



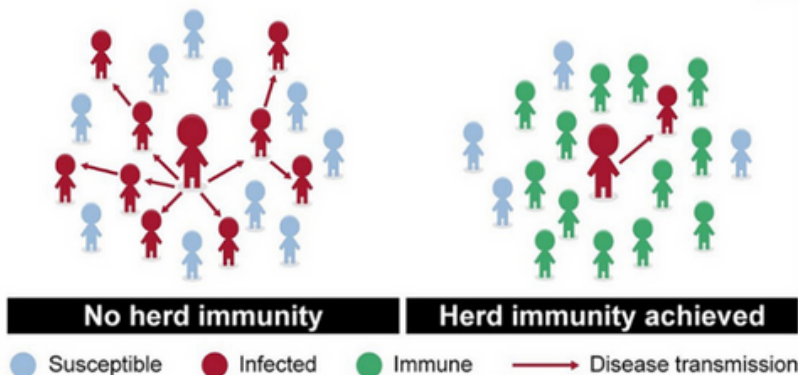
The Journey to Herd Immunity

Herd immunity refers to the protection from a disease or virus that is generally experienced by a community when a high percentage of the community is immune to that disease. This immunity occurs one of two ways:

1. Allow a disease to hit a community naturally (often a high-cost option in terms of disease and death).
2. Vaccinate healthy individuals before they are exposed to the disease. This prevents the disease from establishing a hold in the community. This is a cheaper and safer option. [1,2]

Herd immunity helps newborns/infants/children not old enough to receive vaccinations, women who are pregnant, and people with compromised body systems – such as those receiving chemotherapy or organ transplants. [3]

The Journey to Herd Immunity: A Visual Guide [4]



How do viruses work and spread?

Viruses reproduce by invading healthy cells. Diseases spread when viruses move between people through coughing, sneezing, or breathing, through hugging and handshakes, and from touching infected surfaces.[2]

Unchecked spread of a virus is NOT inevitable. Actions we take can prevent virus transmission and substantially decrease the risk that Iowans face.

Herd immunity is effective at helping limit the spread of disease.

Herd immunity requires a certain percentage of the population to be immune through vaccination or recovery from the disease, with no groups at risk of getting ill. Individuals with similar philosophical or religious objections to vaccines tend to group. These groups violate herd immunity, allowing for outbreaks and continued transmission. [2]

HOW INTERVENTIONS AFFECT HERD IMMUNITY

Social distancing and other interventions can reduce the rate of new infectious disease cases. That delays when herd immunity is reached but also reduces deaths.

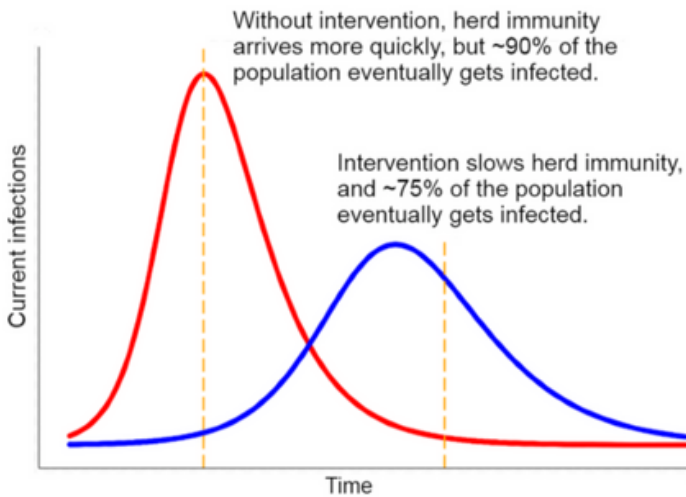


Chart: The Conversation, CC BY-ND. Source: Joanna Wares.

REAL LIFE CASE STUDY

Unfounded concerns regarding the safety of the MMR (measles-mumps-rubella) vaccine amidst the Somali-American population in the Minneapolis area resulted in lower-than-previously-experienced vaccination rates in 2017. The drop in vaccination coverage contributed to a measles outbreak in this population in April to May that year. This one small outbreak led to the hospitalization of 20 people.

This 2017 outbreak led to collaborations between parents, trusted community and spiritual leaders, community members, healthcare providers, and interpreters. Culturally appropriate health education efforts were developed to build trust between parents and providers. The outbreak was contained, and vaccination rates increased. [5]

SOURCES:

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- [6] Wares, J., & Krehbiel, S. (n.d.). Herd immunity won't solve our COVID-19 problem. The Conversation. Retrieved July 27, 2020, from <http://theconversation.com/herd-immunity-wont-solve-our-covid-19-problem-139724>
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- [8] Phadke, V.K., et al., Association Between Vaccine Refusal and Vaccine-Preventable Diseases in the United States: A Review of Measles and Pertussis. JAMA, 2016. 315(11): p. 1149-58.
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Call to Action

- Promote vaccinations to constituents and friends/family in social media posts, newsletters, and town hall meetings.
- Support pro-vaccine legislation.
- Vote against bills that would weaken Iowa's immunization laws or increase vaccine hesitancy.

To prevent the spread of disease and contribute to herd protection in your community, get vaccinated! Depending on the virus, a community may need between 70 and 90 percent of their individuals to be immune to a disease for herd immunity to effectively protect its community members. [1]

A Side Note on Herd Immunity

Herd immunity works best when people who have not received a specific immunization are not grouped together in mini-communities within a larger community. However, this is not always possible.



Iowa Immunizes is a coalition of individuals and organizations committed to protecting the health of Iowans through vaccination of children and adults. Iowa Immunizes is supported by Iowa Public Health Association. www.iowaimmunizes.org

Updated February 2023