The Independent SAGE

Independent SAGE and the Inquiry into the COVID-19 Pandemic in the UK

Submitted to The UK Government and the People of Great Britain & Northern Ireland by Sir David King, former Chief Scientific Adviser, UK Government, Chair of Independent SAGE

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Summary

It is vital that inquiries are held into the preparation for and response to the COVID-19 pandemic. Such inquiries should be (a) broad, dealing with the range of factors that contributed to the outcomes achieved in the UK, and (b) deep, ensuring that the ultimate explanations for successes and failures are revealed. Reflecting the specifics of the constitutional settlement, there must be both a UK wide inquiry and separate ones in Scotland, Wales and Northern Ireland.

It will be for the government in Westminster and the devolved nations, along with the chairs of the inquiries, to determine the terms of reference of each inquiry. These will inevitably vary, but all the inquiries must be inclusive and seek to take a comprehensive view of the pandemic response. This document is not an attempt to provide an all-embracing set of terms of reference. There will be many perspectives that need to be accommodated, none more significant than the concerns both of relatives of those who died with Covid and of the very many people whose health and livelihoods have been severely damaged by it.

Independent SAGE will actively support the holding of the inquiries. In this paper we offer assistance to officials and the public by suggesting some key elements that should be considered.

The terms of reference for the inquiries and their operation should facilitate a review of:

- The structural changes in society in the decade preceding the pandemic and the role that these changes, especially the worsening of population health, may have played in the resilience of the population.

- The structure, functioning and resourcing of the public health system within the UK as a whole and within the devolved administrations to ensure that it meets the future needs of the population. This review should include the role within government and the public health system of the Chief Medical Officer.

- The international awareness of the UK government through both its interaction with international organisations and willingness and ability to learn both from countries that were successfully bringing the virus under control and also those that failing to do so.

- The existence and operation of policies aimed at restricting the importation of new cases of the disease and, in particular, the effectiveness of the port health arrangements in the UK in dealing with the emergence of COVID-19. In addition, the
ability to put in place effective public health controls, when needed, on travel between different parts of the United Kingdom and from the Republic of Ireland.

• The origin and the consequences of the policies adopted by the government at all stages of the pandemic.

• The operation of all relevant advisory committees during the pandemic, including SAGE, the SAGE subcommittees, the Joint Biosecurity Centre and the JCVI. This would include examination of both the formulation of scientific advice and its translation into policy.

• The role played by civil servants, including the Chief Medical Officer and the Chief Scientific Advisor, in promulgating and defending the political decisions made by Government ministers.

• The operation of the care sector during the pandemic and, in particular, the discharge of patients from hospital to care homes. Further, the ability of care homes to obtain supplies of personal protective equipment and other essential items, and appropriate hospital treatment for residents when it was needed.

• Whether governmental, NHS and social care responses to COVID-19 were compatible with legal obligations not to engage in discrimination.

• The contribution of the NHS and its staff to the treatment and care for people who developed COVID-19.

• The origin, development, organisation and performance of the organisation known as "NHS Test and Trace".

• The implementation of the vaccination programme against COVID-19 and the decision-making processes involved in policy and implementation decisions.

• The UK government's decision-making on the subject of a patent waiver, as well as associated mechanisms for sharing and technology transfer, to accelerate the global availability of effective vaccines.
Introduction

On 12th May 2021, the Prime Minister announced in a statement to the House of Commons that there would be an independent public inquiry under the Inquiries Act 2005. The statement committed to working with the devolved administrations to ensure that the inquiry covered all relevant aspects of the UK response. It was stated that the inquiry would begin in Spring 2022.

The House of Commons Public Administration and Constitutional Affairs Committee produced a report on the issue of a public inquiry into the pandemic in September 2020. They recommended that each administration (UK-wide and devolved) should establish its own inquiry.¹

The Scottish government announced its own public inquiry under the Inquiries Act 2005 to be established by the end of 2021. The Scottish government is working on the terms of reference and initiated a consultation exercise to seek stakeholder views. The stated purpose of the inquiry is to, 'investigate events causing public concern, for example the experience of COVID-19 in care homes'.² The consultation closed on 30th September.

In Wales, there has been firm opposition from the Welsh Government to the idea of a separate Wales inquiry, and they hold that the UK inquiry will have 'a specific focus on the action that were (sic) taken here in Wales'.³ Similarly, Northern Ireland has shown no sign of commissioning an inquiry into COVID.

The Covid-19 Bereaved Families For Justice group want all the devolved nations to follow Scotland's example. They called on the Wales and Northern Ireland administrations to show leadership and ensure that statutory coronavirus inquiries start before the end of 2021.⁴

Parliamentary scrutiny

There have been many inquiries and reports by House of Commons committees and the All-Party Parliamentary Group on Coronavirus. These inquiries and reports are typically restricted to specific issues. So far, 25 House of Commons committees (Appendix 1) have conducted at least one inquiry.⁵ Some of these inquiries are ongoing, and not all have produced reports.

Similarly, the House of Lords has scrutinised the work of the government via committees, including their COVID-19 committee, which considers the long-term implications of the pandemic on the economic and social wellbeing of the United Kingdom. This committee currently has three enquiries in progress on COVID related issues.

There must be doubt about the effectiveness of this parliamentary scrutiny, given the questions hanging over the operation of parliament during the pandemic. Strong criticism has been voiced of what is perceived as the marginalisation of parliament by the government. The most significant of the House of Commons inquiry reports was the report prepared jointly by the Health and Social Care and the Science and Technology Committees. It was titled, *Coronavirus: lessons learned to date* and published on 21st September 2021.\(^6\)

The committees looked in detail at six key areas of the response to covid-19:

- the country's preparedness for a pandemic;
- the use of non-pharmaceutical interventions such as border controls, social distancing and lockdowns to control the pandemic
- the use of test, trace and isolate strategies
- the impact of the pandemic on social care
- the impact of the pandemic on specific communities
- the procurement and roll-out of covid-19 vaccines and therapeutics

The committees' report highlighted four themes that emerged clearly and consistently from their work:

a) the UK's response, with the notable exceptions of vaccine development and deployment and genomic sequencing, has for the most part been reactive as opposed to anticipatory;

b) there has been too little explicit learning from international experience, as illustrated in the approach to non-pharmaceutical interventions and test and trace;

c) the right combination was not struck between centralised and localised measures so that in some cases, implementation of pandemic containment measures was too centralised when it ought to have been decentralised; better engagement with relevant sectors and interest groups was needed to understand on-the-ground experience and inform decision making, particularly for social care; and

d) the response has lacked speed in making timely decisions.

The themes identified by the joint committees chime completely with Independent SAGE's concerns repeatedly expressed during the pandemic. The scientific advice and policy proposals put forward by Independent SAGE would have helped the government avoid these serious failures and could have saved many lives.

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\(^6\) [https://committees.parliament.uk/publications/7496/documents/78687/default/]
Discussion on the scope and remit of the inquiry

The potential list of issues to be inquired into by a UK public inquiry has been the subject of discussion from an early point in the pandemic. Giving oral evidence to a hearing held by the House of Commons Public Administration and Constitutional Affairs Committee in July 2020, Jason Beer QC provided a substantial number of topics potentially requiring examination by an inquiry.

"…past response to pandemics, the implementation of recommendations from previous reviews, the fitness for purpose of the Civil Contingencies Act, the role of the World Health Organisation in providing timely and accurate advice to the Government, decisions as to when to restrict movement, the introduction of social distancing, the closure of schools, the closure of businesses, the provision of information to the public, the use and misuse of statistics, the role of the media, the approach taken to care homes, the availability of PPE, the availability of other medical equipment, including ventilators, the non-use of the EU procurement route, the impact on members of BAME communities, the impact on elective treatments not being carried out, decisions to lift restrictions, differences in approaches across the four nations."

Mr Beer informed the committee that his list of topics 'goes on and on'.

Shortly before the Government announcement of the inquiry, discussion papers were produced by non-governmental bodies exploring the ground that the proposed inquiry might cover.

The Institute for Government (IfG) argued the need for an inquiry and proposed its potential scope on 29th April 2021. It identified seven main aspects of the government response that should be within the scope of an investigation.

- Preparedness
- Procurement
- Lockdowns
- National Hospitals and care
- Schools
- Economic
- Government communications

The healthcare policy and leadership body, The King's Fund, contributed to the debate about the inquiry's scope on the same day as the Institute of Government's report. Their paper,

Assessing England's response to Covid-19, proposed a framework for the consideration of five inter-related elements of the pandemic response.\(^9\)

- The intrinsic risk to England
- The public health response
- The health care system response
- The adult social care response
- Measures in the wider economy

COVID-19 Bereaved Families for Justice

In the period since the UK inquiry was announced, one of the most comprehensive sets of proposed terms of reference (ToR) put forward has been constructed by the group known as COVID-19 Bereaved Families for Justice. They suggest that the inquiry should have three aims with respect to both pandemic preparedness and response.

1. Determine a definitive, factual narrative of what happened,
2. Examine both the success and failure of measures which were or should have been taken
3. Make recommendations to ensure that the UK learns the lessons from this pandemic and is in the best possible position to face future such challenges.

The Families for Justice suggestions for ToR take the form of a structured and substantial set of questions to which, they suggest, the Inquiry should seek answers.

Independent SAGE

It was apparent to many external observers that the government's decision making in the early stages of the pandemic was seriously flawed and contributed to the rapid spread of COVID-19 infection in the UK. The mantra from ministers and their senior civil servants was that they were 'following the science'. However, the government refused to reveal what the 'science' was that they were following and declined to disclose the membership of the committee structure that was their primary source of external scientific advice.

Independent SAGE is the multidisciplinary group of scientists and experts who convened because of the initial refusal of the UK government to make public the reasons for the decisions they were making in the early months of the pandemic. Sir David King, a former government Chief Scientific Advisor, chaired the Independent SAGE group who have continued throughout the pandemic in providing expert, public and science-based advice to the national and local governments and their officials. The ‘back office’ infrastructure was funded by successful crowdfunding efforts and some limited research funding, and was supported in carrying out its tasks by the 'The Citizens', a non-profit investigative journalism organisation, which played a critical role in media and public visibility. Members of Independent SAGE carry out their work on an unpaid voluntary basis.

Independent SAGE had three unique characteristics that meant that it became, and remains, influential in the continuing and significant debate about all aspects of the handling of the pandemic.

Firstly, unlike the UK government’s SAGE committee, Independent Sage included independent members from outside government with strong scientific and professional credentials in relevant disciplines, with strong representation from public health. After considerable delay, the government revealed the external, non-civil service members of the official SAGE committee. They did not include members who had been trained in the specialty of public health. Deeming it essential to have members with a breadth of public health expertise amid a public health emergency, Independent SAGE had, in contrast, included a range of public health experts amongst its membership. Its membership is multidisciplinary, covering the range of expertise required, and has been particularly conscious of diversity.

Secondly, Independent SAGE strongly emphasises the importance of communicating the science of the epidemic to the people. Secrecy around COVID-19 is not in the interest of the people. It is profoundly unhelpful to the task of building the cooperation and coalitions that are required to form a unified community-wide response to the spread of a dangerous infectious disease.

Thirdly, the role of scientists and key professionals at the time of a pandemic is not merely to provide specialist information to others so that decisions can be made, but it is also part of their role as experts to use that expertise to contribute to the formulation of solutions to the problems being faced. Independent SAGE not only provides expert scientific analysis but also makes science-informed recommendations to the government as to the steps necessary to deal effectively with the pandemic.

In the case of a newly emergent and rapidly spreading disease, there will inevitably be significant gaps in our knowledge. However, not making active use of what knowledge does exist, both in terms of the emerging evidence on the organism in question and on how to respond to public health and other domestic and international crises in general is a recipe for bad decision-making.

**Independent SAGE and the public inquiries**

Independent Sage supports holding inquiries into the COVID-19 pandemic. We must learn rapidly from the experience that we have had so far with COVID-19.

First, it is very apparent that, globally, the pandemic will not be over any time soon, and we need to learn lessons from our experience so far so that they can be applied to bring COVID-19 under control, not just in the UK but internationally.
Secondly, we believe that inquiries should be held not only at the UK level dealing with the response across the whole of the UK, and in England in particular, but also in each of the devolved administrations. This is in keeping with the recommendation of the House of Commons Public Administration and Constitutional Affairs Committee.

Thirdly, the inquiry in Northern Ireland should have an all-island dimension given the existence of the UK's only land border and the agreement of a memorandum of understanding on the handling of COVID-19 between the two jurisdictions on the island.

Suggested scope of the inquiries

Prelude to the Pandemic

The UK had been experiencing a severe public health crisis before the pandemic began. Across a whole range of public health indicators, there was substantial evidence of the weakened state of the population's health. The most striking indicator of this is the stalling of the improvement in the population's life expectancy. Life expectancy has been rising progressively for many decades, but this came to a virtual standstill after 2012. For some groups, particularly women in deprived communities, life expectancy has fallen. In tandem with this, the gap in life expectancy between the country's wealthiest and most deprived areas has widened noticeably.

The mechanisms in place for responding to major national emergencies changed dramatically in the ten years before the arrival of SARS-CoV-2. The abolition of Government Offices of the Regions in England and the accompanying regional resilience arrangements is only one of several changes which reduced the capacity of the governance system in England to respond to emergencies in a structured and organised fashion. Similarly, reorganisation of the NHS and public health structures in England abolished the regional and local structures that had population health and emergency planning responsibilities.

The very substantial reductions in the resourcing and authority of local government in England undermined a systematic and well-structured local response during the pandemic.

The inquiry should review structural changes in society in the decade preceding the pandemic and the role that these changes, especially the worsening of population health, may have played in the resilience of the population.

The UK has a long tradition of strong public health leadership at national, regional and local levels. This dates back to the sanitary revolution of the 19th century and the major changes undertaken to ensure that population health was protected and improved. Substantial change has taken place at all these levels. At the national level and within the devolved administrations, it has been the practice, for more than a century, for the Chief Medical
Officer to be a trained public health physician. This position has been eroded substantially in recent decades.

Similarly, trained and experienced Directors of Public Health (previously known for most of their existence as Medical Officers of Health) have held influential positions at a local level across the UK. In England, these posts, with only part of their previous remit, were transferred in 2013 from the NHS to local government. In general, these posts are now in less influential positions, have had their resourcing cut significantly, and lack responsibility for major public health issues such as immunisation, screening and infectious disease control. The situation of Directors of Public Health varies within the devolved administrations, with Northern Ireland being unique in the UK in having no local Directors of Public Health.

The pandemic also cast a spotlight on other weaknesses in the general public health workforce. For example, the number of school nurses in England was approximately 50% higher in 2010 than at the beginning of the pandemic.

**The inquiry should review the structure, functioning and resourcing of the public health system within the UK as a whole and within the devolved administrations to ensure that it meets the future needs of the population. This review should include the role within government and the public health system of the Chief Medical Officer.**

**International engagement following the emergence of the SARS-CoV-2 virus**

The degree to which the UK government closely followed the pandemic's early development has not been fully revealed. It appeared that the UK government had unbounded confidence in the ability of established organisations and mechanisms to cope with the virus. As a member of the World Health Organization (WHO) and initially the European Centre for Communicable Disease Prevention and Control (ECDC), the UK should have been fully engaged internationally in determining, and preparing for, the implications of SARS-CoV-2. As part of the UK's withdrawal from the European Union, the UK ended its involvement with ECDC ceased at the end of March 2021. ECDC's network includes three non-EU countries (Norway, Iceland, and Liechtenstein), but the UK appears to have withdrawn entirely just as the pandemic was gathering force in Europe.

In aspects of response to COVID-19, the UK government has at times adopted approaches that are at odds with international consensus and out of step with what emerged as best international practice. Examples include halting, in March 2020, the testing of people in the community who had developed symptoms of the disease, and delaying on now three occasions to take robust measures when the risk of exponential growth of transmission was apparent. Similarly, the decision not to automatically test those at the highest risk of developing the disease (close contacts of people who have already tested positive) conflicted with the guidance from WHO, ECDC and the Centers for Disease Prevention and Control in the US.
The inquiry should review the international awareness and engagement of the UK government through both their interaction with international public health agencies and their willingness and ability to learn from countries that were successfully bringing the virus under control and also those that were failing to do so.

Arrival and spread of the virus in the UK and the government response

The delayed response of the UK to the emergent pandemic has been well documented. A fundamental component of responding to a dangerous infectious disease is to take early steps to inhibit or preferably prevent its spread. The UK government almost entirely ignored the age-old and very effective principle of putting in place quarantine measures. The House of Commons Home Affairs Committee has been highly critical of the government's failure to suppress the importation of cases of COVID-19 in early and mid-2020. The concern and confusion around the arrangements for travel to the UK has continued almost unabated during the pandemic.

The ability to control spread by restricting movement within the UK and between the component territories has not been exercised effectively. The travel issue has also been a source of contention between the two parts of the island of Ireland. There have been serious concerns about the failure to exchange information on arrivals and harmonise preventive measures when different rules were applied to arrivals in Belfast and Dublin.

The inquiry should review the existence and operation of policies aimed at restricting the importation of new cases of the disease and, in particular, the effectiveness of the port health arrangements in the UK in dealing with the emergence of COVID-19. In addition, the ability to put in place effective public health controls, when needed, on travel between different parts of the United Kingdom and from the Republic of Ireland.

In the early stages of the pandemic, erroneous statements were made about the nature of the virus and how it might be spreading. The enormous reluctance to restrict large gatherings of people and recommend effective preventive measures such as wearing face coverings undoubtedly assisted the spread of the virus.

The explicit adoption and promulgation by ministers and civil servants of a policy of achieving 'herd immunity' in the early phases of the pandemic was an extraordinary episode. Such an approach runs completely contrary to public health principles and is highly dubious on moral and ethical grounds.

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The reluctance to put in place timely preventive measures was justified on the basis of the novel concept of 'behavioural fatigue' that appeared to be introduced to justify delay and to this day lacks an ‘owner’. It is not a scientific concept without, at that point, possessing a theoretical, empirical or psychometric basis.

**The inquiry should review the origin and the consequences of the policies adopted by the government at all, stages of the pandemic.**

*Secret science*

During the early months of the pandemic, the government and senior officials repeatedly told the population that they were 'following the science'. Yet the public was also being told that the science could not be revealed, nor could the identities of the scientists who were producing the evidence on which the government apparently relied.

The reluctance to reveal the scientific advice provided to officials and ministers, and on which they claimed to be basing their decisions, has been a recurring feature of the UK's handling of the pandemic. Eventually, there was recognition that the identities of those providing advice, the content of their working papers, and the nature of their discussions should be placed in the public domain. This, however, became an issue again in 2021 when the Joint Committee on Vaccination and Immunisation (JCVI) made recommendations on vaccination policies that were highly contentious and out of line with the international scientific consensus. Contrary to their own code of practice, the JCVI failed to make public their working papers and the minutes of their discussions for months.

When the membership of SAGE was made public, it was clear that it had been constituted without experts trained and qualified in public health medicine.

Constraints on the nature of the advice being provided by SAGE is also a serious matter of concern. It has been stated that the members of SAGE were told that whilst they could provide information from their relevant scientific or medical disciplines, they were not permitted to make recommendations on what actions were required in the light of the knowledge they contributed, nor comment on the implications of evidence for policy.

It is clear that the various sub-committees of SAGE contributed much excellent work. SAGE has published nearly 1000 reports and its behavioural science committee nearly 100. If action had been taken in keeping with some of this advice, it could have significantly altered the pandemic's development and continuation.

**The inquiry should review the operation of all relevant advisory committees during the pandemic, including SAGE, the SAGE subcommittees, the Joint Biosecurity Centre, and the JCVI. This would include examination of both the formulation of scientific advice and its translation into policy.**
Impartiality of the civil service

A notable feature of the government press conferences and public relations during the pandemic has been the substantial number of civil servants that have played prominent roles in those press conferences and in the media speaking in support of policy decisions taken by ministers. Many of those decisions were politically and scientifically contentious. Although the pressures of a pandemic inevitably mean that normal practices must be adjusted, the civil service's effective operation depends on adherence to the Civil Service Code. A vital element of the values outlined in that code is a requirement for political impartiality on behalf of civil servants so that they can retain the confidence of politicians that they may be required to serve in a future administration. It is notable that some previous holders of the posts of Chief Medical Officer and Chief Scientific Advisor have insisted on impartiality and communicating directly to the public, not in association with politicians.

The inquiry should review the role played by civil servants, including the Chief Medical Officer and the Chief Scientific Advisor, in promulgating and defending the political decisions made by Government ministers.

The social care sector

One of the most disquieting aspects of the UK’s handling the pandemic has been the very significant death toll from COVID-19 amongst people receiving care in the community. There has been a long-standing concern about quality standards in the care sector and an absence of cross-party consensus on how social care should be funded. It has been recognised for a long time that important workforce issues exist in the care sector. These include salary levels, training and career progression.

The failure to control the virus in the UK led to enormous pressure on the NHS, and this in turn had severe and disastrous implications for care homes. The discharge of patients suffering from COVID-19 from hospital to care home settings and the lack of effective personal protective equipment have been highlighted. As has in care homes. In addition, the inability of care homes to organise admission to hospital of people who needed hospital-level care, whether for COVID-19 or other serious conditions, has been widely reported.

The inquiry should review operation of the care sector during the pandemic and, in particular, the discharge of patients from hospital to care homes. Further, the ability of care homes to obtain supplies of personal protective equipment and other essential items, and appropriate hospital treatment for residents when it was needed.

Inequality and discrimination
The consequences of the pandemic were not equally distributed amongst the population. It soon became apparent that in some communities the virus was never brought under control. This was particularly true in areas facing serious issues of deprivation, poor and crowded accommodation and ethnicity.\textsuperscript{11} It was widely acknowledged that people from BME communities were heavily over-represented in deaths reported amongst the health sector workforce and other public-facing occupations.

In the early stages of the pandemic, when deaths were being reported in the media, it was usually stated whether the deceased had 'underlying conditions'. Similarly, the age distribution of deaths was frequently quoted. It has been reported that scoring systems, heavily biased by age considerations, were in operation within the NHS when choices had to be made on which COVID-19 patients would be provided with access to potentially life-saving care. Serious concerns have also been raised about the level of COVID-19 mortality amongst people with mental health problems and learning disabilities.\textsuperscript{12}

**The inquiry should make particular efforts to review whether governmental, NHS and social care responses to COVID-19 were compatible with legal obligations not to engage in discrimination.**

**The role of the NHS**

The pandemic created an enormous burden of clinical work for the NHS. It also placed NHS staff at particular risk – a risk magnified greatly by the failure to provide staff with effective protective equipment. At times, the government's primary policy objective appeared to be dominated by the need to prevent the NHS from being overwhelmed by Covid patients, rather than a purpose based on preventing illness and death by suppressing the virus. It appeared that there was less attention paid to the issue of the routine work of the NHS, including in primary care, which was being neglected to cope with COVID-19. Hospital waiting lists at the beginning of the pandemic were already at record levels and NHS staffing was inadequate.

The extent to which NHS England was able to rise to the challenges with which it was presented spoke volumes about the quality of its staff and the staff of the NHS in general. The skilled staff of the NHS quickly found ways to care as effectively as possible for Covid patients. They undoubtedly saved many lives, even though effective therapeutic interventions were limited in the early stages of the pandemic and the staff were often putting their own safety at risk due to the lack of effective protective equipment. At latter points, staff were open that the under-resourcing meant that they were having to compromise the high quality of patient care. This was also the case for the ambulance service.

\textsuperscript{11} https://www.theguardian.com/world/2020/sep/05/covid-19-could-be-endemic-in-deprived-parts-of-england

\textsuperscript{12} https://www.mencap.org.uk/press-release/eight-10-deaths-people-learning-disability-are-covid-related-inequality-soars
The inquiry should review the contribution of the NHS and its staff to the treatment and care for people who developed COVID-19.

Testing and tracing

From the earliest months of the pandemic, the failure of the government to provide the necessary volume of tests needed to detect and control the virus was a major obstacle to halting its spread. The Director-General of WHO summed up the appropriate response as "Test, test, test". However, the capacity to test was not developed at speed in the UK and the government announced in March that what testing capacity existed would be devoted to testing in hospitals and not in the community where the virus was spreading.

The government turned to the private sector to develop testing capacity and operate a contact tracing system. This was not only divorced from the NHS and public health laboratory expertise but was also unconnected to local authorities and their Directors of Public Health. The decisions not to use the proven organisational capacity of the NHS in communities, including working with general practice, to ignore the potential contribution of local public health teams and local authorities, to leave unused the contact tracing capacity of environmental health officers and the staff of sexual health services, are all inexplicable.

The private sector system that was developed, misleadingly titled 'NHS Test and Trace', that was developed was inadequate on many fronts. Throughout the pandemic it consistently failed to deliver an effective service. One glaring example of its inadequacy has been its consistent refusal to follow international guidance on testing people most at risk, i.e. the close contacts of people who had already tested positive for the virus. In addition, despite clear evidence that less than half of symptomatic cases self-isolated, recommendations from SAGE and Independent SAGE to provide adequate financial and practical support have never been heeded.

What was sorely needed was an integrated approach referred to by Independent SAGE as Find, Test, Trace, Isolate, and Support. This should have been managed and coordinated through the NHS in conjunction with local authorities.

The inquiry should review the origin, development, organisation and performance of the organisation known as "NHS Test and Trace".

Vaccination programme

As with many other infectious diseases, vaccination can play a crucial role in bringing the disease under control and assisting in eliminating the virus. In this context, elimination does not mean that no further cases of the infection occur, but rather that when cases and outbreaks do occur, their origin is traced and effective control measures are put in place to suppress the

13 https://www.bbc.co.uk/news/av/world-51916707
virus. This approach is used in the case of measles, and most European countries have achieved elimination through the combination of vaccination and effective local public health measures when cases occur. The UK, however, lost its status as having eliminated measles in 2016. The loss of this status, which WHO grants, is indicative of the under-resourced and poorly structured public health system in England.

The UK played an important role in the creation of effective vaccines to prevent COVID-19. These achievements were matched by the initiation of a vaccination programme ahead of the rest of Europe. However, although the initial program successfully reached a significant proportion of the target population, several weaknesses were revealed. Inequalities in vaccination uptake across the population mirrored other UK health inequalities in terms of significantly poorer coverage in some ethnic minority groups, those who were not fluent in English, had never worked or were long-term unemployed, or lived in privately rented accommodation. Achieving very high vaccination coverage became even more important with the arrival of more infectious variants such as Delta in April 2021 and Omicron in November 2021.

It is the ability of a vaccination programme to reach a very high proportion of the population that makes it ultimately successful in bringing the infectious disease under control. The failure to reach sufficiently high vaccination levels across the adult population was matched by a reluctance to vaccinate children and young people. Once again, the governmental advisory mechanisms were secretive and adopted positions out of line with established COVID-19 vaccination approaches internationally. Delay and a half-hearted approach to vaccination of young people have undoubtedly contributed to the continuation of high numbers of cases of infection in the community.

The inquiry should review the implementation of the vaccination programme against COVID-19 and the decision-making processes involved in policy and implementation decisions.

Global health equity

A global pandemic requires a global response. Internationally, there is enormous global inequality in access to COVID-19 vaccines. This means that vulnerable people in the world's poorest countries are exposed to unacceptably high risks of disease and death. High levels of new cases of infection create opportunities for the development of new and potentially more dangerous variants. Many countries have proposed a patent waiver for COVID-19 vaccines that would permit the expanded manufacture of vaccines globally. This position has been supported by the United States, India, South Africa, and Brazil, amongst many others. The UK has refused to support the policy of a patent waiver despite the danger posed to the UK population from the potential development of new variants and then continuing high death toll from COVID-19 globally.
The inquiry should review the UK government's decision-making on the subject of a patent waiver, as well as associated mechanisms for sharing and technology transfer, to accelerate the global availability of effective vaccines.

Conclusion

We have suffered serious outbreaks of several globally important infectious diseases in the twenty-first century: Ebola, SARS1, MERS and Zika virus. It may not be another hundred years before the UK suffers from a pandemic of dangerous infectious disease. On the other hand, a new pandemic may arrive within ten years or even one year. It is manifestly clear that a misjudged, poorly led and inadequate response to a pandemic is a recipe for maximising damage to the health of the population and the economy.

It is of supreme national importance that the actions of the government and its officials, in addition to the functioning of the NHS, public health and social care systems during the COVID-19 pandemic so far are scrutinised closely so that it can be determined what is necessary to be done to ensure that the next pandemic is countered in its earliest possible phase by an effective, well-resourced and well-practised response that will keep the population safe and healthy to the greatest possible degree.

Independent SAGE believes that the voice of those who have suffered most during the pandemic should be heard loudly during the inquiry process. The representatives of those disabled and those bereaved by COVID-19 should be involved at every stage.

Throughout the pandemic, Independent SAGE has contributed its expertise and knowledge to better inform government, officials, civic organisations and the public on the progress of the pandemic and what needs to be done to minimise death and suffering by bringing the virus under control. During the inquiry processes we stand ready to contribute in whatever way is appropriate to ensure the best possible outcome for all the citizens of the UK.
Appendix 1

House of Commons committees that have conducted inquiries into COVID-19 issues

Business, Energy and Industrial Strategy Committee
Defence Committee
Digital, Culture, Media and Sport Committee
Education Committee
Environment, Food and Rural Affairs Committee
Environmental Audit Committee
Foreign Affairs Committee
Health and Social Care Committee
Home Affairs Committee
Housing, Communities and Local Government Committee
International Development Committee
International Trade Committee
Joint Committee on Human Rights
Justice Committee
Liaison Committee
Public Accounts Committee
Petitions Committee
Procedure Committee
Public Administration and Constitutional Affairs Committee
Science and Technology Committee
Transport Committee
Treasury Committee
Welsh Affairs Committee
Women and Equalities Committee
Work and Pensions Committee