UNIVERSITY OF BIRMINGHAM | THE INSTITUTE FOR GLOBAL INNOVATION

Living with the pandemic
Event series

Easing the lockdown
Post-event summary

Participants
- Professor Hisham Mehanna (Chair)
- Professor Dominique Moran (Co-Chair)
- Professor John Bryson
- Professor Willem van Schaik
- Professor Heather Widdows

Background to the series
The spread of COVID-19 is one the biggest challenges the global community has faced, and our research teams have a key role to play in the fight against it, to reflect on its impact on all aspects of our lives, and to learn lessons from it.

The Institute for Global Innovation at the University of Birmingham has therefore organised a series of webinars, where experts consider the different issues surrounding the pandemic.

The session on Easing the Lockdown was first broadcast on 3 June 2020. You can watch the event in full by clicking here.

Social Distancing: People are the Problem
Professor John Bryson, Professor of Enterprise and Economic Geography

The pandemic cannot be understood without understanding the R0 (reproduction number). There are four things that contribute to this;

- duration
- opportunity
- transmission
- susceptibility

We can't alter duration or susceptibility, and so our response strategies to a pandemic like COVID-19 are to focus on reducing opportunity and transmission. This is where social distancing comes in.

The problem with social distancing is people. How do you encourage people to respond responsibly to a crisis?

For starters we have a causation issue. COVID-19 is an issue of probabilistic causation – though breaking social distancing might cause a spread of the virus, there are times when might not. Persuading people that they 'may' cause a problem is a challenge in itself. We are creatures of habit, routine and repetition, and many people simply assume that COVID-19 won't have an impact on them – particularly those in lower-risk groups. Ergo, governments need to change that behaviour through consistent messages that highlight the significant links between cause and effect, and use those messages to encourage responsible behaviour.

A recent paper argues that a population immunity of 82% would be required. When we were first looking at R0 for COVID-19 we thought it was 2.5. The latest research suggests that the median R0 is 5.7. For context, the flu pandemic of 1918 had a R0 of somewhere between 1.4-2.8. A pandemic like this therefore requires active surveillance, contact tracing, quarantine and, crucially, strong and responsible social distancing to stop transmission. Without all of that, we'll see a second and third wave.

What we've seen instead is people acting irresponsibly; numbers of people crowding onto sunny beaches, the Dominic Cummings breach of guidelines, and the consequential media scrum outside his home in which social distancing was not adhered to. These are all potential opportunities for mass transmission.

It is worth asking how we got ourselves into this situation. Quite simply, we didn't learn from other cases, such as SARS. Now we need to. We need to alter behaviour, radically and rapidly, because we should expect more pandemics due to the increasing density and connectivity of the human population. This is particularly important for the UK. In 2018, more Britons travelled abroad than any other nationality – 8.6% of all people flying were British (126.2 million). So we're very connected, and at high-risk.

Further reading: 'Creating a resilient economy post Covid-19' – Blog for Birmingham Business School, 28 April.

Lessons learned from other countries

Professor Willem van Schaik, Professor in Microbiology and Infection

It is evident that some countries are doing markedly better than others in handling the COVID-19 virus, just by looking at the number of reported deaths (even when taking factors such as population size/ demographics into account).

Germany, Austria and Denmark, for example, have been relatively successful and are now moving into easing the lockdown. So what can we learn from this?

Essentially, all countries are using the same strategy. They're gradually lifting some restrictions and asking people to adapt to a 'new normal' in which social distancing is still in place.

Reopening schools is an interesting point of focus. Children are thought not to play a major role in COVID-19 transmission, and data suggests they are low-risk for poor outcomes too (though there are uncertainties).

However, school closures were not just a means to reduce contact between children – but also adults who are at a much higher rate of transmission an illness. Parents and teachers, for example, increase their travel and interactions when schools are open. And even young adults have seen a spike in cases and mortality, so this should be considered as part of the reopening strategy.

That said, closing schools has major social consequences – so it is clear why reopening them is important, where it can be done safely. Across the continent this has gone reasonably well – with various ideas implemented from 50% attendance in classes, to strict social distancing. Austria, for example, has done very well (despite its proximity to Italy). They reopened schools on 19 May. They've been able to do this thanks to rapid testing and social distancing.

We're not seeing outbreaks caused by schools reopening. But we are seeing them in other places, such as:

- Church services
- Mail sorting offices (in Austria)
- Meat processing plants (in Germany and the Netherlands)
- Restaurants and shisha bars
- Care homes (in all countries)

These outbreaks can be cause for local or regional lockdowns, and temporary re-closure of businesses and schools.

But, as the UK looks to lift lockdown, we have three major lessons from the more successful countries in Europe:

- Communication needs to be clear and unambiguous
- Travel restrictions from high-risk countries can work (albeit, currently only Sweden and the UK are seen as high-risk countries, and the UK is more likely to cause an outbreak else-where via travel than be on the 'receiving' end)
- None of the measures work without efficient testing and tracing infrastructure – whether that's traditional methods like phone calls to warn people, or purely app-based.
- Lessons: clear, unambiguous communication

Ethical and Privacy implications of the NHSX App

Professor Heather Widdows, John Ferguson Professor of Global Ethics

If you want to track, trace and contain COVID-19 using an app, then you don't need a centralised app. Therefore, given the significant ethical and legal worries – why are the UK looking to use the NHSX app when we don't have to?

The primary stated aim of the app, as per the pilot on the Isle of Wight, is to minimise the spread of COVID-19. But there are concerns – not least due to the suggestion that data will be held for 'up to 20 years'. Though exceptional times call for exceptional measures, it's not obvious that data needs holding beyond the emergency itself.

The government adopted six principles given to them by the Ethics Advisory Board, who conditionally approved the programme should they be adhered to. These principles are rather odd, and many seem to already have been broken.

1. **Value** – it requires 'enough benefit to society as a whole to justify its introduction and any adverse consequences' – which suggests that adverse consequences may in fact be antici-pated
2. **Impact** – there 'must be good reason to believe the app will be an effective tool'
3. **Security and Privacy** – 'data collected must be minimised and protected to preserve users'.

Arguably we have already broken this by having a centralised app, rather than a decentral-ised app, in the first place.

4. **Accountability** – there 'must be clear accountability, particularly with regards to introducing new functionality and data collection'. We simply don't have that, we don't even have clear justification for a centralised app.
5. **Transparency** – the 'data that is gathered, and the algorithms used, should be publicly available to enable scrutiny'. We have most definitely not had that.
6. **Control** – 'the user should be able to see what data is being held and understand how it impacts decisions'. This is interestingly worded, as understanding how data is used is not the same as controlling how it is used.

The other stated aim of the app is to 'collect additional data in a privacy-safe way for use by the NHS and Public Health'. The language here is ambiguous. Reading into the proposal more, there is talk of a 'donation' of data from the user – which suggests a gift, or giving over the control.

Equally worrying is the line that 'data can be used by those approved by the NHS'. This was of concern to the Joint Commission on Human Rights – and does not suggest that the Privacy and Control requirements above are being adhered to.

From an ethics perspective, it is highly concerning that consent is not mentioned explicitly. The Ethics Advisory Board does mention it in an unusual way - 'broader societal consent' – which is not a standard understanding of consent. Can there be broader consent for how the data of an individual is acquired, and used? Downloading an app does not constitute consent.

Indeed, it is impossible give valid consent for future research – as you cannot give informed consent to an unknown. The way around it would be to introduce additional safeguards – mechanisms that prevent future harms - or to return to participants and ask for consent once you know what the future research may be. The omission of this clarity is problematic.

There is huge potential here for future discrimination. If groups are more susceptible to COVID-19, it could have implications for employability or insurance. There is also the potential for some people to benefit from what is will be a valuable dataset, and questions to be asked over who decides who would have access to it.

Worryingly, we're also doing this under the cover of the NHS rather. British public have a strong emotional connection to the NHS – remember the 2012 Olympics opening ceremony – and they may be comfortable in giving data to NHS, but not to an 'unknown actor'. Transparency is key.

A final point, we are something of an outlier in Europe. Only the UK, France and Norway are considering the use of a centralised app, and both France and Norway are having more nuanced and public conversations about the ethics of that. Germany started down that road, but did a U-turn and stuck with decentralised app.

Even if all of the ethical concerns could be addressed, to have a truly effective response it makes sense to have a decentralised app. COVID-19 is the epitome of a global problem, that requires a global solution. Centralised apps are 'national' by their nature, they don't 'speak' to each other. And so this begs the question, why is our approach different, and what else could the data be required for?

Further reading: 'Track, trace and contain – but don't keep our data: Ethical and legal worries of the NHSX App' – Birmingham Brief, 28 May.

Future events

The next webinar on COVID-19 will be titled 'Doing things differently: The new normal', and will explore what the long-term implications might be for everyday life. The webinar will run on Thursday 18 June at 12pm, via Zoom (places limited) and Facebook livestream.

You can follow the Institute of Global Innovation on Twitter @bIGIdeas_UoB.