PATH

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Immunization Matters

News from PATH on vaccine uptake and access



WHO prequalification of maternal RSV vaccine multi-dose vial and PATH's RSV cost calculator support introduction efforts

In September, the World Health Organization (WHO) announced the prequalification of maternal respiratory syncytial virus (RSV) vaccine in a multi-dose vial presentation. Multi-dose vials can reduce storage, shipping, and packaging expenses while saving critical cold chain capacity, making them well suited for resource-constrained settings. PATH applauds this important milestone on the road to broader introduction in low- and middle-income markets and is providing technical assistance for country-led decision-making and preparations for RSV prevention in Ethiopia, Ghana, Kenya, Pakistan, and Uganda in alignment with Maternal Immunisation Readiness Network in Africa & Asia initiatives.

Additionally, PATH launched the first-ever RSV intervention cost calculator, which helps policymakers compare products and estimate program costs for available RSV prevention interventions—maternal RSV vaccine and/or long-acting RSV monoclonal antibodies. The calculator is a simple Excel tool that decision-makers, implementers, technical partners, and other stakeholders can use to estimate annual and five-year costs associated with RSV prevention programs, regardless of eligibility for Gavi, the Vaccine Alliance co-funding. It is the latest in PATH's portfolio of vaccine cost calculators. As an additional

resource, the RSV Roadshow communications toolkit developed by WHO and PATH continues to provide up-to-date materials that public health stakeholders can use to raise awareness about RSV prevention.

New typhoid conjugate vaccine receives WHO prequalification

EuTYPH-C Inj.® Multi-dose, a new typhoid conjugate vaccine (TCV) manufactured by EuBiologics in the Republic of Korea, has been prequalified by WHO. Typhoid is a persistent threat to the health and well-being of millions of people across the globe. In the low- and middle-income countries where the disease is endemic, there are approximately 6 million typhoid cases each year. EuTYPH-C Inj.® Multi-dose brings the total number of WHO-prequalified TCVs to five and represents an important step toward expanding global access to typhoid vaccination. The development of additional TCVs from diverse manufacturers can help strengthen supply, support greater affordability, and expand access for countries seeking to introduce TCVs as part of their typhoid prevention and control strategies.

PATH supported the EuTYPH-C Inj.® Multi-dose Phase 3 clinical study in Kenya and Senegal, as well as supported EuBiologics through WHO prequalification pre-submission meetings and clinical assessment responses. PATH is now collaborating with EuBiologics on a follow-up study evaluating the persistence of immune responses approximately 3 to 3.5 years after vaccination among children who participated in the previous Phase 3 study. Final results from the study are expected in early 2027.

PATH highlights single-dose HPV vaccination at IPVS 2026

Last month, at the 38th annual International Papillomavirus Society Conference in Athens, Greece, PATH and the Gates Foundation co-hosted a reception celebrating the journey of single-dose human papillomavirus (HPV) vaccination, from evidence to policy to implementation. The event comes on the heels of a meeting of WHO's Strategic Advisory Group of Experts on Immunization recommending single-dose HPV vaccination as the most efficient strategy for preventing cervical cancer, with an updated WHO position paper

forthcoming. Participants heard about Ethiopia's recent implementation of single-dose HPV vaccination and reflected on the achievements, lessons, and experiences of the Single-Dose HPV Vaccine Evaluation Consortium, the global group of experts that for nearly a decade collated and synthesized the growing evidence base for policymakers at global and country levels.

PATH also presented a single-dose HPV vaccination immunobridging study of Xiamen Innovax Biotech Co.'s nine-valent HPV vaccine, Cecolin®9, compared to Gardasil®9. The presentation highlighted data from a 6-month interim analysis in girls and women between 9 and 20 years of age following administration of a single dose. This PATH-sponsored study has the potential to advance global access to an additional vaccine that protects against a broad array of HPV strains most likely to cause cervical cancer.

PATH support advances rotavirus vaccine through regulatory approvals

PATH's Sustaining Vaccine Manufacturing (SVM) program is celebrating the recent availability of PT Bio Farma's Bio-RV, a neonatal rotavirus vaccine that received marketing authorization in Indonesia in September 2026. Bio-RV is the first rotavirus vaccine available in Indonesia manufactured by an Indonesian company—a crucial accomplishment for ensuring sustainable supply. While several globally available rotavirus vaccines have significantly reduced illness and deaths, bringing additional vaccine products to licensure is critical to improving affordability and ensuring access. Moreover, existing rotavirus vaccines are administered at the ages of 6, 10, and 14 weeks old, so a neonatal vaccine like Bio-RV offers additional protection during the first weeks of life.

SVM provides chemistry, manufacturing, and controls (CMC) and quality technical assistance to low- and middle-income country vaccine manufacturers. For Bio Farma, that included process improvements, resolving data gaps, potency assay improvement and validation, and gap assessments for the current and future manufacturing facilities used for Bio-RV; SVM continues to support Bio Farma's manufacturing efforts as they move toward a commercial launch of Bio-RV in Indonesia.

Working with community partners to support malaria vaccine uptake

Through technical assistance in five African countries, PATH is helping drive malaria vaccine uptake by engaging local community members as champions for the vaccine. In Zambézia Province, Mozambique, health committees—comprised of religious, traditional, and other influential leaders—act as a bridge between families and services. They know local families, understand caregivers' concerns, and are often the first trusted points of contact for health information. PATH has trained 400 community members, including health committees, on interpersonal communications for malaria vaccines in Pebane and Maganja da Costa districts. The trainings created a stronger partnership between health facilities and local partners—one that connects demand generation with practical follow-up.

In the Democratic Republic of the Congo, community health workers also help bridge the gap between families and health systems. PATH provides technical assistance in 23 provinces across the country, including field-based support for coordination, data quality, supply chains, and community engagement. PATH also works with health workers and community partners to strengthen follow-up systems that help families return for subsequent vaccine doses.

INTERVIEW

Q&A with Clint Pecenka



Clint Pecenka is the Director of Health Economics for PATH's Center for Vaccine Innovation and Access (CVIA) and oversees a robust portfolio that aims to help decision-makers make the best use of limited immunization resources. We spoke with him about the importance of health economics and PATH's role in the current global health environment.

Q: What does the health economics team do?

A: We conduct rigorous economic research to inform decision-making. We aim to equip decision-makers with the information they need to prioritize, plan, and introduce new vaccines or maintain routine immunization, as well as finance the choices they're making. But I don't think of health economics as just about dollars. It's really a decision-making tool to help policymakers optimize health benefits given limited resources. We apply a variety of methodologies, primarily for vaccines, to inform these choices but these tools can (and should) be applied to all health interventions. Our role is to analyze this information and

distill it for decision-makers so they can make fully informed choices about costs, impact, and cost-effectiveness.

Q: Countries increasingly face limited health resources. What information does the health economics team share regarding vaccine costs and cost-effectiveness?

A: Cost considerations have always been a top priority and that is even more true today. Countries are being asked to maintain robust routine immunization programs and consider multiple new antigens with fewer resources. In terms of costs, health economists in CVIA, and on other PATH teams, conduct cost of delivery and cost of illness analyses to determine the cost of vaccine programs or the costs that could be averted through immunization.

We also conduct impact and cost-effectiveness analyses to help optimize programs or inform new vaccine introduction decisions. For example, in Malawi, we conducted a typhoid cost of illness study and identified that families often bear catastrophic costs for treatment—and the health system bears a high cost, too. This information demonstrated the high economic burden of typhoid in Malawi and in similar typhoid-endemic countries; it is a crucial consideration when making decisions.

We've conducted health economic analyses across antigens and in myriad countries. CVIA health economists have conducted wide-ranging studies examining the cost of HPV or maternal vaccine delivery. In addition, our impact and cost-effectiveness modeling informs countries, like a recently published paper on rotavirus vaccination in Vietnam, or in other instances, groups of countries like our ongoing cross-country studies of RSV vaccine impact and cost effectiveness.

Q: How does CVIA's health economics team support countries as they navigate evolving contexts, including new vaccine products or antigens for routine immunization?

A: New vaccines are a great opportunity to increase health impact, but for policymakers it can mean financial tradeoffs or even more constrained budgets. Or for some diseases, multiple vaccine products are available. It can be difficult to determine which product may be best for your context. This is true from a cost perspective, be it vaccine and/or delivery costs, but also subtle differences in impact that policymakers may consider. We work with policymakers to determine the cost, impact and cost-effectiveness of different products and tradeoffs for different antigens. CVIA's health economics team also maintains cost calculator tools to compare across products, and different cost analyses can provide more in-depth information specific to the antigen or context. We want national leaders to have as much information as possible to make informed, strategic decisions now and for the future.

RESOURCES AND OPPORTUNITIES

New and updated resources

RSV intervention cost calculator

Webinar recording: Community demand for malaria vaccines

New scientific publications

Impact and cost-effectiveness of national implementation of rotavirus vaccination in Vietnam: A modeling study

Cost analysis of a nationwide typhoid conjugate vaccine campaign in Burkina Faso

Effectiveness of respiratory syncytial virus immunisation in practice

Effectiveness of the oral rotavirus vaccine ROTASIIL among children hospitalized with acute gastroenteritis in India

CVIA at upcoming events

ASTMH 2026 Annual Meeting
November 18 to 22
Maryland, USA

International Conference on Public Health in Africa
November 23 to 27
Addis Ababa, Ethiopia

Pan African Malaria Conference
April 26 to 30
Kigali, Rwanda

CVIA job opportunities

Global Head, Vaccine Chemistry, Manufacturing and Controls (CMC) (US, UK, Belgium, Switzerland, Kenya, Senegal or South Africa)

PATH's **Center for Vaccine Innovation and Access** brings together our expertise across every stage of the long and complex process of vaccine research, development, and delivery to make lifesaving vaccines widely available to children and communities across the world.

SUBSCRIBE

Immunization Matters provides updates on vaccine uptake and access.

Moving the Needle provides updates on vaccine development.

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