

PATH in the Mekong region

Innovative partnerships to improve health



PATH'S WORK IN THE MEKONG REGION BEGAN IN THE EARLY 1980s, HELPING THAILAND and Vietnam modernize their contraceptive factories in support of national family planning programs. Since then, we have tackled a broad range of health care challenges across the region.

PATH in the Mekong is known as an innovator. We bring new approaches to overcome vexing challenges—such as infectious diseases, unhealthy behaviors, and under-resourced health care systems. We harness the power of the market to address family planning needs and HIV. From our home base in Hanoi, we work with governments in Vietnam, Cambodia, and Laos to strengthen their immunization programs. And from our newest office in Myanmar, we are putting a spotlight on nutrition with the introduction of fortified rice.

Collaboration is at the core of all of this work. PATH-enabled public-private partnerships build on our long-standing relationships with government leaders and engage private-sector partners to meet common goals. These partners include pharmacists and health care providers, social entrepreneurs, and local manufacturers. Through our advocacy efforts, we also collaborate with government officials to create or adjust policies to take solutions to scale for nationwide impact. And we meet people where they are with tools like mobile phone applications as a way to manage their health. Across the region and across the globe, PATH is having a positive impact on people's lives.

VACCINES AND IMMUNIZATION

PATH is working with government partners in the Mekong region to realize the lifesaving benefits of vaccines by encouraging local production, improving distribution and delivery systems, and introducing new vaccines.

Influenza

Influenza occurs in seasonal patterns worldwide and causes more than 1 million cases in Vietnam each year. Vaccines are the best way to control influenza, but most are made in a few high-income countries, leaving many lower-income countries, including Vietnam, without a steady supply. Adding vaccine suppliers to the global market is vital for meeting demand. With support from the

US government and in collaboration with the World Health Organization (WHO), PATH is providing technical assistance to Vietnamese vaccine manufacturers to support sustainable local production and testing of influenza vaccine. This work will enhance regional capacity to control influenza and prepare Vietnam for a real-time response in the event of an influenza pandemic.

Hepatitis B

Chronic liver disease is a significant problem in Vietnam and across the Mekong region because of the high number of people with the hepatitis B virus. A simple birth dose of hepatitis B vaccine, given within 24 hours of an infant's birth, plus two to three subsequent doses, can prevent mother-to-child transmission. Yet



Vietnam has struggled to achieve high birth-dose rates due to a series of adverse events following immunization—tragic deaths that were later proven to be completely unrelated to the vaccine. PATH has been working with government partners to restore confidence and expand hepatitis B vaccine coverage in three provinces. Lessons learned from this work are now incorporated into an action plan guiding hepatitis B birth-dose activities nationwide.

Japanese encephalitis

Japanese encephalitis (JE), an untreatable disease known as “brain fever,” is prevalent across Southeast Asia. It causes swelling in the brain and often leads to long-term disability or death. Over the past decade, PATH has played a critical role in identifying, scaling up, and gaining WHO approval for an effective and affordable JE vaccine. We are leveraging this work in the Mekong region, helping governments in Cambodia and Laos access international support for vaccine financing and rollouts, and laying the groundwork for

introduction in Myanmar. In 2015, PATH and our partners helped Laos achieve countrywide JE coverage for the first time.

Vaccine delivery

Getting vaccines to those who need them most requires a system that can effectively and efficiently store and transport them across the country. Through the Optimize project, PATH worked with WHO to strengthen the vaccine supply system by improving the cold chain with new refrigeration options and developing information systems to monitor vaccine stocks. Vietnam’s National Expanded Program on Immunization is now investing in extending this vaccine management information system nationwide.

INFECTIOUS DISEASES

Infectious diseases such as HIV, tuberculosis (TB), and malaria disproportionately affect lower-income countries and vulnerable

populations and are highly prevalent across the Mekong region. The region is also experiencing worrisome trends in drug-resistant malaria and TB.

HIV

While the government of Vietnam works to develop a more sustainable response to the HIV epidemic, a new model is necessary to ensure that essential, lifesaving goods and services

are available and accessible. As incomes rise, more Vietnamese people are willing and able to pay for high-quality condoms and sterile needles and syringes as well as HIV testing, counseling, and clinical services. This reveals a market poised for growth and innovation. PATH's Healthy Markets project, supported by the US Agency for International Development, aims to grow a viable commercial market for these goods and services, which will enable the government to reserve its limited resources for

Strategies with impact

PATH's innovative approaches boost our impact across the Mekong region.

Public-private partnerships. PATH is a bridge between the public and private health sectors. We align our goals with government partners and leverage private-sector actors to create a stronger, more efficient and effective health care system. In Vietnam, we have spent years enhancing the role of private-sector pharmacists as primary health care providers, and we are forging new partnerships with social enterprises that have a foothold in the communities most affected by HIV. In Myanmar, we are bringing together government nutrition experts and private-sector rice millers to deliver a fortified staple food to market. These partnerships create income-generating opportunities while achieving social goals.

Technologies and devices. PATH develops new technologies appropriate for use in low-resource environments. Solar refrigeration and new battery technologies are strengthening the cold chain for vaccines in Vietnam, clean cooking fuel technologies are protecting people from respiratory diseases in Cambodia, and new birth control methods such as Sayana® Press and the Caya® diaphragm hold great potential across the region.

Digital health solutions. Health systems in the Mekong region remain predominantly paper based. Systems based on ledgers and manual calculations are slow and prone to error, resulting in inaccurate and unreliable data and time spent on paperwork that could otherwise be devoted to patient care. As digital literacy and mobile phone subscriptions increase rapidly across the region, PATH is jumping in with new mobile phone applications and digital tracking and reporting systems. These systems—including those to manage vaccine stocks, a digital immunization registry to track individuals' immunization records, and a mobile phone application for TB treatment adherence—are creating new efficiencies and empowering people to manage their own health.

Policy advocacy. Every PATH project is an opportunity to gain evidence to inform broader policy change. In the Mekong region, we test innovative solutions, vigorously evaluate them, adapt them, and test them again. We share the evidence we gather with government partners who can affect national health guidelines and policy. Our advocacy work is influencing training curricula and standards for private pharmacies and TB control practices in Vietnam, priorities of National Expanded Immunization Programs across the region, and development of a food fortification policy in Myanmar. PATH's advocacy leverages our work for larger and lasting impact.



those who cannot pay. The project leverages private-sector and social enterprise solutions to identify market opportunities and catalyze innovative and lasting responses to the HIV epidemic.

Tuberculosis

Across the Mekong region, poor adherence to TB treatment is leading to the emergence of dangerous strains of multidrug-resistant TB. PATH is working with the Vietnam Ministry of Health and the National Tuberculosis Program on an integrated approach to TB control that combines advocacy, communication, social mobilization, and mobile health applications. A key aspect of this work is referring people with TB-like symptoms from private clinics to public-sector TB facilities where they can access free, comprehensive treatment. PATH first began piloting this public-private mix strategy in Cambodia and later introduced it in Vietnam, where we are also piloting the use of text messages to remind patients to take their medicine and present for health checks. Through this multifaceted work, we have detected more than 10,000 people with TB, improved pathways for treatment, and strengthened the government's overall approach to TB control.

Malaria

Malaria remains a significant public health threat in pockets of the Mekong region. PATH

is assisting governments in the region as they prepare their elimination strategies and tackle the challenge of multidrug-resistant malaria in areas such as the Myanmar-Thailand border. Based on a 2012 assessment funded by the Bill & Melinda Gates Foundation, Myanmar accounts for nearly 80 percent of malaria cases and 75 percent of deaths in the Mekong region. PATH is paving the way for safe, effective, and high-quality malaria care with a new technology to test for glucose-6-phosphate dehydrogenase deficiency. Individuals who have this deficiency suffer severe adverse reactions from certain malaria drugs. In addition, PATH, in collaboration with the Shoklo Malaria Research Unit in Thailand, is assessing the performance of new, highly sensitive tests that support elimination of *Plasmodium falciparum*, the most deadly malaria parasite.

MATERNAL AND CHILD HEALTH AND NUTRITION

PATH is working to ensure that infants and young children in the Mekong region get a strong start in life and the nutrition they need to grow and thrive. Our work in this area starts from day one, with essential newborn care, and tackles the dual challenge of micronutrient deficiencies and diarrheal disease.

Essential newborn care

PATH's work in Myanmar began in 2012 with a project to improve community-based neonatal care. Many women in Myanmar deliver their



babies at home, with midwives as their most common birth attendants. Infant mortality rates are declining but remain high at 62 deaths per 1,000 births, according to the most recent census. PATH has been working with government partners and nongovernmental organizations to reduce neonatal mortality and morbidity. Our efforts are improving the skills of community-based midwives and increasing awareness of and access to emergency obstetric and neonatal care by women in rural areas.

Fortified rice

In Myanmar, more than one-third of children under five years old are chronically malnourished or stunted. Many are suffering from micronutrient deficiencies, which have lifelong consequences for health, productivity, and mental development. PATH's flagship project in Myanmar is improving nutrition through rice fortification, a unique approach that fortifies the most popular staple food in the country, allowing for significant improvement in diet without a change in eating habits. PATH is working to create a favorable policy environment for this new product; developing local production, supply chain, and distribution channels; and engaging with partners to implement a marketing and outreach campaign to generate sustainable consumer demand. Our goal is to get fortified rice on the shelves in the private market and widely distributed through social-sector channels.

Diarrheal disease

As the world's second leading cause of death in children under five years old, diarrheal disease kills hundreds of thousands of children worldwide every year. Millions more survive but fail to thrive due to the dehydration, weakened immunity, and malnutrition caused by the disease. PATH is dedicated to fighting diarrhea in the Mekong region. In Vietnam, PATH has provided technical assistance to the Ministry of Health in updating national guidelines for diarrheal disease control, including the use of zinc and a new formula of oral rehydration solution for treatment of severe diarrheal disease. In Cambodia, we worked with private-sector partners to improve sanitation through use of high-quality,

affordable household water treatment and storage products and a consumer loan program for latrines. Through this work and more, we are gathering evidence on effective approaches to addressing diarrheal disease in the Mekong region.

SEXUAL AND REPRODUCTIVE HEALTH

PATH is committed to ensuring that people have the information and tools they need to plan their families and stay healthy. This work is essential to improving the sexual and reproductive health of couples and individuals, from adolescence through adulthood.

Access to family planning

Across the Mekong region, the inability to access modern contraception results in unplanned pregnancies and unsafe abortions. It also contributes to high rates of maternal and infant mortality and sexually transmitted disease, particularly among adolescents. PATH is working to address this challenge and ensure the family planning needs of the full population are met. In collaboration with government partners, PATH is identifying opportunities to encourage a more robust private market for family planning products and services for those who are willing and able to pay. This will enable limited public resources to be reserved and targeted to those most in need.

Choice of contraceptive methods

Expanding contraceptive options is a proven strategy for improving access. Around the globe, PATH is piloting new, safe, easy-to-use, and discreet methods of contraception, such as Sayana® Press, a three-month injectable; the one-size-fits-most Caya® diaphragm; and the Woman's Condom, which can be distributed in communities by minimally trained health care providers. PATH is committed to working with governments in the Mekong region to expand access to these and other innovations that meet the reality of women's lives and make it as easy as possible for them to get what they need, regardless of how remote their location or limited their resources.



NONCOMMUNICABLE DISEASES

Noncommunicable diseases such as hypertension, diabetes, and cancers have overtaken infectious diseases as the world's leading cause of death and are driving the premature death and disability of millions of people in the Mekong region. According to WHO, noncommunicable diseases account for a startling 73 percent of all deaths in Vietnam and 59 percent of all deaths in Myanmar. Going forward, PATH will work with governments in the region to address the burden of noncommunicable diseases on top of new and ongoing challenges with infectious diseases such as TB and malaria.

Hypertension

Hypertension leads to nearly 100,000 deaths per year in Vietnam. A study by the Vietnam National Heart Institute found that 25 percent of adults have hypertension, but less than

half were aware of it and less than a third had received treatment. PATH is on the front lines of addressing this threat through our Communities for Healthy Hearts initiative. In this project, PATH is partnering with health care providers and social enterprises to encourage people to get screened for hypertension and to ensure high-quality referral, treatment, and follow-up.

Diabetes

People in low- and middle-income countries tend to develop diabetes at a younger age, suffer serious complications sooner, and die earlier than those living in wealthy countries, where diagnosis and treatment are more readily available. Half of people with diabetes worldwide don't even know they have the disease. In Vietnam, we have enhanced the role of private-sector pharmacists to recognize the symptoms of diabetes and other chronic diseases and refer clients for treatment.



Women's cancers

For far too many women in the Mekong region, having breast or cervical cancer means a death sentence. While fewer women in wealthy countries are dying from breast and cervical cancers, rates are rising in lower-income countries. For example, the rate of death from cervical cancer in Myanmar is nearly five times higher than in the United States. Routine screening and effective treatments could prevent illness and death on a large scale. PATH is training health care providers in the Mekong region on low-tech methods of screening for cervical cancer that do not rely on sophisticated laboratories and simple, proven treatment of precancerous lesions using cryotherapy. To prevent the disease altogether, we are exploring the best ways to introduce vaccines to prevent infection with human papillomavirus, the cause of most cervical cancers. Going forward, we will continue to advance the most effective and affordable approaches for prevention, early detection, and treatment of women's cancers.

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PATH is the leader in global health innovation.

An international nonprofit organization, we save lives and improve health, especially among women and children. We accelerate innovation across five platforms—vaccines, drugs, diagnostics, devices, and system and service innovations—that harness our entrepreneurial insight, scientific and public health expertise, and passion for health equity. By mobilizing partners around the world, we take innovation to scale, working alongside countries primarily in Africa and Asia to tackle their greatest health needs. Together, we deliver measurable results that disrupt the cycle of poor health.

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