MINISTRY OF HEALTH AND SOCIAL WELFARE

National Communication Strategy for Infection Prevention and Control 2012-2017

IPC Table of contents

ii **Foreword**

iii **Acknowledgements**

iv **List of Abbreviations**

1 **Introduction**

The IPC Program in Tanzania – 1

2 **The Role of Communication in IPC**

Rationale for an IPC Communication Strategy – 2

Using the National IPC Communication Strategy – 2

3 **Situation Analysis: Key Issues for IPC Communication in Tanzania**

Hand Hygiene – 3

Personal Protective Equipment (PPE) – 6

Provision of Safe Injections and Reduction in Unnecessary Injections - 6

Occupational Safety and Post-Exposure Prophylaxis (PEP) – 7

Instrument Processing – 8

Health Care Waste Management – 8

Housekeeping – 11

13 **Strategic Communication for IPC**

Individual – 15

Service Delivery – 17

Management – 23

National – 25

27 **National Communication Strategy Framework for Infection Prevention and Control**

29 **Monitoring and Evaluation**

30 **Appendix A**

31 **References**

Foreword

The development of this communication strategy is an important part of the effort to minimize the spread of infection in health facilities and communities in Tanzania. Infections caused by improper hand hygiene, unnecessary injections, lack of use of personal protective equipment and other such factors affect our facilities, clients, providers and the community at large.

The Ministry of Health and Social Welfare with support of other partners, has gone through a process to identify the key social and behavior change communication issues for infection prevention and control (IPC) and outline a strategy to move people toward the intended behavioral outcomes. This strategy is meant to be used by people at all levels – from individual to national – in order to improve the provision of quality health services and reduce the number of hospital-acquired or health care – related infections.

It is my sincere hope that the efforts put forth in the development of this strategy will be put into practice. We all have a key responsibility in infection prevention and control. The approaches addressed in this strategy call for participation by all in the different strata of identified stakeholders. I urge you to make use of this strategy.

The Ministry of Health and Social Welfare is dedicated to supporting the implementation of this IPC communication strategy at all levels of service delivery in Tanzania. With the support of each of you, IPC is ensured at the level of care. The Ministry of Health and Social Welfare would appreciate and accept any additions, suggestions or comments from the users of this guide so as to further enrich the document.

Regina L. Kikuli
Acting Permanent Secretary

Acknowledgements

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We would also like to acknowledge the technical assistance from Jhpiego and the Johns Hopkins Bloomberg School of Public Health Center for Communication Programs for facilitating the communication strategy design process and compiling the strategy. We further extend our sincere appreciation to the Centers for Disease Control and Prevention (CDC) and the United States Agency for International Development (USAID) for their support during the whole process.

Dr. Donan Mmbando
Acting Chief Medical Officer

List of Abbreviations

ACO (CAs)	Assistant Clinical Officer (Clinical Assistant)
AMO	Assistant Medical Officers
BBP	Blood Borne Pathogen
CDC	Centers for Disease Control and Prevention
CHMT	Council Health Management Team
CME	Continuing Medical Education
CO	Clinical Officer
DAS	District Administrative Secretary
DED	District Executive Director
EHO	Environmental Health Officer
HFMT	Health Facility Management Team
GCL	Government Chemist Laboratory
HAI	Health Care-Associated Infections
HCF	Health Care Facility
HCW	Health Care Worker
HCWM	Health Care Waste Management
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IEC	Information, Education and Communication
IPC	Infection Prevention and Control
IS	Injection Safety
MMIS	Making Medical Injections Safer
MoHSW	Ministry of Health and Social Welfare
MSD	Medical Stores Department
NACP	National AIDS Control Program
NMCP	National Malaria Control Program
NSI	Needle Stick Injury
OPD	Outpatient Department
PHCF	Primary Health Care Facility
PPE	Personal Protective Equipment
PEP	Post Exposure Prophylaxis
QIT	Quality Improvement Team
RAS	Regional Administrative Secretary
RHMT	Regional Health Management Team
SCF	Stakeholders' Coordination Forum
SOP	Standard Operating Procedure
SSI	Surgical Site Infection
TFDA	Tanzania Food and Drug Authority
USAID	United States Agency for International Development
WEO	Ward Executive Officer
WIT	Work Improvement Team
WHO	World Health Organization

Introduction

The IPC Program in Tanzania

Tanzania, like other developing countries, faces the critical challenge of preventing health-care associated infections (HAIs). Though data on the magnitude of HAIs in Tanzania are limited, the summary by the World Health Organisation (WHO) puts Tanzania's HAI prevalence at 14.8%[8], and surgical site infections (SSI) have been shown to be as high as 40% in one medical ICU.[13]

As such, infection prevention and control (IPC) has received increased attention in the efforts to improve the quality of health care. Over the past two decades (1990 – 2010), the Health Sector in Tanzania has undergone a number of organizational, institutional, managerial and infrastructural reforms aimed to improve the quality and safety of healthcare services delivered to its citizens. The Health Services Inspectorate Unit was incorporated into the Ministry of Health and Social Welfare (MoHSW) in 1998, and has made significant strides in its mission to reduce the burden of HAIs.

The program has stated the following as its program objectives:

1. To strengthen the capacity of healthcare workers in the area of IPC practices;
2. To ensure availability of Personal Protective Equipment (PPE), supplies, injection safety devices and related commodities at trained sites;
3. To develop and implement advocacy and behavior change strategies to improve IPC practices at trained sites;
4. To establish a sustainable healthcare waste management system;
5. To promote Public-Private Partnerships and implement a global communication and advocacy strategy to leverage and coordinate support for IPC; and
6. To strengthen capacity of the National IPC Program of the Ministry of Health and Social Welfare to manage, coordinate and supervise IPC activities in the country.

The majority of these objectives have been addressed through the development and implementation of various policies, procedures and guidelines, including:

- National IPC Guidelines & Pocket Guides
- Quality Improvement – IPC Orientation Guide for Participants
- National IPC Standards
- National Health Care Waste Management (HCWM) Policy Guidelines
- HCWM Standards and Procedures
- HCWM Monitoring Plan
- National Catalogue for HCWM Equipment and Facility Options

The complete list of these quality improvement documents can be found in Appendix A. The purpose of the present document is to address program objective number 3: the development and implementation of advocacy and behavior change strategies to improve IPC practices at all sites.

The Role of Communication in IPC

Rationale for an IPC Communication Strategy

Thus far, Tanzania's IPC program has focused primarily on health care workers. However, several other types of individuals and institutions have the potential to influence Tanzania's IPC situation. A communication strategy is a way to examine all of these audiences, determine their barriers and facilitators to behavior change, identify their key communication objectives and establish a plan for change.

Furthermore, it has been well established in the social and behavior change communication literature that knowledge alone is not enough to result in behavior change. This holds true in the IPC literature, as well: a recent study in Tanzania found that 65% of health care workers were aware of one of three IPC-related protocols/guidelines, however; only 21% had ever used the injection safety protocols, and only 15% had used the health care waste management protocols [23].

Several communication-related factors have the potential to influence one's behavior, including, but not limited to: attitudes about the behavior, belief in one's ability to successfully carry out the behavior (self-efficacy), social norms, skills and others. Each of these barriers and facilitators requires analysis and critical reflection in order to determine how best to impact behavior.

Using the National IPC Communication Strategy

Communication strategies can be developed on any number of levels – on a national level, for an institution or organization, for a specific project or campaign or even for a particular activity. As a national strategy, this document is meant to guide the efforts of all partners and stakeholders carrying out work in the area of IPC in Tanzania.

This strategy is intentionally inclusive to allow for the wide range of IPC activities being carried out throughout the country. It is simultaneously precise in its delivery of detailed message content. The goal in providing a set of nationally approved messages is to harmonize the information disseminated on IPC, thereby avoiding the need to reinvent the wheel and making it easier for partners to efficiently and effectively deliver IPC communication programs.

It is the hope of the MoHSW that all initiatives implemented on IPC fit within the context of this national strategy, be they initiatives through MoHSW itself, donor-funded projects, medical training institutions, Regional Health Management Teams (RHMT), Council Health Management Teams (CHMT), or individual hospitals, health centres and dispensaries. Furthermore, we urge implementers to commit the resources necessary to bring this strategy to life.

Situation Analysis:

Key Issues for IPC Communication in Tanzania

Data available from review of literature demonstrate challenges in improving healthcare safety, especially in areas of: *hand hygiene, use of Personal Protective Equipment (PPE), reduction in unnecessary injections, occupational exposures and post-exposure prophylaxis (PEP), instrument processing, healthcare waste management (HCWM), and housekeeping*. Training of health workers has been the mainstay of focus to address the above challenges in Tanzania so far, coupled with procurement of equipment and supplies. We now aim to expand the scope of the IPC program by addressing these key issues through communication interventions. The status of each challenge is discussed below.

Hand Hygiene

Proper hand hygiene prevents hand-borne infections by removing dirt and debris and inhibiting or killing microorganisms on the skin. The importance of hands in the transmission of healthcare-associated infections (HAI) is a very well known phenomenon, and can be significantly minimized with use of appropriate hand hygiene techniques. These include hand washing with soap and water, antiseptic hand wash, antiseptic/alcohol hand rub, and surgical hand antisepsis or surgical hand scrub.

Optimal hand hygiene requirements are as follows:

For hand washing:

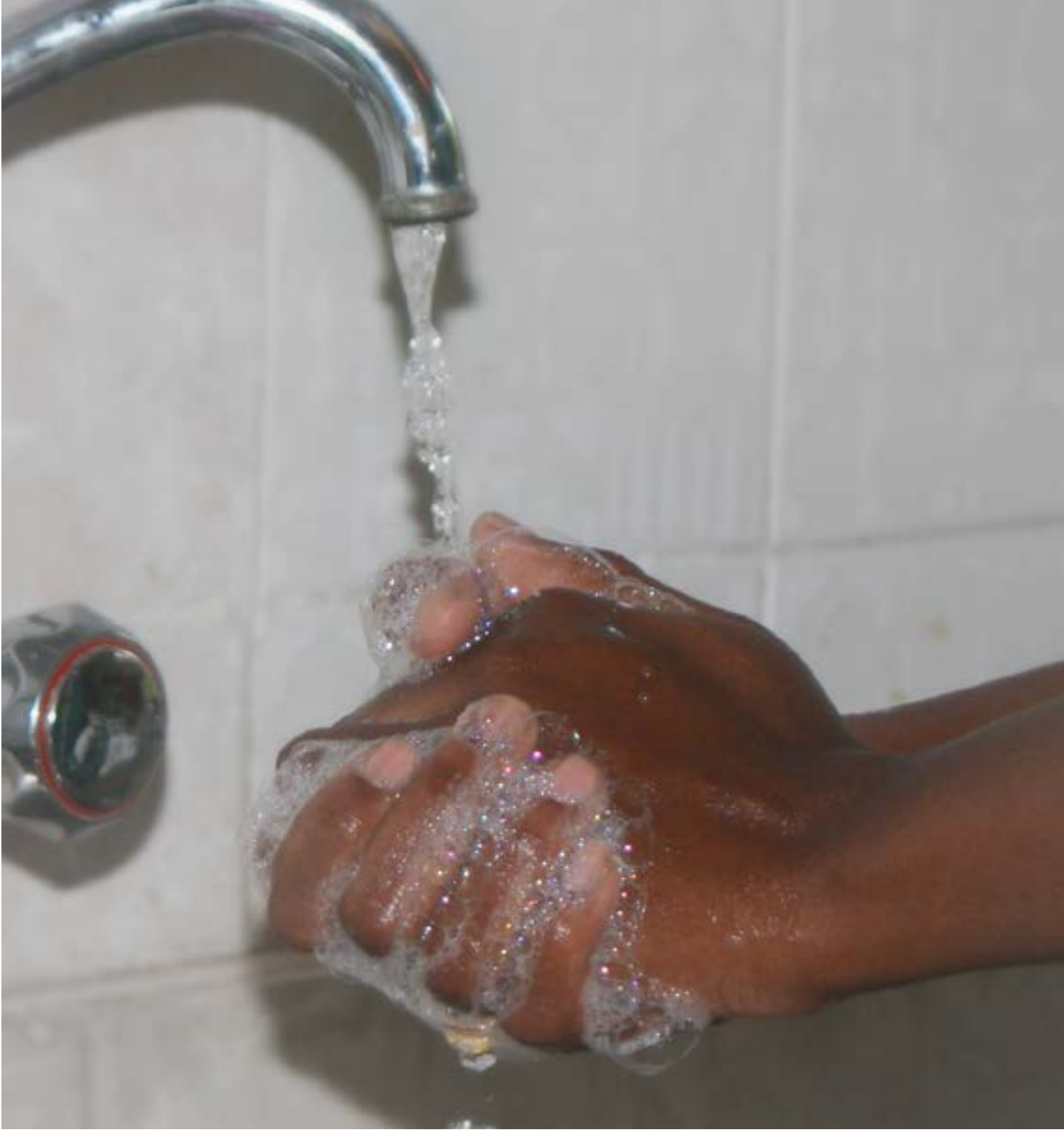
- **Running water:** Could be from running tap water, a bucket with a tap or a bucket/basin and a pitcher. Elbow operated hand taps are preferred.
- **Products:** Soap or antiseptic, depending on the procedure.
- **Drying of hands:** With paper towels, single use towels or air dryers as appropriate.

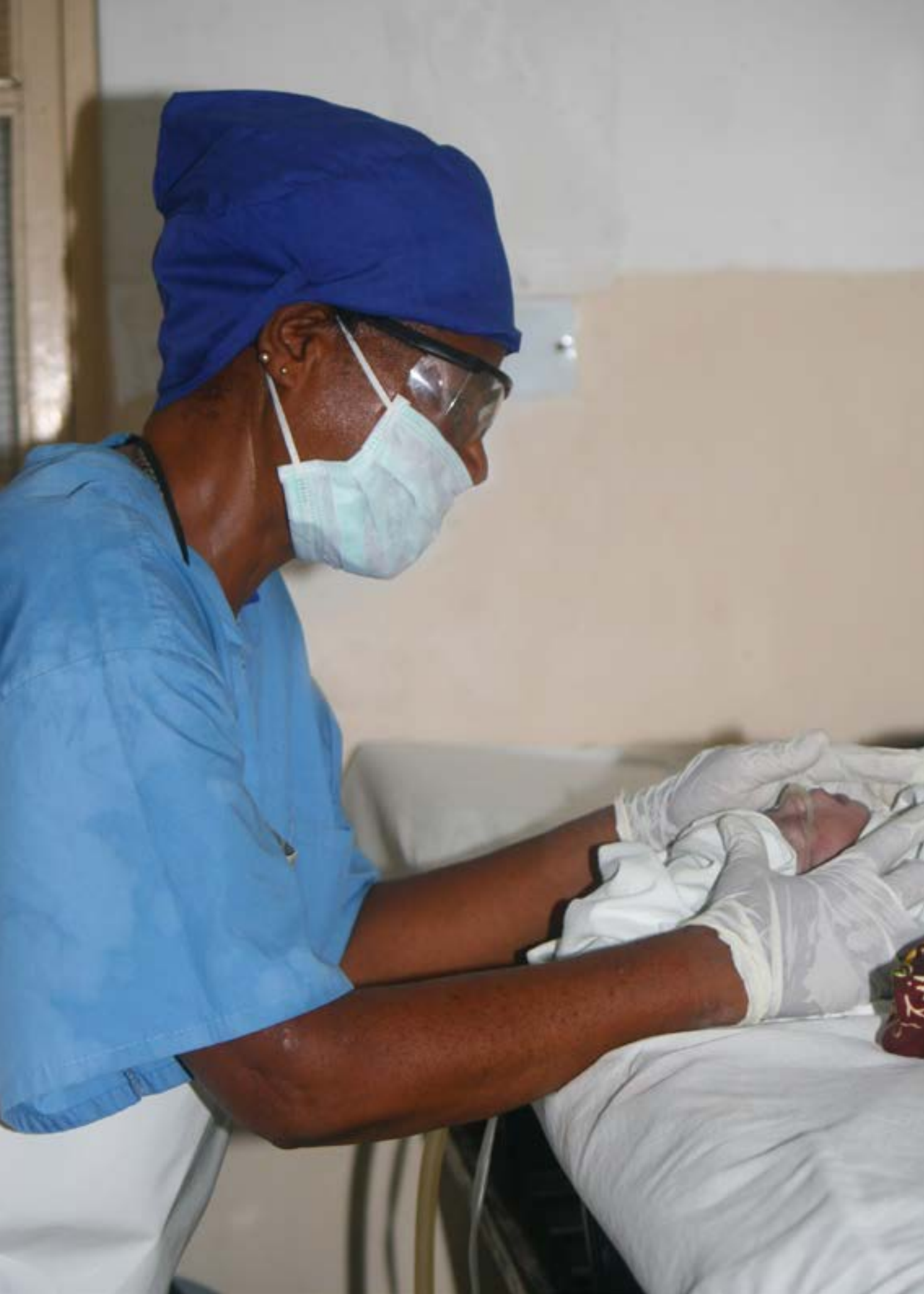
For hand disinfection:

- **Specific hand disinfectants:** Alcoholic rubs with antiseptic and emollient gels, which can be applied to physically clean hands.

While data on hand hygiene in Tanzania is limited, a study of seven Making Medical Injections Safe (MMIS) intervention facilities observed that injection providers washed their hands with soap and running water or with an alcohol-based sanitizer in only 33% of injections observed during the 2005 baseline. This improved to 52% at the post-intervention follow-up in 2007 – a statistically significant improvement ($P<0.01$), but still an inadequate percentage [24].

Availability of running water is a significant challenge in health facilities across Tanzania. In 2006, running water was available in 38% of all health facilities assessed in maternal and child health, and reproductive health services delivery sites [2]. In Mwanza Region, a study in 1993 reported that for the 9 hospitals studied, running water was present in: 33% of wards, 44% of Out-Patient Department (OPD), 33% of labor rooms, 22% of laboratories, and 36% of theatres. This shows little improvement on availability of water supply in the past two decades.





Personal Protective Equipment (PPE)

Protective barriers, now commonly referred to as personal protective equipment (PPE), have been used for many years to protect patients from microorganisms present on staff working in healthcare settings. More recently, with the emergence of HIV/AIDS, Hepatitis B and C infections, and the resurgence of tuberculosis in many countries, use of PPE now has become important for protecting staff as well. When used effectively and efficiently, PPE has the added factor of preventing the transmission of healthcare-associated infections. Various types of PPE include; gloves, masks/respirators, eyewear (face shields, goggles or glasses), caps, gowns, aprons and other items.

Although the availability and appropriate use of PPE by health care workers is one of the key elements of standard precautions, inadequate budgets have left health facilities faced with the challenge of a constant supply, while numerous other factors contribute to their inconsistent use even when available. A study conducted in Ilala in 2010 [4] revealed that availability of PPE was low: plastic aprons, boots, and heavy-duty gloves were available in 10%, 25% and 40% of the primary health healthcare facilities (PHCF) surveyed in Ilala Municipality, respectively. A 2010 study about occupational exposures found that 64% of prescribers and nurses reported that they did not have access to protective eyewear. Among those who did, however, less than 7% reported 'always' wearing protective eyewear when at risk of spraying or splattering, while 20% reported that they 'never' use this form of PPE [23].

Data on glove use are also concerning. In the same study, among those who had access to gloves, only 53% of respondents reported 'always' wearing gloves when in direct contact with blood, and only 58% during phlebotomy. Only 50% of respondents said that they 'always' use patient gloves only once and then discard.

Provision of Safe Injections and Reduction in Unnecessary Injections

Unsafe injection practices are increasingly recognized as a major source of infection with blood-borne pathogens (BBP). With an estimated 9-19 injections prescribed per person per year in Tanzania, it is crucial to ensure we are reducing any unnecessary injections, and safely providing those that are warranted.

A safe injection is defined as one that does not harm the recipient, does not expose the provider to any avoidable risks and does not result in waste that is dangerous for the community. Recent data encouragingly show that use of a new, unopened package for each injection is approaching universal level countrywide; about 98% of female respondents who reported to have received medical injections during the Demographic and Health Survey 2010 said their recent injections were given with a syringe from a new, unopened package [17]. Despite the high level achieved, there still remains a challenge to address the remaining 2% of possible unsafe medical injections.

Furthermore, injections remain a preferable treatment mechanism, even when they are not necessary; even when comparable oral medications are available, providers and clients will choose injections. A 2009 MMIS study found that anywhere from 12%-24% of cases were prescribed unnecessary medical injections [25]. Providers said that at least two out of every ten patients who are not prescribed an injection will request one – and 2/3 of providers said they would most likely comply with the request.

Reducing the overall number of injections being administered reduces the risks associated with unsafe injections. There is a need to educate both healthcare providers and the general population on alternative options to injections in order to change behaviors.

Occupational Safety and Post Exposure Prophylaxis (PEP)

Occupational safety of health workers has been an issue on agenda in this era of HIV/AIDS, due to possible exposure to the virus and other blood borne pathogens through Needle-Stick Injuries (NSIs), splashes of blood and other body fluids, and other exposures. Needle pricks have been reported among health workers in Tanzania in some studies [6, 7]. A 2010 MMIS study found that over 70% of Tanzanian health care workers have experienced a needle stick injury (NSI) and/or splash while on duty and over 30% had at least one exposure in the 6 months before the survey [23]. A study carried out in 2006 [7] in 14 hospitals reported that 52.9% of injuries were caused by NSIs.

Post Exposure Prophylaxis (PEP) is generally understood to mean the medical response to prevent the transmission of blood-borne pathogens – including HIV – following exposure to blood and other body fluids [26]. In order to reduce the risk of infections following exposure to blood and body fluids, exposed individuals need to be promptly initiated on PEP medications, i.e. antiretroviral drugs for preventing HIV infection, and Hepatitis B vaccine and Hepatitis B immunoglobulin for preventing Hepatitis B infection. PEP should be initiated immediately after receiving first aid, which includes rinsing the exposed part of the body with running water. For effectiveness and efficiency of PEP management, the exposed individuals need to report the event immediately and start PEP within 2 hours and not later than 72 hours post-exposure.

In the 2010 MMIS study, 69% of supervisors said that there was an institutional procedure for reporting occupational exposures [23]. Occupational exposures, however, seem to be rarely reported. Only 39.6% of NSIs and 13.4% of splashes in the six months prior to the survey were reported by health care workers. Among those who do report, however, most appear to do so within the first 4 hours (80% of those experiencing NSIs and 90% of those experiencing splashes).

The top reasons for not reporting occupational exposures include: not having a system or policy for reporting, not knowing to whom or where to report and thinking it is not a serious exposure. Other common barriers include: the belief that reporting will not help or that management would not take any action, being too busy to report, the patient being HIV-negative, PEP drugs and/or services not being available, that it happens too often to report, or that they forgot. Factors that motivated health workers to report exposures included feeling that reporting it would be beneficial to them, wanting to receive the PEP regiment, wanting to receive compensation and encouragement from a co-worker.

Instrument Processing

Proper processing of contaminated instruments and other items that will be reused in clinical procedures is critical for reducing infection transmission to clients. All contaminated reusable instruments in Tanzania must be processed according to the National IPC Guidelines; first decontaminated using authorized chemical reagents, thoroughly cleaned with soap and water, and then rinsed with clean water. Depending on how critical the clinical procedure to be carried out is, cleaned instruments will either be sterilized or high level disinfected (HLD). Thereafter, all instruments need to be stored in a dry and clean place so as to prevent contamination. Furthermore, all staff handling the decontaminated equipment need to wear appropriate PPE at all times so as to avoid exposure to blood-borne pathogens.

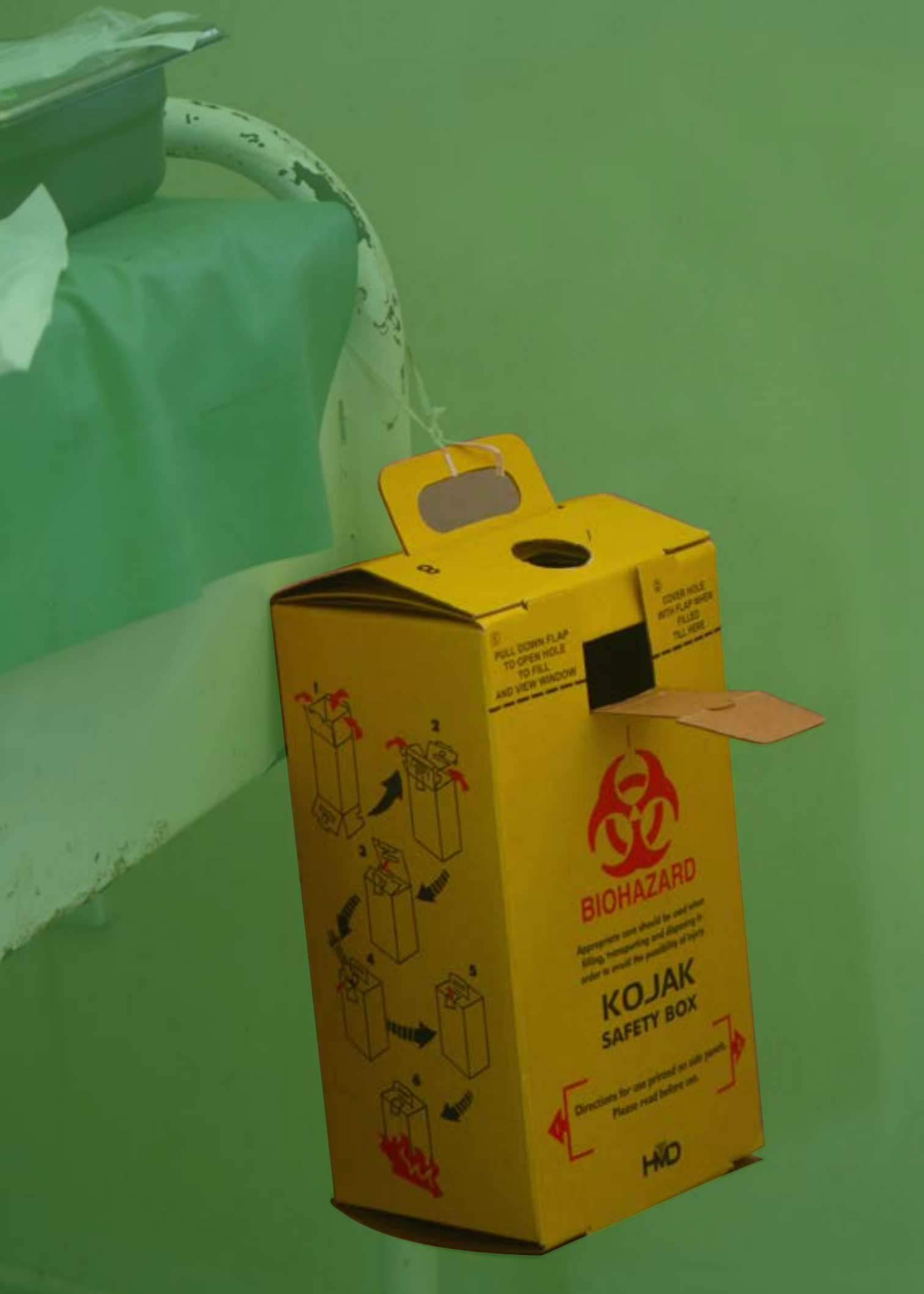
The presence of written guidelines or protocols outlining these procedures for instrument processing and storage, however, is low [2]. The percentage of health facilities with written guidelines or protocols in 2006 was less than a quarter for primary health facilities, 63% for hospitals, 22% for health centers, and 11% for dispensaries. More than half (52%) of health facilities that had processed items on the day of survey during the 2006 assessment did not store the items under sterile or HLD conditions.

Additionally, the Service Availability Mapping of 2005-2006 [1] revealed that many health facilities in surveyed districts (rural and urban) used boiling pot (a method of HLD) to sterilize instruments instead of autoclave or dry-heat oven. The lack of appropriate sterilization equipment was more severe in rural than urban districts. In urban districts, about 30% of health facilities in Temeke (Dar es Salaam), 54% of health facilities in Ilemela (Mwanza), and 55% of health facilities in Kibaha (Pwani) used boiling pots to process instruments. In rural districts, 94% of health facilities in Kwimba, 85% in Magu, 96% in Sengerema and 54% in Ilemela used boiling pots to process instruments.

Health Care Waste Management

Safe management of healthcare waste reduces the risk and burden of healthcare-associated infections both inside health facilities and in the outside environment. Waste from hospitals and health facilities can either be contaminated thus potentially infectious, or non-contaminated, therefore posing no risk when contacted. Approximately 85% of the general waste produced by hospitals, clinics and other health facilities is non-infectious. The remainder, however, is hazardous, and its improper disposal can be detrimental to the health of the waste handlers, patients, clients and the community at large. In order to reduce the risk of transmission, facilities need to have proper waste management strategies, including:

- Minimization of the quantity of healthcare waste generated by the healthcare facility HCF,
- Segregation and identification of hazardous healthcare waste from non-hazardous healthcare waste,
- Adequate packaging and safe storage of the different types of healthcare waste, and
- Proper treatment and disposal of hazardous and non-risk healthcare waste (intentional burial, deposit, discharge dumping, placing or release of any waste material into the air, or on land or water. Disposal is undertaken without the intention of retrieval).


PULL DOWN FLAP
TO OPEN HOLE
TO FILL
AND VIEW WINDOW
COVER HOLE
WITH FLAP WHEN
FILLED
TILL HERE
BIOHAZARD
KOJAK
SAFETY BOX
Directions for use printed on side panels.
Please read before use.
HMD

Health facilities, however, lack adequate systems for disposal of infectious waste, including sharps. In 2006, less than 50% of all health facilities had an adequate system for disposal of infectious waste (Table 1) [2]. A study in hospitals in eight regions between 2003 and 2005 showed several weaknesses in medical waste management [3]. There was low incineration capacity, low knowledge on medical waste among staff, and use of untrained casual laborers to handle medical waste. About 71% of hospitals transported dustbins from generation points to incinerator sites without plastic bag liners. The main disposal methods in the hospitals were burning (50%) and burying (30%) of waste.

Table 1: Infectious and sharps waste disposal by type of facility in 2006 [2]

Type of health facility	% with adequate disposal system for infectious waste	% with adequate system for disposal of sharps waste
Hospital	48	53
Health Centre	34	34
Dispensary	26	28

Primary Health Care Facilities (PHCFs) have been shown to have inadequate capacity for management of health care waste, even in urban districts. A study conducted in Ilala in 2010 [4] revealed that segregation of sharps from other infectious waste was carried out by only 37% of the health facilities assessed.

The study also found rampant needle and syringe manipulation. Among the PHCFs surveyed, only 33% had the entire syringe with needle collected in a puncture and leak-proof container.

Sharps disposal facilities were inadequate: e.g., about three-fifths (59%) of PHCFs had improvised sharps waste containers; 57.8% of health workers carried waste by hands instead of using special trays; and on-site incinerators (of poor design, with short and rusted chimneys and without automatic flame burners) were available in 39.3%.

Another 2010 study, on the other hand, found that 87% of health care workers reported that safety boxes or sharps containers were always available [23]. Only 62%, however, said that the safety containers in use were always puncture-resistant; an additional 31% said they were usually puncture-resistant. Half of the health care workers said that safety boxes were always within an arm's reach.

That said, 23.1% of the NSIs occurring in the six months before the survey occurred while the HCW was handling waste, including while transporting, cleaning, or washing dirty linens; when the sharps were protruding from a trash bag; when the sharps were left near the disposal container; and where sharps were protruding from the opening of the disposal container. As the researchers concluded, improper waste disposal clearly contributes to needlessly placing HCWs at risk of accidental sharps injuries - injuries that could easily be prevented.

Furthermore, policies and protocols are usually not available. Waste management guidelines were found in only 4% of the facilities in the Ilala study, while only 3.7% of PHCFs that had written instructions for handling of sharps waste had the instructions available. A study published in 2009 found a slightly higher though still troubling presence of waste management guidelines, 18% of supervisors reported having a copy of the guidelines at follow-up, a small increase from the 17% that reported having them at baseline [24].

Factors affecting medical waste management in PHCFs include, lack of standard operating procedures (SOP), lack of special trolleys for waste transportation, poor adherence to waste segregation and colour coding, low-capacity incinerators with poor construction and engineering design, unfenced disposal sites in close proximity to human settlements, too-small waste storage areas, and low awareness among health workers [5].

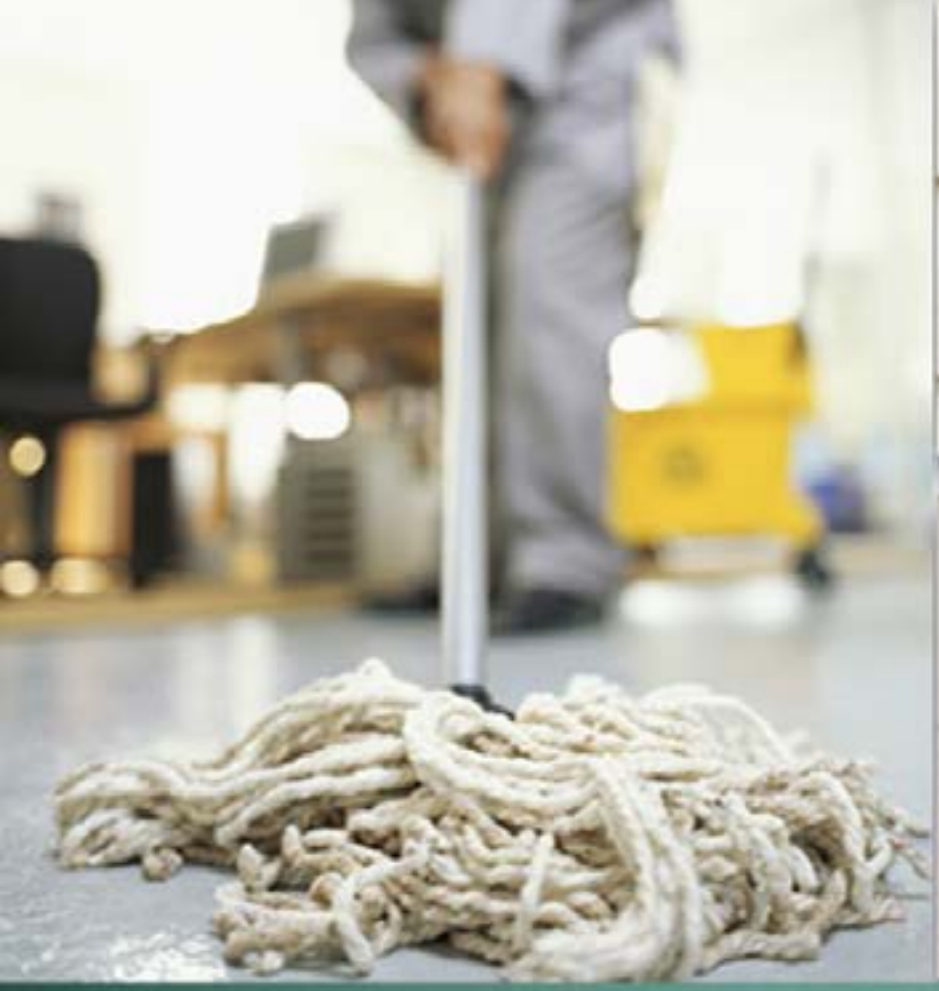
These practices require sufficient resources and infrastructure to make the processes smoother, as well as highly knowledgeable, skillful and motivated staff. In addition, the users of health services and the surrounding community need to be well informed about the risks of improperly disposed of healthcare waste.

Housekeeping

Housekeeping refers to the general cleaning of hospitals and clinics, including the floors, walls, certain types of equipment, tables and other surfaces. The purpose of general housekeeping is to:

- Reduce the number of microorganisms that may come in contact with patients, visitors, staff and the community; and
- Provide a clean and pleasant atmosphere for patients, relatives and staff.

Staff responsible for housekeeping need to ensure that the process is done properly, in a timely fashion and using MoHSW recommended disinfectants/detergents. Dry mopping and sweeping are strongly discouraged as they can exacerbate airborne pathogens. Furthermore, patients/clients need to be educated so they can cooperate in maintaining the cleanliness of the facilities.



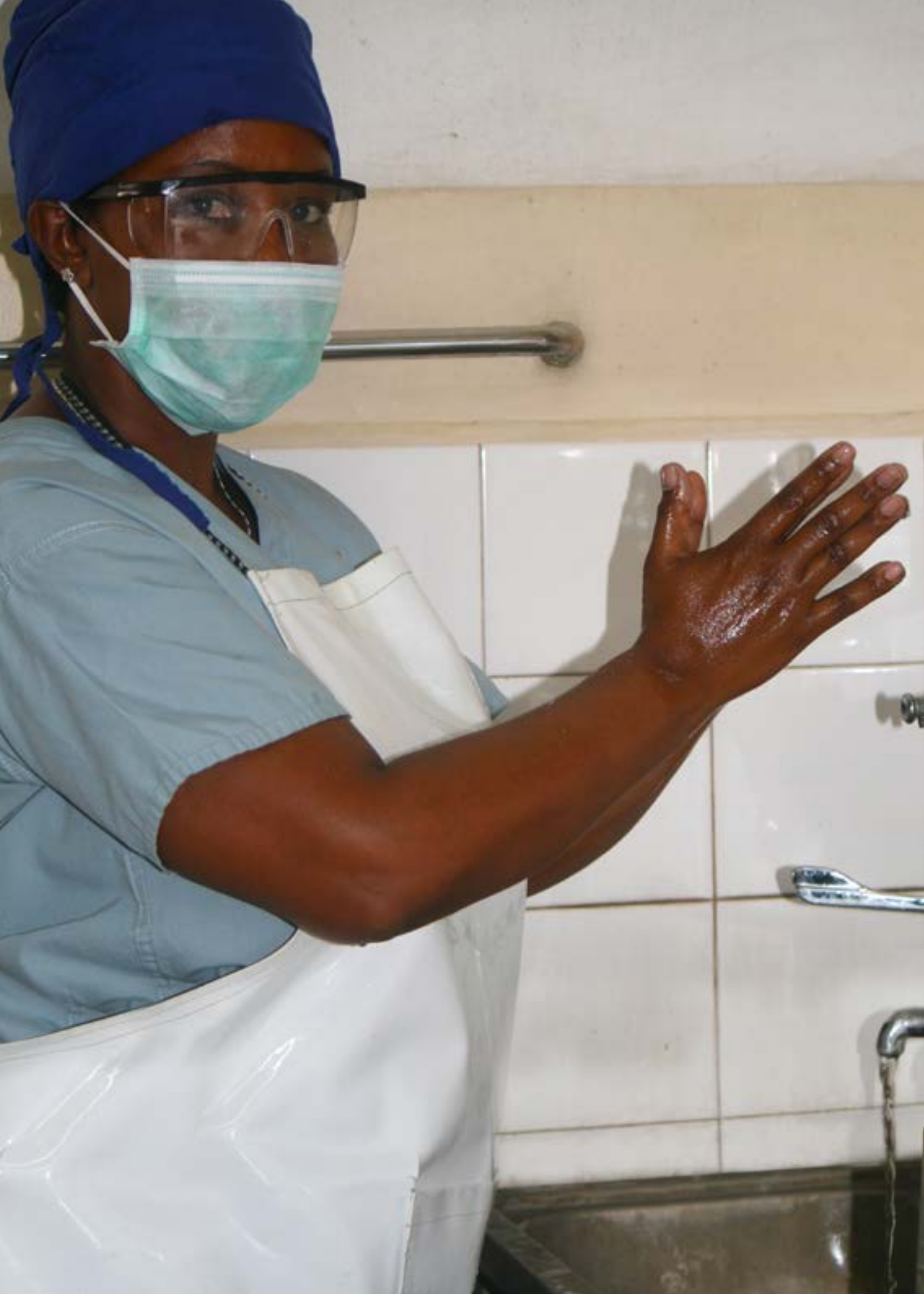
Strategic Communication for IPC

Goal

The overarching goal of this communication strategy is for health care workers in Tanzania to provide safe, effective, quality health care services sustained by supportive policies, adequate budgets and empowered Tanzanians who seek and demand these services.

Audience Analysis and Communication Strategy

This communication strategy targets audiences at the individual, service delivery, management and national levels. The members of the target audience, their communication objectives, barriers and benefits to behavior change, key message content and recommended channels of communication are outlined for each level in the following tables.



Level	Individual
Target Audience	Clients Caregivers
Communication Objectives	**To increase the proportion of clients and caregivers who:** • Know it is possible to get an infection from a health facility while being treated for something else • Know that hand hygiene prevents infections • Believe that providers should perform proper hand hygiene between each client • Practice proper hand hygiene • Ask providers to wash their hands before seeing a client **To reduce the proportion of clients and caregivers who:** • Believe an injection is more effective than other types of medication • Request unnecessary medical injections
Barriers	• Lack of familiarity with IPC • Feel "safe" in a health facility setting; do not realize it is possible to acquire an infection in a health facility • Cultural norm of not questioning the health worker; health workers are perceived as the experts • Lack of empowerment in the health facility setting • Belief that you are getting better service if you receive an injection • Belief that injections lead to a faster recovery
Facilitators	• Reduce infections caused by improper hand hygiene • Reduce costs of treating infections caused by improper hand hygiene • Reduce community burden on spending more time in hospital instead of development activities
Key Message Content	**Hand Hygiene** • It is possible to get an infection from a health facility when being treated for something else if proper procedures are not followed. • Practicing proper hand hygiene is one of the best ways to prevent infections. • Clients and caregivers should clean their hands: — Before eating, preparing food or feeding a baby or child — After using the toilet or cleaning a baby's bottom — After coughing or sneezing • Providers and caregivers should wash their hands before and after coming in contact with a patient and after any situation in which hands may become contaminated. • Proper hand hygiene involves washing with soap or water or using an alcohol-based hand rub. • To properly wash hands with soap and water: — Wet hands — Apply soap — Rub all areas of hands and fingers together for at least 15 seconds, paying attention to fingernails and between fingers — Rinse hands with clean water — Dry hands with a clean cloth • Clients have a right to safe services at their health facilities. • Clients should ask providers if they have washed their hands before they come in contact with the client. **Unnecessary Injections** • Patients do not always need an injection when they are sick. • Sometimes it can be dangerous to have an injection when it is not needed. • Most of the time other types of medication are as effective or more effective than injections. • Avoid getting an injection if you do not need one. **Housekeeping** • Clients and caregivers are also responsible for maintaining the cleanliness of facilities.

Level	Individual
Channels	Community outreach Clinic materials (e.g. posters) Client materials (e.g. brochures, leaflets) Radio and TV programs, spots Newspapers Electronic media

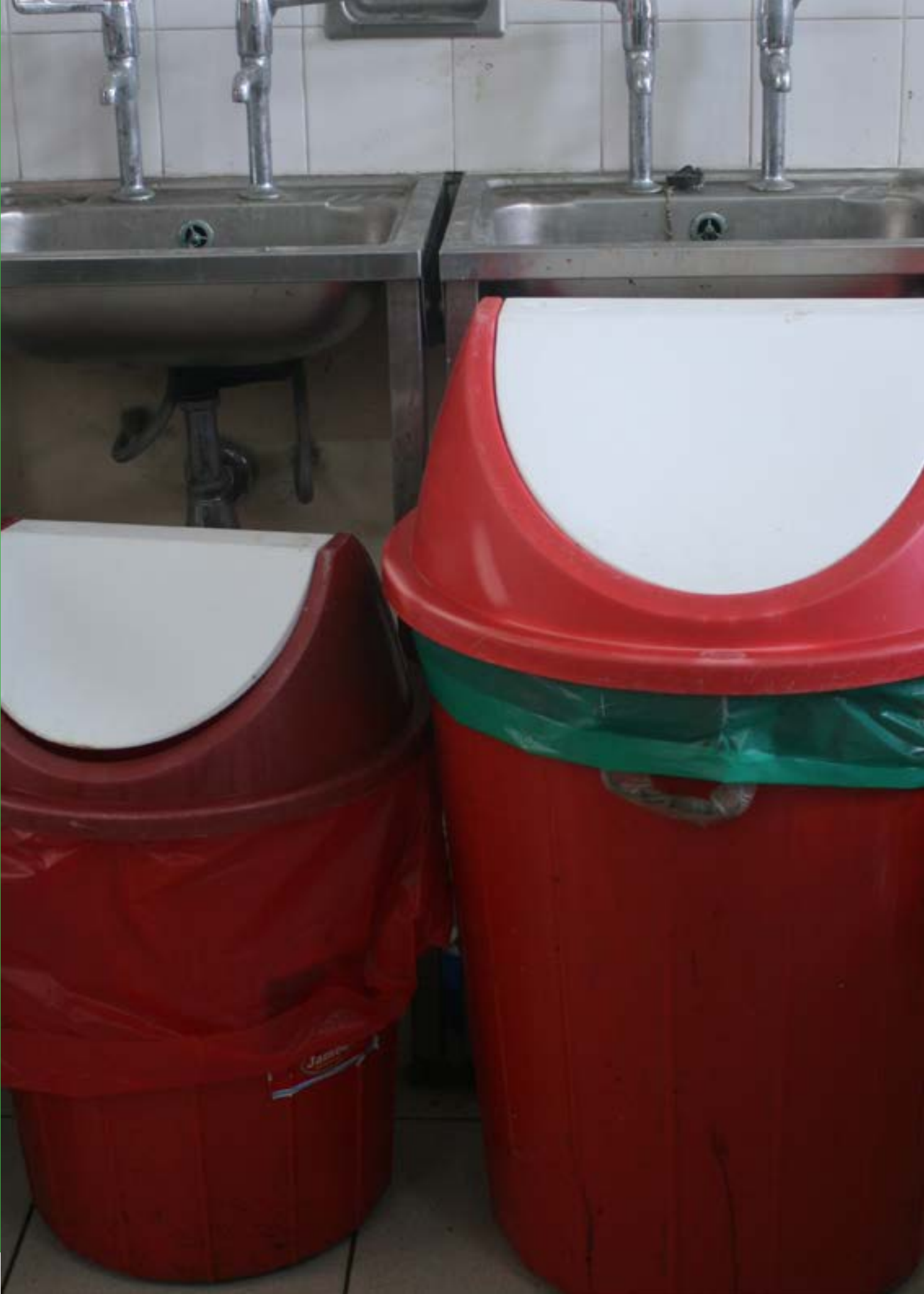
Level	Service Delivery
Target Audience	Clinicians (Doctors, AMOs, COs, ACOs) Nurses
Communication Objectives	**To increase the proportion of clinicians and nurses who:** • Know the national IPC guidelines • Believe that clients deserve safe services • Believe it is their responsibility to provide safe services • Practice proper hand hygiene • Wear appropriate PPE whenever they are at risk of contact with contaminated materials or blood and body fluids • Follow PEP procedures if exposed to blood or other body fluids • Process instruments appropriately • Dispose of medical waste and sharps appropriately • Encourage peers to follow the national IPC guidelines **To reduce the proportion of clinicians and nurses who:** • Administer unnecessary medical injections
Barriers	• Fatalism, belief in inevitability of accidental exposure • Lack of concern/awareness and misinformation about potential exposure to BBPs other than HIV • Lack or inaccessibility of supplies and personnel • Perception of poor quality of supplies • Lack of motivation to follow IPC guidelines • Forgetfulness, carelessness and/or haste • Attribute risk to actions of others not self • Consider it the duty of patients to provide needles and syringes • Perceived expectation that HCWs should address patients' needs over their own protection
Facilitators	• Cognizance of their high-risk work environment • Knowledge of patient's HIV status • Inherent risk of procedure regarding exposure to BBPs, particularly HIV • Belief that having fewer infections can reduce workload • Reduce the providers' risk of infection • Reduce infection to their clients
Key Message Content	**Preventing injuries and exposure to infectious agents is mandatory** **PPE** • There is a lot you can do to prevent being infected by a BBP. It is not inevitable. • You are responsible for your safety as well as the safety of the patients. • All staff should wear appropriate PPE prior to contact with blood, body fluids, secretions or excretions from any patient/client. • A separate pair of gloves must be used for each patient/client to avoid cross-contamination. • Caps, masks or drapes made from paper should never be reused because there is no way to properly clean them. If you can't wash it, don't reuse it. **Hand hygiene** • Hand hygiene should be done before direct contact with a patient/client and before putting on sterile surgical gloves or examination gloves. • Hand hygiene should be done after handling soiled instruments, touching mucous membranes, blood or other body fluids, having prolonged or intense contact with a patient and after removing gloves.

Level	Service Delivery
	HCWM • Dispose of all sharps in a yellow puncture-resistant container. This includes needles and syringes, blades, broken glass, lancets, scissors, broken ampoules, slides and slide covers, etc. • Do not fill sharps containers more than ¾ of the way full. • Dispose of all wet, infectious materials in red containers. This includes blood, body tissues, body fluids, stool and sputum specimens, placentas, wet dressings, catheters, blood infusion bags, etc. • Contaminated waste must be incinerated, burned or buried in designated contaminated/ hazardous waste areas. • Dispose of non-infectious materials in a blue or black container. Non-infectious materials include office papers, pharmaceutical packaging, plastic bottles, food remains, trash, etc. **PEP** **If you are exposed to blood or other body fluids:** • Wash the exposure site with soap and water as soon as possible. Flush mucous membranes with clean water. Flush exposed eyes with a liter of clean water or normal saline solution. • Get a tetanus immunization or booster for a needle stick if it has been more than 10 years since immunization. • Report the accident to a senior work supervisor immediately. File an injury report as soon as possible. • Initiate PEP within two hours and not more than 72 hours after exposure. **Instrument processing** • Key steps in instrument processing according to the national IPC guidelines **Safe injections** • Use each needle and syringe only once • Administer injections only if absolutely necessary
Channels	IPC contests Peer education Peer and facility recognition Supportive supervision Badges, stickers, visual cues Training with training videos Job aids, posters, low literacy SOPs TV and radio programs Newsletters/bulletins

Level	Service Delivery
Target Audience	Pharmacy, laboratory and radiology personnel
Communication Objectives	**To increase the proportion of pharmacy, laboratory and radiology personnel who:** • Believe that clients deserve safe services • Believe it is their responsibility to provide safe services • Understand that following IPC guidelines protects not just clients but themselves as well • Practice proper hand hygiene • Wear appropriate PPE whenever they are at risk of contact with contaminated materials or blood and body fluids • Follow PEP procedures if exposed to blood or other body fluids • Dispose of medical waste appropriately • Encourage peers to follow the national IPC guidelines • Process instruments/equipment appropriately
Barriers	• Lack or concern/awareness and misinformation about potential exposure to BBPs other than HIV • Lack or inaccessibility of supplies and personnel • Lack of motivation to follow IPC guidelines • Forgetfulness, carelessness and/or haste
Facilitators	• Cognizance of their high-risk work environment • Reduce own risk of infection • Reduce infection to their clients
Key Message Content	**HCWM** • Dispose of all sharps in a yellow puncture-resistant container. This includes needles and syringes, blades, broken glass, lancets, scissors, broken ampoules, slides and slide covers, etc. • Do not fill sharps containers more than ¾ of the way full. • Dispose of all wet, infectious materials in red containers. This includes blood, body tissues, body fluids, stool and sputum specimens, placentas, wet dressings, catheters, blood infusion bags, etc. • Contaminated waste must be incinerated, burned or buried in designated contaminated/ hazardous waste areas. • Dispose of non-infectious materials in a blue or black container. Non-infectious materials include office papers, pharmaceutical packaging, plastic bottles, food remains, trash, etc. • Wear gloves when handling samples. **Hand hygiene** • Hand hygiene should be done before direct contact with a patient/client and before putting on sterile surgical gloves or examination gloves. • Hand hygiene should be done after handling soiled instruments, touching mucous membranes, blood or other body fluids, including lab samples, having prolonged or intense contact with a patient and after removing gloves. **PEP** **If you are exposed to blood or other body fluids:** • Wash the exposure site with soap and water as soon as possible. Flush mucous membranes with clean water. Flush exposed eyes with a liter of clean water or normal saline solution. • Get a tetanus immunization or booster for a needle stick if it has been more than 10 years since immunization. • Report the accident to a senior work supervisor immediately. File an injury report as soon as possible. • Initiate PEP within two hours and not more than 72 hours after exposure.

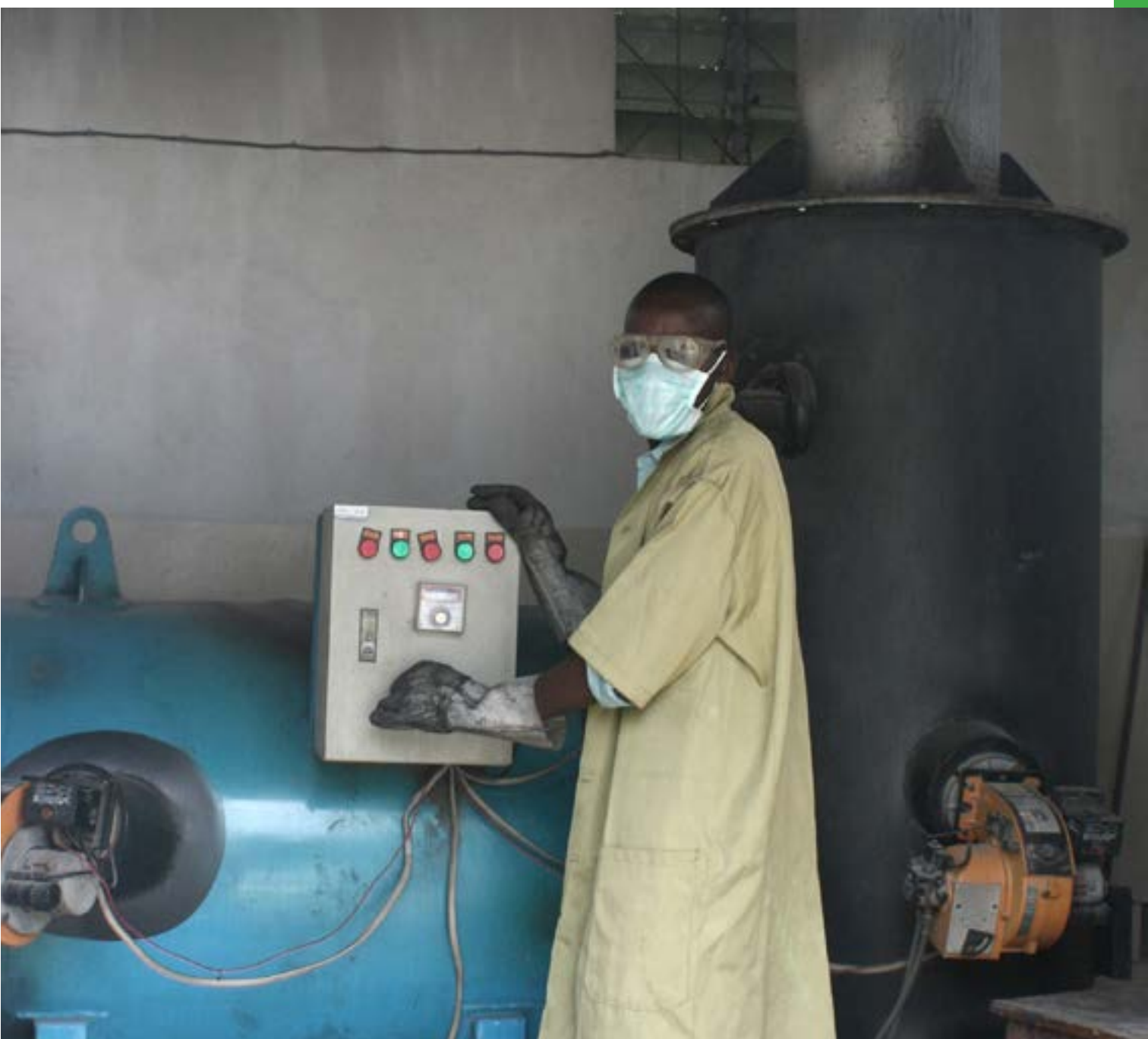
Level	Service Delivery
	Instrument processing • Key steps in equipment processing according to the national IPC guidelines
Channels	IPC contests Peer education Peer and facility recognition Supportive supervision Badges, stickers, visual cues Training with training videos Job aids, posters, low literacy SOPs TV and radio programs Newsletters/bulletins

Level	Service Delivery
Target Audience	Environmental Health Officers (EHO) Cleaners (waste handlers, laundry staff) Mortuary attendants Incinerator personnel
Communication Objectives	**To increase the proportion of the target audience who:** • Understand that following IPC guidelines protects themselves, patients, and the environment • Practice proper hand hygiene • Wear appropriate PPE whenever they are at risk of contact with contaminated materials or blood and body fluids • Follow PEP procedures if exposed to blood or other body fluids • Dispose of waste appropriately • Encourage peers to follow the national IPC guidelines • Clean/process equipment and supplies properly
Barriers	• Lack of concern/awareness and misinformation about potential exposure to BBPs other than HIV • Lack or inaccessibility of supplies and personnel • Lack of motivation to follow IPC guidelines • Forgetfulness, carelessness and/or haste
Facilitators	• Cognizance of their high-risk work environment • Reduce own risk of infection • Reduce infection to clients
Key Message Content	**PPE** • Staff responsible for handling contaminated items or healthcare waste or who have contact with blood, body fluids, secretions or excretions should wear utility gloves, protective eyewear, plastic or rubber aprons and protective footwear as indicated. **HCWM** • Ensure that puncture-resistant sharps containers are readily available and conveniently located so that health providers do not have to carry sharp items any distance before disposal. • Puncture-resistant containers should be placed within an arm's reach of a providers point of use. • Empty sharps containers when they are no more than ¾ full. • Every needle and syringe should be disposed of in a puncture-resistant container. • Non-contaminated waste can be picked up by the local authorities for disposal in municipal waste sites. • Contaminated waste must be incinerated, burned or buried in designated contaminated/ hazardous waste areas. • Dry mopping and sweeping can exacerbate airborne pathogens. • EHOs should survey hospital cleanliness on a routine basis.
Channels	IPC contests Peer education Peer and facility recognition Supportive supervision Badges, stickers, visual cues Training with training videos Job aids, posters, low literacy SOPs TV and radio programs Newsletters/bulletins

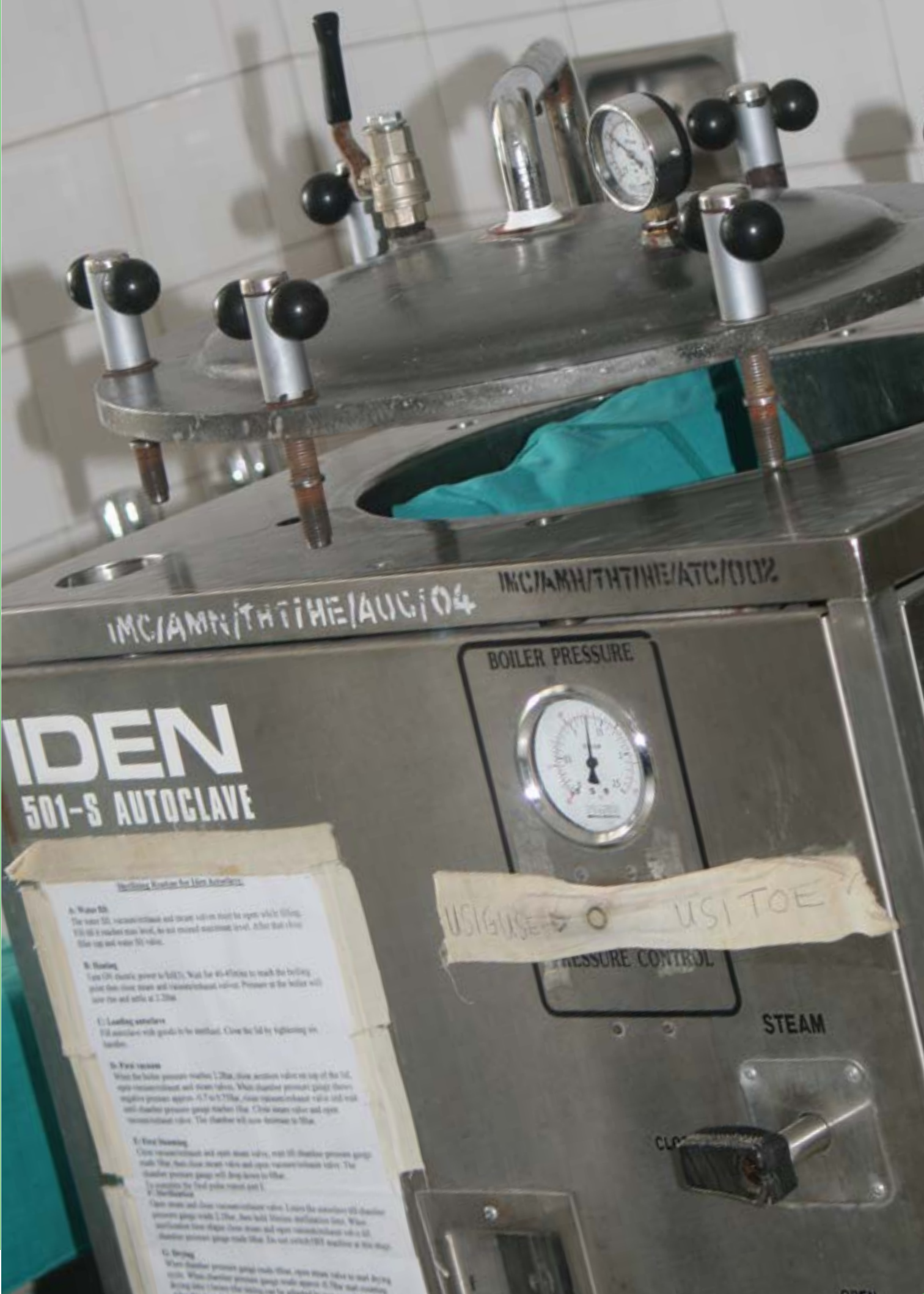


Level	Management
Target Audience	Regional (RAS, RHMT) District (DED, DAS, CHMT) Hospital (HMT, QIT, WIT) Health center/dispensary (WEO, HFMT)
Communication Objectives	**To increase the proportion of managers who:** • Incorporate IPC into health plans • Support QIT/IPC teams • Ensure health facilities are sufficiently stocked with the necessary IPC supplies • Recognize high performing facilities • Ensure proper provision of PEP services to all staff • Devise and enforce polices and practices to reduce healthcare waste generation • Advocate for increased resources to carry out appropriate IPC
Barriers	• Competing priorities for limited resources within health plans • Unclear on precise needs for including in annual/quarterly/monthly budgets • Challenges in procuring the necessary IPC supplies
Facilitators	• Reduce overall health care costs by preventing new infections • Improve the overall quality of health care services • Reduce the health worker crisis by keeping more health workers healthy
Key Message Content	**Improvements in IPC can be made through:** • The provision of adequate IPC commodities and supplies. • Wide dissemination of IPC guidelines. • Reinforcing proper IPC procedures. • Regulating the flow and activities of visitors, patients and staff. • Use of participatory performance improvement approaches and positive reinforcement. • Involving everyone at the health facility. **PEP** • Facilities should have dedicated staff/office for PEP. • PEP procedures should be clearly posted in areas where exposure may take place. • Give all staff information on PEP – including cleaners. • Ensure PEP drugs and services are available 24 hours every day, including weekends. • Managers are responsible for ensuring that health facilities have adequate IPC supplies. **HCWM** **Healthcare waste generation can be reduced though:** • Restricting the purchase of supplies that produce large amounts of healthcare waste. • Use of recyclable products. • Good management and control practices, e.g. pharmaceuticals and chemicals through centralized purchasing. • Frequent ordering of small quantities rather than large amounts at one time. • Use of the oldest batch instead of the new. • Use all contents in each open container before opening another container. • Frequently checking expiry dates at the time of delivery. **Hand Hygiene** • Proper hand hygiene is a key component in minimizing the spread of disease. • Failure to perform appropriate hand hygiene is considered to be a leading cause of nosocomial infections. • It is management's responsibility to create awareness of all health facility staff on the importance of hand hygiene.

Level	Management
	PPE • Managers are responsible for ensure that health facilities have adequate protective clothing for staff. • Ensuring the rational use of gloves should be a priority for managers. • The use of gloves when not indicated results in a waste of resources and does not contribute to a reduction of cross-transmission.
Channels	Email listservs, newsletters Meetings, conferences Fact sheets Supportive supervision Reports Mobile phones text messages (SMS) Newspapers Budgeting and planning templates and tools



Level	National
Target Audience	MoHSW MoHSW agencies (MSD, TFDA, GCL) Health-related sectors Medical training institutions Health professional regulatory bodies (professional councils) Health professional associations Activist groups Politicians
Communication Objectives	**To increase the proportion of national level IPC-IS stakeholders who:** • Advocate for additional budgetary support for IPC • Update policies, guidelines and enforcement mechanisms for IPC • Ensure an adequate supply of safe, quality IPC-related commodities • Improve IPC infrastructure • Incorporate IPC in pre-service training and reinforce IPC in CME • Support the safe disposal of expired drugs • Enforce IPC by-laws • Recognize high performing facilities
Barriers	• Difficult to get time of national level stakeholders with competing priorities • Lack of funding and resources to implement activities • Challenges in coordinating efforts of many national and international partners
Facilitators	• As IPC is cross cutting, improvements in IPC will positively impact all health service delivery
Key Message Content	• Reducing HAIs by implementing IPC practices is an effective way to reduce overall costs. • IPC is a commitment for all. • Appropriate IPC cannot happen without adequate supplies and funding. • The health of service providers and facility staff depend on having appropriate supplies, equipment, procedures, policies in place. • The health of the clients and their families depend on the facilities strict adherence to IPC guidelines.
Channels	Policies, procedures and guidelines Meetings, conferences Supportive supervision Reports Email listservs, newsletters Fact sheets Newspapers TV/Radio spots Advocacy/briefing kits PowerPoint presentations


IMC/AMH/THT/HE/AUC/004
IMC/AMH/THT/HE/ATC/002
BOILER PRESSURE
IDEN
501-S AUTOCLAVE
STEAM

National Communication Strategy Framework for Infection Prevention and Control

Context	Target Audience	Channels	Behavioral Objectives	Goal
National IPC program in place Policies, standards and guidelines developed and available IPC not routinely followed IPC not prioritized Lack of public awareness of IPC	**Individuals** Clients Caregivers	Community outreach Clinic materials Client materials Radio/TV programs, spots Newspapers Electronic media	**Increase the proportion of the target audience who:** • Knows it is possible to get an infection from a health facility • Knows hand hygiene prevents infections • Believes that providers should perform proper hand hygiene between each client • Practice proper hand hygiene • Ask providers to wash hands before seeing a client **Reduce the proportion of the target audience who:** • Believe that an injection is more effective than other types of medication • Request for medical injections	**Safe, effective, quality health care services provided to Tanzanians**
	Service Delivery Clinicians and nurses Pharmacy, laboratory and radiology personnel Environmental Health Officers, cleaners, mortuary attendants, incinerator personnel	IPC contests Peer education Peer and facility recognition Support supervision Badges, stickers, visual cues Training videos Job aids, posters, low literacy SOPs TV and radio programs Newsletters/bulletins	**Increase the proportion of the target audience who:** • Know the national IPC guidelines • Believe that clients deserve safe services • Believe it is their responsibility to provide safe services • Practice proper hand hygiene • Wear appropriate PPE whenever they are at risk of contact with contaminated materials or blood and body fluids • Follow PEP procedures if exposed to blood or other body fluids • Process instruments appropriately • Dispose of medical waste and sharps appropriately • Encourage peers to follow the national IPC guidelines • Process instruments/equipment appropriately **Reduce the proportion of the target audience who:** • Administer unnecessary medical injections	

Page 26 Continues

National Communication Strategy Framework for Infection Prevention and Control

Context	Target Audience	Channels	Behavioral Objectives	Goal
	Management Regional (RAS, RHMT) District (DED, DAS, CHMT) Hospital (HMT, QIT, WIT) Health center/dispensary (WEO, HFMT)	Email listservs, newsletters Meetings, conferences Fact sheets Support supervision Reports Mobile phone text messages (SMS) Newspapers Budgeting and planning templates and tools	**Increase the proportion of the target audience who:** • Incorporate IPC into health plans • Support QIT/IPC teams • Ensure health facilities are sufficiently stocked with the necessary IPC supplies • Recognize high performing facilities • Ensure proper provision of PEP services to all staff • Devise and enforce polices and practices to reduce healthcare waste generation • Advocate for increased resources to carry out appropriate IPC	**Safe, effective, quality health care services provided to Tanzanians**
	National Level MoHSW and MoHSW agencies Health-related sectors Medical training institutions Health professional regulatory bodies Health professional associations Activist groups Politicians	Policies, procedures and guidelines Meetings, conferences Supportive supervision Reports Email listservs, newsletters Fact sheets Newspapers TV/Radio spots Advocacy/briefing kits PowerPoint presentations	**Increase the proportion of the target audience who:** • Advocate for additional budgetary support for IPC • Update policies, guidelines and enforcement mechanisms • Ensure adequate supply of IPC-related commodities • Improve IPC infrastructure • Incorporate IPC in pre-service training and reinforce in CME • Support the safe disposal of expired drugs • Enforce IPC-IS by-laws • Recognize high performing facilities	

Monitoring and Evaluation

Monitoring and evaluation play a key role in determining the utility and success of the IPC Communication Strategy. Without it, no one can judge whether the strategy was applied or effective. Below are some illustrative indicators to measure progress on the implementation of the IPC Communication Strategy:

Indicator	Suggested Data Source
Output	
Infection Prevention and Control Communication Strategy disseminated	Direct observation
Number of partners supporting IPC communication initiatives	Partner work plans and reports
Number of stakeholders' coordination forum (SCF) meetings conducted on IPC	Meeting minutes
Number of individuals trained in IPC	Training statistics/records
IEC materials for universal access on Infection Prevention and Control Injection Safety are available in health facilities	Direct observation, health facility survey
Outcome	
Percent of clients who believe an injection is more effective than other types of medication	Client exit interviews, household surveys
Percent of clients who know it is possible to get an infection from health facilities	Client exit interviews, household surveys
Percent of HCW who believe it is their responsibility to provide safe services	In-depth interviews, HCW surveys
Percent of HCW who can list the steps of PEP	In-depth interviews, HCW surveys
Impact	
Percent of clients who report they can ask providers to wash their hands before an examination	Client exit interviews, household surveys
Percent of HCW who process instruments appropriately	Client exit interviews, household surveys
Percent of HCW who demonstrate appropriate hand hygiene	Direct observation
Percent of HCW who wear the appropriate PPE	Direct observation, in-depth interviews
Percent of HCW who dispose of medical waste and sharps appropriately	Direct observation
Percent of HCW who encourage peers to follow national IPC guidelines	In-depth interviews, health care worker survey
Increased budgetary support for IPC	Budget review
IPC incorporated into pre-service training and CME	Curricula review

APPENDIX A:
QUALITY IMPROVEMENT SERIES

The National Infection Prevention and Control Standards for Hospitals in Tanzania are part of the MoHSW's Quality Improvement Series. All resources in this series are listed below.

1. Tanzania Quality Improvement Framework, September 2004
2. National Infection Prevention and Control Guidelines for Health Care Services in Tanzania, November 2004
3. National Infection Prevention and Control Pocket Guide for Health Care Services in Tanzania, February 2007
4. Mwongozo wa Taifa wa kukinga Maambukizo katika Utoaji wa Huduma za Afya: Kiongozi cha Mfukoni wa Watoa Huduma za Afya Tanzania, April 2007
5. Implementation Guideline for 5S-CQI-TQM Approaches in Tanzania, May 2009
6. Quality Improvement: Infection Prevention and Control Orientation, Guide for Participants, July 2008
7. National Supportive Supervision Guidelines for Health Care Services, September 2010
8. National Infection Prevention and Control Standards for Hospitals in Tanzania, June 2012
9. National Communication Strategy for Infection Prevention and Control 2012-2017, December 2012

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