

What Gets People to Wash their Hands?

Impact Evaluation Evidence from Peru and Vietnam

Handwashing with soap and water is a simple way to reduce the spread of disease. It doesn't require complicated technology, it's usually affordable, and even young children

can do it. Yet many people don't wash their hands when they should: before touching food, after using the toilet or after cleaning a baby's bottom. Because bacteria, parasites, and viruses can easily spread when

people don't wash their hands, finding ways to boost handwashing can significantly reduce the risk of potentially fatal diarrheal and respiratory infections for children.

The World Bank is committed to ending poverty and giving everyone an equal chance in life, and pro-

moting healthy habits can help make this happen. To further these goals, the World Bank supported a project to encourage people to use soap and water to wash their hands at critical times throughout the day. Impact evaluations from Peru and Vietnam, two of the countries where the project was implemented, showed that it isn't easy to change behavior, at least not on a large scale. In Vietnam, using mass media campaigns and face-to-face communication did raise awareness, but it didn't lead to any observable changes in how often or when people washed their hands. In Peru, there was a measurable boost when a mass media campaign was twinned with school handwashing activities for children. As the studies show, washing hands is simple, but getting people to do it at the right times isn't that easy, and the right mix of programs to change behavior on a large scale still needs to be devised.



WATER

Context

The World Bank's Water and Sanitation Program, a multi-donor partnership administered by the World Bank, launched the Global Scaling Up Handwashing Project in 2006 with funding from the Bill & Melinda Gates Foun-

Did You Know...

Diarrhea deprives people of the water and salt they need to survive. Malnourished children, those with impaired immunity and people with HIV-AIDS are at most risk of life-threatening diarrhea. Diarrheal diseases are also one of the main causes of malnutrition in children.

WHO, <http://www.who.int/mediacentre/factsheets/fs330/en/>

ation. The goal was to encourage behavior changes to reduce the spread of diarrheal diseases among children. The project has been implemented in four countries—Vietnam, Peru, Tanzania, and Senegal—with impact evaluations built in to assess the results. The people targeted—mothers, caregivers, and children under the age of 12—generally have access to water and soap in their homes. The problem is they don't always wash their hands, even when they know that it's a very effective way to prevent the spread of diarrheal disease. Results from these evaluations will help inform governments designing future large-scale programs and projects to improve handwashing.

Evaluation

In Peru, the intervention consisted of a radio campaign promoting handwashing that in some districts was twinned with a community-based training and school activities program. Eighty of the country's 195 provinces were randomly picked and divided into two groups of 40 provinces each. In the first group, 40 randomly selected districts were exposed to a mass media campaign only. In the second group, 44 randomly selected districts received community-level handwashing training in addition to the mass media campaign. The main schools in these 44 districts received a special handwashing curriculum. In this second group, 41 more districts were also randomly selected to serve as a control group; none of the interventions were implemented in these districts. A similar sub-sample of households with children attending the main primary school was selected in the 41 control districts to serve as a control group for the school activities program.

Baseline data was collected in the May-August, 2008, period from 3,576 households. A follow-up survey was conducted from March-June, 2011, four months after the intervention ended. Household data was collected on knowledge of handwashing, self-reported handwashing behavior, and characteristics of

the dwelling (income, education, handwashing facilities, sanitation, and other relevant points). Researchers also observed family handwashing behaviors. The quality of drinking water was sampled, and households were asked about children's illnesses. Stool samples from children under the age of five were also collected and their blood was measured for anemia.

In Vietnam, the campaign targeted mothers and caregivers of children under the age of five with television ads and community activities to teach and encourage handwashing. The program was implemented across three provinces, with 140 randomly selected communities in the treatment group, which received both ads and community activities, and 70 communities in the control group, which were exposed only to the television ads. Baseline data was collected from 3,150 households in September-December, 2009, with midline data collected in July 2010, and final data collected from the end of 2010 through early 2011, a few months after the program ended. The data collection was similar to that in Peru, excluding water quality, and stool and blood sample collection. (For further details on the methodologies, please see the working papers.*)

Findings

Mass media campaigns twinned with public outreach didn't change behavior.

People exposed to the mass media plus public outreach campaigns in Vietnam and in Peru weren't any more likely to wash their hands with soap and water at key times, even in cases where their knowledge of the importance of handwashing improved.

In Peru, where one intervention consisted of 15 months of radio ads paired with a public campaign that included posters, comic books, and public marketing events, mothers and caregivers weren't any more likely to recall seeing a promotional handwashing message. Not surprisingly, their knowledge of handwashing—when to do it, how, and why—didn't improve relative to the control group. Less than 25 percent were able to recall the

This policy note is based on Policy Research Working Paper 6257, "Promoting Handwashing Behavior in Peru: The Effect of Large-Scale Mass-Media and Community Level Interventions," Sebastian Galiani, Paul Gertler, Alexandra Orsola-Vidal, Nov. 2012; and Policy Research Working Paper 6207, "Handwashing Behavior Change at Scale: Evidence from a Randomized Evaluation in Vietnam," Claire Chase, Quy-Toan Do, Sep. 2012. Financial support for the evaluations was provided by the Bill and Melinda Gates Foundation.

important times for washing hands, similar to the control group. This was despite the fact that 87.9 percent of those surveyed in the control group and 87.6 in the treatment group knew that soap and water should be used together when washing hands, and 94 percent of people from both groups knew that not washing hands with soap and water caused diarrhea.

In Vietnam, the 11-month campaign consisted of television ads, community events, face-to-face meetings, and distribution of promotional materials. While the campaign boosted people's knowledge of the link between washing hands and reducing the spread of diarrheal diseases, it didn't lead to any observable increase in handwashing.

Caregivers exposed to the campaign were more likely to know that washing with soap and water could prevent diarrheal disease—87.8 percent versus 84.9 percent in the control group. They were also 40 percent more likely to know that key times for washing hands included before preparing food. But although after the campaign they reported that they washed their hands more frequently, data collectors who observed the people in their homes didn't see that happen. Less than 25 percent of caregivers washed their hands with soap after coming into contact with fecal matter and less than 10 percent before feeding a child. And while overall knowledge of how to wash hands—use soap and water—did rise to 97.7 percent from 79.4 percent, a similar increase was seen in the control group, indicating the change was not only due to the campaign, but could have been caused by other factors, such as an overall knowledge shift in the country.

In Peru, supplementing the mass media and public outreach campaign with community and school-level activities increased knowledge and changed some behavior among caregivers exposed to the additional treatment.

In some of the treatment districts in Peru, community leaders, medical professionals, and teachers were given training in proper handwashing. A program was also introduced in schools to promote correct handwash-

ing and designated areas with soap and water were created in the schools for handwashing. In these districts, there was a five percent increase in the proportion of mothers and caregivers who knew that soap and water together was the best method for washing hands, and 3.3 percent more knew that poor handwashing led to diarrhea. Among those families who had children in school at the time of the school handwashing campaign, there was an 8.4 percent increase in the availability of soap and water in their households, a proxy commonly used to measure handwashing behavior.

But an increase in handwashing at critical times was only observed in households that had children in schools with the specialized handwashing curriculum.

The observed difference between households with children in schools who were exposed to the campaign and households whose children were not exposed to the campaign was large. There was a 61 percent increase in the use of soap and water before eating—to 16.7 percent of households from 9.9 percent. There also was a 69 percent increase in handwashing before preparing food—to 30.4 percent of households from 18.9 percent. Although these increases were large, there are still fewer than 32 percent of caregivers washing their hands with soap at key times.

Nonetheless, there was no reported decline in children's illnesses among the households in Peru.

Despite a proven link between handwashing and diarrheal diseases, there was no decline in parasites in stool samples or evidence of better health for children in the treatment group compared to the control group. Researchers said there could have been other environmental issues that affected the presence of parasites, which is why it makes sense to consider combining handwashing and sanitation with other hygiene campaigns.

People in Peru and Vietnam had access to soap and water, but the mass media campaigns did not increase their use.

In the Vietnamese provinces where the program was implemented, 81 percent of households had a place for handwashing where soap and water were available. But the survey found that most caregivers didn't use soap when washing their hands. More often they rinsed their hands with water only. At the same time, while soap was generally available near the toilet, it wasn't as commonly found in the area where the cooking was done, possibly hindering the practice of handwashing before preparing food or feeding children.

In Peru, people demonstrated similar behaviors to those in Vietnam: although most people knew about the importance of handwashing, they didn't wash their hands at the recommended times and they often didn't use soap when they did wash their hands.

Facilities for handwashing were available—in 64 percent of households, there was a place with soap and water for washing hands, although it wasn't always close to the toilet or the cooking area. Almost all caregivers reported that they had washed their hands with soap at least once in the previous 24 hours, but less than half said they did so after coming in contact with fecal matter.



Conclusion

There are so many things that can conspire to keep people poor: bad education and limited job opportunities usually come to mind first. But poor health can be as devastating, if not more so, to a person's ability to create, find, and utilize opportunities. Illness drains finances and keeps people out of school and work. For young children, the results can be deadly: diarrhea is the second leading cause of death in children under the age of 5—and this despite the fact that it's both preventable and treatable.

As these studies underscore, changing behavior is difficult. The two studies taken together build on existing evidence showing that handwashing campaigns must move beyond traditional mass media into more personalized and intensive programs at the community and institutional level. Further research into how such approaches can be deployed on a large scale is needed, as is a better understanding of other environmental factors and fecal-oral transmission pathways that can spread illnesses.

WATER

The Human Development Network, part of the World Bank Group, supports and disseminates research evaluating the impact of development projects to help alleviate poverty. **The goal is to collect and build empirical evidence that can help governments and development organizations design and implement the most appropriate and effective policies for better educational, health and job opportunities for people in developing countries.** For more information about who we are and what we do, go to: <http://www.worldbank.org/sief>.
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THE WORLD BANK, HUMAN DEVELOPMENT NETWORK
1818 H STREET, NW WASHINGTON, DC 20433