

**Meeting Minutes  
Advisory Group of the  
International Network on Household Water Treatment and Safe Storage  
(the “Network”)**

Chapel Hill, North Carolina, USA  
2 October 2011

**1. Introduction**

Michael Forson opened the meeting by welcoming attendees and thanking them for their commitment to the area of HWTS by serving on the Advisory Group (“AG”). AG Terms of Reference were briefly reviewed and Maggie Montgomery then presented an overview of recent developments in HWTS, the Network’s Phase II strategy (Revised March 2011 version) and activities for the coming five-year period. Ryan Rowe recorded the minutes.

Please refer to Annex 1 for a list of participants in attendance, Annex 2 for the meeting agenda, and Annex 3 for a link to the introductory presentation.

**2. Proceedings of the meeting**

The following topics included in the agenda were discussed at the meeting.

**a. Key activities**

*Network Strategy*

Rochelle Rainey recommended an update be provided to the working group that participated in drafting a Network Governance structure in March 2010<sup>1</sup>. This led to a discussion on the transparency of the Network governance structure and the AG Members all agreed that details of the strategy, governance, and the new AG and Public-Private Partnership groups should be communicated to attendees at the following day’s Annual Meeting as well as to the wider Network.

Tom Clasen noted that the revised Network mission statement includes an additional phrase on water-related vector-borne diseases and raised concern that this may detract from the main benefit of HWTS which is reduction of water-borne disease. He noted that the epidemiology literature linking vector-borne diseases and safe storage is not well developed. John Kariuki suggested that water-related vector-borne diseases do seem relevant in the context of integrated approaches to environmental health interventions. Maggie Montgomery commented that the phrase was added to raise visibility of the role

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<sup>1</sup> Rochelle sent an email to the Network Governance working group on November 1 2011 providing an update on the status of governance for the network, and providing a link to the revised Network Strategy available online. This working group was formed following the Strategic Consultation on HWTS, held in Geneva in February 2010, the report for which is available at:  
[http://www.who.int/household\\_water/resources/consultreportV4.pdf](http://www.who.int/household_water/resources/consultreportV4.pdf).

of safe water storage in preventing breeding of vectors of dengue and in some cases of malaria and would follow up with more specific details on the reasoning and evidence. She stated the strategy was open for comment for two months in early 2011 and this concern was not raised. However, given the strategy is still "revised" and not final the mission statement can be re-visited and modified as necessary. Rochelle Rainey noted that she would be in favour of expanding the role of the Network if there is an adequate evidence base; otherwise she would advocate to keep the focus just on household drinking water quality.

John Kariuki asked what expectations were of national governments in respect of Network contributions. He said needs should be clear, not just on policies but other activities.

Michael Forson commented that there is a need to centralize Network documentation in a single place online, to improve ease of access by Network participants. Meeting reports should also follow on from outcomes and action items of previous items so that progress and direction is clear.

### ***Developing national policies***

John Kariuki spoke briefly on development of Kenyan HWTS policies and additional work conducted on national action plan from East Africa Region Workshop held in June 2011 in Entebbe, Uganda. He voiced strong support for WHO/UNICEF assistance as long as structures exist for it to occur effectively. He felt that while the UNICEF Kenya office is actively engaged in HWTS, the WHO Kenya office is less available and slower to respond.

John Kariuki said that his team has been pushing to develop a stand-alone policy on HWTS and he would like some guidance on how to resolve this. Michael Forson said that HWTS should be decidedly "owned" by one sector or another so as to enable clear and efficient decision-making. Members discussed HWTS being a health intervention but that water sector participation is necessary.

Tom Clasen raised question of whether or not development of policies has resulted in measurable progress in regards to use of HWTS especially by vulnerable groups. He felt it would be worthwhile to re-visit countries where work on national HWTS strategies and policies had been completed (i.e. Thailand, Vietnam, Kenya, Ethiopia) and assess the impact of these efforts and provide recommendations for current and future HWTS policy development support.

### ***National / international evaluation and certification of HWT***

Prior to meeting Maggie Montgomery had circulated a discussion note regarding options and opportunities for a WHO evaluation scheme for HWTS. The AG was asked to

consider this scheme in the context of implementation of the WHO document on evaluating household water treatment options<sup>2</sup>.

AG members expressed concern about whether or not such a scheme would be immediately necessary. It was suggested that large product manufacturers would independently aim to test their products against the WHO's recommended performance tiers and that this could drive self-regulation of technology performance. Several members suggested waiting one year to evaluate extent of dissemination and implementation as creating a scheme may be costly and unnecessary if manufacturers, especially those of internationally distributed technologies, test their products against the new WHO health-based criteria. Michael Forson responded that the evaluation scheme could help develop a more conducive enabling environment by providing clarity on accepted technologies and standards. John Kariuki said that Kenya would not have the capacity to validate manufacturers' claims and thus having WHO, the leading authority on issues relating to health in Kenya, take a larger role in such issues would be valuable. He also suggested that accompanying training and support materials be developed so as to facilitate support by national and regional WHO offices, and improve understanding. Rob Quick and Tom Clasen raised the importance of field testing and measuring consistent and correct use, items not captured by the scheme. Maggie Montgomery agreed, and indicated the joint WHO-UNICEF HWTS Monitoring and Evaluation Toolkit, currently under revision, will serve as a complimentary document by providing clear recommendations and tools for field testing and use in households, schools and other settings.

There was a discussion on creating a comparative matrix of commonly agreed upon HWTS methods such as disinfection and filtration techniques; however, it was quickly agreed that such comparisons already exist in the form of systematic reviews, CDC guidance, and the evaluation document itself. Tom Clasen suggested developing advocacy and education materials to explain the document. Maggie Montgomery noted that one short piece had been created for policy-makers, but much more could and should be done<sup>3</sup>. Ryan Rowe suggested that communications activities could support dissemination of the document, and provide guidance to stakeholders on implementation through the newsletter, webinars, or in-country activities. Rochelle Rainey also added that some internal advocacy within USAID could help give HWTS greater prominence under one of their flagship initiatives in health, food and technology.

### ***Strengthening HWTS field monitoring and evaluation (M&E)***

This item was not discussed during the meeting.

### ***Capacity building efforts***

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<sup>2</sup> WHO, 2011. Evaluating household water treatment options: health-based targets and microbiological performance specifications. World Health Organization, Geneva.

[http://www.who.int/water\\_sanitation\\_health/publications/2011/household\\_water/en/index.html](http://www.who.int/water_sanitation_health/publications/2011/household_water/en/index.html)

<sup>3</sup> [http://www.who.int/household\\_water/resources/EvaluatingHWT\\_forGovt.pdf](http://www.who.int/household_water/resources/EvaluatingHWT_forGovt.pdf)

Tom Clasen commented that there is a need to budget resources for capacity building and facilitating South-South collaboration. This item was also discussed briefly in context of the working groups. See 2 (c) below.

Rob Quick said that the range of HWTS options available in given countries needs to be clearly outlined by governments. John Kariuki asked whether AG could offer guidelines on supportive strategies and policies for HWTS. Rob Quick suggested that some “illustrative language” could be helpful.

Michael Forson said that capacity-building needs to focus on strengths and be demand-responsive, rather than targeting weaknesses and being supply-driven. Thus programs need to be designed to meet governments’ specific needs rather than what the UN feels is important.

#### **b. Inputs for World Water Forum 6 (WWF6) in March 2012**

Maggie Montgomery asked the AG to consider requesting donor commitment to HWTS at WWF6 and what might be the most compelling way to approach this. Tom Clasen commented that the targets set for the WWF6 are somewhat unspecific in the types of policies that should be adopted by governments. This ambiguity would make the targets difficult to measure. John Kariuki agreed with this comment. Maggie Montgomery responded that given the diversity of government structures and regulations, the target could not be too prescriptive. Setting a target on number of users of HWTS also is not realistic, given that this would distract from efforts to improve community water supplies and HWTS is one, temporary solution, to meet the ultimate aim of universal access to safe drinking-water.

#### **c. Effective use of working groups**

It was agreed that past working groups had strong leadership which led to several, tangible outputs. An example given was the database and map that Susan Murcott (co-Chairperson of the previous Implementation Working Group) had created and asked members to populate to track what different Network participants were doing at the national and sub-national level. It was suggested that this database could be revived or re-constituted as part of the activities of working groups.

AG members discussed modifying the working groups outlined in the Network Strategy (Revised March 2011 version) to better reflect needs and priorities; for example capacity building was highlighted as a separate group but it was agreed that this is a cross-cutting theme and all groups should be engaged in this issue. AG members agreed that four working groups would therefore focus on the following thematic areas:

1. Policy, advocacy and communications (“Policy WG”);
2. Monitoring, evaluation and mapping (“Monitoring WG”);
3. Implementation, integration and scaling-up (“Implementation WG”); and
4. Research and knowledge management (“Research WG”).

#### **d. Agenda of activities for 2012 and AG meeting schedule**

The Network's 2012 Annual Meeting is proposed to be held in a developing country although a specific location has not yet been suggested. It was suggested that a smaller meeting of the Network could still be held at the annual UNC conference given the large representation by US and European researchers and to some extent implementers and donors.

An annual report of the Network is being considered for dissemination prior to next year's Annual Meeting. This would be a brief document highlighting achievements and activities of the previous 12 months.

The schedule for the next AG meeting was not discussed but members agreed that teleconferences could be held in the interim to discuss issues of importance as they arise.

#### **3. Action items**

- Maggie Montgomery to provide overview of Network strategy and governance at 2011 Annual Meeting on 3 October.
- Maggie Montgomery to provide background on the revised Network mission statement to AG members.
- Network Secretariat to consider possibility of developing communications / dissemination activities around HWT evaluation document
- Network Secretariat to consider reviving previous implementation database via working groups.
- Ryan Rowe will make past meeting reports available in a single location.

**ANNEX 1 – List of Participants (alphabetical order by last name)**

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## ANNEX 2 – Agenda

**Advisory Group**  
of the  
**International Network on Household Water Treatment and Safe Storage**

2 October 2011  
University of North Carolina, USA

### **Final Agenda**

#### **Meeting objectives**

- Present and discuss major initiatives in Network
  - National HWTS policies/strategies and scaling-up
  - Evaluation of household water treatment options
  - Strengthening HWTS monitoring and evaluation
- Gain input on workplan for 2012 and effective use of working groups
- Discuss resource mobilization options and priorities

#### **Schedule**

**13:00-13:15**                      **Introductions and expectations**                      *Michael Forson + All*

**13:15-13:45**                      **Overview of Network strategy and Key areas of activity**                      *Maggie Montgomery, Michael Forson*

- Developing national policies and scale (including integration)
- National/international evaluation and certification of HWT
- Strengthening HWTS field monitoring and evaluation (M&E)
- Capacity building efforts

**13:45-15:00**                      **Strategic input and discussions**                      *All*

- Key areas of activity (*as listed above*)
- Inputs for World Water Forum 2012
- Effective use of working groups
- Agenda of activities for 2012 and AG meeting schedule

**15:00-15:15**                      **Coffee Break**

**15:15-15:45**                      **Resource mobilization**

**15:45-16:00**                      **Wrap-up and next steps**

## ANNEX 3 - Introductory Presentation by Maggie Montgomery

### Accelerating health gains with household water treatment and safe storage



Network Advisory Group Meeting  
2 October 2011

### Overview

- Role of household water treatment and safe storage (HWTS) in improving drinking-water safety
- Phase II Strategy of International Network on HWTS
  - Objectives and targets
  - Strategy components
  - Links to World Water Forum 2012
- Snapshot of current Network-related activities
- Role and input from AG

### Toll of diarrhoeal diseases

- 1.9 million deaths each year due to diarrhoea (WHO, 2004)
- Second leading cause of death among children (Black, et al, 2010)
- Nearly 80% of the diarrheal disease burden is borne by children under five (WHO, 2004)
- 220,000 cases and 5,000 deaths due to cholera (WHO, 2009)
- Diarrhoea rates in those living with HIV/AIDSs 2-6 higher (Lule, et al 2005)



WHO/Carolas Gaggero



### 2011 World Health Assembly Resolutions support safe water

**Resolution 64/24 on *Drinking-water, sanitation and health***

- First time in 20 years, water and sanitation resolution
- Calls for greater and more integrated action

**Resolution 64/14 on *Cholera: mechanism for control and prevention***

- Highlights importance of HWTS
- Requests WHO to revitalize the Global Task Force on Cholera control



## Optimizing impact of HWTS- a health intervention

- Household water treatment and safe storage (HWTS) is preventative health intervention
- Greatest benefit to high-risk populations (e.g. young children, individuals with HIV/AIDs, malnourished, displaced)
- Optimizing impact requires
  - evidence and technical guidance
  - coordinated and integrated efforts
  - advocacy among multiple sectors
  - policy development and capacity building



Mohi Kenya, John Karuki

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## HWTS Global Strategy 2011-2016 - Mission Statement -

*To contribute to a significant reduction in water-borne and water-related vector-borne diseases, especially among vulnerable populations, by promoting household water treatment and safe storage as a key component of community-targeted environmental health programmes.*

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## HWTS Global Strategy 2011-2016 - Targets -

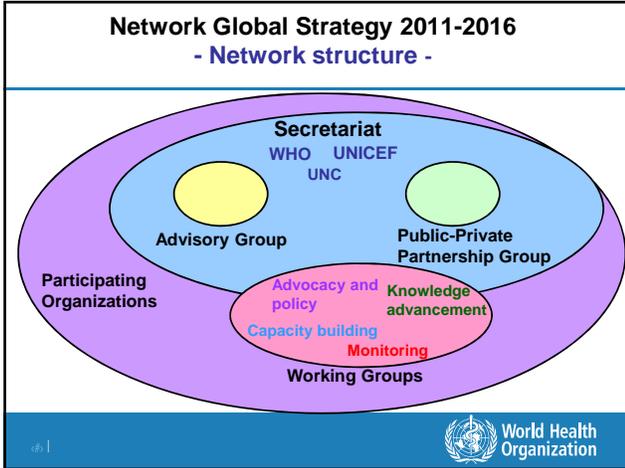
- By **2015**, **30** countries have established policies on household water treatment and storage.
- By **2015**, strengthened evidence to guide effective and replicable HWTS programmatic approaches to achieve long-term widespread use and public health impact.
- By **2020**, **50** countries have achieved country-wide scale up of project-based HWTS.

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## Network Global Strategy 2011-2016 - Strategic objectives -

- HWTS evidence base of public health relevance significantly strengthened
- Tangible results in the scaling-up of household water treatment and safe storage achieved
- National policies and institutional frameworks developed (integration of environmental health interventions)
- Best practice in HWTS programmes evaluated and disseminated

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### Strengthening Monitoring and Evaluation

- Gap between needs and current HWTS coverage
- Effective policies (and programs) require knowledge of both "failures" and "successes"
- Data on HWTS use and benefits is limited and often biased
- Existing monitoring indicators and guidance is narrow in scope and fragmented

**Thus, there is the need for globally relevant indicators, monitoring and reporting-HWTS M&E Recommendations.**

World Health Organization

### Strengthening Monitoring and Evaluation-Toolkit

- Designing effective M&E program component
- Essential and supporting indicators
  - Target population reached
  - Knowledge of correct use
  - Reported use (past and current)
  - Confirmed use
- Data collection, analysis, reporting, and application
- Sample surveys, field testing protocols

Harvard/Danielle Lantagne

World Health Organization

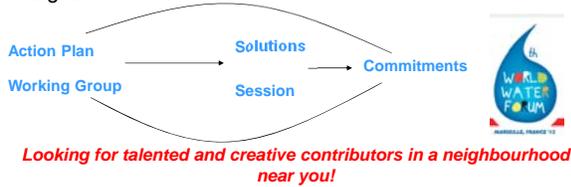
### Integration and HWTS

- Over 10 million people die each year from six major diseases: diarrhoea, HIV/AIDs & TB, malaria, malnutrition, and respiratory diseases
- Intuitively "makes sense"
  - cost-effective
  - corrects failures top-down approach
  - combines comparative advantages of single disease campaigns
- Technical guidance on integration exists
- WHO developing proposals to facilitate and better evaluate integrated interventions

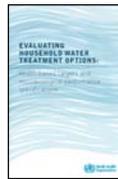
World Health Organization

## World Water Forum 2012 - HWTS, Priority 1.3, Target 6 -

- By **2015**, **30** countries have established policies on household water treatment and storage.
- By **2018**, **50** more countries will have reached this target.



## Snapshot of Document



- **Goal:** Protect health of users, increase access to safe water
- **Audience:** certification organizations, regulators, evaluators, manufacturers & implementers
- **Target pathogens:** viruses, bacteria and protozoa
- **Derivation of targets:** Based on Guidelines for drinking-water risk-based approach (QMRA models)
- **Tiered approach:** *Highly protective, protective, interim*
- **Laboratory protocols:** Methods to verify performance

## Criteria

Rating	Log <sub>10</sub> reduction* required: <b>bacteria</b>	Log <sub>10</sub> reduction* required: <b>viruses</b>	Log <sub>10</sub> reduction* required: <b>protozoa</b>
	<i>Highly protective</i>	≥ 4 <i>Examples: Boiling, combined approaches</i>	≥ 5
<i>Protective</i>	≥ 2 <i>Examples: Membrane filters, PUR</i>	≥ 3	≥ 2
<i>Interim</i>	Achieves "protective" target for two classes of pathogens and results in health gains <i>Examples: Chlorine, ceramic filters</i>		

## Implementation Options

- **Distribute document (and hope for the best)**
  - Document sent to Ministries of Health, Environment, WHO Country Offices
  - Information sheet for policy-makers and regulators
- **Support individual national efforts**
  - Country workshops (i.e. Laos early 2012)
  - Technical support, including in
  - Application of criteria into programming-integrated efforts
- **International scheme + national support**
  - Centralized vetting and evaluation of technologies at recognized laboratories
  - Strengthen national technical and regulatory capacity

## Role and input from AG

- Trigger coherent views/communication
- Review activities and make recommendations
- Provide strategic advice, increase relevancy
- Advise and provide direction to working groups
- Increase dissemination of outputs
- Resource mobilisation

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*"Afya bora kuliko mali."*  
Health is better than wealth.

(Swahili Proverb)



Questions?

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