FACTSHEET: COVID-19 Vaccine Hesitancy

Historically, vaccines have led to a significant decrease in once highly transmissible diseases such as polio, smallpox, measles, mumps, rubella, and chicken pox. These are examples of some disease processes that have nearly been eradicated by receiving a vaccine.

What is vaccine hesitancy?

Vaccine hesitancy is the reluctance to receive a vaccine even though the vaccine is widely available. This most often stems from the lack of information or misinformation about the vaccine. There are many reasons why people might be hesitant to receive the COVID-19 vaccine. According to a recent survey conducted by the Kepro HCQU in the Southwestern PA region, the primary concerns providers have about the COVID-19 vaccine include:

- The vaccine was developed too quickly.
- Concern about vaccine side effects.

Was the COVID-19 vaccine developed too quickly?

The COVID-19 vaccines were developed in record time, but they were created utilizing processes established and tested with various vaccines. The COVID-19 vaccine is a mRNA vaccine. The mRNA approach to vaccines is a result of several decades of work and strategies in vaccination development. Scientists have studied the effectiveness of mRNA vaccines for influenza and the rabies virus. Research began in 2003 and 2012 for development of vaccines for two common coronavirus infections known as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS). Both are closely related to the virus that causes COVID-19. Development of the COVID-19 vaccine began as soon as the genetic code for the COVID-19 virus became available. Pfizer and Moderna have been researching mRNA technology for decades. Johnson and Johnson's adenovector vaccine technology has been around since the first vaccine was made in 1796 (Beaumont Health, 2021).

The process for receiving FDA approval for developing a vaccine is specific and lengthy. It includes:

- Research and discovery
- Pre-clinical laboratory research and testing in animals
- Phase I trial, which includes 20-100 volunteers who have not been exposed to the disease

- Phase 2 trial, which consists of randomized controlled studies with more people; vaccine dosages vary and are tested on hundreds of people of varying health status
- Phase 3 trial, in which the vaccine is administered to thousands of people, generating information related to vaccine effectiveness and safety
- License application to FDA; the FDA evaluates the vaccine for approval and authorization of use in the United States
- FDA Approval/Rejection

(Connecticut Department of Health, 2021)

The COVID-19 vaccines were extensively tested, and over 100 million individuals have been safely vaccinated (John Hopkins, Medicine, 2021). The Pfizer COVID-19 vaccine received full FDA approval on August 23, 2021 for use in people age 16 and older (PA DOH, 2021).

What are the COVID-19 vaccine side effects?

Another large concern about the COVID-19 vaccine are the potential side effects. Side effects are a normal sign that your body is building protection to the virus. Some people may experience side effects, while others will not. This is because everyone builds immunity differently. The most common short-term side effects experienced by those who receive the vaccine include:

- Soreness and/or redness at the injection site
- Muscle aches
- Chills
- Fever
- Headache
- Nausea
- Fatigue

Side effects normally go away after 24-48 hours; it is important to notify the doctor if they last longer.

Many people are concerned about major allergic reactions. Anaphylaxis typically occurs within the first 15 minutes of receiving a vaccine dose. Therefore, all vaccine sites monitor individuals receiving the vaccine for at least 15 minutes before they leave the site. Millions of individuals have received the COVID-19 vaccine under the most intense safety monitoring in the history of vaccinations (Beaumont Health, 2021).

Is natural immunity from getting COVID-19 better than vaccine induced immunity?

Natural immunity is the result of contracting and fighting off the virus. COVID-19 has serious and life-threatening complications, and the course of the disease is often unpredictable. In addition, there are several potentially long-term health issues that have

been identified in individuals recovering from COVID-19. Vaccination might provide longer, more effective protection from the virus than natural immunity (John Hopkins, Medicine, 2021).

Who can I trust for accurate information about the COVID-19 vaccination?

Trusted sources of information about the COVID-19 vaccine includes doctors and health care providers. If you have questions or concerns about the vaccine or receiving the vaccine, talk with your doctor or healthcare provider. In addition, the Centers for Disease Control contains the most up to date information, as well as the Pennsylvania Department of Health on the COVID-19 pandemic.

- CDC's COVID-19 website: https://www.cdc.gov/coronavirus/2019-nCoV/index.html.
- PA Department of Health's COVID-19 website: https://www.health.pa.gov/topics/disease/coronavirus/Pages/Coronavirus.aspx.

How do I get vaccinated?

The first step in getting vaccinated is to find a vaccine provider. A vaccine provider can be located by visiting the website https://www.pa.gov/guides/get-vaccinated/#WhoIsEligible and clicking on "Find COVID-19 Vaccines Near You". The second step is to contact a vaccine provider to schedule a vaccine appointment. The third step is to be sure to receive the correct number of doses for the vaccine. The Pfizer and Moderna vaccines require two doses; the Johnson and Johnson vaccine is a one-dose vaccine.

References:

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