

WATER, SANITATION, AND HYGIENE: ESSENTIAL COMPONENTS FOR FOOD SECURITY

Water, sanitation, and hygiene (WASH) interventions play critical roles in achieving the major goals of the U.S. Government's global hunger and food security initiative, Feed the Future, which targets the root causes of hunger, poverty, and undernutrition, especially for women and children. WASH interventions address two pillars of food security:

- **Availability** of food: **Water services** are used not only for domestic purposes such as drinking and cooking, but also for food production (crops, horticulture, poultry, and livestock) and income-generating activities.
- **Utilization** of food: Ensuring good nutrition requires more than just having enough of the right foods. It also requires changing behaviors related to feeding and child care, and having access to and correctly using **safe drinking water, hygiene, and sanitation services**.

Improving Nutrition

The conceptual framework for child nutrition (on right), shows how diet and dietary practices along with disease treatment and prevention (WASH services) are necessary to address child undernutrition.

The Contribution of Water, Sanitation, and Hygiene

A set of three hygiene practices have been demonstrated to be effective, and programmatically cost-effective, in terms of public health impact. These practices, which can reduce diarrhea prevalence by at least 30 percent, include:

- Treatment and safe storage of water at the point of use
- Optimal hand washing (method and timing)
- Sanitary disposal of human feces at the household level

Agriculture, Nutrition, and WASH

USAID programs can further prevent and reduce undernutrition by incorporating WASH into community-based programs. Below are a few suggested activities:

- Integrate WASH into nutrition assessments and training
- Include a WASH component in all community-based worker training programs
- Engage additional community groups (water users, irrigation, and youth groups) to determine feasible local solutions to sanitation and water storage
- Include hand washing as an essential nutrition action
- Customize available assessment templates, community-based WASH training modules, and job aids to fit a specific country context
- Develop multiple use water systems to support health, agriculture, food security, and economic development goals

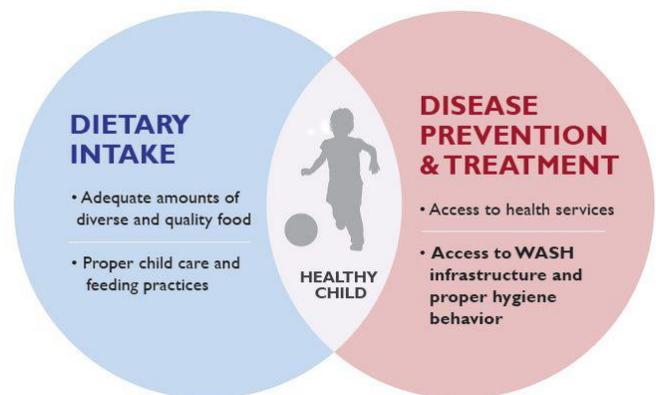


Giacomo Pirozzi, Panos

A recent study identified hand washing behaviors that are independently associated with less childhood diarrhea—mothers usually washing hands with soap before feeding a child and mothers using soap when asked to show how they wash their hands after defecation.

Luby S. et al. 2011. Using Child Health Outcomes to Identify Effective Measures of Handwashing. *American Journal of Tropical Medicine and Hygiene*.

Conceptual Framework for Child Nutrition



Current Examples of Integrated Programs

Mozambique

Two USAID/Mozambique programs coordinate the integration of agriculture, WASH, and nutrition. The Multi-Year Agriculture Program, or Food for Peace initiative, combines WASH and nutrition in community development programs along with MCH activities—developing small gardens, providing nutrition education and home visits, and focusing on the special needs of people living with HIV/AIDS, orphans and vulnerable children, and pregnant and lactating women. The Mission's Strengthening Communities through Integrated Programming activity combines funds from health, agriculture, and HIV/AIDS in an ambitious program in northern Mozambique with traditional WASH components, HIV/AIDS prevention channeled through farmer groups, and education of farmer associations on the link between agricultural production and nutrition.

Bangladesh

USAID's WASHplus project supports USAID/Bangladesh to increase access to safe drinking water supply, sanitation, and hygiene in targeted rural areas in southern Bangladesh in coordination with the Mission's Feed the Future activity and the nutrition activities of Global Health's Strengthening Partnerships, Results, and Innovations in Nutrition Globally (SPRING) project. SPRING will promote essential WASH actions such as hand washing before preparing food, along with essential nutrition actions—such as exclusive breastfeeding in the newborn's first six months of life. WASHplus, a five-year cooperative agreement (2010–2015) managed by FHI 360 with core partners Winrock International and CARE, seeks to increase the availability and use of WASH and indoor air pollution interventions, providing support at the global and country level.

For more information on How to Integrate WASH into Agriculture and Nutrition Programs

Be creative. Although you might not have specific funds for WASH, evidence-based activities such as hand washing or safe drinking water programs can be funded with either/both Development Assistance and Maternal and Child Health (MCH) money because they contribute to reducing undernutrition.

Access existing expertise to help integrate WASH into your program. Contact Merri Weinger, Environmental Health team leader, mweinger@usaid.gov, for information on technical advisors within USAID/Washington, or for field support mechanisms available for WASH and nutrition implementation.



USAID Hygiene Improvement Project

Safe drinking water is vital to improving nutrition status.



J. Rosenbaum, WASHplus

Encouraging exclusive breastfeeding of infants younger than six months and hand washing before feeding a child are two ways nutrition and hygiene recommendations can work together to improve nutrition status and health outcomes.

Did You Know?

Improving agricultural production alone will not translate into improvements in nutrition.

Many countries in Africa have shown steady economic growth over the last 15–20 years without seeing a reduction in nutritional indicators like stunting.¹

The World Health Organization (WHO) estimates that 50 percent of malnutrition is associated with repeated diarrhea or intestinal worm infections as a result of unsafe water, inadequate sanitation, or insufficient hygiene.²

This highlights the vicious cycle between diarrhea and undernutrition—children with diarrhea eat less and are less able to absorb the nutrients from their food, and undernourished children are more likely to get diarrhea when exposed to poor sanitation conditions. WASH interventions play a role in reducing or preventing malnutrition.³

¹ WHO. 2012. "Proposed Global Targets for Maternal, Infant, and Young Child Nutrition." WHO Discussion Paper.

² WHO. 2008. Safer Water, Better Health: Costs, Benefits and Sustainability of Interventions to Protect and Promote Health. http://whqlibdoc.who.int/publications/2008/9789241596435_eng.pdf

³ Gleick P. 2012. The World's Water. Volume 7. The Biennial Report on Freshwater Sources.