

1. What is your understanding about the emergence, spread across countries and scientific understanding of SARS-CoV-2 and COVID-19?

Emergence/ Timeline

- Our understanding is that SARS COV-2 first appeared in China in Wuhan Province.
- In late December 2019 Chinese health officials started reporting cases of an unusual pneumonia – which would subsequently be identified as COVID-19 - to the WHO.
- On the 7th January it was confirmed that the cause of this was a novel coronavirus.
- 10th January the novel Wuhan coronavirus's genome was first sequenced.
- 20th January human to human transmission was confirmed.
- February was categorised by action among Government's in east Asia and relative inaction among Government's in Europe and the 'Global north'.
- February 22nd Italy reported clusters of cases in the northern regions of Lombardy and Veneto
- On the 11th March, the WHO, concerned by the severity and scale of the spread and levels on inaction seen from Government, declared a global pandemic.
- March 10th – 14th saw Europe become the worldwide 'hotspot' for COVID, moving away from East Asia. During this time Italy, Spain and France began to impose widespread non pharmaceutical interventions such as closures of schools and workplaces and widespread social distancing.
- On March 19th the WHO released it's COVID situation report detailing that global cases had risen above 200,000. It remarked that while it took 3 months to reach the threshold of 100,00 cases it was only a twelve-day interval before this doubled to 200,000.
- Throughout March countries all over the globe from India to South Africa began to impose restrictions on their populations.
- April 4th the global case total surpassed 1 million cases.

Spread

After it's emergence, SARS COV-2 spread incredibly rapidly across the globe. While China managed to successfully control its outbreak as did other countries in East Asia, case numbers very quickly rose across the world, particularly in Europe. A well-documented trend appears where countries who acted early in imposing restrictions generally fare better than those who did not. Countries who mitigated seeding from the virus also fare significantly better. There appears to be a discrepancy between countries like South Korea and Taiwan who had experience and robust pandemic response legacy from previous coronaviruses such as MERS and SARS and countries who were more prepared

for an influenza style pandemic and did not believe that it was possible to prevent seeding of the virus such as the UK.

Science

The scientific understanding of SARS COV 2 and COVID 19 has evolved on a near daily basis over the course of the pandemic. The science has been focussed on understanding the characteristics and transmission mechanics of the SARS COV 2 virus, how best to mitigate transmission given the lack of effective treatment for COVID 19 and on developing effective pharmaceutical interventions such as vaccines and anti-viral drugs to combat COVID 19.

Vaccines

We have seen the rapid development of vaccines that we know are effective at preventing severe symptomatic cases of COVID 19. The development of viable mRNA vaccines represents a huge scientific development and a new age in vaccinology. However, the logistical requirements that distributing those vaccines pose at present shows the utility in having multiple vaccine candidates developed at a rapid pace.

NPIs

Non pharmaceutical interventions have become symbolic of the COVID 19 pandemic. As such there has been and continues to be an active scientific debate around what is required at a population level in terms of intervention to prevent exponential transmission.

Our understanding of the science behind face coverings for example has shifted rapidly in the global north. While wearing a face covering is commonplace across much of east Asia, it took until several months into the pandemic before European and American Government and medical agencies began to recommend face coverings be worn. In the UK[?], there was an initial position of requiring a randomised control study purporting the efficacy of mask wearing on which to base policy. As the scientific understanding of the disease grew, this position shifted to a more precautionary approach detailing that in light of what we know about transmission and mask wearing, face coverings very likely do significantly more good than harm.

2. When (date) and how (e.g. official correspondence, phone call, social media) did you learn about key information, alerts or recommendations from global or regional bodies?

- The BMA learned about the majority of its information from official sources. The WHO updates were a crucial source of information and were monitored closely from mid - February.
- Public Health England was also an important source of information for us, there was a degree of discrepancy for a period of time between the UK approach to handling COVID-19 and the rest of Europe. During this period, we were in contact with Public Health England to better understand why this was the case.
- As the pandemic progressed and more lockdown measures were introduced there became an active debate around the kind of measures that needed to be implemented. At this point, the BMA was very active in looking for official statements from medical agencies such as the CDC and ECDC in order to support our policy positions.
- We have of course been in active communication with the Department of Health and Social care throughout the pandemic. This has ranged on many issues from NPIs to PPE and has provided an invaluable and mutually beneficial source of information for both ourselves and the government.

3. What actions were taken by your country, and when, to mitigate the impact of COVID-19?

- The UK confirmed its first cases of coronavirus on the 31st January.
- The UK's initial response to COVID-19 seems to have been guided partly by its modelling of how to deal with a flu pandemic (carried out in 2011).¹
- The initial approach outlined by the government comprised of four phases: contain, delay, research (an overarching phase), and mitigate.²
- Initially the containment phase was employed. This included contact tracing and community testing of those known to have contact with infected patients.
- On 2nd March, a consensus statement from SPI-M-O reported to SAGE the high likelihood of sustained transmission of COVID-19 in the UK at that time. The coronavirus was noted to be highly contagious, with each infected person infecting two to three more. If "stringent measures" were not imposed, "it would correspond to around 80% of the population becoming infected". SPI-M-O's best estimate of the death rate was 0.5% to 1%: between 250,000 and 500,000 people. Of those requiring hospital treatment, 12% were likely to die.³
- On the 12th March, the government moved into its delay phase. The aim was no longer to stop people getting coronavirus, but to slow it down while protecting the vulnerable. The UK stopped community testing and contact-tracing, moving from the containment phase to the delay phase.
- This was largely based on a SAGE research paper which suggested that the biggest impact on cases would come from social distancing and protecting the vulnerable. It also warned against adopting suppression methods, such as ???, due to the risk of a second peak.⁴
- The government introduced its first public health mitigation measures on the same day, telling people to self-isolate for seven days if they displayed either of the symptoms associated with coronavirus (a new, continuous cough or a fever).
- Suppression methods favoured by other countries were not being seriously considered for implementation (at least in the short term) at this stage based on a mix of behavioural, economic and societal concerns.
- The UK's response changed when the COVID research team at Imperial College submitted a paper on the 16th March suggesting mitigation tactics should not be the primary approach in the UK and strong suppression was the only way to prevent the NHS being overwhelmed and 250,000 deaths.
- Those in the same household as someone with symptoms of the virus were told to self-isolate for 14 days. Everyone in the UK was encouraged to stay home where possible.
- Non-pharmaceutical intervention (NPI) measures remained voluntary.
- On the 23rd March mandatory measures to halt the spread of the disease were announced: self-isolation; shopping for basic necessities only; one form of exercise a day; and exemption when caring for vulnerable and elderly people. Group gatherings were limited to a maximum of two people, not including members of the same household.
- Police were given powers to implement these restrictions.
- On the 3rd April, Imperial College published the results of a survey which sought insight from members of the public to understand their views and experiences of COVID and the population health measures employed so far in the UK. The main challenges described by

¹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/213717/dh_131040.pdf

² <https://www.gov.uk/government/publications/coronavirus-action-plan/coronavirus-action-plan-a-guide-to-what-you-can-expect-across-the-uk>

³ SPI-M-O: Consensus Statement on 2019 Novel Coronavirus (COVID-19) [National Commissioning Group](#)

⁴ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/874290/05-potential-impact-of-behavioural-social-interventions-on-an-epidemic-of-covid-19-in-uk-1.pdf

respondents were ineffective communication, including access to information and information overload; and conflicting guidance and misinformation. Respondents' described feelings of concern, confusion and, in some cases, panic as a result of these communication and information challenges.⁵

- April – June: National lockdown restrictions were implemented; case numbers fell. The lockdown whilst disruptive economically and socially was a success with respect to decreasing case numbers and death rate.
- This period also saw a significant ramping up of testing across the UK as the UK Government tried to make up for an initially slow increasing of testing capacity. The Secretary of State for health promised that the UK would aim for 100,000 tests a day by the end of May. This was achieved.
- 28th May: The launch of NHS Test and Trace, the UK Governments centralised test and trace organisation tasked with tracking, testing and ensuring that infected individuals isolated.
- In June the UK had its first easing of national restrictions, schools partially reopened on the 1st June and restrictions around retail and leisure activities were eased throughout June.
- 16th June the RECOVERY trial organised by Oxford University in conjunction with the 175 NHS trusts published data on the effectiveness of dexamethasone as a cheap anti-viral drug to treat COVID-19. It found that the drug cut mortality among the most critically ill by 30%. This was a major breakthrough as it represented the first effective treatment for COVID 19.
- 29th June, the Secretary of State for Health announced that following a rapid rise in cases Leicester would be placed under local lockdown restrictions. This would form the basis of the future policy framework of the Government.
- In July, lockdown restrictions were largely brought to an end and on the 1st restrictions on hospitality were ended and throughout the month further restrictions were loosened
- 14th July face masks were made mandatory in shops throughout England.
- July – August : The BMA has largely categorised this period as one of going too fast too soon, without a realistic plan to test trace and isolate or sufficient resources or institutional capacity to effectively handle the inevitable second wave. The Government introduced a number of policies during this period - including the 'Eat out to help out' scheme and encouraging people to get back to the office - designed to stimulate economic performance and growth. These schemes inevitably increased social contact and sent mixed messages to the public.
- 1st September: schools re-open.
- 14th September – UK Government announced the 'rule of six' reintroducing limits of socialising indoors in the first move back towards restrictions on social contacts in response to a worrying rise in case numbers.
- September saw a number of local authority areas go into lockdown including Merseyside, West Yorkshire and parts of Lancashire. This follows a local first approach adopted by the UK Government in which local authorities would have powers to implement lockdown in the face of rising restrictions.
- 1st October the Government changed its approach from a patchwork of different Covid restrictions to a tiered system designed to be less confusing and more consistent. Over 17 million people were placed into tier 3 when the restrictions were imposed as a continuation of lockdown measures seen throughout September.
- 4th November the Government reintroduced a national lockdown.
- 2nd December : National lockdown restrictions were lifted and there was a return to the tier system. The Government took on board a criticism of the previous tier system and tried to make the rules governing the new approach more consistent and clearer.

⁵ <http://www.imperial.ac.uk/mrc-global-infectious-disease-analysis/covid-19/report-14-online-community-involvement/>

- 3rd December – Pfizer/BioNtech vaccine approved for use in the UK, with the rollout to begin immediately.