Medical Waste in HFs Training
Terms of Reference

Medair NGO, Aden, Yemen
4/18/2021

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1. Introduction and Background

Medair has been operational in Yemen for over two years, with programs covering several sectors of WASH and Health and Nutrition. Medair currently has two field offices and programs in Aden and Al Dhale'e. The overall goal of the response is to contribute to the reduction of large-scale suffering of the most vulnerable people through timely interventions, at an appropriate scale and scope, providing quality technical programming, efficiently, effectively, safely and securely for the most vulnerable families.

Providing access to safe water, sanitation and access to health care is public health requirement and essential to any humanitarian response. Water and sanitation programming, alongside hygiene promotion, is key to reducing deaths from water-related diseases in the Yemen context.

Medair will focus on empowering local communities and providing adequate access to sustainable water, sanitation and hygiene support to the most vulnerable and critically affected communities and IDPs. One key aspect of this is providing WASH Services to health facilities, including water, sanitation, hygiene and medical waste facilities.

Therefore, it is crucial to train technical people within the health facilities on the storage, operation and maintenance of health facility waste of eight HFs in Al Dhlae'e Governorate. This includes the use of incinerators at the HFs. Two HF staff will be trained from each HF. The trainings will be split into two sets of trainings, with two groups due to COVID-19 requirements.

The training should be based on the WHO document, "Safe Management of wastes from health-care activities" as well as National Yemeni guidance. Incinerators are generally the De Monfort design, and this is what has been installed at HFs by Medair.

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2. Objectives

All trainees should have a thorough theoretical and practical understanding and knowledge of the following. The trainee must be able to ensure the participants have knowledge, understanding and can practically deliever each of these points below in his/her health facility:

1. Definitions and characterizations of health care waste.
    *   How is health-care waste defined and classified in national laws and regulations
    *   Which places in a health-care facility produce health-care waste
    *   How to carry out a waste assessment of a health-care facility
    *   The composition, quantities and characteristics of health-care waste produced

2. Risks of health care waste
    *   What are the main types of hazards associated with health-care waste
    *   What are the benefits from good health-care waste management
    *   Who is at risk from health-care waste
    *   What are the public health risks of health-care waste
    *   What are the environmental risks of health-care waste

3. Legislative, regulatory and policy aspects of health care waste (national and good practice)
    *   Explain the national policy on the management of wastes produced by health-care facilities
    *   Have any policies been developed at a regional or local level
    *   What points should be taken into consideration when producing a policy
    *   What are the practical guidelines for health-care managers to use locally, based on national or international standards
    *   Explain the system of enforcement of health-care waste laws and regulations

4. Health-care waste management planning
    *   The purpose of planning for health-care waste management
    *   The basic steps to prepare a national plan and a local plan for a health-care facility
    *   Who should be the members of a health-care waste-management team
    *   What topics should be included in a waste-management plan
    *   What should be the minimum level of health-care waste planning for lower income areas

5. Health-care waste minimization, re-use and recycling (where possible)
    *   What is the waste-management hierarchy
    *   What are the waste-minimisation options
    *   What is waste-management best practice

6. Segregation, storage and transport of health-care waste
    *   Who at the HF is responsible for making sure that segregation and transportation are done correctly
    *   What are the present handling and storage methods
    *   What are the national or local legal regulations to define acceptable storage and transport
    *   What should happen when containers for segregated waste are full
    *   Should local storage be used or can frequent collection be arranged
    *   Who undertakes collection and transportation inside a health-care facility and who is in charge of transport and storage
    *   How is waste storage financed – how can it be financed at the HF-level

7. Treatment and disposal of health-care waste, with a focus on incineration
   - What forms of treatment technologies are available for health-care waste
   - What are the variables to consider when selecting a treatment technology
   - How does one ensure proper treatment of HF waste?
   - What safeguards are needed for the land burial of health-care waste?

8. Collection and disposal of waste-water
   - What are the risks from health-care wastewater
   - What are hazardous and non-hazardous liquid health-care wastes
   - When is it possible to discharge liquid health-care waste into a sewerage system and when is it not advisable
   - How should liquid health-care waste be handled in the absence of a sewerage system
   - Why can wastewater disinfection with chlorine be counter-productive

9. Economics of health-care waste management (cost and financing)
   - What are the economic benefits of introducing a safe system for the management of health-care waste?
   - How should costs be calculated?
   - How can the implementation of improved health-care waste-management methods be financed?
   - What costs are included for the treatment or disposal of health-care waste?
   - How can costs be reduced?

10. Health and safety for health care workers and health-care waste
    - How hazardous is health-care waste?
    - Who is at risk?
    - What are the hazards?
    - What are the procedures that should be set up to reduce the risk of accidents?
    - What equipment and supplies are needed to protect workers?
    - How can exposure be prevented or limited?
    - What education is needed for those who are at risk?

11. Practical training on the operation, use and maintenance of a health facility incinerator
    - Operation
    - Maintenance
    - Repairs
    - Common problems and solutions

12. Agree clear roles and responsibilities for HF staff and health-care waste

3. Scope of Works

The Consultant is required to have a comprehensive grasp of the operation and maintenance (O&M) of a waste management system in rural health facilities. S/he should have applied professional experience in conducting training on the topic, and must be able to provide flexible course delivery in order to meet

the participants and organization's needs. For the purpose of this consultancy, all relevant disasters in the Yemeni context must be considered happening to the health facilities.

The Consultant is requested to design a timetable for five days' course. This design must involve an interactive and practical orientated methodology which suits the targeted demographic, including women. It has to include appropriate practical exercises that are applied during the training. At least one day should be on-site practical training on the operation and maintenance of a De Monforte Incinerator at an agreed health facility. The consultant is also expected to prepare suitable training material to be used during the training sessions. The final report of the trainings needs to be shared as soon as the training finishes.

3.1 Key roles and responsibility

- Prepare Training Manual, covering all the Objectives, and share with Medair in advance of the training.
- Conduct a Training pre-test before anything is done and must include the outcome in the report
- Prepare a training program timetable, including clear objectives/outcomes
- Conduct the training as detailed in the Objectives.
- Review the training process and give recommendations for improvement
- Carry out a HF Waste Assessment for each HF
- Develop action plans with workshop participants for implementation and post workshop action plan, specifically a Health Facility Waste Action Plan for each HF
- Conduct a Training post-test before carrying out the training evaluation
- Carry out training evaluation
- Prepare the training report inclusive of key observations and recommendations
- Training evaluation findings should be included in the report

3.2 Key deliverables

- Share training manual and training tools/methodology in advance of the training to Medair
- Work plan with training presentation and handouts for the training participants
- With the participants, carry out a Health Facility Waste Assessment for each Health Facility
- Work with the participants to ensure a detailed Health Facility Waste Management Plan is completed for each HF.
- Comprehensive report in English: The consultant is expected to produce a draft and final report after Medair reviews and comments on the draft report
- Training should be carried out at a central location then also a health facility for the practical component

4. Training Methodology

During the training, participants will utilize the following methodologies to ensure easy and smooth understanding:

- o Open discussion
- o Practical illustrations of storage methods and incinerator operation
- o Clear demonstrations
- o Handouts

- o Operation, maintenance and trouble shoot incinerator use
- o Questions and answers
- o Role plays

5. Application procedure

Interested companies/ individuals should send the following documents;

1. Updated company profile/CVs, including relevant past experience and registration certificates for companies
2. Relevant past experience- contracts, signed stamped copies
3. Technical proposal detailing the training schedule, budget break down and reporting dates

Applicants are requested to send package of documentations to: procurement-yemen@medair.org
with the subject line of the email address; **Medair Health Facility Solid Waste Training**.

The deadline for the submission is 6 June 2021 at 16:00