



Webinar Series on the Role of Vaccination in Maintaining Health and the Economy During Pandemics “Minimizing the Impact on Routine Immunization Programs”

16 December 2020

On 16 December 2020, the APEC Life Sciences Innovation Forum (LSIF) hosted a webinar entitled “**Minimizing COVID-19’s Impact on Routine Immunization Programs**”. The session was the first in a new webinar series on [The Role of Vaccination in Maintaining Health and the Economy During Pandemics](#), which will extend through 2021 with the aim of highlighting the importance of immunization programs in the midst of COVID-19 and afterwards. In March 2020, the WHO declared that “immunization is a core health service that should be prioritized for the prevention of communicable diseases and safeguarded for continuity during the COVID-19 pandemic.” However, the present moment has brought a variety of unprecedented challenges to sustaining immunization programs, and the coming year will challenge APEC economies to restore programs that have faced disruption. Four expert presenters – **Dr. Cuauhtémoc Ruiz Matus** (Pan-American Health Organization (PAHO)), **Dr. Kaja Abbas** (London School of Hygiene & Tropical Medicine), **Dr. Jennifer Bouey** (RAND Corporation), and **Dr. Auliya Suwantika** (Universitas Padjadjaran) considered different dimensions of this issue, presenting insights from a variety of geographies and offering policy recommendations to assist our health systems in sustaining or resuming immunization programs as effectively as possible.

Minimizing the Impact on Routine Immunization

Dr. Cuauhtémoc Ruiz Matus discussed the state of disruption among immunization programs globally during the pandemic, drawing from insights from recent surveys and research conducted by [PAHO](#) and the [WHO](#). Ruiz noted that disruption may occur when routine immunization programs are suspended or delayed during the pandemic or because demand for vaccination diminished as people were unable to access vaccination services because of stay-at-home order or chose not to attend clinics for fear of infection drive down demand among the public. Dr. Jennifer Bouey, in her remarks, noted research which found that it is adults who have experienced interrupted vaccination at the highest rate, greater than among children. The risk of disease outbreaks during periods of reduced vaccination is significant and may result in increased morbidity and mortality from vaccine preventable diseases (VPDs) including measles, pneumococcal pneumonia and influenza. Bouey concurred, noting that disruption affects not only resource-poor countries; across the US, for example, clinic orders for measles vaccines have declined since the onset of COVID-19.

While the risks inherent in interrupted vaccination are apparent, Dr. Kaja Abbas’s [research](#) has enhanced the case for vaccination by refining the benefit-risk analysis of maintaining immunization relative to the risk of exposure to

Barriers to Vaccination Due to COVID-19 Include:

- Disruption or closure of health facilities
- Disruption of vaccination campaigns
- Limited HCP resources (e.g., insufficient PPE or funds diverted to COVID-19 response)
- HCP staffing issues (e.g., re-positioned staff, morale)
- Patient fear of infection at health facilities
- Reduced mobility of patients due to lockdowns
- Lack of awareness of the continuity of vaccination services, as well as concerns stemming from misinformation

Strategies to Sustain, Restart, & Conduct Catch-Up Vaccination through COVID-19 Include:

- Adaptation of vaccination processes to ensure safety (e.g., drive-through vaccination, outdoor or ventilated facilities, COVID-19-screening)
- Bundling vaccination with other health and government programs (e.g., [Ugandan Integrated Child Health Day](#))
- Use of technology to communicate with the public on vaccination
- Use of technology to secure the supply chain (e.g., Indonesia’s [SMILE program](#))
- Use of telemedicine to control crowds
- Protecting workers and patients with PPE, distancing & enhanced hygiene measures
- Campaigns to engage community leaders, social media, and other channels and revive community demand
- Surveillance of epidemic-prone diseases and immunization gaps, in order to set priorities



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COVID-19 by visiting routine vaccination service delivery points. Using the case of childhood vaccination in Africa, Abbas's work finds that even under conservative estimates, the benefits of vaccination in terms of deaths averted far outweigh the risks in terms of COVID-19 deaths from infection at vaccination clinics. Under a high-impact modeling scenario, for every one excess COVID-19 death acquired during a routine vaccination clinic visit, 84 deaths in children could be prevented by sustaining routine childhood immunization.

With the value evident, Ruiz and Abbas noted some of the most impactful strategies for governments seeking to sustain immunization programs in the context of a pandemic, including moving vaccination out of health centers (e.g., pharmacies, cultural centers), and adapting facilities to comply with health measures (e.g., vaccination of patients from their cars, a measure which has had substantial positive impact on the effective delivery of influenza vaccines across the Americas). Certain adapted practices are needed to facilitate vaccination during a pandemic, namely protecting staff and patients from risks (via PPE, distancing, hygiene practices) and providing resources where the pandemic may have induced supply chain difficulties or shortages in products or staff.

Restarting Immunization Programs & Facilitating Catch-Up Vaccination

During her remarks, Dr. Bouey noted the many unprecedented challenges to routine immunization brought on by the COVID-19 pandemic, including lockdowns and reduced mobility, misunderstanding of government guidance, insufficient funding, and diminished resources. WHO guidance for restarting routine immunization services recommends measures including prioritizing epidemic-prone VPDs (e.g., polio, measles, pertussis) and vulnerable communities; as well as tracking and follow-up with those who have missed vaccinations. It also calls for innovation in campaigns, such as use of social media campaigns to revive demand for vaccination.

However, the implementation of WHO recommendations will vary based on the priorities, resources, and constraints of health systems. For those where telemedicine infrastructure exists, it may be used as a first tool to consult with doctors and set appointments so as to reduce crowds and ensure COVID-19 protection. Elsewhere, in resource-poor contexts, vaccination initiatives may need to employ outdoor or well-ventilated settings to protect those involved, and provision staff tasked with COVID-19 screening. Strategies for successful implementation may also include conducting vaccination bundled with other well-known health initiatives, or employing technologies (e.g., mobile apps, online data) to monitor and secure the supply chain as in the case of Indonesia's [SMILE program to digitize the vaccines cold chain](#).

Regarding catch-up vaccination, Dr. Suwantika noted key strategic considerations including bundling catch-up vaccinations with others as part of routine immunization programs, integrating catch-up vaccination with other health services, periodic intensification of programs in order to target specific populations with low coverage and vulnerabilities, and school-based immunization when schools reopen. To implement these strategies, consultation is needed with key health stakeholders and influencers from community and civil society in order to design and deliver vaccination services. Also needed is assessment of the vaccine supply chain and any measures to fill gaps. Health systems should also consider how to partner with community and civil society groups in the design and delivery of vaccination services.

*To view a recording of the webinar and associated presentation slides, [please visit the event page](#).
To participate in future webinars, [please register online](#) and you will be notified of future sessions.*



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Further Reading

Kaja Abbas, Simon R. Procter, Kevin van Zandvoort, Andrew Clark, Sebastian Funk, Tewodaj Mengistu, et al. (2020). [“Routine childhood immunisation during the COVID-19 pandemic in Africa: a benefit–risk analysis of health benefits versus excess risk of SARS-CoV-2 infection”](#). *Lancet Global Health* 8(10).

Ener Cagri Dinleyici et al. (2020). [“Vaccines and routine immunization strategies during the COVID-19 pandemic”](#). *Human Vaccines & Immunotherapeutics*.

Sachiko Ozawa, Tatenda T. Yemeke, Kimberly M. Thompson (2018). [“Systematic review of the incremental costs of interventions that increase immunization coverage”](#). *Vaccine* 36(25).

Auliya Suwantika, Cornelis Boersma, & Maarten J. Postma (2020). [“The potential impact of COVID-19 pandemic on the immunization performance in Indonesia”](#). *Expert Review of Vaccines* 19(8).

World Health Organization

- [Immunization as an essential health service: guiding principles for immunization activities during the COVID-19 pandemic and other times of sever disruption](#)
- [Leave No One Behind: Guidance for planning and implementing catch-up vaccination](#)
- [Routine immunization services during the COVID-19 pandemic](#)

Pan-American Health Organization

- [The Immunization Program in the Context of the COVID-19 Pandemic](#)

UNICEF

- [Routine Immunization for Children during the COVID-19 Pandemic in Indonesia: Perceptions of Parents and Caregivers](#)



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Meeting Agenda	
Opening remarks and welcome	
Presentations	<u>Minimizing the Impact on Routine Immunization Programs</u> Dr. Cuauhtémoc Ruiz Matus Unit Chief of Comprehensive Family Immunization, Department of Family, Health Promotion and Life Course, Pan-American Health Organization (PAHO) Dr. Kaja Abbas Assistant Professor of Disease Modelling, London School of Hygiene & Tropical Medicine
	<u>Restarting vaccination services</u> Dr. Jennifer Huang Bouey Senior Policy Researcher, RAND Corporation
	<u>The role of catch up vaccination programs</u> Dr. Auliya Suwantika Department of Pharmacology & Clinical Pharmacy, Universitas Padjadjaran
Question and Answer Session	
Summary and Next Steps	

Speaker Biographies



Cuauhtémoc Ruiz Matus

Since 2007 Dr. Ruiz Matus has been Head of the Comprehensive Family Immunization Unit of the Pan American Health Organization (PAHO) and therefore, as Regional Advisor on Immunization for America by the World Health Organization (WHO). Dr Ruiz Matus has been working for 25 years in the Ministry of Health of Mexico, holding various positions. He is a graduate of the Senior Management Program of Public Entities of the National Institute of Public Administration in Mexico. For the past 13 years, he has collaborated in strengthening the immunization program in the Americas region and participated in multiple WHO working groups related to immunizations.



Kaja Abbas

Dr. Kaja Abbas is Assistant Professor of Disease Modelling at the London School of Hygiene & Tropical Medicine. His research area is vaccine impact modelling with a focus on estimating the health, economic, and equity impact of vaccination programmes. Specific projects include estimation of the health impact of human papillomavirus vaccination at the global, regional and national levels, equity impact of childhood vaccination in Ethiopia, cost-effectiveness of Haemophilus influenzae type b, pneumococcal, and rotavirus vaccination in Sudan, and benefit-risk analysis of routine childhood immunisation during the Covid-19 pandemic in Africa.



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Jennifer Bouey

Dr. Jennifer Huang Bouey is a senior policy researcher and the Tang Chair for China Policy Studies at the RAND Corporation. In this capacity, she leads wide-ranged collaborative research initiatives on health, education, and global developments. Bouey has testified multiple times before Congress, briefed U.S. government officials, and was quoted on global health and US-China collaborations for the Hill, Financial Times, Wall Street Journal, New York Times, China Daily, and BBC world. Prior to joining RAND, she led an international research workgroup on U.S. and China's health security interests, including pandemic preparedness and global health governance. Bouey also serves as a global health faculty at the Georgetown University where she contributes to the education programs and research centered on migrant health and social determinants of health. Her research has been funded by NIH, HRSA/HHS, and foundations. Dr. Bouey routinely provide consultations for the World Bank Group, UNAIDS, Hong Kong Government AIDS Fund, and several other international NGOs.



Auliya Suwantika

Dr. Auliya Abdurrohik Suwantika obtained his PhD degree in Pharmacoeconomics from the University of Groningen, the Netherlands. He is a lecturer and researcher in the Department of Pharmacology and Clinical Pharmacy, Faculty of Pharmacy, University of Padjadjaran, Indonesia. He has diverse expertise in the economic evaluation studies of vaccination programs in developing countries, which can be used to convince the national decision makers with evidence on the burden of diseases for society and the potential economic impacts of underused and new vaccine introductions. He published his dissertation entitled "Economic Evaluations of Non-traditional Vaccinations in Middle-income Countries: Indonesia as A Reference Case", which focused on the use of rotavirus and hepatitis A vaccines. He has shown how non-traditional vaccinations can be implemented in countries with limited immunization budget, such as Indonesia, with several promising options, inclusive potential favorable cost-effectiveness.