



WORLD HEALTH ORGANIZATION

# Safe health-care waste management

## AIDE-MEMOIRE

### *for a national strategy for health-care waste management*

Health-care waste is a by-product of health care that includes sharps, non-sharps, blood, body parts, chemicals, pharmaceuticals, medical devices and radioactive materials. Poor management of health-care waste exposes health-care workers, waste handlers and the community to infections, toxic effects and injuries. It may also damage the environment. In addition, it creates opportunities for the collection of disposable medical equipment (particularly syringes), its re-sale and potential re-use without sterilisation, which causes an important burden of disease worldwide.

The most important principles underlying effective programmes for the management of health-care waste include, firstly, the assignment of legal and financial responsibility for safe management to the waste producer; and, secondly, the responsibility of duty of care. Precaution should be applied whenever risks are uncertain.

It is essential that everyone concerned by health-care waste should understand that health-care waste management is an integral part of health care, and that creating harm through inadequate waste management reduces the overall benefits of health care.

Policies and plans for the safe management of health-care waste should address the following three elements:

- 1 The establishment of a comprehensive system of health-care waste management, from the generation of waste to its disposal – to be implemented gradually.
- 2 The training of all those involved and increasing awareness.
- 3 The selection of safe and environment-friendly options for the management of health-care waste.

### Words of advice

- **Secure government commitment and support for safe health-care waste management**
- **Conduct an initial assessment of the situation of potential harms from health-care waste**
- **Manage waste comprehensively, addressing responsibilities, resources, waste minimization, handling and disposal**
- **Raise awareness among those responsible for regulating, generating and handling waste and provide training in safe practices**
- **Select safe, environment-friendly and sustainable waste management options**
- **Monitor and evaluate waste management activities and their impact**



### Checklist

for action at national and local level

#### National policy for safe health-care waste management

- Designation of responsible authority
- Regulatory framework and guidelines
- Initial assessment
- Integration into overall waste management plan
- Monitoring and evaluation

#### Comprehensive system of health-care waste management

- Assignment of waste management responsibilities to personnel
- Allocation of resources
- Minimization of waste
- Segregation of waste
- Safe collection, handling and storage
- Safe treatment and disposal

#### Awareness and training

- Inclusion of waste management in the curricula of health-care personnel
- National training package
- Train the trainers programme
- Education on health risks
- Education on safe practices

#### Selection of options for the management of health-care waste

- Review of available options
- Checks of safety and environment-friendliness
- Ensure workers' safety
- Evaluation of sustainability
- Assessment of acceptability
- Monitoring of safety and efficiency

# Key elements

## National policy for safe health-care waste management

It is the responsibility of governments to create a framework for the safe management of health-care waste and to ensure that health-care facility managers take their share of responsibility to manage wastes safely.

This requires a national coordinating mechanism involving the Ministry of Health and other stakeholders. It is important that a designated authority coordinates these efforts and receives sufficient political support, funding and trained staff.

Important activities for a national strategy to achieve safe health-care waste management include:

- Identification of key partners, including but not necessarily limited to: Ministry of Health, Environment Agency, non-governmental organizations, waste producers and waste disposal companies or services
- Designation of the responsible authority for policy formulation, implementation and evaluation
- Initial assessment and analysis of problems leading to unsafe handling or disposal
- Development of a national policy framework stating that the management of waste is part of the health-care system, and that health-care services should be assigned legal and financial responsibility for safe waste management and should manage their waste with duty of care
- Development of a regulatory framework and national guidelines, based on a comprehensive approach, including training, occupational health and safety issues and sound choices of waste management options, according to local circumstances
- Development of an enforcement mechanism
- Setting of practical targets or objectives over a specified time period
- Establishment of a national and regional infrastructure for health-care waste disposal
- Support of regional and municipal authorities in implementation
- Integration of waste minimization into national purchasing policies
- Routine monitoring of impact through process indicators (number of health-care establishments with safe waste management systems) and outcome indicators (e.g. number of accidents involving health-care waste).

### Comprehensive system

Facilities that generate health-care waste should set up a comprehensive waste management system based on the most appropriate means of achieving the safe, environment-friendly management of waste. The system should start with basic measures and then gradually be improved. First steps should include the segregation and safe handling, treatment and disposal of sharps.

Important activities include:

- Assignment of responsibilities for waste management
- Allocation of sufficient human and financial resources
- Waste minimization, including purchasing policies and stock management practices
- Segregation of waste into harmful and non-harmful categories
- Implementation of safe handling, storage, transportation, treatment and disposal options
- Monitoring of waste production and waste destination.

### Awareness and training

Awareness of the risks related to health-care waste and training in safe practices is essential in obtaining both commitment and behaviour change by all involved in the management of health-care waste.

Important activities include:

- Advocacy targeting policy makers and health-care facility managers regarding the risks and responsibilities related to health-care waste
- Inclusion of health-care waste management into the training curricula of nurses, doctors and health-care managers
- Development of a national training package, adapted to various professional categories
- Development of a 'train-the-trainers' programme
- Education of health-care and waste workers and the community on the risks associated with health-care waste and safe management practices.

### Selection of options

Waste management options should be efficient, safe and environment-friendly to protect people from voluntary and accidental exposure to waste when collecting, handling, storing, transporting, treating or disposing of waste.

Important activities include:

- Identification of available centralized waste management and disposal resources
- Choice of sustainable management and disposal options, according to:
  - Affordability
  - Environment-friendliness
  - Efficiency
  - Workers' safety
  - Prevention of the re-use of disposable medical equipment (e.g. syringes)
  - Social acceptability
- Identification of appropriate options for all levels of health-care facilities
- Monitoring and evaluation of safety and efficiency.

Related documents and additional information on health-care waste management can be obtained on the World-Wide Web at [www.healthcarewaste.org](http://www.healthcarewaste.org)