

WHO statement on the sustainability of safe and effective systems for the management and final disposal of infectious health care waste



Goal: *Mobilize government and external funding for the development and maintenance of sound infectious health-care waste management systems.*

Background:

Health-care activities produce infectious waste which may cause adverse health effects. Infectious medical sharp wastes in particular (including syringes and needles) when ill managed pose a significant risk to patients, health-care workers and to waste handlers if they are not handled and disposed of properly. Contaminated needles and syringes may be scavenged from waste areas and dump sites and be reused.

Used syringes and needles contain residual blood and blood-borne pathogens that can transmit disease when re-used without reprocessing, or through accidental needle-sticks. In 2000, WHO estimated that injections with contaminated syringes caused 21 million hepatitis B virus (HBV) infections (32% of all new infections), two million hepatitis C virus (HCV) infections (40% of all new infections) and 260 000 HIV infections (5% of all new infections). In 2002, the results of a WHO assessment conducted in health-care facilities of 22 developing countries showed that the proportion of waste disposal methods exposing workers and community members to contaminated sharps ranges from 18% to 64%. Persons who experience a needle-stick injury from a needle used on an infected patient have a risk of 30%, 1.8% and 0.3%, respectively, of becoming infected with HBV, HCV and HIV/AIDS.

Despite these growing concerns, so far, little attention has been paid to assess the cost and therefore ensure the budgeting and financing with adequate finances for managing sharps and non-sharps infectious waste. Primary health facilities have been particularly neglected in this respect. In developing and transitional countries alone, manufacturers estimate that approximately 16 billion new syringes are used each year, the vast majority using disposable plastic syringes with stainless steel needles. The provision of safe injections therefore requires not only continuous supply of sterile syringe and needles to all health care facilities providing injections, but also proper waste management of the 16 billion used syringe and needles and other non-sharp infectious waste.

Strategy:

The management of infectious sharps and non-sharps waste requires to be an integral part of a comprehensive system for health-care waste (HCW) management. Such a system would include efforts to promote minimization of waste generation, segregation of sharps and infectious waste, collection, and environmentally sustainable treatment and disposal methods that also keep waste from public access.

A holistic approach to HCW includes a clear delineation of responsibilities, education and training, but also the adoption of safe, effective and environment-sustainable technologies¹. The introduction and the sustained maintenance of sound systems for infectious waste management depends on the availability of resources, both from within the ministry of health, from other ministries/authorities responsible for the environment, ministries of finance and public works and from external donor-partners.

Following the “polluter pays” principle, WHO requests national and local Governments, donors and lenders who fund curative and preventive health-care activities, to also cover the cost associated with the management of all infectious waste generated by these health interventions.

¹ An environment-sustainable health technology is defined as the combination of a device, its utilization procedures and user.

The introduction of improved infectious waste management systems consists of the following essential elements:

- Assess the current status of infectious waste management systems, its costs, the volumes of waste generated by different types of health facilities and the patient workload. Identify gaps.
- Engage the key stakeholders to jointly develop locally adapted HCWM systems. They would participate in the planning and formulation of policies, standard operating procedures and systems for the transfer, treatment and final disposal of infectious waste, by strengthening existing or forming Technical Committee(s).
- Develop a sustained plan on health-care waste management stating short, medium and long term strategic actions on infectious waste management with provisions to monitor and evaluate progress.
- Establish and identify sources for the budget line(s) needed to, a) finance the development of infrastructures, the procurement of equipment and the establishment of procedures, b) secure annual budget to cover the maintenance and operational costs and c) ensure capacity building of concerned staff.

Key policies and standard operating procedures include measures to minimize the generation of infectious waste, such as avoiding unnecessary injections, segregation of waste at the point of use and prevention of public access to infectious waste, both sharps and non-sharps.

Co-funding mechanisms, both internally between government ministries (typically Ministries of Health, the Environment, the Interior or Local Government) and externally with multi/bi-lateral partners, may be needed to sustain the system in the long term. The design of infectious waste processing systems should seek opportunities for safe recycling of materials, such as plastic, and possible generation of revenues resulting from the sale of these resources.

Recommendations:

WHO calls upon National Governments to:

- Assess their existing HCW systems, convene stakeholder committees to set policy, prepare budgeted national plans, identify and allot sufficient budget lines to cover the cost for establishment (capital) and maintenance (running) of HCW system.
- Request donor-partners and other sources of external financing of health programs to always include an adequate contribution to ensure the set up and functioning of sound infectious waste management systems.

WHO calls upon External Donor/partners to:

- Include, in a mandatory fashion, into all assistance, contributions to the development of health programs, provision to cover costs of sound infectious waste management systems, in a proportion to the scale of waste generated and TO THE value of the programs.

WHO commits itself to:

- Provide technical and managerial assistance in the process of assessment and planning of HCWM systems.
- Support capacity building efforts.
- Help countries document the introduction of sound HCW systems, their costs and their benefits and,
- Disseminate information on technical options for processing and final disposal of infectious waste.