

# Management of waste from injection activities at district level

## Guidelines for District Health Managers



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# INTRODUCTION

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## WHY SUCH A GUIDE?

Inadequate management and disposal of waste generated by injection activities such as sharps and infectious waste can have a negative impact, either directly or indirectly, on the health of medical staff and waste handlers, as well as on the community and environment. Much attention has been paid to tertiary health-care facilities located in urban areas where financial and human resources are more readily available.

However, due to financial and institutional constraints, limited efforts have been made to provide District Management Teams with simple and adequate guidelines to set-up health-care waste management plans for primary and secondary health-care facilities. In particular, management of waste from mass and routine injection activities remains problematic as significant quantities of disposable or auto-disable syringes and needles are generated, for which there must be safe disposal options.

This guide is designed as a simple and practical tool to help District Health Managers elaborate a realistic District level plan to reduce improper disposal of waste from injection activities.

*This guide puts a special emphasis on the management of sharps.*

## WASTE CATEGORIES GENERATED IN INJECTION ACTIVITIES ARE AS FOLLOWS:

### **Used sharps (most hazardous)**

Needles  
Lancets  
Broken glass (vials, flasks)



### **Waste materials possibly contaminated by body fluids**

Syringes without needles  
Gloves, gowns, masks  
Gauze, dressings, swabs  
Containers for medical purposes



### **General Waste**

Packages, boxes, papers  
Disposable cups, plates  
Food and drink packaging  
Tissues, paper towels



## WHY FOCUS ON SHARPS?

If they are not properly handled and disposed of, sharps and more specifically needles are considered the most hazardous category of health-care waste for health-care workers and the community at large. This is because needle-stick injuries can easily occur and carry a high potential for infection.

### THE RISK OF ACCIDENTS WITH SHARPS:



Children playing with syringes and needles may be infected by needle-stick injuries



Stick injury of medical staff is a major source of infection



Needle stick injuries may cause Hepatitis B & C, HIV, sepsis etc.

## HOW IS THIS GUIDE STRUCTURED?

This guide is divided into seven sections and includes a poster which can be widely reproduced and distributed to health-care facilities. The sections correspond to the seven major steps District Health Officers should implement to improve sharps management, protect public health, limit the risk of needle-stick injuries and reduce negative effects of waste on the environment. A chronological checklist of actions, illustrations, as well as practical tools, are included.

# STEP 1. ASSESS THE SITUATION IN YOUR DISTRICT

## CHECKLIST OF ACTIONS

- Create an inventory (list and map) of all health-care facilities in the district including mobile sites, health-posts, primary health-care centres, district hospitals;
- For each health-care facility, record access and logistical constraints throughout the year (taking into account seasonal variations);
- Categorize and estimate the quantities of sharps generated (disposable syringes, lancets and other waste materials);
- Review waste handling, treatment and disposal practices and identify facilities with dangerous practices requiring urgent action.

This assessment should result in the identification of existing good practices and the prioritization of areas requiring improvements. For example:

Good practices	Poor practices
<ul style="list-style-type: none"> <li>▪ Waste segregated into infectious and non infectious waste.</li> <li>▪ Entire syringe or needles collected in a puncture and leak proof container (with colour coding or bearing a biohazard sign/symbol). Alternatively, needles are removed immediately after injection via needle remover and disposed of on site.</li> <li>▪ Non-sharp infectious wastes are collected in bags (with colour coding or bearing a biohazards sign/ symbol).</li> <li>▪ Infectious waste bags and sharp containers are safely handled and transported (on-site).</li> <li>▪ Infectious waste bags and sharp containers are stored in secured places prior to transportation for treatment/disposal.</li> <li>▪ Availability and use of Personal Protective Equipment (PPE) and facility for washing hands for all persons handling waste.</li> <li>▪ Immunization of staff against Hepatitis B virus (HBV).</li> <li>▪ Regular supervision and correction of problems.</li> </ul>	<ul style="list-style-type: none"> <li>▪ No segregation of waste into infectious and non infectious matter, garbage contains syringes.</li> <li>▪ Waste disposed of in unprotected open dumps.</li> <li>▪ Reported cases of needle stick injuries in the community.</li> <li>▪ Lack of staff awareness about the risks from potentially infectious materials or blood-borne diseases.</li> <li>▪ Lack of know-how among staff in waste handling.</li> <li>▪ Insufficient staff and time dedicated to proper waste management (staff overload...).</li> <li>▪ Lack of supplies (PPE, Bags, sharp containers...) and/or improper use of those supplies.</li> <li>▪ Lack of money and know-how to build infrastructure.</li> <li>▪ Weak management and supervision of the waste management stream.</li> </ul>

## TOOLS YOU CAN USE

The following check list could be used for assessing existing practices:

<b>Name of the facility :</b> <b>Location :</b> <b>Total number of workers :</b>		Answer	Details
1	Is there a designated person in charge of waste management in the facility?		
2	Is there a written standard operating procedure (SOP) for waste management in the facility?		
3	Is there a system for segregation of waste in place?		
4	Are the staff aware of risks associated with improper waste handling?		
5	Are auto-disable syringes used for injection?	.....	For mass immunization campaigns? ..... For routine injection activities?
6	Are syringes discarded with their needles attached?		
7	Are needles separated from syringes after injection?		
8	If yes, how are they separated?		By hand, needle cutter, needle removal can/boxes, locally made devices...
9	What type of containers are used for sharps waste?		WHO safety boxes, rigid plastic safety containers, open bins.... What colour?
10	What type of containers are used for non-sharp infectious waste?		Bags, boxes, bins.... What colour?
11	Are syringes and needles disinfected before final disposal?	.....	needle ..... syringe
12	If yes, how are they disinfected?		Autoclave, boiled water, chlorine...
13	Are they processed in another way?	.....	Shredding, encapsulation on-site ..... Shredding, encapsulation off-site

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