PATH

January 2026

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Moving the Needle

News from PATH on vaccine development

MenAfriVac wins prestigious biopharmaceutical innovation award

The Galien Foundation awarded the 2025 Prix Galien Bridges Award for Public Sector Innovation to MenAfriVac®—the groundbreaking vaccine that virtually eliminated serogroup A meningococcal meningitis from the African meningitis belt. This prestigious honor, described as the "Nobel Prize for biopharmaceutical innovation," recognizes scientific excellence that advances global health and extends access to lifesaving technologies. Historically, meningitis A caused huge, deadly annual epidemics; MenAfriVac was the solution. Developed, tested, licensed, and introduced as the result of the Meningitis Vaccine Project—a partnership between PATH and the World Health Organization (WHO)—and manufactured by Serum Institute of India Pvt. Ltd. (SIIPL), MenAfriVac changed the trajectory of meningococcal meningitis in Africa and paved the way for additional products that target all epidemic-causing disease strains.

For instance, PATH and SIIPL subsequently developed MenFive®, the world's first vaccine to protect against all five major meningococcal serogroups (A, C, W, Y, and X) and one with the potential to stop meningitis outbreaks in Africa for good. In addition, more vaccine options means better access, so PATH is working with EuBiologics Co. Ltd. to develop an additional affordable pentavalent meningococcal vaccine. A Phase 2/3 clinical study of that vaccine candidate began in September 2024 and results are expected in late 2026.

Phase 3 injectable rotavirus vaccine trial results to leave a lasting legacy

Since 2011, PATH and partners have worked on developing trivalent P2-VP8, an injectable rotavirus vaccine candidate. Final results from a pivotal Phase 3 efficacy study conducted in Ghana, Malawi, and Zambia that enrolled more than 3,000 healthy infants were recently published in *Vaccine*. The results show that while the trivalent P2-VP8 candidate was safe and well tolerated, it did not meet its primary efficacy endpoints. The data revealed that the vaccine candidate was inferior to a licensed, live oral rotavirus vaccine (LORV), ROTARIX®, in preventing severe rotavirus gastroenteritis.

Rotavirus continues to be a leading cause of severe diarrhea among children younger than five years old, particularly in low- and middle-income countries (LMICs). While several licensed LORVs are globally available and have significantly reduced illness and deaths due to rotavirus, their efficacy in high-burden settings has been suboptimal and additional tools are needed to close this gap. Although the trivalent P2-VP8 vaccine candidate was not efficacious, the project's lessons and legacy provide critical insights that will shape next-generation rotavirus vaccine research and strategies in the future.

New value profile published for malaria vaccines and monoclonal antibodies

A WHO-commissioned value profile, recently published in *Vaccine*, provides an in-depth look at the current state of malaria prevention and control tools and the value that the development of next-generation malaria vaccines and monoclonal antibodies (mAbs) can bring. PATH led its development with contributions from a range of malaria experts, and the manuscript provides a high-level, holistic assessment of existing information and data to inform the potential public health, economic, and societal value of malaria vaccines and prophylactic mAbs in the development pipeline. As next-generation vaccines and mAbs move rapidly from bench to bedside, this framework is designed to support decision-makers—from national malaria programs to manufacturers and global funders—in comparing product profiles, making product development and investment decisions, planning sustainable introduction strategies, and maximizing the contribution of both current and next-generation tools to malaria control and elimination efforts.

PATH landscapes potential technologies for non-infectious polio vaccines

A new report details results from a PATH project conducted to better understand the landscape of potential technologies for manufacturing next-generation injectable polio vaccines from non-infectious sources, specifically S19, mRNA, and virus-like particle platforms. Vaccines manufactured from non-infectious sources are important tools in the post-polio-eradication era given remaining risks of accidental poliovirus release into the environment. Results from the project provide in-depth information about the developability, acceptability, and market demand for such next-generation polio vaccines. Articulating the relative pros and cons of each platform can help to guide future investment decisions. Key outputs analyzed include: (1) the use case for future non-infectious polio vaccines; (2) development feasibility of the three potential non-infectious vaccine platforms; (3) the potential market and associated demand for a next-generation non-infectious polio vaccine; and (4) guidelines and environmental and community impacts related to disease containment.

New PATH partnership to optimize clinical studies in Africa

PATH is pleased to have established a partnership with the Africa Clinical Research Network (ACRN) aimed at strengthening the execution of clinical trials and supporting long-term research capacity across Africa. The collaboration brings together PATH's technical expertise in clinical trial design and implementation with ACRN's Africa-led coordination platform, which connects research sites, investigators, and national programs across the continent. The partnership will encompass strengthening trial design, co-developing tools and training resources that build local capacity, mentorship programs for emerging researchers, and exploring new models and strategies to ensure rural and underserved communities are meaningfully included in product evaluations.

INTERVIEW

Q & A with Manjari Quintanar-Solares

A human hookworm vaccine candidate is under development, and a new study to assess its use case suggests that a combined hookworm and malaria vaccine may be preferred in

endemic countries. Dr. Manjari Quintanar-Solares, Senior Program Officer on PATH's Medical Devices and Health Technologies team, discusses the findings.

Q: Can you share more about the study?

A: Hookworm is a parasitic worm that causes serious health consequences, particularly for young children and pregnant people in LMICs. Texas Children's Hospital Center for Vaccine Development at Baylor College of Medicine, which is working with partners on advancing a promising human hookworm vaccine candidate, funded PATH to conduct a study to better understand stakeholder perspectives in the Democratic Republic of Congo, Ghana, Malawi, and Uganda on potential use cases for a human hookworm vaccine and to explore the idea of a hookworm/malaria combination vaccine.

Q: What's the connection between hookworm and malaria?

A: Hookworm and malaria are the leading parasitic causes of anemia. While infections with these two parasites cause anemia in different ways, coinfections are common in many endemic areas, and the overall impact on anemia can be additive.

Q: What's the connection between hookworm and malaria?

A: Almost all the stakeholders we interviewed perceived a hookworm/malaria combination vaccine as highly valuable. They cited a range of potential benefits, such as better value for money, expanded coverage opportunities through the existing malaria vaccination platform, and fewer injections leading to increased acceptability. Future vaccine development efforts could consider this approach to deliver broader protection against both diseases and offer an efficient, effective, and affordable way to improve health in affected LMIC communities.

CLINICAL UPDATES

November 2025

- A Phase 2 trial (NCT06895486) evaluating the safety and immunogenicity of monovalent novel oral polio vaccines for poliovirus serotypes 1 and 2 (nOPV1 and nOPV2) when co-administered together in comparison to when administered alone began enrollment of infants in Panama. The purpose of this study is to determine if these nOPVs can be administered simultaneously without negatively impacting immune

responses to one or both types, which would inform their potential for use in campaign settings to address remaining type 1 wild poliovirus and types 1 and 2 vaccine-derived polio outbreaks.

RESOURCES AND OPPORTUNITIES

New and updated resources

Building local manufacturing capacity to strengthen the global vaccine supply fact sheet

Country decision-making about malaria vaccine introduction brief

Country implementation of malaria vaccines brief

Cost of delivery estimates for new maternal vaccines in Bangladesh, Ghana, Kenya, Mozambique, and Nepal: Articles and fact sheets

Expanding access to malaria vaccines in Africa web article

The future looks bright for malaria prevention web article

GBS vaccine snapshot

Helping caregivers stay on track to protect children from malaria web article

How we shape the global vaccine marketplace fact sheet

International Meeting on Quality Control Assays for Polio Vaccines: A Summary Report

One step closer to protection: Setting the stage for maternal RSV vaccine introduction web article

On the verge of RSV disease prevention: A communications toolkit

Polio anywhere is a threat everywhere web article

Reaching out-of-school girls with HPV vaccination web article

RSV clinical trial tracker

RSV vaccine and mAb snapshot

Simplifying the vaccine cost equation web article

Strengthening the global vaccine supply program page

CVIA at upcoming events

RSVVW
February 17 to 20
Rome, Italy

International Symposium on *Streptococcus agalactiae* Disease (ISSAD)
February 23 to 25
Nairobi, Kenya

Vaccine Innovation Forum World 2026
March 11 to 14
Shanghai, China

International Maternal and Newborn Health Conference
March 23 to 26
Nairobi, Kenya

14th International Conference on Typhoid and Other Invasive Salmonelloses
March 24 to 26
Phnom Penh, Cambodia

World Vaccine Congress
March 31 to April 2
Washington, DC

New scientific publications

An impact and cost-effectiveness analysis of rotavirus vaccine introduction in Egypt

Comparative technical and operational assessment of current and emerging bench-scale lipid nanoparticle platforms for production of mRNA vaccines

Comparison of major, minor and junctional circumsporozoite protein epitopes for malaria vaccine design

Development of MenFive®, an affordable pentavalent meningococcal conjugate vaccine (ACYWX) for Africa and beyond

Estimating the value of combination vaccines: A methodological framework

Maternal vaccine delivery costs in South Asian settings: Estimates from Bangladesh and Nepal

Nasopharyngeal pneumococcal carriage in Indian children following 10-valent PCV (PNEUMOSIL®) introduction through India's universal immunization program: A post licensure cross-sectional study

Recommendations to mitigate barriers to uptake and delivery of a four-dose malaria vaccine schedule: insights from the MVIP's qualitative evidence

Report of a one-day convening on regulatory science, practices, and innovative approaches to facilitate approval of novel combination vaccines

Safety, immunogenicity, and relative efficacy of a parenteral trivalent rotavirus subunit vaccine candidate (TV P2-VP8) in healthy Ghanaian, Malawian, and Zambian infants

Value profile for malaria vaccines and monoclonal antibodies

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

Moving the Needle provides updates on vaccine development.

Immunization Matters provides updates on vaccine uptake and access.

Banner photo: PATH/Patrick McKern

Connect with PATH

PATH
437 N 34th Street
Seattle, WA 98103
206.285.3500
path.org | info@path.org