

## Vaccine support and administration



With the arrival of COVID-19 vaccines to the market, a number of questions continue to arise. The following addresses four common areas of interest and highlights the Optum approach to supporting COVID-19 vaccine administration.

### What is a vaccine?<sup>1,2,3</sup>

A vaccine is a product that stimulates your immune system to produce antibodies as it would if you were exposed to a disease. Vaccines help protect against disease by allowing your immune system to recognize the virus early and help destroy it. This helps prevent future illness that would naturally occur in a person without antibodies.

#### **What do vaccines do and how do they work?**

- Vaccines stimulate a person's immune system to produce antibodies. The process is similar to what would naturally occur if you were exposed to the disease.
- Vaccines cause an immune response to a specific disease which helps develop immunity without actually contracting the disease.
- Vaccines may use a killed or significantly weakened form of the disease-causing virus or bacteria to help the body develop immunity.

## Types of vaccines<sup>1,2,3</sup>

### 1. Live attenuated vaccine

- Uses a weakened form of the virus or bacteria
- Produces an infection without symptoms and generates an immune response without illness
- Used most commonly for viruses, but can also be used for bacteria

### 2. Inactivated vaccine

- Uses a “killed” or inactive form of the virus or bacteria
- Fewer side effects than live vaccines and a weaker immune response than with live virus vaccines
- Requires several doses or “booster” shots for ongoing immunity
- Used for both viruses and bacteria

### 3. Synthetic messenger RNA vaccine or mRNA

- Uses specifically designed mRNA to make viral proteins which trigger immune cells and cause the production of antibodies
- If exposed, antibodies will recognize the proteins on the virus and destroy the virus before it causes illness
- Relatively easy and quick to produce compared to traditional vaccines

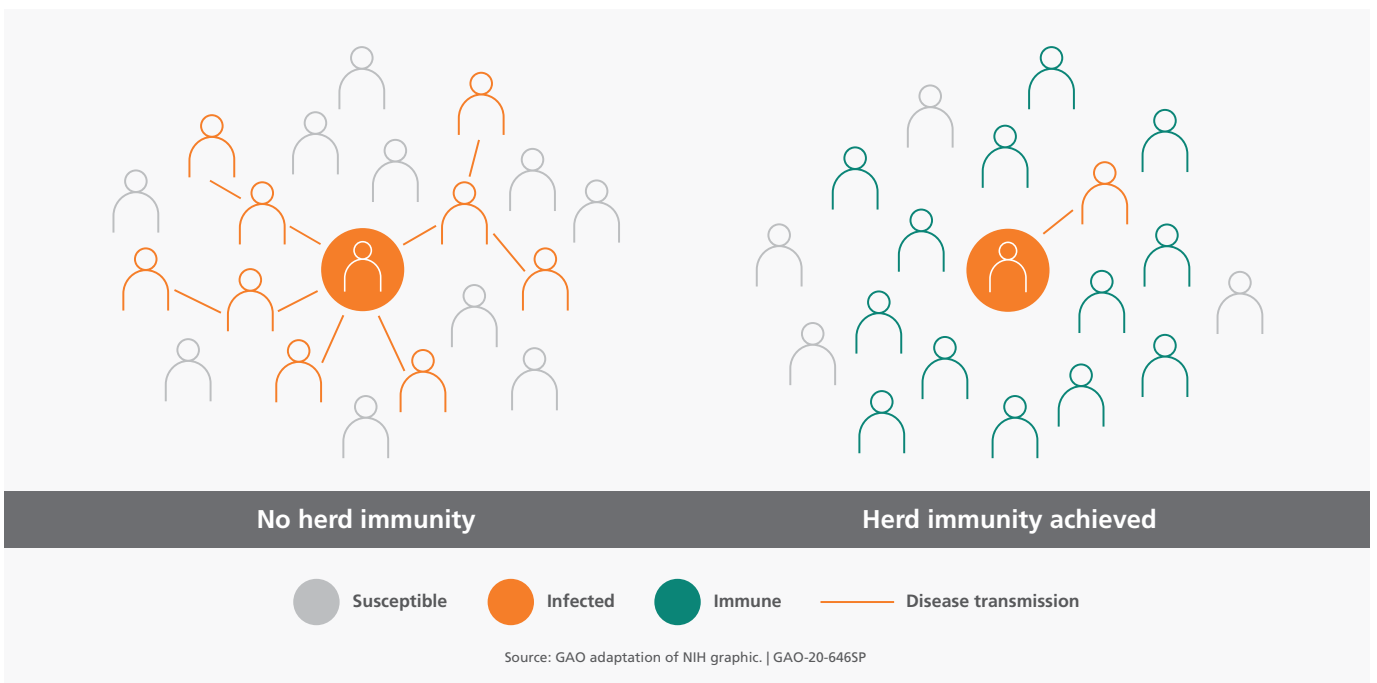
### 4. Subunit/conjugate vaccines

- Uses harmless pieces of germs to stimulate immune response
- Part of the pathogen is presented or used to create the vaccine

## Vaccines are essential for herd immunity

Vaccines provide immunity from disease. They protect both those who receive the vaccine as well as populations with weakened immune systems (HIV, cancer, the elderly and others with health conditions) and may protect those who are unable to receive the vaccine.

Herd immunity occurs when a high percentage of a community is immune to a disease either because of the vaccine or the illness itself. Vaccinations are continuously utilized to prevent recurrence even if a disease is considered to be eradicated.

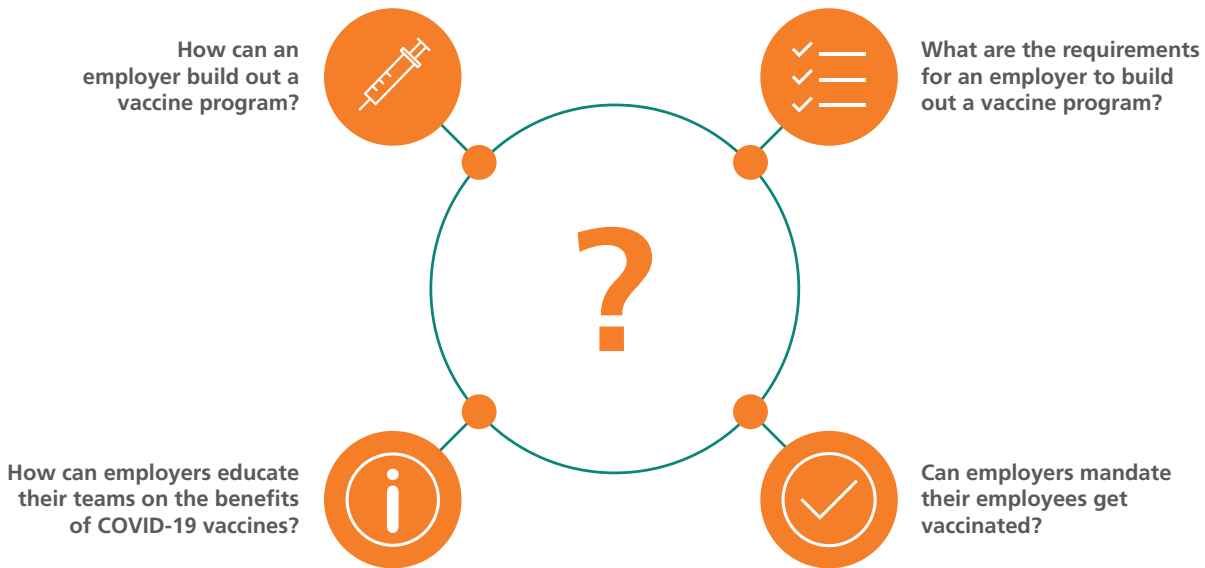


## Get the COVID-19 vaccine as soon as it is available to you

COVID vaccines help protect you from getting the disease. Vaccination is occurring in phases with those at highest risk in the earliest phases. Visit your state health department for information on the vaccination plan in your area. You will have \$0 cost-share for FDA authorized COVID-19 vaccines, regardless of where you get the vaccine.

Continue to protect yourself and others by wearing a mask, practicing social distancing and washing your hands — even after you get vaccinated.

### Adaptable and agile vaccine administration



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**Learn more about vaccine support with Optum:** Contact your client executive, call **1-866-386-3409** or visit [optum.com/returnbetter](https://optum.com/returnbetter) to request a complimentary consultation.

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#### Sources

1. The College of Physicians of Philadelphia. The history of vaccines. [historyofvaccines.org/content/types-vaccines](https://historyofvaccines.org/content/types-vaccines). Accessed March 17, 2021.
2. Centers for Disease Control and Prevention. Vaccines and preventable diseases. [cdc.gov/vaccines/vpd/vpd-vac-basics.html](https://cdc.gov/vaccines/vpd/vpd-vac-basics.html). Last reviewed March 14, 2012. Accessed March 17, 2021.
3. U.S. Department of Health & Human Services. Vaccines protect your community. [vaccines.gov/basics/work/protection](https://vaccines.gov/basics/work/protection). Last reviewed February 2020. Accessed March 17, 2021.



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