

Understanding Immunization Toolkit

A Decision-Making Toolkit  
for First Nations Parents



# Understanding Immunization

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Vaccination is a personal choice. To make a decision about vaccines you should consider both the benefits and risks of vaccination. This toolkit will give you the facts about vaccines and the diseases they prevent so you make an informed decision regarding vaccination for yourself and your children.

## Background \_\_\_\_\_

### **What is immunity?**

Immunity is the body's ability to fight infections. When we get sick our immune system creates 'antibodies' to destroy the bacteria or virus that causes the disease. The immune system remembers the germs so the next time a person contacts that germ they are able to fight it before getting sick. They develop 'immunity' to it. The immunity developed by experiencing a disease usually lasts for life (Gold, 2006, p. 9).

### **What is a vaccine?**

Another way to get immunity is through vaccination. Vaccines are made of weakened or killed forms of one infectious disease or a combination of diseases. They are given as a needle, also called an injection or shot. Vaccines work by getting the body to create antibodies to the illness without the person actually getting sick. Ideally,



when the vaccine is injected, the person's immune system creates antibodies specific for each germ just as it would with the actual disease (CDC, 2007). If the person contacts that germ their body will remember how to fight it because of the vaccine.

Some vaccines have to be given several times at first, so that enough antibodies are made to fight the bacteria or viruses that the vaccine is targeting. Others don't work as well after some time has passed and have to be repeated to keep the antibody levels high enough to provide protection. The process of developing immunity is complex (Qin, Gilbert, Corey, McElrath & Self, 2007, p. 1308).

### **What is Community Immunity?**

When most of the people in a community have been vaccinated, people who are not vaccinated get some protection. This is because it is harder for a disease to spread if there are few people in the community who don't have protection from the disease and who will get sick (PHAC, 2006, p. 31). This is called herd immunity (or community immunity or the herd effect). Even if a person in this community gets sick, most of the people in contact with the sick person already have immunity to the disease. The disease cannot spread if there is no one who will get sick. Herd immunity protects those who refuse vaccines, those who can't get vaccines (because of other health problems



or allergies), and those who have been vaccinated but did not develop immunity. Herd immunity is effective only when a very small number of people in the community is unvaccinated. If the number of children not vaccinated against common diseases such as mumps, measles, and whooping cough increases herd immunity doesn't work and the diseases can make a comeback (Allen, 2007, p. 354).

### **Do vaccines work right away?**

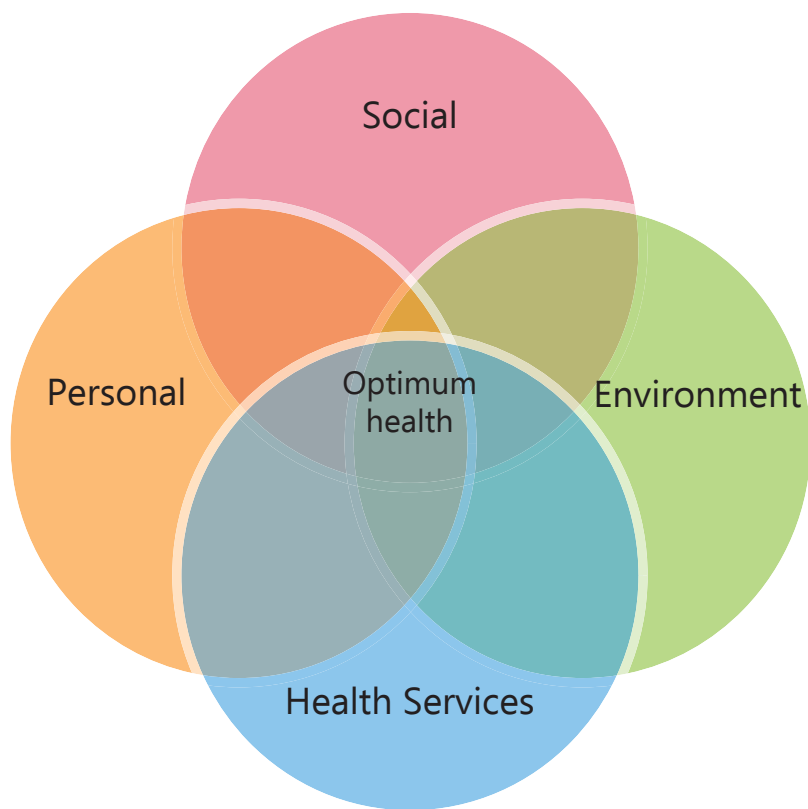
Vaccines do not provide full protection instantly after vaccination. There is a "lag time" between vaccination and full effectiveness of the vaccine. The body needs time to develop antibodies to the disease. The length of the lag time depends on factors including the age of the person getting the vaccine and the strength of the person's immune system. In most cases full effectiveness is achieved within a few weeks after vaccination (PHAC, 2006, p. 211-212). Sometimes more than one dose of the vaccine is needed to get the best protection.

### **Decision Making Information** \_\_\_\_\_

No vaccine is 100% safe and effective. (Dennehy, 2001, p. 899; PHAC, 2009) However, severe adverse reactions to vaccines are rare. The Public Health Agency of Canada has a reporting system that allows health care providers to report adverse reactions to vaccines. (PHAC, 2009) There have been about one or two reports for every 100,000 doses given.



This toolkit gives information on infectious diseases, vaccines and vaccine effectiveness and risks. As shown in the diagram below, health is affected by personal (for example, hereditary, behavior, attitude), social (family, friends, community, culture), environmental (water, air, earth) and health service factors (health centres, traditional healing, alternative health practices, public health programs, hospitals). Public health programs like immunization are one way to fight diseases. They fit into the health services category.





## Factors contributing to optimum health \_\_\_\_\_

Vaccines act on a person's immune system. In a holistic approach to health, it is helpful to remember all of the ways that we can keep ourselves healthy. Optimum health is a balance between personal, social, environmental, and health services factors. When making a decision regarding vaccination for you and your children, be sure to consider the impacts of all four categories.

## References \_\_\_\_\_

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