Rapid policy briefing

Ethical considerations in responding to the COVID-19 pandemic

17 March 2020

The Government has indicated a number of further public health measures may be needed in order to manage the COVID-19 pandemic in the UK. The current situation (as of 17 March 2020) is summarised in the annex, including an overview of the Government's action plan of 'contain, delay, research and mitigate'.

The following review of ethical considerations draws on the findings of a number of in-depth inquiries conducted by the Nuffield Council on Bioethics, including those concerned with public health,[1] solidarity,[2] and research in global health emergencies.[3] For further commentary on the ethical considerations associated with research into COVID-19, see the Nuffield Council blog *The ethical imperative of preparedness*.[4]

Summary

Public health measures need to take into account the following ethical principles:

- Interventions should be evidence-based and proportionate. The aim(s) of the interventions being implemented, and the science, values and judgments underpinning those interventions, should be clearly communicated to the public.
- Coercion and intrusion into people's lives should be the minimum possible consistent with achieving the aim sought.
- People should be treated as moral equals, worthy of respect. While individuals may be asked to make sacrifices for the public good, the respect due to individuals should never be forgotten in the way in which interventions such as quarantine and self-isolation are implemented.
- Solidarity is crucial: at the international level, between governments; in support from the state for those bearing the costs of interventions; by businesses in how they exercise their corporate social responsibility; and at the individual level in the way we all respond to the outbreak in day-to-day life.

ETHICAL CONSIDERATIONS FOR STATES

Proportionality, effectiveness, and necessity of interventions

Many public health interventions, including some of those being considered or already implemented as part of the Government's coronavirus action plan, involve intrusion by the state in the private interests of individuals, either in order to protect the interests of others, or for the wider public good. Such trade-offs between competing interests raise difficult ethical questions. Interventions that interfere with personal liberties need to be carefully and transparently justified, both by reference to the good which they aim to achieve (including clarity as to the precise nature of the Government's health goals), and by reference to the evidence supporting their likely effectiveness.

The trade-offs involved in introducing many public health measures become particularly challenging when the intrusion into personal liberties has significant social, economic, and health effects on individuals (as in the significant lost income that may result from self-isolation) – and/or where the benefit of these interventions may at times be for others, rather than those experiencing these negative effects. **As a general principle, when seeking to attain appropriate public health goals, the state should minimise as far as possible the degree of intrusion or coercion in people's private lives and choices.**

Any intervention should be proportionate to the effect that it is intended to achieve. Robust evidence that the intervention will be effective in achieving the desired aim is important in demonstrating that the intervention represents a proportionate response to the particular health threat. In the absence of such evidence, interventions held to be necessary should be accompanied by an evidence-gathering programme. The more intrusive the intervention, the stronger the justification and the clearer the evidence required. For example, compulsory quarantine, or asking people to 'self-isolate' in their homes for long periods of time, are significantly more intrusive than encouraging people to practise good hygiene and avoid direct contact such as shaking hands, and hence require greater justification. It is unlikely that intrusive measures will be proportionate if less intrusive means are likely to be as effective.

Contact-tracing, isolation of people with confirmed disease, and quarantine of those with close contact to diagnosed patients, are all well-established and evidence-based public health measures for responding to infectious disease outbreaks.[5] As such, their use in outbreaks such as the current COVID-19 pandemic can readily be justified, despite the impact on the individuals concerned. In the absence of an effective vaccine, these are also the only methods available for containing outbreaks. There is, however, little or no evidence to date on the impacts of closing down whole cities or regions, as happened in Hubei province in China, and increasingly in other countries such as Italy and Spain. Such interventions go well beyond standard quarantine practice in that they apply to large numbers of healthy individuals, as well as to those who are either already ill, or have increased risk of infection through close contact with known cases. A WHO representative in China was cited as describing such 'lock-downs' as 'unprecedented' and beyond current WHO recommendations, while commending the commitment of authorities in China to contain the virus.[6] Research designed to evaluate the impact of such lockdowns will be very important in helping determine both their effectiveness and their social costs in areas such as mental health, jobs and livelihoods, and hence the proportionality of the use in their future.[7]

In addition to considering the likely impact on personal liberties, other negative effects of

potentially effective interventions also need to be taken into account when considering proportionality of response, including the scope for significant impact on business, and hence on people's livelihoods (especially for those whose situation is precarious). In emergencies, there is a risk that the suffering directly arising out of the emergency (in this case the health effects of COVID-19) is automatically prioritised over existing causes of suffering. In making judgments about the proportionality of interventions in response to the emergency, it is essential that governments also keep in view other, often equally pressing, needs. England's Chief Medical Officer, Chris Whitty, has emphasised that an important part of the current approach of household isolation and avoidance of unnecessary social contact, is to reduce the pressure on the NHS and avoid the risk of 'indirect deaths' – deaths from non-COVID-19-related reasons – resulting from health services being overwhelmed.

A number of challenging trade-offs are emerging in consideration of possible interventions in the Delay phase of the Government's action plan. Closing schools not only disrupts children's education – for some, at a critical time for exams that influence future career options – it also has a substantial impact on the workforce, with many parents unable to work because of childcare responsibilities. This in turn could lead to serious staffing shortages in key services, including the NHS and social care. Alternatively, it could lead to grandparents taking on childcare responsibilities – even though older people are those who are at greatest risk of suffering severe disease from the virus. Advice to older people to stay at home and avoid social contact, or prohibition on outside visitors coming into care homes, may reduce the risk of the most vulnerable groups becoming infected – but may also have significant consequences with respect to people's mental health and general well-being, especially if such restrictions continue over an extended period.[8] This is of particular concern given the pressures that are likely to be experienced in the social care system, and the risks that (despite the encouragement of personal and community solidarity, as described below) some vulnerable individuals may find themselves without adequate support and social contact. Such consequences should form an important part of the risk-benefit analysis in determining the extent to which proposed benefits will indeed contribute to the reduction of suffering.

Public justification and maintaining trust

Trust is essential in order to maintain support on the part of the general public for the measures proposed: without such trust, compliance with those measures is likely to be low. **Clear and trustworthy public communication on the part of governments, providing transparent and convincing justifications for the decisions taken, is particularly important in helping create and maintain such trust**.[9] Recent challenges to Government policy on the part of a number of scientists[10] highlight the importance of clear public justification – for example through publishing the modelling assumptions that underpin the advice provided by expert committees, and being frank about what is, and is not known, and about how the difficult trade-offs involved are being approached.

A crucial part of such public justification includes clarity as to the overall aims of the Government's public health strategy, as illustrated by the concerns arising out of uncertainty as to whether or not 'herd immunity' to COVID-19 is an aim, or simply a side-effect, of Government policy.[11] If the pressures on health services reach the point when prioritising or rationing care becomes unavoidable, it will similarly be important for decision-makers to develop fair and impartial criteria for allocating scarce healthcare resources that can be seen to be publicly justifiable.[12]

Fair and respectful treatment

The *manner* in which public health interventions are introduced and managed is also ethically significant. While it may in some circumstances be proportionate to restrict people's liberties (even in quite draconian ways, such as through extended quarantine), this must be done in a way that **shows respect for them as individuals – of equal moral worth with all others**. At a personal level, this requires courtesy and honest, respectful communication between those acting on behalf of the state and the individuals concerned. It also places a duty on the state to make sure that those who are effectively deprived of their liberty do not suffer in other ways as a result. The appreciation showed to NHS staff and others at Arrowe Park by the group of UK residents quarantined after returning from Wuhan demonstrated how important kind and respectful treatment had been on a personal level – and also for gaining wider public trust.[13] Treating people with respect also involves providing them with clear and timely information about the development of the pandemic and potential risks to individuals, to enable them to make choices about the conduct of their own lives (for example about social interaction) in situations not covered explicitly by public health measures.

Solidarity: ensuring just sharing of burdens

The state has a strong duty, founded in solidarity, to ensure that those who are asked to bear burdens in order to protect others (for example, self-isolating with minor symptoms), are supported in ways that ensure they do not suffer materially. This moral duty is reinforced by the practical consideration that if people cannot afford to pay their bills, they are unlikely to comply with the proposed restrictions.

The importance of ensuring that those who are unable to work because they are self-isolating are able to afford their daily living expenses has been raised in recent parliamentary debates.[14] In response, the Government has announced that statutory sick pay (SSP) will be paid from the first day of illness (rather than the fourth); that those self-isolating should be eligible even if they are not currently ill; and that Universal Credit will be payable to those workers who do not qualify for SSP.[15] Concerns have nevertheless been raised as to the adequacy of these benefits, which in most cases will fall far short of normal earnings for those concerned. Campaigners are calling for further measures to protect vulnerable private tenants, including rent freezes and protection from eviction, particularly in the light of action by some banks to offer mortgage 'holidays' to homeowners unable to meet mortgage payments because of COVID-19.[16] The needs of others who may be particularly vulnerable to the impacts of COVID-19, such as refugees and undocumented migrants, also need to be taken into account.[17]

In the light of the latest advice for people to stay away from any places where close social contact is unavoidable, such as restaurants, cinemas, theatres, pubs, and clubs, considerable concern has been expressed about the impact on business – especially as these businesses have not directly been instructed to close, which might have enabled them to claim on their insurance.[18] There have been calls for further financial support from Government, amid fears that thousands of businesses may close for good.[19]

States have particular duties in solidarity towards healthcare workers, given the additional burdens they bear on the front-line of care, and the additional risks to which they are exposed. The World Health Professions Alliance has highlighted the urgent need to ensure that such workers have access to crucial personal protective equipment, as well as the importance

of ensuring they have adequate breaks during and between shifts, and support services in recognition of the burden on their psychological health.[20]

International solidarity

Solidarity is also important at international level: emergencies such as the COVID-19 pandemic illustrate very clearly how inter-connected and interdependent nation states are. Financial and logistical support for less well-resourced countries will be essential in order to ensure that the global pandemic is brought under control. The research required to develop effective treatments and vaccines also depends on international collaboration, and on adequate funding from both governments and philanthropic organisations.

ETHICAL CONSIDERATIONS FOR INDIVIDUALS AND COMPANIES

While the ethical considerations outlined above apply primarily to the decisions made by states in response to major threats to public health, such situations also have ethical implications for individual citizens, and for parts of the commercial sector. In particular, public health emergencies illustrate the need to behave in accordance with **solidarity – recognising what we owe each other as fellow, equal human beings**. While for many people contracting COVID-19 is likely to involve only mild illness, a significant minority of the population may experience serious illness, and some will die as a result. This places an ethical responsibility on everyone to take measures such as good hand hygiene seriously, and to comply with the policy of self-isolation even for quite minor symptoms – not necessarily for personal benefit, but to ensure that those who are most vulnerable to serious illness are protected from infection as much as possible.

The recognition of the needs of others that underpins solidarity is also important in other day-to-day behaviours, including in taking a balanced approach to stocking emergency provisions (for example in contemplation of the likelihood of being expected to self-isolate for a week or more) without panic buying in a way that deprives others of access to essential items. Other day-to-day aspects of solidarity include the importance of neighbours, family and friends providing informal support for those in need – particularly those who are unable to leave their homes to obtain basic necessities, or are left isolated and lonely because of shortages of care staff, or as a result of social distancing policies. It has been reported that thousands of people are joining local community groups to support vulnerable neighbours, from picking up shopping and medicines, to offering to teach music online.[21] As noted above, **trust** is essential to support solidaristic behaviour on the part of the general public: trust in the Government and its approach to the emergency, and also trust that others will behave in ways that demonstrate, and do not undermine, solidarity.

Companies also have a duty to act in the public interest during emergencies, demonstrating **corporate social responsibility** in areas of their own influence. Examples of such action in the current outbreak include partnerships between social media companies, internet search engines, and governments to combat fake news and help ensure that accurate information (for example from the NHS, Public Health England, and the World Health Organization) is easy for people to find online.[22] Major retailers are well-placed to support action against bulk-buying of key items, both through communicating clearly with their customers to reassure them that supply lines are open; and where necessary limiting the number of items that each customer can buy in one transaction. Online retail platforms such as Amazon and eBay also have a responsibility to take action against profiteering, where essential products such as hand sanitisers and protective equipment such as masks are being sold at highly inflated rates in response to shortages.[23]

Annex

While the preceding note provides a general commentary on the ethics of public health interventions in the COVID-19 pandemic, the details in this Annex represent current data, as of 17 March. Updated data and information can be found on websites of the World Health Organization,[24] Public Health England,[25] Department of Health and Social Care,[26] NHS,[27] the NHS 111 coronavirus service,[28] and GOV.UK.[29]

Background

- COVID-19 is an infectious respiratory disease caused by the most recently discovered coronavirus, SARS-CoV-2. This new virus and disease were unknown before the outbreak began in Wuhan, China, in December 2019.[30]
- The virus has now spread to well over 100 countries, and more than 180,000 people are known to have been infected.[31]
- The disease is thought to spread from person to person primarily through small droplets which are spread when a person with COVID-19 coughs, sneezes, or exhales.
- A recent study has found it takes five days on average for people infected with COVID-19 to start showing symptoms.[32] The risk of catching COVID-19 from someone with no symptoms at all is very low.[33] People are thought to be most contagious when they have obvious symptoms, like cough and fever.
- Illness due to COVID-19 infection is generally mild, especially for children and young adults. However, it can cause serious illness: about one in every five people who catch it may need hospital care. Older people, and those with underlying medical problems like high blood pressure, heart or lung problems, cancer or diabetes, are more likely to develop serious illness.[34]

The UK Government response

The UK Government published its coronavirus action plan on 3 March, setting out four stages: Contain, Delay, Research, Mitigate.[35] At the time of publication, the emphasis was on the Contain and Research phases, with planning for Delay and Mitigation in train. On 12 March, the Prime Minister announced that the UK would be moving from the Contain to the Delay stage.[36]

- **Contain**: detect early cases, follow up close contacts, and prevent the disease taking hold in the UK for as long as is reasonably possible.
- **Delay**: slow the spread in the UK. If it does take hold, lower the peak impact and push 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.

THE CONTAIN PHASE

The Contain phase seeksto reduce further human-to-human transmission by keeping individuals in isolation if they have contracted the virus or under quarantine if public health professionals believe there is a reasonable risk an individual may have been infected.

- 'Isolation' refers to restrictions on the activities of a person who is known to be infected. Initially people with COVID-19 were being treated in specialist isolation units, but as numbers of cases have risen, people have been advised to self-isolate at home, with only serious cases being taken into hospital for treatment and monitoring.
- 'Quarantine' refers to restrictions on the activities of a healthy person or group of people suspected of having been exposed to COVID-19 – and who therefore might go on to develop it. China[37] and Italy[38], the countries with the highest number of cases, have both introduced strict quarantine measures to reduce the spread of COVID-19.

What has been done so far?

In the UK, the Health Protection (Coronavirus) Regulations 2020[39] were introduced to allow authorities forcibly to quarantine or isolate someone infected with COVID-19 if they pose a threat to public health. While these Regulations allow for non-consensual action if necessary, the main focus within the UK to date has been on voluntary action, supported by clear public information and public health measures to identify those potentially affected.

Examples of containment procedures enacted have included:

- contact-tracing for each known case of COVID-19, with identified contacts requested to self-isolate;[40]
- mandatory quarantine of UK citizens evacuated from Wuhan,[41] and from affected cruise ships;[42]
- returning travellers from certain countries / areas being asked to self-isolate;[43] and
- widely publicised and regularly updated public health information, including encouragement for regular and effective hand hygiene, in order to minimise person-to-person transmission.[44]
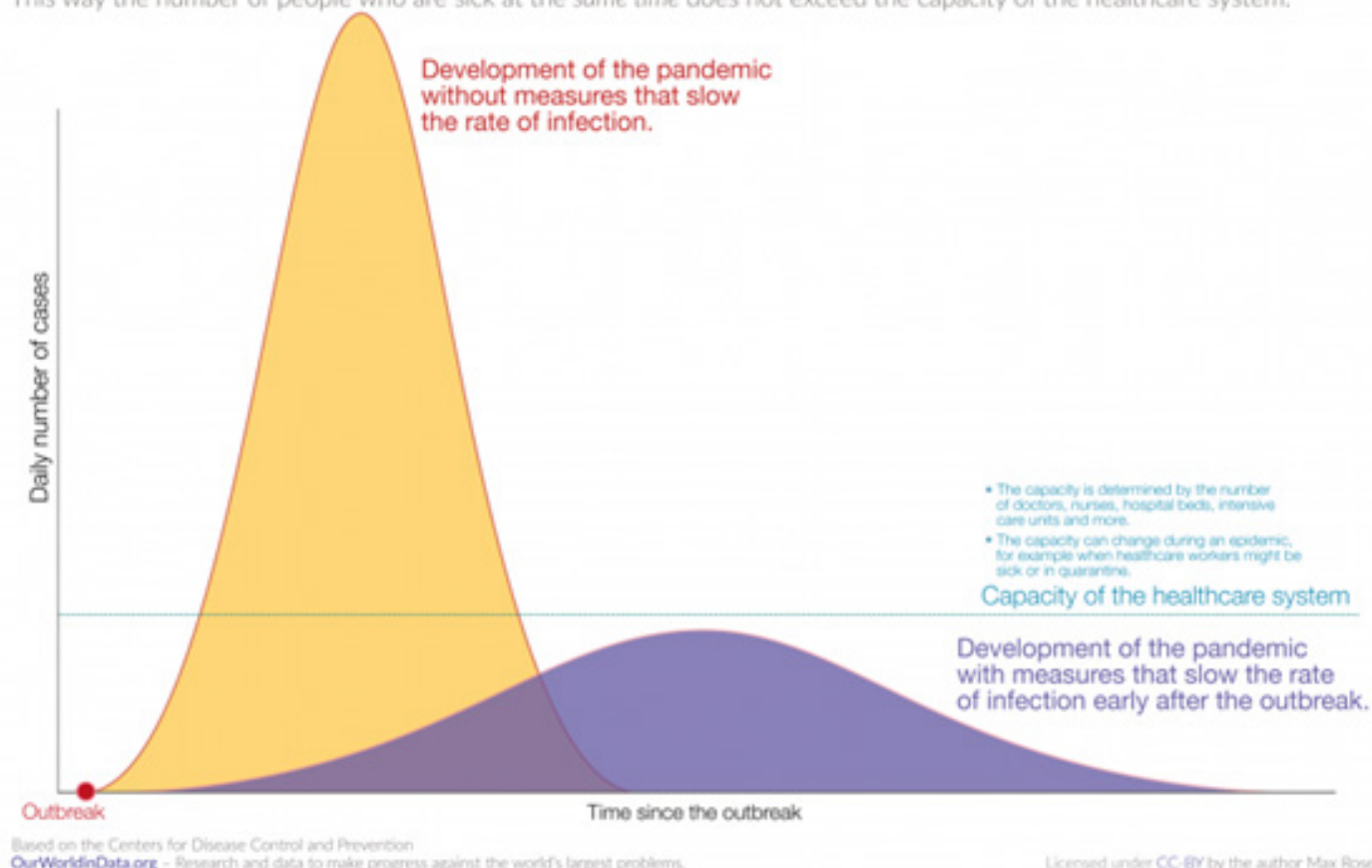
THE DELAY PHASE

The Delay phase involves applying restrictions in areas such as travel, social gatherings and activities that bring lots of people together such as schools and workplaces ('social distancing'). The aim of limiting social contact in this way is not only to reduce the total number of cases if possible, but also to ensure that cases are more spread out, as illustrated in the graph below.[45] This will enable hospital services to cope better, and should help reduce the extent to which healthcare professionals have to make difficult decisions as to how to prioritise resources, and which patients to treat.[46] Delaying the peak of the epidemic also allows more time for research into potentially valuable interventions to be conducted, although it is unlikely that a vaccine can be made widely available in less than a year.

In the outbreak of an epidemic *early* counter measures are important

Their intention is to 'flatten the curve': to lower the rate of infection to spread out the epidemic.
This way the number of people who are sick at the *same time* does not exceed the capacity of the healthcare system.

Development of the pandemic without measures that slow the rate of infection.

Daily number of cases

- The capacity is determined by the number of doctors, nurses, hospital beds, intensive care units and more.
- The capacity can change during an epidemic, for example when healthcare workers might be sick or in quarantine.

Capacity of the healthcare system

Development of the pandemic with measures that slow the rate of infection early after the outbreak.

Outbreak

Time since the outbreak

Based on the Centers for Disease Control and Prevention
OurWorldinData.org – Research and data to make progress against the world's largest problems.

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What is the current situation?

- **Increased self-isolation**: as of 12 March, Government requested that anyone with either a high-temperature or a new, continuing cough should self-isolate at home for seven days.[47] On 16 March, this advice was extended to include all those living in the same household of a person with symptoms, and the seven day period was extended to 14 days. Where possible, self-isolating households should ask for help from others to obtain supplies; where this is not possible, any contact in going shopping should be minimised.[48]

- **Social contact and travel**: as of 16 March, everyone is asked to stop non-essential contact with others, and stop all unnecessary travel. Anyone able to work from home is asked to do so, and venues such as pubs, clubs, theatres and restaurants should be avoided.

- **Specific guidance to vulnerable groups**: people aged 70 or over, those with underlying health conditions (for example those routinely offered the annual flu jab), and pregnant women are asked to pay particular attention to the advice on social contact. It is envisaged that by the weekend (21-22 March) people in these groups will be asked to avoid all social contact for a period of 12 weeks, in order to shield them from infection. Given that this is a difficult and disruptive measure, it will be timed for maximum effect, at what is expected to be the peak of the disease: when it is thought it will make the biggest difference to slowing the spread of the disease, reducing the overall numbers affected, and reducing deaths.

- **Use of NHS**: NHS services should only be used when really necessary, with people asked to go online rather than calling NHS 111, to free up this and other NHS services for those with

more severe illness.[49]

- **Schools**: the Department for Education and Public Health England have advised that schools should stay open, though some have opted to close for short periods of time because of staff or student infection with COVID-19.[50] The Prime Minister, in his statement announcing the move to the Delay phase emphasised that: "We are not - repeat not - closing schools now. The scientific advice is that this could do more harm than good at this time. But we are of course keeping this under review."[51] This position was reiterated on 16 March.[52]

- **Mass gatherings**: while the risks of transmission at mass gatherings such as sporting events are thought to be relatively low, it was announced on 16 March that, in the light of the advice to avoid social contact as much as possible, this advice would also be extended to mass gatherings. In order to avoid diverting emergency workers from higher priority work, as of 17 March such workers will not be available to support such events.

- **London** is a few weeks ahead of the rest of the country, with respect to the epidemic curve, and hence Londoners are asked to take this advice particularly seriously.

In the period between the 12 March announcement (seven-day self-isolation) and the 16th March announcement (14-day household isolation, avoiding all unnecessary social contact and travel, and prospective 12-week self-isolation for vulnerable groups) there had been some public concern that the UK appeared to be taking a less draconian approach than many other countries.[53] There were also criticisms of the Government's initial approach on the part of a number of scientists, illustrating how 'science' does not necessarily provide a single factual answer, particularly on issues where trade-offs between various potential harms are finely balanced, or where the modelling assumptions used are unavoidably uncertain.[54] There have also been calls for improvements in public communication: both in terms of regularity (for example through daily press conferences), and of greater clarity with respect to the Government's specific aims in responding to the outbreak.[55]

The Chief Medical Officer for England (CMO) and the Government's Chief Scientific Adviser (CSA) have been robust in defending the evidence base for the measures selected to date,[56] as have leading scientists involved in the modelling work underpinning current policy.[57] In the 16 March press conference (due to be repeated daily), the Prime Minister, the CMO and the CSA emphasised that the key aim was to suppress the curve of infection to keep it within NHS capacity (thus enabling the NHS to cope with demand for care), and to minimise suffering, by shielding those most vulnerable to severe disease.

THE RESEARCH PHASE

Actions to date

The action plan sets out how 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 Wellcome to support and coordinate research during the COVID-19 outbreak. The UK is also playing a significant role in supporting the international research effort, both through contributing funding and through collaborative approaches. Examples include:

- **Testing**: tests for COVID-19 are being developed in the UK, in partnership with WHO and a global network of laboratories, to enable faster confirmation of positive diagnoses

- **Vaccine development**: the UK Government initially pledged £20 million to the Coalition for Epidemic Preparedness Innovations (CEPI) to develop new vaccines for COVID-19 as quickly as possible.[58] A further £46 million, funded by the UK's international development budget, to support both vaccine development and more rapid diagnostic tests, was announced on 6 March.[59]

What will happen next?

The action plan states that the Government will keep emerging research needs under close review and will support research to gather evidence about effective interventions in order to inform future decision-making.

THE MITIGATE PHASE

If the response reaches mitigation stage, the focus will shift from contact tracing and containment measures towards providing essential services to help those most at risk to access treatment. Possible consequences set out in the action plan include:

- Hospitals may be asked to postpone non-urgent appointments and operations.
- Retired NHS workers may be asked to return to work.
- Police would concentrate on responding to serious crimes and maintaining public order.
- A distribution strategy for the UK's stockpiles of key medicines and equipment could be implemented (for example, protective clothing).
- Government will consider legislative options, if necessary, to help systems and services work more effectively in tackling the outbreak.

It was announced on 16 March that the Coronavirus Emergency Measures Bill will be introduced into the House of Commons on 19 March.[60]

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