

Soapy Water-Handwashing Station (SW-HWS) Implementation Plan

Overall Project Goals: The Soapy Water-Handwashing Station (SW-HWS) Project aims to evaluate the health impacts of the SW-HWS and assess the feasibility for scale up of the technology.

The proposed project will: 1) assess the impact of the SW-HWS on child health and development during the critical first 1000 days of life, 2) pilot several approaches to scale up in Kenya including sales to households, implementation in schools, and installations in rental housing 3) conduct a household-level willingness to pay study, 4) refine the design of the SW-HWS for cost effective mass production, and 5) work with organizations that can scale the technology to disseminate findings broadly and explore options for scale up.

Objective 1: SW-HWS Health Impact Evaluation

Background: The SW-HWS health impact evaluation will occur through a randomized control trial (RCT) on several WASH interventions. The RCT will last three years with USAID DIV funding covering the cost of tracking and administering midline and endline surveys (at months 12 and 24) to study households from treatment arms receiving SW-HWSs and control arms who have left their original location. Four tracking visits (including the two surveys) will be conducted in order to minimize attrition, each six months apart. During the first visit, two SW-HWS will be installed at the new household location.

Personnel: The Health Impact Evaluation will be overseen by Clair Null, one of the PIs on the project. We have hired Gauthami Penakalapati, a recent MPH graduate with experience working on a WASH research project in Rwanda, as the Project Associate (for equity reasons with other members on the existing WASH Benefits team, she was hired one tier below the Project Coordinator in IPA's hierarchy). We plan to start the process of hiring the Project Managers and Field Staff in the next month now that we have the Project Associate position filled.

Planning: All tracking activities are included in an amendment to the WASH Benefits IRB protocol that we submitted to KEMRI in early July. We anticipate receiving approval for these changes within the next two months. We are in conversation with the project team at IPA which has experience in tracking attriters from the Kenya Life Panel Study so that we can follow their very successful approach to the logistics of this activity. They have shared their Standard Operating Procedures with us, and we are waiting for the Research Manager to return from Tanzania so that we can meet with her to discuss. We anticipate that tracking visits will start in September, after we have had adequate time to prepare plans. We had a lull in study activities between February and May due to the Kenyan Presidential elections. Due to the heightened excitement around this period, we did not want our field teams undertaking activities that risked being associated with any particular political group and decided to stop all activities until political activity had reduced.

Objective 1: SW-HWS Health Impact Evaluation			
Activities	Timeframe	Responsible Entities	Expected Outputs
SW-HWS Distribution 1. SW-HWS Distribution to WASH Benefits study compounds	1. 7-2013 to 4-2014	Project Associate Project Manager Attrition FOs	1. 16000 SW-HWS distributed to WASH Benefits study compounds (20% or 1200 of which are funded by USAID)

2. SW-HWS Distribution to Attriters	2. 9-2013 to 12-2015		2. up to 720 SW-HWS distributed to attriters (budgeted to procure hardware for up to 60% of attriters, assuming 20% attrition; delivery ongoing through Year 2 attrition visits since some people will attrite later in the study)
Attrition Tracking 1. Year 1 Visit 2. Midline Survey 3. Year 2 Visit 4. Endline Survey	1. 9-2013 to 8-2014 2. 12-2013 to 3-2015 3. 5-2014 to 10-2015 4. 1-2015 to 3-2016	Project Associate Project Manager Attrition FOs	1. Up to 450 visits 2. Up to 450 visits 3. Up to 450 visits 4. Up to 450 visits
Midline Survey 1. Midline Survey	1. 1-2014 to 3-2015	WASH Benefits staff	9000 household visits
Endline Survey 1. Endline Survey	1. 1-2015 to 3-2016	WASH Benefits staff	9000 household visits
Results 1. Paper Development	1. 6-2016	Principal Investigator	Draft paper evaluating the impact of the Soapy Water Hand Washing Station on child health

Indicators:

- # baseline surveys administered to date: 675
- # SW-HWS installed to date: 368 (installation has only occurred in block 1)
- % of compounds with at least one SW-HWS that is stocked and functional on an unannounced visit: 86%
- % of compounds with at least one SW-HWS that has mud underneath indicating use on an unannounced visit: 85%
- # of attriters identified: 7 (among block 1 only; too soon to receive reports of attrition among block 2)
- # attriters reached for follow-up: 0 (we have not yet begun the process)

Objective 2: Pilot approaches to Scale up

Background: Piloting of approaches to scale up will be conducted during the last two years of the project. Piloting for scale up will include piloting use of the SW-HWS at schools, clinics, and properties in peri-urban/slum locations.

Personnel: Amy Pickering and Pavani Ram will be the PIs to lead this component of the project. We will hire the other project staff for these activities in a year, closer to the time of field work.

Planning: We are focusing our efforts on other aspects of the project for the next six months since protocol development for these activities is not scheduled to begin until January 2014.

Objective 2: Pilot approaches to Scale up			
Activities	Timeframe	Responsible Entities	Expected Outputs
School Pilot			
1. Protocol Development	1. 1-2014 to 6-2014	Project Coordinator Assistant Project Manager Scale up FOs	Report on user acceptability and suggestions in context
2. School Meetings/ SW-HWS Distribution	2. 6-2014 to 9-2014		
3. 3 Month Visit	3. 10-2014 to 12-2014		
4. 6 Month Visit	4. 1-2015 to 3-2015		
5. Spot Check Visit 1	5. 5-2015 to 6-2015		
6. 12 Month Visit	6. 7-2015 to 8-2015		
7. Spot Check Visit 2	7. 9-2015 to 12-2015		
8. 18 Month Visit	8. 1-2016 to 2-2016		
Clinic Pilot			
1. Protocol Development	1. 3-2015 to 5-2015	Project Coordinator Assistant Project Manager Scale up FOs	Report on user acceptability and suggestions in context
2. SW-HWS Distribution	2. 6-2015		
3. Follow up Visit 1	3. 11-2015		
4. Follow up Visit 2	4. 4-2016		
Peri-urban/slum Pilot			
1. Protocol Development	1. 3-2014 to 8-2014	Project Coordinator Assistant Project Manager Scale up FOs	Report on user acceptability and suggestions in context
2. SW-HWS Distribution	2. 11-2014 to 1-2015		
3. 3 Month Visit	3. 2-2015 to 4-2015		
4. 6 Month Visit	4. 6-2015 to 7-2015		
5. Spot Check Visit 1	5. 8-2015 to 10-2015		
6. 12 Month Visit	6. 10-2015 to 12-2015		
7. Spot Check Visit 2	7. 1-2016 to 3-2017		
8. 18 Month Visit	8. 4-2016 to 6-2016		

Objective 3: Willingness to Pay Study

Background: The willingness to pay study will be conducted during the second year of the project, with planning commencing six months prior. The willingness to pay study will measure consumer interest in the technology at different prices and test various marketing strategies. The SW-HWS will be sold to pilot respondents from compounds neighboring pilot study compounds, and compounds in control arms. Using randomized offer prices (from 0-50% subsidy) we will elicit willingness to pay from households. We will market and sell the SW-HWSs through our study behavior change promoters, who function much like community health workers in our study villages.

Personnel: Michael Kremer will be the PI contact for this activity. We will hire the other project staff for these activities in a year, closer to the time of field work.

Planning: We are focusing our efforts on other aspects of the project for the next six months since protocol development for these activities is not scheduled to begin until April 2014.

Objective 3: Willingness to Pay Study

Activities	Timeframe	Responsible Entities	Expected Outputs
Willingness to Pay Study 1. Protocol Development 2. Community Meetings 3. SW-HWS Distribution	1. 4-2014 to 8-2014 2. 9-2014 to 2-2015 3. 2-2015 to 9-2015	Project Coordinator Assistant Project Manager Scale up FOs	Report on willingness to pay for SW-HWS

Objective 4: SW-HWS Redesign

Background: The SW-HWS redesign effort will occur during the first nine months of the project and will focus on creating a robust, low-cost, mass-manufacturable device that integrates well into intended consumers' lives. In order to achieve this goal, Catapult, in collaboration with Enos Bonny Wambua, will begin by evaluating the existing SW-HWS to identify opportunities for improvement in the areas of lifespan, usability, and manufacturing. Catapult Design will also review prior HWS designs and other hygiene and handwashing solutions in East Africa, drawing on the work that IPA has already done piloting various different approaches to encouraging handwashing and evaluating existing options.

Catapult will develop specifications and liaise with various manufacturers, and recommend sourcing based on a variety of considerations, including cost, reliability and reputation, technical expertise, transport costs, tariffs, and any intangible advantages of working with local suppliers.

Catapult will remain source-agnostic in terms of materials and manufacturing location and will consider both domestic and international manufacturing in the course of their design. In addition to their work in Kenya, they will also liaise with international manufacturers and travel once to an international manufacturer (assumed for budget purposes to be in China) for two weeks to explore manufacturing options there.

Following this initial research and design effort, Catapult's designers will return to Kenya for not less than three weeks to interact with local manufacturers and test concepts with users' in-the-field. To ensure that the resulting design is well suited to all stakeholders, Catapult will rapidly modify and test the prototypes during their stay in direct response to stakeholder feedback, bringing a significant level of co-creating to the design effort and ensuring that the users' voices are clearly present in the final design.

Catapult will then use the insights resulting from their field work to develop a refined SW-HWS design that emphasizes the following: a durable, easily-repaired device with significantly increased life-span (not less than 5 years); an improved user experience that will increase rates of product adoption and effective use; optimization for mass-manufacturing; decreased part cost and count; minimized manufacturing processes and assembly time required for fabrication; appealing and recognizable device aesthetic with branding potentials; rural, regional, and international transport and dissemination; ease of adaptation to different regions and use-cases; maintenance and service; and simple, reliable field installation. In the course of this design development, Catapult's design team will generate creative design concepts, iteratively prototype and test those concepts, and refine final designs for field-testing.

The Portland State University team will develop a sensor that is compatible with the existing tippy-tap design (which can be attached to 5L jerry cans) to provide data on actual use. We hope to use these sensors when field testing Catapult's designs, but if the new models no longer rely on jerry cans as water storage containers some modifications to the sensor might be necessary before they can be used in the pilot testing of new models.

Personnel: Amy Pickering will supervise the Redesign effort, working closely with the sub-contractors.

Planning: We have already initiated conversations with both Catapult and SWEETLab to start the sub-contracting process and plan for their work trips which are on track to occur in August and September, respectively.

Objective 4: SW-HWS Redesign			
Activities	Timeframe	Responsible Entities	Expected Outputs
Catapult Design <ol style="list-style-type: none"> 1. Contract Finalization 2. Initial Research and Travel Preparation 3. Field Research Trip to Kenya 4. Preliminary Design and Prototyping 5. Manufacturing Investigation 6. Detailed Design and Prototyping 7. Field Testing in Kenya 8. Design Revisions and Documentation 9. Final Report Submitted 	<ol style="list-style-type: none"> 1. 7-2013 to 8-2013 2. 7-2013 3. 8-2013 to 9-2013 4. 9-2013 to 11-2013 5. 2-2014 to 3-2014 6. 11-2013 7. 1-2014 8. 2-2014 to 5-2014 9. 7-2014 	Project Coordinator Catapult Design	<ol style="list-style-type: none"> 1. Report on redesign options for SW-HWS scale up. 2. Final SW-HWS prototype for scale up
Enos Bonny Wambua <ol style="list-style-type: none"> 1. Field Research Trip 	<ol style="list-style-type: none"> 1. 8-2013 – 9-2013 	Project Coordinator Enos Bonny Wambua	
The SWEETLab - Sensors <ol style="list-style-type: none"> 1. Deploy Sensors for field testing 	<ol style="list-style-type: none"> 1. 3-2014 to 1-2015 	Project Coordinator Dr. Evan Thomas	Report on effectiveness of remote sensor use in WASH related activities

Objective 5: Dissemination of Results from RCT and Scale up Pilots

Background: Results from the RCT and scale up pilots will be disseminated to the Kenyan government, policy makers, and donors. These entities will be contacted in an effort to develop partnerships for public and private sector scale up. 25% of the Project Director's time will be reserved for dissemination and partnership formation efforts during years 2 and 3.

Personnel: The Project Director will be spending some of his time doing outreach to key stakeholders over the next several months.

Planning: We are making arrangements to take part in regional WASH stakeholder meetings that are coordinated by local and regional government officials from the Ministry of Public Health and Sanitation. We plan on making presentations of this project at such meetings in the coming months. We are in the

process of reaching out to the relevant government officials at ministries that provided us with letters of support for the proposal (Education, Public Health and Local Government) to update them on the award and get their support in reaching out to schools, clinics, markets and landlords.

Objective 5: Dissemination of Results from RCT and Scale up pilots			
Activities	Timeframe	Responsible Entities	Expected Outputs
International Conferences 1. Conference	1. 10-2014; 10-2015; 8-2016	Project Coordinator Project Director	Presentation on results
Partnership Formation 1. Outreach	1. 4-2014 – 4-2016	Project Director	Partnerships formed for scale up

Type of indicator

Health Impact Evaluation

process

process

process

process

process

process

evaluation

evaluation

evaluation

evaluation

evaluation

evaluation

Pilot Approaches to Scale

process

process

evaluation

Willingness to Pay Study

process

evaluation

SW-HWS Redesign

n/a

Dissemination

process

process

evaluation

Indicator

- # of surveys administered
- # of SW-HWS installed
- % of SW-HWS that are stocked & functional
- # of attriters identified
- # of attriters reached for follow-up
- % of baseline respondents still participating in study
- socio-economic characteristics (see details in SES tab)
- caregiver reported diarrhea
- caregiver reported respiratory infection
- child growth outcomes (height-for-age, weight-for-age)
- child development outcomes (cognitive & motor skills)
- parasite prevalence rates (see details in parasites tab)

-Up

- # schools/clinics/rental properties with SW-HWS
- # of people served by SW-HWS in schools/clinics/rental properties
- % of school/clinic/rental property SW-HWS that are stocked & functional

- # people who have attended a SW-HWS introduction meeting
- % of people who purchase SW-HWS at each price point

n/a

- # presentations related to the project
- # meetings with government stakeholders
- # organizations (incl. government entities) expressing interest in integrating SW-HWS with their programming

Source of data

baseline/midline/endline survey datasets
project intervention delivery records
rapid assessment, midline/endline survey dataset
project survey records & promoter reports
project tracking records
project survey & tracking records
baseline survey
midline/endline survey datasets
midline/endline survey datasets
midline/endline survey datasets
endline survey dataset
endline survey dataset

project records
project records & pilot baseline survey data
spot-check dataset

project records
sales dataset

n/a

conference proceedings; project records
project records
project records

Timeline

ongoing - included in every implementation update
ongoing - included in year 1 implementation updates
ongoing - included in every implementation update
included in milestone 6
90 days following close of award (final milestone)
90 days following close of award (final milestone)

ongoing - included in implementation updates for milestones 5-10
ongoing - included in implementation updates for milestones 5-10
ongoing - included in implementation updates for milestones 5-16

ongoing - included in implementation updates for milestones 6-9
included in implementation updates for milestones 10-11

n/a

ongoing - included in every implementation update
ongoing - included in every implementation update
ongoing - included in every implementation update

Rationale

document progress toward desired sample size

document progress toward intervention delivery target

document sustainability of intervention hardware

document progress toward minimizing attrition bias

document progress toward minimizing attrition bias

document progress toward minimizing attrition bias

describe study population; not included in follow-up survey rounds because we do not expect the intervention to

document effects of SW-HWS; not until end of study because researchers remain blinded to treatment assignment

document effects of SW-HWS; not until end of study because researchers remain blinded to treatment assignment

document effects of SW-HWS; not until end of study because researchers remain blinded to treatment assignment

document effects of SW-HWS; not until end of study because researchers remain blinded to treatment assignment

document effects of SW-HWS; WASH Benefits study children are only tested for parasites at endline

document progress toward establishing pilots

document pilot beneficiary population size

document success of pilots

document scope of promotion effort

document willingness to pay for SW-HWS

the redesign process is a sequence of discrete steps so there are no indicators that would be worth tracking on a

document attempts to share information & results

document attempts to engage stakeholders

document scale-up prospects for the SW-HWS

to change these characteristics

until all data collection is completed; no baseline data because study children are still in utero

until all data collection is completed; no baseline data because study children are still in utero

until all data collection is completed; no baseline data because study children are still in utero

until all data collection is completed; these measures are only being collected at endline in the WASH Benefits s

in on-going basis

study (they are expensive and there will be more power to detect changes at older ages)

Socioeconomic Indicators (SES)

Education Level

Highest level of schooling completed

Highest level of schooling for partner completed

Occupation

Current occupation of caregiver

Current occupation of caregiver's partner

Household Assets

Electricity

Solar panel

Television

Mobile Phone

Clock

Bicycle

Motorcycle

Stove

Gas cooker

Car

Animals in compound/household

Cattle

Donkeys

Goats

Sheep

Poultry (chicken, ducks, pigeons)

Pigs

Type of fuel for cooking

Charcoal

Wood

Kerosene

Other

Land

Own land in the village?]

How was land acquired?

Purpose of land?

Building Materials for House

Main material of floor (Earth, Earth/dung, Concrete, Other)

Main material of roof (Thatch/Palm leaf, Corrugated Iron, Other)

Main material of the walls (Mud, Cane/Palm/Bamboo, Concrete, Other)

Cryptosporidium
Giardia
E. histolytica
Ascaris
Trichuris
Hookworm

Soapy Water-Handwashing Station (SW-HWS) Milestone 2

1. IRB Approval of Health Evaluation Activities

We received approval for renewal of our study protocol “Handwashing, water treatment, sanitation and nutritional interventions and outcome measures in rural Kenya” from the Kenya Medical Research Institute Ethics Review Ethics Committee (KEMRI ERC) on August 20, 2013.

2. Project Implementation Update

A. Personnel

- Gauthami Penakalapati has been hired as a Project Associate to ensure that both qualitative and quantitative data are being collected
- Tadeo Muriuki, Project Director will be leaving IPA and his responsibilities on this project will be taken over by Carolyn Nekesa
- Hiring of implementation and evaluation field staff is yet to be carried out as field work will not commence until June 2014.
- It is still early to provide updates on negotiations, outreach and implementation related to the pilot projects. We need to first develop protocols for these pilots and this is not scheduled to begin until January 2014 according to the timeline.

B. Indicators

- # SW-HWS (tippy taps) installed to date: 1031
- # Hygiene IPA Assistants (IPAAs) trained to date: 139
- # Number of participants enrolled: 2,678 (875 in Hygiene arms and 583 in active control arms)
- # Attriters: 25

C. Behavior Change Efforts

The Behavior Change Communication (BCC) team has created a variety of tools to promote handwashing including visual aids, pledges, and visit scripts. The tools are used in sync to support the key messages in the hygiene, WASH, and WASH+ arms.

The IPA Assistants (IPAAs) use eight visual aids to promote handwashing when conducting their monthly visits. The visual aids highlight that using tippy taps to wash hands at critical times is integral to a family’s well-being and to the future success of their children. In contrast, the visual aids also highlight the potential negative impact of poor hygiene on a child’s health and success. Six visual aids and a calendar are given to the respondents as a reminder of the benefits of hand washing and the tippy tap – the final two visual aids are used by the IPAAs as a teaching tool when conducting monthly visits. In addition to visual aids, we have also created pledges for respondents. The pledge is a reminder of the household’s commitment to practicing handwashing and to maintaining the tippy tap.

IPAAs visit study household monthly and reiterate hygiene key messages and promote handwashing. The IPAAs use standardized visit scripts to deliver messages and assess a household’s understanding of the key messages; these scripts change month to month

based on the key messages which need to be delivered. The household visits are supplemented by reviewing the visual aids and reciting the compound pledge to remind households about the importance of proper hygiene practices.

3. Contracts with Partners

Catapult Design Team- Finalized and signed.

SweetLab at Portland State University- Finalized and signed.

Soapy Water-Handwashing Station (SW-HWS) Milestone 3

1. Project Implementation Update

A. Personnel

- Gauthami Penakalapati has transitioned fulltime to SW-HWS.
- Hiring of Health Impact Evaluation field staff and programming managers has started. We have distributed the JD for the Program Manager (PM) position and will begin hiring field staff mid to late January 2014.
- Hiring of implementation and evaluation field staff is yet to be carried out as field work will not commence until June 2014.
- Initial discussions regarding protocol development for the pilot approaches to scale up have begun. Negotiations with potential partners and outreach to stake-holders will begin in early to mid-2014 once more details of the plans for pilot implementation have been finalized.

B. Indicators

- # SW-HWS (tippy taps) installed to date: 2,181
- #IPA Assistants (IPAAs) in Hygiene Arms trained to date: 243
 - Note: IPAAs are equivalent to field health promoters. They distribute and demonstrate IPA behaviour change messaging and teach respondents how to use interventions.
- # Number of participants enrolled at baseline: 2,467 (1,462 in Hygiene arms and 1,005 in active control arms)
- # Block 1 Confirmed Distance Migrants (see definition in Section 2: First Attrition Visit): 10 (3 in Hygiene Arms and 7 in Active Control Arm)
- Block 2, 3 and 4 Initial Reports for # of Distance Migrants: 38 (19 in Hygiene Arms and 19 in Active Control Arm)

C. Summary of Catapult's Field Research Trip to Kenya

The Catapult team visited Kenya from August 14, 2013 to September 2, 2013. During this time, Catapult visited field sites and respondent homes; conducted stakeholder interviews with respondents and IPA field staff; and visited a health clinic, dispensary, and a primary school to gather information on needs and challenges. Catapult will be in Kenya from January 20, 2014 to February 7, 2014 to test concept re-designs in the field.

Attached documents include:

- a. **SW-HWS Redesign Research Report:** This report highlights findings from Catapult's first visit to Kenya. The report highlights design elements that are starting to show wear and tear on the original SW-HWS model and provides short term fixes or temporary solutions to these problems. In addition, Catapult shares a brief noting redesign points and how they will be used in the next SW-HWS design iterations.
- b. **Design Debrief:** The debrief offers a synopsis of identified user needs and IPA considerations.
- c. **SW-HWS Redesign Concepts:** This report provides a visual summary of Catapult's redesign options.
- d. **In-depth Redesign Preliminary Concept Development:** This brief identifies three main redesign points and highlights the corresponding preliminary concept "solution." These "solutions" or fixes are in development and will be adjusted as necessary to meet the needs of the redesign points.

D. Summary of SWEETLab’s Field Research Trip to Kenya

The SWEETLab team visited Kenya September 23, 2013 – October 1, 2013. We installed four sensors and conducted three days of field testing. The team visited 10 households with approximately sixty observations of SW-HWS usage. The data collected from the sensors has been analysed but further testing is being conducted to finalize sensor algorithms being analysed by the SWEETLab team in Portland, Oregon. The report will be shared in January 2014. Sensor design will be moving forward in tandem with the Catapult design concepts.

2. First Attrition Visit

For study purposes, attrition visits were conducted at distance migrant households. Distance Migrants are respondents who have moved with the study child to locations further than 150 Kenyan shillings (KSH) via public transport from their original cluster. For a study child to be considered an attriter, one of the following has to be met:

- a. Respondent (mother/caregiver of the study child) no longer wants to participate in the study and has withdrawn consent
- b. Study Child and their mother/caregiver cannot be located for a scheduled data visit by IPA staff.
 - i. Respondents are called at least 5 times to schedule visit dates. Once a visit has been scheduled, IPA staff will attempt to physically locate a respondent at least once. If we are still unable to locate a respondent, the respondent is considered to have attrited.

	# Block 1 Respondents	# Distance Migrants	# Tracked and Visited	# SW-HWS Delivered	% Respondents Participating in Interventions and Tracked
Hygiene Arms	184	3	1	2	98.9%
Active Control	121	7	5	N/A	98.3%
Total	305	10	6	0	98.7%

Note that respondents in the passive control (PC) arms will be tracked and visited at midline (12 months). PC respondent numbers are not included in the above table.

Once we are notified of a potential study child distance migration or attrition, field staff confirms with the respondent’s IPAA and the respondent themselves. After confirming with both the IPAA and the respondent that the study child has distance migrated, we scheduled appointments with the respondent in their new village to deliver customized BC messaging and to deliver interventions when necessary.

We are currently developing a system of tracking and visiting respondents who have distance migrated to cities such as Nairobi and Mombasa which are far from the Bungoma and Kakamega study sites. Of the ten distance migrants in the hygiene arms and active control arms, two respondents moved to Nairobi and one moved to Uganda. We will schedule visit appointments with the Nairobi respondents in January 2014. Respondents who move outside of Kenya will not be tracked or visited because this requires additional IRB approval from the new host country.

When visiting distance migrants, we schedule appointments with the respondent two-three days prior to the scheduled visit date. Even with scheduled visit dates, respondents can be difficult to track because their phones are often turned off or they lack a phone themselves, and are forced to rely on their spouses, relatives, or village elders. This has hindered field staff from locating some respondents despite the pre-arranged visit date.

Soapy Water-Handwashing Station (SW-HWS) Milestone 4

1. Project Implementation Update

A. Personnel

- Silas Bwire has been hired as SW-HWS Program Manager and began his duties on March 1, 2014.
- Carol Nekesa has fully transitioned from IPA-Kenya management to the SW-HWS Project as a Research Manager.
- Field staff hiring for attrition visits will take place in June/July 2014. The larger WASH-Benefits Project is currently restructuring as the project reaches midline, so the SW-HWS project will absorb some of the highly trained staff which are transitioning off other project activities.

B. Implementation Progress Indicators

- # SW-HWS (tippy taps) installed to date: 2,873
- #IPA Assistants (IPAAAs) in hygiene arms trained to date: 295
Note: IPAAAs are equivalent to field health promoters. They distribute and demonstrate IPA behavior change messaging and teach respondents how to use the dual tippy taps.
- # Number of participants enrolled at baseline: 4,131 (1841 in hygiene intervention arms and 1305 in active control arms)

2. Activity Updates

A. Attrition/Migration Tracking

- Phone calls tracking respondents who have reported to have migrated or attrited have been running smoothly. We have had some difficulty getting in touch with respondents during the day, and so we have focused our efforts to call respondents in the late afternoon/evening hours. We have also noticed that respondents are more likely to share their migration information with a female caller than with a male caller.
- Calls and visits to migrants are organized by blocks. A block is a cohort of respondents enrolled during the same time period.
 - Calls are conducted with all *potential* migrants in the hygiene and active control arms. During these calls, we collect information on the migrant's new location. After calls are completed and we have confirmed the new location of the respondents, we organize to visit them four times throughout the two year study. Visits are conducted with distance migrants; these are migrants who have moved beyond a distance that would require 150 Kenyan shillings in transport costs from their original village. These visits are comprised of behavior change communication messaging, survey delivery at midline and endline, and intervention dispersal including handwashing stations, chlorine bottles, potties, and kipupus.
- Block 1 midline survey and attrition midline survey and Block 2 first attrition visits have started.
 - Block 1 midline survey and attrition midline survey will be conducted with respondents in hygiene, active control, and passive control arms.
 - Block 2 first attrition visits will be conducted with respondents in hygiene and active control arms only.

Distance and Potential Distance Migrants to Date

Block	Total Migrants	# Migrants in Hygiene Arms	# Migrants in AC Arms	# Migrants Visited	# Migrants Tracked via Phone Call (Hygiene and AC Arms)
1	30	9	7	6 and in progress	7
2	34	14	9	In progress	13
3	42	13	13	-	10
4	25	15	1	-	1
5	20	8	7	-	10

B. Catapult Redesign of SW-HWS

Noel Wilson, lead designer at Catapult Design, visited Kenya for the second time from January 27 to February 14, 2014. During this time, Catapult visited five households, two clinics and three schools in rural and peri-urban areas in and around Kisumu. The purpose of these visits was to pilot multiple SW-HWS prototypes among users, and conduct observations and guided questioning to tease out perceived challenges and benefits to design features. These visits also provided an opportunity for household members (adults and children), teachers, students and clinic staff to offer design input. Catapult has incorporated this feedback into a final design concept and will return to Kenya for a third and final visit in late April 2014 to test the redesigned SW-HWS with stakeholders, manufacturers, and users.

Attached Report: Prototyping Field Trip Report – March 5, 2014

The attached field trip report visually documents the initial prototypes, iterative learning, and refined concept for the SW-HWS redesign. This report should be treated as confidential.

C. SWEETLab Sensor Installation

Sample sensor data collected from SWEETLab's previous visit in fall 2013 has been analyzed and the algorithm for translating the sensor signals into handwashing events has been validated. Six sensors have been deployed and installed on dual tippy taps in WASH Benefits households. These sensors are installed in households for seven to ten days and will continue to be cycled through households in the hygiene arms of the study. Data collected from these sensors will be analyzed by SWEETLab/IPA on an ongoing basis.

Attached Report: SWEETLab Field Report

This report provides a summary of activities conducted to pilot and validate the sensors during the fall 2013. It also details the sensor data analysis methodology and provides analysis of the sample data collected in fall 2013.



Figure 1: Photographs of two of the six sensors installed in households. Sensors are circled.

D. Pilot Studies Update

We conducted a stakeholder workshop co-facilitated by Catapult Design in fall of 2013. We organized individuals working in hygiene and hand-washing in rural areas to discuss the challenges in handwashing. The group brainstormed ideas on how to make handwashing a habit, how to prevent vandalism and theft of handwashing stations and soap, and how to empower households to adopt handwashing practices organically. Highlights from this stakeholder workshop were included in the SW-HWS Redesign Report, September 2013 (attached).

In addition, in collaboration with Catapult Design, we have conducted scoping for potential study sites and collected qualitative data regarding the perceived barriers to handwashing, needs for improved handwashing tools, and current handwashing practices. We collected this information in peri-urban households, clinics, and schools in Kisumu to inform the design of the SW-HWS pilot studies.

Highlights from scoping activities:

Among the peri-urban households, we discovered that water was usually purchased and collected at a communal tap. Households use 20L jerry cans to collect water, but a variety of containers, basins, and buckets of differing sizes were also used to collect rain water. Durability of containers was a concern for households; containers were damaged by sunlight, rats, and misuse by children. Bar soap was preferred and used for a variety of uses including washing clothes and dishes and bathing. The households expressed a need for sturdy but lightweight handwashing devices.

We visited three schools and two clinics. School populations ranged from 560 to 1000 students. Schools primarily relied on rainwater harvested in tanks; for example, the boreholes at two schools were broken. Existing handwashing stations were large containers (20-60L) with taps supported on metal stands; soap was scarce and soap theft was a concern raised in all three schools. The water tanks were used to wash hands and feet, rinse dishes and utensils, and were sometimes the source of drinking water. Due to the large number of students, water frugality was an important and desirable feature of handwashing stations raised by teachers.

The two clinics we visited had different hand hygiene needs. One clinic had running water in the maternity ward and kitchen, and liquid soap was available for nurses and doctors to wash their hands. Plumbing was not available for patients, but they had access to 20L containers (some with bar soap) on the clinic grounds to wash hands. As with the schools, soap theft was a common concern among the clinic staff. One clinic had a functional borehole in addition to rainwater harvesting tanks. The second clinic purchased 200L of water a day and stored it in 20L containers on metal stands. Clinic staff and patients had access to these containers but soap was not available. There were sinks but the clinic lacked plumed water. Staff at both clinics said they would prefer foot pedal sinks as their ideal handwashing station.

These scoping activities have provided us information on the needs and challenges experienced by households, teachers and students, and clinical staff. The initial findings on the value of handwashing tools and current practices will help us design the scope and scale of the pilot studies. For example, visiting schools has given us a rough idea of the number of handwashing units schools prefer to meet the handwashing needs of their student population. We will be using this information to understand how the pilot studies will fit into existing infrastructure and conditions, assess economic factors among households, and will help us design the sampling framework and design the sampling strategy.

For detailed profiles of the households, schools, and clinics, please refer to pages 28 – 32 and 36 – 37 of the Catapult Prototyping Field Trip Report.

E. Attached Documents

- Signed Letter Approval to Revise Milestones and Due Dates
- Catapult Prototyping Field Trip Report, March 2014
- Catapult SW-HWS Redesign Report, September 2013: Stakeholder Workshop
- SWEETLab Field Report, March 2014

Soapy Water-Handwashing Station (SW-HWS) Milestone 5

1. Project Implementation Update

A. Personnel

- Molly Ingram, currently the Data Collection Coordinator in WASH-Benefits, will be managing the attrition and migration activities including visits, surveys, and intervention deliveries. She will be assisted by Silas Bwire, a SW-HWS program manager, to facilitate field activities.
- Stephen Kalungu, currently the Data Collection Project Associate in WASH Benefits, will be managing the installation of sensors.
- Wit Wichaidit, a PhD student from University of Buffalo and Pavani Ram, is currently in Kisumu (June to August 2014) organizing field work, creating toolkits, and building relationships with schools and their communities. Wit is being assisted by a program officer for Kiswahili translations and relationship development with school masters and teachers.
- Field staff hiring for attrition visits will take place in July 2014. All field staff hires must pass an anthropometry training from June 30th to August 15th. Afterward, new hires will be trained in specific attrition and migration activities.
- Gauthami Penakalapati has completed her contract with IPA, and we are currently in the hiring process for a Project Associate to manage the pilot studies and the sensors.
- Carol Nekesa has completed her contract with IPA. IPA headquarters is currently hiring a new research manager to oversee the SW-HWS project.

B. Implementation Progress Indicators

- # SW-HWS (tippy taps) installed to date: 5,204
- #IPA Assistants (IPAAs) in hygiene arms trained to date: 377
Note: IPAAs are equivalent to field health promoters. They distribute and demonstrate IPA behavior change messaging and teach respondents how to use the dual tippy taps.
- # Number of participants enrolled at baseline: 8,244 including Block 1 to Block 8 (2,750 in hygiene intervention arms and 2,856 in active and passive control arms)

2. Activity Updates

A. Attrition/Migration Tracking

A1. Phone calls tracking respondents who have reported to have migrated or attrited have been running smoothly. We recently completed our 6 month check-in with all migrants in Blocks 3 and 4.

- a. Calls and visits to migrants are organized by blocks. A block is a cohort of respondents enrolled during the same time period. During these calls, we collect information on the migrant's new location. Visits are conducted with distance and local migrants. Distance migrants, those who have moved beyond a distance that would require 150 Kenyan shillings in transport costs from their original village, are visited by IPA staff. Local migrants, those who moved within a distance of 150 Kenya shillings in transport costs from their original village, are visited by the respondent's IPAA quarterly. These distance and local visits are comprised of behavior change communication messaging, survey delivery at midline and endline, and intervention dispersal including handwashing stations, chlorine bottles, potties, and kipupus.

A2. The plan to conduct distances visits at the 12 month time point has changed. At 12 months, we will focus on visiting all non-migrants and local migrants and stay in contact with the distance migrants via phone calls. This allows us to conserve resources so that at endline, 24 months, we will be able to visit as many distance migrants as can be found throughout all of Kenya. In addition, we are finding that we are keeping in touch with more than 80% of all participants; this allows us to conserve resources to track and find distance migrants at critical points such as endline. We will,

however, be keeping in touch via phone calls to distance migrants between two and three times a year.

A3. Totals: The following table indicates the number of tracked migration cases per block at the specified time point. Block 7 and Block 8 are coming up on the 2 month time point but have not been tracked at 2 months yet. The % Tracked row includes all respondents except the unresponsive cases as a percentage of all respondents. Tracked respondents are respondents who have been reached via phone or have visited.

Block		1 (12 months)	2 (5 months)	3 (6 months)	4 (6 months)	5 (2 months)	6 (2 months)	Total
Local Migrants	Total*	11	8	22	7	2	1	57
	Hygiene	5	1	11	5	2	0	22
	Active Control	3	5	3	1	1	0	12
Distance Migrants	Total*	31	25	40	28	19	3	155
	Hygiene	11	11	12	10	5	1	45
	Control	8**	6	14	5	9	0	33
Potential Migrants	Unresponsive Cases	11	3	24	19	8	8	73
Total Enrolled		534	860	1293	1416	725	823	5651
% Tracked		97.9%	99.6%	98.1%	98.6%	98.9%	99.0%	98.1%

* Total includes all arms: Hygiene arms (Hygiene, WASH, and WASH+) and non-hygiene arms (Nutrition, Sanitation, and Water)

** Includes passive and active control respondents

A4. Block 1 midline survey has been completed for WASH-Benefits respondents and for migrated respondents. Midline survey was completed in January and February 2014. Midline survey instrument is attached.

Attached: WASH-Benefits Midline Survey

B. Catapult Redesign of SW-HWS

Noel Wilson, lead designer at Catapult Design, visited Kenya for the third time from May 5 to May 16, 2014. The purpose of this visit was to test the plastic prototype designed in the US and to visit plastics manufacturers in Nairobi to assess their capacity for scaling up the handwashing system (HWS).

To test the plastic prototype, Catapult visited four households and three primary schools in peri-urban areas in Kisumu. These visits provided an opportunity for household members (adults and children), teachers and students to comment on the design and functionality of the HWS. The prototype was well received, but to test the design of the HWS, Noel and Gauthami built ten “stop-gap” products made out of locally available materials. These “stop-gap” products were left with the households (one for each household) and schools (two for each school). We hope to continuously monitor the status of these “stop-gap” products to test the durability of the soap foamer, the ease of refilling and emptying water from the buckets, and the functionality of the design (ex. height of the stand and volume of the buckets).

Noel also visited four plastics manufacturers in Nairobi to assess their capacity for manufacturing various plastics pieces of the HWS. The attached report goes into detail about the best manufacturing option for each piece of the HWS.

Attached: Catapult Redesign Report July 2014

C. SWEETLab Sensor Installation

Sensor installation continues as scheduled. The sensors are deployed and installed on dual tippy taps in WASH Benefits households for up to 14 days. Data collected from these sensors will be analyzed by SWEETLab/IPA on an ongoing basis. A SweetLab Field Report was submitted at the last milestone deliverable on April 2014 but is again attached to this milestone deliverable.

Attached Report: SWEETLab Field Report

This report provides a summary of activities conducted to pilot and validate the sensors during the fall 2013. It also details the sensor data analysis methodology and provides analysis of the sample data collected in fall 2013.

D. Pilot Studies Update

We hosted a stakeholder workshop on June 12, 2014 in Kisumu, Kenya to share the design of the HWS and to discuss the pilot studies. Health and education representatives from Kisumu County and the Kenyan national government participated as well representatives from local organizations (see attached report for full attendance list).

We are also submitting an IRB proposal to Maseno University in Maseno, Kenya on July 28, 2014 with the protocol and toolkits for the pilot studies. The submitted IRB and any amendments will be provided at the milestone 6 report in October 2014.

Attached: SW-HWS Stakeholder Meeting Report June 2014

E. Dissemination Strategy

Public Sector Champions: Kisumu County Health and Education Offices

Kisumu county health and education officials participated in the SW-HWS Stakeholder Meeting. We will continue to keep in touch with Mr. Arthur Shikanda and Mr. Sylvester Mulame through the pilot phases of this project and keep them informed of our activities. Pilot activities will start in early October but we will keep education and health officials notified of progress.

Private Sector Champions: Dukas (small scale privately owned goods store)

Dukas are essential in the willingness to pay study, and so we will be actively engaging them to promote the HWS. During the marketing phase of the willingness to pay study, we will recruit dukas in select peri-urban communities and promote the benefits of the HWS. These dukas will be the ones who will be holding the HWS until households wish to purchase them during the willingness to pay study. We will be reaching out to individual duka owners in September. Liaising with dukas will provide us experience to build relationships with larger suppliers and stores such as Nakumatt – store supplying foodstuff and household supplies located throughout Kenya.

F. Attached Documents

- Signed Letter Approval to Revise Milestones and Due Dates
- Midline Survey Instrument
- Catapult Redesign Report July 2014
- SWEETLab Field Report March 2014
- SW-HWS Stakeholder Meeting Report June 2014
- Ministry of Education Letter of Support
- Ministry of Public Health Letter of Support

Soapy Water Handwashing Station (SW-HWS) Milestone 6

1. Project Implementation Update

a. Personnel

- i. Rachel Steinacher has joined the project as a Research Manager with IPA and will oversee the SW-HWS project.
- ii. Jaynie Whinnery has joined the project as a Senior Research Associate with IPA and will be managing the willingness to pay and pilot studies.
- iii. Molly Ingram, currently the Data Collection Coordinator in WASH-Benefits, continues managing the attrition and migration activities including visits, surveys, and intervention deliveries. She is assisted by Silas Bwire, a SW-HWS program manager, to facilitate field activities.
- iv. Field staff members who will conduct attrition visits have been identified for future activities.

b. RCT Implementation

- i. # SW-HWS (tippy taps) installed to date: 5,374
- ii. # IPA Assistants (IPAAs) in hygiene arms trained to date: 414
- iii. # Participants enrolled at baseline in study: 8,248
Participants in hygiene related arms: 2,751
Participants in active/passive control arms: 2,858
- iv. Implementation of SW-HWS has gone as scheduled. Challenges with durability of SW-HWS were discovered during Rapid Uptake Assessments which resulted in maintenance activities. IPA staff members are currently in the process of replacing faulty parts 11 months after the community meeting. Faulty parts include: jerrycans which were not UV resistant and were cracking and support poles which degraded from termites. These are being replaced with UV resistant jerrycans and treated support poles.
SW-HWS (tippy taps) visited and maintained to date: 1,758
- v. SW-HWS construction has been completed in all blocks and the project has begun maintenance activities. There are 96 households which are enrolled in the overall RCT, but elected not to consent to intervention delivery (including SW-HWS).

c. Pilot projects and willingness to pay study

- i. The procurement process has begun for the pilot study and willingness to pay study SW-HWS units. Materials for 200 units are currently being manufactured and purchased as necessary, with final SW-HWS prototype assembly to be completed in December 2014.
- ii. For the pilot projects in schools data collection procedures have been tested at three primary schools in Kisumu County. Additionally, SW-HWS prototypes and behavioral interventions have been piloted at three other primary schools in Kisumu County.
- iii. Stanford IRB approval has been granted, contingent upon receiving local IRB approval.

Attached: Stanford IRB Approval

- iv. Local IRB approval has been granted after minor revisions as requested by the Maseno University Ethics Review Committee (MUERC).

Attached: Local IRB Approval

- d. Attached Documents
 - i. Stanford IRB Approval
 - ii. Local IRB Approval

month)								
Local Migrants	10	12	23	14	14	9	18	0
Distance Migrants	38	99	63	51	44	41	26	3
Unresponsive Cases	5	47	31	54	14	24	31	23
Total Enrolled	534	860	1293	1416	725	1054	1641	721
% Tracked	99.0%	94.5%	97.6%	96.1%	98.0%	97.7%	98.1%	96.8%

- ii. Tracking phone calls continue to run well. The call schedule has been modified due the frequent in-and-out migration of study respondents and the difficulties of reaching respondents or community promoters. Currently we attempt to confirm all new cases within the month that they are reported, and if there are cases which were unconfirmed in a previous month, we will attempt to confirm those as well.
 - iii. At the 12 month time point, we speak with compound members and community members to collect information on new and previously reported migration cases. We also visit with local migrants.
 - iv. We now have 4 staff dedicated to the AM team. They work on making confirmation phone calls to reported attrition and migration cases, and they assist in visiting respondents that were out of the village or not present during the scheduled 12 month visit.
- d. Pilot projects and willingness to pay study
- i. Materials for the 200 SW-HWS prototype units have been procured and assembly is underway.
 - ii. A Kenyan Marketing and Graphic Design consultant, ACTIV Ltd., has been hired to develop SW-HWS product branding (e.g., product logo, brand name) and marketing materials to be used in the willingness to pay study as well as the school and clinic pilot studies.
- e. SWEETLab sensor installation
- i. Two meetings were held between IPA staff and SWEETLab staff, with consultation from IPA's Senior Data Coordinator, to finalize the updated sensor design for the SW-HWS prototypes so that both water and soap usage can be measured
 1. October 31, 2014 in Kisumu, Kenya
 2. December 29, 2014 in Portland, Oregon, USA
 - ii. Seven of the eight remaining sensors have been installed and verified with SW-HWS prototypes. The eighth sensor had an unforeseen manufacturing defect and is in the process of being replaced by the SWEETLab.

Attached: IPA-SweetSense Installation of Sensors for HWS Stopgap Prototypes manual

- f. Attached Documents
 - i. IPA-SweetSense Installation of Sensors for HWS Stopgap Prototypes manual

**MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
STATE DEPARTMENT OF EDUCATION**

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When replying please quote

CDE/KSM/GA/20/13/67

10th February, 2015

Innovations for Poverty Action Kenya
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LETTER OF SUPPORT

This letter expresses the support of the Ministry of Education for the pilot study of Soapy Water Hand Washing Stations (SW-HWS) funded by USAID Development Innovation Ventures (DIV). This pilot study will involve the installation, monitoring and evaluation of Soapy Water Hand Washing Stations in at least 30 selected primary school in peri-urban Kisumu.

The Ministry of Education wishes to rigorously evaluate programs in the education sector, including the integration of education and health programs and learn best practices from research experiments in order to promote evidence-based decision as one of the challenges that needs to be addressed to improve the health of children. The piloting of Soapy Water Hand Washing Stations in primary schools will provide evidence regarding the implementation of these Hand Washing Stations in relations to school hygiene behavior change.

The project seems to fit well within USAID's approach to improving the health of Kenyan children by supporting the development of low cost innovations that can be potentially scaled up by the government and its partners.

We are happy that this initiative will be led by Innovations for Poverty Action (IPA) which has been instrumental in providing technical assistance to the National Schools Based Deworming Programme in Kenya since 2009 and we look forward to the results of this pilot study.


MILCAH ARUCHO

For: COUNTY DIRECTOR OF EDUCATION
KISUMU

Soapy Water Handwashing Stations (SW-HWS) Milestone 9

1. Project Implementation Update

a. Personnel

- i. Molly Ingram, currently the Data Collection Coordinator in WASH-Benefits, continues managing the attrition and migration activities including visits, surveys, and intervention deliveries. She is assisted by Silas Bwire, a SW-HWS Field Manager, to facilitate field activities.
- ii. Rachel Steinacher, Research Manager for SW-HWS, and Jaynie Whinnery, Senior Research Associate for SW-HWS, continue managing the willingness to pay and pilot studies. They continue to be assisted by Jemima Okal, Associate Field Manager, who coordinates logistics for field activities and manages Field Officer training and performance.
- iii. WASH Benefits has begun a search for an Attrition Migration Research Coordinator who will aid the tracking of respondents for the RCT Impact evaluation for SW-HWS during the Endline Survey period of the project.
- iv. Three Field Officers have been hired in Kisumu to conduct the willingness to pay study and school and clinic pilot field activities.
- v. All field staff conducting SW-HWS field activities have been trained and have been performing well.

b. RCT Implementation

- i. Implementation of SW-HWS has gone as scheduled. Operation and Maintenance of the SW-HWS is being conducted and is complete in Blocks 1-6. IPA staff members are installing UV resistant jerrycans and treated support poles.
- ii. SW-HWS construction has been completed in all blocks and the project has begun maintenance activities. There are 96 households which are enrolled in the overall RCT, but elected not to consent to intervention delivery (including SW-HWS).

c. Willingness to Pay Implementation

- i. Manufacturing and assembly of the SW-HWS prototypes to be used in the WTP study is well underway, with 100% of soap foam dispensers completed, 100% of bucket handwashing stations completed, and 30% of pipe handwashing stations completed.
- ii. Product branding is complete and all marketing materials required for the willingness to pay study have been printed in English, Swahili, and Dhuluo (e.g., marketing flyers, vouchers). Through a focus group held at the IPA office in Kisumu, a new product name is “Povu Poa”, meaning “Cool Foam” in Swahili. Additionally, a logo has been developed to brand the products.

- iii. Community meetings and focus groups are scheduled to be held in April as the first phase of data collection for the willingness to pay study.

Attached: Povu Poa Logo (final), Marketing Flyer (English), Purchase Vouchers (English)

d. School and Clinic Pilot Implementation

- i. Manufacturing and assembly of the SW-HWS prototypes to be used in the School and Clinic Pilot studies is well underway, with 100% of soap foam dispensers completed, 100% of bucket handwashing stations completed, and 30% of pipe handwashing stations completed.
- ii. Other intervention materials have been printed including a handwashing poster and lyrics to the Osha Mikono (handwashing) song, which will be positioned alongside the SW-HWS in every school participating in the study.

Attached: Handwashing Poster (English), Osha Mikono (Kiswahili)

Soapy Water Handwashing Station (SW-HWS) Milestone 10

Project Implementation Update

1. Personnel

- a. Molly Ingram, currently the Data Collection Coordinator in WASH-Benefits, continues managing the attrition and migration activities including visits, surveys, and intervention deliveries. She is assisted by Silas Bwire, a SW-HWS Field Manager, to facilitate field activities.
- b. Rachel Steinacher, Research Manager for SW-HWS, and Jaynie Whinnery, Senior Research Associate for SW-HWS, continue managing the willingness to pay and pilot studies. They continue to be assisted by Jemima Okal, recently promoted to the position of Field Manager, who coordinates logistics for field activities and manages Field Officer training and performance.
- c. Frank Odhiambo has joined the WASH Benefits project as Attrition/Migration Research Associate and will be coordinating surveys with study migrants including those in the Soapy Water cohort. Mr. Odhiambo is assisted by Silas Bwire, a SW-HWS program manager, to facilitate ongoing tracking activities.
- d. Field staff members who will conduct attrition visits have been onboarded and are conducting activities. The attrition visit/survey team will be expanded in August
- e. Field staff members who are conducting willingness to pay and pilot study activities continue to perform well.

2. RCT Implementation

- a. # SW-HWS (tippy taps) installed to date: 5,374
- b. # IPA Assistants (IPAAs) in hygiene arms trained to date: 414
- c. # Participants enrolled at baseline in study: 8,248
Participants in hygiene related arms: 2,751
Participants in active/passive control arms: 2,858
- d. Implementation of SW-HWS has gone as scheduled. Challenges with durability are explained in previous reports which necessitated maintenance activities which were completed in May 2015. Number of SW-HWS (tippy taps) maintained: 5,170
- e. SW-HWS construction has been completed in all blocks and the project has completed maintenance activities. There are 96 households which are enrolled in the overall RCT, but elected not to consent to intervention delivery (including SW-HWS).

3. Attrition/Migration Updates on RCT

- a. Totals: The following table indicates the number of tracked migration cases per block at the specified time point. The % Tracked row includes all respondents except the unresponsive cases as a percentage of all respondents.

Block (and current month)	1 (29 months)	2 (22 months)	3 (20 months)	4 (18 months)	5 (17 months)	6 (15 months)	7 (13 months)	8 (12 months)
Local Migrants	8	17	18	20	15	11	19	0
Distance Migrants	45	94	72	53	45	37	49	11
Unresponsive Cases	7	12	14	50	4	25	27	11
Total Enrolled	534	860	1293	1416	725	1054	1641	721
% Tracked	98.7%	98.6%	98.9%	96.5%	99.4%	97.6%	98.4%	98.5%

- b. Tracking phone calls is being done by the AM team with help from the Implementation team call staff. Currently we attempt to confirm all new cases within the month that they are reported, and if there are cases which were unconfirmed in a previous month, we will attempt to confirm those as well.
- c. During main study midline survey (at the 12 month time point) we speak with compound members and community members to collect information on new and previously reported migration cases. During the upcoming main study endline survey (set to launch in August), we will also collect this tracking information for migrants. We also visit with local migrants in all of our midline and endline activities.
- d. We currently have 4 staff dedicated to the AM team, which is set to expand to 10 in July when additional staff are trained on conducting surveys and tracking migrants. The staff works on making confirmation phone calls to reported attrition and migration cases, and assist in visiting respondents that were out of the village or not present during the scheduled 12 month visit.

4. Willingness to Pay Implementation

- a. Manufacturing and assembly of the SW-HWS prototypes to be used in the WTP study is complete.
- b. Two Focus Group Discussion (FGD) sessions were held in April/May with a total of 55 participants.
- c. Take-it-or-leave-it (TIOLI) Round 1 Baseline was conducted in May/June with a total of 40 participants. TIOLI Round 2 Baseline has been initiated with 20 participants enrolled so far.

Attached: WTP FGD Summary Report

5. School and Clinic Pilot Implementation
 - a. Manufacturing and assembly of the SW-HWS prototypes to be used in the School and Clinic Pilot studies is complete.
 - b. Baseline data collection has been completed.
 - c. SW-HWS prototypes have been installed at the clinics (4) and Group 1 schools (10) as planned.
 - d. Follow-up Round 1 has been completed for all schools (30) and clinics.

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When replying please quote:

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REF: GN 33B VOL.111V (111)

DATE: 17th February, 2015

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RE: LETTER OF SUPPORT

This letter expresses the support of the Ministry of Health for the pilot study of Soapy Water Hand washing Stations (SW-HWS) funded by USAID Development Innovation Ventures (DIV). This pilot study will involve the installation, monitoring, and evaluation of Soapy Water Handwashing Stations in at least 4 selected health clinics in peri-urban Kisumu.

The Ministry of Health supports this initiative to address barriers to regular hand washing at both the household and community level by using SW-HWS as this will contribute to improved hygiene practices and reduction in faecal oral disease transmission such as diarrhoea.

The Ministry has no objection to the proposed pilot study activities. We are also happy to note that this initiative will be led by Innovations for Poverty Action (IPA), which has spearheaded the implementation of health projects like the Dispensers for Safe Water and Deworm the World programs in many parts of the country, and we look forward to the results of this pilot study.

for *Elly Nyambore (Elly Nyambore) CDSC* 17/2/2015
Dr. Dickens Onyango
Ag. County Director of Health
KISUMU COUNTY