

PERIODIC OVERVIEW OF HANDWASHING LITERATURE:

Practical guidance for implementers based on selected peer-reviewed and grey literature published January – June 2013

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Purpose/Context	<ul style="list-style-type: none">• The PPPHW aims to publish overviews of handwashing literature twice a year that provide practical guidance for implementers.• We compiled peer-reviewed and grey literature publications (including e-publications and ahead-of-time publications) between January through June 2013. From these, we selected relevant articles which allowed for practical guidance for implementation. We excluded publications from high income and/or medical facility based settings. This document summarizes the takeaway points for implementers. A separate PDF document includes additional details and context from the selected publications.
Authors' note	<ul style="list-style-type: none">• No single study is universally applicable. We strongly recommend considering the context of the study when interpreting results.

Summary of research

(January – June 2013)

What we learned about diarrhea and risk factors

- In 2010 and 2011, diarrhea and pneumonia episodes among children less than five years old remained high and led to a large number of deaths, especially in the first two years of life. (Walker et al. 2013)
- Programs that prevent diarrhea may also reduce the risk of pneumonia. (Ashraf et al. 2013)
- Lack of soap at a toilet, no towels in the bathroom and sharing a toilet may be more frequently observed among children with diarrhea than among well children. (Mansour et al. 2013)
- Handwashing after using the toilet and after handling animals may be protective against certain helminth infections but more rigorous investigation is needed to assess this relationship. (Sherkhonov et al. 2013)

What we learned about health outcomes related to handwashing

- Where knowledge and access to materials are not notable barriers, large scale handwashing promotion programs may need more rigor or intensity to improve handwashing behavior. (Chase and Do 2012)
- Community and school level interventions appear to work better than large mass media campaigns at reaching community members and improving handwashing behavior in Peru. (Galiani et al. 2012)
- Two different participatory school-based approaches (that include hand hygiene) demonstrated improvements in helminth infection among school children. (Bieri et al. 2013), (Monse et al. 2013)

Summary of research

(January – June 2013)

What we learned about health outcomes related to handwashing (continued)

- A community-level intervention using a care group model was able to improve mothers' handwashing behavior at certain critical times and improve the nutritional status of their children over a five year period at a cost of \$0.55 per capita per year and \$2.78 per beneficiary per year. (Davis et al. 2013)
- Households with better WASH environments (including having a handwashing station with soap and water) had better growth indicators and gut absorption compared to children with worse WASH status. (Lin et al. 2013)
- Current evidence about the effects of WASH interventions on children's nutritional status show little benefit but are low in quality. A number of trials are on-going to better assess this relationship. (Dangour et al. 2013)

What we learned about factors that affect hand washing behavior

- Frequent handwashing promotion and provision of soap to households may influence habit adoption but current evidence is suggestive. (Bowen et al. 2013)
- Level of education, water access and access to media remain important predictors of reported handwashing practice (Rabbi and Dey 2013). Access to a sanitary latrine, soap and water at handwashing place, in-house water supply, higher per capita income and reporting that their mother has good handwashing practice were predictors of good handwashing behavior (self-reported) by adolescents. (Dobe et al. 2013)
- School-based handwashing programs that are motivating and engaging to students, teachers can still face structural barriers to good handwashing practice such as continuous access to soap and water. (Xuan le et al. 2013)

Summary of research

(January – June 2013)

What we learned about factors that affect hand washing behavior (continued)	<ul style="list-style-type: none">• Birth attendants and mothers from a community in Tanzania deemed improved awareness as the key to better hand hygiene behavior at birth and for newborn care, especially to mitigate risk for certain practices around the birth. (Shamba et al. 2013)• One study showed a social marketing approach should be deployed with interventions that also address structure determinants of behavior change. Qualitative work during the formative and evaluation phases of a program can help identify inequity issues to program implementation. (Langford and Panter-Brick 2013)
What we learned to help with advocacy	<ul style="list-style-type: none">• Handwashing with soap is estimated to avert a large number of deaths from diarrhea and pneumonia with substantial scale up over the next 10 years and remains less expensive to scale up than vaccines. (Bhutta et al. 2013)• Advocacy for WASH is one of five recommended solutions to reduced childhood morbidity and mortality from diarrhea and pneumonia. (Gill et al. 2013)
Additional resources	<p>WaterAid hygiene framework outlines their strategic guidance for country programmes to develop or refine approaches to hygiene. (http://www.wateraid.org/~media/Publications/hygiene-framework.pdf)</p> <p>DFID evidence paper outlines the strength of current evidence for effect of WASH interventions on health and development and identifies knowledge gaps. (https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/193656/WASH-evidence-paper-april2013.pdf)</p>

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