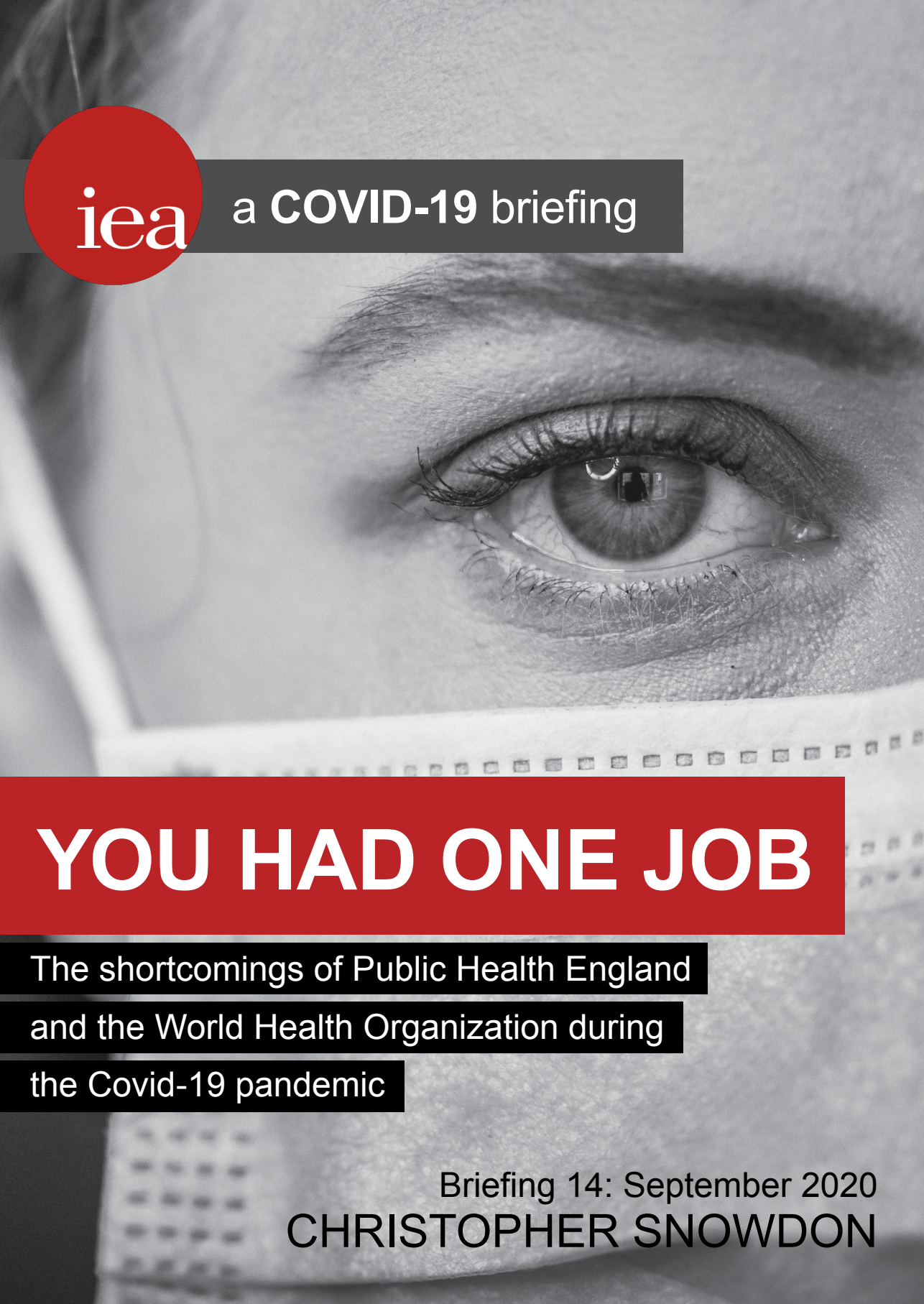

iea a **COVID-19** briefing

YOU HAD ONE JOB

The shortcomings of Public Health England and the World Health Organization during the Covid-19 pandemic

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Summary

- The World Health Organization (WHO) and Public Health England (PHE) have been widely criticised for their response to the Covid-19 pandemic. Serious questions have been asked regarding their competence. As a result, the US government has withdrawn its funding from WHO and the UK government has announced that Public Health England will be disbanded. This paper looks at what went wrong.
- WHO has been accused of being naive and credulous in its dealings with the Chinese government, and of giving the world a false sense of security about the virus in the early stages of the outbreak. It strongly opposed travel bans and the use of face masks, and has been accused of sidelining Taiwan for political reasons.
- Public Health England was criticised for failing to expand diagnostic testing, failing to expand contact tracing, discouraging the use of face masks, failing to share infection data with local authorities, and over-counting the number of deaths from Covid-19 in England.
- In theory, WHO and PHE prioritise infectious diseases, but both organisations have arguably spread themselves too thinly over a broad range of medical, political and social issues. This has led to a lack of focus: neither agency saw itself as having 'one job'. Even during the Covid-19 pandemic, they often retreated into their comfort zone of discussing lifestyle issues, such as sugary drinks and vaping.
- The institutional failure of public health agencies does not easily lend itself to free-market solutions, but funding does not have to come from the state and there is room for an element of competition. WHO may be beyond reform, but its most important function of disease surveillance could be carried out by another agency. Member states and private philanthropists could fund a politically neutral global pandemic surveillance organisation, focused solely on viral and

bacterial epidemics. Alternatively, an existing organisation could be beefed up to fill this role.

- Public Health England could be replaced with an agency that has full responsibility for planning and executing the nation's response to viral and bacterial epidemics (see Epilogue). Its health promotion campaigns could be restored to the NHS, and local public health budgets could be supplied by the Department of Health. Academic work currently published by PHE, such as evidence reviews, could be outsourced to external authors and commissioned by the Department of Health.

Won't Get Fooled Again by The WHO – The World Health Organization

The World Health Organization (WHO) has been embroiled in controversy before, but never has it been under such fire as during the Covid-19 pandemic. It has been accused of negligence and incompetence, of failing to issue sound scientific advice, and of assisting the Chinese Communist Party in a cover up. In May 2020, President Trump defunded the agency, accusing it of having 'failed in its basic duty'. In July, he moved to withdraw the USA from WHO altogether.

In the crucial early weeks of the Covid-19 outbreak, WHO's response was characterised by naive faith in the Chinese government and a strange reluctance to raise the alarm. WHO sidelined Taiwan and opposed travel bans to and from infected regions. Like many other public health agencies, it did not recommend the use of face masks until the pandemic was well underway.

WHO are you?

Founded in 1948, WHO's crowning achievement was leading the international effort to eradicate smallpox, an objective achieved in 1977. In recent decades, it has become increasingly preoccupied with 'non-communicable diseases', such as heart disease and cancer, and the lifestyle factors with which they can be associated. Lacking the power to legislate, it has turned to political advocacy. It campaigns for a range of political causes, including universal healthcare, gender equality, taxation, housing and advertising.

WHO's budget for 2020/21 is $3.8 billion. It is funded by member states, of whom the UK, Japan, Germany and - until recently - the USA are the most generous donors, as well as by philanthropic bodies (such as the Bill and Melinda Gates Foundation) and corporations (pharmaceutical companies, in particular).

WHO's Director-General, Dr Tedros Adhanom Ghebreyesus, was elected with the support of China in May 2017. The first African to lead the agency, Dr Tedros was once a member of the Tigray People's Liberation Front, a violent Marxist group that helped the Ethiopian People's Revolutionary Democratic Front seize power in 1991. He served the party as Minister of Health from 2005 until 2012 when he became Minister of Foreign Affairs. Soon after becoming Director-General, Tedros appointed Robert Mugabe as a WHO Goodwill Ambassador, although international condemnation soon forced him to rescind the appointment. The wife of Xi Jinping, the Chinese president, has been a WHO Goodwill Ambassador since 2011.

As Director-General, Tedros's political priorities have been universal healthcare and fighting non-communicable diseases with the use of 'sin taxes', advertising bans and sales restrictions on tobacco, alcohol, food, sugary drinks and e-cigarettes. In this he has followed in the footsteps of his predecessor, Margaret Chan, who portrayed herself as not only an enemy of 'Big Tobacco' but of 'Big Food, Big Soda, and Big Alcohol' (Chan 2013).

The Covid-19 outbreak

We now know that SARS-CoV-2 was in Europe towards the end of 2019, if not earlier. Sewage samples show that the virus was in Italy by mid to late December (La Rosa et al. 2020) and medical records prove that 'the disease was already spreading among the French population at the end of December 2019' (Deslandes et al. 2020). It is unclear how long the virus had been circulating in China. There are reports of cases being admitted to hospital as early as September, although these are unlikely to ever be confirmed.

The first confirmed case was admitted to a Wuhan hospital in early December having had symptoms since the first day of that month. By 20 December, there were around 60 cases in Wuhan and local doctors were beginning to suspect that a new SARS-like virus was at work. Among them was Dr Li Wenliang who posted a message on WeChat warning

medics to wear protective clothing. Li was disciplined by the authorities for 'publishing untrue statements'. He died of Covid-19 six weeks later. Other doctors were silenced and even arrested by the authorities and it was not until the last day of the year that Chinese authorities finally went public with a partial version of the truth.

Until recently, WHO has claimed that China notified it of a cluster of infections on 31 December. Tedros himself insisted that 'the report first came from China - that's fact number one - from Wuhan itself'.[1] But WHO has since admitted that China was not proactive in contacting the agency and that it only became aware of the cluster by reading a media report and seeing a statement on the Wuhan Municipal Health Commission's website. That statement announced 27 infections and claimed that there had been no human-to-human transmission.

Earlier that day, Taiwan had e-mailed WHO requesting information about the 'atypical pneumonia cases reported in Wuhan'. WHO did not respond. Despite this, or perhaps because of it, Taiwan decided to begin screening passengers from China immediately. Hong Kong was also not reassured by the Chinese statement. As the *South China Morning Post* reported, 'health authorities are taking no chances with a mysterious outbreak of viral pneumonia in the central Chinese city of Wuhan, warning of symptoms similar to Sars and bird flu as they step up border screening and put hospitals on alert' (Zuo et al. 2019).

By 3 January 2020, there were 44 official cases in Wuhan. A day later, WHO made its first public announcement about the virus, tweeting that China had 'reported to WHO regarding a cluster of pneumonia cases in Wuhan'. It added that China 'has extensive capacity to respond to public health events and is responding proactively & rapidly'.

By 5 January, there were officially 59 cases in Wuhan and 21 suspected cases in Hong Kong. On 10 January, WHO issued travel advice 'in relation to the outbreak of pneumonia caused by a new coronavirus in China'.[2] It

1 'COVID-19 virtual press conference', World Health Organization, 20 April 2020 (https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-20apr2020.pdf).

2 'WHO advice for international travel and trade in relation to the outbreak of pneumonia caused by a new coronavirus in China', World Health Organization, 10 January 2020 (https://www.who.int/news-room/articles-detail/who-advice-for-international-travel-and-trade-in-relation-to-the-outbreak-of-pneumonia-caused-by-a-new-coronavirus-in-china).

did not recommend any restrictions on international travel and stated that 'preliminary investigation suggests that there is no significant human-to-human transmission, and no infections among health care workers'. The following day, WHO repeated Chinese claims that genomic tests had reduced the number of suspected cases from 59 to 41.

On 14 January, the disease had begun to strike people who had no contact with the Wuhan food market that was presumed to be the source of the outbreak. Maria Van Kerkhove, acting head of WHO's emerging diseases unit, said that it was 'possible that there is limited human-to-human transmission'. This was the first acknowledgement from WHO that the disease could be spread by people. However, Van Kerkhove also said that there had been 'no sustained human-to-human transmission' and, on the same day, WHO tweeted that 'there is no clear evidence of human-to-human transmission'. WHO also claimed, implausibly, that China had seen no new cases since 3 January (WHO 2020a).

On 19 January, WHO Western Pacific tweeted that 'there is evidence of limited human-to-human transmission'. This was finally admitted by Chinese officials the following day. On 21 January, WHO Western Pacific tweeted that infections among health workers show that 'there is at least some human-to-human transmission'.

On 22 January, the Chinese government cancelled all outgoing flights and trains from Wuhan and made face masks compulsory in public facilities. A full lockdown came into force the next day. On 24 January, WHO updated its travel advice.[3] It still did not recommend banning travel to and from infected areas although it did advise those who were 'visiting live markets in areas currently experiencing cases of novel coronavirus' to 'avoid direct unprotected contact with live animals'.

By 30 January, there had been confirmed cases throughout Asia, Europe, North America and the Middle East. WHO declared a Public Health Emergency of International Concern, but did not declare a pandemic. Having recently returned from a trip to China to meet President Xi, Dr Tedros expressed his 'respect and gratitude to China for what it's doing'. Its 'commitment to transparency', he said, was 'beyond words' (WHO 2020b):

3 'Updated WHO advice for international traffic in relation to the outbreak of the novel coronavirus 2019-nCoV', World Health Organization, 24 January 2020 (https://www.who.int/news-room/articles-detail/updated-who-advice-for-international-traffic-in-relation-to-the-outbreak-of-the-novel-coronavirus-2019-ncov-24-jan/).

> As I have said repeatedly since my return from Beijing, the Chinese government is to be congratulated for the extraordinary measures it has taken to contain the outbreak, despite the severe social and economic impact those measures are having on the Chinese people.
>
> We would have seen many more cases outside China by now – and probably deaths – if it were not for the government's efforts, and the progress they have made to protect their own people and the people of the world.
>
> The speed with which China detected the outbreak, isolated the virus, sequenced the genome and shared it with WHO and the world are very impressive, and beyond words. So is China's commitment to transparency and to supporting other countries.
>
> In many ways, China is actually setting a new standard for outbreak response. It's not an exaggeration.

By the end of January, the USA, Italy, Vietnam, Papua New Guinea and Singapore had all banned flights to and from China. Air France, KLM, Air Canada, British Airways, Delta, Lufthansa and other airlines had cancelled all flights to and from mainland China. By contrast, Dr Tedros was still insisting that 'WHO doesn't recommend, and actually opposes, any restrictions for travel and trade or other measures against China' (ibid.).

At the meeting of the WHO Executive Board on 3 February, Dr Tedros said he had been 'so impressed in my meeting with President Xi at his detailed knowledge of the outbreak, and for his personal leadership, but also at his commitment'. He said that if the virus spread slowly within China, then 'what is going outside can also be controlled easily'. The number of cases reported in other countries, which then stood at 151, was, he said, 'actually small, and it's coming only slow'.[4]

4 'Report of the Director-General, 146th Meeting of the Executive Board', World Health Organization, 3 February 2020 (https://www.who.int/dg/speeches/detail/report-of-the-director-general-146th-meeting-of-the-executive-board).

On 15 February, Tedros once again congratulated China, saying that 'the steps China has taken to contain the outbreak at its source appear to have bought the world time, even though those steps have come at greater cost to China itself'. He added that the 'greatest enemy we face is not the virus itself; it's the stigma that turns us against each other'.[5]

Having started to take the virus more seriously in mid-February, WHO reverted to its old ways towards the end of the month. At a media briefing on 27 February, Tedros made the astonishing claim that the 'evidence we have is that there does not appear to be widespread community transmission'.[6] Two days later, WHO issued recommendations for international travel, saying 'WHO continues to advise against the application of travel or trade restrictions to countries experiencing COVID-19 outbreaks' (WHO 2020c). The new advice did, however, concede that: 'Travel measures that significantly interfere with international traffic may only be justified at the beginning of an outbreak'. That horse had already bolted. The virus had already spread to every corner of the globe. The worst affected countries were China, South Korea and Iran, but there were confirmed cases in fifty other countries. The only continent without a case was Antartica.

On 2 March, with Covid-19 spreading exponentially, WHO put out a series of tweets to tell people how to talk about the virus in a politically correct manner. Inappropriate terms included 'Covid-19 cases', 'victims' and 'suspected cases'.[7] In an accompanying press conference, Tedros said: 'Stigma, to be honest, is more dangerous than the virus itself. And let's really underline that: stigma is the most dangerous enemy'.[8]

5 Speech at the Munich Security Conference, 15 February 2020 (https://www.who.int/dg/speeches/detail/munich-security-conference).

6 WHO Director-General's opening remarks at the media briefing on COVID-19, World Health Organization, 27 February 2020 (https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---27-february-2020).

7 'Social Stigma associated with COVID-19', IFRC, UNICEF and World Health Organization, 24 February 2020 (https://www.who.int/docs/default-source/coronaviruse/covid19-stigma-guide.pdf).

8 World Health Organization Twitter account, 2 March 2020 (https://twitter.com/WHO/status/1234597035275362309).

WHO seemed particularly keen on disassociating the virus from China, saying:

> DON'T - attach locations or ethnicity to the disease, this is not a 'Wuhan Virus', 'Chinese Virus' or 'Asian Virus'. The official name for the disease was deliberately chosen to avoid stigmatization.

As this tweet suggests, the naming of the virus had political significance. The International Committee on Taxonomy of Viruses had designated it SARS-CoV-2 on 13 February to signify that it was the second SARS coronavirus. The original SARS virus had also emerged in China, and some Chinese scientists were unhappy with the association. Guo Deyin, a virologist at Sun Yat-sen University in Guangzhou, said: 'That name can cause panic to people, and may cause gross economic loss to the affected countries when the virus is circulating'.

Recent diseases have tended to be been named after their geographical origin, such as the Ebola river and the Zika forest, and yet WHO not only objected to terms such as 'Wuhan virus' but to anything that was remotely associated with China, such as SARS. It therefore insisted on 'COVID-19' (standing for COronaVirus 2019) instead.

On 8 March, China donated $20 million to WHO. The next day, Italy became the first democratic country to go into lockdown. Incredibly, WHO had still not declared the outbreak to be a pandemic, despite it having met the official criteria weeks earlier. That did not happen until 11 March when WHO tweeted that it was 'deeply concerned both by the alarming levels of spread and severity, and by the alarming levels of inaction. We have therefore made the assessment that #COVID19 can be characterised as a pandemic'.

On 12 March, Dr. Bruce Aylward, a Senior Advisor to the WHO Director-General, restated the agency's opposition to travel bans, claiming that 'a general principle - not a general principle, a pretty robust principle - is that it doesn't help to restrict movement'.[9] Fifteen days later, having got the virus under control, China banned all foreign visitors from entering the country.

9 'World Health Organization: Don't expect travel bans to beat coronavirus', Euronews, 13 March 2020 (https://www.euronews.com/2020/03/13/world-health-organization-don-t-expect-travel-bans-to-beat-coronavirus).

A catalogue of failure

The World Health Organization has been accused of failing in many ways in the early months of 2020. The main charges against it are as follows:

Giving the world a false sense of security about Covid-19

The SARS-CoV-2 virus was in Europe before the Chinese authorities admitted that it was in Wuhan. It was being passed from person to person in China at least a month before Chinese authorities and WHO publicly acknowledged the fact. Chinese doctors were aware of the threat in late December but were silenced.

There is little doubt that the Chinese government was less than candid about the scale of the problem. Defenders of WHO argue that the agency relies on governments being honest. It does not have spies on the ground. Whilst this is true, and it is easy to be critical with the benefit of hindsight, WHO seemed to be wilfully naive in the early weeks of the outbreak.

Some scientists saw more clearly. On 18 January, the MRC Centre for Global Infectious Disease Analysis estimated that the true number of infections in Wuhan was likely to be closer to 1,700 than the 41 officially reported. Professor Jonathan Ball from the University of Nottingham told the BBC that '41 animal-to-human "spillovers" is stretching it a bit and there probably is more underlying infection than has been detected so far'. With cases already recorded in Thailand and Japan, Professor Neil Ferguson of Imperial College drew the logical conclusion: 'For Wuhan to have exported three cases to other countries would imply there would have to be many more cases than have been reported' (Gallagher 2020). At this stage, WHO still accepted the implausible claim that there had been no new cases in China for two weeks and was still undecided on the question of whether there was human-to-human transmission.

WHO also encouraged complacency by its tardiness in declaring Covid-19 a global public health crisis. On 22 January, it delayed making a decision on whether to declare a Public Health Emergency of International Concern, defined as 'an extraordinary event' involving 'the international spread of disease' which 'potentially require[s] a coordinated international response'. Although Covid-19 seemed to meet these criteria, Dr Tedros refused to make such a declaration when WHO discussed the issue on the following day, and it was not until 30 January that WHO finally declared a Public Health Emergency of International Concern. By that time, human-to-human infections had been

confirmed in Germany, the USA, Vietnam and Taiwan. Characteristically, Tedros announced the decision by saying: 'This declaration is not a vote of no confidence in China. This is the time for solidarity, not stigma'.

The declaration of a pandemic was even more belated. Under WHO's definition, there must be human-to-human outbreaks in more than one WHO region for an epidemic to be classified as a pandemic. That had already happened by the last week of January. In late February, Marc Lipsitch, an epidemiologist at the Harvard T. H. Chan School of Public Health said: 'Whatever WHO says, I think the epidemiological conditions for a pandemic are met. Under almost any reasonable definition of pandemic, there's now evidence of it happening' (Callaway 2020). But it was not until 11 March that WHO officially declared it as such.

This is not a trivial terminological issue, as Basham (2020: 11) explains:

> By declaring a public health crisis to be a pandemic, historically the WHO has galvanised governments to prepare their countries for a potential emergency situation. *The Times* finds that, 'This formal confirmation accelerates decisions on the composition, dosage and schedules of vaccines. It further facilitates guidance on the best use of antiviral drugs. Declaring a pandemic is more than semantics. It helps to standardise national responses, puts pressure on countries to update their plans and allocate hospital space'.

By the time WHO declared a pandemic, Italy had been in lockdown for two days and Wuhan had been in lockdown for seven weeks. At least 120,000 people had been infected in over 100 countries, of whom 4,000 had died.

Opposing travel bans

Donald Trump's initial response to Covid-19 was to downplay the risk, comparing it to seasonal flu and claiming that it would disappear 'like a miracle'. Although he would later be forced to take the disease more seriously, the only effective measures he introduced in the early stages were travel bans on China (2 February) and on 26 European countries (14 March). It is now widely accepted that these restrictions limited the number of cases that were imported. Studies have shown the benefits of similar bans in Australia (Costantino et al. 2020) and Japan (Anzai et al. 2020), as well as within China itself where Wuhan was quarantined (Wells et al. 2020).

WHO advised against such measures, even after human-to-human transmission had become undeniable. On 30 January, Dr Tedros said of China (WHO 2020c):

> It has done incredible things to limit the transmission of the virus to other countries. And where respect is due, then you don't punish. Meaning if anyone is thinking about taking measures, it's going to be wrong. And WHO doesn't recommend, and actually opposes, any restrictions for travel and trade or other measures against China.

It is telling that Tedros saw travel bans from China's perspective, as a form of punishment rather than a way for other countries to protect themselves. Whatever the motivation WHO had for opposing travel bans, it was dangerous advice which most countries were wise to ignore.

Opposing face masks

To most people, it seems only common sense that face masks offer some protection - to the user, to other people, or to both - against a virus that is spread by exhaled air particles. Before the pandemic began, there was ample evidence to support this assumption (see Chu et al. 2020 for a summary). Face masks (or face 'coverings') are now mandatory in many public places around the world.

In late January, WHO issued guidance on face masks. For people who did not have respiratory symptoms, it said 'a medical mask is not required, as no evidence is available on its usefulness to protect non-sick persons' (WHO 2020d). WHO was not alone in discouraging the public from wearing masks. The US Surgeon General and Public Health England did the same. The real reason was hinted at in a subsequent WHO publication which noted that 'the current demand for respirators and masks cannot be met' (WHO 2020e).

As the pandemic has progressed, it has been an open secret that the transition from 'not recommended' to 'recommended' to 'mandatory' has not been driven by science but by the need to conserve scarce resources for medical staff. (The fact that medics needed face masks was further evidence that they offered some protection.) WHO's advice changed somewhat in April 2020, when it recommended that people who suspected they had Covid-19 'wear a medical mask as much as possible', although it stressed that 'masks should be reserved for health care workers' (WHO 2020f).

The advice on face masks may have been a ‘noble lie’ designed to protect supply lines, but it instilled complacency in the public (who were led to believe that hand-washing offered sufficient protection) and made it more difficult for governments to encourage mask-wearing once the global shortage ended.

Sidelining Taiwan

Taiwan’s response to Covid-19 has been a model for the rest of the world. An island of 23 million people off the cost of China, at the time of writing it has had fewer than 500 cases and just seven deaths. Having learned from its experience with SARS, it began screening passengers from China as soon as the first cases in Wuhan were reported and it suspended all flights to and from China on 26 January. It limited the number of face masks that people could buy to ensure universal access and dramatically increased the production of masks and hand sanitiser. It never went into lockdown.

As a result of pressure from China, Taiwan does not have a seat on the United Nations and therefore cannot be a member of WHO. In 2017, China succeeded in getting Taiwan banned from WHO’s World Health Assembly as an observer.

The world had a lot to learn from Taiwan in the early stages, but while WHO praised China for ‘setting a new standard for outbreak response’, it was reluctant to sing Taiwan’s praises, or even discuss it. On 28 March, Dr. Bruce Aylward, a Senior Advisor to the WHO Director-General, gave an online interview in which he appeared to hang up on an interviewer who had pressed him on WHO’s relationship with Taiwan:

Interviewer: Will the WHO consider Taiwan’s membership?

Aylward: [long pause]

Interviewer: Hello?

Aylward: I’m sorry. I couldn’t hear your question, Yvonne.

Interviewer: OK, let me repeat the question.

Aylward: No, that’s OK. Let’s move to another one then.

> **Interviewer:** I'm actually curious in talking about Taiwan as well, on Taiwan's case…
>
> [The line goes dead]

When the journalist called Aylward up again and asked him to comment on the way Taiwan had handled the virus, he said: 'Well, we've already talked about China'.[10]

Asked at a press conference on 8 April whether criticism from Donald Trump eroded his moral authority, Dr Tedros went into a monologue in which he accused Taiwan of launching a racist campaign against him.

> I don't care even about being called negro. I am. That's what came from some quarters and if you want me to be specific, three months ago this attack came from Taiwan. We need to be honest. I will be straight today. From Taiwan. Taiwan, the Foreign Ministry also, knew the campaign. They didn't disassociate themselves. They even started criticising me in the middle of all those insult and slurs but I didn't care; three months. I say it today because it's enough but still they can continue.[11]

It remains unclear what Tedros was referring to. Taiwan strongly denied the allegation.

Despite thirteen member states calling for Taiwan to be invited to the World Health Assembly held in May 2020, it was barred once again.

10 Posted on the Studio Incendo Twitter account, 28 March 2020 (https://twitter.com/studioincendo/status/1243909358133473285).

11 'COVID-19 virtual press conference', World Health Organization, 8 April 2020 (https://www.who.int/docs/default-source/coronaviruse/transcripts/who-audio-emergencies-coronavirus-press-conference-full-08apr2020.pdf).

‘Everyone has a plan until they get punched in the mouth’[12] – Public Health England

In a speech on 30 June, Boris Johnson referred to ‘parts of government that seemed to respond so sluggishly that sometimes it seemed like that recurring bad dream when you are telling your feet to run and your feet won’t move’ (Rayner 2020). Although he did not mention Public Health England (PHE) by name, it was widely understood that this was what he was referring to. According to the *Telegraph* (ibid.):

> Whitehall sources said PHE had been ‘too slow’ in its responses and forced the government to take over some of its functions and set up new bodies. Sources said the test and trace service had to be taken out of PHE’s hands, while the Joint Biosecurity Centre, which determines the Covid alert level, had been set up specifically to do a job PHE should have been doing.

When Public Health England was formed in 2013, it said that its ‘primary duty is to protect the public from infectious diseases and other environmental hazards and on this we remain at all times alert and ready’ (PHE 2014a: 57). Like the NHS, it had a pandemic response plan that was geared towards influenza, rather than a novel coronavirus, which suggests that it was expecting a rerun of the swine flu outbreak of 2009, not a version of the SARS outbreak of 2003. It was slow to change course despite early evidence suggesting that Covid-19 was approximately ten times more lethal than seasonal flu and put a far greater strain on health services.

12 Mike Tyson.

PHE's modelling assumed that containment was unlikely and that travel restrictions would have little impact (PHE 2014a: 72). It emphasised the importance of testing the first few hundred cases (known as FF100) to assess the virus, but did not anticipate mass testing since it was assumed that the disease would inevitably spread through the population sooner or later.

By PHE's own account, it has a supporting role in 'the provision of personal protective equipment to front line health and social care staff'. It has a leading role in 'ensuring appropriate surveillance systems are in place' and in 'maintaining the laboratory capability to detect a new virus and develop appropriate diagnostic tests' (PHE 2014b: 10). It was in charge of developing a diagnostic test which it would 'roll out to other laboratories' (ibid.: 15) and of managing statistics (ibid.: 5). In the event, there were significant failures in all these areas.

Aside from the lack of personal protective equipment (PPE) in the early stages, which was not wholly PHE's responsibility, there were five critical areas in which serious shortcomings were evident.

Failure to expand testing

Developing and rolling out diagnostic testing was explicitly the responsibility of PHE. From an early stage, countries such as South Korea, Taiwan and Germany showed the importance of testing. In mid-March, WHO Director-General Tedros said: 'You cannot fight a fire blindfolded. And we cannot stop this pandemic if we don't know who is infected. We have a simple message for all countries: test, test, test'.[13] In Britain, however, a decision was taken on 12 March to 'cease testing in the community and retreat to testing principally within hospitals' (Clark 2020: 10).

PHE's capacity for testing was woefully inadequate. In a meeting on 18 February, the Scientific Advisory Group for Emergencies (SAGE) concluded that PHE could only handle testing and tracing five cases per week, with the capacity to increase this to just fifty. The key to testing is having laboratories to process the result. While other countries ramped up testing by using private sector labs, PHE stuck to the public sector, using twelve of its own labs before using NHS facilities in March.

13 'WHO head: "Our key message is: test, test, test"', BBC News, 16 March 2020 (https://www.bbc.co.uk/news/av/world-51916707).

As Lesh (2020) puts it, the PHE approach was ‘dangerously slow, excessively bureaucratic and hostile to outsiders and innovation’. The House of Commons Science and Technology Committee concluded in May that ‘it was identifiable from the beginning that testing capacity would be crucial’ but that it was ‘not increased early enough or boldly enough’ (Clark 2020: 8). As a result, the daily number of Covid-19 tests never exceeded 9,000 in March, at a time when Germany was conducting half a million tests a week.

Failure to expand contact tracing

Without adequate testing, there cannot be adequate contact tracing. The main purpose of testing is to know who to put into isolation (i.e. the infected person and those they have been in contact with). This was the real strength of the systems of South Korea, Germany, etc.

PHE was quite successful in testing and quarantining infected people in February, but contact tracing was all but abandoned once the virus became more prevalent in March. PHE says that this was not due to a lack of tests, but was a conscious decision, presumably based on its pandemic response plan for influenza.

Giving evidence to the House of Commons Science and Technology Committee on 25 March, Sharon Peacock, PHE’s National Infection Service Director, said that PHE did not intend to follow the model of mass population testing adopted in South Korea, where testing capacity had been increased by 79 laboratories, preferring instead to focus on testing key workers and symptomatic patients. When asked by the committee’s chairman, Greg Clark MP, why PHE had ‘rejected the South Korean model in favour of this particular approach’, Peacock was briefly lost for words, before saying: ‘That’s a good question. I’m just thinking about how I’m going to answer that’. She eventually said that PHE wanted ‘to build on the strengths of the NHS and the NHS actually has 29 laboratory networks around the country’.[14]

14 House of Commons Science and Technology Committee, 25 March 2020 (https://parliamentlive.tv/Event/Index/2b1c71d4-bdf4-44f1-98fe-1563e67060ee).

Asked for the 'evidence base and rationale' behind the decision to reject the South Korean approach, Peacock said this would be published within days. At the time of writing, despite several reminders from the committee, it has still not appeared. On 18 May, Greg Clark (2020: 10) wrote to the Prime Minister, saying:

> The failure of PHE to publish the evidence on which its testing policy was based is unacceptable for a decision that may have had such significant consequences. The absence of disclosure may indicate that—notwithstanding the oral evidence given to the Committee—no rigorous assessment was in fact made by PHE of other countries' approach to testing. That would be of profound concern since the necessity to consider the approaches taken by others with experience of pandemics is obvious.

PHE has since claimed that '[w]idespread contact tracing was stopped because increased community transmission meant it was no longer the most useful strategy'.[15] If so, it was a fatal mistake. It had long been obvious that testing and tracing was the only way to control the epidemic in the absence of a vaccine. In the end, the Department of Health took control of both testing and contact tracing, with Matt Hancock setting a target of 100,000 tests a day on 2 April. As of July, it was testing more people than any other country in Europe.

It is likely that the lockdown in England could have been eased earlier, thus reducing the economic damage, if PHE had got testing and tracing up to speed earlier.

Discouraging the use of face masks

PHE was not the only public health agency to advise people against wearing face masks in the early months of the pandemic, but it went further than most by helping to get adverts for them banned. On 4 March, the Advertising Standards Authority (ASA) ruled that an advertisement for Oxybreath Pro face masks made false claims and caused unjustified fear.

15 'Public Health England response to Sunday Telegraph coverage', Public Health England, 31 May 2020 (https://www.gov.uk/government/news/public-health-england-response-to-sunday-telegraph-coverage).

The advert said:

> The World Health Organization has recently declared the China coronavirus a global health emergency. What's worse is that cases of the coronavirus have jumped tenfold. The death toll is 493 and rising. It would be an understatement to say that there is a growing sense of panic. The best advice I've heard is to stay calm and take practical measures to protect yourself. One of the best ways to protect yourself is to get a high quality facemask that can protect you from: viruses, bacteria, and other air pollutants.

The ASA ruled the adverts to be misleading because…

> We noted that Public Health England did not recommend the use of face masks as a means of protection from coronavirus. We understood there was very little evidence of widespread benefit from their use outside of clinical settings, and that prolonged use of masks was likely to reduce compliance with good universal hygiene behaviours that were recommended to help stop the spread of infectious diseases (including coronavirus), such as frequent hand washing and avoiding touching the eyes, nose and mouth with unwashed hands.
>
> … Particularly in a context where the relevant public health authority had not recommended face masks as a means of the public protecting themselves from coronavirus, we considered that the ads were misleading, irresponsible and likely to cause fear without justifiable reason.

In guidance published on 25 February, PHE recommended that face masks not be worn by pharmacists, medics, care home workers or the general public. Masks were only advised for 'infected individuals when advised by a healthcare worker'. In April, it changed its advice somewhat, telling health workers to wear surgical face masks in parts of hospitals that were likely to have Covid-19 cases.

A single paragraph in that guidance left two astonishing hostages to fortune:

> During normal day-to-day activities facemasks do not provide protection from respiratory viruses, such as COVID-19 and do not

> need to be worn by staff in any of these settings. Facemasks are only recommended to be worn by infected individuals when advised by a healthcare worker, to reduce the risk of transmitting the infection to other people. It remains very unlikely that people receiving care in a care home or the community will become infected.[16]

We now know that, far from being 'very unlikely', there were major Covid-19 outbreaks in countless care homes where around half of all Covid-19 deaths took place between March and July 2020.

We also know that face masks help to reduce the transmission of the virus. On 11 May, the Department of Health advised the public to wear 'face coverings' in enclosed public places. Wearing them became mandatory on public transport in England on 15 June and in shops on 24 July.

As with WHO, this may have been a 'noble lie' to discourage hoarding, but PHE was nevertheless guilty of encouraging complacency and issuing dangerously inaccurate advice.

Failing to share infection data with local authorities

From the outset, local public health directors complained that they were not given enough information from PHE about the prevalence of Covid-19 in their regions. Figures based on testing of patients and health/care workers, which were processed in PHE and NHS labs (known as Pillar 1), were available, but the results of tests of the general population, which are processed in private and university labs (Pillar 2), were not. This became a major issue once mass testing got fully underway in May since Pillar 2 tests were more numerous.

PHE published the results from both pillars once a week, but with a fortnight's lag and with the figures crudely split over nine regions. They were out of date by the time they were published and they lacked the geographical specificity needed to identify local areas of concern. By contrast, Public Health Wales published the data at the local authority level the next day.

16 'Guidance on facemasks', Public Health England, 25 February 2020 (https://www.gov.uk/government/publications/guidance-for-social-or-community-care-and-residential-settings-on-covid-19/guidance-for-social-or-community-care-and-residential-settings-on-covid-19#guidance-on-facemasks).

The Local Government Association had been lobbying for the data to be made available since April, but it took a spike of cases in Leicester in June to bring matters to a head. The city went into lockdown on 2 July after a resurgence of the virus. Nobody in Leicester knew how quickly it had spread until it was too late. Like other local authorities, it had to make decisions based on a fraction of the evidence. When Leicester's full testing figures were made available for 13-26 June, it showed 80 cases from Pillar 1 and 864 cases from Pillar 2. Similarly, when the first week of full data was made available to authorities in Manchester, it showed 78 cases in Pillar 1 but 465 cases overall. Local public health workers had been fighting blind.

As a result of media pressure, PHE finally starting publishing Pillar 2 data online by local authority from the start of July. It also started sharing figures at the post code level with local authorities (BBC 2020).

Miscounting deaths

PHE's fifth major blunder may not have been lethal, but it revealed an extraordinary degree of incompetence. As the virus dwindled in July 2020, a handful of observers noticed that hospital deaths from Covid-19 were falling more rapidly that total deaths from Covid-19. On 16 July, a blog post written by Yoon K. Loke and Carl Heneghan (2020) from the Centre for Evidence-Based Medicine provided the answer to this puzzle. Loke and Heneghan explained that PHE tracked everybody in England who tested positive for Covid-19, but did not keep a record of who recovered. When that person died - *of any cause* - it was automatically counted as a Covid-19 death.

This methodology meant that 'everyone who has ever had COVID at any time must die with COVID too. So, the COVID death toll in Britain up to July 2020 will eventually exceed 290k, if the follow-up of every test-positive patient is of long enough duration'. Given the old age of many Covid-19 patients and the high prevalence of the disease in care homes, this was no trivial issue. PHE's figures exaggerated the death toll, and the gap between the official daily mortality figures and the real mortality figures would only increase as the number of genuine cases declined.

It had been noticed that the decline in Covid-19 deaths in Scotland, Wales and Northern Ireland was sharper than in England during the late stages of the first wave. This revelation helped explain why. Scotland, Wales and

Northern Ireland all collected their deaths in a reasonable way, counting them as Covid-related only if the person died within 28 days of testing positive.

Once again, the health secretary, Matt Hancock, was forced to step in, launching an immediate investigation into the way PHE collated the data and ceasing the publication of daily mortality figures until the issue was ‘resolved’.

One job?

How could these two multi-billion-pound public health agencies fail so badly at the moment of greatest need? It was PHE's first pandemic, but memories of swine flu were fresh in the minds of its scientists and it made the classic mistake of trying to fight the last war. It was not agile enough - and perhaps too arrogant - to change course in light of new evidence. It failed in the basic tasks of collecting and sharing data, it was slow to increase testing capacity, and it made a conscious decision to reject the strategy of mass testing and tracking that had worked in other countries.

WHO had more experience of tackling new viruses but had been criticised for its response to the first Ebola outbreak of 2014.[17] Its praise of the Chinese government in early 2020 went beyond the diplomatic niceties required to maintain co-operation. It expressed doubt about human-to-human transmission long after it was obvious that it was taking place. It opposed the sensible precautions of travel restrictions and face masks. These actions were incompetent, at best. The sidelining of Taiwan seems to have been purely political.

This might seem like a 'you had one job' situation. The problem is that, although PHE and WHO officially prioritise infectious diseases, both organisations spread themselves thinly over a huge range of medical, political and social issues. This reflects a broadening in scope of the 'public health' movement generally, which has largely moved on from infectious disease control to focus on lifestyle regulation and various forms of 'social justice'. They do not see themselves as having just one job.

17 'The World Health Organzation's (WHO) reputation became irrefutably damaged during the Ebola outbreak, with a general consensus in the global health community that it fell short of its leadership responsibilities' (Wenham 2017).

When Duncan Selbie became PHE's first CEO in 2013, the *Lancet* reported that 'he firmly believes that the key factors to good health lie in tackling the underlying social determinants: "Jobs, homes, and friends are what will make the biggest difference to improving people's health"' (Das 2013). This may or may not be true, but providing jobs, homes and friends is not within the gift of a public health agency. Similarly, WHO prioritises such issues as gender equality, poverty reduction and universal healthcare. Few would contest that these are laudable aims, but reasonable people disagree on how to achieve them. WHO has no particular expertise outside of medicine, no legislative power and no obvious means by which it can reduce poverty or bring about worldwide gender equality. Complex socio-economic issues belong in the realm of politics, not 'public health'.

Unable to do much about these political issues directly, WHO and PHE settle for 'advocacy'. They have become, to a large extent, state-funded pressure groups, campaigning on a range of causes. PHE's first public action - announced a week before the agency officially came into existence - was to endorse minimum pricing for alcohol. In 2019, WHO classified computer gaming disorder as a disease. Both organisations have been preoccupied with fizzy drinks and fast food. One of PHE's major initiatives in recent years has been the unrealistic and frequently preposterous programme of taking arbitrary quantities of sugar, fat, salt and calories out of food products (Appleton 2020).

A hint of WHO's priorities came on 3 February 2020 when Dr Tedros spoke at the Meeting of the Executive Board. Listing the year's 'key achievements', he began with WHO's 'historic agreement with the International Food and Beverage Association' to remove trans-fats from the food supply and proudly announced that WHO had helped set limits on the volume at which iPhones can play music. He spoke of 'growing evidence about the threat posed by e-cigarettes' and said that this was 'an increasing area of focus for WHO'.[18]

Throughout the pandemic, there was a palpable sense that WHO and PHE were yearning to retreat into their comfort zone of discussing lifestyle factors. E-cigarettes have been an obsession of WHO for several years. On 21 January, with the virus spreading rapidly around the world, it put out a string of bizarre tweets in which it claimed that vaping causes heart

18 'Report of the Director-General, 146th Meeting of the Executive Board', World Health Organization, 3 February 2020 (https://www.who.int/dg/speeches/detail/report-of-the-director-general-146th-meeting-of-the-executive-board).

disease, that 'secondhand e-cigarette emissions' pose a threat to bystanders and that e-cigarette fluid can burn skin.[19] There is no evidence for any of this. The Twitter thread concluded with an appeal to governments to tax e-cigarettes in a similar way to tobacco.

As lockdowns became more common, WHO launched a #HealthyAtHome campaign with dietary advice it claimed would help people 'prevent, fight and recover from infections' (WHO 2020g). It told the public to 'avoid butter and full fat milk, limit salt consumption to five grams a day … limit intake of sweets and sugary drinks such as fizzy drinks, fruit juices and juice drinks, liquid and powder concentrates, flavoured water, energy and sports drinks, ready-to-drink tea and coffee and flavoured milk drinks'. If people felt the need to snack, WHO said they should only 'choose raw vegetables, fresh fruit, and unsalted nuts'. This was no more than a rehash of its usual nutritional advice. There was no evidence that avoiding fruit juice, tea, butter and suchlike would have any effect on the virus.

In the early days of the UK's lockdown, PHE declared that smokers with Covid-19 were fourteen times more likely to become seriously ill.[20] This astonishing statistic was based on a small study from China which looked at just five smokers. It was never replicated, but while PHE was happy to promote the results from an outlying study, it said nothing about the growing body of evidence showing that smokers were heavily under-represented in coronavirus wards (Farsalinos et al. 2020). In a similarly tenuous attempt to implicate smoking, WHO claimed that smokers 'have a higher risk of getting coronavirus because they are constantly putting their hands to their lips' (WHO 2020b).

In June, WHO published a lengthy report about alcohol labelling practice in Europe (Jané-Llopis et al. 2020). This was followed by a report about the need for higher taxes and minimum pricing for alcohol (Angus 2020). In a break from its previous advice, WHO used its lockdown health guidance to make the scientifically controversial claim that there is 'no safe level of alcohol consumption' (WHO 2020g).

19 World Health Organization Twitter account, 21 January 2020 (https://twitter.com/WHO/status/1219618083645595650).

20 'Smokers at greater risk of severe respiratory disease from COVID-19', Public Health England, 3 April 2020 (https://www.gov.uk/government/news/smokers-at-greater-risk-of-severe-respiratory-disease-from-covid-19).

After years of talking about the ‘epidemics’ of vaping, drinking and smoking, PHE and WHO found it difficult to change the record even in the midst of a major epidemic. There was scant evidence that any of these activities were relevant to Covid-19 and so it must have come as a relief when obesity was identified as a risk factor for Covid-19 disease progression. Suddenly gifted with a Covid-related justification for its interventions in the food supply, PHE emphasised the obesity angle in two hastily written reports in the summer of 2020. On 27 July, the British government announced a range of anti-obesity policies that PHE had been advocating for years, including restrictions on advertising and multi-buy offers.

The runaway train of nanny state regulation, which had looked set to be derailed by a genuine public health crisis only a few months earlier, instead ended up moving fasting than ever.

What is to be done?

The institutional failure of public health agencies does not easily lend itself to free-market solutions. Most classical liberals would agree that infectious diseases and environmental hazards require collective action which, in practice, often means government action. However, funding for public health agencies does not have to come from the state and there is room for an element of competition.

The World Health Organization is arguably no longer fit for purpose. It is compromised politically and has spread itself too thinly over too many issues, many of which are only indirectly linked to health. Its competence has been brought into question. We may need a world health organisation but we do not need *the* World Health Organization.

In an article for the *Times*, David Cameron (2020) argued that WHO is beyond reform and needs to be gradually replaced, starting with its most important function of new disease surveillance and information sharing. He suggested creating a 'new, nimble, global, open, independent organisation' to be called the Global Virus Surveillance Organisation. This is an idea worth exploring, although it should be expanded to include infectious bacterial disease. Alternatively, an existing organisation, such as the Coalition for Epidemic Preparedness Innovations, could be beefed up to fill the role of global pandemic watchdog-cum-whistleblower.

This could be achieved if governments diverted funds away from WHO and towards the new organisation. The USA has already taken steps in this direction. Under Donald Trump, it has defunded WHO, withdrawing its $450 million a year contribution and 'redirecting those funds to other worldwide and deserving, urgent global public health needs'.[21]

21 'Remarks by President Trump on Actions Against China', The White House, 29 May 2020 (https://www.whitehouse.gov/briefings-statements/remarks-president-trump-actions-china/).

Private philanthropists and corporate donors could do the same. It might involve some duplication of work in the first instance, but it would not necessarily be a bad thing to have another pair of eyeballs on emerging viral threats. If the new agency proved itself more capable than WHO then so much the better. If the arrival of competition incentivises WHO to raise its game, that would also be a win.

PHE, meanwhile, could be disbanded and replaced with a Centre for Infectious Disease Control. It would take over PHE's laboratories and science campuses at Chilton, Colindale, Porton and Harlow. Its budget would be similar to the amount PHE currently spends on vaccines, counter-measures, infectious disease prevention and environmental hazards (around £550 million), plus any earned income (PHE raised £168 million in 2018/19). This would be significantly more than its predecessor, the Health Protection Agency, which was focused solely on infectious diseases and environmental hazards. It had a total operating budget of £176 million in its last year before being replaced (2012/13). It is a myth that PHE has been under-funded.

Health promotion campaigns could be restored to the NHS, and local public health budgets could be supplied by the Department of Health. Academic work currently published by PHE, such as its evidence reviews on vaping, is largely outsourced to external authors and would continue to be so, but could be commissioned by the Department of Health.

The new agency could be in charge of stockpiling vaccines (emergency and routine), genetic sequencing, diagnostic testing and surveillance, as PHE is now, but its responsibilities for pandemic preparation might be expanded to include stockpiling of PPE, contact tracing, modelling and planning. The aim would be to create a 'one stop shop' in charge of preparing and executing a response to outbreaks of infectious disease, including influenza. It would work closely with the Chief Scientific Advisor, local authorities and the Department of Health, but the buck would stop with the new agency. Unlike PHE, which has been largely invisible during the Covid-19 pandemic (its CEO, Duncan Selbie, reportedly has not made a single public appearance),[22] the new agency would be the public face of any future response to infectious disease outbreaks.

Whatever name we give these new organisations, they should be given one job and do it properly.

22 'Covid-19 unmasks weaknesses of English public health agency', *Financial Times*, 22 July (https://www.ft.com/content/e149101a-1c93-4b0a-bc12-14ca8bf11b0e).

Epilogue

While this report was being edited in August 2020, it was announced that Public Health England would be closed down and replaced by a new agency, the National Institute for Health Protection. According to health secretary Matt Hancock, the Institute will have a 'single and relentless mission – protecting people from external threats to this country's health'. When he announced this on 18 August, Hancock made a clear distinction between 'health protection' and 'health improvement'. The former involves infectious disease, biosecurity and environmental hazards. The latter involves personal risk factors, such as physical inactivity and smoking. The implication was that PHE had spent too much time on the latter, at the expense of the former.

The distinction is crucial. For too long, both agendas have been muddled together under the banner of 'public health'. Of the two, health protection is the only one that requires government action. People can improve their own health, but they cannot always protect themselves from infectious or environmental threats.

There is now some discussion about what should happen to the 'health improvement' activities after PHE is disbanded. In his farewell letter to staff, Duncan Selbie wrote that the 'obvious next priority is to secure the right and best future for all those other responsibilities of PHE that are not about health protection'. Having set up the National Institute for Health Protection, the government may be tempted to set up a National Institute for Health Improvement. This would create unnecessary and costly bureaucracy.

The plan outlined in the conclusion above could provide a better alternative. The NHS, the Department of Health and local authorities have the capability and resources to provide health education, advice, services and evidence

reviews. They did it before Public Health England was formed - which was, after all, only seven years ago - and could do so again.

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