

## Global Scaling Up Handwashing Project

# Summary Findings from the Impact Evaluation Baseline Survey in Vietnam

April 2011

## INTRODUCTION

In response to the preventable threats posed by poor sanitation and hygiene, the Water and Sanitation Program (WSP) launched Global Scaling Up Handwashing and Global Scaling Up Rural Sanitation<sup>1</sup> in 2006 to improve the health and welfare outcomes for millions of poor people. Local and national governments are implementing these large-scale projects with technical support from WSP.

Handwashing with soap at critical times (such as after contact with feces and before handling food) has been shown to substantially reduce the risk of diarrhea, even when households do not have access to basic sanitation and water supply services. The handwashing project aims to test whether handwashing with soap behavior can be generated at scale and sustained among the poor and vulnerable using innovative promotional approaches.

One of the handwashing project's global objectives is to learn about and document the long-term health and welfare impacts of the project intervention. To measure the magnitude of these impacts, the project is implementing a randomized-controlled trial impact evaluation (IE) in Peru, Senegal, Tanzania, and Vietnam—the four countries included in the project—to establish causal linkages between the intervention and key outcomes. The IE uses household surveys to gather data on characteristics of the population exposed to the intervention and to track changes in key outcomes that can be causally attributed to the intervention.

<sup>1</sup> For more information on Global Scaling Up Rural Sanitation, see [www.wsp.org/scalingupsanitation](http://www.wsp.org/scalingupsanitation).

## KEY FINDINGS

- Water and soap widely available in households.
- Poorer households less likely to report handwashing with soap at critical times.
- Nearly 20 percent of children in poorer households experience malnutrition and stunted growth.
- Rates of child diarrhea and Acute Lower Respiratory Infection are low, based on caregiver reports.

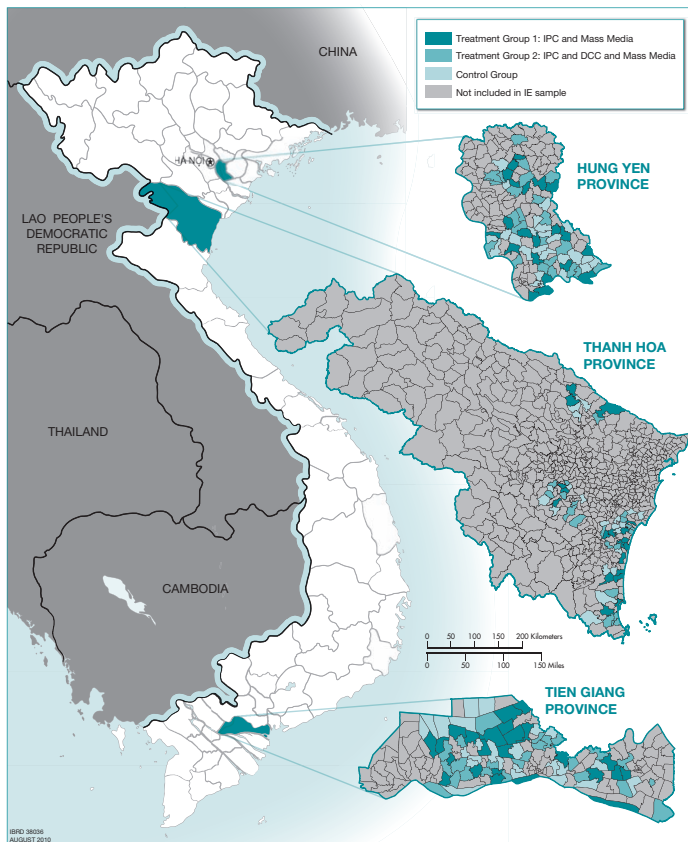
## IMPACT EVALUATION STUDY DESIGN

In Vietnam, the handwashing project has been implemented in 540 communes across 56 districts in ten provinces. The project was implemented in three phases:

- Phase 1 (2006–2008) reached an estimated 17 million people through mass media (television advertisements) and interpersonal communication conducted by health workers. During this time, the Vietnam Ministry of Health and the Vietnam Women's Union, in partnership with WSP, began development of an evidenced based communications campaign to promote handwashing with soap based on formative research among caretakers of young children in Vietnam;<sup>2</sup>
- Phase 2 (2008–2009) reached an estimated 650,000 people through campaign materials developed under Phase 1, including mass media, posters, flyers, and interpersonal

<sup>2</sup> Nguyen, N. 2010, "Designing Evidence-based Communications Programs to Promote Handwashing with Soap in Vietnam," *South Asia Hygiene Practitioners Workshop*, Dhaka, Bangladesh.

**Figure 1: Geographic Representation of Communes Selected for Impact Evaluation**



communication activities by the Vietnam Women's Union at the household and commune level; and

- Phase 3 (2010) had a targeted reach of 17 million additional people through the same channels as Phase 2. Phase 3 is being evaluated using a randomized controlled trial impact evaluation.

The impact evaluation baseline survey collected information from a representative sample of the population targeted by the intervention. Research was conducted from September to November 2009 in 3,150 households containing 3,751 children under the age of five.

The impact evaluation study utilizes a series of data collection activities to measure impact of the intervention. These included the baseline household and community surveys, four waves of longitudinal monitoring of diarrhea prevalence, and post-intervention follow-up questionnaires at the household and community level, in addition to structured

observations of handwashing by caretakers of children under five.<sup>3</sup>

This Research Brief summarizes the main findings of the baseline survey in Vietnam.

## KEY FINDINGS

**Handwashing with soap practices vary by household wealth status, with caretakers from poor households less likely to report handwashing with soap at critical times.** When prompted, nearly all caregivers reported washing their hands with soap at least once during the past 24 hours. However, self-reported frequency of handwashing at particular critical times, such as after using the toilet, after cleaning a child's bottom, before cooking/preparing food, and before feeding a child, is lower. When prompted for the occasions over the past 24 hours during which handwashing with soap took place, an average of 47.1 percent reported to have washed hands with soap after using the toilet, 33.2 percent before feeding a child, 32.1 percent after cleaning a child's bottom and 31.0 percent before cooking or preparing food. Self-reported handwashing after using the toilet was lower on average in the lowest wealth quintile (42.0 percent) than in the wealthiest (56.6 percent). However, the poorest were more likely to report washing hands with soap after cleaning a child's bottom (37.7 percent) than the wealthiest (28.7 percent). On average, 78.4 percent of caretakers reported washing hands with soap at one of the four critical times, but the wealthiest were more likely (86.4 percent) than the poorest (73.3 percent) to report handwashing with soap at a critical time.

**Water and soap are generally available in the households sampled, creating a suitable environment for improved handwashing behavior.** Spot-check observations of handwashing facilities were carried out in each household. Enumerators were instructed to assess whether a household had a dedicated place for washing hands after using the toilet and before food preparation, and to observe whether or not soap and water were available at the time of observation. On average, water was available in 98.0 percent of households and at least one type of soap was observed in 94.0 percent of households. This led to a high percentage of households designated as having a 'fully stocked' place

<sup>3</sup> Structured observations of handwashing were carried out only during the post-intervention follow-up survey.

for handwashing somewhere in the home (80.8 percent). The most common place for the handwashing station was inside the toilet or food preparation facility (26.3 percent) or elsewhere in the housing compound at a distance greater than three meters from the toilet facility (24.6 percent). Poorer households were less likely to have a place for handwashing with both soap and water present (70.2 percent) and these were more likely to be located far from the toilet or food preparation facility (31.6 percent greater than three meters away) than in wealthier households (55.1 percent located in toilet or food preparation facility). This finding points to a clear positive association between wealth and presence of a place for washing hands, and underscores the importance of targeting handwashing with soap promotion to the poor for achieving the greatest impacts.

**Child malnutrition indicators point to a sizeable proportion of stunted and underweight children in the poorest households.** All children under two years of age were weighed and measured during household visits and anthropometric Z-scores computed based on



A household interview takes place in Tien Giang province.

the WHO reference population median and standard deviation.<sup>4</sup> While the proportion of children under two in the sample who were stunted (14.0 percent), underweight (8.5 percent), and/or wasted (5.7 percent) was low, in the poorest households nearly one-fifth of children under two were stunted, and over 10 percent were underweight in the two lowest wealth quintiles. Stunting of children appeared highest in Thanh Hoa (16.3 percent) and Hung Yen (15.6 percent) provinces when compared with Tien Giang (11.0 percent).

**Caregiver reported prevalence of child diarrhea and Acute Lower Respiratory Infection (ALRI) is low in the sample, but is consistent with more objective measures of health.** Primary caregivers were administered a child health calendar and asked about symptoms over the past fourteen days for each child under the age of five in their care. Clinically defined diarrhea, that is, presence of three or more bowel movements during a 24 hour period and soft stool, or blood and/or mucous in stool, was reported for fewer than 1 percent of children during the 48 hours prior to the survey. While national diarrhea prevalence rates have been declining in Vietnam over the past 10 years,<sup>5</sup> these figures are extremely low and should be viewed with caution. Similarly low prevalence



A typical place reportedly used for washing hands in rural Vietnam, with water and soap available.

<sup>4</sup> World Health Organization. 2007. *WHO Child Growth Standards: Head Circumference-for-Age, Arm Circumference-for-Age, Triceps Skinfold-for-Age and Subscapular Skinfold-for-Age: Methods and Development*. Geneva: WHO Press.

<sup>5</sup> Estimates from 2002 Vietnam Demographic and Health Survey and third round of the Multiple Indicator Cluster Survey (2006) reported prevalence of diarrhea among children under five of 11.0 percent and 6.8 percent respectively.



rates of ALRI were reported. Whereas 21.6 percent of children in the sample had caregiver reported respiratory symptoms in the two weeks prior to the survey, the prevalence of clinically defined ALRI in the sample is low: just 0.5 percent of children had symptoms consistent with ALRI in the previous 48 hours. Importantly, these caregiver-reported symptoms are internally consistent with the child growth measures (reported above) and anemia prevalence (31.7 percent) found in the sample population, both of which provide more objective measures of child health than caregiver-reported diarrhea and respiratory illness.

## CONCLUSIONS

The findings presented here provide a snapshot of baseline characteristics of the target population of the impact evaluation in regards to mother's and other caretaker's handwashing

behavior, presence of handwashing facilities and key child health and development indicators.

In addition to providing useful information for the ongoing design of the handwashing project, the baseline data will be used to track changes in handwashing with soap behavior in Vietnam and to evaluate the project's impact on child health and caretaker productivity. WSP hopes that learnings from the evaluation study will be used to guide future projects and policy in Vietnam and globally.

Post-intervention data collection now underway in all three provinces is scheduled to conclude by March 2011. Data analysis and impact assessments will be conducted soon after and a full impact evaluation report will be available in late 2011.

— by Claire Chase and Quy-Toan Do

WSP is a multi-donor partnership created in 1978 and administered by the World Bank to support poor people in obtaining affordable, safe, and sustainable access to water and sanitation services. WSP's donors include Australia, Austria, Canada, Denmark, Finland, France, the Bill & Melinda Gates Foundation, Ireland, Luxembourg, Netherlands, Norway, Sweden, Switzerland, United Kingdom, United States, and the World Bank.

*WSP reports are published to communicate the results of WSP's work to the development community. The boundaries, colors, denominations, and other information shown on any map in this work do not imply any judgment on the part of the World Bank Group concerning the legal status of any territory or the endorsement or acceptance of such boundaries.*

## Related readings

For the full report, please see *Scaling Up Handwashing Behavior: Findings from the Impact Evaluation Baseline Survey in Vietnam*, available at [www.wsp.org/scalinguphandwashing](http://www.wsp.org/scalinguphandwashing).

## Acknowledgments

The authors would like to thank the project's Global Task Team Leader, Eduardo Perez, the project's Global IE Team led by Bertha Briceno, and the country team in Vietnam, including Nga Kim Nguyen, and Minh Thi Hien Nguyen for their inputs. The baseline survey was conducted by the National Institute of Hygiene and Epidemiology in Hanoi with management oversight from Dr. Tham Chi Dung, acting chief, under the overall direction of Dr. Nguyen Tran Hien, director. A cadre of survey enumerators at the provincial, district, and commune administrative levels carried out the field work.

## About the program

Global Scaling Up Handwashing is a Water and Sanitation Program (WSP) project focused on applying innovative behavior change approaches to improve handwashing with soap behavior among women of reproductive age (ages 15–49) and primary school-age children (ages 5–9). It is being implemented by local and national governments with technical support from WSP in four countries: Peru, Senegal, Tanzania, and Vietnam. For more information, please visit [www.wsp.org/scalinguphandwashing](http://www.wsp.org/scalinguphandwashing).

## Contact us

For more information please visit [www.wsp.org](http://www.wsp.org) or contact Claire Chase or Quy-Toan Do at [wsp@worldbank.org](mailto:wsp@worldbank.org).