

What it takes to protect the world's kids

Ask Dr. George Armah about his most cherished goal and the answer is simple: He wants to ease the burden on African parents who travel miles by foot or bicycle to seek treatment for children with severe diarrhea.

"Imagine," George says. "The mother is carrying a small baby who has been struck by diarrhea and dehydration. She has the hard choice of leaving her other children alone or staying home and praying that the child recovers.

"She's literally looking at her child dying in her palms."

This year George is celebrating a milestone that will bring him closer to his goal: the launch of a vaccine in Africa against the most deadly form of diarrhea.

Through the microscope

When George began his research on diarrheal disease 25 years ago, most of his colleagues in Ghana believed that all diarrhea was caused by bacteria. Using an electron microscope, George demonstrated that a virus (called rotavirus) was behind the most severe cases—and a virus, he knew, could be stopped with a vaccine.

Others knew it too, and they began work on developing vaccines. By 2006, two rotavirus vaccines had been approved for use, though developing



Dedicated health workers transport vaccines across Sudan's mountains and deserts—and the Nile River—to protect children from deadly diseases.

countries feared they wouldn't see them soon. It can take 15 to 20 years for new vaccines to be rolled out in poor countries after being introduced in wealthy countries.

PATH/Mike Wong



"The vaccines will have a huge impact in reducing the suffering of children and their parents."

— DR. GEORGE ARMAH

But at PATH, we believe that children everywhere should have access to safe, effective, and affordable vaccines as quickly as possible. We work in partnership with developing-

country governments, as well as with organizations such as the World Health Organization, the US Centers for Disease Control and Prevention, and the GAVI Alliance, to speed up rotavirus introduction.

In 2006, when rotavirus vaccines reached the industrialized world, we helped Nicaragua make history by launching a rotavirus vaccine the same year. Today, the diarrhea wards of Nicaragua's hospitals are almost empty. George wants to achieve the same results in Africa.

Something to celebrate

To prove that rotavirus vaccines could be just as effective in Africa, George and his colleagues conducted clinical trials in infants in Ghana, Kenya, and Mali, with support from PATH. "Infants who received the vaccine

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had a 64 percent reduced incidence of severe diarrhea in the first, most dangerous year of their lives,” George says. “The vaccines will have a huge impact in reducing the suffering of children and their parents.”

Now George—and parents across Africa—have something to celebrate. In June, the manufacturers of both rotavirus vaccines committed to steep price cuts for the world’s poorest countries, making the vaccines affordable to the GAVI Alliance’s vaccine distribution program. In July, children across Sudan were the first Africans to be vaccinated against the disease with GAVI support. Soon, this lifeline will be extended to children across the continent.

“Losing a child is an agony for a mother,” says George. “I’m very much looking forward to the vaccine being introduced across Africa.” ●

NO CHILD NEEDS TO DIE OF DIARRHEA—not when so many cases can be prevented or treated with simple measures. Yet, remarkably, about 1.3 million children still do each year.

You’re helping us explore new ways to ensure that vulnerable children get the protection they deserve. With your support, in Kenya, we’re **creating oral rehydration therapy corners where mothers can access lifesaving treatment for their children** while being educated on how to prevent diarrheal disease. In Cambodia, we’re **building the capacity of health workers and village volunteers to prevent and treat diarrhea and pneumonia**, simultaneously tackling the two biggest threats to child health.

To read more about our approach to diarrheal disease control, visit www.path.org/diarrheal-disease.php. Thank you for making it possible for us to pursue wide-ranging and innovative solutions for health!



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Going mobile: phones transform low-resource health care

In a mud hut in Tanzania, a community health worker turns on his cell phone. With the help of the newest in health technology, he’s about to make an important “call.” Could his patient with a chronic cough have tuberculosis?

Mobile devices—inexpensive, portable, and easy to use—are spreading rapidly throughout the developing world. In some places, mobile phone networks even surpass electricity and roads. With your help, PATH is piloting “mHealth” (for mobile health) solutions that improve care, enhance diagnosis, educate patients, and enable real-time transmission of critical health data.

mDiagnosis in Tanzania

Tuberculosis is curable with the right drugs, but in Tanzania, it’s often deadly. There just aren’t enough trained health workers who can reliably diagnose the disease, especially in places far from centralized health care. And without diagnosis, there is no treatment.

A mobile phone application developed by PATH makes it possible for minimally trained health workers to identify suspected cases of tuberculosis during household visits and then encourage testing and treatment. This can mean a cure for one person and prevention for many others who could be exposed to the highly contagious disease.

mEducation in India

In rural Rajasthan, India, PATH is concerned about the high rates of maternal and infant mortality. During a visit to a new mom whose baby was having trouble nursing, PATH staff saw a midwife demonstrate incorrect attachment techniques. So they devised a solution with help from the University of Washington’s Department of Computer Science.

Now midwives in Rajasthan can pull out a “Mobile Midwife” phone, which walks them through the steps



Courtesy of University of Washington

of a postnatal visit, records patients’ vital signs, and offers guidance when complications develop. In dark huts, educational videos light up phone screens, teaching new mothers—and midwives—the best techniques to help newborns thrive.

Projects like these may eventually bring health within reach for people in some of the most remote corners of the world. ●

Yearly reports available online

As most of you know, individuals play a special role at PATH, providing the flexible support that launches many of our most innovative programs. To see exactly how your gifts are used, check out PATH's 2010 annual report (available online at www.path.org/annual-report/2010/) and updated information on the use of innovation funding (www.path.org/donate/innovation-projects.php). From improving the survival of HIV-positive infants to preventing pneumonia, it's clear—your support sets highly effective programs in motion. Thank you for everything you do to make our work possible!



Look for the innovation funding icon in our annual report to see the impact of your donations.

The results are in!

The massive immunization campaign against epidemic meningitis held last December was a resounding success. Thanks to the vaccination of nearly 20 million people, the hospital wards in three West African countries were

empty of meningitis A cases this spring. Burkina Faso, Mali, and Niger recorded only eight cases total when typically there are thousands.

Planning is now under way for a new round of immunization campaigns in three more countries this fall. The widespread introduction of the new MenAfriVac™ vaccine in

sub-Saharan Africa could prevent more than 1 million cases of the disease over the next ten years. Visit PATH's website at www.path.org to read more and share the excitement through our new video, *World Without Meningitis*.

PATH/Gabe Bienczycki



Give through work, increase your impact

Americans donate more than \$4 billion to charity each year through workplace giving campaigns. That's a lot of impact—and one of the easiest ways to give. You choose how much and how often to give, and the donation is made directly through payroll. Many employers will even match your gift, increasing your impact even more.

Last year, we were able to put an extra \$70,000 toward our work, thanks entirely to people like you who asked their employers to match their gifts! Contact your human resources department for more information, or visit www.path.org/donate/.

Planning for the future

What legacy will you leave for future generations? We invite you to join PATH Futures, a circle of individuals making a long-term commitment to a world where health is within reach for all. By making a bequest to PATH, you'll help sustain our work into the future—and create a legacy of health for families around the world. Find out more at www.path.org or call Jan Jacobs, director of Donor Relations, at jajacobs@path.org or 206.302.4565.

PATH'S MISSION

*is to improve
the health of people
around the world by
advancing technologies,
strengthening systems,
and encouraging
healthy behaviors.*

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Contact us

For information about upcoming events, contact events@path.org.

For questions about giving opportunities or other feedback, contact Catherine Endicott, Donor Relations officer, at cendicott@path.org or 206.302.4564.

Changing her own life and the lives of others

Ann Hayes understands the value of hope. A physician and clinical researcher, Ann's life changed in 1984, when she volunteered as a pediatrician in Uganda. There, she became aware of how simple solutions—not necessarily the most expensive or complex tools—

Courtesy of Ann Hayes



"You can make such a huge difference in a person's life," says physician, researcher, and PATH supporter Ann Hayes.

can profoundly affect the life of a child, a mother, a family.

In 1994, Ann moved to Seattle and started work with the biopharmaceutical company Immunex. Through her friends in the scientific community, she began to hear about a nonprofit called PATH.

"I got interested in how PATH was working in health technologies," explains Ann, who is a member of PATH's Catalyst Circle (supporters who pledge at least \$1,000 a year for five years). "I was impressed by their approach to finding the right solution for the right situation."

She saw some of these solutions in action during a 2008 visit to Cambodia and Thailand with PATH Journeys. For two weeks, she and other friends of PATH visited villages, project sites, and PATH field

offices, seeing up close how our work is touching communities and families.

"What really stood out for me was meeting PATH's local staff," she says. "PATH brought together local people who were very dedicated and effective."

The founder of Concern for the Girl Child, a nonprofit supporting education of orphaned Ugandan girls, Ann sees connections to her steadfast support of PATH.

"It costs so little to educate these Ugandan girls, and yet the effect you have is tremendous," she says. "I think that's what has always drawn me to PATH. Using some very basic principles of delivering inexpensive medical care, you can make such a huge difference in a person's life." ●

INSIDE
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are transforming
health care
delivery in
hard-to-reach
places.

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