

## Why immunisation is important

*Immunisation is one of the best ways you can protect yourself, your children and future generations from infectious diseases. In other words, if you vaccinate, you help wipe out disease that could spread now and into the future.*

By making sure you and your family are fully vaccinated, you are not only looking after your own family but also protecting vulnerable people in your community. The more people who are vaccinated, the fewer people will be infected, and the less widely can a disease spread.

Immunisation saves lives. As recently as the 1950s, thousands of children died every year from diseases such as tetanus, diphtheria and whooping cough (pertussis). Luckily, it is rare for anyone to die from these infectious diseases now, thanks to the major vaccination programs introduced in the 1960s and 1970s, which continue today.

### How do vaccinations work?

All immunisations work in the same way. The vaccination uses your body's immune system to increase protection to an infection before you come into contact with that infection. In other words, it is like being infected with the disease without suffering the actual symptoms.

If you come into contact with an infection after you've been vaccinated, your body works to stop you from getting the disease, or you may get just a mild case. Unlike other proposed approaches to immunisation (such as homeopathy), vaccinations have been rigorously tested to demonstrate their safety and effectiveness in protecting against infectious disease.

### What about people who cannot be immunised?

Some people in our community cannot be vaccinated. This might be because they are too young or too sick. You can help protect these vulnerable people by keeping your family's vaccinations up to date.

When enough people in the community are vaccinated, the spread of a disease slows down or stops completely. So as long as enough people are vaccinated, the disease will not spread. This is called herd immunity. Modern outbreaks of infectious diseases

Many infectious diseases are rare or not around anymore, thanks to vaccination. But there are still infectious disease outbreaks happening around the world today:

- **flu, chicken pox, whooping cough and measles** – these diseases still have occasional outbreaks, mainly when introduced from overseas. They could make a strong comeback if people stop vaccinating. In January 2019, 62,225 measles cases were notified globally compared to the same period in 2018 when only 23,535 cases were notified

- **Zika** – in February 2016 the World Health Organization (WHO) declared the Zika virus an international public health emergency following outbreaks in Central and South America. There is ongoing evidence of transmission throughout the Americas, Africa and other regions of the world. As of 2018, a total of 86 countries and territories have reported evidence of mosquito transmitted Zika infection

- **Ebola** – the latest outbreak of Ebola virus disease started in Democratic Republic of Congo in August 2018, and is ongoing. 584 deaths have been confirmed during this outbreak

- **HIV/AIDS** – The first cases of HIV/AIDS were identified in the gay community in America in 1981 and, by 1985, at least one case had been reported from each region of the world. In 2017, more than 36.9 million people around the world were living with HIV/AIDS. There is still no cure, but current treatments allow patients to live long and healthy lives. No vaccines exist for Zika, Ebola or HIV/AIDS, but research is underway.

### **Immunisation surveillance**

To keep you, your family and your community safe, governments need a complete picture of immunisation. That is where immunisation surveillance comes in. Immunisation surveillance involves researching and collating information on immunisation programs.

Many countries have an official immunisation surveillance body and focuses on:

- surveillance of vaccine preventable diseases
- vaccination coverage and adverse events program evaluations

### **How new vaccines are developed**

It takes a long time to develop a new vaccine, usually between 10 and 15 years. The development process is rigorous and the vaccine is constantly monitored – even after it is being used – to make sure it is safe and effective.

A new vaccine goes through many phases of development, including research, discovery, pre-clinical testing, clinical testing (which can take up to seven years) and regulatory approval. Once the vaccine is approved (another lengthy process of up to two years), the vaccine is then manufactured and shipped to where it's needed.

After vaccines are introduced into immunisation schedules, they are closely monitored through trials and surveillance to see if they are effective and safe for any adverse events following immunisation. This is necessary, as sometimes unexpected side effects occur after vaccines are registered for use.

Some vaccines, such as the flu vaccination, need to be updated every year to respond to changing infection strains and conditions. For these updates, the process is compressed to ensure the vaccine is available as needed.

### **Who needs to be vaccinated?**

The answer is simple – almost everyone! There are some exceptions – usually people with a serious medical condition (for example, a weak immune system). But don't ever decide against immunisation without checking with your GP first. Your doctor will advise which vaccinations you need based on your HALO: health condition, age, lifestyle and occupation.

If 95 per cent of us are vaccinated, the spread of disease is reduced, which helps to protect everyone. Vaccination is particularly recommended if you:

- are a newborn or young child (as per the NIP schedule)
- have a newborn baby
- are pregnant or planning for a baby
- are caring for very young babies (for example, parents, grandparents and carers)
- are an older person
- are an Aboriginal or Torres Strait Islander child or adult
- have plans to travel outside your country
- are medically at risk due to certain conditions (such as asthma) or treatment.

Remember, if you are not sure about what immunisations you need, talk with to your GP. If you find you are not up to date with your vaccinations, your GP will tell you about catch-up and booster shots.

*Source: [www.betterhealth.vic.gov.au](http://www.betterhealth.vic.gov.au)*