



**Basic Occupational Safety
and Health Training for
Healthcare Workers in Kenya
Curriculum 2015**



MINISTRY OF HEALTH

Basic Occupational Safety and Health training for Healthcare Workers in Kenya

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1.0. ACKNOWLEDGEMENT

This curriculum represents the collective efforts of members of the occupational safety and health (OSH) technical working group who worked tirelessly towards its finalization.

Special acknowledgements go to the following institutions:

African Field Epidemiology Network (AFENET) for supporting the development of the Occupational Safety and Health Policy Guidelines for the health sector in Kenya upon which this curriculum is grounded. AFENET also supported development of draft OSH training materials and starting the pilot phase of the OSH trainings in 6 health facilities in Kenya. The insights obtained in these pilot trainings informed the content of this curriculum

Management Sciences for Health (MSH) through the Strengthening Public Health Systems (SPHLS) project for supporting development of this curriculum and finalization of the training materials for the course (Facilitators Guide and Participants Manual).

The efforts of these groups would not deliver these documents without the financial and technical support from CDC.

Finally I wish to commend all those who contributed to this document in one way or another and who have not been specifically mentioned here.

Dr. Nicholas Muraguri
DIRECTOR OF MEDICAL SERVICES

2.0. FORWARD

The Ministry of health and her partner organizations are mutually committed to assuring a safe and healthy workplace for our employees, clients and the general public. We recognize that it is only where a safe and secure work environment exists that employees can achieve their full career potential.

Employees can contribute substantially to achieving the goals of safety and health, but only if they have an awareness of recognized safety standards and the ability to identify unsafe and unhealthy situations. Therefore, we believe that the education and training of each employee is a primary factor in achieving a safe and secure workplace. Such education and training should also enable employees to identify mechanisms to eliminate identified hazards.

The risk assessment carried out in 100 public health facilities within the republic in 2011/2012 revealed that the level of awareness on occupational health and safety within the health sector was running low. The report further recommended development of Occupational health and safety minimum package for all levels of health care delivery system. Further to that training was prioritized as a major activity to be undertaken for all health workers if their safety and health is to be ensured. it is in this regard that the curriculum, guidelines and training manual have been developed.

This training curriculum in conjunction with the manual represents a significant step in meeting our commitment to workplace health and safety. The training emphasizes the importance of identifying the root cause(s) of accidents and other work related diseases with a systems-based approach. With this knowledge, each trained employee will be better able to provide input to his/her department or unit and the management team as well as fulfilling Health and Safety requirements. By working with and through occupational health and safety committees, we can achieve results that would have been impossible if either management or the employees had worked alone.

We jointly hope that health workers will benefit from the training curriculum, and find it valuable in their everyday work environment.

Mr. James Macharia

CABINET SECRETARY

3.0. Acronyms

AFENET	African Field Epidemiological Network
BSC	Biosafety Cabinet
CDC	Centers for Disease control
DOSHS	Directorate of Occupational Safety and Health Services
HBV	Hepatitis B Virus
HCW	Health care worker
HINI	Hemagglutinin Type 1 and Neuraminidase Type 1
HIV	Human Immunodeficiency Virus
ICOH	International Commission of Occupational Health
ILO	International Labor Organization
MOH	Ministry of Health
MSH	Management Sciences for Health
OSH	Occupational Safety and Health
OSHA	Occupational Safety and Health Act
PPE	Personal Protective Equipment
SARS	Severe Acute Respiratory Syndrome
SPHLS	Strengthening Public Health Laboratory Services
WHO	World Health Organization
WHR	World Health Resolution
WIBA	Work Injury and Benefits Act

4.0. Introduction and background

Occupational Safety and Health (OSH) is a discipline concerned with protecting and promoting the safety, health and welfare of people engaged in work or employment. The goals of occupational safety and health programs include fostering a safe and healthy work environment. It is a multi-disciplinary activity targeting four basic aspects:

- (1) Protection and promotion of workers health by preventing and controlling occupational diseases, accidents and injuries;
- (2) Development and promotion of healthy and safe work and work environments;
- (3) Promotion of physical, mental and social well-being of workers; and
- (4) Enabling workers to conduct socially and economically productive lives and to contribute positively to sustainable development (WHO 2010).

A number of occupational diseases and injuries are rarely reported. The World Health Organization (WHO) estimates that sharps' injuries contribute 30% of new cases of Hepatitis B Virus (HBV) and 2.5 % of annual infections of Human Immunodeficiency Virus (HIV) among health care workers in Sub-Saharan Africa (WHR 2002). An assessment done by the Ministry of Health (MoH) together with partners in 95 health facilities across Kenya between 2011 and 2012 suggests that OSH compliance is a challenge that cuts across the public and private sectors. An OSH baseline survey from 6 healthcare facilities indicated low awareness of OSH among healthcare workers (HCW) (MoH, 2014).

To respond to the call for improved implementation of Occupational Safety and Health Act 2007 (OSHA-2007) of Laws of Kenya, the Government and partners prioritized implementation of key aspects of OSH across various sectors. However, there are still challenges to mainstream OSH across the health sector especially training.

The International Labour Organization (ILO) constitution includes “measures to be taken for protection of the worker against sickness, disease and injury arising out of employment” (ILO, 1919). A safe and healthy work environment enhances work productivity and reduces loss of man hours and is a key element of worker human dignity (ILO, 2010). Occupational Safety and Health (OSH) has for decades dominated international agenda prompting continued support for the ILO to execute their mandate on behalf of the international community through regional and national governments. The

World Health Organization (WHO) considers the improvement of working conditions an important factor in health protection and promotion. The WHO developed a nine-year 2008 to 2017 global plan of action on health workers OSH requirements. In developed economies access to OSH services by working population is over 90% whereas in emerging and some developing economies the access is below 10% (ICOH 2013). In Kenya, workers' health concerns date back to "The Factories Ordinance 1950" and currently, "The Occupational Safety and Health Act, 2007". The Directorate of Occupational Safety and Health Services (DOSHS), in the Ministry of Labour, Social Security and Services is mandated to enforce safety and health legislations. In 2012 Kenya had about 4% of the working population accessing services of OSH (ICOH 2013). The MoH is already working on WHO action plan of 2008 - 2017 to ensure that OSH requirements are mainstreamed and maintained in healthcare environments through: Laboratory Biosafety and Biosecurity Policy Guidelines 2014, National Infection Prevention and Control guidelines for healthcare services in Kenya among others. Healthcare facilities are potentially hazardous workplaces that expose workers to a wide range of hazards; biological, chemical, physical, psychosocial, ergonomic and mechanical. The emergence of highly infectious diseases such as severe acute respiratory syndrome (SARS), the H1N1 Influenza and Ebola increases the infection risk dramatically among HCWs. Therefore, there are efforts to ensure a safe and healthy work environment in line with the Kenya Constitution 2010 and the OSHA 2007. The implementation of OSH guidelines largely depend on improvement of work environment, training, and creating awareness in occupational health. It is in this regard that this curriculum has been developed to support the training component of Occupational Safety and Health policy guidelines for the health sector in Kenya.

4.1. Justification

Healthcare workers have the responsibility to adhere to standards of OSH in all healthcare settings. The curriculum has been developed based on the need to train healthcare workers on the importance of OSH in the work place. This has been occasioned by:

- i) Low awareness on OSH among HCWs,
- ii) Minimal evidence of OSH implementation,
- iii) High OSH risks identified in healthcare work environment,
- iv) Lack of a structured training program on OSH for HCWs.

4.2 Purpose

The purpose of this course is to promote a safe and healthy work environment in Kenya's healthcare settings.

4.3 Objectives

At the end of this course, the participant is expected to:-

- a) Describe the basic concepts of OSH,
- b) Explain the background of OSH,
- c) Describe the importance of OSH practice,
- d) Describe the legal aspects relating to OSH,
- e) Conduct OSH risk management in the health facilities.

4.4 Target Group

The participants should be healthcare workers including, administrative, contractual and support staff. Healthcare workers can be trained in clusters according to cadres.

4.5 Teaching and learning Methods

- Lectures
- Group discussions/ assignments
- Demonstrations
- Videos
- Practicals
- Pre-test and post-test
- Course evaluations
- Field visits

4.6. Course structure and duration

The training will take 30 hours and 30 minutes of which 24.5 hours are contact-hours and 6 hours for action plan development, course evaluation and travel time for site visit.

	Module	Unit	Duration		
			Lecture	Demo	Practical
1	Overview of Occupational Safety and Health	Introduction and importance of OSH practice	30 min	0	0
		Historical developments in OSH	30 min	0	0
		Legal aspects of occupational safety and health- OSHA, 2007	1 hr	0	0
		Legal aspects of occupational	1 hr		

		safety and health- Work Injury Benefits Act (WIBA) 2007, other Laws of Kenya and subsidiary legislations			
		Legal aspects of occupational safety and health- safety and health committee rules	30 min		
2	Classification of Hazards and control measures	Hazards categories	1 hr	0	0
		Prevention and control of hazards	1 hr		
		Personal protective equipment(PPE)	1hr	30 min	0
		Fire safety	1hr	1 hr	0
3	Safe Work Procedures	Risk management	1 hr		
		Occupational accidents	1 hr		
		First Aid management	1 hr		
		Waste management and disposal	1 hr		30 min
		Medical surveillance	1 hr		
		Occupational diseases	30mins		
		Workplace inspection and audit	1 hr		3 hr
4	Safety Plant and Equipment	Safety plant and equipment	1 hr	0	0
		Safety video	0	30 min	0
5	Occupational Safety and Health Management in Health Facilities	Elements of OSH management	1 hr	0	0
		Documentation and reporting	1 hr	1 hr	1 hr

4.7. Assessment/Evaluation

The participant will be assessed before and after the training through pre-test and post-test.

An evaluation of the course and the facilitators will be carried out at the end of the course.

4.8. Training schedule

Day one				
Time	Module	Topic	Duration	Facilitator
8:00 AM		Participant registration	30 min	
8:30 AM		Opening remarks, introductions, and overall training objective	30 min	

9:00 AM		Pre- training test	30 min	
9:30 AM	Module 1	Overview of occupational safety and health- Introduction and Importance of OSH Practice	30 min	
10:00 AM	Module 1	Overview of Occupational safety and health- historical developments in OSH	30 min	
10:30 AM		Coffee Break	0:30	
11:00 AM	Module 1	Legal aspects of occupational safety and health - OSHA, 2007	1hr	
12:00 PM	Module 2	Classification of Hazards and control measures- Hazards categories, Prevention and control	1 hr	
1:00 PM		Lunch	1:00	
2:00 PM	Module 2	Classification of Hazards and control measures- Hazards categories, Prevention and control	30 min	
2:30 PM	Module 3	Safe work procedures- Risk management	1hr	
3:30 PM		Coffee Break	0:30	
4:00 PM	Module 3	Safe work procedures- Occupational accidents	1 hr	
5:00 PM		Adjourn		
Day 2				
Time		Topic	Duration	
8:00 AM		Participant Registration	0:15Mins	
8.15AM		Recap of day 1	15Mins	
8:30 AM	Module 1	Legal aspects of occupational safety and health - WIBA, 2007 ,other Laws and Subsidiary Legislations	1 hrs	
9:30 AM	Module 2	Classification of Hazards and their Control- Personal Protective Equipment (PPE)	1 hr	
10:30 AM		Coffee Break	0:30	
11:00 AM	Module 2	Classification of Hazards and their Control- Demonstration/ video on PPE	30 min	
11:30 AM	Module 2	Classification of Hazards and their Control- Fire Safety	1 hr	
12:30	Module 2	Classification of Hazards and their Control- Demonstration on Fire Safety	30min	
1:00 PM		Lunch	1:00	
2:00 PM	Module 3	Safe work procedures- First Aid	1 hr	
3:00	Module 3	Safe work procedures- Medical surveillance	1 hr	
4.30pm	Module 3	Safe work procedures- Occupational diseases	30mins	
5:00 PM		Coffee Break	30 mins	

5:30 PM		Adjourn		
Day 3				
Time		Topic	Duration	
8:00 AM		Participant Registration	15Mins	
8.15AM		Recap of day 2	15Mins	
8:30 AM	Module 1	Legal aspects of occupational safety and health - Safety and Health Committee Rules	1 hr	
9:30 AM	Module 4	Safety Plant and Equipment	1 hr	
10:30 AM	Module 4	Safety Plant and Equipment- video	30 mins	
11:00AM		Coffee Break	30mins	
11:30 AM	Module 3	Safe work procedures- Workplace inspection and audit	30 mins	
12:00PM		Safe work procedures -Waste management discussion / video	1 hr	
1:00 PM		Lunch	1hr	
2:00 PM	Module 5	Occupational safety and health management in health facilities- Elements of OSH management	1 hr 30 min	
3:30 PM	Module 5	Occupational safety and health management in health facilities- Documentation and reporting	1 hr	
4:30 PM		Coffee Break	30mins	
5:00 PM		Adjourn		
Day 4				
Time		Topic	Duration	
8:00 AM		Participant Registration	0:30	
8.15AM		Recap of day 3	15Mins	
8:30 AM	Module 3	Safe work procedures- Preparation for site visit's walk-through survey	1 hrs	
9:30 AM		Coffee Break	30 min	
10:00 AM	Module 3	Safe work procedures Travel to the site	30 min	
10:30 AM	Module 3	Safe work procedures- Practical walk-through survey	2 hrs	
12:30 AM		Safe work procedures Travel back from site	30 min	
1:00 PM		Lunch	1hr	
2:00 PM	Module 3	Safe work procedures- Feedback for site visit's walk-through survey	1 hr	
3:00 PM	Module 5	Occupational Safety and health management in health facilities- Demonstration on statutory documentation and reporting	1 hr	
4:00 PM		Coffee Break	30 min	
4:30 PM	Module 5	Occupational Safety and health management in health facilities-	1 hr	

		practicals on statutory documentation and reporting		
5:30 PM		Adjourn		
Day 5				
Time		Topic	Duration	
8:00 AM		Participant Registration	15 min	
8.15AM		Recap of day 4	15Mins	
8:30 AM		Post test	30 min	
9:00 AM		Discussion and development of action plan	1 hr	
10:00 AM		Coffee Break	30 min	
10:30 AM		Presentation of action plan	1 hr	
11:30 AM		Training evaluation	30 min	
12:00 AM		wrap-up and Closing remarks	1hr	
1:00PM		Lunch and departure	1 hr	

4.9. Management and administration of the course

4.9.1 Award of Certificate

Upon successful completion of the course, the MoH will award a certificate to the participant.. Successful completion of the course means a participant must attend 100% of the sessions and must participate in all practicals and field visits

4.9.2 Facilitators

Facilitators should be healthcare workers with a background on basic OSH and must have attended OSH TOT training

4.9.3 Curriculum review

The curriculum will be reviewed after every two years (biennially)

5.0. Course content

5.1. Module 1: Overview of safety and health

Purpose

This module introduces the participants to OSH concepts and the legal aspects to be implemented and adhered to in the health facilities.

Objectives:

At the end of this module, the participant is expected to:-

- a. Describe the concepts of OSH
- b. Describe the background of OSH
- c. Explain the legal aspects relating to OSH-

Content

- a. Definition of OSH
- b. Importance of occupational safety and health Practice
- c. Background and historical developments in OSH
- d. Legal aspects of occupational safety and health

5.2. Module 2: classification of hazards and control measures

Purpose

Be able to identify various types of hazards in the workplace and control measures

Objectives

At the end of this module the participant should be able to:-

- a. Define the term “hazard”
- b. Categorize hazards and their effects
- c. Describe sources of exposure
- d. Discuss fire safety and management
- e. State prevention and control measures of occupational hazards

Content

- a. Definition of hazard
- b. Hazard categories
- c. Hazard prevention and control
- d. Fire safety and management
- e. Personal protective equipment (PPE)

5.3. Module 3- Safe work procedures

Purpose

To equip healthcare workers with knowledge and skills on procedures which promote safety and health in work environment.

Objectives

At the end of this module, the participant should be able to:

- a. Identify and manage risks at workplace
- b. Investigate and prevent accidents
- c. Apply First Aid skills
- d. Describe the importance of medical surveillance

- e. Classify and describe occupational diseases
- f. Carry out workplace safety and health inspection
- g. Explain waste management processes

Content

- a. Definition of risk management
- b. Occupational accidents
- c. First Aid
- d. Medical surveillance
- e. Occupational diseases
- f. Workplace safety and health inspection
- g. Healthcare waste management

5.4. Module 4: Safety plant and equipment

Purpose

To understand the principles and operations of safety plant and equipment

Objectives

By the end of this module, the participant should be able to:

- a. Describe the principles and operations of safety plant and equipment
- b. Relate safety equipment and their areas of use

Content

- a. Definition of plant and safety equipment
- b. Biological Safety Cabinets (BSC)
- c. Fume cupboards/fume hoods
- d. Cytotoxic drug safety cabinet
- e. Emergency showers and eye wash stations
- f. Hand washing stations
- g. Other equipment that enhance protection

5.5. Module 5: Occupational Safety and health management in health facilities.

Purpose

To provide guidance on safety and health management, procedures of documentation, and reporting of all OSH activities in health facilities

Objectives:

By the end of the module, the participant should be able to;

- a. Describe elements of OSH management
- b. Explain change management, procurement and contracting in the context of OSH in health facilities
- c. Describe the role of training, monitoring, evaluation and reporting of OSH activities in health facilities
- d. Describe how to collect and maintain OSH data in such a way that it is readily retrievable
- e. Outline the procedures of in-house and statutory documentation

Content

- a. Elements of safety management;
- b. Change management, procurement and contracting in the context of occupational health and safety in healthcare facilities ;
- c. The role of training, monitoring, evaluation and reporting of occupational health and safety activities in healthcare facilities;
- d. Collection, storage and maintenance of OSH data in such a way that it is readily retrievable;
- e. Procedures of in-house and statutory documentation procedures.

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Appendices 1: Technical working group members

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