



Issue 222 | April 5, 2016 | Focus on the State of Handwashing

This summary prepared by the Global Public-Private Partnership for Handwashing (PPPHW) outlines key themes and findings from 44 peer-reviewed, handwashing-related research papers published globally in 2015 and specifically relevant in low and middle-income countries. This Weekly includes a summary of the overarching findings in each thematic area and includes useful resources where relevant. Specific data and context and the complete report can be accessed on PPPHW's website [here](#).

OVERARCHING FINDINGS

Benefits of Handwashing with Soap

Handwashing with soap was shown to reduce diarrheal disease; intestinal helminth infection; undernutrition; stunting; maternal mortality; hand, foot, and mouth disease; hepatitis A; schistosomiasis; foodborne infections; phthalate ester exposure; and water supply contamination. We can use this information to harness synergies and drive the integration of handwashing promotion into diverse international development programs.

Measuring Handwashing Behavior

Handwashing behavior continues to vary widely. The challenge of achieving accurate measurement of true handwashing behavior change must be addressed when designing programs and initiatives. Further consideration was given to the challenge of measuring handwashing behavior, particularly the inaccuracies due to overestimation during self-reporting and observer bias during observed reporting.

Inaccuracies in Self-Reporting

A study in Ethiopia identified key factors associated with over-reporting: the perception of handwashing as a social norm, social desirability, and the personal tendency to overestimate other events. Health knowledge was associated with food- but not post-defecation-related over-reporting, while answering in the presence of a spouse or other adult did not seem to influence responses (Contzen & Wright).

Inaccuracies in Observed Reporting

A study in India repeated discreet spot checks in more than 10,000 household visits, and over the course of a year observed an increase of soap availability from 49 percent to over 77 percent. This increase occurred in spite of hygiene not being addressed in the study. This suggests that observation can significantly confound results of longitudinal studies that use

observation to measure results (Arnold). A proposed approach to reducing this confounder is embedding electronic loggers in soap to measure handwashing (Wright).

Relevance of these findings for implementers:

- There continues to be a wide range of handwashing behavior.
- The potential for measurement inaccuracies should be taken into account. Handwashing program measurement should be carefully designed and consider options for most accurately measuring handwashing behavior and impact of programs.

Approaches to Handwashing Behavior Change

The interplay of knowledge, emotional motivators, habit, and handwashing “hardware” is important in achieving effective handwashing behavior change; handwashing promotion programs should be designed accordingly. To help practitioners better incorporate these behavior change drivers into their handwashing programs, PPPHW hosts an annual Behavior Change Think Tank. Findings and presentations from the most recent Think Tank can be found [here](#).

Relevance of these findings for implementers:

- We should recognize the interplay of knowledge, emotional motivators, habit, and handwashing hardware in achieving effective handwashing behavior change, and design programs accordingly.

Handwashing Station Sustainability

Evidence that basic handwashing infrastructure is proving to be sustainable is encouraging. Such approaches can be considered as part of handwashing behavior change programs. The biggest finding in this category from 2015 was that most handwashing stations installed in health care facilities (Contzen) and homes (Sreenivasan) in Kenya were functional at least four months later. Similarly, 83 percent of tippy taps built by rural households in Ethiopia (Contzen & Meili) were still in use after three months and 80 percent of tippy taps built for rural households in Zimbabwe were still in use after a year (Mbuya).

Relevance of these findings for implementers:

- Given the importance of handwashing infrastructure in achieving behavior change, we can be encouraged by the evidence that even basic handwashing infrastructure is being found to be sustainable. Handwashing infrastructure should be considered as a part of handwashing promotion programs in addition to behavior change.

Handwashing in the Emergency Setting

Hygiene is vitally important in emergency settings, and it is clear that handwashing promotion can be improved in this context. A survey of experts discussed that low priority is often ascribed to handwashing in emergency settings, particularly during the initial period; when handwashing is addressed, there can be a lack of clearly defined, measurable targets and practical, specific implementation guidance. The respondents observed that hardware distribution tends to be prioritized over behavior change communication (though guidelines for most appropriate hardware can be lacking), and noted that contrary to current behavior change theory, the primary communication focus is health messaging (though this approach

may have enhanced effectiveness in emergency settings) (Bennett).

Relevance of these findings for implementers:

- Handwashing promotion can be improved in emergency settings—when designing programs, ensure practical, specific actions and clearly defined, measurable targets are in place.
- In response to a hepatitis E outbreak in the refugee camps of Maban County, South Sudan, an intensive hygiene promotion and soap provision campaign was organized. One year after the outbreak, a cross-sectional survey showed that 85 percent of the survey respondents (female heads of households in the camps) reported exposure to handwashing promotion, but only 46 percent of the respondents washed their hands with water and soap after toilet use, and only 7 percent washed their hands before eating (Phillips). Further studies on local beliefs and more effective messaging may be needed to bridge the gap between exposure to handwashing promotion and actual handwashing behavior.

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WASHplus Weeklies highlight topics such as Urban WASH, Household Air Pollution, Innovation, Household Water Treatment and Storage, Handwashing, Integration, and more.



About WASHplus - WASHplus, a multi-year project funded through USAID's Bureau for Global Health, supports healthy households and communities by creating and delivering interventions that lead to improvements in access, practice and health outcomes related to water, sanitation, hygiene (WASH) and household air pollution (HAP). WASHplus uses at-scale, targeted as well as integrated approaches to reduce diarrheal diseases and acute respiratory infections, the two top killers of children under five years of age globally. For information, visit www.washplus.org or email: contact@washplus.org.

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