

**Covid-19: the UK's preparedness** 

Date:

28 February 2020

From:

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#### Deadline: 2 March 2020

#### **SUMMARY**

- 1. Covid-19 looks increasingly likely to become a global pandemic, although this is not yet certain. The UK's approach, underpinned by science, is currently to <u>contain</u> the small number of cases here and reassure the public. However, a global pandemic will require a step up in our response, as we use additional legal powers, public messaging and difficult policy decisions to <u>delay</u> the onset of any peak and <u>mitigate</u> the worst impacts on everyday life. Throughout these phases we are researching clinical solutions such as diagnostics and a vaccine.
- 2. Based on existing assumptions for a severe pandemic flu outbreak, in a reasonable worst case scenario about half of the UK's population would become ill (many with mild symptoms), and up to 520,000 people could die as a direct result of Covid-19. The scientific advice is to use these numbers for planning they are not a prediction and will be refined as more data becomes available over the coming days and weeks.
- 3. Preparations are well underway, COBR is meeting regularly and our best scientists are advising on when this step up will be needed. Before then we may need to share more of our planning with more people, to put us in the best possible place for what could become a once-in-a-generation event.

#### **COVID-19**

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- 4. Covid-19 is a new type of virus that seems to have originated from an animal population in China and is now being transmitted between humans, in China and elsewhere. Transmission can occur by touching an infected person or object and sprays of droplets and aerosols such as those caused by normal breathing, coughing and sneezing.
- 5. We are still learning about the effect of the virus on humans. About two to six days after infection people experience symptoms such as a cough, temperature and shortness of breath. Most experience mild symptoms. People who experience severe symptoms may be ill for two to three weeks. The risk of severe disease and death is substantially increased in the elderly (60 years and above) and adults with

pre-existing health conditions. Information on children is sparse, but the number of children reported with symptoms appears to be relatively low.

6. Our best scientific advice has concluded that, in the reasonable worst case scenario, the risk of Covid-19 to the UK is similar to that of a severe pandemic flu outbreak, although it may well be less severe than this and we will adjust numbers as new data emerges. In this reasonable worst case scenario, one or several waves of Covid-19 will infect about 80% of the UK population, and up to 1% of this group will die as a direct result of the infection (other NHS patients may also die because of NHS overload but this has not yet been modelled). Some may not experience symptoms and many will experience mild symptoms. The peak of infections is likely to occur two to three months after sustained transmission is detected. As people become ill or those they care for become ill, they will stop working, and in the peak weeks we expect 17-20% of staff to be absent.



#### THE UK STRATEGY

- 7. Our strategy is to protect lives, maintain normal life, limit economic and social impacts and ensure the dignified treatment of the dead. To do this we are preparing for the reasonable worst case scenario described above, with policy decisions informed by the best scientific advice.
- 8. Our tactical aims are to <u>contain</u> the infection if possible, <u>delay</u> the peak if not, ensure we have the best scientific advice and research and <u>mitigate</u> the effects of an epidemic wave on the NHS and wider society.
- 9. We need to strike a balance between taking precautionary steps and overreacting. However, as cases spread across the world the risk of overreacting is reducing. We are now planning for a potential global pandemic that would inevitably spread to the UK, and would put a colossal strain on the resilience of government departments, businesses and citizens.

- 10. The goal is to win the battle against the disease and the battle for public confidence.
- 11. The response will go through phases, from containment and contact tracing for small numbers of cases (the current situation), through to stronger measures if the outbreak escalates (see below). The triggers for moving between phases will be provided by the Chief Medical Officers, informed by an assessment of the Scientific Advisory Group for Emergencies (SAGE) and the World Health Organization.

#### THE DOMESTIC RESPONSE

12. We continue to be ready to deal with UK cases during the containment phase, and are getting ready to deal with many more if the outbreak escalates.

#### Containment

13. Our NHS has tried-and-tested systems to quickly identify and isolate those who may have Covid-19. Large isolation facilities have been established to comfortably and safely house those returning from Wuhan and the Diamond Princess cruise ship. Our ports and airports have guidance to protect our borders. An extended communications and marketing campaign is underway to inform the public about what they can do to contain or slow the outbreak; early next week a plan to explain how the Government will respond to an outbreak will be published. Community tensions are being monitored and managed, including the small number of anti-Chinese incidents reported in the media.

#### Delay

14. Even if it is not possible to contain the epidemic, it may be possible to delay and lower its peak. This has major operational advantages, as it pushes it further beyond the winter pressures on the NHS and lowers the worst pressures. It would lead to a greater scientific understanding of the infection, meaning that we could have a better targeted response. It is possible (but not certain) that transmission would be lower in the spring and summer months.

#### Mitigation

- 15. Across government, we are preparing to deal with a major escalation in the outbreak.
  - a. Managing the peak of the outbreak will require us to have put in place legal powers that we currently do not have. A <u>Bill</u> is therefore being prepared by DHSC, with input from other departments, to streamline services (to enable business continuity in the event of severe staff absences), reduce the pressure on health and care systems and mitigate the spread of infection. It is proposed that this will include powers to

indemnify healthcare workers working outside their usual remit, streamline discharge from hospital, speed up the death registration process, and provide flexibility for schools to change ways of working (e.g. staff ratios or attending different institutions). It is being done in cooperation with the Devolved Administrations, and will lapse once the pandemic is over.

- b. <u>Communications</u> will be one of our most powerful levers. A crossgovernment strategy is being implemented to explain the outbreak to the public and encourage them to take preventative steps (e.g. regular handwashing), reassure people that the Government is prepared and defuse tensions as they arise. Some communications have been public, others have been limited to government departments and trusted partners in the private sector. Disinformation will continue to be detected and managed.
- c. <u>A decisions timeline</u> is being developed by Officials who have worked through the key decisions ministers may be required to make in a reasonable worst case scenario (see below and table in annex).

#### MAJOR POTENTIAL DECISIONS

- 16. The pace of COBR is stepping up, usually chaired by the Health Secretary. Its focus is moving from the management of short term issues (e.g. repatriation flights) to the difficult policy decisions that may be required in the weeks and months ahead (e.g. providing local authorities with guidance on the management of large numbers of deceased). All these need to be underpinned by the best science advice, strong communications, Treasury funding and cooperation with the Devolved Administrations.
- 17. When and if SAGE assesses that we are possibly moving towards some variant of the reasonable worst case scenario (by which time we would hope to have more accurate numbers), the decisions that may be required include:
  - a. when to stop port health measures and contact tracing;
  - b. how 'at risk' groups are supported (e.g. the elderly in care homes), which may need to differ from the wider population;
  - c. who is prioritised for healthcare and PPE as the NHS becomes unable to provide usual service levels, for coronavirus and non-coronavirus patients, and for vulnerable people;
  - d. how to keep key staff (e.g. nurses) in work, and how to make the most of the voluntary sector;
  - e. whether we discourage public gatherings and close schools, if the science advice says this will have an impact on the outbreak;
  - f. how to keep the prison and probation system operating;
  - g. which economic interventions are needed to support local and national economies during the pandemic;

- h. whether to advise people against travelling and interacting, potentially reducing or delaying the outbreak but damaging the economy;
- i. how to maintain and protect our international network, and support other countries, working with the FCO/DFID Taskforce; and
- j. whether to activate plans to transport, store and dispose of the deceased people (such as the procurement of refrigerated facilities or the establishment of large cemeteries).
- 18. Alongside the proactive decisions above, some choices for ministers will be on whether *not* to take certain measures. We have seen some other countries close their borders and quarantine entire towns to try and contain the outbreak. However, the UK relies on the flow of goods and services with other countries and policing by consent. Decisions will need to be taken based on the best science and policy advice, which may differ from other countries.
- 19. You may want to consider which decisions you will lead on. We recommend that you lead on the most visible step changes in our response, such as when we move from trying to contain the outbreak to delaying its eventual peak. You may also want to lead on decisions where the impact cuts across multiple sectors and government departments.

#### NEXT STEPS

- 20. As the global picture continues to deteriorate, we cannot wait until there is sustained transmission in the UK before taking steps to protect the UK. Once the outbreak spreads here we will not have time to both prepare and respond.
- 21. That is why Ministers are considering:
  - a. more proactive cross-government communications, including to businesses, and including about the difficult steps that may need to be taken (e.g. management of large numbers of deceased);
  - b. funding mechanisms for the response, since the current Treasury process will need to be expedited;
  - c. further guidance on managing a response for a wider range of stakeholders, including to businesses (inc. SMEs) who may experience disruption, and local authorities on the management of increased numbers of deceased and the wider impacts on communities; and
  - d. whether the UK's current repatriation strategy is sustainable as the outbreak becomes more widespread.

This paper has been written by the Civil Contingencies Secretariat, in consultation with the Chief Medical Officer for England, the Government Chief Scientific Adviser, and the Health Secretary

Annex A – Government Response Summary

	Infection curve, indicative only	Recovery		Economic recovery package	es (inc. Spending Review remedial work (e.g. education)	Reopen government services			Long term supply chain disruption	(aiready likely) • Vaccines				
Mitigate		Widespread outbreak	Decisions	<ul> <li>Incentivise key staff (e.g. health)</li> </ul>	<ul> <li>Public-facing government service probation)</li> </ul>	<ul> <li>Economic interventions</li> </ul>	<ul> <li>Prioritise critical goods</li> </ul>	Activities	<ul> <li>Respond to concurrent risks</li> </ul>	<ul> <li>Excess deaths management</li> </ul>				Activities
Delay		Sustained transmission	Ministerial (	Public gatherings	Education institutions and exams	<ul> <li>International network</li> <li>Prioritise justice system</li> </ul>	Activation of death management plans	Supporting	Actively monitor CNI sectors	<ul> <li>Protect critical workforces and vulnerable groups</li> </ul>	Civil service business continuity	Travel advice		Ongoing A
Contain		Small number of traced cases		Proactive communications approach	Border policy	Repatnation strategy Legislation			Map supply chains, stockpiles and	criucal worktorces Identify vulnerable groups	Travel advice	Economic intervention planning	Determine capacity for death management	

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#### **PRIME MINISTER'S COMMENTS:**

cc:

Secretary of State for Health and Social Care Government Chief Scientific Adviser Chief Medical Officer for England Chancellor of the Duchy of Lancaster and Minister for the Cabinet Office Paymaster General Mark Sedwill Beth Sizeland NR Imran Shafi

 NR

 Edward Lister

 Dominic Cummings

 Martin Reynolds

 Ben Warner

 NR

 James Slack

 NR

 Lee Cain

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# Coronavirus: action plan

A guide to what you can expect across the UK

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## Introduction

#### The purpose of this document

- 2. 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 way that offers substantial protection to the public.
- 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.
- 4. 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.
- 5. 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.

# What we know about the virus and the diseases it causes

- 6. 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.
- 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.
- 8. On 30th January 2020, WHO declared the outbreak of COVID-19 a "Public Health Emergency of International Concern" (PHEIC).
- 9. Based on current evidence, the main symptoms of COVID-19 are a cough, a high temperature and in severe cases shortness of breath.
- 10. As it is a new virus, the lack of immunity in the population 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 also more likely than not that the UK will be affected. Among those who become infected, some will exhibit no symptoms.<sup>1</sup> Early data suggest that of those who develop an illness, the great majority<sup>2</sup> will have a mild-to-moderate, but self-limiting illness similar to seasonal flu.<sup>3</sup>
- 11. However it is also clear that a minority of people who get COVID-19 will develop pneumonia severe enough to require hospital care.<sup>4</sup> In a small proportion of

<sup>4</sup> 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

<sup>&</sup>lt;sup>1</sup> 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

<sup>&</sup>lt;sup>2</sup> The Epidemioloigcal Characteristics of an outbreak of 2019 Novel COVID-19 – China 2020 (China CDC Weekly Vol 2 No. x) https://github.com/cmrivers/ncov/blob/master/COVID-19.pdf

<sup>&</sup>lt;sup>3</sup> 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.

these, the illness may be severe enough to lead to death.<sup>5</sup> So far the data we have suggest that the risk of severe disease and death increases with age and in people with underlying health risk conditions (in the same way as for seasonal flu).<sup>67</sup>Illness is less common and usually less severe in younger adults.<sup>8</sup> <sup>9</sup>Children can be infected and can have a severe illness<sup>10</sup> 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 badly affected.<sup>11</sup> <sup>12</sup>

- 12. Given that the data is 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.
- 13. We do not yet have entirely complete data on this disease. But as we learn more about the virus, its effects and its behaviour, we will be able to revise estimates of its potential spread, severity and impact.<sup>13</sup> We will then review, and (where necessary) adapt this plan accordingly.

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> Li, Q., et al Early Transmission Dynamics in Wuhan, China, of Novel Coronavirus-Infected Pneumonia. NEJM. 2020 Jan 29 DOI: 10.1056/NEJMoa2001316

<sup>10</sup> 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

<sup>11</sup> 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.

<sup>12</sup> 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 infectionfatality-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

<sup>&</sup>lt;sup>5</sup> Liu Y, Yang Y, Zhang C, Huang F, Wang F, Yuan J, et al. Clinical and biochemical indexes from 2019nCoV infected patients linked to viral loads and lung injury. Science China Life Sciences. 2020 Feb 9:1-1.

<sup>&</sup>lt;sup>6</sup> 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.

14. At present, there is neither a vaccine against COVID-19 nor any specific, proven, antiviral medication.<sup>14</sup> <sup>15</sup> Therefore, most treatment given will 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.

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

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

# How the UK prepares for infectious disease outbreaks

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

Pandemic	Area of	Estimated	Estimated	Estimated	Age	Status
	emergence	case fatality ratio*	attributable excess mortality worldwide	attributable excess mortality in the UK	groups most affected (simulated attack rates)	đ
"Onesish Elu"			00.50			-
Spanish Fiu (H1N1) 1918 – 1919 (influenza)	Unclear	2%	20 - 50 million	200,000	Young adults	Severe pandemic
"Asian Flu"	Southern	01-	1 - 4 million	33,000	Children	Moderate
(H2N2) 1957 – 1958	China	0.2%	1 - 4 minor	55,000	Children	pandemic
(influenza)	0					
(H3N2) (H3N2) "Hong Kong Flu" (influenza)	China	0.2 – 0.4%	1 – 4 million	80,000	All age groups	Mild- moderate pandemic
"Swine Flu" (H1N1) 2009 – 2010 (influenza)	Mexico	<0.025%	18,000	457	Children, young adults and pregnant women	Very mild pandemic
"Middle East Respiratory Syndrome"(dates) (coronavirus)	Middle East	34%	861	0	Elderly (60+)	Very severe disease; continuing pandemic threat
"Serious Acute Respiratory Syndrome" (2003-xxx) (coronavirus)	China	15%	774	0	Middle aged adults (45 - 65)	Severe disease; pandemic 'near-miss'
Seasonal flu epidemic January 1989 to February 1990	UK	Data not available	Not applicable	26,000 excess deaths in England & Wales	Elderly 75+	Severe seasonal epidemic

\*the proportion of people who became ill with symptoms and subsequently died

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#### Major respiratory virus outbreaks

- 16. 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 (cf. existing plan 'flu plans<sup>16</sup>). Our plans have been regularly tested and updated 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.
- 17. These plans ensure the UK is equipped to respond effectively 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.
- 18. 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

- 19. In preparing for, and responding to, a serious disease outbreak, the UK aims to:
  - 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

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

- 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.
- 20. The UK Government and the Devolved Administrations plan 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.
- 21. The fundamental objectives are to deploy phased actions to **Contain**, **Delay**, and **Mitigate** any outbreak, using **Research** to inform policy development.



[Graphic to be updated]

#### Escalating response

- 22. 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.
- 23. 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, and innovate responses including diagnostics and vaccines
- 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.

### Our response to the current coronavirus outbreak

#### Planning

- 24. There is similarity between COVID-19 and influenza (both are respiratory infections), but also some important differences. Consequently, contingency plans developed for pandemic influenza<sup>17</sup>, 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.
- 25. 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 in Emergencies (SAGE) provides science advice. The UK governments' four Chief Medical Officers continue to provide expert advice to the health and social care systems across the UK, and to government agencies in all parts of the UK involved in responding to this outbreak.
- 26. System wide response plans for Pandemic Influenza, focused on continuity of public and critical services and the stability of the economy have been adapted for COVID-19, based on scientific advice. For the latest information on the current situation please refer to: <u>https://www.gov.uk/guidance/wuhan-novel-coronavirus-information-for-the-public</u>
- 27. 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: Actions to date

28. As there are already cases in the UK, the current emphasis is on the **Contain** phase and **Research**, but planning for **Delay** and **Mitigation** is already in train.

#### Contain

29. Public health agencies and authorities and the NHS in all parts of the UK have established plans and procedures to detect the first cases of COVID-19 as they

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

emerge in the UK. Public Health England (PHE) has 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.

- 30. 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.
- 31. New regulations introduced under public health legislation provide new powers for medical professionals and the police to allow them to detain and direct individuals in quarantined areas at risk or suspected of having the virus.
- 32. As part of the port health measures, direct flights arriving into the UK from countries defined in PHE case definition (expect northern Italy), 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.
- 33. The NHS 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.
- 34. The NHS has provided 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.
- 35. The NHS has 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.
- 36. Once a case has been detected, PHE has used its tried and tested procedures for rapid tracing, monitoring and isolation of close contacts with the aim of preventing further spread.
- 37. We maintain 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.

- 38. 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 to ensure people with symptoms are given appropriate advice. Public health advice has been widely publicised and is regularly updated at <u>https://www.gov.uk/guidance/wuhan-novel-coronavirus-information-for-thepublic</u>
- 39. FCO Travel Advice 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.
- 40. Advice has been provided to first responders, employers, the justice system (including prison and probation services), schools and the adult social care sector. The Department for Education is providing advice within educational settings and this can be found on Public Health England's website. A dedicated DfE helpline is being set up, which aims to manage the flow of increasing queries, both from education providers and from parents of pupils.
- 41. All NHS emergency and urgent care facilities are working to establish coronavirus assessment services to lessen impacts to Emergency Departments.
- 42. The safety and security of our British Nationals 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 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

#### Delay

- 43. 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.
- 44. 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.
- 45. 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 and economic costs where the benefit of doing them to

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

46. 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 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.

#### Research

- 47. The UK Government is liaising with UKRI and other funders to support and coordinate research during the COVID-19 outbreak.
- 48. PHE rapidly developed specific tests for this coronavirus, in partnership with WHO and a global network of laboratories. This has been rolled out to NHS laboratories across the UK to enable faster confirmation of positive diagnoses.
- 49. The UK Government has 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.
- 50. The UK Government has also additionally announced £20 million for COVID-19 research via a joint rapid research call between UK Research and Innovation and, through DHSC, the National Institute for Health Research (NIHR). This asks for proposals for projects to develop vaccines, therapeutics, diagnostics or to address the epidemiology, spread or underpinning knowledge of COVID-19.
- 51. DHSC also provides long term support to NIHR Health Protection Research Units, each a partnership between a university and Public Health England. A number of these are involved in research in relation to the COVID-19 epidemic.
- 52. 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 including research on how to respond to infectious disease outbreaks such as COVID-19.
- 53. 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. Both this group and others have developed tools to prepare for infectious disease outbreaks include real time infectious disease models, allowing policy decisions to be make 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

- 54. An effective response also requires the active participation of a well-informed public. 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 <u>www.nhs.uk</u>, <u>www.scot.nhs.uk</u> and <u>www.gov.uk</u>
  - 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 through reducing vaccine-preventable diseases
  - Checking on elderly or vulnerable family, friends and neighbours
  - Using NHS 111, pharmacies and GPs responsibly and only visit hospital when you really need to:

https://www.nhs.uk/using-the-nhs/nhs-services/urgent-and-emergencycare/when-to-go-to-ae/

- Being understanding of the pressures the NHS and social care may be under and receptive to changes that may be needed to the provision of care to you and your family.
- Keep checking for new advice as the situation changes

#### What we will do next:

55. 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.

- 56. The decision to step up the response from **Contain** to **Delay** and then **Mitigate** will be taken on advice from the Chief Medical Officers, taking in to account the degree of sustained transmission and evident failure of measures in other countries to reduce spread.
- 57. 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 and local authorities have plans in place to ensure people receive the essential care and support services they need. 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").
- 58. 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 is 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.
- 59. 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.
- 60. The Government would also step up the central co-ordination of the 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.
- 61. There will be daily meetings between the UK Government and the NHS 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.

#### Delay

62. 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, the NHS is 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.

- 63. 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.
- 64. 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 scientific evidence and take into account the trade-offs involved. Action that would be considered could include population distancing strategies (such as school closures, encouraging greater home working) to slow the spread of the disease throughout the population, whilst ensuring the country's ability to continue to run as normally as possible.
- 65. The effectiveness of these will need to be balanced against their impact on society.

#### Research

- 66. 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.
- 67. The UK Government will keep emerging research needs under close review and progress research activities set out above.

#### Mitigate

- 68. 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 less emphasis on large scale preventative measures such as isolation, and intensive contact tracing. As the disease becomes established, these measures may lose their effectiveness and resources would be more effectively used elsewhere
  - 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 and medical devices.
- 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, e.g. 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/individual contacts HMRC about falling behind on their tax
- as NHS staff start also to become affected, and more seriously ill patients require admission, clinicians may recommend a 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.
- 69. 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.
- 70. 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, then extend to social care and other sectors as appropriate.
- 71. We will consider legislative options, if necessary, to help systems and services work more effectively in tackling the outbreak.
- 72. The UK's health and social care systems will start to implement their business continuity plans, which cover:
  - minimising the risk of infection to patients and those receiving care
  - the 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.
- 73. 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.
- 74. 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.
- 75. 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:

https://www.gov.uk/government/publications/guidance-to-employers-andbusinesses-about-covid-19

76. Businesses should also ensure that they keep abreast of the situation as it changes; the most up-to-date information is available at: <u>www.gov.uk/coronavirus</u>.

# Annex A - responsibilities for pandemic preparedness and response

#### National responsibilities

- 1. 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 in Emergencies is responsible for ensuring that a single source of coordinated scientific advice is provided to decision makers in COBR.
- 3. The NHS works in partnership with Local Resilience Forums on pandemic preparedness and response delivery in healthcare systems in England. PHE provides specialist technical expertise to support both planning and delivery arrangements in England. These organisations have developed plans for coordinating the response at a national level and supporting local responders through their regional structures. The tri-partite partnership of the English Department of Health and Social Care (DHSC), PHE and NHS England provide 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.
- 4. PHE leads on 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, the NHS 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 four UK countries.

#### Local/Regional responsibilities

5. In England (and Wales), local organisations, working jointly through the Local Resilience Forums, 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.

#### Multi-agency working

- 6. 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 - <u>www.nhs.uk/quickguides</u>.

#### Other key public services

8. 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.

## 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 is guided by the four UK CMOs.
- 2. 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 crossgovernment decisions in the UK Cabinet Office Briefing Room
  - the New and Emerging Respiratory Virus Threats Advisory Group -NERVTAG is an expert committee of the Department of Health and Social Care 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, and Ministers for the Department of Health and the Department for Environment, Food and Rural Affairs, and their counterparts under devolution in Scotland, Wales and Northern Ireland, as required, 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.

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

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