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News

Pakistan introduces typhoid conjugate vaccine

Elayna Obermanm, PATH/[TyVAC](#)

Pakistan took a major step forward in typhoid prevention and control when they became the first country in the world to introduce typhoid conjugate vaccine (TCV) into their routine childhood immunization programme in November 2019. Starting in Sindh province, a three-week vaccination campaign in urban areas vaccinated nearly 10 million children aged nine months to younger than 15 years of age. Following the campaign, health care workers and government officials in Sindh worked to transition to routine TCV immunization for all children when they are nine months old. Additionally, Pakistan will continue rolling out TCV by province throughout 2020 and 2021 until the vaccine is available nationwide.



A young girl in Sindh province, Pakistan, proudly shows her inked finger showing that she received the TCV. Credit: PATH/Asad Zaidi.

The introduction of this vaccine comes at a critical time to protect children from an ongoing extensively drug-resistant typhoid outbreak, which has infected more than 10,000 people since November 2016, mostly in Sindh province. Children who fall ill with these strains, which are resistant to all but one oral antibiotic, have limited treatment options and the cost of that treatment can place additional economic burdens on families.

This important milestone was achieved through the leadership and commitment of the Expanded Programme on Immunization, the Ministry of Health, UNICEF, and the World Health Organization at the national and Sindh provincial levels. The Typhoid Vaccine Acceleration Consortium (TyVAC) worked closely with these organizations, as well as local partners in Pakistan to support the Gavi, the Vaccine Alliance application process and activities for vaccine implementation, community outreach, and social mobilization.

TyVAC is a partnership between the Center for Vaccine Development and Global Health at the University of Maryland School of Medicine, the Oxford Vaccine Group at the University of Oxford, and PATH. To read more, please visit the [Take on Typhoid website](#).

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Rehabilitation services provided for polio survivors in the Philippines

Jun Ryan Orbina, WHO Country Office, Philippines

On 16 September 2019 the Philippine Department of Health announced the first case of polio. The patient was a three-year-old girl named Junaisa from Lanao del Sur. WHO staff first met Junaisa and her parents, Haimer and Salma, at their relative's residence where Salma recalled how Junaisa experienced weakness in her legs and was unable to walk.

When WHO staff learned that Junaisa and her family was to visit the Philippine General Hospital, Center for Children with Disabilities in Manila on 19 November 2019, they arranged to meet the family again.

Junaisa was receiving assistance for rehabilitation services and fitting of mobility devices from Rotary International, UNICEF, and Physicians for Peace Philippines. The Center has also facilitated Junaisa's PhilHealth insurance package, which will cover the mobility devices that Junaisa will need until she turns 18.

Global Polio Eradication Initiative, Rotary International, the US Centers for Disease Control and Prevention, WHO, UNICEF, and the Bill & Melinda Gates Foundation have been providing both technical and financial support to the response and rehabilitation activities since the outbreak was announced.



Junaisa on a custom-fitted wheelchair, with her parents Haimer and Salma.
Credit: WHO/J Orbina.

needed so our children will not get sick.”



Junaisa was fitted with braces to improve mobility.
Credit: WHO/J Orbina.

Dr Rabindra Abeyasinghe, WHO Representative to the Philippines, highlighted the importance of providing rehabilitation services and mobility devices for polio affected patients. Since many of the polio patients are young children under five, this will ensure that they are equipped with mobility devices as they grow.

Salma said that “Junaisa is now somehow able to walk, unlike before when she kept falling down. I am happy with the improvement. I feel that maybe, a miracle is about to happen, that she can walk, even if it is with a limp. We plan to enroll her for school. I hope all mothers will have their children vaccinated against polio and other vaccine preventable diseases. Vaccines are

Past Meetings/Workshops

TyVAC dinner meeting at AFRO RITAG

Elayna Oberman, PATH/[TyVAC](#)

Location: Brazzaville, Congo

Date: 13 November 2019

Participants: Expanded Programme on Immunization (EPI) managers and National Immunization Technical Advisory Group (NITAG) chairs from eight countries (Burkina Faso, Ghana, Kenya, Malawi, Mauritania, Tanzania, Uganda, Zimbabwe), key stakeholders from the World Health Organization's Regional Office for Africa (WHO AFRO), and Typhoid Vaccine Acceleration Consortium (TyVAC) staff.

Purpose: To inform and educate decision-makers and stakeholders about the current typhoid control context, including burden and surveillance, and discuss typhoid conjugate vaccine (TCV) introduction opportunities in the African region; to advocate for the prioritization of typhoid prevention and control, including TCV introduction; and to share lessons learned from TCV introduction decisions, providing concrete and actionable steps to move conversations forward.

Details: In mid-November, country decision-makers from across Africa came together for the [Regional Immunization Technical Advisory Group](#) (RITAG) meeting hosted by the World Health Organization's Regional Office for Africa (WHO AFRO). Taking advantage of key stakeholders already together for the discussion of broad policies and strategies for vaccines across the region, TyVAC hosted a side dinner meeting with key EPI managers and NITAG chairs from eight countries, as well as critical stakeholders from the WHO AFRO office, to discuss typhoid and the potential of TCV. Participants discussed typhoid burden, TCV cost-effectiveness, and the potential impact of TCV introduction in their countries. Additionally, TyVAC shared information about how the project has supported countries with TCV decision-making and introduction in the region thus far, and provided details on support available for countries interested in introducing the vaccine in the future. Participants also had the opportunity to learn from each other, with lessons learned shared from the decision-making progress in countries already moving forward.

Training of Trainers (ToT) on Vaccine and Cold Chain Management (T-VaCC)

[Prof Sanjay Gupta](#), [Sumeet Juneja](#) and [Snehil K. Singh](#), National Cold Chain & Vaccine Management Resource Center (NCCVMRC) – [NIHFW](#), New Delhi, India

Location: Pune, India

Date: 18-23 November 2019

Participants: 22 participants from Medical Colleges (Department of Preventive and Social Medicine) across India, State Government Health Department and Development Partners.

Purpose: To create a resource pool of master trainers for conducting future training courses on Vaccine and Cold Chain Management.

Details: Immunization forms an important component in any country's public health programme. Effective management of vaccines and maintenance of cold chain are crucial for ensuring an effective immunization supply chain in the health system and for strengthening overall immunization coverage.



Group Photograph - Training of Trainers (ToT) on Vaccine and Cold Chain Management

Over the past few years, many new vaccines and new cold chain technologies have emerged in India creating the need to strengthen the immunization supply chain infrastructure to better accommodate these innovations. In order to facilitate the establishment of a high quality, effective and efficient immunization supply chain in the country that will ensure universal immunization coverage with safe and potent vaccines, the National Cold Chain & Vaccine Management Resource Centre (NCCVMRC) was established at The National Institute of Health & Family welfare (NIHFW), New Delhi, India.

NCCVMRC-NIHFW, with support from UNICEF, has developed a unique training course – the Training on Vaccine & Cold Chain Management (T-VaCC) – to create a skilled workforce and build leadership for immunization supply chain. The training course is built around the nine criteria of the Effective Vaccine Management (EVM) initiative and WHO Mid-level Managers and Vaccine Management Handling modules. The course was initiated in 2014 and to date 10 national batches of training have been conducted.

In order to intensify the training further and create a pool of master trainers, for the first time, a training of trainers on vaccine and cold chain management was conducted at Pune, Maharashtra, from 18-23 November 2019, which was organized by NCCVMRC in collaboration with the National Cold Chain Resource Center, Pune with support from UNICEF.

The training methodology was based on adult learning principles with a combination of lectures, group work, case studies, field visits and quizzes. The training consisted of technical sessions on vaccine and cold chain as well as sessions on the training methodology and were facilitated by experts from various domains such as immunization supply chain, education and training, etc.

State Effective Vaccine Management Assessment (EVMA) Workshop

[Prof Sanjay Gupta](#), [Lokesh Sharma](#) and [Snehil K. Singh](#), National Cold Chain & Vaccine Management Resource Center (NCCVMRC) – [NIHFW](#), New Delhi, India

Location: Thiruvananthapuram, Kerala, India

Date: 20-24 November, 2019

Participants: 26 assessors – 24 from Faculty of Community Medicine Department from various Medical Colleges and 2 from Medical & Health Department, Government of Kerala, India.

Purpose: To develop the capacity and understanding of the assessors on the Global EVM Assessment Tool for conducting the State EVM assessment.

Details: Successful immunization programmes are built on a functional, end-to-end supply chain and logistics system. With the increased number of vaccines now available in the Universal Immunization Programme (UIP), greater storage capacity is required at every level of the cold chain. Additionally, States must maintain sufficient stock levels, reduce wastage, accurately forecast vaccine requirements, and prevent equipment break-downs. This requires a consistently high standard of supply chain management, which can only be achieved if all the links in the supply chain comply with current standards for storage and distribution. To assess the functionality of these links, UNICEF & WHO have developed the Effective Vaccine Management Assessment (EVMA).



Group photo of the State EVM Workshop, 20 November 2019 at Thiruvananthapuram, Kerala, India

The State of Kerala in India, located in the southern part of the country, has a population of around 35 million. According to the National Family Health Survey 4, the Full Immunization Coverage of the State is 82.1%, whereas the National Coverage is 62%. The State of Kerala has three primary stores, 14 lowest delivery stores and 1,228 service points.

The State of Kerala has carried out its first ever State EVM assessment in November 2019. As the National EVM Secretariat, the National Cold Chain & Vaccine Management Resource Center (NCCVMRC) of The National Institute of Health & Family Welfare (NIHFW) & Ministry of Health & Family Welfare (MoHFW), has provided technical support to Kerala throughout the implementation of the EVM: from planning, sampling, route mapping and team formation, to mobilizing and training national assessors and data collection.

Fourteen teams were constituted to conduct this large-scale assessment of 74 vaccine stores, and assessors were invited from the pool of National Assessors, created by NCCVMRC-NIHFW from the community medicine departments of different medical colleges.

The five-day training was facilitated by the National EVM Secretariat and UNICEF. The data collection took place immediately after the training through a mobile application.

National Training of Trainers on Vaccine Management – Lagos, Nigeria

Modibo Dicko, Freelance Consultant, Souleymane Koné, WHO Headquarters, Michelle Arnaud-Seidel and Ousmane Dia, UNICEF-PD, Boubacar Dieng, Gavi, the Vaccine Alliance Consultant, Kuburua Iyabo Daradara, Nigeria NPHCDA, Onome Dibosa Osadolor, UNICEF-Nigeria, Daniel Ali, Abdulrahman Kelani and Ahmad Muhammad, WHO Country Office, Nigeria.

Location:	Lagos, Nigeria
Date:	20-24 January 2020
Participants:	250 participants from National and State levels, including representatives of Technical and Financial Partner Agencies.
Purpose:	To provide participants with the knowledge necessary for vaccine management officers to properly carry out their responsibilities at all levels of the supply chain.
Details:	The training was organized as a “Gemba Walk” through vaccine management tasks at the various levels of the supply chain in Nigeria. To cope with the huge number of participants, the Gemba Walk was combined with the “Carousel Method”. The Gemba Walk takes management staff to the front line of the immunization programme to look for inefficiencies and opportunities to propose improvements. The Carousel Method is a tool for knowledge transfer and collective work in the form of workshops, also called stations. Participants are divided into groups that circulate from station to station in order to learn from, and contribute to, the discussions initiated by station facilitators.

The Gemba Walk is planned in such a way as to enable participants to follow the vaccines on their path through the different levels of the supply chain, i.e. national, state, LGA and service. To ensure key learning objectives were covered, the course facilitators identified the critical vaccine management tasks pertaining to each level, which were then discussed with, and approved by, the Nigerian team composed of representatives of NPHCDA and their local partners (GAVI, UNICEF and WHO). During the Gemba Walk, the approach was as follows:

- (a) Strategic for the national stage, focusing on planning, budgeting and resource mobilization, knowledge management, supply chain transformation, and governance;
- (b) Managerial for the state/LGA stage, focusing on generating evidence, knowing the supply chain management tools, equipment management, health care waste management, and managing storage and distribution; and
- (c) Operational for the service stage, focusing on knowing the supply chain management tools, vaccine storage temperatures, stock management operations, planning of vaccination sessions, and reminders on the basics of vaccine management and injection safety.

In all the stations, sessions were held in a very interactive way with facilitators making introductory presentations which were followed by questions, comments and discussion between the participants and the facilitators. The essence of these interactive discussions is being synthesized by NPHCDA into the final report of the training which will be shared in the near future.

At the end of this vaccine management training, participants were equipped with the necessary knowledge to correctly follow the course on Effective Vaccine Management, which was due to take place immediately after.

This was the first time, a combination of Gemba Walk and Carousel Method has been used for training on EPI logistics in Africa. Judging by the course evaluations, the training and the new training methodology met participants' expectations. Lessons will be drawn from this experience to prepare future training sessions that can accommodate a large number of participants.

Resources

Vaccine Procurement and Publication of Countries' Vaccine Purchase Data

Johanna Fihman, WHO Headquarters

In December 2019, WHO published the [Vaccine Purchase Data for Countries](#) which compiles all vaccine purchase data reported by countries. The report also provides key messages for countries to consider in their vaccine procurement processes.

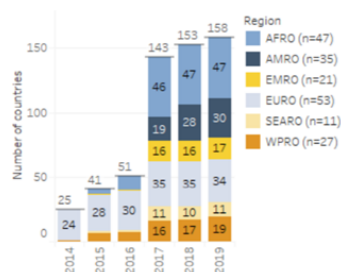


Figure 1. Countries reporting price data to MI4A – by region.

[Email](#)

What information is available?

The Market Information For Access (MI4A) database contains vaccine purchase (product, price and procurement) data as reported by countries via the WHO/UNICEF Joint Reporting Form (JRF). Data is available for 2013–2018. Data is shared by country, vaccine and year. Price per dose (USD), procurement mechanism and annual volumes are included, and data is publicly available in excel format on the [MI4A website](#).

The new report compiles this data and includes: (a) a complete list of vaccine products available for procurement – including non-prequalified-vaccines - building on reported vaccines and other public sources); and (b) information on PAHO Revolving Fund and UNICEF Supply Division prices.

How can countries use this data?

Countries can use the vaccine purchase data in different ways, such as to:

- **Understand how the price of vaccines in their immunization schedule relate to other products** on the market, or compare the prices paid by other countries in similar conditions – e.g. *income, funding/procurement group, contract conditions*.
- **Identify other vaccines available from a given manufacturer** – e.g. *what products are in the portfolio of a manufacturer of interest for my country?*
- **Understand other available products and presentations for each vaccine** – e.g. *what BCG vaccine products are on the market?*
- **Develop budget estimates** to inform new vaccine introduction product choices, planning and budgeting.

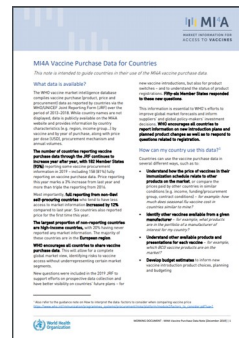
New guidance to support communication of immunization data

Catharina de Kat, WHO EURO



Many people depend on data related to vaccines and vaccine-preventable diseases to guide their decisions, from elected officials who set health system budgets to parents who make vaccination decisions for their children.

WHO/Europe's new publication "[Effective communication of immunization data](#)" aims to generate more interest and build capacities in data communication as a means to support decision making and achievement of immunization targets and goals.



Calendar

2020

February

4-5	Gavi High-Level Review Panel (2018 HSIS performance and 2020 renewal requests)	Geneva, Switzerland
11-13	SEARO & WPRO Regional Working Group meeting	Siam Reap, Cambodia
24-25	Global NITAG Network Meeting	Atlanta, USA

March

3-5	Immunization and vaccines related implementation research advisory committee (IVIR-AC)	Geneva, Switzerland
18-19	Gavi Board Meeting	Geneva, Switzerland
23-25	EPI Managers' meeting for East and South African countries	Addis Ababa, Egypt
23-26	AFRO West & Central Regional Working Group	Bujumbura, Burundi
25-27	Immunization Programme Managers Meeting for the European Region	Istanbul, Turkey
31 Mar-2 Apr	Strategic Advisory Group of Experts (SAGE) on Immunization	Geneva, Switzerland

April

28-30	Future Forum for Vaccination Demand	London, UK
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May

3-4	Global Advisory Committee on Vaccine Safety	Geneva, Switzerland
17-21	World Health Assembly (WHA)	Geneva, Switzerland
26-27	Gavi Programme and Policy Committee (PPC)	Geneva, Switzerland

June

22-26	18th Global Measles and Rubella Laboratory Network Meeting	TBD
30-2 Jul	Africa Regional Immunization Technical Advisory Group (RITAG) meeting	Brazzaville, Congo

July

7-8	Gavi High-Level Review Panel (Vaccine doses for 2021 - all countries)	Geneva, Switzerland
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August

25-27	14th International Rotavirus Symposium	New Delhi, India
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[Polio](#)

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Johns Hopkins

[International Vaccine Access Center](#)

[Value of Immunization Compendium of Evidence \(VoICE\)](#)

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[Universal Immunization through Improving Family Health Services \(UI-FHS\) Project in Ethiopia](#)

PAHO

[ProVac Initiative](#)

PATH

[Better Immunization Data \(BID\) Initiative](#)

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[Defeat Diarrheal Disease Initiative](#)

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[USAID Maternal and Child Survival Program](#)

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Other

[Coalition Against Typhoid](#)

[Confederation of Meningitis Organizations](#)

[Dengue Vaccine Initiative](#)

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[Gardasil Access Program](#)

[Gavi the Vaccine Alliance](#)

[Immunization Economics resource](#)

[International Association of Public Health Logisticians](#)

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[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 \(PAHO\)](#)

[Vaccine-preventable diseases and immunization \(EMRO\)](#)

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Newsletters

[Immunization Monthly update in the African Region \(AFRO\)](#)

[WHO/Europe Vaccine-preventable diseases and immunization \(VPI\) news \(EURO\)](#)

[Immunization Newsletter \(PAHO\)](#)

[The Civil Society Dose \(GAVI CSO Constituency\)](#)

[TechNet Digest](#)

[RotaFlash \(PATH\)](#)

[Vaccine Delivery Research Digest \(Uni of Washington\)](#)

[Gavi Programme Bulletin \(Gavi\)](#)

[Immunization Economics Community of Practice](#)