Overview by Track Lead: Julia Rosenbaum, USAID/WASHplus Project Senior Behavior Change Advisor

🤏What does sustainability mean for handwashing and hygiene?

For the hygiene track, and this overview paper, we have limited the "hygiene" definition to include only handwashing with soap (HWwS) and household drinking water treatment, safe handling and storage (HWTS), rather than a broader treatment of hygiene which could include food hygiene, menstrual hygiene, compound hygiene including topics relevant to the emerging environmental enteropathy hypothesis such as safe disposal of animal feces.

When applying concepts of sustainability to handwashing and HWTS, even more than water and sanitation, the focus of the track discussions will emphasize sustaining consistent and correct practice – or sustained behavior change rather than on elements that support technology and the community, private and/or public sector systems so important to sanitation and water sustainability

The literature on improving handwashing practice and then sustaining or maintaining practice suggests determinants such as social norms, policy, and presence of "enabling technologies" (like tippy taps and water treatment products) are the primary factors required to sustain behaviors rather than issues around functioning hardware, community maintenance and local governance. . These technology and systems issues lie within the household domain rather than community or government. Availability of key supplies and spare parts, and willingness to pay also factor into the equation; as does sustained maintenance of handwashing stations and water filters.

Two major reviews of elements associated with sustaining handwashing behavior and technologies show triggers and determinants of initiating practice, and to varying extents identify the factors affecting consistent and correct practice over time. (K Hulland, R Dreibelbis, N Martin et al, 2014 in press) Scott and colleagues examined motives for hygiene behavior in consumer research on handwashing with soap, finding nurture, disgust, and social concerns are key themes (Scott, Curtis, Rabie, & Garbrah-Aidoo, 2007). A review of formative research on handwashing in eleven countries, Curtis, Danquah and Aunger (2009) find that a number of psychosocial factors are influential in motivating hygiene behavior. They suggest factors like disgust, social status, nurture and comfort drive handwashing practice, while fear of disease was not a common behavioral factor. HWwS practitioners are beginning to acknowledge that HWwS at the various junctures (before cooking and feeding, after defecation, etc.) may in fact have different motivators and determinants and should most probably be treated as distinct behaviors when planning evidence-based interventions. Treating them as distinct behaviors will most likely result in more impactful behavior change interventions and thus increase their sustained practice.

Turning to determinants of water treatment practices, a recent systematic literature review of behavioral research into household water treatment revealed that there is very limited conclusive or informative evidence on behavior change in this area (Parker Fiebelkorn et al, 2012). The limited literature revealed that factors include self-efficacy (an individual's own estimation of their ability to successfully perform the behavior), cost of the treatment product, taste of the treated water, whether currently practicing, where there is intention to practice, the belief/perception that the water is dirty and needs to be treated, and the belief/perception that the water can make them or their kids sick.

Another recent paper also revealed that diffusion of innovation (the informal spread of the new behavior) through social networks and possibly word of mouth, i.e. social norms, appeared to play a strong influence in uptake of HWTS behavior among women in Malawi (Russo et al, 2012; Wood et al,

2012). Social and peer support (for example, regular visits by community health workers to follow up on the behavior) have also been shown to be influential. (Wood et al, 2012).

Looking particularly at <u>sustained </u>practice of HWWS and HWTS, less is known. While the literature is replete with a variety of handwashing studies in (household), community, school and healthcare settings, none have been able to definitely document long term behavior change, therefore challenging the sustainability of interventions and the ability to document factors influencing such sustainability. (Stephen Vindigni, Patricia L. Riley and M Jhung, Trop Med and Intl Health, 2011). One study from Haiti showed long-term uptake of chlorine treatment of drinking-water at the household level (Harshfield et al, 2012).Other literature reviews and best practice suggest the following as most influential in the sustained performance of HWwS and HWTS:

- Presence of enabling technologies, particularly a fixed handwashing station;
- Availability of spare parts or key supplies e.g. parts for filters, hygienic buckets, and soap, ability and willingness to pay for related enabling technologies like treatment methods and soap
- Key knowledge (when and how to handwash, how to treat water and store safely, how to maintain containers)
- Supportive social norms (pressure that those important to you think you should do the behavior)

An emerging focus on habit formation points to the role of reflexive triggers to cue an improved practice at a level beyond cognitive volition. We sit on the couch, turn on the television, and 'reflexively' want to eat potato chips. How can the same sort of reflexive triggers be used to support handwashing before eating or water treatment behaviors?? Verplanken and Wood (2006) suggest that habits are formed through "repetition in a stable environment that is rewarded which promotes future repetition" and habits broken or changed through 'disrupting the environmental factors that automatically cue habit performance'. Fixed handwashing stations and water storage and treatment technologies help serve as a reminder as well as create the stable context referred to by Verplanken and Wood.

✍ How would you describe the range of tools that already exist to address sustainability in handwashing and hygiene?

Lacking. Or, taking an assets-based approach: Open for opportunity.

Currently there are almost no tools that address sustainability in handwashing and hygiene. The difficulty in identifying tools to represent in this track reflects the dearth of available tools. Besides the 'call for tools' that went out as part WASH Sustainability Forum, track organizers leveraged other networks such as the Public Private Partnership for Handwashing with Soap, the WASHplus mailing list receiving our regular *Weekly Updates*, and personal correspondence. The few tools to be found meeting selection criteria were monitoring and evaluation tools that include sustainability indicators, and a cost effectiveness tool also containing sustainability elements. The final tool highlighted in this track is developed to ease the burden of national and local governments to plan, manage and monitor HWwS interventions, thus supporting sustainable initiatives that outlive donor-driven programs which too often last only as long as the funding is flowing into the project.

✍️What are the largest challenges or gaps facing the development and application of tools to support sustainability in HWwS and HWTS?

Probably the largest challenge facing the development of tools to support sustainability in HWwS and HWTS is clear evidence of precisely which elements support the consistent and correct practice of the behaviors over time.

Individuals and households must first value the practice, see the benefits of performing the behaviors over time, acquire key knowledge, and consistently have the needed supplies and feel community support/pressure to continue with improved behaviors.

Change actors, be they government, NGO or development partners, must have a long term commitment to supporting the program elements associated with sustained behavior change, e.g. social and peer support (for example, regular visits by community health workers to follow up on the behavior) and media.

The final challenge is that too often, programs are funded by donors for a set window of time. The funding source to conduct any sort of sustainability assessment has dried up before longer term sustainability can be assesses. Perhaps national governments can begin insisting that such sustainability assessments are 'forward funded' to assure proper monitoring of sustainability and support project to focus on elements associated with sustainable WASH.

In a recent tools mapping exercise, Schweitzer et al. (2014) defined a sustainability tool to be "*a methodology for understanding, measuring, or predicting sustainability*". We suggest an essential addition would be a method or approach to <u>support or encourage </u>sustainability, as well.

In the final session of this track, we will take stock of what tools exist, and brainstorm the sorts of tools that would be most helpful to support sustainable handwashing and household water safety tools in the near future.

We hope you will join us for this interactive and engaging session. Please bring pressing questions, jet-lagged enthusiasm and your ideas from experience with sanitation and water sustainability tools to help shape the future of hygiene and handwashing tools of the future!

Handwashing/Hygiene Track

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Session time	Tool	Organization and context	Name of presenter
Session 1 Monday 30 11 -12:30	Assessing cost effectiveness of hygiene interventions	IRC *The tool is an adaption of the life cycle cost approach promoted by IRC, and has been tested in Burkina Faso, Ghana, Mozambique, others. It looks at all 3 WASH elements: HW at critical times, adequate use of sanitation facilities and safe water handling.*	Amélie Dube Program Officer IRC International Water and Sanitation Centre
Session 2 Monday 30 1:30-3	Handwashing Promotion: Monitoring & Evaluation Module – UNICEF

Toolkit for monitoring and evaluating household water treatment and safe storage - UNICEF/WHO/UNC Water Institute | UNICEF

WHO | Pavani K Ram Associate Professor University at Buffalo

Ryan Rowe Knowledge Manager Water Institute at UNC |
| Session 3 Monday 30 3:30 - 5 | Part 1. FIT for Schools

Part 2: What hygiene sustainability tools are needed??/What can we learn/borrow from other WASH tools?? | GiZ

Independent Consultant | Pt 1/Bella Monse and Ralf Panse, GIZ

Pt. 2/ Comfort Hajra, Independent WASH Specialist, Uganda |
| Session 4 Tues 1 10:30 - 12 | Panel on Corporate/Private Sector Approaches contributing to Sustainable Handwashing | Corporate messaging as a tool for institutionalizing HW behavior – both by changing NORMS and assuring availability of PRODUCT

Designing handwashing stations that meet consumers' needs- design-centered thinking/human centered design | Lilly Dimling Director of Programs & Communications Global Soap Project

Lewis Temple, Chief Executive iDE – Intl Development Enterprise

Ariel Sayre, Program Quality Manager at GETF/Global Water Challenge Support My School Initiative Coca Cola/NDTV

Susanne Peters De Issuemakers *(A communications agency specializing in social issues in society, government and politics).* |