

HEALTH MINISTRIES

Covid-19 Herd Immunity: Why be Vaccinated?

It is hard to believe that the American population began extreme lockdown due to COVID-19 in March one year ago! We know that all of the accompanying mask wearing, social distancing, frequent hand washing, staying out of crowds, being isolated at home, etc., has caused much stress both mentally and physically. We soldiered on during 2020 following guidelines about how to stay COVID-free with the hope that a vaccine would help the pandemic come to an end so that we could get back to "normal life." Some, no matter how hard they tried to follow the guidelines, have been or will be exposed to COVID-19. The larger percentage of the individuals who have become ill from the virus have had mild illnesses and recovered within a few weeks. Others, even with mild illnesses, continue to have debilitating symptoms following their initial recovery. Our hope for a back to "normal life" has been bolstered in Tennessee by the fact that everyone 16 years of age and older will be eligible for a COVID-19 vaccination beginning April 5. WOW! That is great news **but** that does not mean that everyone 16 years of age and older will want to be vaccinated. In spite of the availability of three approved vaccines, 25 percent of Americans participating in a Monmouth University poll state that they are unwilling to take a vaccine.

We do know that the probability of Covid-19 being any less virulent than it is today will not occur until a substantial proportion of the population is vaccinated to bring about **herd immunity**. Herd immunity, also known as population immunity, is the direct protection from an infectious disease that happens when a population is immunized either through vaccination or infection. The preferred method of achieving herd immunity is vaccination, not by allowing a disease to spread causing unnecessary illness and death. Vaccines train our immune systems to create proteins that fight disease by creating antibodies. This happens also when we are exposed to a disease, but unlike the disease the vaccine works without making us ill. When the "herd" is vaccinated, those individuals are protected from getting the disease in question and passing on the pathogens, thus breaking the chain of transmission. One goal in working towards herd immunity is to keep vulnerable populations who are not eligible for vaccination (i.e., children younger than 16 and those who are allergic to the vaccine) safe and protected from the disease.

The proportion of the population that must be vaccinated in order to achieve herd immunity varies with each disease. While, for example, herd immunity for measles requires about 90 percent of the population to be vaccinated, it has not yet been determined what proportion of the population must be vaccinated to achieve herd immunity against COVID-19. Without herd immunity, variants will continue to be produced by the virus. As the number of variants increase, more people will need to be vaccinated to reach herd immunity. Some of those variants may be more virulent than the original virus, making it more urgent to reach herd immunity as quickly as possible.

There is still much to be learned about the COVID-19 virus, but we do know that to protect ourselves and others we must each be vaccinated (except for the few who have health reasons not to do so) and become part of the herd. We are all anxious to resume our normal lives allowing us to hold our grandchildren, go to church, visit with friends, go to distant places, or just not have to clean our hands so frequently with hand sanitizer. Please join me once again as we approach Easter with a pledge of **courage, hope, compassion and love** to follow public health guidance in getting a vaccination. In so doing you will become part of the growing **herd immunity** and help to prevent the spread of this deadly disease to all near and far.

It is not too late to get a flu shot for 2021!

Cornelia Pearson, RN, MN

Resources:

Coronavirus disease (Covid-19) Herd immunity, lockdowns and Covid-19, World Health Organization, December 31, 2020, www.who.int.

Mayo Clinic Staff, Covid-19 (coronavirus): Long-Term Effects, Mayo Clinic, November 17, 2020, www.mayoclinic.org.

Miao, Hannah, CDC Scientist Says the US is Nowhere Close to Herd Immunity, Consumer News and Business Channel (CNBC), February 26, 2021, www.cnbc.com.

Soucheray, Stephanie, Covid-19 Pole: 1 of 4 Americans will Refuse Covid-19 Vaccine, University of Minnesota, Center for Infectious Disease Research and Policy (CIDRAP) March, 09, 2021, www.cidrap.umn.edu.

When You Have Been Fully Vaccinated, How to Protect Yourself and Others, Centers for Disease Control and Prevention (CDC), Upgrade March 23, 2021, www.cdc.gov.