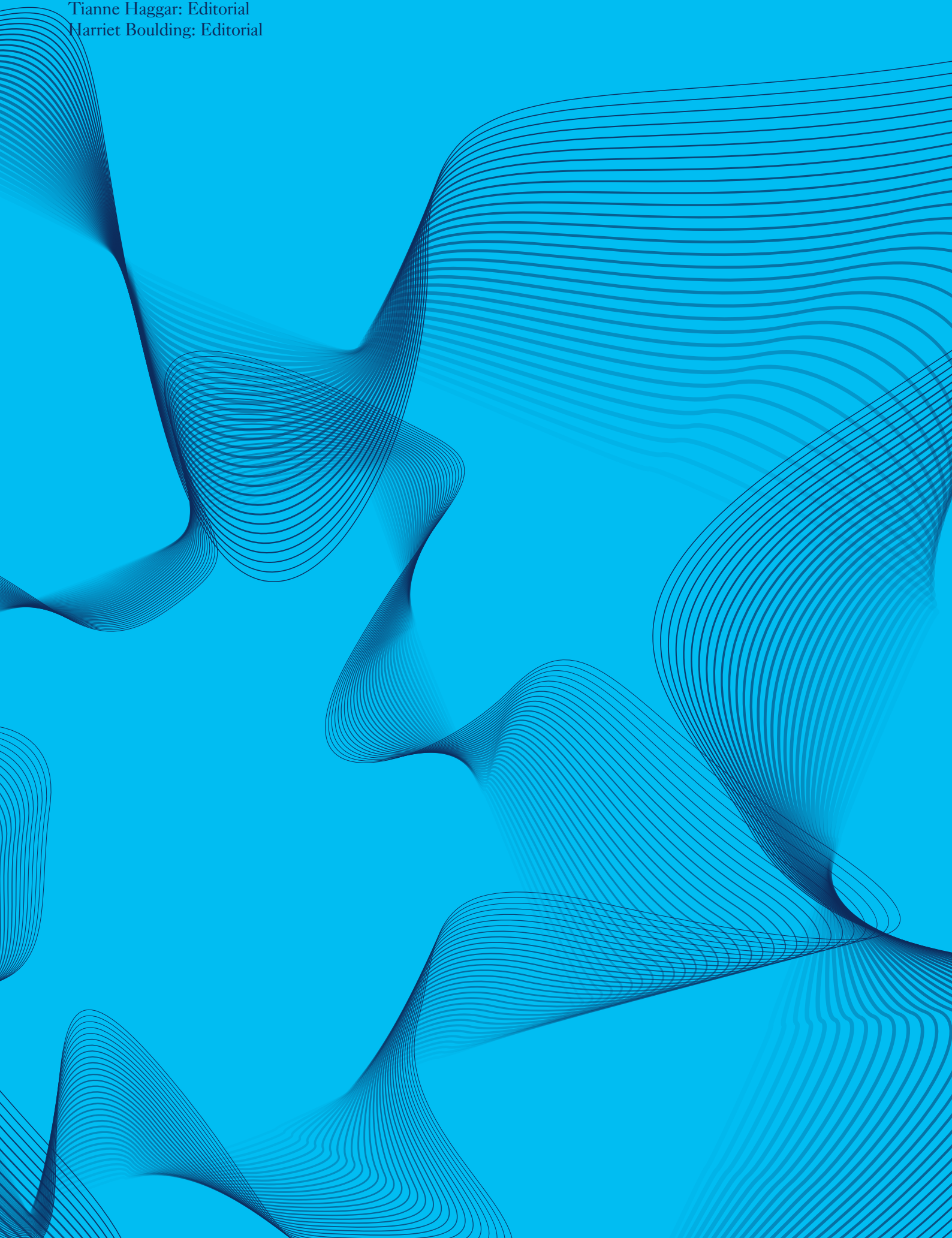# EPR HPRU annual review

2022

Becca Shepard: Editorial and design
James Rubin: Editorial
Tianne Haggar: Editorial
Harriet Boulding: Editorial

Foreword

Baroness Manningham-Buller

I am delighted to introduce this fascinating report on the work of the Emergency, Preparedness and Response Health Protection Research Unit (EPR HPRU) at King's College London, in partnership with UK Health Security Agency, during the Covid-19 pandemic.

The remit of the EPR HPRU covers many aspects of emergency preparedness and response, but the team has focussed on behavioural science in this report. And if anyone had any doubt about the critical importance of behavioural science, those doubts should have been roundly dispelled by the urgent and compelling need for it during the pandemic.

When asked to chair the Advisory Board of the unit, I accepted at once, partly because of my own background in MI5 – where our in-house behavioural science unit had proved invaluable over many decades – and partly because of what I saw of the discipline during my dozen years at the Wellcome Trust.

As the threat from Covid-19 emerged early in 2020, governments around the world soon faced hard decisions. Research teams rapidly switched their focus to support policymakers, with work on vaccines, therapeutics and diagnostics, and, of course, with advice from behavioural scientists.

In the UK we already had a group of government funded HPRUs, and the help of the Emergency Preparedness and Response Unit was soon sought by the government. The unit already had a high reputation from its experience studying crises including flooding, nuclear accidents, terrorism, cholera, ebola and swine flu, even botched assassination attempts.

Extensive demands were made on the unit as Covid-19 gathered pace. The team's first paper was on the psychological impact of quarantine and this rapidly became one of the most cited papers in the two hundred year history of King's.

The team has since then studied, for example, the spread of Covid-19 in care homes, the use of personal protection equipment by NHS staff, the effect on parents of home-schooling, the challenges of working from home, how to improve uptake of testing and self-isolation and much more. That work provided critical advice to those seeking at a national level, and not just in the UK, to manage the response to the crisis.

Based on the team's high-quality research and reputation, six of its members were also invited to serve on SAGE and its subgroups. And the unit responded positively to the many requests which it received for media interviews. The chair of the unit, Sir Simon Wessely, interviewed many key people in a series for the Royal Society of Medicine, of which he was President at the start of the pandemic.

As the Covid-19 threat appears to be diminishing, the team in the unit has been reflecting on some of the lessons learned throughout the pandemic, and has generated other studies. These include explorations of adherence to self-isolation, the damaging effect of leaks from within government, how social divisions were exacerbated by Covid-19, the mental health of NHS staff, the barriers to seeking a test and the social psychology of emergency responders working as a team.

In its work on Covid-19 the unit has demonstrated how important and necessary it is. It responded brilliantly to the worst health crisis for many years. As the crisis stage of Covid-19 wains, let us hope that it will now be easier for the unit to focus on the "preparing" rather than "responding" part of its brief.

Covid-19 timeline

Key dates from the UK's Covid-19 response

Covid-19 first emerges

- **Jan 11:** First recorded death from Covid-19
- **Jan 23:** First Covid case confirmed in the UK
- **Jan 25:** FCO advises against travel to China's Hubei Province
- **Jan 29:** First two UK cases confirmed

The virus "peaks" in the UK

- **Apr 6:** UK death toll exceeds 5,000, 52,000 total cases
- **Apr 20:** PPE shortage reported
- **Apr 22:** Human Covid vaccine trials begin as the Health Secretary announces the "peak" of the virus in the UK

Lockdown measures ease

- **Jun 1:** Lockdown measures ease and children return to school
- **Jun 8:** Travellers entering the UK required to self-isolate for 14 days
- **Jun 15:** Shops, outdoor venues and places of worship re-open
- **Jun 19:** UK CMO suggest the Covid-19 Alert Level be lowered from 4 to 3 after steady decrease in cases and daily deaths

"Eat out to help out"

- **Aug 3:** UK's "Eat out to help out" scheme launched
- **Aug 8:** Hundreds march for fair pay for NHS workers
- **Aug 15:** Lockdown is eased further in the UK, with reopening of indoor play centres, performances and wedding receptions
- **Aug 27:** NHS Test and Trace Self-isolation Payment Scheme announced and piloted
- **Aug 27:** Global cases pass **25 million**

2020 Jan — **Mar** — **Apr** — **May** — **Jun** — **Jul** — **Aug**

Pandemic status is declared

- **Mar 5:** First recorded death from Covid-19 in the UK & **115** confirmed cases in the UK
- **Mar 11:** Covid is declared a pandemic
- **Mar 18:** UK gov. announces school closures from 20 March and that no exams will take place in 2020
- **Mar 20:** Furlough scheme is announced
- **Mar 23:** UK PM, Boris Johnson, announces first UK lockdown measures
- **Mar 26:** UK lockdown regulations come into effect

UK has the highest death toll in Europe

- **May 5:** UK death toll is **29,427**, the highest in Europe
- **May 10:** UK PM announces plans to ease lockdown
- **May 11:** UK government advise people to wear face coverings in enclosed spaces
- **May 28:** NHS Test and Trace launches and groups of six people or less allowed to meet outside

Vaccine breakthrough

- **Jul 3:** UK releases a list of 52 countries which won't require quarantine on return from travel from 10 July
- **Jul 4:** "Super Saturday" with restaurants and barbers reopening in the UK
- **Jul 20:** Covid vaccine breakthrough as Oxford Astrazeneca vaccine is found to provide immunity
- **Jul 24:** Face coverings become compulsory in shops and enclosed spaces in England

NHS launches Spring Booster Programme

- **Mar 15:** Compulsory vaccines for care home workers is lifted
- **Mar 26:** NHS England launches its its Spring Booster Programme, offering a booster vaccine to 600,000 75+ year olds, and medically vulnerable people aged over 12
- **29 March:** Lateral Flow Tests are no longer freely available to the general public

Hospitals declare critical incidents

- **Jan 5:** As figures show 1 in 15 people in the UK had Covid on NYE, more than 10 hospital trusts in England declare critical incidents due to Covid
- **Jan 6:** 200 military personnel are deployed to help short-staffed hospitals/ambulance services
- **Jan 17:** Self-isolation period following a positive Covid test is cut to five days
- **Jan 27:** "Plan B" measures are lifted
- **Jan 31:** Vaccine mandate for NHS staff is scrapped and care home restrictions are eased

Booster vaccines announced

- **Nov 2:** UK records **293** Covid-19 related deaths in 24 hrs, the highest number since Feb
- **Nov 11:** UK issues vaccine mandate for care home workers
- **Nov 21:** UK Health Secretary announces booster vaccines will be offered to all adults
- **Nov 28:** International arrivals to the UK must take a PCR test and self-isolate
- **Nov 29:** WHO warns of "very high" risk from new strain

Mar — **Jan 2022** — **Nov**

Apr — **Feb** — **Dec** — **Oct**

Hospitals in England under "enormous strain"

- **Apr 2:** Low-dose Covid vaccines become available for 5-11 year olds in England, with five million eligible
- **Apr 7:** Hospitals in England are under "enormous strain", with some having to divert ambulances to other sites

All Covid measures are lifted

- **Feb 16:** The number of Covid patients in hospital with in England falls **below 10,000** for the first time since December
- **Feb 24:** All domestic COVID measures in England are lifted England are lifted, including the legal requirement to self-isolate and the £500 isolation payment for people on low incomes who are required to self-isolate

"Plan B" comes into effect

- **Dec 10:** Face masks become compulsory in most public indoor venues under "Plan B"
- **Dec 15:** NHS Covid Pass becomes mandatory in specific settings (eg nightclubs) under "Plan B"

Omicron variant identified

- **Oct 4:** Traffic light system for foreign travel scrapped and replaced with travel "red list"
- **Oct 7:** "Red list" reduced to 7 countries
- **Oct 7:** New variant in the UK identified as Omicron
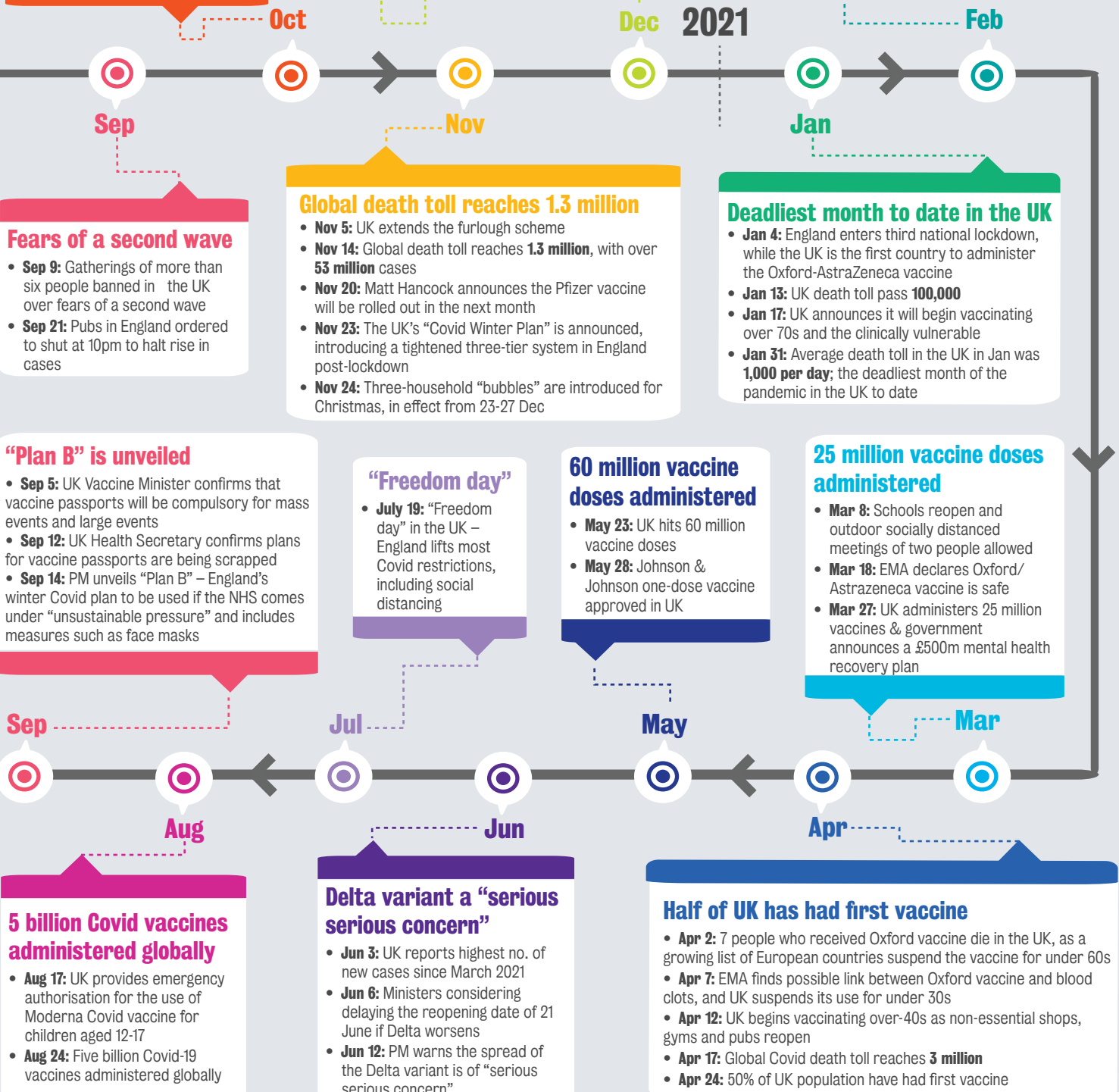
Second UK lockdown

- **Oct 4:** Global cases pass **35 million**
- **Oct 12:** Three tier system alert levels issued
- **Oct 22:** **£15 million** invested in mental health services for NHS staff by NHS England and Improvement
- **Oct 31:** Second national lockdown introduced for four weeks as UK passes **1 million** cases

New variants discovered

- **2 Dec:** Second lockdown ends, replaced by tier system
- **Dec 8:** UK administers first dose of the Pfizer vaccine
- **Dec 19:** 18 million people in London and SE England placed in tier four amid warnings of a new variant
- **Dec 24:** New variant found in Nigeria
- **Dec 26:** Global cases pass **80 million**

Delta variant detected

- **Feb 12:** R-value drops below 1 for the first time since July
- **Feb 15:** Mandated 10-day hotel quarantine imposed for travellers from "red list" countries
- **Feb 22:** PM announces four-stage "road map" out of lockdown
- **Feb 27:** UK records lowest case numbers in five months

Oct

Dec **2021**

Feb

Sep

Nov

Jan

Fears of a second wave

- **Sep 9:** Gatherings of more than six people banned in the UK over fears of a second wave
- **Sep 21:** Pubs in England ordered to shut at 10pm to halt rise in cases

Global death toll reaches 1.3 million

- **Nov 5:** UK extends the furlough scheme
- **Nov 14:** Global death toll reaches **1.3 million**, with over **53 million** cases
- **Nov 20:** Matt Hancock announces the Pfizer vaccine will be rolled out in the next month
- **Nov 23:** The UK's "Covid Winter Plan" is announced, introducing a tightened three-tier system in England post-lockdown
- **Nov 24:** Three-household "bubbles" are introduced for Christmas, in effect from 23-27 Dec

Deadliest month to date in the UK

- **Jan 4:** England enters third national lockdown, while the UK is the first country to administer the Oxford-AstraZeneca vaccine
- **Jan 13:** UK death toll pass **100,000**
- **Jan 17:** UK announces it will begin vaccinating over 70s and the clinically vulnerable
- **Jan 31:** Average death toll in the UK in Jan was **1,000 per day**; the deadliest month of the pandemic in the UK to date

"Plan B" is unveiled

- **Sep 5:** UK Vaccine Minister confirms that vaccine passports will be compulsory for mass events and large events
- **Sep 12:** UK Health Secretary confirms plans for vaccine passports are being scrapped
- **Sep 14:** PM unveils "Plan B" – England's winter Covid plan to be used if the NHS comes under "unsustainable pressure" and includes measures such as face masks

"Freedom day"

- **July 19:** "Freedom day" in the UK – England lifts most Covid restrictions, including social distancing

60 million vaccine doses administered

- **May 23:** UK hits 60 million vaccine doses
- **May 28:** Johnson & Johnson one-dose vaccine approved in UK

25 million vaccine doses administered

- **Mar 8:** Schools reopen and outdoor socially distanced meetings of two people allowed
- **Mar 18:** EMA declares Oxford/ Astrazeneca vaccine is safe
- **Mar 27:** UK administers 25 million vaccines & government announces a £500m mental health recovery plan

Sep

Jul

May

Mar

Aug

Jun

Apr

5 billion Covid vaccines administered globally

- **Aug 17:** UK provides emergency authorisation for the use of Moderna Covid vaccine for children aged 12-17
- **Aug 24:** Five billion Covid-19 vaccines administered globally

Delta variant a "serious serious concern"

- **Jun 3:** UK reports highest no. of new cases since March 2021
- **Jun 6:** Ministers considering delaying the reopening date of 21 June if Delta worsens
- **Jun 12:** PM warns the spread of the Delta variant is of "serious serious concern"

Half of UK has had first vaccine

- **Apr 2:** 7 people who received Oxford vaccine die in the UK, as a growing list of European countries suspend the vaccine for under 60s
- **Apr 7:** EMA finds possible link between Oxford vaccine and blood clots, and UK suspends its use for under 30s
- **Apr 12:** UK begins vaccinating over-40s as non-essential shops, gyms and pubs reopen
- **Apr 17:** Global Covid death toll reaches **3 million**
- **Apr 24:** 50% of UK population have had first vaccine

Learning lessons from the UK's self-isolation programme

Louise Smith

One of the most commonly used strategies to control the Covid-19 pandemic globally has been self-isolation of confirmed cases. This reduces the spread of the virus by limiting personal contact of those who are ill with Covid-19 with other people. Some countries enforced institution-based isolation throughout the pandemic, requiring people to self-isolate in designated quarantine facilities.[1] However, the UK strategy relied upon self-enforced isolation.

For those who tested positive for Covid-19, self-isolation was a legal requirement in the UK from September 2020 until February 2022, when it became a recommendation rather than a requirement.[2] Despite being a legal requirement for most of the pandemic, adherence to self-isolation has been low.[3,4] Understanding why this is the case can inform policy, taking lessons forward to promote positive public health behaviours in the future.
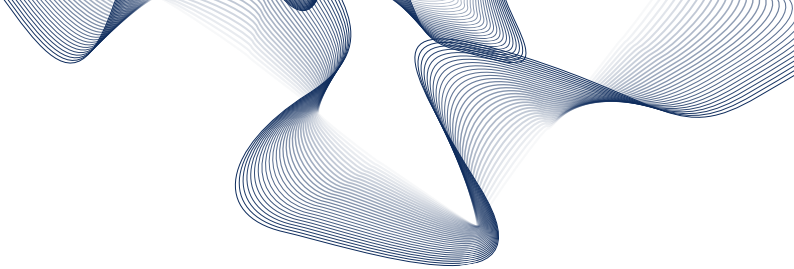
The UK's approach to Covid-19 lockdowns

The UK government announced a nationwide lockdown on March 23 2020 in response to the novel coronavirus.[5, 6] People were only allowed to leave for a limited set of essential reasons[7] and were required to self-isolate for 14 days if they, or anyone in their household, displayed any of the two main symptoms of Covid-19 – a new continuous cough, and a fever.[8] In May 2020, a third symptom – loss of change in smell or taste – was added.[9.]

Restrictions were gradually eased over the summer of 2020[10] and the Test, Trace and Isolate programme came into effect.[11] This required people to test if symptomatic, self-isolate if positive and share close contacts from the previous days with NHS contact tracers.[12]

> " [There is] a crucial gap between people's intentions and behaviours when it comes to Covid-19"

Then came the implementation of a series of changes to restrictions. In September 2020 the "rule of six" was introduced, limiting the size of groups to six people.

In October 2020, the tier system came into effect, introducing restrictions in local areas depending on case numbers in that area.[13] This was followed by two more national lockdowns in November 2020 and January 2021.[14] The self-isolation period was cut from 14 to 10 days in December 2020.[15]

On February 22 2021, the Prime Minister published a roadmap for lifting lockdown, which involved the gradual removal of restrictions over summer 2021.[16] At this time, there was also a large drive for people to get vaccinated for Covid-19 and to use rapid home testing (lateral flow tests). In December 2021, the self-isolation period was cut to seven days if people tested negative on day six and seven.[17] In January 2022, this was further cut to five days, if you tested negative on day five and six.[18]

On February 24 2022, the legal requirement to self-isolate was removed and replaced with a recommendation to self-isolate if symptomatic.[19]

Did people adhere to self-isolation rules?

Adherence to the full self-isolation pathway was critical for its success as a strategy to reduce the spread of the virus. Our survey data suggest that 25 per cent of people who reported Covid-19 symptoms in their household in May 2020 had not left their home at all.[20]

Across the first 11 months of the pandemic, an average of 42.5 per cent of people fully self-isolated when they had symptoms.[21] However, people's intention to isolate was much higher, with around 70 per cent of people saying they intended to self-isolate if they had symptoms.[22] This reveals a crucial gap between people's intentions and behaviours when it comes to self-isolating for Covid-19.

Reasons and risk factors

The intention-behaviour gap highlighted a need to understand the reasons and risk-factors for non-adherence. Among those least likely to follow self-isolation requirements were people working in a key sector, of lower socio-economic status, experiencing financial hardship, from areas of greater deprivation, and people with a dependent child in the household.[23]

Men were also less likely than women to self-isolate.[24] Young people were also less likely to self-isolate than older people [25] – this was a common pattern during the pandemic This may be due to a desire to be socially active and maintain contact with friends, or due to the perception that Covid-19 is less of a risk to younger people.

Low rates of self-isolation could also have been driven by a lack of knowledge; only half of people identified a cough, fever and loss of taste and smell as main symptoms of Covid-19.[26] This is important because symptom recognition can be a precursor to self-isolation.

Despite government information campaigns, people might not have recognised these symptoms because government information did not always name the symptoms. There was also a wealth of misinformation around Covid-19, as well as reports of other flu-like symptoms. To combat this issue, communication strategies could be targeted to groups with low adherence to self-isolation, to improve knowledge of
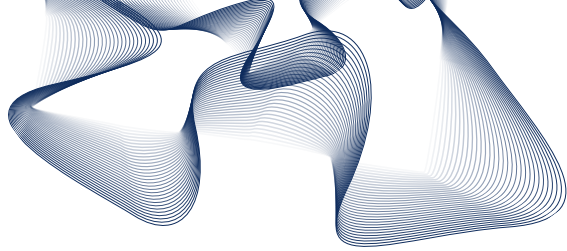
symptoms, promote self-isolation, and combat narratives that promote breaking Covid-19 regulations.[27, 28]

Other explanations for not following self-isolation rules may include personal and situational reasons, such as helping someone from outside your household, working in a key sector, or having a lower socio-economic status.[29]

Policymakers recognised the disproportionate impact of the pandemic on people from lower socio-economic backgrounds and the financial barriers that many people faced to self-isolate. By highlighting this disparity, our work directly informed policy that introduced the Test and Trace Support Payment scheme, which ran until February 24 2022.[30] This helped people to self-isolate by providing a £500 grant to people on low incomes who were asked to self-isolate.[31]

Psychological factors also influenced whether people followed self-isolation rules. Being worried about Covid-19 and a high perceived likelihood of catching the virus were associated with following the rules.[32] In contrast, believing that you have already had Covid-19 and lower social pressure to follow the rules were associated with lower rates of self-isolation.[33] This suggests that creating social norms around self-isolation would nudge people to follow the rules and engage in good public health behaviours.

Bridging the gap

Evidence-informed policy has had some success in bridging the gap between intention and behaviour when it comes to self-isolation; the proportion of people following self-isolation rules increased slightly over time to 51.8 per cent in January 2021, and the number of people with Covid-19 symptoms who requested a test also increased slightly.[34] However, there is still a long way to go in ensuring that people follow public health regulations.

As of February 2022, in England, there is no longer a legal requirements to self-isolate when symptomatic, and final restrictions are being gradually removed in Wales, Scotland and Northern Ireland.[35] However, the government still recommends that people self-isolate when they experience symptoms of Covid-19,[36] the list of which has also expanded to include nine new symptoms.

Self-isolation continues to be a crucial strategy to combat Covid-19, with many workplaces and organisations maintaining their own self-isolation policies. Understanding adherence to self-isolation, and public health guidance more generally, also provides a valuable lesson that can be taken forward for future pandemics, to demand and inform effective intervention at the level of policy.

Louise Smith is a post-doctoral researcher in the NIHR Health Protection Research Unit.

Lockdowns and leaks

Paul Hunter

A key policy response to the global Covid-19 outbreak was the introduction of lockdowns. These varied in severity and length from country to country but were hailed as the primary method of keeping the effective reproduction rate (R rate) down, reducing the spread of the virus and so decreasing the burden on hospitals and healthcare systems and saving lives.[1]

Lockdowns have been shown to have saved millions of lives worldwide, however, this came at a huge financial and mental health cost, which was disproportionately felt among vulnerable groups.[2] As a result, in the UK it was suggested that a more "targeted" or "proportional" approach to restrictions should be taken to continue to keep infections down, while balancing the economic wellbeing, mental health and general welfare of the population.[3,4]

This was the basis of the UK tier system, announced on 14 October 2020, which introduced a three-tiered system of local Covid-19 Alert Levels. Tiers were set at medium (Tier one), high (Tier two), and very high (Tier three),[5] whereby different tiers were allocated across England depending on the level of Covid-19 infection in the area as determined by the R rate.

The tier system involved the following restrictions:

Tier one: The "rule of six" – where indoor gatherings in pubs and restaurants are limited to six people – and the closure of hospitality at 10pm.

Tier two: "Rule of six" for all outdoor hospitality venues and public and private gardens.

Tier three: Prohibition of social mixing indoors and in private gardens and, closing of indoor and outdoor hospitality venues.

> " Lockdowns have been shown to have saved millions of lives worldwide, however, this came at a huge financial and mental health cost"
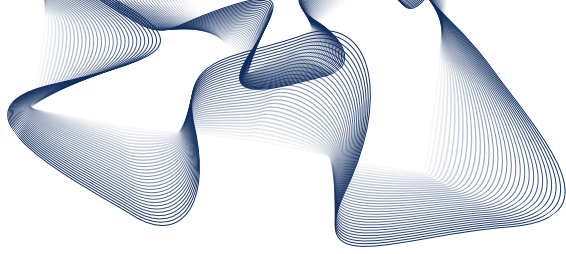
> **"**
> Leaks concerning government plans for when new lockdown restrictions would be implemented compromised the effectiveness of the lockdown by fuelling pro-social behaviours"

While the initial March lockdown in the UK was found, on base evidence, to be very effective, the subsequent November 2020 lockdown was significantly less so.[6] Specifically, our research suggests that leaks concerning government plans for when new lockdown restrictions would be implemented compromised the effectiveness of the lockdown by fuelling pro-social behaviours.[7]

Our research focussed on the November 2020 lockdown, which aimed to curb rising infection rates and suppress deaths over the winter period. News of the lockdown – that it was coming into effect on 4 November – leaked on October 30 2020 and this appeared to trigger a sharp increase in movement and socialisation.

Tracking data from Google and Citymapper shows that travel in London increased by up to 50 per cent of pre-pandemic travel levels, with a spike between the leak being made public on 30 October, and the beginning of the lockdown on 4 November. The level of movement during this period was the highest it had been since 16 March 2020.[8]
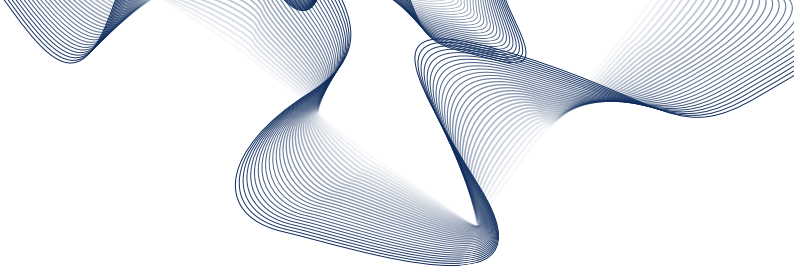
The big question is whether the leak, and consequent spike in socialisation, had an impact on the spread of Covid-19.

Using publicly available data on daily Covid-19 cases by local authority (local government areas), we found there was a clear surge in infections from a few days before to several days after the lockdown was implemented. But this surge was almost exclusively associated with authorities where Tier one or Tier two restrictions were being implemented, and was not seen in Tier three areas. We can assume that this is because comparatively fewer freedoms were being removed from people in Tier three, meaning there was less incentive for them to socialise prior to the Tier system being implemented when they were alerted to the imminent lockdown by the leak.

Interestingly, there were clear demographic differences in the surge that cut across all the tiers. When broken down by age group, the November surge in cases was seen most clearly among 20-29-year-olds, and this pattern tracked across all tiers. By contrast, there was no correlating surge in cases among the over 60 age groups.

This suggests that news of the imminent lockdown had less impact on the behaviour of the 60+ group, perhaps reflecting that there was higher adherence to social distancing and shielding in this age group prior to and continuing during lockdown. Towards the end of the lockdown, there was also an increase in cases, which were most prevalent among 10-14-year-olds. This up-tick concurred with the emergence of Delta, the new, more infectious strain of Covid-19.

Ultimately, we have inferred through the available mobility and case data, that while lockdown measures were one of the most effective government policies in the early stages of the Covid-19 pandemic at reducing the spread of the virus, subsequent lockdowns were not as effective.

Our research suggests that this may be due to leaks within the UK government in the lead up to the implementation of the tiered system, which undermined their effectiveness. This has important implications for similar public health interventions.

As we saw in the spike in 20-29-year-olds going out during the five-day period before the November lockdown, once the public has been primed to the realities of such a stringent policy measure, the effect of subsequent implementation is not as strong, and any notice period will reduce this effect further.

The research conducted by our team demonstrated that it essential that draconian laws are introduced swiftly when needed, and without warning, to ensure greater efficacy.

Paul Hunter is a Professor in Medicine at Norwich Medical School, University of East Anglia. Julie Brainard is a Senior Research Associate at Norwich Medical School, University of East Anglia.

> **"**
> It is essential that draconian laws are introduced swiftly when needed, and without warning, to ensure greater efficacy"

All in this together?

Bobby Duffy

At the beginning of the pandemic, in April 2020, we identified three main clusters within the population: the "Accepting", the "Suffering" and the "Resisting". You can get an idea of their very different experiences of Covid-19 through their responses to just a few questions (see Figure 1).

For example, when asked about their experiences of lockdown, nearly all of the "Suffering" group said they were more anxious or depressed since the measures were announced, compared with just 8 per cent of the "Accepting". And a third of the "Suffering" said they thought about coronavirus all the time.

The "Accepting", on the other hand, were much less likely to have experienced some of the key negative impacts identified in the survey. Only 12 per cent said they had slept less or less well than before the lockdown, compared with an incredible 64 per cent of the Suffering.

These two groups made up most of the population, compared with the "Resisting", who represented nine per cent

FIGURE 1: THE THREE GROUPS REACTING TO LIFE UNDER LOCKDOWN
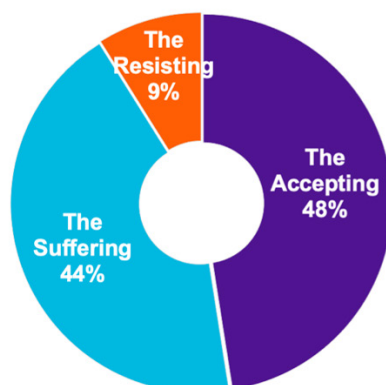
The Accepting
Relatively unfazed by the pandemic and restrictions, with few losing sleep and even fewer feeling more anxious and depressed since lockdown began. Least likely of the groups to predict they'll face financial difficulties.

The Suffering
Overwhelming majority feeling more anxious and depressed since start of lockdown. Two-thirds say they've slept less or worse than usual, and a third say they think about coronavirus all the time.

The Resisting
Much lower adherence to lockdown rules, and majority think too much fuss is being made about the risk of coronavirus. Highest rates of non-prescription drug use and alcohol consumption.

of UK adults. This group – still around five million people – were particularly likely to have argued with their family or housemates and had both drank more alcohol than they normally would or used non-prescription drugs.

Three in five of the "Resisting" also thought that "too much fuss" was being made about the risk of coronavirus, and a third expected life to return to normal within two months – much higher than the other groups.

As the months went by and this prediction proved wide of the mark, tensions grew about the UK's route out of the crisis, and the focus shifted to how the government was managing the easing of the restrictions (see Figure 2).

Where once the country had been united on the decision to go into lockdown, this consensus fractured as we emerged, with the public's views starting to line up more with their underlying political identities.

Hence our analysis found the "Trusting" – who, despite their concerns about the virus, had the most faith in the government's plan to relax the measures – were overwhelmingly Conservative voters, while the "Dissenting" – who were most critical of the government's response and thought the measures were being eased too quickly – were largely Labour voters.

A third, smaller group – the "Frustrated" – were more evenly balanced in terms of political support and felt the restrictions were being relaxed too slowly, in part because they were more likely to be suffering from the economic impacts of the lockdown.

The crisis seemed set to become another element of our often-divisive politics and our nascent "culture war", where politics reach into more aspects of our lives, and where our views become increasingly set by which political "tribe" we're in.

In practice, our Covid-19 attitudes did not turn out to be quite the cultural

FIGURE 2: THE THREE GROUPS RESPONDING TO THE CORONAVIRUS CRISIS AS LOCKDOWN IS EASED

The Frustrated 24%

The Trusting 38%

The Dissenting 38%
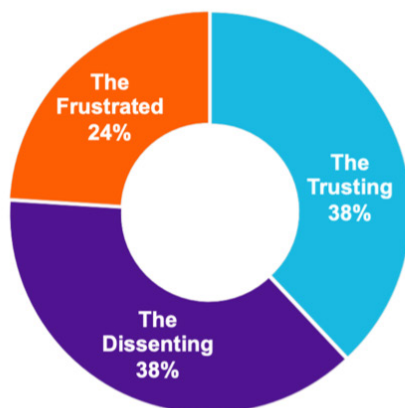
The Trusting
While very worried about the health implications of the virus, they are most likely to be putting their trust in government. They are the only group where a majority support the relaxation measures announced by government

The Dissenting
The group most worried about the health risks, and most critical of the government's response. They are most likely to think the restrictions are being eased too quickly.

The Frustrated
The least worried, and most likely to think we need to lift restrictions faster. They see the risks of Covid-19 as much lower than the other groups, and are more are ambivalent about the government's approach.

WHEN IS THE END? #COVID19

divide that many expected – because they did not align well with other key cultural divides, such as our attitudes to Brexit.

The most prominent lockdown-sceptic voices – from Julia Hartley-Brewer, Allison Pearson and Toby Young, to Steve Baker, Daniel Hannan and Nigel Farage – also shared a distrust of the European Union. Nigel Farage even launched a new political party, Reform UK, whose initial focus was promoting lockdown

> "
> Where once the country had been united on the decision to go into lockdown, this consensus fractured as we emerged, with the public's views starting to line up more with their underlying political identities"

scepticism. But our analysis of lockdown and Brexit divides among the broader public showed there was a very poor values fit between lockdown scepticism and Brexit support.

Those who prioritised civil liberties over combatting the virus – lockdown sceptics – disproportionately prioritise what the values model calls "hedonism", "stimulation", "power" and "achievement". By contrast, those who were more accepting of limits on freedoms during the pandemic overwhelmingly valued "security", "conformity", "universalism" and "benevolence".

These different sets of values do not fit at all well with the values divide that characterised Brexit. In the case of the EU referendum vote, people who valued universalism were the strongest supporters of Remain, and those valuing security and tradition were the strongest backers of Leave. But these two value sets and groups found themselves somewhat united in support of lockdowns – and lockdown scepticism remained a relatively niche front in our supposed "culture wars" (see Figure 3).

Our attitudes continued to shift, as a return to normal life seemed more realistic. After a winter lockdown, the success of the vaccine rollout meant that a clearer path out of the UK's pandemic was now visible, and by May 2021 the key question was whether the public were

keen to get back to normal life, concerned about society opening up too quickly, or pretty content with locked-down living.

The "Keen" were the largest group we identified, making up one half of the population, while the other half split into two groups with very different reasons for being more reticent. The bigger group – the "Concerned", who represent around a third of the public – remained worried about catching Covid-19, the emergence of new strains, and whether we'd vaccinated enough people to justify opening up.

But there are also one in seven people – the "Content" – who said they were quite enjoying aspects of our new way of living. They were saving money, liked working from home, and were just happy meeting fewer people than they used to.

In it together or deeply divided?

Throughout all the shocks and turbulence of the past two years, with their drastically different impacts on different sections of the population, there was an important constant – the extraordinarily high level of compliance with Covid-19 restrictions.

Even though many were struggling, the overwhelming majority of people continued to follow the rules, even if they themselves were at a relatively lower risk from the virus. But not everyone got the recognition they deserved.

Young people, by and large, adhered to the restrictions as much as everyone else. And despite sacrificing formative life experiences and seeing their education and careers suffer, they were still more likely to be seen as selfish rather than selfless in how they behaved during the pandemic.

Such resentment was thankfully hard to detect among our collective national effort – but it did exist. In July 2020, half the population said they felt angry with people they know because of how they'd

FIGURE 3: THE THREE GROUPS ANTICIPATING THE RETURN OF NORMAL LIFE POST-COVID

The Content 14%

The Keen 52%
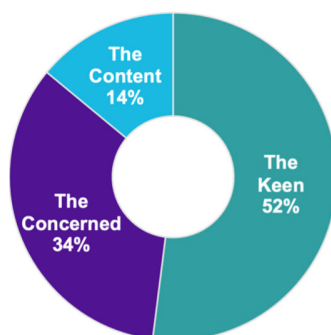
The Concerned 34%

The Keen (52% of UK)
Keen for normal life to resume, with few if any concerns about doing so – in fact, nearly half have no concerns at all.

The Concerned (34%)
Concerned about the restrictions lifting because they believe the rules are still necessary to protect public health, and reluctant to return to normality for that reason.

The Content (14%)
Content with their life under lockdown and would therefore prefer to keep things the way they are.
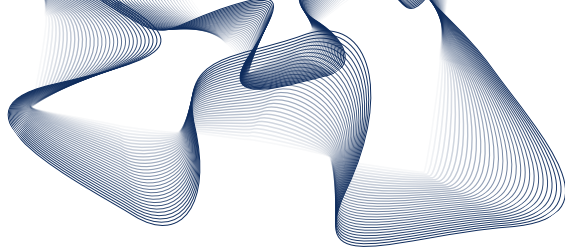
behaved during the crisis. A quarter said they'd had arguments as a result, and one in 12 said they were no longer speaking to someone because of pandemic disagreements.

Over a year later, as a more permanent end to the UK's crisis looked more likely, there were still signs of discontent. In November/December 2021, around one in 10 people said they would potentially support violent protests if the UK government either refused to impose a lockdown when doctors and scientists advised it was needed or if it imposed a lockdown they didn't agree with.

That may sound shocking, but we could have perhaps expected worse given the extent of the upheaval the country has endured. We fared pretty well when you consider that, according to our findings, more people would support violent demonstrations in response to a war – or even a tax increase – they didn't agree with.

It's undoubtedly the case that small segments of the population have been pushed towards extreme views through their experience of the pandemic – in either seeing restrictions as an outrageous attack on civil liberties, or believing the government and society betrayed or abandoned them through careless actions or bad strategy. Throughout the pandemic, our studies showed the key role that our fractious social media environment played in splintering off small sections of the public.

But in the end, despite the extraordinary measures the pandemic required, we seem to have avoided the worst of Covid-19 attitudes aligning with, and giving new impetus to, other deep divides and political identities. We may not have been completely in it together, but we could have come out of it a lot worse.

Bobby Duffy is a Professor of Public Policy and Director of the Policy Institute at King's College London.

> "
> **Throughout all the shocks and turbulence of the past two years... there was an important constant – the extraordinarily high level of compliance with Covid-19 restrictions"**

Our moral obligation: supporting the mental wellbeing of healthcare workers

Neil Greenberg

A defining theme throughout the pandemic has been the expression of gratitude toward the country's healthcare workers, recognising their incredible work during such trying times. However, the high pressure and novel circumstances of the crisis have placed a significant mental health burden on the healthcare workforce.

If those trained to look after us when we are sick are themselves demoralised and unwell due to mental illness, it means trouble for already strained health systems. For those who care about healthcare workers, and indeed our health system, protecting the mental wellbeing of our healthcare workforce during the pandemic and beyond is both an ethical duty and a practical necessity.

During the pandemic, frontline healthcare workers have risked infection of themselves and their families, borne the trauma of witnessing excessive death and morbidity, and contended with significantly increased workloads. This has knock on effects for job performance and quality of patient care. The mental health burden is particularly high for those working in intensive care units (ICUs).

A recent study found that 45 per cent of ICU staff report symptoms of severe depression, severe anxiety, or problem drinking.[1] Of this number, 40 per cent reported symptoms of post-traumatic stress disorder (PTSD). A further 13 per cent had reported frequent thoughts of being better off dead or hurting themselves within the previous two weeks. What these numbers show is that the risk of mental illness posed by chronic distress, trauma and excessive workloads, is indeed being realised.

Even before the pandemic, women have reported higher rates of anxiety and depression compared to men,[2] and women are also highlighted as being at greatest risk of pandemic-related mental health problems.[3]

Given that women make up 78 per cent of the NHS workforce and 89 per cent of nurses and health visitors – who bear a higher mental health burden than doctors – it's clear that Covid-19 has disproportionately affected female healthcare workers.[4]

Aside from mental illness, working in unprecedented circumstances poses a significant risk of moral injury. This concept is derived from military settings,

in which overwhelming demands for which one feels unprepared can lead to actions or inactions that challenge an ethical code. The question of "did I do the right thing?" arises, often triggering negative thoughts and emotions, which in turn increase the risk of developing mental illnesses, such as depression and PTSD.

This huge burden, and even susceptibility to it, warrants an urgent need to protect the mental wellbeing of healthcare staff. Failure to do so will only put further strain on an already struggling healthcare system. In order to tackle this, evidence-

" During the pandemic, frontline healthcare workers have risked infection of themselves and their families, borne the trauma of witnessing excessive death and morbidity, and contended with significantly increased workloads"

based treatment to protect staff is vital and remains a responsibility of both managerial staff and policymakers.

Managers and supervisors play a pivotal role in implementing evidence-based interventions to tackle this mental health burden. Research shows that supportive managers foster better mental health of their staff.[5] Within the complex and highly pressured context of the pandemic, the attitudes and behaviours of managers are crucial to identify and protect staff from the potential damage to their mental health.
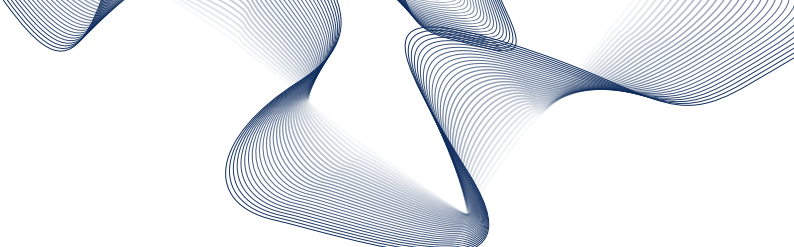
Our research highlights the effectiveness of active listening skills training for healthcare managers in the UK.[6] After this training, more than 80 per cent of healthcare managers enrolled felt confident in being able to identify, speak to, and support potentially distressed staff, compared to less than half beforehand.

Managers' confidence in supporting staff is linked to improved productivity, emphasising that these skills should be imperative for those in supervisory roles. Managers can therefore play an important role in improving staff mental health, reducing sickness absence, and improving quality of care for patients.

While managers play a key role, evidence-based interventions must go further still. An all-encompassing recovery plan

is needed to prevent and mitigate the pandemic-related mental health burden among healthcare workers. This can be achieved through a three-tiered approach. Primary prevention – interventions to avert mental illness onset; secondary prevention – focusing on those with early signs of illness; and tertiary prevention – treatment of those with such problems.

Primary prevention should include provision of realistic information regarding the risks and challenges of working in the pandemic. It should also make clear what support is available, from self-help techniques, to apps and online resources. Social support systems are also crucial. For example, "buddy" systems with other colleagues to encourage monitoring of wellbeing. Furthermore, the work environment should be optimised to support appropriate nutrition, rest and sleep periods.

Secondary prevention should be supported with welfare-focused staff trained to identify predisposing risk factors and follow up with individuals who may be facing difficulties. Following this, appropriate measures can be taken, such as signposting to wellbeing resources, assessment via a GP, or engagement with occupational health or mental health services.

Finally, the tertiary level should be characterised by assessment of the staff member's current work schedule by available professionals. A useful tool for this is the PIES model – Proximity, Immediacy, Expectancy, and Simplicity –

which is an evidence based occupational health approach. It can help to support individuals in their work and build self-esteem so that they can cope with distress.

This can help encourage healthcare staff to get help before distress escalates into crisis. This reflects a positive, strengths-based approach that keeps interventions simple and "de-medicalised" during difficult times. Without this proactive tiered approach, the psychological consequences of the pandemic on healthcare staff could be devastating and long-felt.

The existing evidence of pandemic-related mental health issues among healthcare workers is concerning, even before knowing the full scope and clinical need of resultant psychological distress. There is a clear requirement for evidence-based approaches as implemented and sustained by managerial and supervisor roles, both to address the damage already done and to prepare for future impact. A three-tiered approach is an effective way of providing targeted interventions for different groups among healthcare workers with different psychological needs, depending on how they have been affected. Protecting our health workforce is a moral obligation. By developing these care plans and policy initiatives for mental health, we can ensure a better working environment and a more resilient workforce.

Neil Greenberg is a Professor of Defence Mental Health at King's College London.

Is this cough just a cold, or is it Covid-19?

James Rubin

Throughout the peak of the pandemic, the British public were asked to engage with a host of different rules and recommendations. These changed regularly, leaving many people feeling confused and disengaged. But one rule remained constant throughout: if you had Covid-19 symptoms, you should self-isolate and take a PCR test.

Despite its apparent simplicity, rates of adherence to that rule were poor. In surveys analysed by our team as part of the CORSAIR study, we found that most people with at least one of the so-called cardinal symptoms of Covid-19 – new continuous cough, fever, loss or change to your sense of taste or smell – failed to adhere fully to the advice around self-isolation.[1]

Many reasons have been put forward for this, with much conversation focussing, rightly, on the need for people to receive financial and other support in order to make it easier for them to self-isolate. However, this debate should not overshadow another major barrier that lies at the very start of the process: how do people know if they have symptoms of Covid-19 in the first place?

On paper, this is straightforward – any flow diagram of the NHS Test and Trace pathway tends to draw a straight arrow from a box marked "patient develops symptoms" to a box marked "patient self-isolates and requests a PCR test". Unfortunately, real life tends to be messier than our neat flow diagrams.

Although surveys suggests that around 60 per cent of people intend to request a test if they develop Covid-19 symptoms, only

> **"**
> To follow the guidance on what to do when you have symptoms of Covid-19, people must first know what these symptoms are**"**

around 30 per cent actually do.[2,3] Clearly, something is going wrong, but what?

Perhaps the most basic issue is that, to follow the guidance on what to do when you have symptoms of Covid-19, people must first know what these symptoms are. For nearly two years, the message that the government tried to hammer home to the public was that you should request a test if you have cough, fever or changes to smell or taste.

This messaging was complicated when information emerged suggesting that the most common symptoms of Covid-19 are headache, runny nose and sore throat. Despite this, polling data analysed by our team has consistently shown that only around two thirds of people identify cough, fever or changes to smell and taste as common Covid-19 symptoms, even when given five options to select from a list of 26 symptoms.

This seems bizarre; all of us involved in the world of Covid-19 can recite these symptoms in our sleep. But perhaps we are in danger of assuming this knowledge is universal. Broader messaging around the pandemic does not help with this. How many times do we see experts talking on TV about "the symptoms of Covid-19" without explaining what these symptoms actually are? How many posters have you spotted asking people "Got symptoms? Get tested now" with the assumed knowledge left hanging. Being explicit is always good.

Even where someone's knowledge of the official list of Covid-19 symptoms was perfect, was this enough to convince them to book a PCR test when they had a cough? This is an issue we explored in several qualitative studies conducted with parents, students and the general public,[4,5,6] as well as in our polling work, and the answer is "no."

Several additional factors also prevent people from believing that they should take a test. First, the exact symptom you

> **How many times do we see experts talking on TV about 'the symptoms of Covid-19' without explaining what these symptoms actually are?"**

have seems to be important. While people tend to see changes to their smell or taste, or developing a fever, as indicative of Covid-19, something as non-specific as a cough is less likely to trigger action as it can be easily explained away as something else. In the words of one of our participants "cough is such a standard symptom of so many things... it's a more flexible kind of symptom."

Secondly, the severity of the symptom matters. We are reminded on a regular basis how Covid-19 dramatically disrupted every aspect of society. This can be hard to equate to your own mild cough. Indeed, many of our participants noted that mild symptoms might have made them wait a few days before acting.

Similarly, the presence of multiple symptoms was seen as more likely to be Covid-19 than the presence of a single symptom, while, most problematically, a belief that Covid-19 symptoms last a long time also led some participants to report that "we left it a bit of time to see if it was just one of those things, then obviously it wasn't going away so we did the right thing [and requested a test]."
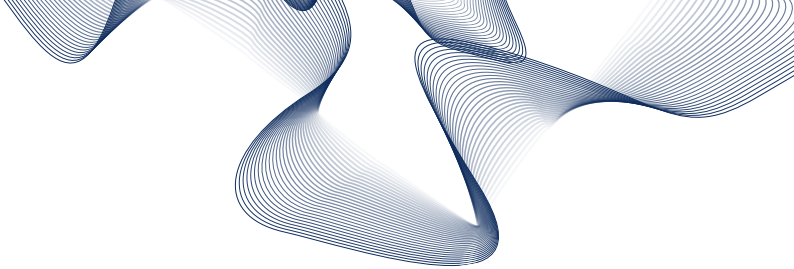
Finally, it was apparent that people do not only consider their symptoms when considering whether they might have Covid-19. They also consider their recent behaviour. Have they been anywhere recently where they might have been exposed? As one of our participants put it

> ## "
> We are reminded on a regular basis how Covid-19 dramatically disrupted every aspect of society. This can be hard to equate to your own mild cough"

"we all went out to this restaurant, but it wasn't doing the social distancing, there were way too many people. Three days later we started showing symptoms, so I was like 'we definitely have it from that restaurant.'"

The ubiquity of lateral flow tests was also a significant factor. Although NHS guidance was clear that lateral flow tests should not be used by people who have symptoms, our polling data suggest this rule was widely ignored. Indeed, among all CORSAIR participants who reported having developed symptoms recently and having taken a test, 45 per cent reported having taken a lateral flow test only.[7]

This should not be a surprise. Lateral flow tests are quick, easy and allow you to stay outside "the system" reducing hassle and the need to fully self-isolate. It is not clear what impact this had on the spread of the virus. While the sensitivity of lateral flow tests may be lower than PCR tests, evidence suggests that they are good at showing when people are infectious with Covid-19. If people were more willing to use lateral flow tests, did so at the first sign of symptoms developing or before going out to meet with people, and so reduced their contact with others if they tested positive, might this have had a net positive effect on transmission rates? That is a question that time, and possibly the modellers, will answer.

So, as we navigate this new phase of the pandemic, it's more important than ever to have clear guidance on what to do when we have symptoms of an infectious illness. This is particularly true now that tests for Covid-19 have begun to be withdrawn from widespread circulation. We are all aware of people who come into work, or send their children to school, when clearly unwell. This can only help spread infection, be it Covid-19, flu or something else. A new conversation is now needed in the UK about how to limit this "presenteeism".

James Rubin is a Professor of Psychology & Emerging Health Risks, King's College London.

The dream team? Understanding multi-agency emergency responses

Louise Davidson

Large-scale emergencies, like the Covd-19 pandemic, often require a coordinated response from several specialised teams. In multi-agency emergency responses, each agency is tasked with their own specific priorities, while all are simultaneously working towards a shared overarching goal. In the case of a terrorist attack, for example, the Police oversee the collecting of evidence, cordoning off the scene, interviewing witnesses, while the Ambulance service is treating casualties.

This type of multi-agency working can pose serious communication challenges: how can clear lines of communication remain open between different agencies when each is tending to urgent tasks; and what happens if there is a conflict in priorities?[1]

The Joint Emergency Services Programme (JESIP) was introduced in 2012 to address this issue by providing emergency responders with standardised principles for joint working.[2] However, multi-agency response continues to be challenged by factors such as disjointed communication and poor coordination.[3,4] For example, during the 2017 Manchester Arena attack, vital information about the nature of the incident was not shared between the emergency services, leading to the fire service playing "no meaningful role" in the response for nearly two hours.[5]

This highlights that lessons are not being learned, and there is an urgent need to better understand how the emergency services work together in multi-agency response, why these challenges persist, and what can be done to prevent them re-occurring in the future.

> "
> Lessons are not being learned, and there is an urgent need to better understand how the emergency services work together in multi-agency response"

How can social psychology help?

The Social Identity Approach is a key framework in social psychology that can be applied to this problem. According to this approach, a shared social identity – or in other words, a psychological sense of "us-ness" – can facilitate group working by creating a feeling of inter-connection,[6,7] increasing trust and respect among group members,[8] providing common purpose and shared language, and subsequently facilitating the development of common norms for behaving in these emergency situations.[9]

Yet, people have multiple social identities that come to the fore in different contexts and can influence behaviours.[10] This is particularly significant in multi-agency incidents where responders will have their own sub-group identities – eg police officers, fire-fighters, paramedics – while also sharing a superordinate identity as members of the emergency services.

This can create issues in situations where there are conflicting priorities between these different groups. Despite this, however, recent research suggests that when two or more groups merge, the successful development of a shared superordinate identity is facilitated when individuals are allowed to hold onto their sub-group identities, rather than denying them.[11]

How did this work in the Covid-19 response?

The scale and impact of the pandemic necessitated multi-agency responses on a vertical level – between local and national agencies – and a horizontal level – between local emergency services. In 2020, strategic and tactical multi-agency coordination groups – SCGs and TCGs

respectively – were established across the UK to bring together local responders from the emergency services, local authorities, and other key organisations to facilitate a joined-up Covid-19 response.
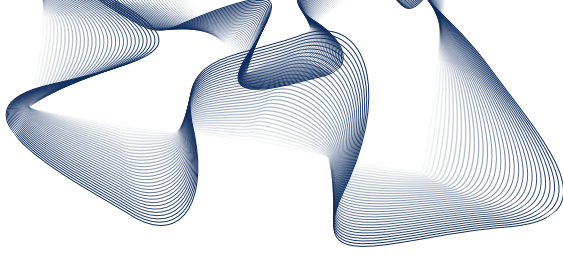
We conducted two strands of interviews with Police, Fire and Rescue, and Ambulance Service responders who were involved in the Covid-19 response at the strategic and tactical level or at the operational level.

We wanted to understand the key challenges that emergency responders experienced in the multi-agency response to Covid-19; whether there was any evidence that responders' shared identities were bound up with these challenges or were part of the solution to them; and if so, how and when a shared identity arose in these multi-agency groups.

Strand one: strategic and tactical

On the strategic and tactical levels, we conducted 52 interviews between April and July 2020 with 17 responders from the Police, Fire and Ambulance services who were involved in SCGs and/or TCGs. From these interviews, we identified three key factors to facilitate multi-agency working in highly pressurised emergency situations like the pandemic. Pre-existing relationships; a shared sense of common fate; and leadership.

Unsurprisingly, we found that pre-existing relationships between individuals from different organisations facilitated group working between these different groups, improving the speed and quality of communications and the ease with which responders were able to come together for the initial pandemic response.

The feeling that "we're all in this together" against Covid-19 – ie a shared sense of common fate – also played a key role in uniting different services during the first months of the pandemic response.

Finally, when pre-existing relationships were not present, or when the initial threat of the pandemic started reducing and so-called "Covid fatigue" began to set in, we found that leaders were critical in facilitating group working, for example by spending time explaining the roles and responsibilities of partners, or by emphasising the shared goals of the pandemic response.

Strand two: operational

On the operational level, we conducted 14 interviews between May and August 2020 with responders from the Police and Fire Service who were involved in the Pandemic Multi-Agency Response Teams (PMART).
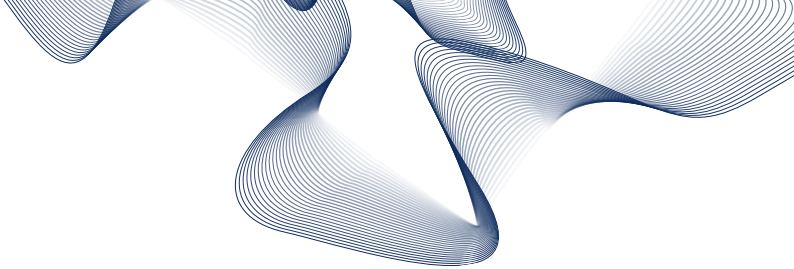
These teams were introduced across the UK to reduce demand on the Ambulance Service as part of the pandemic response. They were created to respond to any suspected Covid-19 deaths in the community. This process included establishing if there were any suspicious circumstances surrounding the death, preparing the body to be collected by the undertaker, and talking to the family of the deceased.

Our interviews found that responders from the Police and Fire service shared a superordinate identity as members of the blue-light service. This identity was developed by the responders experiencing positive contact with each other, for example by providing emotional and physical support throughout the response. In addition, a shared superordinate identity as a member of PMART was created when the response groups came together.

This shared superordinate identity was reinforced through positive contact, but also through responders sharing difficult experiences.

The salience of the subgroup identities, such as Police and Fire Service, are likely to have contributed to the development of the shared superordinate identities by highlighting the commonalities between the two organisations. However, challenges in group working emerged when structural factors created conflict between subgroup identities, for example responders from different services having different risk assessments and different shift patterns.

What was the impact?

Findings from the interviews were considered alongside relevant theory and several reports were developed for practitioners. In these reports, we outlined several practical suggestions to facilitate multi-agency working, both in the ongoing Covid-19 response, and also for future joint responses.[12-17]

These reports were published both online and in print in Crisis Response Journal, and were fed directly back to those who took part in the interviews in order to support the ongoing development of good working practice. Findings have also been written up into two academic papers[18] and a report was produced for the Home Office preparedness for Covid-19 call for evidence, which is published on the Home Affairs Committee website.[19]

In addition to this, these findings have been presented to several academic audiences, including the Social Psychology Section Annual Conference 2021, as well as multiple practitioner audiences. They have also been used to provide feedback and recommendations on the *Review Strategy: Civil Contingencies Act* paper from the Department of Health and Social Care.

Louise Davidson is a PhD student at the University of Sussex and Research Assistant at Public Health England.

Making a difference in the UK's Covid-19 response

Harriet Boulding
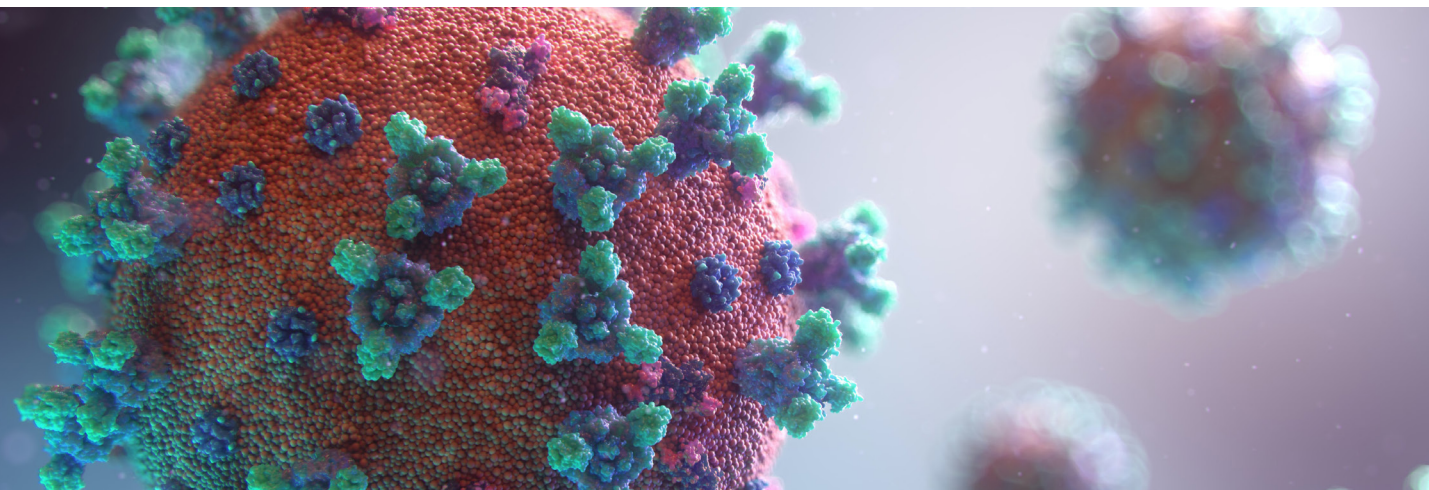
The Emergency, Preparedness and Response Health Protection Research Unit (EPR HPRU) has achieved extraordinary impact with its research since its inception in 2014, and no more so than during the unit's response to the Covid-19 pandemic.

Broadly speaking, "impact" from academic research refers to any change or benefit to society beyond the production of academic papers. For those working in the EPR HPRU, the goal is for our work to improve health and health services through timely research answering some of the most pressing health policy questions of the moment.

The unit's focus on emergencies has led to close collaboration with the UK government and agencies at local and national levels, and research on how people behave in a crisis has been applied to emergency responses including flooding, terrorism, attempted assassinations, and outbreaks of disease. In this sense, real world impact was built into the unit's activities from the beginning.

However, while we anticipated continuing close collaboration with national agencies,
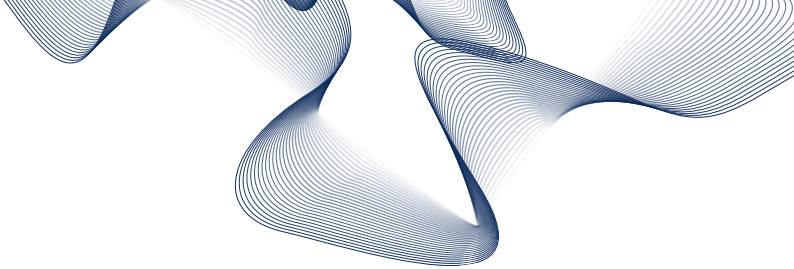
we did not know that from February 2020 the unit would play a critical part in informing the government's response to a catastrophic outbreak of a novel coronavirus.

Pivoting to support the UK response to Covid-19

The advent of the pandemic had far-reaching implications for the work of the unit, and the impacts of work carried out by its research team. Existing projects, training and planned in-person stakeholder engagement activities were all delayed to allow a dedicated response to the emerging crisis.

Researchers were invited to join the government's Scientific Advisory Group for Emergencies (SAGE) for Covid-19, which considered the scientific evidence supporting the government's pandemic response, reporting to the Chief Scientific Advisor, in addition to being members of the New and Emerging Respiratory Virus Threats Advisory Group (NERVTAG).

Professors Rubin and Rogers were asked to set up and chair the Independent Scientific Pandemic Insights Group on

Behaviours (SPI-B), a Covid-19 SAGE subcommittee providing behavioural science advice to improve adherence to recommended interventions.

King's researchers provided advice and analysis in real time using the Department of Health and Social Care's (DHSC) survey data, and delivered weekly reports to DHSC, SPI-B and other governmental agencies. The team also took requests for analysis from SAGE and its subgroups, which informed SAGE papers and multiple agencies delivering urgent policy decisions.

The work of the EPR HPRU researchers has been cited in at least 50 SAGE papers and has directly informed the national Covid-19 response across many areas, including gov.uk coronavirus guidance. Journal articles, blogs, policy briefs and press releases produced by the unit have also received widespread coverage on a global scale, with one paper addressing the effectiveness of the Pfizer Covid-19 vaccine receiving over 300 pieces of coverage worldwide within 24 hours of its preprint release.

The unit also published a series of accessible policy briefing reports addressing various elements of the Covid-19 emergency, including life under lockdown, trust in government response, and conspiracy theories. This work has received over 250 pieces of media coverage, including BBC News, The Today Programme, and the major national newspapers.

What makes the EPR HPRU special?

The work of the EPR HPRU is an extraordinary example of multiple, transformational impacts from health research. But although funding, reputation and career progression can all rely on it, achieving "real world" impact from health research is not always, or even usually, easy to do in practice. In fact, according to one study, it can take 17 years for health research to translate into practice.[1]
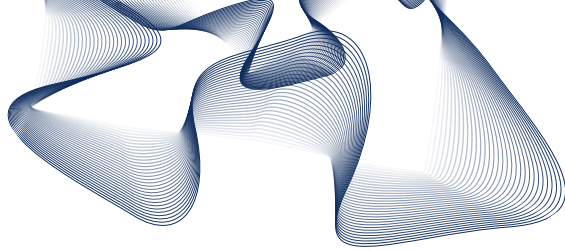
Studies examining barriers and facilitators to impact have highlighted lack of institutional support, underdeveloped stakeholder relationships, and a lack of clarity over the types of evidence required by those in a position to act on research findings.

While research findings in health-related areas generally have a higher success rate in influencing policy and practice than in other areas, these issues endure,

Case study: Informing the decision to place the UK into full lockdown

By mid March 2020, the government had announced that people in the UK should try to avoid non-essential travel and contact. But how effective were these voluntary measures in reducing contact?

In a paper submitted to SAGE on 23 March 2020, researchers from the HPRU helped to analyse data on behavioural changes and concluded that "there appears to be room for social distancing to be increased still further." Together with similar evidence from the ONS, these findings informed one of the key conclusions from SAGE, that there was room for improvement in compliance rates. On 26 March, legal restrictions enforcing a compulsory lockdown came into force.

especially in areas where there little existing engagement between research teams and relevant stakeholders. So, what was different in the case of the EPR HPRU, which represents one of the most impactful research collaborations in recent history?

National context

The first thing to note is the extraordinary context in which the research was being carried out. From February 2020 when governments across the world were mobilising to address the growing threat of Covid-19, the research and expertise of the EPR HPRU became of central interest both to the British government, but also international governments, the media and health professionals.

While many health researchers struggle to get their work on the national agenda, the unit had the expertise that was desperately needed during the emerging

crisis. Crucially, the context of a national emergency also facilitated timely translation of researchers' advice into policy and practice.

Existing stakeholder relationships

Even during a crisis, having relevant research expertise is not always enough. While large numbers of researchers across the world have dedicated a considerable amount of time and resources to addressing the myriad issues that have arisen from the Covid-19 pandemic, many of them will struggle to make their findings heard amongst the cacophony of pandemic responses.

The EPR HPRU was in an excellent position to inform decision making at the highest levels of government, because the relationships with necessary stakeholders were already in place through the work

Case study: Self-isolation

Based on CORSAIR and other polling data, SAGE recommended multiple times that adherence to isolation must not be overlooked as the core aspect of any testing and contact tracing strategy. On 16 September 2020, SPI-B was commissioned to produce a report on how to improve rates of adherence to self-isolation which drew on our polling data and review. This was submitted immediately to government. Within days, the government announced new measures to support those on low incomes asked to self-isolate, including the offer of £500 grants

PHE requested Kings review the impact of self-isolation at an early stage to develop their principles for handling people placed into isolation, to reduce distress. The PHE Head of Behavioural Science said: "From early in the pandemic, Professor Rubin's rapid systematic reviews on the impact of quarantine on mental health was included in our briefings for staff running the Arrowe Park and Kent's Hill Park isolation facilities." It also informed online resources to support self-isolation, and public messages of thanks from the Chief Medical Officer and others to those isolating.

> **"[SPI-B outputs] have directly informed a range of policy areas, and specifically have informed how we write gov.uk coronavirus guidance, which receives many millions of unique hits during the pandemic"**
>
> **– UK Health Security Agency**

the unit and its researchers had done previously, including advice and training that prepared civil servants for an outbreak such as the Covid-19 pandemic.

Existing stakeholder relationships are important not just to ensure that research is considered by those in position to take it forward, but also to facilitate timely implementation. Public health policy can take years to formulate and implement, with evidence gathering, oversight by national committees, and implementation all adding to the time it takes to make progress. Existing stakeholder relationships allows for streamlining of these processes, especially during an emergency.

An interdisciplinary approach

The coronavirus pandemic had wide-reaching implications across multiple sectors, including health and social care, but also transport, education and industry to name just a few. A core strength of the EPR HPRU is that it is a highly interdisciplinary team, whose range of expertise reflect the multiple impacts of the pandemic across all sectors and throughout society as a whole.
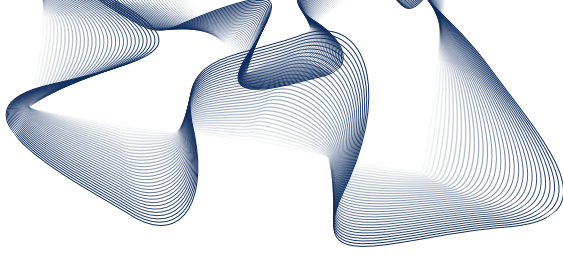
The unit's team – drawn from King's College London, University of East Anglia and the UK Health Security Agency (UKHSA) – offers expertise in a diverse array of specialisms including epidemiology, psychology, emergency response, security studies and public policy, demonstrating both the range and agility needed to respond to a complex crisis from various angles.

A range of dissemination methods

EPR HPRU researchers have produced over 50 academic papers as part of their work on the most pressing issues of the pandemic, including adherence to Test and Trace, Covid-19 in prisons, and the impact of the pandemic on the mental health of health workers. These articles have directly informed SAGE and its subcommittees, contributing to national policy.

However, the EPR HPRU employs a much broader dissemination strategy, ensuring that a range of accessible, audience-focussed mechanisms are used to maximise the reach of the research. In addition to peer reviewed articles, the unit also published pre-prints, articles on popular websites such as The Conversation, newspaper articles and comment pieces, press releases, tweets, and a series of policy briefing reports designed to reach the media and public audiences.

Although there is no exact formula that research teams might follow to guarantee policymakers consider your research, there are several factors that we know can make a big difference. Having strong relationships with stakeholders is crucial, as is being prepared to use a range of

traditional and innovative engagement mechanisms to ensure all target audiences are catered for.[2]

Finally, a lesson we have seen in the case of the EPR HPRU and previously, is that being in a position to respond to an emergent crisis such as the Covid-19 pandemic dramatically increases the value of the research produced to those tasked with mobilising national and international responses.

All these factors were present from the outset with the EPR HPRU, making it an inspiring example of how to facilitate impact from health research at a time when it is needed most.

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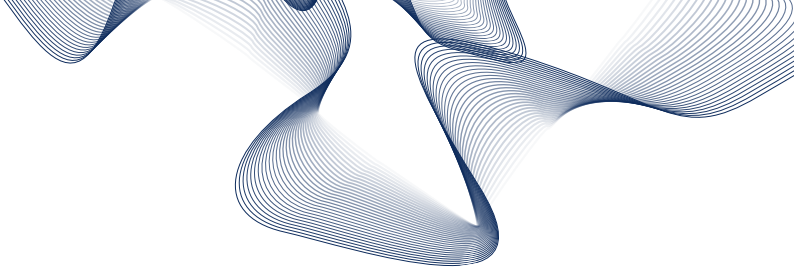
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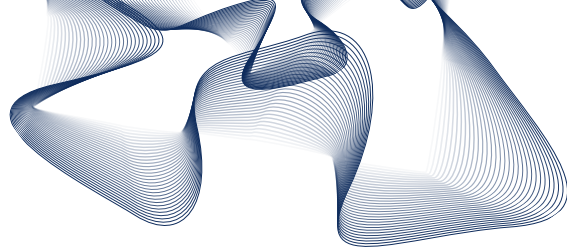
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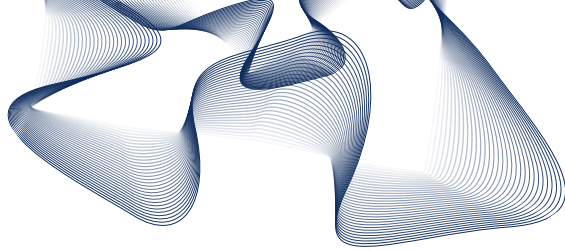## Our moral obligation: supporting the mental wellbeing of our healthcare workers

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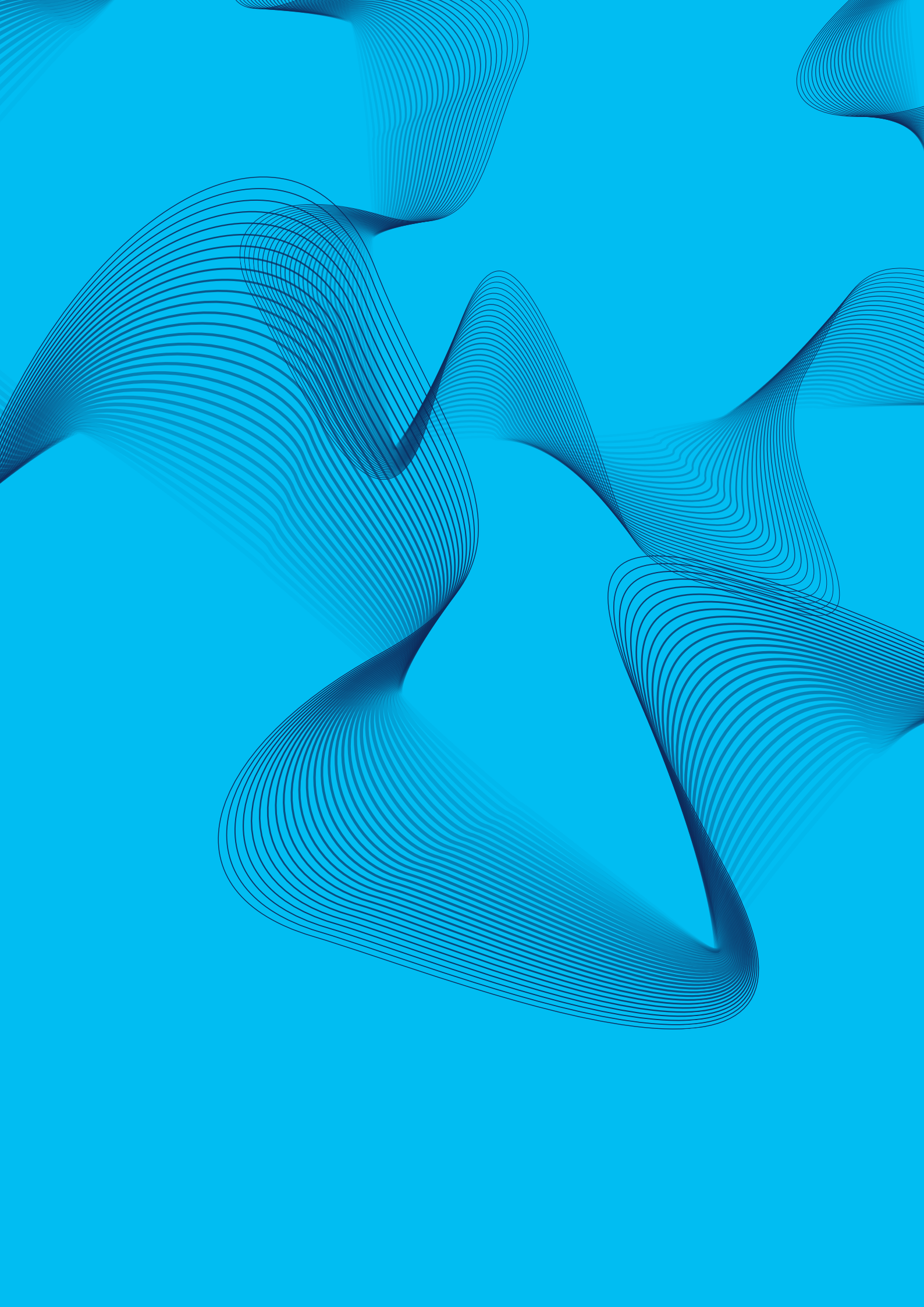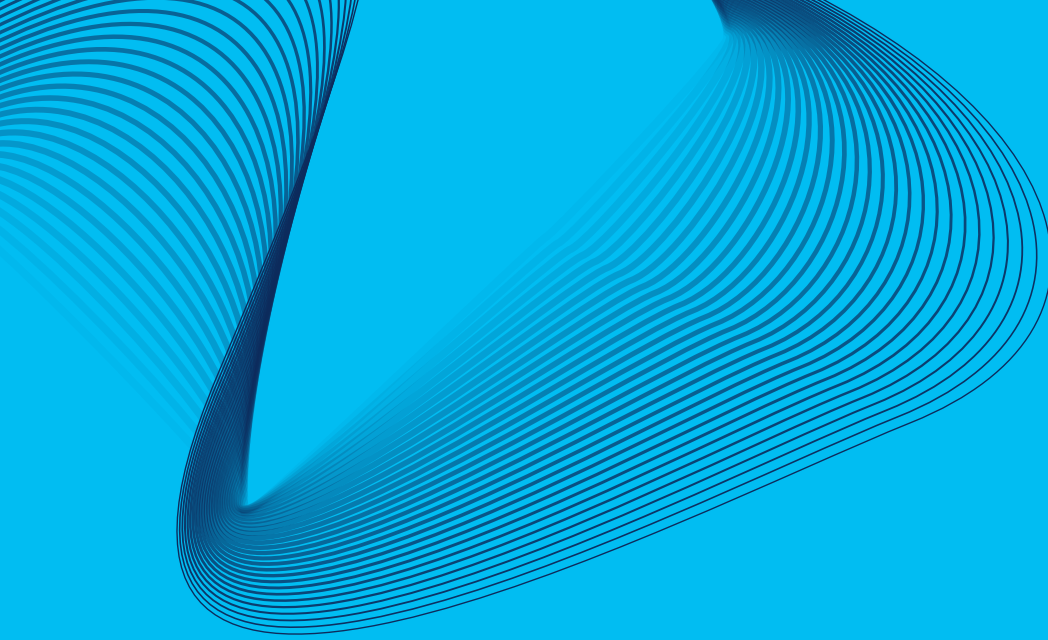
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Our mission statement is simple: We conduct research to minimise the impact of emergencies, focusing particularly on our strengths in behavioural science, mental health, emergency preparedness exercises, syndromic surveillance and mass casualty decontamination.

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