

# Meeting the global need for nutrients

PATH uses innovative approaches and strong partnerships to combat malnutrition

Good nutrition is a primary building block for life. It enables children to grow and learn, and it fuels dynamic families and communities.

In many developing countries, poor nutrition takes a heavy toll. It stunts growth, hampers mental development, and weakens immune systems, contributing to more than half of deaths among children under five years old. Children often get a poor start because of malnutrition among their mothers during pregnancy.

PATH places nutrition at the forefront of our innovative work to improve maternal and child health. To support good nutrition, we encourage healthy feeding behaviors, increase access to nutrients in staple foods, train health workers, and work with countries to bolster systems and policies for better nutrition. We implement low-cost nutrition interventions across sectors—health, education, and agriculture—with a diverse range of partners, from private firms to government ministries to local volunteers and other community members.

## ENSURING OPTIMAL NUTRITION FOR YOUNG CHILDREN

The first thousand days of life is a critical period for preventing malnutrition. PATH works with governments, health workers, communities, and families around the world to improve nutrition for women during pregnancy. We also strengthen services to help mothers provide optimal feeding for infants and young children, such as exclusive breastfeeding for children up to 6 months old and proper complementary feeding for children 6 to 23 months of age.

PATH's comprehensive technical assistance includes development and implementation of behavior change communication strategies and other interventions to improve nutrition for children in special circumstances, such as those exposed to HIV. In Côte d'Ivoire, Lesotho, South Africa, and Zambia, for example, we have trained health care professionals, community health workers, and volunteers to counsel mothers on safe feeding in the context of HIV. In South Africa, we have piloted an innovative program that assigns a buddy to HIV-infected mothers during antenatal care check-ups—a buddy who helps them safely feed their infants at home. PATH has also researched flash-heating of breast milk to inactivate HIV.

With support from PATH and others, South Africa has changed its policy on infant feeding to promote exclusive breastfeeding, scale up human milk banks, and stop providing free infant formula at hospitals and clinics. In Nigeria, PATH has helped to update national nutrition guidelines to instruct health workers to promote breastfeeding among HIV-positive mothers.

## SUCCESS STORIES

### Improving infant feeding through community health workers

In Lesotho, PATH trained 1,100 community-based workers to counsel mothers on proper infant and young child feeding practices, with emphasis on safe feeding in the context of HIV/AIDS.



PATH/Levyn Hockstein

### Nutrition counseling within an HIV program

PATH worked in Kenya to integrate nutrition counseling into an HIV/AIDS program. Through the initiative, 400 community workers already counseling families about HIV/AIDS prevention received training on safe infant-feeding practices. The counselors now provide support to breastfeeding mothers and have reached more than 34,000 community members with important messages about infant feeding and nutrition.

## USING TECHNOLOGIES TO IMPROVE NUTRITION

PATH's Ultra Rice® fortification technology enables the manufacture of fortified grains—made from rice flour using pasta-making equipment—that look and taste like milled rice but carry added micronutrients, such as iron, zinc, thiamin, and folic acid. Once traditional rice is blended with these grains, the resulting fortified product is a cost-effective means of addressing micronutrient deficiencies in rice-consuming populations. Research among young children in Brazil, schoolchildren in India, and women of reproductive age in Mexico has proved that regular consumption of this fortified rice effectively reduces iron deficiency and anemia.

Ultra Rice technology has been introduced in several countries. It costs only about US\$0.50 per child per school year to integrate fortified rice into school lunches, delivering a large portion of the recommended daily intake of iron, folic acid, zinc, and thiamin in one serving of rice.

PATH has licensed the technology to pasta manufacturers in India and Brazil, and regional technology centers are being established to support widespread integration of the product into local rice supply chains. In addition, the US Department of Agriculture has funded a field test of rice fortified using Ultra Rice technology and distributed through food aid channels in Africa.

PATH has also developed technologies to assess nutrient deficiencies. For example, we have developed efficient, low-cost ways to check for vitamin A deficiency and new methods for point-of-care, noninvasive anemia testing. Our immunoassay for testing vitamin A levels is now licensed to Scimedx, a US diagnostics company, which has rapidly introduced it into commercial markets.

## LINKING NUTRITION WITH OTHER SECTORS

PATH has established an innovative partnership with the International Potato Center and local agricultural organizations in western Kenya to improve health for pregnant women and young children by linking agriculture and nutrition interventions to health services. Through a project called Mama SASHA (Sweetpotato Action for Security and Health in Africa), pregnant women who visit targeted health clinics receive nutrition counseling and vouchers for vines they can plant to grow sweetpotatoes, a good source of vitamin A for optimal maternal and child health. The project is assessing the impact on newborns as well as their mothers.

In Ethiopia, PATH has integrated nutrition education into an agriculture program that aims to help families increase income from their urban gardens. We have also collaborated with community-based organizations in several other African countries to strengthen the livelihood and food security of people living with HIV/AIDS. To strengthen linkages between agriculture and nutrition, PATH and our partners developed a nutritional impact assessment tool that is helping agriculture program planners integrate nutrition programming into their projects.

PATH also integrates nutrition into other health programs. In several countries, we are integrating family planning and maternal, infant, and young child nutrition messages into health facility and community programs. In Rwanda, for example, we are introducing a behavior change communication strategy that ties nutrition to maternal and child health interventions.

## Providing fortified rice for schoolchildren in Brazil

In Brazil, about 50,000 schoolchildren each day receive needed nutrients from rice fortified through PATH's Ultra Rice technology.



Sergio Segall

## Integration of antenatal care and nutrition interventions

In Malawi, PATH supported the development of a new cadre of community health workers to improve feeding practices and prevent malnutrition among children. Piloted with 200 workers in one district, the intervention is being scaled up nationally.



PATH is an international nonprofit organization that transforms global health through innovation. We take an entrepreneurial approach to developing and delivering high-impact, low-cost solutions, from lifesaving vaccines and devices to collaborative programs with communities. Through our work in more than 70 countries, PATH and our partners empower people to achieve their full potential.

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