THE REPUBLIC OF UGANDA

MINISTRY OF HEALTH
ENVIRONMENTAL HEALTH DEPARTMENT

ABRIDGED VERSION OF THE NATIONAL GUIDELINES FOR WASH IN HEALTH CARE FACILITIES IN UGANDA

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FOREWORD

Without basic Water, Sanitation, and Hygiene (WASH), it is not possible to provide quality healthcare services. Improved WASH in Healthcare facilities (HCFs) is of significant public health importance and a cornerstone for Infection Prevention and Control. It is critical in the reduction and control of infectious diseases and associated mortality to enhance staff and patient morale and safety. It's also a motivator for increased utilization of healthcare services.

The Sustainable Development Goals (SDG) 3 and SDG 6 reinforce the need to ensure adequate WASH services, for reduced maternal mortality, ending preventable newborn deaths, and providing quality universal health coverage.

In recognition of the pivotal role of WASH in the delivery of quality healthcare services, the Ministry of Health, with support from the Sanitation and Hygiene Fund, took a step to develop the abridged version of the existing WASH in healthcare facilities guidelines. This was aimed at making them more adoptable by the intended users at all levels. These present easy-to-read and apply minimum standards and protocols for providing healthcare services in a clean and safe environment for staff, patients, and visitors.

I implore all Health Managers, implementing partners, and healthcare workers to adopt this easy-to-use version in their routine practice. This will greatly help to improve the quality of healthcare services across the service chain in both public and private facilities. This will ultimately steer efforts geared towards reducing the burden of disease due to preventable causes and improving health outcomes.

For God and My Country.

Dr. Diana Atwine

PERMANENT SECRETARY

PREFACE

Uganda is committed to the provision of quality and equitable healthcare services for all people. This is in alignment with the Ministry of Health's Strategic Plan, 2020–2025, and the Second National Health Policy.

We therefore seek to establish a functional health infrastructure that provides efficient and sustainable Water, Sanitation, and Hygiene (WASH) services at all levels. However, some gaps still exist, thus hampering our progress with many facilities having limited WASH services, and this continues to pose a significant risk to the healthcare workers, patients, and the community. Existing evidence indicates that infections related to poor WASH services are a leading cause of morbidity and mortality for mothers and children. Additionally, inadequate WASH services may also discourage women from utilizing maternal services or cause delays in healthcare seeking. This greatly impacts the quality of care and satisfaction with healthcare services.

The development of these easy-to-use guidelines therefore seeks to establish a uniform approach for WASH services in public and private HCFs across the country, through clearly documented practical procedures. This will also ensure continuous quality improvement and sustainability while mitigating risks associated with inadequate WASH facilities.

Successful implementation of these simplified guidelines will help improve the standard of WASH services in the healthcare facilities. This will ultimately supplement efforts for reducing the transmission of healthcare-acquired infections, protect staff and patients' dignity, and improve overall healthcare service delivery.

Dr. Olaro Charles
DIRECTOR GENERAL HEALTH SERVICES

ACKNOWLEDGEMENTS

The Ministry of Health wishes to express its sincere and deepest appreciation to the line Ministries, Departments, and Agencies, and Development partners for the technical and financial support that steered the development of these guidelines.

We extend special appreciation to the Sanitation and Hygiene Fund (SHF) and its consortium partners, including Water For People, IRC Uganda, Finnish International Development Agency (AMREF & CARITAS-HEWASA), Uganda Water and Sanitation NGO Network (UWASNET), for the technical and financial resources.

We believe that the routine use and final adoption of these standards and protocols will greatly enhance. The quality of WASH (Water, Sanitation, and Hygiene) services in healthcare facilities is crucial for the safety of healthcare workers, patients, caregivers, and visitors.

This will ultimately support the country's aspiration to strengthen preventive healthcare services for a reduced burden of disease.

For God and My Country.

Dr. Herbert Nabaasa
COMMISSIONER-HEALTH SERVICES, ENVIRONMENTAL HEALTH

1.0

CHAPTER 1:

INTRODUCTION

1.1 BACKGROUND

The Ministry of Health recognizes that access to safe water, sanitation, and hygiene in healthcare facilities (WASH in HCFs) is critical for reducing diseases, improving occupational health, enhancing healthcare services, boosting staff morale and performance, ensuring safe care provision, and fostering trust in healthcare services. Inadequate WASH services can lead to infections related to poor hygiene, which are a significant cause of mortality and morbidity among mothers and children. Recent evidence also links improved nutrition to WASH services, with factors like access to piped water and reduced open defecation contributing to a decline in stunting in Uganda.

Across the country, WASH services in many government and PNFP HCFs were insufficient. Data from 136 districts indicate that 17 per cent of all HCFs don't have access to safe water at all (no service), 22 per cent are limited, 60 per cent are basic and 1 per cent are advanced. Access to sanitation was estimated at almost 10 per cent of all HCFs without access, 81 per cent limited, 5 per cent basic and only 4 per cent at advanced level. Relatedly, 11 per cent of all HCFs did not have access to hand hygiene at all, 21 per cent limited, 46 per cent basic and 21 per cent advanced services. Similarly, another 31 per cent of all HCFs did not have access to environmental cleanliness at all across the country, 40 per cent were limited and 8 per cent basic and 21 per cent advanced. Access to safe medical waste management was estimated at 23 per cent advanced, 56 per cent basic, 18 per cent limited and 3 per cent no service at all[1].

1.2 RATIONALE FOR DEVELOPING THE GUIDELINES

The rationale for developing the national WASH in HCFs guidelines is to document procedures for providing adequate water supply, sanitation, hygiene, and waste management in healthcare facilities (HCFs) to achieve positive effects such as:

i) Enhanced infection prevention control,

ii) A healthy environment,

iii) Positive hygiene behaviors, and

iv) Increased uptake of healthcare services.

Absence of guidelines leads to inconsistencies in planning, budgeting, design, construction, operation, maintenance, and monitoring of WASH services in HCFs. Additionally, quality control and sustainability suffer when guidelines are lacking.

1.3 USERS OF THE GUIDELINES

These guidelines have been developed for use by the health managers and planners, health development partners, consultants, contractors, public and private health workers, health promoters and other health sector stakeholders.

1.4 PURPOSE OF DEVELOPING GUIDELINES:

These guidelines;

i) Establish a uniform approach for WASH services in public and private HCFs across the country.

ii) Establish documented procedures for adequate water supply, sanitation, hygiene, and waste management in HCFs.

iii) Provide practical guidance for planning, budgeting, facility design, operation, maintenance, and monitoring.

iv) Ensure continuous quality improvement and sustainability while mitigating risks associated with inadequate WASH facilities.

v) Ensure a healthy environment for healthcare workers, patients, and visitors while serving as a monitoring tool

1.5 HEALTHCARE FACILITY CATEGORIES

Uganda's healthcare facilities are categorized into seven levels, each serving specific purposes and catchment areas. These levels range from Health Centre level one (HC I) to Health Centre Level four (HC IV), as well as General hospitals, Regional Referral hospitals, and National Referral hospitals. Additionally, there are specialized clinics, such as TASO Sites, which focus on specific services like HIV-related care.

[1]National Micro Planning Handbook for Water, Sanitation and Hygiene (WASH) in Health Care Facilities (HCFs) In Uganda

2.0

CHAPTER 2:

LEGAL, POLICY, AND REGULATORY FRAMEWORK FOR WASH IN HEALTH CARE FACILITIES

2.1 INTRODUCTION

These guidelines for WASH in HCFs are governed by the Constitution (1995 as amended) and the laws of the Republic of Uganda. They are administered under the prevailing legal, policy, and regulatory framework. In case of ambiguity or conflict, existing policies and laws take precedence.

2.1.1 Key Legislations:

The following national legislations, policies and strategies inform the WASH in HCFs guidelines:

i. The 1995 Constitution of the Republic of Uganda as amended, provides the foundational legal framework. Article 39(j) entitles every citizen to a clean and healthy environment.

ii. **The Public Health (Amendment) Act, 2023:** Addresses health-related matters, including WASH. Section 105 imposes a duty on the local authority to take measures to prevent any pollution dangerous to the health of any water supply which the public has the right to use for drinking or domestic purposes. Part IX and Part XIII talk about sanitation and housing, and water respectively.

iii. **The National Environment Act (2019):** Focuses on environmental protection.

iv. **The Occupational Safety and Health Act (2006):** Ensures workplace safety. The Act requires that it shall be the duty of an employer to ensure that personal protective equipment are provided to workers and used whenever required.

v. **The Amended Water Act, 1997 (CAP 152):** Pertains to water management. It prohibits the pollution of water sources; and provides for clean, safe and sufficient water for all persons.

vi. **The Local Government Act, 1997:** Relevant for Local Government administration.

vii. The Land Act (1998): Addresses land use and ownership.

viii. **The National Environment Act, 2019:** Prohibits pollution of the environment.

2.1.2 National policies:

i. **The National Environmental Health Policy, (2005):** The objective of this policy is to create an enabling environment for the achievement and maintenance of healthy living conditions in rural and urban areas.

ii. **Injection Safety and Healthcare Waste Management Policy, (2018):** Protects patients, HCWs, Communities and environment form risks associated with unnecessarily unsafe injections.

iii. **National Environmental Management Policy (2014):** Aims at sustainable development, maintaining and promoting environmental quality, and enhancing resource productivity for socio-economic transformation.

iv. National Hospital Policy (2006): Guides hospital operations across various sectors.

2.1.3 National Strategies:

Provides for investment and management of WASH value chain and some of these national strategies that support WASH in HCFs include:

i. The National Development Plan (NDP III) 2021/2022 – 2024/2025: Guides overall development in the country.

ii. The Water Environment Sector Investment Plan 2018 - 2030: Specific to water and sanitation.

iii. The Health Sector Development Plan (HSDP) 2015/16 – 2019/20: Focuses on health system improvements.

iv. Ministry of Water and Environment Sector Development Plan, 2015/16 – 2019/20: Aligns with water and environment goals.

v. The Second National Health Policy (NHP II), 2010: Addresses health services. The minimum healthcare package therein includes WASH to reduce the disease burden

vi. The Uganda Nutrition Action Plan (UNAP II) for 2020-2025. Aims to enhance nutrition outcomes for all categories of the population.

This legal and policy framework needs to be periodically reviewed and amended as needed based on changes in legislation and policies.

3.0

CHAPTER 3:

WATER SUPPLY FACILITIES IN HCFs

3.1 INTRODUCTION

Clean water is essential in HCFs for quality care, supporting medical procedures, hygiene, infection control, and daily needs. This chapter addresses the planning and provision of a sufficient, reliable, and accessible water supply. Key aspects include ensuring water quantity, quality, and consistent availability.

3.2 SOURCES OF WATER SUPPLY

Depending on the availability of water resources, HCFs can utilize rainwater, ground water and surface water either individually or in combination. Components of the HCF water supply system include point water sources, powered borehole system, piped water system and water trucking.

3.3 GENERAL SELECTION CONSIDERATIONS FOR SUITABLE WATER SOURCE

Selecting an appropriate water source involves assessing factors such as sustainable availability, quality, cost and technology appropriateness. HCFs located close to piped water supply systems should apply for connection but also have 2-day capacity back-up storage facilities to minimize supply interruptions. Facilities outside the piped water supply grid should develop, operate and maintain own water sources.

3.4 MINIMUM WATER REQUIREMENTS FOR HCFS

Water demand for health institutions should align with current conditions, Ministry of Health plans, and local population growth projections, considering factors like hospital bed ratios and staff needs. Projections should be case-specific, reflecting potential rapid growth or stagnation, and national minimum water requirements are detailed for both urban and rural settings.

Table 1: Water Demand for HCFs

Consumer	Unit	Rural l/d	Urban l/d	Remark
Health care Dispensaries	l/visitor/d	10	50	Out patients only
Health Center II	l/bed/d	50	70	With maternity With pit latrine
Health Center III	l/bed/d	70	100	With maternity With pit latrine
Health Center IV	l/bed/d	100	150	With maternity With WC
Hospital, District	l/bed/d	-	200	With surgery unit
Hospital, Regional Referral	l/bed/d	-	400	With surgery unit
Administrative Offices	l/worker/d	10	70	With pit latrine With WC

3.5 MINIMUM WATER STANDARDS IN HCFS AS PER JMP

Water	Parameters
Access to water	Safe/ improved water source[1] (within the healthcare facility, water available at the point during the time of the survey, and water available to patients, staff and care givers.
Water quality	Regular testing (<=1 year) for ecoli using FCR test at (<=02-05mlg/l)[2], regular treatment, methods of treatment (acceptable, effective methods).
Water quantity	Water availability all the time, sufficient water for all HCF requirements as per WHO guidelines[3] (=>), acceptable storage4 method and quantities in case of need for => days.

1. Water and Sanitation for Health Facility Improvement Tool (WASH FIT): a practical guide for improving quality of care through water, sanitation and hygiene in health care facilities, second edition. Geneva: World Health Organization; 2022. Licence: CC BY-NC-SA 3.0 IGO.

2. Free chlorine residual (FCR) is the portion of chlorine that is available for disinfection. Treated water should have some measurable concentration of free chlorine so that it is available in case contaminants enter the water after treatment. The WHO recommends a free chlorine residual of at least 0.2 mg/L for any treated water and at least 0.5 mg/L for water used in emergencies.

3. All water requirements at a HCF (source: WHO 2008 Essential environmental standards in health care (https://www.google.ae/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwj5qZWQofXSAhUDcRQKHerTD1oQFgggMAA&url=http%3A%2F%2Fwww.who.int%2

4. Acceptable storage methods include: clean, covered and well-maintained containers which prevent contamination from entering and are free from any cracks, leaks, etc. Such containers should also allow for water to be extracted without hands or other potentially contaminated surfaces from touching the water (i.e. through use of a tap).

4.0

CHAPTER 4:

SANITATION FACILITIES IN HCFs

4.1 INTRODUCTION

Provision of adequate and appropriate sanitation facilities for managing and safely disposing of HCF waste focuses on constructing, rehabilitating, and managing sanitation facilities, ensuring hygienic maintenance, and handling healthcare waste (including placenta) and wastewater. Improved sanitation within health facilities is crucial for preventing the spread of infectious microorganisms.

This section covers sanitation planning, options for different facility levels, and technical specifications, including accommodation for people with special needs.

4.2 GENERAL ADEQUACY CRITERIA FOR EXCRETA DISPOSAL FACILITIES IN HCFS

Sanitation services in HCFs are considered satisfactory and adequate if they meet the following minimum requirements:

i. Toilet User Ratio: in line with the WHO recommendations for in-patient and outpatient settings putting into consideration staff, gender and age requirements.

ii. User Convenience: provide well drained gender segregated toilets with consideration for people with special needs including cultural and social norms.

iii. Accessibility: Site toilets conveniently within 30 meters of user locations, with clear pathways and accessibility for all.

iv. Reliability and functionality: Toilets should be functional, well-lit and used only for their intended purpose.

v. Safety: facilities must be structurally sound, with no human contact with excreta, infectious organisms and contaminants.

vi. Convenient hand washing facility: a well-drained hand washing facility with soap and water, strategically located for use (not more than 5 meters from toilet) and with taps that limit cross contamination.

vii. Easy-to-Clean Surfaces: facility should have smooth, waterproof, and hard wearing surface to ease cleaning and minimize wear and tear from cleaning products.

4.3 MENSTRUAL HYGIENE WASTES HANDLING FACILITIES.

Ladies' toilets should be fitted with water and menstruation bins to prevent blockage of sewerage pipes. The procedures for waste management, including handling, transportation and disposal should be applied as indicated in Chapter 11 of the main guidelines.

4.4 INFECTION PREVENTION AND CONTROL IN WASH FACILITIES

Have a cleaning and maintenance routine, and regularly inspect the WASH facilities to ensure all parameters are in place and functioning to prevent infection.

4.5 RECOMMENDED SANITATION TECHNOLOGIES FOR HCFs

The recommended sanitation technologies of a HCF include; Drainable Lined Ventilated Improved Pit (VIP) Latrines; Waterborne Toilets Connected to Septic; Tanks and Soak Pits and Waterborne Toilets Connected to Sewers.

4.6 DESIGN AND CONSTRUCTION OF SANITATION FACILITIES

Designing of sanitation facilities should be part of the initial HCF planning or upgrade. Considerations for designing and constructing sanitation facilities in HCFs include facility size, catchment population, services offered, water supply, water table level, soil permeability, existing sanitation infrastructure, socio-cultural norms, and cost. For different technology options, refer to Chapter 4 of the National Guidelines for WASH in HCFs in Uganda.

4.7 PROPER USE AND HYGIENE OF TOILETS

Flush toilets are connected to waste conveyance and treatment systems, not designed for on-site waste handling. Effective maintenance practices include user reminders to flush; cleaning practices; having a cleaning schedule; conducting regular checks for mechanical faults; immediate rectification of any fault and effective management of bed pans.

The VIP Latrine is an improved simple pit latrine with a vent pipe to exhaust foul odors and control flies. For the vent pipe to perform efficiently it should be straight without any bends.

4.8 TOILET FEATURES FOR PEOPLE WITH SPECIAL NEEDS

Essential features of accessible toilets for people with special needs include spacious size; Wide Doorway; Grab Rails; Higher Toilet Seat; Low Mirrors and Sinks; Accessible Amenities; Easy-to-Use Tap and Bin Designs; signposting; and guiding and wheelchair ramps.

4.9 CLIMATE CHANGE AND SANITATION FACILITIES

4.9.1 Vulnerability and Adaptability:

i. Climate change poses significant risks to sanitation facilities due to extreme weather events like heavy precipitation and floods.

ii. Technologies used to improve access to sanitation in healthcare facilities (HCFs) are vulnerable to climate-related threats.

iii. In flood-prone areas, consider constructing raised VIP latrines with shallow lined pits above ground level.

4.9.2 Faecal Sludge Management:

Lined VIP latrines and septic tanks produce faecal sludge that must be safely contained and managed. Facilities should be designed with access for emptying and require safe, mechanized emptying by trained personnel. After their service life, these systems should be decommissioned, allowing for proper redevelopment and sludge treatment.

4.9.3 *Minimum sanitation standards in HCFs as per JMP*

Sanitation	Parameters
Access to sanitation	Number[5] of functional[6] toilets or improved[7] latrines stances, segregated for gender, separated for patients, and health care workers, equity and inclusion[8] for disability and MHM compliance[9]
Hand washing (after toilet use)	Availability of a functional[10] hand washing facility within 5 meters of the toilet/ improved latrines

5. At least four toilets should be available per outpatient setting (one for staff, and for patients: one for females, one for males, one for disabled users) and there should be at least one toilet per 20 inpatients.

6. Functional toilets or latrines should meet the following criteria: Door, roof, superstructure which is safe and not full/ blocked and locked at the HCFs.

7. Improved toilets or latrines include: flush toilets into managed sewer or septic tank and soak away pit, VIP latrines, pit latrines with slab, and composting toilets

8. All specifications are based on ISO 21542:2011 – Building construction - Accessibility and usability of the built environment (http://www.iso.org/iso/home/store/catalogue_tc/catalogue_detail.htm?csnumber=50498).

9. A toilet can be considered to have menstrual hygiene facilities if it has a bin with a lid on it for disposal of used menstrual hygiene products, and water and soap available in a private space for washing

10. A functional hand hygiene station may consist of soap and water with a basin/pan for washing hands. Water should not be chlorinated. Alcohol-based hand rub is not suitable for use at latrines.

5.0

CHAPTER 5:

HYGIENE PRACTICES IN HEALTHCARE FACILITIES

5.1 INTRODUCTION

Proper hygiene practices protect both the health workers and patients. Good hygiene practices, including hand washing, regular bathing, proper food handling and use of personal protective equipment, are crucial for preventing the spread of infectious microorganisms in healthcare settings.

5.2 PERSONAL HYGIENE AND SAFETY

Personal hygiene involves maintaining overall cleanliness of the body, including hair, hands, and clothing. Guidelines for general body care:

i. Wear freshly laundered clothes
ii. Keep hair short or pinned up and wash it regularly.
iii. Maintain short and clean fingernails.
iv. Brush teeth at least twice a day
v. Bathe at least one a day
vi. Avoid artificial nails and nail polish.
vii. Trim beards and mustaches short and keep them clean.
viii. Regularly shave off pubic hair.
ix. Don't contaminate exposed clothes before washing

5.3 HAND HYGIENE

Hand washing at critical times and when soiled is the most effective mechanism for preventing microorganism transfer.

Figure 1: Steps for routine hand washing:

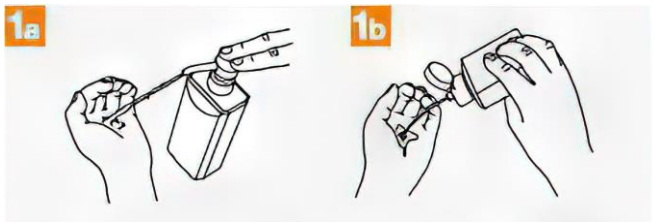
Source: Optimum medical, 2020

Hand hygiene practices include social or routine hand washing with soap, running water and friction, and antiseptic hand washing. The practices in the matrix below are essential for infection prevention in healthcare settings.

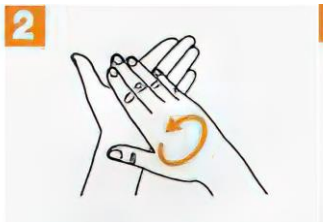
Surgical Hand Antisepsis:	Surgical Hand Washing / Scrubbing Procedure
• Aims to reduce resident and transient flora on hands, wrists, and forearms. • Use water, soap, and antiseptic for 2 to 5 minutes while rigorously scrubbing, including cleaning nails and nail beds. • Follow specific preparation steps, including removing personal wear, adjusting headwear, and ensuring no cuts or infected lesions.	• Wet hands with water. • Apply hand rub or soap, covering all hand surfaces up to 4 to 5 centimeters above the elbows. • Rub palms together, interlace fingers, and perform rotational rubbing. • Follow proper tap and dispenser usage.

Figure 2: Antiseptic Hand Rubbing

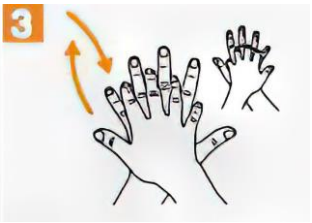
Hand Hygiene Technique with Alcohol-Based Formulation
Duration of the entire procedure: 20-30 seconds



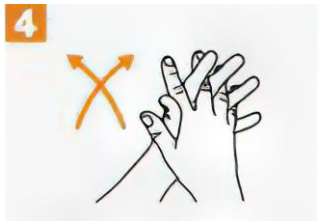
Apply a palmful of the product in a cupped hand, covering all surfaces



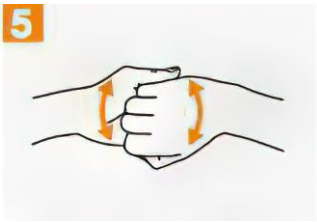
Rub hands palm to palm



Right palm over left dorsum with interlaced fingers and vice versa

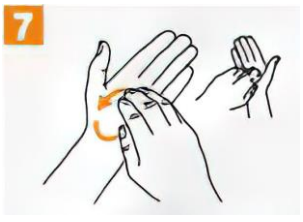


Palm to palm with fingers interlaced

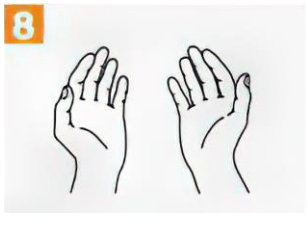


Back of fingers to opposing palms with fingers interlocked

Rotational rubbing of left thumb clasped in right palm and vice versa



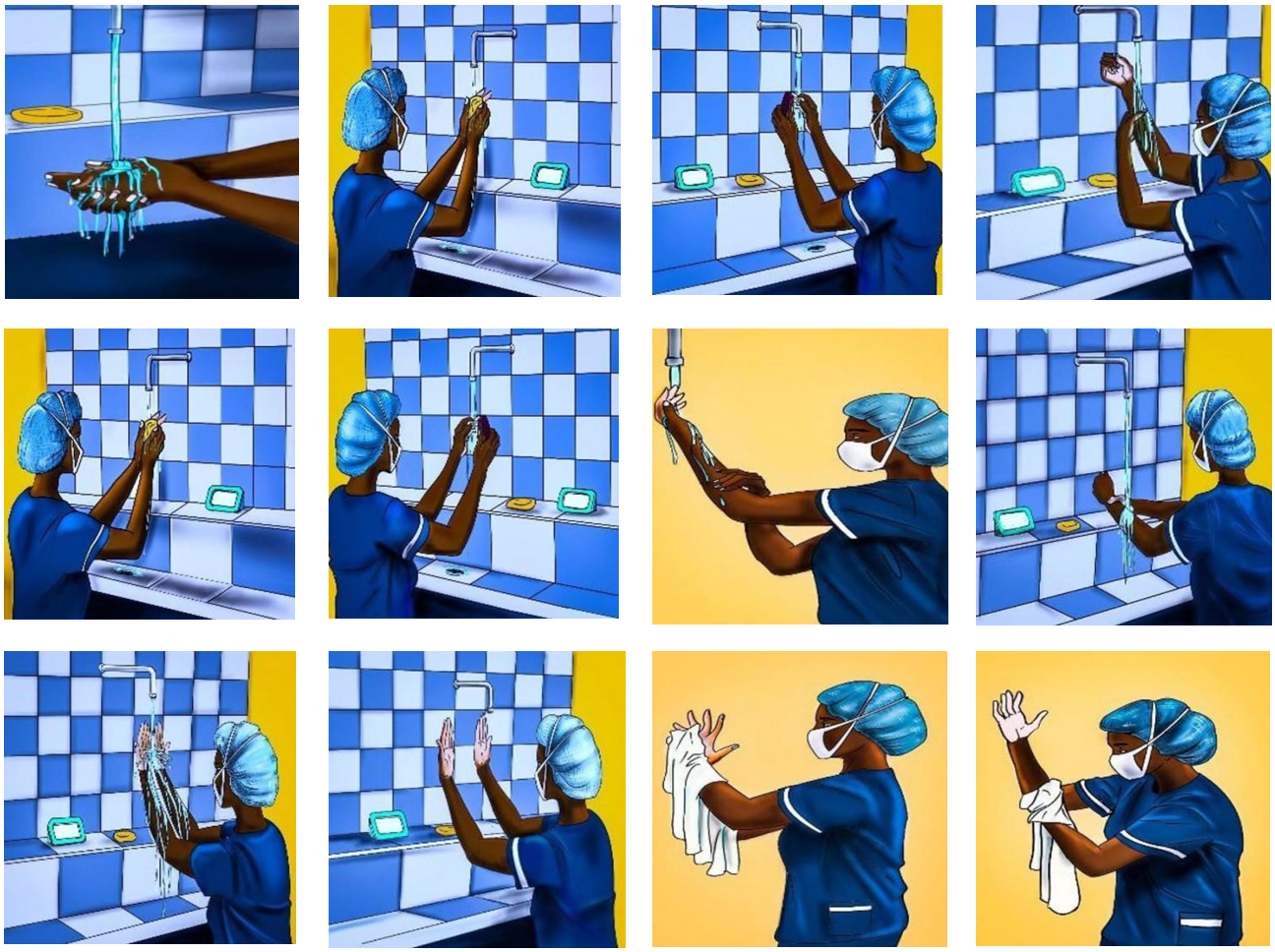
Rotational rubbing, backwards and forwards with clasped fingers of right hand in left palm and vice versa



Once dry, your hands are safe

Source: World Health Organization (WHO) Guidelines on Hand Hygiene in Health Care, 2009.

Figure 3: Illustration on Steps for Surgical Hand Washing



Source: Kagga and Partners - Guidelines for WASH in Healthcare Facilities, 2021.

5.4 DRYING OF HANDS AND ARMS AFTER SURGICAL SCRUBBING:

i. The goal is to remove excess water and reduce bacterial count.

ii. Hand drying is essential to prevent dryness, cracked skin, and latex allergies.

iii. Use single-use cotton towels.

iv. Keep hands higher than elbows, away from the body and clothing.

v. Blot the skin dry in a corkscrew motion from fingers to elbow using one side of the towel.

vi. If two towels are provided, discard the first and use the second for the other hand.

vii. Repeat the process for the second hand before discarding into the laundry basket.

Figure 4: Illustration for hand drying using a towel

Source: Kagga & Partners - Guidelines for WASH in Healthcare Facilities, 2021.

5.5 HAND WASHING FACILITIES:

HWFs including low-cost models should be placed at all critical points within the HCF. The HWFs should be regularly serviced and maintained to ensure functionality.

5.6 SURGEON SCRUB SINKS:

Scrub sinks have various features for effective use by surgeons and surgical staff. Main features include:

i. Digital timer: Ensures proper hand hygiene time before entering the operating room.

ii. Faucet: Delivers water for hand scrubbing; should offer consistent non-aerated flow.

iii. Soap dispenser: Provides the right dose of surgical scrub chemistry (dispensed by hand, foot, knee, or infrared methods).

iv. Water control: Operated by hand or automated.

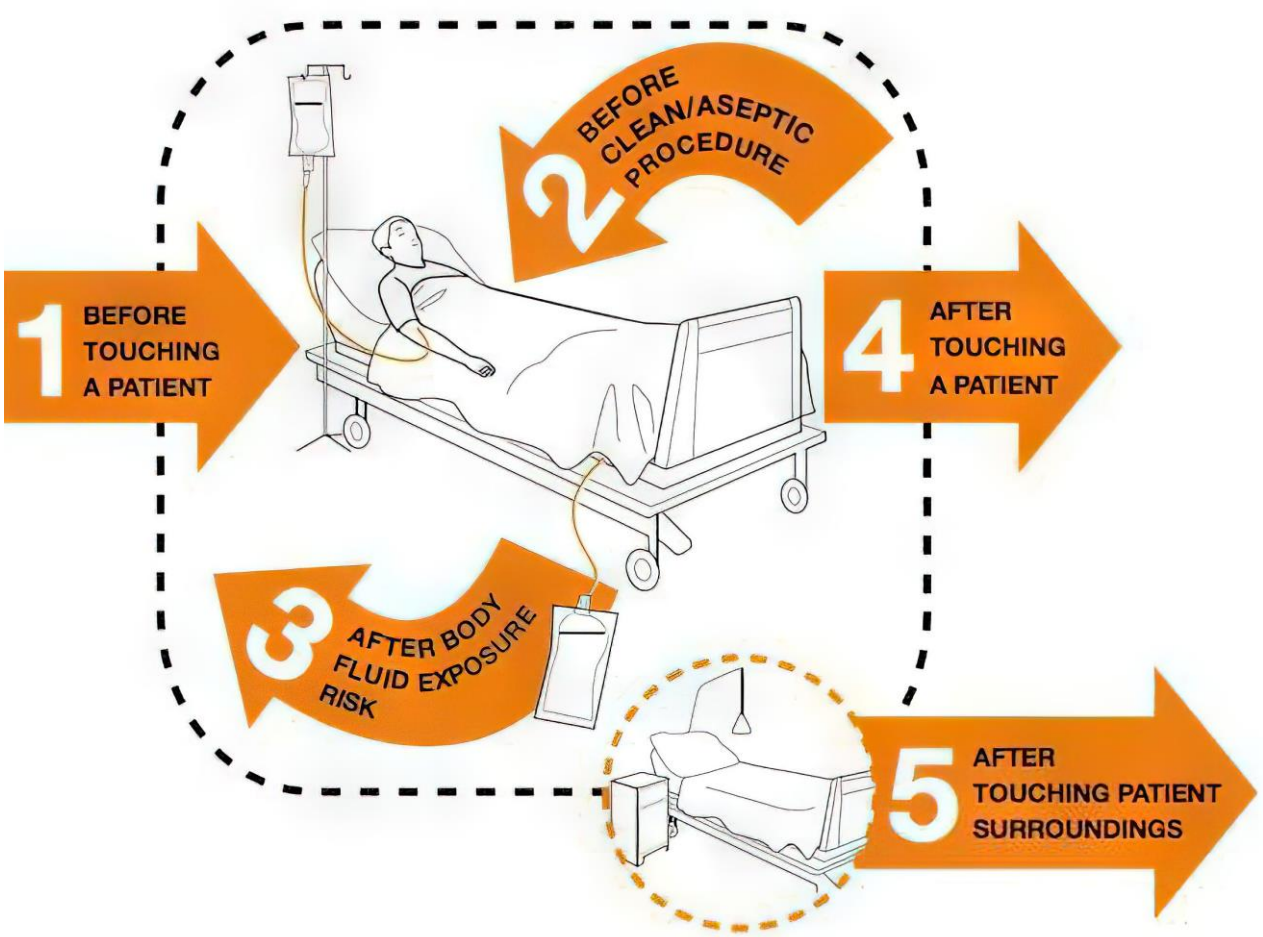
v. Station/bay: Constructed with one, two, or three stations for simultaneous hand washing

5.7 CRITICAL MOMENTS OF HAND HYGIENE IN HCFS:

5.7.1 Hand hygiene

This is crucial before, during, and after patient handling and food-related tasks. Five critical moments of hand hygiene during patient care include lifting patients, wound dressing, pulse measurement, blood pressure checks, and oral temperature assessment.

Figure 5: Critical Moments of Hand Hygiene in health Care Facilities



Source: Guidelines on Hand Hygiene in Health Care (WHO, 2009)

5.7.2 Respiratory Hygiene.

All patients, visitors, and healthcare workers (HCWs) should practice respiratory hygiene and cough etiquette. Source control measures for those with respiratory symptoms may include;

i. Cover nose and mouth when coughing/ sneezing with tissue or mask.

ii. If no tissues, cough/sneeze into inner elbow.

iii. Avoid spitting; use tissues.

iv. Dispose of used tissues and masks.

v. Avoid shaking hands when sick.

vi. Perform hand hygiene after contact with respiratory secretions.

Healthcare facilities (HCFs) should:

i. Educate staff, patients, family members, and visitors on respiratory hygiene.

ii. Place symptomatic patients at least 1 meter away from others in waiting areas.

iii. Post visual alerts at entrances.

iv. Provide hand hygiene resources, tissues, masks, and bins in common areas.

5.7.3 Food and Kitchen Hygiene:

Kitchen cleanliness is crucial for preventing infection and disease outbreaks. Providing good nutritional quality food to patients requires

adherence to proper food hygiene practices to

i. Prevent foodborne illness outbreaks among patients.
ii. Minimize microbiologic contamination during food preparation.
iii. Protect food from insects, rodents, and moisture.

5.7.4 Food handling and preparation

Food Handlers;

i. Should be trained in basic food safety.
ii. Must wash hands at critical times
iii. Sick staff with infections should not handle unpackaged food.
iv. Should keep food-preparation surfaces and premises clean.
v. Scraps of food should be disposed of promptly to prevent bacterial growth and attract insects and rodents.
vi. Eating utensils should be washed with hot water and detergent, then air-dried (avoid using drying cloths).
vii. Protect food from insects, rodents, and other animals.

5.7.5 Separation of Food and Equipment:

i. Use separate equipment for handling raw foods or sanitize between uses.
ii. Store food in containers.
iii. Separate raw meats from other foods.

5.7.6 Food Storage:

i. Prepare or supply fresh food each day.
ii. Cooked or perishable food should not be left at room temperature for more than two hours.
iii. Keep all food covered to protect it from flies and dust.
iv. Non-perishable foods should be stored safely in a closed, dry, well-ventilated area, protected from rodents and insects.

5.7.7 Washing and Water Use:

Use safe water for food preparation, and if unsure, peel raw produce.

5.7.8 Management of Acute Malnutrition/ Nutrition Area:

i. Prioritize water and sanitation services, and equipment sterilization and disinfection in nutrition centers.
ii. Feed babies using clean cups and spoons (avoid bottles).

5.8 BATHROOM HYGIENE:

Bathrooms play a critical role in preventing disease transmission. In healthcare facilities (HCFs), bathrooms should meet specific standards, including:

i. Gender segregation and privacy with good drainage
ii. cold and warm water supply:
iii. Showers
iv. Adequate Lighting
v. Cleanliness
vi. Functional hand wash basins.
vii. Waste Bins.
viii. Clear Paths and Illustrated Signage

5.9 MORTUARY HYGIENE:

Hospital mortuaries can be sources of infections and maintenance of hygiene in the mortuary is crucial. The following precautions MUST be followed at all times:

i. Wear Personal Protective Equipment (PPE.
ii. Disinfect used instruments
iii. Equipment Cleaning.

iv. Hand Hygiene
v. Room Disinfection.
vi. Install UV light.
vii. Surface Decontamination.
viii. Body Storage at 2 to 6°C.
ix. Changing Rooms with shower facilities.
x. Administer Hepatitis B and TT vaccines to mortuary staff.
xi. Waste Management following color-coding guidelines.

5.10 RELIGIOUS PRACTICES:

Bidet showers or water containers should be used to accommodate religious practices that involve water for anal cleansing.

5.11 HYGIENE PROMOTION:

Improving hygiene is heavily influenced by the existence of appropriate and adequate facilities coupled with tailor made hygiene promotion initiatives that are cognizant of the audience attributes and aspirations. These may include education levels, prevailing traditional and cultural norms, and duration of stay at the health facility a strong desire to heal and leave the hospital among others.

5.11.1 Information Education and Communication (IEC) Material:

Appropriate IEC materials should be placed as reminders at appropriate facilities. IEC materials include posters placed at eye level of hygiene facility points; and sanitation and hygiene nudges designed in a way that the intended audience is more likely to pick the desired option. They also include painted talking walls and facility user instructions. It is important to pretest IEC materials to ensure they are attention-grabbing, understandable, and motivating.

5.11.2 Minimum hygiene standards in HCFs as per JMP

Hand hygiene	Parameters
Hand hygiene	Presence of functional hand washing facilities at all points of care11, entrance , waiting areas, gate and hand washing routine monitoring

11. WHO defines point of care as any location in the outpatient setting where care or treatment is delivered (e.g Consultation rooms, Examination rooms, Triage rooms, Treatment rooms).• Othername,

6.0

CHAPTER 6:

INFECTION PREVENTION AND CONTROL

6.1 INTRODUCTION

Infection Prevention and Control (IPC) refers to adherence to preventive procedures that reduces infections among patients, staff, and visitors. IPC involves implementing policies, educating staff, and monitoring adherence. Key objectives of IPC include patient and healthcare worker safety, upgrading WASH structures, and building IPC and WASH capacity.

The primary goal of IPC and WASH in HCFs is to break the cycle of disease transmission by implementing effective measures.

6.2 TYPES OF DISEASES

All diseases can be transmitted within healthcare settings, hence known as Health-Care Associated Infections (HCAI). HCAIs spread between patients, healthcare workers, and caregivers, and vice versa when proper mitigation measures are lacking.

6.2.1 Modes of disease transmission in HCFs

Inappropriate use of WASH services in HCFs results into these modes of disease transmission:

i. Spread through body fluids or blood
ii. Person-to-person transmission
iii. Contaminated objects (instruments, equipment, surfaces)
iv. Airborne transmission
v. Transmission through contaminated water

6.3 COMPOSITION OF IPC COMMITTEES

The recommended composition of IPC committees at different levels of healthcare facilities includes various professionals:

Chairman: Senior Microbiologist, Surgeon, or Physician

Members:

a) Pathologist
b) Surgeon
c) Hospital Administrator
d) Senior/Principal Nursing Officer in charge of Infection Control (Focal person/ Secretary)
e) Pharmacist
f) Dental Surgeon
g) In-charge of Nursing Services
h) Nursing Officer from the Maternity Ward
i) Head of Laboratory Services
j) In-charge of the Theatre
k) In-charge of the Intensive Care Unit (ICU)
l) In-charge of the Outpatient Department
m) In-charge of the Cancer Institute
n) Environmental Health Officer
o) Nutritionist
p) Technician responsible for Operation and Maintenance
q) Representatives from all wards
r) Representatives from Contractor Waste/ Cleaning Management
s) Representative from the Facility management committee

It is recommended that at the National Referral Hospital the composition is of 20 members; Regional Referral hospitals-18 members, General Hospitals- 17 members, Health Centre IV-14 members and at HCIII and HCII- 9 members. (Refer to chapter 6 of the HCF in WASH Guidelines for different levels of HC IPC committees).

7.0

CHAPTER 7:

HEALTH WORKER PRACTICES

7.1 INTRODUCTION

Healthcare-associated infections (HCAIs) remain a global concern, and hand hygiene is crucial in preventing their transmission. Hands of healthcare workers are potential vehicles for transmission of pathogenic organisms within the healthcare environment. However, compliance with handwashing practices varies significantly among different medical cadres with compliance majorly after patient care than before.

The objective of this chapter is to understand health workers' practices related to WASH in healthcare facilities, aiming to guide implementation and improve patient safety. Health-Care practices related to WASH Health-care practices related to WASH cover several key areas, namely: excreta disposal; water supply safety measures; control of rodents and vectors; delivery of COVID-19 preventive messages; and food hygiene and safety measures.

7.2 HEALTH WORKERS DAILY ROUTINES

In regards to WASH, health workers daily routines include:

i. Educate healthcare providers, caretakers, patients and other stakeholders about health needs;

ii. Conduct preventative and curative services that involve contact and generation of waste ;

iii. Operate relevant WASH equipment;

iv. Conduct and supervise WASH activities;

v. Orient all patients, careers in regard to all WASH facility use, operation and maintenance;

vi. Provide culturally, physically and socially appropriate health education on topics related to WASH;

vii. Collect data and relay information to stakeholders to inform programs and policies;

viii. Providing informal counseling and health screening;

ix. Demonstrate and conduct matters pertaining to personal hygiene;

x. Build capacity to address health issues;

xi. Address social determinants of health;

xii. Reporting damages to WASH equipment for Maintenance;

xiii. Conducting research and surveillance for improvement;

xiv. Involvement in administrative activities pertaining to WASH;

xv. Participation in community engagements;

xvi. Bedside nursing

xvii. Physiotherapy

xviii. Changing beddings

xix. Lifting patients from various positions

Key issues to note:

- Hand Hygiene: Wash hands after contact with unclean equipment, soiled clothing, patient areas, or patients and their families.
- Cleaning Procedures: Clean work areas, surfaces, and utensils between patient interactions. Do not prepare trays or medicinal items on the ground; use worktops instead.
- Personal Hygiene: Avoid wearing rings and nail polish during work hours.
- Staff Health: Staff with highly communicable diseases should be isolated or given leave.
- Equipment and Worktop Cleanliness: Clean and, if applicable, sterilize worktops and reusable equipment before and after use.
- Medicine and Equipment Handling: Use proper handling and storage techniques.
- Animal Control: No animals should be allowed in the healthcare facility.
- Pest Control: Regular fumigation is necessary to eliminate rodents and insects.
- Storage: Use appropriate equipment for storing and transporting instruments and medicines to prevent contamination.

8.0

CHAPTER 8:

MEDICAL WASTE MANAGEMENT

8.1 INTRODUCTION

Healthcare waste management (HCWM) is crucial for preventing and controlling nosocomial (hospital acquired) infections within healthcare facilities (HCFs). Healthcare workers should appreciate the risks and hazards associated with medical waste, as well as the entire chain of waste management processes. Proper HCWM involves minimization, segregation, handling, collection, transportation, storage, treatment and safe disposal.

8.2 WASTE CATEGORIES

Approximately 85% of healthcare waste is non-hazardous. It comes from administrative, kitchen, and housekeeping functions in healthcare facilities. The remaining 15% is hazardous waste (chemical radioactive -5% and infectious waste10%), which poses health and environmental risks.

Table 3: Medical Waste categorization

Waste categories	Descriptions and examples
Hazardous health-care waste	
Infectious waste	Waste known or suspected to contain pathogens and pose a risk of disease transmission, e.g. waste and waste water contaminated with blood, body fluids, laboratory cultures, microbiological stocks, excreta materials that have been in contact with patients infected with highly infectious diseases in isolation wards
Sharps waste	Used or unused sharps, e.g. hypodermic, intravenous or other needles; auto-disable syringes; syringes with attached needles; infusion sets; scalpels; pipettes; knives; blades; broken glass
Pathological waste	Human tissues, organs or fluids; body parts; foetuses; unused blood products.
Pharmaceutical waste, cytotoxic waste	Pharmaceuticals that are expired or no longer needed; items contaminated by, or containing, pharmaceuticals. Cytotoxic waste, waste containing cytostatic drugs (often used in cancer therapy); genotoxic chemicals.
Chemical waste	Waste containing chemical substances, e.g. laboratory reagents; film developer; disinfectants that are expired or no longer needed; solvents; waste with high content of heavy metals, e.g. batteries, broken thermometers and blood pressure gauges.

Waste categories	Descriptions and examples
Radioactive waste	Waste containing radioactive substances, e.g. unused liquids from radiotherapy or laboratory research; contaminated glassware, packages or absorbent paper; urine and excreta from patients treated or tested with unsealed radionuclides; sealed sources.
Non-hazardous or general health-care waste	
	Waste that does not pose any specific biological, chemical, radioactive or physical hazard e.g. left over foods, paper etc.

Proper segregation of waste in healthcare facilities (HCFs) using color-coded containers is key and must be consistently used from the point of generation to disposal. This systematic approach ensures that waste is managed effectively, minimizing the risk of contamination and enhancing safety.

8.3 WASTE GENERATION POINTS IN HCFS

Healthcare Waste is generated from different points of care such as dispensing areas, in patient wards, surgical theaters, laboratories, MCH etc. Data on healthcare waste volumes generated by healthcare facilities in Uganda is extremely limited. A national study on HCWM in Uganda (Carl Bro, 2003) estimated the waste generation as follows:

i) 0.1kg/bed/day (excl. pathological waste) at hospital level

ii) 3.0kg/day at HCIV level

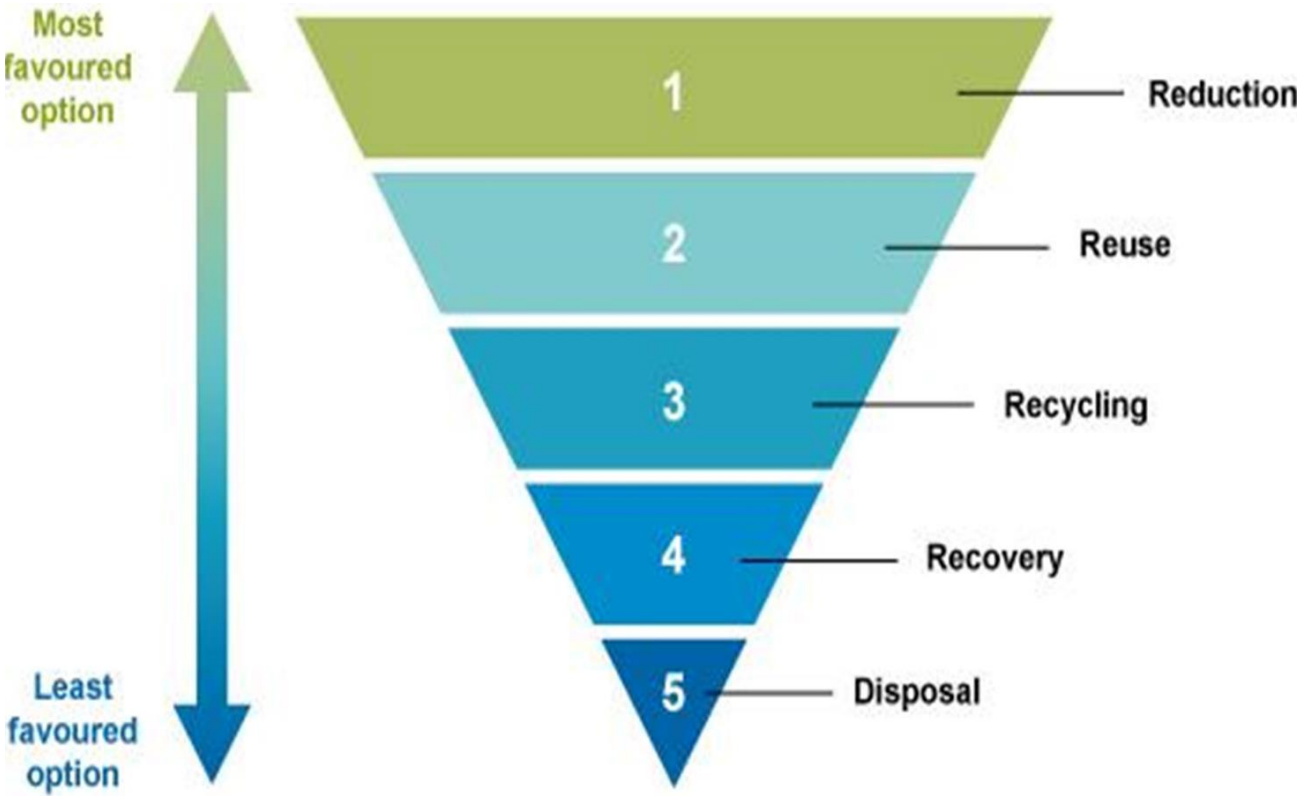
iii) 2.0kg/day at HCIII level

iv) 0.5kg/day at HCII level

8.4 WASTE MINIMIZATION

Waste minimization is the most preferred approach to reducing negative impacts of healthcare waste and follows the following steps as illustrated in the figure below.

Figure 6: Waste Minimization Hierarchy.



8.5 WASTE SEGREGATION

Segregation should be carried out by the producer of the waste as close as possible to its place of generation. Proper segregation must follow standardized procedures to reduce the risks of infecting health care workers, clients and community.

The guidelines for healthcare waste (HCW) segregation include:

i) Waste Separation: Different waste streams should be separated based on disposal treatment and cost benefits, either at the source or site of generation.

ii) Color-Coding: Use color-coded bins with liners for each waste category.

iii) Storage: Maintain a clean, dry, and secure waste storage area to prevent exposure to patients and caregivers.

iv) Education and Training: Provide training for staff on waste segregation and collection.

v) Waste Receptacles: Ensure appropriate receptacles (bags, bins, liners, and sharps boxes) are available at each point of care.

vi) Guidance: Display posters near bins to indicate the correct waste disposal procedures.

The nine categories of HCW shall be segregated and colour coded as follows:

Table 4: Recommended Segregation Scheme for Health Care Wastes.

Segregation category	Colour of Waste Bins	Type of Container
Non-hazardous waste	Black	Biohazard bag or bin with liner
Infectious clinical waste	Yellow	Biohazard bag or bin with liner
Sharp waste	Yellow	Safety box
Radioactive waste	Yellow	Secure container with radioactive symbol
Anatomical waste and placenta	Red	Biohazard bag or bin with liner
Highly infectious waste	Red	Biohazard bag or bin with liner
Wastes with high contents of heavy metals	Red	Secure container
Effluents	Red	Flask or container
Hazardous pharmaceutical and cytotoxic waste	Brown	Biohazard bag or bin with liner

Source: Adopted from the Approaches to Health Care Waste Management - MOH, 2009

8.6 HEALTH CARE WASTE PACKAGING

The packaging should be appropriate for the type of waste involved for example;

i) Sharps: Use rigid, puncture-resistant containers made of glass, metal, rigid plastic, or cardboard for sharp items.

ii) Liquid Infectious Waste: Store in capped bottles or flasks; use containment tanks for large quantities.

iii) Solid/Semisolid Waste: Place in durable, tear-resistant plastic bags. Ensure:

   a) Bags are not overfilled.

   b) Bags are kept away from sharp objects.

   c) Consider double-bagging for added tear resistance.

iv) Special Packaging: For incineration, use combustible containers; for steam sterilization, use low-density plastics that allow steam penetration and air evacuation.

8.7 WASTE COLLECTION WITHIN THE HEALTHCARE FACILITY.

i) Collection Timing: Fixed collection times should match waste generation rates, with separate collections for general, infectious, and hazardous wastes.

ii) Container Management: Waste bags and sharps containers should be filled to no more than 75% capacity, sealed, and replaced with new ones immediately. Use ties or tags for sealing, not staples.

iii) Labeling and Tracking: Label waste bags and containers with the date, type of waste, and point of generation. Record weights, if possible, to track and identify issues with waste segregation or recycling opportunities.

iv) Frequency of Collection: Most waste should be collected daily, timed to match waste generation patterns, e.g., mid-morning for infectious waste in medical areas and after visitors for general waste.

v) Special Cases: Theatres may need multiple collections daily due to high infectious waste; child and maternal clinics should collect sharps waste daily.

Table 5: Collection scheme for health-care wastes.

Waste categories	Collection Frequency
Infectious waste	When three-quarters filled or at least once a day.
Sharp waste	When filled to the line or three-quarters filled.
Pathological waste	When three-quarters filled or at least once a day.
Chemical and pharmaceutical waste	On demand.
Radioactive waste	On demand.
General health-care waste	When three-quarters filled or at least once a day

8.8 WASTE STORAGE

The following guidelines should be adhered to:

i) Dedicated Storage Areas: Each healthcare unit must have a designated area for storing healthcare waste (HCW) bags, bins, or containers.

ii) Central Storage Facilities: Separate central storage facilities are required for hazardous HCW, excluding radioactive waste which requires separate storage. Facilities below level three should store only yellow bag waste. Highly infectious and anatomical waste should be disposed of immediately, with no waste stored for more than two days before treatment. Treated waste can be stored for up to one week.

iii) Facility Location: The central storage facility should be close to the treatment unit but away from food storage and preparation areas.

iv) Facility Capacity: It should be large enough to handle a week's worth of hazardous HCW and have extra space for maintenance issues.

v) Security and Cleanliness: The facility must be enclosed, secure from unauthorized access, and protected from animals, insects, and birds. It should be easy to clean and disinfect, with a hard-standing base, good water supply, drainage, and ventilation.

PLEASE NOTE:

- All highly infectious waste (red bags) from isolation wards should be disposed of immediately.
- Infectious waste should be stored for a minimum of 2 days if not treated and 1 week if treated.
- The waste should be packaged securely enough to ensure containment of the waste and to prevent penetration by rodents and vermin.
- Limited access to the storage area is recommended.
- The universal biological hazard symbol should be posted on the storage area door, and waste containers. Containers for bio-hazardous material should be a distinctive red colour

8.9 TRANSPORTATION OF WASTE:

For the transportation of health care waste (HCW) to central storage, the following guidelines should be observed:

i) Use dedicated, regularly cleaned trolleys for waste collection that are easy to load and unload.

ii) Separate hazardous and non-hazardous waste using different trolleys.

iii) Follow the most direct route from the collection point to central storage.

iv) Do not leave waste temporarily at any location other than the designated central storage.

v) Ensure containers are covered with lids during both storage and transport.

8.9.1 Transport to Final Disposal Site

When transporting waste to the final disposal site, follow these procedures:

- Containers should be covered with lids during transportation.
- Prevent plastic bags of infectious waste from tearing.
- Do not compact infectious waste before treatment.
- Use closed, leak-proof dumpsters or trucks for offsite transportation of infectious waste.

8.9.2 Transport to central storage

i) Container Requirements: Waste must be placed in rigid, semi-rigid, and leak-proof containers before transport.

ii) Approval for Off-Site Transportation: Off-site transportation of hazardous HCW must be approved by NEMA through the local government before any transport occurs.

iii) Collection Frequency: Yellow and red bags should be collected and transported at least every other day.

iv) Documentation: Transport must be documented, and vehicles should carry a consignment note from collection to treatment facility.

v) Vehicle Specifications: Vehicles must be disinfected before reuse, free of sharp edges, easy to load and unload, and fully enclosed to prevent spillage. They should also be easy to clean and disinfect.

vi) Post-Transport Cleaning: Vehicles must be cleaned and disinfected after use.

vii) Emergency Supplies: Vehicles should carry plastic bags, protective clothing, cleaning tools, and disinfectants for handling spills.

viii) Staff Requirements: Staff must wear protective clothing and be trained in handling, loading, unloading, transporting, and disposing of yellow and red bags. They should also be familiar with emergency procedures for accidents and spills.

8.10 METHODS OF WASTE TREATMENT AND DISPOSAL

The treatment methods for healthcare waste shall include one or a combination of the following options:

i) Steam sterilization,

ii) Incineration,

iii) Thermal inactivation,

iv) Gas/vapor sterilization,

v) Chemical disinfection, and

vi) Sterilization by irradiation, or electromagnetic radiation.

Acceptable treatment methods for the various types of wastes are listed in Table 8-5 in the main guidelines

Table 6: Recommended techniques for treatment of infectious wastes

Types of infectious waste	Recommended treatment techniques			
	Steam sterilization	Incineration	Burning and low-temp incineration	Chemical disinfection
Cultures and stocks of infectious agents and associated biologicals	X	X	X	X
Human blood and its products	X	X		X
Pathological Waste	X	X		
Contaminated Sharps	X	X	X	
Carcasses and parts	X	X		
Bedding		X	X	
Isolation wastes	X	X		

Source: Adopted from the Approaches to Health Care Waste Management - MOH, 2009.

8.10.1 Placenta Pit

Placenta pits allow pathological waste to degrade naturally. Around 90% of the waste is liquid, which will soak away into the ground. The rest will degrade through a complex and variable mixture of biological and chemical processes. For technical specification and construction of placenta pit refer to the WASH in HCF national guidelines annex.

Placenta pit use

i) Waste Types: Use the pit only for pathological and biodegradable organic waste. Do not dispose of soft waste (e.g., bandages), sharps, or toxic waste in the pit.

ii) Chemical Disinfectants: Avoid treating waste with chemical disinfectants like chlorine before disposal, as they can hinder biological decomposition.

iii) Waste Disposal: Dispose of organics in the pit immediately upon arrival.

iv) Cover Management: Keep the pit covered at all times except when adding waste.

v) Cleaning: Regularly clean and disinfect the pit slab using non-persistent disinfectants like hydrogen peroxide. Do not add disinfectants directly to the pit.

vi) Odor Control: Add ash, charcoal, or lime to manage odors. Ash and charcoal reduce odors without affecting decomposition, while lime (with a high pH) can kill pathogens but may also inhibit beneficial bacteria needed for decomposition.

vii) Pit Closure: Close the pit when the waste level reaches 0.5 meters from the surface

viii) Marking and Recording: Clearly mark the pit with details on contents and closure date. Record its location for future reference.

ix) Reuse: The pit can be reused after an appropriate period has elapsed.

x) Decomposition Factors: Decomposition rate depends on microbial and chemical conditions, temperature, and humidity.

xi) Material Removal:

a) Wait at least 2 years after closure before removing material to ensure pathogen elimination.

b) Test material for infectiousness if possible.

c) Provide workers with PPE (mask, goggles, boots, gloves, overalls).

d) Limit use of extracted material as fertilizer; do not use it for food crops or outside the hospital premises.

8.10.2 Incineration:

Incineration is a high-temperature, dry oxidation process that reduces organic and combustible waste to inorganic, incombustible matter. High-heat thermal processes occur at temperatures ranging from 200°C to over 1000°C. Organic material breaks down through combustion, pyrolysis, or gasification. Disadvantages include atmospheric release of combustion by-products and residual ash.

Guidelines for incineration:

i) Purpose: Use incineration for the disposal of pathological wastes (e.g., tissues and body parts) and to render contaminated sharps unusable.

ii) Efficiency Factors: Consider waste composition, feed rate, and combustion temperature to maintain incineration efficiency. Follow proper operating procedures.

iii) Drug Waste: Incinerate infectious wastes containing drugs in an incinerator capable of high temperatures and sufficient retention time to ensure complete destruction.

iv) Chemical Wastes: Assess and document the incinerator's effectiveness in destroying chemical wastes before use, if applicable.

v) Safety and Training:

a) Protective Clothing: Operators must wear protective gear (helmet, safety goggles, respiratory mask, heat-resistant gloves, apron, full-body clothing, and boots).

b) Handling Techniques: Train staff in techniques to prevent waste spillage and manage spills.

vi) Operation Procedures: Combustion Conditions: Follow a clear method for achieving and maintaining proper combustion conditions, including start-up, cool-down, and temperature management. Ensure proper loading rates and ash disposal.

vii) Prohibited Materials: Do Not Burn: PVC plastics, photographic and x-ray materials, mercury thermometers, batteries, and aerosol cans due to toxic emissions.

viii) Community Safety:

a) Locate them away from houses and crops

ix) Fencing: Incinerators must be fenced to prevent access by people and animals.

x) Maintenance and Repair:

a) Inspection: Regular inspections and maintenance by qualified personnel are required.

b) Service Schedule: Establish a service schedule for regular and unscheduled maintenance. Keep a budget for maintenance and travel.

c) Logs: Maintain detailed operator logs including waste details, fuel consumption, equipment defects, and service history.

xi) Enhanced Training and Management:

a) Training: Implement certification and inspection programs, provide operating manuals, and ensure visible management oversight.

xii) Construction: Use detailed engineering plans and high-quality materials to avoid incomplete waste destruction and equipment failures.

xiii) Protective Enclosure: Install incinerators in a protective or ventilated building to prevent unauthorized access and protect equipment.

xiv) Ash Pit: Equip incineration sites with an ash pit capable of storing ash for at least 5 years.

xv) Fuel storage

a) Secure Storage: Fuel for incinerators must be stored safely and securely, with appropriate measures to prevent exposure to excessive heat.

b) Adequate Space: Provide sufficient storage space for dry solid fuels (e.g., wood, charcoal) to last at least one week of incinerator operation.

c) Facility Setup: Install a storage reservoir, fuel filter, and shutoff valve within an enclosure to protect the fuel supply and ensure proper management.

d) Storage Capacity: Ensure the storage reservoir is mounted at an appropriate level for gravity-fed supply and is large enough to hold fuel for three times the interval between waste deliveries.

xvi) Water supply

a) Water Supply: HCWM disposal facilities must have a water supply with a spigot mounted above a concrete pad, equipped with runoff or drainage to ensure thorough rinsing of containers before reuse.

b) Glass Disposal: Glass vials should not be incinerated due to risks of clogging and explosions. Facilities should include a glass crusher for sterilizing crushed glass, with dedicated space for this equipment.

Incineration Operation Guidelines

a) Safety and Preparation: Operators must wear personal protective equipment (helmet, goggles, respirator, overalls, gloves, apron, and boots). Ensure the incinerator has adequate fuel and that waste is dry. Record the number of safety boxes and bags to be incinerated. Clean the incinerator by removing ash, safely depositing it in the ash pit, and replacing the grate/tray.

b) Incineration Process: Preheat the incinerator by lighting firewood and adding more wood in cycles. Load waste (one safety box every 8-10 minutes, alternating with bags) and adjust fuel based on temperature. Burn down the waste by adding firewood as needed to maintain the fire, wait for complete combustion, and do not leave until the fire is reduced to embers.

Incineration Operation Notes:

a) Chamber Loading: Keep the primary chamber as full as possible. Separate very wet loads with drier material or use additional diesel/kerosene if needed.

b) Plastic Materials: For plastic waste, such as syringes in sharps boxes, allow one box to burn almost completely before adding another, gauging by when smoke levels decrease.

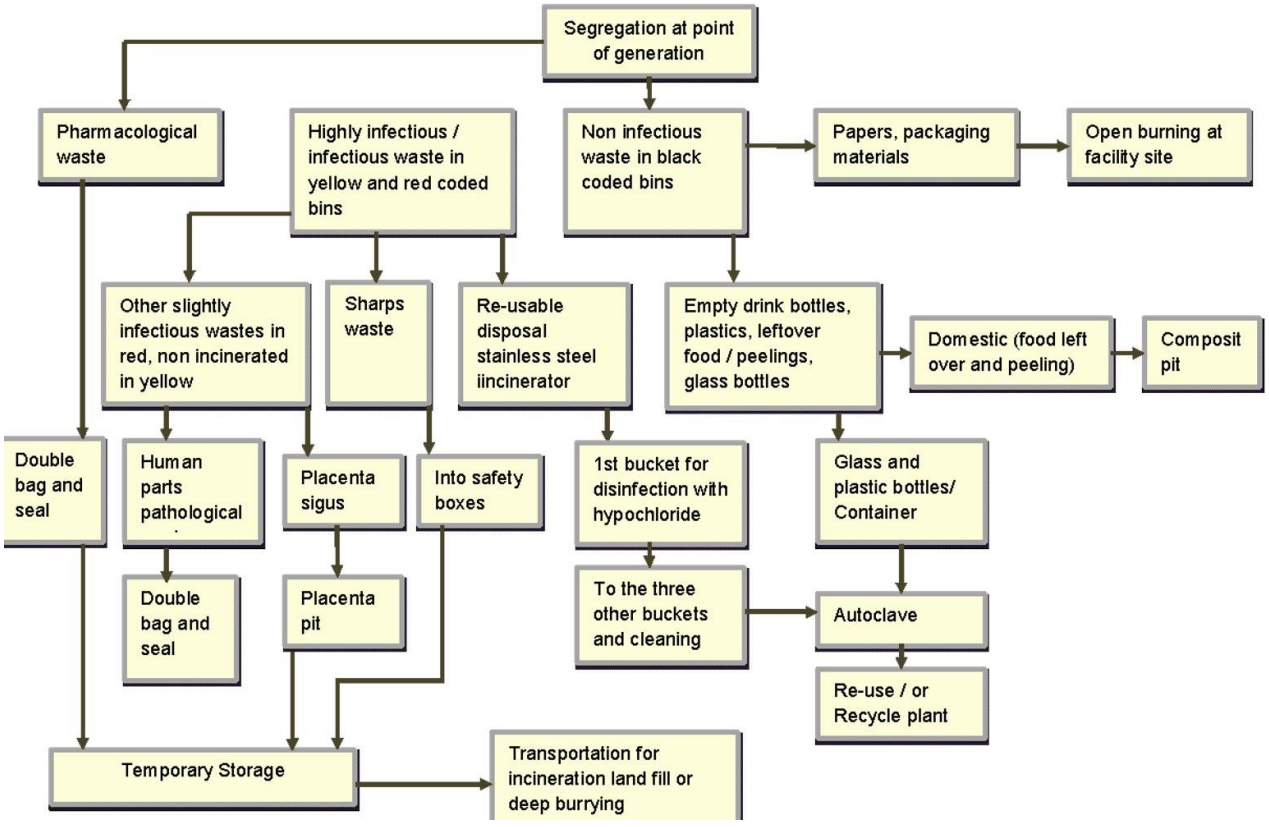
c) Blockage Management: If the flame burns less fiercely, check and clear any blockage in the transfer flue using a steel rod through the air holes.

d) Gas Safety: Be cautious of sudden, intense burning when opening the loading door. Wear a face mask/eye protection and avoid looking directly into the chamber. Load from the side to minimize exposure to burning gases.

8.11 MAPPING THE FLOW OF WASTE WITHIN HCF

The waste flow illustrated in figure 7 shall be followed by the respective health care workers and waste managers at the respective points of care and service delivery, sanitary and outreach centres.

Figure 7: Waste Flow Organogram at a healthcare facility



8.12 GUIDELINES FOR FACILITY WASTE MANAGEMENT PLANNING

i) Integration and Coordination: Each healthcare facility must develop a comprehensive waste management plan as part of its overall strategic plan, coordinated by the infection control team and relevant stakeholders.

ii) Designated Roles: Appoint a dedicated Health Care Waste Management officer, integrating them into the Infection Control Committee or establishing a separate waste management committee if needed.

iii) Detailed Plan: The HCWM plan should outline procedures for segregation, handling, transport, treatment, and disposal of waste, including roles, responsibilities, quantity estimates, annual budgets, and monitoring procedures.

iv) Training and Emergency Budgeting: Include budgets for staff training and for emergency storage and disposal of hazardous waste, especially during equipment failures or emergencies such as epidemics.

8.13 HEALTHCARE WASTEWATER MANAGEMENT

8.13.1 Characteristics of Health-care Wastewater

Health-care wastewater can be divided into the following three categories:

i) Black Water: Heavily polluted wastewater with high concentrations of fecal matter and urine.

ii) Grey Water: More dilute wastewater from activities such as washing, bathing, laboratory processes, laundry, and technical uses like cooling or rinsing X-ray films.

iii) Storm Water: Rainfall collected from hospital roofs and paved areas, which can be directed to drains, watercourses, or used for irrigation and other non-potable purposes.

8.13.2 Hazards of Wastewater from Health-care Facilities

i) Nutrient Pollution: Excessive nutrients can lead to eutrophication, causing algal blooms and biotoxins in water bodies.

ii) Pharmaceutical Contaminants: May act as endocrine disruptors and contribute to antibiotic resistance.

iii) Heavy Metals: Risks include mercury and heavy metal poisoning.

iv) Disease Outbreaks: Can spread water-borne diseases like cholera, Hepatitis A and E, and typhoid fever, and increase vector-borne diseases like malaria and filariasis by creating breeding grounds for vectors

8.13.3 Collection of Liquid healthcare Waste

i) Collection Systems: There are two traditional systems: a centralized system, where sewage pipes direct wastewater to a central treatment location, and a decentralized system, where wastewater is directed to septic tanks or cesspits (less preferred).

ii) Preferred Approach: A centralized collection and treatment system is recommended for healthcare facilities, especially for regional referral hospitals.

iii) Recommended Setup: Implement two separate systems: one for wastewater (sanitary sewers) and one for stormwater (rainwater), with manholes for maintenance access, watertight pipes

and manholes, and pre-treatment to reduce contaminants before discharge.

8.13.4 Pre-treatment of Liquid healthcare Waste

i) Pre-treatment Methods: Includes acid-base neutralization, decontamination with lime milk, and using amalgam separators in sinks to reduce contaminants before discharge.

ii) Preferred Practice: Connect the healthcare sewage system to the municipal sewage system, discharging pre-treated wastewater to the municipal treatment plant

8.13.5 Onsite Wastewater Treatment

i) Necessity for Large Facilities: Large healthcare facilities not connected to municipal treatment plants should have their own wastewater treatment systems.

ii) Treatment Processes: These systems typically use physical, chemical, and biological methods to remove contaminants.

iii) Goal: The aim is to produce treated effluent that is safe for reuse or discharge into the environment, such as surface watercourses.

8.14 DISPOSAL OF SLUDGE

i) Treatment Necessity: Sludge from onsite hospital sewage treatment, which contains pathogens, must be treated before disposal.

ii) Treatment Methods:

a) Anaerobic Digestion: A bacterial process in the absence of oxygen, suitable for large-scale plants.

b) Aerobic Digestion: Uses oxygen to break down sludge.

c) Composting: Mixes sludge with a carbon source like sawdust, allowing bacteria to digest and pasteurize it through heat.

d) Reed Beds: Sludge is applied to a reed bed system where reeds absorb some water and moisture is transpired, with excess water returned to the treatment plan

8.14.1 Decentralized Septic Tank System

i) Primary Function: A septic tank is a watertight system used to separate solid and liquid components of wastewater and digest organic matter anaerobically.

ii) Additional Roles: It stores solids and allows clarified liquid to be discharged for further treatment or direct disposal.

8.14.2 Centralized, Basic System

i) Centralized onsite treatment is preferred for healthcare facilities to reduce maintenance, enable advanced treatment, and enhance monitoring.

ii) Components: Basic systems include primary treatment (sand catchment and screening) and anaerobic secondary treatment.

iii) Secondary Treatment Types: Common systems are baffled flow reactors, anaerobic filters, Imhoff tanks, and upflow anaerobic sludge blanket reactors.

8.14.3 Soak away pits and leach fields

i) Soakaway Pits: These pits collect effluent from treatment plants, allowing it to infiltrate into the ground. They should be filled with stones or broken bricks, lined with masonry, and topped with a reinforced concrete cover. The size depends on liquid volume and soil type, with pits typically 2-5m deep and 1-2.5m

in diameter. Planting trees nearby can aid in liquid removal.

ii) Leach Fields: Used for larger volumes of wastewater, leach fields consist of gravel-filled trenches with perforated pipes that distribute effluent underground. Trenches are usually 0.3-0.5m wide and 0.6-1.0m deep, covered with gravel and soil. Both systems should be located away from shallow wells and groundwater sources, maintaining a distance of at least 1.5m from the groundwater table and 30m from water abstraction points.

8.14.4 Lagooning system

i) Types: Lagooning systems include facultative lagoons, which use algae for oxygen supply, and aerated lagoons, which use mechanical aeration. Facultative lagoons are preferred due to lower operational costs compared to aerated lagoons.

ii) Facultative Lagoons: These consist of a shallow basin with an anaerobic bottom layer for decomposing settleable solids and an aerobic top layer where suspended organic materials are broken down. Bacteria degrade organic carbon to biomass and carbon dioxide, which is then used by algae for photosynthesis, providing the necessary oxygen for aerobic decomposition.

8.15 OPERATION AND MONITORING OF SEWERAGE SYSTEMS

i) Issues in wastewater management in healthcare facilities often stem from inadequate operation and maintenance.

ii) Common Problems: Disposal of liquid hazardous waste via sinks and insufficient maintenance can lead to leakages and blockages, with large wastewater losses often being the first sign of trouble.

8.15.1 Operation and maintenance of wastewater systems

i) Maintenance Plan: Develop a comprehensive plan covering both corrective and preventive maintenance, including budget allocation for onsite treatment plant operations.

ii) Monitoring:

a) Sewerage System: Regularly monitor and maintain the sewerage system.

b) Effluent Quality: Install a flow meter at the discharge point and compare water consumption with wastewater discharge to detect maintenance issues. Regularly test inflow and outflow to assess treatment plant efficiency.

9.0

CHAPTER 9:

CLEANING AND LAUNDRY MANAGEMENT

9.1 INTRODUCTION:

A clean environment is essential for effective infection prevention and control in healthcare facilities. This is because there is an important linkage between cleaning of health facilities and persistence of nosocomical pathogens. Cleaning not only removes visible dirt but also reduces microorganisms, minimizing the spread of infectious agents.

9.2 ENVIRONMENTAL CLEANING PROGRAM

An effective environmental cleaning program is structured and involves various stakeholders, including IPC, WASH, and facilities management. Key elements of the program include:

i. Organization/Administration
ii. Staffing and Training
iii. Infrastructure and Supplies
iv. Policies and Procedures
v. Monitoring, Feedback, and Audit

9.3 EXTERNALLY CONTRACTED CLEANING SERVICE PROVIDERS

Cleaning services are increasingly managed by external contractors through contract or service level agreements. Contracted staff must collaborate with cleaning program focal person and IPC staff to adhere to best practices. The service agreement should outline:

i) Organizational structure and responsibilities
ii) Staffing plans and contingency protocols
iii) Training requirements
iv) Cleaning schedules and methods
v) Monitoring and feedback processes
vi) Equipment and supply details

9.4 ORGANIZATION / ADMINISTRATION

Administrative support is crucial for implementing an effective cleaning program, including:

i) Administrative and Leadership Support: Appointing a cleaning program manager to develop policies and standard operating procedures (SOPs), conduct training, and ensure adequate supplies.
ii) Routine Monitoring: Implementing regular evaluations to enhance the cleaning program based on feedback.
iii) Communication: Establishing formal channels for communication among stakeholders, including a multi-sectoral l planning committee and routine meetings to ensure collaborative efforts in developing and executing the cleaning program.

9.5 STAFFING ELEMENTS

Effective environmental cleaning programs hinge on appropriate staffing and training. Key elements include:

i) Paid Positions: Cleaning staff should have written job descriptions and terms of reference.
ii) Structured Training: Staff need targeted training (pre-service, annual, or when new equipment is introduced).
iii) Defined Performance Standards: Clear competencies must be established.
iv) On-Site Supervision: Access to a supervisor is essential for addressing supplies and safety concerns.

Cleaning staff should be knowledgeable about their roles and limitations, familiar with the chemicals they handle, and equipped with necessary supplies and PPE. Adequate staffing levels depend on factors like patient bed count, occupancy, and cleaning type required. Training

should align with national guidelines and be mandated before independent work begins. If services are contracted, training should be explicitly outlined in the service level agreement.

Adequate staffing is one of the most important factors for an effective environmental cleaning program. In small primary health care facilities with limited inpatient services, cleaning staff might be part-time positions or have other responsibilities, such as laundry services, but most hospitals require full-time, dedicated cleaning staff.

The required number of cleaning staff will vary based on several of factors, including:

i) Number of patient beds

ii) Occupancy level

iii) Type of cleaning (e.g., routine or terminal)

iv) Types of patient care areas (e.g., specialized care areas such as ICUs and operating rooms)

9.6 SUPPORTING INFRASTRUCTURE AND SUPPLY ELEMENTS

The infrastructure supporting environmental cleaning includes:

i) Designated Spaces: Facilities must have areas for storage, preparation, and cleaning of supplies, along with separated sluice areas for reprocessing equipment.

ii) Water and Wastewater Access: Sufficient water supply is crucial for cleaning and safe wastewater disposal.

iii) Supply and Equipment Management: Effective systems for procuring and managing cleaning supplies are necessary.

iv) Compatible Finishes and Furnishings: Selection of easily cleanable materials that work well with disinfectants is important.

9.7 POLICIES AND PROCEDURAL ELEMENTS

Healthcare facilities should establish comprehensive cleaning policies, SOPs, and checklists. Key components of cleaning policies must include:

i) Accountability: Defined responsibilities and reporting lines for all staff involved in cleaning.

ii) Cleaning Schedules: Specific schedules detailing frequency and methods for cleaning patient care areas and equipment.

iii) Contingency Plans: Procedures for managing outbreaks and hardy organisms.

iv) Training and Performance Standards: Clear requirements for staff training and expected performance.

v) Monitoring: Established methods and frequency of monitoring and responsible staff members.

vi) Approved Products: A list of cleaning supplies and equipment, along with usage specifications.

vii) PPE Guidelines: Identification of necessary PPE and advice on hand hygiene practices for safety.

10

CHAPTER 10:

VECTOR AND VERMIN CONTROL

10.1 INTRODUCTION

Effective vector and vermin control in healthcare facilities (HCFs) is essential for preventing disease transmission among patients and staff. By managing these pests, facilities can reduce the costs associated with treating vector-borne diseases.

The primary goal is to manage harmful vectors and vermin to safeguard healthcare activities and minimize disease spread. Additionally, creating a clean and healthy environment benefits patients, visitors, and staff.

10.2 VECTORS AND VERMIN

Regular inspections should be part of maintenance protocols to identify signs of vectors and vermin. Common types include:

i. Mammals: Bats, which can cause zoonotic diseases and foul air quality.

ii. Rodents: Rats, known for damaging equipment, contaminating food, and carrying fleas.

iii. Reptiles: Snakes, which may induce fear, even if non-venomous.

iv. Insects: Includes bed bugs, cockroaches, and mosquitoes, posing significant control challenges.

v. Birds: Nesting birds can create foul odors and may harbor mites that trigger allergies.

10.3 CONTROLS

i. Control methods include:

   a. Architectural and Engineering Design Considerations

   b. Ventilation Blocks: Install netting on ceilings to prevent rodent, bats and bird entry.

   c. Avoid Dead Spaces: Minimize crevices that attract pests.

   d. Window Screens: Use well-fitting screens to keep insects and rodents out.

   e. Material Choices: Favor metallic over wooden installations in termite-heavy areas.

   f. Roofing: Use translucent roofing to deter bats.

ii. Fumigation, and application of pesticides and insecticides: Fumigation may be done once or twice a year depending on the levels of infestation and type of vectors involved.

   a. Skilled Fumigation: Engage trained personnel for safe fumigation practices.

   b. Targeted Poisons: Place poisons in specific areas to minimize harm to non-target species.

   c. Repellents Caution: Limit use of chemical repellants in occupied spaces due to inhalation risks.

   d. Insecticides: Use safer options like pyrethrins for localized infestations.

   e. Desiccant Dusters: Desiccant Dusts are put in cabinets where insects are known to occur.

iii. Preventive Measures

To make environments unsuitable for vermin and vectors:

   a. Maintain Short Grass: Keep surrounding lawns trimmed.

   b. Avoid Gardens Near Facilities: Do not plant crop gardens close to buildings.

   c. Select Appropriate Plants: Avoid trees and shrubs that attract vermin (e.g., Calliandra for bees) and grow repellent plants like Tagetes minuta, onions, and garlic.

   d. Control Indoor Climate: Use air conditioning to maintain a temperature of 20–23°C, unsuitable for insect survival.

   e. Ensure Cleanliness: Regularly clean, eat in designated areas, and dispose of garbage properly to eliminate breeding sites.

iv. Use of Traps

Strategically placed traps can effectively capture or monitor adult vectors and vermin, helping to control small infestations and interrupt breeding cycles. For large infestations, chemical methods may be necessary.

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CHAPTER 11:

OPERATION & MAINTENANCE OF WASH FACILITIES

11.1 INTRODUCTION

Maintaining clean and operational WASH facilities is essential to prevent disease transmission. Poorly maintained facilities can deter use and become disease hotspots. Proper management, along with planning for costs and operation/maintenance (O&M) requirements, is crucial before installation.

11.2 OPERATION AND MAINTENANCE REQUIREMENTS

O&M can be done by the dedicated healthcare staff or contracted to a private company or CBO through service agreements. The O&M costs must be included in the annual work plan and budgets of a HCF. Each HCF should develop an O&M strategy or plan emphasizing preventive maintenance.

Budgeting for monthly or annual operating costs is essential, covering expenses like water supply, cleaning supplies, staff costs, monitoring, minor and major repairs, and eventual replacements. Effective planning and budgeting are foundational to these activities.

WASH facilities must be regularly checked for cleanliness and operational efficiency. Consistent maintenance practices should be implemented.

For routine operation and maintenance of WASH facilities in HCFs, please refer to table 11.3 in the National WASH in HCFs guidelines.

11.3 APPROACHES TO HCF O&M

The O&M strategy should primarily focus on preventative maintenance, minimizing the need for corrective and reactive measures.

i) Preventative Maintenance: This approach extends infrastructure lifespan and reduces long-term costs. It involves routine inspections, cleaning, disinfection of water tanks, and minor repairs to ensure WASH facilities remain in good condition.

ii) Corrective Maintenance: Regular assessments allow for the repair or replacement of improperly installed components, such as reallocating pipe routes or updating hand washing facilities to meet current health protocols.

iii) Reactive Maintenance: A detailed crisis response plan is necessary to address any WASH failures. This includes engaging local skilled personnel and procuring spare parts as needed.

11.4 OPERATION AND MAINTENANCE REQUIREMENTS.

Key requirements for effective O&M of WASH facilities include:

i) Staffing and manpower: Skilled personnel are needed for specialized tasks beyond basic cleaning. A WASH committee should be established to oversee planning, monitoring, and maintenance, fostering ownership and sustainability.

ii) Tools and equipment: Necessary tools must be available for maintenance tasks. For specialized facilities, including electro-mechanical equipment, tools must adhere to manufacturer guidelines.

iii) Supplies: Adequate and standardized cleaning and maintenance supplies should be stocked.

iv) Financing requirements: Sufficient funding must be allocated for ongoing maintenance activities and unforeseen issues.

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CHAPTER 12:

PLANNING, BUDGETING AND PROCUREMENT

12.1 INTRODUCTION

Effective planning, budgeting, procurement, and maintenance are essential for providing and sustaining WASH services in healthcare facilities (HCFs). Strong planning enables immediate and incremental investments in WASH, supporting universal health care goals such as quality, equity, and dignity.

12.2 PLANNING

WASH services must be systematically organized and planned, defining strategies, roles, responsibilities, and resource allocation. In cases of insufficient in-house capabilities, specialized planning may be outsourced according to PPDA regulations and guidelines. Annual budgets for WASH are prepared by section heads and reviewed by the HCF management committee before being forwarded to the District Health Officer (DHO) for further review and approval, by the District Health Management Team. The process will follow the July-June planning cycle.

12.3 BUDGETING

Budgets will draw from the non-wage recurrent (NWR) budget of primary health care, targeting a minimum of 10% for new WASH installations and O&M. Approved budgets are sent to the Procurement Unit for incorporation into the annual procurement plan.

12.4 PROCUREMENT

Procurement must comply with the Public Procurement and Disposal of Assets (PPDA) regulations.

12.5 TRAINING OF HEALTH WORKERS IN HCF WASH MANAGEMENT

Annual budgets will include provisions for training healthcare workers in WASH planning, budgeting, and monitoring. The Ministry of Health will collaborate with professional councils to enhance pre-service training in WASH management.

12.6 MONITORING OF IMPLEMENTATION OF HCF WASH PLANS

Implementation will be monitored monthly by HCF section heads and reviewed quarterly by the health unit management committee.

12.7 NATIONAL LEVEL MONITORING

National monitoring aims to assess adherence to WASH standards in HCFs and identify areas for improvement. Stakeholders will receive updates on WASH status, and the health inspectorate will track progress using the District Health Information Software (DHIS 2). Specific tasks include storing performance data, providing technical support to local government districts (DLGs), reviewing monitoring reports, conducting support supervision visits, and organizing stakeholder review meetings.

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CHAPTER 13:

MONITORING, EVALUATION AND REPORTING

13.1 INTRODUCTION

This chapter covers the rationale and guidance for conducting monitoring. It provides specific indicators, tools and timelines to monitor the implementation of WASH interventions at different levels of healthcare facilities. It also highlights responsible persons for development of monitoring plans, data quality management and reporting.

The primary objective of monitoring WASH services in HCFs is to measure the extent to which these guidelines are implemented and identify areas for immediate improvement. The indicators are aligned to Joint Monitoring Programme (JMP) indicators for monitoring WASH in health care facilities (general service areas), WHO's Essential Environmental Health Standards in Health Care (2008), WHO Guidelines on core components of IPC programmes at the national and acute health care facility level (2016) and Infection Prevention and Control Assessment Framework at the Facility Level (IPCAF).

The objectives are to achieve basic WASH services in at least 80% of HCFs in each district by 2025, and ultimately 100% by 2030.

13.2 RATIONALE AND APPROACH FOR MONITORING OF WASH SERVICES IN HCFS

National monitoring of WASH in HCFs will occur through facility assessments and routine reporting systems, integrating JMP indicators into existing systems like Health Information Monitoring Systems (HMIS), Emergency Obstetric and Newborn Care (EmONC), and District Health Information Systems 2 (DHIS2).

The focus will be on measuring adherence to minimum WASH service standards, identifying operational and maintenance shortfalls, and prompting necessary remedial actions in facility design or construction.

Purpose of Monitoring: Regular and continuous monitoring of WASH in HCFs aims to provide information on the provision of minimum standards of WASH services. Key aspects monitored include water availability, sanitation and hygiene facilities, and vector/vermin control systems.

Who and When to Monitor: Sector leads are responsible for monitoring and following up on WASH implementation and progress in all HCFs. A participatory approach starts at community HCFs and cascades to district, regional, and national levels.

Table 7: Roles of the various Actors in Monitoring WASH Services

Actor	Roles
In charge of HCF	Establish in-house routine monitoring and follow up of WASH services within HCF Implementation of remedial actions e.g. repairs and maintenance of WASH facilities
Designated health care staff	Carry out periodic monitoring of the WASH services in HCFs
Health facility management team	Coordinate monitoring process within HCFs Allocate and approve funding for WASH in HCFs
Environmental Health Staff	Collect and submit WASH in HCF data quarterly using the provided tools

13.3 WASH HEALTH FACILITY INDICATORS

13.3.1 Basic water services:

Inspection of the HealthCare Facility main source of water whether it is an improved source located within the health care premises.

Element	Monitoring indicator definition
Improved	Improved water sources are those which, by nature of their design and construction, have the potential to deliver safe water. Improved sources include; piped water, boreholes or, protected dug wells, protected springs, rainwater, and packaged or delivered water.
on premises	Water is accessed within buildings, or within the health facility grounds.
available	Water from the main water source is available on the day of the survey or questionnaire.

13.3.2 Basic Sanitation Services:

Proportion of HCFs with improved and usable sanitation facilities. Includes at least one dedicated toilet for staff, sex-separated toilets with menstrual hygiene facilities, and at least one accessible toilet for users with limited mobility.

Element	Monitoring indicator definition
improved	Improved sanitation facilities are those designed to hygienically separate excreta from human contact. These include: flush/pour flush to piped sewer system, septic tanks or pit latrines; ventilated improved pit latrines, composting toilets or pit latrines with slabs. Note: 'Toilets" is taken to mean any of these improved facilities.
usable	Toilets are available, functional, and offer privacy: Available to patients, caregivers and staff (toilets are on premises; doors are unlocked or a key is available at all times) Functional (the toilet pan/ squat hole is not blocked, no cracks or leaks in the toilet structure and water is available for flush/pour-flush toilets) Offers privacy (there are closable doors that can be locked from the inside
Dedicated for staff	There are separate toilet stances dedicated for staff use.
Sex-separated with menstrual hygiene facilities	At least one toilet stance is separated for use by women/girls, and has a bin with a lid on it and/or water and soap available in a private space for washing.
Accessible for users with limited mobility	Toilets are considered accessible have handrails for support attached either to the floor or sidewalls, pedestals and ramps.

13.3.3 Basic Hygiene Services:

Proportion of HCFs with functional hand hygiene facilities at critical points of care and within 5 meters of toilets.

Element	Monitoring indicator definition
hand hygiene facilities	A hand hygiene facility is any device that enables staff and patients to clean their hands effectively, such as a sink with tap, water tank with tap, bucket with tap or other similar device. Alcohol based hand rub dispensers are also hand hygiene facilities, whether they are fixed or portable.
functional	A functional hand hygiene facility at points of care must provide either alcohol-based hand rub or soap and water, with the option for healthcare staff to carry a dispenser of alcohol-based rub between care points. At toilets, soap and water must be available within 5 meters, as alcohol-based rub does not effectively remove fecal matter. Chlorinated water is also not a substitute for either soap and water or alcohol-based hand rub
points of care	Points of care are any location in the health care facility where care or treatment is delivered (e.g. consultation/exam rooms).

13.3.4 Basic Health Care Waste Management Services:

Proportion of HCFs where waste is safely segregated at all points of care and sharps and infectious wastes are treated and disposed of safely.

Element	Monitoring indicator definition
Safely segregated in consultation area	Basic health care waste management services involve safely segregating waste at all points of care, with sharps and infectious wastes treated and disposed of safely. Segregation requires at least three clearly labeled or color-coded bins for sharps, infectious, and non-infectious general waste, with bins no more than 75% full and containing only their designated types of waste. Bins should be appropriate for the type of waste, with puncture-proof containers for sharps and leak-proof containers for other wastes, all with lids where necessary.
Treated and disposed of safely	Safe treatment and disposal methods for waste include incineration, autoclaving, and burial in a lined pit, or off-site collection and treatment.

13.3.5 Basic Environmental Cleaning Practices:

Proportion of health care facilities with protocols for cleaning, where staff responsible for cleaning have received training on cleaning procedures.

Element	Monitoring indicator definition
Protocols for cleaning	Protocols should detail step-by-step techniques for specific cleaning tasks, such as cleaning floors, sinks, and spills of blood or body fluids.
Staff with cleaning responsibilities	They should include a cleaning roster or schedule specifying task frequency and cover both non-healthcare providers, like cleaners, and healthcare providers who have cleaning responsibilities alongside their clinical duties.
Training	Training involves structured plans or programs led by qualified trainers or supervisors, and should include Continuous Medical Education (CMEs).

13.4 CORE QUESTIONS FOR HEALTH CARE FACILITY SURVEYS:

These questions are essential for monitoring WASH (Water, Sanitation, and Hygiene) services in HCFs. Presented in five sections: water, sanitation, hygiene, health care waste management, and environmental cleaning. See Chapter 13: National Guidelines for WASH in HCFs in Uganda for respective questionnaires.

13.5 EVALUATION AND MEASURING OUTPUTS

Compare baseline and endline results for the different output indicators to enable tracking improvement overtime. Other evaluations can focus on process and sustainability of the WASH services in HCFs.

13.6 SHARING LEARNINGS

Outcomes of evaluations should be used for Continuous Quality Improvement (CQIs), sharing lessons learnt and best practices, costing and sustainability.

13.7 REPORTING

Section heads should present monthly progress reports to the HCF In-charge, who reports to the HCF Management Committee on a quarterly basis.

13.8 DATA COLLECTION TOOLS AND SOURCES

i) Main Sources: Facility assessment surveys supported by international organizations and national Health Management Information Systems (HMIS).

ii) Common Surveys: Service Availability and Readiness Assessment (SARA), Service Delivery Indicators survey (SDI), Service Provision Assessment (SPA), Preventing Monitoring and Accountability 2020 (PMA 2020), and Emergency Obstetric and Newborn Care assessment (EmONC).

iii) Data Collection: Periodic surveys, either a census or a random sample of health care facilities.

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CHAPTER 14:

REGULATIONS AND COMPLIANCE

14.1 INTRODUCTION

Many guidelines have existed, but implementation has been a significant challenge. The regulations, rules, and by-laws outlined below are designed to facilitate the intended implementation of the WASH in HCFs guidelines. Therefore, it is essential to review all relevant legislation concerning technical teams and task forces to address any duplication of duties.

Effective enforcement of compliance with WASH programs and facilities requires clear regulations that encompass beneficiaries, including healthcare facility staff, patients, caregivers, visitors, and the surrounding community. The objective of this section is to enforce compliance with efficient and effective use of water, sanitation facilities, and good hygiene practices in healthcare facilities.

14.2 REGULATIONS

The Constitution grants the Parliament of Uganda the authority to create and amend Acts, including those related to public health compliance. The Public Health Act, in turn, authorizes the Minister of Health to develop rules and statutory instruments for compliance. Additionally, the Local Government Act enables districts and local councils to establish ordinances and by-laws to guide compliance at the local level.

Effective enforcement of WASH programs requires regulations for HCF staff, patients, caregivers, visitors, and the neighboring community, including rules and bye-laws with consequences for non-compliance.

14.3 RULES

Setting Rules: HCFs, in collaboration with the Ministry of Health and local administration, may establish rules for proper handling and use of WASH facilities, applicable to patients, caregivers, visitors, and HCF workers.

14.4 BY-LAWS AND ORDINANCES

- Constitutional Basis: The 1995 Constitution of Uganda is the supreme law, and any inconsistent laws are overridden by it.
- Decentralization: Local Governments can create bye-laws to address gaps not covered by national laws, specifically for regulating WASH in HCFs, with approval from relevant ministries and authorities.
- The Uganda National Health Policy II (2010) stresses the importance of ensuring that both health service users and providers are aware of their health rights and responsibilities. This is achieved through comprehensive advocacy, communication, and social mobilization programs.
- Professional Councils, including those for Medical and Dental Practitioners, Nurses and Midwives, Allied Health Professionals, and the Uganda Pharmaceutical Society, are responsible for reviewing disciplinary guidelines annually. They must ensure that these guidelines are easily accessible to employees and address any queries or reports of noncompliance with established codes of conduct.

There are eleven fundamental elements of an effective compliance program:

i) Implementing written policies;

ii) Conducting sensitization;

iii) Designating compliance officers and compliance committees to provide program oversight (partly done since IPC committees already exist) Use of due diligence in delegation of authority;

iv) Educating employees and developing effective lines of communication;

v) Holding competitions on identified items;

vi) Conducting internal monitoring and evaluation;

vii) Holding observation weeks;

viii) Offering support for such identified areas of weakness to ensure WASH activities are done (for example if health workers are failing in their duties due to community

ix) insubordination, the Local government, community leadership in collaboration with the health teams may work together to sort such a challenge and later task the immediate family, especially children to offer the relevant support);

x) Enforcing standards through well publicized disciplinary guidelines;

xi) Responding promptly to detect the offences and undertaking corrective action

14.5 HEALTH INSPECTORATE STAFF DAILY ROLES WILL INCLUDE:

i) Administering compliance programs

ii) Staying informed about monitoring and evaluation outcomes

iii) Reporting on compliance enforcement activities

iv) Assessing and reviewing compliance programs

v) Being available and accessible for compliance and ethics-related solutions

14.6 ADDITIONAL RESPONSIBILITIES OF THE WASH /IPC COMMITTEE;

The WASH/IPC Committee, a multidisciplinary team, will report to the Director, Medical Superintendent, or Hospital Administrator through the Health Inspector, based on established reporting lines. The Health Inspectorate staff will serve as the lead compliance officer, and both the WASH/IPC Committee and Health Inspectorate staff will collaboratively oversee WASH-related activities.

14.7 DESIGNATING COMPLIANCE OFFICERS AND COMMITTEES TO PROVIDE OVERSIGHT.

Health Inspectorate staff will serve as Compliance Officers overseeing WASH/IPC activities, with WASH/IPC committees functioning as Compliance Committees. Effective communication and training will be essential, alongside routine internal monitoring and evaluation.

Disciplinary standards will be enforced through clearly published guidelines, and Health Inspectorate staff will work with facility managers and senior management to detect and address offenses promptly

14.8 CONSEQUENCES FOR NON-COMPLIANCE:

Offences of non-compliance with these guidelines may, in case be subject to provisions of the respective professional councils.

Enforcement: Enforcing councils have already been established for legal action as empowered by the Second National Health Policy.

14.9 ENFORCING STANDARDS

Disciplinary guidelines are clearly written but should also specify sanctions for failure to comply with codes of conduct, detect non-compliance, or report issues. They should include clear expectations and consequences for non-compliance.

Things to note:

- The Ministry of Health is responsible for capacity building, healthcare facility assessment, and public health regulation. Relevant departments must educate and train employees on compliance expectations, with comprehensive initial training and annual reviews to address any updates.
- Compliance training should be mandatory, and policies must be developed, reviewed, and updated regularly.
- Additionally, effective communication channels should be established, including anonymous reporting systems to prevent retaliation.


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