

# Infection Prevention and You



## **Protecting you, your family and your community through community immunity (herd immunity)**

In light of the current Measles outbreaks occurring among 23 states, it is timely to talk about vaccine preventable diseases and the implications of community vaccination.

### **So, what is community vaccination or herd immunity?**

Community immunity is when a sufficient proportion of a population is immune to a contagious disease either through vaccination and or due to prior illness. This makes it unlikely to spread from person to person.

Community immunity is also the protection from contagious diseases that individuals benefit from as a result of living in a community where a critical number of people are vaccinated.

The bottom line is people who live in communities with high vaccination rates are effectively protected from and against vaccine-preventable infectious diseases. This is the case even if the person themselves is not able to receive certain vaccinations. A way to think of community immunity is that “vaccinating people protects not only them, but others in the community. So, if I’m protected, I can protect others.”

Over time, the immunity from the vaccine decreases. In this case, people need to get a booster shot. One way to check if you need a booster shot is to ask your doctor.

### **What implications does community immunity have for you?**

Community immunity comes with its fair share of benefits. For example, you and your family are protected. It also protects some of the most vulnerable people in our communities, such as: infants, expecting moms, people with weaker immune systems that can’t fight harmful or deadly infections, and others who cannot receive certain vaccines. Another benefit of community immunity is that it prevents outbreaks and epidemics of preventable diseases from happening.

### **Why do outbreaks of vaccine preventable diseases like measles still occur?**

According to the Centers for Disease Control and Prevention (CDC), in any given year, more measles cases can occur for any of the following reasons:

- an increase in the number of travelers who get measles abroad and bring it back
- further spread of measles in communities with pockets of unvaccinated people

### **So, what might happen if we stopped vaccinations?**

Diseases are becoming rare due to vaccinations. Before vaccines existed, many children became disabled or died from the diseases we are now able to prevent through vaccination. If we stopped vaccinating, diseases that are nearly unknown today would resurface, and we would notice an increase in epidemics of diseases that are under control today. For example, in 2000, Measles was eliminated (no continuous disease transmission for more than 12 months) from the U.S. Fast forward to 2019; from January 1, 2019 to May 10, 2019, there have been 839 individual cases of measles in 23 states across the U.S. This is the largest number of cases reported in the U.S. since measles was eliminated in 2000.

### **Who does community immunity affect?**

The who is you! What can you do to protect yourself and your family? The first step is to check your immunization records. If you don’t have them, get a copy from your primary care provider or health department. Next, talk to your primary medical doctor (PMD) about whether or not you or your family members need additional vaccines. Experts and researchers have developed a schedule for when certain vaccines should be received.

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## Resources:

CDC—Measles cases in the U.S. are highest since measles was eliminated in 2000:

<https://www.cdc.gov/media/releases/2019/s0424-highest-measles-cases-since-elimination.html>

CDC—Measles cases and outbreaks: <https://www.cdc.gov/measles/cases-outbreaks.html>

CDC—Vaccines and immunizations: <https://www.cdc.gov/vaccines/vac-gen/why.htm>

CDC—Immunization schedules: <https://www.cdc.gov/vaccines/schedules/index.html>

Oxford Vaccine Group—Herd immunity: How does it work? <https://www.ovg.ox.ac.uk/news/herd-immunity-how-does-it-work>

Meissner, H. Why is herd immunity so important? *American Academy of Pediatrics News*. 2015; 36(5):14;

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