

**Global Scaling Up Handwashing Project**

# Endline Assessment of the Enabling Environment in Peru

**Michael Favin**

June 2011

## By Michael Flavin

Global Scaling Up Handwashing is a Water and Sanitation Program (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). The project is being implemented by local and national governments with technical support from WSP. For more information, please visit [www.wsp.org/scalinguphandwashing](http://www.wsp.org/scalinguphandwashing).

This Working Paper is one in a series of knowledge products designed to showcase project findings, assessments, and lessons learned in the Global Scaling Up Handwashing Project. This paper is conceived as a work in progress to encourage the exchange of ideas about development issues. For more information please email Rocio Florez at [wsp@worldbank.org](mailto:wsp@worldbank.org) or visit [www.wsp.org](http://www.wsp.org).

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# List of Acronyms and Abbreviations

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BCC	Behavior Change Communication
CARE	Large social development NGO
CESEM	Implementation arm of the Arequipa Chamber of Commerce
CIDA	Canadian International Development Agency
CORESAN	Public-private coalition to combat child malnutrition, Cajamarca
CRECER	National initiative against child malnutrition, Prime Minister's office
DIRESA	Health section of a regional government
DRE	Education section of a regional government
EE	Enabling environment
EDSA	Demographic and Family Health Survey
FONCODES	MIMDES poverty reduction program
HW	Handwashing
HWI	Handwashing Initiative (Iniciativa de Lavado de Manos)
IRA	Acute Respiratory Infection
JUNTOS	National conditional cash transfer program
M&E	Monitoring and Evaluation
MDGs	Millennium Development Goals
MEF	Ministry of Economy and Finance
MIMDES	Ministry of Women and Social Development
MOE	Ministry of Education
MOH	Ministry of Health
MOU	Memorandum of Understanding
NGOs	Non-governmental organizations
PIP	Public Investment Project
PIN	Integrated Nutrition Program
PREDECI	Cajamarca regional coalition to combat childhood malnutrition
PRONAA	MIMDES nutrition program
PRONOEIS	MOE preschool program
PRISMA	Large social development NGO
PSP	Private Sector Partners
SNIP	National System for Public Investment
SJ	Super Jaboncín (molded, plastic handwashing station)
UGEL	District education unit
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WB	World Bank
WSP	Water and Sanitation Program

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# Executive Summary

## Background

The Water and Sanitation Program (WSP) is in the final phase of the Global Scaling Up Handwashing Project, implemented in Peru, Senegal, Tanzania, and Vietnam. In Peru, where the project is known as *Iniciativa de Lavado de Manos*, or the Handwashing Initiative (HWI), the specific target is to reach 5.1 million women and children under the age of 12 with handwashing messages by the end of the four-year implementation period (November 2010). The ultimate goal is to have 1.3 million people practicing improved handwashing behaviors.

WSP developed HWI as a behavior-change package, with methodologies, tools, and approaches intended for adoption by various public and private institutions engaged in different fields related to poverty alleviation. These fields include: health promotion, school education, environmental education, nutrition, and water and sanitation. Thus, sustainability means that handwashing with soap is a priority by different institutions and that these institutions have ownership

of HWI's methodology; it does not mean continuation of HWI as a separate program or initiative. For WSP, the major sign of success is that HWI is *not* frequently mentioned as a separate project or program but that its methodology, tools, and lessons have been adopted by institutions which will continue to assign resources in the future.

In 2007, WSP conducted a baseline assessment in Peru of nine dimensions considered essential to scaling up handwashing with soap behavior change programs. This framework was developed by WSP, based on a review of relevant literature and a discussion with experienced subject matter experts, to indicate the feasibility of achieving programmatic scalability and sustainability. *Scale-up* is defined as an increase in the present scale and rate of behavior change, and sustainability of programs promoting handwashing with soap. *Sustainability* is defined as the ability to maintain interventions after funding under this project has ended. Table 1 includes definitions for each dimension.

**TABLE 1: ENABLING ENVIRONMENT DIMENSIONS**

<b>Policy, Strategy, and Direction</b>	Policy: a set of procedures, rules and allocation mechanisms that provide the basis for programs and services. Strategy: guidance on how to implement a policy. Direction: a common understanding among interested parties of the goals of an intervention.
<b>Partnerships</b>	A relationship where two or more parties, having compatible goals, form an agreement to share the responsibility for achieving the goals.
<b>Institutional Arrangements</b>	The roles, responsibilities, relationships, and accountability arrangements among public and private organizations committed to reaching the handwashing goals.
<b>Program Methodology</b>	The approach agreed upon by partners and implementers to deliver the handwashing with soap program interventions in order to reach the handwashing with soap targets.
<b>Implementation Capacity</b>	The necessary resources (human and financial), skills, incentives, and materials/tools to deliver the full complement of interventions necessary to deliver a handwashing with soap program.
<b>Availability of Products and Tools</b>	The ready access of necessary products (e.g., soap, water, handwashing stations), that respond to consumer demand to practice handwashing with soap.
<b>Financing</b>	Adequate funds are available to interested handwashing with soap organizations/agencies to cover the programmatic costs required to deliver their respective roles and responsibilities.
<b>Cost-Effective Implementation</b>	The cost of implementation as compared to the health and economic impacts to be measured in the impact evaluation.
<b>Monitoring and Evaluation</b>	Systems and tools to capture progress on implementation and achievement of targets in a timely manner to allow for analysis and prompt adaptation of implementation. Evaluation is defined as the assessment of the results of monitoring to identify what worked and what didn't work.



In 2010, WSP hired an international consultant to conduct an endline assessment of the same dimensions. This assessment aimed to evaluate the robustness of the programmatic conditions for scale-up and sustainability as the project's implementation phase was winding down. The objectives for the assessment included:

1. Determine the current status of each dimension of the enabling environment.
2. Identify strengths and weaknesses of each dimension, with a focus on deficiencies.
3. Describe the changes in the enabling environment since 2007.
4. Determine which dimensions appear to be more or less important to create conditions for scale-up and sustainability.
5. Make recommendations for improvements in the enabling environment to the Country Task Manager, WSP HQ staff and main in-country partners for the next six months.
6. Obtain consensus among current partner organizations for recommendations and next steps.

## Methodology

Research followed a question guide used in the 2007 baseline EE assessment, with some modifications and additions based on program experience and learning.

The question guide was used to interview stakeholders from the Government of Peru at national, regional and local levels; international agencies; national NGOs; private sector partners; media; HWI regional coordinators; mothers; preschool and primary school students; and the HWI project manager and team. Most interviews were conducted in person, but several were done by telephone. The consultant visited three regions (Cajamarca, Arequipa, and Puno) and three districts (*municipios*) outside the capitals of those regions.

Research was conducted between October 18 and November 5, 2010.

## Findings

**Changes in the enabling environment since 2007:** Overall the EE has been much strengthened at both national and

regional levels, although there remain some general threats, and the EE is not as strong in some regions as in others.

**Likelihood that HWI interventions will continue to be implemented at a large scale:** This is highly likely in many regions. In addition to focusing on (1) integration of handwashing with soap within national programs for nationwide scaling up and (2) integration within regional and local programs to strengthen reach and impact at local level, HWI's sustainability strategy initiated a third approach: working to integrate the behavior-change package within WSP and wider World Bank programs.

However, in Peru, as in most countries, some regions have more resources/capacities than others. HWI's approach to this problem has been to encourage national programs (such as PRONAA, Wawa Wasi, Sembrando, Juntos, and FON-CODES), which tend to focus on poorer regions. In some regions HWI has strong partnerships, in others strong sectoral leaders, and in most of them strong national programs.

There are potential threats to the sustainability of handwashing with soap promotion in Peru, including the upcoming turnover of political and technical officials throughout the country (local officials will change in early 2011 and a new president will be elected later in the year). There is also an ongoing high turnover of teachers and, to a lesser extent, of health staff. Moreover, the length of HWI's implementation period, the strength of political support for HWI, and the potential for private-sector support vary significantly among regions and districts, so the prospects for expansion and sustainability also vary. Although many of these threats cannot be prevented, there are possible mitigation steps that HWI or WSP can take, or in some cases, have already taken.

**Activities that have been most beneficial to the enabling environment:** Advocacy for permanently incorporating handwashing with soap into numerous programs, engaging partners, facilitating financing, building capacity, and designing and making easily available a solid methodology. The cost-effectiveness dimension does not show progress because the study was planned to be closely linked to the impact evaluation endline. It is scheduled to be implemented during the second half of 2011. Several factors that do not fall easily in any dimension are also potentially important for sustainability.

## Recommendations to Strengthen the Enabling Environment:

### Policy, Strategy, and Direction

- Request that each regional HWI coordinator or facilitating agency propose a plan for strengthening the enabling environment for handwashing with soap in 2011, and then discuss the proposed actions with the principal local partners and the WSP Hygiene. These plans are likely to include: providing information to the new regional and district authorities on handwashing with soap methodology, experiences, and results; advocating with them to follow up on resolutions and other commitments to promote handwashing with soap; sharing impact evaluation results; and providing technical assistance on designing investment projects for future budget allocations.
- Maintain contact with the lead organization or coalition in each region that can carry out key functions of advocacy, alliance-building, and training; offer suggestions as needed, learn about and share achievements and lessons learned.
- Prepare and implement a national event, or several regional events, at which different-level actors share their experiences of handwashing with soap promotion, including, for example, the An-cash experience with the Juntos program (educational sessions are part of the conditions for cash payments). Also, share the findings of the impact evaluation endline survey with regional and municipal levels through various channels.
- Advocate for continued World Bank support for handwashing with soap in Peru by developing and giving a presentation for World Bank staff about HWI experiences and results, and the potential for handwashing with soap promotion through other World Bank programs, particularly the Hygiene and Sanitation Alliance.

### Partnerships

- If feasible, continue to publish and widely disseminate HWI bulletin, with a focus on creative and effective contributions by partners at the regional and district level that could later

be adopted by the WSP Hygiene and Sanitation Alliance.

- Encourage regional, provincial, and district coalitions addressing handwashing with soap to publicize their own work and results, including the contributions of various partners, through local radio, newspapers, and public events.

### Institutional Arrangements

Through their social-development projects in Peru, WSP and the World Bank should advocate for regional and local governments to promote handwashing with soap, using HWI's methodology and tools.

### Program Methodology

- Advocate and facilitate the BCC approach of HWI in all of WSP's hygiene and sanitation integration projects.
- Continue collaborating with MIMDES (PRONAA, Wawa Wasi, FONCODES) in finalizing the process of adoption of HWI methodology for their programs, and then prepare the print-ready adaptations of HWI materials.
- Continue to work with the ministries of education, health, and the environment to finalize the process of adoption of HW methodology, and then, time-permitting, prepare print-ready joint guidelines for the Healthy Schools program.

### Implementation Capacity

- Provide technical assistance to public sector partners in planning, implementing, monitoring, and evaluating multi-sector water, sanitation, and hygiene investments.
- Engage with new incoming authorities to explain the benefits of handwashing with soap promotion, the methodology, and implementation requirements; and urge them to continue integrating hygiene BCC into their priority health, environmental, education, and W&S programs.
- Advocate with partners to support capacity building in regional and municipal governments in planning, project preparation, proposal writing, and other basic skill areas.

### Availability of Products and Tools

- In the interest of sustainability, encourage local partners (public and private) to plan for and finance additional copies of materials. Private companies may well be willing to assume this cost, particularly if their logo can be placed on the material. A company that purchases SJs, for example, could put a sticker with its logo on each one, which would be seen by students and families numerous times each day. Private companies also have tax write-offs for such expenditures.
- Encourage homemade SJs, as have been made in one area of Cajamarca. Perhaps handwashing stations could be made from *totorá* reed in the Lake Titicaca area.

### Financing

- Continue to advocate with the MEF to include a line item in the national budget to build the capacity of regional and district governments in planning, implementing, and monitoring of behavior-change methodologies.
- Explore with the MEF and other partners how best to offer training and other support in institutional strengthening (planning, budgeting, human resources management, etc.) to regional and district governments.
- Work with allies and new partners to strengthen regional governments' capacity in social project

planning, budgeting management, and M&E (see capacity building). In addition to training and mentoring, governments could be offered such tools as sample proposals and guidelines for social project development along with planning, reporting, and M&E formats.

- Continue to facilitate PIPs that support handwashing with soap .
- Advocate with regional governments to include funding and activities for promotion of handwashing with soap in annual work plans and in multi-year regional development plans.

### Cost-Effective Implementation

- At the time of the WSP cost-effectiveness study, discuss with the MEF the importance of cost-effectiveness data for its funding of handwashing with soap promotion as well as other programs. If such data will continue to be needed, organize an orientation/training for key partner staff.

### Monitoring and Evaluation

- Meet with key national and regional partners to discuss their satisfaction/comfort with current M&E of handwashing with soap in their organizations. If there is sufficient demand, and it is feasible, help organize orientation/training on handwashing with soap for interested partners.



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# I. Introduction

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## 1.1 The Handwashing Initiative

The Water and Sanitation Program (WSP) is in the final phase of the Global Scaling Up Handwashing Project, implemented in Peru, Senegal, Tanzania, and Vietnam. The project's four objectives are:

1. To design and implement innovative, sustainable handwashing programs in four countries resulting in large-scale adoption of handwashing with soap at critical times by the targeted population of poor women and children;
2. To document and learn about the impact and sustainability of innovative large scale handwashing programs;
3. To learn about the most effective and sustainable approaches to triggering, scaling up and sustaining handwashing behaviors; and
4. To promote and enable the adoption of effective handwashing programs in other countries and position handwashing as a global public health priority through the translation of results and lessons learned into effective advocacy and applied knowledge and communication products.

In Peru, where the project is known as *Iniciativa de Lavado de Manos*, or the Handwashing Initiative (HWI), the specific target is to reach 5.1 million women and children under 12 with handwashing messages by the end of the four-year implementation period (November 2010). The ultimate goal is to have 1.3 million people practicing improved handwashing behaviors. As of the first half of 2010, the communication targets for reach by mass media had been significantly surpassed and for direct consumer contact (e.g., dramas, discussions, and health fairs) had almost been reached. The target for interpersonal communication stood at 68 percent of the end of project target.

This report summarizes the endline assessment of the enabling environment (EE) for the Global Scaling Up Handwashing Project in Peru. This assessment aimed to evaluate the robustness of the programmatic conditions for scale-up and sustainability as the project's implementation phase was winding down. Research carried out from October 18

to November 5, 2010, followed a 2007 baseline EE assessment. The same instrument was used in both assessments, with some modifications and additions made in 2010 based on program experience and learning. An international consultant carried out the assessment.<sup>1</sup>

## 1.2 Country Context: Peru

Peru is a large country with a heritage of indigenous civilizations. Lima was a major capital of Spanish America and today accounts for approximately a third of the national population. The country has tremendous diversity in geography and population. Emerging from a long period of economic and political unrest, the country's economic performance has been remarkable over the last decade. Growth accelerated from 6.8 percent in 2005 to 9.8 percent in 2008, reflecting both rising commodity prices that fueled export growth and sound economic management. Peru weathered the global economic crisis well, and preliminary numbers for 2010 indicate a rapid recovery.

Over the past decade Peru has made progress in reducing poverty and improving health and education indicators. From 2005 to 2009 poverty fell from 48.7 percent to 34.8 percent. The percentage of institutional births has risen steadily to surpass the government's goal of 75 percent. After stagnating for many years, child chronic malnutrition rates fell from 30 percent in 2000 to 23.8 percent in 2009, although rates remain significantly higher in rural areas of the Sierra (mountains). With the exception of preschool education, enrolment figures are high; however, standardized testing indicates low quality, which the government is addressing through new policies.

The main health benefits of handwashing with soap are reductions in diarrheal and respiratory disease. Statistics from the Peruvian Demographic and Family Health (EDSA) surveys indicate high rates of acute respiratory infection (ARI) among children younger than 5 in 2004 that were much reduced by 2009, but high rates of diarrhea show in both surveys (see Table 2).

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<sup>1</sup> WSP Scaling Up Handwashing Behavior Change Project: Terms of Reference, Endline Assessments of the Enabling Environment, September 2010.

**TABLE 2: CHILDREN'S RESPIRATORY INFECTIONS AND DIARRHEA IN 2004 AND 2009**

Age	Percentage of ARI in Last Two Weeks, 2004	Percentage of ARI in Last Two Weeks, 2009	Percentage of Diarrhea in Last Two Weeks, 2004	Percentage of Diarrhea in Last Two Weeks, 2009
Less than 6 months	11.6	2.9	11.7	10.4
6–11 months	22.5	5.6	21.6	21.9
12–23 months	20.5	6.9	24.8	22.7
More than 5 years	17	6.4	15	14

### 1.3 Assessment Methodology

The endline assessment was carried out using a revised version of the original question guide from the 2007 EE baseline. The question guide was used to interview stakeholders from the Government of Peru at national, regional and local levels; international agencies; national NGOs; private sector partners; media; HWI regional coordinators; mothers; preschool and primary school students; and others. Most interviews were conducted in person, but several were done by telephone. The consultant visited three regions (Cajamarca, Arequipa, and Puno) and three districts (*municipios*) outside the capitals of those regions. Annex A contains the English version of the question guide.<sup>2</sup>

Prior to the assessment, WSP scheduled a majority of the interviews based on the sampling plan proposed in the EE methodology. Criteria for selection included: (1) having knowledge about the handwashing with soap program and/or of factors important to its success/sustainability; (2) representing a major respondent type; and/or (3) representing a particular level of an organization involved in the program. Annex B contains the detailed sampling plan.

Most of the interviews were summarized in a format by dimension and type and level of respondent, then analyzed and summarized for this report. Additionally, numerous reports and documents (see References). WSP staff helped clarify contradictory or unclear information and provided very useful feedback and suggestions on the draft report.

<sup>2</sup> This question guide was subsequently translated into Spanish and shortened.

Depending on the degree of a respondent's involvement and his or her time available, interviews lasted from 15 minutes to two hours or more. On average, interviews lasted 45 minutes to one hour. Asking all of the questions to a knowledgeable respondent took at least two hours, so in most cases the consultant asked selected questions based on the respondent's relationship to and knowledge of HWI and on his or her time available. The scope of many of the questions needed to be clarified for particular respondents, depending on whether their locus of knowledge was national, regional, or local.

### 1.4 Assessment Objectives (as contained in the consulting TOR)

The objectives for the assessment included:

1. Determine the current status of each dimension of the enabling environment.
2. Identify strengths and weaknesses of each dimension, with a focus on deficiencies.
3. Describe the changes in the enabling environment since 2007.
4. Determine which dimensions appear to be more or less important to create conditions for scale-up and sustainability.
5. Make recommendations for improvements in the enabling environment to the Country Task Manager, WSP HQ staff and main in-country partners for the next six months.
6. Obtain consensus among current partner organizations for recommendations and next steps.<sup>3</sup>

<sup>3</sup> Ibid.

## **BOX 1: RESPONDENTS FOR THE EE ENDLINE STUDY**

### **International Organizations**

- WSP: two key staff, HWI; four contracted regional HWI coordinators
- USAID: Health Project Management Specialist

### **National Government**

- Ministry of Health: Director of Health Promotion
- Ministry of Education: two officials from Community Education and Environment
- Ministry of Women and Social Development (MIMDES): the Minister of MIMDES; Manager of Food Security, PRONAA (nutrition program); Specialist, Wawa Wasi (daycare program)

### **National NGOs**

- PRISMA: Executive Director and Director of Health and Sanitation
- CARE: National Coordinator of Water Resources and the HWI coordinator for three regions

### **Private Sector**

- BPZ Energy (Tumbes): Institutional Relations Director
- Dale Foundation (Piura): Administrator
- CESEM (implementation arm of the Arequipa Chamber of Commerce): President and HWI project manager
- Inkabor Foundation (Arequipa): General Manager
- Duraplast (manufactures handwashing stations): Sales Director

### **Media**

- Peru Radio Programs (RPP): Executive Director
- National Radio Coordinator (CNR): two sales managers

### **Regional and Local Contacts**

- *Arequipa* Region: Coordinator, PRONOEIS (MIMDES preschool program); PRONOEIS teachers and students; representative of the DRE (regional education office); administrator and health promotion director, DIRESA (regional government health office); private sector representatives
- *Puno* Region: Meeting with many staff from regional MIMDES programs; meeting with representatives from the DIRESA (health promotion), a private school, and the director and staff from the social security facility; various staff from the Chucuito health post; directors, teachers and students of Chucuito and nearby schools; Moho District: principal, teachers, and students of primary school; director and staff of health center
- *Cajamarca* Region: Ichocán District: alcalde (district head), health and education officials, teachers, primary students, health professional students, some mothers at home; attended meeting of CORESAN (coalition against child malnutrition), with about 45 persons representing organizations from throughout the region, mostly governmental, some NGOs, and a few from the private sector

## 1.5 Assessment Dimensions

The 2007 baseline EE assessments covered nine dimensions considered essential to scaling up handwashing with soap behavior change programs. Developed by WSP based on a review of relevant literature and a discussion with experienced subject matter experts, the conceptual framework considers these dimensions to indicate the feasibility of achieving programmatic scalability and sustainability. *Scale-up* is defined as an increase in the present scale and rate of behavior change, and sustainability of programs promoting handwashing with soap. *Sustainability* is defined as the ability to maintain interventions after funding under this project has ended. Table 3 describes the nine dimensions.

Following a discussion of findings and recommendations for each dimension, this report summarizes the scores given each dimension in this endline EE assessment and compares them to previous EE scores given by the WSP/Peru project staff. The discussion of each dimension begins with bullets summarizing key points and with a small table comparing the 2007 with the 2010 situation; and ends with bullets offering one or more recommendations for strengthening that dimension. Annex C shows 2007 key findings and recommendations and 2010 key findings and recommendations, by dimension.

**TABLE 3: DEFINITION OF ENABLING ENVIRONMENT DIMENSIONS**

Dimension	Definition
<b>1. Policy, Strategy, and Direction</b> Respondents: GOP, international agencies, NGOs, donors, and private sector	Policy is a set of procedures, rules and allocation mechanisms that provide the basis for programs and services;  Strategy is guidance on how to implement a policy; direction: a common understanding among interested parties of the goals of an intervention
<b>2. Partnerships</b> Respondents: government, international agencies, NGOs, donors, private sector	A relationship where two or more parties, having compatible goals, form an agreement to share the responsibility for achieving the goals
<b>3. Institutional Arrangements</b> Respondents: government, international agencies, NGOs, donors, private sector	The roles, responsibilities, relationships, and accountability arrangements among public and private organizations committed to reaching the handwashing goals
<b>4. Program Methodology</b> Respondents: government, international agencies, NGOs, donors, private sector	The approach agreed upon by partners and implementers to deliver the handwashing with soap program interventions in order to reach the handwashing with soap targets
<b>5. Implementation Capacity</b> Respondents: government, NGOs, private sector	The necessary resources (human and financial), skills, incentives, and materials/tools to deliver the full complement of interventions necessary to deliver a handwashing with soap program
<b>6. Availability of Products and Tools</b> Respondents: NGOs, private sector, donors	The ready access of necessary products (e.g., soap, water, handwashing stations), that respond to consumer demand to practice handwashing with soap
<b>7. Financing</b> Respondents: government, donors, NGOs	Adequate funds are available to interested handwashing with soap organizations/agencies to cover the programmatic costs required to deliver their respective roles and responsibilities
<b>8. Cost-Effective Implementation</b> Respondents: government, NGOs, donors, international organizations	The cost of implementation as compared to the health and economic impacts to be measured in the impact evaluation
<b>9. Monitoring and Evaluation</b> Respondents: government, donors, NGOs, private sector	Systems and Tools to capture progress on implementation and achievement of targets in a timely manner to allow for analysis and prompt adaptation of implementation.  Evaluation is the assessment of the results of monitoring to identify what worked and what didn't work.



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# II. Findings by Dimension

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## 2.1 Policy, Strategy, and Direction

Virtually all respondents felt that handwashing with soap had become an important national and local priority over the last few years, thanks in large part to advocacy and technical support from HWI. In HWI's early years, political leaders supported handwashing with soap promotion with the intention of reducing cases of diarrhea and respiratory infection. Since 2007, political and practical support has grown because of the widespread belief that handwashing with soap can make a significant contribution to the priority national goal of reducing child malnutrition. Political will has also grown because of the local impact of some 22,000 teachers and other promoters of handwashing with soap who have been trained. HWI activities have generated a lot of interest in regional and district (municipal) governments, sometimes after they become aware of the activities elsewhere and then wanted the same programs and resources as their neighbors. Finally, people seem to like the fact that the HWI offers practical solutions and tools for immediate use, including training methods and materials, communication materials and activities, and handwashing stations.

The raised profile for handwashing with soap has been officially recognized in over 120 organizational resolutions, norms, and directives of the ministries of health (MOH), education (MOE), and woman and social development (MIMDES) and their regional and district counterparts.<sup>4</sup>

<sup>4</sup> These are listed in *Iniciativa Lavado de Manos. Procesos y aprendizajes de la Iniciativa Lavado de Manos al 2010*; see References.

The ministries of health, education, and the environment have reached agreement on unified evaluation indicators, including handwashing with soap, for the Sustainable Development of Educational Institutions initiative.

Handwashing with soap has a prominent role in the CRECER strategy, coordinated by the Prime Minister's office, which commits 15 organizations to participate in an Initiative against Child Malnutrition in Peru (CRECER). The CRECER strategy is said to have a very strong influence on regional priorities, and it requires the collaboration of agriculture, health, education, housing, and the private sector. HWI has also worked with the Juntos conditional cash transfer program to incorporate handwashing with soap promotion more solidly.

The MOE's commitment to handwashing with soap promotion is official policy. Handwashing with soap is included in the national curriculum. A vice-ministerial resolution designates the HWI methodology and tools as a component of the National Healthy and Safe [Schools] Program implemented in more than 3,000 pilot schools. Handwashing with soap is also well integrated into the MOE preschool program (PRONOEIS, a program operated in poor communities by program staff and volunteer mothers). In Arequipa, PRONOEIS centers were observed to be fully involved in promotion of handwashing with soap in classes, homes and communities. MOE resolutions have made handwashing with soap one of two priority topics for the

### Key Findings: Policy, Strategy, and Direction

#### Baseline Findings (2007)

- There was good support among many government officials, although multiple priorities limited action.
- The current national administration was very supportive.
- Several politically prominent national initiatives (re: malnutrition, healthy school, water and sanitation) offered natural links with handwashing with soap.
- Support from key ministries varied over time, and the Ministry of Education was a new partner.

#### Endline Findings (2010)

- Support has spread to other sectors and to regions and districts, and there is more follow-up.
- The administration remains very supportive.
- HWI has successfully inserted handwashing with soap and its methodology into these initiatives.
- The Ministries of Health, Education, and Women and Social Development, have integrated the HWI methodology and tools within their programs.

school year 2010 and mandated full MOE participation in Handwashing Week in 2009 and 2010. Another MOE resolution requires at least monthly promotion of handwashing with soap in schools. Many local educational offices prioritize handwashing with soap, use HWI methodologies, appoint focal points, and certify teachers who complete a series of steps to promote handwashing with soap. Some district-level education units (UGELS) and schools have budgets allocated for promotion of handwashing with soap.

HWI recently collaborated with the MOE in the preparation of new national environmental education curriculum. Handwashing is included for preschool, primary and high school, across different areas of study. The HWI methodology, consisting of four sessions, is presented as the educational route to be followed in the classroom to promote HW behavior change in primary schools.

The Ministry of Health (MOH) has long promoted handwashing, but with added vigor and effectiveness in the last few years. A MOH resolution made handwashing with soap a priority theme for its involvement in the multi-sector healthy schools program. The topic is also well integrated in the MOH's Healthy Families and Homes project and its Healthy Municipalities and Cities program. The MOH is working on directive to have a handwashing week every year and to promote handwashing with soap and access to water, in collaboration with the district *alcaldes*.



In schools, soap is seldom at the right place. In Lambayeque, a northern coastal region of Peru, children at a primary school line up to wash their hands with soap.

The Minister of MIMDES stated that her ministry was strongly committed to promoting handwashing with soap through such programs as PRONAA (aimed at reducing infant malnutrition and anemia, the program includes a school breakfast program, child feeding centers, distribution of fortified bread, etc.); Wawa Wasi (a daycare program for children of poor working mothers); and FONCODES (an infrastructure program). She sees a very strong political will for social programs at the national level generally in the

#### BOX 2: KEY PUBLIC SECTOR PARTNERS

- Regional health units
- Regional education units
- Regional governments of Tumbes, Piura, Lambayeque, Cajamarca, Amazonas, San Martín, Ica, Huánuco, Arequipa, Tacna, and La Libertad
- Ministry of Education
- Ministry of Woman and Social Development
- Ministry of Health
- Ministry of Housing, Construction and Sanitation
- Provincial and district governments in 21 regions
- Juntos (conditional cash transfer) program
- National Food Assistance Program (PRONAA)
- National Basic Rural Sanitation Program (PRONASAR)

Source: Procesos y aprendizajes, 2010

**BOX 3: BUY-IN FROM THE MINISTRY OF WOMAN AND SOCIAL DEVELOPMENT**

In 2009, PRONAA committed itself to implement HWI in the 318 poorest districts as part of the educational component of PIN (Integrated Nutrition Program). In July 2010, a proposal to institutionalize the HWI methodology in all MIMDES programs arrived at the desk of the Vice Minister for Social Development. At the time of this evaluation, PRONAA, Wawa Wasi, and FONCODES were preparing pilot projects under the public investment structure to integrate the HWI approach and methodologies. PRONAA is expected to incorporate handwashing with soap in mobilization events around in food distribution program in Ancash, Lima and Amazonas. In 2010, MIMDES zonal managers from 19 (of 25) regions were trained in the HWI methodology. MIMDES purchased 9,600 hygiene kits for classrooms. PRONAA developed various print materials, including a calendar, a flip chart and a poster, and instruction packet on handwashing with soap. Handwashing with soap is included in the PIN M&E system.

regions also but suggested that advocacy for handwashing with soap must be maintained, or current gains could be lost.

PRISMA and CARE, two NGOs contracted by WSP to facilitate handwashing with soap in many regions, appear to be dedicated to the task both within and beyond HWI. Spokespersons stated that they will continue to promote handwashing with soap, using the approach and methods developed by HWI in their future projects.

Radio Programas de Peru (RPP), by far the largest and most influential radio network, has implemented a three-year campaign on infant nutrition. For many months the campaign focused on handwashing with soap. RPP reaches six million listeners per month and has carried out tracking studies that show significantly more healthful behaviors among listeners than matched non-listeners. Initial funding came from the private company Alicorp, and now MIMDES makes a significant contribution. The national coalition of radio stations (CNR) also carried out handwashing with soap campaigns in 2009 and 2010, utilizing funds, spots, and other materials from HWI.

According to HWI staff, lessons from the project will inform WSP's work in hygiene across Latin America.

Annex D shows the strong commitment to handwashing with soap promotion in 20 of Peru's 25 regions as of early 2010. However, whereas political will is strong on the national level, it naturally varies at regional and municipal

levels. Some regional respondents, including HWI consultants, expressed concern about sustainability in their own or other regions. Some respondents were concerned with the impact of the end of the current WSP project, because regional leaders have many priorities and are often swayed by the latest source of funding. Although they praise the project strategy and methodology, they feel that they need more time to expand and solidify local buy-in; and they are concerned that the end of HWI implementation phase will make expansion to additional districts and communities difficult. They (and national respondents) are also concerned about the impact of turnover of political officials and of field staff (see below).

Major reasons for the overall improvements in this dimension occurred because HWI has:

- Adjusted well to the country's increasing decentralization of decisions and funding to the regional and district level.
- Sought to insert handwashing with soap promotion and the HWI approach and methodology into national and regional programs and strategies rather than create a vertical or parallel program.
- Focused on advocacy and recruiting partners at the regional level, while encouraging supportive national government priorities and providing effective methodology, tools, and training.
- Taken advantage of the national priority to reduce child malnutrition.

Recommendations for strengthening **Policy, Strategy, and Direction:**

- Request that each regional HWI coordinator or facilitating agency propose a plan for strengthening the enabling environment for handwashing with soap in 2011, and then discuss the proposed actions with the principal local partners. These plans will likely include: providing information to the new regional and district authorities on handwashing with soap methodology, experiences, and results; advocating with them to follow up on resolutions and other commitments to promote handwashing with soap; sharing impact evaluation results; and providing technical assistance on designing investment projects for future budget allocations.
- Maintain contact with the lead organization or coalition in each region that can carry out key functions of advocacy, alliance-building, and training; offer suggestions as needed, learn about and share achievements and lessons learned.
- Prepare and implement a national event, or several regional events, at which different-level actors share their experiences of handwashing with soap promotion, including, for example, the Ancash experience with the Juntos program (educational sessions are part of the conditions for cash payments). Also, share the findings of the cost-effectiveness study and the impact evaluation endline survey with regional and municipal levels through various channels.

- Advocate for continued World Bank support for handwashing with soap in Peru by developing and giving a presentation for World Bank staff about HWI experiences and results, and the potential for handwashing with soap promotion through other World Bank programs, particularly the Hygiene and Sanitation Alliance.

**2.2 Partnerships**

Since concerted efforts to promote handwashing with soap in Peru began in 2003, the country has evolved from a highly centralized, top-down political structure to an increasingly horizontal and decentralized one. In 2003 the ministries were powerful structures with national reach, providing the last word on policy, planning, and budget allocation and spending. In the last two years, the regions have become more autonomous through the decentralization process, although with varying degrees and effectiveness due to various levels of local capacity and funding sources. The national ministries are now better coordinated and more apt to define and implement their respective responsibilities in joint initiatives.

Particularly during HWI’s early years, the strength of partnerships with national ministries varied over time. The MOH was a very strong leader and owner of HWI between 2004 and 2006. Starting in 2006 the MOE became engaged and has continued a strong collaboration. The multi-sector national conditional cash transfer program (Juntos) incorporated handwashing with soap promotion in 2008–2009, and MIMDES, which operates

**Key Findings: Partnerships**

**Baseline Findings (2007)**

- This was a strong and innovative aspect of HWI.
- Some friction between public and private partners was reported.
- Maintaining commitment of ministries was challenging at times because of political changes and overburdened officials.

**Endline Findings (2010)**

- Private participation has continued to grow; it is primarily, but not entirely, financial.
- This was not mentioned in 2010.
- The commitment now appears to be more solid in the institutions and not as dependent on particular officials.

several nutrition, daycare, and social programs, has been a strong partner since 2009. WSP considers that integration of HWI within MIMDES as very important for sustainability. On the other hand, working with the Ministry of Housing, Water, and Sanitation is a challenge still to be met, mainly because the life cycle of investments in infrastructure has a beginning and an end, while behavioral change processes must continue in time.

Although the MOH's national HW coordinating committee has become inactive, ministries such as health and education are now working in coordination on health education in schools, which includes handwashing with soap. The ministries of education, health, and the environment created a joint indicators matrix for school health, which is now used in around 20 percent of the 90,000 public and private schools. Another joint effort is the National Defense Institute's initiative on efficient use of water, with WSP, UNICEF, and other partners.

HWI has worked hard to facilitate or take advantage of existing partnerships, particularly at the regional and district levels. In some regions, HWI joined or strengthened partnerships already on the ground, as in Tumbes, Cajamarca, and Piura; in others, with smaller groups at district level (in many regions). In Arequipa, HWI has allied itself with a coalition led by the Chamber of Commerce. Some, but not all, regions have strong coordinating groups, many formed around CRECER, the national child malnutrition strategy—for example, the Regional Food Security Council in Ancash and the District Technical Health Committee in Junín. These may involve various government programs and organizations, NGOs, and the private sector. Some alliances are formalized with memoranda of understanding (MOUs) but many are informal. Responsibilities seem clear in either case.

HWI has done a much better job during the expansion phase of keeping partners informed and motivated and sharing innovations and lessons learned. Tools used include a bi-monthly newsletter with information and updates on the program in different regions, testimonies, interviews, charts, and partnerships; a web site and blog; and a report series and field notes.

While the project has involved an impressive number and variety of partners (see Box 4), clearly there are additional partners that potentially could collaborate at the national and local levels, NGOs and private companies in particular. One respondent made the interesting suggestion that to truly make handwashing with soap a social norm, it would make sense for the ministries of tourism, transportation, commerce, production, and others to be involved so that more public facilities for handwashing with soap would be available.

One very experienced representative, a long-term partner in HWI, stated, "It would be difficult to reverse the national support [for handwashing with soap] because of the alliances."

HWI is well represented in Cajamarca's Regional Committee for Food Security and Nutrition (CORESAN), led by the Social Development Unit of the regional government. CORESAN unites all sectors, public and private, national and international, to coordinate and direct resources towards the reduction of child malnutrition, which is the indicator of poverty reduction for the region. Approximately 45 persons attended CORESAN's most recent meeting in October 2010. Working together, partners have produced manuals for preschool, primary, and secondary schools on health and hygiene education and care of the environment. Capacity building for HW promotion was done with all the institutional members of CORESAN that had field promoters, resulting in activity throughout the region. One important partner is the PREDECI program against child malnutrition in Cajamarca, funded by a group of mining companies. PREDECI has produced guidelines on strengthening municipal management for improved investments in young children, strengthening the work of community health agents, and local management of healthy schools. HWI provided technical support to Cajamarca regional authorities to design a Public Investment Project (PIP) to support promotion of handwashing with soap, following in the footsteps of the Arequipa region. In Ichocán District, a strong mayor is coordinating various public institutions and NGOs with focus on child malnutrition (water, handwashing with soap, food supplements, growth monitoring/child development centers) throughout the municipality.

Under the national CRECER initiative, regional governments have a coordination function and seek agreements from civil society, government, churches, and NGOs to facilitate resources for events or specific actions to address child malnutrition. HWI launched the “Para Crecer Juntos” strategy, to bring together public and private regional institutions to join efforts to reduce malnutrition rates. In March of 2008 HWI organized a workshop to update regional authorities from Tumbes, Piura, Cajamarca, and Lambayeque on the regional processes and to design an action plan. Over the following two years, this plan was implemented with the support of HWI’s regional coordinators and local partners.<sup>5</sup> BPZ Energy is a partner in the Tumbes regional plan for child malnutrition, along with the Step by Step Foundation, HWI, CIDA, and other partners. The company supports the program in one community and expects to move into others. It is encouraging other private companies to get involved. The WSP became a member of multi-sectoral regional committees in Tumbes and Cajamarca. In Piura it supported both public and private institutions working in different districts and

provinces. According to the Piura Regional Government Field Report, April 2010, the regional government spent \$300,000 of its own resources to implement the handwashing with soap program in Huarmaca, obtaining a 25 percent reduction in diarrhea among children. The municipality of Piura invested \$20,000 in the implementation of a handwashing with soap program at district level as well. HWI is supporting the organization of a Regional Committee for Water, Sanitation, and Hygiene that brings together public and private institutions, building on networks developed by HWI.

From 2003–2006 private companies provided marketing expertise and disseminated information on handwashing with soap through their own mass media (e.g., video broadcasts in banks) and interpersonal networks (e.g., house-to-house sales). Over time, their roles have shifted to provide financing at the regional and local level (e.g., through PREDECI in Cajamarca and CESEM, the technical arm of the Chamber of Commerce, in Arequipa) and to direct local implementation of HWI methodology (e.g., Inkabor Association in Arequipa, BPZ Energy in Tumbes, and Campomar in La Libertad). Particularly in Arequipa and Cajamarca, mining

<sup>5</sup> WSP, unpublished concept note on partnerships, 2010.

#### **BOX 4: KEY PRIVATE SECTOR PARTNERS**

Private mining and agricultural firms in Cajamarca, Tumbes, Piura, Ica, Lambayeque, La Libertad, and Arequipa fund handwashing with soap promotion. They have paid the honorarium for a nutritionist to give door-to-door education on handwashing with soap; paid for Super Jaboncine (SJ) handwashing stations in remote areas; distributed, promoted, and monitored artisanal soap and SJ production for use in homes and schools; paid the costs of workshops; and assigned budgets to support monitoring. These firms include:

Agrícola Chapi (Ica)	Duraplast (national)
Agrícola Saturno (Piura)	Fundación Belcorp (national)
Alicorp (national)	Grupo Oviedo (Lambayeque)
Asociación Civil Cerro Verde (Arequipa)	Horizonte Corporativo
Banco de Crédito del Perú (national)	Inkabor Foundation (Ica)
BPZ Energy (Tumbes)	IMASEN (national)
Buenaventura Mining (Arequipa)	IOdebrecht (Lambayeque)
CESEM (Arequipa)	Pro Citrus—Duna Corp. (Huaral)
Colgate Palmolive (national)	Radio Programas del Perú (national)
Campomar (La Libertad)	Sunshine Exports DALE Foundation (Piura)
Diarios Exreso y Extra	Yanacocha Mining (Cajamarca)

Source: Procesos y aprendizajes, March 2010.

companies are powerful and work well with government; HWI has encouraged and benefited from their participation. In Piura private companies' participation has gradually grown as active companies often influence others to get involved.

HWI established a fruitful partnership with Duraplast, a plastics producer that financed the design and production of the mold to make Super Jaboncin (SJ), the handwashing station. Various HWI partners in Peru have purchased and distributed around 80,000 SJs in Peru, and PAHO purchased an additional 10,000 for use in Guatemala.

In general, private companies have been motivated by the desire to contribute to local development and to generate local goodwill where they work, not to sell more soap or other products. Those supporting HWI have incorporated HWI into their existing social-responsibility programs. Firms are providing a platform for sustainable development as their long-term investments and vision lead to a long-term commitment with the region, the district and the local population surrounding, and their customers. There are also tax incentives and legal requirements to contribute to social programs. One respondent stated "HWI has made it easy for private companies to participate as they wish—in

**TABLE 4: EXAMPLES OF PRIVATE COMPANY SOCIAL RESPONSIBILITY ACTIONS**

Institution	Sector	Location	Actions/Programs
BPZ	Energy (gas and oil)	Tumbes	Collaborates with regional government on regional plan for youth and children; strengthen capacities of women entrepreneurs; university scholarships; preschool programs
Dale Foundation	Agro-industrial (DOLE bananas)	Piura (Sultana)	Allied with health and education authorities; capacity building of local farmers health promotion
Duraplast (Samcorp Group)	Plastics	National	Loan program for health and education; donation of paper, plastic, and glass; recycles toner cartridges
Belcorp	Cosmetics	National	Initiatives to empower women economically; scholarships
Yanacocha	Mining	Cajamarca	Investments in health posts; vaccination against rubeola; community education program; infant malnutrition project; participates in coalition for sustainable development
Cerro Verde	Mining	Arequipa	Women Entrepreneurs Program (jewelry and textiles); financing various regional government water and sanitation works; supports health and education
Agrícola Chapi	Agro-industrial	Ica	Project to strengthen community organization; environmental education; restoration of biodiversity of local forest
El Diario (The Times)	Media	Piura	Training school reporters; campaign to raise awareness of need to conserve water; operates local listserv on social and development issues
Scotiabank	Media	National	Donations, sponsorships, programs to help communities; support to health and education of women and children
Piura University	Education	Piura	Supports local development programs; supports nutrition, education, hygiene and nutrition programs in communities; periodic hemoglobin and parasite screening
Agua Limpia	Water and sanitation	La Libertad, Ancash, Arequipa	Public education; technical assistance to the regional government; training of specialist operators; sanitation education program
Southern Peru	Mining	Tacna, Moquegua	Sustainable development projects; infant malnutrition program; generic improvement of alpacas

Source: WSP Manos Limpias, NIÑOS SANOS, 03, September 2009.

funding, implementation, etc. There is no bureaucratic process they need to go through.”

Recommendations for strengthening **Partnerships:**

- If feasible, continue to publish and widely disseminate the HWI bulletin, with a focus on creative and effective contributions by partners at the regional and district level that could later be adopted by the WSP Hygiene and Sanitation Alliance.
- Encourage regional, provincial, and district coalitions addressing handwashing with soap to publicize their own work and results, including the contributions of various partners, through local radio, newspapers, and public events.

### 2.3 Institutional Arrangements

This dimension seems to be well addressed. Respondents pointed out no significant weaknesses.

As a result of the current government’s policy to encourage an intersectoral approach in its programs, there has been much stronger collaboration between the ministries of health and education, accompanied by more policies, resources, and action in the field. In the last two years, the ministries of health and education have signed agreements that spelled out in detail how they would integrate handwashing behavioral change methodology, technology, and tools in schools. The ministries of health, education, and the environment collaborate on implementing the healthy schools program; they have devised a unified set of



Schools that participate in a program coordinated by the Ministry of Education and Ministry of Health, have a “healthy corner” in every primary classroom. In Moho, Puno, children wash their hands before eating a morning snack.

indicators (including ones on handwashing with soap) and are preparing a national guide that includes an adaptation of the handwashing with soap methodology.

At the regional and local levels, HWI has supported formal agreements among local governmental and private partners that support promotion of handwashing with soap. National, regional, provincial and district governments have approved over 120 ordinances, decrees, and agreements in support of handwashing with soap, some directing activities of a particular organization and some outlining collaborative agreements. In Cajamarca, the

### Key Findings: Institutional Arrangements

#### Baseline Findings (2007)

- Key national partners were coordinated through support through a national HW committee.
- Major partners tended to promote handwashing with soap in their own organizations and programs.
- HWI tended to encourage formal agreements with public partners but not with private-sector ones.

#### Endline Findings (2010)

- The committee is not currently active, which is appropriate given recent governmental decentralization.
- There is much more collaboration in planning, implementing and M&E at national, regional, and local levels.
- The focus moved to encouraging formal commitments to promote handwashing with soap rather than agreements between the HWI and partners.



institutional agreements are between many collaborating organizations and programs with CORDESAN; responsibilities are clear but not formalized. The Tumbes five-year regional plan that includes promotion of handwashing with soap has the authority of law. The DALE Foundation has an agreement with the municipal health office in Sullana to promote handwashing with soap, and there are many similar local arrangements.

HWI has formal agreements with the MOE and MOH. MIMDES expects to approve a formal policy supporting handwashing with soap promotion by July 2011.

**Recommendation for strengthening Institutional Arrangements:**

- Through their social-development projects in Peru, WSP and the World Bank should advocate for regional and local governments to promote handwashing with soap, using HWT’s methodology and tools.

**2.4 Program Methodology**

HWI’s intervention activities focus on promotion of handwashing with soap and capacity building of trainers from many partner organizations so that they can organize and carry out interpersonal sessions and promotional events, as well as local mass media. In addition, the project contracted airtime to support local dissemination.

Based on formative research, which was then tested and officially approved by major government ministries (MOH,

MOE, MIMDES), HWI’s BCC methodology has been passed on through cascade training, along with supportive tools and materials, to teachers, health staff, and health volunteers. At the end of their training, teachers sign an agreement to facilitate the six modules with their students, share the methodology with the other teachers in the school, design and implement mobilization activities in the school, involve students’ families in the process, and present a report on these steps. On completion of the process, the DRE (regional government education unit) awards the teachers a certificate, which adds points to teachers’ curricula and improves their job classification. The MOH has a similar process for health professionals, but the certificates are awarded from the national level.

While the basic methodology has remained over time, there have been appropriate changes in emphasis on communication channels and in core messages. Feedback from field promoters guided the HWI in making the modules and manuals more concise. Another small change was the substitution of photos for drawings in some local materials. (See Box 5 for the full list of materials.) At present the modules for teachers and promoters are undergoing a thorough expert review within government ministries, which will probably lead to some revisions to have a stronger focus on HW stations, key moments, and motivators.

Various respondents in the field felt that they needed more copies of materials, particularly to expand handwashing with soap promotion to new districts and communities. They noted that a huge supply of materials would be needed to cover

**Key Findings: Program Methodology**

**Baseline Findings (2007)**

- Opinions on the methodology were generally quite positive.
- Some respondents felt a need to focus more on interpersonal communication, while media representatives felt that mass media could play a stronger role.
- Some people noted that the approach seemed to work particularly well among children.

**Endline Findings (2010)**

- Opinions were strongly positive.
- Interpersonal communication, along with group activities, seems to play the leading role, with mass media used occasionally and strategically.
- This comment was not repeated, although great enthusiasm was consistently observed among both teachers and pupils.
- The ministries of health, education, and women are firm supporters now.

**BOX 5: PRINCIPAL TRAINING AND BCC MATERIALS PRODUCED AND DISTRIBUTED****First Phase (2005–2007):**

- A module for facilitators to train health promoters on behavior change communication that targets women.
- A module for facilitators to train teachers on behavior change communication that targets children.
- An educational kit with educational games for children of different ages
- Radio materials in Spanish and Quechua, including a 10-episode soap opera, spots, and jingle, along with instructions on use
- Posters to reinforce points from the radio series
- A reminder poster on critical moments to wash
- TV spots
- Institutional (advocacy) video with testimonies from officials involved in HWI in various parts of the country

**Second Phase (2008–2010):**

- Parents' manual—module for trainer to work with parents (nutrition and handwashing with soap)
- Poster with guidelines for producing homemade liquid soap and SJ use
- New radio materials—nine radio pieces on the superhero Super Jaboncín, including a new jingle, in two versions, spots, and short programs
- New print materials, including fliers, banners, press information, stickers, etc., all focused on the superhero Super Jaboncín

all of the 50,000 public schools and 90,000 total schools. WSP/HWI states that it has excess supplies of materials, so the problem may be that people in the regions and districts do not know of the availability, or know how to request the supplies.

Virtually all people interviewed praised HWI behavior-change methodology as more effective than and different from most communication in Peru. Many praised its training as clear and simple, well-documented, and well-supported by tools. It was recognized as participatory training that promotes active learning in contrast to traditional, didactic approaches. People like the handwashing stations (SJs) and the games, drama, and other group activities. Some also noted that the methodology has been adjusted on the basis of monitoring findings. Some are aware that rather than merely giving people information, HWI methodology focuses on emotional motivations and reinforcement. Various respondents noted that their organizations or programs had been promoting handwashing with soap with many years but that HWI has brought a stronger methodology and focus that they believe has led to more effectiveness.

A few comments on limitations of the methodology concerned the need for materials in Quechua and other local languages and the need for additional copies of print materials and particularly of SJs. Some mothers in Puno claimed that they were too busy to attend all three handwashing with soap orientation sessions, so they dropped out before the third (and last) one. In response, the DIRESA (health unit of the regional government) is combining the last two sessions. Some teachers agree that the process is long, and there has been some passive resistance from the militant teachers union in Puno. A minority of teachers in Cajamarca are also said to resist spending class time on handwashing.

A few respondents suggested that this behavior-change-oriented method has affected the educational approaches of the various government agencies that have used it. A new regional-government project in Cajamarca to combat malnutrition has been designed using HWI's methodology.

Recommendations for strengthening **Program Methodology**:

- Advocate and facilitate the BCC approach of HWI in all of WSP’s social development programs, in particular the Hygiene and Sanitation Alliance.
- Continue collaborating with MIMDES (PRONAA, Wawa Wasi, FONCODES) in finalizing the process of adoption of HWI methodology for their programs, and then prepare the print-ready adaptations of HWI materials.
- Continue to work with the ministries of education, health, and the environment to finalize the process of adoption of HW methodology, and then, time-permitting, prepare print-ready joint guidelines for the Healthy Schools program.

**2.5 Implementation Capacity**

Through both support from HWI and their own internal processes, the implementation capacity of major partners at national and other levels has improved over the last few years. HWI, in part through its contracted regional coordinators and NGOs, has made a major effort to build capacity in allied programs and organizations, mainly in: implementation of the behavior-change communication (BCC) methodology; advocacy for commitments, funding, and alliances; and monitoring and evaluation. HWI has trained more than 22,000 teachers and health agents to promote handwashing with soap among women and children. While this training of facilitators has been a strong point, some respondents feel that the subsequent cascade training is not always effective, because some of the persons trained to train others have not

themselves been effective trainers. The HWI has focussed on integration to face this challenge, under the assumption that the ministries, regional, and local governments will continue the capacity-building activities in the future.

The MOH now has regional health facilitators who train health staff and promoters and teach them to give effective demonstrations. Within the educational system, in particular, capacity building must be an ongoing process due to the high turnover of teachers from year to year. Thus, even in places like Cajamarca, where there appears to be enough trained persons at present, capacity building must continue because of the turnover problem. PRISMA now targets local leaders who are permanent in the communities for training.

HWI’s strategy for sustained capacity building is to advocate for and support the integration of its behavior-change methodology, including training, into key national programs. The training methodology and tools have been substantially integrated into the MOE and MIMDES, so it is expected that they will allocate resources for training new personnel as well as for refresher training to address the problem of staff turnover. The effectiveness of capacity building may be limited because some field sites have insufficient staff to implement and report on multiple programs.

Moreover, WSP’s transition strategy is to encourage and facilitate regional public investment projects (PIPs)\*, such as the one approved in Arequipa and one likely to be approved in Cajamarca to continue HWI activities beyond the project. WSP is sharing the approved PIP with other regional

**Key Findings: Implementation Capacity**

**Baseline Findings (2007)**

- In general, effective skills and systems needed to implement the program existed at the national level but were weaker in some regions and districts.

**Endline Findings (2010)**

- Through advocacy, coordination, training of trainers, and provision of communication and program-support materials, HWI has contributed to increasing implementation capacity at regional and district levels. The main capacity gap affecting promotion of handwashing with soap is the governing and management skills of some local officials who have gained new responsibilities and access to resources.

\* Public Investment Project (PIP) is a tool used by regional and local governments to request funding for specific projects to the Ministry of Finance.

governments to inform new authorities about what has been done, and what could be done in the future. Regional governments greatly value already developed PIPs, which can facilitate new resources, fast spending, and good management. PIPs that incorporate handwashing with soap normally have three components: training, information and education, and SJs.

Several respondents mentioned that capacity building in M&E is needed in many regions and districts.

Finally, regional governments are still learning their new roles, and their capabilities to plan and manage programs depend a great deal on the people in key positions. In many cases, there is a clear need for capacity building in regional and municipal governments in planning, project preparation, proposal writing, and other basic skill areas. Some regional governments are unable to spend a significant portion of their budgets each year.

**Recommendations for WSP/HWI for strengthening Implementation Capacity:**

- Provide technical assistance to public sector partners in planning, implementing, monitoring, and evaluating multi-sector water, sanitation, and hygiene investments.
- Engage with new incoming authorities to explain the benefits of handwashing with soap promotion, the methodology, and implementation requirements; and urge them to continue integrating hygiene BCC into their priority health, environmental, education, and W&S programs.

Advocate with partners to support capacity building in regional and municipal governments in planning, project preparation, proposal writing, and other basic skill areas.

**2.6 Availability of Products and Tools**

The main products and tools needed for handwashing with soap are water and soap. Soap availability was already high (above 98 percent) in 2004 and remains near the same level. The issue with soap, however, is affordability, as poor families may not want to buy as much soap as needed to wash hands at all key times. The project’s facilitation of the development and distribution of the SJ (handwashing station) has been a good response to this problem, because it uses liquid soap, which most people make by putting a small piece of bar soap in hot water.

Access to water remains a problem in many poor neighborhoods and towns. Some neighborhoods in many urban areas have running water for only a limited number of hours per day, and some rural communities have no access to water systems. The continued dissemination of SJs is a partial solution to poor access to water, as a two-or-three-liter bottle holds enough water for numerous good hand washes, if used correctly.

In high Andean regions, very cold water can make it unpleasant to wash hands. One solution that people use is to place the SJ in the sun so the water will warm. Another is to add a drop of castor or almond oil to the water. After SJs were distributed to families in Moho, Puno, people complained that they could not obtain the plastic bottles to complete the stations. The school organized a community

**Key Findings: Availability of Products and Tools**

**Baseline Findings (2007)**

- Soap is available to more than 95 percent of families; however, many poor communities have difficult, seasonal, or part-time access to water.

**Endline Findings (2010)**

- General availability of soap and water has not changed; however, some schools have installed long sinks with multiple faucets for handwashing with soap and the invention and distribution of SJs to many schools and families have greatly facilitated handwashing with soap.



In Casacunca, Cusco, a daughter watches as her mother uses a piece of laundry bar soap to prepare a 3-liter bottle of liquid soap. On average, a 3-liter bottle of liquid soap will last 21 days for a family of five.

collection of bottles, which appears to have solved the problem, but there may be difficult access to large plastic bottles in some rural communities.

Some 80,000 SJs are in use in schools and homes, although there is a potential demand for hundreds of thousands, if not millions, more units. The only significant constraint to additional production, distribution, and use of SJs is securing funding for the production cost of \$0.70 or less per unit, depending on the amount produced. According to WSP, the problem has been the budgetary process—the public sector takes very long to have budgets approved (for example, the regional government of Arequipa took one year). In some cases, for rather small purchases (1,000 items), district-level education institutions and private firms have allotted resources to buy SJs. WSP expects large programs to assign

budgets in the future for SJs; for example, funds for SJs are included in the project HWI is designing with MIMDES.

The general consensus is that the SJ handwashing device has greatly facilitated handwashing practice. Placed in classrooms or near latrines and kitchens, it reminds people to wash hands with soap, makes it very convenient to wash, and economizes both water and money spent on soap, since soap in liquid form goes further than in bar form. It also discourages the stealing of soap.

Plastic basins and other small utensils can also facilitate handwashing with soap but are not absolutely essential. Clean towels for drying also facilitate handwashing with soap, but are not essential if air-drying is used. It is difficult to keep towels clean in poor environments, so in fact many experts recommend air-drying in such circumstances.

#### Recommendations for strengthening **Availability of Products and Tools:**

- In the interest of sustainability, encourage local partners (public and private) to plan for and finance additional copies of materials. Private companies may well be willing to assume this cost, particularly if their logo can be placed on the material. A company that purchases SJs, for example, could put a sticker with its logo on each one, which would be seen by students and families numerous times each day. Private companies also have tax write-offs for such expenditures.
- Encourage homemade SJs, as have been made in one area of Cajamarca. Perhaps handwashing stations could be made from *titora* reeds in the Lake Titicaca area.

## 2.7 Financing

In recent years, the bulk of government implementation funding has shifted from such ministries as health and education to the regions and local governments: ministries' roles are primarily to define national initiatives, policies, guidelines, and tools. Implementation occurs at the regional and district (municipal) levels, with funding coming from the regional and municipal governments, from local private companies, and through various funding mechanisms, particularly from the Ministry of the Economy and Finance (MEF). HWI has adjusted well to this new political scenario.

There is a mixture of positive and negative findings regarding financing for expansion and sustainability. On the one hand, officials in the field complain of a lack of financing to enable them to expand the program to new districts, communities, and private schools. Money is needed for such expenses as training, SJs, communication and training materials, as well as the time and expense for staff to train, manage, supervise, support, and evaluate handwashing with soap promotion. On the other hand, various programs from the ministries of health, education, and women have funding for some of these costs, and regional and local governments have their own budgets plus the ability to write proposals for additional funding. Some regional governments have large budgets to spend from their share

of mining profits and other contributions, exceeding their capacities to spend (the Arequipa regional government did not spend 45 percent of available funds in 2009).

Districts/*municipios* can receive budgetary support from the MEF through the Municipal Incentive Program, for which handwashing promotion is one of seven spending categories. A major purpose of the fund is to discourage *municipios* from spending their entire budgets on construction projects and specifically assign 5 percent of their budgets to activities related to reducing malnutrition.

Regional governments can also apply for approval of social projects from the MEF through a PIP. The Chamber of Commerce and Cerro Verde mining company collaborated with the Arequipa regional government to prepare a project plan to finance implementation of handwashing with soap promotion in several additional districts. After 14 months, the project was approved for a total budget of \$330,000 for capacity building, impact evaluation, and the acquisition and distribution of 30,000 SJs. Other public and private organizations have agreed to contribute to the project.

The Piura regional government has invested around \$300,000 for coordinated handwashing with soap promotion in Huarmaca province. The project has measured

### Key Findings: Financing

#### Baseline Findings (2007)

- Financing mainly in the form of funding by international donors and in-kind contributions by private companies to reach their staff and customers through existing channels.

#### Endline Findings (2010)

- Funding mainly from the Peruvian government, through various mechanisms, as well as from private companies at regional and local levels.
- Regional, provincial, and district governments have access to many government funds, and some in addition have the potential to tap significant private funding; the main constraints are their ability to prepare solid proposals for funding and to spend allocated funds efficiently.

a 25 percent reduction in diarrhea in a nine-month intervention.

Various regional governments (such as Cajamarca, Junin, Ancash, La Libertad, Puno, Huancavelica, Apurimac, Moquegua, Tumbes, and Arequipa) and alliances have effectively tapped contributions by private companies, particularly mining companies. Large companies are often willing to contribute because of their social responsibility/public relations objectives. They also receive a reduction in taxes in exchange for making social investments, and they are required by law to contribute a portion of profits to social programs. There remains much scope for more involvement of private companies in local partnerships that promote handwashing with soap or more independent contributions or actions by private concerns.

It is important to note, however, that some regions enjoy a wealth of large private enterprises, while others have few or none. Those regions with neither large private companies nor public/private partnerships will need to rely on public and donor funding.

**Recommendations to WSP/HWI for strengthening Financing:**

- Continue to advocate with the MEF to include a line item in the national budget to build the capacity of regional and district governments in planning, implementing, and monitoring of behavior-change methodologies.
- Explore with the MEF and other partners how best to offer training and other support in institutional

strengthening (planning, budgeting, HR management, etc.) to regional and district governments.

- Work with allies and new partners to strengthen regional governments’ capacity in social project planning, budgeting management, and M&E (see capacity building). In addition to training and mentoring, governments could be offered such tools as sample proposals and guidelines for social project development along with planning, reporting, and M&E formats.
- Continue to facilitate PIPs that support handwashing with soap.
- Advocate with regional governments to include funding and activities for promotion of handwashing with soap in annual work plans and in multi-year regional development plans.

**2.8 Cost-Effective Implementation**

We found there is a common perception, based on available local data and feelings, that handwashing with soap is cost-effective. One private sector respondent called it a “low cost, high impact” intervention because it contributes to many health and social goals—it helps reduce malnutrition, diarrhea, and pneumonia, and improves child health and school performance. School staff seemed to share this idea.

The cost-effectiveness survey will be conducted during the second half of 2011. It seeks to collect information on the costs of implementation activities and attribution to specific sources. In Peru, many institutions, both public and private, allocated resources to the HWI in different regions of the country and nationwide.

**Key Findings: Cost-Effective Implementation**

**Baseline Findings (2007)**

- WSP and its partners had collected extensive cost information but not yet calculated cost-effectiveness.
- Capabilities to collect and analyze needed data exist at the national level, but technical support is seen as necessary at subnational levels.

**Endline Findings (2010)**

- WSP intends to carry out a cost-effectiveness study in 2011.
- Capabilities do not appear to have changed.

Because handwashing with soap promotion in Peru is integrated into many different programs, calculating cost-effectiveness may be difficult. The bulk of WSP's expenditures have not been for direct implementation, but rather for advocacy, coordination, information dissemination, M&E, and for developing and facilitating the availability of key tools and approaches.

The one locus of interest in cost-effectiveness data is the MEF, for which such data is important in approving funding at sub-national levels.

**Recommendation for strengthening Cost-Effective Implementation:**

- At the time of the WSP cost-effectiveness study, discuss with the MEF the importance of cost-effectiveness data for its funding of handwashing with soap promotion as well as other programs. If such data will continue to be needed, organize an orientation/training for key partner staff.

**2.9 Monitoring and Evaluation**

Handwashing with soap is included in the monitoring and information systems of virtually all of the numerous government programs with which it works; e.g., it is in the Wawa Wasi information system and in the healthy schools program, for which the ministries of health, education, and the environment collaborated on a unified set of indicators. MIMDES programs employ a family information sheet, filled out annually, that includes handwashing indicators. In the M&E system of the government's Sustainable Development of Educational Institutions initiative (ministries of health, education, and environment),

one indicator is progress in implementing education on handwashing with soap. There are four implementation levels ranging from the "school has soap and water" to "over 90 percent of students adequately wash their hands with soap."

There were some opinions that M&E training and assistance to local governmental units is needed. Government officials have neither the time nor the skills to carry out good M&E; the number of activities for which they are responsible overwhelms them, and they cannot monitor everything.

HWI has its own project M&E systems for tracking inputs, activities, outputs, and impact on practices and health and social indicators. Data come from several sources, including routine reports from coordinators and contractors in the regions, longitudinal studies, and baseline and endline surveys. Key indicators are:

- Percent of reduction in diarrheal disease in children under 3
- Percent change in the percent of the target population (children under 12 and mothers) who demonstrate correct handwashing with soap
- Percent of the target population whose KAP and resources change positively due to HWI activities
- Cumulative number of social agents training in HWI methodology
- Percent of the target population reached by interpersonal communication
- Percent of the target population reached by promotional events
- Percent of the population reached by mass media

**Key Findings: Monitoring and Evaluation**

**Baseline Findings (2007)**

- Respondents generally agree that M&E is important, but they are not aware of the results of HWI's monitoring.

**Endline Findings (2010)**

- HWI has done a better job of disseminating information (monitoring progress, lessons learned, innovations, etc.) through a web site, newsletters, and reports. Still, some respondents do not recall seeing documents and information that they should have received.



Staff of schools, preschools, and health facilities use their own local statistics for assessing the impact of handwashing with soap promotion on child malnutrition, diarrhea, respiratory disease, and school absenteeism. Many of the persons visited claimed improvements in these indicators. For example, in Ichocán district (which has addressed malnutrition as a priority) health staff and teachers both reported almost no cases of diarrhea or lower respiratory infections following activities to treat water and handwashing with soap promotion. The district health center in Moho, Puno region reports only two or three cases of acute diarrhea this year and one case of pneumonia, with no deaths from these causes.

The impact evaluation endline survey that HWI will implement in 2011 will need to look very carefully at the micro-level of implementation. Although there has been some handwashing with soap promotion in almost all regions, the intensity varies within regions and districts (as planned by the evaluation methodology). For example, within a district some communities may have received house-to-house education and SJs; there may have been handwashing with soap promotion in some, but not all schools; and some, but not all communities may have had group “promotional” events such as handwashing demonstrations or dramas. Within a region some districts may have had only short-term mass media coverage, but no interpersonal or group communication or activities. The other, unavoidable, issue is some contamination of control areas by mass media and by some handwashing with soap promotion through national programs of the MOH and others.

Several informants said they were puzzled by the design that requires control districts. They find it hard to understand why the program would deny the benefits of handwashing with soap to districts that want it (because they hear about the program activities in other districts) and to families that need it.

It is important to note that the MEF, which plays a key role in funding, setting priorities and approving projects, does

want to see evidence of impact as a condition for significant investments. Hopefully the HWI’s endline survey will provide such evidence for handwashing with soap.

#### Recommendation for strengthening **Monitoring and Evaluation**:

- Meet with key national and regional partners to discuss their satisfaction/comfort with current M&E of handwashing with soap in their organizations. If there is sufficient demand, and it is feasible, help organize orientation/training on handwashing with soap for interested partners.

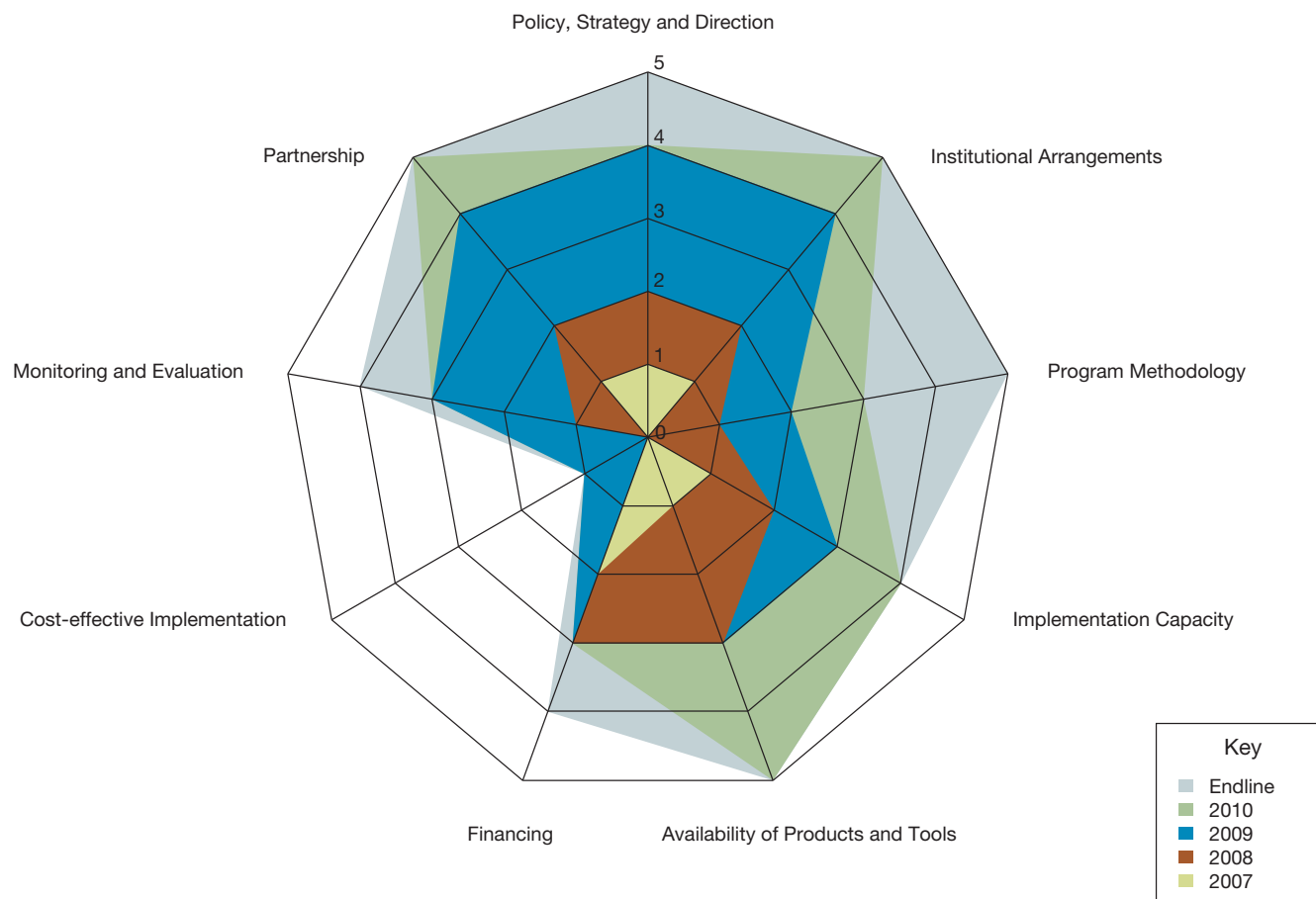
### 2.10 Assessment Scores

WSP developed a “spider diagram” (see Figure 1) to monitor progress in the EE through categorical scales for each dimension. Each point on the scale (0–5) has defined indicators against which progress is assessed. Achievement of an indicator is binary—either it has been achieved or not. Each country has unique indicators, although the dimensions are consistent. For example, to assess Partnerships, the EE in Peru is evaluated on the following indicators:

- Stakeholders from public and private sectors identified
- Partnership formalized, roles and responsibilities defined
- Partnership functioning according roles and responsibilities at national level
- Partnership functioning according roles and responsibilities at regional/local level
- Partnership involves public, private and civil society institutions at national and regional/local levels

The following table summarizes the scores of each dimension of sustainability and scalability from the endline assessment and previous scoring by the project staff in Peru. All scores were low in 2007, and every dimension but cost-effective implementation has reached a high level now.

**FIGURE 1: SPIDER DIAGRAM TO MONITOR PROGRESS IN THE ENABLING ENVIRONMENT**



The spider uses categorical scales for each dimension. Each scale represents a dimension and each point on the scale ( 0-5) has defined indicators. Achievement of an indicator is binary—either it has been achieved or not. EE progress should not be considered linear, as scales may be achieved out of the order listed. For this reason, EE scores are *cumulative* and not *sequential*.

**TABLE 5: ENABLING ENVIRONMENT SCORES BY DIMENSION**

EE Dimension	2007	2008	2009	2010	Endline	Percent Achieved
1 Policy, Strategy and Direction	1	2	4	4	5	100
2 Institutional Arrangements	1	2	4	5	5	100
3 Program Methodology	0	1	2	3	5	100
4 Implementation Capacity	1	2	3	4	4	80
5 Availability of Products and Tools	1	3	3	5	5	100
6 Financing	2	3	3	3	4	80
7 Cost-effective Implementation	0	0	1	1	1	20
8 Monitoring and Evaluation	0	1	3	3	4	80
9 Partnerships	1	2	4	5	5	100

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# III. Conclusion

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HWI's strategic vision, as described by the national coordinator, is to identify opportunities to strengthen the enabling environment and build upon them; share ideas and lessons; focus on stimulating regional responsibility; and support regions with tools, training, and guidelines.

It is in this spirit that HWI has consciously and successfully taken advantage of two strong national trends over the past several years:

- A priority national effort to reduce childhood malnutrition, and
- A gradual, but strong, move toward decentralizing funding and decision-making to regional, provincial, and district governments.

As mentioned, HWI's strategy for sustainability has focused on integrating HWI's methodology within national (health promotion, school education, environmental education, nutrition, and water and sanitation) regional and local programs to strengthen reach and impact. Currently WSP is working to integrate the behavior change approach to hygiene promotion within its programs and wider World Bank programs.

HWI has also followed several other strategies that have enhanced both effectiveness and sustainability:

- A strong focus on children, built on the opportunity provided by the integration achieved within MOE and MIMDES. Children have proven to be enthusiastic participants and promoters of handwashing with soap and appear to be effective change agents within their families.
- HWI has carried out effective internal project communication activities through its newsletters, web site, reports, and meetings. Such actions provide both important information and motivation to partners. The project has also worked hard with national and regional partners to facilitate certificates for change agents (teachers, health staff, and community health

agents) who fulfilled their plans of interpersonal communication with the audience.

- While focusing on achieving regional and local commitment to handwashing with soap, the HWI has advocated effectively at the national level with the ministries that set national priorities and policies.

In general, HWI has done quite well on the dimensions of sustainability defined by WSP. The chances of the sustainability of handwashing with soap promotion are excellent in key ministries (health, education, and women) and in certain regions and districts. However, an occurrence with an unknown impact is the impending end of the contracts of HWI's consultants and contracted NGOs. Despite the significant institutionalization of handwashing with soap within key ministries, NGOs, and regions, there is still a need for some of the key functions of these coordinators: advocacy for handwashing with soap, building and nursing alliances, facilitating additional training (for new districts and because of the high turnover of change agents) and monitoring and adjusting the HW methodology. It is unknown how people and partners in the regions will step up to the plate to effectively carry out these functions.

Continuation of handwashing with soap promotion, however, does not necessarily mean the full array of approaches in the HWI methodology. It is more likely that partners will continue interpersonal communication in schools and communities and group activities to promote handwashing with soap (health fairs, dramas, discussions, and celebrations) as well as mass media. In the decentralized situation of Peru, mass media may play a relatively minor role, mainly during HW week and in regions where the private sector is willing to fund broadcasts or radio or television stations are willing to give free airtime. HWI's endline survey should indicate the extent to which people heard and remember mass media promotion. When asked about the project methodology during this assessment, most respondents mentioned interpersonal and group activities only.

The project worked in specific districts and provinces in 24 of the 25 regions of the country achieving objectives of

reach. The project’s continuation in these and additional districts will depend on integration arrangements underway with the Ministry of Women and Social Development, and on future WSP hygiene and sanitation projects.

Table 6 summarizes the main factors that favor and those that could threaten handwashing with soap sustainability.

Several steps to address the challenges have already been taken:

First, the Social Specialist in the MIMDES office in Puno is taking an initiative to address the issue of new officials taking office who may not continue to support important social programs. He has scheduled for late November a three-day workshop for the 39 newly elected mayors and the two regional government candidates, to provide orientation and support on the management of social programs. This concept deserves to be replicated throughout the country, but it would take some very rapid national coordination to organize this. Certainly the HWI should lend its support where possible.

**TABLE 6: FACTORS FAVORING AND THREATENING HANDWASHING WITH SOAP SUSTAINABILITY**

Factors That May Favor	Factors That May Threaten
<ul style="list-style-type: none"> <li>• A strong, shared priority at all levels to promote handwashing with soap as a way of addressing young child malnutrition</li> <li>• Insertion of handwashing with soap promotion into regional development and health plans, facilitating justification for resource allocation from different partners</li> <li>• A strategy of including promotion of handwashing with soap into numerous social development programs</li> <li>• A strategy of encouraging and facilitating many strong regional alliances of organizations and programs</li> <li>• A focus on children, who have been exceptionally enthusiastic</li> <li>• A recognition of the strong impact of national policies that require implementation and allocation of funds at the regional and district levels</li> <li>• Private companies’ strong social responsibility programs, supported by tax incentives. Private funds are to be allocated for the continuation of the program and scaling up after project completion.</li> <li>• A strong, well-received project methodology, based on a behavior-change process</li> <li>• Perceptions that handwashing with soap has contributed to improvements in child growth, and reductions in malnutrition, diarrhea and respiratory disease reduction, and school absenteeism</li> <li>• Authorities gathered evidence of diarrhea reduction among children and attribute it to the HWI—leads to national and regional policy.</li> <li>• HWI’s concern with sustainability from the beginning, conducting periodic assessments and making efforts to improve the environment for sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• A change in the presidency in July 2011 could, over a period of a couple of years, lead to less priority, attention, and resources for handwashing with soap and related social issues.</li> <li>• Changes in regional presidents and mayors in early 2011 could lead to changes in local priorities.</li> <li>• The significant annual turnover of teachers, and to a lesser extent, health personnel, creates the need for regular training in handwashing with soap, which may be difficult for programs to do while expanding to new districts and communities.</li> <li>• The rapidly approaching end of the implementation phase of the HWI will deprive regions of coordinators who play key roles in advocacy, coordination, and facilitation of resources. The program in some regions has been institutionalized sufficiently to move forward well, but other regions may have difficulty.</li> <li>• Success could breed complacency, as has happened with many public health eradication campaigns (malaria, yaws, etc.). Once a problem seems almost “solved,” officials tend to move on to other priorities and the “solved” problem re-emerges.</li> </ul>

Second, the MOH is leading a group, which includes the MOE and MIMDES, that has almost completed a booklet for mayors to explain HWI, its activities, costs, etc. The MOE and Ministry of Environment produced national guidelines for teachers on environmental education that include HWI's training methodology for behavioral change

In addition to the initial enabling environment assessment conducted in May 2007 and annual updates on scores for each of the nine dimensions, HWI undertook 18 regional assessments of scalability and sustainability in 2008. These were used as a baseline.

Finally, from the beginning, the Peru team established several objectives related to sustainability: (1) To become part of national, regional and local policies related to health and nutrition, education, water and sanitation (2) to institutionalize the behavior-change methodologies and tools in these sectors; and (3) to insert handwashing behavioral change approach and methodologies into the MEF's national budget. The first two objectives have been largely achieved. The last one is still in process.

# Background Reading

- Bossert, Thomas J. 1990. "Can They Get along without Us? Sustainability of Donor-Supported Health Projects in Central America and Africa," *Soc. Sci. Med.* 30(9), pp. 1015–1023.
- Cogswell, Lynne and Lene Jensen. 2008. Guidelines for Assessing the Enabling Environment Conditions for Large Scale, Effective, and Sustainable Handwashing with Soap Behavior Change Programming. Guidance Document 01/2008. World Bank (Water and Sanitation Program).
- Devine, Jacqueline. 2010. Insights from Designing a Handwashing Station for Rural Vietnamese Households. Water and Sanitation Program.
- Devine, Jacqueline, Nat Paynter, and Hnin Hnin Pyne. 2010. Scaling Up Handwashing with Soap Project Peru. Back-to-office report. May 10–14.
- Favin, Michael and Doris Alfaro. 2008. Scaling Up Handwashing with Soap Behavior Change Programs in Peru: Initial Assessment and Baseline of the Enabling Environment for Scaling Up and Sustainability. Working Paper. World Bank (Water and Sanitation Program).
- Florez, Rocio and Jacqueline Devine. 2010. Peru: A Handwashing Behavior Change Journey. Water and Sanitation Program.
- Galiani, Sebastian and Alexandra Orsola-Vidal. 2010. Scaling Up Handwashing Behavior: Findings from the Impact Evaluation Baseline Survey in Peru. Water and Sanitation Program.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. February 2010.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. July 2009.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. August 2009.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. September 2009.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. October 2009.
- Iniciativa Lavado de Manos. Higiene y Salud. Manos Limipias, Niños Sanos. November 2009.
- Iniciativa Lavado de Manos. Procesos y aprendizajes de la Iniciativa Lavado de Manos al 2010.
- Instituto de Estadística e Infomática (INEI), Agencia de los Estados Unidos para el Desarrollo Internacional (USAID), and Programa Measure DHS+/ORC Macro. Perú Encuesta Demográfica y de Salud Familiar 2009. Visión nacional y departamental. Lima, May 2010.
- Instituto de Estadística e Infomática (INEI) and Programa Measure DHS+/ORC Macro. Perú Encuesta Demográfica y de Salud Familiar. ENDES Continua 2004–2005. Lima, November 2005.



# Annex A: Draft Question Guide in English

## Interview Guide

The questions included in this guide are not to be followed verbatim. Rather, they should serve as a guide to the conversation.

### Introductions (5 minutes)

- Introductions
- Appreciation for time
- Purpose of interview—follow up on baseline. Want to understand changes in the EE. Want to understand what can be done to improve the EE before the project ends (Nov. 2011)
- Definition of enabling environment
- Confidential, won't use name or other identifying information
- Participants will receive feedback from WSP on the findings and recommendations

### Opening (10 minutes)

- Please tell me briefly about your organization and then what your organization does to support handwashing with soap.
- How committed do you believe your organization is to continuing to promote handwashing with soap in the future? Is promotion of handwashing with soap in your organization's work plan objectives, budgets?

## I. Policy, Strategy, and Direction

[Respondents from government, international agencies, international and local NGOs, private sector, advocacy groups, bilateral donors/projects]

*Overarching question:* Do national priorities and priorities, as well as a strong and shared handwashing with soap strategy and direction, favor the continued implementation of handwashing with soap activities at scale after the project ends?

### Definition:

- *Policy:* A set of procedures, rules, and allocation mechanisms that provide the basis for programs and services.
- *Strategy:* Guidance on how to implement a policy.
- *Direction:* A common understanding among interested parties of the goals of an intervention.

1. How strong do you believe the political will is to support handwashing with soap is at the national [regional or local] level?
2. What organizations or leaders have most moved the program forward?
3. Are there additional organizations or leaders whose political support is needed to strengthen the handwashing with soap initiative? If so, please explain.
4. What, if any, suggestions do you have for strengthening the political will to support handwashing with soap?
5. Is there a shared understanding among partner organizations of the vision and goals of the handwashing with soap initiative? If yes, can you briefly describe this vision?
6. Were this vision and goals developed in a participatory manner?
7. How do you and your organization feel about this vision/strategy?
8. How well do you feel that national health and development policies and priorities support the promotion of handwashing with soap?
9. What changes in policies or strategies related to the handwashing with soap initiative have occurred during the past three years?
10. Who was responsible for these changes?
11. Are they likely to be sustained? If so, why do you believe that? If not, what can be done?



12. What are the greatest barriers to sustaining these changes?
13. What, if any, policy issues still need to be addressed for a national handwashing with soap program to move forward?

## II. Partnerships

[Respondents from government, international agencies, international and local NGOs, private sector, CBOs, media, advocacy groups, bilateral donors/projects]

*Definition:* A relationship where two or more parties, having compatible goals, form an agreement to share the responsibility for achieving the goals.

*Overarching question:* Are there strong and active partnerships at national and regional levels that will continue to implement large-scale handwashing with soap programming?

1. What partnerships have been formed [at your level] to support the promotion of handwashing with soap?
2. How well are they functioning?
3. To what extent do partners actively participate in discussions and decisions on strategies and plans?
4. Does the partnership include an appropriate range of partners (e.g., public sector, private sector, NGOs, etc.)?
5. What, if any, important partners have not joined the initiative?
6. In your opinion, how well have government and the private-sector managed been able to work together?
7. What are the greatest factors that have supported partners working well together?
8. What are the greatest barriers to partners working well together?
9. How well are partners' roles, responsibilities, and mutual expectations clear and agreed upon?
10. How do partners coordinate efforts? How effective is the coordination among partners?
11. To what extent have partners integrated handwashing with soap into their own organization's objectives, activities and budgets?

12. What changes in partnerships for the handwashing with soap initiative have occurred during the past three years?
13. How did these changes occur?
14. Are they likely to be sustained? If so, why do you believe that? If not, what can be done?
15. What, if any, additional improvements are needed in partnerships during the next year?
16. What roles do you see individual partners playing in the coming years to maintain handwashing with soap implementation?

## III. Institutional Arrangements

[Respondents from government, international agencies, international and local NGOs, CBOs, media, advocacy groups, bilateral donors/projects]

*Definition:* The roles, responsibilities, relationships, and accountability arrangements among public and private organizations committed to reaching the handwashing goals.

*Overarching question:* Are the roles, responsibilities, relationships and accountability arrangements sufficiently strong to support the handwashing with soap intervention continuing at scale?

1. How clear are the roles, responsibilities, and relationships of your organization for the handwashing with soap initiative?
2. [At your implementation level] are there clear implementation arrangements with all partners, including well-defined roles, responsibilities, and accountability? If yes, please describe. If no, how might they be improved?
3. What types of resources do various partners contribute? What type does your organization contribute? Do you believe that partners have the resources they need?
4. Are the partnerships based on contracts, MOUs, or simply understandings between people?
5. What, if any, mechanisms have been established for national [or sub-national] level coordination/implementation among relevant national [or sub-national] partners?

6. What changes in partners' responsibilities and coordination for the handwashing with soap initiative have occurred during the past three years?
7. Are these changes likely to be sustained? If so, why do you believe that? If not, what can be done?
8. What, if any, additional improvements are needed in institutional arrangements?

#### IV. Program Methodology

[Respondents from government, international agencies, international and local NGOs, private sector, CBOs, advocacy groups]

*Definition:* The approach agreed upon by partners and implementers to deliver the handwashing with soap program interventions in order to reach the handwashing with soap targets.

*Overarching question:* Is there a well-defined, evidence-based, and tested approach to implementing handwashing with soap that partners and collaborators understand, accept, and desire to maintain in continued implementation?

1. Is there clearly defined program methodology for implementing the promotion of handwashing with soap?
2. [If so] can you please describe it briefly?
3. Has the methodology been well documented and disseminated to partners?
4. How well has the methodology been supported by the dissemination of program tools, documents, and training?
5. Is the program methodology widely understood and accepted by program implementers? What is your opinion of it?
6. Do you feel that the methodology is simple and effective enough to be used as other organizations take on the implementation roles? Is it affordable? Or are some changes needed?
7. What, if any, changes in the program methodology for the handwashing with soap initiative have occurred during the past three years? If changes have occurred, what is your opinion of them?

8. Do you know if these changes were in response to feedback from partners or monitoring results? If yes, please explain.
9. What, if any, additional improvements are needed in the program methodology?

#### V. Implementation Capacity

[Respondents from government, international and local NGOs, private sector, CBOs]

*Definition:* The necessary resources (human and financial), skills, incentives, and materials/tools to deliver the full complement of interventions necessary to deliver a handwashing with soap program.

*Overarching question:* Is there sufficient capacity for handwashing with soap interventions to continue at scale? Is there a structure to ensure that capacities continue to be developed?

1. What strategies and activities exist to motivate, support, and encourage individuals' and organizations' continuing participation in the handwashing interventions?
2. [At the appropriate level] are there enough motivated persons with needed skills, as well as the program support such as training programs and communication materials, to maintain or even expand the handwashing with soap initiative?
3. Has capacity been built in the private sector to provide quality goods and services (i.e., handwashing stations, direct consumer-contact activities, etc.) at different levels of service?
4. Has capacity been developed at national/state and local government levels to oversee and monitor program implementation at the community level?
5. What changes in implementation capacity for the handwashing with soap initiative have occurred during the past three years?
6. How did these changes occur? Are they likely to be sustained? If so, why do you believe that? If not, what can be done?
7. What, if any, additional improvements are needed in implementation capacity during the next year?
8. What systems are in place to ensure ongoing capacity development (e.g., institutionalizing training)?

## VI. Availability of Products and Tools

[Respondents from international and local NGOs, private sector, CBOs]

*Definition:* The ready access of necessary products (e.g., soap, water, handwashing stations), that respond to consumer demand to practice handwashing with soap.

*Overarching question:* Are there sufficient handwashing with soap products readily available to allow for HW behavior among the target group?

1. Do families—even poor families—have convenient access to important handwashing with soap products—such as soap, handwashing stations, and water?
2. To what extent do you feel that the products offered respond to consumer preferences?
3. Are poor families willing and able to pay for these products?
4. What changes in access to appropriate products for the handwashing with soap have occurred during the past three years?
5. How did these changes occur?
6. Are they likely to be sustained? If so, how and by whom? If not, what can be done?
7. What, if any, additional improvements are needed in access to appropriate products for handwashing with soap?

## VII. Financing

[Respondents from government, international NGOs, CBOs]

*Definition:* Adequate funds are available to interested handwashing with soap organizations/agencies to cover the programmatic costs required to deliver their respective roles and responsibilities.

*Overarching question:* Is there sufficient funding available (from the government, NGOs, CBOs, donors, etc.) to deliver handwashing with soap program objectives?

1. Does your organization have sufficient funds to fulfill your commitments to the handwashing with soap initiative's objectives? What are your main expenses

for? For what time period do you have secure funding? What are the prospects for continued financing after that period?

2. In general do you feel that the partners have sufficient funding to pay for their program costs (such as staff salaries, training, transport, etc.)?
3. [At the national or regional level] is there a clear understanding and commitment among stakeholders regarding financial responsibilities?
4. What, if any, additional sources of financing might be available at [the appropriate level]?
5. Do you believe that there is enough funding to maintain activities once funds from WSP are no longer available? Is there funding to expand activities to new parts of the country?
6. What, if any, funding gaps remain? Where might the partners find funding to fill these gaps?
7. How have private-sector partners contributed, with cash or in-kind financing, to the sustainability of the HW campaigns? What do you think has motivated the private sector contributions?
8. How has the financing situation changed over the past three years? How did these changes occur?
9. Do you have any suggestions for improving the funds committed to support the continued promotion of handwashing with soap?

## VIII. Cost-Effective Implementation

[Respondents from government, international NGOs]

*Definition:* The cost of implementation as compared to the health and economic impacts to be measured in the impact evaluation.

*Overarching question:* Is there robust evidence that the handwashing with soap interventions are worth the cost, and can this evidence be used to secure additional resources, partners, and political support?

1. Is your organization, or other handwashing with soap partners, collecting information on program expenditures? Is your organization using (or will it use) this information to calculate cost-effectiveness?
2. Is your organization, or other handwashing with soap partners, collecting information on program

achievements, for example the number of people who were reached by program activities or the number who actually changed their handwashing with soap practices? If so, have you or other partners used this information to calculate costs/output or costs/impact?

3. What, if any, information are you aware of concerning the handwashing with soap initiative's costs and/or achievements?
4. How important do you consider such information in your decision to continue to invest in promoting handwashing with soap even after the current WSP support ends?
5. What, if any, additional improvements are needed in improving cost effectiveness?

## IX. Monitoring and Evaluation

[Respondents from government, international NGOs, private sector, CBOs]

### *Definition:*

- **Monitoring:** the systems to capture progress on implementation and achievement of targets in a timely manner to allow for analysis and prompt adaptation of implementation.
- **Evaluation:** The assessment of the results of monitoring to identify what worked and what didn't work.

*Overarching Question:* Is there a strong monitoring system in place in order to assist those implementing handwashing with soap interventions to adjust program interventions as necessary and evaluate results to determine what worked and what did not?

1. Regarding your organization's contribution to promoting handwashing with soap initiative, are you monitoring your organizations inputs, outputs, or their impact?
2. Are you aware of any actions by the broader partnership, either on the local or national level, to monitor

or evaluate the handwashing with soap initiative? If yes, what you have heard?

3. Have you received, either from the regional or national level, the results of handwashing with soap monitoring or evaluation studies?
4. Are you aware of any changes in the handwashing with soap activities that were made because of the findings from monitoring or evaluation studies? If yes, what you have heard?
5. Do you feel that there are persons with the needed skills at the national and local levels to monitor and evaluate the handwashing with soap initiative? If not, what suggestions do you have for increasing capacity? If yes, please explain your response.
6. Have these capabilities changed during the past three years? If yes, how?
7. Can you please summarize your feelings on how important getting feedback from monitoring and evaluation is for your organization's decision to continue to fund or otherwise support handwashing with soap in the future?
8. What, if any, additional improvements are needed for improving monitoring and evaluation?

### **Closing (5 minutes)**

- What is your assessment of the chances that the handwashing with soap program will continue effectively for several more years?
- What factors do you think will be most important for enabling this to happen?
- Which of the topics that we discussed do you think is the weakest area for the handwashing with soap initiative (and why)?
- Which of the topics that we discussed do you think is the strongest area for the handwashing with soap initiative (and why)?
- What are your recommendations for what WSP and partners should do to improve likelihood of sustaining interventions into the future?

Thank the respondent for his/her time.

# Annex B: Sampling Methodology

The matrix below indicates which type of stakeholders should be interviewed on what dimensions. Use your discretion as the interview progresses to adjust or adapt with whom you discuss what dimensions.

First priority will be the primary data sources and document review, any secondary data source interview and/or self-reporting

will be as determined essential and as time permits. The first data collection with secondary data sources should be through self-reporting (see Methodology in Annex C) if possible. More specificity will be required within each stakeholder type, e.g., government agencies would be broken down by ministry, MOH, MOHSW, MOE, MOW, etc.

Dimension	Stakeholder Type								
	[unless otherwise noted, an X means that it is appropriate to discuss this dimension at all levels—national, regional, district, local]								
	International			Local					
	Government Agencies	International Agencies	NGOs and FBOs	NGOs and FBOs	Private Sector	CBOs	Media	Advocacy Groups	Bilateral Projects
1. Policy, Strategy, Direction	X	X	X	L	X	—	—	X	X
2. Partnerships	X	X	X	X	X	L	X	X	X
3. Institutional Arrangements	X	X	X	X	—	L	X	X	X
4. Program Methodology	X	X	X	X	X	L	—	X	—
5. Implementation Capacity	N,D	—	X	X	X	L	—	—	—
6. Availability of Products and Tools	—	—	X	X	X	L	—	—	—
7. Financing	X	—	X	—	—	L	—	—	—
8. Cost-Effective Implementation	N,D	—	X	—	—	—	—	—	—
9. Monitoring	N,D,L	—	X	—	X	L	—	—	—

[N=National, R=Regional, D=District, L=Local]

Source: Cogswell, Lynne and Lene Jensen. 2008. Guidelines for Assessing the Enabling Environment Conditions for Large Scale, Effective, and Sustainable Handwashing with Soap Behavior Change Programming. Guidance Document, January. World Bank (Water and Sanitation Program).

# Annex C: Summary of Major Findings and Recommendations by Dimension

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Policy, Strategy, and Direction</b></p> <ul style="list-style-type: none"> <li>• There was generally strong, positive political will towards handwashing with soap promotion and child health among organizations and government officials, although some government officials found it hard to follow up because of so many other priorities.</li> <li>• National partners manifested their support through a national handwashing with soap committee.</li> <li>• The current national administration was very supportive.</li> <li>• Several politically prominent national initiatives (re: malnutrition, healthy school, water and sanitation) offered natural links with handwashing with soap.</li> <li>• MOH support had varied over time and the MOE was a new partner.</li> <li>• Key partners feel that they understood the approach used in the first phase and feel ownership, but they did not yet have a good understanding of the expanded project (still being designed).</li> </ul>	<ul style="list-style-type: none"> <li>• Develop an <i>advocacy strategy</i> with arguments and materials for different levels of decision-makers that describes the importance of handwashing with soap for achieving many social and health goals.</li> <li>• Hold individual and group meetings with the key partners to clarify their expectations and the project's intentions and constraints. In preparation for these meetings, prepare and disseminate a brief description on the new project.</li> <li>• Carry out a similar process to introduce the new project at the regional, provincial, and district levels, once the intervention districts have been selected.</li> <li>• Develop an <i>exit strategy</i> that addresses both sustainability and expansion issues.</li> </ul>	<ul style="list-style-type: none"> <li>• Informants described a tremendous political will in Peru to promote handwashing with soap, often based on its ability to contribute to the national priority of reducing child malnutrition.</li> <li>• Handwashing with soap promotion is firmly entrenched in policies and programs of ministries of health, education, and women, and above the ministerial level in the national CRECER (child nutrition) strategy.</li> <li>• Handwashing with soap promotion also has strong support in the regions, but is stronger in some regions than others.</li> <li>• Project staff have clear vision for sustainability. They consider this not as an independent project but rather HWI as a support mechanism that advocates for handwashing with soap as a program priority and for the project methodology to become owned by multiple programs and organizations at all levels.</li> </ul>	<ul style="list-style-type: none"> <li>• Request that each regional HWI coordinator or facilitating agency propose a plan for strengthening the enabling environment for handwashing with soap in 2011, and then discuss the proposed actions with the principal local partners and the WSP Hygiene and Sanitation Alliance. (This new project will be active in 10 regions — Ancash, Arequipa, Cajamarca, Cuzco, La Libertad, Lambayeque, Piura, San Martin, Tumbes, and Ucayali). These plans are likely to include: providing information to the new regional and district authorities on handwashing with soap methodology, experiences, and results; advocating with them to follow up on resolutions and other commitments to promote handwashing with soap; sharing impact evaluation results; and providing technical assistance on designing investment projects for future budget allocations.</li> </ul>

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Policy, Strategy, and Direction, continued</b></p>	<ul style="list-style-type: none"> <li>Many officials remembered the role of handwashing with soap during the cholera epidemic and were therefore well disposed to promote handwashing with soap.</li> </ul>		
			<p>Maintain contact with the lead organization or coalition in each region that can carry out key functions of advocacy, alliance-building, and training; offer suggestions as needed, learn about and share achievements and lessons learned.</p> <ul style="list-style-type: none"> <li>Prepare and implement a national event, or several regional events, at which different-level actors share their experiences of handwashing with soap promotion, including, for example, the Ancash experience with the Juntos program (educational sessions are part of the conditions for cash payments). Also, share the findings of the cost-effectiveness study and the endline survey regional and municipal levels through various channels.</li> <li>Advocate for continued World Bank support for handwashing with soap in Peru by developing and giving a presentation for World Bank staff about HWI experiences and results, and the potential for handwashing with soap promotion through other World Bank programs, particularly the Hygiene and Sanitation Alliance.</li> </ul>

*continued*

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
Partnerships			
<ul style="list-style-type: none"> <li>The extensive, diverse partnerships were a strong and innovative aspect of the HWI.</li> <li>Some friction was reported between public and private partners.</li> <li>Keeping key government ministries (health, education, housing) involved was challenging at times because of political changes and overburdened officials.</li> <li>Different partners' roles varied from being fully engaged as a member of the coordinating committee, to providing short-term messages on HW, to co-financing and/or managing local activities.</li> </ul>	<ul style="list-style-type: none"> <li>Invite the MOE's environmental health program and the Ministry of Housing's PRONASAR (small water systems) program to join the Initiative's Executive Committee, as well as a strong private sector partner.</li> <li>Assess the interest of potential new partners in joining the Initiative (e.g., UNICEF, PAHO, Save the Children, etc.).</li> <li>Focus on providing guidelines, tools and strategic technical assistance to local partnerships.</li> <li>At the regional, provincial, and district levels, identify, encourage, and support existing public/private coordination groups to take responsibility for the HW activities, such as the <i>mesa de concertación</i> or regional multi-sectoral committee.</li> </ul>	<ul style="list-style-type: none"> <li>The HWI has done a superb job of engaging public and private partners at national and local levels.</li> <li>At the national level MIMDES has become a key partner in the past two years.</li> <li>Private participation has continued to grow, encompassing more than 20 private firms at national and regional levels. Public and private institutions are jointly funding and implementing handwashing with soap activities in various regions (e.g., Tumbes, Piura, Cajamarca, Lambayeque, La Libertad, Ica, and Arequipa).</li> <li>The HWI no longer prioritizes formal coordination among national partners but does encourage formal and official commitments and the adoption of the handwashing with soap priority by regional coalitions.</li> <li>Institutional commitment now appears to be more solid and not to be as dependent on particular officials.</li> </ul>	<ul style="list-style-type: none"> <li>If feasible, continue to publish and widely disseminate the HWI bulletin, with a focus on creative and effective contributions by partners at regional and district level that could later be adopted by the WSP Hygiene and Sanitation Alliance.</li> <li>Encourage regional, provincial, and district coalitions addressing handwashing with soap to publicize their own work and results, including the contributions of various partners, through local radio, newspapers, and public events.</li> </ul>



2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<b>Institutional Arrangements</b>			
<ul style="list-style-type: none"> <li>• Key national partners coordinated their support through a national HW committee.</li> <li>• Major partners tended to promote handwashing with soap in their own organizations and programs.</li> <li>• The HWI tended to encourage formal agreements with public partners but not with private-sector ones.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to pursue formal institutional arrangements supporting promotion of handwashing with soap at the national level and local levels.</li> <li>• Seek more formal agreements with private sector partners also, to clarify roles and expectations and support sustainability.</li> <li>• Periodically assess the implementation of these agreements.</li> <li>• To build and maintain a positive program image, to motivate partners and supporters, and to share useful technical and strategic information, create a strong <i>project communication program</i> directed at both collaborating organizations and the outside world (political leaders, donors, the public). At a minimum it should include an electronic newsletter, information on the WSP/Peru and MOH web sites (with links to partners' sites), and specific efforts to obtain radio and press coverage of accomplishments and activities.</li> </ul>	<ul style="list-style-type: none"> <li>• National partners coordinate promotion of handwashing with soap through various joint national initiatives and programs, no longer through a national committee.</li> <li>• There is much stronger inter-ministerial collaboration in 2010 than in 2007, primarily as a result of the government's policy to encourage an intersectoral approach in its programs.</li> <li>• HWI is pleased to formalize commitments if requested by the collaborating organization. The HWI has formal agreements with the MOH and MOE and works well but informally with MIMDES.</li> <li>• Many private-sector collaborators have no formal agreements with the HWI or regional groups.</li> </ul>	<ul style="list-style-type: none"> <li>• Through their social-development projects in Peru, WSP and the World Bank should advocate for regional and local governments to promote handwashing with soap, using the HWI's methodology and tools.</li> </ul>

continued

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Program Methodology</b></p> <ul style="list-style-type: none"> <li>Opinions on the methodology were generally quite positive.</li> <li>Some respondents felt a need to focus more on interpersonal communication, while media representatives felt that mass media could play a stronger role.</li> <li>Some persons noted that the approach seemed to work particularly well among children.</li> <li>Some respondents mentioned that the initiative (or its local partners) focused too much on short-term promotional campaigns, without follow-up in some places, and with insufficient concern for institutionalization.</li> </ul>	<ul style="list-style-type: none"> <li>Focus on supporting local implementation.</li> <li>Allow local partners flexibility in implementing the methodology.</li> <li>Urge local partners to avoid a focus on short campaigns with no clear follow-up.</li> <li>Develop a standard methodology and instruments for assessment visits at the provincial and district levels to identify existing activities in which HW promotion could be added or strengthened, the strongest partner organizations, and potential handwashing with soap champions.</li> <li>Emphasize interpersonal communication; use mass media when possible, emphasizing local radio in local languages and interactive formats (call-in shows, radio listening groups, etc.). Ensure good coordination between mass media promotion and on-the-ground activities.</li> <li>If possible, develop separate communication materials for the coast, mountains, and jungle areas of Peru and make other needed adaptations for local conditions.</li> </ul>	<ul style="list-style-type: none"> <li>HWI developed a behavior change communication (BCC) methodology based on formative research and testing (by a contracted NGO, PRISMA), in 2005 and later revised it in 2007.</li> <li>Virtually all persons interviewed praised the methodology as more effective and action-oriented than and different from most communication in Peru.</li> <li>Very importantly, it is not just a communication strategy. It includes a training methodology, and it facilitates the availability of handwashing stations (SJs) that (1) remind people to wash hands with soap; (2) make it easy to wash; and (3) save soap, water, and money.</li> <li>The methodology has been officially adapted by ministries of health, education, and women's programs.</li> </ul>	<ul style="list-style-type: none"> <li>Advocate and facilitate the BCC approach of the HWI in all of WSP's social development programs, in particular the Hygiene and Sanitation Alliance.</li> <li>Continue collaborating with MIM-DES (PRONAA, Wawa Wasi, FONCODES) in finalizing the process of adoption of HWI methodology for their programs, then prepare the print-ready adaptations of the HWI materials.</li> <li>Continue to work with the ministries of education, health, and the environment to finalize the process of adoption of HW methodology, then, time-permitting, prepare print-ready joint guidelines for the Healthy Schools program.</li> </ul>

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
Program Methodology, continued	<ul style="list-style-type: none"> <li>For both effectiveness and sustainability, encourage and support HW promotion within existing programs such as health promotion by the MOH, Escuelas Saludables, Viviendas Saludables, Municipios Saludables, PRONASAR (new water and sanitation systems), PRONOEIS (preschool), initiatives directed at malnutrition, JAAS (water and sanitation boards), NGOs doing health promotion, etc.</li> <li>The contracted “implementing organizations” should collaborate to prepare an <i>operational guide for the district level</i>.</li> <li>Take advantage of children’s enthusiasm by suggesting activities for students to promote handwashing with soap at home and in their communities. Support change agents to work with individual mothers on solving problems such as (perceptions of) limited water, soap, or time.</li> </ul>		

continued

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Implementation Capacity</b></p> <ul style="list-style-type: none"> <li>In general effective skills and systems needed to implement the program existed at the national level but were weaker in some regions and districts.</li> </ul>	<ul style="list-style-type: none"> <li>Develop implementation guidelines and tools to support implementation at the provincial and district levels.</li> <li>Work with local partners to fund transportation and food costs so local promoters can make more home visits.</li> <li>Where the local assessments show particular weaknesses, the responsible implementing agency should provide training, mentoring and/or exchange visits with other districts, and technical assistance.</li> </ul>	<ul style="list-style-type: none"> <li>Through advocacy, coordination, training of trainers, and provision of communication and program-support materials, the HWI has contributed to increasing implementation capacity at region and district levels.</li> <li>HWI has focused strongly on training of trainers, mostly in the health and education units of regional governments. The facilitators in turn have trained some 22,000 persons to promote handwashing with soap.</li> <li>Major challenges to ongoing capacity building include the large annual turnover of teachers and as well as turnover in the health sector.</li> <li>To become more effective in their newly decentralized environment, regional and district governments require capacity building in basic functions such as conducting assessments, planning, writing proposals, project management, monitoring and evaluation, and reporting.</li> </ul>	<ul style="list-style-type: none"> <li>Through the Hygiene and Sanitation Alliance, provide technical assistance to public-sector partners in planning, implementing, monitoring, and evaluating multi-sector water, sanitation, and hygiene investments.</li> <li>Engage with new incoming authorities to explain the benefits of handwashing with soap promotion, the methodology, and implementation requirements; and urge them to continue integrating hygiene BCC into their priority health, environmental, education, W&amp;S programs.</li> <li>Advocate with partners to support capacity-building in regional and municipal governments in planning, project preparation, proposal-writing, and other basic skill areas.</li> </ul>

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Availability of Products and Tools</b></p> <ul style="list-style-type: none"> <li>• There was little concern with the availability of soap, although access to water was difficult in some communities.</li> <li>• Respondents considered the provision of plastic washing bowls and pitchers to have been useful in the first phase.</li> </ul>	<ul style="list-style-type: none"> <li>• Collect usable soap from hotels in big cities and distribute the soap in the poorest communities; promote tippy taps and similar water-conserving devices where needed; promote hand-drying on clean cloths or towels in dusty regions (where air drying would not be recommended); and promote use of ash, sand, or quinua oil where soap is not available.</li> <li>• Prepare local change agents to counsel families that lack essential products and, where needed, local partners should address shortages.</li> <li>• Partners at the district level should consider purchasing and providing bowls, pitchers, and even soap to the poorest families.</li> </ul>	<ul style="list-style-type: none"> <li>• Soap is available to almost all families; some families and communities lack convenient access to water, although with a tippy tap or Super Jaboncín (SJ) station, handwashing requires little.</li> <li>• About 80,000 SJs have been distributed in Peru (and 10,000 in Guatemala). To increase production and distribution, partners need to arrange funding for the approximately US\$0.70/unit cost. A small number of families have made homemade versions.</li> <li>• Some regional informants said that they lack enough SJs to expand into new districts.</li> </ul>	<ul style="list-style-type: none"> <li>• In the interest of sustainability, encourage local partners (public and private) to plan for and finance additional copies of materials. Private companies may well be willing to assume this cost, particularly if their logo can be placed on the material. A company that purchases SJs, for example, could put a sticker with its logo on each one, which would be seen by students and families numerous times teach day. Private companies also have tax write-offs for such expenditures.</li> <li>• Encourage homemade SJs, as have been made in one area of Cajamarca. Perhaps handwashing stations could be made from <i>toro reed</i> in the Lake Titicaca area.</li> </ul>
<p><b>Financing</b></p>	<ul style="list-style-type: none"> <li>• Financing was mainly in the form of funding by international donors and in-kind contributions by private companies to reach their staff and customers through existing channels.</li> <li>• The assessment team believed that some external funding would be needed after 2010, particularly to support advocacy.</li> </ul>	<ul style="list-style-type: none"> <li>• The focus has shifted from donor funding to funding by national public and private organizations and programs.</li> <li>• Although lack of funding is clearly perceived as a barrier to expansion in some regions and districts, well-managed regional and district governments and partnerships that prioritize reducing malnutrition or promoting handwashing with soap can access various sources of funding.</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to advocate with the MEF to include a line item in the national budget to build the capacity of regional and district governments in planning, implementing, and monitoring, and behavior-change methodologies.</li> <li>• Explore with the MEF and other partners how best to offer training and other support in institutional strengthening (planning, budgeting, HR management, etc.) to regional and district governments.</li> </ul>

*continued*

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p>Financing, continued</p>	<ul style="list-style-type: none"> <li>Continue to seek donated air time and publicly acknowledge the donation of free air time by private media companies.</li> </ul>	<ul style="list-style-type: none"> <li>Various national government financing schemes are available to those regions, provinces and districts that have the skills to tap into them.</li> <li>Regions that have mining and other large companies can establish projects that can attract private funding.</li> </ul>	<ul style="list-style-type: none"> <li>Work with allies and new partners to strengthen regional governments' capacity in social project planning, budgeting management, and M&amp;E (see capacity building). In addition to training and mentoring, governments could be offered such tools as sample proposals, guidelines for social project development; and planning, reporting, and M&amp;E formats.</li> <li>Continue to facilitate PIPs that support handwashing with soap</li> <li>Advocate with regional governments to include funding and activities for promotion of handwashing with soap in annual work plans and in multi-year regional development plans.</li> </ul>
<p>Cost-Effective Implementation</p> <ul style="list-style-type: none"> <li>WSP and its partners had collected extensive cost information but not yet calculated cost-effectiveness.</li> <li>Capabilities to collect and analyze needed data existed at the national level, but technical support was seen as necessary at sub-national levels.</li> </ul>	<ul style="list-style-type: none"> <li>Identify needs and contract individuals or companies that can meet them.</li> </ul>	<ul style="list-style-type: none"> <li>This issue is not on most respondents' radar.</li> <li>Many informants have a strong belief—sometimes based on local data—that handwashing with soap is a “low-cost, high-impact” intervention, in the words of one respondent. People cite local data on child growth, child malnutrition, diarrhea and pneumonia cases, and school absenteeism.</li> <li>Because handwashing with soap promotion in Peru is integrated into so many different programs, calculating cost-effectiveness may be difficult.</li> </ul>	<ul style="list-style-type: none"> <li>At the time of the WSP cost-effectiveness study, discuss with the MEF the importance of cost-effectiveness data for its funding of handwashing with soap promotion as well as other programs. If such data will continue to be needed, organize an orientation/training for key partner staff.</li> </ul>

2007 Findings	2007 Recommendations	2010 Findings	2010 Recommendations
<p><b>Monitoring and Evaluation</b></p> <ul style="list-style-type: none"> <li>• Respondents generally agreed that M&amp;E was important, but they were not aware of the results of the HWI's monitoring.</li> </ul>	<ul style="list-style-type: none"> <li>• Assign M&amp;E responsibility to persons outside of WSP/HWI staff, so this work does not interfere with their ability to manage implementation.</li> <li>• Maintain partner and public motivation through the timely dissemination of achievements and results.</li> </ul>	<ul style="list-style-type: none"> <li>• The HWI has done a much better job of disseminating information (e.g., monitoring progress, lessons learned, innovations) through a web site, newsletters, and reports. Still, some respondent do not recall seeing documents and information that they should have received.</li> <li>• Handwashing with soap is an indicator in the information systems of the many government programs in which it is included.</li> <li>• HWI's own M&amp;E system for tracking inputs, activities, outputs, and impact on practices and health and social indicators seems to be working well.</li> <li>• Various respondents complained about the control districts. They cannot understand why the program would deny such an effective intervention to districts that request it.</li> <li>• HWI has provided some capacity building in M&amp;E to local partners, but there is demand for more.</li> </ul>	<ul style="list-style-type: none"> <li>• At the time of the WSP cost-effectiveness study, discuss with the MEF the importance of cost-effectiveness data for its funding of handwashing with soap promotion as well as other programs. If such data will continue to be needed, organize an orientation/training for key partner staff.</li> </ul>

# Annex D: Commitments and Results in Peru's Decentralized System

Region	Policies	Participating Schools	Trained Teachers/ Health Staff/Vols.	Mothers/ Children Reached	Partners
Tumbes	Letter of commitment of HWI and districts agreeing to work together	22	117/29	166	BPZ and regional government strategy to improve child and adolescent health
Lima	Regional directive on training of teachers in handwashing with soap promotion	158	902/225	4,009	Partners include regional government, Colgate Palmolive, Pro Citrus—Duna Corp., Santiago de Surco District government
Tacna	Office of Environmental Education resolution implementing handwashing with soap promotion in schools	49	231/58	946	Partners include CESEM
Piura	Regional ordinance creating regional council on poverty and infant malnutrition	20	762/191	10,234	Regional government, DRE, Piura District government, JUNTOS, DALE Foundation, Sunshine Exports, Caña Brava
Ica	Regional ordinance institutionalizing handwashing with soap in CRECER and educational plans	70	786/197	38,628	The methodology is included in the regional education policy
Cajamarca	Regional education resolution to include handwashing with soap in several school programs	89	2,118/546	21,697	CORESAN (regional food security and nutrition committee) units numerous partners
Lambayeque	Regional ordinance incorporates CRECER in regional development plans	436	871/204	28,815	Work is led by a very active regional education unit (UGEL)
Arequipa	Regional agreement and resolution, regional govt and university agree to collaborate to combat respiratory diseases	338	806/201	6,938	Public/private alliance has generated US\$300,000 funding to promote handwashing with soap
Huánaco	—	105	351/88	3,785	—
La Libertad	—	140	281/70	1,451	—



Region	Policies	Participating Schools	Trained Teachers/ Health Staff/Vols.	Mothers/ Children Reached	Partners
Moquegua	—	56	254/64	1,150	—
Junín	Plan of Chanchamayo Province to develop a regional directive on handwashing with soap	8	640/160	3,720	Chanchamayo Province government
Áncash	—	34	497/124	4,302	—
Huancavelica	Sub-regional education resolution incorporates handwashing with soap in school programs, names pilot schools, and designates focal points	56	338/85	8,745	DRE, regional government, CARE
Apurímac	Regional environmental education office includes handwashing with soap in Safe, Clean, Healthy schools program	44	422/105	9,609	Regional government, CARE
Puno	Regional education resolution makes handwashing with soap an official program in the regional education unit	21	414/104	3,191	Regional education unit, CESEM
Ayacucho	Regional environmental education office includes handwashing with soap in Safe, Clean, Healthy Schools program	72	323/81	6,500	Regional government, CARE
Cusco	Municipal ordinance creates inter-institutional committee on handwashing with soap in Anta Province	116	862/215	17,931	Anta Province has a provincial policy on environmental management
Amazonas	Regional ordinance to implement CRECER, another declares handwashing with soap a regional priority	12	234/59	1,306	Regional government
San Martín	Executive resolution declares institutionalization of handwashing with soap a priority	0	80/20	1,000	Regional government

Source: Iniciativa Lavado de Manos. Procesos y aprendizajes de la Iniciativa Lavado de Manos al 2010.



the fact that the  $\mathbb{R}^n$ -valued function  $\mathbf{f}$  is continuous at  $\mathbf{a}$  if and only if each of its components  $f_i$  is continuous at  $\mathbf{a}$ . This is a useful result because it allows us to reduce the study of the continuity of a vector-valued function to the study of the continuity of its components.

Another important result is the Intermediate Value Theorem for vector-valued functions. It states that if  $\mathbf{f}$  is a continuous function from a closed interval  $[a, b]$  to  $\mathbb{R}^n$ , then the image of  $\mathbf{f}$  is a connected set. This means that the image of  $\mathbf{f}$  is a single piece, and it cannot be split into two disjoint parts.

Finally, we mention the concept of a path in  $\mathbb{R}^n$ . A path is a continuous function  $\mathbf{f}$  from a closed interval  $[a, b]$  to  $\mathbb{R}^n$ . The image of  $\mathbf{f}$  is called a path in  $\mathbb{R}^n$ . Paths are important in many areas of mathematics, including physics and geometry.

In conclusion, the study of vector-valued functions is a rich and interesting area of mathematics. It has many important results and applications. We have seen how to define a vector-valued function, how to study its continuity, and how to study its image. We have also seen how to study paths in  $\mathbb{R}^n$ .

There are many other interesting results and applications of vector-valued functions. We encourage you to explore these further. The study of vector-valued functions is a beautiful and powerful tool for understanding the world around us.

Thank you for reading this article. We hope you found it interesting and informative. If you have any questions or comments, please feel free to contact us. We would be happy to hear from you.

Best regards,  
The Authors

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