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News

WHO and UNICEF warn of a decline in vaccinations during COVID-19

The World Health Organization and UNICEF have warned of an alarming decline in the number of children receiving life-saving vaccines around the world. This is due to disruptions in the delivery and uptake of immunization services caused by the COVID-19 pandemic. According to new data by WHO and UNICEF, these disruptions threaten to reverse hard-won progress to reach more children and adolescents with a wider range of vaccines, which has already been hampered by a decade of stalling coverage.

The press release.

The latest data on vaccine coverage estimates from WHO and UNICEF for 2019 (opens to PDF).

Lao PDR started nationwide HPV vaccination

Lauren Franzel and Taeun Yang, WHO Country Office, Lao People's Democratic Republic

On 4 March 2020, the Lao People's Democratic Republic (Lao PDR) launched a school-based HPV vaccination programme targeting girls aged 10-14 years across the country. This followed a decision by the Government in 2017 to introduce the HPV vaccine with financial support from Gavi.

A Lao girl receiving HPV vaccination at Sompanya School, Vientiane Capital, Lao PDR. Credit: S. Khounpaseuth, WCO LAO/ WHO.

Cervical cancer is the leading cause of cancer among women in the Lao PDR and with limited access to screening and treatment for cervical cancer, HPV vaccination is the most important intervention to reduce the burden of cervical cancer.

Lao HPV vaccine promotion poster, National Immunization Program, Lao PDR

To prepare for roll-out of the vaccine, a training for the introduction of the HPV vaccine was done in an innovative way using tailored training videos and interactive PowerPoint slides. A central training team approach ensured the dissemination of more uniform technical content to health workers and a smoother introduction of the new vaccine. The training was well received by the health workers who also said it was helpful for their routine immunization practices. A campaign on Facebook to counter negative commentary on the vaccine appears to have had a positive impact.

Collaboration and coordination with health centers, schools, village heads and village health volunteers played a critical part in identifying out-of-school girls and inviting them to the nearby school on the vaccination day.

Although the response to COVID-19, including school closures and lockdown, presented a huge challenge for the roll-out of the programme, the country still successfully introduced the HPV vaccine and, as of 21 June 2020, 264,386 girls (73% of target population) had been vaccinated. The vaccine was extremely well accepted and tolerated without any major safety concerns being raised. A few cases of adverse events following immunization were reported, including syncope, anaphylaxis, and hair loss, and resulted in some transient hospitalizations.

This great public health achievement was accomplished through the leadership and commitment of the Mother-and-Child Health Centre/Ministry of Health with support from Gavi, WHO, UNICEF, the US CDC, Girl Effect, and the Vaccine Confidence Project.

Piloting of the new electronic Joint Report Form close to completion

Kristi James, WHO Headquarters

In the midst of the annual immunization data collection exercise for the WHO/UNICEF Joint Reporting Form (JRF) and a global pandemic, we are exceptionally grateful to our twelve pilot countries who have taken on extra work to test and complete the electronic Joint Reporting Form (eJRF) process.

The current JRF process uses an Excel spreadsheet to capture over 1,400 data points, all of which must be validated in a form that is not ideal for tracking changes and comments, for version control, or for having multiple people working together on data entry. In addition, a percentage of the data remains constant and requires re-entering last year's data. In short, the current process is not ideal.

The new eJRF digitizes the form using the cloud, thus removing issues of version control, and is able to pre-populate historical data, have multiple data entry users, thus saving time for everyone involved. The validation rules help ensure data accuracy when it is entered and explains how to resolve issues. It provides visibility into the review process and there are built-in guides to help users navigate and understand each section of the tool. All this while respecting data integrity and data sharing policies.

As the pilot countries come to complete the process, the full view of improvements for the entire process required is being revealed. This feedback from the countries is helping improve the tool that all countries will start using in 2021.

Thank you to everyone who contributed to the pilots!

CSO open letter to Gavi Board Members: Urgent changes to COVAX facility design required to ensure access to COVID-19 vaccines for all

Kate Elder and Rana Lamisa, Doctors Without Borders, Medecins Sans Frontieres Access Campaign

There is an urgent need for the development and delivery of safe and effective COVID-19 vaccines that are affordable and accessible for all countries as well as vulnerable populations.

Ahead of the recent Gavi Board meeting, 45 civil society organizations and individuals signed an open letter to Gavi Board members expressing concerns around components of the Gavi COVID-19 Vaccine Global Access (COVAX) Facility, and the COVAX Advance Market Commitment (AMC). The letter highlights seven urgent recommendations that civil society encouraged the Gavi Board to consider, and to incorporate into the next phase of COVAX Facility's design.

1. Vaccines must be allocated upon public health criteria for all countries.
2. Transparency must be fundamental to the COVAX Facility.
3. Prices must be set 'at cost'.
4. No risky advance payments without clear conditions.
5. Operate in line with WHO's Solidarity Call to Action for equitable global access to health technologies.
6. Non-governmental purchasers must be included.
7. Accountability is critical.

The full letter is available at this link.

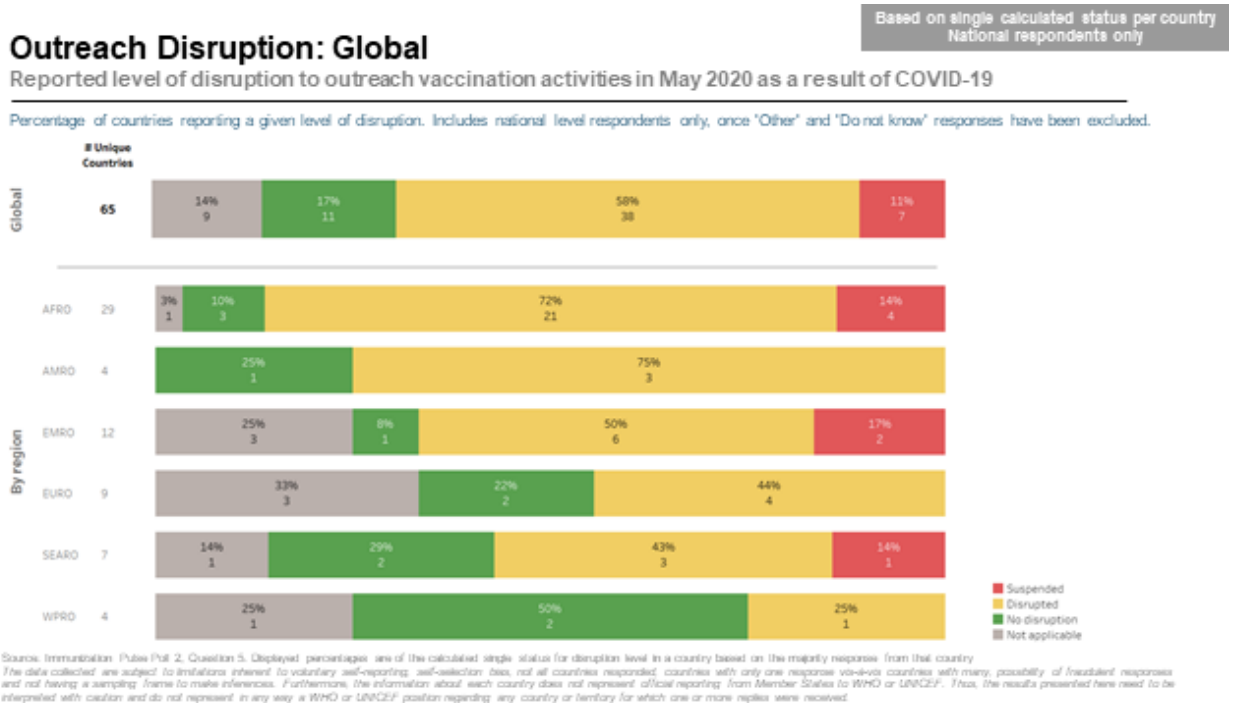
Special feature: immunization and COVID-19

Second pulse poll to help understand disruptions to vaccination and how to respond

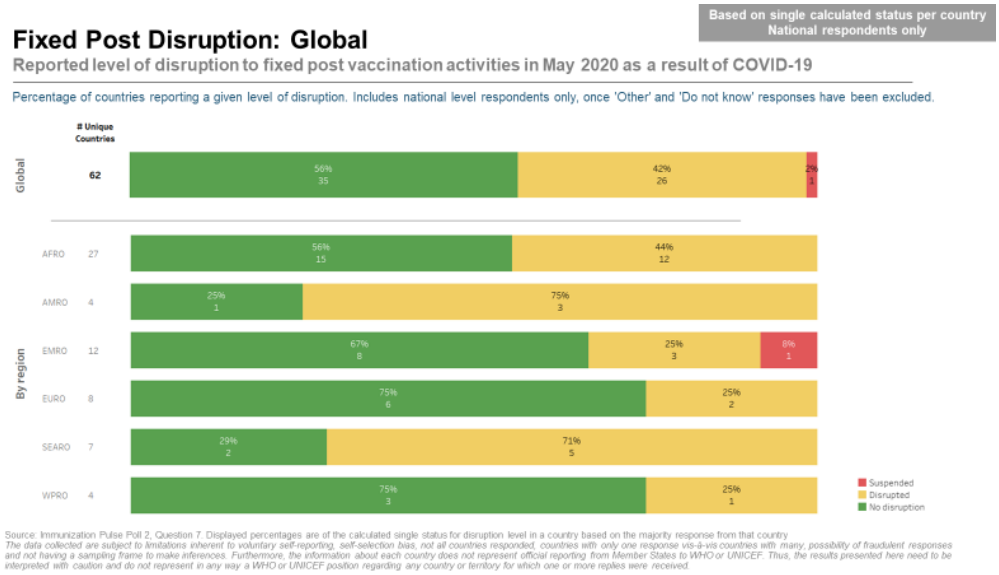
The second Immunization pulse poll in the context of COVID-19, aiming to have a sense of the disruptions to immunization in May 2020, was conducted between 5-20 June 2020. The poll was developed by WHO, UNICEF & Gavi, in collaboration with the Sabin Vaccine Institute's Boost Community and the International Vaccine Access Center (IVAC) at Johns Hopkins and the Global Immunization Division/United States Centers for Disease Control and Prevention (CDC). Just like the first pulse poll conducted in April 2020, this web-based poll, available in English and French, was designed to get a quick idea of the global impact of COVID-19 on immunization services and not intended to replace any regional or other immunization data collection efforts. The link to pulse poll 2 was shared through WHO, UNICEF, Boost, Gavi & TechNet networks; MOHs were not directly contacted.

Poll questions touched on the status of vaccination services via fixed posts and outreach and vaccination demand, as well as information about rumors and reasons of disruptions or demand. Respondents were also asked about their information and support needs. Respondents were then asked about vaccination catch-up plans due to the pandemic and/or associated response measures and to share any guidance on vaccination in the COVID context. Unlike the first pulse poll, no information on vaccination campaigns and measles surveillance was sought, as other mechanisms to monitor this information are now in place.

With 260 respondents from 82 countries (with roughly half of them working at the national level and the other half at the sub-national level), the poll showed that disruptions to routine immunization services continue to be widespread.



Source: Immunization Pulse Poll 2, Question 5. Displayed percentages are of the calculated single status for disruption level in a country based on the majority response from that country. The data collected are subject to limitations inherent to voluntary self-reporting, self-selection bias, not all countries responded, countries with only one response vis-à-vis countries with many, possibility of fraudulent responses and not having a sampling frame to make inferences. Furthermore, the information about each country does not represent official reporting from Member States to WHO or UNICEF. Thus, the results presented here need to be interpreted with caution and do not represent in any way a WHO or UNICEF position regarding any country or territory for which one or more replies were received.



Of the 61 countries where national respondents reported on the current status, 85% indicated that the level of vaccination was lower in May than in January-February 2020; only 18% of countries noted that vaccination levels had improved compared to what they had observed in April 2020.

Main reported reasons of disruption to availability of immunization services were low availability of personal protection equipment (PPEs) for health workers (49%); travel restrictions (40%); and low availability of health workers (43%).

Regarding demand for immunization services, national responders from 73% of countries indicated that they have seen disruptions in demand, with these percentages being highest for respondents from countries in the WHO African (89%), Americas (75%) and Eastern Mediterranean (73%) Regions. Among respondents that noted disruptions in demand and gave a reason, almost half (48%) indicated that users are concerned about the risk of exposure to COVID-19 if they go for vaccination, and one third (33%) indicated that the main factor related to limited public transport, lockdown and physical distancing policies. Among all respondents, 74% noted that potential rumors are being monitored (among those 68% through main stream media, 65% digital media, and 55% through community reporting channels), and 85% indicated that there are plans in place to rebuild acceptance and/or demand for vaccination services using including mass media, engagement through community leaders, and house-to-house sensitization.

Over half of the respondents indicated that their most urgent challenge was how to resume or continue routine immunization activities and implement COVID infection prevention and control (IPC) measures. Finally, 3 in 4 respondents indicated that plans to catch-up people who have missed vaccine doses are in place. During this round of pulse poll, respondents were requested to share their respective national guidance, if available. Sixty-seven respondents submitted guidance via web links or document uploads. Overall, guidance(1) was received from 25 countries in 12 languages, ranging from 1 page to 104 pages long and came in many forms, including traditional guidance documents, flyers, letters and decision-making matrices. Main topics of guidance included specific safety procedures to carry out routine immunization sessions, decision-making considerations and dissemination of educational messages to the community. These national documents were published between March and June 2020. The main source of information for the guidance was National Ministries of Health (80%), with additional citations within the guidance from WHO, UNICEF, Gavi and National Immunization Technical Advisory Groups (NITAGs). These documents will be made available in TechNet-21 and Sabin's Boost Initiative.

As with the immunization pulse poll 1, the data collected are subject to limitations inherent to voluntary self-reporting, self-selection bias, not all countries responded, countries with only one response vis-à-vis countries with several, possibility of fraudulent responses and not having a sampling frame to make inferences. Furthermore, the information about each country does not represent official reporting from Member States to WHO or UNICEF. Thus, the results presented here need to be interpreted with caution and do not represent a WHO or UNICEF position regarding any country or territory for which one or more replies were received.

1. Not all links/documents submitted were specific national or sub-national guidance related to immunization. Some resources were general links to national government or partner (i.e., WHO, UNICEF) websites. These submissions (n=23) were not included in the review.

Immunization-related COVID-19 guidance now on one easily accessible page

Dan Brigden, WHO Headquarters

TechNet-21, the technical network for strengthening immunization services, has published a new listings page that gathers together key technical guidance from WHO on maintaining immunization services during the Covid-19 pandemic. Global and region-specific guidance is provided, as well as a list of OpenWHO Covid-19 learning resources. The page will be regularly updated and can be found at this link.

Note: A full list of WHO country technical guidance on Covid-19 can be found on the WHO website.

Established by WHO and UNICEF in 1989, TechNet-21 is a global network of immunization professionals committed to strengthening immunization services by building relationships, sharing knowledge, and coordinating activities. Learn more about TechNet and create an account today.

Past Meetings/Workshops

Indonesian Technical Advisory Group on Immunization (ITAGI) Orientation Meeting

Dr Fina Tams and Dr Vinod Bura, WHO Country Office, Indonesia, Lisa Menning, WHO Headquarters Prof Sri Rezeki Hadinegoro and Dr Julitasari Sundoro, ITAGI, and Dr Jayantha Liyanage, WHO SEARO

Location: Yogyakarta, Indonesia

Date: 8-11 March 2020

Participants: 38 experts (ITAGI, EPI MOH, Surveillance MOH, Universities, WHO-EPI, NRA, National Institute of Health Research and Development (NIHRD), Indonesian Epidemiology Association, Field Epidemiology Training Program (FETP), Provincial of Health, National Committee-AEFI, two from vaccine manufacturers, UNICEF, CHAI, five organizing committee/OC) and facilitated by facilitators from WHO-HQ, and SEARO including three external experts. Two facilitators remotely assisted the training via zoom application

Purpose:

1. Strengthen operating procedures, and systematic literature reviews for developing evidence-based recommendations;
2. Review the latest global guidance on NITAG composition, scope, mandate, functioning and declaration of interests, to strengthen the secretariat and its procedures;
3. Access information on activities of other NITAGs; data on disease burden, surveillance, immunization programme, vaccine quality and safety, immunization policy and strategies, introduction of new vaccines and sustaining routine immunization, promoting regional and national vaccine security, demand generation, monitoring programme goals, and guiding national authorities on new and emerging vaccine preventable diseases needs;
4. Plan for the next activities of the ITAGI and the Total Systems Effectiveness (TSE) working group.

Details:

The Indonesian Technical Advisory Group for Immunization (ITAGI) membership is renewed every three years. In the last year, the ITAGI has conducted several activities together with national stakeholders that include building institutional relationships and formalizing the post-recommendation process with the Ministry of Health (MOH). With the renewal of membership in 2019, an orientation meeting was conducted to update the new members on the ITAGI roles in supporting the national EPI programme. Indonesia with an annual birth cohort of 4.8 million has a challenging task to reach all children with lifesaving vaccines. Introduction of any new vaccine or strategy is very complex and full of challenges.

The agenda included seven sessions with presentations and discussions and five group exercises. The main topics presented matched country priorities such as: the global, regional and national immunization landscape; NITAG composition and functioning; developing evidence-based NITAG recommendations; promoting vaccination demand; cost effectiveness studies; and monitoring of National Immunization Programme Goals by NITAGs. As a follow up, the internal procedure manual was also updated.

Follow up actions agreed to were to: adhere to the framework or the protocol for literature reviews; assess the quality of evidence, data synthesis and interpretation; implement a declaration of interest at every meeting; and finalize the ITAGI 2020 workplan based on the additional strategic activities agreed during the meeting.

Opening of Indonesian Technical Advisory Group on Immunization (ITAGI) Orientation Meeting. Credit: WHO Indonesia/Tams.

Indonesia Polio Outbreak Response Assessment (OBRA)

Dr Vinod Bura, Riza Dewantara, Winda Hutami, Dr Mushtofa Kamal, Mindo Nainggolan, Dr Olivi Silalahi, Dr Fina Tams and

Location: Virtual meeting

Date: 6-14 April 2020

Participants: The 24 member team was composed of experts from GPEI partners and the Ministry of Health of Indonesia.

Purpose: To assess the quality of the polio outbreak response against performance standards, and to determine the status of circulating vaccine-derived poliovirus type 1 (cVDPV1) transmission in Indonesia based on evidence provided by the country team. All interviews were done through tele-video conference using standardized OBRA tools and guidance.

Round 2 polio vaccination continues in Paniai Papua province. Credit: Iman Hermansyah/ WHO Indonesia.

Details: In February 2019, Indonesia notified WHO of a polio outbreak in Papua province following detection of cVDPV1 from an Acute Flaccid Paralysis (AFP) case and two additional healthy children who had genetic divergence of 61nt and 58nt. In response to this notification, two rounds of polio campaigns were conducted with bivalent Oral Polio Vaccine (bOPV) targeting around 1.2 million children less than 15 years of age in Papua and West Papua provinces. The overall coverage in the second supplementary immunization activities (SIA) round was >90% in the outbreak zone, but coverage in the highland districts of Papua was below average. Polio surveillance activities were enhanced, and a Non-Polio Acute Flaccid Paralysis rate of $\geqslant$3 was achieved in 2019. However, overall surveillance quality was still below target in these provinces.

After reviewing the data and documentation, the OBRA team concluded that the cVDPV1 transmission in Papua has been stopped within the globally expected time line and there was no evidence of ongoing transmission. The team recommended that Indonesia should maintain high quality polio eradication activities in all provinces, particularly in Papua, Papua Barat and other high-risk provinces, until at least global polio eradication is achieved and OPV use is ceased globally.

Thirty Fourth annual meeting of the European Regional Commission for Certification of Poliomyelitis Eradication (RCC)

Catharina de Kat, WHO EURO

Location: Virtual meeting

Date: 2 June 2020

Participants: RCC members, WHO secretariat, representatives of the European Centre of Disease Prevention and Control, UNICEF.

Purpose: RCC assessment of 2019 annual reports from Member States on the status of polio eradication efforts in the European Region.

Details: Annual country reports for 2019 reviewed by the RCC showed that poliomyelitis (polio) programmes in the WHO European Region were maintained during 2019 much as in previous years, with no new risks to polio eradication in the Region being identified. The Commission further acknowledged improvements and significant efforts taken by some countries to increase preparedness and reduce the risk that a poliovirus could circulate if imported into the Region.

Despite the challenges presented by the COVID-19 pandemic, 41 of the 53 countries in the European Region completed and submitted their annual polio reports as requested before the RCC's annual meeting. The RCC expects to receive and review the outstanding reports of the remaining 12 countries by the end of August 2020. Results and conclusions of the full review will include confirmation of whether the European Region has retained its polio-free status as well as provide specific recommendations for each country.

Professor David Salisbury, Chair of both the Global Certification Commission (GCC) and the RCC, stressed that during 2020 it will be of the utmost importance that all countries do all they can to preserve high population immunity through vaccination and high-quality surveillance, despite the pressures that COVID-19 is imposing on immunization service providers.

Virtual Data Cleaning of State Effective Vaccine Management Assessment (EVMA), Assam, India

Prof. Harshad Thakurv, National Institute of Health and Family Welfare, New Delhi, India, Prof. Sanjay Gupta, Snehil K. Singh, Lokesh Sharma, Rakesh Kumar, and Shashi Kant Ray, National Cold Chain & Vaccine Management Resource Center (NCCVMRC) – NIHFW, New Delhi, India & UNICEF, Bhrigu Kapuria, UNICEF India Country Office

Location: New Delhi, India

Date: May & June 2020

Participants: **State Officials** – Dr Binita Goswami, State Immunization Officer, Er. B.K. Chaudhary, State Cold Chain Officer, Dr Maulik, State RI Consultant and Dr Annapurna Kaul, Health Specialist UNICEF, Assam, India

EVM Secretariat (NCCVMRC) Team,

Virtual EVM data cleaning for state of Assam, at EVM secretariat NCCVMRC-NIHFW India

Purpose: To minimize the impact of the COVID 19 pandemic on routine immunization supply chain activities, through carrying out online data cleaning exercise of the State Effective Vaccine Management Assessment (EVMA) for the state of Assam.

Details: The Effective Vaccine Management Assessment (EVMA) is a globally recognized tool designed by UNICEF and WHO for the systematic assessment of the immunization supply chain which plays a vital role in the successful delivery of the Expanded Programme on Immunization (EPI). The EVMA tool helps countries to reveal the short comings in the performance of the immunization supply chain.

The State of Assam, with a population of 36 million and 822 cold chain points including one primary store, carried out its follow-up EVM Assessment on 18-29 February 2020. The National Cold Chain & Vaccine Management Resource Center (NCCVMRC), a unit of The National Institute of Health & Family Welfare (NIHFW) & the Ministry of Health & Family Welfare (MoHFW), being the National EVM secretariat, provided its technical support to Assam, from the initial planning of the EVMA, to the sampling, route mapping, team formation, budgeting, mobilizing national assessors, training, and data collection through the mobile application, etc.

The COVID-19 pandemic has redefined the vocabulary of health crisis worldwide and has impacted every routine activity possible. Nationwide lockdowns have resulted in unfavorable impacts on health programmes of which effective vaccine management is an indispensable part.

Customarily EVMA data cleaning is a room-based activity carried out at the National EVM secretariat with the respective officials from the state under review. Realizing the need for a fully functioning immunization supply chain, NCCVMRC-NIHFW with UNICEF explored the possibility of an E-platform and conducted the first ever virtual data cleaning activity for the EVMA in India.

A core group with participants from the State Routine Immunization cell viz. SEPIO, SCCO, State RI Consultant, UNICEF field office and country office representatives and facilitators from NCCVMRC-NIHFW was constituted to execute the E-data cleaning activity. The outcome is encouraging enough to consider this as a sustainable model for continued virtual data cleaning for EVMA activities countrywide.

Resources

Guide for Promoting Equitable Health Product Access through Supply Chain Design

Village Reach

Ensuring that health products are available and accessible for everyone is a critical part of primary health care, and essential to achieving universal health coverage. However, high quality health products are not always available when needed, particularly in under-served populations.

Supply chains can be adapted to be responsive to people's needs and preferences. VillageReach has created a guide for governments and implementing partners to use to purposefully consider equity in supply chain design. The guide assesses health product supply chains holistically, including public and private sector delivery, and walks users through a four-step process to identify supply chain design strategies to reach under-served populations and track progress reducing inequities. The guide focuses on four under-served groups: the urban poor; remote or rural communities; populations in conflict or security-compromised areas; and internal or cross-country migrant communities. An overview of the guide is available here and the full guide is available here.

Earlier this month, JSI and VillageReach presented in a Technet-21-hosted webinar about promoting equitable health product access through supply chain design. They walked through the guide and provided an example what these adaptations can look like in practice. A recording of the webinar is available here.

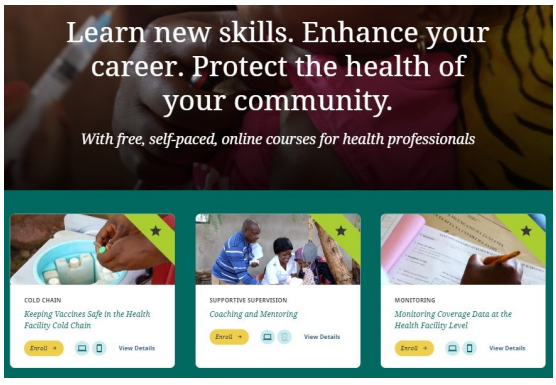
Introducing IA Learn: self-paced online courses for immunization workers

Alice Bumgarner, Immunization Academy

Immunization Academy has launched its second online training tool created specifically for health workers and their managers. In addition to IA Watch, our video lesson platform, you may now use IA Learn to access free, self-paced courses and earn certifications.

IA Learn currently hosts three online courses, with additional courses to be added on a regular basis:

- *Coaching and Mentoring*
- *Keeping Vaccines Safe in the Health Facility Cold Chain*
- *Monitoring Coverage Data at the Health Facility Level*



IA Learn's Interface

This lesson platform allows you to enroll in courses, learn at your own pace and earn certifications for completion. Create an account today to get started, or log in using your existing IA Watch username and password.

As you may know, Immunization Academy launched in summer of 2017 to provide short, how-to video lessons for immunization professionals on topics such as cold chain, data monitoring, vaccine delivery, and more. The online video platform, now known as IA Watch, and its complementary learning tools, including IA Learn, now serve over 60,000 learners in 195 countries.

We will be adding more learning tools to Immunization Academy throughout the year, including an assessment tool for uncovering skill/knowledge gaps, and a manager's tool for tracking the learning of others.

The additional operational cost of conducting immunization campaigns during the COVID-19 pandemic

Laura Boonstoppel, ThinkWell

Many immunization campaigns have been suspended to prevent increased COVID-19 transmission, but some campaigns will nevertheless need to go ahead, with additional precautionary measures in place to ensure the safety of health workers and the community.

With support from the Bill & Melinda Gates Foundation, ThinkWell has estimated the added cost per dose of several potential precautionary measures, namely: personal protective equipment (PPE) for vaccination teams; additional infection prevention and control (IPC) measures at immunization sites; providing extra staff and supplies to ensure physical distancing and triaging at campaign sites; additional per diems due to changes in delivery strategies; and estimates of an increase of other operational cost components (such as additional social mobilization). The analysis uses data from 10 studies on the cost of conducting an immunization campaign to model each scenario at a low, medium and high intensity level, as well as the combined effect on the cost per dose.

The results of this analysis of the **additional delivery cost of conducting campaigns during COVID-19** show that:

- The cost per dose could increase by 5% when placing hand washing stations at campaign sites and 9-20% when adding PPE for health workers.
- Adding crowd controllers to vaccination teams to manage physical distancing and screening at campaign sites could imply a 10-26% increase.
- Per diems associated with a longer campaign duration could result in an 8-32% increase.
- An increase in other operational aspects of the campaign, such as social mobilization and transport, could in an increase of 10-40%.
- **All protective measures and operational changes combined could increase the operational cost of a campaign by 49% in the low scenario up to 154% in the high scenario.**

This rapid analysis is meant to illustrate a range of potential cost implications to provide general guidance for the direction of policies and potential cost expectations that would require the mobilization of additional resources.

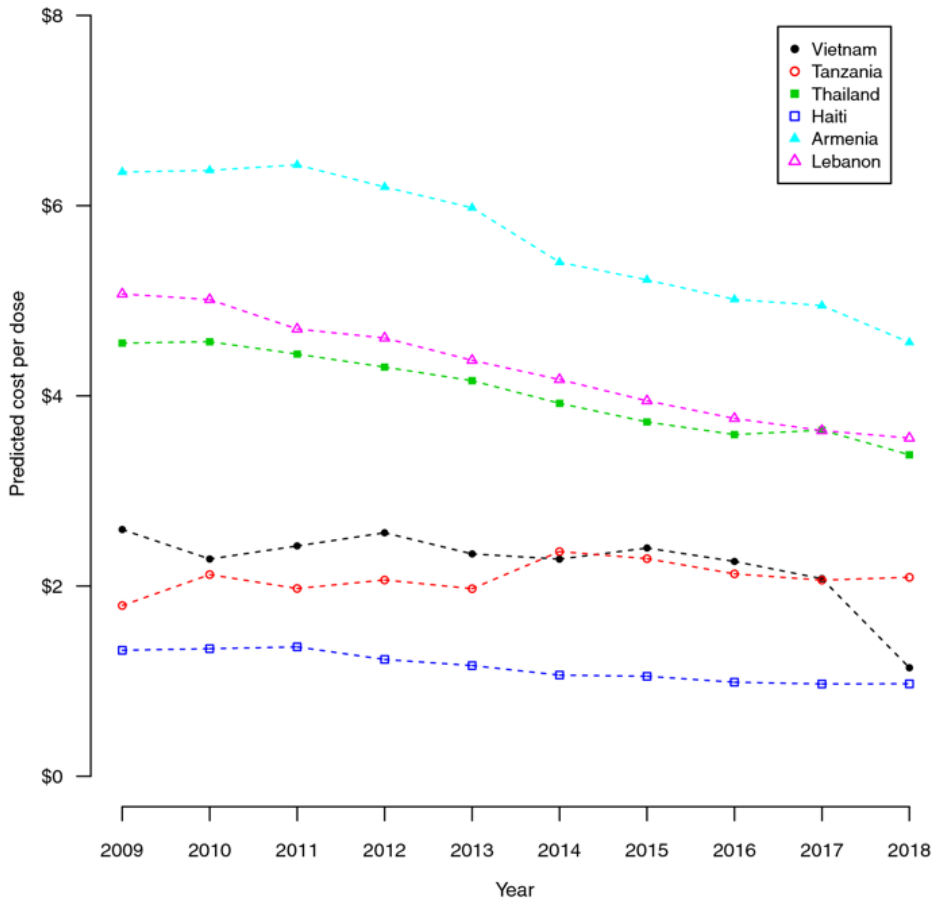
Immunization delivery cost estimates for 136 low- and middle-income countries

Christian Suharlim, ImmunizationEconomics.org community of practice

Immunization delivery cost estimates help with resource allocation and budgeting for countries. However, many low - and middle-income countries (LMICs) do not have immunization delivery unit cost estimates available, or have estimates that are uncertain, unreliable, or old. A newly published study by Portnoy et al. on immunization delivery cost provides valuable analysis and fills a critical data gap by producing cost estimates for 136 LMICs. This study, led by Harvard in collaboration with ThinkWell and Management Sciences for Health and funded by the Bill & Melinda Gates Foundation aims to inform and improve decision-making, progress monitoring, financial sustainability, and coverage and equity of immunization programmes.

The meta-regression analysis used data from empirical immunization costing studies (Immunization Delivery Cost Catalogue), to estimate the delivery cost per dose for routine childhood immunization services. The analysis looked at various cost categories, including labour, supply chain, capital, and other service delivery costs. The paper also evaluated the relationship between costs and predictor variables such as the country development level, population, and the number of doses in the routine vaccination schedule.

Utilization of the findings of this evaluation will not only inform key immunization decision-makers and planners at the country level but also has the potential to advance progress towards achieving 14 of the 17 Sustainable Development Goals (SDGs) to which routine immunization is a critical factor.



Predicted programmatic, economic cost per dose for routine childhood vaccine delivery by year. Armenia = European region, lower middle income; Haiti = region of the Americas, low income; Lebanon = Eastern Mediterranean region, upper middle income; Tanzania = African region, low income; Thailand = Southeast Asian region, upper middle income; Vietnam = Western Pacific region, lower middle income. Full report of 136 LMICs available
Source: Portnoy et al., 2020, PharmacoEconomics

The Immunization Agenda 2030 (IA2030) and the focus on "zero-dose" children – what does it mean to the immunization data community?

Carolina Danovaro, WHO Headquarters

The IA2030, to be presented in the World Health Assembly 2020, presents a flexible, dynamic approach to overcoming challenges and to responding to new and emerging issues with solutions for impact. IA2030 envisions a world in which "everyone, every-where, at every age, fully benefits from vaccines for good health and well-being".

The focus on ***everyone*** makes the focus on equity extremely relevant. Improvements have been made in increasing DTP3 but less so improving DTP1 coverage, with close to 14 million infants still not receiving any dose of DTP-containing vaccines each year. Furthermore, the groups already identified as vulnerable and where immunization inequities are most acute: the **urban poor, conflict-affected and remote rural contexts, and those affected by gender-related barriers** are philosophically and practically aligned with the zero dose focus.

In recent discussions around the measurement of "zero-dose" children – for practical purposes defined as children not having received DTP1 – the Immunization Equity Reference Group (ERG) highlighted that zero-dose numbers and measurement are **not the complete package** for realizing success around equity, and that emphasis is in going from zero-dose to full immunization. It was recognized that current administrative data systems are limited in accurately quantifying and localizing zero dose children and communities. Modelled data suggests that in most countries children who have not received any DTP dose are not always concentrated (as visualized in a map that can be made available upon request)(2). Thus, the **importance of strong community engagement in developing methods for the identification, measurement and tracking of zero dose children in each locality** will become an important part of a wider learning agenda and of our armamentarium to reduce zero-dose children and increase the percentage of fully immunized in an equitable manner.

Finally, different authors have proposed frameworks to think about groups that are not benefiting from vaccination (Table), but it will be up to local areas to identify their zero-dose populations, understand the root-causes for their lack of vaccination and intervene, to then evaluate and continue improving in a virtuous cycle.

Hard to Reach or "underserved by omission"	Hard to Vaccinate or "underserved by omission"
Supply-side barriers due to: • Geography by distance or terrain • Transient or nomadic movement • Healthcare provider discrimination • Lack of healthcare provider recommendations • Inadequate vaccination systems • War and conflict • Home births • Other homebound mobility limitations • Legal restrictions	Reachable but difficult to vaccinate due to: • Distrust • Religious beliefs • Lack of awareness of vaccine benefits and recommendations • Poverty or low socioeconomic status • Lack of time to access available vaccination services, • Gender-based discrimination

Sources: Adapted from Ozawa et al. Defining hard-to-reach populations for vaccination. Vaccine. 2019;37(37):5525-5534 and Chopra et al. Addressing the persistent inequities in immunization coverage. Bull World Health Organ. 2020;98(2):146-148.

To read more, *ERG Discussion Paper 09. A focus on "zero dose" children: Key issues for consideration*. February 2020. Available upon request at this email address.

(2) Tatem AJ, Wigley A, Tejedor N, Utazi E and Ruktanonchai N, 2020, Mapping the characteristics of under/un-vaccinated children, Report prepared by WorldPop for the Immunization Equity Reference Group (ERG), available upon request.

Links

Organizations and Initiatives

American Red Cross
Child Survival

Centers for Disease Control and Prevention
Polio
Global Vaccines and Immunization

Johns Hopkins
International Vaccine Access Center
Value of Immunization Compendium of Evidence (VoICE)
VIEW-hub

JSI
IMMUNIZATIONbasics
Immunization Center
Maternal and Child Health Integrated Program (MCHIP)
Publications and Resources
Universal Immunization through Improving Family Health Services (UI-FHS) Project in Ethiopia

PAHO
ProVac Initiative

PATH
Better Immunization Data (BID) Initiative
Center for Vaccine Innovation and Access
Defeat Diarrheal Disease Initiative
Vaccine Resource Library
Malaria Vaccine Initiative
RHO Cervical Cancer

Sabin Vaccine Institute
Boost – A Global Community of Immunization Professionals

UNICEF
Immunization
Supplies and Logistics

USAID
USAID Immunization
USAID Maternal and Child Survival Program

WHO
Department of Immunization, Vaccines & Biologicals
ICO Information Centre on HPV and Cancer
National programmes and systems
Immunization planning and financing
Immunization monitoring and surveillance
National Immunization Technical Advisory Groups Resource Center
SIGN Alliance

Other
Coalition Against Typhoid
Confederation of Meningitis Organizations
Dengue Vaccine Initiative
European Vaccine Initiative
Gardasil Access Program
Gavi the Vaccine Alliance
Immunization Academy
International Association of Public Health Logisticians
Immunization Economics resource
International Vaccine Institute
Measles & Rubella Initiative
Multinational Influenza Seasonal Mortality Study
Network for Education and Support in Immunisation (NESI)
Stop Pneumonia
TechNet-21
Vaccine Safety Net
Vaccines Today

WHO Regional Websites

Routine Immunization and New Vaccines (AFRO)
Immunization (PAHO)
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Immunization (West and Central Africa)
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