BHM-102
Health Care Waste Management: Concepts, Technologies and Training

Block 4

TRAINING MANUAL FOR WASTE HANDLERS

UNIT 29
Basic Concepts of Training 5

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Planning a Training Programme for Waste Handlers of Health Care Waste 20
CURRICULUM DESIGN COMMITTEE (Pre-revised)

Prof. A.K. Agarwal
Director
SOHS, IGNOU
New Delhi

Prof. Santosh Panda
STRIDE, IGNOU
New Delhi

Mr. Alexander Von Hildebrand
Regional Advisor
Regional Office for South-East Asia
World Health Organisation, New Delhi

Dr. Megha K. Rathi
Sr. Consultant
SOHS, IGNOU
New Delhi

EXPERT COMMITTEE

Dr. Bina Sawhney
Additional DDG BRS (Retd.), MoHFW, New Delhi

Mr. J Chandra Babu
Sr. Environmental Engineer, CPCB
Patpesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Shahdara, Delhi

Prof. T Hemanth
Head, Department of Community Medicine
M S Ramashab Medical College, Bangalore

Dr. Shyamala Mani, Professor (Retd.),
National Institute of Urban Affairs,
India Habitat Centre, Lodhi Road, New Delhi

Dr. Vijay Rai
Sr. CMO (SAG) & Chairman Legal Cell,
Dr. RML Hospital, New Delhi

Prof. Reema Kumari
Dept. of Community Medicine and Public Health,
King George’s Medical University, Lucknow

Prof. Vidhya Venugopal
Certified Industrial Hygienist (BOHS)
Department of Environmental Health Engineering
Sri Ramachandra University, Porur, Chennai

Mr. Payden
Regional Advisor, WSH,
WHO - Regional Office for South-East Asia
World Health House, Indraprastha Estate Mahatama Gandhi Marg, New Delhi

Dr. Sunita Singal
Former Sr. CMO, Dept of Obs. & Gynaec,
Incharge of Dept of Hospital Waste Management,
VMMC & Safdarjung Hospital, New Delhi

Prof. S B Arora
Director,
School of Health Sciences
IGNOU, New Delhi

Prof. T K Jena
School of Health Sciences
IGNOU, New Delhi

Prof. Rushika Kuba
Programme Coordinator
School of Health Sciences
IGNOU, New Delhi

Dr. Biplab Jamaita
Assistant Professor (Sr. Scale)
School of Health Sciences
IGNOU, New Delhi

BLOCK PREPARATION TEAM

Writers

Unit 29-30
Dr S Pruthwish
Prof. and Head
Department of Community Medicine
MSRMC, Bangaluru

And
Dr. B. Ramakrishna Goud
Prof. and Head
Dept. of Community Medicine,
St. John’s Medical College,
Bangalore

Editorial Team

Mr. J Chandra Babu
Sr. Environmental Engineer, CPCB
Patpesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Shahdara, Delhi

Dr. Sunita Singal
Former Sr. CMO, Dept of Obs. & Gynaec,
Incharge of Dept of Hospital Waste Management, VMMC & Safdarjung Hospital, New Delhi

Prof. Ruchika Kuba
Programme Coordinator
School of Health Sciences, IGNOU, New Delhi

Creative Inputs

Dr. Jyotsana Dikshit
Dy, Director, NCIDE, IGNOU, New Delhi

And
Prof. Ruchika Kuba
Programme Coordinator
School of Health Sciences, IGNOU, New Delhi

Vetting Team

Mr. Payden
Regional Advisor, WSH,
WHO - Regional Office for South-East Asia
World Health House, Indraprastha Estate Mahatama Gandhi Marg, New Delhi

Dr. Ute Pieper
WHO Consultant
Hamshire Residence,
B-3A-3, 2A Persiaran
Hampshire 5050 Kuala Lumpur, Malaysia

Mr. J Chandra Babu
Sr. Environmental Engineer, CPCB
Patpesh Bhawan, CBD-cum-Office Complex, East Arjun Nagar, Shahdara, Delhi

Dr. Sunita Singal
Former Sr. CMO, Dept of Obs. & Gynaec,
Incharge of Dept of Hospital Waste Management, VMMC & Safdarjung Hospital, New Delhi

Dr. Chhavi Pant Joshi
DADG (Environment Health),
Directorate General of Health Services,
Ministry of Health & Family Welfare,
Government of India
New Delhi

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PRODUCTION

Mr. Ajit Kumar
Section Officer (P)
SOHS, IGNOU, New Delhi

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You have already read about the need for management of health care waste and the legislation and regulatory mechanisms existing in the different SEAR Countries. You have also learnt in detail about the principles of health care waste management and the practices that need to be adopted for managing and disposing of the waste so that impact on the human health and environment can be minimised or eliminated. The health care waste is classified as hazardous category of waste and hence it is imperative that occupational safety measures should be adopted and put in place to avoid a risk both to the health care personal and the patients.

Training becomes a very important component for not only providing knowledge and bringing in an attitudinal change, but also for providing skills to the various categories of professionals and para-professionals working in the health sector for safe management and disposal of health care waste.

**Unit 29** deals with the basic concepts of training wherein the principles of effective communications and the critical elements of learning have been spelt out. You will also learn about the various methods adopted and the advantage and disadvantages of each methodology. A broad training has also been provided to you as a model.

**Unit 30** provides you the details on how to plan a training programme for the waste handlers can be organised and implemented. Preparation for the training and formulating a training plan is very important before conducting the actual training. The various components of training and the evaluation of the training programme have also been detailed in this unit.
UNIT 29  BASIC CONCEPTS OF TRAINING

Structure

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29.1 Introduction
29.2 Principles of Effective Communication
29.3 Critical Elements of Learning
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29.0 OBJECTIVES

After studying this unit, you should be able to:

● enumerate the principles of adult learning and effective communication
● describe the critical elements of learning
● discuss the types and methods of learning
● distinguish the advantages and disadvantages of different methodologies
● conceptualise a training plan

29.1 INTRODUCTION

In all the previous units and block of BHM-101 and BHM-102, you have been studying about how and why to manage health care waste. In this unit you will learn the applicability of your knowledge and skills in training other health care staff and workers in health care waste management. Before
you learn how to conduct a training in this area, you must become familiar with the basic concepts of training. The details of planning and implementing a training programme for the waste handlers are detailed in the Unit 30, i.e. the next unit of this block.

There are different types of teaching which can be instructor-centred, learner-centred, content-centred or participatory. These types can be delivered through various methods of teaching like lecturing, group discussion, demonstration etc. You will learn about the details of the different types of the teaching and the methods adopted for teaching in this unit. Based on this knowledge, you can decide which one to adopt during your training process keeping in mind the target group and the purpose of the training.

This unit also empowers you with the concepts that will help you to improvise, modify and even innovate your own training packages. The various components include logistic arrangements, selecting the target group, defining the syllabus or content and duration of training. Guidelines for pre- and post-evaluation has also been provided.

### 29.2 PRINCIPLES OF EFFECTIVE COMMUNICATION

Communication is the key component of all training activities. Communication process consists of some interrelated steps or parts through which messages are sent from sender to receiver. The process of communication begins when the sender wants to transmit a fact, idea, opinion or other information to the receiver and ends with receiver’s feedback to the sender. The main components of communication process are sender, message, channel, receiver and feedback (Fig. 29.1).

![Components of Communication Process](image)

**Fig. 29.1: Components of Communication Process**

For effective communication the trainers must keep the following points in mind.

a. **Sender** must be clear in his mind about the purpose of this communication. Hence the trainer must prepare the topic and the modality of teaching prior to entering the class. There should not be any ambiguous information given to the trainees.
b. Avoid unnecessary technical jargon – The language used should be simple and without many technical words.

c. It is most essential to consider the needs of receiver.

d. Tone of voice, choice of language and congruency between what is said and how it is said influences the actions of receiver.

e. Ensure it is communication and not transmission of information. Communication is only complete when the subject is understood by the receiver.

f. Emotion and interpersonal relationship – a cordial interpersonal relation with trainees is essential for them to be attentive and motivated to learn.

g. Encourage them to listen and not hear.

h. Encourage interaction with the trainees.

Barriers to communication can occur if the recipient has failed to convey the meaning or/and the importance of the message.

a. Sender breakdown: Too much information is being sent, so the recipient misses the key points. Also, language can be difficult to understand, as it can be too complex.

b. Method breakdown: When information is very detailed or complicated, then written instructions are better than verbal messages which can be misinterpreted.

c. Recipient breakdown: The recipient deliberately makes a choice to misinterpret the message because of their attitude to the sender to the message at hand.

29.3 CRITICAL ELEMENTS OF LEARNING

There are four critical elements of learning that must be addressed. These elements are:

1. Motivation
2. Reinforcement
3. Retention
4. Transference

Compared to children and teens, adults have special needs and requirements as learners. As per Malcom Knowles, following are the characteristics of adult learners:

a. Adults are autonomous and self-directed. They have different perceptions.

b. Adults have a bounty of life - experience and knowledge. Hence they need to connect learning to this knowledge/experience base.
c. Adults are goal-oriented. They usually know what they want. Hence the programme should be clearly defined.

d. Adults are relevancy-oriented. Learning has to be applicable to their work.

e. Adults are practical. They may not be interested in knowledge for its own sake.

f. Adults need to be shown respect. They should be treated as equals in experience and knowledge and allowed to voice their opinions freely in the class.

g. Another aspect of adult learning is motivation. At least five factors serve as sources of motivation for adult learning:

i. Social welfare – To improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work.

ii. Social relationships – To make new friends, and fulfil the need for associations and friendships.

iii. External expectations – To comply with instructions from someone else; to fulfil the expectations or recommendations of someone with formal authority.

iv. Social welfare – To improve ability to serve mankind, prepare for service to the community, and improve ability to participate in the community work.

v. Personal advancement – To achieve higher status in a job, secure professional advancement, and stay abreast of competitors.

vi. Escape/Stimulation – To relieve boredom, provides a break in the routine of home or work, and provides a contrast to other exacting details of life.

In the waste management setting, all the above may be motivating reasons. Also as, the attention holding in case of adults is much less than the children or young adults, extensive use of audio-visual aids will go a long way in making the training interesting for adults.

29.4 METHODS OF TEACHING

Teaching is a systematic way of giving information to a person about a subject or skill. The method of teaching will depend upon the type of the course /training, level of training, receptivity and motivation of the learners, content of the course and many other aspects including preference of the trainer. In generic terms the types of teaching fall under the following types:

a. Instructor Centered

b. Content Centered

c. Learner Centered

d. Participatory Learning
Instructor/Teacher Centered

In teacher centred type of teaching method, the teacher is considered an expert/authority on the subject.

Content Centered

Both the teacher and the learners need to fit into the content that is being taught, which is fixed or pre-decided.

Learner Centered

Both the teacher and the learners work together actively with the learning material. The teacher acts as a resource rather than an authority. The learners are encouraged to think, solve problems, evaluate evidence, analyse arguments, and generate hypotheses. Students are asked to reflect on what they are learning. This gives students some control over the learning process and encourages collaboration.

Participatory Learning

As is evident from the phrase, participatory learning is a joint activity where the student is as actively involved in the training programme as the teacher. It is not a one-way flow of lecture from the trainer but an interactive session to discuss the topic. This is most important in adult learning programmes and in situations of on-job training. Training of waste handlers is an example where participatory learning can be adopted, because learners are adults and in-service. For the teacher this means that she/he needs to sharpen his/her “listening capacity”. Indeed, if the communication is not going two ways, there will be less participatory and the training results will be poor.

Participatory learning combines an ever-growing toolkit of participatory and visual methods with natural interviewing technique and is intended to facilitate a process of collective analysis and learning. The approach can be used in identifying needs, planning, monitoring or evaluation projects and programmes. Whilst a powerful consultation tool, it offers the opportunity to go beyond mere consultations and promotes the active participatory learning in the issues that concern them.

A promising method to obtain strong interest and commitment from the learner is to start the training session with a “What do we actually know about health care waste management (HCWM)?” session. The participants will write their responses on meta-cards/anonymous cards that will be put on a board for everyone to see. Once all cards are collected, they are grouped by themes. This exercise will show that the learners are actually quite knowledgeable, as a group. We do not start from zero!

In the case of waste handlers training, a content-centred or teacher-student-content-centred approach is considered appropriate.

Further, under each of the approaches to training, there are many methods. Each method has certain advantages and disadvantages. You may use one or more of these methods for training the waste handlers.
29.4.1 Lecturing

Lectures are a common teaching strategy in colleges, universities and large gatherings. This is when the trainer or faculty delivers a verbal presentation with or without audio and visual presentation.

Why Lecture?

Advantages

i. Most common and familiar mode of teaching.

ii. With reference notes it can be a well-structured method of covering the topic.

iii. Face-to-face learning: This means that the faculty can apply information collected recently—in real time and give relevant examples or problems.

Disadvantages

i. With an inexperienced lecturer, the method can be monotonous and boring.

ii. There are no prompts except notes.

iii. Without slides it becomes difficult for a new learner to assimilate information delivered through a lecture.

Do you think that the lecture could be a good way of training the waste handlers?

Lectures if used should be short, to the point, having few concepts explained with a lot of real life examples which the waste handlers can relate with. They should be in the language which the waste handlers can understand. They can be supplemented with a number of audio visual aids like audios, videos, short clips of films, flash cards posters etc.

29.4.2 Tutorials

Tutorials can be defined as small group teaching. Effective tutorials can be one of the best ways for students to learn about a given topic. They also allow you, the tutor, to discover any misconceptions and blocks to learning that the students might have. Tutorials are designed to encourage the exchange of ideas and provide an environment where students have the potential to develop analytical skills, team work, skills in cooperative learning and resolving differences, the ability to talk in front of and listen in groups. Hence in the kind of set up that we are planning of a tutorial may be a more appropriate mode of teaching than lecture.

Advantages

i. Better interaction: Ideally a tutorial offers a forum i.e. more conducive to and less threatening for student discussions and interactions.

ii. Individualised attention.

iii. Tutorials can offer an opportunity for demonstrations, expansion and elaboration on student understanding.

iv. Provide a more effective forum for the giving and getting feedback for from both the students and teachers.
v. Allow students to explore the relevance of knowledge within the context of a course, lecture or topic.

Do you think it is a good idea to have tutorials for waste handlers?

Tutorials can be used for topics in which some modifications in the procedures to be adopted by the target group is to be taught. For example, the change of the colour coding for segregation. Tutorials could be an effective means for putting this idea across. The different colour coded bags and containers can be demonstrated and there can be more active interaction, since the group is a smaller one as compared to a lecture.

29.4.3 Discussion

Discussion is an examination of topic by argument or a debate. It is different from tutorial, in that here there is no tutor and trainee but two or more equals, may be with a moderator. It is useful in higher studies, decision-making, and problem-solving scenarios. A group discussion may be used in the training programme on the last day of training capsule when the learners are fully informed of the subject and have their own opinions. This discussion can be used for clearing of their doubts and for confidence building.

What are the situations in which you think a discussion would be useful? Topics which may not have a clarity, as to which is the deal procedure for a particular activity can be taken up for discussion. For example, collection timing of the waste from different locations or routing plan of the waste from collection sites to the storage area. The members of the group (waste handlers) may have their own notions regarding this and it would be good to discuss the various options.

29.4.4 Demonstration

To demonstrate is to show. Demonstration is the method of teaching where a process or equipment is shown as it works or how it works. This also like a tutorial, requires a tutor or demonstrator who is in command and who explains the process to learners. This is an essential part of waste handlers training. Since the primary aim in such training is to impart working knowledge.

The waste handlers must be demonstrated all types of wastes and all the steps of waste management (segregation at the point of generation, disinfection, collection, transportation, final treatment and disposal). They should then be demonstrated the various processes involved in management of HCW and the functioning of various treatment technologies (processes and or equipment) in use at the treatment site. The handlers must be shown safe practices, use of protective clothing, record keeping, housekeeping and maintenance of various equipment.

Demonstration is the most effective tool in teaching of skills especially in the adult groups. It satisfies the issues required in adult teaching such as relevance and practicability. Hence adequate time must be kept aside on all days of training for the demonstrations. These equipments can also be used in periodic trainings.
29.4.5 Work Based Experiential Learning

Work based experiential learning is a significant part of many academic programmes and is highly valued by students and employers. Effective work experience involves meaningful work, induction, assessment, reflection and debriefing, and monitoring of the quality of outcomes.

Benefits of work integrated learning for employers

a. Extra workers at low cost.
b. The opportunity to give a potential recruit a trial without obligation.
c. Using students reflection on work experience as a recruitment criterion.
d. Having a pool of potential recruits with some general awareness of work-place culture.
e. An injection of new ideas.
f. Developing links with higher educational institutions.
g. Staff development opportunities that arise from employees monitoring students.
h. Working in a setting in which to put theory into practice.
i. Developing an awareness of work-place culture.
j. An appreciation of the fluidity of a rapidly changing world of work.
k. An opportunity to develop of personal attributes.
l. The development of key interactive attributes.

29.4.6 Audio-Visual Aids

When asked, often the students say that “The courses I remember are the ones where the professor talked, used videos, did demonstrations, used overheads and did other things to save us from just listening to him going on. Teaching with audio-visual aids is always more effective as it simultaneously sends input through more than one sensory organ. This is all the more important in training such as for waste handlers as the reception level in such subjects is less than school children and, also it makes the topic more interesting.

The following audio-visual aids must be profusely used in teaching the waste handlers:

<table>
<thead>
<tr>
<th>Sl.</th>
<th>AV Aid</th>
<th>Advantages</th>
<th>Disadvantages</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chalkboards</td>
<td>• Very low initial and recurring cost&lt;br&gt;• Easy availability&lt;br&gt;• Real time teaching</td>
<td>• Legibility depends on handwriting of teacher&lt;br&gt;• Loss of eye contact&lt;br&gt;• Material has to be preplanning</td>
</tr>
<tr>
<td>2</td>
<td>Overhead projector (OHP) and</td>
<td>• Serves as prompter&lt;br&gt;• Students can see transparencies better than chalkboards in large classrooms</td>
<td>• Material has to be pre-planned&lt;br&gt;• High recurring cost&lt;br&gt;• Power requirement</td>
</tr>
</tbody>
</table>
| transparencies | • Easy to prepare  
• Long lasting | • Material has to be pre-planning  
• Less material per slide  
• High initial and recurring cost |
|----------------|-------------------------------------------------|--------------------------------------------------------------------------------|
| 3  Slides with slide projectors | • Better presentation  
• Easy of operation  
• Serves as prompter  
• Long lasting | • No written material  
• Expensive to create  
• Specific and expensive requirements for projection  
• If movies or tapes are not already available it may be too expensive to rent one |
| 4  Videotapes films and videodiscs | • Medium is entertaining  
• Catches maximum attention of the viewer  
• Learner recalls by example  
• Easy to carry over long distance  
• Education level of learner not important | | |
| 5  Computers with or without LCD projectors | • Better presentation  
• Easy of operation  
• Serves as prompter  
• Long lasting  
• Low recurring cost  
• Easy to make copies or handouts | • Material has to be pre-planned  
• Less material per slide  
• High initial cost  
• Specific infrastructure requirements |
| 6  Flipcharts | • Flipcharts can be prepared in advance or used to record classroom discussion and are easily referred to again  
• They are less formal than overheads  
• Easy to handle | • Difficult to prepare  
• Limited information  
• Not useful for larger groups |
| 7  Posters | • Easy to prepare  
• Low initial and recurring cost  
• No trainer required if prepared well  
• Good for mass communication | • Impersonal  
• Learner has to understand on own  
• Prone to damage and spoiling |

**Tips to Use Audio-visual Aids**

a. **K.I.L.L.** (Keep It Large and Legible). Audio-visual tools are of no use if all students can’t see them.

b. **PLAN AHEAD.** When preparing a class, it is useful to plan out what you will want to write on the chalkboard.

c. **MAKE EYE CONTACT FREQUENTLY.** Instructors need to regularly, observe student non-verbal behaviour and use eye contact to keep students involved.

d. **LIMIT INFORMATION ON EACH TRANSPARENCY/SLIDE.** Since we can process no more than seven bits of information at a time, a single transparency should contain no more than four to six major points. Charts or tables with a great deal of information should be broken into smaller pieces using an enlarging copier.

e. **BE AWARE OF STUDENTS’ VIEW.** It can be hard to remembers not to stand in front of the image and block students’ view,
f. DON’T READ THE TRANSPARENCIES. Talk about the material using the transparency as a launching pad rather than writing out the entire thought on it and reading it to the audience.

g. ALLOW TIME TO COPY IT DOWN. Students take very seriously whatever is written on the board or presented on transparencies. Be sure to allow them time to body it all down. Be alert to occasions where you have given them too much to copy.

Check Your Progress 1

1. Few words have been jumbled. Please see if you decipher them.
   gtrecueil sauortil nisidscsuoo onrdtamestin davoi - salivu

Check Your Progress 2

1. What are the critical elements of learning?

   ..............................................................................................................................
   ..............................................................................................................................

2. Write true and false and correct the false statement.
   i. Adults usually do not know what they want and hence an unstructured training plan can be prepared.
   ii. Adults are more theoretically oriented.
   iii. Adults are autonomous and self-directed
   iv. Emotional and informal interpersonal relationship should be developed with the trainees.
   v. Technical Jargon should be used during training programmes.

29.5 TRAINING PLAN

As the objective here is to impart working and practical knowledge to the waste handlers, the structure of this exercise should be with more emphasis on practical aspects and theory just adequate to understand the subject. Duration of this training programme should be enough to introduce the subject to an *ab initio*, show the practical demonstrations and also give hands on experience. It should not be so long that a person new to the field loses interest or is unable to hold attention.

For the training to be standardised and for ease of the trainer a checklist of actions is suggested. This may be used as such or modified by you depending on the local conditions and resources available.

29.5.1 Administrative and Logistic Arrangements

When a training plan is drawn and before the training is undertaken, the administrative and logistic arrangements should be taken care of. These include the following.
a. Administrative Clearance
This would be in the form of permission for conduct of training programme, for sparing the waste handlers from their routine work for the entire duration of training, and for expenses likely to be incurred in the conduct of training.

b. Resource Identification
Besides yourselves, you may want to incorporate some other resource persons from either within the hospital or from outside for conduct of the training programme. They have to be informed in advance along with the time table.

c. Resource Material for Training
Although the study material of this course contains all i.e. required for conducting of the training programme, you may find it more convenient to make your own notes in advance of the topics that are to be covered in this training programme.

d. Venue
The venue for the theoretical classes, the practical demonstrations and the site visit should be informed via the time table of the course.

e. Logistic Arrangement
Logistic arrangements are more relevant in case of trainees coming from outside the organisation, especially if you are conducting the course on a regional or zonal basis. Here arrangements would have to be made for accommodation, transportation, food, etc.

29.5.2 Trainees
The profile of the trainees should be carefully drawn out so that there is homogeneity and the training can be carried out effectively.

29.5.3 Syllabus
A syllabus must be based on the training content. Depending on the kind of training, the syllabus must be modified (e.g. when there is a brief on site training for autoclaving operators the content should be different to a training for head nurses).

Sample Time Table

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Trainer</th>
<th>Venue</th>
<th>AV Aids Required</th>
</tr>
</thead>
</table>

29.5.4 Duration
The suggested duration of training of waste handlers should be for a suggested duration of days with flexibility to spread it over a greater number of days by spreading the activities and scheduling them as per the convenience of the trainer and the trainee.
A pre- and post-test needs to be conducted for assessing the baseline knowledge and skills of the learners and to also assess those gained after the training. Furthermore, the training quality should be evaluated. Tests and evaluation sheets should be prepared in beforehand. More information is provided in Unit 30.

**Check Your Progress 3**

1. Fill in the blanks.
   i. A joint activity where the student is as actively involved in the training programme as the teacher is .............................................. learning.
   ii. .............................................. is done after completion of training to assess the knowledge and skills gained by the trainees.
   iii. .............................................. are a good method of assessing training outcomes in learners.

**29.6 LET US SUM UP**

In this unit you have learnt the basic principles of training. The summary of the concepts covered in this unit have been summarised in the Fig. 29.1 (mind map).

**Fig. 29.1: Mind map**
Effective communication is an essential component of any teaching programme. It is important to deliver clear and unambiguous messages. Unnecessary technical jagaron should not be used. Cordial interpersonal relations should be maintained. Motivation, reinforcement, retention and transference are the four critical elements of learning that must be addressed to ensure that participants learn. The mixing of different methodologies like lecturing, tutoring, demonstration, role play etc. should ideally be adopted for teaching the various components of learning. Each of these methodologies have their own advantages and disadvantages which have also been covered in this unit. The training programme should be well planned depending upon the resources available and feasibility depending upon the time.

### 29.7 GLOSSARY

- **Instructions**: Teaching in which the content and delivery both are decided by the teacher.
- **Content centered**: The teaching is centered around the content of the teaching.
- **Learner centered**: Teaching in which the students are actively engaged in the teaching learning process.
- **Lecturing**: A one way process in which an individual delivers a verbal presentation which may or may not be interacted with any visual presentation.
- **Tutorials**: A method of teaching in which the trainer works directly with a small group of trainees stimulating active participation.
- **Demonstration**: A method of teaching where a process or working of an equipment shown.
- **Role Play**: The trainees use their own experiences to act out a real life situation.
- **Discussion**: It is a two way communication between participants in which the trainer and the trainee all participate in a discussion. They may or may not be moderator.

### 29.8 ANSWERS TO CHECK YOUR PROGRESS

**Check Your Progress 1**

1. Lecturing, tutorials, discussion, demonstration, audio-visual

**Check Your Progress 2**

1. i. Motivation
   ii. Reinforcement
   iii. Retention
   iv. Transference
2. i. False – Adults usually know what they want. Hence programme should be clearly refined.

ii. False – Adults are practical.

iii. True

iv. False – Cordial interpersonal relations should be maintained with the trainees.

v. False – Avoid unnecessary technical jargon.

**Check Your Progress 3**

1. i. Participatory

ii. Post training evaluation

iii. Questionnaire

### 29.11 REFERENCES AND FURTHER READINGS


3. Experiences during implementation of Malleswaram Project by Health Care Waste Management Cell, Department of Community Medicine, MS Ramaiah Medical College, Bangalore (1999-2001).


14. WHO (2003), SARS Team of South East Asia and Western Pacific Regions of WHO, Practical Guidelines for Infection Control in Health Care Facilities (Draft).
UNIT 30  PLANNING A TRAINING PROGRAMME FOR WASTE HANDLERS OF HEALTH CARE WASTE

Structure

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30.2 Preparing for the Training
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Appendix-1 to 5: Timing of Activity for Waste Handlers training

30.0 OBJECTIVES

After studying this unit, you should be able to:

- prepare for organising and conducting a training of the waste handlers for management of health care waste
- formulate a training plan
- conduct the training in your health care facility
- evaluate your training programme

30.1 INTRODUCTION

In the blocks of the BHM-101 and the previous blocks of BHM-102 you have learnt the basic concepts and procedures related to management of health care waste. You are now equipped to be able to share this knowledge with other peers and also become an important manpower resource for training the other health care workers including the waste handlers.
In this unit you have been given the guidelines for planning a training programme for the waste handlers. A sample training package has been prepared and the content for the training package has been provided. It is proposed that you will be able to share the principles of HCWM, the procedures adopted and the precautions to be taken for safe management of the health care waste, with others through this training. The various activities and discussions inbuilt will help to ease out the doubts that may have arisen in the minds of the health care personnel during the discharge of their duties. The role plays during the training will invoke a sense of involvement and move towards instilling a positive attitude towards the management of health care waste.

Although you may have mastered the subject of management of health care waste, you will realise that to become a trainer, you also require to have certain qualities, which have been elaborately been dealt with, in the Unit 29 of this block.

30.2 PREPARING FOR THE TRAINING

For planning your training you require to know your target audience, the resources in the form of materials, manpower and money that is available to you. In addition to this, you must also know how much time will be available for you to be able to undertake the training. A sample training plan is presented here for you. You can however modify this training package to meet the local needs based on the parameters mentioned above.

30.2.1 Profile and Characteristics of Trainees

The education must be tailor-made and correspond to the needs of the target group. Therefore, it is of utmost importance that the target group of the training is identified clearly. Training for health care manager, doctors, nurses, cleaners or waste treatment operators needs to be tailored to each group so it becomes relevant for participants.

Before you plan a teaching programme for waste handlers, find out about their general characteristics, background and needs.

A waste handler is likely to be:

a. of any age-from a fresher joining your institute to a man about to retire
b. of any educational background – from completely illiterate to a middle school pass person
c. of lower socio-economic group
d. with or without motivation
e. experience
f. with or without knowledge of english

All these make the task of training the waste handlers an arduous one. The training will have to be simple, explanatory with examples and demonstrations, repetitive but interesting, in the language they understand preferably pictorial, limited to that having practical application, and incorporating the principles of adult teaching. In addition some reference
material for future must be given and educative charts displayed around
the place of work for continuous education.

Before the training is undertaken, you must gather more information
regarding your trainees. The various parameters that you must know are:

a. Educational status
b. Motivational level
c. Existing knowledge
d. Available time

The waste handlers for the training programme could be involved in various
activities related to the management of health care waste. Some of these
are listed below.

a. Waste handlers involved in handling waste in wards/operation Theatre/
Laboratory/Blood Bank/X-ray Room/Labour Room (medical personal
– nurses and doctors)
b. Waste handlers involved in transportation, storage, treatment and final
disposal of waste
c. Cleaners who are collecting waste from the wards and cleaning the
waste bins
d. Waste handlers working within the health care facility in waste store
room and are involved in operation and maintenance of waste treatment
technologies
e. Waste handlers carrying out activities outside the health care setting
specially the centralised facility workers involved in transportation,
treatment and final disposal of waste

30.2.2 Trainer Profile

The trainers could be a waste manager/senior nurse/doctor/person with
experience in waste management. The trainer should however be a
motivated person, with managerial skills and one who is respected by the
trainees in service is from the same health care facility. The trainer should
be experienced in providing training to choose the best methodology for
the respective target audience and to provide a mixture of different
approaches to keep the attention of the audience.

Syllabus

The syllabus or content for the training programme should include the areas
which the waste handlers are familiar with and the information related to
the areas which need to be emphasised. It is also required to sensitisve them
to the modifications or new guidelines suggested or enforced from time
to time. The syllabus should include both theoretical topics as well as
practical activities. Some of the suggested areas that should be included
are:
a. Introduction to health care waste management and governing rules
b. Categories of hospital waste and method of segregation
c. Disinfection at site, transportation, and collection
d. Sharp and plastic waste handling
e. Final disposal of various types of waste based on multi-option approach
f. Protective clothing, safe practices, injury reporting
g. Practical demonstration of each of the above
h. Visit to wards and various department producing hospital waste for non-job learning and demonstration
i. Visit to hospital waste management site for on-job learning and demonstration
j. Visit to another institution or a common treatment facility for demonstration of large scale practices

30.2.3 Methodology of Training

You have already read about the types of teaching methodology that can be adopted for training/teaching in the Unit 29, of this block. In case of training of in service personnel like a waste handler, a participatory approach would be preferred. The various teaching methodologies can be used. These are:

a. Informal, participatory teaching using local language
b. Demonstration
c. Observation
d. Discussion and workshops
e. Site visit to a health care facility
f. Getting participants to do activities (ex. Segregation game using chits and containers, making bleach solution)
g. Role play

30.2.4 Teaching Aids

Some of the teaching aids that can be used are given below. A flip chart for the training of the waste handlers has ben provided to you for your use as the Unit 32 of this block. You can prepare other teaching aids for your training.

a. Flip chart/manual
b. OHP/transparencies
c. Computer-LCD projection, video clips/power point
d. Waste management equipment for practical exposure like waste bins, needle cutters and protective gears
e. Playing card for practicing segregation

f. Flipchart with pictures and material in front as well talking points repeated behind the chart to the trainer

The methodology to be adopted depends upon the trainees’ profile like his educational status, motivational levels, experience etc. In case the educational status is low, pictorial presentation of information is used. This is in the form of a flip chart booklet. The target audience is shown certain pictures and explained. Discussions can be held when the waste handlers have a basic existing knowledge and are motivated, increase motivational level and role

30.2.5 Training Schedule

A training schedule is drawn up depending upon the need, baseline knowledge and skill level of the trainees, availability of the time of the trainers and the trainees etc. This training could be conducted continuously or in small sessions as per the feasibility. The training could be in the form of face to face sessions in the form or lectures or workshops supplemented with few audios and visuals. It can be supplemented with a visit to the health care facility, wherein the trainees get a first hand experience of the procedures involved in the management of health care waste.

Check Your Progress 1

1. What are the parameters that must be considered while planning the training programme?

2. Which training methodologies should be preferred for training the waste handlers?

3. Mention the commonly used teaching aids for training waste handlers.

30.3 FORMULATING A TRAINING PLAN

To formulate a plan, one must first have the background information. This information can vary from institution to institution. It is also required to draw out the objectives and prepare a training plan for each training.
30.3.1 Collecting Background Information

Before a lesson plan or a field visit is undertaken, you must have information regarding the health care facility where the health care workers will be visiting. You also need to have some ground work done before the training. Some important points to be kept in mind are given in the Box 30.1. You can collect this information by formal or informal interview of the members of the HCWM committee or the infection control committee, the HCWM officer, various health care personnel like doctors, nurses, lab technicians, sanitary inspectors etc. Collect all the information and analyse the same before you plan your training sessions and field visit.

| a. | Availability of Hospital Waste plans, policies |
| b. | Points of generation of different categories of waste |
| c. | Principles of segregation followed – type and number of bags and containers used, precautions followed |
| d. | Collection procedures like timings, frequency, labels used, bar coding adopted, records maintained |
| e. | Procedures of transportation like vehicles used, routes followed, precautions adopted |
| f. | Pre-treatment procedures carried out in the health care facility |
| g. | Procedures adopted for the management of sharps, plastics, glassware, and liquid waste |
| h. | Disinfection, sterilisation and other environmental cleaning procedures followed |
| i. | Standard precautions followed |
| j. | Any treatment procedures followed in the facility |
| k. | Disposal of waste – any guidelines in place |
| l. | Compliance with the BMWM Rules 2016, as amended |
| m. | Protocols in place for the management of accidents, spills and their reporting |
| n. | Any protocol for the occupational health and safety of the employees in place |
| o. | Trainings conducted by the institution—the duration, content and profile of the trainees and trainers |

Box 30.1: Background information required for training

30.3.2 Setting the Objectives

The objectives for the training need to be laid out. At the end of the training, the participants should be able to:

a. define health care waste
b. list the hazards and risks of health care waste

c. steps/precautions to be taken while collection and transportation of waste

d. comprehend various occupational safety measures

e. list protective devices used for waste handling and why are they important

f. list and understand the use of different equipment used for waste management

g. help the waste manager in developing an efficient system for health care waste management

h. understand the role of different employees in waste management

i. assist maintenance of records, maintain simple records and monitor the system

j. develop attitude and skills to segregate waste/collection waste/transport/store/treat/disposal waste safely

k. List how to react in case of waste spillages, and

l. List how to react in case of a needlestick injury

m. Do’s and don’ts of health care waste management.

### 30.3.3 Deciding the Venue

The venue should preferably be a health care facility. The various departments that can be visited for the training programme can include the wards, sample collection centre, microbiology/clinical laboratory, blood bank, liquid treatment plant, waste storage site etc. If the venue of the training is not located at a hospital, the transport of participants to a hospital need to be organised beforehand!

### 30.3.4 Training Methodologies to be Adopted

The training should consist of face to face interactions with the health care workers. You can conduct lectures which can be supplemented with audio video aids and short videos. Reinforce the important points and make sure that the concepts have been clearly assimilated by the trainees. Discuss the difficult topics and encourage the trainees to ask questions and clear their doubts. The trainees should also be encouraged to participate in role plays to ensure that the subject has been understood and the correct procedures are followed. Most of the lessons will be followed by an interaction, discussion, activity or a role play for assessing the comprehension of the trainees and reinforcing the concept.

### 30.4 CONDUCTING THE TRAINING

In order to conduct the training of the health care workers, the following steps are required to be undertaken.
1. Meet the person in charge of the health care waste management in the health institution and share with him/her your training plan. Make a realistic action plan and decide the following parameters

a. profile of the trainees
b. the number to be trained
c. identifying the persons to be trained
d. list of resources that you may need
e. other people who could help with the training

2. Take all approvals which may be required.

### 30.4.1 Pre Test - Assessment of the Trainees before the Training

A pre test gives information regarding the baseline knowledge and level of skill and attitude of the trainers. It could also be used for need assessment of the training. An analysis of the pre test will also give you an idea as to the points you need to stress during your lessons and the hard spots with your trainees.

This could be delivered orally in an informal manner in case the trainees are illiterate or semiliterate. In case the trainees educational status is more than a primary level, structured questionnaire can be delivered to them. A sample pre test questionnaire is provided in the Appendix 2.

### 30.4.2 Face to Face Workshop

A suggested training plan as per the lessons and the approximate time required has been placed in the Table 30.1.

This training can be spread over a period of three consecutive days or few hours can be designated each day for a longer duration so as to cover about 20 hour for the training. Thus depending on the convenience, staggered training may be adopted; but keeping continuity and presence and of same trainees/trainers is vital. If staggered method is adopted, it should preferably not last more than a month except for refresher inputs.

No. of lessons: 20 and field visit of a health care facility and a field visit to the HCF.

### 30.4.3 Field Visit

The points placed in the Box 30.2 may be kept in mind while planning and undertaking the field visit.

a. Take a pre test of the workers before the field visit to get an idea of the level of their knowledge, comprehension and motivation.

b. It is always a good idea to take the workers for the field visit after they have taken their lessons. In this way the information taught to
them is reinforced and they can also engage in meaning full discussions during the visit and critically analyse the procedures they see during the visit.

c. Give a brief regarding the purpose of the field visit and the locations they will be visiting. Explain what they need to see in each of the locations.

d. Make small groups so that it is easy for them to see their different locations.

e. Each group must have a supervisor or a trainer with them.

r. The trainer must explain each location and then ask questions to the trainees in order to test their recall of the information taught in the lessons, reinforce the information and also motivate them for discussion during the visit at the different locations.

t. The HCW may record their observations in a file, in case they are literate.

h. After the field visit make all the groups meet for a combined discussion. One representative from each of the different groups could make a presentation in which he/she would present a report of what they observed, critically analyse what they saw and give suggestions for improvement of the system. They must also come up with ideas how they can contribute in improvement of the system.

i. If possible they can prepare a combined report of the field visit.

30.4.4 Post Test

After the workshop is over, the trainees are again subjected to the same set of questions in a post test. This gives us an idea about how the training has benefitted the trainees.

30.5 EVALUATION OF THE TRAINING PROGRAMME

What is Evaluation of Teaching?

Evaluation in education entails gathering evidence about the impact of teaching, topic and course design on students’ participation and achievement and the appropriateness of content and processes for intended purposes. Effective evaluation of teaching and topics is the basis of good educational practice. There are many possible purposes for assessing sources of information and uses for which the evidence might be used. Evaluation needs to be deliberate and a continuous process.

Why Conduct Evaluation?

To judge the efficacy of specific teaching strategies, approaches and innovations in making the subject understood to learners. It can also be
done by the organisation as a performance appraisal tool of the teachers. What decisions can be based on the data?

a. Changes to course structure
b. Changes to teaching processes
c. Changes to teaching content
d. Changes to assessment tasks
e. Changes to student work load
f. Changes to student staff interactions
g. Staff development

Tools and Methods Used to Evaluate Training

A number of tools and methods can be used to evaluate training.

Evaluation Forms

Evaluation forms can be used to evaluate trainees’ perceptions of all aspects of training, from an individual training session to a whole course or programme. Short questionnaires can be developed using a mix of qualitative and quantitative questions, so that a clear picture of trainee’s views of training inputs and processes can be gained. Evaluation forms can tell us to what degree the trainees felt their training needs were met by the course.

Follow-up, Questionnaires

Short questionnaires can be developed and sent to trainees up to six months after the training. Trainees may be asked about the degree to which they have been able to implement the skills and knowledge gained through the course and to identify barriers they have experienced in their implementation. These questionnaires are a good method of assessing training outcomes, although there may not be many trainees who complete and return the questionnaires.

Analysing Evaluation Results

Qualitative Analysis

For each qualitative question collect all the answers from each trainee. Review these answers and identify themes amongst the responses. Identity the most frequently mentioned points. Summarise the main responses for each question, add in any other supporting information, contextual - information or observations that may help to explain or support the findings of the analysis. Qualitative analysis can be time consuming but may provide rich and in-depth information.

Quantitative Analysis

Quantitative questions must first be marked – a score is assigned for each possible response, e.g. a ‘yes’ response might be allocated a score of one (1) and a ‘no’ response allocated a score of two (2). The correct response to a multiple-choice question might be allocated a score of one (1) and incorrect response a zero score. For ‘Likert’ – type questions that provide
a range of possible responses (e.g. from ‘a little’ to ‘a lot’) each possible response is allocated a score, e.g., from 1-4, with the most positive response having the highest score. All the scores a trainee’s questionnaire are added to give a total for that trainee, in some instances the trainee is given a code number, e.g., when marking pre- and post-course tests. Group means (or averages) can then also be compared before and after training. For those who have access to statistical packages, a paired t-test may be used to statistically significant changes have occurred.

**Interpreting a poor Evaluation Result**

When a training session is evaluated poorly, it is important for the trainer to analyse the results to understand whether the training needs to be improved or whether the result reflects other event that have impacted on the training but are outside the control of the trainer.

The trainer should not be disheartened at critical comments made in evaluations. In some evaluation forms there are specific questions relating to what the trainees felt could have been done better. Even the most experienced trainers can get critical comments; these should be taken personally and should be seen as an opportunity to improve the course based on comments in the evaluation.

It is important to evaluate the training programme. This will give you an idea as to how well the concepts taught were learnt by the trainees, the effectiveness of the training programme and the feasibility of the methodology adopted. For an example of a training session evaluation form, refer to the ones provided in this manual. A list of possible questions to include in the form is also provided in Appendix 3, 4 and 5.

**Check Your Progress 2**

1. What information does a pre test and post test provide us?

   ........................................................................................................
   ........................................................................................................
   ........................................................................................................

2. What is purpose of evaluating the training programme?

   ........................................................................................................
   ........................................................................................................
   ........................................................................................................

**30.6 LET US SUM UP**

You have already learnt the basic principles of a training programme in the Unit 29. In this unit you learnt how to plan a training programme for waste handlers for health care waste management. The concepts presented in this Unit Fig. 30.1 (mind map). It is important to prepare for the training meticulously before the training is conducted. The profile of the trainee and the trainers are important parameters for testing the methodology of the training to be adopted and the teaching aids to be used. A training schedule is drawn upon based on the curriculum to be taught and the resources available including time.
A meticulous training plan needs to be formulated which includes calculation of background information. The objectives and the methodologies for each training programme needs to be formulated. The venue is decided depending upon the need, curriculum, availability of resources etc.

Before the training programme is conducted a pretest of the trainers must be undertaken to assess their knowledge and skill. The training is conducted through a face to face workshop and a field visit to the various locations in the health care facilities for observing standard procedures for managing the health care waste. After the workshop is over the trainees are subject to post test.

Evaluation of the training programme must also be done to assess the effectiveness of the programme.

**Principles of effective communication**
- Unambiguous, simple interactive, stimulating and cordial

**Critical elements of learning**
- Motivation, reinforcement, retention and transference

**Types of teaching**
- Instructor centered, content centered, learner centered, participatory learning

**Methods of teaching**
- Lecturing (one way non communication)
- Tutorials (small group, Interactive)
- Discussion (Two way communication between trainer and trainees)
- Role Play (Acting out real life situation)
- Demonstration (Showing a process/working of equipment)
- Work based experiential learning
- Audiovisual aids (audio, video, chalk board, OHP, computer, flipchart, poster)

**Principles of adult learning**
- Self-directed, goal oriented, practical motivated etc.

**Training plan**
- Administrative and logistic arrangements, Trainees profile, syllabus, duration, Assessment of learners

**Mind Map**

**30.7 ANSWERS TO CHECK YOUR PROGRESS**

**Check Your Progress 1**

1. The parameters that must be considered while planning for the training programme are:
   - Educational status
   - Motivational level
   - Existing knowledge
   - Available time
2. The various teaching methodologies can be used. These are:
   - Informal, participatory teaching using local language
   - Demonstration
   - Observation
   - Discussion
   - Site visit to a health care facility
   - Getting participants to do activities (ex. Segregation game using chits and containers, making bleach solution)
   - Role play

3. The commonly used teaching aids for training waste handlers.
   - Flipchart/manual
   - OHP/transparencies
   - Computer-LCD projection, video clips/power point
   - Waste management equipment for practical exposure like waste bins, needle cutters and protective gears
   - Playing card for practicing segregation
   - Flip chart with pictures and material in front as well talking points repeated behind the chart to the trainer

Check Your Progress 2

1. A pre test gives information regarding the baseline knowledge and level of skill and attitude of the trainers. Post test gives us an idea about how the training has benefitted the trainees.

2. Evaluation of the training programme is about the effectiveness of the training programme. It can also be used to modify future training programmes.

30.8 REFERENCES AND FURTHER READINGS


3. Experiences during implementation of Malleswaram Project by Health Care Waste Management Cell, Department of Community Medicine, MS Ramaiah Medical College, Bangalore (1999-2001).


6. Pruthvish et al., Information and Learning Units for Safe Management of Health Care Waste—A Training Manual, Health Care Waste Management Cell, Dept. of Community Medicine, M.S. Ramaiah Medical College, Bangalore, India
### Appendix 1
Planning a Training Programme for Waste Handlers of Health Care Waste

#### Timing of Activity for Waste Handlers training

<table>
<thead>
<tr>
<th>Lesson</th>
<th>Title</th>
<th>Total time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>DAY 1 MORNING</strong></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>Introduction</td>
<td>15</td>
</tr>
<tr>
<td>1</td>
<td>Clean and unclean environment</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>What is waste</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td><strong>DAY 1 AFTERNOON/DAY2</strong></td>
<td></td>
</tr>
<tr>
<td>3A</td>
<td>Hazards of health care waste</td>
<td>15</td>
</tr>
<tr>
<td>3 B</td>
<td>Hazards from handling waste</td>
<td>15</td>
</tr>
<tr>
<td>3 C</td>
<td>Who is at risk</td>
<td>10</td>
</tr>
<tr>
<td>3 D</td>
<td>Preventing infections from hazards</td>
<td>10</td>
</tr>
<tr>
<td>4 A</td>
<td>Introduction to hand hygiene</td>
<td>10</td>
</tr>
<tr>
<td>4B</td>
<td>Technique of Hand hygiene</td>
<td>30</td>
</tr>
<tr>
<td>4C</td>
<td>Activity hand hygiene</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>DAY 2 MORNING/DAY3</strong></td>
<td></td>
</tr>
<tr>
<td>5A</td>
<td>Wearing proper PPE for packing, labeling, collecting, transporting</td>
<td>10</td>
</tr>
<tr>
<td>5 B</td>
<td>Procedure for wearing the Personal Protective Equipment</td>
<td>20</td>
</tr>
<tr>
<td>5 C</td>
<td>Procedure for removing the Personal Protective Equipment</td>
<td>30</td>
</tr>
<tr>
<td>5D</td>
<td>Care of PPE</td>
<td>10</td>
</tr>
<tr>
<td>5E</td>
<td>Activity for removing PPE</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td><strong>Part 2</strong></td>
<td></td>
</tr>
<tr>
<td>6A</td>
<td>Segregation</td>
<td>10</td>
</tr>
<tr>
<td>6 B</td>
<td>Principles of segregation</td>
<td>20</td>
</tr>
<tr>
<td>6 C</td>
<td>How to achieve segregation</td>
<td>20</td>
</tr>
<tr>
<td>6 C1</td>
<td>Types of waste in Yellow category</td>
<td>10</td>
</tr>
<tr>
<td>6 C2</td>
<td>Types of waste in Red category</td>
<td>10</td>
</tr>
<tr>
<td>6 C3</td>
<td>Types of waste in White category</td>
<td>10</td>
</tr>
<tr>
<td>6 C4</td>
<td>Types of waste in Blue category</td>
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</tr>
<tr>
<td>6 C5</td>
<td>Activity on segregation</td>
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</tr>
<tr>
<td>6 C6</td>
<td>Activity on segregation</td>
<td>30</td>
</tr>
</tbody>
</table>
## DAY 2 AFTERNOON/DAY4

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 A</td>
<td>Packing the waste</td>
<td>20</td>
</tr>
<tr>
<td>7 B</td>
<td>Collecting waste</td>
<td>10</td>
</tr>
<tr>
<td>7C</td>
<td>Placing the waste in the trolley</td>
<td>10</td>
</tr>
<tr>
<td>7D1</td>
<td>Problems encountered during collection of waste</td>
<td>20</td>
</tr>
<tr>
<td>7D2</td>
<td>Problems encountered during collection of waste</td>
<td>20</td>
</tr>
<tr>
<td>7E</td>
<td>Activity and Discussion</td>
<td>40</td>
</tr>
<tr>
<td>8A</td>
<td>Transportation</td>
<td>10</td>
</tr>
<tr>
<td>8B</td>
<td>Activity of Intramural transportation</td>
<td>30</td>
</tr>
<tr>
<td>8C</td>
<td>Discussion – Intramural transportation of waste</td>
<td>30</td>
</tr>
<tr>
<td>9</td>
<td>Storage</td>
<td>20</td>
</tr>
<tr>
<td>10A</td>
<td>Extramural Transportation</td>
<td>10</td>
</tr>
</tbody>
</table>

### Part 3

## DAY 3 MORNING/DAY5

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>11A</td>
<td>Infectious spill management</td>
<td>20</td>
</tr>
<tr>
<td>11B</td>
<td>Mercury Spill management</td>
<td>20</td>
</tr>
<tr>
<td>11C</td>
<td>Activity - Infectious Spill Management</td>
<td>30</td>
</tr>
<tr>
<td>12A</td>
<td>Accidents- Sharp injury</td>
<td>10</td>
</tr>
<tr>
<td>13 A₁</td>
<td>Management of infectious waste – in HCF with linkage with CBMWTF</td>
<td>10</td>
</tr>
<tr>
<td>13 A₂</td>
<td>Management of infectious waste in HCF with no linkage with CBMWTF</td>
<td>10</td>
</tr>
<tr>
<td>13 B</td>
<td>Management of Contaminated recyclable waste</td>
<td>10</td>
</tr>
<tr>
<td>13C</td>
<td>Management of Sharps Waste</td>
<td>10</td>
</tr>
<tr>
<td>13D</td>
<td>Management of glassware and metallic implants</td>
<td>10</td>
</tr>
<tr>
<td>14</td>
<td>Use of disinfectants</td>
<td>10</td>
</tr>
<tr>
<td>15</td>
<td>Record Keeping and Maintenance</td>
<td>10</td>
</tr>
<tr>
<td>16</td>
<td>Good Housekeeping</td>
<td>10</td>
</tr>
<tr>
<td>17</td>
<td>Duties of waste handler</td>
<td>10</td>
</tr>
<tr>
<td></td>
<td>Post Test</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Summing up</td>
<td>15</td>
</tr>
</tbody>
</table>
Appendix 2
Planning a Training Programme for Waste Handlers of Health Care Waste

Pre test/post test

1. Why are some surroundings clean while others are dirty?
2. Can the dirty surroundings be kept clean?
3. What is waste?
4. What are the categories of waste as per BMWM Rules, 2016.
5. Name some waste items that are put in the yellow bag, in the red bag, in the white container and in the blue container.
7. What are the activities that can put a health care worker in risk of hazards?
8. Mention few activities that can prevent exposure of health care worker to risk of hazards.
9. What are the five moments of hand hygiene?
10. What is the importance of hand washing?
11. For how much duration should hand washing be done?
12. What are the components of PPE?
13. How does the mask help to prevent infections?
14. What is the use of cover gum boots?
15. What is use of wearing gloves?
16. What is the use of wearing Apron?
17. What is the use of wearing Goggles?
18. What is the use of wearing cap?
19. Why there is need to segregate waste?
20. On what basis waste is segregated?
21. How do you do if the bag is over filled?
22. What do you do if waste is put in the wrong category?
23. What are the precautions while transporting waste?
24. What information should be put while putting label on bag?
25. What are the features of a good storage area?
26. How long the waste can be stored?
27. What should be done in case of sharp injury?
28. How should the needle and other sharps be disposed of?
29. How should blood stained cotton, bandages be disposed of?
30. In which bag should we put broken glass pieces?
31. In which bag do we put plastic tubings?
32. How do you manage the soiled linen?
33. What precaution to be taken for managing a spill?
34. What are the important records that need to be maintained?
35. What are your duties and health care worker?
Observation: Training Skills Checklist

Date:

Session Name:

Presenter’s Name:

[ ] Session/Course plan prepared

[ ] Topic introduced and outline provided of rationale, aims, objectives and content

[ ] Teaching resources set up and ready at the start of the presentation

[ ] Use of pre- and post-training test measures to assess change in trainees' knowledge (where appropriate)

[ ] Use of variety of teaching aids

[ ] Encouragement of audience participation

[ ] Use of non-verbal communication skills (eye contact maintained with the group, body languages, voices projections)

[ ] Responded to questions

[ ] Presented content in a logical sequence
Appendix 4
Planning a Training Programme for Waste Handlers of Health Care Waste

Self-Assessment Sheet

Ask yourself the following questions at the end of the teaching / training session and enter the answers into the reflective learning journal. Can you identify areas for improvement? What will you do differently next time?

1. Did I follow the four step plan in preparation for my session by:
   - Assessing
   - Planning
   - Implementing
   - Evaluating

2. Did I introduce the topic for discussion and outline rationale, aims, objectives and contents?

3. Did I use teaching aids correctly?

4. Did I maintain eye contact with groups at all times?

5. Was I enthusiastic?

6. Did I smile?

7. Did I respond to questions with warmth and enthusiasm?

8. Did I present the content in a logical sequence?

9. Did I attempt to link material by way of examples?

10. Did I use the appropriate languages level?

11. Did I maintain the interest of the group?

12. Did I coordinate the interest of the group?

13. Did I encourage the activities appropriately?

14. Did I involve all group members?

15. Was I sensitive to everybody’s needs?

16. Did I use variety in my presentation?

17. Did I provide adequate feedback?

18. Did I meet the objectives of my session?

19. Was the evaluation material I used appropriate for this group?

20. Was my session well timed?

21. Did I allow for pause time between questions?

22. Was the method of presentation appropriate?

23. Did I meet the learning needs of the groups?

24. What would I have done better?
‘Teaching Session Evaluation Form

Here are some possible questions you could include in the evaluation form to ask about your session. It is suggested you select what you need and develop a questionnaire based on the nature of the teaching session concerned.

1. Did this session meet your expectations? If not, why?
2. Can you make any suggestions for improvement that would meet your expectations?
3. How did you feel about this session?
4. Explain more about what led you to feel this way?
5. Were there times when you wanted to participate but didn’t?
6. What helped you to participate?
7. What hindered you from being more active?
8. What were the strong points of this session?
9. What were the weak points of this session?
10. How could the next session be improved?
11. Were, the objectives of this session met?
12. What new information have you learned?
13. What attitudes or values have you examined or defined?
14. What behaviours will you change as a result of this session?
15. What have you learned from this session that you can apply to your work situation and/or life situations?
16. Were the sessions too long, too short or just right?
17. Was the information given appropriate to your learning needs? If not, what information do you need?
18. Was there information you should have known prior to this session? If so what information specifically?
19. Was there appropriate use of teaching aids?
20. Was the presentation of information appropriate? If not, why not? Can you make any suggestions?
21. Was the language used appropriate to your level of understanding? If not, why not?
22. Was the timing of the session appropriate for you?
23. Was the environment comfortable for you?
24. Was the venue suitable for you?
25. Did the trainer speak audibly and clearly?
26. Any other comments?
27. Were you able to obtain assistance when you needed it?
Exemplary evaluation template which are filled by the trainees at the end of the training:

**TRAINING COURSE EVALUATION FORM**

This form is used to evaluate trainers performance. Please place an X along each line against a number which best reflects your own opinion.

<table>
<thead>
<tr>
<th>COURSE TITLE:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>COURSE DATE(S):</td>
<td></td>
</tr>
<tr>
<td>COURSE LOCATION:</td>
<td></td>
</tr>
</tbody>
</table>

Q1. What is your OVERALL opinion of this training course? Was It:

<table>
<thead>
<tr>
<th>Very un-interesting</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very theoretical</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Very stimulating</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Very practical</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Q2. In respect of your job and place of work, was this training course:

<table>
<thead>
<tr>
<th>Of no use</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Q3. What amount of new information did you receive from the training course?

<table>
<thead>
<tr>
<th>Very little</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>A lot</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Q4. The overall pace (speed) of the training course.

<table>
<thead>
<tr>
<th>Not adequate</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adequate.</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Q5. What do you think of the printed information provided (if applicable)? Is It:

<table>
<thead>
<tr>
<th>Not useful</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very useful</td>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Q6. How did you find the workshop trainers?

Unsatisfactory

1 2 3 4 5

Very good

Q7. How did you find the workshop interpreter?

Unsatisfactory

1 2 3 4 5

Very good

Do you have any other comments about the training course – for example how it could be improved? If so, please write your comments here:

Thank you for your comments and for attending the training course.