

## “Flattening the curve is a key tactic but a long term strategy is now needed”

ITM Director Marc-Alain Widdowson's opinion piece appeared in the Belgian news magazine **Knack**.

25-03-20 - Marc-Alain Widdowson



Dit is de omschrijving

**We are now living in uncertain, confusing, fast-moving and frightening times. Since the early 2000s and the emergence of bird flu, the idea that a deadly disease such as the 1918 influenza pandemic would sweep rapidly around the world has preoccupied the global public health community and captured popular imagination. Now we are living what previously we have seen only on screen. Other respiratory viral scares have been either not sustainably transmissible from person to person (e.g. avian influenza, Middle East Respiratory Syndrome), poorly infectious therefore controllable (e.g. SARS), or were transmissible but not more severe than seasonal influenza (e.g. Pandemic H1N1). The COVID-19 virus, however, is at least as transmissible as influenza and far more deadly.**

We can't stop this novel virus easily. It is very infectious. People with no symptoms may even spread it and no-one has immunity. Treatment is difficult. With pandemic influenza, since many deaths are associated with secondary bacterial infection, antibiotics help reduce impact. Severe Covid-19 disease, however, is a primary viral pneumonia – causing inflamed lungs, and respiratory-distress antibiotics have little effect. The most effective treatment is extra oxygen and mechanical ventilation. These resources are scarce and the terrible death toll we see in Italy is because they have more patients than machines.

These facts have forced countries to resort to dramatic population measures – basic principles of disease control that we have hardly used for centuries, except perhaps for Ebola in West Africa in 2014/15. The epidemiological concept of 'flattening the curve' has become surprising well-engrained in popular consciousness as the approach to slow transmission, spread disease over longer time and hopefully prevent overwhelming healthcare capacity. But this is a tactic and not a strategy. There is no simple up-and-down disease curve. Viruses are smarter than that.

Based on pandemic H1N1, what I suspect will happen is that transmission of COVID-19 virus will continue into the early summer, past when the influenza season stops, because there are so many susceptible people (whereas for influenza there a baseline immunity). Eventually, however, summer will prevail and transmission will slow down. But the virus will then re-emerge in the winter of 2020/21 with potentially devastating consequences. Even in countries such as China and Italy only a small fraction of people have likely been infected. The paradox of the current suppression tactic is that the fewer people who are infected now, the more might be susceptible next winter. We will of course learn a good deal from the upcoming winters in the southern temperate region countries such as Australia, South Africa and Chile.

So what to do? Of course, no predictions, including my own, are certain. There is a lot of healthy discussion as we tackle this unprecedented threat and governments make tough decisions with huge life-and-death, social and economic implications. Despite intensive efforts, we must prepare for the fact that safe, highly effective vaccines and drugs will likely not be widely available for next winter.

So, for Europe the next six months will be crucial to move from the current tactic to a strategy. First, we must increase healthcare capacity over the summer by building a reserve of personal protective equipment, ventilators, and identifying extra bed capacity, and staffing reserves. Second, we have to learn best clinical practices from around the world. Third, we must prepare for possible further suppression measures at population level. We must learn lessons now and research and innovate ways of implementing these measures while minimising social, economic and mental impact. Fourth, we must do further research, including national blood samples to understand the fraction of the population that has been infected and is therefore possibly

immune. This may even allow us to calibrate population control measures to allow some immunity to develop in healthy groups such as schoolchildren.

Most importantly, we must realise that this virus is not going away anytime soon, and realise that flattening the curve is a key tactic but that a longer term strategy is now needed. With the political will we are currently seeing, preparedness, investments in research and development, and population resilience, I am confident this pandemic will be beaten back and eventually defeated.

The [Dutch version](#) of this text appeared online in Knack on 24 March 2020.