



Issue 118 September 27, 2013 | Focus on Management of Health Care Waste

To reduce the burden of disease, health care waste needs sound management. The unsafe disposal of health care waste (for example, contaminated syringes and needles) poses public health risks. If not managed, direct reuse of contaminated injection equipment results in occupational hazards to health workers, waste handlers, and scavengers. Resources in this issue include the just published World Health Organization (WHO) manual "Safe Management of Wastes from Health-Care Activities," USAID's 2013 health care waste guidelines, a United Nations Environment Program (UNEP) policy brief, and country studies from Cameroon, Ethiopia, Nigeria, Malaysia, and Morocco.

GENERAL/OVERVIEW

- **Healthcare Waste Management: The Current Issues in Developing Countries.** *Waste Management Research*, 30(6) 2012. E Titto. ([Link, pdf](#))
Special attention should be paid to the fate of health care waste after it leaves a facility where it can expose an entire community to risk, particularly those who come in close contact with it, such as waste transporters, landfill workers, waste pickers, scavengers, recyclers, and children.
- **Safe Management of Wastes from Health-Care Activities**, 2013. A Prüss-Ustun, WHO. ([Link, pdf](#))
This is the second edition of the WHO handbook on the safe, sustainable, and affordable management of health care waste—commonly known as the Blue Book. The original Blue Book was a comprehensive publication used widely in health care centers and government agencies to assist in the adoption of national guidance. In many countries, knowledge about the potential for harm from health care waste has expanded among governments, medical practitioners, and civil society. Increasingly, managers and medical staff are expected to take more responsibility for the waste they produce from their medical care and related activities.
- **UNEP Policy Brief on Healthcare Waste: What, Why and How**, 2013. International Environmental Technology Centre. ([Link, pdf](#))
Management of health care waste is becoming an issue of growing concern in urban areas. In many developing countries it is still indiscriminately disposed of and often mixed with municipal waste, thus causing serious health and environmental hazards, particularly to the scavengers operating at dump sites. Because of the extreme health

hazards, health care waste cannot be disposed of along with other municipal waste. The technologies for the treatment of health care waste are not well understood or widely available in developing countries. As a result, choices made on the basis of technology may not be well informed, resulting in poor or uneconomic performance.

- **USAID Health Sectoral Guidelines: Healthcare Waste**, 2013. G Gulis. ([Link, pdf](#))

Currently, little or no management of health care waste occurs in small-scale facilities in developing countries. Training and infrastructure are minimal. Common practice in urban areas is to dispose of health care waste along with the general solid waste or, in peri-urban and rural areas, to bury waste without treatment. Since money for health care waste management is scarce, the first priority is to adopt actions and procedures that maximize risk reduction and cost the least.

- **Water, Sanitation and Hygiene (WASH) in Health-Care Facilities in Emergencies**, 2013. WHO. ([Link, pdf](#))

Health care facilities play a vital role within the community by providing essential medical care at all times including during emergencies. Any incident that causes loss of infrastructure, energy supply, loss of equipment, loss of staff or staff attrition, interruption to supply chains, or patient surge—such as sudden communicable disease epidemics, natural disasters (e.g., floods, earthquakes), or conflict—requires a holistic health response and recovery effort that includes actions to assess and restore basic WASH services.

COUNTRY STUDIES

- **Cameroon – Health Impact Assessment and Evaluation of a Clinical Waste Management Policy for Cameroon**. *Journal of Public Health in Africa*, 4(E7) 2013. P Pikome. ([Link, pdf](#))

The stakeholders identified cross-contamination, environmental pollution, physical injuries, and dangerous waste management sites as potential risk factors that can be associated with poor clinical waste management. They recommended strong economic and political capital as a prerequisite for the development and implementation of a successful clinical waste policy.

- **Ethiopia – Assessment of the Health Care Waste Generation Rates and Its Management System in Hospitals of Addis Ababa, Ethiopia**. *BMC Public Health* 2013, 13:28. M Debere. ([Link, pdf](#))

Health care waste management options vary in Ethiopia. One of the first critical steps in the process of developing a reliable waste management plan requires a widespread understanding of the amount generated and the existing management system. This study aimed to assess the health care waste generation rate and how it is managed in some selected hospitals located in Addis Ababa, Ethiopia.

- **Ethiopia – Healthcare Waste Management Practices Among Healthcare Workers in Healthcare Facilities of Gondar Town, Northwest Ethiopia**. *Health Science Journal*, 7(3) 2013. A Muluken. ([Link, pdf](#))

The aim of the present study was to assess health care waste management practices among health care workers in Gondar town facilities. The majority of health care workers did not practice proper waste management. The study recommended the following improvements to remedy poor management practices: provision of adequate numbers of waste bins and regular training and supervision.

- **Malaysia – Infectious Risk Assessment of Unsafe Handling Practices and Management of Clinical Solid Waste.** *Int. J. Environ. Res. Public Health* 2013, 10(2). M Hossain. ([Link](#))

In this study, several nosocomial pathogenic bacteria strains of *Escherichia coli*, *Klebsiella pneumoniae*, *Proteus mirabilis*, *Lysinibacillus sphaericus*, *Serratia marcescens*, and *Staphylococcus aureus* were detected in clinical sharp waste. The present study suggests that waste generated from health care facilities should be sterilized at the point of generation to eliminate nosocomial infections from the general waste as well as the clinical waste.
- **Morocco – Medical Waste Management: A Case Study of the Souss-Massa-Drâa Region, Morocco.** *Journal of Environmental Protection*, (4) 2013. A Mbarki. ([Link, pdf](#))

In Morocco, little information is available regarding generation handling and disposal of medical waste. The specific objective of this study was to analyze the medical waste management practices in the Souss-Massa-Drâa Region of Morocco. Site visits, interviews, and survey questionnaires were implemented to collect information regarding different medical waste management aspects, including medical waste generation, separation, collection, storage, transportation, and disposal. The results indicated that the medical waste generation rate ranged from 0.4 to 0.7 kg/bed-day with a weighted average of 0.53 kg/bed-day.
- **Nigeria – Health Care Waste Management: Public Health Benefits, and the Need for Effective Environmental Regulatory Surveillance in Federal Republic of Nigeria,** 2013. N Nwachukwu. ([Link](#))

Poor management of health care waste potentially exposes health care workers, waste handlers, patients, and the community at large to infection, toxic effects, and injuries, and risks polluting the environment. It is essential that all medical waste materials are segregated at the point of generation, appropriately treated, and disposed of safely. Health care waste is a byproduct of health care that includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals, medical devices, and radioactive materials.

WEBSITES

- **PATH: Healthcare Waste Management Resources** ([Link](#))

PATH has gathered available resources on health care waste management for easy access. This web page is intended to serve as a resource for countries and programs working to improve health care waste management.
- **WHO: Guidance for Healthcare Waste Management (HCWM)** ([Link](#))

The website is split into three main sections: “basics” provides an overview about health care waste and its proper management; “country level and HC facilities” covers information relevant to the five main thematic areas (management, training, regulatory, and financial issues as well as technologies); and “resources” has five databases that contain relevant documents, links, technologies, country information, and case studies.

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.



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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 or email: contact@washplus.org.