What is the UK government's COVID-19 strategy?

We know surprisingly little about the government's strategy for dealing with the COVID-19 crisis and for extracting us from it. We know what the government wants us to do in terms of social distancing and we know what it is now doing in terms of building Nightingale hospitals, trying to procure PPE and ventilators, and finally doing large-scale testing. We know those things will help slow the spread of the disease and help those who contract the disease. But what overall plan for managing and resolving the crisis does this all serve?

There are two broad strategic directions the government could go in. These are suppression and mitigation. Suppression means trying to eliminate the disease altogether. It means doing our utmost to ensure that there is no transmission. It requires a very stringent lockdown and involves assiduous testing and contact tracing to capture any possible further infections. Several east Asian countries have attempted suppression with apparent success. Suppression is most likely to be effective if attempted early on in an outbreak.

Clearly suppression is not the UK government's strategy. Not only did it not pursue the lockdown early enough, it is not pursuing it vigorously enough now, given the relative dearth of testing, to have any chance of achieving suppression in the short or even medium term. The government is clearly considering relaxing the lockdown to some degree before the disease is eliminated. So suppression is not its strategy.

Nor, I think, should it be. Achieving suppression is one thing. Maintaining it is another. As soon as the stringent suppression measures are relaxed there is a very high chance the disease will return, whether from hidden pockets within one's own country or brought in by travellers from outside. And Hong Kong, which did have effective suppression measures, is experiencing just that. So one would have to keep a high level of lockdown and surveillance. For how long? Until a vaccine is found. But that will be many months away. Suppression, if it is to avoid a second wave—or a third or fourth one, means vastly reduced freedom and economic activity for months on end. Our government, rightly, cannot countenance that. It is not a question of 'lives or the economy'. For the negative health effects of unemployment, increased poverty, reduced taxes and services are demonstrable.

The second strategy is mitigation. This policy accepts that COVID-19 will continue to spread in the medium and even the long term. Its aim is not to eliminate the disease but to mitigate its worst effects. Its worst effect are the deaths of people. And what fuels the mortality figures are two causes: infections of the elderly and otherwise vulnerable, and inadequate hospital care, due most obviously to the health services being overwhelmed with cases. So the primary aims of the mitigation strategy must be to protect the vulnerable and to ensure that the capacity of the NHS exceeds the number of people needing a hospital bed and intensive care. The lockdown reduces the rate of spread of the disease and hence reduces the growth in demand while additional lockdown rules protect the vulnerable in particular. The building of the Nightingale hospitals, the scramble to produce ventilators, and the recall of retired doctors and nurses all aim to increase capacity. Testing and tracing are not key components of a mitigation strategy (though they can help it), which explains why our government has been slow to test—it had other priorities.

Let's imagine that the mitigation strategy works, in that the vulnerable are protected and our hospitals are operating with some spare capacity. What then? It is important to note that this strategy accepts that the virus will spread. There will be more infections, and in due course

the majority of the population will have been infected. The aim is to ensure that these people will not include the vulnerable, and that if they do get particularly sick, the NHS will have the capacity to give them the best care possible. But even so there will be deaths.

Since the motivation for this strategy rather than suppression is the acceptance that the worst economic and social ill-consequences of COVID-19 must be avoided, a relaxation of the lockdown rules will follow. But how quickly should they be relaxed? Not so quickly as to threaten the capacity of the NHS, of course. On the other hand—and strange as this might seem—there are reasons to want to avoid reducing the infection rates too much. This is not just for economic reasons. Once one accepts that there will continue to be widespread infection, such that a large proportion of the population will eventually become infected, then it makes sense to have those infections sooner rather than later—subject to the capacity of the NHS of course. If at some point in the future people are going to be infected and so some of them hospitalised, it makes no sense for them to be cooped up at home inactive waiting for that to happen while the Nightingale hospitals are only half full. It would be better to relax the lockdown sooner and bring forward those hospitalizations. If lockdown and social distancing rules were a kind of valve that could be precisely adjusted, then one plausible high-throughput approach would aim to relax those measures just enough to fill the hospitals to near capacity. This approach aims precisely to flatten the curve—the daily infection rate stays at the same level for an extended before declining. Whereas suppression aims to put infection rates into immediate and sharp decline.

Isn't this just the 'herd immunity' policy supposedly proposed by Dominic Cummings (who then valiantly got himself infected in support of that aim)? The government has said that herd immunity is not the goal of its strategy but is a helpful by-product. Sir Patrick Vallance talked of 60% of the population being infected. This might be misleading, since 60% is the proportion that would need to be vaccinated in order to prevent an outbreak taking hold. But an epidemic let to run its course is a different matter—with no protective measures, 60% infection is the point at which the epidemic goes into decline Around 90% of the population would have been infected before the epidemic finally dies out. That would also mean hundreds of thousands of deaths.

Whether at 60% infected or 90%, aiming for herd immunity with no mitigation could never have been a reasonable policy. Even the high throughput approach to mitigation I described could lead to a substantial number of deaths and these would be concentrated relative early in the epidemic, with high daily numbers of deaths.

So one might expect the politicians to adopt a mixed strategy that is fundamentally one of mitigation but has elements that look more like suppression, such as testing and tracing. Reducing the rate of infection to well below NHS capacity will reduce daily death rates and may reduce the total number of deaths throughout the epidemic. But it will extend the period of depressed economic activity.

Why is the government not clear about its strategy? First, it might not itself be clear about which version of the mitigation strategy—high throughput or the mixed approach—it is going for. Secondly, if high throughput is the version of strategy adopted, it would be unpalatable to tell the public that it actively wants the hospitals to be largely full. Thirdly, the mitigation strategy doesn't fit well with the rhetoric of 'defeating' the virus (that would be suppression). For those using those military metaphors, mitigation is more Dunkirk than Normandy. Finally, being clear that it is expected that a large proportion of the population

will get the illness, raises the risk that many individuals will not stick to the restrictions required to manage the mitigation strategy. Compliance is clearly a major concern for the government. Given all this, it is no surprise that the government is not keen on being clear about its strategy let alone what kind of exit we should expect.

Alexander Bird

Peter Sowerby Professor of Philosophy and Medicine

King's College London

17 April 2020