

Vaccine will not be silver bullet to end pandemic: Virus expert

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When the Covid-19 vaccine finally comes, it will be no silver bullet to end the pandemic, said world-renowned virus-hunter Peter Piot.

The head of the London School of Hygiene and Tropical Medicine warned that it is unlikely for the vaccine to get to billions of people in the next few months, or be 100 per cent protective, and there remain questions on whether it will confer lifelong immunity.

The Belgian was a guest speaker in the Thursday episode of a webinar series hosted by the National University of Singapore Yong Loo Lin School of Medicine.

He said it seems unlikely there will be a vaccine ready for hundreds of millions of people in a few months' time. Vaccine development takes time and is difficult, with the success rate, in general, being far less than 10 per cent, he added.

"You can't take shortcuts... You need to demonstrate that it protects and that requires randomised

control trials in a population where the incidence of new infections is high enough to come to meaningful conclusions. And that takes time," said Professor Piot.

"The question that is not being discussed enough is, will this vaccine... prevent acquisition of the virus or is it only going to prevent severe disease and death... and will it be as effective in elderly people, because that's where, often, the effectiveness of vaccines is lower if you're over 80, or even 70," he said.

Then, there is the safety issue to contend with. "This is a vaccine that will probably be needed by billions of people and so we need to make sure we are injecting absolutely safe biological material in these people," he said.

There may be hiccups along the way – the vaccine may not protect as much as expected, it can fail, or it can produce an undesirable side effect.

The world does not have the manufacturing capacity for billions of doses at the moment, neither are there enough glass vials available.

"When you hear some politicians or public health figures say, okay,

we need to do all this and next year we'll have a vaccine, and we'll go back to normal. I think, forget it, a vaccine is not going to be a silver bullet," he said.

"If we have a 70 per cent effective vaccine, I think I would consider that a big success."

Then, there is the issue – likely a major geopolitical one – of which nation will have access to it.

Just this week, the United States said it had secured nearly all of the next three months' projected production of remdesivir – the only anti-viral drug that has been shown to be relatively effective in treating Covid-19.

"There are agreements with some generic manufacturers in India to produce it, but this is really the worst possible scenario... That's the kind of scenario we need to avoid when it comes to vaccines."

Prof Piot said people will need to embrace a new normal.

"We'll probably have to go to what we call an HIV combination prevention strategy; we will have to continue to do certain things like social distancing, wear masks and all that."

Man who co-discovered Ebola virus



Professor Peter Piot (left) was one of the discoverers of the Ebola virus in Zaire in 1976, when he was 27.

He has led research on Aids and was the founding executive director of the Joint United Nations Programme on HIV/Aids and the undersecretary-general of the United Nations from 1995 until 2008.

The Belgian microbiologist became the director of the London School of Hygiene and Tropical Medicine in 2010.

In May, he was appointed the special Covid-19 adviser to European Commission President Ursula von der Leyen.

In the role, he will advise the commission on supporting and steering research and innovation in the global fight against the coronavirus pandemic.

In his message for the Coronavirus Global Response initiative upon his appointment, he had said that the brightest minds in different fields need to come together to fight the virus as "the pandemic is not going to be over anywhere, until it is over everywhere".

He and his wife, Professor Heidi Larson, an anthropologist and the founding director of The Vaccine Confidence Project at the school, live in London.

Combination prevention is a package of prevention interventions tailored to national and local needs. In HIV prevention, there is no single strategy.

Prof Piot, who was in the team that discovered Ebola and led global fights against HIV unscathed, experienced the wrath of the coronavirus first-hand.

The 71-year-old caught the coronavirus in March. He had a headache and felt feverish on March 19 and then suffered from extreme exhaustion – and it has taken him three months to recover.

He can now go jogging, an activity he could not do just two weeks ago, he said on the webinar.

He was hospitalised for about a week. When he was discharged, he had thought he just needed to rest.

"But then I developed organising pneumonia... It was only then that I became short of breath," he said. It was a delayed immune reaction that would have killed him if it had happened when he was acutely ill with Covid-19, he had said previously.

Although he is nearly fully recovered, some of the effects of

the illness remain.

"I had atrial fibrillation and some cardiac problems... That seems to be okay now. I probably have a bit of fibrosis in the lungs and so on, but you can live with that."

By sharing his story, he wanted to show that the virus cannot be underestimated as it can probably affect all the organs in the body. The illness has taught him that Covid-19 is "much more than either a bit of a flu or a serious flu", or an illness where just 1 per cent of infected persons die.

Covid-19 patients may have to deal with a lot of chronic conditions as a result of the illness, he said.

While many have mild illnesses, some can spend weeks in ill health.

Around the world, coronavirus cases continue to rise.

World Health Organisation director-general Tedros Adhanom Ghebreyesus said this week that some countries face a long, hard road ahead by taking a fragmented approach.

He said Italy and Spain – the epicentres of the pandemic in March – had brought their epidemics under control with leadership, humility, active participation by every member of society and implementing a comprehensive approach.

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