



WASH UP!

Meet Raya

The Challenge

Diarrheal disease kills over half a million children every year and robs millions more of the nutrition needed for physical and mental development. In most cases these illnesses are entirely preventable through regular use of clean water, sanitation and hygiene (WASH) practices. While significant investments in WASH programs focus on improving the health of school-aged children, there is little understanding in how healthy behaviors can be sustained over the long term.

WASH UP!

Stanford University has teamed up with World Vision and Sesame Workshop to address this critical gap in effective sanitation and hygiene education with WASH UP! A play-based learning initiative teaching school children healthy WASH habits while concurrently upgrading water supply and sanitation facilities at schools, WASH UP! has reached tens

of thousands of school children. Guided by a six-year-old girl Sesame Street Muppet named Raya, school children engage in videos, games, songs and storybooks to learn behaviors that will keep them healthy, such as hand washing, avoiding unsafe water sources and using the toilet consistently.



Raya is a smart and energetic six-year old guiding conversations all over the world about clean water, hand washing with soap, proper latrine use and food hygiene. As Sesame Workshop's global health ambassador Muppet, Raya models easy-to-share behaviors that children can in turn teach their friends and family.

Stanford researchers are conducting experiments within WASH UP!
to amplify and sustain its impact.

Stanford's Role

The learning generated through Stanford's WASH UP! research provides an evidence-based blueprint for school-based interventions to more effectively reduce preventable illnesses and death among young children throughout the world. Led by Jenna Davis, PhD, MSPH and Gary Darmstadt, MD, MS, the Stanford team has been at the forefront of efforts identifying emerging concerns and developing innovative solutions to global public health problems. With years of experience leading rigorous, interdisciplinary

and collaborative field-based research, Davis and Darmstadt are uniquely positioned to undertake these efforts.

What We've Learned

From a pilot study conducted in Zambia, Stanford researchers found the WASH UP! play-based curriculum to be an effective tool teaching children the difference between safe and unsafe water sources, what germs are and how to prevent them from causing illness, and how diarrhea is related to hand washing and toilet use. The greatest

gains in knowledge were observed in younger students, those at an age where lifelong habits are formed.

The Stanford team also explored the effectiveness of giving students a take-home object, depicting Raya and friends washing their hands with soap and water, in helping children communicate what they learn from WASH UP! with their parents. The results from Zambia have formed a foundation for future evaluations to test whether and how such objects can connect school learnings with households and the broader community.

Key Findings from the Zambia Pilot Research Study



First graders demonstrated a **54% increase in knowledge of germs, and a 39% increase identifying unsafe sources of drinking water.**

KNOWLEDGE



After attending WASH Up!, **students were more likely to share WASH information learned at school with their parents at home,** extending the reach of the school-based intervention.

INTERACTION



The take home object resulted in more parents speaking with their children about what they learned in school and identifying scientifically supported reasons for washing hands (such as to kill germs).

ACTION



Access to improved water sources and latrines increased initially, but **many schools could not sustain availability of soap and water for hand washing,** emphasizing the challenges of maintaining WASH services.

ROOM TO GROW

WASH UP!

Expanding Our Reach

In partnership with World Vision and Sesame Workshop, Stanford University is excited to apply learnings from the Zambia pilot study to other countries as WASH UP! continues to grow. Our findings show that infrastructure and education have the greatest impact together, when provided to support the practice of healthy behaviors learned from the program. New research focusing on school infrastructure maintenance will test strategies to ensure a sustained

and supportive environment for children to wash their hands and use clean, accessible latrines. Along with further developing the take-home object, the Stanford team is also using microbiological research methods to evaluate the risk of exposure to disease causing germs at home versus at school.

WASH UP! recently expanded to India, a country that accounts for 20% of child deaths from diarrheal disease each year. The potential for scale-up is immense, as more than

200 million children attend public elementary schools in India.

With a strong partnership, promising research findings and a clear strategic plan for expansion, WASH UP! is an ideal opportunity for partners looking to make a significant impact on water, sanitation and child health. Our vision is great, but we rely on the generous support of donors to make it a reality. We look forward to your partnership in this work.

Catalyzing healthy WASH behaviors through social programming is more effective when coupled with reliable water and sanitation services, both at school and at home.





Stanford Leadership

Jenna Davis, PhD, MSPH, is a Professor of Civil and Environmental Engineering, the Higgins-Magid Senior Fellow at the Woods Institute for the Environment and Director of the Stanford Program on Water, Health & Development. Professor Davis focuses on the interface of engineered water supply and sanitation systems and their users, particularly in low- and middle-income countries. She teaches undergraduate and graduate courses in public health, water and sanitation planning in developing countries, and the theory and practice of sustainability. Davis and her students have conducted field research in more than 20 countries, with extensive experience designing and implementing data collection in resource-constrained environments. Davis brings over 15 years of experience training local enumerators in survey data collection and environmental sampling, and is the co-principal investigator on the impact evaluation of WASH UP!



Gary L. Darmstadt, MD, MS, is Associate Dean for Maternal and Child Health, and Professor of Neonatal and Developmental Medicine in the Department of Pediatrics at the Stanford University School of Medicine. He serves on the World Health Organization’s Advisory Board on Maternal, Newborn and Child Health in the South East Asia Region. Previously, a Senior Fellow and Director in the Global Development Program at the Bill & Melinda Gates Foundation, he led a cross-foundation initiative on “Women, Girls and Gender” assessing whether empowering women and girls leads to improved gender equality as well as improved health and development outcomes. Also at the Gates Foundation, Darmstadt led strategy development and implementation across nutrition, family planning and maternal, newborn and child health. With decades of experience working to improve child health and development, and extensive research experience Darmstadt is also co-principal investigator for the impact evaluation.

