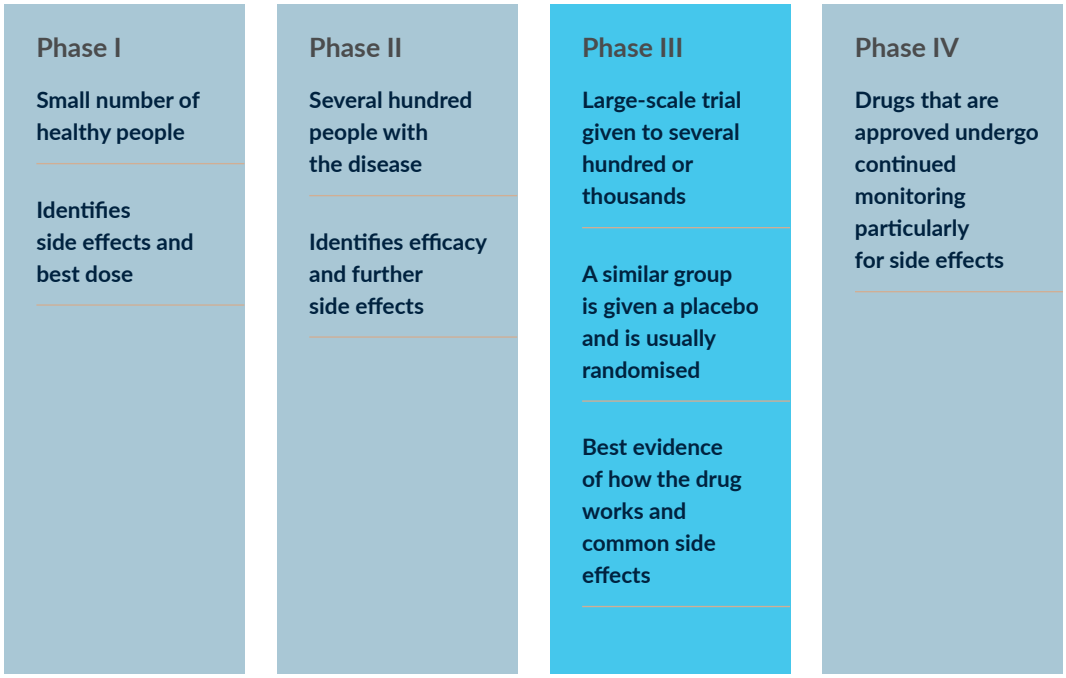
focus

Injection of optimism in the search for a vaccine

Over the past few months we've been inundated with medical jargon and talk of a COVID vaccine. Every day seems to bring news around a potential vaccine or medical treatment. Markets are increasingly optimistic a medical treatment will be found. With a recent string of more tangible news, are we finally starting to get some real traction?

FORSYTH BARR

Human clinical trials have four phases — with Phase III the key



Source: Healthline, Forsyth Barr Analysis

Where are we at?

The headline grabber in the past week was arguably AstraZeneca/University of Oxford's vaccine trial results. Their candidate passed the phase II trial with all participants exhibiting a T-cell response and antibodies after two doses. Antibodies, produced by B-cells, work to contain or fight off the virus while T-cells kill infected cells. Now in the phase III trial, the most important and rigorous phase, tens of thousands of people in the United Kingdom, United States, Brazil, and South Africa will be tested. If the phase III trial proves successful, the candidate can be approved for wide distribution and monitoring. Although the Oxford vaccine may be the most promising, not all hope rests there. As it stands more than 20 other candidates are in clinical trials with three others also at Phase III.

VACCINES CURRENTLY IN PHASE III TRIALS

Country	Developers	Comment
China	Sinopharm, Wuhan Institute of Biological Products Co.	Phase III trials launched in the UAE in July
	Sinovac Biotech	Phase III trials began in Brazil in July
Australia *Netherlands*	Murdoch Children's Research Institute, University of Melbourne, Radboud University	Trialling a tuberculosis vaccine to test partial protection
UK	University of Oxford, AstraZeneca	Phase III trials in Brazil, UK, South Africa and US began in July

Source: WHO, London School of Hygiene & Tropical Medicine, RAPS.org, Forsyth Barr analysis

...manufacturing, distribution and availability are the challenges that await an approved vaccine...

Phase III success would be a huge positive, but it's not the end of the road.

Phase III trials are the most rigorous and can take months to obtain preliminary results. We won't know until October (at the earliest) if any of the current trials is successful. It's also important to remember that developing a vaccine is only the first part of the race. Manufacturing, distribution and availability are the challenges that await an approved vaccine. Even on the bold assumption that one of the current phase III prospects advanced seamlessly from here, it's unlikely we'd see a widely distributed vaccine before the 2nd half of 2021.

There are still many things that aren't known about this virus and its potential vaccines. There is no guarantee a vaccine will be found — there is no vaccine for HIV or SARs or MERs, although medical treatments have improved substantially. There's also no certainty that antibodies equal full immunity. Some research suggests that COVID-19 neutralising antibodies can disappear within months — if the vaccine doesn't last long enough it might be back to the drawing board. Vaccines are also rarely 100% effective (influenza vaccines have a maximum effectiveness of 60%). It isn't necessary for the COVID vaccination to be 100% effective, in fact the World Health Organisation and US Food and Drug Administration only require a 50% improvement from a placebo drug. Clearly though the more effective the vaccine the faster economies, businesses and consumers can return to normal.

"Time is money, but money can't buy time"

With health systems and economics creaking under the strain of COVID-19, governments and companies are pouring billions into developing treatments and a vaccine. Undoubtedly money has and will speed up aspects of the development, but unfortunately there is only so much it can do. Vaccines need to be safe. Observation of the effectiveness of a vaccine and its impacts on the human body take months. Normally development of a vaccine can take up to 10 years. Three years is considered warp speed. That it is even a possibility that we may have a COVID-19 vaccine next year is evidence of how much talent and money is being thrown at the problem.

...stocks dragged down by social distancing measures have the most to gain...

Portfolio Immunity?

The success, or not, of developing a vaccine and/or medical treatments will impact markets and asset values. If a vaccine is developed on an optimistic timeline we'll likely see a faster and more balanced economic recovery. Stocks dragged down by social distancing measures have the most to gain. Safe haven investments like gold may lose attraction. Unfortunately we don't have a crystal ball, and uncertainty remains high. We are aiming to build portfolios that can navigate across a range of different possible scenarios in the years ahead.

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