Design, Delivery and Monitoring and Evaluation for Handwashing with Soap Programs: Student Curriculum

January 2015
Acknowledgments

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The modules were developed and taught by Matthew Freeman, MPH, PhD at Emory University (mcfreem@emory.edu) and Robert Dreibelbis, MPH, PhD (rdreibe@ou.edu)

Specific content was contributed by USAID’s WASHPlus Program and by UNICEF. Members of the PPPHW Steering Committee reviewed the module content.

For further information contact Layla McCay (lmccay@fhi360.org) at the Global Public-Private Partnership for Handwashing.
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Welcome to the PPPHW Design, Delivery, Monitoring and Evaluation for Handwashing with Soap Programs Distance Learning Course.

We hope that this course will help guide you in your design, development, monitoring and evaluation for handwashing with soap programs. The course was originally live taught over the internet to practitioners and policy-makers. Those sessions were recorded and have been transcribed with additional notes. We have developed this curriculum to guide learners on the course, which covers the basics of a handwashing with soap program. The syllabus contains some of the key readings in the sector, and the final Appendix section includes additional resources so that you may learn key concepts for design, delivery and assessment of handwashing with soap programs. We hope this set of resources can be useful!

Matthew C. Freeman, MPH, PhD
Assistant Professor
Environmental Health
Emory University

Robert Dreibleis, MPH, PhD
Assistant Professor
Anthropology and Environmental Engineering
University of Oklahoma
Design, Deliver and Monitoring and Evaluation for Hand Washing with Soap Programs

Course Objectives

This course is designed by the Center for Global Safe Water at Emory University and the PPPHW for program implementers, policy makers, teachers, and M&E specialists on the design, delivery and monitoring and evaluation of hand washing with soap (HWWS) programs. The course is geared towards those interested in promoting handwashing with soap among populations in the Global South.

The course includes two modules that will help participants learn practical guidance on how to design and implement HWWS behavior change programs that target marginalized groups in communities, schools, health centers and other institutions. We are specifically interested in programs that are sustainable and that can be brought to scale.

This course will cover concepts including:
- Community- and school-based HW promotion
- Marketing and social marketing
- Private sector approaches
- Government, NGO and community led-approaches
- Approaches for low- and middle-income settings

We expect that at the end of this course, participants will:

1. Understand the current state of knowledge for HWWS
2. Identify current approaches to hygiene and HWWS promotion
3. Utilize a specific behavioral framework to design a program for HWWS
4. Develop a HWWS behavior change strategy
5. Know the steps of developing a HWWS program
6. Become familiar with the basic tools to monitor and evaluate HWWS program

This course covers the key lessons learned from peer-reviewed literature and grey literature. As part of the live taught components, the course relies on participants to convey their experiences with HWWS programs. Participants from countries throughout the developing and developed world share challenges, successes and lessons learned. Learners come to this course with a wide variety of experiences and backgrounds. While some may have experience with WASH programming in general or with HWWS programs in particular.
Modules

The course is broken up into two models of approximately an hour. The recording sessions for the course are available on the PPPHW website. The contents of each module are below.

Module 1
- The state of knowledge and evidence base for HWWS
- The key times for to promote HWWS
- The technologies used for HWWS
- How HWWS is promoted by different stakeholders
- Examples of HWWS programs, including current approaches and behavioral frameworks

Module 2
- Developing a HWWS behavior change strategy
- Planning a HWWS program from buy-in to concept and execution
- Monitoring and evaluating a HWWS program to ensure program sustainability and learning

We have provided this curriculum as a guide to the course. Recordings, slides, and lecture notes are available for those wishing to review the course material. These are posted on the PPPHW website at http://globalhandwashing.org/resources/general/design-delivery-and-me-handwashing-soap-programs.

Supplemental readings
For each module, supplemental readings and resources are also provided. These readings are not assigned but help the participant more fully understand the course material. Additional readings and citations can be found in the appendix of this syllabus.
Module 1 | Understanding Handwashing

Purpose
The purpose of module 1 is to give you a background on the state of the knowledge of handwashing with soap.

Module Learning Objectives
At the end of this module, participants will be able to:

• Understand the basic purpose of a handwashing program
• Understand the impacts of handwashing with soap
• Understand the existing body of knowledge about handwashing with soap in the global arena
• Identify the key times for handwashing
• Identify different technologies used for handwashing
• Understand how handwashing is promoted by different stakeholders both public and private

Photo Credit: Fit for School
1. Background on Handwashing with Soap Programs

In this course, we review the existing state of knowledge to support HWWS programs. We discuss what the impacts of HWWS are and what’s known about the prevalence of HWWS globally. The content of this course was developed in 2014, and it is possible, even likely that new studies will be published that will update and improve our knowledge of the health and educational impacts of HWWS at key times.

According to UNICEF, HWWS programs can serve four key purposes: advocacy, education, behavior change/build up and health impact. Advocacy is the attempt to influence public policy and funding. Education refers to increasing knowledge of the importance of and the key times of hand washing with soap. Behavior change/build-up refers to the increase of good behavior. This aspect is key to impacting health. It is useful to determine the key purpose of a HWWS program, since the activities will differ depending on the anticipated programmatic goals.

The ultimate purpose of HWWS programs is to impact health. HWWS is one of the most cost-effective, if not the most cost-effective public health intervention. HWWS has been shown to be more cost-effective than larger WASH interventions at $3.35 USD per DALY (Disability Adjusted Life Year) compared to $270 USD per DALY prevented for basic sanitation. There are many studies that have shown the health and educational impact of HWWS, including:

- **Acute Respiratory Infection** - In a 2003 systematic review, Curtis et al. found that there was a reduction in 23% of acute respiratory infections [1]
- **Diarrheal disease** - In a 2014 systematic review of primarily observational studies, Freeman et al. found a reduction by 23-40% of diarrheal disease [2]
- **Soil-transmitted helminth infections** - In a 2014 systematic review, mostly of observational studies, Strunz et al. found a reduction of soil-transmitted helminth infections by 53% [3]
- **Neonatal mortality** - Rhee found a reduction of neonatal mortality by 44% in Nepal [4]
- **School absence** - Bowen et al. found a reduction of 54% of school absences in a randomized control trial in China [5]

HWWS programs often are integrated with a broad water, sanitation and hygiene (WASH) programs, which may include improvements in hardware – such as water points, latrines and handwashing stations – and software, or behavior change. Hygiene, in this context often is referring specifically to HWWS. However, the definition of hygiene is quite broad, and can include many factors relating to a clean environment and personal hygiene (e.g., bathing, menstrual hygiene and handwashing). HWWS may also be promoted as a standalone program or integrated into other child or maternal health program, teacher or community health worker training, or social marketing campaign.

WASH programs essentially create barriers to prevent illness. The primary barrier to transmission of this disease is the sanitation (toilet) barrier and helps prevent people from
passing on pathogens through: fluids, fields, flies, but this does not impact transmission through hand-to-hand contact. The second barrier to disease transmission is handwashing that helps to prevent pathogens from moving from fluids, fields, flies and fingers to foods and eventually new hosts. An F-diagram that has been augmented to show the addition of respiratory infection is shown below.

In a systematic review, only 19% of people globally were shown to wash hands with soap after fecal contact (from 46 studies) at key times, after fecal contact (specifically after using the toilet) [2]. The definition of key times is defined differently by various organizations. The CDC in America has ten different times for handwashing. UNICEF has identified five different times, while the PPPHW recommends two times. When promoting handwashing it is best to keep the message simple.

There are numerous technologies, or handwashing stations, available for HWWS. These handwashing stations should contain soap and water, and be located near where HWWS will be
performed, such as near a latrine or food preparation area. The handwashing station and soap promoted should be appropriate for the local context (e.g., if children are using it making sure it is child-friendly). Access to water is critical to ensure that handwashing stations can be used. The availability of low-cost soap is essential.

Soap is a surfactant that breaks up oil. The lather promotes scrubbing and friction, which ensures a sufficient time to remove dirt and pathogens from hands. If soap is not available, ash can be used.

Some examples of handwashing stations and soap technology are below.

- **Tippy taps**—constructed from local inexpensive materials: when you press your foot on a stick, water pours out of a hole in a suspended jug.
- **Sink**—includes a tap and is made out of a material like concrete.
- **Plastic buckets**—uses a kettle to pour water, and a basin, with a spot for soap.
- **Natural materials**—in rural areas, community members use various convenient objects, like a gourd and a pen, to create a handwashing station.
- **Soapy water**—to prevent stolen soap fill a 500 ML bottle with water, add some soap or bar soap shavings, and shake it.

When promoting HWWS, the approach needs to be appropriate for the age, culture and literacy level of the audience. Messages also need to be positive and not fear-based. Handwashing can be promoted through key influencers, mass media (i.e., TV, radio, billboards, etc.), social media, community organizers and for-profit companies. You also must think about the current conditions in the target area such as the water availability, reliability, and distance; costs (materials, soaps, radio spots); and supply chain and availability of soap.
When promoting HWWS, do not hesitate to use existing resources from reputable sources. For example, the resources associated with Global Handwashing Day (October 15th). This is a day where people come together to hold events to spread the word about handwashing, reinforce messages and commitments, build sinks and tippy taps, hold events and celebrations, and demonstrate the simplicity and value of clean hands. See our suggested readings section for more information.

**Take away lessons**

- The state of knowledge
  - HWWS prevents many different diseases
- Know the key times for handwashing
  - Keep it simple, no more than a few messages!
- Technologies
  - Running water, soap and a basin in one place
- Handwashing promotion
  - Through mass-media, in schools and institutions, in health facilities
  - Integrated into many other programs
2. Hygiene promotion and Handwashing Promotion Current Approaches and Behavioral Frameworks

In the WASH community the traditional focus of behavior change is on when to wash hands, the steps in proper hand washing and diarrhea prevention. But this traditional way of thinking assumes that behavior is driven by knowledge and risk perception. However, research has shown that this might not be the primary driver for sustained behavior change. Scott et al showed in 2007 that stronger predictors of HWWS with mothers were their level of education, childcare and the age of their children more than knowledge [6].

Various frameworks and models exist to explain the determinants of handwashing. Some examples are handwashing specific, some cover water, sanitation, and hygiene in general and some are more general and focus on any behavior and behavior change. Some examples include:

- **Eco-evo approach** - is based on evolutionary psychology and how our brains have evolved over time [7]
- **Thee Integrated Behavioral Model for WASH** - is a behavioral model that is designed to be generalizable across water, sanitation and hygiene behaviors [8]
- **The Systematic Approach to behavior change for the water and sanitation sector** - is a conceptual model, review and guideline that looks to systematically guide behavior change in WASH [9]
- **Introducing FOAM-framework for analyzing handwashing behaviors** - is a framework that was developed by the World Bank [10]

In planning a program, an essential aspect is to utilize behavioral theories by breaking down constructs into actionable items. We have chosen a simple theory below and that shows behavior as being influenced by first your brain or planning, motivation and habits. Further, it is shaped by the broader environment or social, physical and biological.

Teaching the importance of good hygiene and manners to children is one way to utilize the construct planning. An intervention model pioneered in southern Africa used
community health clubs and group homework assignments as a way to plan out ways to implement handwashing in the home. You can read further about this example in the Suggested Readings section.

The construct motivation is based on addressing the differences between a current state and a desired state of being. Common motivators can include:

- **Norms**- being part of a group, adhering to expected behaviors (see: Community Health Clubs) - Group Identity
- **Disgust**- avoiding objects and situations that carry disease risk / threat of contamination
- **Comfort**- placing oneself in optimal physical conditions, being clean and comfortable
- **Nurture**- caring and protecting one’s offspring

SuperAmma was an intervention model that utilized motivation as part of a large-scale campaign in India to improve handwashing. Led by researchers at the London School of Hygiene and Tropical Medicine. The intervention utilized a cartoon called Superamma or Supermom to promote handwashing through norms, disgust, comfort, and nurture [11]. The intervention showed a 40% increase in handwashing as compared to a control group. Further information is in the suggested reading section [11].

The construct of habit consists of leveraging learned, automatic behaviors. This is influenced by what people are taught when they are younger and can be triggered by specific cues or stimuli. Further, it can be part of larger routine of activity. An intervention in the Philippines called Fit for School t was designed to impact school routines, including daily-supervised handwashing. These were typically carried out before meal or snack times at school. The daily repetition instilled new habits among school-aged children.

Environment can be more difficult to grapple with from an intervention context. Social factors can be viewed at the broader social and cultural context in which HWWS occurs (or does not occur). It may be beyond the scope of an intervention to control or influence these factors below. An example intervention would influence resource allocation in the home.

The physical construct can describe a variety of physical aspects to the environment that can enhance behavior change for example, presence and availability of soap, access to water for handwashing or having both soap and water available at a single location (i.e., a handwashing station) in order to make HWWS more convenient. Handwashing stations can also serve as a cue to remind individuals to wash hands.

While, the biological aspects of environmental influence is also closely linked with disgust and disgust reaction.
Take away lessons

- There are several determinants of handwashing with soap.
- Knowledge may be a necessary determinant of handwashing, but it is not sufficient.
- Several models and theories exist that can help identify alternative determinants.
- We discussed one that was easy to understand that addresses

Module 1 | Summary

- There is clear evidence that HWWS can prevent adverse health and education outcomes
- Things to consider in HWWS promotion:
  - Soap, ash, or cleansing material
  - Technology / resources for performing the behavior
  - Current conditions / behaviors and opportunity for scale
- Knowledge may be necessary for handwashing – but it is not sufficient. Other factors (planning, motivations, and habit) may have a stronger influence on behaviors

Suggested Readings

- UNICEF More than Soap and Water: Taking Handwashing with Soap to Scale training curriculum
- For more information and ideas about what you can do for Global Handwashing Day, visit the Global Handwashing Day website and see the Planner’s Guide
- Examples of handwashing stations from many different contexts: For more information http://www2.wsp.org/scalinguphandwashing/enablingtechnologies/index.cfm
- Community Health Clubs For more information: http://www.africaahead.org/
- SuperAmma For more information or the materials go to www.superamma.org
Module 2 | Design, Deliver and M&E for HWWS

Purpose
The purpose of module 2 is to provide you with tools to develop, plan, monitor and evaluate your program.

Module Learning Objectives
At the end of this module, you will be able to:

- Identify resources to help you
  - develop a behavior change strategy
  - Plan a handwashing program
- Monitor and evaluate a handwashing program
- Ensure sustainability and learning of the hand washing program
- Understand how to develop an action plan for a HWWS program
- Learn the key questions for formative research needed for HWWS programs
- Identify key stakeholders needed for engagement in your context
- Think about public and private sector
- Understand how the program development process should be designed for sustained behavior change and scale
- Understand how M&E should be incorporated into a HWWS program
- Know the key output and outcomes necessary for HWWS programs
- Identify three different approaches used for evaluating behavior change and their strengths and weaknesses
3. Developing a Behavior Change Strategy

We acknowledge that handwashing behaviors have complex determinants. Building a behavior change strategy around these determinants is often a daunting process. Multiple frameworks and guides exist, each with their own strengths and weaknesses. The more specific and thoughtful the behavior change strategy, the greater the likelihood of its success. We will review the BEHAVE framework and its steps; this is ONE tool for helping to translate determinants to action.

<table>
<thead>
<tr>
<th>Priority Group</th>
<th>Behaviors</th>
<th>Key Factors</th>
<th>Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>In order to help...</td>
<td>To...</td>
<td>We will focus on...</td>
<td>Through...</td>
</tr>
</tbody>
</table>

**BEHAVE Framework**
Developed by AED (now FHI 360) was designed as a five-day workshop for planning and strategy development [12].

There is much more information than we can cover in this module, but we will review this framework as a ROADMAP for designing a behavior change intervention.

Priority groups are often defined by demographic features: location, age, gender or income. But, you also can think about alternative ways to categorize your population such as current behaviors and practices, groups that want or desire a similar behavior change, or groups confronting the same barriers to action.

A key aspect of the BEHAVE Framework is defining what a behavior is. Behaviors should be:

- An action
- Observable
- Specific (time, place, duration, frequency)
- Measureable
- Feasible

It is important to be very specific in defining your behavior in order to be able to create an intervention and be able to evaluate it.
The Key Factors are the specific motivators that influence a specific group to take a specific behavior. There are two major approaches to defining key factors:

- **Analyze barriers and benefits** – Benefits are things that people want and this could be beyond just preventing disease. Barriers are things that make it difficult for people to perform the behavior, such as lack of resources.
- **Compare Doers and Non-Doers** – In your target population, there are already people who are doing the behavior you are interested in. These individuals typically face the same barriers to the behavior as the rest of your target population.

You can use qualitative methods (e.g., in-depth interviews, focus groups, key informant interviews) and quantitative approaches (e.g., direct observation of people in the home or a survey of intended target population) to identify the differences between Doers and Non-Doers. Make sure to go beyond barriers and look to the benefits of a behavior because benefits can be a powerful driver. Also, compare factors between Doers and Non-Doers in order to help identify the determinants that have the greatest potential. Again, being specific is important to designing an effective intervention.

Activities should directly address the “Key Factors” that shape behavior. For example, if you find that norms are a powerful driver you could make handwashing a public behavior like having signs, moving handwashing stations to a public area and make the infrastructure visible. When designing activities make sure to learn from other researchers and organization. You can adapt materials and ideas to the local context. Before doing this try to understand the capacity of your audience to make the changes you are promoting. When possible, leverage the experiences of the private sector.

**Take away lessons**

- There are a number of tools and resources to help guide the process of developing a behavior change strategy – BEHAVE is just one.

- Behave framework helps us complete the sentence:
  - In order to help ________ (Target Group)
  - to ________ (Behavior)
  - we will focus on ________ (Key Factor)
  - through ____________ (Activities)
4. Steps for developing a HW program
Before developing a program you need to create an action plan.

1. Formative research
2. Stakeholder engagement
3. Develop program objectives
4. Develop targeting criteria
5. Establish budget
6. Develop approach and communication strategy
7. Determine ongoing monitoring

Formative research is an important first step when developing a program. Formative research includes defining your stakeholders, looking at the cultural context, researching similar programs and evidence associated, and looking at government policies.

When defining the various stakeholders, have a brainstorming session with your team and list everyone who could be involved. This could be anyone from the government to the beneficiary population of the intervention. These stakeholders have different motivators for wanting to participate and, further, have different roles they could play. It is essential to define these roles clearly and establish understood levels for accountability. Roles should be established during and after completion of activities to ensure sustainability of the program.
Some example roles and stakeholders are listed below:

- **Mothers and fathers** - encourage children to wash hands
- **Elected or local leaders** - promote messages at community gatherings
- **Donors** - support programs with sufficient funding for software
- **Implementers** - ensure sustainable programs
- **Private sector** - support access to low-cost soap
- **Policy makers** - set and enforce standards
- **The health sector** - provide guidance on the environmental health aspects of design
- **School children** - act as peer educators
- **Teachers** - organize the care and maintenance of facilities
- **School directors** - develop and enforce rules on school HW activities
- **Parent–teacher associations** - support provision of consumables, such as soap

When thinking about your context, assess the budget, capacity, existing data, donor expectations, existing policies and risks. Furthermore, establish a data management and feedback plan. This should be worked out with the program stakeholders, especially any funders involved, before commencing. A timeline should also be created to define when deliverables are expected. The process needs to be transparent and everyone involved needs to know what is going on.

In order to decide whom to target for the intervention research statistics like the poverty level/poverty index, disease outbreak statistics, disease burden, presence of other NGOs conducting WASH interventions, and complimentary programs. In terms of budgeting, it’s important to think about both hardware and software. Also you must consult government standards, local contractors and look at existing program’s budgets.

**Take away lessons**

- Development of a HWWS program requires context-specific knowledge derived from formative research
- Engaging all the relevant stakeholders is critical for program success and to reach scale
- Target your program: who, what and where
- Identify what the program needs and develop a detailed budget plan
5. Monitoring and Evaluation

The purpose of M&E is to ensure that program activities are being delivered as planned, track progress, provide accountability to stakeholders, change policy report any impacts of the program and impact sectoral knowledge.

Below are the program phases and M&E activities according to Ram et al.’s HW promotion and M&E guide. Steps 1 through 7 are listed below, often M&E teams are conscious to select indicators (step 1) however, steps 2-7 (plan for monitoring, plan for evaluation, collect baseline data, collect follow up data, manage and analyze data, and disseminate results) don’t often happen.

**Programme phases and M&E activities**

![Figure 1 Ram 2013, HW promotion M&E](image)

Performance indicators provide evidence that a desired outcome has been achieved. Indicators must be SMART; details regarding a SMART indicator are below.

**A SMART indicator is...**
- **Specific** – Reflects the expected information from the narrative summary
- **Measurable** – Quantifiable and obtainable
- **Attributable** – Changes are a result of the program
- **Realistic** – Reasonable time, cost and frequency
- **Time-bound** – Change observed from when to when
If indicators are not SMART it is very difficult for M&E personnel to properly monitor and evaluate the success of your program. We have provided a list of sample output and outcome indicators, which could be useful for a HWWS program.

<table>
<thead>
<tr>
<th>Sample Output Indicators</th>
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<tbody>
<tr>
<td>• Number of handwashing promotion advertisements distributed/broadcasted</td>
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<tr>
<td>• Number of handwashing promotion events</td>
</tr>
<tr>
<td>• Number of participants at handwashing promotion event(s)</td>
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<tr>
<td>• Number of stakeholders introduced to benefits of handwashing with soap</td>
</tr>
<tr>
<td>• Number of education related events</td>
</tr>
<tr>
<td>• Number of behaviour change communication events</td>
</tr>
<tr>
<td>• Number of participants at behavior change communication events</td>
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<table>
<thead>
<tr>
<th>Sample Outcome Indicators</th>
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<tbody>
<tr>
<td>• Recall of the event/advertisement</td>
</tr>
<tr>
<td>• Recall of the main message(s) from an event/advertisement</td>
</tr>
<tr>
<td>• Knowledge of the benefits of handwashing with soap</td>
</tr>
<tr>
<td>• Knowledge the critical times for handwashing</td>
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<tr>
<td>• Soap use during a handwashing demonstration</td>
</tr>
<tr>
<td>• Soap and water present together at a handwashing place</td>
</tr>
<tr>
<td>• Soap present in the household</td>
</tr>
<tr>
<td>• Hand cleanliness score (visual inspection of hand cleanliness)</td>
</tr>
<tr>
<td>• Self-reported handwashing with soap at any critical event/at specific critical event</td>
</tr>
<tr>
<td>• Observed handwashing with soap and water at any critical event/at a specific critical event</td>
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</tbody>
</table>

There are three main approaches to collecting data for HWWS programs: surveys (self-report), rapid observation (spot checks) and structured observation (observation of behavior). There are advantages and disadvantages to each approach. Surveys are important for assessing knowledge and attitudes, often times are the only available approach to assess behaviors or health outcomes, can provide a context for the behaviors and outcomes of interests, and may be the only approach to assess exposure to the intervention. However, self-report of behaviors are often biased and don’t always reflect true behaviors. An example survey question is do you know the key times to wash your hands with soap? Questions can be knowledge and behavior questions but they must not reflect true behaviors.

A rapid assessment includes spot checks on conditions provides a less biased measure than self-report, and it’s relatively low cost. While the measures are more objective, they typically are only proxies for the true behavior. For example, we can assume that if we see soap next to a basin people are using it, however this just an assumption and we cannot know true behavior. An example of a rapid assessment, you observe soap and water at a place to wash hands.
Structured observation directly measures behavior and provides a more standardized way to observe behavior. An example of structured observation might include staff members sitting at a household for 5-6 hours noting behaviors. Structured observation can expensive and time consuming, and requires a substantial amount of field workers. The presence of someone observing behavior may change the respondents’ behavior.

Take away lessons
- Measuring sustained behavior change is a considerable challenge
- There are three general approaches used to assess behavior change, all with strengths and weaknesses. The approach you use may rely on your key objectives and data needs, capacity of your M&E team, and budget
- Monitoring key outputs, such as availability of soap and water, can serve as important proxies for behavior change

Conclusions
- There is considerable evidence that HWWS leads to improvements to health, and is one of the most cost-effective programs
- There are many factors to consider when designing a HWWS program, including developing messages and choosing technology, but cultural context is critical
- Habit formation and changes to social norms are essential for sustained behavior change
- HWWS programs can only be brought to scale if attention is given to engaging all key stakeholders and M&E is done well

Suggested Readings
Citations


Annex: Additional literature and resources
Below are some additional resources that can be used for reference.

### Global handwashing programs

<table>
<thead>
<tr>
<th>Name of Program</th>
<th>Description</th>
<th>Link</th>
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<tbody>
<tr>
<td>Project WET</td>
<td>WASH education program—USAID funded</td>
<td><a href="http://www.projectwet.org/what-we-do/international/wash">http://www.projectwet.org/what-we-do/international/wash</a></td>
</tr>
<tr>
<td>Lifebuoy-help a child reach 5</td>
<td>International Handwashing promotion program</td>
<td><a href="http://www.lifebuoy.com/socialmission/">http://www.lifebuoy.com/socialmission/</a></td>
</tr>
<tr>
<td>The Joint Comission</td>
<td>A very dense document that provides details on how and when to wash your hands to various campaign examples (see chapter 7)</td>
<td><a href="http://www.jointcommission.org/assets/1/18/hh_monograph.pdf">http://www.jointcommission.org/asset s/1/18/hh_monograph.pdf</a></td>
</tr>
<tr>
<td>Dr. Adam Biram —Author London School of Hygiene &amp; Tropical Medicine, London, London,</td>
<td>Effect of a behavior-change intervention on handwashing with soap in India (SuperAmma): a cluster-randomised trial—examples of hygiene and health promotion are given also evaluation results are provided as well</td>
<td><a href="http://image.thelancet.com/journals/langlo/article/PII%202214-109X%2813%290160-8/fulltext">http://image.thelancet.com/journals/langlo/article/PII%202214-109X%2813%290160-8/fulltext</a></td>
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<tr>
<td>*Public Health Foundation of India, **Faculty of Health Sciences, University of Ottawa</td>
<td>A systematic review of community hand washing interventions leading to changes in hygiene behavior in the developing world</td>
<td><a href="http://www.gjmedph.org/uploads/R1-Vo1No4.pdf">http://www.gjmedph.org/uploads/R1-Vo1No4.pdf</a></td>
</tr>
<tr>
<td>WATER, SANITATION AND HYGIENE: SUSTAINABLE DEVELOPMENT AND MULTISECTORAL APPROACHES</td>
<td>Mobilizing people for improved hygiene practices through hand washing campaigns in Nigeria</td>
<td><a href="http://wedc.lboro.ac.uk/resources/conference/34/Ageremmi_Z_O_-200.pdf">http://wedc.lboro.ac.uk/resources/conference/34/Ageremmi_Z_O_-200.pdf</a></td>
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### Other Useful Documents-technical support

<table>
<thead>
<tr>
<th>Source</th>
<th>Document Name</th>
<th>Description</th>
<th>Link to document</th>
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<tbody>
<tr>
<td>WHO</td>
<td>Five Moments for Hand Hygiene</td>
<td>Program that emerged from the WHO guidelines on Hand hygiene. Defines key moments for hand hygiene—in English and in French</td>
<td><a href="http://www.who.int/gpsc/tools/Five_moments/en/">http://www.who.int/gpsc/tools/Five_moments/en/</a></td>
</tr>
<tr>
<td>CDC</td>
<td>Clean Hands Save Lives</td>
<td>CDC guidelines for how and when to wash your hands</td>
<td><a href="http://www.cdc.gov/handwashing/when-how-handwashing.html">http://www.cdc.gov/handwashing/when-how-handwashing.html</a></td>
</tr>
<tr>
<td>IRC</td>
<td>Understanding Hand washing behavior</td>
<td>Description of a study and formative research to understand how to encourage handwashing behavior</td>
<td><a href="http://www.rescue.org/sites/default/files/resource-file/Hand%20washing_0.pdf">http://www.rescue.org/sites/default/files/resource-file/Hand%20washing_0.pdf</a></td>
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## Planning HWWS programs

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<tbody>
<tr>
<td>WHO</td>
<td>Sanitation and hygiene promotion programming guidance</td>
<td>This document provides general guidance to creating WASH programming</td>
<td><a href="http://www.who.int/water_sanitation_health/hygiene/sanitpromotionguide/en/">http://www.who.int/water_sanitation_health/hygiene/sanitpromotionguide/en/</a></td>
</tr>
<tr>
<td>WSP</td>
<td>Clean the world</td>
<td>Lessons from building public private partnerships</td>
<td><a href="http://cleantheworld.org/docs/WSP_H_Lessons_07Oct02.pdf">http://cleantheworld.org/docs/WSP_H_Lessons_07Oct02.pdf</a></td>
</tr>
<tr>
<td>WHO</td>
<td>Hand Hygiene Self-Assessment Framework 2010</td>
<td>The Hand Hygiene Self-Assessment Framework is a systematic tool with which to obtain a situation analysis of hand hygiene promotion and practices within an individual healthcare facility.</td>
<td><a href="http://www.who.int/gpsc/country_work/hhsa_framework_October_2010.pdf?ua=1">http://www.who.int/gpsc/country_work/hhsa_framework_October_2010.pdf?ua=1</a></td>
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<tr>
<td>UNICEF/Vietnam</td>
<td>Sustainable Sanitation &amp; Hygiene for All</td>
<td>Describes the sustainable sanitation hygiene for all approach. Addresses WASH as a whole</td>
<td><a href="http://www.snvworld.org/download/publications/sustainable_sanitation_and_hygiene_for_all_sector_development_approach_for_vietnam_0.pdf">http://www.snvworld.org/download/publications/sustainable_sanitation_and_hygiene_for_all_sector_development_approach_for_vietnam_0.pdf</a></td>
</tr>
<tr>
<td>University of Kansas</td>
<td>Community Tool Box</td>
<td>Not specifically WASH related but addresses how to gain stakeholder support</td>
<td><a href="http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/develop-a-plan/main">http://ctb.ku.edu/en/table-of-contents/assessment/assessing-community-needs-and-resources/develop-a-plan/main</a></td>
</tr>
<tr>
<td>WSP and Ethiopian Government</td>
<td>Whole-System-in-the-Room (WSR) Multi-Stakeholder Workshop Report Bahir Dar, Ethiopia</td>
<td>This report describes the process of the Whole-System-in-the-Room (WSR) workshop, which culminated the first phase of the implementation of the SCALE approach in Amhara for scale up sanitation and hygiene through the national community Led Total Sanitation and Hygiene</td>
<td><a href="http://arhbrc.files.wordpress.com/2011/06/amhara-wsr-report.pdf">http://arhbrc.files.wordpress.com/2011/06/amhara-wsr-report.pdf</a></td>
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<tr>
<td>Organization/Program</td>
<td>Resource</td>
<td>Description</td>
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<tr>
<td>Joint Commission</td>
<td>Measuring Hand hygiene adherence: overcoming the challenges</td>
<td>Chapter 9 (pg 107) – describe stakeholder involvement and policy importance. Focuses more on hospital hand hygiene however looks at WASH from a more macro perspective.</td>
<td><a href="http://www.jointcommission.org/assets/1/18/hh_monograph.pdf">http://www.jointcommission.org/assets/1/18/hh_monograph.pdf</a></td>
</tr>
<tr>
<td>SOUTH ASIA HYGIENE PRACTITIONERS' WORKSHOP</td>
<td>Participatory Community Hygiene Education in Dhaka Slums: DSK Experience</td>
<td>This paper describes how the programme to improve hygiene knowledge and practice was designed and implemented. It provides information on impact derived from an assessment. Community participation in the decision making processes was crucial for designing the hygiene promotion programme.</td>
<td><a href="http://www.wsscc.org/sites/default/files/publications/5_ranajitdas_hygieneeducationdhakaslums_bangladesh_2010.pdf">http://www.wsscc.org/sites/default/files/publications/5_ranajitdas_hygieneeducationdhakaslums_bangladesh_2010.pdf</a></td>
</tr>
<tr>
<td>UNICEF</td>
<td>Handwashing program monitoring and evaluation module</td>
<td>Shows how to plan monitor and evaluate a hand washing program</td>
<td><a href="http://www.globalhandwashing.org/sites/default/files/UNICEF%20M%26E%20Toolkit%20Final%2011-24%20Low%20Res.pdf">http://www.globalhandwashing.org/sites/default/files/UNICEF%20M%26E%20Toolkit%20Final%2011-24%20Low%20Res.pdf</a></td>
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<td>USAID</td>
<td>Achieving Development through local NGO partnerships</td>
<td>Describes the GHANA WASH project – focuses on building partnerships and talking about success/failures</td>
<td><a href="http://www.ri.org/files/uploads/GWASH_Success_Story.pdf">http://www.ri.org/files/uploads/GWASH_Success_Story.pdf</a></td>
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