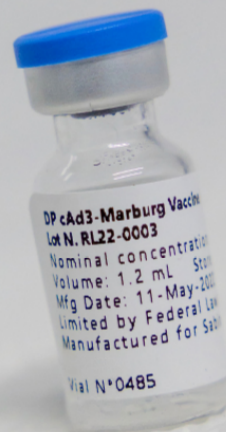




IMPACT REPORT

20 24



From Vaccines to Vaccinations

Sabin works to ensure communities receive the maximum benefit vaccines can deliver. We develop vaccines that tackle some of the world's most lethal outbreak diseases. We support research on vaccine acceptance, demand, and delivery barriers. We foster peer-to-peer collaboration to boost vaccinations, and we apply epidemiology to maximize vaccine rollout effectiveness. In short, we work to prevent needless human suffering.

Amy Finan

Chief Executive Officer
Sabin Vaccine Institute





2024

Contents

- 4** Impact Highlights
- 5** Powering Research & Development
- 6** Timeline: From Rwanda Marburg Outbreak Declaration to Vaccination
- 8** Partnering to Move Vaccines to Vaccinations
- 9** Local Partners, Global Impact
- 15** Project Spotlight: SEAP
- 16** Recognizing Vaccine Excellence
- 18** Priority Disease Areas in 2024
- 19** Getting to Zero
- 20** Vaccines 101
- 21** Staff and Board
- 23** Financials

2024

AT A GLANCE



PROGRESS IN RESEARCH & DEVELOPMENT



2

VACCINES

under development
for Marburg and
Sudan viruses

250

PARTICIPANTS

enrolled in Marburg and Sudan
virus vaccine Phase 2 clinical trials in
Uganda and Kenya



1,710

HEALTH WORKERS

and others enrolled in a **Phase 2 open-label clinical trial** for Marburg vaccine during
Rwanda outbreak. Vaccines were administered
10 days after outbreak declaration

& GROWTH IN GLOBAL IMMUNIZATION



5,036

IMMUNIZATION PROFESSIONALS

from **158 countries** in
Boost Community

170+

COUNTRIES

covered by Global HPV
Consortium partners
working in HPV prevention
and cervical cancer
elimination



78

LEARNING OPPORTUNITIES

including webinars, courses,
community of practice
convenings, and focus groups

4,678

PATIENTS SCREENED

over **10 years** in Bangladesh and
Nepal to investigate the impact of
typhoid and paratyphoid in the region

Powering *Research & Development*

Sabin's Research & Development team achieved international recognition for breaking new ground in 2024. From an expeditious disease outbreak response to starting simultaneous Phase 2 clinical trials for the Marburg and Sudan virus vaccines to welcoming the first-ever President of R&D, many of Sabin's long-term R&D plans were realized.

Sabin's rapid delivery of investigational vaccines during Rwanda's Marburg outbreak in September led to vaccines in arms a mere 10 days after receiving a call for support from the President of Rwanda. Sabin delivered [2,700 investigational Marburg vaccine doses](#) for use in a clinical trial sponsored by the [Rwanda Biomedical Centre \(RBC\)](#). The vaccines were delivered quickly thanks to readiness from ongoing Phase 2 clinical trials already underway and the support of partners such as the [Coalition for Epidemic Preparedness Innovation](#) (CEPI), [IQVIA](#), and [Reithera](#).

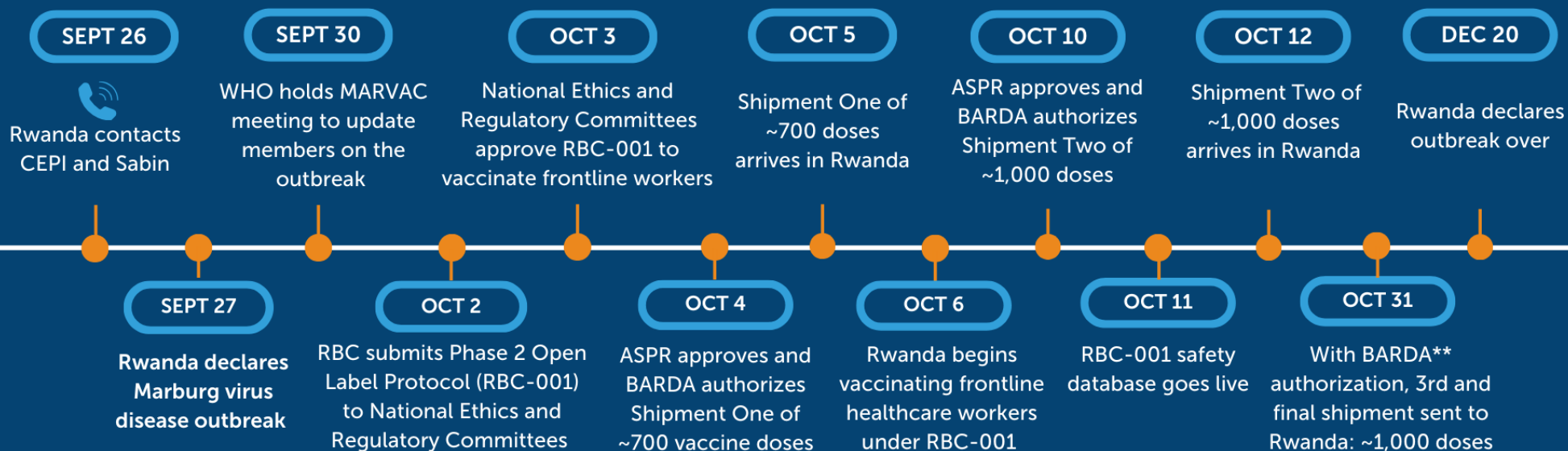
Development of Sabin's investigational single-dose vaccines against both Marburg virus disease and highly lethal Sudan virus disease — one of six known strains of ebolavirus — culminated with Phase 2 trials in 2024, at Uganda's [Makerere University Walter Reed Program](#) (MUWRP) and also at the [Kenya Medical Research Institute](#) (KEMRI) research facility in Kenya.

READ MORE



RAPID RESPONSE IN RWANDA

From Marburg Outbreak Declaration to Vaccination



How much faster was the response compared to the 2022 Sudan ebolavirus outbreak in Uganda?

VACCINE CANDIDATE SELECTION:

66 days
faster

PROTOCOL SUBMISSION:

8 days
faster

FIRST VACCINE SHIPMENT:

70 days
faster

CEPI - Coalition for Epidemic Preparedness Innovations
MARVAC - Marburg Virus Vaccine Consortium
RBC - Rwanda Biomedical Centre
BARDA - Biomedical Advanced Research and Development Authority
ASPR - Administration for Strategic Preparedness and Response

Moving Forward

with R&D President Kelly Warfield

[Kelly Warfield](#), PhD, joined in August 2024 as Sabin's first-ever President of Research & Development.

What led you to focus on vaccine R&D?

In my more than 20 years as a scientist, I have worked on a diverse range of products for prevention and treatment of diseases. However, my true passion lies in vaccine development. After safe drinking water, vaccination is the most impactful public health intervention, having saved hundreds of millions of lives over the years. That knowledge motivates me each day.

What are some of the key achievements in your career?

I'm particularly proud of milestones where our work directly impacted patient care, such as facilitating the transition of opioid overdose treatment NARCAN® to over-the-counter status, securing licensure from the Food and Drug Administration (FDA) for the CYFENDUST™ anthrax vaccine, and advancing a chikungunya virus-like particle vaccine through Phase 3 clinical trials.

As the inaugural R&D president at Sabin, what are your primary goals and vision for the future?

My primary goals include advancing our Marburg and Sudan vaccines to licensure and collaborating with the U.S. government and other partners. I also plan to work with our R&D team, executive leadership, and Board of Trustees to develop a strategic roadmap for the Sabin R&D division. Identifying critical unmet medical needs along with affordable and effective technologies, and new development partners will be important next steps as we grow our global health impact in the coming years.

[READ MORE](#)



Partnering to Move *Vaccines into Vaccinations*



In 2024, Sabin's Global Immunization team partnered with local and national governments, as well as academic, global, and philanthropic partners, to put communities at the heart of solutions that tackle urgent vaccination challenges. Many initiatives featured a renewed focus on routine immunization to address falling coverage.

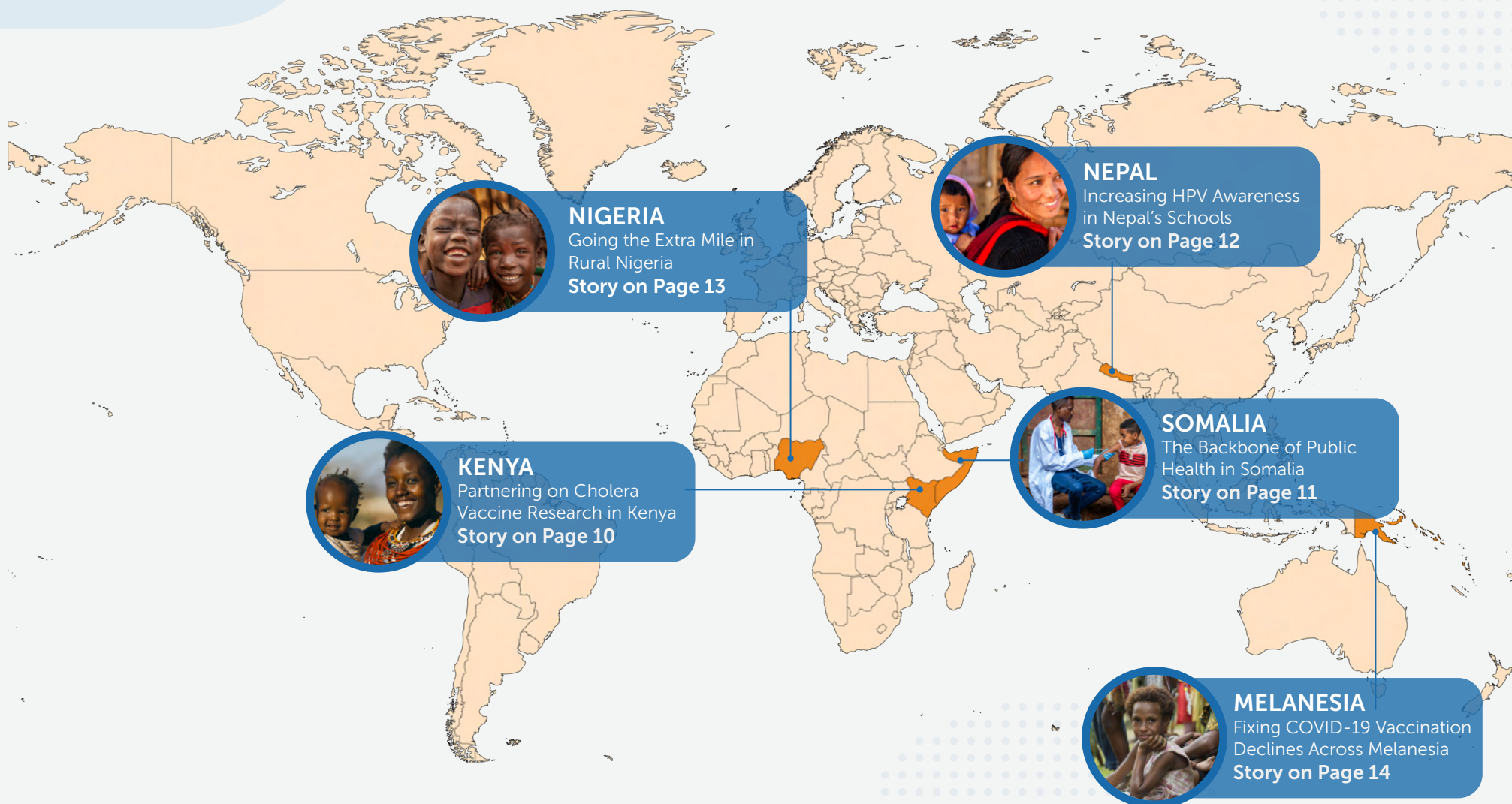
Sabin staff brought expertise across the immunization spectrum, including building global communities of practice, improving vaccine access and delivery, and conducting epidemiological research to support immunization. In 2024, Sabin's skills were applied to multiple infectious diseases, including human papillomavirus (HPV), typhoid, cholera, rotavirus, COVID-19, and malaria.

- **Sabin's Global Immunization networks** grew to more than **6,000+** immunization professionals, researchers, and partners from **158 countries**.
- **Sabin's Boost Community** partnered with the World Health Organization to complete the second [COVID-19 Recovery for Routine Immunization Programs Fellowship](#).
- **60 fellowship projects** received grants to jump-start immunizations impacted by the pandemic. In addition, of the nearly 1,500 Boost members who visited the Boost Community platform in 2024, **70%** engaged with a program offering or learning opportunity.
- In 2024, the number of partners in the **Global HPV Consortium** rose **163%** since the Consortium's launch the year before. The Consortium debuted [a three-year action plan](#), sponsored the start of a regional Latin American consortium, and signed a memorandum of understanding with the [Organization of African First Ladies for Development \(OAFLAD\)](#).
- **Sabin's Social and Behavior Research Group** added a [fifth cohort](#) of researchers focused on addressing the challenges in countries with some of the highest proportion of zero-dose children: Cameroon, the Democratic Republic of Congo (DRC), Ethiopia, Indonesia, Nigeria, Pakistan, and the Philippines.
- **The Applied Epidemiology team** completed its [five-year immunogenicity and durability study](#) of the Typbar typhoid conjugate vaccine in Pakistan. Findings showed 95.8% of participants had detectable antibodies to typhoid in their blood after vaccination with a single dose, with 75.6% of participants maintaining protective antibody levels four years post-vaccination. These findings led to the inclusion of the vaccine into Pakistan's immunization schedule.
- **Applied Epi** partnered with the health ministry in Brazil to conduct a case-control study to assess the effectiveness of a dengue vaccine in preventing confirmed dengue cases across specific age groups in five Brazil municipalities. In addition, the team published a Phase 4 trial funded by the Coalition for Epidemic Preparedness Innovations (CEPI) assessing the immune response and safety of fractional COVID-19 booster doses in Pakistan and Brazil.



Local Partners, *Global Impact*

Our work reflects the dedication of our collaborators on the ground.
Featured on these pages are a few of those stories.



NIGERIA

Going the Extra Mile in
Rural Nigeria
Story on Page 13



NEPAL

Increasing HPV Awareness
in Nepal's Schools
Story on Page 12



KENYA

Partnering on Cholera
Vaccine Research in Kenya
Story on Page 10



SOMALIA

The Backbone of Public
Health in Somalia
Story on Page 11



MELANESIA

Fixing COVID-19 Vaccination
Declines Across Melanesia
Story on Page 14



AMPLIFYING VOICES FROM THE FIELD

📍 Kenya



Cholera poses a significant threat to public health throughout the world, with reported cases rising 5% and deaths by 50% in 2024 compared to 2023. In 2024, the Sabin Vaccine Institute launched a new research project, funded by the Wellcome Trust, to optimize the use of cholera vaccine for enhanced impact in Kenya. In response to a global cholera resurgence and vaccine shortages, the team will conduct a randomized controlled trial of vaccine dosing intervals as well as several observational studies to accompany a planned preventive cholera vaccine campaign.

The randomized trial will assess how the time between the two doses of oral cholera vaccine (OCV) impacts the immune response. The observational studies will describe the impact of the government's preventive campaign, including direct and indirect protection. Findings will inform vaccination strategies, including campaigns to prevent and control cholera, optimize the use of OCV, and enhance cholera control efforts.

The project is a collaboration with the Kenya Medical Research Institute, Washington State University, and Massachusetts General Hospital.

Partnering on Cholera Vaccine Research in Kenya

[READ MORE](#)

What excites us most about this study is its potential to increase our understanding of the oral cholera vaccine and its deployment strategies, ultimately saving lives.

- **Dr. Denise Garrett**
Vice President, Applied Epidemiology
Sabin Vaccine Institute



AMPLIFYING VOICES FROM THE FIELD

📍 Somalia



The Backbone of Public Health in Somalia

READ MORE

Khaliif Abdullahi Nouh says he chose to become an immunization specialist with the Federal Ministry of Health in Somalia because “immunization is the backbone of public health.”

Ongoing conflict and climate crisis in Somalia had led to mass internal displacement and resulted in 1.5 million zero-dose children – meaning they have not received a single dose of DPT (diphtheria, pertussis, and tetanus).

With a grant from the [COVID-19 Recovery for Routine Immunization Programs Fellowship](#) offered by the Sabin Vaccine Institute and the [World Health Organization](#), Nouh aimed to vaccinate 700 zero-dose children in Garowe City, the capital of Puntland state in northeastern Somalia. In just four months, he and his team reached 1,743 zero-dose children with the pentavalent vaccine (which immunizes against five diseases: diphtheria, pertussis, tetanus, hepatitis B, and Hib.) and provided 3,890 second and third doses of pentavalent vaccine and 2,000 children with their first or second polio vaccine dose, plus another 1,600 with measles vaccine.

Whatever you are doing with immunization will have a result and a benefit for the community.

- Khaliif Abdullahi Nouh
Immunization Specialist,
Federal Ministry of Health in Somalia



AMPLIFYING VOICES FROM THE FIELD

Nepal



In preparation for a Human Papillomavirus (HPV) vaccination campaign in Nepal, where an estimated four women die of cervical cancer every day, Dr. Alisha Manandhar was getting ready.

As Provincial Project Coordinator for strengthening competency and quality improvement for maternal and newborn care in hospitals at the Simulation Society of Nepal, Manandhar knows information is key to acceptance and uptake of the vaccine.

She earned a 2023-2024 [COVID-19 Recovery for Routine Immunization Programs Fellowship](#) offered by the Sabin Vaccine Institute and the [World Health Organization](#) to develop an educational program for students, teachers, and parents that combined information about the HPV vaccine with information about preventing other non-communicable diseases.

Dr. Manandhar took her presentation to students and teachers in schools. Initial presentations of the material she created as part of the fellowship led to 87% of all students and 93.7% of teachers showing interest in and understanding of HPV vaccines in post-presentation tests.

Increasing HPV Awareness in Nepal's Schools

[READ MORE](#)

“An HPV vaccination project must include education and outreach components to bridge knowledge gaps and promote vaccine uptake.”

– **Dr. Alisha Manandhar**
Provincial Project Coordinator,
Simulation Society of Nepal



AMPLIFYING VOICES FROM THE FIELD

📍 Nigeria



Going the Extra Mile in Rural Nigeria

READ MORE

For more than three decades as a midwife, nurse, and then district coordinator for the Expanded Program on Immunization for the Nigerian Primary Health Care Development Agency in the Ministry of Health, Alawiyatu Usman Ibrahim spent a great deal of time traveling throughout her native Bauchi state. She knew how to address issues and barriers to turn vaccines into vaccinations.

So, when the COVID-19 pandemic hit the west African nation, she also knew that the resulting shortage of recorded births in the state had to be incorrect.

A Sabin Boost Community member since 2021, Ibrahim developed a system to find the infants who had been missed — and discover which vaccinations they needed.

Over two months, she and her team logged miles via car, motorbike, and on foot to find and vaccinate 300 children in two of the wards she managed. She established a reconciliation system that is now being used to find children in the other wards of the 96 settlements she oversees.

Shortly afterward, Ibrahim received an award from Bauchi state for 35 years of active service in the State Primary Health Care Development Agency (Ministry of Health).

“Normally we use existing structures on the ground, but this required expansion, and we can’t afford to expand. The fellowship allows us to set up the groundwork for this project.”

– **Alawiyatu Usman Ibrahim**
District Coordinator, Nigerian Primary
Health Care Development Agency,
Ministry of Health



AMPLIFYING VOICES FROM THE FIELD

 **Melanesia**



Burnet Institute, University of Sydney, and Papua New Guinea Institute of Medical Research received a Social and Behavioral Research Grant from Sabin and UNICEF to explore the post-COVID decline in vaccine rate in Solomon Islands, Vanuatu, and Papua New Guinea.

Working alongside local research teams and ministries of health, the project used WHO's Behavioral and Social Drivers of Vaccination (BeSD) tools — surveys and interviews — to uncover practical ways to reach under-immunized and zero-dose children.

Key recommendations included:

- Offering incentives and covering transport costs to encourage participation
- Allowing more time for data collection
- Planning research during the dry season for better access
- Supporting teams to travel directly to remote, hard-to-reach communities

These findings point to actionable strategies for strengthening vaccine delivery and ensuring no child is left behind.

Fixing post COVID-19 Vaccination Declines Across Melanesia

[READ MORE](#)

“Our research will identify barriers to routine immunizations... which can inform and encourage the development of appropriate programs and interventions, and reduce incidence of vaccine-preventable disease. Results from this project will also identify wider vaccination policy and programming applications across the Indo-Pacific region.”

– Burnet Institute Team

Project Spotlight

Surveillance of Enteric Fever in Asia Project (SEAP)

Over the past decade, Sabin's Surveillance of Enteric Fever in Asia Project (SEAP) has made remarkable strides in understanding typhoid and paratyphoid, diseases that pose a critical public health threat for many regions. In 2024, SEAP concluded its impactful journey, marking a pivotal milestone for the Sabin Vaccine Institute and its partners.

Beyond collecting critical data to guide future efforts against typhoid and paratyphoid, SEAP delivered lasting improvements to the communities in which it took place.

Health professionals in Bangladesh, Pakistan, and Nepal continue to benefit from institutional upgrades like increased lab capacity and automated blood culture systems, as well as individual impacts such as expanded career opportunities, strengthened manuscript-writing and research skills, and continued collaboration with global peers.

[READ MORE](#)



2024 Albert B. Sabin Gold Medal Recipients

The Gold Medal is Sabin's highest scientific honor and has been awarded since 1994 to distinguished members of the global health community for making exceptional contributions to vaccinology or a complementary field.

Keith Klugman and Shabir Madhi

Drs. Klugman and Madhi have held key roles in the clinical development of vaccines against pneumonia, neonatal sepsis, and diarrheal disease — the major causes of death in children living in low- and middle-income countries (LMICs). Individually, they have accomplished significant milestones in the field of vaccinology and infectious disease research. Together, they worked to demonstrate the efficacy of vaccines to protect children and pregnant women in LMICs.

[READ MORE](#)

What vaccines are about — and have always been about — is saving lives and reducing suffering.

- Shabir Mahdi



It is extremely important that we continue to advocate as widely as we can to decision-makers to emphasize the importance of vaccination to save lives.

- Keith Klugman



2024 Sabin Rising Star *Recipient*

Sabin's Rising Star was established in 2020 to recognize and highlight the work of emerging vaccine leaders.

Nicole Basta

Prof. Basta is an associate professor at McGill University and Canada Research Chair in Infectious Disease Prevention. She has led numerous studies to evaluate the impact of vaccines and vaccination programs for a number of globally challenging viral and bacterial diseases, including COVID-19, meningococcal disease, influenza, and HPV.

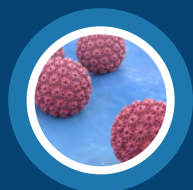
[READ MORE](#)

“The more evidence we have to help people understand the decisions they can make in their daily life to protect themselves from the threat of infectious diseases, the better it is for families and communities in general.

- Nicole Basta

2024

Priority Disease Areas



HUMAN PAPILLOMAVIRUS: We are working across multiple fronts to prevent human papillomavirus and eliminate cervical cancer. We established the Global HPV Consortium in 2023, a public-private partnership to mobilize action across three pillars — vaccinations, screening, and treatment — and reduce incidence and deaths from cervical cancer. HPV is responsible for an estimated 95% of all cervical cancers. More than 340,000 women, many in their prime, succumb to the disease each year.



CHOLERA: In 2024, we partnered with the Kenya Medical Research Institute (KEMRI) to optimize the use of the oral cholera vaccine. There has been a steady increase in cholera cases in recent years, with countries experiencing concurrent outbreaks, marking the disease as a priority area.



MARBURG VIRUS: Sabin is advancing its cAd3-Marburg Vaccine — now in Phase 2 clinical trials — for the deadly Marburg virus disease (MVD). MVD is fatal in up to 88% of cases. No licensed vaccine for the disease exists. Sabin is an active member of WHO's MARVAC, a group of experts from industry, government, non-profit organizations, and academia dedicated to the rapid development of Marburg vaccines.



SUDAN VIRUS: Sabin's cAd3-Sudan Vaccine candidate for Sudan virus disease — one of six known strains of ebolavirus — is in Phase 2 clinical trials. The virus is lethal, killing, on average, one out of every two people infected. No licensed vaccine for the disease exists.



TYPHOID: We are collaborating with local researchers in high-risk communities to gather and analyze data on disease spread and the impact of new vaccines being rolled out in countries.

We **FOCUS** on vaccines for **DISEASES** that place a heavier burden on the **HEALTH** of individuals and communities in low- and middle-income countries.

A Full Season of *"Getting to Zero"*

FIRST SEASON OF WEB SERIES

about how to get to zero preventable deaths

CONVERSATIONS WITH GLOBAL HEALTH LEADERS

Including:

- Helen Clarke, former prime minister of New Zealand
- Dr. Ngozi Okonjo-Iweala of the World Trade Organization
- Dr. Jarbas Barbosa, director general of PAHO
- Dr. Matshidiso Moeti, director of WHO AFRO

TOPICS COVERED

cervical cancer

HPV

HIV

rural medicine

vaccine distribution

preventable diseases

10

EPISODES

6,470

VIEWS



***We can get
to zero...***

– Dr. Ephrem Lemango, UNICEF

Vaccines 101:

Sharing Knowledge About Vaccines

They save a life every six minutes.

2024 marked the 50th anniversary of the World Health Organization's Expanded Program on Immunization, commonly referred to as EPI, which established international immunization programs against 14 pathogens to save lives by preventing disease. The WHO celebrated the 154 million lives estimated to have been saved by EPI over half a century.

We launched a series of vaccine explainers to help tell the story of how people have been protected from preventable diseases.



Vaccines 101: Their History, How They Work, and Their Impact

[READ MORE](#)



Understanding Vaccine Types and How They Protect Against Disease

[READ MORE](#)



How Vaccines Protect You and Your Loved Ones

[READ MORE](#)



All About Different Vaccine Delivery Methods

[READ MORE](#)



How Vaccines Are Made Safe and Effective

[READ MORE](#)

2024 Staff and Board

EXECUTIVE STAFF

Amy Finan

Chief Executive Officer

Anuradha Gupta

President, Global Immunization

Kiju deLeon, CPA

Chief Financial Officer

Kelly Warfield, PhD

President, Research & Development

BOARD OF TRUSTEES

Regina Rabinovich, MD, MPH

Chair

Executive Committee Chair

Governance Committee Chair

**Richard A. Adegbola, PhD,
FIMLS, FRCPPath, FRCP (Hon),
FAS**

Norman Baylor, PhD

Vice Chair

Yacine Djibo, MBA

Filip Dubovsky, MD, MPH

Amy Finan

Chief Executive Officer

Elizabeth Fox, PhD

Axel Hoos, MD, PhD

Orin Levine, PhD

Jeffrey P. Libson, JD

Secretary

**David Salisbury, CB,
FMedSci, FRCP, FRCPC, FFPH**

Global Immunization Chair

Jacqueline Shea, PhD

Treasurer

Audit & Finance Committee Chair

JoAnn Suzich, PhD

R&D Committee Chair

Nadia Tornieporth, MD



New Trustees

As Sabin's programs continue to grow and deliver impact, three new members joined the Board of Trustees in 2024. [Filip Dubovsky](#), [Orin Levine](#), and [Nadia Tornieporth](#) joined [Regina Rabinovich](#), Chair of Sabin's Board of Trustees, Sabin CEO [Amy Finan](#), and [nine other members on Sabin's Board of Trustees](#).



FILIP DUBOVSKY

Dubovsky returns to Sabin's Board, having briefly served before joining R&D efforts to develop COVID-19 vaccines. He has more than 20 years of experience in vaccine development, with leadership roles at Novavax, AstraZeneca, and PATH's Malaria Vaccine Initiative.

[READ MORE](#)

ORIN LEVINE

With over 30 years of experience in global health and vaccines, Levine brings expertise in strategic planning, coalition-building, and policy advocacy. He has been a key ally in Sabin's work, particularly while working with the Bill and Melinda Gates Foundation.

[READ MORE](#)



NADIA TORNIEPORTH

Tornieporth, a seasoned leader in global health and vaccine development, has contributed to the licensure of more than 20 vaccines during her career with Sanofi Pasteur and GlaxoSmithKline. Her advisory work with organizations like CEPI, USAID, and the World Health Organization will further strengthen Sabin's R&D initiatives.

[READ MORE](#)

Financials

How We Used Our Funds in 2024

● **89%**

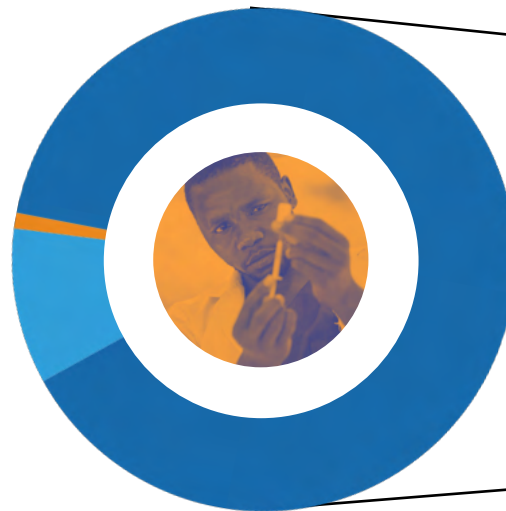
\$35,836,000
on programs

● **10%**

\$4,040,000
on organizational
management &
administration

● **1%**

\$565,000
on resource
development &
fundraising to
support future
growth



Program Expenditures in 2024

● **79%**

\$28,454,000
on vaccine research
& development

● **21%**

\$7,382,000
on global
immunization



Partnering *For Impact*

I have worked with Sabin's Boost Community since the beginning in 2020 and have been really impressed with the team's ability to engage members where they are. They are so good at listening to the immunization professionals on the ground and understanding their greatest challenges and the areas that are most important to them, and then finding a way to link that with those working at the global level. There are many organizations that think about how to send guidance to the service delivery level, but not a lot that think about how to listen to what is happening at the subnational level and ensure that information comes back to the global level. The team is collaborative, working well with a variety of stakeholders, and that collaborative spirit is not only refreshing and valuable, but it has an impact. Their microgrant model is unique and exciting in its ability to support change through local immunization staff.

– **Tove Ryman, PhD, MPH**

Senior Program Officer, Immunization PST
Global Development, Gates Foundation

DONATE





2000 Pennsylvania Ave, NW, Suite 7000
Washington, DC 20006

+1 202 842 5025

info@sabin.org

www.sabin.org

