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Herd immunity vs COVID-19

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Herd immunity is the indirect protection from an infectious disease that occurs when a high percentage of the population becomes immune, either through vaccination or previous infection. Also known as population immunity or community immunity, herd immunity makes the spread of an infectious disease from person to person unlikely.

When herd immunity is achieved, even individuals not vaccinated (such as newborns and the immunocompromised) are offered some protection because the disease has little opportunity to spread within the community, according to the Association for Professionals in Infection Control and Epidemiology (APIC).

Last year, some groups floated the idea of allowing coronavirus disease 2019 (COVID-19) infection to spread through whole populations in order to achieve herd immunity quickly. Health authorities, including the World Health Organization (WHO), vehemently oppose this approach to achieving herd immunity.

According to the WHO, herd immunity against COVID-19 should be achieved by protecting people through vaccination, not by exposing them to the pathogen that causes the disease. "Letting COVID-19 spread through populations, of any age or health status will lead to unnecessary infections, suffering and death." ("COVID-19: Herd immunity, lockdowns and COVID-19," WHO, Dec. 31, 2020)

As the country's COVID-19 vaccination program for priority population groups continues to build momentum, it is important to remember that vaccination is the only acceptable way to achieve herd immunity against the deadly respiratory infection. But exactly what percentage of the country's population needs to be vaccinated before we achieve herd immunity against COVID-19?

The percentage of people who need to be immune in order to achieve herd immunity varies with each disease, the WHO explains. For example, herd immunity against measles requires about 95% of a population to be vaccinated. The remaining 5% will be protected by the fact that measles will not spread among those who are vaccinated. For polio, the threshold is about 80%.

The proportion of the population that must be vaccinated against COVID-19 to begin inducing herd immunity is not known. This is an important area of research and will likely vary according to the community, the vaccine, the populations prioritized for vaccination, and other factors, according to the WHO.

The International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), the body representing the biopharmaceutical industry globally, is a founding member of the ACT-Accelerator of which the COVID-19 Vaccine Global Access Facility (COVAX) is a key pillar. On Feb. 24, COVAX and UNICEF began to roll out 2 billion doses of COVID-19 vaccines — to be delivered by the end of 2021 — to protect high risk and vulnerable people,

and frontline healthcare workers in low- and middle-income countries (LMICs), including the Philippines. Since then, GAVI, the vaccine alliance, has announced various deliveries of COVAX COVID-19 vaccines, with millions of doses to reach 147 countries by the end of May. The biopharmaceutical industry is working at unparalleled speed sparing no resources to develop safe and effective COVID-19 vaccines in record time. The decades-long investments the industry has made in new vaccine technologies enable us to respond to this crisis, while at the same time ensuring uninterrupted global supply of much needed existing vaccines to protect public health and avoid additional burden on the healthcare system. TEODORO B. PADILLA is the executive director of the Pharmaceutical and Healthcare Association of the Philippines (PHAP). PHAP represents the biopharmaceutical medicines and vaccines industry in the country. Its Members are in the forefront of research and development efforts for COVID-19 and other diseases that affect Filipinos.