

Editorial on Is The Time Coming for Plant-Made Vaccines?

Maria Alejandra Alvarez

Instituto de Ciencia y Tecnología Dr. Cesar Milstein, CONICET-Fundación Pablo Cassara, Saladillo 2468, Argentina

Abstract

Vaccines have significantly improved human health since their introduction in the last century. They are the most potential weapons to fight the majority of infectious diseases, which are responsible of more than 45% of the total deaths in developing countries. Traditional vaccines are made of a live attenuated or killed pathogen, and either injected or given orally. There are other two categories of vaccines, subunit vaccines and nucleic acid vaccines, being the choice of producing one of them related to factors such as pathogenesis, immunobiology, and epidemiology of the disease. Immunization is a global health and development success story, saving millions of lives every year. Vaccines reduce risks of getting a disease by working with your body's natural defences to build protection. When you get a vaccine, your immune system responds. We now have vaccines to prevent more than 20 life-threatening diseases, helping people of all ages live longer, healthier lives. Immunization currently prevents 2-3 million deaths every year from diseases like diphtheria, tetanus, pertussis, influenza and measles. Immunization is a key component of primary health care and an indisputable human right. It's also one of the best health investments money

can buy. Vaccines are also critical to the prevention and control of infectious-disease outbreaks. They underpin global health security and will be a vital tool in the battle against antimicrobial resistance. Yet despite tremendous progress, far too many people around the world – including nearly 20 million infants each year – have insufficient access to vaccines. In some countries, progress has stalled or even reversed, and there is a real risk that complacency will undermine past achievements. Global vaccination coverage – the proportion of the world's children who receive recommended vaccines – has remained the same over the past few years.