



## Infection Prevention and You

### What IS HERD IMMUNITY?

Herd immunity (or community immunity) occurs when a high percentage of the community is immune to a disease (through vaccination and/or prior illness), making the spread of this disease from person to person unlikely. 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.

Vaccines prevent many dangerous and deadly diseases. In the United States, smallpox and polio have both been stamped out because of vaccination. However, there are certain groups of people who cannot get vaccinated and are vulnerable to disease: babies, pregnant women, and immunocompromised people, such as those receiving chemotherapy or organ transplants. For example, the earliest a baby can receive their first pertussis or whooping cough vaccine is at two months, and the earliest a child can receive their first measles vaccine is at one year, making them vulnerable to these diseases.

Herd immunity depends on the contagiousness of the disease. Diseases that spread easily, such as measles, require a higher number of immune individuals in a community to reach herd immunity. Herd immunity protects the most vulnerable members of our population. If enough people are vaccinated against dangerous diseases, those who are susceptible and cannot get vaccinated are protected because the germ will not be able to “find” those susceptible individuals.

### When can we expect herd immunity for COVID-19?

COVID-19 is a very contagious disease. A large percentage of the population will need to be immune against the disease (through infection or vaccination) before herd immunity will be achieved. It is not known when that will happen, but it will depend on how many people develop immunity after COVID-19 infection, how soon a COVID-19 vaccine is widely available to the general public, and how many people get vaccinated. Throughout this time

period until herd immunity is achieved, it is very important to continue to [wear masks](#) in public and social distance to slow the spread of COVID-19.

On December 11, 2020, the U.S. Food and Drug Administration (FDA) issued an emergency use authorization for the first COVID-19 vaccine. The emergency use authorization allows the Pfizer-BioNTech COVID-19 Vaccine to be distributed in the U.S. The Moderna COVID-19 vaccine received approval for emergency use shortly thereafter. With vaccines becoming approved, the focus is shifting to manufacturing the vaccine, educating members of the public about the vaccine, and distribution of the vaccine. Although these efforts will take some time to achieve, vaccines have proven to be the safest, most cost-effective way to protect people from disease. APIC continues to [monitor and advocate](#) on policies affecting each one of these steps and will continue to share consumer information via our social media channels.

### When doesn't herd immunity work?

One of the drawbacks of herd immunity is that people who have the same beliefs about vaccinations frequently live in the same neighborhood, go to the same school, or attend the same religious services, so there could be potentially large groups of unvaccinated people close together. Once the percentage of vaccinated individuals in a population drops below the herd immunity threshold, an exposure to a contagious disease could spread very quickly throughout the community.

### What can you do?

Talk to your healthcare provider. Ask about your immunization status and if you and your family members are up-to-date on your shots. Staying on schedule with vaccinations not only keeps you safe, but also keeps your loved ones and your community safe..

## ADDITIONAL RESOURCES

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APIC "Herd Immunity" Infographics, 2019,

<https://infectionpreventionandyou.org/infographic/vaccines-are-everybodys-business/>