

Global Scaling Up Handwashing Project

Senegal: A Handwashing Behavior Change Journey

September 2010

INTRODUCTION

In 2003, the Public-Private Partnership for Handwashing with Soap (PPPHW) was created in Senegal with technical assistance from the Water and Sanitation Program (WSP). Housed initially within the Office Nationale de L'Assainissement, the government unit overseeing sanitation within the Ministry of Health, the PPPHW's main objective was to catalyze and coordinate multi-sectoral involvement in the promotion of handwashing with soap.¹

A first phase of activities, initiated in 2004, culminated in a 10-month communications campaign launched in 2007. Anchored around the theme, "Water Rinses but Soap Cleans," the campaign focused on conveying "first generation messages" to improve knowledge around the critical times for washing hands and the importance of using soap. Campaign activities included nationally aired television and radio spots; entertainment-education events in market places and schools; and small-group discussions conducted with women's associations (called *m'botayes*) and in the waiting rooms of local health centers.²

A second phase of activities was initiated in early 2008 through WSP's Global Scaling Up Handwashing Project. This project is focused on learning how to apply innovative promotional approaches to behavior change to generate widespread and sustained improvements in handwashing with soap at scale among women of reproductive age (ages 15–49) and primary school-aged children (ages 5–9). Local and national governments are implementing the project in Peru, Senegal, Tanzania, and Vietnam with technical support from WSP.³

During this second phase, activities in Senegal were expanded to eight of the country's then 11 regions, with the objective of reaching over 1.5 million mothers with children under the age of five through an integrated behavior change approach. The final objective is to improve the handwashing with soap practices of over 500,000 mothers and children. In parallel, efforts were directed at strengthening the enabling environment to ensure that activities and outcomes would be sustained after the project end.

This Learning Note serves to document the behavior change component of the project

Key findings

- The project's focus on emergent learning and emphasis on performance monitoring allowed for critical mid-term adjustments, correcting the course of the behavior change journey to become more effective in reaching and communicating to families.
- Men are a critical part of the behavior change journey. Initially the behavior change interventions focused on women, but learnings emerged from the field indicating that the project needed to better leverage the roles men play in their families (provider, protector, and role model) to help promote handwashing with soap.
- Having a tangible product supports behavior change intentions. A sample handwashing station helps make the solution more tangible and concrete, and facilitates women's intention and planning to ensure handwashing with soap occurs in the household.
- Just-in-time coaching and a performance monitoring system are critical in transforming community outreach workers (the relays) into valuable community resources—beyond conveying information to facilitating mothers' problem-solving abilities and fortifying their intentions to wash hands with soap.
- A simple game can be a powerful tool for engaging men, women, and children. A handwashing-themed board game designed by an advertising agency provides a way for the community-based promoter to "break the ice" and introduce the main messages to everyone in the household in an engaging and fun way.

¹ For more information on the PPPHW, see www.globalhandwashing.org.

² Small group discussions were conducted in three regions, Thiès, Diourbel, and Dakar, and in one department, Velingara.

³ For more information on the Global Scaling Up Handwashing Project, see www.wsp.org/scalinguphandwashing.

in Senegal, including key strategies, results, challenges, and lessons learned.

PROBLEM STATEMENT

Diarrhea prevalence among children under the age of three in Senegal was last estimated at 22 percent and the prevalence of acute respiratory infections within the same age group at 13 percent.⁴ A study conducted by the PPPHW⁵ indicated that, based on observations, handwashing rates with soap were relatively low:

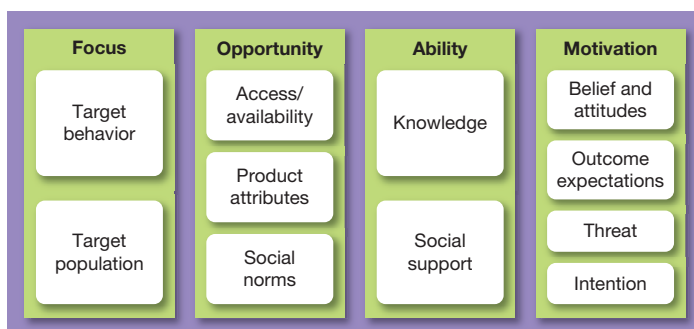
- 23 percent after going to toilet
- 18 percent after cleaning a child
- 18 percent before handling food

Although 95 percent of households had some sort of soap available for bathing or laundry, previous studies pointed to issues around its availability and access for handwashing purposes such as:

- Soap is usually far from the toilet or source of water⁶
- Soap is controlled by women⁷ and/or often in the hands of someone who doesn't want to share it⁸
- Most households do not have a specific place for handwashing.⁹

Early in the second phase, the project team undertook a large quantitative “doer/non-doer” study among 2,040 mothers to identify which behavioral determinants were correlated with handwashing with soap. The project had developed a simple behavior change framework called FOAM (Figure 1)¹⁰ to analyze

Figure 1: FOAM Behavior Change Framework



the factors or determinants that influence handwashing with soap. Previous studies undertaken in Senegal focused primarily on knowledge and motivation and did not examine the full spectrum of determinants identified in FOAM.

The 2008 “doer/non-doer” study reported the following:

- Asked when it is important to wash one’s hands, unaided responses were “after going to toilet” (78 percent), “before eating” (32 percent), “before preparing food” (30 percent), and “before feeding child” (18 percent). Assisted recall was considerably higher: the percentage of respondents declaring they “always” washed their hands was 95 percent after going to toilet, 93 percent after touching child’s bottom, 86 percent before eating, 67 percent before preparing food, and 62 percent before feeding child.
- The importance of soap—the focus of the first phase—seemed to be well understood: 34 percent strongly disagreed and 52 percent disagreed with a statement that “water alone is enough.”
- The link between soap and germ removal was also understood: close to 80 percent agreed or strongly agreed that to remove dirt and invisible germs you need to wash hands with soap. Almost all (98 percent) agreed or strongly agreed that washing hands with soap protects the health of your children.

The study further revealed that access/availability was statistically correlated with handwashing. In particular, having a designated place for handwashing with soap in the home, the ability to buy soap without having to ask someone else, and the ability to find soap each time it was needed were salient characteristics found among mothers classified as handwashers.

Based on the findings of the “doer/non-doer” study, the project team decided there was no need to continue emphasizing either the importance of soap for handwashing or the link between handwashing with soap and disease prevention as these knowledge areas seemed well established. Knowledge around excreta-related critical times (after going to the toilet and cleaning baby) was also relatively sound, but knowledge around the critical importance of handwashing with soap at food-related times (before eating and preparing food) required some improvement.

⁴ Ndiaye, Salif, and Mohamed Ayad. 2006. Enquête Démographique et de Santé au Sénégal 2005. Calverton, Maryland: Centre de Recherche pour le Développement Humain [Sénégal] and ORC Macro.

⁵ Auger, B. 2004. Public-Private Partnership for Handwashing: Senegal: Report on Behavioural Trials. London: Hygiene Center, London School of Hygiene and Tropical Medicine.

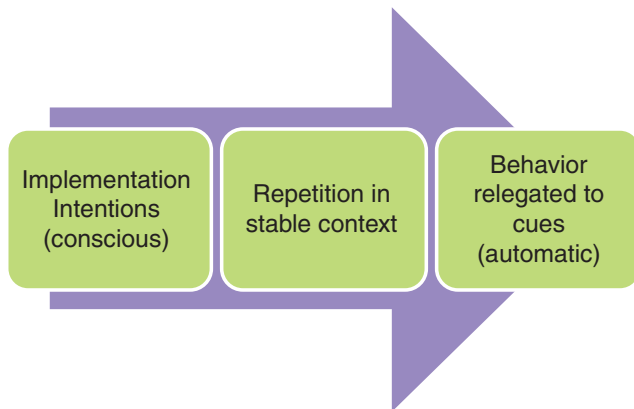
⁶ Ibid.

⁷ Kane, M. 2009. Rapport étude lavage des mains au savon Sénégal. Unpublished study, Water and Sanitation Program, World Bank.

⁸ Auger 2004.

⁹ Kane 2009.

¹⁰ This framework is based on the PERForM framework of Population Services International. For additional information, see Introducing FOAM: A Framework to Analyze Handwashing Behaviors to Design Effective Handwashing Programs, available at www.wsp.org/scalinguphandwashing.

Figure 2: Process of Habit Formation

The process of habit formation starts with a conscious intention (“I must wash my hands after going to the toilet”) and is fortified through repetition in a stable context (“I wash my hands at this handwashing station”). As the behavior is practiced repeatedly it becomes more automatic and can be triggered by an environmental cue or reminder (“seeing the handwashing station when I exit the latrine reminds me to wash my hands”).

While the “doer/non-doer” data was being analyzed, the project team initiated a literature review on the sustainability of behavior. This review identified a considerable body of research around habit formation. In particular, Verplanken and Wood suggest that habit formation begins with a conscious period of implementation intentions,¹¹ similar to the “intention” determinant in the FOAM framework. Because handwashing requires easy access to soap and water when and where needed, some level of planning and intention is required. Once the behavior is repeatedly practiced in a stable context automaticity can set in (Figure 2).

The literature review further highlighted that:

- Interventions should make people aware of the resources they have to change behavior (skills, or strategies such as planning).¹²
- Planning is critical to one’s progress from behavioral intention to actual performance of the behavior. Success scenarios, preparatory strategies, and mental simulation encourage performance of actual behavior.

- Mental simulation involves thinking through the what, when, where, and how of the intended behavior, making it harder to forget.¹³ These plans of action are also referred to as “implementation intentions.”

Based on the results of the “doer/non-doer” study and findings from the literature review on the sustainability of behavior, the project team decided to evolve to a “second generation” communications program focused on *awakening, fortifying, and supporting* intentions to wash hands with soap. The “second generation” communications program centered on improving availability of soap and water in the household when and where needed, identified in the “doer/non-doer” study as a key behavioral determinant of handwashing with soap. In addition to improving handwashing with soap rates at four critical times (before eating and preparing food, after going to the toilet and cleaning a baby), the team identified creating a *designated* place for handwashing with soap as a behavioral objective.

ACTION

Communications Strategy: From First to Second Generation Messages

The three main communication channels from the first phase have been retained to reach mothers for the following reasons:

Mass media. Billboards, television, and radio are useful to convey the overarching concept of a campaign and provide an umbrella slogan or visuals for all other channels. Senegal enjoys a good coverage of mid-sized billboards even in peri-urban areas. For habitual behaviors such as handwashing, TV and radio spots also provide reminders or cues to action, particularly if aired during times when mothers are preparing meals. Television and radio broadcasting in Senegal have relatively high coverage. Ownership of radio and TV is respectively 87.2 percent and 40.1 percent; however, access is assumed to be higher due to sharing among households, particularly in rural areas.¹⁴ Listenership among women is particularly large during broadcast of South American and Indian soap operas.

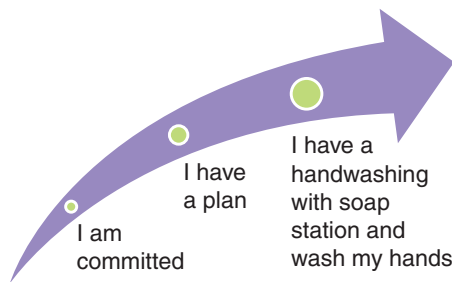
Direct Consumer Contact (DCC). Used by commercial firms in brand marketing efforts, DCC provides an opportunity to engage and interact with the audience through community events. In behavior change interventions, DCC uses an entertainment-education approach and invites local authorities to participate. In Senegal, market areas allow DCC to reach mothers while they are purchasing food staples and supplies for the day. By including

¹¹ Verplanken, B., and W. Wood. 2006. Interventions to Break and Create Consumer Habits. *Journal of Public Policy and Marketing*, 25(1):90–103.

¹² Schwarzer, R., B. Schüz, J. P. Ziegelmann, S. Lippke, A. Luszczynska, U. Scholz. 2007. Adoption and maintenance of four health behaviors: Theory-guided longitudinal studies on dental flossing, seat belt use, dietary behavior, and physical activity. *Annals of Behavioral Medicine*, 33(2):156–166.

¹³ Ibid.

¹⁴ Ndiaye 2006.

Figure 3: Fortifying Intentions to Handwash with Soap

This figure represents the process through which intentions to wash hands with soap are fortified through the intervention. Women commit themselves and formulate a plan to “make handwashing happen” at home. The intended end-result is to have and use a handwashing station.

testimonials or handwashing demonstrations by local leaders, DCC also allows the program to mirror emerging social norms.

Interpersonal Communication (IPC). Conducted at the household level, IPC enables mothers to be reached in a real-life setting and allows behavior change interventions to influence determinants such as beliefs and skills, for which mass media is less suited.

Communications Concept: Fortifying Intentions

The communications intervention’s main concept of fortifying intentions to handwash with soap is illustrated in Figure 3. The mass media and DCC efforts focus on securing a commitment from mothers to get their family to wash their hands with soap, and IPC follow-up helps mothers think through a plan for making this happen.

A creative brief for the contracted advertising agency called for a warm, engaging, and positive communications concept (i.e., without an emphasis on disease or threat) that could be adapted across all channels. After several iterations and pre-testing with the target audience, the final concept for print communications such as billboards featured a mother declaring, “I commit myself to get my family to wash their hands with soap!” A “first generation” billboard is shown in Figure 4.

DCC events organized in market areas and open spaces such as soccer fields reach 500 to 2,000 people at a time (attendance tends to be higher in rural areas than in peri-urban ones). Delivered by specially trained *animateurs*, the program includes, among

other things, presentations of the television spot, handwashing with soap demonstrations, and a question and answer session to engage audience members and refresh basic knowledge. The events also include testimonials from women and government authorities to reinforce *commitment* and *intentions* from mothers through the emerging local norms.

IPC focuses on building skills and self-confidence among mothers to make soap and water available when needed and to create a designated place for handwashing with soap. Research suggests that generating discussion around how, when, and where mothers handwash with soap can contribute to translating *intention* and *commitment* (awakened and fortified through the mass media) into *action*.¹⁵ Group discussion provides a forum for problem-solving on issues such as how to make soap easily accessible, how to prevent waste or theft, and how to convince another household member to buy soap.

A consultant was recruited to develop a curriculum and training materials to help mothers plan the steps they could take to make soap and water available for handwashing in their home and to set up a dedicated handwashing station. IPC is integrated with mass media through the distribution of campaign materials such as stickers. In addition, at the conclusion of an IPC session, mothers are asked to repeat the spot’s slogan to pledge their commitment. In a limited number of cases, a plastic handwashing station has been left behind as a promotional item.

Figure 4: “First Generation” Billboard

A billboard developed as part of the project’s mass media campaign targeted women’s commitment to the health of their family: “I commit myself to get my family to wash their hands with soap!”

¹⁵ Schwarzer, R., B. Schüz, J. P. Ziegelmann, S. Lippke, A. Luszczynska, U. Scholz. 2007. Adoption and maintenance of four health behaviors: Theory-guided longitudinal studies on dental flossing, seat belt use, dietary behavior, and physical activity. *Annals of Behavioral Medicine*, 33(2):156–166.

Implementation Arrangements: From Grass-Roots Organizations to Commercial Firms

Mass media. To implement the mass media component, the project completed a competitive bid process to procure two separate firms: one to design the communications concept and produce the materials, another to develop the media plan and purchase radio, television, and billboard space. This same firm also monitors the airwaves to ensure the media plan is followed by the broadcast stations and oversees the billboards to ensure they are in prime condition (e.g., not knocked down during a storm). A first wave of mass media ran from the end of June to December 2009 and included 92 television and 1,496 radio spots. A second wave of mass media, now underway, will conclude in October 2010.

DCC. Two firms were procured and contracted to implement DCC in northern and southern regions. The firms conducted events more or less simultaneously, totaling 161 events by December 2009. A second wave of DCC, now underway, is also scheduled to end in October 2010.

IPC. In the first phase, IPC was conducted with small groups of women in public places by commercial firms. In the second phase, IPC is implemented at the household level, mostly by non-government organizations (NGOs). Few functions in Senegal have devolved to local government agencies and over the years, numerous NGOs have been established to implement behavior change projects, from family planning to maternal and child health. As in the case of DCC, the IPC intervention is implemented geographically. A non-profit organization (APAPS), two consulting firms, and two communications firms were procured. These organizations were required to contract, supervise, and monitor community-based organizations (CBOs) to deliver basic information and services through outreach workers called *community relays*. Using these implementation arrangements, the project has tapped into a rich network of relays with experience in health-related IPC.

Monitoring and Evaluation: An Integrated Performance Monitoring System for Purposive Learning and Program Improvements

Prior to setting up its monitoring and evaluation strategy, the project team reached consensus on how indicators from the project's results chain would be measured in Senegal and identified additional indicators that need to be tracked, particularly at input and output levels.

The project team set up a robust integrated performance monitoring system to follow both the quantity of activities (outputs) and the quality of the intervention. The main components include:

Management Information System (MIS). A MIS was designed to generate standard and customized reports, enabling the project team to track actual results against targets and to analyze the situation along a variety of dimensions (e.g., region, implementing agency, and others). A consultant was recruited to design the MIS to track outputs from the implementing agencies, including key indicators from country and global results frameworks. Firms recruited to manage DCC and IPC activities have been trained to use forms to capture standard information for each household visit and event conducted (such as number and profile of participants, materials used, challenges encountered, etc.) and these forms are collected and entered into the MIS on a regular basis.

Media monitoring. As discussed above, a firm was contracted to monitor airwaves to ensure that the media spots are broadcast according to plan by individual television and radio stations. In the event of discrepancies, the firm negotiates directly with the station to request adjustments.

Field supervision. Four individual consultants were hired and trained to supervise the IPC and DCC firms. Part of their mandate is to confirm that events and activities recorded in the MIS have taken place. The field supervisors also shadow community relays during household visits to provide real-time coaching, attend DCC events, and provide immediate feedback to the implementing teams.

Meetings with implementation agencies. The project team holds monthly meetings with the field supervisors and project managers of all implementation agencies. In this way, the agencies have become part of the behavior change journey. During these meetings, results from the MIS are shared and compared to targets. Challenges and issues are raised and cross-agency solutions are proposed. For example, during one meeting agencies reported that men had expressed dissatisfaction and frustration because they were not included in household visits. The project team organized a special learning event to probe the role of men.¹⁶ A second learning event with the agencies is planned to determine how to further improve skill building in the areas of handwashing station placement and soap management.

¹⁶ For more information, see *Involving Men in Handwashing Interventions in Senegal*, available at www.wsp.org/scalinguphandwashing.

Figure 5: “Second Generation” Revised Billboard

While the initial campaign targeted women, program activities and communications materials were later revised to include men. In the revised billboard, a couple proclaims, “We commit ourselves more than ever to get our family to wash their hands with soap!”

Specific studies. In response to emerging questions from the performance monitoring process, the project team initiated specific studies. In early 2010, a survey of approximately 400 households was conducted to determine the level of satisfaction with existing handwashing stations. Research findings indicated the need to conduct spot research among community relays. A follow-up learning event to share findings with implementing agencies is also planned.

In addition to monitoring activities or outputs, the project team will monitor outcomes as follows:

“Doer/non-doer” studies. A second “doer/non-doer” study will assess if determinants targeted through the intervention are moving in the “right” direction, particularly access and availability to soap and water. Positive changes in targeted determinants are assumed to mean that behavior change will follow.

Longitudinal surveys of impact evaluation. As part of the project’s impact evaluation on health, ten rounds of longitudinal surveys are planned. Though the main purpose of these surveys is to track diarrheal incidence, a limited number of questions will be added to evaluate the intervention itself. Exposure to various activities will be measured in mid-2010.

Baseline and endline surveys of impact evaluation. Both the baseline and endline surveys of the impact evaluation will measure handwashing behavior using the global measurements guidelines developed and other indicators such as diarrhea, nutritional status, and household productivity.¹⁷

Mid-Term Adjustments: Correcting the Course of the Journey Based on Emergent Learning

As stated earlier, the performance monitoring system flagged a frustration among men at not being involved in handwashing promotion. After the learning event in late 2009, a meeting was held with the advertising agency to iterate the mass media communications to strengthen men’s involvement. Both the visuals and the slogan were revised. The modified slogan proclaims, “We commit ourselves more than ever to get our family to wash their hands with soap!” (Figure 5). The IPC curriculum was also updated to further involve men during household visits and community relays were given refresher training.

KEY CHALLENGES AND LESSONS LEARNED

Challenges

The behavior change journey has not always been an easy one. Key challenges include:

Attracting qualified advertising agencies. Though there are several communications agencies in Senegal, the early stages of the procurement process (carried out in accordance with World Bank regulations) attracted mostly consulting firms from the water and sanitation sector with little experience in creative design and media production. Lacking this expertise, the lead consulting firm sub-contracted for media production and considerable negotiations were needed to maximize the production budget allocated to the sub-contracted firm.

Changing the mind-set of advertising agencies. The initial concepts received from the firm selected used a negative approach focusing on germs, even though the creative brief called for a positive message. Changing the mind-set of advertising agencies designing behavior change communications in general—and hygiene promotion communications in particular—requires considerable hand-holding. Monthly meetings with the agency were held to ensure they were part of the journey.

Measuring behavioral determinants. The quantitative “doer/non-doer” study in Senegal represented the first time a handwashing study segmented those who practice handwashing with soap from those who do not on the basis of determinants—though organizations such as Population Services International have used segmentation for other behaviors, such as condom use. The series of questions used to measure each determinant in FOAM were created from “scratch” and then adapted into French and Wolof, two additional challenging steps. As a result, it was not possible to measure all of the determinants reliably. For the second “doer/non-doer” study, more attention will be paid to piloting

¹⁷ For more information on measuring handwashing behavior, see *Practical Guidance for Measuring Handwashing Behavior*, available under “Publication and Tools” at www.wsp.org/scalinguphandwashing.

the questionnaire to ensure more reliable measures of the determinants.

Transforming community relays into community resources. The project has been fortunate to be able to tap into a robust network of community relays that operates throughout Senegal. However, these relays have been traditionally used to convey information. The second phase of the project requires outreach workers to facilitate mothers' problem-solving abilities and to fortify their intentions to handwash with soap. Performance monitoring, particularly just-in-time coaching, has proved critical to transforming relays into community resources. To reflect their enhanced role, community relays are now referred to within the project as *community-based promoters*.

Lessons Learned

The behavior change journey in Senegal has uncovered several lessons:

Men need to be part of the behavior change journey. According to the “doer/non-doer” study, half of the women surveyed consider their husbands the decision-makers when it comes to purchasing soap. Though the initial brief prepared by the project team for the advertising agency specified that men should be portrayed as providing social support (a determinant in FOAM), this proved to be insufficient. Through its performance monitoring system, the project learned that it had been under-leveraging the roles men play in their

families (provider, protector, and role model) to help promote handwashing with soap.

Having a tangible product supports behavior change intentions. Community-based promoters report that having a sample handwashing station to distribute to women makes the solution more tangible and concrete, and facilitates women's planning process to ensure handwashing with soap occurs in the household. Discussion with mothers can then focus on where to place the handwashing station and how to ensure that the station is always stocked with soap and water. As mentioned above, a handwashing station provides a stable context in which the behavior can take place and provides environmental cues. The project team will investigate the possibility of scaling up the provision of handwashing stations with other partners, both private and public.

A simple game can be a powerful platform. A handwashing-themed board game was designed by the advertising agency (Figure 6). The game provides a way for the community-based promoter to “break the ice” during a household visit and introduce the main messages in an engaging and fun way. It can be played by up to four people at once and reach potentially more if given to the household as a promotional item. During the first phase, the game was designed for children (left). However, given the interest expressed by adults, particularly mothers, as well as young adults, the game was revised (right) to appeal to a broader age range, as well as to men, and include specific behaviors such as setting up a

Figure 6: Handwashing Board Game



A simple board game was initially designed for young children (left). A revised version targets a broader age range, as well as men (right). The content of the game can be modified to prioritize key messages and behaviors.

handwashing station next to a latrine or practicing handwashing with soap after cleaning a baby's bottom. The revised game has been tested and will be used during the next implementation wave.

RESULTS

As of March 2010, the behavior change intervention in Senegal have been scaled up, reaching and in some cases surpassing, targets. As a result of the "second generation" communications program, over 92 television and 1,496 radio spots have reached an estimated two million people; an estimated 140,000 people have been reached

through 161 direct consumer contact events; and approximately 30,000 household visits were made by about 150 trained community relays. The project has a robust and integrated performance monitoring systems in place to track both the quantity and quality of interventions. In addition to reach, data on exposure, movement in the behavioral determinants, and the behavior change itself are expected in the third quarter of 2010.

—Jacqueline Devine and
Seydou Nourou Koita

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About the project

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

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