Overview

In April 2011, the International Network on Household Water Treatment and Safe Storage held its first webinar broadcast – *Evaluating household water treatment: from evidence to action*.

The webinar sought to answer the following questions:

1. What do we know about use and impacts of household water treatment?
2. What are the major challenges in effectively targeting those most in need of such treatment?
3. How can we improve how we measure and compare results?

The webinar included presentations from Daniele Lantagne at Harvard University, and Orlando Hernandez at Academy for Educational Development. Discussion followed, moderated by Bruce Gordon from the World Health Organization during which a number of questions from participants were addressed. 1. 75 individuals participated in the session. This document summarizes the presentations, survey results and key documents mentioned and will be updated shortly to include a summary of discussion and Q&A. Appendix 1 & 2 provide the webinar agenda and list of presentations.

Presentation 1: Daniele Lantagne, Harvard University

Ms. Lantagne summarized current evidence on the effectiveness of HWTS and addressed issues in scaling up programmatic efforts. She noted that while recent meta-analyses on HWTS show a 35%-47% reduction in diarrheal disease (Fewtrell, 2005; Clasen, 2006; Waddington, 2010), there are a number of worthy critiques which should be considered in future study design to strengthen the evidence base.

The main issues cited include a lack of blinded studies in developing countries, the threat of bias in self-reported incidence of diarrhea, a lack of data on long-term use of HWTS, and the artificial conditions of a laboratory setting under which effectiveness has been assessed. Moreover, the data does not provide clear guidance on which HWTS method is most effective or appropriate in a given context.

Ms. Lantagne also highlighted four key issues hampering the scaling-up of HWTS efforts:

i. **Use of an effective, appropriate HWTS option:** There is a wide array of proven (and unproven) methods and implementers should carefully review its microbial and health impact, acceptability for local use and scalability;

ii. **Correctly and consistently:** Compliant use of HWTS has been shown to reduce the incidence of diarrhea, illustrating the importance of keeping it simple and effective;

iii. **By the vulnerable target population:** The method, distribution strategy and ultimate cost to end-user should be culturally and contextually appropriate for the population at risk; and

iv. **On a long-term and sustainable basis:** Sustainability requires that the method become accepted practice by the community without intervention or support from external parties.

There have been programs in the development and emergency contexts that have shown microbiological and health impacts. These programs use a verified HWTS option, in a culturally acceptable environment, in users with contaminated water, with a distribution and funding strategy.

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1 Session host: Maggie Montgomery, WHO; Rapporteur: Ryan Rowe, University of North Carolina at Chapel Hill (UNC).
For HWTS implementers, the current key challenges are measuring the effectiveness of HWTS in the field and sustaining correct and consistent use of effective and appropriate HWTS options. Despite inherent behavioral issues, the burden of responsibility rests at the policy level. Access to clean water is a human right and HWTS is primarily an interim solution not intended to divert government investment in addressing the water and sanitation infrastructure gap.

**Presentation 2: Orlando Hernandez, Academy for Educational Development**

Mr. Hernandez presented an overview of a USAID manual “Access and Behavioral Outcome Indicators for Water, Sanitation and Hygiene” published in February 2010. The document outlines essential and expanded indicators for the evaluation of WASH interventions in three specific areas: household water treatment and safe storage, hand washing with soap, and sanitation.

Mr. Hernandez focused on the HWTS aspect of the manual and suggested it will be useful for program planners, managers, and evaluators in selecting program indicators, setting annual targets and making program modifications if targets are not reached.

The manual lists 12 indicators for measuring access to water supply and use of HWTS and provides for each a breakdown of the indicator components used for monitoring and evaluation, such as the rationale, data collection and analysis, limitations, use in setting target objectives, example survey questions and calculation methodology.

Three specific indicators are listed as essential to monitoring water supply and use of HWTS:

1. % of households that use an improved drinking water source (urban and rural);
2. % of households practicing correct use of recommended household water treatment technologies; and
3. % of households storing treated water in safe storage containers.

A brief case study of HWTS in Ampara, Ethiopia was presented. This study is currently being prepared for publication and is not yet available for dissemination (Hernandez et al, in press).

The manual was prepared by AED with funding support from USAID. It can be downloaded from [http://www.hip.watsan.net/page/4148](http://www.hip.watsan.net/page/4148).

**Discussion and Q&A Session**

This is currently being prepared and will be released shortly.

**Summary of Survey Results**

A short post-webinar survey was conducted to collect feedback to address technical issues, improve user experience and identify topics of interest for future webinars. The highlights of the results are as follows:

- **Response rate:** 30 webinar registrants responded; one-third from developing countries (all in Africa)
- **Technical issues:** Nearly half reported no issues; those who did experienced mainly audio disruption
- **Format:** Participants expressed interest in case studies, roundtable discussions, inclusion of citations/references, more interaction between participants and presenters, ability to view questions submitted by other audience members, inclusion of perspectives from the field and government
- **Topics of interest:** Understanding the range of HWT options, behavioral issues (e.g. compliance and proven promotion techniques), policy and regulatory issues, scaling up and sustainability
References


Appendix 1 – Webinar Agenda

15h15 – 15h30  Log in

15h30 – 15h35  Introductions and technical issues
Maggie Montgomery, WHO

15h35 – 15h40  Webinar objectives, outputs and format
Bruce Gordon, WHO

15h40 – 16h00  Evidence of use and impact
Daniele Lantagne, Harvard University

16h00 – 16h00  Transition between speakers
Bruce Gordon, WHO

16h05 – 16h25  Measuring Water Treatment and Storage Practices
Orlando Hernandez, WASHPlus Program, AED

16h25 – 16h55  Question and Answers
Moderator: Bruce Gordon, WHO

16h55 – 17h00  Session Wrap-up
Maggie Montgomery, WHO
Appendix 2 – Presentations

**Presenter:** Daniele Lantagne, Harvard University  
**Title:** Evidence of use and impact  
**Summary:** Current evidence on effectiveness of HWTS and issues hindering scaling up of programming efforts

**Presenter:** Orlando Hernandez, Academy for Educational Development  
**Title:** Measuring Water Treatment and Storage Practices  
**Summary:** Overview of the HWTS aspects of a USAID manual "Access and Behavioral Outcome Indicators for Water, Sanitation and Hygiene" published in February 2010.