

Coronavirus: action plan

A guide to what you can expect across the UK

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1. Introduction

- 1.1 The current novel coronavirus (COVID-19) outbreak, which began in December 2019, presents a significant challenge for the entire world. The UK Government and the Devolved Administrations, including the health and social care systems, have planned extensively over the years for an event like this, and the UK is therefore well prepared to respond in a way that offers substantial protection to the public.
- 1.2 Of course, this is a new virus, and new technology and the increasing connectivity of our world mean that our plans need to be kept up to date, to reflect that illnesses – and news and information about them – travel much more quickly today than even ten years ago.
- 1.3 Recognising the respective roles and responsibilities of the UK Government and Devolved Administrations, this document sets out what the UK as a whole has already done - and plans to do further - to tackle the current coronavirus outbreak, based on our wealth of experience dealing with other infectious diseases and our influenza pandemic preparedness work. The exact response to COVID-19 will be tailored to the nature, scale and location of the threat in the UK, as our understanding of this develops.
- 1.4 This document sets out:
- what we know about the virus and the disease it causes
 - how we have planned for an infectious disease outbreak, such as the current coronavirus outbreak
 - the actions we have taken so far in response to the current coronavirus outbreak
 - what we are planning to do next, depending upon the course the current coronavirus outbreak takes.
 - the role the public can play in supporting this response, now and in the future.

2. What we know about the virus and the diseases it causes

- 2.1 Coronaviruses are a family of viruses common across the world in animals and humans; certain types cause illnesses in people. For example, some coronaviruses cause the common cold; others cause diseases which are much more severe such as Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS), both of which often lead to pneumonia.
- 2.2 COVID-19 is the illness seen in people infected with a new strain of coronavirus not previously seen in humans. On 31st December 2019, Chinese authorities notified the World Health Organisation (WHO) of an outbreak of pneumonia in Wuhan City, which was later classified as a new disease: COVID-19.
- 2.3 On 30th January 2020, WHO declared the outbreak of COVID-19 a “Public Health Emergency of International Concern” (PHEIC).
- 2.4 Based on current evidence, the main symptoms of COVID-19 are a cough, a high temperature and, in severe cases, shortness of breath.
- 2.5 As it is a new virus, the lack of immunity in the population (and the absence as yet of an effective vaccine) means that COVID-19 has the potential to spread extensively. The current data seem to show that we are all susceptible to catching this disease, and thus it is also more likely than not that the UK will be significantly affected. Among those who become infected, some will exhibit no symptoms¹. Early data suggest that of those who develop an illness, the great majority² will have a mild-to-moderate, but self-limiting illness – similar to seasonal flu³.
- 2.6 It is, however, also clear that a minority of people who get COVID-19 will develop complications severe enough to require hospital care⁴, most often pneumonia. In a small proportion of these, the illness may be severe enough to lead to death⁵. So far the data we have suggest that the risk of severe disease and death increases amongst elderly people and in people with underlying health risk conditions (in the same way as for seasonal flu)^{6 7}. Illness is less common and usually less severe in younger adults⁸. Children can be infected⁹ and can have a severe illness¹⁰, but based on current data overall illness seems rarer in people under 20 years of age. So far, there has been no obvious sign that pregnant women are more likely to be seriously affected^{11 12}.
- 2.7 Given that the data are still emerging, we are uncertain of the impact of an outbreak on business. In a stretching scenario, it is possible that up to one fifth of

employees may be absent from work during peak weeks. This may vary for individual businesses.

- 2.8 We do not yet have entirely complete data on this disease. But as we learn more about the virus, its effects and its behaviour (for example, the timing and extent of the peak of an outbreak, its precise impact on individuals), we will be able to revise estimates of its potential spread, severity and impact¹³. We will then review, and (where necessary) adapt this plan accordingly.
- 2.9 Work is in hand to contain the spread of the virus. This includes extensive guidance provided to individuals returning from areas where there are cases being reported, and encouraging self-isolation as the primary means to contain the spread of the disease. Given that there is currently neither a vaccine against COVID-19 nor any specific, proven, antiviral medication^{14 15}, most treatment will therefore be towards managing symptoms and providing support to patients with complications. The majority of people with COVID-19 have recovered without the need for any specific treatment, as is the case for the common cold or seasonal flu - and we expect that the vast majority of cases will best be managed at home, again as with seasonal colds and flu.

3. How the UK prepares for infectious disease outbreaks

3.1 The table below shows the impact of some of the major respiratory virus pandemics and epidemics in the last 100 years.

Major respiratory virus outbreaks

Area of emergence	Estimated case fatality ratio*	Estimated attributable excess mortality worldwide	Estimated attributable excess mortality in the UK	Age groups most affected
Spanish Flu 1918 – 1919 Severe influenza pandemic				
Unclear	≥ 2%	20 – 50 million	200,000	Young adults, elderly and young children
Asian Flu 1957 – 1958 Moderate influenza pandemic				
Southern China	0.1 – 0.2%	1 – 4 million	33,000	Children
Hong Kong Flu 1968 – 1969 Moderate influenza pandemic				
Southern China	0.2 – 0.4%	1 – 4 million	80,000	All age groups
Swine Flu 2009 – 2010 Very mild influenza pandemic				

Area of emergence	Estimated case fatality ratio*	Estimated attributable excess mortality worldwide	Estimated attributable excess mortality in the UK	Age groups most affected
Mexico	<0.025%	18,000	457	Children, young adults and pregnant women

Middle East Respiratory Syndrome 2012 Continuing coronavirus pandemic threat

Middle East	>30%	861	0	Elderly (60+)
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Serious Acute Respiratory Syndrome 2002 - 2003 Severe coronavirus pandemic 'near-miss'

China	<10%	774	0	Middle aged adults (45 - 65)
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Seasonal flu epidemic 1989 - 1990 Severe influenza seasonal epidemic

UK	Data not available	Not applicable	26,000 excess deaths in England & Wales	Elderly 75+
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* the proportion of people who became ill with symptoms and subsequently died

3.2 The UK is well prepared for disease outbreaks, having responded to a wide range of infectious disease outbreaks in the recent past, and having undertaken significant preparedness work for an influenza pandemic for well over one decade (eg. our existing plan 'flu plans¹⁶). Our plans have been regularly tested and updated locally and nationally to ensure they are fit for purpose. This experience

provides the basis for an effective response to COVID-19, which can be tailored as more specific information emerges about the virus.

- 3.3 These plans ensure the UK is equipped to deliver a coordinated multi agency response to minimise wider societal impact that could arise from a significant outbreak. An effective response also requires the active participation of a well-informed public and all service providers.
- 3.4 Planning draws on the idea of a “reasonable worst case (RWC)” scenario. This is not a forecast of what is most likely to happen, but will ensure we are ready to respond to a range of scenarios.

Planning Principles

- 3.5 In preparing for, and responding to, a serious disease outbreak, the UK and the Devolved Administrations aim to:
- undertake dynamic risk assessments of potential health and other impacts, using the best available scientific advice and evidence to inform decision making
 - minimise the potential health impact by slowing spread in the UK and overseas, and reducing infection, illness and death
 - minimise the potential impact on society and the UK and global economy, including key public services
 - maintain trust and confidence amongst the organisations and people who provide key public services, and those who use them
 - ensure dignified treatment of all affected, including those who die
 - be active global players - working with the World Health Organization (WHO), the Global Health Security Initiative (GHSI), the European Centre for Disease Prevention and Control (ECDC), and neighbouring countries, in supporting international efforts to detect the emergence of a pandemic and early assessment of the virus by sharing scientific information
 - ensure that the agencies responsible for tackling the outbreak are properly resourced to do so, that they have the people, equipment and medicines they need, and that any necessary changes to legislation are taken forward as quickly as possible

- be guided by the evidence, and regularly review research and development needs, in collaboration with research partners, to enhance our pandemic preparedness and response.
- 3.6 The UK Government and the Devolved Administrations have been planning an initial response based on information available at the time, in a context of uncertainty, that can be scaled up and down in response to new information to ensure a flexible and proportionate response.
- 3.7 The fundamental objectives are to deploy phased actions to Contain, Delay, and Mitigate any outbreak, using Research to inform policy development.
- 3.8 The different phases, types and scale of actions depends upon how the course of the outbreak unfolds over time. We monitor local, national and international data continuously to model what might happen next, over the immediate and longer terms.
- 3.9 The overall phases of our plan to respond to COVID-19 are:
- **Contain:** detect early cases, follow up close contacts, and prevent the disease taking hold in this country for as long as is reasonably possible
 - **Delay:** slow the spread in this country, if it does take hold, lowering the peak impact and pushing it away from the winter season
 - **Research:** better understand the virus and the actions that will lessen its effect on the UK population; innovate responses including diagnostics, drugs and vaccines; use the evidence to inform the development of the most effective models of care
 - **Mitigate:** provide the best care possible for people who become ill, support hospitals to maintain essential services and ensure ongoing support for people ill in the community to minimise the overall impact of the disease on society, public services and on the economy.

4. Our response to the current coronavirus outbreak

Current planning

- 4.1 There is similarity between COVID-19 and influenza (both are respiratory infections), but also some important differences. Consequently, contingency plans developed for pandemic influenza¹⁷, and lessons learned from previous outbreaks, provide a useful starting point for the development of an effective response plan to COVID-19. That plan has been adapted, however, to take account of differences between the two diseases. Annex A sets out the structure for the UK's response to a disease outbreak.
- 4.2 Our response to COVID-19 is guided by the international situation, the advice of organisations such as the WHO, surveillance, data modelling based on the best available evidence and the recommendations of our expert bodies (Annex B). The Scientific Advisory Group for Emergencies (SAGE) provides expert medical scientific advice. The four UK governments' Chief Medical Officers (CMOs) continue to advise the health and social care systems across the UK, and government agencies in all parts of the UK involved in responding to this outbreak.
- 4.3 System wide response plans for pandemic influenza, focused on the continuity of public and critical services and the stability of the economy, have been adapted for COVID-19, based on the best available scientific evidence and advice. For the latest information on the current situation please refer to:
www.gov.uk/guidance/wuhan-novel-coronavirus-information-for-the-public.
- 4.4 The nature and scale of the response depends on the course of the disease, which cannot be predicted accurately at this point. As our understanding of the disease increases and its impact becomes clearer, we will issue further detailed advice about what to expect if/when further measures become necessary.

The phased response - what we have done so far

- 4.5 As there are already cases in the UK, the current emphasis is on the Contain and Research phases, but planning for Delay and Mitigation is already in train.

The Contain phase - actions to date

- 4.6 Across the whole of the UK, public health agencies and authorities, the NHS, and Health and Social Care NI (HSCNI) have established plans and procedures to detect and isolate the first cases of COVID-19 as they emerge in the UK. Each nation's public health agencies have worked with Border Force, port operators and carriers to enhance port health measures. PHE teams are on site at appropriate international ports, and health advice and information has been widely cascaded, as part of our public communications plan, with appropriate arrangements also put in place in the Devolved Administrations (given that some aspects relating to the arrival of aircraft and shipping are devolved).
- 4.7 Border Force and the Foreign and Commonwealth Office (FCO) have assisted the repatriation of British nationals and their dependents from affected areas overseas. Where foreign nationals in the UK have been unable to return to affected areas, the Home Office have provided support enabling them to remain in the UK.
- 4.8 New regulations introduced in England under public health legislation provide new powers for medical professionals, public health professionals and the police to allow them to detain and direct individuals in quarantined areas at risk or suspected of having the virus. In Scotland Health Boards have powers to place restrictions on the activities of individuals who are known to have the disease, or have been exposed to the disease, and to prohibit them from entering or remaining in any place. Boards may also apply for court orders for quarantine and medical examination. In Wales, local authorities have powers to apply for an order to be made by the Justice of the Peace to isolate, detain or require individuals to undergo medical examination. Similar powers are available to the Public Health Agency in Northern Ireland. Welsh Ministers also have powers to make regulations equivalent to those now in place in England if the level of risk increases.
- 4.9 As part of the port health measures, direct flights arriving into the UK from countries within the UK's CMOs' case definition are required to provide a declaration (General Aircraft Declaration) to airport authorities stating that all their passengers are well, 60 minutes prior to landing. Similarly, The Maritime Health Declaration Form is required for all vessels arriving from any foreign port. For Scotland parallel measures are in place.
- 4.10 The health and social care systems and public health authorities in all parts of the UK have cascaded information widely to all health professionals on steps to take if they identify patients who may have COVID-19.
- 4.11 The NHS/HSCNI have well rehearsed plans that have enabled the provision of excellent care for all patients affected by this disease. The initial confirmed

patients are being cared for by specialist units with expertise in handling such cases, using tried and tested infection control procedures to prevent further spread of the virus. When necessary, the provision of care may move from specialist units into general facilities in hospitals

- 4.12 The NHS/HSCNI have expert teams in every ambulance service and a number of specialist hospital units with highly trained staff and equipment ready to receive and care for patients – these provide coverage across the whole of the UK. If the current outbreak takes a greater hold, we will use those lessons about effective treatment methods and apply them throughout our health services, across all hospital sites and into community settings.
- 4.13 Once a case has been detected, our public health agencies use tried and tested procedures for rapid tracing, monitoring and isolation of close contacts, with the aim of preventing further spread.
- 4.14 The UK maintains strategic stockpiles of the most important medicines and protective equipment for healthcare staff who may come into contact with patients with the virus. These stocks are being monitored daily, with additional stock being ordered where necessary.
- 4.15 We have provided UK residents and travellers with the latest information to make sure they know what to do if they experience symptoms and worked with NHS 111, NHS Direct Wales and NHS 24 in Scotland, to ensure people with symptoms are given appropriate advice. Public health advice has been widely publicised and is regularly updated at www.gov.uk/guidance/wuhan-novel-coronavirus-information-for-the-public
- 4.16 FCO Travel Advice gives British nationals advice on what they need to know before deciding whether to travel and what to do if they are affected by an outbreak of COVID-19 while travelling. Our Travel Advice and consular assistance also help to contain the spread of COVID-19 to the UK.
- 4.17 Advice has been provided to first responders, employers, the justice system (including prison and probation services), educational settings, and the adult social care sector. The Department for Education provides advice about educational settings in England, which can be found on PHE's website. A DfE helpline is being set up to manage the flow of increasing queries, from providers and from parents of pupils.
- 4.18 Equivalent guidance for educational settings in Scotland can be found on the Health Protection Scotland website. This guidance provides links to further advice via NHS Inform and contact details for local Health Protection Teams. Scottish local authorities can also provide advice and support to education settings in their

areas, working closely with local Health Protection Teams and local and regional resilience partnerships.

- 4.19 In Wales, guidance for educational settings is provided on the Welsh Government website which also provides links to further public health advice - <https://gov.wales/guidance-educational-settings-about-covid-19>.
- 4.20 Department for International Trade teams around the globe continue to support British companies facing disruption due to the Coronavirus. The Department's officials across the globe are already working with UK businesses on the ground to relay public health advice and FCO travel advice, and provide practical and concrete support to firms, including engaging with local government and suppliers, and working with business associations to disseminate latest information on UK consular and visa services, and accessing existing UK Export Finance facilities.
- 4.21 All NHS and HSCNI emergency and urgent care facilities are working to establish coronavirus assessment services to lessen impacts on Emergency Departments and other clinical settings. This enables them to identify, isolate and contain cases, separate from other patients and the public, and in a way scalable to cope with expanding need. Specifically tailored and effective services responding to this outbreak have protected GPs, ambulance and hospital services for other patients.
- 4.22 The safety and security of British Nationals overseas will always be our top priority. Our initial focus has been helping those Britons who have found themselves at the greatest risk of exposure to the virus. Our crisis response team in the FCO has been working around the clock with our Embassies throughout the world to provide them with the care they need and reduce the risk of importation of Coronavirus into the UK. This includes the use of quarantine and self-isolation measures for those returning from at risk areas.

The Delay phase - actions to date

- 4.23 Many of the actions involved in the Contain phase also act to help Delay the onset of an epidemic if it becomes inevitable. These include case finding and isolation of early cases.
- 4.24 Many of the actions that people can take themselves - especially washing hands more; and the catch it, bin it, kill it strategy for those with coughs and sneezes - also help in delaying the peak of the infection.
- 4.25 Our experts are considering what other actions will be most effective in slowing the spread of the virus in the UK, as more information about it emerges. Some of these will have social costs where the benefit of doing them to Delay the peak will

need to be considered against the social impact. The best possible scientific advice and other experts will inform any decision on what will be most effective.

- 4.26 Delaying the spread of the disease requires all of us to follow the advice set out below. The benefits of doing so are that if the peak of the outbreak can be delayed until the warmer months, we can reduce significantly the risk of overlapping with seasonal flu and other challenges (societal or medical) that the colder months bring. The Delay phase also buys time for the testing of drugs and initial development of vaccines and/or improved therapies or tests to help reduce the impact of the disease. There is therefore a strong dependency between the different elements of our approach.

The Research phase - actions to date

- 4.27 The UK Government is liaising with the National Institute for Health Research (NIHR), UK Research and Innovation (UKRI) including the Medical Research Council (MRC) and other funders such as the Wellcome Trust to support and co-ordinate research during the COVID-19 outbreak.
- 4.28 Our Public Health Agencies are supporting the rapid development of specific tests for this coronavirus, in partnership with WHO and a global network of laboratories. This has been rolled out to NHS/HSCNI laboratories across the UK to enable faster confirmation of positive diagnoses.
- 4.29 The UK Government has already pledged £20 million to the Coalition for Epidemic Preparedness Innovations (CEPI) to develop new vaccines to combat the world's deadliest diseases, including vaccines for COVID-19, as quickly as possible, and is actively considering further investment.
- 4.30 The UK Government has also additionally announced £20 million for COVID-19 research via a joint rapid research call between UKRI and, through DHSC, the National Institute for Health Research (NIHR). This asks for proposals for projects to develop vaccines, therapeutics, and diagnostics; or to address the epidemiology, spread or underpinning knowledge of COVID-19.
- 4.31 Our health and social care departments across the UK are seeking to build on the relationships they have with institutions involved in Health Protection Research. A number of these are involved in research in relation to the COVID-19 epidemic.
- 4.32 This includes one on Emergency Preparedness and Response led by King's College London. It brings together experts on how to conduct important research that includes research on how to respond to infectious disease outbreaks such as COVID-19.

4.33 The UK is a world leader in the field of outbreak modelling and data analytics. The NIHR HPRU in Modelling Methodology led by Imperial College London has developed novel analytical and computational tools which exploit novel data streams on infectious diseases such as COVID-19. This group and other leading academic groups have developed tools to prepare for infectious disease outbreaks, which include real time infectious disease models, allowing policy decisions to be made using the best possible data and are actively modelling questions of relevance to dealing with the COVID–19 outbreak.

The role the public can play in supporting this response

4.34 Everyone can help support the UK's response by:

- following public health authorities' advice, for example on hand washing
- reducing the impact and spread of misinformation by relying on information from trusted sources, such as that on www.nhs.uk/, www.nhsinform.scot, www.publichealth.hscni.net, <https://gov.wales/coronavirus-covid-19> and www.gov.uk/
- checking and following the latest FCO travel advice when travelling and planning to travel
- ensuring you and your family's vaccinations are up to date as this will help reduce the pressure on the NHS/HSCNI through reducing vaccine-preventable diseases
- checking on elderly or vulnerable family, friends and neighbours
- using NHS 111 (or NHS 24 in Scotland or NHS Direct Wales) (including online, where possible), pharmacies and GPs responsibly, and go to the hospital only when you really need to. This is further explained on the NHS website - www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergency-care/when-to-go-to-ae/ and <http://www.choosewellwales.org.uk/home>
- being understanding of the pressures the health and social care systems may be under, and receptive to changes that may be needed to the provision of care to you and your family.
- accepting that the advice for managing COVID-19 for most people will be self-isolation at home and simple over the counter medicines
- checking for new advice as the situation changes.

The phased response - what we will do next

- 4.35 In the event of the outbreak worsening, or a severe prolonged pandemic, the response will escalate, and the focus will move from Contain to Delay, through to Mitigate. During this phase the pressures on services and wider society may start to become significant and clearly noticeable.
- 4.36 The decision to step up the response from Contain to Delay and then Mitigate will be taken on advice from the UK's Chief Medical Officers, taking in to account the degree of sustained transmission and evident failure of measures in other countries to reduce spread.
- 4.37 To ensure that the health and social care system is prepared to respond to all eventualities, at all phases of a potential future pandemic, the NHS/HSCNI and local authorities have plans in place to ensure people receive the essential care and support services they need - and sometimes this might mean that other services are reduced temporarily. Plans are flexible to respond to different types of pandemics - ranging from a mild pandemic with a low impact on services (for example the 2009 H1N1 pandemic), through to a severe prolonged pandemic as experienced in 1918 ("Spanish Flu").
- 4.38 Similarly, potential pandemics are one of a wide range of risks that the owners and operators of our most essential services and systems plan for. The UK Government and Devolved Administrations are currently working with our critical national infrastructure partners to ensure that these plans are appropriate for COVID-19, and that we minimise any impacts that could disrupt the daily services on which the UK depends.
- 4.39 The Ministry of Defence has put in place plans to ensure the delivery of its key operations in the UK and overseas. There are also well practised arrangements for Defence to provide support to Civil Authorities if requested.
- 4.40 The UK Government will also step up the central co-ordination of its overall response using its proven crisis management mechanisms: COBR would meet as often as needed, bringing in system leaders to co-ordinate vital public services; and there will be more communication with Parliament, the media and the public. Ministers from across government will be designated to lead for their department on handling the outbreak; with senior officials and system leaders working intensively alongside them. The respective crisis management mechanisms across the Devolved Administrations have also been stood up and will operate in very similar terms to that of COBR within their own nations, and all four co-ordination centres are linked up on UK-wide planning and delivery of the response to Covid-19.

- 4.41 There will be regular meetings between the UK Government, and NHS/HSCNI and public health leaders, chaired alternately by the Secretary of State for Health and Social Care and his Permanent Secretary, to discuss the most recent advice from scientific experts and those delivering key services, and to decide next steps.

The Delay phase - next steps

- 4.42 If the disease becomes established in the UK, we will need to consider further measures to reduce the rate and extent of its spread. Based on experience with previous outbreaks, it may be that widespread exposure in the UK is inevitable; but slowing it down would still nonetheless be beneficial. For example, health services are less busy in the summer months when flu and other winter bugs are not driving GP consultations and hospital admissions. In the 2009 'swine flu' pandemic school holidays significantly slowed transmission of the virus.
- 4.43 We will increase publicity about the need for good hygiene measures (hand washing, and catch it, bin it, kill it) and further promote the need for people with symptoms to stay at home for the full duration of their illness.
- 4.44 Other action will be considered to help achieve a Delay in the spread of the disease. We will aim to minimise the social and economic impact, subject to keeping people safe. Such judgements will be informed based on the best available and most up to date scientific evidence, and take into account the trade-offs involved.
- 4.45 Action that would be considered could include population distancing strategies (such as school closures, encouraging greater home working, reducing the number of large scale gatherings) to slow the spread of the disease throughout the population, whilst ensuring the country's ability to continue to run as normally as possible. The UK governments' education departments' planning assumptions include the possibility of having to close educational settings in order to reduce the spread of infection.
- 4.46 We would consider such measures in order to protect vulnerable individuals with underlying illnesses and thus at greater more at risk of becoming seriously affected by the disease. The effectiveness of these actions will need to be balanced against their impact on society.

The Research phase - next steps

- 4.47 It is possible that an outbreak or pandemic of COVID-19 could occur in multiple waves (it is not known yet if the disease will have a seasonal pattern, like flu) and therefore, depending upon what the emerging evidence starts to tell us, it may be

necessary to ensure readiness for a future wave of activity. The intention is to gather evidence about effective interventions in order to inform decision-making going forward. The UK Government will keep emerging research needs under close review and progress research activities set out above.

The Mitigate phase - next steps

4.48 As and when the disease moves into different phases, for example if transmission of the virus becomes established in the UK population, the nature and scale of the response will change. The chief focus will be to provide essential services, helping those most at risk to access the right treatment. This means that:

- there will be further publicity of advice to individuals about protecting themselves and others
- treatment and the requirement for medicines and other clinical countermeasures might start to increase, with the need to draw down on existing stockpiles of the most important medicines, medical devices and clinical consumables
- health and social care services will work together to support early discharge from hospital, and to look after people in their own homes
- emergency services, including the police and fire and rescue services will enact business continuity plans to ensure they are able to maintain a level of service that fulfils their critical functions. For example, with a significant loss of officers and staff, the police would concentrate on responding to serious crimes and maintaining public order
- for businesses facing short term cash flow issues (for example, as the result of subdued demand), an effective mitigation already exists in HMRC's Time To Pay system. This is offered on a case by case basis if a firm or individual contacts HMRC about falling behind on their tax
- as NHS/HSCNI staff also start to become affected, and more seriously ill patients require admission, clinicians may recommend a significantly different approach to admissions. Some non-urgent care may be delayed to prioritise and triage service delivery. Staff rostering changes may be necessary, including calling leavers and retirees back to duty
- there could well be an increase in deaths arising from the outbreak, particularly amongst vulnerable and elderly groups. The UK Government and Devolved Administrations will provide advice for local authorities on dealing with this challenge

- there will be less emphasis on large scale preventative measures such as intensive contact tracing. As the disease becomes established, these measures may lose their effectiveness and resources would be more effectively used elsewhere.
- 4.49 Everyone will face increased pressures at work, as well as potentially their own personal illness or caring responsibilities. Supporting staff welfare will be critical to supporting an extended response.
- 4.50 We will implement a distribution strategy for the UK's stockpiles of key medicines and equipment (e.g. protective clothing). This will cover the NHS/HSCNI, and extend to social care and other sectors as appropriate.
- 4.51 We will consider legislative options, if necessary, to help systems and services work more effectively in tackling the outbreak.
- 4.52 The UK's health and social care systems will start to implement their business continuity plans, which cover:
- continuing to minimise the risk of infection to patients and those receiving care
 - further identification of vulnerable persons to be supported
 - arrangements for the continuation of essential services, to maintain normal business for as many people as possible for as long as possible
 - plans to reduce the impact of absentees during the pandemic
 - systems to lessen the impact of disruption to society and the supply chain.
- 4.53 The UK remains in a high state of readiness to respond robustly to any disease outbreak, and our track record of success means that we can offer a high degree of assurance that we will be able to maximise the effectiveness of our health and care systems, and in doing so also respond effectively to the outbreak.
- 4.54 As and when we discover more about the disease and what, if any, impact its course has on the UK, we will provide further updates on how our plans are being adapted to respond to specific, changing circumstances.
- 4.55 The UK Government is advising businesses to build their own resilience by reviewing their business continuity plans and following the advice for employers available on GOV.UK - www.gov.uk/government/publications/guidance-to-employers-and-businesses-about-covid-19

4.56 Businesses should also ensure that they keep up to date with the situation as it changes, at: www.gov.uk/coronavirus.

Annex A - responsibilities for pandemic preparedness and response

National responsibilities

The Department of Health and Social Care (DHSC) is the lead UK Government Department with responsibility for responding to the risk posed by a future pandemic.

The four UK CMOs provide public health advice to the whole system and government throughout the UK. The Scientific Advisory Group for Emergencies (SAGE) is responsible for ensuring that a single source of coordinated scientific advice is provided to decision makers in COBR.

The NHS works in partnership with Local Resilience Forums on pandemic preparedness and response delivery in healthcare systems in England and Wales. Public Health England provides specialist technical expertise to support both planning and delivery arrangements in England, working closely with public health agencies in Wales, Scotland and Northern Ireland. These organisations have developed plans for coordinating the response at a national level and supporting local responders through their regional structures. The tripartite partnership of DHSC, PHE and NHS England provides strategic oversight and direction for the health and adult social care response to an influenza pandemic, with Department for Education (DfE) leading on the children's social care response. In Devolved Administrations, there are similar arrangements for multi-agency working with strategic oversight provided by the appropriate departments. These arrangements are supported by national co-ordination structures.

PHE and their equivalent in the Devolved Administrations lead the provision of expert advice on health protection issues and actively contributes to the planning and delivery of a multi-agency response. PHE provides health protection services, expertise and advice, delivering specialist public health services to UK national and local government (in England), the NHS/HSCNI and the public, working in partnership to protect the public against infectious diseases. There are comparable public health expert advisory support arrangements in each of the other three UK countries.

Local/Regional responsibilities

In England and Wales, local organisations (working jointly through the Local Resilience Forums and Local Health Resilience Partnerships in England, and NHS emergency planning structures in Wales) have the primary responsibility for planning for and responding to any major emergency, including a pandemic. Similar arrangements exist in

Scotland working through Regional Resilience and Local Resilience Partnerships. In Northern Ireland, Emergency Preparedness Groups coordinate emergency planning at the local level.

Multi-agency working

Multi-agency working at both a national and local level ensures joint planning between all organisations. A coordinated approach to ensure best use of resources to achieve the best outcome for the local area.

NHS England and NHS Improvement and partners have published a series of quick guides to assist multi-agency working and support local health and care systems manage increasing demand on their services. The series of guides can be found at www.nhs.uk/quickguides. Integration Authorities in Scotland have access to a range of government advice on priorities for multi-agency working, which supports existing local plans to optimise care pathways.

Social care is provided by a diverse range of local authority, private and third sector bodies. It is important that the role of social care provision in all sectors is central to contingency planning. Social care providers should remain in contact with local commissioners and resilience partners, review their business continuity plans and continue to practice proper infection control and good respiratory hygiene practice.

Other key public services

The Ministry of Justice's HM Courts & Tribunal Service have well established plans to deliver key services to protect the public and maintain confidence in the justice system. Similar plans are in place in the Devolved Administrations.

Annex B - expert advice and guidance

The UK Government and the Devolved Administrations have ensured that all of our actions are based on the best possible evidence, and are guided by the four UK CMOs.

The UK health departments preparations and response are developed with expert advice, ensuring that staff, patients and the wider public can be confident that our plans are developed and implemented using the best available evidence. These groups include:

- the Scientific Advisory Group for Emergencies (SAGE) – Chaired by the Government Chief Scientific Adviser and co-chaired by the CMO for England - provides scientific and technical advice to support government decision makers during emergencies, ensuring that timely and coordinated scientific advice is made available to decision makers to support UK cross-government decisions in the UK Cabinet Office Briefing Room
- the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG) is an expert committee of DHSC and advises the CMOs and, through the CMOs, ministers, DHSC and other Government departments, and the Devolved Administrations. It provides scientific risk assessment and mitigation advice on the threat posed by new and emerging respiratory virus threats and on options for their management
- the Advisory Committee on Dangerous Pathogens (ACDP) - provides independent scientific advice to the Health and Safety Executive, to Ministers in DHSC and DEFRA, and to their counterparts in Scotland, Wales and Northern Ireland on all aspects of hazards and risks to workers and others from exposure to pathogens
- the Scientific Pandemic Influenza Group on Modelling (SPI-M) - gives expert advice to the Department of Health and Social Care and wider UK government and the Devolved Administrations on scientific matters relating to the UK's response to an influenza pandemic (or other emerging human infectious disease threats). The advice is based on infectious disease modelling and epidemiology
- the Joint Committee on Vaccination and Immunisation (JCVI) advises UK health departments on immunisation
- FCO Travel Advice is informed by PHE and DHSC advice and gives British nationals advice on what they need to know before deciding whether to travel and what to do if they are affected by an outbreak of COVID-19 while travelling.

The actions we are taking to tackle the COVID-19 outbreak are being informed by the advice of these committees.

References

- ¹ Chan JF-W, Yuan S, Kok K-H, et al. A familial cluster of pneumonia associated with the 2019 novel coronavirus indicating person-to-person transmission: a study of a family cluster. *Lancet* 2020; 395: 514–23
- ² The Epidemiological Characteristics of an outbreak of 2019 Novel COVID-19 – China 2020 (China CDC Weekly Vol 2 No. x)
<https://github.com/cmriivers/ncov/blob/master/COVID-19.pdf>
- ³ Xu XW, Wu XX, Jiang XG, Xu KJ, Ying LJ, Ma CL, et al. Clinical findings in a group of patients infected with the 2019 novel coronavirus (SARS-Cov-2) outside of Wuhan, China: retrospective case series. *BMJ*. 2020 Feb 19;368
- ⁴ Sun K, Chen J, Viboud C. Early epidemiological analysis of the coronavirus disease 2019 outbreak based on crowdsourced data: a population-level observational study. *Lancet Digital Health* 2020; published online Feb 20. [https://doi.org/10.1016/S2589-7500\(20\)30026-1](https://doi.org/10.1016/S2589-7500(20)30026-1)
- ⁵ Liu Y, Yang Y, Zhang C, Huang F, Wang F, Yuan J, et al. Clinical and biochemical indexes from 2019-nCoV infected patients linked to viral loads and lung injury. *Science China Life Sciences*. 2020 Feb 9:1-1
- ⁶ Chen N, Zhou M, Dong X, Qu J, Gong F, Han Y, et al. Epidemiological and clinical characteristics of 99 cases of 2019 novel coronavirus pneumonia in Wuhan, China: a descriptive study. *The Lancet*. 2020 Jan 30
- ⁷ Huang C, Wang Y, Li X, Ren L, Zhao J, Hu Y, Zhang L, Fan G, Xu J, Gu X, Cheng Z. Clinical features of patients infected with 2019 novel coronavirus in Wuhan, China. *The Lancet*. 2020 Jan 24
- ⁸ Li J, Li S, Cai Y, Liu Q, Li X, Zeng Z, Chu Y, Zhu F, Zeng F. Epidemiological and Clinical Characteristics of 17 Hospitalized Patients with 2019 Novel Coronavirus Infections Outside Wuhan, China. *medRxiv*. 2020 Jan 1
- ⁹ Li, Q., et al Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. *NEJM*. 2020 Jan 29 DOI: 10.1056/NEJMoa2001316
- ¹⁰ Wang X, Yuan J, Zheng Y, Chen J, Bao Y, Wang Y, et al. Clinical and Epidemiological Characteristics of 34 Children With 2019 Novel Coronavirus Infection in Shenzhen. *Zhonghua Er Ke Za Zhi*. 2020; 58(0): E008-E008
- ¹¹ Chen H, Guo J, Wang C, Luo F, Yu X, Zhang W, Li J, Zhao D, Xu D, Gong Q, Liao J. Clinical characteristics and intrauterine vertical transmission potential of COVID-19 infection in nine pregnant women: a retrospective review of medical records. *The Lancet*. 2020 Feb 12

¹² Qiao J. What are the risks of COVID-19 infection in pregnant women?. The Lancet. 2020 Feb 12

¹³ Famulare, M. 2019-nCoV: preliminary estimates of the confirmed-case-fatality-ratio and infection-fatality-ratio, and initial pandemic risk assessment. Institute for Disease Modelling Feb 19 2020 https://institutefordiseasemodeling.github.io/nCoV-public/analyses/first_adjusted_mortality_estimates_and_risk_assessment/2019-nCoV-preliminary_age_and_time_adjusted_mortality_rates_and_pandemic_risk_assessment.html

¹⁴ World Health Organization [Internet]. R&D Blueprint: Coronavirus disease (COVID-2019) R&D; accessed 23rd February 2020. Available from: <https://www.who.int/blueprint/priority-diseases/key-action/novel-coronavirus/en/>

¹⁵ Coalition for Epidemic Preparedness Innovations [Internet]. CEPI launches new call for proposals to develop vaccines against novel coronavirus, 2019-nCoV; accessed 23rd February 2020. Available from: https://cepi.net/news_cepi/cepi-launches-new-call-for-proposals-to-develop-vaccines-against-novel-coronavirus-2019-ncov/

¹⁶ <https://www.gov.uk/government/publications/Responding-to-a-uk-flu-pandemic>

¹⁷ <https://www.gov.uk/government/publications/Responding-to-a-uk-flu-pandemic>

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