

FOCUS

SPECIAL REPORT

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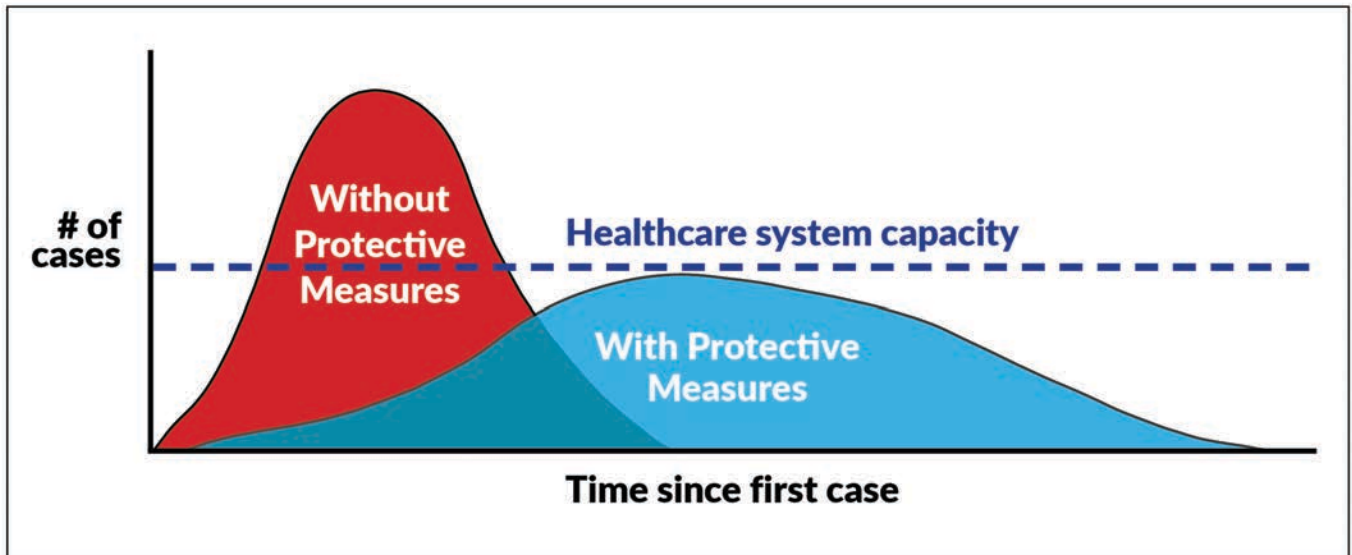
Contain or eliminate?

A COVID-19 mass vaccination campaign is unlikely for at least a year to eighteen months. But an antibody therapy or experimental vaccine that's proven safe may be available sooner, and be able to be produced in sufficient quantities to protect high-risk people. Regardless, New Zealand's goal to eliminate the virus has implications for our economy, with major implications for businesses that rely on demand from sectors such as travel, tourism, education, and migrant labour.

Flattening the curve

COVID-19 was first identified in China at the start of this year. Since then it has swept around the world infecting nearly three million people and killing over 180,000. The "global case mortality rate", which is the number of people who get infected and then die, is calculated at 7%. While infection and mortality rates vary between countries, the global death rate confirms this virus is significantly more lethal than the annual flu. Much is still not understood about this virus, but what we do know is that it is extremely infectious, and in many cases shows no symptoms at all, making it all the more difficult to track.

The complexity and lethal nature of this disease, particularly for the elderly and those with underlying medical conditions, has accelerated the response by governments around the world to suppress the rate of infection – referred to as ‘flattening the curve’. The objective of this strategy is to “buy time” so that hospitals and community health systems are not overwhelmed. “Buying time” then provides the opportunity for effective viral treatments or a vaccine to be developed.



Adapted from CDC/ The Economist

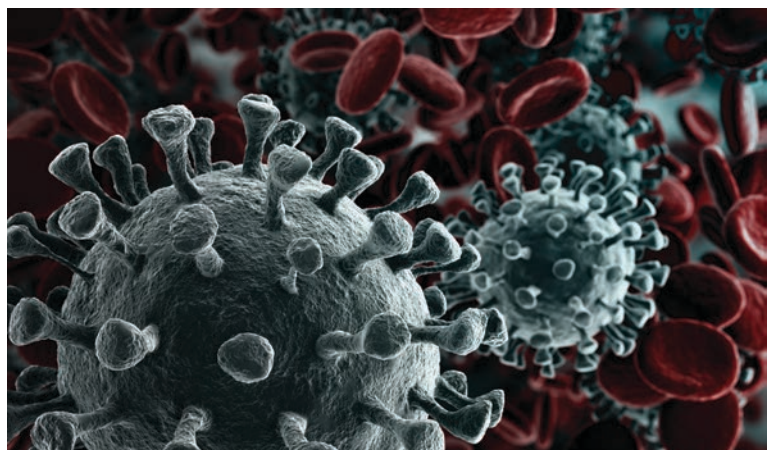
Does “herd immunity” work?

The scientific community has gone into overdrive in a race to find an effective response to the virus. There are three main approaches being considered:

1. herd immunity (including antibody testing to identify those who have been exposed to the virus);
2. viral therapies (to treat rather than cure the illness); and
3. the development of a vaccine.

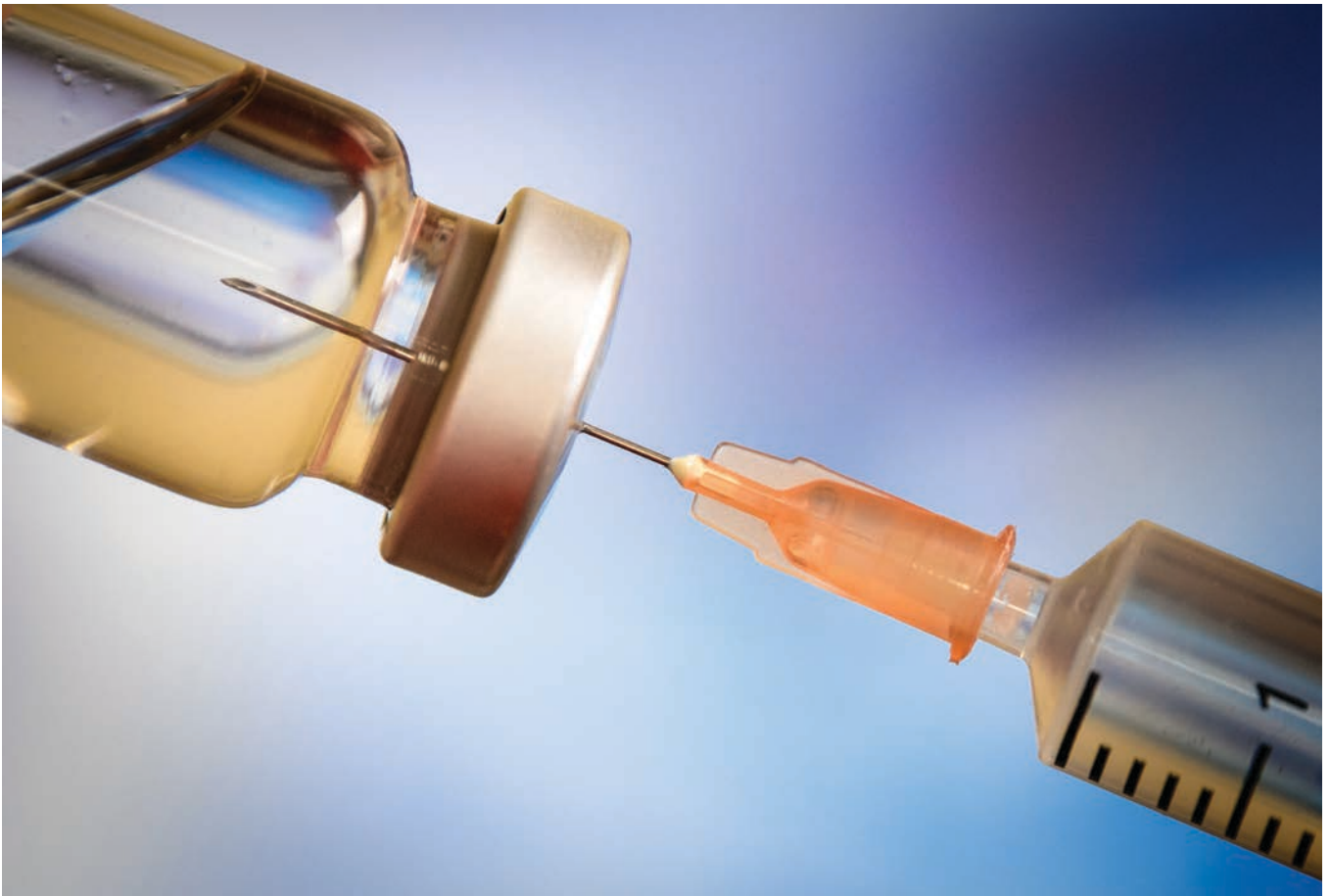
Herd immunity allows the virus to run rampant through a community, in effect resulting in survival of the fittest. The justification for this approach is the evidence that around 80% of those infected with COVID-19 have either mild or no symptoms at all. Unfortunately this approach also results in a higher mortality rate as the vulnerable are more widely exposed to the virus. Sweden is going down this path. Social-distancing is recommended, although most businesses and schools remain open. While early days, Sweden’s mortality rate of 12% of those infected is currently a lot higher than the global average.

Herd immunity is difficult to sustain over the long-term. For an airborne virus such as measles, it is estimated that 92-95% of the population need to be immunised in order to protect the 5-8% who can’t or won’t get vaccinated. The resurgence in measles over the last few years and high mortality rate in infants demonstrates the ongoing risk to this approach if immunity levels are allowed to drop. COVID-19 is a similar air-borne droplet virus, but with a lower infection rate than measles. The estimated size of the population that needs to have been exposed to COVID-19 to achieve herd immunity is a wide range of 30-75%, underscoring how much we don’t yet understand about this virus. It would be a very brave government prepared to allow 75% of its population to be infected with mortality rates so high.



The antibody and viral therapy short-cut

Antibody therapy and viral treatments target the complexity of the virus DNA by disabling its ability to replicate and spread within those already infected. Multiple companies are following these two approaches and if successful the therapies would be used in two ways – to treat those already infected, and to provide an early level of protection for those people most at risk. Reported progress on some studies is showing early promise with human trials having already started on a small scale. Some remain hopeful that an effective treatment may be available by the end of the year. While it remains a risk that none of the therapies will work, the odds have been improved by the large number of companies following these approaches. Whatever medical intervention finally works, it's probable an antibody therapy or anti-viral treatment is available well before a vaccine.



Will a vaccine prove to be elusive?

A vaccine is the “gold standard” cure for a virus. Normally a vaccine is developed in a laboratory and then goes through several phases of testing. Animal testing is the first stage to ensure it is safe and produces an effective antibody response. It would then normally go through several phases of human trials. The human trials involve healthy people while monitoring any side-effects. At the same time as human trials are underway, production capacity is planned and built-up so that once approval is given by the regulatory agencies, the vaccine can be made available relatively quickly to those who need it. Scaling-up production is a major obstacle for COVID-19, as billions of doses would be needed.

A typical vaccine process normally takes years to develop, but the United States Food and Drug Administration (FDA) and other government agencies have fast-tracked a number of approval processes and testing phases. While some will see this as a good sign, similar shortcuts in the past have proven fatal. Moreover, success can also be elusive in the hunt for a vaccine as we have witnessed with the failure to develop a cure for the common cold.

The bottom-line is that we are unlikely to have a cure available to us for a mass vaccination campaign for at least a year to eighteen months. But an antibody therapy or experimental vaccine that's proven safe may be available sooner and able to be produced in enough quantities to protect high-risk people.

Economic implications remain profound

History will determine which country adopted the most effective response to the pandemic. Sweden remains the outlier with limited domestic restrictions. New Zealand and Australia have been very effective in flattening the infection curve using social-distancing and lockdowns. But our government's intention to eliminate the virus has implications for the domestic economy. Our border will need to remain closed, or tightly monitored until an effective treatment is found for the global pandemic. This could be many months away, or, at worst, years. This has major implications for businesses that rely on demand from sectors such as travel, tourism, education, and migrant labour. Our housing market will no longer be under-supplied as population growth slows dramatically. While hospitality businesses will be able to re-open for domestic customers, those relying on foreign tourists will struggle. A more positive outlook could be made for our primary sector and those exporting food, healthcare, and technology products. An increase in domestic manufacturing is also quite possible, as the trend towards self sufficiency for essential products increases the need to secure domestic supply.

Whatever the outcome, there will be winners and losers as the global economy takes stock of the permanent changes brought on by the impact of the virus. When considering how you should position your portfolio to take into account the changing economic outlook, your Forsyth Barr investment adviser, with the support of our extensive research resources, will be able to provide you with professional advice and assistance.



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