

# 'Herd immunity will take time'

## Experts: It may take at least a year to vaccinate 80% of population

By ASHLEY TANG

ashleytang@thestar.com.my

**PETALING JAYA:** With the Health Ministry targeting to vaccinate 126,000 individuals a day, a health expert says the country is estimated to achieve herd immunity by the end of October at the earliest if everything goes smoothly.

However, realistically it will take at least a year, said Universiti Putra Malaysia medical epidemiologist and biostatistician Assoc Prof Dr Malina Osman.

"Logistical issues, human resource capacity and important public holidays, as well as society's response to the vaccination programme are key factors that have to be taken into consideration.

"Therefore, I would say 80% coverage could be achieved by March or April next year," she said.

According to Universiti Malaya epidemiologist Prof Datuk Dr Awang Bulgiba Awang Mahmud, achieving herd immunity is dependent on factors such as a vaccinated individual not transmitting the disease even if the infectious agent is within the person's body.

"The proportion of vaccinated individuals also has to be large enough to interrupt the transmission of the disease," he said.

"It's also vital that the vaccination brings lasting immunity and mutation of the infectious agent doesn't render the protection ineffective."

Dr Awang Bulgiba, who is the head of the Independent Covid-19 Vaccination Advisory Committee (ICVAC), claimed that the peak reproduction number (R) for some of the clusters during the third wave of Covid-19 in Malaysia was



**One for the album:** Prime Minister Tan Sri Muhyiddin Yassin (centre) with (from third left) Health director-general Tan Sri Dr Noor Hisham Abdullah, Health Minister Datuk Seri Dr Adham Baba, Science, Technology and Innovation Minister Khairy Jamaluddin with frontliners posing for a group photo after receiving their vaccination at the District Health Centre in Precinct 11 in Putrajaya. — AZHAR MAHFOF/The Star

higher than the R computed by the Health Ministry.

R is the rate of infectivity and estimates the average number of people that one positive Covid-19 patient can infect.

As such, he said, the proportion of the population that needed to be vaccinated to achieve herd immunity could be as high as 80% to 90%.

"So 80% of 32.7 million (total population in Malaysia) is about 26.2 million. This means having to vaccinate practically all adults in Malaysia, as we are not going to vaccinate children yet. This would take around a year or so," he said when contacted yesterday.

Dr Awang Bulgiba pointed out that the ideal herd immunity — where there are no more new infections — was not possible to achieve if pockets of non-immune individuals were present.

However, he said if the level of infections remained consistently low without the need for other additional measures like non-pharmaceutical interventions, then it was likely that herd immunity had been achieved.

International Islamic University Malaysia public health medicine specialist Asst Prof Dr Mohammad Farhan Rusli said it was best to be practical about the situation rather than to estimate a timeline.

"There is absolutely no way to know how many we can vaccinate until we start vaccinating," he said.

"What are the problems that we will face? What about vaccine delivery periods? How many doses per shipment?"

Dr Mohammad Farhan said the country was expected to use up the roughly 300,000 doses it received from Pfizer-BioNTech in two and a

half days based on Health Minister Dr Adham Baba's estimate of vaccinating 126,000 individuals per day.

"Let us see how many days it actually takes to utilise this first batch of vaccines. Only then will we have hard data and be able to calculate the estimated time (to achieve herd immunity)," he said.

"This is barring unforeseen circumstances, such as flooding in the east coast states, accidents, cold-chain failures, power outages and many other variables which need to be accounted for.

"The numbers give assurance but are meaningless without evidence and hard data," he added.

According to the Science, Technology and Innovation Ministry, a ticker on the number of people who have been vaccinated will be available on the [vaksinCovid.gov.my](http://vaksinCovid.gov.my) website.