

BLAZING THE TRAIL FOR WOMEN AND CHILDREN

Because of you, our generous donors, PATH touched the lives of nearly 219 million people in 2013. That astonishing number encompasses myriad individual lives—from children protected against deadly diseases to women receiving the support they need for safe childbirth and the tools to prevent pregnancy when they choose.

The stories shared in these pages demonstrate your support for all five of PATH's platforms: vaccines, drugs, diagnostics, devices, and system and service innovations. With you by our side, PATH is creating new models to accelerate innovation and reach more women and children—so everyone can thrive.

Hope for children: From a PATH idea to a village in Laos

It was the moment PATH had been waiting for: on October 9, 2013, the World Health Organization (WHO) gave its critical stamp of approval for a vaccine against a fast-moving brain infection, Japanese encephalitis (JE). The 4 billion people at risk of JE had been waiting, too.

A few months later, in a village in Laos, Wa Meng, his wife, Siyang, and their three children (pictured below) hurried to the first immunization campaign with the JE vaccine. Siyang wept when she saw a flyer with a photo of a child with JE. "This is what our son looked like when he was sick," Wa Meng explained.

Their oldest son, Kou Ha, was a healthy and strong 13-year-old with many friends until the day he came home from school with a headache and a high fever. When Kou Ha's condition deteriorated, the couple took him to the hospital. But they could not afford to keep him there, so they brought Kou Ha home to die.

Until PATH began working on a solution for JE, tens of thousands of children in Southeast Asia died or suffered permanent neurological damage each year for lack of an accessible and affordable vaccine. PATH discovered the needed vaccine in China. Through a groundbreaking partnership with China's Chengdu Institute of Biological Products, we shepherded the vaccine from being unknown outside the country to use in nearly a dozen countries.

WHO's approval means the vaccine qualifies for international support, making it affordable for the countries where it can make the most impact. China's arrival as a WHO-recognized vaccine manufacturer could also reshape global vaccine supply and drive down prices.

The JE vaccine has already changed life in Wa Meng's village in Laos. When the immunization campaign arrived, Wa Meng urged his friends and neighbors to vaccinate their children. And his three were the first in line.

Innovation hubs: A new paradigm for accelerating health solutions

Innovators in Africa and South Asia have the insight, talent, and will to develop technologies that could save the lives of women and children in their communities. But many lack the expertise, funding, and networks necessary to turn their promising ideas into mature technologies with widespread impact.

It's time to change this paradigm. PATH has created a new model to source more technology solutions directly from developing-country innovators. Beginning in South Africa and India, we are launching Global Health Innovation Hubs with a focus on maternal, newborn, and child health. These hubs will leverage PATH's decades of experience in selecting high-impact technologies and creating enabling partnerships with the private sector. Working closely with technology developers,

TH/Aaron loel Santos

manufacturers, and distributors, we will build local capacity and move transformative interventions quickly into the hands of people who need them.

Both hubs are poised to become major innovation engines, driving the development of drugs, devices, and diagnostics for use in the two countries and beyond. Generous donor support jump-started this effort, which has the potential to save untold lives and set a new standard for cultivating high-impact technologies designed to meet the unique needs of low-resource settings.



A game-changing test for river blindness

River blindness may not be fatal, but for the 37 million people who have it, life is miserable. River blindness, or onchocerciasis, is spread by small blackflies that leave larvae in the skin of people they bite. The resulting skin disease causes disfiguration and itching so severe that people have committed suicide. Repeat infections can lead to blindness.

Donor investments in PATH's technology program catalyzed a new diagnostic test that will accelerate efforts to eliminate this terrible disease. It is the first antibody test tailored for use in the rural and remote settings where people are most affected. Unlike the best currently available test, which is invasive and labor intensive, PATH's easy-to-use test requires only a drop of blood from a finger prick. Results are available within 20 minutes.

In 2013, we transferred the technology to a South Korean manufacturer, which will mass-produce and distribute the test at an affordable price. The diagnostic will support elimination programs by detecting signs of reinfection or reemergence—good news for the 180 million people at risk for this terrible disease.

YOUR CONTRIBUTIONS IN 2013

Our thanks to the more than 2,500 individual donors, family foundations, and corporations who provided crucial financial support to PATH in 2013. Their gifts to the Catalyst Fund and other contributions funded dozens of projects, just a few of which we share below.

Saving mothers' lives at birth. Childbirth shouldn't be deadly, yet every year, nearly 78,000 women bleed to death. PATH is advancing an effective device, called a uterine balloon tamponade, which can halt postpartum bleeding in as few as five minutes. With donor support, PATH conducted a study in South Africa that proved the device's impact and cost-effectiveness. We identified a South African manufacturer who will produce an affordable tamponade that can be used in the poorest places with the most limited infrastructure; in other words, the places where most women are dying.

A strategy to eliminate malaria. Eliminating malaria in African and Asian countries requires a powerful plan. Donor support allowed PATH to step out of the constraints of project-specific funding and launch a comprehensive strategy to accelerate progress toward this ambitious goal. We're drawing on PATH's expertise to optimize the technologies we have in our arsenal today, develop the next generation of tools (including drugs, diagnostics, and vaccines), and work with countries on both continents to rapidly decrease the deaths of women and children.

Addressing a growing threat. A dramatic increase in poverty, disability, and deaths from noncommunicable diseases (NCDs) is bringing new challenges to developing countries, where millions of people lack access to prevention, diagnosis, and care. Support from generous donors is helping PATH to strategically leverage our strengths to confront this growing issue. Building on our successful work in women's cancers, we are advancing prevention and care for type 2 diabetes, hypertension, and breast and cervical cancer.

Mobile money for better health. Mobile money is an exciting new area of work with the potential to bring down costs and barriers for health services. One challenge to expanding insurance coverage to the poor is the difficulty of collecting small payments from people who may not have bank accounts or stable employment. With donor support, PATH is developing a mobile money strategy that takes into account technical, business, and regulatory constraints and will position us to expand the reach of digital payment systems in poor and rural areas.



Contraceptives for the reality of women's lives

Whether or not they are educated, "the women who visit clinics for family planning are all smart," says a health worker in Senegal. "They worry about the health consequences of multiple pregnancies." And they're right. Women are healthier when they can space and time births—and so are their children.

In fact, family planning is lifesaving: if every woman in the world had access to contraceptives, up to one-third of all maternal deaths could be prevented. But that requires family planning methods that meet the reality of women's lives. In many African countries, one of the most popular methods—injectable contraceptives—is not available in local communities.

A new form of injectable contraceptive, called Sayana® Press, promises to change that. Sayana® Press combines the widely used contraceptive Depo-Provera® with the BD Uniject™ injection system. Uniject™, which PATH developed, is a small, prefilled syringe that is easy to transport, easy to use, and designed to reach people wherever they live. With the help of funders—including individuals and a family foundation who helped us overcome critical barriers—PATH and our partners are introducing Sayana® Press in Burkina Faso, Niger, Senegal, and Uganda. Over the next three years, hundreds of thousands of women will gain access to a contraceptive that meets their needs.

Excitement about the introductions is rippling across the four countries, from ministers of health to women in the remotest villages. They know: when contraceptives meet women's needs and make it into villages and community health huts, women have more control over the timing and spacing of their children—and a better chance at a healthy life.

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Cell phone reminders for pregnant women.

More than half of women in Kenya are anemic, which increases their chance of dying in pregnancy or childbirth, yet only 2.5 percent receive the recommended iron and folic acid supplements. The prevalence of mobile phones offers a potent new tool to reach them. With support from donors, PATH is designing a series of messages that encourage iron and folic acid supplementation and a strategy to share them with pregnant women using cell phone reminders.

A new diagnostic test for sexually

transmitted infections. The cost of undiagnosed sexually transmitted infections (STIs) is especially high for women and babies, causing miscarriage, premature deliveries, blindness in babies, and even death. PATH developed an easy-to-use diagnostic system that allows health workers outside of hospitals to test for four common STIs that affect women and babies, speeding up treatment. Individual donors provided the support needed to prove that the test works and prepare it for large-scale manufacturing.

Helping breast cancer patients reach the cure.

In 2012, our donors supported an innovative model of care in rural Peru that brings breast cancer early detection and diagnostic services closer to where women live. Once diagnosed, however, some women do not get the follow-up care they need. In 2013, donors stepped forward to help us design a "patient navigation program"—a system first established in the United States to address disparities in breast cancer deaths among low-income and minority women. Trained patient navigators from Peruvian communities will help women access needed services and alleviate their fears.

A new tool for tuberculosis. Tuberculosis (TB) takes the lives of 1.2 million people each year and is the leading killer of people with HIV—yet most health care systems rely on a diagnostic test that is 120 years old. Better diagnostics are desperately needed to stop this highly infectious disease. In collaboration with Tanzania's TB program, PATH led a study of a new low-cost technology that proved to be more sensitive and work more quickly than the older test. This evidence is an important step in getting a low-cost and powerful new technology into the field.

