balance between the risks and benefits of daily contact testing "unclear" **[Exhibit: SA/59 INQ000624307]**.

3.70 NHSTT was tasked with accelerating new technology in order to enable mass testing. The Executive Chair had meetings at least weekly with the Prime Minister and at least twice weekly with the Secretary of State as they tried to develop and then source sufficient suitable tests for various use cases, including (but not limited to) mass testing and testing in schools. Mass testing was delayed in light of the start of the third lockdown, but it remained an important strategy for the Government.

The re-opening of schools in March 2021

Analysis to support re-opening

3.71 During the third lockdown, PHE supported the Government's efforts to prepare for the re-opening of schools by providing an updated review of the evidence of the transmission of COVID-19 within school settings and the effectiveness of school-based interventions in reducing transmission. As described above, PHE's initial findings **[Exhibit: SA/60 INQ000223556]** were shared with DfE on 11 February 2021 **[Exhibit: SA/61**

INQ000223557] and then compiled by PHE's PHAGE cell for use by DfE in a meeting of educational stakeholders it coordinated for 18 February 2021 **[Exhibit: SA/62 INQ000223559]**.

3.72 PHE noted at the 18 February 2021 meeting that the majority of studies suggested that transmission within schools is low when sufficient IPC measures are implemented. According to PHE's analysis of the studies done at the time, a range or mix of interventions (including social distancing, small class sizes, use of face coverings, regular testing, isolation policies, daily symptom screening and classroom ventilation) all reduced predicted transmission levels to varying degrees, and combinations of interventions would be required, recognising the need to understand the feasibility of any proposed measures.

3.73 DfE published its 22 February 2021 *"Evidence summary: COVID-19 – children, young people and education settings"* **[Exhibit: SA/32 INQ000075546]**. This set out the evidence supporting the Government's decision to lift restrictions on education on 8 March 2021.

Roadmap out of lockdown – mass testing

3.74 On 22 February 2021, the Government published *"COVID-19 Response – Spring 2021"* **[Exhibit: SA/63 INQ000185087]**, which included a roadmap out of lockdown in England. The roadmap consisted of four timed steps, between March and June 2021, which provided for the gradual lifting of restrictions in relation to matters such as education, business and activities, travel and social contact. Progress from one step to the next was premised on four roadmap tests being passed: (i) that the vaccine deployment programme continued successfully; (ii) that evidence showed vaccines were sufficiently effective in reducing hospitalisation and death; (iii) that infection rates did not surge, pressuring the NHS; and (iv) that the Government's risk assessment was not fundamentally changed by the discovery of new variants. Step 1 set a target of 8 March 2021 for schools and colleges to re-open for all students, with testing playing a vital role in the plan:

> *"The successful return of more learners to face-to-face education and childcare settings will be supported by a range of new measures, designed to minimise the spread of COVID-19…The risk of transmission will be reduced by implementing the system of controls endorsed by PHE which the Department for Education will work with schools to implement. In addition to the already established rapid testing regime and regular testing of staff, there will be twice-weekly testing of secondary school and college pupils, initially with on-site testing and then home testing. All households with school children, members of their support and childcare bubbles, and those in related occupations will also be encouraged to get tested regularly."*

3.75 NHSTT and PHE prepared a joint Delivery Plan covering the period of April to June 2021 that set out their respective roles in supporting the roadmap, *"Public Health England and NHS Test and Trace: our role in the Roadmap out of lockdown"* **[Exhibit: SA/64 INQ000203617]**. As the Delivery Plan reflects, significant focus was placed on the continued expansion of test and trace capabilities.

3.76 After the initial delay due to the third lockdown and closure of schools to most students in January 2021, mass asymptomatic testing was implemented after schools and further education colleges reopened in March 2021. This covered staff at all levels and pupils in secondary and higher education. Primary school pupils were not included and routine testing for under 11s was not recommended unless directed by a health professional. Asymptomatic pupils were initially tested at Asymptomatic Testing Sites ("ATS") within their educational settings supervised by staff. Tests were repeated on site for pupils ideally at a three-to-five-day interval, and for staff twice-weekly through self-tests at home. After two weeks, pupils moved to homebased self-testing when the levels of self-test stock available allowed. In January 2024, UKHSA subsequently published a review of mass asymptomatic testing in educational settings, focusing on the 5-week period running from 1 March 2021

to 4 April 2021, when schools had re-opened to all pupils **[Exhibit: SA/65 INQ000496282]**. Key findings were:

3.76.1 Reported participation varied between secondary school pupils (27%), college pupils (8%), primary school staff (43%), secondary school staff (34%) and college staff (15%), although it was considered likely that there was under-reporting of negative self-tests conducted at home.

3.76.2 The testing programme was estimated to have prevented around 5,000 to 8,000 infections amongst secondary school children during this period. While the testing and identification of infected pupils resulted in an increase in absences resulting from self-isolation, modelling suggested that a failure to identify infected pupils could have resulted in an increased infection rate in pupils of around 13% to 23% had they attended school as normal. Over a longer period, modelling also suggested a reduction in self-isolation absence rates due to the effectiveness of the testing programme at preventing transmission.

3.76.3 Parents and pupils reported that testing made them more confident to attend school in person. Schools reported that delivery of site-based testing was a challenge.

Updated "System of Controls"

3.77 In anticipation of the re-opening of schools on 8 March 2021, DfE published *"Schools coronavirus (COVID-19) operational guidance"* in February 2021 **[Exhibit: SA/66 INQ000624310** This set out an updated "System of Controls" designed to reduce risk and create a safer school environment. As before, the "System of Controls" contained in the DfE guidance reflected scientific advice from PHE with respect to the current epidemiological position. In addition to the "System of Controls", DfE recommended the

cleaning of schools in line with the guidance produced by PHE on cleaning of non-healthcare settings, which had been updated on 16 October 2020 **[Exhibit: SA/67 INQ000624325]**.

3.78 On 22 February 2021, DfE announced that school re-openings would be supported by mass testing. Its press release highlighted that PHE "*continues to advise that the existing range of safety measures in place in education settings remains appropriate – including bubble groups, staggering start and finish times, increasing ventilation and hygiene, regular testing and maintaining distance between adults where possible.*" **[Exhibit: SA/68 INQ000520749]**. DfE also cited the SIS (discussed above, under *"Scientific research and advice to inform Government decision making and policy*") as providing scientific support for the Government's policy to re-open schools, and included the following quote from PHE's Chief Nurse:

> "*We have always advised that schools should be the last to close and first to open. It is vital for children's wellbeing that we get schools open again. Staff, parents and pupils can feel reassured by scientific evidence that shows transmission in schools is low and that children are not drivers of infection in schools or the wider community. The system of controls and the introduction of rapid testing programmes in place in schools offer further reassurance in the measures taken to maximise the safety of the school environment. Most importantly, we know that infection rates in schools are driven by transmission in the wider community. It remains essential that we all continue to keep or contacts (sic) to a minimum and follow restrictions outside the school gates so that schools can re-open and stay open.*"

Face coverings

3.79 PHE's position on precautionary measures in schools, and on the use of face coverings

in particular, continued to evolve in response to new scientific evidence as it emerged. In the days immediately prior to the announcement of the third lockdown, DfE sought advice from PHE in relation to recommendations DfE was making to the Secretary of State on face coverings in schools. PHE shared that advice with the Cabinet Office on 30 December 2020 **[Exhibit: SA/69 INQ000575689**

3.80 PHE's advice in relation to childcare and early years settings, as well as primary schools, was unchanged from the position reflected in the August 2020 guidance around face coverings in schools published by DfE (discussed above), namely that face coverings were not currently recommended and the "System of Controls" set out in the DfE guidance needed to be reinforced. PHE's advice in relation to secondary schools was that face coverings were required in corridors, communal areas and on transport. In addition to its prior guidance in relation to secondary schools, and because transmission at this time was high, it was also recommended that students wear face coverings in classrooms where social distancing could not be maintained (noting that for some children prolonged mask wearing might be particularly challenging and individual assessment and support may be required). Advice was also given in relation to teachers and other school staff.

3.81 In anticipation of the re-opening of schools in March 2021, PHE continued to participate in Cabinet Office discussions and provide input to DfE on guidance with respect to face coverings. When schools initially re-opened on 8 March 2021, PHE's position on face coverings was summarised in its publication "*COVID-19: Science lessons – What We Know About COVID-19 in Schools*" (dated 25 February 2021) **[Exhibit: SA/70 INQ000624323]**:

> "*As an additional precautionary measure, adults and students in secondary schools are asked to wear face coverings indoors, in classrooms and where social distancing is not possible. Students do not need to wear face coverings when they are outdoors on the school grounds or during PE lessons. Some*

individuals are exempt from wearing a face covering. This advice is in place whilst community prevalence of the virus is still very high and school testing programmes are getting started. The advice will be reviewed at the end of this term. In primary schools face coverings should be worn by staff and adult visitors where social distancing between adults is not possible. The measure is not advised for primary school children due to lower infection rates and limited evidence of transmission in these settings."

3.82 PHE convened the expert Respiratory Evidence Panel ("REP") to critically assess the evidence on the role of face coverings in mitigating COVID-19 transmission and to inform future guidance and recommendations with respect to the use of face coverings The membership of REP reflected a range of disciplines and included experts outside PHE. The REP was convened for the first time on 1 March 2021 and met three times between March and May 2021.

3.83 Separately, in January 2021 PHE partnered with HSE and DHSC to establish the PHE Face Coverings Group. The Face Coverings Group was a forum for discussion between expert scientists, public health officials and policy advisers, in order to shape research, inform policy and promote action about face coverings during the COVID-19 pandemic **[Exhibit: SA/71 INQ000348389; Exhibit: SA/72 INQ000348390]**.

3.84 While not specifically focused on schools, the work of the REP and the PHE Face Coverings Group was relevant to PHE's subsequent position on precautionary measures in schools, which was grounded in the analysis done in these groups, as well as in discussions within SAGE and the other scientific fora in which PHE was represented. The relaxation of certain restrictions in schools was also supported by the results which came out of Round 4 of the SIS **[Exhibit: SA/36 INQ000223839]**. As noted above, this round covered the period immediately after schools re-opened in March 2021 and its results suggested that infection rates were lower amongst staff and pupils in secondary schools

compared with results from the study collected in November and December 2020.

3.85 As the country moved through each step of the Government's roadmap, DfE coordinated with DHSC and the Cabinet Office on policy updates and public communications in relation to the relaxation of restrictions on schools. DfE would also seek updates on the current scientific and epidemiological picture from PHE. PHE would offer evidence-based advice for the other departments to consider when developing policy. For example, prior to announcing the move to step 3 of the roadmap in May 2021, DfE sought confirmation of PHE's position on the proposed decision to remove the requirement for pupils and students to use face coverings in classrooms and communal areas. PHE confirmed that it would support the relaxation of face coverings in schools, provided that the four tests in the roadmap relating to the impact of the previous step were met.

3.86 The relaxation of the guidance around face coverings in schools in May 2021 was a significant milestone in the normalisation of face-to-face education. Although DfE maintained responsibility for policy in relation to schools, PHE continued to provide public health guidance around safety measures based on its ongoing review of the scientific evidence available. For example, in connection with the return to school following half-term in May 2021, PHE published *"A safe return to schools"*, which included a review of the latest scientific data related to the spread of the virus and provided practical public health guidance to keep children and schools safe **[Exhibit: SA/73 INQ000624309]**.

Shielding

Overview of shielding programme structure and responsibilities

3.87 The shielding programme was a cross-government initiative aimed at supporting those – including CYP – identified as CV or clinically extremely vulnerable ("CEV") and who were consequently advised to stay home. The Ministry of Housing, Communities and Local

Government ("MHCLG") had overall responsibility for overseeing and delivering the shielding programme. The Office of the CMO ("OCMO") led the development of clinical inclusion criteria for both the CV and CEV groups. DHSC was then responsible for delivering the clinical elements of the cross-government shielding programme, including commissioning NHSE and NHS Digital to identify and contact CEV patients, as well as to produce and maintain the Shielded Patient List ("SPL").

3.88 The role of PHE, and subsequently UKHSA, was predominantly to provide public health advice. Neither PHE nor UKHSA led the development of policy for the CV or CEV groups. While PHE contributed to early clinical discussions led by CMO about the definition and identification of CV and CEV groups, its role in the shielding programme was primarily focused on developing guidance to clinicians and the public based on government policy. PHE drafted initial shielding guidance in March 2020 with input from DHSC, NHSE and the OCMO prior to its publication. PHE also commissioned and published translations, accessible and easy read versions of that guidance.

3.89 Annex A to this statement gives a detailed overview of the context in which policy and clinical guidance relating to "vulnerable groups" developed, including in relation to CYP, as relevant. Its content is taken from Section 1 of UKHSA's witness statement for Module 3 of the Inquiry, dated 31 January 2024.

Shielding guidance

3.90 By 12 March 2020, following a commission from DHSC, PHE had begun developing guidance for those at higher risk for severe disease from COVID-19 (which would become known as the CEV group) **[Exhibit: SA/74 INQ000348040; Exhibit: SA/75 INQ000348041]**. Draft guidance by PHE encompassed recommendations for groups who were vulnerable due to age or other serious long-term health problems, including how they may manage risk within households containing both persons who were advised to self-

isolate and persons who were not. While PHE was commissioned to assist with developing this guidance, neither PHE nor UKHSA led the development of the broader government policy in relation to CEV or CV groups as it developed over time.

3.91 At the stage that the CEV group was originally defined, a cohort of children was considered, on a precautionary basis, to potentially fall within this group. In parallel, the group which had been identified by senior clinicians on 7 and 8 March as CV but not at highest risk, were identified in the Staying at Home Guidance published on 16 March 2020 **[Exhibit: SA/76 INQ000348029]**. This guidance advised *"clinically vulnerable people"* to *"take particular care to minimise contact with others outside your household"*.

3.92 On 21 March 2020, PHE published the first iteration of the guidance on shielding and protecting people who were defined, at that time on medical grounds, as extremely vulnerable from COVID-19 **[Exhibit: SA/77 INQ000106266]**. The guidance was cleared through a delegated senior clinician in PHE, the DCMO, the Secretary of State and, subsequently, by the Prime Minister's Office. This advised that people in the CEV group would be contacted separately by letter and were advised to stay at home for at least 12 weeks from the day they received the letter. The NHS led the practical digital and administrative identification of high-risk individuals.

3.93 Shielding advice was voluntary from the outset and remained so for all people, including CYP. Individuals did not have to comply with the recommendations to shield and this was made clear throughout the programme in the guidance published and through direct communications from the Government to this CEV group.

3.94 While a cohort of children was considered, on a precautionary basis, to potentially fall within the CEV group when it was originally defined, the guidance in relation to CV children was reviewed by RCPCH and the NHSE clinical director for children in early May 2020. The conclusion they reached was that the middle ground category of CV was not

meaningful as applied to children, who were either CEV or not at materially increased risk from contracting the virus. It was agreed by the UK CMOs that only those children with significant neuro-developmental and other specific conditions needed to be advised to shield.

3.95 On 10 June 2020, the RCPCH announced updated advice for clinicians on shielding CYP **[Exhibit: SA/78 INQ000624326]**. That advice emphasised that: "*According to the new RCPCH guidance, the majority of children with conditions including asthma, diabetes, epilepsy, and kidney disease do not need to continue to shield and can, for example, return to school as it reopens. This includes many children with conditions such as cerebral palsy and scoliosis, for whom the benefits of school - in terms of access to therapies and developmental support - outweigh the risk of infection.*"

3.96 The RCPCH guidance divided CEV children into two groups. Group A patients would be advised to continue to shield due to pre-existing conditions which RCPCH considered conferred high risk. Group B patients would require a case-by-case discussion to decide whether, on the balance of risks, a child should be advised to continue to shield.

3.97 The clinical criteria set out in the RCPCH guidance were adopted by the Government and announced on 6 July 2020 **[Exhibit: SA/79 INQ000588609]**. On 7 July 2020, PHE then also published updated guidance on shielding and protecting CEV people, based on the RCPCH review, which explained that "*the latest evidence indicates that the risk of serious illness for most children and young people is low*" **[Exhibit: SA/80 INQ000348056]**. The updated PHE guidance highlighted that clinical discussions must be had with paediatric specialists or GPs before any child or young person was removed from the SPL and noted that, from 1 August 2020, shielding would be paused for everyone. Echoing the Government position announced the day prior:

"*Children and young people who are cared for just by their GP are very*

unlikely to need to continue to shield in the future. This includes children with conditions including asthma, diabetes, epilepsy and kidney disease. A small group of children who receive specialist care in hospitals may still be considered clinically extremely vulnerable following a consultation with their doctor. This includes those receiving cancer care or those at risk of severe infection due to an immunodeficiency. All children and young people currently identified as Clinically Extremely Vulnerable, and advised to shield, should continue to do so until 31 July, when the government will pause shielding for everyone. All decisions on whether children and young people should be removed from the shielded patient list (and therefore will not be advised to shield again in future if transmission starts to increase significantly) should be based on a consultation with your paediatric specialist or your GP who will be best placed to determine the most appropriate care. Your paediatric specialist or your GP will be in touch over the summer to have these discussions."

3.98 PHE then published a series of updates to guidance applicable to CYP during the summer of 2020 based on current CEV policy, clinical and public health inputs and evidence available at the time:

3.98.1 On 4 August 2020, in line with the broader guidance to pause shielding by CEV groups, PHE published a guidance update which confirmed that "*clinically extremely vulnerable children should attend education settings in line with guidance on reopening of schools*" **[Exhibit: SA/81 INQ000348059]**.

3.98.2 On 18 August 2020, PHE published a further update which confirmed that, based on a review by specialists in paediatric medicine of the latest evidence on the level of risk posed to CYP from COVID-19, fewer CYP were expected to be included on the SPL in future **[Exhibit: SA/82 INQ000348060]**.

3.99 From October 2020, CEV guidance was jointly published on Gov.uk by DHSC and PHE. The co-badging of guidance by DHSC and PHE reflected the fact that DHSC coordinated clinical and public health decisions in relation to its CEV programme across DHSC, the CMOs, NHSE and PHE. The guidance published with PHE reflected that cross-department coordination.

3.100 On 13 October 2020, PHE released guidance that was co-badged with DHSC which linked to the introduction of local COVID-19 alert levels and replaced previous guidance **[Exhibit: SA/83 INQ000624329]**. The updated guidance provided that, given the very low rate of severe disease in children from COVID-19 and the measures schools had in place to limit the risk of transmission, all pupils and students should attend education settings in line with the statement on schools and childcare reopening issued by the UK CMOs unless they are "*one of the very small number of pupils or students under paediatric or other specialist care and have been advised by their GP or clinician not to attend an education setting.*" The guidance also provided that more restrictive formal shielding measures could later be advised for CEV people in the worst affected very high alert areas, but that this would be based on advice from the CMO. In the event of restrictive shielding measures being reintroduced on a limited basis in the worst affected very high alert areas, CEV children would again be advised not to attend school because of the very high risk of exposure in their area.

3.101 In line with national restrictions that were due to commence on 5 November 2020 requiring people to stay at home, PHE and DHSC published further updated guidance on 4 November 2020. This included updated advice on CEV children in school and non-CEV children sharing households with CEV people **[Exhibit: SA/84 INQ000348064]**:

> "*More evidence has emerged that shows there is a very low risk of children becoming very unwell from COVID-19, even for children with existing health conditions. Most children originally identified as clinically extremely*

vulnerable no longer need to follow this advice. Speak to your GP or specialist clinician, if you have not already done so, to understand whether your child should still be classed as clinically extremely vulnerable. Those children whose doctors have confirmed they are still clinically extremely vulnerable are advised not to attend school while this advice is in place. Your school will make appropriate arrangements for you to be able to continue your education at home. Children who live with someone who is clinically extremely vulnerable, but who are not clinically extremely vulnerable themselves, should still attend school."

3.102 The third national lockdown at the start of 2021 was followed by commencement of the vaccine rollout and the subsequent move to step 4 of the government roadmap for easing COVID related restrictions. The joint guidance from PHE and DHSC was updated on 21 July 2021 to add information about vaccinations for eligible CYP **[Exhibit: SA/85 INQ000348075]**.

3.103 The last material piece of guidance published by PHE and DHSC in relation to CEV CYP was a 3 September 2021 update to reflect the removal of the majority of CYP from the SPL **[Exhibit: SA/86 INQ000348076]**. That guidance confirmed that "*children and young people under the age of 18 are no longer considered to be clinically extremely vulnerable and should continue to follow the same guidance as everyone else*", noting an exception for a very small number of CYP who will have been advised to isolate or reduce their social contact for short periods of time by their specialist, due to their general risk of infection rather than because of the COVID-19 pandemic.

3.104 On 20 September 2021, the shielding programme officially closed, and the guidance pointed readers to the main guidance for the public on staying safe and preventing the spread of COVID-19.

SECTION 4: IMPACT OF THE PANDEMIC ON CYP

4.1 Undertaking and commissioning assessments to understand the impact of the pandemic on CYP mental and physical health was the responsibility of DfE and DHSC. As highlighted earlier in this statement, however, PHE was represented at SAGE when issues impacting CYP were considered. For example, as part of SAGE 58, a comprehensive analysis was prepared which looked at the effectiveness and harms of NPIs. The analysis considered how different interventions may impact children physically, socially and psychologically. A copy is exhibited to this statement **[Exhibit: SA/87 INQ000197204]**.

4.2 In September 2020, PHE published its guidance, *"No child left behind - a public health informed approach to improving outcomes for vulnerable children"* **[Exhibit: SA/05 INQ000593451]** This was aimed at reducing inequalities "*by adopting public health principles: prevent vulnerability, intervene early when problems arise and create an environment throughout the life course where negative effects are lessened.*"

4.3 The "no child level behind" approach emanated from a part of PHE which then became part of OHID. As described above, responsibility for the publication of child health profiles and the COVID-19 "recovery" work in relation to CYP were transferred to OHID within DHSC on 1 October 2021. Similarly, work done subsequently looking at child mortality rates, or analysis of other measures tracking the impact of the pandemic (and responses to the pandemic) on CYP, is work the Inquiry is likely to find has been undertaken by OHID or other organisations including academic institutions. UKHSA's work in this area is set out in Sections 5 and 6 below.

4.4 PHE and its leadership were also focused on the mental health impact of the COVID-19 pandemic on children from early in the pandemic. On 29 March 2020, PHE published guidance to help adults with caring responsibilities to look after and support the mental health and wellbeing of CYP during the pandemic, including those with additional needs

and disabilities. That guidance, which PHE updated through May 2021, looked both at the needs of children generally and at the varying impacts on children of different age groups and with different special needs, including children accessing mental health services, children with eating disorders, learning disabilities, autism and other physical health issues, as well as CYP who cared for others **[Exhibit: SA/88 INQ000624331]**. Since becoming operational on 1 October 2021, OHID assumed responsibility for CYP mental health and well-being, including the building of scientific evidence on public mental health, which was transferred outside the remit of UKHSA.

SECTION 5: MAKING SCHOOLS SAFER

5.1 On 8 July 2025 the Inquiry raised additional questions with UKHSA that largely focused on the use of NPIs in schools in future pandemics. Insofar as UKHSA can assist with these questions, having regard to its remit, they are addressed in this section. The Inquiry is very familiar by now with the term "NPI" which became commonplace during the COVID-19 pandemic. While this statement has accordingly referred to "NPIs", in line with the WHO UKHSA now uses the term "public health and social measures" ("PHSM"). PHSM refer to a variety of measures which can be implemented by individuals, communities and governments to protect the health and well-being of those affected by a health emergency.

Modes of transmission & planning for schools

5.2 The Inquiry has asked about the extent to which plans for making schools more resilient should focus on preparing for pathogens where the route of transmission is airborne. As the Inquiry is already aware, the National Risk Register ("NRR") 2025 has designated a respiratory pathogen as the most likely cause of a future pandemic in the UK. That reflects both national and international scientific consensus. The decision is informed not only by history (since the 20th century there have been six disease outbreaks that can be

considered pandemics, five of which were caused by respiratory pathogens) but by understanding of the ability of many such pathogens to rapidly mutate, the relative difficulty of treating viral disease and the challenge of controlling respiratory infections even with robust public health measures compared to infections transmitted through other routes.

5.3 Accordingly, for cross-government pandemic planning, the reasonable worst-case scenario assumes a respiratory pathogen. That said, as indicated in the NRR 2025, government continues to plan for a scenario where the emerging infectious disease or pandemic is caused by one of the other four main routes of transmission (those being touch, vector, sexual/blood borne and oral). Exercise Pegasus – a UK-wide exercise which is due to take place between September and November 2025 – assumes that the mode of transmission is initially unknown (as would be the case in a real pandemic scenario, which the exercise is intended to simulate to assess pandemic preparedness and response). UKHSA is engaged in cross-government work to prepare for Exercise Pegasus, including discussion at bi-weekly meetings with DfE.

5.4 For schools, the extent to which operational planning focuses on the respiratory route is ultimately for DfE as the government department with overarching responsibility for the education sector. UKHSA's involvement in such planning would be to provide technical and scientific guidance. That would echo the routine work that UKHSA undertakes for example in producing guidance for schools on non-pandemic respiratory infections.

5.5 The Inquiry has asked about the list of High Consequence Infectious Diseases ("HCIDs"). This was established to list those pathogens which require specific handling in a laboratory setting, as opposed to those with pandemic potential. HCIDs are rare and usually imported infections defined by specific characteristics that require enhanced clinical and public health management. In the UK, a HCID is defined according to the following criteria (i) acute infectious disease (ii) typically has a high case-fatality rate (iii)

may not have effective prophylaxis or treatment (iv) often difficult to recognise and detect rapidly (v) ability to spread in the community and within healthcare settings (vi) requires an enhanced individual, population and system response to ensure it is managed effectively, efficiently and safely. The existing list has been agreed by the public health agencies of the four UK nations and is informed by advice from scientific advisory committees.

5.6 HCIDs must be treated in specialist NHS HCID commissioned units, of which there are a limited number. Whilst the first few cases of a new and emerging infection, including those of pandemic potential, are likely to be classified as HCIDs and managed via HCID pathways – as was the case with COVID-19 initially – the high volume of cases expected during an epidemic or pandemic wave necessitate other public health and clinical response and control measures that can surge to the capacity required. Emerging viruses may be declassified as HCIDs based on emerging evidence such as information about clinical severity. For example, COVID-19 – whilst a serious public health threat – was not of the same magnitude as other diseases on the HCID list, which records high mortality and usually low prevalence infectious diseases. Similarly, pandemic influenza does not meet the HCID definition.

5.7 Work continues to identify those pathogens which could present the greatest threat. UKHSA identifies potential future threats through horizon scanning – a systematic approach to detecting early signs of risk to the UK population from infectious disease. As the Inquiry will know from previous modules, UKHSA has developed a "priority pathogen families research and development tool" which seeks to identify those pathogen families where investment into research and development of diagnostics, therapeutics and vaccines ("DTVs") may be most needed.

PHSM in schools

5.8 It is not for UKHSA to determine the structures through which decisions about the implementation of PHSMs are made in a future pandemic; they are quite rightly decisions for elected policymakers with the assistance of advice from scientific and public health experts. It is important to note however that any decisions taken as part of a future pandemic response will involve careful balancing of benefits versus harms, as it did during the COVID-19 pandemic. The advice UKHSA provides to policymakers will always reflect careful consideration of those public health benefits and harms for different populations and in different settings. However, UKHSA recognises the wider context within which public health advice contributes to ministerial decision making.

5.9 As the next pandemic may involve a pathogen with very different characteristics to those previously encountered, including the mode of transmission, it may require different policy responses. Whilst the focus of preparedness activities should be determined by the evidence as to the most likely mode of transmission (not least because of budgetary restrictions), planning must remain flexible and adaptable enough to account for various routes of transmission and that includes planning in relation to educational settings. The PHSMs implemented in educational settings during the next pandemic must be responsive to the features of the virus in question (as well as other factors such as the availability of vaccines) and there is a limit to our ability to predict what combination of interventions should be applied.

5.10 As such, the more research that can be done to investigate the effectiveness of PHSMs to inform future decisions about their implementation, the better. UKHSA was part of a cross-government group that developed DHSC's "Health and care research and development framework for pandemic preparedness, prevention and response" ("DHSC's framework") – published on 8 July 2025 – which outlines the strategic themes and governance for research funding prior to and in the event of a pandemic. The primary

goals of research are to (i) understand the pathogen and disease; (ii) improve information for policy and clinical decision making; and (iii) develop and improve tools and treatments to prevent and mitigate its effects. The framework and governance structure aims to enable research funders to collaborate more effectively by determining research priorities, research infrastructure needs and appropriate funding routes.

5.11 DHSC's framework covers priority viral, bacterial and fungal pathogens and parasites of epidemic and pandemic potential identified by UKHSA as a threat to the UK population, including as yet unknown pathogens. It is applicable to all routes of transmission, all population groups (including age), and all parts of the UK and spans a range of different research disciplines. UKHSA is identifying the key evidence gaps and priority research questions for PHSM (including those applied to educational settings), mapped against DHSC's framework. This work is being done under UKHSA's PHSM Programme, which sits within DHSC's pandemic preparedness portfolio. The Programme has three workstreams:

5.11.1 Evidence review and synthesis. This workstream aims to identify and map the available evidence on the effectiveness and unintended consequences of PHSM against the five transmission routes and identify any evidence gaps (including in relation to CYP and schools).

5.11.2 Translating evidence into advice and guidance. This workstream is translating the evidence into advice and draft guidance principles to inform the implementation of PHSM. In line with the NRR 2025, the 2024/2025 focus is on respiratory transmission, however advice and guidance will be developed across four other transmission routes (touch, vector, sexual/blood borne and oral) as part of pandemic preparedness. Once cleared, draft principles in respect of the control of infections in early years and educational settings will be shared with cross-government partners including DfE for feedback as to feasibility and acceptability.

5.11.3 Research and evaluation. This workstream is developing a PHSM research and evaluation framework, which aims to identify priority research and evaluation questions. The framework is informed by the research gaps identified by the evidence and synthesis workstream, DHSC's framework and the WHO PHSM Global Research Agenda. The framework is being co-designed with input from across the Agency and will primarily serve as an internal document to inform further internal evidence review, monitoring, evaluation and research, as well as dialogue with research funders and academic teams.

5.12 Assessing the effectiveness of PHSMs is not without its challenges: multiple NPIs were rolled out simultaneously during the pandemic and it is difficult to assess their individual effectiveness in real life scenarios. For example, UKHSA recently commissioned a rapid review on the effectiveness of NPIs as implemented in the UK during the COVID-19 pandemic **[Exhibit: SA/89 INQ000651524]**. The review concluded that although NPIs were used globally to control the spread of COVID-19, their effectiveness remains uncertain. Although evidence for school related NPIs was suggestive of a protective effect, this evidence was considered to be of low certainty. Overall, the validity and reliability of evidence on the effectiveness of NPIs implemented in the UK was weak. The results did not necessarily reflect a lack of effectiveness of packages of NPIs. However, they highlighted the need to build evaluation into the design of public health interventions to improve evidence generation to support future pandemic decision-making. Further evidence reviews relating to the effectiveness of PHSMs are in development or awaiting publication, these will be published on UKHSA's Gov.uk collections page when ready.

5.13 Trialling interventions in educational settings presents unique challenges due to the complexity of the environment. It is difficult to isolate the impact of a specific intervention, and the outcomes seen in one educational setting are not necessarily applicable to another. It would have been unethical to create a control group by withholding

interventions during the pandemic for the purpose of testing their effectiveness. UKHSA has identified the following lessons for research in this area:

5.13.1 Using evaluation methods which are better suited to the school environment and CYP population, such as natural experiments (which take advantage of existing variations in policies or timing, such as differences between regions or schools, or later implementation and use these to estimate the impact of interventions without randomisation) and responsive evaluations (which take more flexible approaches to consider the specific context and needs of stakeholders and employ a variety of data gathering approaches).

5.13.2 Developing protocols for intensive transmission investigations in CYP settings, so that, in a pandemic scenario, studies can be quickly set up within different settings to understand the transmissibility of the pathogen in question and the burden of the disease, which would then inform policymakers' decisions on limiting attendance.

5.14 Of importance is the critical role played by UK Research and Innovation ("UKRI") in its capacity as the national research funding agency, as well as by the National Institute for Health and Care Research ("NIHR"), which has created vital research linkages with academia. UKHSA is not a research funder and must bid for funding or use its existing budget. NIHR-led partnerships between UKHSA and academia through Health Protection Research Units ("HPRUs") undertake high quality research that enhances the ability of UKHSA to protect the public's health and minimise the health impact of emergencies.

5.15 With respect to schools, critical research is led by DfE. DfE has recently provided UKHSA with a report of the work that they have been conducting in relation to PHSM in educational settings and how these would be implemented during a future pandemic, including decision making and PHSM required to prevent closure of schools. UKHSA was not asked

to contribute to this work or comment on the report. DfE is therefore best placed to provide the full details of it. UKHSA does meet with DfE regularly and will share the results of its own work to inform DfE's planning for educational settings.

Ventilation and filtration

5.16 The Inquiry heard evidence in Module 3 – both from UKHSA and others – of the importance of ventilation in healthcare settings to reduce transmission of respiratory infections, and of taking ventilation into account in the future design of public buildings (or, in the case of existing estates, introducing temporary measures such as air filtration devices). Since ventilation and filtration are generally accepted to be effective interventions to reduce the transmission of respiratory infections in all indoor spaces, this evidence is equally relevant to school settings. The extent to which these measures are deployed in a particular circumstance will depend on the features of the pathogen in question, the design of a setting and its function. The following paragraphs are intended to complement the evidence already presented in Module 3.

5.17 It has not been possible, in the time allowed, for UKHSA to conduct an authoritative review of the current evidence base on ventilation and filtration in schools to respond to the Inquiry's July 2025 questions. The February 2021 update to PHE's rapid review identifying and assessing direct evidence on the transmission of COVID-19 within school settings and the effectiveness of school-based interventions in reducing transmission has been discussed at paragraph 3.22 above **[Exhibit: SA/31 INQ000223565]**. The interventions considered in the review included increased ventilation and filtration systems (albeit there is more limited information on the latter). The supplemental material referenced in **[Exhibit: SA/31 INQ000223565]** sets out the data extraction for each of the studies including findings related to ventilation and the results of one experimental study relating to the use of mobile air purifiers in classrooms on aerosol load **[Exhibit: SA/31a INQ000223566]**. The evidence from 15 modelling studies suggested that implementing a

combination of interventions – with increased ventilation among them – might reduce the likelihood and size of outbreaks within schools. That said, mathematical modelling has its limitations, particularly due to the uncertainty of COVID-19 transmission in children and the emergence of new variants. It should also be noted that the evidence from all studies was based on a combination of measures, and as such it was not possible to isolate the effectiveness of ventilation or filtration devices.

5.18 Work has been done by other bodies. In particular, the McMaster Health Forum, located at McMaster University in Canada, maintains a series of living evidence reviews which are periodically updated to consider the best available evidence on the effectiveness of a range of measures, including ventilation and filtration, in non-healthcare community settings. The evidence set out in this review includes school-specific studies **[Exhibit: SA/90 INQ000625934]**. The McMaster living evidence syntheses are monitored and recorded on UKHSA's PHSM evidence matrix, which is an internal resource to help inform UKHSA's work in this area. However, UKHSA has not contributed to, or peer reviewed the work of the McMaster Health Forum. UKHSA has critically appraised the review using the ROBIS tool for assessing the risk of bias in systematic reviews. This appraisal showed a low risk of bias overall to the conclusions of the review.

Testing and contact tracing

5.19 The Inquiry has asked if there ought to be further evaluation of how testing and contact tracing can be better deployed in schools. The pandemic was the first time that mass testing across a range of settings, including schools, occurred. The evidence base therefore had to develop from scratch and ongoing work may assist in identifying further gaps. High quality continuous research and evaluation is always valuable to inform future decisions on the implementation of such measures.

5.20 UKHSA has produced and commissioned the following analyses of testing and contact

tracing:

5.20.1 UKHSA commissioned an independent evaluation of England's COVID-19 testing programme, which was published in April 2023 **[Exhibit: SA/91 INQ000496252** Chapter 3 concerned the "Schools Testing Service", finding that the service had achieved its aims of instilling confidence in the return to school and was associated with identifying more asymptomatic cases than would have been possible without it. The report proposed that consideration should be given to streamlining data collection and sharing, simplifying the reporting of test results and that the role of local authority public health teams and local educational leads should be strengthened. It was also recommended in this section that there should be timely and efficient dissemination of guidance or updates to guidance to enable school and local authority public health teams to mobilise and operationalise actions.

5.20.2 In January 2024, UKHSA published an analysis of the use of LFD tests for mass testing in Higher Education Institutions in winter 2020 and in secondary schools and further education colleges in spring 2021 **[Exhibit: SA/65 INQ000496282]**.This showed that it was possible to set up asymptomatic testing in schools and universities rapidly during the pandemic and that a large number of pupils and students participated in testing programmes. The conclusions highlighted the impact of testing on transmission and attendance in schools. It was suggested that a policy that focuses on areas with high prevalence could help maximise the effectiveness of testing, as it may have greater potential to find infections and reduce transmission. Further, that there may also be benefits in focused support to schools that seem less able to implement testing.

5.21 A further workstream that UKHSA leads on within DHSC's pandemic preparedness portfolio, is one to develop capabilities around effective case, contact and outbreak

management. This work is not limited specifically to contact tracing in schools. Testing and contact tracing in schools should not, however, be seen as distinct from testing and contact tracing in other areas, as the principles are the same. How contact tracing and testing is deployed in a future pandemic will depend on factors such as pathogen characteristics and developing flexible systems that focus on those most at risk. How test and trace are used as NPIs in the future will be influenced by scientific developments – which could mean very different types of tests – and better use of data. The availability and accessibility of tests is as important, and enabling those most at risk of harm to access testing should be an important consideration in the building of any testing and tracing system.

5.22 UKHSA outlined the work that the Agency was doing to build scalable test, trace and isolate systems in its Module 7 corporate witness statement. How such measures are applied to CYP will overlap with their use for other population cohorts. For instance, CYP will benefit indirectly from measures that support parents or carers (for example, a system of financial support for those required to isolate). UKHSA referred to the need to promote compliance with requests to isolate, and the different factors which may compromise adherence to such requests, such as the impact of repeated requests, multi-generational households and precarious and/or low paid employment without provision for paid sick leave. UKHSA supports any measure that would mitigate the negative impact of self-isolation and increase adherence amongst both CYP and their families.

5.23 In addition to the above, as the Inquiry heard in Module 7, UKHSA is actively exploring how the development and deployment of an automated contact tracing app in a future pandemic could be facilitated (keeping in mind that a future pandemic could differ significantly from COVID-19 and that this work is dependent on funding). UKHSA has also conducted a review of the effectiveness of contact tracing to reduce transmission of infectious diseases as part of an epidemic/pandemic response. The results of this review are due to be published in autumn 2025.

SECTION 6: REFLECTIONS FOR THE FUTURE

6.1 The following section deals with the work UKHSA is undertaking to ensure that lessons learned during the COVID-19 pandemic are appropriately considered in preparing for future pandemics. As outlined in this statement and previous modules, UKHSA is a health protection executive agency, responsible for conducting research, surveillance, evidence reviews and evaluation studies which it translates into scientific and public health advice and guidance. This overarching role naturally includes a focus on issues specific or relevant to CYP, both in the ordinary course of UKHSA's work and as required to assist other government departments in outbreak management. UKHSA performs a further, discrete role supporting the delivery by NHSE of childhood immunisation programmes and is responsible for monitoring and reporting routine childhood vaccination coverage.

6.2 Some of the work relevant to the needs of CYP and which UKHSA is undertaking has been considered in the previous section of this statement. This section focuses on the following areas, consistent with UKHSA's remit (which it anticipates would remain consistent in a future pandemic): (i) ensuring equity in health protection for CYP; (ii) improving IPC measures in educational settings; (iii) improvements in data; and (iv) improvements in routine vaccination coverage.

Equity in health protection for CYP

6.3 The COVID-19 pandemic shone a spotlight on health inequalities. There is a need for a distinct focus on CYP in preparing for future pandemics, which also recognises that they are not a homogenous group. Work done on CYP must, where possible, take into consideration differentiating factors such as age, clinical vulnerability, settings, and wider drivers of health outcomes inequality. UKHSA's Health Equity for Health Security Strategy

2023 – 2026 provides a roadmap to support the Agency in achieving more equitable health security outcomes:

6.3.1 Building the evidence and data. UKHSA is strengthening the data available on CYP and building capability to disaggregate this by key characteristics such as deprivation and ethnicity to further identify and assess inequalities. UKHSA has initiated a project to better understand risk around health protection inequalities as a result of PHSM. The project considers CYP as a distinct population group. An internal dashboard to inform advice and guidance on PHSM has been developed, ensuring that health inequalities are considered in the process. UKHSA will test the dashboard during Exercise Pegasus. In addition, UKHSA is currently undertaking an evidence review of the unintended consequences of PHSM on CYP, which will report on the additional considerations that impact them. Unintended consequences are defined as direct and indirect impacts on the physical and mental health of individuals due to the implementation of PHSM at individual and population level and includes a consideration of longer-term outcomes. This excludes macro-level impacts on the economy, environment or other societal factors beyond the scope of public health advice. The review is prioritising the evidence on impacts from school-related studies and is aiming to complete in autumn 2025.

6.3.2 Taking a people and place approach. UKHSA's approach is to ensure health protection advice and guidance is relevant and appropriate to a wide variety of CYP settings. UKHSA produces tailored guidance which sets out additional protection considerations applicable to specific settings and populations. This includes guidance specific to early years or pre-school children (ages 0 to 5), children with SEND, and children in different residential settings.

6.3.3 Partnerships. UKHSA works in partnership with colleagues across government, recognising the interdependencies across health, education and broader drivers of inequalities. As described above, PHE and UKHSA worked closely with DfE and other government departments and stakeholders within the wider child health system from the outset of the COVID-19 pandemic. For example, as early as April 2020, PHE's Chief Nurse assumed the role of relationship manager with DfE. This close collaboration had continued, with UKHSA continuing the partner with DfE and health partners to deliver cross-system approaches, respond effectively to incidents and plan for future pandemic scenarios. UKHSA has also started to identify ways in which CYP can inform pandemic preparedness and UKHSA's work generally. This year, UKHSA commissioned the Association for Young People's Health to deliver a programme of work focused on better understanding young people's views about health protection, health security and some of the key functions of the UKHSA. At the recent UKHSA national conference (25 – 26 March 2025), a youth representative was sought and included on a panel of experts that explored how best to protect CYP when responding to a pandemic. The session emphasised the importance of working with and seeking the views of CYP when designing and delivering health protection interventions.

6.3.4 Culture. Building on the relationships developed and recognising that CYP are a distinct group who may face unique physical and mental health challenges, UKHSA's Deputy Director for Health Equity and Inclusion Health provides senior oversight and expertise to the consideration of CYP across the Agency. UKHSA has also appointed a Public Health Manager ("PPHM") for CYP, who focuses on improving the quality and consistency of health protection services for CYP and educational settings. In this capacity, the PPHM meets on a weekly basis with key CYP stakeholders, including DHSC, NHSE and DfE and on a bi-weekly basis with the science and rapid response team within DfE. The Deputy Director also attends these meetings as required. This ensures considerations for CYP are integrated

across UKHSA activity, including through incident response and pandemic preparedness.

Improving IPC measures in educational settings

6.4 The routine work which UKHSA does to provide evidence-based guidance for educational settings feeds into pandemic preparedness by improving schools' IPC capabilities and thereby their resilience in the event of a future pandemic. This routine work includes:

6.4.1 The production of guidance on the management of outbreaks and incidents in schools and educational settings **[Exhibit: SA/92 INQ000625932** UKHSA also publishes specific guidance in relation to respiratory infections. UKHSA provides action cards to local authorities setting out key actions for managing respiratory infections in education or childcare settings, in line with its health protection guidance (See, for example **[Exhibit: SA/93 INQ000625936** UKHSA has also published specific guidance for its Regional HPTs on the investigation and management of outbreaks of suspected acute viral respiratory infection in schools and colleges, including schools for pupils with SEND **[Exhibit: SA/94 INQ000625933**. The guidance emphasises the centrality of communication of key preparedness messages to schools, including awareness of arrangements for reporting outbreaks to local HPTs, public health exclusion advice for unwell children (which will depend on the respiratory diagnosis) as well as national childhood immunisation programmes such as that for influenza. UKHSA's HPTs work closely with Directors of Public Health.

6.4.2 The newly established CYP Actionable Guidance Task & Finish Group – chaired by the PPHM for CYP – is currently developing guidance to enhance UKHSA's soon to be updated Managing Infectious Diseases – A-Z guidance. The work has begun by focussing on the five areas which early years and educational settings

contact HPTs about most frequently (namely scarlet fever and Strep A, gastrointestinal outbreaks, chickenpox and shingles, hand foot and mouth disease and Acute Respiratory Infection outbreaks). The object is to provide additional accessible guidance to include template letters and action cards (such as those provided to local authorities) and to support settings in taking appropriate action, with clear guidance as to when to contact HPTs.

6.4.3 UKHSA has utilised the "e-Bug" Programme (formerly run by the NIS within PHE) in efforts to learn from the COVID-19 pandemic and improve schools' resilience for future pandemics. In September 2023, the Programme ran a survey and qualitative workshop with teachers to understand current IPC measures in schools, the role of teaches in outbreaks and teachers' needs in respect of IPC, and how these may have changed since the COVID-19 pandemic. In response to the findings, drawing upon its internal IPC expertise and that of regional HPT leads, UKHSA has been developing IPC and Antimicrobial Resistance training for schools. The first draft of training materials has been developed and are currently being reviewed by teachers. Feedback sessions will be conducted with a view to implementing the training in early 2026. This aspect of the Programme's work aims to ensure that teachers and schools have a solid grounding in the implementation of IPC measures.

Improvements in data

6.5 UKHSA has highlighted the importance of data to pandemic preparation in previous modules. The pandemic exposed gaps in available data and systems. This was not limited to data in relation to CYP but certainly included them.

6.6 While UKHSA's work relies on understanding trends and patterns in data, it is typically a consumer of data (for example, from the NHS) rather than a source of it. Both when

considering the impact of the pandemic generally and when evaluating CYP-specific impacts, it is critical to have good data to inform advice and guidance, together with effective systems of surveillance and monitoring to evaluate the effectiveness of any response.

6.7 Investment in the infrastructure required to render higher resolution data will provide UKHSA with the data it needs to accurately understand trends and patterns and provide public health advice targeted to specific populations (including CYP). That includes infrastructure for data collection to establish better baseline data on both the physical and mental health of CYP. Access to an improved quantity and quality of data (for example individual level school data with testing and immunisation) would enable an evaluation of public health guidance and advice to determine disproportionate impacts on specific populations (for example, in SEND schools or CYP in secure settings).

6.8 Since the pandemic, UKHSA has worked to create scalable and adaptable data platforms. In September 2023, UKHSA published its first data strategy (previously disclosed to the Inquiry) **[Exhibit: SA/95 INQ000528385]** and has since facilitated access to health data across secure systems to enable sharing with international, national and local partners. This includes the rollout of the UKHSA data dashboard and enterprise data and analytics platform, which provide the public with health data and allow access to information as it is gathered in real-time. The surveillance systems which feed into these platforms generally include age group information. This can assist with the identification of trends relating to CYP, particularly if data sources collate data in a way that allows for age groups to be analysed in a consistent manner across time.

6.9 Improvements to the infrastructure for gathering and sharing data will be determined, in part, by budgetary constraints. Consideration must also be given to whether an updated legislative framework to support data sharing may be required, noting that UKHSA and other consumers of data can only use that data to which they have lawful access – a

consideration which is especially important in the case of CYP data, given issues relating to consent. During the pandemic, the collation of data improved and became less fragmented, in part, because legislative changes, specific to the pandemic, made it easier to share data. That legislative framework no longer applies, reflecting the shift in balance of the benefit of data sharing for health purposes versus individual data privacy rights that occurs during a pandemic scenario. Many of the data systems created during the pandemic were for the specific purpose of responding to COVID-19.

Improvements in routine vaccination coverage

6.10 The COVID-19 pandemic inevitably impacted uptake of routine vaccination programmes amongst CYP. This an issue which UKHSA is actively addressing; supporting the NHS Vaccination Strategy and improving health outcomes through vaccines are strategic priorities for the Agency. The objectives set over the lifetime of UKHSA's Strategic Plan 2023-2026 **[Exhibit: SA/96 INQ000235221]** have been and continue to be informed by the learning from the pandemic. Increasing the uptake of vaccinations and optimisation of routine immunisation programmes is a priority for UKHSA. This is largely focused on CYP given that there are up to 13 routine programmes delivered to CYP as compared to 5 for adults.

6.11 Promoting uptake of routine vaccinations is important for pandemic preparedness in several respects. It better ensures a resilient population – reducing the risk of co-circulation of vaccine-preventable diseases during a future pandemic – and builds trust and confidence in vaccination amongst parents and CYP. As UKHSA observed in Module 4, the issue of inequalities in vaccine uptake requires sustainable solutions. For instance, building and maintaining trust over the long-term is paramount to addressing barriers to vaccine uptake in less confident communities. Key to this is the provision of information in an accessible form.

6.12 UKHSA provides expert clinical advice and public health guidance to NHSE and NHS providers on the need for catch-up campaigns. It provides expertise to ensure and sustain effective population coverage of vaccination against diseases such as measles and rubella. UKHSA works with NHSE, local authorities, the voluntary sector, and others to reduce disparities in relation to access and uptake of vaccines. UKHSA is also enhancing its secretariat support to the JCVI to optimise decision making and working with key decision makers and partners to counter misinformation and to increase public support for the individual and wider benefits of vaccines.

6.13 To give a recent example, there are now significant numbers of CYP in London who have not received an MMR vaccine. UKHSA's London HPT is working closely with NHSE regional and local teams, Integrated Care Boards and primary care, as well as local authorities to promote vaccine uptake within the local health system and collaborating with the national UKHSA team to review and develop a community-based approach to increase vaccination uptake which can be applied elsewhere across the nation. The campaign saw all parents of children aged six to eleven years' old contacted to encourage them to make an appointment with their child's GP practice for their missed MMR vaccine. It also targeted areas with low uptake of the vaccine, contacting just over one million people aged 11 to 25 years-old in London and the West Midlands to invite them to catch up on their missed MMR vaccinations. By the end of the campaign period (April 2024) there were significant increases in the number and percentage vaccinated with both doses of the MMR vaccine (albeit uptake rates were still too low in some areas of England).

Conclusion

6.14 As the Inquiry will recognise, UKHSA's work does not separate neatly into modules. As this section illustrates, the different strands of UKHSA's work are interconnected. An obvious example is that the way test, trace and isolate measures are deployed in a future pandemic will depend not only on development in testing technology but also the availability of

vaccines. Overall, UKHSA endeavours to use its budget, expert workforce and research infrastructure to develop and refresh systems to respond to an outbreak, epidemic or pandemic that are capable of scaling as necessary. In doing so, UKHSA strives to ensure that its work is informed by the distinct needs of CYP and will continue to do so.

STATEMENT OF TRUTH

I believe that the facts stated in this witness statement are true. I understand that proceedings may be brought against anyone who makes, or causes to be made, a false statement in a document verified by a statement of truth without an honest belief of its truth.

Signed: **Personal Data**

Dated: 11 August 2025

ANNEX A to MODULE 8 CORPORATE WITNESS STATEMENT ON BEHALF OF THE UKHSA

As referred to at paragraph 3.89 of the UKHSA Corporate Witness Statement for Module 8, this content is taken from Section 1 of UKHSA's witness statement for Module 3 of the Inquiry (INQ000410865), dated 31 January 2024, as follows:

SECTION 1- Shielding, the Clinically Extremely Vulnerable and the Clinically Vulnerable

Overview - Clinical and Policy Development for 'Vulnerable Groups'

16. The role of PHE, and subsequently UKHSA, was predominantly to provide public health advice. Neither PHE nor UKHSA led the development of policy for the Clinically Extremely Vulnerable (CEV) or Clinically Vulnerable (CV) groups. See paragraph 29 for the roles that were held by respective organisations during the Shielding Programme.

17. On 5 March 2020 SAGE discussed the concept of identifying particular groups who may be more clinically vulnerable to Covid by suggesting that 'there is scientific data to support implementation of social isolation (cocooning) for those over 65 or with underlying medical conditions to delay spread, modify the epidemic peak and reduce mortality rates'. SAGE suggested that 'cocooning of older and vulnerable patients can start later, and would have to continue longer, than other measures' **[Exhibit: JH3/02 - INQ000106152]**

18. On 6 March 2020 the Cabinet Office chaired a meeting to discuss Non Pharma Interventions (NPIs). NPIs are public health and/or behavioural interventions that aim to prevent and/or control transmission of infectious pathogens, such as SARS-CoV-2, in the community and which are not solely dependent on medicines, antivirals and/or vaccines. On 6 March 2020 the Cabinet office commissioned NHSE and UK CMOs to scope the definition and size of a group who might be advised to 'isolate to protect', and to develop advice for this group **[Exhibit: JH3/03 - INQ000348013 and JH3/03 A & B INQ000348014 and INQ000348015]**.

19. On 7 March and 8 March 2020, senior clinicians from DHSC, NHSE, NHSD and PHE had a telephone meeting **[Exhibit: JH3/04 - INQ000348016] [Exhibit: JH3/05 - INQ000348020]** in which options for clinical inclusion criteria for and identification of people thought most likely to be at highest risk from Covid-19 were discussed. Those at the meetings, and in subsequent email correspondence, agreed a two-tiered approach:

a. A wider group of approximately 17 million people who were eligible for annual NHS influenza vaccination on account of age or medical conditions who were thought likely to be similarly vulnerable to a novel respiratory coronavirus. Public health messaging and guidance would be created to alert them to their potential increased risk and advise they take extra precautions to avoid contracting Covid- 19, but they would not be individually identified or contacted. This group would become the "clinically vulnerable" (CV) group.

b. A smaller group of 1-2 million people who may be immunosuppressed or have specific conditions likely to confer very high risk from a novel respiratory coronavirus. This group would be proactively identified using existing NHS datasets, and contacted and advised and supported to follow something close to the current PHE guidance **[Exhibit: JH3/06 - INQ000348021]** for those self-isolating, but for a period of at least 12 weeks. This group would become the "clinically extremely vulnerable (CEV) group.

20. From 8 March, senior clinicians from DHSC, the DAs, NHS England and NHS Digital, and PHE worked to draw up a list of conditions which would form the basis of the highest risk group, with the intention of identifying them digitally wherever possible using coded primary and secondary care data. This work was undertaken at high speed, and involved emails, phone calls and formal discussions at the CMO-led Senior Clinicians Group (SCG).

21. On 10 March 2020, the Civil Contingencies Secretariat circulated papers for the COBR(O) meeting the same afternoon to attendees across government including several representatives from PHE **[Exhibit: JH3/07 - INQ000381214] [Exhibit: JH3/08 - INQ000348023 and JH3/08 A & B - INQ000052411 and INQ000106173]**. Included was a presentation on NPIs which included consideration of the stay at home measures for the over 70s and the most vulnerable cohort. The presentation confirmed that the modelling for this proposed policy was to be validated at the SAGE meeting on the same day.

22. On 10 March 2020, SAGE agreed that 'social distancing measures for the elderly should apply to those aged 70+'. They also advised that 'social distancing interventions should consider 2 distinct groups: a) those aged 70+ who are generally well and b) vulnerable groups of all ages (including those aged 70+). They provided advice about tiering of the stringency of social distancing advice to these groups as well as some modelling around

the trigger points for the introduction of particular measures. They also noted that setting the boundary for this policy to 70 years rather than 65 years of age would not significantly increase deaths, and that GPs should have the discretion to identify patients who did not automatically fall into the highest risk category and add them to the cohort, based on their individual risk. **[Exhibit: JH3/09 - INQ000109125]**

23. On 13 March 2020 SAGE noted that 'there are no strong scientific grounds to hasten or delay implementation of either household isolation or social distancing of the elderly or the vulnerable in order to manage the epidemiological curve compared to previous advice'. It also noted that there were social and health disbenefits of 'cocooning (shielding) of the elderly as well as coronavirus related benefits' **[Exhibit JH3/10 - INQ000109142]**.

24. The term 'cocooning' which was initially used by SAGE was subsequently refined to 'shielding' by SAGE. The concept of 'cocooning' as initially envisaged by SAGE on 5 March related to measures which they had originally opined would shift the epidemiological curve. By 13 March SAGE advice had developed further to that, as set out in paragraph 23. This formed the basis of the subsequent 'shielding' policy, which was advisory and always intended to protect the group who were advised to shield from Covid-related morbidity and mortality.

25. In parallel, the group which had been identified by senior clinicians on 7 and 8 March as clinically vulnerable but not at highest risk, were identified in the Staying at Home Guidance which was published on 16 March 2020 **[Exhibit: JH3/11 - INQ000348029]**. This guidance advised 'Clinically vulnerable people' to 'take particular care to minimise contact with others outside your household' and identified the group as those who are:

    a. Aged 70 or older (regardless of medical conditions)

    b. Under 70 with an underlying health condition listed below (that is, anyone instructed to get a flu jab as an adult every year on medical grounds):

        - Chronic (long-term) mild to moderate respiratory disease, such as asthma, chronic obstructive pulmonary disease (COPD), emphysema or bronchitis
        - Chronic heart disease, such as heart failure
        - Chronic kidney disease

- Chronic liver disease, such as hepatitis
- Chronic neurological conditions such as Parkinson's disease, motor neurone disease, multiple sclerosis (MS) or cerebral palsy
- Diabetes
- A weakened immune system as the result of conditions such as HIV and AIDS, or medicines such as steroid tablets
- Being seriously overweight (a BMI of 40 or above)
- Pregnant women

26. On 18 March 2020 CMO, with the agreement of the DA CMOs, agreed the list of diseases to be included in the list of the most vulnerable **[Exhibit: JH3/12 - INQ000348030] [Exhibit: JH3/13 - INQ000348031]** and shared it with a distribution list including PHE, DHSC, NHSE, and the Cabinet Office. The final agreed list included:

"1. Solid organ transplant recipients

2. People with specific cancers

- People with cancer who are undergoing active chemotherapy or radical radiotherapy for lung cancer*
- People with cancers of the blood or bone marrow such as leukaemia, lymphoma or myeloma who are at any stage of treatment
- People having immunotherapy or other continuing antibody treatments for cancer
- People having other targeted cancer treatments which can affect the immune system, such as protein kinase inhibitors or PARP inhibitors
- People who have had bone marrow or stem cell transplants in the last 6 months, or who are still taking immunosuppression drugs

3. People with severe respiratory conditions including all cystic fibrosis, severe asthma and severe COPD

4. People with rare diseases and inborn errors of metabolism that significantly increase the risk of infections (such as SCID, homozygous sickle cell)

5. People on immunosuppression therapies sufficient to significantly increase risk of infection

6. People who are pregnant with significant heart disease, congenital ["or acquired" subsequently added by DCMO Jenny Harries]"

27. By 18 March 2020 a programme of work to identify, contact, and provide public health advice and support to the highest clinical risk group was simultaneously being established. This programme, which came to be known as the shielding programme, was announced on 21 March 2020. **[Exhibit: JH3/14 - INQ000086747]**. On this date, PHE published the first piece of guidance for the highest risk group, which introduced the terms "clinically extremely vulnerable" (CEV) to refer to the most clinically vulnerable group, and "clinically vulnerable" (CV) to refer to those at clinically increased risk of severe outcomes.

28. Shielding advice was voluntary from the outset and remained so. Individuals did not have to comply with the recommendations to shield and this was made clear throughout the programme in the guidance published and through direct communications from the Government to this group.

Programme structure

29. The role of PHE, and subsequently UKHSA, was predominantly to provide public health and clinical advice. Neither PHE nor UKHSA led the development of policy for the CEV or CV groups. The table below sets out this role in more detail and provides the responsibilities of different bodies involved in the CEV/CV programme.

Ministry of Housing, Communities and Local Government (MHCLG)	Had overall responsibility for overseeing and delivering the shielding programme. Led on coordination of support to enable people to follow shielding advice. Commissioned local authorities to provide basic support and secured funding from HMT to deliver this.

Office of the Chief Medical Officer (OCMO)	Led on the development of clinical inclusion criteria for both the CV and CEV groups. Strategic clinical oversight of the process for identifying all CEV patients. Clinical lead for updating shielding guidance to CEV group. Commissioner and clinical lead for work on a data-driven risk stratification prediction model and tool (QCOVID).
DHSC	Responsible for delivering the clinical elements of the cross-government Shielding Programme including: Commissioning NHSE and NHSD to identify and contact CEV patients; Leading on the development of shielding and QCovid risk stratification policy; Communication to CEV, the wider health system including professional representation bodies, and patient groups and charities; Evaluation of the shielding programme and liaising with other government departments as needed, such as the Department for Work and Pensions, MHCLG, and the Health and Safety Executive.
NHS Digital	Produced and maintained the Shielded Patient list (SPL). Developed a central platform to run QCOVID on national patient records, drawn from multiple datasets, used to identify 1.5 million highest risk patients with multiple risk factors and add them to the SPL.
NHSE/1	Developed the first letters sent to the CEV cohort on publication of the guidance in March 2020. Communicated with the NHS (primary and secondary care) about the role of the wider system in creating and maintaining the SPL. Ran the service to get medicines to people using local pharmacies on behalf of DHSC and enhanced support to CEV people through the NHS Volunteer Responder service.

PHE	Contributed to early clinical discussions led by CMO about the definition and identification of the CV and CEV groups. Drafted the initial shielding guidance in March 2020 with input from DHSC, NHSE and the OCMO prior to publishing the guidance on gov.uk. Commissioned and published translations and easy read versions of guidance. Provided clinical and public health input to update shielding guidance throughout the programme in 2020 and 2021.
UKHSA	Jenny Harries as Chief Executive of UKHSA was SRO for coordination of the Enhanced Protection Programme (EPP). This was established in January 2022 to ensure people with weakened immune systems who remained at higher risk of serious illness from COVID-19 following vaccination were identified and received appropriate interventions, support and communication. Dame Jenny Harries chaired the Clinical Oversight Group of senior clinicians from NHSE/NHSD/DHSC/the DAs and UKHSA that ran in parallel to an implementation and coordination group chaired by DHSC.

[…]

95. The table below sets out PHE and UKHSA input to the guidance for the CEV and the CV and lists some of the notable changes to the guidance. It does not include updates of the easy read and translated versions of the guidance which took place after every major update of the main guidance; these are discussed in more detail at paragraphs 96 to 102.

Date	Guidance	Who published	Update	Link

16 March 2020	CV Guidance	PHE	Publication of "guidance on social distancing for everyone in the UK and protecting older people and vulnerable adults".	**[Exhibit: JH3/11 - INQ000348029]**
21 March 2020	CEV Guidance	PHE	Publication of "COVID-19: guidance on shielding and protecting people defined on medical grounds as extremely vulnerable."	**[Exhibit: JH3/23 - INQ000348044]**
30 March 2020	CEV Guidance	PHE	Guidance updated. List of CEV conditions amended	**[Exhibit: JH3/28 - INQ000348049]**
1 May 2020	CV Guidance	Cabinet Office	Publication of "Staying at home and away from others (social distancing)."	**[Exhibit: JH3/22 - INQ000348043]**
5 May 2020	CEV Guidance	PHE	Publication of "Guidance for young people on shielding and protecting people most likely to become unwell if they catch coronavirus".	**[Exhibit: JH3/30 - INQ000348050]**
18 May 2020	CEV Guidance	PHE	Guidance update to include updated information on symptoms.	**[Exhibit: JH3/31 - INQ000348051]**
31 May 2020	CEV Guidance	PHE	Guidance updated in line with upcoming changes to the regulations from 1 June 2020.	**[Exhibit: JH3/32 - INQ000348052]** **[Exhibit: JH3/33 - INQ000348053]**

5 June 2020	CEV Guidance	PHE	Guidance for young people updated in line with changes to the regulations from 1 June 2020.	**[Exhibit: JH3/34 - INQ000348054]**
23 June 2020	CEV Guidance	PHE	Guidance updated to reflect Government advice from 6 July relaxing social distancing guidelines and allowing people who were shielding to meet in groups of up to six people outside their homes.	**[Exhibit: JH3/35 - INQ000348055]**
7 July 2020	CEV Guidance	PHE	Updated guidance to include clinical risk to children and young people.	**[Exhibit: JH3/36 - INQ000348056]**
8 July 2020	CEV Guidance	PHE	Guidance updated to include a link to local lockdown guidance.	**[Exhibit: JH3/37 - INQ000348057]**
31 July 2020	CEV guidance	PHE	Guidance update to reflect the pause of the shielding policy from 1 August 2020.	**[Exhibit: JH3/38 - INQ000348058]**
4 August 2020	CEV guidance	PHE	Out-of-date guidance for young people removed.	**[Exhibit: JH3/39 - INQ000348059]**
18 August 2020	CEV guidance	PHE	Updated section on young people who are clinically extremely vulnerable and who have been shielding.	**[Exhibit: JH3/40 - INQ000348060]**

4 September 2020	CEV guidance	PHE	Update added new guidance for young people who are clinically extremely vulnerable and have been shielding.	**[Exhibit: JH3/41 - INQ000348061]**
29 September 2020	CEV guidance	PHE	Updated to remove references to rates of transmission of coronavirus falling, in response to user feedback.	**[Exhibit: JH3/42 - INQ000348062]**
13 October 2020	CEV guidance	PHE/DHSC	Guidance now co-badged with DHSC. New guidance for children, young people, and adults, who are CEV linked to the introduction of Local Covid Alert Levels replaced previous guidance.	**[Exhibit: JH3/43 - INQ000348063]**
4 November 2020	CEV guidance	PHE/DHSC	Updated guidance in line with national restrictions that were due to commence on 5 November 2020 requiring people to stay at home. The update included letters from the Secretaries of State for Health and Social Care and for Housing, communities and Local Government to the CEV cohort and parents of children who were CEV.	**[Exhibit: JH3/44 - INQ000348064]**

2 December 2020	CEV guidance	PHE/DHSC	Updated guidance to reflect policy changes relating to tiering and include information on local tiering.	**[Exhibit: JH3/45 - INQ000348065]**
20 December 2020	CEV guidance	PHE/DHSC	Added new shielding advice for the clinically extremely vulnerable in Tier 4.	**[Exhibit: JH3/46 - INQ000348066]**
7 January 2021	CEV guidance	PHE/DHSC	Guidance was updated to reflect the introduction of national lockdown. The guidance also included reference to the vaccination programme and the CEV cohort.	**[Exhibit: JH3/47 - INQ000348067]**
16 February 2021	CEV guidance	PHE/DHSC	Updated definition of clinically extremely vulnerable groups.	**[Exhibit: JH3/48 - INQ000348068]**
25 February 2021	CEV guidance	PHE/DHSC	Updated to reflect new shielding end date, and updated shopping and support sections.	**[Exhibit: JH3/49 - INQ000348069]**
18 March 2021	CEV guidance	PHE/DHSC	Added link to new letter to all people on the SPL that took effect from 1 April 2021.	**[Exhibit: JH3/50 - INQ000348070]**
1 April 2021	CEV guidance	PHE/HSC	Guidance updated to reflect pausing of the shielding programme.	**[Exhibit: JH3/51 - INQ000348071]**

17 May 2021	CEV guidance	PHE/DHSC	Guidance on meeting family and friends was updated to state this was a personal choice but encouraging caution to be exercised.	**[Exhibit: JH3/52 - INQ000348072]**
21 June 2021	CEV guidance	PHE/DHSC	Updated to reflect national restrictions had changed.	**[Exhibit: JH3/53 - INQ000348073]**
12 July 2021	CEV guidance	PHE/DHSC	Guidance updated as per government's advice for clinically extremely vulnerable people to, as a minimum, follow the same guidance as the general population.	**[Exhibit: JH3/54 - INQ000348074]**
21 July 2021	CEV guidance	PHE/DHSC	Updated to reflect move to Stage 4 of the Roadmap, including section on socialising inside and outside the home. Added information about vaccinations for eligible children and young people.	**[Exhibit: JH3/55 - INQ000348075]**
3 September 2021	CEV guidance	PHE/DHSC	Updated to reflect the removal of the majority of children and young people from the Shielded Patient List.	**[Exhibit: JH3/56 - INQ000348076]**
14	CEV guidance	PHE/DHSC	Updated to reflect the end of the shielding programme from 15 September, and to	**[Exhibit: JH3/57 - INQ000348077]**

September 2021			advise that guidance will be updated shortly.	
20 September 2021	CEV guidance	PHE/DHSC	Given the successful rollout of the vaccination programme (with vaccines now having been offered to all of the adult population in England) and the availability of other treatments and care pathways, the shielding programme officially closed. The guidance became a very short document advising people that they should follow the main guidance for the public on staying safe and preventing the spread of COVID-19.	**[Exhibit: JH3/58 - INQ000348078]** **[Exhibit: JH3/59 - INQ000348079]**