



## Issue 113 August 23, 2013 | Focus on WASH and Emergencies

This issue contains recent studies and resources on water, sanitation, and hygiene (WASH) in emergency situations. A rapid response of effective WASH infrastructure and services can prevent or lessen the impact of disease outbreaks that accompany emergencies. However, experience from Haiti and other countries has shown that emergency situations are challenging environments for WASH implementation. Resources in this issue include the 2013 editions of the World Health Organization's (WHO) Technical Notes for Emergencies, WASH standards from the Sphere Handbook, a SHARE review of WASH interventions in emergency situations, and other manuals and guidelines. Also included are country situation reports from Bangladesh, Haiti, Somalia, and Sudan.

Please contact WASHplus if you have recent studies, manuals, etc., on WASH and emergencies that can be added to this compilation.

### TECHNICAL NOTES

- **WHO Technical Notes for Emergencies**, 2013. WEDC. ([Full text](#))  
These technical notes provide specific information on topics such as cleaning, disinfecting, and rehabilitating wells, boreholes, tanks, and other small water supplies; solid waste disposal and emergency sanitation issues; disposal of bodies; and essential hygiene measures.

### REVIEWS

- **Evidence Review and Research Priorities: Water, Sanitation, and Hygiene for Emergency Response**, 2012. SHARE. ([Full text, pdf](#))  
In this review the authors present an overview of current knowledge about what works to prevent disease in emergency WASH response. Evidence suggests that providing safe water, safe excreta disposal, and basic hygiene measures such as hand washing are effective interventions both within emergency settings as well as in longer term development. Recent experience from humanitarian relief suggests progress still has to be made in meeting the basic WASH needs of people in crisis, however. The authors propose priorities for research and innovation.
- **Gap Analysis in Emergency Water, Sanitation and Hygiene Promotion**, 2013. A Bastable, Humanitarian Innovation Fund. ([Full text, pdf](#))  
This analysis identifies the major challenges that require innovative solutions in

humanitarian WASH. It is a targeted effort to identify different stakeholder perspectives of the gaps and spaces for innovation in emergency WASH. It is clear that excreta disposal issues such as latrines in areas where pits cannot be dug, desludging latrines, no-toilet options, and the final treatment or disposal of sewage are the areas in which people have identified gaps in emergency responses.

## HANDBOOKS

- **Sphere Handbook: Minimum Standards in Water Supply, Sanitation and Hygiene Promotion.** [WASH chapter](#) | [Complete handbook](#)

The Sphere Project and its handbook are well known for introducing considerations of quality and accountability into humanitarian response. This chapter is divided into seven main sections: WASH, hygiene promotion, water supply, excreta disposal, vector control, solid waste management, and drainage.

- **Water, Sanitation and Hygiene (WASH) in Healthcare Facilities in Emergencies,** 2012. WHO. ([Full text, pdf](#))

This document contains recommendations for setting minimum WASH standards in health care facilities during emergencies to provide an adequate and safe level of health care in addition to minimizing the nosocomial risk to patients, staff, and caregivers and the infectious risk to surrounding communities.

- **Water, Sanitation and Hygiene for Schoolchildren in Emergencies: A Guidebook for Teachers.** UNICEF. ([Full text, pdf](#))

This guidebook provides the information needed to ensure that every child knows about water, sanitation and hygiene. It is not a technical book about installing taps and building toilets. Instead it provides guidance on safe WASH behaviors that help children, families, and teachers stay healthy and avoid life threatening diseases. The guidebook is for people who work with children in a school setting. It does not require special WASH skills, knowledge, or experience.

## JOURNAL ARTICLES/REPORTS

- **Climate Change, Water, Sanitation and Energy Insecurity: Invisibility of People with Disabilities.** *Canadian Jnl Disability Studies.* 1(3) 2012. G Wolbring. ([Full text](#))

The problems associated with climate change, energy scarcity, water and sanitation insecurity, and severe natural disasters are at the forefront of both national and international policy agendas. Increasingly, people with disabilities are those most critically affected by these environmental challenges; however, literature addressing the implications for people with disabilities remains scarce. The well-being of people with disabilities is threatened by this invisibility.

- **Disaster Metrics: A Proposed Quantitative Assessment Tool in Complex Humanitarian Emergencies – The Public Health Impact Severity Scale (PHISS).** *PLoS Currents,* Aug 2012. J Bayram. ([Full text](#))

Complex humanitarian emergencies (CHE) result in rapid degradation of population health and quickly overwhelm indigenous health resources. To date, there is no entirely quantitative assessment tool conceptualized to measure the public health impact of CHE. This study proposes using the Public Health Impact Security Scale as a new conceptual metric tool to add an objective quantitative dimension to the post-CHE assessment process.

- **Linking Investment Decisions with Disaster Risk Reduction in Water Sanitation and Hygiene (WASH): The Role of the Public and Private Sectors, Potentials for Partnership and Social Learning**, 2013. A Johannessen. ([Full text, pdf](#))

This study is a literature review using empirical evidence from case studies from which the authors construct a conceptual model explaining the building of WASH vulnerability and disaster risk reduction. They identify building blocks (access, siting, mitigation/adaptation, and sharing) that work over different scales. Using social learning as a conceptual lens, this paper then explores the potential for novel and effective mechanisms to trigger and influence a collaborative process between private and public actors, which could build resilience to disasters.
- **Solar Disinfection in a Community-Scale Water Treatment System: An Analysis of Design Parameters for Humanitarian Engineering and System Sustainability**. *Intl Jnl Service Learning in Eng*, 8(1) 2013. M Reeves. ([Full text](#))

SODIS, solar disinfection of water in plastic bottles, is a well-known water treatment method in communities lacking developed infrastructure. While SODIS is commonly employed by individuals and family units needing clean drinking water in many parts of the world, a community-scale solar disinfection system is presented in this paper as a sustainable, humanitarian engineering concept.
- **Use of Household Water Treatment and Safe Storage Methods (HWTS) in Acute Emergency Response: Case Study Results from Nepal, Indonesia, Kenya, and Haiti**. *Env Sci Technol*, 46(20) 2012. D Lantagne. ([Abstract/order info](#))

HWTS can be effective at reducing the risk of unsafe drinking water in the acute emergency context. Additionally, by focusing on whether interventions actually improve drinking water quality in vulnerable households, “effective use” provides an important program evaluation metric.
- **Water, Sanitation, and Hygiene in Emergencies: Summary Review and Recommendations for Further Research**. *Waterlines*, Dec 2012. J Brown. ([Abstract/order info](#))

In this review, the authors present an overview of current knowledge about what works to prevent disease in emergency WASH response. They propose key areas for critical research to support the evidence base for WASH interventions in emergencies and promote innovation.

## COUNTRY REPORTS

- **Bangladesh – Handbook on Climate Change and Disaster Resilient Water, Sanitation and Hygiene Practices**, 2012. WaterAid. ([Full text, pdf](#))

This handbook will give field level workers and practitioners practical ideas about WASH practices in the context of climate change and disaster risk. It will also provide them with the necessary information for planning and conducting WASH training.
- **Haiti – Impact of Different Promotional Channels on Handwashing Behaviour in an Emergency Context: Haiti Post-Earthquake Public Health Promotions and Cholera Response**. *Journal of Public Health*, June 2013. N Contzen. ([Abstract/order info](#))

In a disaster context, where risk for diarrheal disease is elevated, personal hygiene, i.e.,

hand washing with soap, is especially relevant. However, to date, the promotion of hygiene in an emergency context has not been adequately addressed in the literature. The aim of the present study is to evaluate the effectiveness of hygiene promotions in post-earthquake Haiti. Analysis revealed six promotional channels with positive associations with hand washing behavior: hygiene radio spots, radio programs with experts answering listener's questions, material distributions with instructions for use, information from friends or neighbors, hygiene theaters, and community clubs.

- **Somalia – Implementing Effective Knowledge Management in Emergencies: A Case Study from a Somalia WASH Cluster**, 2013. K Harries. ([Full text, pdf](#))

This learning paper captures the experience of the Somalia WASH Cluster and draws lessons on how an effective knowledge management system can be developed and implemented. The paper aims to provide a sample framework of a successful knowledge management system that can be adapted by other national WASH Clusters to support predictable, effective, timely, and coherent WASH emergency preparedness and response.

- **Sudan – DFID's Water, Sanitation and Hygiene Programming in Sudan**, 2013. Independent Commission for Aid Impact. ([Full text, pdf](#))

This evaluation assesses the effectiveness and value for money of the Department for International Development's (DFID) support for WASH programming in Sudan. WASH has been an integral part of DFID's humanitarian response to the Darfur conflict since 2003. This evaluation assesses how well DFID manages the transition from short-term emergency assistance to more sustainable support in protracted humanitarian crises.

*WASHplus Weeklies* will highlight topics such as Urban WASH, Indoor Air Pollution, Innovation, Household Water Treatment and Storage, Hand Washing, Integration, and more. If you would like to feature your organization's materials in upcoming issues, please send them to Dan Campbell, WASHplus Knowledge Resources Specialist, at [dacampbell@fhi360.org](mailto:dacampbell@fhi360.org).



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**About WASHplus** - WASHplus, a five-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 indoor air pollution (IAP). 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](http://www.washplus.org) or email: [contact@washplus.org](mailto:contact@washplus.org).