Complementary to reviewing published articles and reports, the Independent Panel would like to benefit from learning how individual governments, academic institutions, civil society organisations and others understand what happened during the early phase of the COVID-19 pandemic. From your perspective:

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

COVID-19 refers to the disease associated with the novel SARS-CoV-2 virus, which is believed to have originated in a seafood market in Wuhan, China. On December 31st 2019, Chinese authorities confirmed they were treating dozens of cases of pneumonia of unknown aetiology, and got in touch with the WHO to inform them about this. On 12th January 2020, it was announced that researchers in China had identified the new coronavirus that had infected dozens of people.

I recall the reporting of some initial secrecy around the disease, and the story of the Chinese doctor Dr. Li Wenliang, who was prevented from raising early warnings about the infections, and who later died after contracting the virus. Subsequently, around mid-January 2020, epidemiologists with the Chinese Centre for Disease Control and Prevention published an article stating that the first cluster of patients with 'pneumonia of an unknown cause' had been identified on 21st December 2019. Around mid-January was also when first confirmed cases outside mainland China had started to emerge – the cases occurred in Japan, South Korea and Thailand, according to the WHO.

In the UK, where I currently live, the first patients to test positive were two people from the same family who were staying at a hotel in York, my current city – this was on January 29th 2020. From here onward, there was regular reporting of the dramatic surge in cases seen across all of Europe, including the UK.

Overall, I would consider my scientific understanding of COVID-19 to be fair:

- Given my background in clinical medicine and infectious disease, I am able to appreciate the developments in our scientific understanding of disease transmission, manifestation, and treatment.
- Given my training in epidemiology and public health, I can appreciate that although the pandemic has been a traumatic experience shared by all, not all have struggled equally. As described in a recent publication, two categories of disease (COVID-19 and an array of non-communicable diseases) seem to be interacting, and with clustering in social groups that reflect the patterns of inequality deeply embedded in our societies.
- Finally, given the focus of my doctoral research on tobacco control, I have followed the publication of news stories in the UK with misleading headlines such as 'Smokers 'four times less likely' to contract COVID-19, prompting nicotine patch trials on patients' and 'MORE evidence smoking may cut the risk of coronavirus'; as well as the posing of research questions about clinical outcomes for smokers – whether smokers are equally susceptible to infection, and if nicotine has any biological effect on the novel coronavirus. I understand that at present, the available evidence suggests that smoking is associated with increased severity of disease and death in patients hospitalised with COVID-19, and that population-based studies are needed to quantify any risk to smokers of hospitalization with COVID-19 or of infection by SARS-CoV-2.

2. **When did global or regional bodies issue what/which key information, alerts or recommendations?**

The WHO raised the coronavirus alert to the highest level on February 28th 2020, and declared the virus to be a pandemic on March 11th 2020.

In the UK, Prime Minister Boris Johnson began daily press briefings on March 16th 2020, urging people to work from home and avoid pubs and restaurants, so as to reduce the spread of the virus and give the NHS time to cope with the pandemic situation. On March 18th 2020, the UK government announced that most schools across England will shut from March 20th 2020 until further notice. All pubs, restaurants, gyms and other social venues across the country were also ordered to close on March 20th 2020. On May 10th 2020, the UK Prime Minister announced plans for the easing of lockdown; on May 25th 2020, it was announced that non-essential retailers could reopen from June 15th 2020 onward; and on May 29th 2020, it was announced that groups of up to six people could meet from June 1st 2020 onward, whilst maintaining social distancing rules.

On May 26th 2020, The WHO warned of a 'second peak' as countries began to ease lockdowns. In England, there were areas that were placed under local lockdowns following the easing of the first national lockdown. However, on October 30th 2020, UK announced a 4-week national lockdown for England; although schools, universities and courts remained open. On November 23rd 2020, a 'COVID Winter Plan' was detailed to the UK, which included a tightened three-tier system in England post the second national lockdown.

There have been multiple positive reports on COVID-19 vaccine development, and UK became the first country to approve the Pfizer/BioNTech vaccine. On November 28th 2020, Nadhim Zahawi was appointed as the minister in charge of the COVID-19 vaccine rollout, and on December 8th 2020, a 91-year old woman in the UK became the first person to receive the Pfizer/BioNTech vaccine as part of the country's mass vaccination programme. Concurrently, on December 4th 2020, the WHO has warned against any complacency that may be generated by the creation of successful vaccines.

I have also followed some developments in India, as I have family and friends there. Prime Minister Narendra Modi announced a 21-day national lockdown on March 25th 2020, when the country had only recorded 536 cases of COVID-19. On April 12th 2020, the lockdown was extended till the end of the month, then for another 2 weeks on May 1st 2020, and further until the end of May on May 17th 2020. As a tobacco researcher with a special interest in India and the South Asia region, it was interesting to note the focus on smokeless tobacco (ST) control measures in the country during the COVID-19 pandemic. Several policy responses relevant to ST control were put forth in India since March 2020 to mitigate the spread of COVID-19, e.g. subnational orders in some states and districts to prohibit the regional manufacture and sale of ST products. In April 2020, the Indian Council of Medical Research (ICMR) issued a nation-wide appeal, asking the general public to refrain from consuming ST products and spitting in public places. Also, in their national directive for COVID-19 management, the Government of India specified public spitting as a punishable offence that would incur fines; since spitting usually accompanies ST consumption, this applied directly to ST use practices. States and union territories (UTs) were also given additional authority for stricter implementation of these policies, and it was reported in May 2020 that up to 28 states and UTs in India had implemented various restrictions relating to ST products, specifically with the view to control the spread of COVID-19.

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

In the UK and in other countries, lockdowns have been implemented to mitigate the impact of COVID-19 on health systems. To mitigate the economic impact, Chancellor Rishi Sunak announced a £12bn package of emergency support on March 11th 2020. Additionally, on March 17th 2020, a package of emergency state support for businesses was unveiled – £330bn worth of government-backed loans and more than £20bn in tax cuts and grants for companies threatened with collapse; on March 20th 2020, the government announced the payment of up to 80% of wages for workers at risk of being laid off; and on March 26th 2020 a package of measures was issued to help self-employed workers, giving those earning less than £50,000 a taxable grant equal to 80 percent of their average profits.

But while many actions are being taken by countries to mitigate the impact of COVID-19, we are also seeing that these impacts can extend beyond their intended targets, and sometimes in ways that are damaging to the health of individuals and populations. In the UK for example, where I currently live, deaths from causes other than coronavirus have also shown an increase in 2020 compared to previous years, suggesting that the lockdown may have had an indirect impact on the health of the country's population. In India, on the other hand, my home country, the lockdown triggered a serious domestic migration crisis, the scale of which has been compared to the crisis seen during the country's Partition in 1947. Also, from what we have seen so far, it seems that the COVID-19 pandemic has affected communities unequally, largely along racial and socioeconomic lines, highlighting an urgent need for greater equity in managing our public health crises. These factors should be considered in evaluating the impact of actions taken by countries, as well as the collection and analyses of data segregated by sex, so that we may come out of this pandemic as a better society, or at the very least, prevent further inequalities from emerging.

4. Sources

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