

Status of National Household Water Treatment and Safe Storage Policies in Selected Countries

Results of global survey and policy readiness for scaling up

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Summary

Household water treatment and safe storage (HWTS) is a proven intervention to improve drinking-water quality and reduce diarrhoeal disease. Achieving meaningful health gains from HWTS requires scaling-up of the intervention to those populations most at risk. Such scaling-up depends, in large part, on national enabling environments and policies. To assess the status of national HWTS policies and regulations and progress towards the global policy targets, WHO conducted a brief survey. This report details the responses from this survey and categorizes countries into three tiers of readiness to scale-up HWTS. Based on identified challenges, greater support is needed to develop and implement national HWTS policies, encourage integration with other health interventions and diarrhoeal disease prevention efforts, and strengthen monitoring, evaluation and regulation.

1. Introduction

An estimated 780 million people drink water from unimproved sources, and millions more drink contaminated water from improved sources (UNICEF/WHO, 2012). Unsafe drinking-water, along with inadequate hygiene and sanitation contributes to an estimated 1.9 million annual deaths, primarily in children under five (WHO, 2012). While countries work to provide universal access to safe, reliable, piped-in water, the World Health Organization (WHO) and the United Nations Children's Fund (UNICEF) have called for targeted, interim approaches that will accelerate the health gains associated with safe drinking-water. One such approach is household water treatment and safe storage (HWTS), to both treat contaminated drinking-water and prevent contamination during collection, transport, and use in the home. A growing body of evidence demonstrates that the use of HWTS methods improves the microbiological quality of household water and reduces the burden of diarrhoeal disease in users (Clasen *et al.*, 2007; Fewtrell *et al.*, 2005; Waddington *et al.*, 2009). Furthermore, the 7-point strategy for comprehensive diarrhoea control, adopted by UNICEF and WHO in 2009, includes household water treatment and safe storage as a proven intervention to reduce child mortality (UNICEF & WHO, 2009).

Globally, HWTS efforts are promoted through the International Network on Household Water Treatment and Safe Storage (the "Network"). The Network, established in 2003 by WHO and as of 2011 co-hosted by WHO and UNICEF, includes those international, governmental and non-governmental organizations, private sector entities, and academia that subscribe to the Network mission. Specifically, this is: *"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"* (WHO/UNICEF, 2011). The main areas of Network activity are reflected in four working groups: policy/advocacy, research/knowledge management, implementation/scale-up and monitoring and evaluation.

One key challenge in realizing benefits from HWTS is limited coverage in areas and among populations where water quality improvements would have an important impact on health. Except for boiling in parts of Asia, no proven HWTS technology has been scaled-up (Rosa and Clasen, 2010). Achieving tangible results in the scaling-up of household water treatment and safe storage depends, in large part, on national enabling environments and policies. To accelerate efforts on establishing national HWTS policies, an international target was set in 2011 by the Network and subsequently adopted by the 2012 World Water Forum (WHO, 2012). This target

states: “by 2015, 30 countries have established policies on household water treatment and safe storage.” (WHO/UNICEF, 2011)

In order to assess the status of national HWTS policies and regulations and progress towards the global target, WHO conducted a short survey. This report details the responses from this survey and provides a brief discussion regarding readiness of countries to scale-up HWTS based on current policies and government support for HWTS.

2. Survey and methods

In early 2012, WHO developed a survey of 15 questions concerning institutions, policies, implementation and regulation (see Appendix 1). The survey incorporated inputs from the Network Policy/Advocacy Working Group. In addition to assessing national HWTS policies, the survey sought to better understand national evaluation and regulation of HWTS. This is especially important in light of the new WHO health-based criteria that enable governments to evaluate whether a household water treatment technology reduces waterborne pathogens sufficiently to protect health (WHO, 2011). The final objective was to make general inferences regarding the political readiness of individual countries to scale-up and integrate HWTS into key health initiatives.

A formal memo and electronic link to the online survey was sent to all Regional WHO offices, individually to the 46 WHO country offices in the African Region, and to over 1,000 Network listserve subscribers. As of May 2012, there were 70 responses to the survey of which 46 were unique. The largest proportion of responses, 46%, was from the African region followed by the Eastern Mediterranean region with 20% (**Table 1**).

Table 1. Responding Countries by WHO Region

African			Americas	Eastern Mediterranean
Burkina Faso	Gambia (the)	South Africa	Haiti	Iran (Islamic Republic of)
Burundi	Ghana	Swaziland	Honduras	Jordan
Congo (the)	Kenya	Togo	Uruguay	Oman
Côte d’Ivoire	Madagascar	Uganda		Pakistan
Democratic Republic of the Congo	Malawi	United Republic of Tanzania (the)		Saudi Arabia
(the)	Mali	Zimbabwe		Somalia
Ethiopia	Mozambique			Sudan (the)
	Nigeria			Syrian Arab Republic (the)
	Rwanda			Tunisia
European		South-East Asia		Western Pacific
Andorra		Bangladesh		Cambodia
Estonia		Indonesia		Lao People’s Democratic Republic
France		Nepal		Philippines (the)
Hungary				
Netherlands (the)				
Norway				

Applying UN socio-economic classifications, 43% of responses are from the “least developed” countries and 15% are “developed” countries (United Nations, 2003). Ministries of health or

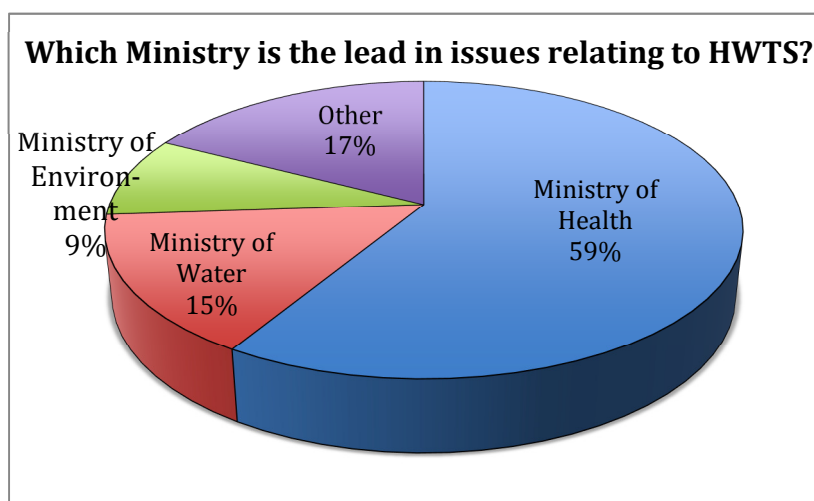
water from the countries' governments completed 43% of responses, with the remaining responses coming from the WHO, UNICEF and other international/national organizations.

3. Results

The results are summarized according to the four main sections of the survey: institutions, policies and targets, policy implementation, and regulation and evaluation. The final section of the results presents an overview of readiness to scale-up HWTS based on planned or in-place policy structures.

3.1 Institutions

Ministerial leadership on HWTS is one key component of developing and implementing national policies relevant to HWTS. Over half or 59% of the 46 responding countries, indicated that the Ministry of Health is the lead in issues relating to HWTS. In other countries, the Ministry of Water and the Ministry of Environment were lead ministries, accounting for 15% and 9%, respectively of responses (**Figure 1**). Those ministries in the “other” category include the Ministry of Housing and Construction (Syria), the Ministry of Social Affairs (Estonia) and the Ministry of Rural Development (Cambodia).



While HWTS is primarily a preventative health intervention, effective implementation requires inter-ministerial collaboration. For example, targeting areas without safe drinking-water supplies requires working with the Ministry of Water while integrating curriculum on the importance of safe drinking-water and treatment options necessitates involvement of the Ministry of Education.

Figure 1. Lead ministries for HWTS Policies

Collaboration on HWTS issues is nearly universal among responding countries. Nearly all, 91%, indicated that two institutions collaborate on HWTS issues and 54% have three or more institutions working together. In a great majority of instances this involves the Ministry of Health and the Ministry of Water. To coordinate HWTS collaboration, nearly two-thirds of responding countries (63%) have established an inter-ministerial committee. Examples of these are the National Water Forum in Bangladesh, the National Water and Sanitation Committee in the Democratic Republic of the Congo, and the National Household Water Treatment Technical Working Group in Kenya.

3.2 Policies and Targets

Policies and targets on HWTS are important for allocating resources and justifying further investments and the majority of responding countries (72%) have national policies in place that address HWTS. While stand-alone HWTS policies are not essential and may be

counterproductive towards integration of HWTS with disease prevention efforts, inclusion of HWTS in health, sanitation, emergency and water quality policies is common among responding countries (**Figure 2**).

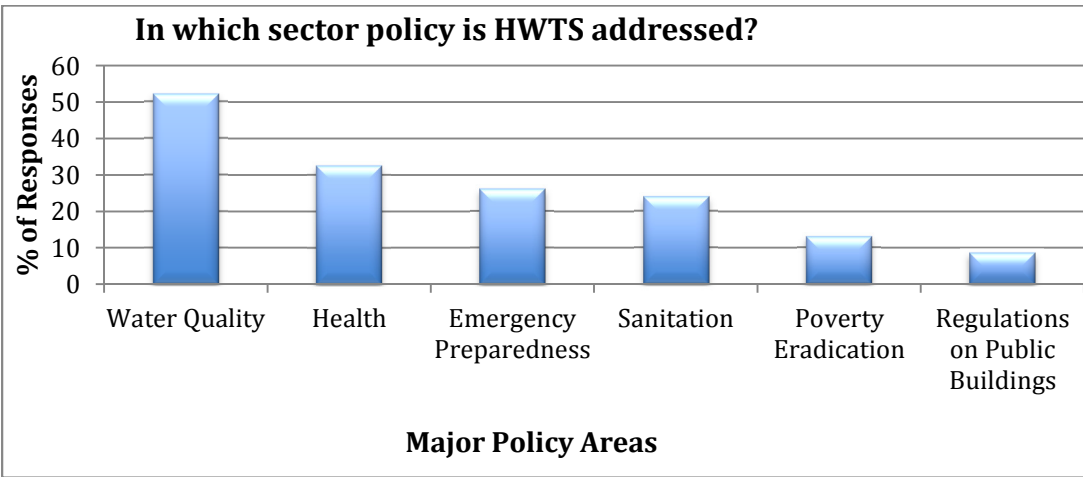


Figure 2. Inclusion of Household Water Treatment and Safe Storage in National Policies

In addition, countries were asked to provide details on policies related to HWTS. Most of the policies focused on water quality and supply or disease prevention and control. Within these policies, HWTS is not necessarily mentioned, but rather the importance of safe drinking-water is highlighted¹. Only two of the responding countries (Ghana and Tanzania) indicated that they have a national strategy for HWTS that bridges the many national water and health efforts where HWTS is included. Therefore, although 72% of responding countries indicated they consider HWTS within national policy structures, HWTS may only figure as a minor issue, without formalized linkages among the different policies and ministries.

Less than half, 43% (20 countries), of responding countries reported having targets relevant to HWTS. Out of the 20 targets, 15 focus on water quality or general health aspects and only five (Ethiopia, Ghana, Haiti, Rwanda and Tanzania) countries have specific HWTS targets (**Table 2**).

Table 2. National Household Water Treatment and Safe Storage Targets

health	Sudan	Reduce water-related diseases
	—	—

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