

Program for Appropriate Technology in Health

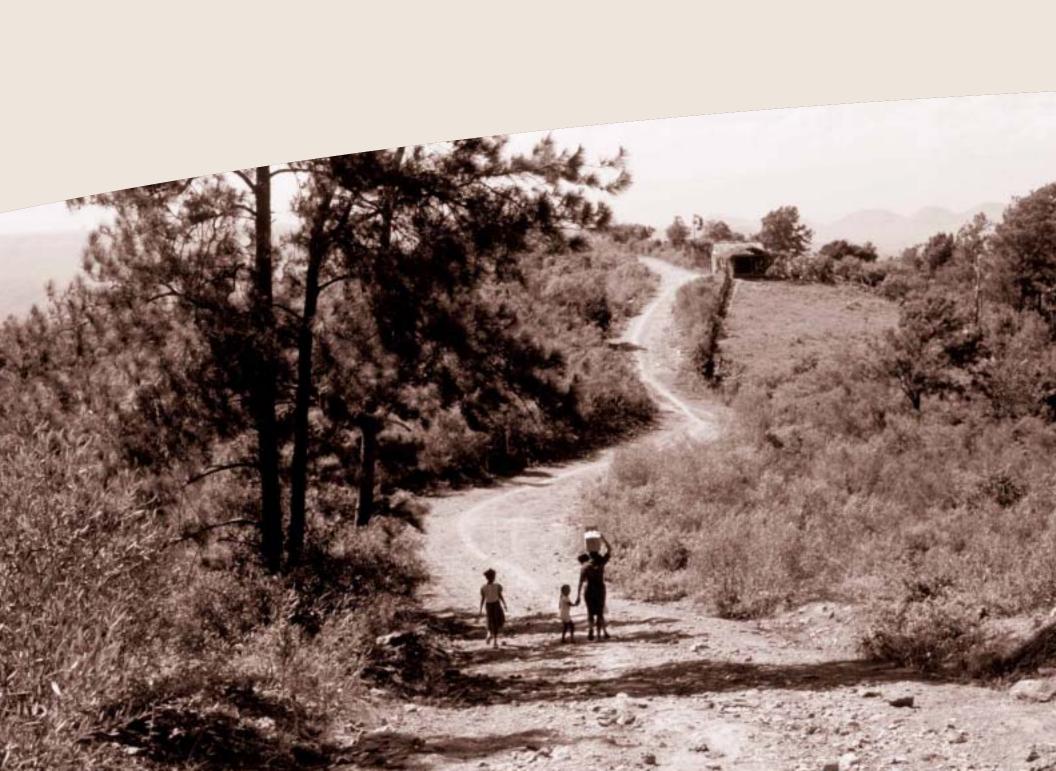


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MISSION

PATH's mission is to improve health,
especially the health of women and children.
Founded in 1977, PATH identifies, develops,
and applies appropriate and innovative
solutions to public health problems,
particularly in low-resource settings. PATH
shares knowledge, skills, and technologies
with governmental and nongovernmental
partners in developing countries and with
groups in need.

PRESIDENT'S MESSAGE

Dear Friends,

It is a pleasure to present you with our first biennial report for the 21st century. There have been many

changes since the last report, one of which was my appointment as President in September 2000. It is indeed my honor to succeed the long and successful service of Dr. Gordon W. Perkin, whose 20 years of vision, leadership, and passion have made PATH the internationally respected institution that it is today.

Upon my arrival I found PATH brimming with talented and experienced professionals who hold a compelling vision of the world and come to work each day determined to make that vision a reality. It is a vision that embraces the diversity and challenges of today's world, and strives to promote

equitable access to health for all. Realizing this vision demands an in-depth understanding of the problems facing women, children, and communities in resource-poor settings throughout the world. Finding solutions begins with a deep respect for those we seek to serve, and draws on the expertise of many disciplines to ensure our success.

As you'll see on the following pages, PATH places tremendous value on building and sustaining partnerships as an essential means to improving global health. Indeed, our projects make a sustainable impact largely through the establishment of effective collaborations with communities, health practitioners, governments, nongovernmental organizations, UN agencies, and corporate entities. We are proud to join with these partners in advancing the health of people throughout the world.

PATH is engaged in tremendously rewarding work. It is my hope that this report will give you a brief glimpse of some of our excitement. As you read, you will often find words such as "innovate," "design," "reach," and "achieve." We hope you will share our enthusiasm as we look forward to finding innovative and appropriate solutions to the world's most vexing health challenges.

With hope,

Christopher J. Elias, M.D., M.P.H. President



INTRODUCTION



As PATH celebrates 25 years of progress in global health, we are pleased to provide this biennial report on our recent efforts to improve the health of women and children in developing countries.

PATH is an international, nongovernmental, nonprofit 501(c)(3) organization, and the impact of our programs is enhanced by our collaborative relationships with similar organizations as well as with governments, private-sector companies, community groups, and funding partners. These partnerships link knowledge, experience, and resources and ensure greater impact and success.

Our programs generally fall within PATH's three primary goals:

- improving women's health
- improving children's health
- preventing communicable diseases

We achieve our goals through technology development, applied research, training, behavior change communications, and advocacy. These activities are based on our understanding that, to be effective, technologies and interventions must be "appropriate"—that is, affordable, accessible, and culturally acceptable to individuals living in some of the world's most economically disadvantaged areas.

PATH is headquartered in Seattle and has offices in France, India, Indonesia, Kenya, the Mekong Region, the Philippines, Senegal, Uganda, Ukraine, Vietnam, Washington, D.C., and Rockville, M.D. In addition, PATH supports a broad array of activities in Latin America and the Caribbean.

For additional information about PATH, please contact us, or visit our web site at www.path.org.

A NEW STRATEGY



In recent years PATH has experienced tremendous program-related growth. Combined with a changing global health landscape and the varied interests of our donors, PATH has implemented significant structural changes in order to become a more effective, efficient, and responsive organization. In 2001, PATH established nine Strategic Programs Areas, which work closely with our field sites and serve as the hub of our activities. This new structure reflects the breadth of our experience and capabilities. These Strategic Programs are:

HIV and AIDS
Adolescent Health
Gender, Violence, and Human Rights
Malaria Vaccine Initiative
Meningitis Vaccine Project
Children's Vaccine Program
Technology Solutions
Reproductive Health
Maternal and Child Health and Nutrition

The staff of these program areas work in partnership with our field site staff and across disciplines to share new ideas, technologies, and approaches in a continuous effort to achieve maximum impact and lasting results.



IMPROVING WOMEN'S HEALTH



ADVANCING THE DEVELOPMENT OF MICROBICIDES

Giving women tools and information to protect, maintain, and improve their health has always been a principal objective for PATH, and it is the motivation behind the microbicides campaign. A microbicide is a chemical substance that women and men may one day use to protect themselves and their partners from sexually transmitted infections (STIs), including HIV. Girls and women are often unable to refuse unwanted sex as a result of power inequity, economic dependency, and threats of violence that may make them unable to negotiate condom use or leave partners who put them at risk. Microbicides offer the hope of a woman-controlled method of protection, one that does not necessarily require a partner's cooperation or knowledge.

Scientists are working to develop microbicide candidates, but their work is restricted by lack of funding. Pharmaceutical companies are often reluctant to invest in microbicide research because they do not see the financial future in products that will be sold primarily in the developing world. The advocacy work of organizations such as PATH is crucial.

In April 2001 PATH embarked on a new effort, and now serves as secretariat to the Global Campaign for

Microbicides and Prevention Options for Women, a broad-based, international effort designed to advance the development of microbicides. The Campaign, which involves more than 60 partner organizations worldwide, is funded in part by the Ford Foundation, the Richard & Rhoda Goldman Fund, and the Rockefeller Foundation.

The goals of the Global Campaign are to:

- increase the knowledge of the public, donors, and policymakers about STIs and the promise of microbicides to prevent them;
- promote increased government funding in microbicide research and mobilize private funds to support microbicide development; and
- make certain that the public interest is protected and women's needs and perspectives are integrated into all phases of research, development, and introduction.

We look forward to the successful development of this technology and its availability to women around the world.

INCREASING ACCESS TO EMERGENCY CONTRACEPTION

Nearly 40 percent of all pregnancies in developing countries are unintended. Given the corresponding high rates of abortion and poor maternal and child health, there is a tremendous need for greater contraceptive options and availability.

Emergency contraceptive pills (ECPs)—often called the "morning-after pill" or "post-coital contraception"—offer women the chance to prevent pregnancy after unprotected sex or when a regular method fails. ECPs are higher doses of ordinary contraceptive pills taken within 72 hours of unprotected intercourse, and prevent pregnancy by delaying or inhibiting ovulation. ECPs are ineffective if a woman is pregnant when the pills are taken, and will not harm a developing fetus.

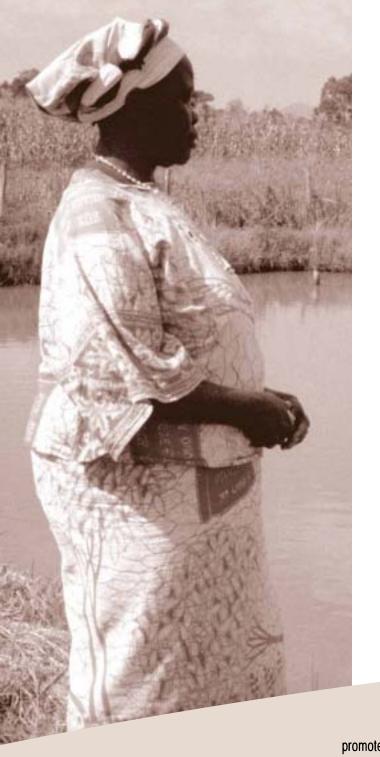
PATH is a founding member of the Consortium for Emergency Contraception, and collaborates

with a global network of groups working to expand access to and advocate for the safe and appropriate use of emergency contraception, both domestically and internationally.

In 1998, PATH and its project partners instituted the first direct pharmacy access for ECPs in the United States through a project in Washington State. Because pharmacists play a critical role in delivering reproductive health care products, information, and services in many parts of the world, PATH recently began a similar effort in Cambodia, Nicaragua, and Kenya.

This three-year project is designed to develop a global model for effectively delivering information and services related to unprotected intercourse—including emergency contraception, risk assessment for sexually transmitted infections, and ongoing contraceptive services—through pharmacies.





PREVENTING CERVICAL CANCER

Cervical cancer is the third most common cancer worldwide and results in the deaths of more than 230,000 women each year. At least 80 percent of these deaths occur in developing regions—South Asia, sub-Saharan Africa, and parts of Latin America. Although efforts to reduce the impact of cervical cancer have been initiated all over the world, most attempts in developing countries have not been successful due to factors such as lack of awareness of the problem and limited access to necessary health interventions.

Health care providers in developing countries regularly see women with advanced, incurable cervical cancer. At this late stage, there is little they can do to save women's lives. Even drugs designed to ease cancer pain often are unavailable. Yet cervical cancer can be readily prevented, even in women at high risk for the disease, through screening and treatment using relatively simple and inexpensive technologies. When precancerous changes in cervical tissue are found and the abnormal tissue is successfully treated, a woman is unlikely to develop cervical cancer.

In 1999 PATH and four other international organizations created the Alliance for Cervical

Cancer Prevention (ACCP), funded by the Bill & Melinda Gates Foundation. PATH serves as coordinating agency of the Alliance. Its partners are EngenderHealth, the International Agency for Research on Cancer, the JHPIEGO Corporation, and the Pan American Health Organization.

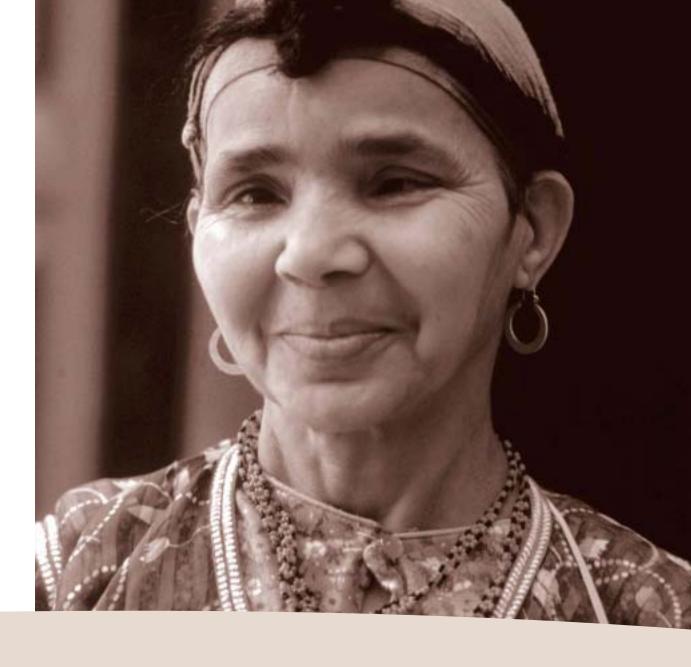
PATH works within the ACCP and with other key international and national stakeholders to prevent cervical cancer in developing countries by:

- assessing and introducing new approaches to screening and treatment of precancerous lesions, with an emphasis on cost-effective strategies that make safe and effective services available to women at greatest risk of cervical cancer:
- strengthening local reproductive health services by developing training materials, service delivery guidelines, cost models, and other resources that help health program managers integrate cervical cancer prevention programs into existing health programs;

In collaboration with Maendeleo Ya Wanawake Organization (MYWO),
a national grassroots women's organization, PATH is working with women's groups to
promote cervical cancer prevention efforts in Kenya. Like the woman pictured above, the leaders of these community groups
are committing their support to ensuring that eligible members are screened for precancerous lesions. —Allison Bingham, Ph.D., Program Officer, PATH

- integrating community, client, and provider perspectives and needs into program design, implementation, and evaluation to ensure that new interventions are understood, acceptable, appropriate, and of good quality;
- heightening awareness of cervical cancer and effective prevention strategies by producing publications, disseminating web-based information, and reaching out to key national and international heath groups in order to advocate for adequate funding, favorable policies, and popular support for new prevention programs.

In addition, PATH's ACCP Small Grants Program provides seed funds to developing-country organizations that are working to better understand how best to prevent cervical cancer in their regions. PATH also maintains the *Cervical Cancer List*, an electronic mail group for sharing information on cervical cancer.



The Alliance for Cervical Cancer Prevention, now in its third year, has provided a tremendous opportunity for PATH and our partners to evaluate and advocate for effective, affordable, and appropriate strategies for preventing cervical cancer in countries hit hardest by the disease. This unique project has the potential to make a difference to women's health worldwide, and we are fortunate to be able to help move it forward.

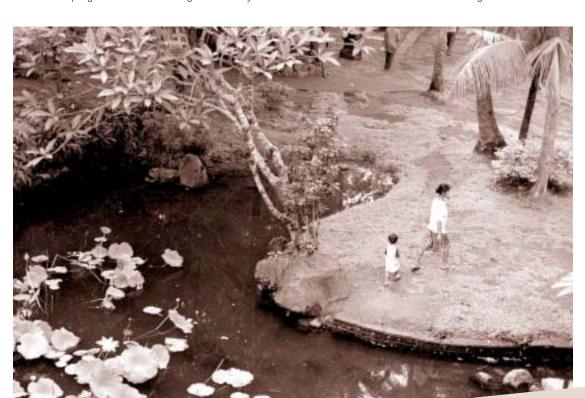
—Jacqueline Sherris, Ph.D., Strategic Program Director, Reproductive Health, PATH

LINKING FAMILY PLANNING WITH ENVIRONMENTAL PROTECTION

Surveys of married couples in the Philippines have consistently demonstrated that more than half do not want any more children; however, only 30 percent of married women in the Philippines use a modern form of contraception. This disparity contributes to the nearly 40-percent rate of unintended pregnancies and the highest fertility

rate in Asia. In addition, this rapid population growth is having very serious and negative impacts on the Philippines' valuable natural resources.

Under a grant from the David and Lucile Packard Foundation, PATH is collaborating with several



organizations in the Philippines on the Integrated Population and Coastal Resources Management Initiative (IPOP-CoRM). The initiative links family planning education with education about resource conservation, and builds an understanding about the relationship between population growth and declining fish stocks and related resources. The project has three specific objectives:

- improve reproductive health outcomes among people living in coastal communities;
- enhance management of coastal resources and ecosystems at the community level;
- increase public and policymakers' awareness of population-environment linkages and solutions to interrelated problems.

The goal of the project is to improve the quality of life of communities that depend on coastal resources, while maintaining biological diversity and productivity of coastal ecosystems.



IMPROVING CHILDREN'S HEALTH



IMPROVING THE REPRODUCTIVE HEALTH OF AFRICAN ADOLESCENTS

Currently, 90 percent of the more than one billion adolescents between the ages of 10 and 19 reside in developing countries. Millions of these young people, both married and unmarried, are sexually active. However, they lack the reproductive health information and resources necessary to protect themselves against unintended pregnancies, HIV/AIDS, and other sexually transmitted infections. In sub-Saharan Africa, half of all new cases of HIV infection occur among young people between the ages of 15 and 24.

In an effort to educate youth in Africa about reproductive health and HIV/AIDS prevention, and to provide them with the necessary information, skills, and support to make healthy life choices, PATH, the United Nations Population Fund (UNFPA), and Pathfinder International have formed the African Youth Alliance (AYA). The AYA is a five-year effort funded by the Bill & Melinda Gates Foundation.

Botswana, Ghana, the Republic of Uganda, and the United Republic of Tanzania are the four countries that have been selected by the AYA for this intervention. These countries were selected based on need, specific

requests for assistance, and demonstrated governmental commitment to HIV/AIDS prevention among youth. Botswana, for example, has the highest rate of HIV infection in the world: one in every three people of reproductive age is infected with HIV.

The AYA activities include:

- promoting abstinence or delay in sexual activity;
- supporting programs and interventions to reduce the rates of HIV and sexually transmitted infections;
- introducing and improving youth-friendly reproductive health services;
- reducing unwanted pregnancies; and
- promoting gender equity and equality, and empowerment of girls.

Nearly half of the world's population is under the age of 15. Our hope is that the AYA project becomes a global model for reaching young people with important information about their health and the choices they make.

We, the young people in Africa, are energetic, committed, and motivated to change our lives.

Our future is at stake and we want to do something about it. We want to use all opportunities to acquire skills on how to protect ourselves, take care of ourselves, and support each other. —Aboymi Rotimi Mighty, age 18, in his address to the African Heads of State Summit on HIV/AIDS, April 2001

NURTURING THE HEALTH OF A NEW GENERATION IN INDONESIA

Two hundred million people live in Indonesia, making it the fourth most populous country in the world. Annually, about 240,000 Indonesian infants die in their first year of life, many within the first few weeks after birth.

With support from the United States Agency for International Development (USAID), PATH is collaborating with the Indonesian Ministry of Health to improve the accessibility and quality of vital health services for women, newborns, and young children in East and West Java through the *Healthy Start Plus Program*, which aims to:

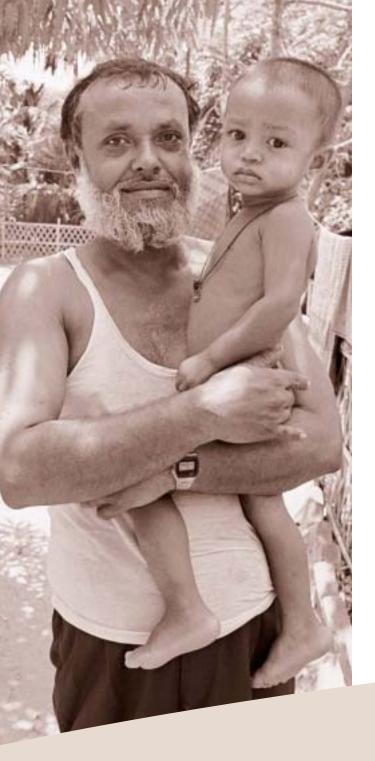
- improve the health and nutrition of pregnant women:
- enhance the quality of care at delivery and in the postpartum period;
- improve the survival, health, and nutrition of children under five years of age; and
- enhance the ability of local communities to manage health programs.

Additional objectives are to strengthen home management of illness among children under five, and increase breastfeeding and family planning.

PATH will test various innovative approaches, including the introduction of reproductive health programs for young women; social marketing of iron tablets; and use of the PATH-designed Uniject™ prefill, single-dose injection device for giving sterile vaccinations.

For more than 20 years PATH has been building lasting relationships and helping improve the health of women and children in Indonesia. We currently have offices in Jakarta, Lombok, Bandung, and Surabaya. Uniject^{IM} is a trademark of BD.





VACCINATING THE WORLD'S CHILDREN

Every year, two to three million children die because they lack access to vaccines that are routinely given in North America, Europe, and Australia. While almost 75 percent of children worldwide receive vaccines against six major diseases, those in the poorest settings are often not immunized against hepatitis B, *Haemophilus influenzae* type B (Hib), and yellow fever.

In the decades since immunization programs were first developed, the world has changed dramatically. The public health community requires new systems, including financial, logistical, training, and other systems necessary for strong immunization activities at the local level.

The Children's Vaccine Program at PATH was launched in 1998 with a \$100 million grant from the Bill & Melinda Gates Foundation. Through this program PATH is working with a wide range of public- and private-sector organizations to build capacity in the poorest countries so that they may develop and maintain the necessary infrastructure for delivering vaccines and integrating immunization regimens into their health care system.

The Children's Vaccine Program focuses on:

- better immunization solutions and systems for a changing world;
- getting vaccines to all the children who need them; and
- working together in global partnership.

In addition, introduction of hepatitis B vaccine is a key focus of a special initiative in Andhra Pradesh state of India. Funded through an additional \$25 million grant from the Bill & Melinda Gates Foundation, the Children's Vaccine Program is working hand-in-hand with the state health department to strengthen immunization services.

The Children's Vaccine Program supports immunization-related activities of key partners such as the World Health Organization (WHO), United Nations Children's Fund (UNICEF), and the World Bank. A founding member of the Global Alliance for Vaccines and Immunization (GAVI), the Children's Vaccine Program participates on GAVI's key working groups and task forces on financing, country coordination, and advocacy.

ALLEVIATING MICRONUTRIENT DEFICIENCIES THROUGH ULTRA RICETM TECHNOLOGY

Micronutrient deficiency is a serious threat to the health, physical development, and productivity of millions of men, women, and children worldwide. A major cause of micronutrient deficiency is malnutrition, a condition present in much of the developing world.

To address the problem of malnutrition in rice-consuming countries, PATH has helped develop and is promoting a practical solution—a nutrient fortification vehicle called Ultra Rice. Although rice is the staple food for more than half of the world's population, white rice is low in health-sustaining micronutrients because its nutrient-rich outer layer is removed during typical rice milling and polishing operations. The Ultra Rice premix therefore carries tremendous potential for providing much-needed micronutrients.

Ultra Rice premix incorporates selected micronutrients within a manufactured, rice-shaped "grain" that, when combined with local rice in a ratio of 1:100, can deliver up to one-third of the U.S. Recommended Daily Allowance of fortificants per serving. Especially when the rice is rigorously

washed prior to cooking, the Ultra Rice technology uniquely resists nutrient losses typical of surface-coating technologies by protecting micronutrients internally.

The original Ultra Rice premix formula was designed to incorporate vitamin A. Other formulas carrying iron, zinc, thiamin, and folic acid have since been developed. To achieve the goal of supplying nutritionally vulnerable populations, PATH is identifying markets, developing distribution systems, and working to license manufacturing technology to selected commercial partners—ultimately ensuring that such commercial, market-driven ventures help support sustainable distribution to the communities in need.

With support from the Bill & Melinda Gates Foundation, PATH is now working to introduce this technology into Brazil, Colombia, Indonesia, the Philippines, and India, and eventually aims to make Ultra Rice premix available on a sustainable basis to rice-consuming countries around the world.



PROMOTING ALTERNATIVES TO FEMALE GENITAL MUTILATION

Female genital mutilation (FGM) is a traditional practice that involves the partial or total removal of the female external genitalia. More than two million girls, primarily in Africa, are subject to FGM each year. Although FGM can have severe short- and long-term health consequences, the cultures that practice FGM view it as a benefit that prevents promiscuity, improves fertility, and makes a young woman more attractive for marriage.

Changing such deeply entrenched beliefs and practices requires a long-term commitment to social

change. Even the use of the terms "mutilation," "circumcision," or "cutting," which are all used to describe this process, has been the subject of debate and is indicative of the wide gaps that exist in understanding this issue. While this is a complex debate, the critical issue is abandoning this practice.

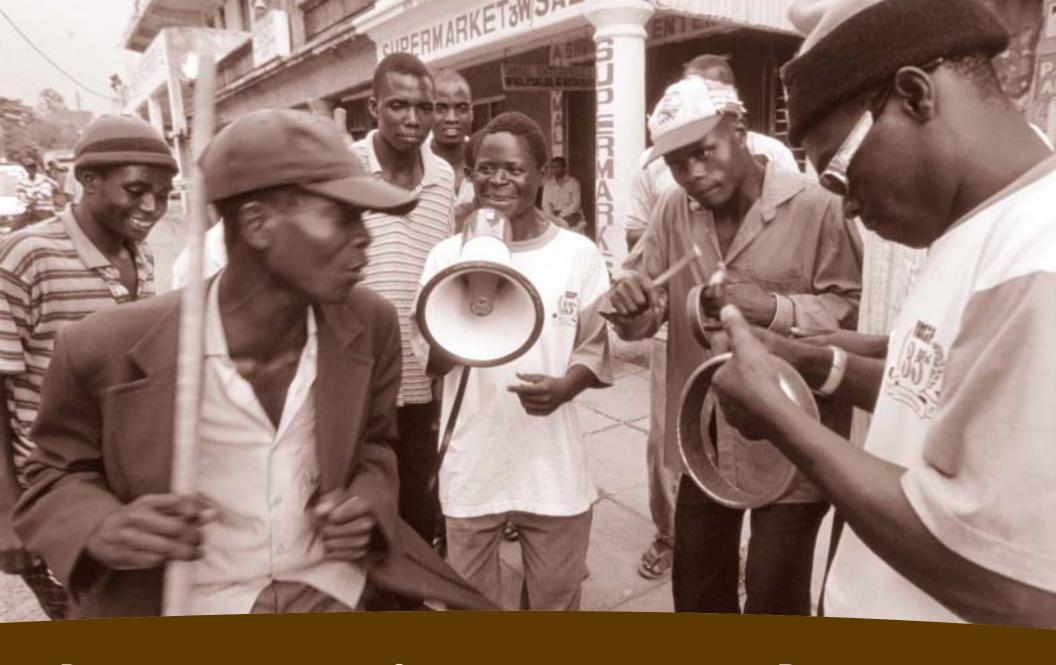
In 1995 PATH partnered with Maendeleo Ya Wanawake Organization (MYWO), the largest women's group in Kenya, to address the issue of FGM in four districts of Kenya where FGM remained a nearly universal practice. Beginning in 1994 they raised community awareness of the human rights and health implications of FGM and trained peer educators, teachers, and religious and community leaders to advocate for change at the grassroots and national policy levels.

More recently PATH and MYWO began a pilot program to celebrate the coming of age of young girls without the practice of genital cutting. The Alternative Rite of Passage (ARP) program built on a traditional rite that surrounds circumcision. In the week prior to the celebration, groups of girls are educated about relationships, reproductive health, and family life. The ARP culminates in a colorful day of feasting and gift-giving to celebrate the girls' new social status. By December 2001, 5,000 girls in all four project districts had participated in an ARP. PATH/MYWO have trained other groups to help meet the demand for ARPs.

The MYWO/PATH collaboration is documenting a social transition in the making. Representative surveys demonstrate that the prevalence of FGM among women under age 20 in the project districts has fallen from 78 percent in 1993 to 56 percent in 1999, a decline of 22 percentage points.



Our FGM efforts in Africa continue to bear much fruit PATH, working with three local organizations, managed to circumvent many would-be girl circumcisions I had the pleasure of participating in most of the graduation ceremonies and was amazed by the change of attitude that had been created in many communities. —Samson Radeny, Senior Program Officer, PATH



PREVENTING COMMUNICABLE DISEASES

DEVELOPING TECHNOLOGIES TO IMPROVE HEALTH IN DEVELOPING COUNTRIES

Since its beginning PATH has managed many technology development and introduction projects, and has adapted, developed, and/or advanced more than 40 affordable, appropriate technologies for infant and maternal health, immunization delivery, and the diagnosis of disease. Technologies range from simple products manufactured by cottage industries to sophisticated technologies produced with state-of-the-art industrial processes and materials. PATH is supported in its efforts by a wide range of donors, including the United States Agency for

International Development (USAID) and the Bill & Melinda Gates Foundation, and assisted by partners in both the public and private sectors in countries around the world.

When considering potential technology solutions, PATH's first approach is always to canvas existing technologies that can be adapted or made affordable. In some instances, PATH invents or designs a solution, then works with international health agencies and private-sector, commercial partners to develop and introduce the product.

One unique aspect of PATH's methodology is to actively incorporate the perspectives of those who will use the finished product into the design and development of the products. Another important strategy is to design products that can be easily commercialized, and thereby become economically self-sustainable.

To ensure the safety and effectiveness of vaccines, PATH has developed:

- Vaccine Vial Monitors, which are chemically treated labels on vials of vaccine that indicate heat exposure. Health workers now have a way to determine if a vial of vaccine has been exposed to too much heat and should be discarded. This simple approach guarantees the validity of the vaccine, while saving millions of dollars a year in vaccine, since stillpotent vaccine is not discarded needlessly.
- The Uniject™ prefill, single-dose injection system, which makes injections easier and safer to administer.



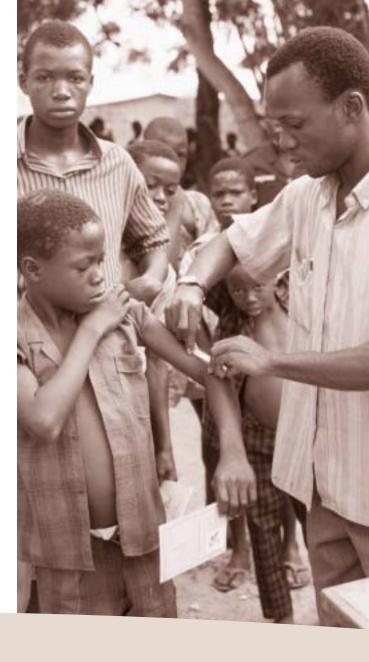
Other immunization projects being developed by PATH's Technology Solutions program are multidose jet injectors to deliver mass immunizations, auto-disable syringes to eliminate cross-contamination, safe medical waste disposal technologies to prevent improper disposal of needles, and a safe injection training manual.

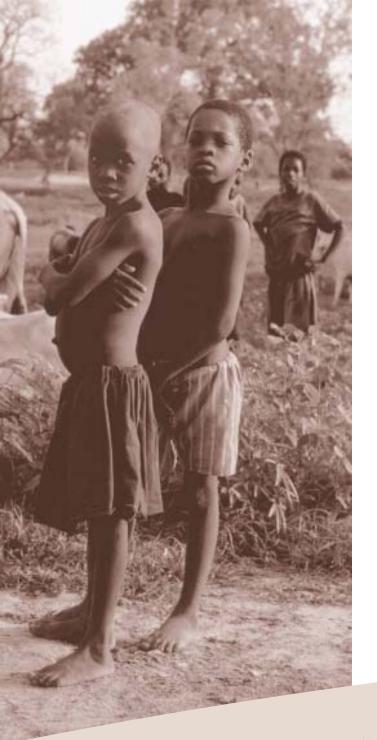


To improve the diagnosis of disease, PATH has developed:

- Easy-to-use, low-cost dipstick tests for HIV, hepatitis B, and tuberculosis. These tests are currently being manufactured by private-sector companies in Argentina, India, Indonesia, and Thailand, where the cost can be kept lower.
- Rapid, easy-to-use immunochromatographic strip tests for sexually transmitted infections, malaria, and tuberculosis. These tests are based on the same principle as at-home, paper tests for pregnancy, and are also manufactured by collaborators in developing countries.

PATH has also advanced various technologies for reproductive health, such as basic delivery kits for home births and new contraceptive methods, including an improved diaphragm and female condom.





PREVENTING MENINGITIS EPIDEMICS IN SUB-SAHARAN AFRICA

Meningococcal meningitis is an infection of the brain that afflicts infants, children, and young adults, and can cause death. It is the most feared disease in Africa's "meningitis belt," which stretches across 20 countries from Senegal to Ethiopia. Meningitis epidemics affect up to 200,000 people a year. Even with antibiotic treatment, at least one of every ten children infected with meningitis dies, and an additional 10 to 20 percent are left with permanent disabilities such as hearing loss, mental retardation, paralysis, and loss of limbs.

Available vaccines against meningitis do not adequately address the problem of meningitis epidemics in Africa. They were not designed for the types of meningitis in this region, offer only short-term protection, and do not confer community immunity among large populations, especially in very young children, who are at the highest risk.

In response, PATH and the World Health
Organization (WHO) have created a partnership—
The Meningitis Vaccine Project—to prevent and
someday eliminate epidemic meningitis in subSaharan Africa. The Meningitis Vaccine Project
began with a \$70 million grant from the Bill &

Melinda Gates Foundation, and hopes to develop and introduce a serogroup A meningococcal conjugate vaccine in Africa.

Over the next decade, PATH and WHO will work with other partners to:

- develop a vaccine against meningitis;
- ensure that the vaccine is produced in sufficient volume to meet projected needs;
- monitor programs to ensure the vaccine's effectiveness and safety;
- facilitate the financing of vaccine procurement through existing or new global programs; and
- introduce the vaccine through mass and routine immunization programs in collaboration with other public health programs.

Other vaccine initiatives, most notably the Global Alliance for Vaccines and Immunization (GAVI), are working in Africa's meningitis belt to improve routine immunization services and enhance the ability of health systems to deliver and monitor new vaccines. The Meningitis Vaccine Project will coordinate efforts with GAVI and other disease control initiatives.

WORKING WITH DRUGSTORES IN THAILAND: A DECADE OF IMPROVING HEALTH SERVICE DELIVERY

In the old days, Thais relied on traditional medicine to treat their illnesses. But health care services have changed, and modern health care practices are now widespread. Drugstores, which can be found throughout the country, are central to the current health care system. Prescriptions from physicians are often not necessary, and consumers in Thailand frequently purchase drugs directly from drugstores by explaining their symptoms or seeking counseling from drugstore personnel. This makes drugstores—and their employees—an important primary health care service and a critical link in the public health care system.

For the past ten years, PATH has been working with Thailand's Ministry of Public Health (MOPH) to improve the capacity of drugstore personnel to provide critical health information to consumers and ensure that quality and safety standards are

met. Through the technical skill of staff in our Mekong Region office, PATH has focused its capacity-building activities on programs that enhance the skills of drugstore personnel, and strengthen their ability to educate clients clearly and correctly.

PATH's capacity-building training programs have centered on three main components: modifying attitudes, increasing knowledge, and developing communication skills. Together, these components enable drugstore personnel to better understand and address issues related to HIV/AIDS, sexually transmitted diseases, and family planning. The success of this project has resulted in large part from the partnership PATH has developed with the MOPH, universities, and medical organizations. We are now embarking on similar efforts in neighboring Cambodia.



PREVENTING THE SPREAD OF HIV IN THE PHILIPPINES

HIV continues to spread around the world, ravaging many parts of developing regions. Eighty-six percent of people with HIV live in sub-Saharan Africa and Asia. While the prevalence of HIV and AIDS in the Philippines is still relatively low, the country has a high rate of other sexually transmitted infections, and there has been an increase in the number of people who engage in commercial sex and other behaviors that increase vulnerability to HIV infection. These factors render the Philippines population at risk of a rapid acceleration of the HIV/AIDS epidemic.

In the Philippines, PATH implements the educational component of the national AIDS Surveillance and Education Project (ASEP) funded by the United States Agency for International Development (USAID). PATH's activities include community outreach and peer education targeted at groups at high risk for HIV infection, mass media interventions targeted to the general public, and policy advocacy targeted to local executives and the entertainment sector. This unusual combination of individual, structural, and environmental interventions has recently been cited as a model for low-HIV prevalence countries in an external review of the project.

Under ASEP, PATH and local partners launched what proved to be a highly successful public service advertising campaign to raise awareness about HIV/AIDS and other sexually transmitted diseases. Subsequently, an independent survey of urban men in the general population found that almost 85 percent of those surveyed cited mass media as their source of information about HIV.

The surveillance component of ASEP is managed by the Philippine Department of Health, World Health Organization/Western Pacific Regional Office, and ten municipal health services. Results from annual surveillance rounds indicate that condom use and knowledge about the risks of infection are far more widespread among high-risk groups in 2001 than they were before ASEP began in 1992.



We need to focus our resources to support the local responses, as this is where the outcome of the fight against AIDS is determined. This is where the various sectors come together. Therefore, we must invest in the local capacity development, and ensure that the resources reach the communities and the people. —Peter Piot, Executive Director, UNAIDS

ACCELERATING THE DEVELOPMENT OF MALARIA VACCINES

Malaria is a parasitic infection transmitted to humans through the bites of infected mosquitoes. There are 300 to 500 million cases of malaria worldwide every year, and most of the nearly 2.7 million people who die of malaria each year are African children younger than five years old. The disease is on the rise due to the parasite's increased resistance to antimalarial drugs and the mosquito's resistance to pesticides. There is currently no licensed vaccine to protect against any form of the infection.

PATH's Malaria Vaccine Initiative (MVI) was established in 1999 through an award from the Bill & Melinda Gates Foundation. The mission of MVI is to accelerate the development of promising malaria vaccines and ensure their availability and accessibility to the developing world.

To carry out its mission, MVI identifies the malaria vaccine candidates and significantly increases the capacity of scientists in industry, academia, and government to develop and test them. MVI has

forged an international set of partnerships committed to more quickly developing vaccines that could one day save the lives of millions of children.

In 2001, MVI established eight vaccine development partnerships, seven of which target vaccines against the most deadly form of malaria, Plasmodium falciparum. Furthest advanced are MVI-supported pediatric clinical trials of GlaxoSmithKline Biologicals' malaria vaccine candidate in Africa. MVI supports *P. falciparum* candidates being developed by Apovia Inc., the National Institutes of Health Malaria Vaccine Development Unit, Oxford University, and two Australian biotechnology companies, Progen and Biotech Australia, which have partnered with Australian academia. To begin to address the widespread misery caused by P. vivax malaria, MVI is collaborating with the International Centre for Genetic Engineering & Biotechnology in India to develop a vaccine for malaria caused by that form of the parasite.



INVOLVING YOUNG PEOPLE IN KENYA TO REDUCE HIV/AIDS

"Adolescence" is a relatively new concept in Kenya. Traditionally, young people moved directly from the status of a child to that of an adult. The combination of expanded education, earlier onset of puberty, and delayed marriage has resulted in a new social category—adolescence—that describes the time when young people are preparing for adult roles and responsibilities. Unfortunately, many youth are unprepared for this transition, and are left in vulnerable and often unsafe situations without information, skills,



or appropriate services. As a consequence there is a very high rate of HIV and AIDS among adolescents; approximately 60 percent of newly HIV-infected persons in Kenya are between 15 and 24 years old.

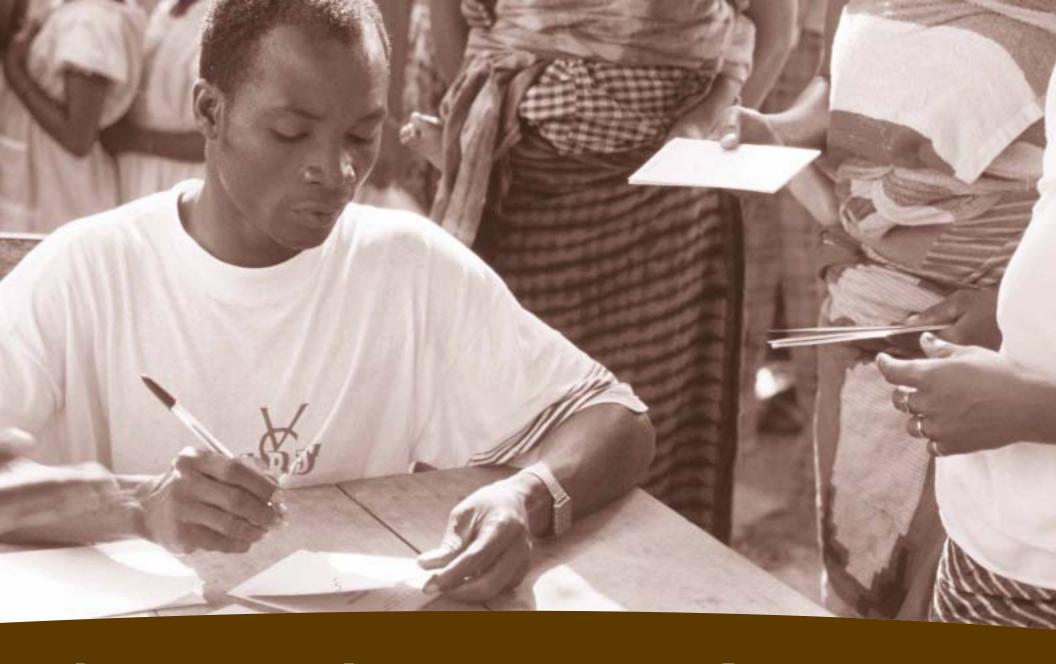
PATH is working on a range of programs with young people in Kenya to re-examine the relationships in their lives and to help them better understand how their decisions about those relationships affect health, productivity, and happiness—as well as individual and family survival.

The IMPACT Project: Supported by the United States Agency for International Development (USAID) through Family Health International, PATH and its partners are working to reduce Kenyans' vulnerability to HIV and AIDS. The IMPACT team has developed a range of innovative, interlinked activities—including participatory theater, mural painting, and essay writing—that draw youth into intense dialogues on relationships and decision making, and a comic book series, Nuru, which portrays realistic characters facing the real challenges of adolescence. Highly trained peer educators facilitate discussions on all aspects of relationships and health. The IMPACT team also works closely with the Kenya Girl Guides Association, using a peer-education program to reduce girls' risk of contracting HIV.

The Kenya Adolescent Reproductive Health Project:

In partnership with the Ministry of Health and the Population Council's Frontiers Project, PATH is helping improve adolescent reproductive health by combining community, health facility, and school-based interventions. Community-based activities promote advocacy, community mobilization, and integration of reproductive health information into existing youth activities. Health facility-based activities increase access to reproductive health services, and enhance delivery of youth-friendly services by working with health care providers to improve the service environment. In schools, PATH trains guidance counselors and teachers to provide appropriate reproductive health information and counseling to students.

Youth Exchange Network: PATH provides technical assistance to the Youth Exchange Network, a group of organizations working in the slums of Nairobi, to improve the health and well-being of young people, especially in the area of reproductive health and HIV prevention. Activities range from sports and puppetry to youth-friendly reproductive health clinics, voluntary counseling and testing centers, and incomegenerating activities.



PROVIDING RESOURCES AND INFORMATION

BRIDGING THE KNOWLEDGE GAP

PATH's newsletters, websites, electronic mail groups, and resource packets provide information necessary for successful interventions, communication, and advocacy.

PATH's website, **www.path.org**, provides the latest news about PATH's programs, technologies, and more. It also provides direct links to the following websites that provide a wealth of information about PATH-related programs and projects.

The Reproductive Health Outlook (RHO)
website (www.rho.org) is designed for
reproductive health program managers and
decision makers working in developing
countries and low-resource settings. The site
provides concise and accurate summaries of
research findings, profiles of program
experiences around the world, extensive
annotated bibliographies and links, and
analyses of policy and program implications.



- The Children's Vaccine Program at PATH website (www.childrensvaccine.org) provides information about the program, and offers a vast online library of valid scientific information about vaccines and the diseases they prevent, immunization programs, immunization financing, injection safety, and other topics. In order to reach people who do not have web access, the CVP also disseminates CD-ROMs, print materials, and videos, including an Immunization Advocacy Resource Kit recently produced for the Global Alliance for Vaccines and Immunization (GAVI) partners and distributed worldwide.
- The Malaria Vaccine Initiative website
 (www.malariavaccine.org) provides information
 about the Malaria Vaccine Initiative's efforts to
 accelerate the development of promising
 vaccine candidates and ensure their availability
 in the developing world.



Your site is especially useful to us because our headquarters runs on a shoestring, has no technical staff and no library, and doesn't provide us with any technical documents or technical support . . . I think it's the best site on the web. —Community health worker in Haiti, commenting on PATH's Reproductive Health Outlook (RHO) website

 The Alliance for Cervical Cancer Prevention website (www.alliance-cxca.org) provides information about this group of five international agencies, including PATH, working to clarify, promote, and implement strategies for preventing cervical cancer in developing countries.

PATH also publishes and distributes a quarterly newsletter, *Outlook*, which is now in its 19th year of production. With editions in English as well as Chinese, French, Indonesian, Portuguese, Russian, and Spanish, Outlook is sent to 40,000 readers in 180 countries. Each issue of *Outlook* provides a concise description of an emerging reproductive health topic in a readable, accessible format. Outlook's advisory board is composed of public health experts from around the world. The journal is funded by a range of donors, including the United Nations Population Fund (UNFPA), the Bill & Melinda Gates Foundation, and the United States Agency for International Development (USAID). English versions of recent Outlook articles are available on PATH's website.





FINANCING FOR HEALTH

PATH Loan Fund

In support of PATH's initiatives to find innovative solutions to global health problems, the Fund for Technology Transfer (PATH Loan Fund) provides loans to private-sector health enterprises. This financing includes technical assistance in business management, production design, engineering, and quality control for a wide range of health-related projects in transition economies.

The PATH Loan Fund directs its resources to sustainable enterprises engaged in the manufacture, promotion, or delivery of appropriate health interventions that reduce the cost, improve the quality, or increase the availability of products or services for lower-income populations. Recent projects in some 16 countries include:

- a medical waste disposal facility in Tanzania;
- iodized salt production and distribution in Ecuador:
- intravenous fluids and infusion sets in West Africa:
- contraceptive manufacturing in Mexico and Colombia:

- point-of-care rapid diagnostic tests in Thailand;
- micro-business and health programs for women in Cambodia and El Salvador;
- feminine hygiene products in Ghana and Côte d'Ivoire; and
- oral rehydration salts packaging in Ghana.

Major support for the PATH Loan Fund comes from the Calvert Social Investment Foundation, the Ford Foundation, the William and Flora Hewlett Foundation, the John D. and Catherine T. MacArthur Foundation, and the Andrew W. Mellon Foundation.

The PATH Loan Fund has produced A Simple Step-by-Step Guide for Starting or Expanding Your Business to give managers the tools to meet customers' needs, successfully operate their businesses, and create economic opportunities in their communities. For a copy, additional information, a loan application, or business resources, contact the PATH Loan Fund at loanfund@path.org.

Small Grants Program

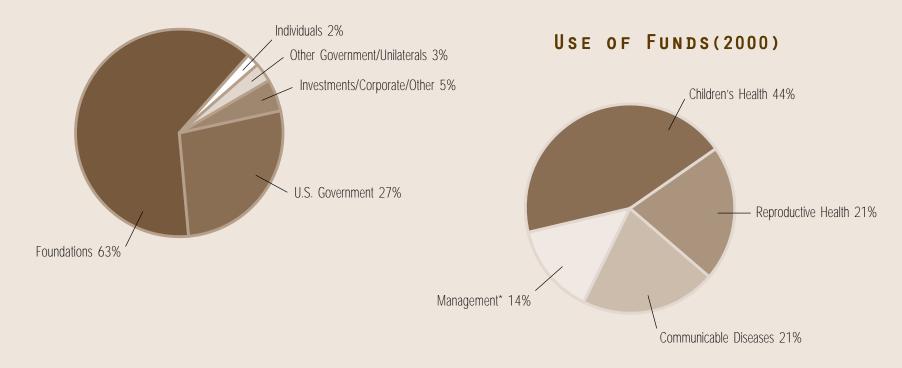
Since the early 1980s, PATH's Small Grants Program has provided grants totaling more than \$2 million to small, innovative family planning and reproductive health projects in more than 30 developing countries. Grantees share the same broad goal of improving the availability, effectiveness, quality, safety, and use of family planning and reproductive health technologies and services. The Small Grants Program enables PATH to provide assistance to grantees in project development, monitoring, and evaluation. PATH's collaborators and offices around the world help to identify potential grantees.

The Small Grants Program, which awards grants ranging from \$10,000 to \$15,000, is supported by the World Bank and other donors. Grassroots groups are playing an increasingly important role in the provision of family planning and reproductive health education and services to poor, marginalized groups. In many cases, these grants enable local organizations to implement an innovative reproductive health project on a pilot basis; successful pilot projects often are the seed for an expanded project in other geographic areas.



FINANCIAL SUMMARY

SOURCES OF SUPPORT (2000)



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