



INFECTION PREVENTION AND CONTROL STRATEGIC PLAN 2024-2029

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FOREWORD

The Ministry of Health prioritizes Infection Prevention and Control (IPC), recognizing its cost-effectiveness and its vital role in reducing healthcare-associated infections.

While progress has been made, IPC remains an area for improvement across Rwandan health facilities. To address this, the Ministry has developed the 2024–2029 IPC Strategic Plan to implement the national IPC policy. This plan serves as a guiding framework for the planning, monitoring, and evaluation of IPC efforts nationwide.

It outlines clear interventions and resource mobilization strategies to strengthen existing systems and prevent infections both within health facilities and in the broader community, particularly in light of lessons from the COVID-19 pandemic and Marburg Outbreak.

We extend our appreciation to all institutions, organizations, and individuals who contributed to this strategic plan. We now call on all stakeholders to actively engage in implementation and help safeguard the health of our people.

Dr. Sabin NSANZIMANA
Minister of Health

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ACRONYMS AND ABBREVIATIONS

AMR	ANTIMICROBIAL RESISTANCE
CDC	Center for Diseases Control and Prevention
CHUB	Centre Hospitalier Universitaire de Butare
CHUK	Centre Hospitalier Universitaire de Kigali
CHWs	Community Health Workers
DH	District Hospital
HCAI	Healthcare-associated infection
HC	Health Centre
HCWs	Health Care Workers
HIV	Human Immunodeficiency Virus
HP	Health Post
ICU	Intensive Care Unit
IPC	Infection Prevention and Control
KP	Kaiser Permanente (Septic Shock)
MDRO	Multidrug Resistant Organisms
MoH	Ministry of Health
PHFs	Private health facilities
PPE	Personal Protective Equipment
RBC	Rwanda Biomedical Center
SISCom	Système d'Information Sanitaire Communautaire
SOPs	Standard operating procedures
TB	Tuberculosis
UTI	Urinary Tract Infection
WASH	Water, Sanitation and Hygiene
WHO	World Health Organization

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1. INTRODUCTION

The spread of infections constitutes a global health threat, with concerns in developing countries making prevention and control of infections a critical action for a well-functioning health system (Storr et al., 2017). The African region is not well equipped nor have effective means at par with international standards of IPC to combat the emergence and re-emergence of infectious diseases. This has been seen with the current COVID-19 pandemic but also the reappearance of EVD in Guinea and DRC. Today, healthcare associated infections (HCAI) affect a large number of patients globally, elevating mortality rates and financial losses significantly. According to estimates reported by WHO, approximately 15% of all hospitalized patients suffer from these infections (Khan et al., 2017). These infections account for 4%–56% of all death causes in neonates, with incidence rate of 75% in South- East Asia and Sub-Saharan Africa. The incidence in high-income countries ranges between 3.5% and 12% whereas it varies between 5.7% and 19.1% in middle- and low-income countries. The frequency of overall infections in low-income countries is three times higher than in high income countries with neonates affected 3–20 times higher than other age groups (Khan et al., 2017). A study conducted in Rwanda found that the prevalence of hospital acquired infection is highest in intensive care unit at a rate of 50.0% of admitted patients, with overall 15.1% of hospitalized patients (Lukas et al., 2016). A 2022 WHO report revealed that good IPC programmes can reduce HCAs by 70% (WHO, 2022). HCAI and other emerging infectious diseases require a strengthened health system, with availability of standard infrastructure and equipment, skilled personnel, good practices, and awareness by the general population to prevent the occurrence and spread of infectious diseases (Mearkle et al., 2016).

A rapid spread of multidrug-resistant organisms and outbreaks of highly infectious diseases has put more emphasis on the need to imperatively pay particular attention to infection, prevention, and control, through adoption of and compliance to practices that guarantee patient, health care providers, visitors and community's safety and cost-effectiveness in health care delivery. Any effective and efficient Infection Prevention and Control (IPC) program is fundamental to the quality of health care because it carries the potential benefits of reducing infections transmission in the community, public and private health care facilities, as well as in public places (Organization, 2009). Achieving this requires individual and institutional responsibility to ensure that patients, clients, visitors, or staff are not put at risk of infection or any harm during service delivery (Organization, 2016). Several interventions on various aspects of infection prevention and control have been implemented by the Ministry of Health to promote safety and quality in health care delivery (Leuchowius, 2014). These include putting in place various policies and strategies that address different aspects of IPC in Rwanda, namely the National policy on injection safety and health care waste management (2009), the ministerial guidelines on the environmental health management of Ebola virus diseases in Rwanda (2014), the National healthcare waste management

guidelines, the national healthcare waste management standard operating procedures (2016), national policy on quality and safety as well as national healthcare accreditation program (2013) among many others. There have been initiatives at health facility level, in developing policies and procedures required by accreditation standards based on the hospital context.

In addition, a study conducted in a tertiary hospital in Rwanda revealed an alarmingly high rate of HCAs (32%) among surgical patients receiving acute care (Muvunyi et al., 2020). A study conducted at the University Teaching Hospital of Kigali, the largest tertiary referral hospital in Rwanda, revealed that maternal sepsis was the primary cause of maternal near misses and mortality, accounting for up to forty percent of such cases at the hospital (Benimana et al., 2018). Emerging and re-emerging multidrug-resistant strains of infectious organisms in hospitals have diminished the efficacy of available therapies and increased treatment costs (Liu & Dickter, 2020). Health systems in low- and middle-income countries often rely on the availability of cheap antimicrobials and are not equipped to contend with the increasing burden of drug resistant infections, which require treatment with more expensive second- and third-line drug therapies (Iskandar et al., 2021). The IPC is critical to a well-functioning health system (Storr, et al., 2017), in the pursuit of quality health care services for all people, the government of Rwanda is adopting its first IPC strategic plan. It is believed that the strategy shall contribute to ensuring a clean, safe and infection-free environment for all people at all levels of health care system across the country.

IPC program is a framework for the active and ongoing organization-wide efforts to control, prevent, identify, and report HCAs and other communicable diseases. This is achieved through implementation of multi-model strategies, IPC guidelines, built environment, materials and equipment supply for IPC, workload and staffing, processes of surveillance, continuous monitoring, auditing and evaluation, proactive prevention, staff education and training, a formalized infection control risk assessment and quality improvement. Infection Prevention and Control (IPC) Strategy is needed for the prevention of healthcare-associated infection (HCAI), and to ensure that health care quality improvement and patients safety program are in place and effective at all levels of health care delivery (Wangai, et al., 2017).

1.1 SITUATION ANALYSIS

The situation analysis was conducted in three phases namely desk review, baseline assessment in selected health facilities and consultations with key stakeholders. A mixed quantitative and qualitative method was used for the situation analysis. Secondary data was collected through an in-depth literature review.

1.1.1 Social demographic and Health Sector context

The Rwandan population is estimated to be 13,246,394 as of August 2022, with an increase of 2.31% between 2012 and 2022 from the previous year, accounting for a population density of 501 people per square kilometer. Most of the population is young and lives predominantly in rural areas. The life expectancy of Rwandans has surged from 64.5 years in 2012 to almost 69.7 years in 2022, and the average number of children per woman has decreased from 6.1 children in 2005 to around 4.3 children in 2010 and 3.6 in 2022 (National Institute of Statistics of Rwanda (NISR), Ministry of Health (MoH) [Rwanda], 2020). The healthcare system in Rwanda is decentralized up to village level, to ensure quality health care is available and accessible to all.

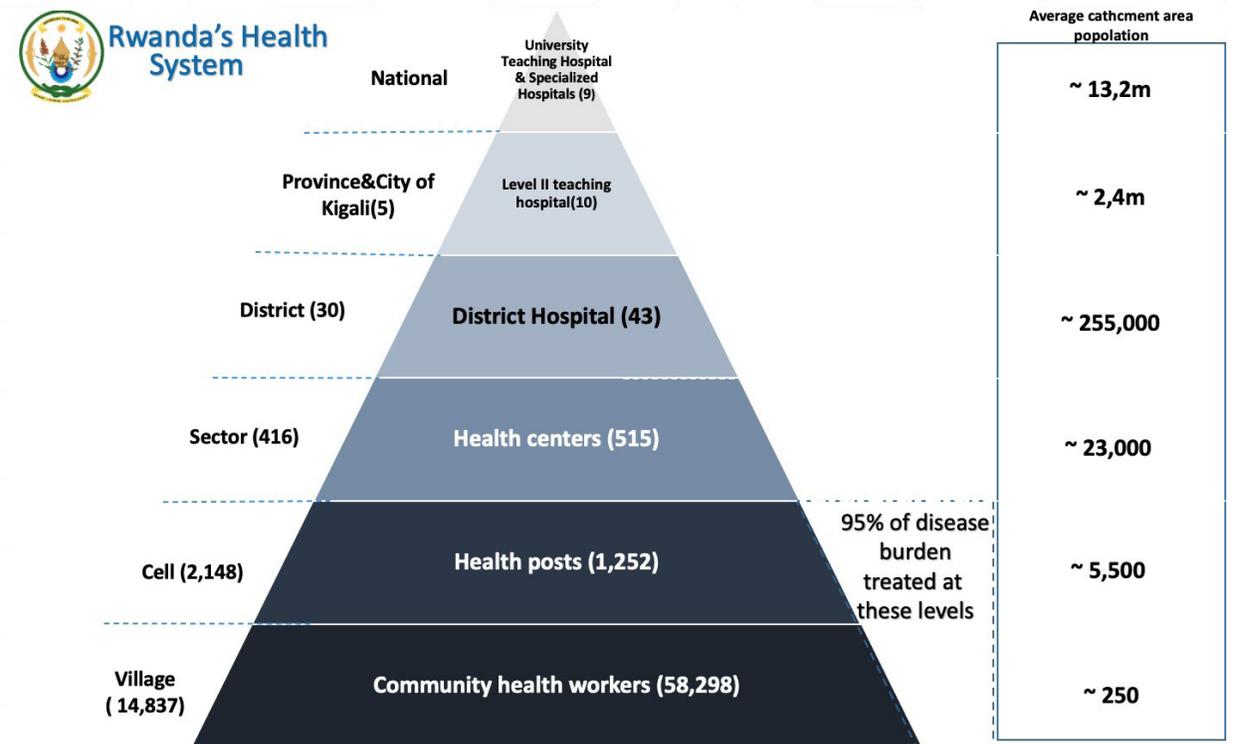


Figure 1: Organisation of Rwanda Health Care System

Rwanda has realized significant improvements in its health status indicators. Under 5 mortality rate has declined from 196/ 1000 live birth in 2000 to 76 in 2010, then 45 in 2020. Maternal mortality decreased from 1071 death per 100,000 live births in 2000 to 476 in 2010 then to 203 in 2020. Doctors per population ratio changed from a doctor/16,001 people in 2010 to 1/8,247 in 2020. Nurses per population ratio also was improved from one nurse/1,291 people in 2010 to 1/1,198 in 2020. Midwives per population ratio increased from 1 midwife/66,749 Women in Reproductive age people in 2010 to 1/2,340 in 2019. From 2019 to 2020, 209 new health posts were opened while 5 new hospitals were built, equipped, and made functional. In line with IPC, 14 new laundry machines were purchased and distributed in hospitals. In response to COVID-19 pandemic, 20 quarantine isolation rooms were created and 6 Intensive Care Units (ICU) set up in treatments centers, Anti-Epidemic Robots were introduced and vaccination against COVID-19 ramped up. Despite remarkable achievements, some gaps are noticed in infection prevention and control at different levels of healthcare settings. This is elaborated in annual hospital accreditation progress assessments and in research studies conducted in university teaching hospitals (LA, et al., 2018). In one of them, it was found that poor hand hygiene and infrequent sanitation of materials were major contributing factors to HCAs.

1.1.2 Health status and the burden of healthcare-associated infections in Rwanda

The IPC baseline study, which was conducted in 2019, examined the health status and burden of healthcare-associated infections in select health facilities in Rwanda. The findings showed that all district, provincial, referral, and university teaching hospitals had implemented IPC programs to some extent, utilizing multidisciplinary teams. As an example, the document outlining standard precautions for IPC, hand hygiene, transmission-based precautions, outbreak management and preparedness, and other relevant topics was distributed to 60% of the health centers that were visited. The MoH and its partners have provided the Rwandan people with IPC training on multiple occasions in the context of COVID-19 and EVD to educate them on IPC preventive measures and other IPC priorities, such as epidemic surveillance. The presence of IPC personnel (73 percent) who possess fundamental skills and are available to act as trainers and mentors is an additional critical determinant in the execution of the IPC program in Rwanda [expert personal communication with MOH]. Although IPC committees have been established, are functioning at all hospital levels, and have received basic IPC training, they have not yet been completely implemented at health centers. In terms of patient/HCW ratio, midwives have a population ratio of 1/2,342 in 2020/2021 and aim to achieve 1/2000 in 2022/2023; nurses have a ratio of 1/1,169 in 2020/2021 and aim to achieve 1/923 in 2022/2023; and doctors have a ratio of 1/8,027 in 2020/2021 with a target of 1/7,342 in 2022/2023(MOH, 2022). However, at present, the bed-to-HCW ratio is undisclosed and ought to be ascertained across all healthcare facilities before this strategic plan is implemented. There are no established comprehensive IPC surveillance mechanisms for HCAs, AMR, or outbreaks in any medical facility. Beyond King Faisal Hospital, there is an absence of level 3 accreditation at any other health facility in Rwanda, which suggests a restricted capability to perform the

scientific research required for the determination of incidence and prevalence. HIMS exclusively tracks neonatal infection rates of 13.9% in 2022, 13.6% in 2021, and 9.5% in 2020; post-operative infection rates of 0.42% in 2022, 0.72% in 2021, and 0.62% in 2020; and post-C/S infection rates of 3.3% in 2022, 3.7% in 2021, and 4.4% in 2020. These rates have remained unchanged for the past three years: 3.3% in 2022, 3.7%(MOH, 2023). Regarding infrastructure, 100% water supply is provided in health institutions at the following hospitals: 58.8% in health posts, 100% in medicalized health centers, 97.2% in health centers, and 100% in district hospitals. Adequate quantities of potable water are consistently accessible to staff, patients, and families. Response rates vary among healthcare facilities, with 30% at health centers, 52% at district hospitals, 90% at provincial hospitals, and 82% at referral and teaching hospitals indicating such availability. In referral hospitals and medicalized health centers, electricity powers healthcare facilities at a rate of 100%, while in health centers it is 99.7% and in health posts it is 78.7% (Rwanda, 2023). On average, 86% of personal protective equipment (PPE) was accessible. Even newly constructed infrastructure in some health facilities is not IPC-compliant; others require rehabilitation to meet IPC requirements. The operational effectiveness of incinerators utilized at the health facility level for the disposal of medical waste is 90%. Approximately 10% of these incinerators are malfunctioning but are amenable to repair. IPC activities are incorporated into a multimodal approach to practice improvement, HCAI reduction, and AMR to a lesser degree. To provide an example, since 2013, the Rwanda Ministry of Health has been undertaking hospital accreditation surveys, during which IPC is specifically assessed as one of the most critical factors. Staff and patient safety constitute the third risk area, which investigates the provision of electricity and water, the effectiveness of sterilization processes, the utilization of personal protective equipment, and the proper disposal of infectious medical waste. The level 1 score for 51 hospitals surveyed in 2022/23 was 91%, the level 2 score was 71%, and the level 3 score was 20%. In contrast, the level 1 score was 94%, the level 2 score was 78%, and the level 3 score was 27%, or 8.9%, among the 47 hospitals surveyed in 2022 (MOH & RIHSA, 2021, 2022). This demonstrates that there is still a distance to go before level 3, which is primarily attained via risk area 3, consisting of IPC, WASH, and a secure environment. In conclusion, referral hospitals and university teaching hospitals are enrolling in international accreditation programs. Although public and private institutions, including health facility personnel, have received training on IPC standards and precautions, the complete implementation of IPC practices has not yet occurred. The current HMIS does not systematically incorporate IPC data.

1.1.3 Leadership and Governance

The Rwanda Health Sector has put in place clear leadership and governance for health care delivery, including IPC. However, the full scale up of IPC programs across the health system in Rwanda is limited. Some initiatives have been established, including integration of IPC in accreditation system emphasizing on “Safe environment for staff and patients”. Hospitals are also requested to establish IPC committees and nominate an IPC focal person. This IPC policy will need to pay attention to; institutionalization of IPC program at all levels of the health system for better coordination, reinforcement of collaboration among sectors for better IPC programs in both private and public institutions, and lastly, collaboration

among sectors has to be strengthened to tackle multi-factorial determinants affecting the IPC program including but not limited to water and sanitation availability, infrastructures acquisition.

1.1.4 Infrastructure and supply management

Health facilities are equitably distributed across the country, and the government is increasing health facilities closer to the people through building health posts. Also, the pharmaceutical supply chain is available and functional across different levels of health care system. Rwanda has a conducive environment for pharmaceutical manufacturing and has authorized local manufacturers for personal protective equipment. However, Rwanda is still importing many of its pharmaceutical products, IPC consumables and equipment from foreign countries. The following challenges remain for IPC infrastructure and supply chain management, there are no national guidelines and standards for healthcare infrastructure and therefore infrastructures are not complying with IPC standards, health facilities do not get adequate IPC consumables due to financial constraints, some health posts have no permanent running water while others experience water shortage which constitute IPC challenges.

1.1.5 Human Workforce Department

There has been an increase in quantity and quality of health care providers across the whole health system and there is a national strategy for health professions development 2020–2030 for the capacity building of health care providers. However, there are gaps to be bridged for IPC; there is a limited number of health professionals with a specialized training in IPC, there is no dedicated staff for IPC in health care system, the IPC committees are not yet institutionalized in health center health posts and some private health facilities, there is no harmonized training program and or curricula for training and certification of IPC specialists.

1.1.6 Health financing

The Health Sector has developed and successfully implemented a comprehensive financing framework whereby, on one hand there are transfers from the treasury to districts and health facilities (supply side) and the payment covered by insurance system (demand side) on the other hand. With the Community-Based Insurance Scheme “Mutuelle de Santé”, covering 90% of the population and other existing health insurance schemes, the population in Rwanda have functional health insurance schemes (Ministry of Health (MoH) [Rwanda], 2020). The Government budget allocated to health sector has been increasing. It is now 17% of all budgets and is distributed to all specific programs as needed. However, the remaining challenge to be addressed include the need to increase the funding for IPC infrastructure, equipment and supplies to comply with IPC standards for safety of patients and staff.

1.1.7 Health services delivery

The Rwanda health system is comprised of a network of health facilities which functions from the community to referral hospitals. The IPC initiative has been put in place in all public hospitals and some health centers and are yet to be institutionalized in all health centers, health posts and other private health facilities. However, a collaborative approach among health care providers, supporting staff, contractors and stakeholders is still critical to promote ownership and accountability of the IPC standards at all levels of the health system.

1.1.8 Health Management information systems (HMIS)

The Health Sector has a functional health information system at all levels. The system manages all specific disease programs to generate evidence for decision-making. However, the following need to be addressed for the promotion of IPC towards quality and safe health care services; IPC data are not fully integrated into HMIS and other health management platforms, IPC performance indicators are not developed and integrated in the performance-based financing to health facilities.

1.1.9 Knowledge management and research

Rwanda aspires to sustain the significant achievements already made in the health sector in its vision 2050 and recognizes improving medical research as a key enabler. The health sector has institutionalized health research in all referral and university teaching hospitals and the Rwanda Biomedical Center has a division for research and innovation. Despite research being a cornerstone for the country's development agenda, some challenges still exist in research related to IPC; a need to strengthen financing mechanism for research and innovation in IPC as well as a need to improve coordination of research initiatives in IPC by setting out IPC research priorities and implementation strategies.

1.2 SWOT ANALYSIS

1.2.1 The situation analysis highlighted the following:

1.2.1.1 Strengths include

Existence of IPC initiatives like establishment of IPC committees and nomination of IPC focal point in all public hospitals and in some private health facilities, an accreditation program that supports the implementation of IPC standards, institutionalized research in RBC, all referral and university teaching hospitals, a national epidemic surveillance system is in place, existence of a network of laboratories pursuing accreditation program, a national reference laboratory that is accredited by ISO (#15189:2012), and lastly the existence of water, sanitation and hygiene (WASH) infrastructures in healthcare facilities and public places.

1.2.1.2 Weaknesses include:

IPC programs are not fully implemented in some district hospitals, health centers, health posts and some private health facilities, little collaboration among sectors for better IPC programs, some infrastructures are not complying with IPC standards due to lack of safe health design, low water pressure in some health centers and health posts, no harmonized training program and or curricula for training and certification of IPC specialists, limited funding for IPC infrastructure and equipment.

IPC data is not fully integrated into HMIS, IPC performance indicators are not yet developed and integrated in Performance Based Financing (PBF) indicators, inexistence of a financing mechanism for research and innovation for IPC, lack of legal frameworks governing IPC, lack of comprehensive national guidelines on IPC, low professional capacity of cleaning companies, low enforcement of IPC regulations and guidelines, low public awareness on IPC, occupational health and environmental hazards, low use of data for research and innovation for decision making, some health facilities do not have sufficient WASH infrastructures meeting standards requirements, insufficient isolation rooms in health facilities complying with IPC measures, no approved list of authorized cleaning chemicals and pesticides for health facilities, low monitoring of Health care associated infections and AMR in health facilities.

1.2.1.3 Opportunities exist:

There is political will, availability of committed stakeholders in IPC, a conducive environment for pharmaceutical manufacturing of medical and IPC consumables included the existence of regulatory agencies to support and push quality and safety measures and lastly but not least a government aspiration for a medical tourism hub to work towards.

1.2.1.3 Threats include:

he emerging and re-emerging infections, Technology misuse. Donor funding is always time bound and hence the health system must be prepared for integration and sustainability at the end of the projects. The supply chain that depends mostly on importation and constant disruption of progress by pandemics and disasters such as Ebola and COVID-19 threatens all the above.

Table 1: Results of IPC issues using SWOT analysis technique

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Existence of IPC initiatives like establishment of IPC Committee and nomination of IPC Focal Point in all public hospitals and in some private health facilities. • Accreditation program support the implementation of some IPC Standard; Research is institutionalized in RBC, all referral and university teaching hospitals system is in place. • Existence of a network of laboratories pursuing accreditation program. • A national epidemic surveillance system is in place. • Existence of a network of laboratories pursuing accreditation program. • National reference laboratory is accredited by ISO (15189:2012). • Existence of water, sanitation, and hygiene (WASH) infrastructures in healthcare facilities and public places. 	<ul style="list-style-type: none"> • IPC programs are not fully implemented in some District Hospitals, health centers health posts and some private health facilities. • Low collaboration among sectors for better IPC programs. • Some infrastructures are not complying with IPC standards due to lack of safe health design. • Low water coverage in some health posts. • No harmonized training program and or curricula for training and certification of IPC specialists. • Limited funding for IPC infrastructure and equipment. • IPC data are not fully integrated into HMIS. • IPC performance indicators are not yet developed. • Inexistence of a financing mechanism for research and innovation in IPC. • Lack of legal frameworks governing IPC. • Lack of comprehensive national guidelines on IPC.
	<ul style="list-style-type: none"> • Low professional capacity of cleaning companies. • Low enforcement of IPC regulations and guidelines. • Low public awareness on IPC, occupational health, and environmental hazards. • Low use of data for research and innovation. • Some health facilities do not have sufficient WASH infrastructures meeting standards requirements. • Insufficient isolation rooms in health facilities complying with IPC measures. • Lack of the list of authorized cleaning chemicals and pesticides for health facilities.

OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Political will. • Availability of stakeholders in IPC. • Conducive environment for pharmaceutical manufacturing of medical consumables, PPEs included. • Existence of Human Resources for Health Existence of regulatory agencies. • Government aspiration for a medical tourism hub. 	<ul style="list-style-type: none"> • The supply chain depends on importation. • Pandemics and disasters such as Ebola and COVID-19 Epidemic. • Nationalism for the management of pandemics.

2. STRATEGY FRAMEWORK

2.1 VISION

A safe and infection-free environment for all people at all levels of health care provision, public places, and the community.

2.2 MISSION

To minimize the risk of acquiring and transmitting health care associated infections by improving infection prevention control practices at all levels of health care settings, public places, and community by using evidence-based decision and practices.

2.3 GUIDING PRINCIPLES

The implementation of the IPC strategic plan 2023- 2028 is based on the following values and guiding principles:

- **People-centeredness:** The health system ensures universal demand and access to IPC affordable quality services, focusing on the safety of individuals and communities.
- **Safety and ownership:** individuals and community shall take responsibility to minimize the risks of acquiring and transmitting HCAs.
- **Accuracy and professionalism:** Improvement in IPC must be measured through reliable data that will drive evidence-based decision making for improving health system.
- **Integrity and accountability:** Improvement of IPC shall take accountability for actions and embrace transparency to empower public scrutiny.
- **Cooperation and collaboration:** leaders should promote a conducive environment that promotes teamwork, mutual respect of all stakeholders and create a culture of IPC that ensures patients, community, and staff safety.

2.4 GOALS AND OBJECTIVES

2.4.1 Goal

To ensure a safe and sustainable environment in healthcare settings, public places and community that minimize infection transmission.

2.4.2 Strategic objectives

The overall goal shall be achieved through the following strategic objectives:

1. To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system.
2. To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community.
3. To ensure IPC advocacy, communication and community engagement are implemented at the nation level.
4. To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system.
5. To enhance equity and inclusive IPC practices at all levels of healthcare setting, public places and community to prevent the spread of HCAIs and AMRs.
6. To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAIs, outbreaks, pandemics, and AMRs.
7. To strengthen monitoring and evaluation system for IPC through surveillance of HCAIs, outbreaks, pandemics, and AMRs in all health facilities.

2.4.2.1 To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system

Table 2. Effective leadership, governance and coordination for IPC program

STRATEGIC INTERVENTION	ACTIVITIES
Establishing an accountability mechanism on IPC	Develop a regulatory framework and other policy documents/tools governing IPC program
	Ensure compliance and accountability vis a vis IPC standard as defined by the national accreditation and quality improvement program
	Establish the IPC structure for all levels of health care settings
	Put in place a coordination mechanism for IPC activities
	Institutionalize a department coordinating the IPC at the central level
	Institutionalize IPC committees in all levels of health care service delivery and in decentralized levels
	Conducting a need assessment for IPC program based on country context. Why country context?
Ensure collaboration, partnership and engagement of key stakeholders to cater for ownership, resilience and sustainability of IPC	Reinforce the Public Private Partnership (PPP) model for proper functioning and effectiveness
	Establish a platform for discussion and information exchange to promote ownership and contribution of key stakeholders in IPC.
	Creating a conducive and enabling environment for stakeholders and investors in IPC
	Ensure IPC oversight and its integration in action plans of all decentralized entities
	Ensure inclusiveness across IPC programs and interventions

2.4.2.2 To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community

Table 3: Institutionalize and strengthen IPC program at all levels of health care delivery

STRATEGIC INTERVENTIONS	ACTIVITIES
Establishing national guidelines and standards operating procedures, M&E and Auditing tools for IPC program	Develop the national IPC guidelines and standards operating procedures on implementation of IPC programs
	Monitor and evaluate the implementation of the National guidelines and Standards Operating Procedures
	Conduct a Consultative workshops with Stakeholders on developed IPC guidelines and SOPs
	Develop IPC Monitoring, Evaluation and Audit tools
	Dissemination of approved guidelines and SOPs
Establish IPC Program at all levels from National to Decentralized entities	Develop an IPC framework guiding implementation of IPC Program
	Develop Health facilities plan that including IPC activities
	Recruitment of needs staff at Health care facilities level
Establish an IPC coordination mechanism at national and decentralized level responsible for implementation, monitoring and evaluation of the IPC program	Develop terms of reference for IPC steering committee and IPC technical working group
	Define role and responsibilities for all committee members
	Establish a steering committee and a technical working group for coordination and engagement of all key stakeholders in IPC
	Establish IPC committees at all levels of health care delivery and decentralized levels

2.4.2.3 To ensure IPC advocacy, communication and community engagement are implemented at the nation level

Table 4: Advocacy, communication and community engagement

STRATEGIC INTERVENTIONS	ACTIVITIES
Strengthen communication and community engagement for effective implementation of IPC through all communication channels	Develop behavior change and communication strategies for IPC practices
	Develop IPC communication materials, tools, and IPC protocols
	Disseminate all communication materials at all levels of the healthcare system
	Strengthen IPC standards precautions at all levels of the healthcare system
	Integrate IPC indicators into annual HCWs appraisal systems
	Advocate for positive behavior change towards Antimicrobial Resistance Stewardship at all levels of the healthcare system using the One Health approach as per the AMR national strategic plan

2.4.2.4 To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system

Table 5: Health facilities have infrastructure that comply with safe health design standards guideline

STRATEGIC INTERVENTION	ACTIVITIES
Increase the level of compliance with safe health design guidelines and standards for health facility infrastructure.	Develop safe health design guidelines and standards for health facility infrastructure
	Carry out a comprehensive assessment and mapping of existing health facilities for compliance with safe health design guidelines and standards for health facility infrastructure
	Upgrade health facility infrastructure to comply with safe health design guidelines and standards
	Disseminate safe health design guidelines and standards for health facility infrastructure

2.4.2.5 To enhance equity and inclusive IPC practices at all levels of healthcare setting, public places and community to prevent the spread of HCAs and AMRs

Table 6: Infection prevention and control practices at all levels of all levels of care

STRATEGIC INTERVENTION	ACTIVITIES
Ensure that IPC communication materials are available in inclusive languages and formats	Develop IPC communication materials suited for people living with disabilities
Ensure that HCWs are trained to understand and respect diverse culture, backgrounds, beliefs, and practice	Train HCWs to understand and respect people with special needs
Implement a comprehensive diversity, equity and inclusion learning and curriculum	Translate and adapt existing curriculum to the people with special needs
Ensure an inclusive workplace for all employees	Procure IPC inclusive equipment, materials and consumables
Regularly assess the effectiveness of inclusive IPC initiative	Collect feedback for diverse stakeholders to identify areas for improvement and adjustment
Avail inclusive WASH infrastructure	Construct inclusive WASH infrastructure in HFs, public places and in the community

2.4.2.6 To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAs, outbreaks, pandemics, and AMRs

Table 7: Regular research in field of IPC on HCAs, outbreaks, pandemic and AMRs

STRATEGIC INTERVENTION	ACTIVITIES
Research on IPC Culture will well promoted	Avail MoU(s) and agreements with academia and research institutions for research in infection prevention, control and quality health care services
	To identify research priority in IPC
	Conduct joint research with academia and research institutions in IPC (at least one research every year)
	To award the best researchers as per topics in IPC
To conduct a Baseline Survey which will determine priorities in research in IPC field	To mobilize funds for research purpose
	To constitute a multidisciplinary team which will perform the survey
	To prepare a guiding document for the IPC Survey
	Conduct national survey for HCAs level in Rwanda
Ensure that results of the research performed are published and circulated for the public in general and for Health Care Workers in particular	Publication of the result to all level of Health Sector
Establish an evidence-based health communication program for the burden of HCAs and Antimicrobial resistance	Conduct an informative assessment on knowledge, attitudes, and practices related to HCAs and Antimicrobial resistance
	Develop and disseminate customized awareness raising tools on HCAs and Antimicrobial resistance
	Conduct multimedia campaigns on the burden of HCAs and Antimicrobial Resistance
	Conduct regular assessments to inform decision makers on the current gaps for actions toward improving IPC program
Mainstream IPC into academic and training programs of all health professionals and into in-service training packages for all personnel in health facilities	Develop harmonized IPC training curriculum for all professionals
	Training of all in-service and pre-services health professionals in IPC
	Train and certify all personnel of health facilities in IPC as part of induction and orientation program

Build IPC capacity for all Health care personnel	Develop customized training packages for all personnel in health facilities
	Develop customized training packages for all personnel working for cleaning companies
	Train and certify all personnel working for cleaning companies at Health care facilities
Promote the standardization and regulation of IPC equipment, supplies, cleaning products	Develop a pre-qualified register of IPC equipment, supplies, cleaning product
Ensure availability of IPC equipment, supplies, cleaning chemicals and pesticides in all health care facilities and public places	Establish a harmonized procurement system for IPC equipment, supplies, cleaning chemicals and pesticides
	Promote domestic production initiatives for IPC equipment, supplies, cleaning chemicals and pesticides
Prevent and/or minimize occupational hazards coupled with infections	Identify the risks associated with exposure to occupational hazards
	Develop procedures and process to reduce the risks of exposure in every department
	Create awareness on occupational hazards coupled with infections
	Increase adherence to the existing post exposure prophylaxis guidelines or Standard Operating Procedures (SOPs)
	Availing appropriate personal protective equipment

2.4.2.7 To strengthen monitoring and evaluation system for IPC through surveillance of HCAs, outbreaks, pandemics, and AMRs in all health facilities.

Table 8: Strengthen, sustain Monitoring & Evaluation systems

STRATEGIC INTERVENTION	ACTIVITIES
Develop, define, and integrate IPC indicators into existing Health Management Information Systems to improve surveillance of HCAs, outbreaks, pandemics, and antimicrobial resistance	Develop indicators matrix to guide surveillance and monitoring of IPC program implementation
	Integrate IPC indicators matrix into existing Health Management Information Systems
Ensure proper management and use of data for evidence generation and decision-making	Develop customized IPC data collection systems: Develop an IPC Audit form for every department
	IPC Audit and feedback/ Monthly and every 6 months
	Conduct regular analysis of IPC data
	Disseminate and publish IPC data
Strengthen laboratory capacity in detection and identification of HCAs, outbreaks, pandemics and antimicrobial resistance	Avail competent and certified laboratory staff for AMR detection at all levels of laboratory network
	Strengthen the supply chain for laboratory commodities
	Promote domestic production initiatives for laboratory commodities
	Strengthen laboratory detection and testing capacity for HCAs, outbreaks, pandemics and antimicrobial resistance
	Avail appropriate Biosafety Cabinet
Ensure zero spillage of infections across laboratory networks	Review and update standardized waste management guidelines and standards
	Develop and disseminate laboratory biosafety and bio security guidelines and standards
Establish a surveillance system for tracking and early detection of HCAs at all levels of health service delivery	Assign dedicated and skilled staff for tracing and early detection of HCAs
	Develop SOPs for tracing and early detection of HCAs at all levels of healthcare care services delivery

	Avail equipment and materials for early detection of HCAs
	Creating tools and reporting frameworks Develop Reporting and notification forms for HCAI
Enhance the capacity of the National Reference Laboratory and Satellite Laboratories in active surveillance of IPC laboratory and ensure that all laboratories at provincial and district hospital laboratories have the capacity to detect, identify, prevent and control HCAs and antimicrobial resistance	Assess the readiness and capacity of existing laboratories in detection, identification, prevention and control of HCAs and antimicrobial resistance
	Build the capacity of the National Reference Laboratory, Satellite Laboratories and District Hospital Laboratories in active surveillance of IPC laboratory, based on results of the assessment

2.4.3 IPC Guiding Principles in Healthcare system.

2.4.3.1 Infection prevention and control committees

Each Health care Facility (HCF) must have representative membership on a committee that is responsible for the delivery and evaluation of infection prevention and control programs and strategies. This committee must contain senior membership and must report to the highest management level within the organization.

2.4.3.2 Risk Management

Each HCF must use a risk management framework when considering the implementation of infection prevention and control initiatives. The aim of determining a patient's specific risk(s) is to ensure that appropriate controls are implemented to protect all patients, visitors, and HCPs without compromising clinical care and psychological support. An operational / risk plan that includes infection risk must be reviewed and endorsed by the HCF's infection prevention and control committee and incorporated into the HCF's plan(s).

2.4.3.3 Incident management

To determine whether an infection prevention and control risk or breach constitutes a reportable incident, HCFs are to refer to accreditation standards applicable to the level of the HCF according to its minimum package of services and other regulations in force.

2.4.3.4 Education

Each HCF must ensure that all HCWs are provided with education, in line with their duties, on preventing and controlling the risk of transmitting microorganisms at minimum during induction and on an ongoing basis. Online mandatory training is described in the policies of the Ministry of Health, the respective professional Councils as well as the Ministry of Education for specific courses. Completion of this training is required to meet patient safety programs and Standards. The HCF is responsible for ensuring such training is completed by all HCPs.

Each HCF must promote, educate, and facilitate the participation of patients and visitors in infection prevention and control to minimize the risk of the transmission of pathogenic microorganisms and communicable diseases. In addition, the HCF must ensure that all HCPs working in clinical areas have completed training in the correct use of PPE. At a minimum, this should include how to remove PPE without self-contamination and cleaning of shared reusable PPE.

2.4.4 Risk Identification Requirements

2.4.4.1 Risk assessment of the patient

Assessing a patient's individual infection risk rating is to determine whether the patient is a potential source of infection to other patients, visitors, and HCPs or whether the patient is more susceptible to infection. The higher the risk rating, the greater the priority for infection prevention and control interventions and precautions.

2.4.4.2 Risk rating of the clinical area (functional area)

All patients, visitors or HCPs in a HCF are susceptible to acquiring an infection, transmission of a microorganism or communicable diseases. However, there are certain functional areas, such as intensive care units, neonatal units, transplant units, burns units and hematology units, where patients are at a greater risk of acquiring an infection. Patients in these areas can be immunosuppressed, acutely unwell or have undergone major surgery or trauma. These patients have an increased propensity to infection due to:

- The nature of their condition
- Frequent contact with HCPs
- Number and types of indwelling devices
- High usage of antimicrobial agents
- The duration of hospitalization

Each HCF must assign a risk rating to each of its functional areas and then reassess the risk if the purpose or patient risk category within the functional area changes. The functional areas should be risk rated as one of the following:

- Extreme risk
- High risk
- Medium risk
- Low risk

In the event of an outbreak, the HCF may adjust the risk rating of a functional area if there is an increased transmission risk of infection to patients, visitors and / or the HCP.

2.4.5 Risk Mitigation Requirements

2.4.5.1 Standard precautions

Standard precautions are the minimum infection prevention measures that apply to all patient care settings, regardless of suspected or confirmed infection status of the patient. Standard precautions must always be applied when caring for all patients and when handling all body substances, secretions, and excretions (excluding hair and sweat); non- intact skin; and mucosal membranes, including eyes.

Standard precautions involve adherence to all the following work practices:

- Perform hand hygiene
- Appropriate and correct use of personal protective equipment (PPE)
- Use of aseptic technique
- Safe use and disposal of sharps
- Performing routine environmental cleaning
- Cleaning and reprocessing of shared patient equipment
- Respiratory hygiene and cough etiquette
- Safe handling and disposal of waste and used linen

The use of standard precautions must be monitored for compliance and practice improvement within each unit and at the HCF level.

2.4.5.2 Hand hygiene

For most hand hygiene activities, alcohol-based hand rub (ABHR) should be used whereas visibly soiled hands must be washed with liquid soap and running water. Each HCFs must ensure that ABHR dispensers are as close to the point of care as possible. Placement of ABHR outside the point of care environment is up to the discretion of the HCF. Consideration must be given to workplace and patient safety risks when placing ABHR dispensers. Hand basins must comply with the requirements of the Ministry of Health guidelines.

All ABHR, antiseptic hand-wash, surgical hand scrub, plain liquid soap and moisturizer containers / packs / pump segments and cartridges (as opposed to product dispenser housing) are single use and must not be topped up, refilled or re-used. All HCPs have a responsibility to remind other HCPs of the need to perform hand hygiene if they observe a HCP who fails, or is about to fail, to perform hand hygiene. Such reminders are to be delivered in a courteous and encouraging manner to support all HCPs to achieve a high standard of patient safety.

- Targeted education for ongoing non-compliance which HCP will include one-on-one instruction on appropriate hand hygiene practices. This requires escalation to the HCPs Manager.
- Frontline management response with counseling and requirements to undertake a hand hygiene education program for repeated non-compliance.
- Participation in an intensive remedial hand hygiene education program for further non-compliance and warning that any further non-compliance in hand hygiene will result in disciplinary action and may result in dismissal. This requires escalation to the head of Clinical Services or the Director of Human Resources of the HCF.

HCFs must ensure an ongoing hand hygiene awareness program is established for all HCPs that is consistent with the accreditation standards. HCFs will conduct hand hygiene compliance audits; report on the results to the appropriate committee and evaluate audit data locally to identify opportunities for compliance improvement. For services where the hand hygiene compliance audit is not applicable, a localized version must be developed that is consistent with local practices.

2.4.5.3 Patient and visitor hand hygiene

Hand hygiene is to be performed by everyone. HCPs should encourage patients to perform hand hygiene and provide education on the correct hand hygiene technique. Patients should be provided with the means to perform hand hygiene after going to the toilet or using a bedpan or urinal, before eating, after sneezing, blowing their nose or coughing into hands, and after touching / handling animals. Visitors and volunteers must be provided with the means to perform hand hygiene and be encouraged to perform hand hygiene before and after contact with patients and their surroundings.

2.4.5.4 Personal protective equipment

Selection of personal protective equipment (PPE) must be based on an assessment of the risk of transmission of infectious agents to the patient or career and the risk of contamination of clothing or skin of HCPs by a patients' body substances.

2.4.5.5 Gloves

Gloves must be used in situations where the HCP is potentially exposed to body substances. When gloves are determined to be necessary, they must be worn on both hands. Gloves must be used for procedures that involve direct or perceived contact with non- intact skin, mucous membranes, and body substances. Sterile gloves must be worn when it is necessary or unavoidable to touch key sites and key parts directly. The wearing of sterile gloves for any specific aseptic technique procedure may be at the discretion or mandate of the HCF. Gloves must be changed and discarded under the following circumstances:

- As soon as they are torn or punctured or when the integrity has been altered
- Immediately after contact with a patient is complete and before care is provided to another patient
- When performing separate procedures on the same patient
- After handling blood and body fluid
- Before handling or opening sterile consumables
- Before writing in the healthcare record, answering telephone / pagers, using the computer and other social environmental actions
- Disposable gloves must not be cleaned or reused. ABHR is not to be used on gloves. Hand hygiene must always be immediately performed before and after use of gloves.

2.4.5.6 Masks

A single use mask must be worn while performing any procedure where there is a likelihood of splashing or spraying of body substances or mucous membrane exposure to microbial droplets.

Choosing a fluid-resistant single use mask, with the level of barrier protection required must be based on the risk of exposure at the time the procedure is performed or the likelihood of mucous membrane exposure to microbial droplets.

Single-use facemasks are categorized to provide different levels of standard, droplet, and airborne protection. The manufacturer's Instructions for Use provide the detail on the barrier level and their applications for use. A P2 / N95 mask must be worn when treating patients under airborne precautions or if aerosol-generating procedures are anticipated. HCP must perform a fit check every time they put on a P2 / N95 mask. HCFs must ensure the HCP is informed on how to perform a fit check.

A P2 / N95 mask is not to be worn by a patient. A fluid resistant surgical mask should be worn by a patient who is actively coughing or has an airborne transmission disease while they are outside their isolation / cohort room or in public areas of the HCF.

A single use mask must:

- Be used for a single episode of patient care
- Be worn and fitted in accordance with the manufacturer's instructions
- Not be touched by hands while worn except for fitting e.g. around the nose and sides prior to exposure
- Cover both the mouth and nose while worn
- Not be worn loosely (both ties secured) or folded down around the neck
- A mask must be discarded once it has been worn, or becomes visibly soiled or moist, and must not be used again. A mask must be removed by touching the strings / ties or loops only.

2.4.5.7 Eyewear and Facial Protection

Protective eyewear or a face visor / shield must be worn while:

- Performing any procedure or task where there is a risk of splashing or splattering of body substances
- During aerosol generating procedures
- In direct patient contact where there is a risk of an occupational exposure to body
- Substances

Protective eyewear must meet acceptable standards and be worn and fitted in accordance with the manufacturer's instructions for use. General prescription glasses do not comply as eyewear protection and, therefore protective eyewear must be worn in addition to prescription glasses.

Reusable protective eyewear and face visors / shields must be cleaned in accordance with the manufacturer's instructions after use and stored clean and dry. Protective eyewear labelled single use must not be reused.

2.4.5.8 Gowns and Aprons

A fluid-resistant gown or apron, made of impervious material must be worn:

During any procedure or task where there is a likelihood of splashes or contamination with body substances. On entering an isolation room during transmission-based precautions, if contact with the patient or the patient's environment is likely, and removed before or immediately on exiting the room. As a protective layer under a sterile gown that is not made of impervious material. Washable fabric gowns provide no protection from body substances and are not considered part of PPE for infection prevention and control.

2.4.5.9 Aseptic technique

Aseptic technique is a set of practices to minimize contamination and is used to protect the patient from the risk of acquiring an infection during clinical procedures. Each HCF is to undertake a local risk assessment to identify medium and high-risk procedures that require the use of aseptic technique. Each HCF is required to provide its clinical workforce with, or access to, aseptic technique education and maintain records of education, training, assessment, and competence.

2.4.5.10 Safe handling of used linen

There is a potential risk of microorganism transmission via exposure to contaminated linen. HCPs should handle, dispose and process used linen or linen soiled with body substances in a manner that prevents exposure to skin and mucous membranes, contamination of clothing and transfer of microorganisms to other persons and the environment.

2.4.5.10 Respiratory hygiene and cough etiquette

To minimize the risk of transmission of infection to others, everyone entering, visiting or working within a HCF presenting with the signs and symptoms of an acute respiratory infection are to have access to hand hygiene products and single use masks to enable them to practice respiratory hygiene and cough etiquette.

2.4.5.12 Safe use and disposal of sharps

The potential for exposure to blood borne viruses is greatest when medical devices such as needles, scalpels, or other sharp instruments are used and contaminated with body substances. Therefore, the use of sharps should be minimized wherever possible and when used be disposed of immediately after use, at the point of care. Each HCF must have procedures in place for the safe handling, transportation, and disposal of sharps. A HCF must provide training to HCPs on sharps handling and disposal.

2.4.5.13 Environmental cleaning

Each HCF must have an environmental cleaning program in place that is managed by suitably qualified personnel and overseen by an appropriate committee or directorate. Environmental cleaning must be performed in accordance with the hygiene standards. This includes cleaning of patient areas during and after a patient's stay (i.e. between patients).

A risk assessment must be done for each functional area to determine the level of cleaning required. The performance of cleaning in all functional areas must be regularly monitored as per the M&E standards. There is no single method for environmental cleaning and disinfection, and it is important to consider the efficacy and suitability of the different methods available.

2.4.6 Reprocessing of re-usable Medical Devices (RMDs)

Each HCF must ensure that there is a governance structure in place for both central and satellite reprocessing units. Each HCF must maintain a risk management approach to reprocessing. It is recommended that a central reprocessing unit provides advice and expertise to local satellite units or a HCF may choose to employ an alternative strategy to ensure that satellite units are adequately supported and compliant with relevant Standards. HCPs should also be delegated to reprocess non-critical, semi-critical and critical items as well as clean and maintain non-critical item washer / disinfectors. Office-based health care facilities include private consulting rooms, dental clinics and health clinics located outside of routine hospital in-patient and operating room settings.

2.4.7 Single Use and Single Patient Use Devices

Where the HCF is responsible for providing 'single use' devices and equipment, the HCF must ensure that the device or equipment is used once. Single use items may be labelled as:

- Single use
- Disposable symbol

Where the HCF is responsible for providing 'single patient use' devices and equipment, the HCF must ensure that the device or equipment is used for only one patient. 'Single patient use' devices and equipment can be used multiple times on the same patient following manufacturer's instructions for cleaning between uses.

2.4.8 Shared Patient Care Equipment

Shared patient use of devices and equipment has been implicated in the transmission of infection between individuals. HCPs are to pay special attention to the cleaning of shared reusable clinical devices and equipment between patients. They must be cleaned according to manufacturer's Instructions for Use and national procedures.

2.4.9 Procurement of New Devices or Equipment

As part of the process for purchasing new patient care devices, consumables or equipment, the HCF (solely or in conjunction the entity in charge of procuring such equipment for the HCF) must seek national infection prevention and control advice prior to purchase. Where new devices or equipment will require later reprocessing, the HCF must also consult with management of local reprocessing units prior to trial or purchase to ensure compliance with relevant policies, procedures, and Rwandan Standards. A HCF's asset management program must include infection prevention and control consultation when undertaking a review of the risks associated with patient and non- patient care equipment, furnishing, fixtures and clinical information technology systems. The local infection prevention and control service must be consulted when the HCF is considering the replacement of old equipment or reviewing the need to adopt newer technologies.

2.4.10 Safe Injection and Multi-Dose Vials

Breaches in safe injection, infusion and medication vial handling practices has resulted in transmission of HIV and viral hepatitis and in some cases caused outbreaks of disease. Standard precautions, particularly aseptic technique form the basis of safe injection practices. Flip-top pharmaceutical vials are a dust cover and therefore all vials must be cleaned prior to access to maintain aseptic technique. If a multi-dose vial must be used it should be used for a single patient whenever possible and discarded immediately after use. Injectable products packaged in multi-dose vials or ampoules (or other similar containers) must not be used except where the product is intended solely for the exclusive use of a single patient or there is no other alternative available on the Rwandan pharmaceutical market. Where there is no other alternative, precautions must be taken to ensure that the injection of contaminated material or fluid into a multi-dose vial or ampoule (or other similar container) does not happen. Injectable medication or solution must be taken from a vial or ampoule (or other similar container) using a sterile needle and syringe to withdraw the contents. Before each entry into the multi-dose vial the top must be cleaned and injected with a new unused sterile needle and syringe, even if the vial is dedicated to a single patient. Open multi-dose lotion or cream pots or containers must not be used unless they are for an individual patient use. A collapsible squeeze tube or bottle, pump pack or valve should be used to dispense lotion or cream from a multi-dose container. Once the product is empty both the container and pump pack should be disposed of. Multi-dose vials may only be used between multiple patients where there is no other alternative product available on the Rwandan market.

2.4.11 Safe Handling and Transport Of Patient Specimens

When transporting and handling pathology specimens, the HCP should ensure that the specimens are packaged and transported in such a way to ensure the safety of all involved and that the specimen is maintained under suitable conditions.

2.4.12 Transmission Based Precautions

Transmission-based precautions must be used in addition to standard precautions when standard precautions alone are insufficient to interrupt the transmission of a known or suspected pathogen. There are three main types of transmission-based precautions (these can be combined for specific transmissible infections or communicable diseases):

- Contact precautions are used to interrupt contact transmission. It occurs via direct or indirect contact with a colonized or infected individual or via a contaminated fomite (e.g. contaminated environmental surface).
- Droplet precautions are used to interrupt droplet transmission. It occurs via large expelled droplets ≥ 5 micrometers (m) that travel short distances in the air before settling to environmental surfaces [18]. The droplet transmission requires close proximity between the infectious host and other susceptible people.
- Airborne precautions are used to interrupt the airborne transmission route. Airborne transmission occurs by the dissemination of small, expelled aerosols ($< 5\mu\text{m}$) that can remain suspended in the air for long periods of time. Some microorganisms can be transmitted simultaneously via multiple transmission routes. To mitigate the transmission of these microorganisms, more than one type of transmission-based precautions must be employed in addition to standard precautions. Each HCF must develop a procedure that outlines how they will minimize the risk of contact, droplet and airborne transmission as well as implement transmission-based precautions to address visitors' restrictions. To support the requirements of each of the transmission-based precautions, a HCF must provide the required PPEs, appropriate patient accommodation and patient care equipment.

2.4.13 Bed Management and Patient Flow

Placement of a patient must be based on a risk assessment that considers the risk rating of all patients involved, functional area and room availability to meet the patient's isolation requirements. When considering patient movement or transfer, the receiving department, transport service, or HCF must be notified of a patient's infection or colonization status before transfer. The admission and / or transfer of a patient must not be delayed or compromised by a patient's suspected or known infection or colonization status. Patient placement decisions must be made in conjunction with local patient flow team and infection prevention and control unit to ensure timely patient transfers and admissions.

2.4.14 Antimicrobial Stewardship

Where a HCF is responsible for the antimicrobial therapy received by patients in its care, the HCF must ensure that safe and appropriate antimicrobial prescribing is a goal within its clinical governance system.

The use of antimicrobial agents to prevent and treat infections must be considered judiciously, using the five essential strategies for effective antimicrobial stewardship:

- Implement clinical guidelines consistent with current endorsed Rwandan antimicrobial prescribing guidelines approved by the local drug and therapeutics committee and which also considers local microbiology and antimicrobial susceptibility patterns.
- Establish formulary restrictions and approval systems that include restricting broad-spectrum and later generation antimicrobials to patients in whom their use is clinically justified.
- Review of antimicrobial prescribing with intervention and direct feedback to the prescriber.
- Monitor performance of antimicrobial prescribing by collecting and reporting unit or ward- specific data, auditing antimicrobial use, and using quality use of medicines indicators.
- Ensure the clinical microbiology laboratory uses selective reporting of susceptibility testing results that is consistent with current endorsed therapeutic guidelines on antibiotic usage.

2.4.15 Management of Health Workers with Symptomatic Illness

HCPs who are presenting with a symptomatic illness (e.g. boils, acute respiratory illness or gastroenteritis) or conditions that promote the shedding and transmission of microorganisms, such as exfoliative skin conditions or skin lesions, are associated with the spread of infection to vulnerable patients.

Therefore, each HCF must develop a procedure that outlines how the symptomatic illness must be addressed:

- HCP communicate on his/her suspected or known communicable disease
- The mitigation of transmission risks of communicable diseases
- Human resource issues such as redeployment, sick leave and return to work management
- HCPs non-participation in certain clinical procedures (e.g. exposure prone procedures) that is mandated by policy or legislation.

2.4.5.12 Occupational assessment, screening, and vaccination

Each HCF must develop, implement, and monitor a risk-based workforce immunization program for HCPs, other clinical personnel, and healthcare students, in accordance with the current health policy directives and Rwandan immunization guidelines.

A HCF must maintain a central register of the evidence of protection of HCPs, including medical contraindications to vaccination, vaccination refusals and an appropriate risk management strategy to address vaccination refusals.

3. GOVERNANCE AND MANAGEMENT

The implementation of this IPC Strategic Plan will be coordinated by the MoH through its implementing agency, RBC. The implementation will involve various key stakeholders including governmental and non-governmental entities; civil society organizations, faith-based organizations, academicians, and others. MoH will ensure that national capacity, leadership, and governance for infection prevention and control programs are strengthened. The MoH is also responsible for advocacy, funds mobilization and their equitable distribution, multi-sectoral action, and partnerships to accelerate national response for prevention and control of healthcare-associated and other preventable infections. The overall planning process will be guided by the Planning Department of the MoH. The MoH will establish IPC directorate that will coordinate IPC interventions at different levels.

Rwanda Biomedical Centre (RBC) is the implementing entity for daily IPC activities. It will ensure integration of IPC into health programs. Implementation and enforcement of the strategies shall require redistribution of the IPC responsibilities among the MoH, and RBC staff dedicated to infection prevention and control. The staff shall be responsible for coordination of IPC implementation across all levels. At referral and university teaching hospitals, the established IPC committee will lead the planning and implementation process for IPC program and provide mentorship where needed. At provincial hospitals, the established IPC committee shall lead the planning and implementation process for IPC program; ensure effective supervision and mentorship of the health facilities under their catchment area. The referral and provincial hospitals' IPC committees shall plan their financial budgets to be approved by the relevant budget entities.

At district hospitals the IPC committee shall be established and made fully functional, and it will lead the planning and implementation process for IPC program, it will ensure effective supervision and mentorship of the health centers under their catchment area.

This shall include IPC committees established at the health centers, Sector and Cell level, as well as focal person at the community level. Moreover, at the district level, planning will be done in line with set financial budget ceilings and the defined priorities by the Health Sector. The established IPC committee at District level shall be responsible for the development of district plans of HCs, and district hospitals that respond both to the District Development Strategies (DDS).

3.1 IPC GOVERNANCE STRUCTURE

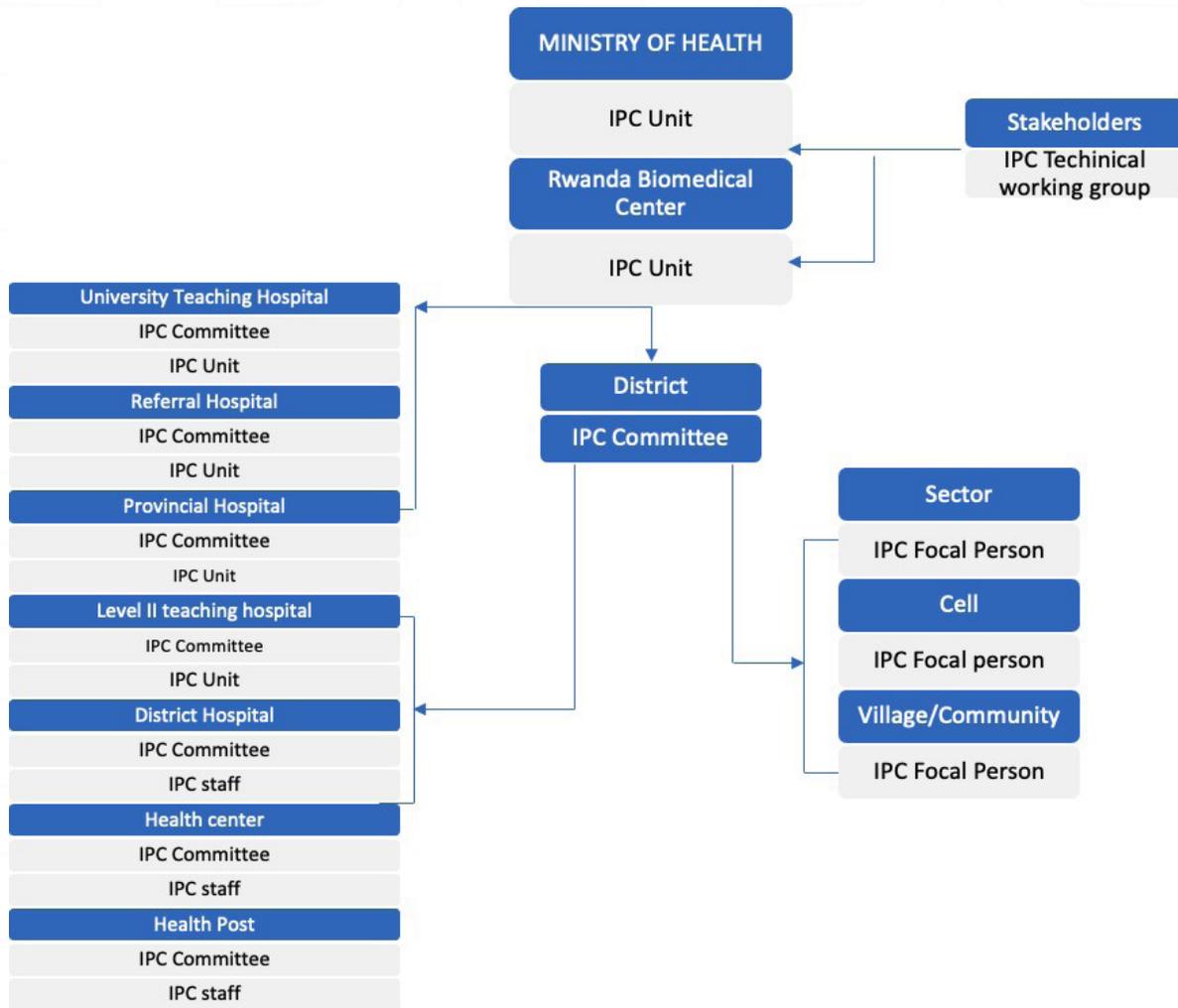


Figure 2: IPC Governance Structure

3.1.1 Partnerships and roles of the key stakeholders

The IPC Organizational structure details roles and responsibilities of different partners and stakeholders. The following illustrates key activities at each level, from the ministerial to community level.

3.1.2 Roles and responsibilities

3.1.2.1 The Ministry of Health

- Advocate and establish IPC structures at all levels.
- Provide overall leadership of IPC implementation.
- Strengthen the IPC program at all levels by ensuring overall coordination, national capacity, leadership, and governance.
- Funds mobilization.
- Engage key stakeholders involved in IPC interventions through establishing Steering Committees and Technical Working Groups.
- Promote multi-sectoral collaboration and partnerships to accelerate national preparedness and response for prevention and control of healthcare-associated infections and other preventable diseases.
- Set up monitoring, auditing and evaluation of the implementation and adherence to the national policy and standards of IPC program.
- Develop and strengthen national guidelines and standards of practices regarding IPC activities in health care system.
- Develop national plan for preventing and containing HCAs and antimicrobial resistance.
- Strengthen laboratory capacities for detecting and identifying HCAs and anti-microbial resistance
- Advocate for integration of IPC course module in all health professionals' training curricula.

3.1.2.2 The Rwanda Biomedical Centre (RBC)

- Establish a unit that will ensure effective implementation of IPC activities.
- Provide supportive supervision and mentorship on IPC program at decentralized entities.
- Ensure capacity building to strengthen the IPC program.
- Ensure technical coordination of the IPC program implementation.
- Ensure risk communication and community engagement.
- Ensure reporting of IPC activities.
- Conduct regular inspections and supervision in the health care settings and public places for IPC guidelines and standards compliance.
- Provide IPC in-service training for personnel of Health facilities.

3.1.2.3 The Rwanda Food and Drugs Authority (RFDA)

- Provide technical inputs and advice, on specifications of IPC equipment, products, materials and consumables.
- Establish an active and reliable laboratory - based surveillance of HCAs and antimicrobial resistance.

3.1.2.4 The Rwanda Medical Supply (RMS)

- Ensure availability of medicines, medical supplies, and consumables in the right quantity, with the acceptable quality, to the right place and customers, at the right time and with optimum cost to the population.
- Ensure the availability of healthcare infrastructures complying with IPC safe design guidelines and standards.
- Ensure the availability of water and electricity in all health care facilities.
- Provide technical expertise in construction and maintenance of wastewater treatment plants at the health care settings.
- Strengthen WATSAN (water and sanitation); adequate water supply and sanitation aimed at minimizing healthcare-associated infections and other preventable diseases.

3.1.2.5 The Rwanda Forensic Institute (RFI)

- RFI shall be responsible for providing and conducting IPC scientific analysis of evidence for judicial and other public health protection purposes whether inside or outside the country.
- In case of an outbreak or disease spread, the RFI shall provide expertise in analyzing biological, chemical, environmental samples to determine the source, spread, and nature of the infection.

3.1.2.6 The Ministry of Infrastructure

- Ensure the availability of health care infrastructures complying with IPC safe design guidelines and standards.
- Ensure the availability of water and electricity in all health care facilities.
- Provide technical expertise in construction and maintenance of the wastewater treatment plants at the health care settings.
- Strengthen WATSAN (water and sanitation), which includes adequate water supply and sanitation aiming at minimizing healthcare-associated infections and other preventable diseases.

3.1.2.7 The Ministry of Environment

- Ensure collaboration for the health sector infrastructure and equipment to comply with IPC and environmental protection standards.
- Coordinate the environmental impact assessments and audit in health care infrastructures.

3.1.2.8 The Ministry of Education

- Integration of Infection Prevention and Control (IPC) course module in curricula for all health professionals.
- Integrate hygiene education course module in the formal basic education curricula.
- Encourage multidisciplinary IPC students' one health innovation clubs.
- Ensure that research and innovation in the IPC field are promoted and evidence is shared with stakeholders to inform policy and decision-making.
- Provide conducive environment for training of school community on IPC.

3.1.2.9 The Ministry of Local Government

- Integration of IPC programs in decentralized entities' socio-economic development agenda.
- Mobilize general population to promote IPC culture.
- Enforce the implementation of IPC regulations.
- Integrate the IPC program in the districts' performance contracts (IMIHIGO).
- Establish, coordinate, and monitor IPC committees at District, Sector and community level.

3.1.2.10 The Ministry of ICT and Innovation

- Support and promote innovative technologies in IPC among the general population.

3.1.2.11 The Ministry of Agriculture and animal resources

- Advise and participate in the investigation and control of zoonotic diseases in animals, AMR problems, crops/plants diseases and food safety issues in collaboration with other parties.
- Avail relevant data on animal diseases and species affected in the country whenever required by other institutions and facilitate joint information sharing mechanisms.
- Provide regular information and risk maps on disease epidemiology indicating areas prone to zoonotic diseases.
- Issue public statements concerning status of animal health or jointly with other institutions when required.

3.1.2.12 The ministry of Justice

- Review and update legal framework for IPC.
- Provide legal expertise in development of laws, regulations, and ministerial orders in IPC.
- Support enforcement of laws and regulations in case of outbreaks and transmission of infectious diseases.
- Ensure correction facilities have adequate resources and infrastructure that support IPC measures.

3.1.2.13 Referral and University teaching Hospitals

In addition to the shared roles with Provincial and Referral hospitals and University Teaching Hospitals provide high-level expertise in IPC to support the rest of the health system and generate advanced and highly designed research findings to inform the Health Sector as a whole.

National Reference Laboratory will provide mentorship and supportive supervision to teaching, Provincial, and district hospital in HCAIs surveillance as needed. At Referral hospital, the IPC committee will lead the annual planning process for IPC program and provide mentorship where needed. Head of IPC oversees overall coordination of IPC program within the Health Facility.

3.1.2.14 Provincial hospitals

- Provincial hospitals shall integrate IPC through the establishment of an IPC Committee and to ensure it is fully functional.
- The Provincial hospital directorate, the head of IPC Unit, and Head of Laboratory will coordinate all IPC interventions. The established IPC committee shall lead the planning and implementation process for IPC program; ensure effective supervision and mentorship of health facilities under their catchment area.
- Deliver high level of IPC services, mentor, plan coordinate and conduct training to PH and DH staff in IPC, generate and share evidence-based for policy and decision-making and planning through conducting advanced research studies.
- Monitor staff adherence to IPC practices (e.g., hand hygiene, sharps safety, disinfection, sterilization, waste management, laundry safety etc....) and ensures compliance with National IPC Guidelines and SOPs.
- Initiate and evaluate immediate corrective actions when lapses in IPC are noticed and propose preventive measures.
- Actively participate in the development and adaptation of IPC guidelines, operational procedures, and tools to guide health care providers in delivering high quality health care.
- Ensure monitoring and evaluation of IPC programs, implement, and evaluate treatment protocols,

training curricula and update guidelines, and propose changes in IPC practices as needed.

- Document best practices in IPC, and report to the central level (MOH, RBC and other stakeholders).
- Coordinate different stakeholders in IPC programs at Provincial level, in collaboration with the Leadership of the province.
- Provide strategic direction to districts/health facilities to ensure implementation of the National Strategic Framework.
- Provide technical support and mentorship to the district structures.
- Provide technical input on specification for IPC equipment and materials to districts/health facilities.
- Provide guidance to health facilities/districts regarding the allocation of funds required to support the implementation of effective IPC activities.
- Review the data on HCAs towards strengthening implementation strategies.
- Submit quarterly HCAs surveillance report to the MoH.
- Provide feedback to the Districts from the National IPC structures.
- Report and share IPC relevant information with the National IPC structures.
- Request technical support from the national technical advisory group on IPC if required.
- Have mechanisms in place to set up alert systems and identify outbreaks in the facility.
- Support local government to:
 - Develop District preparedness plans to respond to health facility outbreaks timely.
 - Establish and maintain relationships with other departments at the district level e.g.
 - Engineering, Public Works, WASH, Environmental Health, academic institutions and EMS.

3.1.3 Responsibilities at the District administrative level

- Under the responsibility of the vice-mayor, in charge of social affairs, as well as responding to the priorities of the Health Sector; District submits their plans to the Planning and M&E Unit in the MoH for provision of inputs as needed, budget allocation and approval.
- The district health unit in collaboration with the health facilities will ensure effective implementation of IPC interventions at district level, health centers, health posts and community
- /village levels through mentorship formative supervision and regular supply of IPC consumables. In this context, IPC will be fully integrated into M&E system for timely gaps identification and problem solving, for quality improvement. The district level reports to the Ministry of Health the progress of IPC interventions implementation. Furthermore, the Ministry will conduct regular meetings with different partners and together will provide contribution to solving raised policy- related issues and give technical inputs on the achievements and challenges met during implementation.

3.1.3.1 District hospital level

- The District hospital Senior Management, the Head of IPC and Environmental Health Officer, will coordinate all IPC interventions and ensure supportive supervision and mentorship to Health centers, health posts, private clinics, public places and community in the implementation of IPC activities. This will be done in collaboration with the District Health Unit.
- District hospitals shall appoint Head of IPC who will oversee overall coordination of IPC program within the Health Facility.
- Each DH shall dedicate budget for IPC implementation.
- District Hospital shall integrate IPC services into the existing health care delivery through establishment of IPC Committee, planning and implementing trainings, mentorship and supervise the health care providers.
- DH plays major role in confirming cases reported by the health center or initially suspected, then the appropriate treatment is dispensed.
- Initiate immediate corrective actions when lapses in IPC are noticed.
- Ensure the necessary and recommended IPC infrastructure, equipment, material, and supplies are identified, forecasted, availed, and used appropriately.
- Review hospital assessment results and trends on HCAs, healthcare worker injuries and other indicators provided by the Hospital's IPC Committee, and report as required.
- Adapt to the new context, National guidance and/or materials provided by the Ministry of Health and RBC.
- Monitor staff's adherence to IPC practices (e.g., hand hygiene, sharps safety, disinfection, sterilization, waste management, laundry safety etc....) and ensures compliance.
- Develop IPC action plans, and address IPC-related issues which require cooperation and coordination across multiple stakeholders.
- Coordination of different stakeholders in the IPC program at District level, and initiate community partnership framework for full involvement of the general population in IPC program implementation.
- Plan and coordinate IPC training for staff at health facilities according to the national training manual.
- Develop-and review internal IPC policies and procedures.
- In collaboration with the district, coordinate the surveillance, prevention, investigation and control of infectious disease in the community.
- Assist with the containment of community outbreaks to prevent further transmission where possible.
- Review the data on HCAs towards strengthening implementation of IPC strategies.
- Submit monthly HCAs surveillance reports to the district and other hierarchical offices.
- Develop a contingency plan for preparedness and response to outbreaks.
- Set up a mechanism for rapid response to identified outbreaks in health facilities, public places, and communities.
- Monitor and audit IPC standards and practices in health centers, health posts, public places, and community.

3.1.3.2 Private health facilities

- Private health facilities shall appoint IPC manager who will oversee overall coordination of IPC program within the Health Facility.
- Each private health facility shall dedicate budget for IPC implementation.
- Private health facilities shall integrate IPC services into the existing health care delivery through establishment an IPC Committee and IPC team for planning and implementation of trainings, mentorship, and supervision of the health care providers.
- Initiate immediate corrective actions when lapses in IPC are noticed.
- Ensure the necessary and recommended IPC infrastructure, equipment, material and supplies are identified, forecasted, availed and used appropriately.
- Review hospital assessment results and trends on HCAs, healthcare worker injuries and other indicators provided by the Hospital's IPC team and Committee,
- Adapt to the new context, National guidance and/or materials provided by the Ministry of Health and RBC.
- Monitor staff's adherence to IPC practices (e.g., hand hygiene, sharps safety, disinfection, sterilization, waste management, laundry safety etc....) and ensures compliance.
- Develop IPC action plans, and address IPC-related issues which require cooperation and coordination across multiple stakeholders.
- Plan and coordinate IPC training for staff at health facilities according to the national training manual.
- Develop-and review internal IPC policies and procedures.
- Assist with the containment of community outbreaks to prevent further transmission where possible.
- Review the data on HCAs towards strengthening implementation of IPC strategies.
- Submit monthly HCAs surveillance reports to the district and other hierarchical offices.
- Develop a contingency plan for preparedness and response to outbreaks.
- Set up a mechanism for rapid response to identified outbreaks in health facilities.

3.1.3.3 Health center and Health post level

- The head of Health facility will appoint the IPC team leader who will oversee overall coordination of IPC program within the Health Facility.
- The Head of the Health Center or Health Post, together with the IPC team leader will coordinate all IPC interventions and ensure supportive supervision of CHWs in the implementation of IPC activities. This will be done in collaboration with the Sector Social Affairs Office.
- Each health care facility will have trained IPC team leader, with dedicated time, and this works as the member of a formed IPC committee.
- The Health Center (HC) or Health Post (HP) plays major role in cases identification through screening and early detection and ensure that potential infectious diseases are communicated as soon as possible.

- HC or HP train, supervise, and mentor CHWs for IPC practices. They receive, compile, and analyze IPC report from CHWs and submit reports immediately to the next level that is the organ in charge of IPC at District Hospital; and generates and presents IPC monthly reports to District hospital.
- Monitor staff's adherence to IPC practices (e.g. hand hygiene, sharps safety, disinfection, sterilization) and ensure compliance with National IPC guidelines and SOPs;
- Initiate immediate corrective actions when lapses in IPC are noticed.
- Support IPC team leader to ensure that the recommended IPC practices are implemented and conducted within the health center.
- Coordination of different stakeholders in IPC programs at Sector or Cell levels, and initiate community partnership framework for full involvement of the general population who will play major role in IPC program implementation at community levels.
- Establishing IPC Committee at HC and HP levels for following daily the compliance of IPC operating procedures.

3.1.3.4 Private clinics

- The head of Private clinics will appoint the IPC team leader who will be in charge of overall coordination of IPC program within the Health Facility.
- Each health care facility will have Trained IPC team leader, with dedicated time, and this works as the member of a formed IPC committee.
- The private clinics shall play a major role in cases identification through screening and early detection and ensure that potential infectious diseases are communicated as soon as possible.
- Monitor staff's adherence to IPC practices (e.g. hand hygiene, sharps safety, disinfection, and sterilization) and ensure compliance with National IPC guidelines and SOPs.
- Initiate immediate corrective actions when lapses in IPC are noticed.
- Collaborate with IPC Supervisor to ensure the recommended IPC practices are implemented and conducted within the health center.
- Establish an IPC Committee for a daily follow-up on compliance with IPC operating procedures. Submit monthly HCAs surveillance reports to the district office and District hospital.

3.1.3.5 Community level

- CHWs in charge of health promotion and disease prevention will coordinate the IPC activities at community level.
- Community Health Workers shall play a major role in community awareness and good practices for IPC. This includes mainly the use of safe water, adequate sanitation and hygiene education aiming at minimizing preventable infections at household and community levels.

- CHWs ensure safety of injections and adhere to IPC standard operating procedures as they provide health care to individuals and community.
- CHWs in charge of health promotion and disease prevention and the CHW in charge of social affairs, shall collaborate with the local leaders and other CHWs to implement IPC initiatives at community level; and the focal person shall also play a role of the primary contact person on potential infectious disease that may occur, gather data and report to and alert the next level, which is the Health Center or Health Post.

3.1.4 Role of other key stakeholders

Besides the concerned ministries and other government entities, the implementation of IPC program will require the effort of other stakeholders from the central to the community level. This includes schools, markets, prisons, churches, and other private businesses especially the ones that host many people (Hotels, restaurants, bars, etc.).

3.1.4.1 Private Sector

Private Sector has a major role in infection prevention and control through participating in the country initiative for IPC program planning and implementation. Different professional associations will provide the needed expertise for the implementation of the IPC plans.

3.1.4.1 Civil society

Civil society entities shall play a role in community sensitization and ensuring involvement of all people in the fight against preventable infectious diseases and contributing to impact mitigation of those diseases. This can be done through community-based organizations and the umbrella of diverse workers.

4. MONITORING, EVALUATION AND AUDIT/ SURVEILLANCE OF IPC PRACTICES AND FEEDBACK

4.1 Monitoring, evaluation, and audit

Strategic monitoring and evaluation of IPC is crucial for evidence-based decision-making and informed planning. Its aim is to track the progress towards the achievement of this IPC strategic plan; by assessing the extent to which standards are being met and activities are being performed according to strategic objectives. An M&E framework shall be reviewed to include key indicators, their definition, data source, data collection methods, tools to be used, responsible team and frequency of data collection for IPC program.

The IPC team at different levels shall be responsible for effective Monitoring and Evaluation of this strategy; and provide timely feedback on adoption of IPC practices as per the national guidelines to inform quality improvement efforts and ultimately prevent HCAs.

4.2 Data quality and information management

Existing mechanisms to assess different health programs' performance in Rwanda Health Sector will be used for IPC program. IPC National Coordination body shall ensure IPC indicators selection and harmonization of data management tools is appropriately done. The sources of data, their collection, collation, and reporting will be ensured through full integration of IPC data into existing M&E system. The national M&E system will include key IPC indicators (outputs, process, and outcomes), against which the success of IPC interventions will be assessed regularly. These continuous reviews will inform decision-making and strategic planning process for all stakeholders involved in IPC program.

4.3 Surveillance

A strong national surveillance mechanism shall be reinforced for early detection and tracing of HCAs, antimicrobial resistance and public epidemic outbreaks. The provision of timely feedback is also crucial. The surveillance reports shall be aligned to national Health Sector reporting existing channels, However, if need be, specific reporting guidelines, shall be developed by national IPC committee.

Table 9: IPC Monitoring Matrix

GOAL - TO ENSURE A SAFE AND SUSTAINABLE ENVIRONMENT IN HEALTHCARE SETTINGS, PUBLIC PLACES AND COMMUNITY THAT MINIMIZE INFECTION TRANSMISSION							
IPC Core component	Outcome Indicator	Process indicators	Baseline /2025	Target 2027	Target 2029	Means of	Responsible
Strategic objective 1: To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system							
CC1: IPC program	Availability of legal framework and coordination mechanisms at all levels	Elaborate IPC legal framework	3%	40%	100%	MOH report	MOH/RBC
		Establish IPC TWG and IPC committees					
Strategic objective 2: To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community							
CC1: IPC program	Proportion of healthcare facilities, public places, and community with a functional IPC program	Establish IPC programs at all levels	3%	40%	80%	MOH report	MOH/RBC
		IPC Operational Structure is in place					
CC2: IPC guidelines and SOPs	Availability and Functionality of IPC Committees at all levels	Developed IPC Guidelines and SOPs for key IPC areas	0%	80%	100%		MOH/RBC
Strategic objective 3: To ensure IPC advocacy, communication and community engagement are implemented at the nation level							
CC3: IPC education and training	Proportion of Rwandan population with comprehensive knowledge, attitude, and practice of IPC	Proportion of trained HCWs on IPC Number of awareness campaign conducted by using all communication channels	TBD	30%	60%	KAP survey report	MOH/RBC, MINEDUC, Health sciences universities

Strategic objective 4: To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system									
CC7: Workload, staffing and bed occupancy	Proportion of health facilities with infrastructure, and staffing complying to IPC norms	Proportion of health facilities with continuous water accessibility	TBD	80%	100%	MOH annual report of IPC	MOH/RBC; MININFRA; WASAC; MINALOC		
CC8: Built environment, materials and equipment for IPC at the facility level	Proportion of health facilities which reported stock out of IPC supplies and commodities less than 5%	Proportion of funding gap for IPC supplies at the central level	TBD	90%	95%	MOH quantification report for IPC supplies and commodities	MOH/RBC; RMS; Health Facilities		
		Availability of quantification report for IPC supplies and commodities at the MOH/RBC level							
Strategic objective 5: To enhance equity and inclusive IPC practices at all levels of healthcare setting, public places and community to prevent the spread of HCAIs and AMRs									
CC4: HCAI surveillance	Incidence of HCAIs, AMRs in health care settings in Rwanda	Proportion of healthcare workers vaccinated to prevent infections in the Rwandan health sector.	10%	7%	5%	MOH/RBC and Health facilities reports	MOH/RBC; Health facilities		
		Proportion of patients and HCWs who contracted HCAIs and AMR							

Strategic objective 6: To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAIs, outbreaks, pandemics, and AMRs						
CC4: HCAI surveillance CC5: Multimodal strategies	Proportion of conducted IPC related research among the established IPC research agenda	Availability of the IPC national research agenda	-	25%	50%	Disseminated research related to IPC
		Availability of funding for research related to IPC				
		Number of published peer reviewed papers for IPC research				MOH/RBC; Health science universities,RFI, Partners

Strategic objective 7: To strengthen monitoring and evaluation system for IPC through surveillance of HCAsI, outbreaks, pandemics, and AMRs in all health facilities

CC4: HCAI surveillance	Proportion of health care facilities with comprehensive monitoring and evaluation system for IPC among health facilities in Rwanda	Availability of a guideline on surveillance and reporting of HCAsI, outbreaks, pandemics, and AMRs	20%	40%	70%	Availability of data, MOH/RBC and health facilities reports	MOH/RBC; Health Facilities; RFI
		Updated HIMS data elements to capture HCAsI, outbreaks, pandemics, and AMRs.	Cases of HCAsI, outbreaks, pandemics, and AMRs reported	Develop an electronic tool for IPC, HCAsI, outbreaks, pandemics, and AMRs reporting at facility level	Decision made from synchronized reports of IPC reporting mechanisms at different levels of the health care system		
CC6: Monitoring/audit of IPC practices and feedback							

MILESTONES PER TARGETED IPC CORE COMPONENT

TABLE 10: IPC PROGRAMME MILESTONES, 2024-2029

Milestones			
Level	IPC Programmes	Year	Yes/No
Level 1	An active IPC Programme or operational plan according to WHO minimum requirements is not available or is under development	2025	
Level 2	An active IPC Programme or operational plan according to WHO minimum requirements exists but it is not fully implemented. National IPC Guidelines exists but are not fully implemented	2026	
Level 3	An active IPC programme exists, and a national operational plan according to WHO minimum requirements is available. National IPC Guidelines for IPC in healthcare are available and disseminated. Selected health facilities are implementing guidelines using multimodal strategies including health workers, training and monitoring and feedback	2027	
Level 4	An active national IPC programme is available according to WHO IPC core components guidelines and is leading implementation of the national IPC operational plan and guidelines nationwide using multimodal strategies including health workers training and monitoring and feedback in place. More than 75% of health care facilities meet WHO minimum requirements for IPC programmes, guidelines, training, monitoring and feedback	2028	
Level 5	IPC programme are in place and functional at national and health facility levels according to the WHO IPC core components and their compliance and effectiveness are exercised (as applicable), reviewed, evaluated and published. Plans and guidance are regularly updated in response to monitoring and feedback	2029	
Comment (explain the reason milestones have been achieved or not)			

TABLE 11: HCAIS MILESTONES, 2024-2029

Milestones			
Level	Health care associated infections (HCAI) surveillance	Year	Yes/No
Level 1	No national HCAI surveillance programme or national strategic plan for HCAI surveillance, including pathogens that are antimicrobial resistant and/or prone to outbreaks is available or under development	2025	
Level 2	A national strategic plan for HCAI surveillance (including pathogens that are antimicrobial resistant and/or prone to outbreaks) is available but not implemented	2027	
Level 3	A national strategic plan for HCAI surveillance (including pathogens that are antimicrobial resistant and/or prone to outbreaks) is available and implemented through a national system. Selected secondary and tertiary health care facilities are conducting HCAI surveillance (as specified above) and provide timely and regular feedback to senior management and health workers	2028	
Level 4	A national strategic plan for HCAI surveillance (including pathogens that are antimicrobial resistant and/or prone to outbreaks) is available and implemented nationwide in all health care facilities through a national system according to the WHO recommendations on IPC core components. Regular reports are available for providing feedback	2029	
Level 5	A national strategic plan for HCAI surveillance (including pathogens that are antimicrobial resistant and/or prone to outbreaks) is available and implemented nationwide in all health care facilities through a national system according to the WHO recommendations on IPC core components. Data are shared and being used continuously and in a timely manner to inform prevention efforts. The quality and impact of the system are regularly evaluated, and improvements actions are taken accordingly	2029	

TABLE 12: MILESTONES FOR SAFE ENVIRONMENT IN HEALTH FACILITIES, 2024-2029

Milestones			
Level	Safe environment in health facilities	Year	Yes/No
Level 1	National standards and resources for safe built environment (e.g: water, sanitation and hygiene (WASH) in health care facilities including appropriate infrastructure, materials and equipment for IPC, as well as standards for reduction of overcrowding and for optimization of staffing levels in health care facilities are not available or under development	2025	
Level 2	National standards and resources for safe built environment (e.g: water, sanitation and hygiene (WASH) in health care facilities including appropriate infrastructure, materials and equipment for IPC, as well as standards for reduction of overcrowding and for optimization of staffing levels in health care facilities, according to WHO minimum requirements exist but they are not fully implemented through a national plan	2026	
Level 3	National standards and resources for safe built environment (e.g: water, sanitation and hygiene (WASH) in health care facilities including appropriate infrastructure, materials and equipment for IPC, as well as standards for reduction of overcrowding and for optimization of staffing levels in health care facilities, according to WHO minimum requirements exist and are implemented in health care facilities at the national level through a national plan	2027	
Level 4	National standards and resources for safe built environment (e.g: water, sanitation and hygiene (WASH) in health care facilities including appropriate infrastructure, materials and equipment for IPC, as well as standards for reduction of overcrowding and for optimization of staffing levels in health care facilities, according to WHO minimum requirements exist and implemented at national and intermediate level according to a national plan	2029	

5. IMPLEMENTATION PLAN

This implementation plan summarizes key strategies and links them to actionable tasks that are time- bound during the life of this strategy (2024–2029), appointed to responsible entities and connected to measures of the achievement. As this plan is operationalized to implement the key strategies; policy makers, program managers and implementers need to ensure that the actions and activities apply the strategic principles for the greatest impact. Implementing partners will use the review plans, interventions and actions related to promotion of IPC practices to verify that the strategic principles are applied.

Table 13: IPC Implementation Plan with IPC Core component.

Strategic Interventions	IPC Core component	Activities	Timeline					Responsibility
Strategic objective 1: To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system								
Establish policies, strategies, legal frameworks, and regulatory mechanisms for IPC		Develop legal frameworks relevant for the implementation of IPC at all levels of the Rwandan healthcare system	30%	70%	100%			MOH, MINIJUST
		Develop a coordination mechanism for the implementation of all legal frameworks relevant to IPC	30%	70%	100%			MOH/RBC, MINALOC
		Engage private sector and explore opportunities for public-private partnership initiatives in support of IPC activities (e.g., manufacture of IPC commodities)	10%	25%	65%	85%	100%	MOH/RBC;PSF
		Establish and institutionalize the national IPC program	10%	25%	65%	85%	100%	MOH
		Mobilize and allocate adequate budget for implementation of IPC policy and strategy	-	40%	50%	70%	100%	MOH, MINECOFIN, PARTNERS
		Establish a national IPC TWG to monitor and evaluate the implementation of the IPC policy, strategy, and guidelines	40%	100%				MOH
		Establish IPC coordination mechanism and allocate specific budget in all districts	40%	100%				MOH and districts
		Build the capacity of IPC staff to oversee the implementation of IPC interventions at all levels of the Rwandan healthcare system	10%	25%	65%	85%	100%	MOH/RBC
		Create IPC positions and appoint skilled staff for IPC at all levels of the Rwandan healthcare system	10%	25%	65%	85%	100%	MOH, MINECOFIN, MIFOTRA, MINALOC
		Strengthen the management and coordination of IPC activities across all levels of the health care system						
CCI: IPC programmes								

Strategic Interventions	IPC Core component	Activities	Timeline					Responsibility
Strategic objective 2: To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community								
Establish training, capacity building strategies, and programs for all HCWs on IPC	CC2: IPC Guidelines CC3: IPC education and training	Develop IPC training curricula for all HCWs training institutions and training materials for special groups	40%	80%	100%	100%	MOH, MINEDUC, Health Sciences teaching institutions	
		Work with all teaching institutions, professional councils, regulatory bodies, and other stakeholders in the country to train, review and update the pre-service, in-service and special groups IPC modules	40%	60%	80%	100%	MOH, MINEDUC, Health Sciences teaching institutions	
		Integrate inclusive IPC learning, innovative eLearning, and other facilitated training methodologies	10%	30%	50%	80%	MOH, MINEDUC, Health Sciences teaching institutions	
		Establish guidelines and tools for post-training follow-up, support supervisions, and mentorships at all levels of the health care system to encourage and support standardized IPC practices	10%	30%	50%	80%	MOH, MINEDUC, Health Sciences teaching institutions	
		Adopt appropriate and innovative technologies that aid in IPC implementation and capacity building of HCWs and awareness of other groups	10%	30%	50%	80%	100%	MOH, MINEDUC, MINICT

Strategic objective 3: To ensure IPC advocacy, communication and community engagement are implemented at the nation level									
Strengthen communication and community engagement for effective implementation of IPC through all communication channels	CC5: Multimodal strategies	Develop behavior change and communication strategies for IPC practices	20%	100%					MOH/RBC and Partners
		Develop IPC communication materials, tools, and IPC protocols	20%	100%					MOH/RBC and Partners
		Disseminate all communication materials at all levels of the healthcare system		100%					MOH/RBC and Partners
		Promote IPC best practices in the community through all communication channels	10%	30%	50%				MOH/RBC and Partners
		Strengthen IPC standards precautions at all levels of the healthcare system	40%	50%	70%				MOH/RBC, Health facilities
		Integrate IPC indicators into annual HCWs appraisal systems		50%	100%				MOH/RBC, Health facilities
		Advocate for positive behavior change towards Antimicrobial Resistance Stewardship at all levels of the healthcare system using the One Health approach as per the AMR national strategic plan	10%	50%	70%				MOH/RBC; OH CCM
Strategic objective 4: To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system									
Improve the availability and accessibility of appropriate IPC equipment and infrastructure in all health care settings	CC8: Built in environment, IPC Supplies	Develop and adopt norms, standards, and guidelines for IPC equipment and infrastructure for all health care levels	20%	40%	60%				MOH/RBC
		Ensure timely maintenance of IPC equipment and infrastructure	60%	70%	80%				MOH/RBC, Health facilities
		Enhance appropriate planning, procurement, and distribution for IPC supplies and commodities at all levels of the healthcare system	50%	60%	70%				MOH/RBC, Health facilities

supplies in all health care settings		Ensure appropriate budgetary allocation for IPC supplies and commodities at all levels of the healthcare system	50%	60%	70%	90%	100%	MOH/RBC, MINECOFI, Health facilities
Strategic objective 5: To enhance equity and inclusive IPC practices at all levels of healthcare setting, public places, and community to prevent the spread of HCAs and AMRs								
Reduce risk of occupational exposures for HCWs and acquisition of HCAs for patients, clients, and the community	CC7; workload, staffing and bed occupancy CC8: Built-in environment	Appoint trained IPC staff and ensure the IPC standard of one full time HCW per 250 beds is respected in all health facilities	-	100%	-	-	-	MOH, MIFOTRA, DISTRICTS
		Integrate HCAI into existing public health surveillance systems in Rwanda.	20%	40%	60%	80%	100%	MOH/RBC
		Develop an inclusive and comprehensive environmental engineering, guidelines, and SOPs for isolation	10%	20%	30%	40%	50%	MOH/RBC
		Reinforce biosafety and biosecurity measures in laboratories and blood transportation	40%	70%				MOH/RBC
		Reinforce safe injection practices through advocacy for use of alternative treatment regimens, ensuring availability of non-reusable injection devices in healthcare settings, use of safety engineered devices, and ensuring proper disposal of sharps	40%	70%				MOH/RBC
		Minimize contamination and cross infections through dissemination and implementation of guidelines and SOPs for disinfection and sterilization of clinical areas and reusable medical equipment	40%	70%				MOH/RBC
		Avail appropriate and inclusive PPE for HCWs and ensure adherence to their use at all levels of the healthcare system	70%	100%				MOH/RBC, Health facilities
		Provide appropriate vaccinations for all HCWs	80%	100%				MOH/RBC, Health facilities
Minimize risk of acquisition of HCAs for HCWs								

Strategic Interventions	IPC Core	Activities	Timeline						Responsibility
Strategic objective 6: To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAs, outbreaks, pandemics, and AMRs									
Establish and strengthen a surveillance and notification system for HCAs, CAIs, and AMR in health care settings	CC4: Surveillance	Task NRL and RFI network with the responsibility of coordinating all microbiology data regarding AMR and HCAs across the nation	40%	60%	80%	90%	100%	MOH/RBC; RFI	
			20%	40%	50%	70%	100%	MOH/RBC; RFI	
			30%	40%	50%	80%	100%	MOH/RBC; RFI	
			20%	40%	50%	70%	100%	MOH/RBC; RFI	
			20%	40%	50%	70%	100%	MOH/RBC; RFI	
			20%	40%	50%	70%	100%	MOH/RBC; RFI	
			20%	40%	50%	70%	100%	MOH/RBC; RFI	
			30%	50%	70%	80%	100%	MOH/RBC; RFI; MINICT	
			50%	100%				MOH, Health facilities, community	
			Promote IPC preventive measures and ensure management of HCAs	CC2: IPC Guidelines CC4: Surveillance	Reinforce the management of occupational exposures in health care settings including but not limited to post-exposure prophylaxis for HIV exposure	40%	60%	80%	90%
20%	50%	80%				90%	100%	MOH, Health facilities, community	
20%	40%	60%				80%	100%	MOH, Health facilities	
20%	40%	60%				80%	100%	MOH, Health facilities	

		<p>Avail, sustain WASH services and promote practices in health facilities, public places, and the community</p> <p>Strengthen surveillance and prevention of cross contamination infection including HCAs and CAIs between community and healthcare referral system</p> <p>Implement guidelines and SOPs for packaging, transportation, and processing of biological samples and specimens for microbiology and toxicology investigations</p> <p>Strengthen referral system among institutions that handle biological samples using the One Health approach</p> <p>Provide consistent supplies of laboratory equipment, commodities, and consumables for timely processing of samples</p> <p>Implement laboratory standards and accreditation procedures</p> <p>Establish a research agenda for HCAs and AMRs in the country</p> <p>Conduct research and surveillance for HCAs and AMRs in the country</p> <p>Provide information-sharing platforms for IPC AMR and HCAI research findings</p>	20%	40%	60%	80%	100%	<p>MOH, MINECOFIN, MINALOC, MININFRA & WASAC</p> <p>MOH, Health facilities and the community</p> <p>MOH/RBC; Health facilities</p> <p>MOH/RBC, MINEDUC, Health sciences Universities</p> <p>MOH/RBC, MINEDUC, Health sciences Universities</p> <p>MOH/RBC, MINEDUC</p> <p>Health sciences Universities</p>
<p>Strengthen handling and processing of biological samples</p>	<p>CC4: Surveillance</p> <p>CC5: Multimodal strategies</p>		40%	50%	70%	80%	100%	
<p>Strengthen research on IPC elements and the utilization of</p>			10%	20%	50%	60%	70%	

research evidence in routinely updating IPC policies and guidelines		Establish a mechanism of supporting researchers to conduct and disseminate their research findings	10%	20%	50%	60%	70%	MOH/RBC, MINEDUC, Health sciences Universities
		Coordinate and collate information and data on infectious diseases, IPC, AMR, and HCAI to inform decision making	10%	20%	50%	60%	100%	MOH/RBC, MINEDUC, Health sciences Universities
Strategic objective 7: To strengthen monitoring and evaluation system for IPC through surveillance of HCAIs, outbreaks, pandemics, and AMRs in all health facilities								
Strengthen routine monitoring and regular evaluation of IPC program implementation	IPC practices and feedback CC6: Monitoring/ audit of	Build capacity of HCWs on data management (collection, analysis, and utilization of tools)	20%	40%	50%	60%	100%	MOH/RBC, MINEDUC, Health sciences universities
		Develop M&E plan and reporting tools for IPC	20%	40%	50%	70%	100%	MOH/RBC, Health facilities, MINICT
		Conduct monthly and quarterly monitoring and auditing of IPC indicators for quality improvement at all levels of the health care system	-	30%	50%	70%	100%	MOH/RBC; Health Facilities
		Conduct annual facility assessment and appraisal on implementation of IPC programs	-	30%	50%	80%	100%	MOH/RBC; Health Facilities; External evaluators
		Develop a feedback mechanism for IPC interventions towards quality improvement program	-	30%	50%	80%	100%	MOH/RBC; Health Facilities; External evaluators
		Undertake mid-term, revision and end-term evaluation of the implementation of the national IPC strategic plan			100%			100%

6. COSTED IMPLEMENTATION PLAN

Table 14: Costed Implementation Plan

#	Interventions	Activities	Progress indicators	Responsible Entity	Timeframe					Budget Total (RWF)
					2024 /25	2025 /26	2026 /27	2027 /28	2028 /29	
Strategic objective 1: To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system										
1.1	Develop the national IPC guidelines, standards operating procedures and Job Aids	Develop IPC guidelines, standards operating procedures, Training Materials and Job Aids Conduct a consultative and validation workshop for review of guidelines, SOPs, Training Materials and Job Aids	# of IPC guidelines, SOPs and Training Materials developed Report of the Workshops	MOH	X					26,000,000
				MOH, TWG	X					7,500,000
		Develop an IPC legal framework guiding its implementations	Document developed	MOH/RBC	X					7,500,000
		Conduct consultative and validation workshops for IPC legal framework	Report of consultative and Validation Workshops	MOH/RBC	X					7,500,000

1.2	Develop terms of reference for IPC steering committee and IPC technical working group	Review and approval of TORs by key stakeholders	Existence of clear TORs for IPC steering committee and technical working group	MOH	X					300,000
1.3	Establish a steering committee and a technical working group for coordination and engagement of key stakeholders in IPC	Develop roles and responsibilities for all IPC team	Existence of an operational IPC steering committee and a technical working group	MOH	X					300,000

1.4	Establish IPC committees in all levels of healthcare delivery and decentralized levels	Develop roles and responsibilities for all IPC Committee members	% of health care facilities with IPC committees	MoH & Facilities	X					300,000
Strategic objective 2: To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community										
2.1	Establish IPC Program at all levels	IPC Operational Structure	Availability of IPC Operational Structure	MOH	X					45,000,000
2.2	Institutionalize IPC program at all levels	Integrate IPC activities into health facility plans of action	# of HFs with integrated IPC into their action plans	MOH	X					9,000,000
		Recruitment of needed staff at MOH/RBC, Port Health, Health facilities for IPC enforcement and Disease's surveillance	# of recruited staff	M O H / RBC	X				X	
		Organize Training workshops on approved guidelines, SOPs, Training Materials, and Job Aids	# of trained staff	MOH	X					100,200,000
		Carrying out a mentorship/coaching session to the healthcare facilities, public places and Communities to comply with the developed guidelines and SOPs	% of Health facilities and concerned public places that have been mentored	MOH & RBC	X				X	53,850,000
2.3	Ensure Capacity building of community Health Workers	Conduct Training of community health Care workers on IPC standards Precaution	% of trained community health porkers	MOH	X				X	213, 300,000
2.4	Monitor and evaluate the implementation	Monitor and provide feedback on the implementation of IPC guidelines and SOPs	M&E Reports	M O H / RBC	X				X	30,000,000

	of the National IPC guidelines and SOPs	Conduct annual health facilities and concerned public places assessments on compliance to IPC guidelines and SOPs	% of HFs and concerned public places that have been assessed	MOH/ RBC	X	X	X	X	X	X
Strategic objective 3: To ensure IPC advocacy, communication and community engagement are implemented at the nation level										
3.1	Conduct an informative assessment on knowledge, attitudes, and practices related to HCAIs and AMRs	Hire a consultant to conduct the KAPs Survey for IPC/WASH Carry out the KAP survey	Consultant are hired Report of the KAPs	MOH/ RBC MOH/ RBC	X X					
3.2	Develop and disseminate customized communication tools for HCAIs and AMRs	Develop customized communication tools on HCAIs and AMRs Conduct a Consultative workshop for review and validation of customized communication tools	# of available customized communication tools Report of the Workshop	MOH/ RBC MOH/ RBC	X X					
3.3	Conduct multimedia campaigns on the burden of infectious diseases, HCAIs and AMRs	Disseminate customized communication tools on HCAIs and AMRs Publish quarterly IPC newsletters on the burden of infectious diseases, HCAIs and antimicrobial resistance Conduct a Radio and TV talkshow twice per Year on IPC precautions and AMR	# of disseminated customized communication tools Number of newsletters published # of TV and Radio talk shows will be broadcasted	MOH/ RBC MOH/ RBC MOH/ RBC	X X X	X	X	X	X	X

3.4	Harmonize IPC and AMR to improve patient safety through the One Health approach	Establish a multisectoral team of human, animal and environmental health workers in charge of raising awareness for IPC and AMR at all levels.	# of established OH Team in charge of raising awareness for IPC and AMR at all levels.	MOH/ RBC,	X	X	X			
3.5	Review and update the post exposure prophylaxis guidelines and SOPs	Disseminate post exposure prophylaxis guidelines and SOPs	# of disseminated guidelines and SOPs	MOH/ RBC; HFs, Partners	X				7,500,000	
		Refresher training of the health care providers on reviewed and updated guidelines and SOPs on post-exposure prophylaxis	# of trained staff	MOH/ RBC	X	X			127,251,785	
3.6	Monitoring of occupational health and safety linked to infectious diseases.	Conduct quarterly evaluation and provide feedback on occupational hazards linked to infectious diseases	# of conducted assessment and feedback provided	MOH/ RBC	X				7,500,000	
3.7	Ensure community awareness on IPC protectives measures to the general population	Conduct community awareness and brief on the IPC measures to the general population during the outbreak	% of the population receiving a message	MOH/ RBC	X	X	X	X	700,000,000	
3.8	Create a conducive and enable environment for stakeholders and investors in IPC	Advocate for tax exemption on imported raw materials for IPC equipment and consumables manufacturing	Advocacy for tax exemption is conducted	MoH	X				26,000,000	
Strategic objective 4: To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system										

4.1	Develop an inclusive safe health design guidelines and standards for health facility infrastructure	Hiring a consultant to develop an inclusive safe health design guidelines and standards for health facility infrastructure	Availability of a safe health design guidelines and standards for health facility infrastructure	MOH and partners			X		27,000,000
4.2	Develop and disseminate a safe health design guideline and standard for healthcare settings infrastructure	Print and disseminate the approved safe health design guidelines and standards.	# of disseminated inclusive safe health design guidelines and standards	MOH & RBC	X	X			13,500,000

4.3	Put in place an inclusive standardized isolation unit at the health facilities and concerned public places	Construct or rehabilitate inclusive isolation unit	# of rehabilitated and constructed inclusive isolation unit	MOH / RBC	X	X	X	X	X	X	480,000,000
4.4	Put in place inclusive hand washing stations at health care settings	Construct inclusive hand washing stations	# of constructed inclusive hand washing station	MoH / RBC	X	X	X	X	X	X	191,800,000
4.5	Avail incinerators or other waste treatment equipment	Install incinerators or other waste treatment equipment	# of installed incinerators or other waste treatment equipment	MoH / RBC	X	X	X	X	X	X	600,000,000
4.6	Avail appropriate truck for safe transportation of medical waste	Purchase appropriate trucks for safe transportation of medical waste	# of trucks purchased	MoH / RBC	X	X	X	X	X	X	300,000,000
4.7	Ensure healthcare settings compliance to safe health design guidelines and standards	Conduct assessment and mapping of health care settings for compliance with safe health design guidelines and standards.	# of healthcare settings assessed and received feedback	MoH & RBC	X	X	X	X	X	X	20,962,000
4.8	Promote domestic inclusive production initiatives for IPC equipment, supplies, cleaning chemicals and pesticides	Initiate Public Private Partnership (PPP) in procurement, manufacturing and supplying of IPC equipment, materials and consumables that are inclusive	# of private sectors involved	MoH, Rwanda FDA and RDB	X	X	X	X	X	X	4,682,700
4.9	Availing inclusive appropriate personal protective equipment	Supply all health facilities with inclusive, appropriate and enough PPE	% Health facilities without stock out of appropriate and inclusive PPEs	MOH/ Health care facilities	X	X	X	X	X	X	

5.5	Equity and inclusion in IPC resource allocation	Provide equal access to necessary resources such as PPE and hygiene supplies regardless of socio-economic status	materials and consumables	# of allocated resources reflecting equity and inclusion	MOH/RBC and Partners	X	X	X	X	X	X	X	900,000,000
5.6	Regularly assess the effectiveness of inclusive IPC initiative	Collect feedback for diverse stakeholders to identify areas for improvement and adjustment	# of assessed HFs	MOH/RBC and Partners	X	X	X	X	X	X	X	X	6,975,600
5.7	Avail inclusive WASH infrastructure	Construct inclusive WASH infrastructure in HFs, public places and in the community	# of constructed inclusive WASH infrastructure	MOH/RBC, MININFRA, MIGEPROF, and Partners	X	X	X	X	X	X	X	X	
Strategic objective 6: To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAs, outbreaks, pandemics, and AMRs													
6.1	Develop a harmonized IPC training curriculum for all health professionals	Hire a consultant firm or individuals for the development of the IPC training curriculum	Curriculum developed	MoH & MINEDUC	X								13,500,000

6.2	Develop customized training packages for all category of personnel in health facilities	Hire a consultant firm or individuals for the development of the customised training packages. Conduct a consultative and validation workshop for approval of the training curriculum	Customized training packages developed	MoH & RBC	X	X	X	X	X	X	13,500,000
				MOH/RBC	X					4,682,700	
				MoH, RBC & All Health Academic institutions	X	X	X	X	4,000,000		

6.3	Build the capacity of all in-Service and in service health professionals in IPC	Training of Master Trainers in medical schools and other health academic institutions lectures	# of trained MasterTrainer	MOH/RBC/URCMHS	X	X	X	X	X	16,248,000
6.4	Build capacity for outsourced companies	Develop a customized training package for all personnel working for outsourced companies	# of Training manual package developed	MoH & RBC	X	X	X	X	X	840,000
6.5	Establish agreements with academia and research institutions	Train and certify all personnel working for cleaning companies	% of personnel trained and certified	RBC & Facilities	X	X	X	X	X	420,000,000
6.6	Establish research agenda for IPC, HCAIs, outbreaks, pandemics, and AMRs	Develop MOUs with academia and research institutions	# of signed MOUs	MoH/ Research Institution	X	X	X	X	X	0
6.7	To mobilize funds for research purpose	Identify key research topics for IPC HCAIs, outbreaks, pandemics, and AMRs	# of topics identified	MoH/ Research Institution	X	X	X	X	X	7,500,000
		Involvement of all stakeholders for funds mobilisation	Available funds	MoH & RBC, Partners, Academic institutions	X	X	X	X	X	16,250,000

6.11	Awarding of the best researcher in IPC	Setting criteria for selection of the best researcher	# of awarded researchers	MOH			X	X	X	50,000,000
Strategic objective 7: To strengthen monitoring and evaluation system for IPC through surveillance of HCAsIs, outbreaks, pandemics, and AMRs in all health facilities										
7.1	Capacity building of certified laboratory staff for HCAsIs, AMR and other outbreaks detection at all levels of laboratory network	Hire a consultant to develop a training manual on detection HCAsIs, outbreaks, pandemics and antimicrobial resistance. Train and certify laboratory staff for HCAsIs, AMR and other outbreaks detection all levels of laboratory	# of training materials developed	MOH & RBC			X	X	X	13,500,000
7.2	Equip laboratory with adequate equipment, materials and consumables for detection, identification and response of HCAsIs, outbreaks, pandemics, and AMRs	Provide laboratory with adequate equipment, materials, and consumables	% of laboratories trained and certified staff	RBC			X	X	X	15,226,000
7.3	Equip Healthcare settings with appropriate spill kits for spillage wastes	Procure appropriate spill kits for spillage wastes	# of purchased spillage kits	MOH/RBC			X	X	X	40,320,000

7.4	Develop and disseminate laboratory and bio security guidelines and SOPs	Hire a consultant to develop a biosafety and biosecurity guidelines and SOPs Organise workshop for validation of biosecurity guidelines and SOPs	Consultant hired. Validated laboratory biosafety & biosecurity guidelines and SOPs available	MOH/NRL and RBC MOH/NRL and RBC	X X	X X	X X	X X	13,500,000 50,000,000
		Disseminate laboratory biosafety & biosecurity guidelines and SOPs to all labs Conduct training in on sites of lab staff at all health facilities on the laboratory biosafety & biosecurity guidelines and SOPs	Report of distribution % Lab staff trained	MOH/NRL and RBC MOH/NRL and RBC	X X	X X	X X	X X	50,000,000 50,000,000
7.5	Conduct assessment / inspections of IPC/WASH compliance in healthcare settings, public places, and communities	Procure the IPC Equipment's for prevention of Infection Conduct assessment in healthcare settings, hotels, schools, and prisons	# of procured equipment # of health care settings; hotels, schools, and prisons assessed	RBC and NRL RBC	X X	X X	X X	X X	100,100,000 150,000,000
		Conduct assessment / inspection on IPC/WASH compliance in communities	# of communities assessed.	RBC	X	X	X	X	150,000,000

7.6	Develop indicators matrix to guide surveillance and monitoring of IPC/WASH program implementation	Define, Review and approval of IPC/WASH indicators.	Availability of IPC/WASH indicator matrix	MoH				X			7,500,000
		Develop a software linked to HMIS for monitoring of IPC/WASH indicators	Software developed	MOH		X		X			100,000,000
7.7	Integrate IPC/WASH indicators matrix into existing health management information systems	Conduct a consultative meeting with HMIS team for integration of IPC/wash indicators	IPC/WASH indicators are part of the HMIS	MoH				X			28,000,000
		Develop customized IPC/WASH data collection system	Customized IPC/WASH data collection system developed	MoH, RBC & Facilities		X		X			17,000,000
7.8	Capacity building of HCWs about IPC/WASH data collection tools and reporting scheme	Train the healthcare facility and concerned public places' staff in the use of the IPC/WASH data collection tools and reporting	# of trained personnel	MoH, RBC & Facilities		X		X			50,024,000

7. SUMMARY OF IPC COSTING IN RWF

Table 15: Summary of IPC Costing in RWF

Strategic objectives	2024/2025	2025/2026	2026/2027	2027/2028	2028/2029	Total
Strategic objective 1: To establish a functional leadership, governance, and coordination for IPC program at all levels of the healthcare system	48,800,000	600,000				49,400,000
Strategic objective 2: To ensure institutionalization and strengthening of IPC program at all levels of the health care system, in public places and community	94,815,000	695,183,400	567,983,400	67,815,000	67,815,000	1,493,611,800
Strategic objective 3: To ensure IPC advocacy, communication and community engagement are implemented at the nation level	215,125,000	311,500,893	358,250,392		182,000,000	1,248,876,285
Strategic objective 4: To ensure IPC infrastructure, staffing and adequate supplies at all levels of the healthcare system	36,281,707,173					182,315,285,867
Strategic objective 5: To enhance equity and inclusive IPC practices at all levels of healthcaresetting, public places and community to prevent the spread of HCAs and AMRs	1,480,585,380					7,402,926,900
Strategic objective 6: To ensure that academic and research institutions adopt and implement capacity building and research in the field of IPC, HCAs, outbreaks, pandemics, and AMRs	118,152,433	360,569,733	229,136,400	219,887,067	222,387,067	1,150,132,700
Strategic objective 7: To strengthen monitoring and evaluation system for IPC through surveillance of HCAs, outbreaks, pandemics, and AMRs in all health facilities	120,603,656	268,145,323	259,305,323		126,478,656	937,838,280
TOTAL						194,598,071,832

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