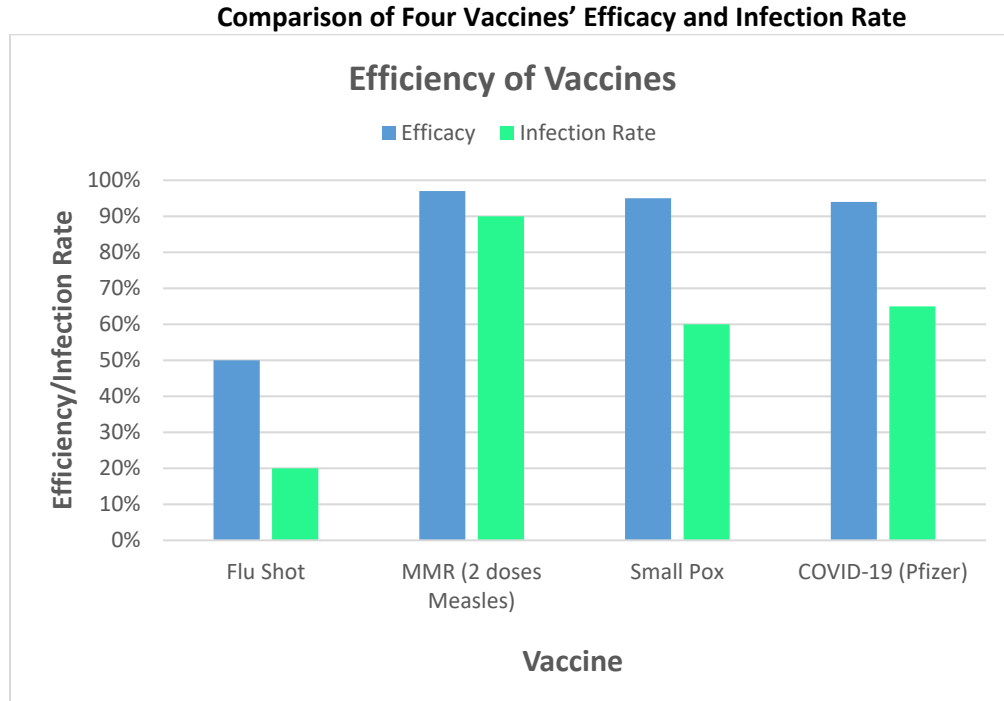


Unit 3 IP Vaccines

1. Explain the use of vaccines, and describe at least 1 benefit and 1 drawback of getting vaccinated.
2. Describe the steps involved in creating a vaccine.
3. Consider that even though smallpox killed approximately 1 in 3 infected people, there were some who were still reluctant to be vaccinated against this devastating disease. Describe at least 1 psychological, cultural, or social factor that can influence an individual's decision to get vaccinated.
4. Vaccines are potent weapons against infection by viruses. The graph below compares the infection rate for four diseases and the efficacy rate of the vaccines for these diseases.
 - *Infection rate* refers to the rate at which people are infected, so the more infectious a disease, the higher its infection rate.
 - *Vaccine efficacy* refers to how well the vaccine works to prevent the disease.

Address the following based only on the data on infectivity and vaccine efficacy shown in the graph below:

- a. Explain why it is important for children to be vaccinated against measles.
- b. What does the graph suggest about getting vaccinated for COVID-19?
- c. Explain why the flu shot can be and is optional for many people (as opposed to the other diseases).



(Adapted from CDC, 2017; CDC, 2019; CDC, 2020; Ioannidis, 2020; Lubell & Rabinovitch, 2021; Ries, 2019)

Please see assignment details for deliverable and formatting guidelines.

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