Global Scaling Up Handwashing Project

Peru: A Handwashing Behavior Change Journey

August 2010

INTRODUCTION

In 2003, a national multi-sectorial Handwashing Initiative (HWI) was created in Peru to increase handwashing with soap among mothers and children. The early years of the HWI focused on laying groundwork, including a formative research study in 2004; the creation of a consultative committee by the Ministry of Health (MoH); and a national decree formalizing the HWI. The Water and Sanitation program (WSP) has coordinated the HWI since its inception.

In 2005, through support from the Japanese Social Development Foundation (JSDF), a program methodology and supporting tools to promote handwashing were developed for use in small group discussions with mothers. The methodology was developed by a local NGO specialized in health and hygiene. It was based on findings from the 2004 formative research study and revised by technical teams from the ministries of health and education.

Rather than following a traditional hygiene approach focused on germ theory, the program methodology was designed to motivate mothers and strengthen their skills to manage soap for handwashing purposes. By 2006, the program methodology had been implemented in 14 regions, resulting in over 150,000 mothers reached through an estimated 9,000 trained field agents. These agents were managed by government agencies and nongovernmental organizations (NGOs) from various sectors. In parallel, a mass media campaign with the theme of *Manos Limpios, Niños Sanos* (Clean Hands, Healthy Children) was designed to raise awareness of the importance of handwashing with soap and its link with children's health. National broadcast of the mass media campaign, which includes a radio soap opera and television and radio spots, began in 2005. In total, between 2005–2007, 48 public and private institutions added resources and provided technical assistance to widen the scope of the HWI.

In 2007, a second phase began though support of WSP's Global Scaling Up Handwashing Project to expand handwashing with soap promotion to 24 of the country's 25 regions. WSP's project is focused on learning how to apply innovative promotional approaches to behavior change to generate widespread

Key findings

- Having a tangible product such as a handwashing device facilitates behavior change.
- The scope of the project in Peru goes beyond traditional health, education, water, and sanitation sectors. Engaging the private sector facilitates scale and has helped to standardize tools and approaches.
- Policy and agreements that clearly define roles and responsibilities can lead to budget and resource allocations when partners perceive that there is two-sided compliance.
- Integration within ongoing public programs such as education and nutrition provides a strong platform for sustainability.

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and sustained improvements in handwashing with soap at scale among women of reproductive age (age 15–49) and primary school-aged children (ages 5–9). Local and national governments are implementing the project in Peru, Senegal, Tanzania, and Vietnam with technical support from WSP. In Peru, the objective is to stimulate and sustain handwashing behavior change in a total of 1.3 million women.

This Learning Note profiles the behavior change component of the second phase with a focus on how it was designed, implemented, and monitored. Challenges and lessons learned are included to assist program managers as they make decisions to develop and manage a handwashing promotion initiative. Peru provides an interesting case study because the intervention itself is interwoven with efforts to strengthen capacity, policies, partnerships, and other aspects of the enabling environment required to sustain handwashing with soap programs. Though detangling these various program components is a challenge, this note on the behavior change journey attempts to do so.

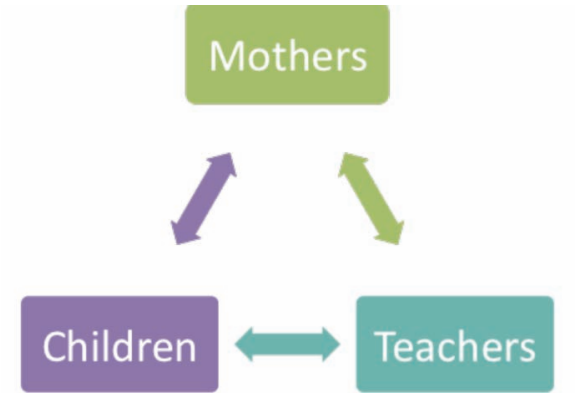
PROBLEM STATEMENT

In Peru, diarrheal diseases are one of the leading causes of morbidity in children under the age of five. Though hygiene promotion had been implemented prior to HWI, the 2004 formative research study[1] revealed that only 6 percent of mothers washed their hands with soap before cooking and only 14 percent washed their hands after going to the toilet.

The 2004 study uncovered some of the underlying factors of the low rates of handwashing with soap: Convenient access to soap at critical times was restricted by the fact that soap was usually located where cleaning and washing activities took place (e.g., laundry or dishes), which was distant from the latrine. When soap ran out, women did not always quickly replenish it. Many women surveyed also believed that repeated rinsing with water would clean the hands as well as using soap.

A follow-up to the 2004 study was conducted in 2008. Focus group discussions revealed that, because mothers spent their days cleaning, with their hands immersed in water, they did not always feel it necessary to wash their hands with soap, including immediately before or after critical times (using the latrine, changing diapers, eating or preparing food). Primary school–aged children were also studied to provide insights into their day-to-day reality, aspirations, and attitudes toward hygiene. A key finding was that mothers, children, and teachers together formed a critical information pathway (Figure 1) through which hygiene messages could be conveyed, supporting the HWI's hypothesis that children are a key channel and potential agents of change in the household.

Figure 1. Mother-Teacher-Child Information Pathway in Peru



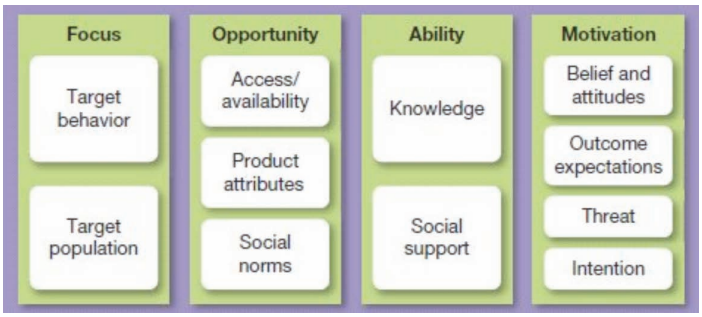
In 2008, a baseline survey for the impact evaluation was conducted. Questions based on the Global Scaling Up Handwashing Project's behavior change framework, known as FOAM (Figure 2), were included.[2]

Data analysis explored differences between mothers who wash their hands with soap and those who do not, similar to the segmentation approach used in the "doer/non-doer" study in Senegal.[3] The knowledge determinant was constructed from a single question that asked mothers if they knew the best way to wash hands. It was assumed to be correct if they responded "with soap and water." For other determinants, women were asked to state their degree of agreement or disagreement to specific statements (Box 1).

Findings revealed that access/availability, knowledge, and attitudes/beliefs toward soap and water were statistically

[1] A.B. PRISMA. 2004. Behavioural Study of Handwashing with Soap in Peri-urban and Rural Areas of Peru. Lima: USAID/Environmental Health Project.
[2] This framework is based on the PERForM framework of Population Services International. For additional information, see *Introducing FOAM: A Framework to Analyze Handwashing Behaviors to Design Effective Handwashing Programs,* available at www.wsp.org/scalinguphandwashing.
[3] For more information, see *Senegal: A Handwashing Behavior Change Journey,* available at www.wsp.org/scalinguphandwashing.

Figure 2. FOAM Behavior Change Framework



correlated with the practice of handwashing with soap. These areas were identified as critical determinants of handwashing with soap and selected by the project team in Peru as the starting point of the behavior change journey in the second phase of the project.

ACTION

Target Populations and Behaviors

In the project's second phase (2007–2011), the HWI is targeting two populations living in peri-urban and rural areas in 24 regions: mothers of children under the age of five and children between the ages of 5–12. Primary school-aged children were included because of the opportunity to instill good habits early in life and their potential as agents of change within the family. The project identified targeted behaviors for each population segment:

Mothers—handwashing with soap at four critical times: before cooking, after toilet, after changing a baby's diaper, and before eating; and placing soap next to the kitchen and toilet. This second behavioral objective is to ease some of the difficulties related to access/availability, a critical behavioral determinant identified in the formative research study.

Children—handwashing with soap at two critical times, after using the toilet and before eating.

Communications Strategy

A multi-channel approach combining interpersonal communication (IPC), mass media, and direct consumer contact (DCC) is being used to reach the target populations. Although the first phase had included radio and television, the second phase's mass media component is using radio exclusively for the following reasons:

- Radio has a large reach and listenership. Women in particular tend to listen to the radio Monday through Friday at selected times, particularly early in the morning, at mid-day, and from 4 P.M. to 7 P.M.
- Unlike television broadcast, radio broadcast can be directed to specific geographic areas, helping the intervention to conform to the design of the impact evaluation that will compare "treatment" (intervention) and "control" (nonintervention) groups.[4]

IPC uses the same methodology rolled out in the first phase. Front-line workers drawn from a wide range of organizations

BOX 1: DETERMINANT QUESTIONS FOR ACCESS/AVAILABILITY AND ATTITUDES/BELIEFS

Access/Availability of Soap and Water

- You know of a place where you can buy soap.
- There is always enough water to wash your hands when you need to.
- You can buy soap when you decide to do it without asking someone else.
- Soap and water are always available in your house to wash hands after going to the toilet.
- You can always find soap when you need to use it.
- Soap and water are always available in your house to wash hands before eating.
- Soap must be placed in handwashing areas (kitchen, bath/toilet).

Attitudes/Beliefs about Soap and Water

- If you wash your hands really well with water you don't need to use soap.
- You only need to wash your hands with soap if they look dirty or smell bad.
- Washing your hands with soap before feeding a child is important only if you use your hands to feed them.
- Washing hands uses up water in a household that could be better used for other purposes.
- You don't need to wash your hands with soap if you know you have not touched anything dirty.
- If you wash your hands many times with water you do not need to use soap.

[4] For more information on the project's impact evaluation study in Peru, see "Publications & Tools" at www.wsp.org/scalinguphandwashing.

Table 1. Topics and Main Themes Covered in IPC Program Methodology

Order	Topic	Main Themes/Messages
1	Motivation	Being clean provides self-esteem. Handwashing with soap is part of a mother's duty. Poverty is no excuse for being dirty.
2	Resources	Place soap near kitchen and bathroom. Cut soap up into smaller pieces or install a handwashing station and prepare liquid soap. Proper handwashing with soap technique.
3	Knowledge	Fecal contamination routes. Critical times for handwashing with soap. All feces are dangerous, even children's/babies'.

(Table 1) convene small group meetings or visit mothers at home. Their aim is to reach mothers through two to three sessions during which three main topic areas are discussed in the order indicated in Table 1.

It should be noted that though the program methodology was developed prior to the development of FOAM, several of the determinants included in the framework (knowledge, access/availability, beliefs) are addressed.

As mentioned above, research revealed that there were lingering misconceptions, including the belief that rinsing hands in water was sufficient to clean them and that handwashing with soap was necessary only when hands were visibly dirty. The research showed that these beliefs were negatively correlated with handwashing. To counter these beliefs, the project team developed a communications concept for mass media and direct consumer contact (DCC). The campaign features a superhero named *Super Jaboncín*[5] (*SJ*) who gains the power to fight germs by adding soap to water. As described below, *SJ* provides a powerful platform for the implementation of entertainment-education approaches.

From Concept to Execution: Bringing a Superhero to Life

To bring *SJ* to life, three 30-second radio spots were developed: the first introduces *SJ* and his power (*I discover the power*); in the second, the audience learns they can appropriate *SJ*'s power by using soap (*I have the power*); in the third, the listener lets others have the power of *SJ* (*I share the power*). Together, the spots mirror the development of a new social norm—that of handwashing with soap. The radio spots and a related song or jingle have been broadcast in three waves: October–December 2009, April–July 2010, and August–October 2010 (pending). In terms of content, all of the radio spots are designed to remind mothers of the four critical times to handwash with soap—after using the toilet, after changing a baby's diaper, before preparing food, and before eating—and stress the importance of washing hands with soap *immediately* before or after these critical times. They also remind mothers to place the soap next to the latrine or in the kitchen. In addition, the *SJ* superhero concept itself embodies the importance—or power—of soap when washing hands. To build continuity from the first phase the radio spots and related print materials reprise the slogan from the first phase, *Manos Limpios, Niños Sanos* (Clean Hands, Healthy Children).

The *SJ* concept also forms the basis of DCC events (Figure 3). Larger DCC events are envisioned as fairs with simultaneous activities taking place, including games for children, live theater, and kiosks where demonstrations and advice on where to place soap and how to set up a handwashing station can be shared with mothers. To facilitate implementation by various agencies (see Implementation Arrangements below), a *SJ* kit was developed. This kit includes:

- A *SJ* superhero costume
- Three games with large props to engage audience participation
- Support materials such as posters and comic strips featuring the *SJ* superhero to distribute to the audience
- A guide on how to use the kit materials and conduct an event.

[5] No exact translation is possible but *jabón* means soap in Spanish. Therefore, "Super Soaper" may be the closest equivalent in English.

Figure 3. *Super Jaboncín* Mascot at a Large DCC Event

Developed for smaller DCC events, a basic kit includes an overview of main messages and sample scripts for sketches. The kit-based approach allows for some degree of standardization across regions and events, while ensuring integration and synergy with the mass media component. It also increases the likelihood that teams delivering the events stay "on message." Regional coordinators, facilitating agencies, and partners monitor the DCC events.

Handwashing Stations: Bringing SJ to Homes

To address a main barrier to handwashing with soap—convenient access to water and soap at critical times—a private sector partner, Duraplast, designed a simple handwashing device made of recycled plastic. The device holds two 3-liter soda bottles (commonly found), one for water and one for home-made liquid soap, and can be mounted on walls (Figure 4). Leveraging the appeal and recognition of *SJ*, the device was named *Super Jaboncín.*

The *Super Jaboncín* handwashing device was field tested in coastal, mountain, and forest regions for over five months. The first batch of 37,000 units was produced by the HWI and distributed, promoted, and monitored by partners in the field. The devices were distributed in schools and exchanged for plastic bottles—an environmental hazard—in households. Printed leaflets featuring *SJ* and including user-friendly set-up instructions are used to support the promotion. Even in areas where the device is not yet available, front-line workers encourage households to build their own handwashing stations using artisanal techniques and locally available materials (Figure 5).

Implementation Arrangements: A True Multi-Sectorial Approach

In Peru, the project operates in a highly decentralized environment: regional and local coordination and integration

Figure 4. *Super Jaboncín* Handwashing Device

The *Super Jaboncín* handwashing device is made from recycled plastic. It holds two 3-liter soda bottles (one for water and one for home-made liquid soap) and can be mounted in locations such as health centers (left), schools (middle), or households (right).

Figure 5. Handwashing Station Using Artisanal Techniques and Local Materials

In areas where the *Super Jaboncín* handwashing device is not yet available, front-line workers encourage households to build their own handwashing stations using artisanal techniques and locally available materials.

efforts have been critical to implementation. To this end, four facilitating agencies were contracted to support and oversee activities in 14 of the 24 regions; in eight other regions, four regional coordinators were recruited; in the other two regions where only mass media and DCC events have been held, the project team decided that neither a field-based coordinating firm nor a coordinator was required.

The facilitating agencies and regional coordinators play a pivotal role in Peru's behavior change journey. They engage other partners to broaden the reach of the project and share tools that contribute to consistent messaging. They also train master trainers, who, in turn train the front-line workers—principally health care providers, local community development workers, and teachers (Figure 6). As a result of the partnership building process, roles and commitments are defined. Front-line workers employed by partners (public and private institutions, including local governments, national and local social programs, NGOs, mining companies, and agriculture export firms) integrate the IPC program methodology into ongoing programs. These institutions supervise the front-line workers to achieve explicit HWI objectives. This project design seeks to build a foundation to sustain the behavior change journey once the project comes to an end.

A leading communications agency was contracted to produce the mass media spots and design the *SJ* kits for DCC. This firm also instructs the various facilitating agencies on the use of the kit. Seven local theater groups were contracted to write scripts and develop and implement follow-up action plans. Trainings were held to improve communication skills and techniques. The theater groups are supervised by facilitating agencies and regional coordinators. Implementation of the larger DCC events is carried out through two national firms. The four facilitating agencies carrying out DCC events in collaboration with local theater groups have been trained by an organization specialized in street theater.

Monitoring and Evaluation

The project developed a performance monitoring system to follow both the quantity of activities (outputs) and the quality of the intervention. Its main components include:

Management Information System (MIS). The MIS tracks outputs from the facilitating agencies through progress reports submitted on a regular basis. Outputs tracked

Figure 6. Handwashing Training Workshop for Health and Education Sectors

At a training workshop, teachers and health agents learn about the IPC program methodology. They paint their hands to make a handprint, thereby sealing their commitment to promote handwashing behavior change.

include key indicators from the country and the global results framework such as number of front-line workers trained and estimated target audience reached through the communication channels. The MIS has been useful to track implementation in treatment and control districts to ensure that the impact evaluation design is adhered to.

Field supervision. Facilitating agencies and regional coordinators are required to supervise field-based activities, particularly the training of trainers and DCC events. The WSP team travels frequently to the field to conduct spot checks, ensure quality control, and capture emergent learning. This process has led to strategy revisions and adaptations to different scenarios based on cultural, demographic, and geographic diversity.

In addition to tracking activities or outputs, the project is monitoring outcomes as follows:

Regular intercept studies. To determine whether the key behavioral determinants are moving "in the right direction" and to follow the level of exposure among mothers to the intervention, a series of intercept studies around market places have been planned. The first study was conducted in November 2009, and a second one is planned for August 2010.

Longitudinal surveys of impact evaluation. As part of the Global Scaling Up Handwashing Project's impact evaluation on health, ten rounds of longitudinal surveys will be carried out. Though the main purpose of these surveys is to track diarrheal incidence, a limited number of questions can be added to support the intervention itself.

Baseline and endline surveys of impact evaluation. Both the baseline and endline surveys of the impact evaluation will measure handwashing behavior using the global measurements guidelines developed and other indicators such as diarrhea, nutritional status, and household productivity.[6]

KEY CHALLENGES AND LESSONS LEARNED

Challenges

The behavior change journey in Peru has encountered challenges, some of which are described below:

Measuring behavioral determinants. Though segmenting "doers" from "non-doers" on the basis of behavioral determinants is common in public health interventions such as condom use, applying this analytical approach to handwashing with soap has involved a significant learning curve, both for Peru and other project countries. The series of questions used to measure each determinant in FOAM had to be created from scratch and then translated into Spanish and sometimes Quechua, two additional complexities. As a result, it has not yet been possible to measure all of the determinants reliably. Subsequent rounds of the monitoring, longitudinal, and endline surveys will hopefully allow for some improvements to be achieved.

Managing the demand for *Super Jaboncín*. The project has been unable to meet the demand for the *Super Jaboncín* handwashing device. It is apparent that the device fills an important need for households (see Lessons Learned below) and that plays a role in handwashing promotion. The project team is currently in discussion with partners to determine how best to further scale up production, distribution, and promotion regionally or nationally. Currently, one regional government has approved funding for the production of 30,000 *SJ* handwashing devices and approvals from two more are in process. The HWI will produce an additional 30,000 devices that will be distributed according to the partnership approach previously used.

Monitoring and quality assurance. Monitoring the quantity and quality of implementation, particularly IPC, in a highly decentralized environment and on a large scale (400 districts) is challenging. There are 16,000 front-line workers from a wide range of organizations who are not under the direct control and supervision of the project. The project team provides technical assistance to local public and private partner institutions to transfer the monitoring methodology. To this end, capacity–building workshops and sessions have been carried out to standardize tools and integrate them within existing regional monitoring systems.

Message consistency across all languages and dialects. As front-line workers and community event organizers carry out their handwashing promotion activities,

[6] For more information on measuring handwashing behavior, see *Practical Guidance for Measuring Handwashing Behavior,* available under "Publication and Tools" at www.wsp.org/scalinguphandwashing.

they frequently need to translate into local languages (such as Quechua) that also have regional dialects. Kits with standard message briefs are being used to maximize message consistency.

Balancing the goal for sustainability with the need for evidence-based approaches. The program methodology for IPC among mothers and in primary schools has considerable institutional traction. It has been endorsed by the Ministry of Education, rolled out into 18 of the country's 25 regions, and is being implemented through some 16,000 front-line workers. Though the methodology was informed by research findings from the 2004 study and updated in response to findings from the 2008 study, the motivational factors and other behavioral determinants are likely to change over time. Periodic research will be encouraged and inserted into the national programming to ensure that the HWI program methodology is relevant and will lead to improved handwashing practices.

Lessons Learned

The behavior change journey in Peru has uncovered several lessons:

Having a handwashing station supports behavior change. Having a tangible product such as the *SJ* handwashing device facilitates behavior change. This lesson is shared in Senegal and Tanzania.

A multi-sector approach facilitates scale. The scope of the project in Peru goes beyond traditional health, education, water, and sanitation sectors. Engaging the private sector, particularly mining and agriculture, has permitted the project to not only dramatically scale up, but also to standardize tools and approaches.

Policy and agreements can lead to resource allocation. Policy and agreements in which roles and responsibilities are clearly defined can lead to budget and resource allocation when partners perceive that there is a two-sided compliance.

Integration provides a platform for sustainability. Integration within ongoing public programs such as education and nutrition provides a strong platform for sustainability.

RESULTS

As of June 2010, the behavior change intervention in Peru has been scaled up and is meeting, and in some cases surpassing, targets. In the second phase, an estimated 6.1 million population (target pop.) have been reached through the broadcast of radio spots; 230,000 people (target) have been reached through DCC events; and approximately 217,000 mothers and children have been reached through some 21,400 trained front-line workers.

—By Jacqueline Devine and Rocío Flórez Peschiera

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

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About the project

Global Scaling Up Handwashing is a WSP project focused on learning how to apply innovative promotional approaches to behavior change to generate widespread and sustained improvements in handwashing with soap at scale among women of reproductive age (ages 15–49) and primary school-aged children (ages 5–9). Local and national governments are implementing the project with technical support from WSP. For more information, please visit www.wsp.org/scalinguphandwashing.

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