

IN the 20th century, smallpox was so common that even laypeople started self-diagnosing and recognising its symptoms without the help of a doctor. Similar to Covid-19, the disease spread from person to person or through droplets in the air when an infected person was to talk, cough or sneeze.

Smallpox killed around 300 million people around the world, and those who survived had permanent damage to the body such as disfiguring, deep pockmarks on the skin or even blindness.

Fortunately, we do not have to live in fear of smallpox today.

In 1959, the World Health Organization (WHO) initiated a vaccination programme to rid the world of smallpox and officially declared the world free from smallpox in 1980.

Following this, Dr Rovisna Serini Kaur Jasal, occupational health doctor at Subang Jaya Medical Centre, hopes the same can be accomplished for other diseases such as polio and mumps through immunisation programmes.

Continuous care for prolonged health

While it is normal to hear about child vaccination, less focus is placed on the importance of adult vaccination when it comes to eradicating diseases. Dr Rovisna explains the purpose of vaccinations for both adults and children are similar, which is to prevent contracting harmful diseases that may cause serious complications and even death.

The difference only comes in terms of recommendations for different types of vaccines. She says, "Children are vaccinated based on their age, while it is more complicated for adults because factors such as age, working environment, lifestyle, international travel or certain health conditions add to the risk of contracting new and different diseases."

Adults need protection too



Besides keeping us healthy, vaccines also assist us in maintaining our lifestyles and meeting daily obligations.

Dr Rovisna notes that many people are not aware that as we get older, the protection of some vaccines we received as children can wear off.

Hence, booster doses are needed to ensure continued protection. For example, a booster dose of the tetanus/diphtheria vaccine is recommended for adults every 10 years.

She asserts that protection against diseases is crucial because there can be serious and even deadly consequences if a person should contract them. To illustrate, contracting hepatitis B can lead to liver cancer, while influenza can lead to flu-related heart attacks and shingles causes eye damage.

Besides keeping us healthy, vaccines also assist us in maintaining our lifestyles and meeting daily obligations.

Dr Rovisna illustrates, "When we are healthy, we don't have to miss

work and can fulfil commitments such as caring for our family. Vaccination also saves us the cost of treating a vaccine preventable disease. There will be no need to pay for medications, hospitalisation or days off work."

She adds that vaccination protects others as well, as it is less likely for us to contract a disease and spread it to other people.

Commonly known as "herd immunity", it is crucial for those who cannot be vaccinated such as very young babies and people with certain medical conditions.

When fear outweighs real consequences

Despite proven facts that vaccinations protect communities from serious diseases, there are some people who choose not to get vaccinated. These are mainly caused by misinformation and misconceptions regarding vaccines



Dr Rovisna asserts that protection against diseases is crucial because there can be serious and even deadly consequences if a person should contract them. Contracting hepatitis B, for instance, can lead to liver cancer.

– Dr Rovisna lists some common ones:

- Myth No.1 – Vaccines are only for children

As we get older, the protection of some vaccines that we received as children can wear off. Our lifestyles, jobs, travel plans and health condition may put us at risk of new and different diseases. Some vaccines are only recommended for adults like the shingles vaccine and the HPV vaccine that is given after the age of nine.

- Myth No.2 – Outbreaks do not happen anymore

There is always the potential for outbreaks if enough people do not get vaccinated.

- Myth No.3 – Healthy adults do not need vaccination

Healthy adults can still get sick and possibly die from diseases. Besides that, they become a source of infection for other people who may have weaker

immune systems.

- Myth No.4 – Pregnant women or the elderly should not get vaccinated

Pregnant women and the elderly are the target groups who need the most protection. In fact, anyone who is around a baby such as family members or the nanny should be up to date with their vaccines too.

- Myth No.5 – Vaccines are not safe

Every ingredient in a vaccine is safe. In fact, some of the main ingredients of a vaccine are found in greater amounts in the food we consume. For example, aluminium salts are found in drinking water and infant formula while thimerosal is found in fish. Some ingredients such as formaldehyde reside in the body naturally in greater amounts than used in vaccines.

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Training the body to fight diseases

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- Myth No.6 – Natural immunity is better

Vaccines train the body to fight against diseases, thus building immunity. Without vaccines, the body may not know how to fight against a certain disease until it is too late.

Dr Rovisna observes these concerns are heightened by misinformation that is so readily available in our era of information through a click of a button. While many health articles are written with good intention to protect others, people continue to disseminate this misinformation to others.

Fortunately, many online platforms have taken action to fight misinformation. Amazon removed misinformed books on autism and vaccination, GoFundMe took down anti-vaccine campaigns from their website and Facebook no longer allows anti-vaccine content to be promoted through ads or recommendations, and making it less prominent in search results.

Dr Rovisna feels it is a shame that the fear of what a vaccine might otherwise do to a person has replaced the fear of the disease itself. To put the fear into perspective, she refers to the statement by



Dr Rovisna advocates for vaccination as it helps protect those who cannot be vaccinated, such as newborn babies and people with certain medical conditions.

The Centre of Disease Control that "the odds of a severe reaction following vaccination is one in a million". There is a higher chance of one dying from a traffic accident, a fire or even by lightning strike.

Working towards a disease-free world

Dr Rovisna advocates for vaccination as it helps protect those who cannot be vaccinated, such as newborn babies and people with certain medical conditions.

She asserts that vaccines are

safe, saves lives, saves money and may one day eradicate another disease in a similar way smallpox was.

She says, "I have a hope that we will see more people getting vaccinated, that our communities are immune to diseases and perhaps one day we will see another disease eradicated. What an achievement it would be to mankind if we could take away another disease from our community and leave it in the history books by just getting vaccinated."

Which vaccination is suitable for me?

Dr Rovisna stresses that everyone is not immune to diseases and recommends all adults to be vaccinated regardless of health conditions. She says, "You may think you are healthy enough to combat the disease, but you most probably don't. Even if you do survive it, your body may be riddled with permanent damage from it. Besides that, the responsibility is placed on you for being a source of infection to other people who may not survive the disease."

She refers to WHO's statement that while immunisations currently prevent two million to three million deaths every year, more than 1.5 million people worldwide still die from vaccine-preventable diseases (VPD) annually. The US Office of Disease Prevention and Health Promotion reports 46,000-60,000 adults die from VPDs or their complications compared to 200-

300 children every year in the US.

Because adults differ from each other based on age, lifestyle and health conditions, Dr Rovisna advises to discuss with your physician or seek a consultation from any vaccine centre. She lists some common vaccination recommendations for adults:

Vaccination recommendations

All adults – Influenza, tetanus/diphtheria

Senior citizens – Pneumococcal, shingles

Adults with health conditions (diabetes, heart disease, lung disease) – Pneumococcal, influenza

Pregnant women (for every pregnancy) – Tetanus/diphtheria/pertussis, influenza
Travellers – Hepatitis A, yellow fever, rabies, cholera

Work environment (Food and animal handlers, healthcare and airline workers) – Typhoid, rabies, influenza

Disclaimer: This is a simplified table for recommended vaccinations. Dr Rovisna recommends

consulting a healthcare professional for better information on adult vaccination.