

Vaccines – the best protection against infectious diseases

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The COVID-19 pandemic has made us all aware of vaccinations, and everyone that you meet has their own opinion on whether or not the vaccine is safe, whether or not it works and if they are prepared to be vaccinated.

Success story #1 – smallpox

If you were born after 1982, you may not even have heard of smallpox. It was a dreaded, highly contagious infection for an estimated three centuries,¹ with epidemics in many countries. It was characterised by fever and a distinctive rash that progressed rapidly.² It is estimated that about 30% of infected people died. In the 20th century alone, it is likely that 300 million people died from smallpox. Many people survived, but they were usually scarred, especially on their faces, while some were blinded.

There is evidence that the earliest attempts at inoculation against smallpox took place in China and India many centuries before a vaccination was developed.³ The end result of vaccination was that on 8 May 1980, the World Health Assembly announced that smallpox had been eradicated from the world.¹ It didn't just happen by chance – it was the result of a 10-year global effort, organised by the World Health Organization (WHO), wherein half a billion vaccinations had been administered around the world. And the last smallpox vaccine was administered in 1982.

Success story #2 – polio

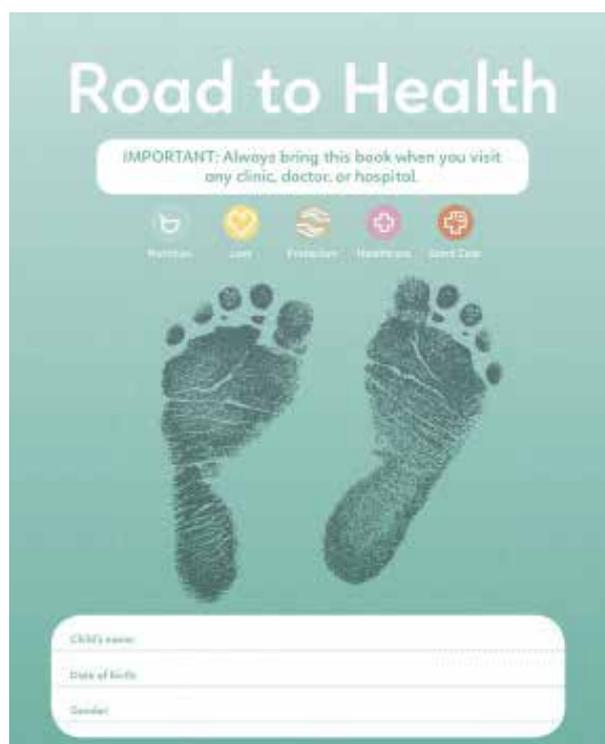
Polio (poliomyelitis) is a highly infectious disease that cannot be cured – it can only be prevented.⁴ The virus invades the nervous system, primarily of infants and young children. It can cause total paralysis, including of the muscles used to breathe, in a few hours.

Luckily, there is a highly effective vaccine. In South Africa, babies are given a dose of oral polio vaccine at birth, and again at six weeks old. These vaccines contain a weakened strain of the virus that stimulates the baby's immune system.

In 1998, it was found that more than 350 000 people in 125 countries had been left paralysed by polio.⁵ The Global Polio Eradication project was then launched. On 20 August 2020, it was announced that Africa has been found to be free of naturally occurring polioviruses.

There is a very rare risk of vaccine-derived polio, particularly in areas where the population is not fully vaccinated. By 28 September 2021, naturally occurring poliovirus had been reported in only two countries, Pakistan and Afghanistan.⁶ The only way to stop its spread to the rest of the world is by full immunisation of all children.

Success story #3 – Road to Health⁷



The National Department of Health's Road to Health booklet is a way to help parents and caregivers keep track of every baby's growth and development, as well as their immunisation record. It shows all the vaccines that children should receive, as well as when they must be given. On the immunisation list, there are vaccines that protect them from polio, tuberculosis, rotavirus, diphtheria, tetanus, whooping cough, severe pneumonia and meningitis.

Protect others while protecting yourself

Sadly, there are people who are hesitant or refuse to be vaccinated. Our responsibility in pharmacy is to make sure that we encourage our patients and clients that immunisation not only protects you, but also the vulnerable people that you meet.

Flattening the infodemic curve⁸

The WHO has given us a new word. Not only do we have a COVID-19 pandemic – we also have an infodemic. We are bombarded with information about COVID-19 daily. If we escape it by not watching TV, we read about it on social media. Or our family and friends talk about it.

The problem is that not all information we receive can be trusted to be true. Misinformation and disinformation are both false information. The difference lies in the intention. Many people share misinformation but with the best intentions in the world – they want to share what they believe is good information, but if it's false, it does have the potential to harm people. Disinformation is created with the intention of causing harm. The WHO believes that it is used to destroy people's trust in each other and in governments.

Tips for curbing false news⁸

The WHO has identified seven steps that should be followed to avoid false information.

1. Check the source
2. Read more than the headlines
3. Identify the author
4. Check the date
5. Examine the evidence
6. Check your own bias
7. Use fact-checkers

Credible websites for information

So who do you turn to when you need to check information about vaccines? There are official websites that you can use.

The National Institution for Communicable Diseases has a centre for vaccines and immunology, in addition to providing reliable information about COVID-19.

<https://www.nicd.ac.za/>

The South African Government website has an interesting page that answers questions on COVID-19, and includes myths about the vaccine. You can also find important contact details of call centres and hotlines.

<https://www.gov.za/coronavirus/faq>

The National Department of Health website includes useful links to provincial departments of health, as well as health Councils, such as the Pharmacy Council.

<https://health.gov.za/>

The WHO is always a good source of useful information for healthcare professionals. It published good news on 6 October 2021 – they are now recommending a malaria vaccine for use in children in sub-Saharan Africa.⁹

<https://www.who.int>

And of course, you can rely on information sent to you by the PSSA!

<https://www.pssa.org.za/>

References

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