

# Opting Out of a Vaccine—Variables to Consider

## The Five Variables

It's important to consider these variables when answering the question, Are some reasons for opting out of a vaccine more acceptable than others?

1. The risk of contracting the disease.
2. The magnitude of harm caused by the disease, if contracted.
3. The risk of harm from the disease.
4. The risk of experiencing harm from the vaccine.
5. The magnitude of harm caused by the vaccine.

## Smallpox as an Example

According to the U.S. Centers for Disease Control and Prevention, up to 30 percent of those infected with smallpox will die. Thus, the magnitude of harm from the disease is great.

- Consider the risks and magnitude of harm caused by the vaccine.
  - For every million people vaccinated, between 1 and 2 die and between 14 and 52 have a life-threatening reaction to the smallpox vaccine.
  - Although that amounts to a fairly low number of people who will be poorly affected by the vaccine, it is still substantial. When compared with other vaccines that have far lower risks of harm, the smallpox vaccine is significantly riskier.
- The risk of harm from the smallpox vaccine is far less than the risk of harm from the smallpox disease.

## Are some reasons more acceptable than others?

1. According to Joy's religious beliefs, she should not receive any medical interventions—including vaccinations. Is this a good reason for opting out of the smallpox vaccine? Why or why not?
2. Greg does not like needles and refuses to get the smallpox vaccine. Is that a good reason for opting out of the vaccine? Why or why not?
3. Sue does not have health insurance, and she cannot afford to get the vaccine. Is this a good reason for opting out? Why or why not?
4. John lives in a rural community and it is difficult to get to a clinic to get the vaccine. Is this a good reason for opting out? Why or why not?