

Webinar

The importance of continuing regular immunization during the Covid-19 pandemic: Latin American perspectives

July 21, 2020

The Covid-19 pandemic has highlighted the importance of the regular healthcare provision we take for granted. Governments all over the world have instituted virus control measures that aim to slow the spread of infection, thereby ensuring hospitals and intensive care units do not become overwhelmed and collapse. One unfortunate by-product of these interventions has been the impact on regular healthcare provision. All over the world, non-Covid diseases are not being diagnosed, regular treatments are being delayed or skipped altogether, and surgeries have been cancelled and postponed.

In Ecuador and elsewhere in Latin America, regular immunization programmes have been [significant casualty](#) of the Covid pandemic due to a reluctance to leave home, transport interruptions, economic hardships, restrictions on movement, or fear of being exposed to people with Covid-19.

This is troubling for two reasons: one, it increases the risk of already-stretched healthcare facilities being overwhelmed by people needlessly suffering vaccine-preventable diseases; and second, missed immunization risks storing up major economic and social problems for the future as more children and adults suffer from diseases that can easily be prevented.

A recent study published in [The Lancet](#) medical journal calculated that in Africa, disrupting vaccinations due to Covid would see more than 700,000 children die from preventable diseases before the age of five – many more than are likely to die from Covid itself. In the Democratic Republic of Congo, more people died of measles, mostly children, than of Ebola during the latest Ebola outbreak. Disruption of regular immunization programmes has deadly consequences.

The situation is especially concerning for Latin America and the Caribbean, where historically high coverage has declined over the last decade. In Brazil, Bolivia, Haiti and Venezuela, immunization coverage has fallen dropped by around 14 per cent since 2010. These countries are now also faced with severe Covid-related disruptions, according to [WHO/UNICEF](#).

To explore the importance of continued immunization even while a major global health pandemic is unfolding, Geneva Network convened a panel of Latin American experts for an online webinar hosted by our friends at the National Federation of Chambers of Commerce in Ecuador.

Citing their own experiences and learning, our eminent speakers laid out the social and economic importance of vaccination and stressed the need for people and health leaders to support this most cost-effective and powerful healthcare intervention.

Speakers

Dr. Maria Luisa Avila: Head of the Infectious Diseases Department at the Costa Rican National Children Hospital. Associate Professor and Director of the Pediatric Infectious Diseases Fellowship Training Program at the University of Costa Rica. Costa Rican Minister of Public Health from 2006 to 2011.

Dr. Roberto Tapia-Conyer: Director General of the Carlos Slim Foundation. Medical Specialist on health policy. Medical Doctor by the National University of Mexico (UNAM), Master's Degree in Public Health and in Science by Harvard University, and PhD in Science by UNAM with honorable mention. Senior Professor of Medicine at the National University of Mexico.

Dr. Luis Sarrazin: Former Minister of Public Health of Ecuador. Visiting Professor of Medicine at the University of Paris. Former Professor of Pediatrics at the University of Guayaquil and the Catholic University of Santiago of Guayaquil. Former Medicines Advisor at the World Health Organization.

Maria Luisa Avila: The Experience of Costa Rica

- We have long known that vaccines prevent death and poverty in developing countries. The poorest quintiles benefit the most, both in terms of health and economics. Chang AY et al, *Health Affairs* 37 N° 2 (2018): 316-324.
- When I was a minister we would say “Disease makes the poor poorer,” and that is why vaccination programs are central to the fight against poverty.
- There is a strong relation between infectious diseases and the intelligence quotient (IQ). If you prevent infectious diseases, particularly in the first 2 years of life, that child will have a [much higher IQ](#) than he would if he had suffered from an infectious disease.
- Vaccination benefits include reductions in mortality; fewer costs of medical treatments, higher labor productivity; less school absenteeism. It is therefore a powerful catalyst for development.
- We know from the “[Vaccine Decade](#)” promoted by the Melinda and Bill Gates Foundation that saving the lives of 6.4 million children will generate savings and economic benefits on the order \$231 billion.
- Six vaccines that save 6.4 million lives will prevent 426 million cases of illness, save \$6.2 billion in treatment costs, and \$145 billion in productivity losses. Investing in vaccines is one of the best deals in public health.
- Costa Rica is a regional leader in immunization. The first vaccines were deployed in 1800 against smallpox. The last reported case of smallpox was in 1949.
- In the 1950s, Costa Rica introduced a regular program of vaccination against diphtheria, pertussis (whooping cough), and tetanus. In 1954, yellow fever was eradicated by eliminating the vector.
- In 1955, Costa Rica was one of the first countries in the world to start vaccination against polio. The last recorded case of polio was in 1973, three years before the last case in the United States. In 1967 we were also one of the first countries to apply massive vaccination against measles.

- In 1970, we started immunization against diphtheria and tetanus among school children with the DT vaccine and among pregnant women with tetanus toxoid for the prevention of neonatal tetanus. In 1975 diphtheria was eradicated.
- In 2001 we started down the road to eliminate rubella and congenital rubella syndrome with a campaign that reached everyone between 15 and 49 years old. The country is in the process of verifying the eradication of the disease. The program was very successful, despite the perception that adult males reject vaccinations. In 2005, vaccination in seniors and children under 8 was introduced against seasonal influenza.
- In my tenure as health minister, we launched the program “[Vaccination for Development](#)” which introduced 4 new vaccines into the basic scheme: acellular pertussis, pneumococcal, rotavirus and chicken pox. The latter was very successful in reducing the costs of hospitalizations.
- Universal pneumococcal vaccination demonstrated that vaccinating children achieves herd immunity in the adult population: there was a decrease in pneumococcal hospitalization and deaths in the adult population.

Roberto Tapia-Conyer: The COVID-19 Pandemic, an Opportunity to Revise Public Policies on Vaccination

- During the Covid-19 pandemic, vaccination programs must be considered essential services, and as such, resources should be allocated to maintain their continuity.
- Consider evidence from Mexico, showing the benefits to the Mexican health system of moving towards universal influenza vaccination and its wider impact on middle income countries.
- The study: Jorge Falcón-Lezama, et al., “Influenza in the school age population in Mexico: burden of disease and cost-effectiveness of vaccination in children,” *BMC Infectious Diseases* 20, 240 (2020).
- Study premise: There is room to improve the coverage of vaccination against influenza in Mexico (currently less than 5 years old is just 34.3%). School age children (5-11-year olds) are considered “super spreaders,” because of their behavior and interaction with multiple age groups. They are a captive group because of the ability to organize vaccination campaigns in schools allowing high levels of vaccination coverage.
- Results: Universal vaccination coverage against influenza among school children would reduce the number of cases of influenza and related events. Because of herd immunity, this reduction would also be observed in other age groups.
- Universal vaccination coverage against influenza in school children would lead to savings of \$111.9 million. This already accounts for an investment of \$27.4 million to vaccinate this age group.
- Even with a conservative estimate, universal vaccination coverage of school children would reduce cases of influenza by 153,000.