

## UK Covid-19 Inquiry public hearings: module 2, week 3 (16-19 October 2023)

The UK Covid-19 Inquiry (the Inquiry) public hearings for module 2 began on 3 October 2023 and will conclude on 14 December 2023.

Module 2 is focused on core political and administrative governance and decision-making for the UK. It will examine the initial response, central government decision making, political and civil service performance as well as the effectiveness of relationships with governments in the devolved administrations and local and voluntary sectors. It will also assess decision-making about non-pharmaceutical measures and the factors that contributed to their implementation.

This week the Inquiry heard from witnesses including Professor Mark Woolhouse, Professor Neil Ferguson and other experts in epidemiology. The Inquiry heard evidence on modelling and how scientific committees, such as the new and emerging respiratory virus threats advisory group (NERVTAG) and the scientific advisory group for emergencies (SAGE), provided advice to the government.

Next week the Inquiry is taking a break in public hearings. The Inquiry will resume on 30 October.

This briefing summarises the proceedings most relevant to NHS trusts, and is the third in the series of weekly briefings on the Inquiry's public hearings on module 2. You can see our earlier briefings on the preliminary hearings and other public hearings on [our website](#), as well as a set of [frequently asked questions on rule 9 requests](#) we prepared with our legal partners.

### Monday 16 October

#### Witnesses

Professor Mark Woolhouse, Professor Anthony Costello and Professor Andrew Hayward.

#### Summary of expert witness evidence

##### Professor Mark Woolhouse OBE

Professor Mark Woolhouse is a professor of infectious disease epidemiology at the University of Edinburgh.

In January 2020 he became a member of the operational subgroup of the Department of Health and Social Care (DHSC) scientific pandemic influenza of modelling, operational subgroup (SPI-M-O). SPI-M-O is activated and provides rapid modelling for the DHSC and Public Health England (PHE) when a significant disease outbreak is coming.

None of the core SPI-M-O models used in the early stages of the pandemic represented care homes and hospital settings. He said that this was because they applied influenza models which focus on schools, because influenza is driven by infection in schools.

In January 2020 he shared his concerns about a report from the Wuhan municipal health authority with Sir Jeremy Farrar, then director of the Wellcome Trust, and Professor Neil Ferguson, professor of infectious disease epidemiology. His initial analysis, based on the basic reproduction number ( $R_0$ ), was that half the people in the UK would be infected in over a year or so, leading to at least a doubling of the gross mortality rate and leaving the health system completely overwhelmed. Sir Jeremy and Professor Ferguson agreed with his interpretation of the data and said they had discussed it with the then government chief scientific advisor (GCSA), Sir Patrick Vallance, and the chief medical officer, Sir Chris Whitty. Sir Jeremy also raised the possibility that transmission could be asymptomatic. Sir Patrick noted that there was "limited evidence of asymptomatic transmission" at a COBR (cabinet office briefing rooms) meeting in January 2020.

Professor Woolhouse told the Inquiry that the minutes of meetings of SAGE and its subcommittees did not communicate the seriousness and urgency of the situation as it developed in January and February, yet he knew members like Sir Jeremy and Professor Ferguson were very concerned.

He had advocated for earlier, less draconian interventions to curb transmission of the virus. However, he strongly agreed that at no point was the UK able to achieve a level of testing, contact tracing, and isolation and support at which it could be confident they would have a chance of preventing new waves from arising. Professor Woolhouse also said lockdowns were not effective at driving down cases in care homes and hospitals.

### **Professor Anthony Costello**

Professor Anthony Costello is a professor of global health and sustainable development at the University College London (UCL) Institute for Global Health. Professor Costello is a founder member of Independent SAGE (iSAGE). He set up iSAGE in March 2020 because he was concerned about the lack of a public health approach by the government, and believed letting a very serious new virus spread across a population was the wrong approach.

On 3 February 2020 the World Health Organisation (WHO) published a strategic preparedness and response plan listing six priority actions for countries: control transmission; do find, test, trace, isolate;

outbreaks minimised in health facilities and nursing homes; introduce preventative measures in workplaces and schools; manage importation risks and ensure communities are educated, engaged and empowered.

In May 2020 an iSAGE report recommended that the government should take all necessary measures to control the virus through suppression. The government was following a pandemic influenza strategy which went against WHO advice, and all the practices of the east Asian states that managed to reduce their death rates to five times lower than the UK's.

Professor Costello described the decision to draw upon and vary pandemic influenza control guidance as a 'fatal error' because it assumed you could not suppress the virus. That decision removed pressure on the government to look at scaling up a national testing system, a national contact tracing system and policies that would enable people to be quarantined, isolated and financially supported. Removing the possibility of epidemic suppression was another fatal error according to Professor Costello, as was the decision to ask the DHSC scientific pandemic influenza group of modelling (SPI-M) to only model the slowing down the spread. They were not asked to model the impact of test, trace and isolate. They didn't model what east Asian states were doing and what the WHO was recommending. The absence of an independent UK public health expert on SPI-M meant no one challenging their approach.

From January 2020 the UK medical and scientific group of experts saw Covid-19 as a flu epidemic, that there was nothing the UK could do to stop it, that they could only manage its progress, and ultimately protect the NHS.

On contact tracing, Professor Costello said that Wuhan brought in 9,000 people for a population of 11 million. At PHE they had approximately 270 contact tracers. The district public health protection teams across the country were not mobilised. The DHSC team rejected an offer of help from 5,000 environmental contact tracers and several hundred sexual health contact tracers. By early March there was no effective scaled up test, trace, contact, isolate, support system in place. When a call was put out for volunteers in March 2020 they got 750,000 responses. Professor Costello said those volunteers could have been employed to help manage on the ground contact tracing and ensure that people isolated for 14 days.

On 15 March 2020 Professor Costello wrote to Sir Chris Whitty to say that many in the scientific community were at a loss to understand why the government had abandoned intensive population surveillance, contact tracing and quarantine nationwide, which was the bedrock of WHO advice.

While Professor Costello accepted that community testing was stopped in March 2020 because of a lack of tests, he said that the government could have generated sufficient tests to cover the hotspot

areas in the six preceding weeks and that was the key to suppression. The absence of a test and trace system resulted in a lockdown because there was no alternative and it also ensured that we were hit by a second wave.

### **Professor Andrew Hayward**

Professor Andrew Hayward is a professor in epidemiology and public health at UCL and is now employed by the UK Health Security Agency (UKHSA). He was a member of the SAGE environmental modelling subgroup (SAGE EMG) and acted as an expert in the epidemiology of acute respiratory infections on NERVTAG.

Members of the various subgroups did not see what was going on in the wide range of other groups as they did not have access to the minutes of those meetings.

During the run-up to the first lockdown in 2020, Professor Hayward said became it increasingly apparent that the measures in place were not going to control the epidemic. He said that NERVTAG should have been utilised because they were looking at how Covid-19 transmits. He believes if that had happened it would have added to the pressure to introduce social distancing measures earlier.

By May 2020 NERVTAG was aware of reports that there was an over-representation of ethnic minority groups amongst those hospitalised, that they tended to be hospitalised at a much younger age, and were more likely to end up in intensive care. Professor Hayward told the Inquiry that surveillance data should measure the rates of disease and of hospitalisations and deaths in different subgroups of the population as a matter of routine. UKHSA is developing a health equity and inclusion health surveillance strategy to address these gaps for communicable diseases.

Professor Hayward told the Inquiry that greater involvement of service public health colleagues could have added value in terms in considering the feasibility of interventions, maximising effectiveness and addressing health inequalities. On health inequalities, he explained that public health colleagues work very closely with their local communities, so they have a very real lived experience of how inequalities play out. That experience would have informed approaches to testing, tracing and isolation in different groups of the community.

Commenting on the [SARS-CoV-2 acquisition in frontline health care workers \(SAFER\) study](#) in University College London hospital between 26 March and 8 April 2020, he said that 44% of care workers had Covid-19 at any one time.

Professor Hayward was a co-investigator into the [Vivaldi nursing home core study](#), where testing took place between 11 May and 7 June 2020. This study found that homes that had greater use of agency staff had higher risk of outbreaks, from which they inferred that they would have been carrying

infection from one nursing home to another. Homes that were unable to pay sick pay to staff had higher rates of infection, from which they inferred that it was harder for people to not attend work if they were sick. The study also found very high levels of Covid-19 within nursing home staff and nursing home residents which also influenced the regular testing regimes there.

*The full transcript of the day's proceedings is available [here](#).*

## Tuesday 17 October

### Witnesses

Professor Steven Riley and Professor Neil Ferguson.

### Summary of expert witness evidence

#### Professor Steven Riley

Professor Steven Riley is a professor of infectious diseases at Imperial College London. Prior to the pandemic he was a member of SPI-M and in early 2020 became a member of SPI-M-O. He was a lead investigator in the [real time assessment of community transmission \(REACT\) programme](#), primarily working on REACT-1 which focused on polymerase chain reaction (PCR) testing. He is now seconded to UKHSA, where he leads on data analytics and surveillance.

Professor Riley was concerned about the possibility of the NHS being overwhelmed if the virus was not suppressed at the outset. There were disagreements among scientists in the early days about how, when, and if, to lock down and the economic impacts.

He said that there was a lack of diversity on SAGE and its subgroups, particularly underrepresentation of women. He agreed that the lack of ethnic diversity within SAGE and its subgroups would have had a substantive impact on the way in which scientific advice was provided.

#### Professor Neil Ferguson OBE

Professor Neil Ferguson is a mathematical epidemiologist. Prior to and during the pandemic he was a member of SAGE and participated in other groups such as SPI-M-O and NERVTAG.

Commenting on the "contain" phase of the virus, he said that the UK implemented limited border controls and testing and had low contact tracing capacity. For those reasons he thought it was unlikely containment would be effective at the start of the pandemic.

In early March 2020 there had been a discussion within SAGE about the particular risks associated with care homes and the need to improve infection control in that setting. Despite this, SAGE made no recommendations for restrictions in care homes at the time.

He said there was a lack of urgency on the part of the government in early March 2020. Another challenge was getting NHS England to state on the record that the health service would be overwhelmed and what its surge capacity was. The first time NHSE did this was on 13 March 2020, yet he had been aware for weeks that the number of deaths and hospital cases would likely overwhelm the NHS.

Professor Ferguson believes the policy of acting incrementally and as late as possible had a significant impact on deaths during the second wave which he described as 'catastrophic'. He also believed the local tier system, introduced in October 2020, was flawed. SPI-MO and SAGE were not consulted before the tier system was implemented and he felt that eventually everybody would find themselves in the highest tier and that implementing this system delayed the inevitable.

The government's mantra of "following the science" blurred the boundaries between scientific advice and policy decision making. He noted that in future crises, both gender diversity and ethnic diversity could be better reflected in the composition of SAGE.

*The full transcript of the day's proceedings is available [here](#).*

## Wednesday 18 October

### Witnesses

Professor James Rubin, Professor Lucy Yardley and Professor Sir Peter Horby.

### Summary of witness evidence

#### Professor James Rubin

Professor James Rubin is a professor of psychology and emerging health risks at King's College London. He is a member of NERVTAG and was asked to attend SAGE meetings at the onset of the Covid-19 pandemic. He went on to co-chair the scientific pandemic insights group on behaviours (SPI-B) committee between February 2020 and June 2021.

There was SPI-B subgroup which focused on communications, which is one of the primary tools a government can use to help the public engage in protective behaviour. There was some frustration that their advice wasn't being seen in the government communications outputs in May and June 2020.

The SPI-B committee undertook work in the context of inequalities, including a paper on the impact of school closures on ethnic minority children and the unequal policing of communities. The

committee recommended that the government needed to co-produce guidance with people affected by it.

Professor Rubin said the committee was not directly aware of how its work influenced policy. Concerns about the level and quality of feedback was raised with the SAGE secretariat several times.

Professor Rubin said that Sir Chris Witty's comments on "behavioural fatigue" in March 2020 when talking about non pharmaceutical interventions (NPIs) at a press conferences were not sourced from discussions with SPI-B and they didn't think it was a valid reason to delay lockdown or other measures. Professor Rubin said that the use of the term led to behavioural scientists being blamed for a delay in the first lockdown.

### **Professor Lucy Yardley OBE**

Professor Lucy Yardley is a professor of health psychology at the University of Bristol and the University of Southampton. She became co-chair of SPI-B in April 2020 until she stepped down in 2021.

There was a gap in collecting and collating the evidence used to inform SPI-B's advice. They didn't have access to lots of government data, but even if they did, they did not have had the capacity to look through and collate it all. A lack of resources had a real impact on their ability to advise on government measures. There was also a lack of dialogue between SPI-B and policymakers.

There was a lack of diversity in relation to representations of marginalised groups within SPI-B.

SPI-B advised on measures to assist adherence to self-isolation and considered financial support an important issue which the government did not want to provide. SPI-B did not think changes made to universal credit (UC) were adequate. People on the lowest incomes were less able to self-isolate and this problem was not solved by the government at any point during the Covid-19 pandemic.

Government communications tended to go ahead with very little input from SPI-B. She said the "eat out to help out" slogan came at a crucially problematic time, when there was an opportunity to keep infections low and minimise the need for a future lockdown.

### **Professor Sir Peter Horby**

Professor Sir Peter Horby is a professor of emerging infectious diseases and global health. From 2018 he served as chair of NERVTAG and attended meetings between January 2020 and June 2021. As chair of NERVTAG he also attended SAGE meetings. He is also the executive director the International Severe Acute Respiratory and emerging Infection Consortium (ISARIC) and the co-chief investigator of the randomised evaluation of Covid-19 therapy (RECOVERY) trial.

Professor Horby wrote to the deputy chief medical officer (DCMO), Professor Jonathan Van-Tam, at the start of the Covid-19 pandemic to highlight the risk of nosocomial infection, telling him that hospital worker infection should be at the front of minds. A reference was made in a NERVTAG meeting on 21 January 2020 that Covid-19 in China had been transmitted between healthcare workers who had not worn PPE.

It would have been beneficial for a much closer dialogue with policymakers to understand what their goals were so that scientists could produce the most useful scientific advice.

The phrase “following the science” was unpopular amongst all the scientists he spoke to. The phrase assumes there is a direct relationship between a piece of science advice and a policy decision, which was not the case.

It would have been beneficial for SAGE to have greater expertise from practising frontline public health practitioners. Science that is not contextualised can be unhelpful or impractical.

By the end of February 2020 it was becoming very apparent that there would be a very large number of hospitalisations and deaths that would overwhelm the NHS. The decision-making process that led to the first lockdown could have been done earlier.

In April 2020, the government was concerned that if SAGE or NERVTAG recommended the wearing of face masks, the limited number of masks available would be diverted away from the healthcare sector.

On 24 April 2020 outbreaks of Covid-19 infections in care homes were discussed at a NERVTAG meeting. They subsequently met with and agreed that more stringent measures were needed for nursing homes to improve the shielding of vulnerable people. At a later meeting, Professor Horby asked for reassurance that NERVTAG’s concerns had been acted upon and was reassured by a letter from Sir Chris Whitty on 26 May 2020 that interventions were being worked on.

*The full transcript of the day’s proceedings is available [here](#).*

## Thursday 19 October

### Witnesses

Professor Catherine Noakes, Professor John Edmunds and Professor Carl Heneghan.

### Summary of witness evidence

#### Professor Catherine Noakes OBE

Professor Catherine Noakes is a professor of environmental engineering for buildings in the School of Civil Engineering at the University of Leeds. Professor Noakes was a participant in SAGE from April 2020 and co-chaired SAGE EMG.

Professor Noakes said at the outset of the Covid-19 pandemic it was hard to find evidence of the nature of transmission. Early on, they were reliant on information initially coming out of China and then other countries. It was fairly clear from the early stages that Covid-19 was transmitted through a respiratory route but she was concerned that airborne transmission routes were being overlooked which had implications for hospital infection control.

In autumn 2020, Professor Noakes raised her concerns about the absence of information on airborne transmission on PHE and NHS websites with Sir Patrick Vallance and Sir Chris Whitty. Sir Chris forwarded her email to PHE and they changed their information very quickly. The information on NHS webpages did not change. She raised the same concerns in February 2021 and then at a SAGE meeting in June 2021, a few weeks after which the NHS webpages changed.

Professor Noakes said that SAGE EMG were not asked to consider the “eat out to help out” scheme and had they been asked they would have had a concern that it was not a well-designed approach.

Inequalities were included in SAGE EMG papers because of the implications on people’s ability to practise social distancing.

### **Professor John Edmunds OBE**

Professor John Edmunds is chair of infectious disease modelling at the London School of Hygiene and Tropical Medicine. He joined NERVTAG in 2014 and served on it through to 2022. He also participated in SAGE EMG.

Professor Edmunds said that by mid-February 2020 there was a scientific understanding that there was a major pandemic coming and that the country would be overwhelmed by Covid-19. He said government messaging was reassuring and he assumed that there was a plan.

Professor Edmunds said the information flow between SAGE and government was one-way – it came from Sir Chris Whitty and Sir Patrick Vallance to central government. He agreed with other members that it was difficult for SAGE to provide advice when they didn’t know what the government’s overall objectives and strategies were. Professor Edmunds said that the government couldn’t and shouldn’t have ever just “followed the science”. He said that they were doing it so that when difficult decisions had to be made, they could hide behind SAGE.

It was clear early on in the Covid-19 pandemic that the most elderly members of society were at the most risk and it was obvious that measures would be needed to protect them. In April 2020,

NERVTAG discussed what measures might be necessary to better protect the care sector, including testing regimes. Professor Edmunds said that he was very nervous about the easing of restrictions in May, June and July and thought that test and trace might get overwhelmed.

Professor Edmunds was angry about the “eat out to help out” scheme, he said it was a scheme to encourage people to take an epidemiological risk. He said the “rule of six” and the tier structure that were put in place in autumn 2020 were not discussed with SAGE prior to implementation.

Professor Edmunds said that the UK’s vaccination programme was a considerable success and that it started fantastically. He said there were brave decisions made about the timing of the first two doses, however we were “a bit too slow to finish the job”.

### **Professor Carl Heneghan**

Professor Carl Heneghan is a professor of evidence-based medicine at Oxford University. He is a member of the Royal College of General Practitioners and is a practising GP.

On 20 September 2020, Professor Heneghan attended a meeting with the prime minister and the chancellor of the exchequer to discuss a “circuit breaker lockdown”. At that time Professor Heneghan argued that whole-population measures were inappropriate. In September 2020 he agreed with the tier system as a better alternative to the “zero Covid suppression argument that was being put on the table”.

*The full transcript of the day's proceedings is available [here](#).*