



Global Scaling Up Handwashing Project Second Annual Progress Report

Peru, Tanzania, Vietnam and Senegal

July 1, 2008 – June 30, 2009

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The Global Scaling Up Handwashing Project, supported by the Bill & Melinda Gates Foundation, is learning how to apply innovative promotional approaches to behavior change to generate widespread and sustained improvements in handwashing with soap at scale. For more information, please visit www.wsp.org/scalinguphandwashing.

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Boy using tippy tap to wash his hands with soap in Tanzania.

I. Executive Summary

The HWWS project is 36 months into implementation of the now five year project¹. With the launching of behavior change communication programs in both Tanzania and Senegal, the project is on track globally to deliver intended results.

Reaching Scale

Since the project's inception, the numbers of women of reproductive age and primary school aged children who have been exposed globally to behavior change communication programs are compelling:

- 28.6 million have been exposed to HWWS mass media campaigns (74 percent of the global end of project target);
- Over 1.9 million have been engaged in Interpersonal Communication (IPC) programs (61 percent of the global end of project target);
- 49,000 exposed through Direct Consumer Contact (DCC) events (8percent of the global end of project target)²;
- More than 14,000 people representing a diversity of sectors and segments of society including teachers, health professionals, local NGOs, university students and teachers, community volunteers, local governments, and private sector firms have been trained to facilitate behavior change in HWWS (47 percent of the global end of project target).

Achieving Intended Outcomes

Based on experiences from other behavior change programs (primarily HIV/AIDS), the current literature, our collective expertise and our personal accounts from trips to the field, we are confident that the communication programs are changing behavior: people are washing their hands with soap when and where they did not do so before. While the total numbers will not be known until the Impact Evaluation (IE) endline surveys are conducted, emerging results from doer-non doer studies in Vietnam and monitoring surveys demonstrate that behavioral determinants are improving, communication messages are resonating with our audiences and people are now washing their hands with soap. We are, at present, confident that the project is on track to change the behavior of more than 5 million women and children to wash their hands with soap at critical times.

Expanding Reach and Exposure – Programming Component

The programming component is on track to achieve and, in some cases, surpass expected results. During the last six months, there has been a significant increase in the number of women and children reached by mass media, IPC, and DCC programs over the previous reporting period (5,779 percent, 140 percent and 181 percent increase respectively). The significant increase in mass media reach is the result of the launching of the “Hands to be Proud of” radio campaign in Tanzania, exposing 8.4 million women and children to at least one HWWS program in only four months. The increase in IPC and DCC is due to the rapid scaling up of IPC in Vietnam (where 1 million women and children were reached through 540,000 IPC activities delivered in this reporting period alone) and the number of people reached through DCC events in Peru (25,000 women and children).

Increasing Sustainability – Enabling Environment

Work in the Enabling Environment Component continues to build on past gains and progress has been made in the majority of the nine dimensions. Globally, the project has integrated HWWS in the public sectors of education, health, and water – securing public funding for HWWS programs (Peru and Tanzania), developing HWWS

¹ A one year no-cost extension to the four year project was approved during this reporting period to allow for sufficient time to complete the impact evaluation endlines following a sufficient implementation exposure time to do the necessary analysis and document the findings for both the country and global impact evaluations.

² Direct Consumer Contact (DCC) events are scheduled to start implementation within the next month in Tanzania and Senegal, with targets set at 170,000 and 225,000, respectively; the numbers reached by these programs will significantly increase in the next reporting period.

training for teachers and integrating programs into primary school curricula (Vietnam, Peru, and Senegal), and securing the designation as “incubators” to garner financial support, national attention and local support (Tanzania). The project has also brokered innovative partnerships between public and private sector entities. Private sector firms are developing and purchasing easy-to-use and affordable soap dispensers (Peru); soap companies are branding their products with the project logo and are interested in leveraging the project as a distribution channel for their products (Tanzania); and companies and local governments are co-financing large-scale HWWS programs which are integrated into other health-related programs (malnutrition in Peru).

Learning to Replicate – Learning Component

The global HWWS project is designed to learn about implementation and achieving results at scale with a focus on sustainability and replicability. Rich learning is taking place both at the country level and globally, and although only 33 percent of the expected knowledge products have been completed, we are on track to deliver expected results.

Through both the ongoing research and field experience, we are finding out more about the factors contributing to washing hands with soap. Easy access to soap and water when and where needed has emerged as a significant behavioral determinant for HWWS in Peru and Senegal, underscoring the potential role enabling products and technologies has in HWWS. Knowledge of the best way to wash hands, which was previously assumed not to be a factor, has been found to be statistically correlated with the behavior. Remaining misconceptions in beliefs and attitudes about soap and water (e.g., if you wash your hands really well with water you do not need soap, washing your hands with soap before feeding a child is important only if you use your hands to feed them, etc.) are significantly correlated with HWWS behavior. All of these findings reinforce the FOAM framework (Focus on Opportunity, Ability and Motivation) developed by WSP as part of the HWWS project, and shed more light on some of the necessary conditions for creating sustainable behavior change.

Further, project teams are engaging other technical experts and program managers outside of their respective countries to share experiences, build capacities and lay the foundations for replicating experiences and outcomes achieved by the project. In Peru, the project was selected by UNICEF to present at the International Symposium on Water, Sanitation and Hygiene in Schools on experiences integrating handwashing with soap into the education system in 800 schools throughout Peru. The team in Peru is also providing an intensive development program for Bank Task Team Leaders and program coordinators from other countries to come to Peru to learn from the team and the experiences of the project. To date, the project has conducted two of these programs for representatives from Colombia and Central America.

Monitoring to Learn – Performance Monitoring Component

The HWWS project is now well positioned to effectively monitor the implementation of the breadth of activities being implemented throughout the four countries. Reporting systems have been developed to ensure that country teams are receiving regular information from their contractors against key performance targets. Country Management Information Systems, either already operating or currently being finalized, will capture this data and will provide a powerful management tool for project teams to manage for results. Finally, the Global Management Information System, which was rolled out during this reporting period and used for this reporting process, will capture data on the key global indicators and provide the headquarters team with performance information on a regular basis.

Laying the Foundations for Evaluating Impact - Impact Evaluation Component

Overall, the impact evaluation is on track to meet the intended objectives within the extended five-year time frame. At the time of the writing of this report, all of the baseline surveys have either been completed (Peru) or launched (Vietnam, Senegal, Tanzania). Findings from the Peru baseline have been compiled in a draft report (available upon request) and the results will be shared with a wider group of government partners and stakeholders in October, 2009. Draft reports and stakeholder engagement workshops will be held for the remaining countries in the winter of 2009/2010.

Project Management

The overall project management capacity of the HWWS project has continued to strengthen over the reporting period. Short-term resources have been added to country teams to support in the areas of monitoring and Management Information System (MIS) design and knowledge management. The headquarters team has provided direct assistance in budgeting and overall technical assistance through numerous missions.

Expectations for the Next Six Months

- Continue work in the programming component to expand the reach and exposure rates of women and children to the HWWS behavior change programs (IPC, DCC and mass media).
- Expand on the gains made in the enabling environment to solidify the foundations for sustainability and replication.
- Prepare and implement activities associated with Global Handwashing Day (October 2009).
- Analyze emerging data from tracking surveys to monitor adoption of handwashing with soap behavior, behavior change determinants and adapt programming and messages as needed.
- Use implementation data emerging from country and global Management Information Systems (MISs) to track the implementation of activities across all four countries and identify opportunities for improvement.
- Expand our ability to better translate learnings into knowledge products and to share these with other WSP countries, development partners, client governments, and other WSS grantees of the Bill and Melinda Gates Foundation.
- Begin planning for the end of project transition³. Planning will aim to secure commitments from national governments and other partners to sustain HWWS programs and continue to change HWWS behaviors. WSP will very likely remain engaged in HWWS in the four countries, but, depending on funding levels, at a lower level of engagement.



WU worker engaging a mother in IPC activity.

³ While the IE will continue during the last year of the no-cost extension, implementation funds are expected to be spent by the end of 2010 or early 2011.

II. Achieving Intended Outcomes – The Global Story

What a Difference Six Months Can Make

Now well into year two of the implementation of a five year project⁴, the global HWWS project is pleased to report that all four countries are under implementation and target audiences are being exposed to HWWS programs on a large scale. This is a tremendous achievement given where we were just six months ago. Now, communications interventions and the Impact Evaluation baseline surveys are underway in both Tanzania⁵ and Senegal. All major contracts have been signed and action plans are in place to deliver the full suite of activities in the communication programs (face-to-face communications, community-based promotional events, and mass media)⁶. All four countries have made further progress to strengthen the enabling environment. New partnerships have been developed and existing ones strengthened. New commitments have been made in the form of funding for HWWS from both the public and private sectors. New policies to further integrate HWWS into existing programs have been developed and efforts made by partners to bring HWWS promotion into new areas of the countries not specifically targeted by the project. The project is now back on track to deliver the intended results in each of four components.

Scaling Up Reach to Influence Behavioral Determinants and Change Behavior⁷

Since project inception, the numbers of people reached by the HWWS initiatives currently underway in all four countries are compelling:

- 28.6 million people have been exposed to HWWS mass media campaigns, through radio, television, and print materials (74 percent of the global end of project target);
- Over 1.9 million mothers, caretakers and children reached in face-to-face or small group discussions (Interpersonal Communication Programs, or IPC) (61 percent of the global end of project);
- 49,000 people have been reached through Direct Consumer Contact (DCC) events (8 percent of the global end of project target)⁸
- More than 14,000 people from a diversity of sources, including front line workers from the health and education sectors, local NGOs, universities, local governments, and private sector firms have all been trained to facilitate behavior change in HWWS (47 percent of the *global* end of project target).

There is now strong evidence that the project is on track to achieve the intended reach and exposure targets set for the HWWS behavior change programs. Based on experiences from other behavior change programs (primarily HIV/AIDS), the current literature, our collective expertise and our personal accounts from trips to the field, we are confident that the communication programs are changing behavior and people are washing their hands with soap when and where they did not before. While the total numbers will not be known until the Impact Evaluation (IE) endline surveys are conducted, emerging results from doer-non doer studies in Vietnam and monitoring surveys demonstrate behavioral determinants are improving, communication messages are resonating with our audiences and people are now washing their hands with soap. We are, at present, confident that the project is on track to change the behavior of more than 5 million women and children to wash their hands with soap at critical times.

⁴ A one year no-cost extension to the four year project was approved during this reporting period to allow for sufficient time to complete the impact evaluation endlines following a sufficient implementation exposure time to do the necessary analysis and document the findings for both the country and global impact evaluations.

⁵ Due to lack of performance by the baseline survey contractor, the scope of the baseline survey has been scaled back to include five of the originally planned-for 10 districts. This is discussed in more detail in the Impact Evaluation section of this report.

⁶ Interpersonal Communication programs (IPC), Direct Consumer Contact events (DCC) and mass media (MM).

⁷ We will have more to say on the effect this reach is having on people's opportunity, ability and motivation to wash their hands with soap (the behavioral determinants) in the next two reporting periods as data becomes available from country monitoring surveys. This data will tell us if the communications programs and messaging is resonating with our target audience - an interim indicator that our programs are, in fact, changing behavior.

⁸ Direct Consumer Contact (DCC) events are scheduled to start implementation within the next month in Tanzania and Senegal, with targets set at 170,000 and 225,000 respectively, the numbers reached by these programs will significantly increase in the next reporting period.

III. Delivering Results – Implementation Progress and the Project Components

This section summarizes the results achieved in each component of the project: programming, enabling environment, learning, and monitoring and evaluation. It assesses the extent to which project components are on track to achieve the end of project targets defined for each of the key indicators under each component. It also highlights examples and case studies from the HWWS countries that demonstrate progress or the achievement of a particular result in support of the overall objective of achieving HWWS behavior change at scale that is sustainable and replicable/adaptable. A more in-depth examination of the developments in each of the four countries is included in the country stories (Annex 2).



Children washing their hands with soap in Peru

Component 1: Programming

The Programming Component encompasses the design, delivery, supervision and monitoring of the behavior change communication programs implemented through Interpersonal Communication (IPC), Direct Consumer Contact (DCC) and mass media channels. It aims to have a positive influence on the behavioral determinants defined for each of the four HWWS countries.

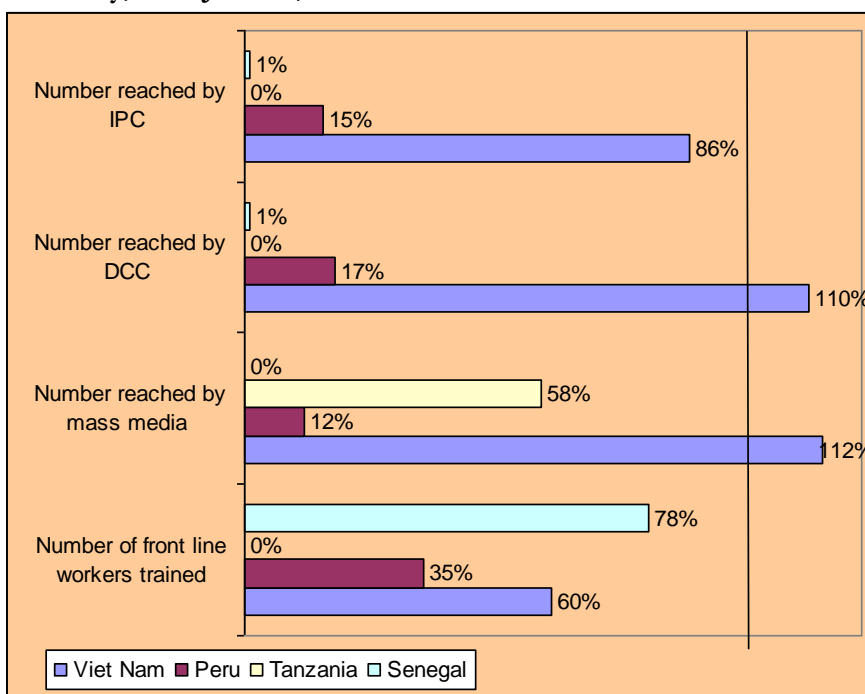
During the last six months, there has been a significant increase in the number of women and children reached through mass media, IPC and DCC activities over the previous reporting period (5,779 percent, 140 percent and 181 percent increases, respectively). The significant increase in mass media reach is the result of the launching of the “Hands to be Proud of” media campaign in Tanzania, which reached more than 8 million women of reproductive age and primary school age children with at least one HWWS program through radio in a four-month period. The increase in IPC and DCC is due to the rapid scaling up of IPC in Vietnam (1 million women and children reached through 540,000 IPC activities delivered in this reporting period alone) and the number of people reached through DCC events in Peru (25,000 women and children).

Table 1: Emerging Global Results in the Programming Component by June 30, 2009

| Performance Indicator | Results (7/1/08 – 12/31/08) | Results (1/1/09 – 6/30/09) | Percentage Increase over Six Months | Percentage of EOP Targets Met |
|---|-----------------------------|----------------------------|-------------------------------------|-------------------------------|
| Number of target population reached by HWWS IPC programs. | 733,267 | 1,027,373 | 140% | 61% |
| Number of target population reached by HWWS DCC events. | 16,792 | 30,453 | 181% | 8% |
| Number of target population reached by HWWS media campaign. | 152,700 | 8,824,352 | 5,779% | 74% |
| Cumulative number of front line workers trained and supervised in delivery of HW messages | 8,086 | 4,075 | 50% | 47% |

On the surface, and when aggregated at the global level, the mass media and IPC channels appear to be performing extremely well, on track to deliver or exceed the intended reach and exposure targets. The global numbers are, however, slightly deceiving. When you dig down to the country level, a different story emerges (Figure 1). Vietnam is outperforming all other countries and even the country's own expected targets, skewing the global performance numbers. Peru is performing extremely well, especially given the delays in the launching of the mass media campaign and the majority of DCC events⁹, from which they expect the greatest reach. Despite these delays, Peru has effectively adapted its plans, engaging other contractors, partners and volunteers to implement behavior change programs. Despite the challenges faced, Peru has reached almost 500,000 women and children.

Figure 1: Percent Achievement of End of Project Targets by Country, as of June 30, 2009



Overcoming Delays in Reaching our Target Audiences

In Tanzania, tightly sequenced roll-out plans have been developed to reach scale quickly, efficiently and effectively. This sequencing also serves to reinforce the HWWS messaging and to change behaviors. In Tanzania, where the mass media program was launched in February, radio spots were strategically aired on particular stations at particular times to reach the greatest number of the target audience (women between the ages of 15 and 49). To maximize reach and efficiency, the IPC strategy will capitalize on gatherings and events where larger groups of women naturally congregate (such as markets, health centers, and village meetings). DCC programs will be conducted by two teams of 5-10 people each which will travel through each of the 10 districts concurrently to reach and reinforce the message of behavior change. The first team will conduct the mobilizations, recruit local

⁹ The contract with the communications firm was cancelled after a long procurement process as the firm was dissolved before signing the contract.

groups, and prepare the ground for the promotional handwashing team which will do a range of promotional and market events.

In Senegal, DCC and IPC activities will be implemented simultaneously, and the behavior change messages will also be reinforced by mass media programming. Since the launch of IPC activities in early June, more than 1,000 women of reproductive age and primary school age children have been engaged in either face-to-face or small group discussions about washing hands with soap.

In Peru, mass media and promotional events will be launched in 55 provinces in the next few months and two new agencies have started work in an additional eight regions of the country. Further, the project team is effectively leveraging the success it has had in developing partnerships with public and private sector entities to build capacity and expand their reach into new areas of Peru. These partners are expected to expand coverage of communications interventions in about seven regions, reaching an additional 1.2 million women of reproductive age and primary school aged children. Further, the funding of these interventions will be equally shared by government, private sector and WSP – a true testament to the partnerships being formed in Peru. The projections developed by the Peru team for each communications channel show that the project will achieve its reach targets by September 2010 (Figures 2, 3, and 4).

Overall, country teams are confident that their targets for reach will be achieved despite the initial set backs.

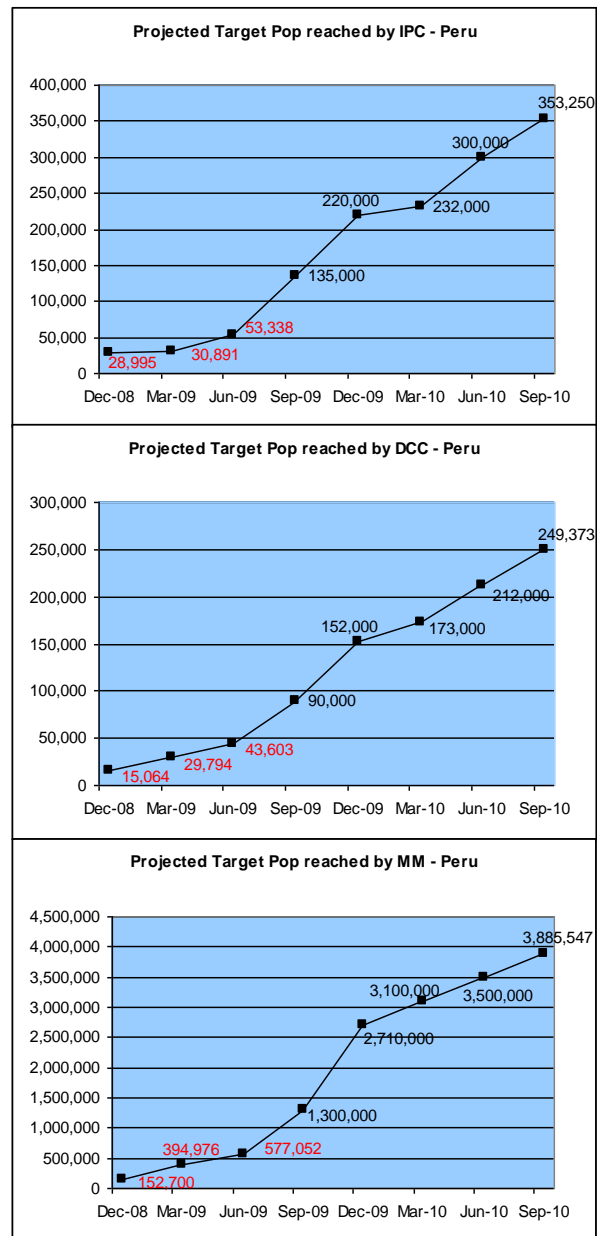
Country Performance

Vietnam

In Vietnam, the HWWS project has been able to effectively tap into the extensive network of the Women’s Union, a community-based organization and the main contractor for the project. This has enabled the project to achieve 86 percent of its end of project target for IPC reach¹⁰ and surpass its end of project targets for mass media and DCC. In the last six months alone, the number of IPC activities conducted in Vietnam has increased by 300 percent. (Figure 5) The Women’s Union conducted over 540,000 IPC sessions and engaged almost one million women of reproductive ages and primary school aged children in face-to-face or small-group discussions about the importance of washing their hands with soap at critical times.

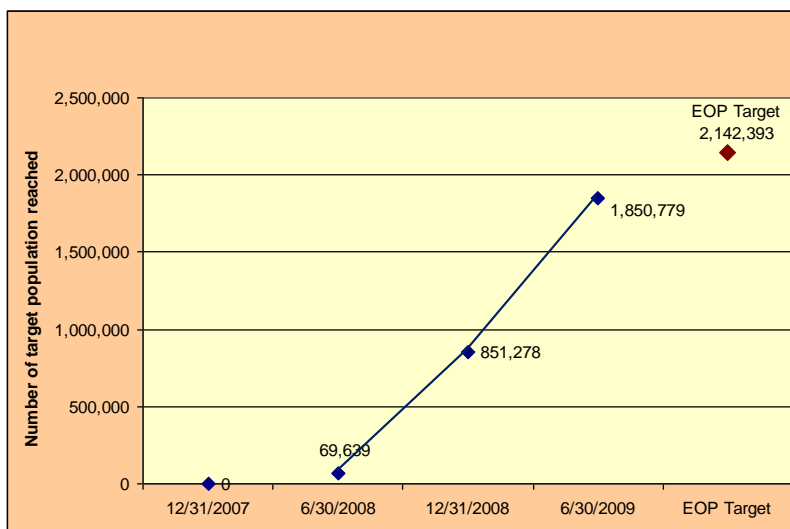
Building on the findings of the formative research, much more was done on the children’s program during the reporting period. An advertising firm was contracted to develop an integrated multimedia entertainment-education campaign including a cartoon series, sponsorship of children’s program and magazine, and activities to be conducted through the Hochiminh Youth Pioneers Associations in schools. Pre-testing and finalization of concepts and materials is currently underway, with program launch scheduled for October.

Figures 2, 3 and 4: Peru Projections by Channel



¹⁰ This 1.85 million includes women who have been reached with more than one IPC activity.

Figure 5: Scaling Up of Reach of IPC Activities in Vietnam



Peru

In Peru, almost 4,000 of the 5,200 front-line workers trained to date were trained in the last six months. And of the 54,000 IPC activities conducted to date, 24,000 were conducted after January 1, 2009. Despite initial delays, Peru is on track to achieve its intended reach in the high, medium, and low intensity areas of the project. Mass media and promotional events will be launched in 55 provinces in the next few months and two new agencies have begun implementation, adding eight additional regions to areas benefiting from HWWS programming.

In the course of capacity building and promotional activities, Teatro Vivo, a street theater group in the north of Peru, developed a character called “Super Jaboncin,” a sort of super hero who comes to the rescue in the quest to eliminate bacteria causing diarrhea. This character is currently in the process of becoming a comic strip, to promote the use of soap when washing hands, and the use of the soap dispenser also known by the same name.

Super Jaboncin will become the center of the 2009-2010 campaign. Schools, local municipalities, and health networks will have a leading role in promoting the character’s use. Health promoters and university volunteers will conduct door-to-door reminder visits. The outcomes on behavioral change will be measured at home and in schools.



Super Jaboncin – Peruvian super hero who comes to the rescue by eliminating bacteria-causing diarrhea.

Tanzania

Activities in the programming component started in Tanzania in February of this year, with the launching of the *Mikono Yenye Fahari* or “Hands to be Proud of” campaign on four radio stations (two national and two regional). Based on listenership and on the number and times the spots aired during these five months, we estimate that we have reached about 90 percent of our target population with at least one HWWS program. This amounts to more than 8 million women between the ages of 15 and 49. This first phase of the campaign was designed to “sensitize and awaken” audiences to HWWS. Programs included a mix of information dissemination (getting the word out) and interactive call in shows during which time callers asked questions about HWWS (for example, if one type of soap was better than another, if bar soap was sufficient or medicated soap was needed, whether soap was necessary or whether water alone, ash or leaves were equally as good).

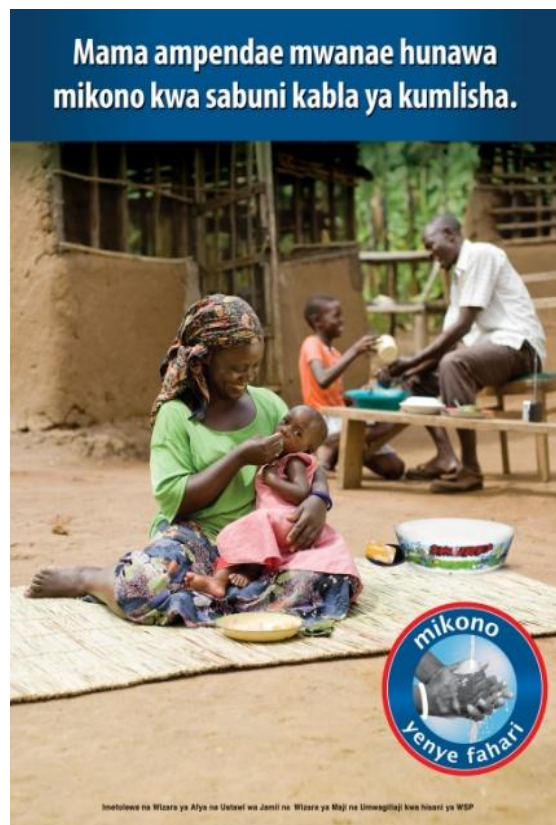
The mix of radio stations and the timing of the program airing were selected to achieve the greatest reach on the target audience. Village-level research showed that women listen to the radio primarily during meal preparations (breakfast, lunch and supper) and in the evenings. Airing spots during meal preparation time serves to remind women of two of the key junctures for HWWS while they are occurring, making the message more meaningful and relevant for target audiences.

Senegal

In Senegal, communications interventions are now underway (Box 4). A total of 13 lead trainers from implementation firms were trained. These lead trainers have now trained another 144 field workers to deliver the HWWS message (77 percent of the first phase target for field workers). By the end of the two phases, a cadre of trained trainers will be delivering programs to reach the end of project target of 330,000 women of reproductive age and primary school aged children. In this reporting period alone, more than 5,000 women of reproductive age and primary school aged children have been reached through IPC and DCC programs.

The behavior change campaign is an integrated one, with the message being promoted through each of the channels reinforcing the others. IPC programs focus on helping caretakers identify constraints and challenges faced in making soap and water available to all family members when needed, identifying possible solutions, and getting their commitment to make it happen. The DCC messages focus primarily on children – teaching them to become “good handwashing practitioners”. Finally, the television spot developed as part of the mass media program focuses on the family as a whole, and demonstrates what other family members can do to help the mother make soap and water available for the family to use.

To see the TV spot, go to the following URL:
<http://www.youtube.com/watch?v=IHemb44993w>.



Poster for Tanzania’s “Hands to be Proud of” campaign.

Box 4: Communications Messaging – Senegal

- The results from the doer-non doer study, designed to identify the factors that differentiate mothers who hand wash with soap and those who do not, showed that hand washing is highly correlated with having a designated place within the household at which to wash one’s hands with soap.
- The key insight of the communication program is that mothers need to “make it happen” and commit to making soap and water readily accessible to all family members at critical moments for hand washing.



Billboard for the Senegal HWWS behavior change campaign with the message “I commit myself to get my family to adopt handwashing.”

Component 2: Strengthening the Enabling Environment

The Enabling Environment component (EE) is designed to develop and/or strengthen the institutional and policy/strategy environment in which handwashing with soap programs can be scaled up and sustained. The EE for the HWWS has nine dimensions: Policy, strategy, and direction; Institutional arrangements; Program methodology; Implementation capacity; Availability of products and tools; Financing; Cost-effective implementation; Monitoring and Evaluation; and Partnership.

Continued progress has been made over the last year and, specifically, during the last six months in many of the dimensions of the Enabling Environment. HWWS has been further integrated into existing programs in Peru, Senegal, and Vietnam. Additional funding has been secured for HWWS programming from both public and private sectors in Peru, Vietnam and Tanzania, and partnerships with government, private sector, NGOs and civil society have been strengthened (Table 2 and Annex 2, Country Stories).

Table 2: Emerging Global Results in the Enabling Environment Component

| Performance Indicator | End of Project Target | Cumulative Progress to Date | Progress 1/1/09 – 6/30/09 |
|---|--|---|--------------------------------------|
| Measurable progress against nine dimensions of the Enabling Environment | 80% of items achieved in each dimension. | <ul style="list-style-type: none"> • Range of percent progress achieved by dimension: • Policy, strategy, and direction: 40% - 80% • Institutional arrangements: 0% - 60% • Program methodology: 50% - 100% • Implementation capacity: 0% - 100% • Availability of products and tools: 17% - 100% • Financing: 0% - 83% • Cost-effective implementation: 0% - 17% • Monitoring and Evaluation: 33% - 60% • Partnerships: 40% - 100% | |

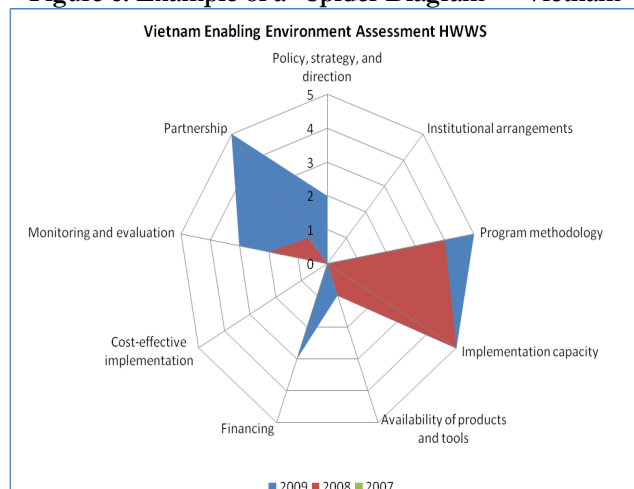
| Table 2: Emerging Global Results in the Enabling Environment Component | | | |
|--|---|---|---------------------------|
| Performance Indicator | End of Project Target | Cumulative Progress to Date | Progress 1/1/09 – 6/30/09 |
| Evidence that HWWS is integrated into existing government or donor budgets in water, health, education and/or environment. | <p>HWWS integrated in national policy/ strategy (i.e. water, sanitation, health).</p> <p>HWWS integrated in service delivery (i.e. water, sanitation, health).</p> <p>Handwashing promotion/ hygiene included in budget of government or at least one additional donor.</p> | <p>Progress in Last 6 months:</p> <p>Peru:</p> <ul style="list-style-type: none"> US\$360,000 in public/private funding in Arequipa. BPZ Energy will finance HW dispenser, distribution and promotion costs for Tumbes. Budget estimated at US\$30,000 for the period 2009 – 2010. Regional Government of Tumbes will fund monitoring and evaluation (M&E) study in Tumbes – budget to be determined. Budgets and public policies increased/strengthened in provincial municipalities of Piura and Anta. PREDECI, the regional program to fight malnutrition in Cajamarca (private funding) has committed funding for the HW dispenser, production, distribution and promotion costs in the region. USAID will continue to fund the HW project, committing \$600,000 to be spent during the next three years. <p>Vietnam:</p> <ul style="list-style-type: none"> Women’s Union has committed to integrate handwashing promotion activities into their ongoing programs when the project ends. <p>Senegal:</p> <ul style="list-style-type: none"> Increased commitment by Ministry of Education to integrate HWWS into primary school curriculum. <p>Tanzania:</p> <ul style="list-style-type: none"> Project districts recognized as “incubators” for the National Water Sector Development Program (WSDP) to encourage learning, scalability and replication in other districts of the country. An additional US\$45,000 is available for both sanitation and hygiene initiatives for each of the ten project districts. | |

The HWWS “Spider Diagram”

An understanding of the enabling environment (EE) for promoting handwashing helps program planners and managers prioritize and address gaps in both sustaining and scaling up interventions. To help in this assessment, WSP developed a set of scales and a system of consolidating scale measurements into a spider diagram (Figure 6). The spider diagram serves as a visual measure of progress against the country action plan. The enabling environment is broken into nine dimensions: Policy, strategy, and direction; Institutional arrangements; Program methodology; Implementation capacity; Availability of products and tools; Financing; Cost-effective implementation; Monitoring and Evaluation; and Partnership. The measurement method of the EE utilizes a six-point scale that runs from 0 to 5, except in the case of Tanzania, which uses a seven-point scale from 0 to 6. Each country has defined the scale as appropriate to the local context, so the scales do not aligned across countries (although the dimensions are consistent). While the ratings given by each country are of a more subjective, qualitative nature, there is a common understanding of each dimension, and both the baseline and end of project targets for each country are well defined.

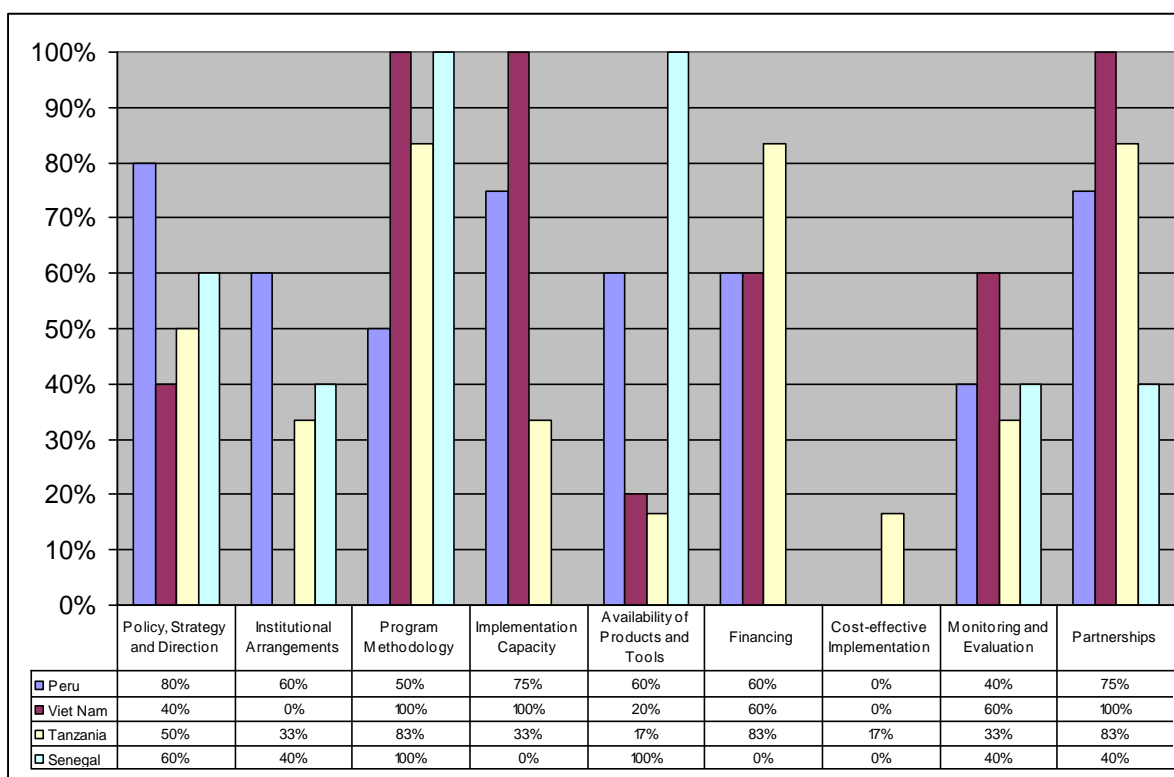
The country spider diagrams are presented as Annex 3 to this report. Figure 7 provides a global

Figure 6: Example of a “Spider Diagram” – Vietnam



assessment of the overall progress to date against each of the dimensions, by country. Progress is measured in percent of progress towards the end-point of the respective country scales.

Figure 7: Global Progress across the Nine Dimensions of the Enabling Environment



As the above figure demonstrates, the program methodology is well defined across most of the countries, which is to be expected since programs are already well established or beginning to roll out. Overall, partnerships are also well developed, except in the case of Senegal, which continues to nurture partnerships with among the Ministry of Education and other government agencies. This may be a legacy of the original PPPHW approach, demonstrating the importance of maximizing partnerships to implement handwashing programs at scale.

Except in the case of Senegal, financing is another promising area. Peru has leveraged an additional US\$1 million in funding for HWWS activities from both public and private sector sources. Tanzania has secured additional funds through the existing program to support project districts as “incubators.” These programs have focused their efforts on securing or leveraging resources in order to sustain activities, reach scale, and maximize the effectiveness of the interventions.

At the other end of the spectrum, both cost effective implementation and monitoring and evaluation (M&E) are consistently lagging. The cost-effectiveness analysis has been delayed due to the need to develop a consistent methodology across all countries, which has required additional resources and management by the IE team. The lack of progress in institutionalizing handwashing M&E in our countries is most likely a result of several factors: (i) delay in creating consensus among global actors on handwashing measures; (ii) delay in the launching of baseline

Box 6: Designing Handwashing Stations in Vietnam
 In the second round of monitoring surveys conducted in Vietnam, 52 percent of households had a handwashing station, confirming the need to develop an affordable station that could be used in households. Through the assistance of an international IDEO designer, several viable prototypes were developed with the direct input of the project team and a wider group of stakeholders, including consumers. The HWI has reached an agreement with the Ministry of Health and the Women’s Union and will take these prototypes through the next stages of development.

surveys and hence delay in generating results, which in turn impedes our ability to demonstrate the usefulness of M&E in HWWS, and (iii) the general lack of capacity in government counterparts in the areas of monitoring and performance management.

The development of products and tools has progressed well in both Peru and Vietnam (Box 6). It is becoming clear that appropriate handwashing stations are important both to facilitate the practice and to serve as a reminder to reinforce the behavior. Lessons from Peru and Vietnam are being shared with the other HWWS countries.

Component 3: Learning

The HWWS Learning Component is designed to take a proactive and strategic approach to the learning process to ensure responsive knowledge products are developed and shared with other programmers in the field to encourage knowledge uptake, adaptation and replication.

| Table 3: Emerging Global Results in the Learning Component | | | | |
|---|-----------------------|-----------------------------|---------------------------|--------------------------|
| Performance Indicator | End of Project Target | Cumulative Progress to Date | Progress 1/1/09 – 6/30/09 | Percentage of EOP Target |
| Number of knowledge products completed per project learning plan. | 51 | 17 | 2 | 33% |

Rich learning is taking place both at the country level and globally, but progress to effectively capture and share this learning in the form of tools and knowledge products varies by country.

Country Learning

In Peru, where a learning culture has been effectively instilled throughout the project team and the wider group of stakeholders, significant progress has been made in the area of learning. The Peru country team has developed an intensive learning program for Bank task team leaders and program coordinators from other countries to come to Peru to learn from the team and the experiences of the HWI. The 7-to-10-day program involves three modules: learning with the central team, field visits, and technical assistance. Materials and tools developed by the project/team are provided to each trainee so they may be adapted and used in their particular country context. To date, the project has conducted two of the programs for representatives from Colombia and Central America. The Peru team also developed a knowledge capturing tool to assist others in easily capturing emerging learning and experiences in written form. The toolkit includes a sample knowledge product and guidelines for an editor and graphic designer. The aim of the toolkit is to get enough interest in other programmers to use the guidelines to have a handwashing series from other countries published for a much broader audience. Finally, the HWI team brought together 45 stakeholders to participate in a learning workshop designed to share experiences and lessons and provide suggestions as to how to move into the next phases of the project.

In Vietnam several learning workshops and after-action reviews were conducted during this reporting period to improve particular aspects of project implementation or learn from the data emerging from the surveys.

Headquarters Learning and Engagement

The original project proposal identified *studies* as a method for learning about various approaches to bringing about change in handwashing with soap behavior. To date, however, at the global level we have focused on creating and participating in learning forums with our partners, rather than conducting formal studies, to achieve this learning objective. We have opted for this way of learning because behavior change work is dynamic and context-specific and requires a macro view to highlight common principles and themes across various settings. We took advantage of existing learning opportunities, as well as creating new ones—conferences, brown bag lunches, working group meetings—to initiate and continue discussion on behavior change approaches. Over the past six months, we took several steps to advance this learning.

Following up on a half-day meeting with AED/HIP, USAID, and CORE, which took place late last year, WSP joined a group of partners implementing sanitation and hygiene interventions at the annual meeting of CORE. Approaches presented and discussed include CLTS Plus (which includes handwashing with soap), and CORE group community-based interventions (mothers' group) to behavior change.

Since WSP is supporting handwashing promotion in schools, we focused on this topic for learning with the World Bank school health team and Emory/CARE about their approaches. Regardless of the variation in types of interventions for improving hygiene in schools, we identified similar challenges and lessons, as well as questions for further investigation. Lessons included the importance of not isolating schools from the community, focusing on maintaining infrastructure as well as behavior change, and leadership from the Ministry of Education. Questions included these:

- Do behavior changes at school translate to change at the community levels?
- Are children effective agents of change?
- How do we increase accountability of schools for outcomes/outputs and not inputs?

WSP will continue to follow up with Emory/CARE, which is now working with Kenya's Ministry of Education to improve accountability for meaningful outputs and with the Bank's school health focal point to garner learning from Bank investments in education and health.

Emerging Outcomes in Learning – insights in changing behavior and opportunities for replication

HWWS Behavioral Determinants

The FOAM (Focus on Opportunity, Ability and Motivation) framework developed by WSP as part of the HWWS project identifies the key factors or determinants that influence handwashing. Data is now emerging which provides insights into these determinants and whether they are, in fact, an effective framework to use to change behavior.

Easy access to soap and water when and where needed has emerged as a significant behavioral determinant for HWWS in Peru and Senegal¹¹. It was a premise in FOAM that convenient access to soap and water (as part of "Opportunity") was a possible factor, and the data has now confirmed this. This underscores the potential role of enabling products and technologies for HWWS.

Knowledge: Knowledge, primarily about germs and the health benefit of HWWS, was previously assumed *not* to be a factor in HWWS behavior. In the FOAM model, the definition of knowledge has been expanded to include a variety of issues (such as knowledge of the best way to wash hands and knowledge of the kind of soap needed). Analysis of the Peru IE baseline data showed that knowledge about the best way to wash hands is statistically correlated with the behavior itself, a surprising finding (87 percent of handwashers compared to 82 percent of non-handwashers know of the best way). Implementing agencies will be briefed on this finding (and all others) to ensure that this particular fact is sufficiently covered in their outreach sessions.

Beliefs and attitudes: Beliefs and attitudes around soap and water that may reflect some remaining misconceptions (for example, if you wash your hands really well with water you do not need soap; washing your hands with soap before feeding a child is important only if you use your hands to feed them) were significantly correlated with HWWS behavior in Peru based on IE baseline data.

¹¹ In previous formative research done by PPPHW, only the presence of water and soap at the household level was asked.

Early learnings from the Vietnam monitoring surveys¹² suggest that caretakers still need to consciously think about HWWS and that automaticity has not yet fully set in, although knowledge has improved, particularly around awareness of the food handling/feeding child juncture and how to know when hands are clean. The second round of surveys showed that some lingering misconceptions/beliefs remained (for example, 27 percent of those surveyed agreed with the statement that you only need to wash your hands with soap if they look dirty or smell; 26 percent agreed with the statement that you only need to wash your hands with soap if your hands touch unhygienic objects). The IPC curriculum was revised in June to specifically counter these misconceptions. Finally, only 52 percent of households had a HWWS station near the toilet/latrine. In almost all of these cases, both soap and water were available at the station at the time of observation.

Box 7: Country Responses to the Learning Questions

The Global Management Information System included two of the learning questions to which countries were asked to respond.

How do we design at-scale handwashing with soap programs?

- Identify existing programs/initiatives underway that could integrate HWWS to widen the scope of reach and impact.
- Sharing experiences across countries/regions can shorten the duration of planning and lead to higher quality executions.
- The most effective means for integration and reaching scale may not necessarily be through a government entity (such as a Ministry of Health). Look for partners with sufficient capacity, track records, and extensive networks. Balance this with a supportive environment within the government.
- Be prepared to be able to respond to the opportunity as you start making agreements. You must have the capacity to move into action with speed to deliver on commitments and the expectations of partners.

What enabling environment conditions (programmatic and institutional) are needed to scale up and sustain large scale handwashing with soap programs?

- Project should be linked to a national program/initiative. The endorsement of government through a line ministry is very important and a national plan should be in place to unify the actions of programmers to prevent duplication of efforts.
- Cost sharing is a good indicator of partner commitment. If results are proven, there is a much larger chance that the program will be carried out beyond the project itself.

Component 4: Monitoring and Evaluation


Monitoring for Performance and Results

The projects are now well positioned to effectively monitor the breadth of activities being implemented throughout the four countries. Reporting systems have been developed to ensure that country teams are receiving regular information from their contractors against key performance targets. Country management information systems, either already operating or currently being finalized, will capture this data and provide a powerful management tool enabling project teams to manage for results. Finally, the Global Management Information System, which was rolled out during this reporting period and used for this reporting process, will capture data on the key global indicators and provide the headquarters team with performance information on a regular basis.

The system was also designed to reinforce and strengthen the alignment between learning and monitoring for results. Two of the learning questions are included in the system along with a series of questions designed to encourage teams to reflect on “more than just the numbers.”

¹² Two rounds of household surveys have been conducted in Vietnam, aimed at monitoring changes at the behavioral determinant level as well as exposure to the various components of the program. The first, conducted among 149 caretakers in July 2008, was primarily intended as a pilot. Based on data analysis, the questionnaire was improved and finalized. A second round was conducted in May 2009 among 300 caretakers and a third round is planned for the coming months (see Annex 4 for more detailed results from the surveys).

Global Management Information System Home Page



Global Scaling Up

Handwashing with Soap Project (HWWS)

Global Management Information System (GMIS)

Reporting

Choose the current user

Use this screen to enter country details including users, population statistics, etc.

Use this screen to enter baseline and target values for all performance indicators.

Use this screen to create a new progress report.

Use this screen to modify an existing progress report.

Use this screen to view an existing progress report.

Resource Material

Results Chain

Results Framework

Users Manual

Data Dictionary

Export Data to Excel

Progress Reporting Section for Component 2: Enabling Environment

Date of Report:

Country:

Author:

Reporting Period:

Global Scaling Up

Handwashing with Soap Project (HWWS)

Global Management Information System (GMIS)

Progress Reporting

Look up a previous report

Project Component Two: Enabling Environment

Increased capacity to sustain large-scale handwashing programs.

2.1 Evidence that the enabling environment for large scale HW programs has been strengthened in the following dimensions.

| Dimensions | Baseline Value | End of Project Target | Total Progress to Date | Progress during last 6 months |
|---------------------------------------|---|--|--|---|
| 1. Policy, Strategy and Direction | 1. Advocacy plan to gain political support from stakeholders | 1. Advocacy plan to gain political support from stakeholders 2. Shared vision for policy. | 1. Advocacy plan to gain political support from stakeholders 2. Shared vision for policy. | 2. Shared vision for policy, strategy and direction by regional and/or local stakeholders: clear leadership |
| 2. Partnerships | 1. Stakeholders from public and private sectors identified | 1. Stakeholders from public and private sectors identified 2. Partnership formalized. | 1. Stakeholders from public and private sectors identified 2. Partnership formalized, roles and responsibilities. | 4. Partnership functioning according roles and responsibilities at regional/local |
| 3. Institutional Arrangements | 1. National home/lead institution/ministry identified/established for handwashing | 1. National home/lead institution/ministry identified/established for handwashing | 1. National home/lead institution/ministry identified/established for handwashing | 4. Clear links established with other sectors |
| 4. Program Methodology | None | 1. Country program methodology framework established for HWWS 2. Stakeholders and | 1. Country program methodology framework established for HWWS but not well understood by | 2. Stakeholders and partners have clear understanding of HWWS regional methodology |
| 5. Implementation Capacity | 1. Capacity plan developed | 1. Capacity plan developed 2. Sufficient capacity developed at regional/local levels (political decision) | 1. Capacity plan developed 2. Sufficient capacity developed at regional/local levels (political decision) | 2. Sufficient capacity developed at regional/local levels (political decision makers) |
| 6. Availability of Products and Tools | 1. No products or tools available (unavailability of | 1. No products or tools available (unavailability of | 1. No products or tools available (unavailability of | None |

Record: 14 of 1 (Filtered)

The roll-out of the system was not without its challenges, and more work needs to be done to refine the system to make it more user friendly and function better as a reporting tool. A new programmer will be hired in the coming months to enhance some of the features of the system to make the monitoring and reporting process even easier for the next round.

Impact Evaluation

Overall, the impact evaluation is back on track to meet the intended objectives within the extended five-year time frame. Findings from the Peru baseline have been compiled in a draft report (available upon request), and the results will be shared with a wider group of government partners and stakeholders in October 2009 (see Annexes 5 and 6 for anthropometrics results from the Peru study and baseline survey results for project and health-related indicators).

Tables 4 and 5 present the current status and planned activities for each phase of the baseline and longitudinal surveys.

1. Baseline Surveys

Baseline surveys have been completed in Peru. Baseline surveys are currently underway in Vietnam, Tanzania, and Senegal.

| Table 4: Status and Schedule of Baseline Surveys | | | | |
|--|--------------------------|--|---|--|
| Country | Baseline survey launched | Preliminary data analysis completed and shared with country team | Final report completed and disseminated | Results shared with team and wider group of stakeholders and government partners |
| Peru | √ | √ | Draft report completed (on learningtoscaleup.org). Final report due end of September. | October 2009 in Lima. |
| Vietnam | √ | November 2009 | December 2009 | February 2010 in Hanoi. |
| Senegal | √ | November 2009 | December 2009 | January 2010 |
| Tanzania | √ | December 2009 | February 2010 | March 2010 |

2. Longitudinal Surveys (pre-intervention and mid-term)

| Table 5: Status and Schedule of Longitudinal Surveys | | | | | |
|--|---|---|--|---------------------------------------|--|
| Country | All necessary preparation for launch completed ¹³ . | Pre-intervention monitoring surveys launched. | Pre-intervention monitoring survey data analyzed and shared with country teams by PIs. | Mid-term monitoring surveys launched. | Mid-term monitoring survey data analyzed and shared with country teams by PIs. |
| Peru | √ | √ | August 2009 | October 2009 | January 2010 |
| Vietnam | √ | October 2009 | February 2010 | June 2010 | August 2010 |
| Senegal | √ | October 2009 | February 2010 | March 2010 | April 2010 |
| Tanzania | Due to the technical and operational problems encountered , this survey will not be conducted. An additional tracking survey will be conducted in 2010. | | | | |

The Impact Evaluation in Tanzania

Due to serious operational and performance issues, , the Tanzania baseline survey, which was initially launched in February, was halted. We have decided to significantly reduce the scope of work of the contract, scaling back the baseline survey to include only five of the originally planned ten districts.

The major changes that this has imposed on the experimental design have been to scale back the expectations from the baseline survey and to enhance plans for the endline. At this time, we expect role of the baseline to be limited to assessing the treatment/control balance of non-health indicators, including socioeconomic indicators as well as sanitation and hygiene behaviors and facilities. In this scaled-back plan, we will gather all the indicators required to evaluate the determinants of handwashing and sanitation behavior as well as the full set of behavior indicators – observed sanitation and hygiene facilities, as well as self-reported handwashing behavior. This scaled-back baseline survey will also provide our government partners with an assessment of their current sanitation and hygiene conditions and pressing needs -- an important benefit of the baseline survey. An important implication of this revised role is that the formal health outcome impact tests and perhaps some behavioral indicators will rely on an enhanced end-line survey of the randomly assigned treatment and control areas. However, if we should experience further difficulties, we will rely exclusively on the endline comparisons.

Achievements in the Impact Evaluation

The biggest achievement of the IE is the awareness created among government officials and other stakeholders about the need and the feasibility of measuring impacts. Since the beginning of the project, the country teams have held several meetings and IE workshops to make our stakeholders understand the importance of measuring results and the need to randomize in order to have validity.

“So, effectiveness of interventions can be measured!?”

- Participants in IE seminar in Senegal

As governments understand the importance of assessing the long-term impact of their evaluations, they have identified the need to start building capacity at the local level, so in the future technical groups among the different ministries can conduct similar studies. With that goal in mind, WSP is supporting several IE workshops to build local capacity. A good example is the Impact Evaluation Seminar held in Lima at the end of January 2009, organized by the World Bank and the Government of Peru. WSP brought to the workshop its government counterparts – from the Ministry of Health, Ministry of Education and

¹³ This includes the following deliverables: firms recruited, questionnaires finalized and translated to local languages, pilots conducted and timeline for the longitudinal set up.

PRONASAR-- and other partners and stakeholders such as Peace Corps and Imasen (the survey firm conducting the baseline survey in Peru). The workshop was very successful, and regional government offices and local development agencies are requesting a second IE workshop, which will be organized by WSP Peru.

These efforts are already translating into important concrete results. To date, one regional government in Peru has presented a project to a private foundation to implement HW activities at the regional level. That proposal allocates specific funding (\$90,000) to carry out a regional impact evaluation using the HW project design and the tools developed by the IE team. The regional government will hire a local firm to conduct the evaluation with the support of the HW team.

IV. Challenges and Project Responses

Global Challenges

The HWWS project confronted several challenges during this reporting period. Preparing project teams and implementing agencies/contractors to effectively launch communication interventions in Senegal and Tanzania required significant work on the part of the country and headquarters teams, including developing detailed activity and task-level execution plans, contractor reporting forms, and local monitoring frameworks and defining schedules that were realistic but would drive a rapid scaling up of activities. These types of activities require a different kind of skill set. With support from the headquarters team, plans, schedules, and tools are now in place to effectively manage the implementation phase of these two projects.

Another challenge, particular to Tanzania, was with the operationalization of the Impact Evaluation baseline survey. Due to several problems, the decision was made to scale back the IE baseline to five of the 10 project districts. Although not optimal, this was seen as the only way forward given the performance issues and time constraints. As discussed in the previous section, the enhanced endline combined with the longitudinal surveys should be sufficient to provide a complete picture of the impact-level indicators.

A third challenge specific to this reporting period was the development and roll out of the global Management Information System (GMIS). The system was developed in MS/Access and rolled out to country teams on schedule, but delays in upgrading computer systems in the field offices created problems in several countries (they did not have Access loaded on their computer systems and were not able to use the system until their upgrades were completed). As of now, all country offices have been upgraded, and everyone was able to use the system for this reporting period.

Further, the launching of the system has brought several issues related to monitoring to the forefront. Up until now, it has been extremely difficult to get country teams to commit to end

of project targets for the global set of performance indicators. There are several reasons for this. First, creating sustained behavior change is hard. There is no silver bullet, no commonly accepted formula which tells you how much reach and exposure it takes to change behavior, especially in the area of handwashing. Many assumptions enter into the causal linkages between reach, exposure, and behavior change and these have a direct effect on the

Box 7: Challenges Reported by Country Teams

Programming

Capacity to carry out the creative work necessary for the handwashing campaign is limited in the local market. There is a tendency for agencies and stakeholders to steer execution towards a didactic health education approach, which generally rehashes information the audience already knows and does little to influence their behavior.

Enabling Environment

Working on the enabling environment imposes a huge, multi-task effort. We find that as we open up opportunities, new demands appear that must be attended to, which becomes very stressful as they are hard to satisfy. Draft agreements must be designed for each case, discussed, and followed up. Funding projects must be developed and negotiated. Education authorities within regions and provinces must be informed and driven to develop agreements. The process must be documented and lessons captured.

M&E

Different implementation arrangements need different M&E arrangements. On one side we have NGO and private foundations as facilitating agencies, but in other regions we also have local coordinators that are not hired by the project and that require a different approach. It has been a great challenge to adapt the tools and our monitoring system to regions where we don't have an organization as the facilitating agency.

logic of the project. This, combined with the high, medium, and low intensity intervention areas, complicates the target setting process. Perhaps the greatest value-added the GMIS has had on the project is that it has forced project teams to go through this analysis with a level of detail required to finally set targets for all of the global performance indicators. More work now needs to be done to better align the local monitoring frameworks and systems to the global one. Also, since several of the global indicators rely on data provided by the work of the Impact Evaluation, greater coordination is needed between the monitoring and IE teams to ensure that data is effectively shared so that teams have the right data, in the right way, when they need it. These issues highlight some of those that the Senior Monitoring Specialist will focus on in the coming months.

Finally, an ongoing challenge for the HWWS team as whole is learning. As implementation gains momentum, capturing the emergent learning “as the doing happens” becomes more urgent and critical. The HWWS team as a whole has faced significant challenges in effectively and efficiently capturing this knowledge. We found that:

- Learning strategy with learning goals is essential but not adequate.
- Learning strategy and goals should direct the capturing, but linking the goals with learning activities/events has been a challenge, because the teams are often deep into implementation, have a difficult time prioritizing, and hold a macro view.
- Teams recognize the importance of convening stakeholders to learn together but often lack the skills to structure the meetings. This results in many discussions which are too thin in substance, ad hoc, and not captured.
- Facilitation is often needed but not used enough, and quality facilitators are difficult to find.
- Preparation work required for learning events is significant but often is not done (too busy or do not see the need).
- Learning tools, such as after-action reviews, are being used frequently, but findings from them are not integrated into the work.

We have taken the following steps to improve the capturing of emergent learning:

- Revising the learning tracking tool so it is simpler and more focused
- Making an explicit link between M&E/MIS and learning
- Recruiting a Global Knowledge Management (KM) specialist
- Recruiting a country-level dedicated KM specialist
- Identifying facilitators in the regions
- Seeking support from DC regarding organization and facilitation advice on learning events and activities.

V. Project Management

Project management has realized the urgent need for special skills and knowledge to start thinking about replication and support to other regions. We are learning from WBI colleagues as well as seeking specialists who could facilitate this. We are in the process of recruiting a knowledge management specialist to help the team with new/innovative ways to capture and package knowledge that would be used to catalyze and build the capacity of clients. This is true at the country level as well. Country teams have also recognized the need to capture operational knowledge and are in the process of recruiting experts to help move the process along as well as bring new ideas.

To support the efforts on enabling environment, project teams have worked closely with other WSP staff and with WB staff to create a greater space at the policy dialogue and partnership levels (for example, for Vietnam on sanitation and rural water supply; for Senegal on water and sanitation strategy). The country teams have all hired additional staff to support coordination in the field with their counterparts and have hired operational staff to reduce administrative burdens on the program managers. Accurate budgeting and forecasting is an ongoing process for all the teams, including headquarters. The project teams continue to work on improving their forecasts for the future fiscal years.

| Annex 1: HWWS Project Results Framework | |
|--|--|
| Project Objectives | Performance Indicators |
| <p>Project Goals</p> <p>1. Reduced diarrheal disease in young children.</p> <p>2. Increased productivity in households with young children.</p> | <p>1. Percent reduction in children under 3 suffering from diarrheal disease.</p> <p>2. Increased number of hours of productive work by household members per week (HHs with children under 3).</p> |
| <p>Project Development Objective</p> <p>Stimulate and sustain recommended handwashing behavior in 5.4 million people in 4 countries in 4 years.</p> | <p>1. Percent change in target population reporting recommended handwashing behavior.</p> <p>2. Number of households having soap and water at the handwashing place.</p> |
| <p>Project Components</p> <p>Component One: Programming</p> <p>1. Large scale handwashing programs in 4 countries designed and implemented.</p> <p>Component Two: Enabling Environment</p> <p>2. Increased capacity of 4 countries to sustain large scale handwashing programs.</p> <p>Component Three: Learning</p> <p>3. Enhanced learning about effective approaches to scaling-up and sustaining large scale handwashing programs.</p> <p>Component Four: Monitoring & Evaluation</p> <p>4. Strengthen knowledge of effectiveness of large scale handwashing programs including impact.</p> | <p>1.1 Increase in selected opportunity, ability, and motivation behavioral determinants for handwashing behavior change.</p> <p>1.2 3,145,643 people in target population reached by HW interpersonal communication programs (IPC).</p> <p>1.3 Percent of target population reached by HW interpersonal communication programs (IPC) (Vietnam - 100%, Peru – 5%, Tanzania – 44%, Senegal -16%).</p> <p>1.4 648,773 people in target population reached by HW direct community contact events (DCC).</p> <p>1.5 Percent of target population reached by HW direct community contact events (DCC) (Vietnam - 1%, Peru – 4%, Tanzania – 24%, Senegal -11%).</p> <p>1.6 38,625,269 people in target population exposed to HW media campaign activities.</p> <p>1.7 Percent of target population exposed to HW media campaign activities (Vietnam - 53%, Peru – 75%, Tanzania – 70%, Senegal - 80%).</p> <p>1.8 30,774 front line workers trained and supervised in delivery of HW messages.</p> <p>2.1 Evidence that the enabling environment for large-scale HW programs has been strengthened.</p> <p>2.2 Evidence that HW is integrated into existing government or donor budgets in water, health, education and/or environment in the 4 countries.</p> <p>3.1 51 knowledge products completed per project learning plan.</p> <p>3.2 Number of visits to project knowledge products on WSP website.</p> <p>3.3 Percent uptake of project knowledge products among relevant program implementers in the field.</p> <p>3.4 Evidence that advocacy efforts have contributed to an increase in donors and governments promoting HWWS.</p> <p>4.1 Number of documents produced that address pre-specified impact evaluation questions identified for each country.</p> <p>4.2 Evidence that M&E framework is used by other projects within the four countries and by other governments or donors outside of the four countries.</p> <p>4.3 After project completion: Number of peer reviewed HW articles published in leading journals and number of annual citations for each</p> |

| Annex 1: HWWS Project Results Framework | |
|---|------------------------|
| Project Objectives | Performance Indicators |
| | article. |

Annex 2: Country Stories

Peru HWWS Project

The National Handwashing Initiative of Peru (NHI) Country Report

1. Project Description:

The National Handwashing Initiative (NHI) supports the national and regional authorities, private sector, and civil society organizations to promote HWWS country wide (23 regions out of 25 in the country).

2. Intended Project Outcome:

In collaboration with its many partners, stimulate and sustain 1,279,000 women and children to wash their hands with soap at critical times (i.e. after defecation, before eating).

3. Overall Progress to Date:

Significant progress in developing the enabling environment for HWWS as measured by the number of partnerships formed with public, private sector and civil society, amount of partner funding contributed and uptake of knowledge and experiences being generated by the project. The project is currently working in 23 regions and 800 districts. This number will increase by 43 districts in the coming months as new partners engage at operational level. Through IPC, DCC and mass media, the project has reached almost 700,000 women and children about the importance of washing their hands with soap at critical times. The project is effectively generating and capturing extensive learnings on working in decentralized contexts, integrating HWWS into other programs (specifically education programs) and key features of the Enabling Environment. The Impact Evaluation baseline has been completed and data analysis shared with the country team. The final report will be shared with national stakeholders in Lima during the Fall, 2009.

4. Status of Implementation:

- On track to achieve outcome of 1.279 million women and children washing their hands with soap at critical times.
- On track to deliver intended results in all four components.

5. Highlights for the Reporting Period:

Replication and Learning

- The project was selected by UNICEF to present at the International Symposium: Water, Sanitation and Hygiene in Schools on experiences integrating handwashing with soap into the education system in 800 schools throughout Peru.
- Peru country team has developed an intensive learning program for Bank Task Team Leaders and program coordinators from other countries to come to Peru to learn from the team and the experiences of the HWI. The 7-10 day program involves three modules - learning with the central team, field visits and technical assistance. Materials and tools developed by the project/team are provided to the trainee so they may be adapted and used to the particular country context. To date, the project conducted two of the programs for representatives from Colombia and Central America.

Sustainability

The project is implementing a partnership building strategy “PARA CRECER JUNTOS” (Growing Together) designed to integrate HWWS into a larger national program on childhood malnutrition. The project is coordinating regional workshops to map out with government officials strategies to respond to the problem of malnutrition in their region and use these programs as a platform to deliver the HWWS message. In the past three months, the project has created several **key public-private partnerships** and has **commitments for over US\$130,000 in funding** for HWWS and malnutrition programs.

In Tumbes (region) the project has been invited to participate in a multi sector committee led by the Regional Government that is designing regional policy on Child and Adolescence where the HW behavioral change methodology will be inserted.

Scaling Up

With the recent successes achieved in the volunteer program (more than 6,000 mothers and children in remote rural areas have been reached with a very high degree of understanding and recall), the volunteer program will be scaled up in the south of Peru during September and October.

Project Implementation

- Almost 4,000 front line workers trained to deliver HWWS IPC and DCC activities, quadrupling project capacity to deliver programs (compared to the 1,326 trained during last reporting period).
- 170 percent increase over the previous reporting period in the number of women and children reached through DCC events (16,792 to 28,539).
- Target population reached through IPC increased by 114 percent since last reporting period.
- Two NGOs contracted to work in the final seven regions targeted by the project, completing implementation arrangements for each project regions.

6. Key Insights or Lessons Learned in this Period:

Scaling Up Programming and Reach

- Peru has tremendous diversity and regional variation, in terms of economic development, as well as cultural and social settings. As such, implementation of the behavior change process varies across the 23 regions given their political, economic, and social conditions.
- Be mindful of the intercultural aspect of the population you are targeting. We did not consider the language variances across the different regions (35% of target districts are Quechua) when designing our behavior change programs. We are addressing this now by engaging local language speakers.

Enabling Environment & Sustainability

- The Enabling Environment (EE) needs to be approached holistically at the national, regional and local (provincial, district) levels.
- Start with a plan but be willing to be flexible in order to adapt to different realities and local contexts.
- Be prepared to be able to respond to the opportunity as you start making agreements with partners. You must have the capacity to move into action with speed to deliver on commitments and expectations of partners.

Replication

- One month after participating in the project learning program, the HW Coordinator from Central America launched a HW Blog for the region, following the guidelines provided by the team in Peru.

7. Newly Emerging Questions:

- What does it take to motivate political leaders (i.e. regional and local) to support HWWS, especially when there are other priorities, such as natural disasters (i.e. flooding) and political turmoil and conflict?
- What does it take to motivate social agents, in this case teachers, health promoters and others, to effectively promote HWWS? Is certification enough of an incentive?
- What does it take to motivate women?

8. Areas of Focus for the Next Six Months:

Our focus during the next six months will be placed on increasing the reach of our audiences by two means: mass media and DCC in 800 districts; and trained agents reaching the audience with the methodology for behavioral change in 300 districts.

Highlights:

- Launch of Super Jaboncin (soap devise) – September to December
- Launch of Global Day campaign (October)
- Preparation and implementation of Global Handwashing day activities (October, 2009)
- Further development of partner capacity to effectively monitor BC programs.

**Vietnam HWWS Project
Handwashing Initiative (HWI)
Country Report
July 1, 2008 – June 30, 2009**

1. Project Description:

The Vietnam Handwashing Initiative is an integrated program promoting handwashing with soap in women of reproductive age, caretakers and primary school aged children targeting 540 communes in 10 provinces throughout Vietnam.

2. Intended Project Outcome:

Stimulate and sustain 2.2 million women, caretakers and primary school aged children to wash their hands with soap at critical times (i.e. after defecation, before eating).

3. Overall Progress to Date:

Substantial progress has been made in Vietnam in the behavior change communication programs, exposing an estimated 21.5 million women, caretakers and children to HWWS programming through a mix of national mass media, IPC and DCC programs/events. This extensive exposure, combined with well conceived surveying, is already demonstrating a measurable affect on behavioral determinants, especially in the areas of knowledge and ability. Gains have also been made in the Enabling Environment. The HWI has effectively integrated HWWS into several national programs, raising the profile of the importance of HWWS while expanding reach and impact. The project has been implemented in close consultation/collaboration with the Ministry of Health. The primary implementing agency, the Women's Union, a mass organization with an extensive and credible network throughout Vietnam, has proven to be highly effective in reaching the target audience. The project is effectively generating and capturing learnings on research conducted to date (research on barriers and motivations to HWWs among school children, a lexicon study on HW terminology and monitoring surveys) and the development of a working prototype for a handwashing station. The Impact Evaluation baseline has been launched, with preliminary analysis expected to be completed in the Fall, 2009.

4. Status of Implementation:

- On track to achieve outcome of 2.2 million women, caretakers and children washing their hands with soap at critical times.
- On track to deliver intended results in all four components.

5. Highlights for the Reporting Period:

Scaling Up

- Behavior change programs are starting to positively affect critical determinants of behavior change, especially in the area of knowledge (See Annex 4).
- Since January 1, 2009, the Women's Union (WU) has carried out over 540,000 IPC sessions, directly engaging almost 1 million women in reproductive ages and primary school aged children, a threefold increase over last reporting period.
- The contract with WU has been expanded to carry out IPC activities in 240 new communes. By the time the project closes, a total of 540 communes in 10 provinces throughout Vietnam will have benefited from the Vietnam Handwashing Initiative.
- The My Hero Contest was designed to generate new ideas for the HWWS creative campaign for children by having students from 260 primary schools in seven provinces draw and describe in words their vision of a super hero. The contests were a huge success and generated significant interest in children to wash their hands with soap. In Tien Giang province, the provincial Women's Union was able to pull in representatives from health, education and other government offices to participate in the evaluation committee. After the event, the provincial WU requested that the My Hero Contest be included in next year's activity plan.

Replication and Learning

- Three southern and central provinces within the National Target Program for Water Supply and Sanitation (NTP II) has adapted IPC materials developed by the project.
- An additional three northern provinces within NTP II with large numbers of ethnic minority communities have requested and received HW documents to integrate into their water and sanitation activities.

Sustainability

- Women's Union committed to integrate HWWS activities into their programming and support the activities with their own funds once the HWI closes. Two national workshops involving 64 provinces will be organized by WU to introduce handwashing promotion and develop a plan for integrating HWWS into their annual activity plan.
- As easy access to soap and water has emerged as a key determinant, formative research was conducted to develop a working prototype for a handwashing station. Several prototypes were developed through a highly participatory process. Next steps to take the prototype to scale have been discussed and agreed upon with WU and the Ministry of Health. Following these discussions, the Ministry of Health has sent a request to WSP for technical assistance to hire a local consultant to further develop an attractive, easy to use hand washing station that could be produced and sold by the private sector.

6. Key Insights or Lessons Learned in this Period:

Scaling Up Programming and Reach

- One of the challenges to implementation of the programming component has been effectively coordinating activities between the local and central levels. The monitoring system helped WSP and the central WU to troubleshoot particular provinces. The result has been that all activities of Phase I have been completed by June 2009.

Enabling Environment & Sustainability

- After successful completion of phase I activities, it became clear to Women's Union how easily they could integrate HW messages into their other projects. Although building the enabling environment was initially driven by WSP, the President of the national Women's Union has committed to building the EE at all levels and in provinces beyond those directly supported by the program. This will include, at minimum, integrating 3-4 HW indicators into the national WU monitoring program, which is used to evaluate and rank the effectiveness of project implementation in all 64 provinces in each year.

Replication

- Agents for replication do not necessarily need to be government ministries. NGOs and/or community organizations may be just as, if not more, effective. Choose partners based upon their networks, capacity, commitment and ability to execute.

7. Newly Emerging Questions:

- How best to engage the private sector in HWWS?
- How do we engage public sectors and NGOs if there is no direct support of funding?
- Although there is inclusion of HW messages in all wat/san activities of other organizations, how can HW compete for audience attention against other messages about water quality and latrine designs?
- Can and how do we persuade teachers in Vietnam that using an edutainment approach is suitable for changing children's behavior when teachers are used to the education, curriculum model, ie (using games and a cartoon character vs. HW curriculum)?
- How can we help our implementing agency to understand that this is a behavior change project that will contribute to reducing diarrhea rather than a health project that includes interventions aimed directly at reducing diarrhea?

8. Areas of Focus for the Next Six Months:

- Continuing to expand the reach of IPC.
- Launch of the second round of mass media and direct consumer promotional events.
- Activities associated with Global Handwashing Day (October 2009).
- Completion of the IE impact evaluation.
- Signing of MOUs between WSP/HW program and the 7 project provinces detailing their plans for integration of HW activities into all WU activities
- Strengthening the EE for activities via the Women's Union and the MoH Continuing to develop a HW station model for Vietnam

Tanzania HWWS Project
Country Story
July 1, 2008 – June 30, 2009

1. Project Description:

The HWWS-Tanzania project is implemented in concert with the TSSM-Tanzania project and in close collaboration with the Ministry of Water and Irrigation’s National Water Sector Development Program (WSDP) and the Ministry of Health and Social Welfare’s Health Village Initiative (HVI). The project is targeting women of reproductive age and children between the ages of 6-14 in ten districts.

2. Intended Project Outcome:

Stimulate and sustain 1.25 million women and children to wash their hands with soap at critical times (i.e. after defecation, before eating).

3. Overall Progress to Date:

Progress has been made in increasing national recognition of the importance of HWWS and integrating the program into national programs in the water and health sectors. A comprehensive behavior change HWWS campaign has been designed and, in this reporting period, effectively launched through mass media (radio). Earlier problems with the Impact Evaluation (IE) baseline surveys have been addressed and, at the time of the writing of this report, the baseline survey is being launched in five of the ten project districts.

4. Status of Implementation:

On track to achieve intended outcomes.

On track to deliver on expected results in all four components.

Estimated reach and behavior change projections are as follows:

- Mass Media (radio) = 10.4 million women and children. Based on research on listenership and frequency/timing of spots, project exposure estimates are 12.5 million women and children exposed to at least one program per week. As radio programs will be running for more than six months, targets for BC in low intensity areas will be achieved.
- Direct Consumer Contact (DCC) = 170,000 total, or 17,000 per district. With one large event/district with 3,000/event and follow up events over a 12 day period, assuming 50 percent will be from target population, target will be reached.
- Interpersonal Communication Programs (IPC) targets –5 events of 15 people per front line activator per month.
- 450 front line activators will be trained by the end of October (5/ward).

5. Highlights for the Reporting Period:

- Behavior change communications programs launched in February 2009. The “Awaken” phase of the campaign, designed to reach the greatest number of women ages 15-49 and children ages 6-14, through radio. Estimated reach of the campaign so far – 8.4 million women and children.
- Project districts designated as incubators by the national government. Designation brings with it additional funding and increases the profile of the project, its progress and outcomes achieved. Lesson learned will be replicated in other districts of Tanzania.
- Districts have received the first tranche of funds from the district hygiene and sanitation budgets (US\$20,000) and are now eligible to increase this amount to assist in the implementation of IPC (US\$10,000).
- Each district has a project focal person drawn from the District Water and Sanitation Team (DWST) to build district-level capacity in budgeting and programming and lead supervision of all hygiene and sanitation activities.

**The Four Phase HWWS
Campaign in TZ**

- 1. Awaken** - Mothers become aware of the importance of handwashing with soap at the critical moments and that water alone is not enough
- 2. Inspire** – They realize that their hands can make a difference, and it reinforces their roles as good mothers and heroes
- 3. Empower and Engage** - They see and experience HWWS as being simple and easy.
- 4. Amplify** – Their peers are enthusiastic about HWWS and they wish to tell others about it

6. Key Insights or Lessons Learned in this Period:

Scaling Up Programming and Reach

- Take a learn-by-doing approach. Use available research, test the approach and move on.
- Know the audience: research, evidence, and experience are necessary to gather insights on which to develop right messages, channels, times, and frequencies. The placement for radio spots, for example, should respond to audience listening habits include preferred times and days and radio stations with highest coverage.
- TV is a very strong channel, but expensive and not relevant for rural Tanzania and many other rural areas in Africa, where coverage is low.

Sustainability

- Buy-in (endorsements) from government and other key actors is important at all campaign stages.

Replication

- Significant value added in working with other countries. Sharing and analyzing formative research together with Kenya and Uganda and jointly reviewing insights and FOAM determinants at cross country workshops highlighted that many of the issues were the same in these three countries.
- Integrate campaign into existing government programs to help ensure sustainability and scale up. The HWWS is now part of the Ministry of Water and Irrigation's Water Sector Development Program (WSDP) and the Ministry of Health and Social Welfare's Healthy Village Initiative (HVI).

Project Implementation

- Start with a plan but be willing to be flexible in order to adapt to different realities and local contexts. Involve a broad-based partnership of interested stakeholders in planning in order to achieve scale and consistency of approaches.
- Be ready to address capacity limits in areas such as creative work and message design that is relevant to the HW audience, as well monitoring interventions.

7. Newly Emerging Questions:

- How to motivate and create incentives for frontline workers (FLAs, i.e. teachers, extension workers volunteers from NGOs/CBOs).
- What does it take to get high level politicians advocate and popularize HWWS?
- What does it take to motivate more companies, especially soap and plastic manufacturers support HWWS?

8. Areas of Focus for the Next Six Months:

- Continue to work with the two private sector soap companies to secure soap distribution arrangements for the project, and the front line activators (FLAs), to create a financial incentive for the FLAs.
- Preparation and implementation of Global Handwashing Day activities.
- Prepare (jointly with TSSM) and implement national hygiene and sanitation week climaxing to the World Toilet Day celebration.
- Training of 450 FLAs by October.
- Begin roll out of IPC and DCC activities/events (estimated 105,700 reached by IPC and about 119,000 by reached by DCC by December, 2009)
- Increased project's visibility (and popularity) through strategic outdoor branding.
- Start documenting leanings to be turned into knowledge products.
- Support the ten districts to use revised planning and implementation guidelines for hygiene/sanitation activities.
- Increase project visibility through media and PR activities.
- Continue cross-districts learning.

Senegal HWWS Project
Country Story
July 1, 2008 – June 30, 2009

1. Project Description:

The Senegal HWWS project

2. Intended Project Outcome:

Stimulate and sustain 493,000 women and children to wash their hands with soap at critical times (i.e. after defecation, before eating).

3. Overall Progress to Date:

Progress has been made integrating HWWS into the education sector, through the curricula of the primary school system. Behavior change communication programs were launched during this period through IPC and DCC activities and events, reaching almost 5,500 women of reproductive age and primary school aged children. The Impact Evaluation (IE) baseline survey was also launched during this period, with preliminary data analysis expected in the next few months.

4. Status of Implementation:

- On track to achieve outcome
- On track to deliver intended results in all four components.

5. Highlights for the Reporting Period:

- Launching of behavior change communications programs through IPC activities and DCC events (3,500 and 1,900 women and children reached respectively).
- Commitment from Ministry of Education to integrate HWWS into curricula of primary school as an important “life skill.”
- Launching of IE baseline survey.
- Results of doer-non doer study delivered.
- Discussion started with Midwives National Association for a partnership in HW promotion through its activities

6. Key Insights or Lessons Learned in this Period:

- Significant work is needed to advocate for a more social marketing approach to changing behavior. Majority of contractors and stakeholders want to revert back to more traditional approach (PHAST, SARAR). Moving them towards a focus on intention and motivation requires constant guidance, support and encouragement.
- The results from the doer-non doer study showed that hand washing is highly correlated with having a designated place within the household at which to wash your hands with soap.
- The key insight of the communication program is that mothers need to “make it happen” and commit to making soap and water readily accessible to all family members at critical moments for hand washing.
- Conducting a thorough assessment of the current situation in the enabling environment is critical to success. Prioritize the issues and select the areas in which the project can quickly demonstrate success. This will create support and motivation in other key stakeholders.
- Have well-defined roles and responsibilities within the team and also with the implementing agencies, or local institutions taking the lead of the program.

7. Newly Emerging Questions:

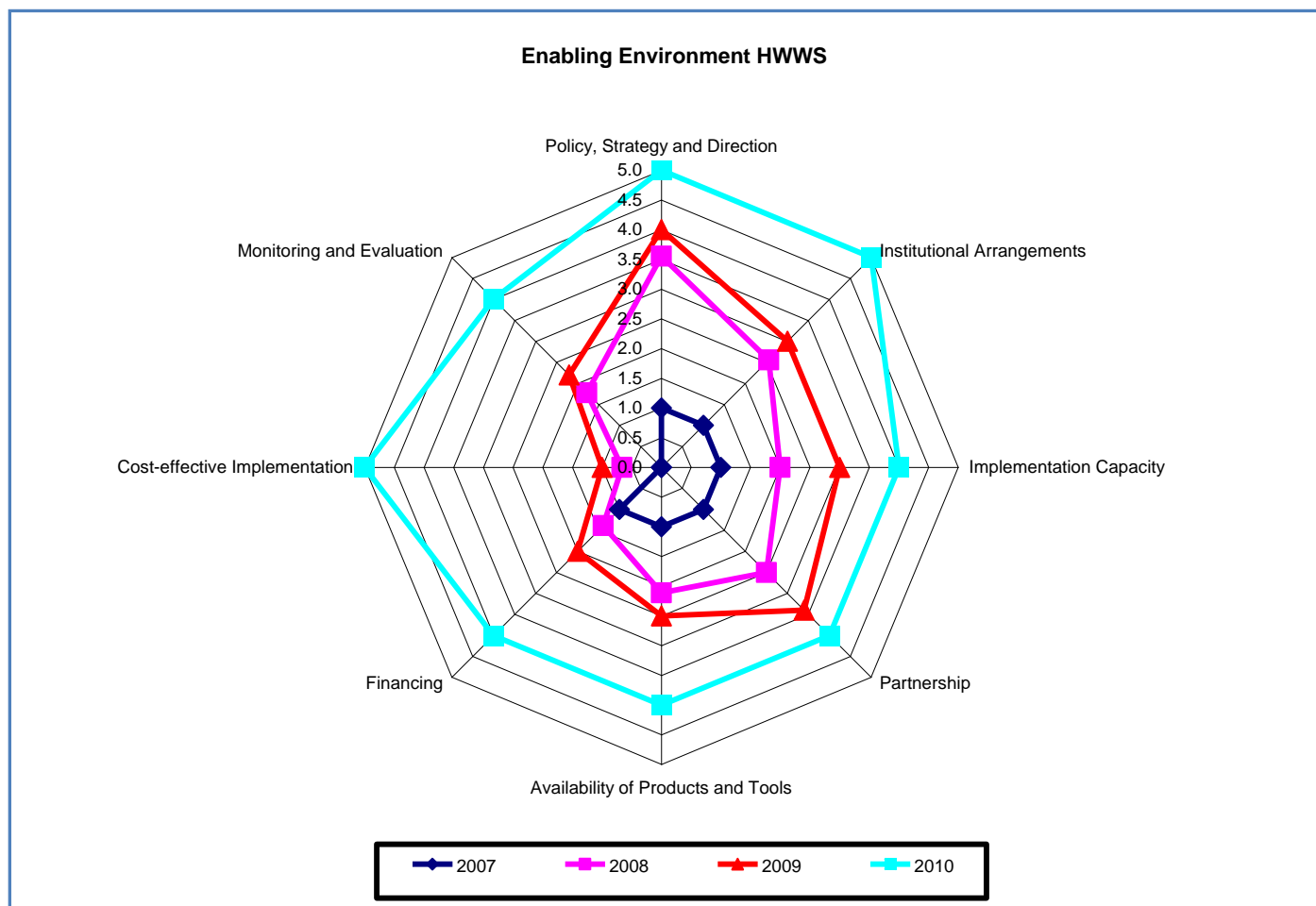
- Would it be useful to associate HW promotion with potability of water or oral rehydration solution, in order to make it more attractive for political leaders?

8. Areas of Focus for the Next Six Months:

- Implement activities associated with the preparation and implementation of Global Handwashing Day (October, 2009).
- Finalize the teacher guidebook and teachers orientation to integrate into primary school curriculum.
- Launching of public relations activities with medical and local governments.

Annex 3: Country Enabling Environment Spider Diagrams

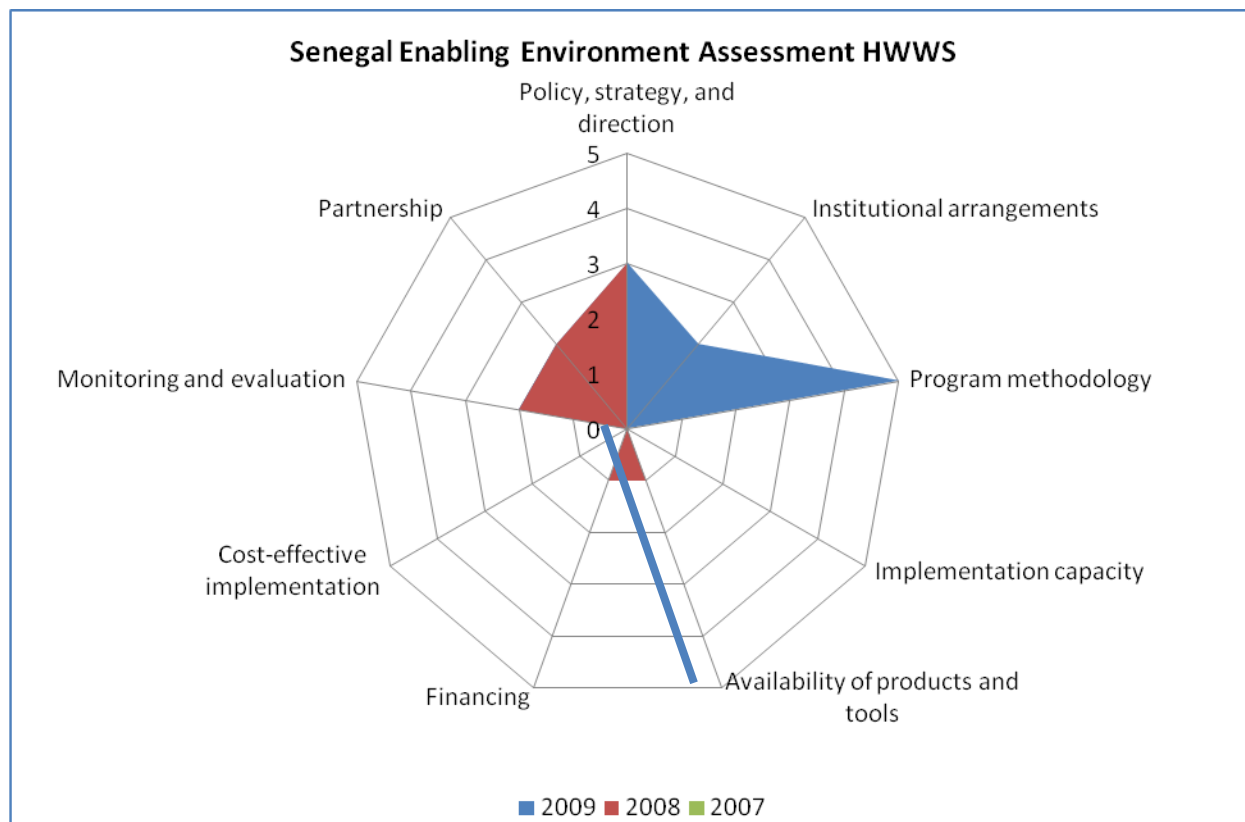
Peru HWWS Enabling Environment



The HWWS project in Peru has made strong progress across several dimensions of the enabling environment. The planned financing steps have been fully achieved through securing support from both public and private sector actors, although there is still a need to minimize dependency on donor support for sustainability and expansion. The team has successfully strengthened the in-country partnership through developing the partnership building strategy “PARA CRECER JUNTOS” (Growing Together). This is a region-by-region effort to raise the profile of the HW Initiative by supporting a larger project in the national development agenda. In the past year, the team has supported developing a strategic handwashing policy, and will now work towards generating the political will to scale up HWWS as well as integrating HWWS into national programs.

The Peru activities have been implemented for some time now, and should provide rich information for cost-effective implementation. The DC team will need to provide support on gathering the necessary cost-effective data. The Peru team has developed an M&E framework, and is now building local capacity to adopt it, with the ultimate goal of integrating HWWS indicators into existing M&E systems.

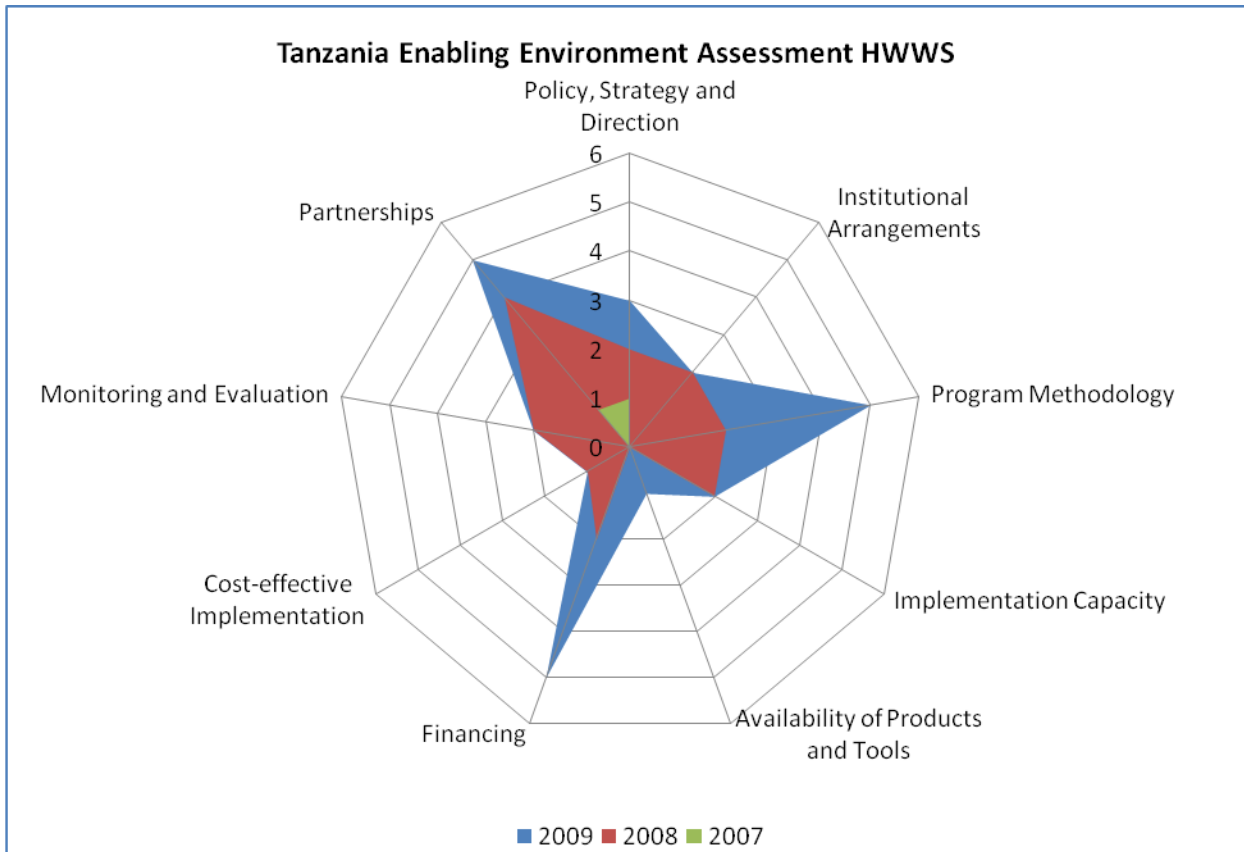
Senegal HWWS Enabling Environment



In Senegal, EE progress has been focused primarily on strengthening the program methodology, the institutional arrangements, and the availability of products. By working towards integrating HW into the primary school curriculum, the program has improved the support of the Ministry of Education, as well as the existing partners. Additionally, with the adoption of the methodology by partners and government, the team has successfully reached all of that dimension’s targets. Finally, the team reports that appropriate and affordable products are available in Senegal.

Progress in other dimensions has been challenged by the delay in launch activities. With implementation rolling out in July, the team can now focus on other dimensions. For example, with guidance from DC, the cost effectiveness data can start being collected, analyzed and used in making program decisions. Additionally the team will work towards developing implementation capacity, particularly with drafting and implementing a capacity-building plan. In an effort to consolidate gains with establishing partnerships, the Senegal team will re-assess the existing MoU, draft a charter, and establish partnerships at the local level. With the establishment of an M&E framework, work in Senegal can now focus on refining it, building local capacity, and ultimately integrating indicators into existing systems. Finally, building on the integration into the MoE curriculum, the team will work towards integration in other national programs – such as PEPAM – and provincial health programs.

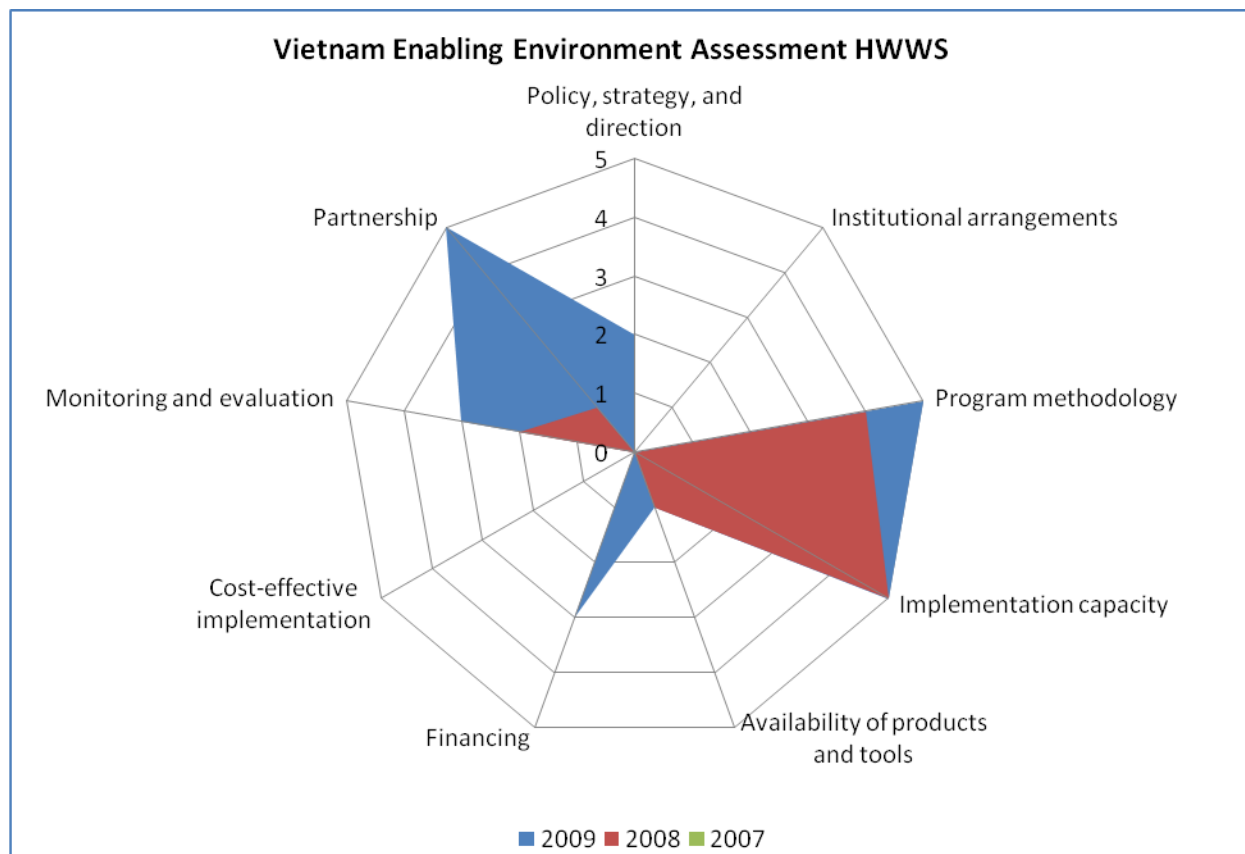
Tanzania HWWS Enabling Environment



In the past year, the Tanzania program has made significant progress on 3 dimensions of the enabling environment – financing, partnerships, and program methodology. In the coming years, the project is looking to develop a national financing plan, establish strong local partnerships, and increase support for the program methodology among local governments. The Tanzania team is currently supporting the development of a national Sanitation and Hygiene policy, as well as mainstreaming handwashing into other national programs. The program has developed marketing tools for the intervention, but will need to better flesh out the steps it will take to strengthen this dimension.

As activities roll out from July '09, the Tanzania team expects to have better information on cost-effective implementation and to move the enabling environment forward as data are collected. Similarly, the team has just begun testing an M&E system, and once it has been refined, they will begin introducing it into the local government systems. On the institutional level, the program is working to help the Government operationalize progress already made, for example strengthening coordination and developing operational guidelines. Finally, implementation capacity has been shown to be a limiting factor, and so the HWWS team is working to build capacity of front line workers, NGOs/ CBOs, and local authorities.

Vietnam HWWS Enabling Environment



In Vietnam, the enabling environment has been dramatically strengthened in a number of areas. The team has fully achieved all partnership stages, particularly thoroughly engaging the public and private sectors. Additionally, by integrating Hygiene/HWWS into the Rural Water and Sanitation Strategy, the Strategy dimension has improved. Funding for the initiative has improved after securing support from both public and private partners. The team has also worked on developing an M&E system for HWWS as well as integrating HW indicators into existing systems. Finally, the program methodology has been well developed, but needs to be adopted by the government, NGOs, and donors.

In the coming years, the team will be focusing on strengthening the role of Women’s union at both national and provincial levels, and further mainstreaming HWWS into existing institutions. As the project continues to roll out, the team will be able to gather data on its cost effectiveness. Finally, the program has developed and tested a handwashing station, and will need to explore how best to make it commercially available.

Annex 4: Early learning from Vietnam Monitoring Surveys

The project has conducted two rounds of household surveys aimed at monitoring changes at the behavioural determinant level as well as exposure to the various components of the program.

The first (conducted among 149 caretakers in month July 2008) was primarily intended as a pilot and based on analysis of data collected, the questionnaire was improved and finalized. A second round was conducted in May of 2009 among 300 caretakers (a third round is planned for late 2009). Due to changes in the wording of several questions, the addition of new ones or the deletion of several, comparability and the ability to report are changes is somewhat restricted. Nevertheless some early findings can be reported as follows.

1. HWWS as a habit

Building on the literature review on the sustainability of behaviours, it was decided as of the 2nd round to start introducing the Self Reported Habit Index, a standardized set of 12 questions aimed at capturing the various elements of a habitual behaviour (such as automaticity and frequency). Due to challenges encountered in translation, the index was slightly modified and resulted in 14 questions.

The following results from the 2nd round suggest that caretakers still need to consciously think about HWWS (statements 3, 5, 14 and 13 to a lesser extent) and that **automaticity** has not yet fully set in.

| | Statement N=300 | a. Very much agree | b. Agree | c. Disagree | d. Absolutely disagree |
|----|--|--------------------------|----------|-------------|---------------------------|
| 1 | You do not feel comfortable when you do not wash hands with soap | 13% | 72% | 14% | 1% |
| 2 | Seeing dirt/stain on your hands reminds you to wash hands with soap | 14% | 34% | 51% | 1% |
| 3 | You start washing hands before you realize that you are doing it | 3% | 28% | 67% | 1% |
| 4 | Washing hands with soap has become your habit | 24% | 75% | 1% | 0% |
| 5 | You have to think about washing your hands with soap | 4% | 63% | 32% | 1% |
| 6 | You often wash your hands with soap | 25% | 74% | 1% | 0% |
| 7 | Washing hands with soap is not your daily routine | 1% | 9% | 79% | 11% |
| 8 | You would find uncomfortable if you don't wash your hands | 14% | 77% | 9% | 0% |
| 9 | Seeing soap after going to the toilet reminds you to wash your hands with soap | 11% | 34% | 53% | 3% |
| 10 | You have started washing your hands with soap over the past one year | 8% | 57% | 34% | 0% |
| 11 | Washing your hands with soap requires effort | 4% | 52% | 43% | 1% |
| 12 | You have been washing your hands with soap for a long time | 6% | 66% | 28% | 0% |
| 13 | You wash your hands with soap without needing to remind your self | 7% | 74% | 18% | 2% |
| 14 | You have to always remind yourself to wash your hands with soap | 5% | 59% | 35% | 1% |

2. Improved knowledge

As stated above, comparability among the two rounds is limited. However, it would appear that knowledge (one of the determinants in FOAM) has improved as can be seen in the following table, particularly around awareness of the food handling/feeding child juncture and how to know when has are clean.

| Statement N=300 | 1 st round N=149 (July 2008) | 2 nd round N=300 (May 2009) |
|--------------------------------------|--|--|
| How to know hands clean | 25%: washing with soap | 91%: after having been washed with soap |
| How to prevent diarrhea for children | 13%: Wash children's hands and legs | 48%: Wash the children's hands with water and soap |
| How to clean hand | 87%: By washing hands with soap (to clean germs) | 98%: By washing hands with soap (to clean hands) |
| How to make hands cleanest | 74%: By washing hands with soap | 99.3%: By washing hands with soap |
| When to wash hands with soap | 27%: Cook, feed baby | 57%: Cook, feed baby |

3. Persistent misconceptions

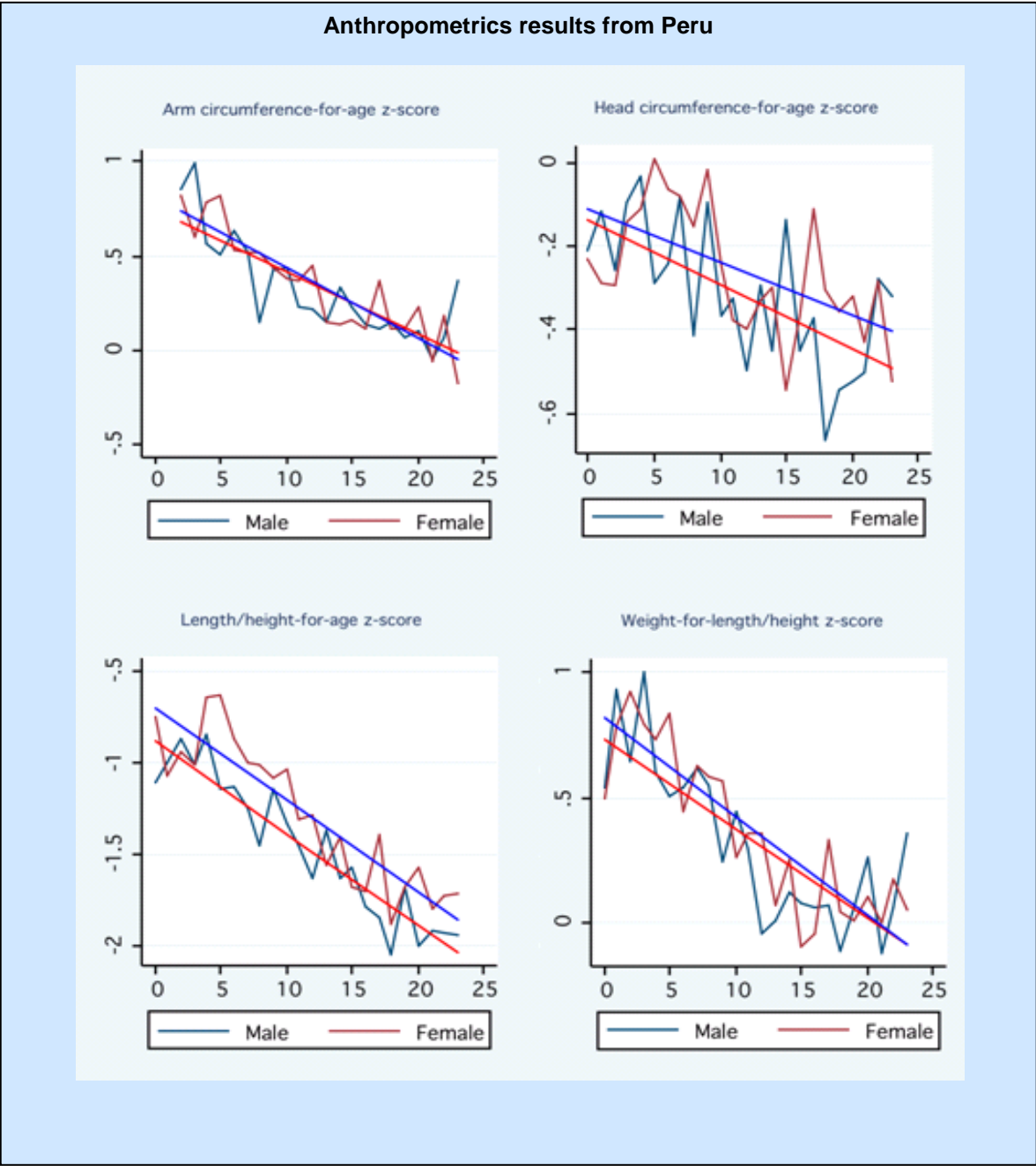
Despite these improvements, round 2 of surveys confirmed lingering beliefs that need to be corrected, particularly around relying on cues such as dirt/smell or judgment calls around touching objectives deemed to be non-hygienic to decide on whether HWWS or not. This can be seen in the table below. These decision-making rules may be going against automaticity. The IPC curriculum has been revised in June to specifically counter these misconceptions.

| Statement N=300 | a. Very much agree | b. Agree | c. Disagree | d. Absolutely disagree |
|---|--------------------|----------|-------------|------------------------|
| You only need to wash your hands with soap, if they look dirty or smell | 10% | 27% | 60% | 3% |
| You don't need to wash your hands with soap if feeling the hands are clean | 1% | 15% | 79% | 5% |
| You only need to wash your hands with soap if your hands touch unhygienic objects | 13% | 26% | 58% | 3% |

4. Presence of a HW station

In the 2nd round, interviewers were asked to observe whether a HWWS station was present near the toilet/latrine. Only 52 percent of households had one. In almost all of these cases, both soap and water were available at the station at the time of observation.

Annex 5: Anthropometrics Results from Peru



Annex 6: Results from Peru Baseline Survey - Program Performance Indicators

Prevalence of diarrhea incidence among children under 3 (during past 48h)

| | Total population | | Treatment 1 | | General Control | | p-value | Treatment 2 | | p-value | School Total | | Treatment 2 Schools | | Control Schools | | |
|---|------------------|-------|-------------|-------|-----------------|-------|---------|-------------|-------|---------|--------------|-------|---------------------|-------|-----------------|-------|-------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Poor households | 2697 | 0.099 | 582 | 0.088 | 566 | 0.117 | 0.220 | 537 | 0.114 | 0.901 | 1012 | 0.088 | 471 | 0.093 | 541 | 0.083 | 0.670 |
| Non-Poor households | 2414 | 0.076 | 415 | 0.075 | 461 | 0.076 | 0.956 | 535 | 0.088 | 0.614 | 1003 | 0.071 | 536 | 0.071 | 467 | 0.071 | 0.990 |
| Access to HW station w/ water & soap | 2981 | 0.090 | 553 | 0.096 | 588 | 0.109 | 0.582 | 618 | 0.097 | 0.641 | 1222 | 0.075 | 585 | 0.075 | 637 | 0.075 | 0.994 |
| NO access to HW station w/ soap & water | 2156 | 0.086 | 450 | 0.064 | 443 | 0.084 | 0.312 | 456 | 0.105 | 0.289 | 807 | 0.088 | 427 | 0.096 | 380 | 0.079 | 0.461 |
| All households | 5137 | 0.088 | 1003 | 0.082 | 1031 | 0.098 | 0.368 | 1074 | 0.101 | 0.888 | 2029 | 0.080 | 1012 | 0.084 | 1017 | 0.077 | 0.639 |

Households whose caregivers lost productive hours (school or work) caring for sick children (during past week)

| | Total population | | Treatment 1 | | General Control | | p-value | Treatment 2 | | p-value | School Total | | School Treatment | | School Control | | p-value |
|---|------------------|-------|-------------|-------|-----------------|-------|--------------|-------------|-------|---------|--------------|-------|------------------|-------|----------------|-------|---------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Poor households | 1772 | 0.025 | 401 | 0.062 | 366 | 0.016 | 0.010 | 358 | 0.020 | 0.788 | 647 | 0.011 | 303 | 0.003 | 344 | 0.017 | 0.054 |
| Non-Poor households | 1771 | 0.024 | 310 | 0.058 | 336 | 0.015 | 0.005 | 402 | 0.017 | 0.794 | 723 | 0.018 | 395 | 0.015 | 328 | 0.021 | 0.663 |
| Access to HW station w/ water & soap | 2127 | 0.025 | 402 | 0.055 | 415 | 0.012 | 0.004 | 455 | 0.022 | 0.413 | 855 | 0.019 | 424 | 0.017 | 431 | 0.021 | 0.722 |
| NO access to HW station w/ soap & water | 1434 | 0.026 | 313 | 0.067 | 291 | 0.021 | 0.031 | 307 | 0.016 | 0.704 | 523 | 0.010 | 277 | 0.000 | 246 | 0.020 | 0.054 |
| All households | 3561 | 0.025 | 715 | 0.060 | 706 | 0.016 | 0.002 | 762 | 0.020 | 0.631 | 1378 | 0.015 | 701 | 0.010 | 677 | 0.021 | 0.299 |

Self-reported handwashing with soap after using toilet (during past 24 hours)

| | Total population | | Treatment 1 | | General Control | | p-value | Treatment 2 | | p-value | School Total | | School Treatment | | School Control | | p-value |
|---|------------------|-------|-------------|-------|-----------------|-------|---------|-------------|-------|--------------|--------------|-------|------------------|-------|----------------|-------|---------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Poor households | 1779 | 0.310 | 402 | 0.311 | 367 | 0.319 | 0.866 | 358 | 0.335 | 0.718 | 652 | 0.290 | 305 | 0.285 | 347 | 0.294 | 0.845 |
| Non-Poor households | 1779 | 0.469 | 311 | 0.482 | 336 | 0.542 | 0.172 | 403 | 0.447 | 0.049 | 729 | 0.442 | 397 | 0.456 | 332 | 0.425 | 0.477 |
| Access to HW station w/ water & soap | 2126 | 0.452 | 400 | 0.473 | 413 | 0.479 | 0.893 | 454 | 0.447 | 0.529 | 859 | 0.431 | 425 | 0.452 | 434 | 0.410 | 0.323 |
| NO access to HW station w/ soap & water | 1432 | 0.297 | 313 | 0.275 | 290 | 0.348 | 0.063 | 307 | 0.316 | 0.517 | 522 | 0.270 | 277 | 0.274 | 245 | 0.265 | 0.853 |
| All households | 3558 | 0.389 | 713 | 0.386 | 703 | 0.425 | 0.320 | 761 | 0.394 | 0.452 | 1381 | 0.370 | 702 | 0.382 | 679 | 0.358 | 0.523 |

Peru – Program Performance Indicators (continued)

Self-reported handwashing with soap when preparing food (during past 24 hours)

| | Total population | | Treatment 1 | | General Control | | p-value | Treatment 2 | | p-value | School Total | | School Treatment | | School Control | | p-value |
|---|------------------|-------|-------------|-------|-----------------|-------|---------|-------------|-------|---------|--------------|-------|------------------|-------|----------------|-------|--------------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Poor households | 1779 | 0.721 | 402 | 0.781 | 367 | 0.728 | 0.218 | 358 | 0.701 | 0.575 | 652 | 0.692 | 305 | 0.643 | 347 | 0.735 | 0.043 |
| Non-Poor households | 1779 | 0.675 | 311 | 0.746 | 336 | 0.696 | 0.117 | 403 | 0.640 | 0.132 | 729 | 0.654 | 397 | 0.635 | 332 | 0.678 | 0.366 |
| Access to HW station w/ water & soap | 2126 | 0.696 | 400 | 0.763 | 413 | 0.714 | 0.134 | 454 | 0.689 | 0.530 | 859 | 0.660 | 425 | 0.631 | 434 | 0.689 | 0.181 |
| NO access to HW station w/ soap & water | 1432 | 0.701 | 313 | 0.770 | 290 | 0.710 | 0.232 | 307 | 0.638 | 0.166 | 522 | 0.692 | 277 | 0.650 | 245 | 0.739 | 0.104 |
| All households | 3558 | 0.698 | 713 | 0.766 | 703 | 0.713 | 0.078 | 761 | 0.669 | 0.201 | 1381 | 0.672 | 702 | 0.638 | 679 | 0.707 | 0.051 |

Self-reported handwashing with soap when feeding a child (during past 24 hours)

| | Total population | | Treatment 1 | | General Control | | p-value | Treatment 2 | | p-value | School Total | | School Treatment | | School Control | | p-value |
|---|------------------|-------|-------------|-------|-----------------|-------|---------|-------------|-------|--------------|--------------|-------|------------------|-------|----------------|-------|---------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Poor households | 1779 | 0.314 | 402 | 0.303 | 367 | 0.390 | 0.076 | 358 | 0.263 | 0.007 | 652 | 0.307 | 305 | 0.262 | 347 | 0.346 | 0.093 |
| Non-Poor households | 1779 | 0.328 | 311 | 0.412 | 336 | 0.339 | 0.055 | 403 | 0.290 | 0.156 | 729 | 0.309 | 397 | 0.295 | 332 | 0.325 | 0.561 |
| Access to HW station w/ water & soap | 2126 | 0.339 | 400 | 0.353 | 413 | 0.363 | 0.771 | 454 | 0.313 | 0.166 | 859 | 0.334 | 425 | 0.315 | 434 | 0.353 | 0.407 |
| NO access to HW station w/ soap & water | 1432 | 0.295 | 313 | 0.348 | 290 | 0.369 | 0.674 | 307 | 0.225 | 0.003 | 522 | 0.264 | 277 | 0.227 | 245 | 0.306 | 0.089 |
| All households | 3558 | 0.321 | 713 | 0.351 | 703 | 0.366 | 0.668 | 761 | 0.277 | 0.009 | 1381 | 0.308 | 702 | 0.281 | 679 | 0.336 | 0.160 |

Presence of soap or water in accessible handwashing station

| | Total population | | Treatment 1 | | General Control | | p-value* | Treatment 2 | | p-value | School Total | | School Treatment | | School Control | | p-value |
|----------------|------------------|-------|-------------|-------|-----------------|-------|----------|-------------|-------|---------|--------------|-------|------------------|-------|----------------|-------|---------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | n | % | |
| Soap | 3410 | 0.686 | 682 | 0.652 | 687 | 0.668 | 0.542 | 716 | 0.693 | 0.323 | 1325 | 0.709 | 659 | 0.712 | 666 | 0.707 | 0.858 |
| Water | 3161 | 0.882 | 602 | 0.874 | 638 | 0.870 | 0.839 | 671 | 0.902 | 0.071 | 1250 | 0.881 | 622 | 0.875 | 628 | 0.887 | 0.501 |
| Soap and water | 3411 | 0.620 | 681 | 0.586 | 688 | 0.600 | 0.588 | 716 | 0.627 | 0.302 | 1326 | 0.654 | 660 | 0.635 | 666 | 0.655 | 0.451 |

Peru – Health and Child Development Indicators

Prevalence of acute lower respiratory infection among children under 3 (during past 48h)

| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
|---|------------|-------|-----------|-------|----------|-------|--------------|---------|-------|---------|------------|-------|-----------|-------|---------|
| | n | % | n | % | n | % | | n | % | | n | % | n | % | |
| Poor households | 2697 | 0.060 | 566 | 0.023 | 582 | 0.132 | 0.000 | 537 | 0.045 | 0.119 | 471 | 0.059 | 541 | 0.039 | 0.460 |
| Non-Poor households | 2414 | 0.045 | 461 | 0.037 | 415 | 0.063 | 0.331 | 535 | 0.054 | 0.542 | 536 | 0.049 | 467 | 0.024 | 0.322 |
| Access to HW station w/ water & soap | 2981 | 0.053 | 588 | 0.027 | 553 | 0.110 | 0.001 | 618 | 0.053 | 0.224 | 585 | 0.058 | 637 | 0.022 | 0.150 |
| NO access to HW station w/ soap & water | 2156 | 0.053 | 443 | 0.032 | 450 | 0.093 | 0.012 | 456 | 0.044 | 0.454 | 427 | 0.047 | 380 | 0.047 | 0.981 |
| All households | 5137 | 0.053 | 1031 | 0.029 | 1003 | 0.103 | 0.001 | 1074 | 0.049 | 0.252 | 1012 | 0.053 | 1017 | 0.031 | 0.306 |

BMI for age for children under 3 (z-score)

| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
|---|------------|-------|-----------|-------|----------|-------|---------|---------|-------|---------|------------|-------|-----------|-------|---------|
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1800 | 0.287 | 364 | 0.180 | 406 | 0.330 | 0.200 | 368 | 0.279 | 0.350 | 310 | 0.311 | 352 | 0.335 | 0.837 |
| Non-Poor households | 1780 | 0.575 | 341 | 0.558 | 309 | 0.634 | 0.542 | 399 | 0.514 | 0.685 | 396 | 0.601 | 335 | 0.579 | 0.834 |
| Access to HW station w/ water & soap | 2149 | 0.489 | 419 | 0.360 | 407 | 0.507 | 0.199 | 454 | 0.506 | 0.162 | 430 | 0.528 | 439 | 0.541 | 0.893 |
| NO access to HW station w/ soap & water | 1449 | 0.343 | 290 | 0.362 | 312 | 0.406 | 0.710 | 315 | 0.260 | 0.335 | 279 | 0.384 | 253 | 0.305 | 0.530 |
| All households | 3598 | 0.431 | 709 | 0.361 | 719 | 0.463 | 0.263 | 769 | 0.405 | 0.599 | 709 | 0.471 | 692 | 0.455 | 0.844 |

Head circumference for age for children under 3 (z-score)

| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
|---|------------|--------|-----------|--------|----------|--------|--------------|---------|--------|--------------|------------|--------|-----------|--------|---------|
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1803 | -0.445 | 365 | -0.453 | 406 | -0.425 | 0.793 | 366 | -0.413 | 0.741 | 314 | -0.463 | 352 | -0.475 | 0.916 |
| Non-Poor households | 1773 | -0.121 | 338 | -0.004 | 304 | -0.205 | 0.038 | 401 | -0.216 | 0.027 | 397 | -0.100 | 333 | -0.075 | 0.819 |
| Access to HW station w/ water & soap | 2146 | -0.223 | 418 | -0.219 | 405 | -0.327 | 0.274 | 455 | -0.210 | 0.936 | 431 | -0.143 | 437 | -0.222 | 0.449 |
| NO access to HW station w/ soap & water | 1448 | -0.377 | 289 | -0.267 | 309 | -0.339 | 0.515 | 314 | -0.453 | 0.110 | 283 | -0.440 | 253 | -0.383 | 0.623 |
| All households | 3594 | -0.285 | 707 | -0.238 | 714 | -0.332 | 0.290 | 769 | -0.310 | 0.454 | 714 | -0.261 | 690 | -0.281 | 0.825 |

Peru – Health and Child Development Indicators (continued)

| Length/height for age for children under 3 (z-score) | | | | | | | | | | | | | | | |
|--|------------|--------|-----------|--------|----------|--------|---------|---------|--------|---------|------------|--------|-----------|--------|---------|
| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1803 | -1.593 | 366 | -1.598 | 409 | -1.563 | 0.766 | 365 | -1.570 | 0.827 | 311 | -1.618 | 352 | -1.623 | 0.972 |
| Non-Poor households | 1779 | -1.131 | 341 | -1.013 | 309 | -1.138 | 0.303 | 398 | -1.120 | 0.324 | 398 | -1.225 | 333 | -1.146 | 0.460 |
| Access to HW station w/ water & soap | 2149 | -1.252 | 419 | -1.235 | 409 | -1.268 | 0.770 | 453 | -1.198 | 0.737 | 432 | -1.261 | 436 | -1.301 | 0.733 |
| NO access to HW station w/ soap & water | 1451 | -1.530 | 292 | -1.427 | 313 | -1.526 | 0.518 | 312 | -1.536 | 0.491 | 280 | -1.610 | 254 | -1.559 | 0.664 |
| All households | 3600 | -1.364 | 711 | -1.314 | 722 | -1.380 | 0.559 | 765 | -1.336 | 0.841 | 712 | -1.398 | 690 | -1.396 | 0.979 |
| Arm circumference for children under 3 (z-score) | | | | | | | | | | | | | | | |
| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1578 | 0.114 | 318 | 0.093 | 356 | 0.205 | 0.408 | 323 | 0.136 | 0.759 | 278 | 0.064 | 303 | 0.049 | 0.897 |
| Non-Poor households | 1599 | 0.537 | 314 | 0.511 | 271 | 0.646 | 0.181 | 359 | 0.537 | 0.818 | 353 | 0.510 | 302 | 0.499 | 0.933 |
| Access to HW station w/ water & soap | 1913 | 0.423 | 385 | 0.371 | 365 | 0.494 | 0.249 | 406 | 0.427 | 0.639 | 379 | 0.445 | 378 | 0.381 | 0.585 |
| NO access to HW station w/ soap & water | 1280 | 0.183 | 250 | 0.190 | 266 | 0.263 | 0.622 | 278 | 0.237 | 0.741 | 255 | 0.118 | 231 | 0.090 | 0.833 |
| All households | 3193 | 0.327 | 635 | 0.300 | 631 | 0.397 | 0.364 | 684 | 0.350 | 0.663 | 634 | 0.314 | 609 | 0.271 | 0.695 |
| Weight for length/height for children under 3 (z-score) | | | | | | | | | | | | | | | |
| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1795 | 0.197 | 363 | 0.108 | 406 | 0.229 | 0.290 | 367 | 0.185 | 0.446 | 309 | 0.188 | 350 | 0.274 | 0.476 |
| Non-Poor households | 1776 | 0.504 | 340 | 0.482 | 308 | 0.563 | 0.510 | 399 | 0.480 | 0.984 | 394 | 0.495 | 335 | 0.513 | 0.863 |
| Access to HW station w/ water & soap | 2143 | 0.416 | 418 | 0.307 | 406 | 0.415 | 0.320 | 453 | 0.432 | 0.215 | 428 | 0.437 | 438 | 0.486 | 0.602 |
| NO access to HW station w/ soap & water | 1446 | 0.251 | 289 | 0.257 | 312 | 0.320 | 0.590 | 315 | 0.212 | 0.679 | 278 | 0.234 | 252 | 0.228 | 0.967 |
| All households | 3589 | 0.350 | 707 | 0.287 | 718 | 0.374 | 0.336 | 768 | 0.342 | 0.519 | 706 | 0.357 | 690 | 0.392 | 0.674 |

Peru – Health and Child Development Indicators (continued)

| Weight for age for children under 3 (z-score) | | | | | | | | | | | | | | | |
|---|------------|--------|-----------|--------|----------|--------|---------|---------|--------|---------------|------------|--------|-----------|--------|--------------|
| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
| | n | mean | n | mean | n | mean | | n | mean | | n | mean | n | mean | |
| Poor households | 1813 | -0.765 | 367 | -0.804 | 410 | -0.726 | 0.496 | 370 | -0.754 | 0.680 | 313 | -0.815 | 353 | -0.740 | 0.559 |
| Non-Poor households | 1790 | -0.244 | 342 | -0.177 | 310 | -0.210 | 0.783 | 402 | -0.301 | 0.284 | 400 | -0.293 | 336 | -0.216 | 0.533 |
| Access to HW station w/ water & soap | 2159 | -0.389 | 421 | -0.460 | 408 | -0.405 | 0.663 | 457 | -0.339 | 0.314 | 433 | -0.390 | 440 | -0.358 | 0.781 |
| NO access to HW station w/ soap & water | 1462 | -0.679 | 292 | -0.562 | 316 | -0.627 | 0.597 | 317 | -0.770 | 0.109 | 283 | -0.729 | 254 | -0.710 | 0.887 |
| All households | 3621 | -0.506 | 713 | -0.502 | 724 | -0.502 | 1.000 | 774 | -0.515 | 0.900 | 716 | -0.524 | 694 | -0.487 | 0.723 |
| Anemia among children under 3 (anemia <11 g/dl) | | | | | | | | | | | | | | | |
| | Total Pop. | | Gen. Ctrl | | Treat. 1 | | p-value | Treat.2 | | p-value | Schl Treat | | Schl Ctrl | | p-value |
| | n | % | n | % | n | % | | n | % | | n | mean | n | mean | |
| Poor households | 1576 | 0.308 | 328 | 0.305 | 371 | 0.264 | 0.537 | 310 | 0.361 | 0.751 | 258 | 0.302 | 309 | 0.314 | -0.152 |
| Non-Poor households | 1459 | 0.520 | 274 | 0.558 | 278 | 0.478 | 0.321 | 320 | 0.519 | -0.539 | 304 | 0.539 | 283 | 0.502 | 0.512 |
| Access to HW station w/ water & soap | 1795 | 0.431 | 358 | 0.436 | 363 | 0.397 | 0.574 | 373 | 0.434 | -0.021 | 330 | 0.445 | 371 | 0.445 | 0.011 |
| NO access to HW station w/ soap & water | 1255 | 0.377 | 247 | 0.393 | 289 | 0.308 | 0.284 | 259 | 0.452 | 0.677 | 235 | 0.409 | 225 | 0.329 | 0.968 |
| All households | 3050 | 0.409 | 605 | 0.418 | 652 | 0.357 | 0.357 | 632 | 0.441 | 0.338 | 565 | 0.430 | 596 | 0.401 | 0.432 |

Peru – General Indicators of Baseline Balance

| Household characteristics | Total Pop. | Gen. Ctrl. | Treat. 1 | p-value | Treat. 2 | p-value | Schl. Ctrl. | Schl. Treat | p-value |
|--|------------|------------|----------|--------------|----------|--------------|-------------|-------------|---------|
| Household roster | n=3361 | n=661 | n=664 | | n=727 | | n=639 | n=670 | |
| Number of persons in household | 5.48 | 4.958 | 5.295 | 0.016 | 5.000 | 0.759 | 6.191 | 6.007 | 0.242 |
| Years of education of head of household | 8.05 | 8.374 | 7.986 | 0.310 | 8.198 | 0.627 | 7.698 | 7.958 | 0.601 |
| Household member died in past year | 0.05 | 0.054 | 0.047 | 0.543 | 0.047 | 0.560 | 0.042 | 0.039 | 0.761 |
| Household asset/durable goods | | | | | | | | | |
| Own any: Radio, CD, cassette? | 0.79 | 0.809 | 0.827 | 0.567 | 0.748 | 0.095 | 0.815 | 0.760 | 0.108 |
| Own any: Television? | 0.57 | 0.542 | 0.536 | 0.934 | 0.557 | 0.782 | 0.609 | 0.624 | 0.808 |
| Own any: VCR, DVD player? | 0.24 | 0.250 | 0.208 | 0.293 | 0.245 | 0.896 | 0.227 | 0.261 | 0.383 |
| Own any: Computer? | 0.02 | 0.017 | 0.017 | 0.991 | 0.012 | 0.556 | 0.025 | 0.016 | 0.287 |
| Own any: Bicycle? | 0.21 | 0.185 | 0.208 | 0.580 | 0.215 | 0.447 | 0.219 | 0.240 | 0.615 |
| Own any: Motorcycle? | 0.03 | 0.027 | 0.032 | 0.723 | 0.040 | 0.270 | 0.033 | 0.037 | 0.711 |
| Own any: Auto or Tractor? | 0.02 | 0.014 | 0.020 | 0.476 | 0.022 | 0.298 | 0.014 | 0.007 | 0.299 |
| Own any: Refrigerator? | 0.09 | 0.104 | 0.077 | 0.323 | 0.076 | 0.254 | 0.088 | 0.122 | 0.186 |
| Own any: Gas stove? | 0.40 | 0.389 | 0.339 | 0.492 | 0.429 | 0.552 | 0.357 | 0.458 | 0.172 |
| Own any: Other type of stove? | 0.11 | 0.151 | 0.084 | 0.072 | 0.078 | 0.034 | 0.147 | 0.093 | 0.101 |
| Own any: Blender? | 0.22 | 0.206 | 0.176 | 0.494 | 0.226 | 0.621 | 0.214 | 0.254 | 0.363 |
| Own any: Toaster? | 0.01 | 0.003 | 0.014 | 0.077 | 0.007 | 0.275 | 0.006 | 0.010 | 0.494 |
| Own any: Microwave? | 0.01 | 0.012 | 0.008 | 0.500 | 0.006 | 0.315 | 0.009 | 0.013 | 0.544 |
| Own any: Washing machine? | 0.01 | 0.006 | 0.003 | 0.384 | 0.007 | 0.853 | 0.009 | 0.012 | 0.664 |
| Own any: Water boiler? | 0.02 | 0.027 | 0.020 | 0.530 | 0.017 | 0.274 | 0.016 | 0.027 | 0.265 |
| Household income | | | | | | | | | |
| Top half of wealth distribution | 0.49 | 0.510 | 0.547 | 0.663 | 0.469 | 0.593 | 0.502 | 0.427 | 0.357 |
| Dwelling characteristics | | | | | | | | | |
| Rooms in dwelling | 3.06 | 2.943 | 3.071 | 0.391 | 2.949 | 0.964 | 3.264 | 3.093 | 0.221 |
| Owns home outright | 0.48 | 0.449 | 0.533 | 0.070 | 0.444 | 0.914 | 0.509 | 0.481 | 0.619 |
| Owns home, paying off mortgage | 0.03 | 0.020 | 0.038 | 0.185 | 0.028 | 0.455 | 0.042 | 0.027 | 0.261 |
| Rents home | 0.12 | 0.138 | 0.083 | 0.090 | 0.122 | 0.643 | 0.113 | 0.148 | 0.312 |
| Borrowed home | 0.22 | 0.206 | 0.230 | 0.436 | 0.283 | 0.010 | 0.149 | 0.201 | 0.084 |
| Occupied with Title | 0.02 | 0.017 | 0.012 | 0.589 | 0.022 | 0.668 | 0.033 | 0.028 | 0.750 |
| Occupied without Title | 0.02 | 0.032 | 0.014 | 0.343 | 0.014 | 0.364 | 0.030 | 0.012 | 0.174 |
| Water source | | | | | | | | | |
| Drinking water: piped | 0.50 | 0.445 | 0.533 | 0.310 | 0.521 | 0.394 | 0.455 | 0.549 | 0.335 |
| Drinking water: well | 0.04 | 0.080 | 0.044 | 0.329 | 0.025 | 0.084 | 0.033 | 0.027 | 0.771 |
| Drinking water: spring, rain, surface | 0.32 | 0.349 | 0.271 | 0.343 | 0.320 | 0.750 | 0.362 | 0.296 | 0.491 |
| Drinking water: vendor | 0.01 | 0.005 | 0.029 | 0.122 | 0.006 | 0.836 | 0.016 | 0.007 | 0.571 |
| Water source is covered | 0.35 | 0.374 | 0.339 | 0.673 | 0.355 | 0.825 | 0.349 | 0.324 | 0.766 |
| Pay for water | 0.65 | 0.570 | 0.613 | 0.531 | 0.663 | 0.163 | 0.709 | 0.682 | 0.690 |
| Store drinking water at home | 0.77 | 0.752 | 0.810 | 0.151 | 0.772 | 0.651 | 0.800 | 0.733 | 0.185 |
| Water treatment | | | | | | | | | |
| Do something to prepare drinking water | 0.87 | 0.906 | 0.795 | 0.005 | 0.867 | 0.337 | 0.881 | 0.878 | 0.934 |
| Drinking water/How: Boil | 0.86 | 0.879 | 0.800 | 0.076 | 0.876 | 0.952 | 0.875 | 0.885 | 0.818 |
| Drinking water/How: Chlorine | 0.03 | 0.032 | 0.050 | 0.367 | 0.025 | 0.527 | 0.023 | 0.019 | 0.686 |
| Drinking water/How: Solar disinfection | 0.00 | 0.009 | 0.009 | 0.997 | 0.000 | 0.240 | 0.002 | 0.000 | 0.320 |
| Drinking water/How: Strain through a cloth | 0.00 | 0.003 | 0.003 | 0.997 | 0.000 | 0.310 | 0.002 | 0.000 | 0.311 |
| Drinking water/How: Let it stand and set | 0.03 | 0.027 | 0.050 | 0.308 | 0.021 | 0.707 | 0.016 | 0.021 | 0.660 |

Peru – General Indicators of Baseline Balance (continued)

| Household characteristics | Total Pop. | Gen. Ctrl. | Treat. 1 | p-value | Treat. 2 | p-value | Schl. Ctrl. | Schl. Treat | p-value |
|---|------------|------------|----------|--------------|----------|--------------|-------------|-------------|--------------|
| | n=3361 | n=661 | n=664 | | n=727 | | n=639 | n=670 | |
| Sanitation facilities | | | | | | | | | |
| Flush toilet | 0.32 | 0.328 | 0.184 | 0.013 | 0.336 | 0.901 | 0.313 | 0.445 | 0.039 |
| Latrine | 0.10 | 0.079 | 0.101 | 0.472 | 0.140 | 0.090 | 0.050 | 0.110 | 0.098 |
| Open pit for latrine | 0.32 | 0.328 | 0.417 | 0.150 | 0.267 | 0.222 | 0.383 | 0.216 | 0.001 |
| No sanitation facility | 0.23 | 0.230 | 0.248 | 0.709 | 0.230 | 0.996 | 0.227 | 0.209 | 0.693 |
| Sanitation facility is public | 0.10 | 0.120 | 0.096 | 0.492 | 0.102 | 0.639 | 0.072 | 0.087 | 0.544 |
| Sanitation facility is shared | 0.27 | 0.269 | 0.256 | 0.760 | 0.305 | 0.420 | 0.228 | 0.272 | 0.260 |
| Handwashing and hygiene | | | | | | | | | |
| Self-report washing hands after toilet | 0.97 | 0.974 | 0.979 | 0.713 | 0.952 | 0.138 | 0.986 | 0.946 | 0.036 |
| Handwashing facility inside toilet | 0.10 | 0.106 | 0.059 | 0.075 | 0.107 | 0.964 | 0.102 | 0.115 | 0.657 |
| Handwashing facility in kitchen | 0.09 | 0.101 | 0.062 | 0.135 | 0.125 | 0.456 | 0.106 | 0.078 | 0.309 |
| Handwashing station within 3 feet of toilet | 0.18 | 0.189 | 0.191 | 0.950 | 0.127 | 0.033 | 0.219 | 0.173 | 0.192 |
| Handwashing station 3-10 feet from toilet | 0.13 | 0.136 | 0.149 | 0.625 | 0.110 | 0.263 | 0.139 | 0.134 | 0.833 |
| Handwashing station more than 10 feet from toilet | 0.33 | 0.324 | 0.328 | 0.930 | 0.352 | 0.568 | 0.311 | 0.318 | 0.899 |
| No specific place for handwashing | 0.12 | 0.110 | 0.164 | 0.096 | 0.120 | 0.738 | 0.102 | 0.121 | 0.466 |
| Handwashing device: tap / faucet | 0.54 | 0.551 | 0.458 | 0.132 | 0.538 | 0.828 | 0.557 | 0.575 | 0.782 |
| Handwashing device: tippy tap / pour | 0.01 | 0.003 | 0.015 | 0.019 | 0.010 | 0.209 | 0.009 | 0.003 | 0.164 |
| Handwashing device: bucket / basin | 0.27 | 0.284 | 0.280 | 0.942 | 0.259 | 0.646 | 0.293 | 0.236 | 0.339 |
| Handwashing station has ash available | 0.01 | 0.009 | 0.012 | 0.663 | 0.007 | 0.675 | 0.005 | 0.001 | 0.286 |
| Handwashing station has mud available | 0.19 | 0.212 | 0.149 | 0.193 | 0.186 | 0.601 | 0.210 | 0.181 | 0.543 |
| Handwashing station has ash & mud avail. | 0.03 | 0.029 | 0.035 | 0.706 | 0.018 | 0.324 | 0.042 | 0.030 | 0.421 |
| Handwashing station has neither ash nor mud | 0.60 | 0.598 | 0.575 | 0.706 | 0.600 | 0.970 | 0.613 | 0.599 | 0.789 |
| Self-report washing hands before cooking | 0.97 | 0.980 | 0.977 | 0.832 | 0.963 | 0.224 | 0.987 | 0.946 | 0.030 |
| Clean environment | | | | | | | | | |
| Garbage visible in kitchen or house | 0.52 | 0.522 | 0.548 | 0.556 | 0.448 | 0.092 | 0.565 | 0.525 | 0.351 |
| No visible feces in or around house | 0.63 | 0.678 | 0.500 | 0.003 | 0.680 | 0.973 | 0.585 | 0.706 | 0.043 |
| 1-5 feces visible in or around house | 0.20 | 0.201 | 0.181 | 0.582 | 0.172 | 0.496 | 0.268 | 0.163 | 0.017 |
| 5-10 feces visible in or around house | 0.07 | 0.071 | 0.096 | 0.240 | 0.047 | 0.150 | 0.080 | 0.046 | 0.067 |
| Over 10 feces visible in or around house | 0.09 | 0.042 | 0.185 | 0.000 | 0.078 | 0.098 | 0.055 | 0.073 | 0.409 |
| Interviewer smells feces in or near house | 0.20 | 0.177 | 0.303 | 0.002 | 0.169 | 0.815 | 0.202 | 0.164 | 0.300 |

Peru – Microbiology and Parasitology

| E. Coli in child's hands (Log base 10 E. coli MPN / 100 ml) | | | | | | | | |
|---|-------|-------|-------------|-------|-----------------|-------|--------|--------------|
| | Total | | Treatment 2 | | General Control | | z | p-value |
| | n | mean | n | mean | n | mean | | |
| Poor households | 61 | 0.553 | 30 | 0.458 | 31 | 0.645 | -1.041 | 0.298 |
| Non-Poor households | 98 | 0.493 | 44 | 0.467 | 54 | 0.514 | -0.217 | 0.828 |
| Access to HW station w/ water & soap | 98 | 0.578 | 48 | 0.485 | 50 | 0.667 | -0.749 | 0.454 |
| NO access to HW station w/ soap & water | 62 | 0.450 | 26 | 0.422 | 36 | 0.470 | -0.275 | 0.784 |
| All households | 160 | 0.528 | 74 | 0.463 | 86 | 0.584 | -0.719 | 0.472 |
| E. Coli in caregiver's hands (Log base 10 E. coli MPN / 100 ml) | | | | | | | | |
| Poor households | 61 | 0.807 | 30 | 0.759 | 31 | 0.854 | -0.645 | 0.519 |
| Non-Poor households | 98 | 0.732 | 44 | 0.876 | 54 | 0.615 | 0.966 | 0.334 |
| Access to HW station w/ water & soap | 98 | 0.731 | 48 | 0.868 | 50 | 0.599 | 1.235 | 0.217 |
| NO access to HW station w/ soap & water | 62 | 0.807 | 26 | 0.755 | 36 | 0.845 | -0.407 | 0.684 |
| All households | 160 | 0.760 | 74 | 0.829 | 86 | 0.702 | 0.724 | 0.469 |
| E. Coli in sentinel object (Log base 10 E. coli MPN / 100 ml) | | | | | | | | |
| Poor households | 57 | 0.641 | 28 | 0.521 | 29 | 0.757 | -0.877 | 0.381 |
| Non-Poor households | 96 | 0.593 | 44 | 0.684 | 52 | 0.516 | 0.690 | 0.490 |
| Access to HW station w/ water & soap | 96 | 0.594 | 47 | 0.578 | 49 | 0.610 | -0.122 | 0.903 |
| NO access to HW station w/ soap & water | 58 | 0.629 | 25 | 0.703 | 33 | 0.572 | 0.493 | 0.622 |
| All households | 154 | 0.607 | 72 | 0.621 | 82 | 0.595 | 0.123 | 0.902 |
| E. Coli in household drinking water (Log base 10 E. coli MPN / 100 ml) | | | | | | | | |
| Poor households | 61 | 0.814 | 30 | 0.976 | 31 | 0.658 | 1.104 | 0.270 |
| Non-Poor households | 97 | 0.481 | 44 | 0.704 | 53 | 0.296 | 2.123 | 0.034 |
| Access to HW station w/ water & soap | 98 | 0.601 | 48 | 0.765 | 50 | 0.443 | 1.650 | 0.099 |
| NO access to HW station w/ soap & water | 61 | 0.625 | 26 | 0.906 | 35 | 0.417 | 1.609 | 0.108 |
| All households | 159 | 0.610 | 74 | 0.814 | 85 | 0.432 | 1.918 | 0.055 |
| Ascaris detected in child's stool sample | | | | | | | | |
| Poor households | 61 | 0.016 | 30 | 0.000 | 31 | 0.032 | -1.051 | 0.293 |
| Non-Poor households | 98 | 0.010 | 44 | 0.000 | 54 | 0.019 | -1.029 | 0.303 |
| Access to HW station w/ water & soap | 98 | 0.020 | 48 | 0.000 | 50 | 0.040 | -1.624 | 0.104 |
| NO access to HW station w/ soap & water | 62 | 0.000 | 26 | 0.000 | 36 | 0.000 | 0.000 | 0.000 |
| All households | 160 | 0.013 | 74 | 0.000 | 86 | 0.023 | -1.499 | 0.134 |

Peru – Microbiology and Parasitology (continued)

| Blastocystis detected in child's stool sample | | | | | | | | |
|--|-------|-------|-------------|-------|-----------------|-------|--------|--------------|
| | Total | | Treatment 2 | | General Control | | z | p-value |
| | n | % | n | % | n | % | | |
| Poor households | 61 | 0.180 | 30 | 0.167 | 31 | 0.194 | -0.262 | 0.793 |
| Non-Poor households | 98 | 0.061 | 44 | 0.068 | 54 | 0.056 | 0.299 | 0.765 |
| Access to HW station w/ water & soap | 98 | 0.061 | 48 | 0.000 | 50 | 0.120 | -3.269 | 0.001 |
| NO access to HW station w/ soap & water | 62 | 0.177 | 26 | 0.308 | 36 | 0.083 | 2.540 | 0.011 |
| All households | 160 | 0.106 | 74 | 0.108 | 86 | 0.105 | 0.064 | 0.949 |
| Giardia detected in child's stool sample | | | | | | | | |
| Poor households | 61 | 0.098 | 30 | 0.033 | 31 | 0.161 | -1.545 | 0.122 |
| Non-Poor households | 98 | 0.061 | 44 | 0.045 | 54 | 0.074 | -0.623 | 0.533 |
| Access to HW station w/ water & soap | 98 | 0.041 | 48 | 0.000 | 50 | 0.080 | -2.102 | 0.036 |
| NO access to HW station w/ soap & water | 62 | 0.129 | 26 | 0.115 | 36 | 0.139 | -0.301 | 0.763 |
| All households | 160 | 0.075 | 74 | 0.041 | 86 | 0.105 | -1.577 | 0.115 |
| Any parasite detected in child's stool sample | | | | | | | | |
| Poor households | 61 | 0.230 | 30 | 0.167 | 31 | 0.290 | -1.127 | 0.260 |
| Non-Poor households | 98 | 0.112 | 44 | 0.091 | 54 | 0.130 | -0.720 | 0.472 |
| Access to HW station w/ water & soap | 98 | 0.092 | 48 | 0.000 | 50 | 0.180 | -3.747 | 0.000 |
| NO access to HW station w/ soap & water | 62 | 0.258 | 26 | 0.346 | 36 | 0.194 | 1.405 | 0.160 |
| All households | 160 | 0.156 | 74 | 0.122 | 86 | 0.186 | -1.013 | 0.311 |