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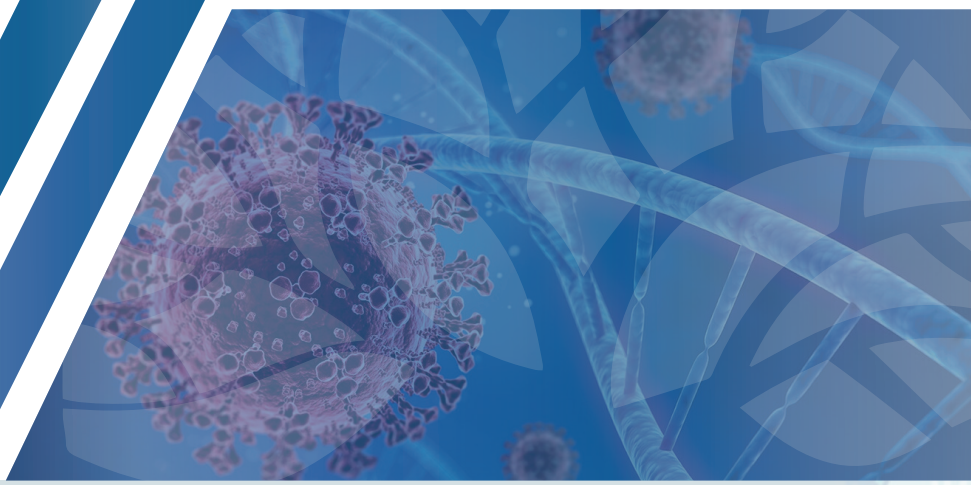


NATIONAL INFECTION PREVENTION & CONTROL STRATEGIC FRAMEWORK

2021-2023

NATIONAL INFECTION PREVENTION & CONTROL STRATEGIC FRAMEWORK

Introduction

Infection prevention and control (IPC) is part of a comprehensive approach to improve health outcomes. The establishment of an IPC policy and strategy provides a framework to develop and implement guidelines and standard operating procedures (SOPs) to establish a culture of safety in healthcare facilities. The evolving landscape of emerging infectious diseases necessitates increased awareness and attention to IPC implementation. A strong health system, which includes the culture and infrastructure of IPC, will equip governments and communities to respond and manage outbreaks and prevent the spread of infectious diseases. United Nations Sustainable Development Goals (SDG) also highlighted the importance of IPC as a contributor to safe, effective high-quality health service delivery.

IPC programs contribute to the prevention and control of healthcare-associated infections (HCAIs), which are one of the most common adverse events in health care delivery. HCAIs have significant impact on morbidity, mortality, and quality of life and represent an economic burden at the societal level. At any one time, up to 10% in developing countries will acquire at least one Healthcare-associated infection. The burden of HCAI is several folds higher in low- and middle-income countries as compared to high-income countries (WHO). However, a large proportion of HCAIs are preventable and there is a growing body of evidence to help raise awareness of the global burden of harm caused by these infections, including IPC strategies to reduce their spread. Preventing HCAIs also leads to significant cost savings in healthcare.

IPC systems are critical to controlling epidemics and pandemics & indispensable to a well-functioning health system. Investment in IPC systems are essential to protect healthcare workers and patients, reducing risk at health facilities, and preventing the spread of infection to communities. The emergence of the COVID-19 pandemic in Pakistan uncovered huge limitations in the IPC knowledge and best practices of healthcare providers that requires refocused and accelerated efforts to strengthen health systems for implementing IPC interventions as an essential component of patient and health care worker safety.

The Government of Pakistan through the Ministry of National Health Services Regulations & Coordination (NHSR&C) with technical support of the WHO Country Office, Pakistan is working since 2018 for systematic implementation of IPC program based on WHO Core Components of IPC at all levels of healthcare. Accordingly, formal notifications to establish the nation IPC unit, NIH were issued in 2018 and series of capacity-building training on IPC were conducted. The first National Guidelines IPC was published in April 2020 with mandate to oversee the implementation and strengthening of IPC standards and practices in health facilities across Pakistan.

The IPC discipline to strengthen health care systems is still evolving at a slow pace with major challenges and need for strong political and leadership engagement. There is a lack of real and efficient coordination between different healthcare sectors and partners a t the federal and provincial levels for proper placement of IPC systems and practices in healthcare services, even though organization-appropriate IPC interventions are part of an overall strategy and long-term planning. Infection prevention and control should be proactive and appropriately aligned to the unique characteristics and challenges at the national, facility, or community level. Therefore, it is imperative that country-specific National Strategic Framework must be developed and implemented at all levels of healthcare in Pakistan.

The strategic framework document is divided into five objectives on defining IPC structures, availability of competent workforce, establishing monitoring & evaluation systems, promoting conducive environments for IPC in healthcare facilities & communities, and implementing occupational safety with assignment of responsibility, timeline, and M&E plan with indicators.

The strategic components of the framework have been drawn from JEE recommendations, AMR NAP (2017), National Guidelines IPC, the recent IPC assessments on WHO tools during HIV/AIDS outbreak (Larkana, Sindh) & COVID-19 pandemic. The initial draft was developed by WHO EMRO and Country Office IPC teams with the National IPC technical working group in lead during December 2020. The draft was circulated for provincial and regional review and comments, for consensus-based finalization.

The strategic framework is comprehensive to allow for the creation of an effective and functioning IPC system in Pakistan, with targets expected to be achieved in 3 years. It is however, strongly conditional to the commitment of IPC stakeholders, meaningful Government support with domestic allocation and a strong synergy between the relevant sectors.

The Country

Pakistan is a middle-income country with over 200 million population, high population density, overcrowded healthcare facilities & fragile health system capacities indicating vulnerability to COVID-19 and other infectious hazards.

The federation comprises four provinces (Punjab, Sindh, Khyber Pakhtunkhwa, and Balochistan), a federal capital (Islamabad Capital Territory) and two federally administered areas (Gilgit-Baltistan (GB) and Azad Jammu and Kashmir (AJ&K)). Pakistan shares four land borders and one maritime border with Afghanistan, China, Iran & India.

There is provincial autonomy under the Constitution particularly in terms of health service delivery. The devolution in 2011 conferred key health responsibilities (mainly planning and fund allocation) to provincial health departments as the main implementers of the public health sector programs.

Health profile

Pakistan's health system consists of primary, secondary, and tertiary care levels. Ba sic health units (BHUs) and rural health centres (RHCs) are the major primary care facilities. A total of 5500 BHUS, 650 RHC,700 MCH centres 1200 secondary care facilities including Tehsil headquarter hospitals (THQ) and District headquarter hospitals (DHQ) and tertiary care hospitals functioning in the public sector. A thriving private health sector provides over 70 % healthcare, ranging from one-room GP clinics to state-of-the-art tertiary and specialist care hospitals.

There is marked variation and disparity in urban and rural healthcare delivery with an imbalance in the adequacy and skills of health workforce. There are insufficient health managers, nurses, paramedics, and skilled birth attendants in the peripheral areas as indicated by 0.978 physicians and 0.502 nursing and midwifery personnel per 1,000 population [1]

The allocation for the health sector is very low at less than 1% GDP. The total expenditure on health represents only 4.73 percent of the total government expenditure and 2.61 percent of the GDP of which 64.85 percent is attributed to the private sector[2].

There has been some improvement in key health indicators, however, under-five mortality of 74 per 1,000 live births, IMR & NNMR at 62 and 42 per 1,000 livebirths & MMR of 149/100,000 live births are some of the highest in Asia [3].

Over the past few decades, Pakistan has experienced an increase in outbreaks of emerging and new infectious diseases. Infectious diseases remained the leading cause of morbidity, mortality, and socioeconomic burden on the population. Water contamination and poor water quality have a direct and very significant impact with water-borne infections accounting for 70% of all common diseases.

Pakistan is facing a double burden of disease. Hepatitis B and C affect 7.6% of individuals, with the country among the list of 11 countries with the highest prevalence rates of HIV/AIDS and the recent largest global outbreak in the paediatric population in Larkana, Sindh (2019). It has the 5th highest tuberculosis burden in the world with 510,000 new TB cases each year, 15,000 of which are Multidrug-resistant (MDR) cases (WHO).

IPC has been a neglected discipline with poor infection control practices during health care. The scarcity of resources with mismanagement and weak governance, insufficient and untrained human

[1] Pakistan, Human Resources for Health Vision;2018-30
MONHSRC
[2] WHO
[3] World Bank

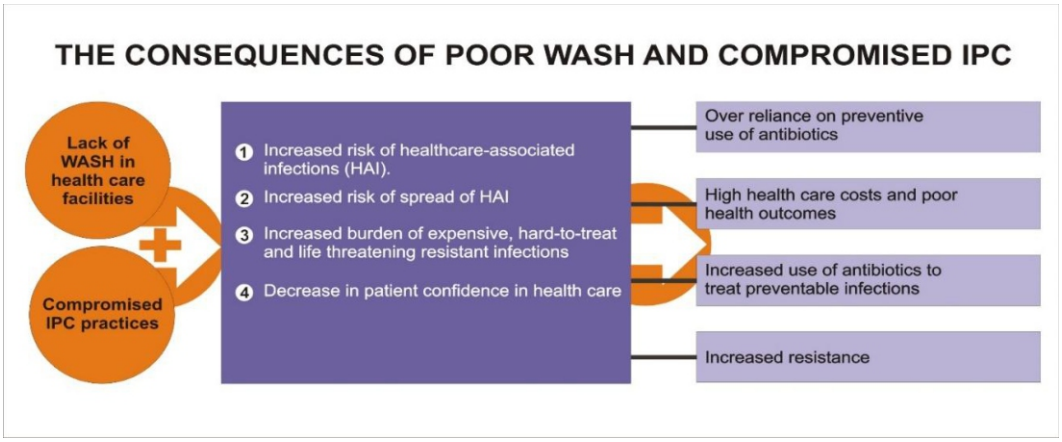
resources, and an indifferent attitude of the public towards general protective measures further worsen the situation compounded with frequent disease outbreaks.

Background

Current threats posed by epidemics & antimicrobial resistance (AMR) have been given top priority for action on the global health agenda along with patient safety and water, sanitation, and hygiene (WASH) in health facilities. International Health Regulations (IHR) mandates IPC as a pivotal strategy for dealing with public health threats of international concern.

Pakistan JEE report 2016 indicated low scores for most of the 19 technical areas for evaluation of IHR core capacities. The third technical area of antimicrobial resistance (AMR) including the indicator of HCAIs prevention & control programs obtained a score of one (no capacity) out of five (sustainable capacity).

The AMR national action plan aligned to the global action plan was developed & endorsed in 2017 as a follow-up to the JEE key recommendation on addressing AMR. Objective three of AMR NAP pertains to IPC: *Reduce the incidence of infection through effective sanitation, hygiene, and infection prevention measures*. There is a need to ensure every health facility implements effective, evidence-based IPC programs and practices with safely managed water, sanitation, hygiene, and waste management facilities to protect the lives of health workers, and patients using these facilities.



In Pakistan, the estimated burden of hospital-acquired infections is high due to lack of basic infection prevention and control measures with unfortunately no system of surveillance in place. However, global studies indicate the prevalence of 5-19% HCAIs is substantially higher in LMICs. A study conducted in Fauji Foundation Hospital Rawalpindi revealed an alarming statistic with only 43 % of nurses using gloves while attending to patients[1]. Basic hand washing facilities are still not available in 25% of public sector hospitals.

The Larkana HIV outbreak in May 2019 resulting in clustering of HIV cases in children was at least partially the result of a system failure with the widespread absence of best practices in infection prevention and control, risky injection practices, and inadequate waste management indicating an overall serious gap in IPC implementation and lack of IPC strategy. WHO

The assessments conducted in 2019 and 2020 in HCFs designated for COVID-19 case management on WHO customized tool on 15 selective IPC indicators revealed most indicators had more than 70% gaps requiring immediate attention for effectively responding to COVID-19 pandemic.

Challenges & Gaps

Strengths	Weaknesses
1. Increasing awareness on IPC among health care professionals 2. IPC expertise available in the country 3. Potential media support on IPC 4. Published national guidelines IPC 5. Sanitation systems available 6. Creation of IPC unit at the federal & two provincial levels (Sindh & Punjab) 7. Availability of IPC training programs in the private sector 8. Standardized IPC in-service credit training courses for doctors, nurses, and housekeeping staff 9. Strong expanded immunization program for adults and children	1. Weak awareness on IPC as cross cutting discipline for quality and safety of healthcare (not limited or linked to any specific disease/epidemics) 2. Lack of functional IPC structures (steering committees, units/cells and IPC committees and teams in HCFs) 3. Weak role of authorized bodies responsible for M&E 4. Lack of legislation and enforcement mechanism 5. Lack of allocated budget for IPC program at all levels 6. Limited financial and inadequate human resource 7. Improper hazardous waste management system 8. Lack of standards and compliance to isolation policy, IPC infrastructure, spacing, waste management 9. Lack of contingency planning for expected shortages 10. Lack of vaccination program of HCWs in most hospitals
Opportunities	**Threats**
1. Availability of guidelines and standardized training modules at the national level 2. Local availability and manufacturing capacity for PPEs, IPC supplies and equipment 3. International guidance and technical documents by WHO & other organizations 4. Models of IPC implementation available in the private sector 5. Engagement & support of donors and NGOs	1. Loss of attention to IPC when COVID-19 pandemic is over 2. Lack of management skill for proper IPC resources utilization 3. Current COVID-19 pandemic 4. Introducing of new microbial strains and genotypes from other countries and re-emergence of resistant strains 5. Overcrowded health care facilities 6. Distracted and competing priorities 7. Poor understanding of IPC infrastructure requirements at the HCFs level

Vision

Pakistan stands in the global community as a country safe and free from cross-border transmission of communicable diseases and health hazards

Mission

Reduce the incidence of healthcare-associated infection in HCFs and communities through implementing minimum infection prevention & control measures.

Strategic Goals

The purpose of this document is to outline the strategic framework for Pakistan National Infection Prevention & Control Program to improve patient & staff safety and health outcomes. The framework is based on the following five strategic goals aligned to the WHO Guidelines on eight (8) core components of Infection Prevention and Control Programs.

Goal 1: Strengthen infection prevention & control programs across all tiers of the healthcare system

Goal 2: Ensure a competent health workforce that adopts best IPC practices

Goal 3: Establish a system for auditing and monitoring IPC practices

Goal 4: Optimize conducive environment, materials & equipment for IPC at healthcare settings & community

Goal 5: Promote occupational safety of healthcare workers in all healthcare facilities

The main activities to achieve these goals have been described in the framework along with indicators for monitoring and evaluation.

NATIONAL INFECTION PREVENTION & CONTROL STRATEGIC FRAMEWORK (2021-2023)

Goal 1: Strengthen Infection Prevention & Control Program Across All Tiers of Healthcare System			
Objective 1.1. Strengthen leadership, governance & multi-sectoral coordination between relevant partners and stakeholders			
Activities	**Responsible Authority**	**Time Frame**	
		Year	**Quarter**
1.1.1 Ensure efficient communication & dialogue between government partners (federal and provincial), IPC focal points/teams at HCFs in public and private sectors	National& Provincial DOH, Partners (WHO, CDC)	2021 2023	Q1-Q4
1.1.2 Build linkages and promote integration with other relevant programs such as TB, HIV, WASH, AMR, and occupational health programs	National& Provincial DOH, Partners (WHO, CDC)	2021 2023	Q1 -Q4
1.1.3 Advocate with senior/mid-level managers at all levels of care on their role in supporting IPC implementation	National & Provincial Stakeholders Policymakers Senior HCF Managers	2021 2023	Q1-Q4
1.1.4 Review/formulate legislation to support IPC program & practices	M/ONHSRC, Ministry of Law & Justice TWG Provincial/Regional DOH Health Care Commissions	2021	Q4
Activities	**Responsible Authority**	**Time Frame**	
		Year	**Quarter**
1.2.1 Notification of TWG for technical guidance on national IPC program implementation and M &E	M/O NHSRC NIH	2021	Q1
1.2.2 Establish multi-sectorial (national, provincial, regional) IPC steering committees with clearly defined responsibilities and authority	M/O NHSRC Provincial/Regional DOH Partners (WHO, CDC)	2021 2022	Q2-4 Q1-Q2
1.2.3 Create national, provincial/regional IPC units/cells with clear objectives, functions, and defined scope of responsibilities	M/O NHSRC Provincial/Regional DOH Partners (WHO, CDC)	2021	Q4
1.2.4 Create IPC structures at HCF: ● IPC committee with clear objectives, functions & defined scope of responsibilities ● IPC team consisting of at least one full-time IPC professional or equivalent (nurse or doctor working 100% in IPC) for up to 250 beds	M/O NHSRC Provincial/Regional DOH Health Care Commissions	2021	Q4
Activities	**Responsible Authority**	**Time Frame**	
		Year	**Quarter**
1.3.1 Resource mobilization for IPC and funding grants to support implementation till PC 1s made and approved	M/O NHSRC Provincial/Regional DOH P&D Division	2021	Q1-Q4

		Mo Finance Partners (WHO, CDC, etc.)		
1.3.2	Allocation of the available resources for supporting IPC activities at each level (development of PC1s)	M/O NHSRC Provincial/Regional DOH P&D Division Mo Finance	2021	Q3-Q4
1.3.3	Technical assistance for PC 1 development	M/O NHSRC Provincial/Regional DOH P&D Division Mo Finance Partners (WHO, CDC, etc.)	2021 2022	Q2-Q4 Q1-Q2
Objective 1.4. Ensure IPC national guideline and standard operating procedures (SOPs) are in place and remain up to date				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
1.4.1	Advocate & disseminate national guidelines IPC to all health care facilities	M/O NHSRC Provincial/Regional DOH	2021	Q1-Q4
1.4.2	Translate national guidelines IPC into SOPs and disseminate to HCFs at all levels	TWG Provincial/Regional DOH	2021	Q1-Q4
1.4.3	Development & dissemination of necessary multilingual IEC material (posters, leaflets, brochures etc./print & electronic media)	TWG Provincial/Regional DOH Partners (WHO, CDC)	2021	Q3-Q4
1.4.4	Ensure periodic update of national IPC guidelines (at least every 2-5 years) through review & adapting latest IPC recommendations	TWG Provincial/Regional DOH Partners (WHO, CDC)	2022	Q2
Objective 1.5. Strengthen microbiology laboratory capacity to support infection prevention and control services				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
1.5.1	Strengthen laboratory systems for HCAI (healthcare-associated infections) surveillance with dedicated medical/clinical microbiologist with biosafety culture and good lab practices	M/O NHSRC Provincial/Regional DOH Partners (WHO, CDC)	2022 2023	Q1-Q4 Q1-Q2
Goal 2: Ensure Competent Health Workforce that Adopts Best IPC Practices				
Objective 2.1. Establish posts for IPC professionals with career development				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
2.1.1	Ensure communication & dialogue for creating posts for IPC professionals	TWG	2022	Q3

		Provincial/Regional DOH		
2.1.2	Hiring federal-provincial/regional IPC focal point	Respective stakeholders	2021 2023	Q1-Q4
2.1.3	Advocate and monitor retention of trained IPC staff at HCF for at least 02 years	M/O NHSRC NIH Provincial/Regional DOH	2023	Q4
Objective 2.2. Support IPC professionals to receive education and training to achieve an expert level of IPC knowledge				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
2.2.1	Development of a standardized IPC training curriculum aligned with national guidelines and WHO training module (Institutionalize through academia) ● Doctors ● Nurses ● Paramedic/lab/support staff including housekeeping	TWG Provincial/Regional DOH Partners (WHO, CDC)	2021	Q2
2.2.2	Conduct in-service trainings of HCWs on standard modules (maintain training record)	Provincial/Regional DOH Partners (WHO, CDC)	2021 2023	Q3
2.2.3	Introduction of IPC module in under-graduate medical and paramedical education	TWG HEC, PMC, PNC, PC, HCC WHO	2022 2023	Q1-Q2
2.2.4	Introduction of IPC in postgraduate certification/degree courses	TWG Provincial/Regional DOH Academia CPSP/PNC/HEC	2022 2023	Q1-Q4
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
2.3.1	IPC trainings (with record maintenance of trained staff) ● Hospital IPC teams ● Regular refresher training of all hospital staff ● Conduct IPC orientation to newly recruited staff	TWG Academia Provincial/Regional DOH WHO	2021	Q4

Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
3.1.1	Develop monitoring mechanisms with specific indicators at the federal, provincial, and institutional level to periodically monitor progress (M&E tools printed & web-based)	National & Provincial IPC SC TWG	2022	Q3
3.1.2	Establish a strategy for HCFs data dissemination and usage for decision-making	National & Provincial IPC SC HCFs IPC Committees & Teams	2022	Q4
		Senior HCF Managers		

Goal 4: Optimize Conducive Environment, Materials & Equipment for IPC at Healthcare Settings & Community				
Objective 4.1. Strengthening IPC infrastructure & services in healthcare settings				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
4.1.1	Incorporate WASH program essentials in all HCFs	M/O NHSRC M/O CC Provincial/Regional DOH	2023	Q1
4.1.2	Define national standards for IPC compliant building codes for all HCFs	M/O NHSRC TWG PEC PWD	2021	Q4
4.1.3	Define/develop standards and guidelines to ensure effective ventilation (natural, mechanical & AIIR) in HCFs	TWG PEC MO NHSRC Provincial/Regional DOH	2022	Q1
4.1.4	Establish a mechanism for proper healthcare waste management at HCFs in collaboration with relevant government bodies	TWG MO NHSRC DOH EPA Municipal Corporation	2021	Q3
Objective 4.2 Optimize the availability of essential IPC supplies & equipment in healthcare facilities				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
4.2.1	Develop/update essential IPC supplies list with standardized specifications	DRAP TWG Provincial/ Regional DOH Partners (WHO, CDC)	2021	Q1
4.2.2	Strengthen essential IPC supply chain system (procurement, consumption & monitoring) at all levels of healthcare	Provincial/Regional DOH Partners (WHO, CDC)	2021	Q3
Objective 4.3. Engage the community on IPC				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**

4.3.1	Improve public awareness on high-priority IPC practices (e.g., hand hygiene, injection safety, etc.)	Provincial/Regional DOH M/O Education Partners (WHO, CDC)	2021 2023	Q2-Q4 Q1-Q4
4.3.2	Update basic curriculum on hygiene module for LHWs/CHWs	Provincial/Regional DOH M/O Education Partners (WHO, CDC)	2021	Q4
4.3.3	Train & educate community health workers on basic IPC practices (LHWs, vaccinators & community practitioners)	Provincial/Regional DOH	2022	Q2
Goal 5: Promote Occupational Safety of Healthcare Workers in all Healthcare Facilities				
Objective 5.1. Use administrative, engineering & environmental controls to prevent occupational hazards in HCWs				
Activities		**Responsible Authority**	**Time Frame**	
			Year	**Quarter**
5.1.1	Develop/define SOPs to control occupational infectious hazards & guide post-exposure management	TWG Provincial/Regional DOH Partners (WHO, CDC)	2021	Q4
5.1.2	Develop and establish systems of mandatory reporting & management of HCWs exposure to occupational infections (HCWs surveillance & MNE)	Provincial/Regional DOH Hospital Managers IPC Committee	2022	Q2
5.1.3	Conduct regular workplace risk assessment covering all hazards to define the effectiveness of environmental controls (e.g., Triage system, ventilation, sharp hazards, etc.)	HCF IPC Team/committee	2021 2023	Ongoing
5.1.4	Ensure adequate clinical staffing level including surge capacities during outbreaks	Provincial/Regional DOH Hospital Managers HCF IPC Committee/Teams	2021 2023	Ongoing
5.1.5	Ensure availability of mandatory vaccines including Hepatitis B (HBV) to all HCWs	Provincial/Regional DOH Hospital Managers HCF IPC Committee/Teams	2021 2023	Ongoing
Objective 5.2. Ensure availability of PEP services for all HCWs				
5.2.1	Define infectious hazards for screening and provision of PEP	M/O NHSRC Provincial/Regional DOH Hospital Management HCF IPC Teams	2021 2023	Ongoing
5.2.2	Provide counseling and PEP services to HCWs exposed to sharps injuries & selected infectious diseases	Hospital Management Hospital IPC Teams	2021 2023	Ongoing

NATIONAL INFECTION PREVENTION & CONTROL STRATEGIC FRAMEWORK (2021 – 2023)

Objective 1.1. Strengthen leadership, governance & multi-sectoral coordination between relevant partners & stakeholders						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
1.1.1. Ensure efficient communication & dialogue between all government partners (federal and provincial), IPC focal points/teams at HCFs in public and private sectors	MOU between different stakeholders	# of meetings/ communications channels established	Annually	Briefing and minutes	No available data	To be define
1.1.2. Build linkages and promote integration with other relevant programs such as TB, HIV, WASH, AMR, and occupational health programs	Functionally integrated collaboration mechanisms developed	# of integrated activities	Annually	Communication with relevant correspondence	No available data	To be define
1.1.3. Advocate senior/mid-level managers at all levels of care on their role in supporting IPC implementation	Advocacy sessions conducted	# of advocacy sessions % of senior managers sensitized	Annually	Briefing and minutes	No available data	To be define
1.1.4. Review/formulate legislation to support IPC program & practices	Relevant legislations reviewed/formulated	Yes/No	Annually	Review of the legislature, consultations	Existing legislations	To be define
Objective 1.2. Develop an effective organizational IPC structure at all levels of care						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
1.2.1 Notification of TWG for technical guidance on national IPC program implementation and M &E	TWG constituted and notified with defined TORs	Yes/No	Annually	Notifications/ ToRs/meeting minutes	IPC TWG minutes IPC SC minutes (provincial and national)	To be define
1.2.2 Establish multi-sectorial national, provincial, regional IPC SC with clearly defined responsibilities and authority	IPC national, provincial & regional SC notified	# of notified IPC national, provincial & regional steering committees	Annually	Notifications/ ToRs/meeting minutes	01 Federal 02 Provincial committees	To be define
1.2.3 Create national, provincial, regional IPC units with clear objectives functions with a defined scope of responsibilities	IPC national, provincial & regional units established	# of established IPC unit at each level	Annually	Notifications/ ToRs/meeting minutes, work plans, technical reports	01 Federal IPC Unit NIH ICT District Committee	To be define

1.2.4 Create IPC structures at HCF: ● IPC committee with clear objectives, functions & defined scope of responsibilities ● IPC team consisting of at least one full-time IPC professional or equivalent (nurse or doctor working 100% in IPC) for up to 250 beds	Notification of IPC teams & committees in every HCF	Percent of HCFs with notified & functional IPC structures	Quarterly	ToRs IPC Committee Meeting minutes Work plans & IPC team technical reports	134 HCFs with notified committees & teams	To be define

Objective 1.3. Secure dedicated budget to support IPC activities

Activities	Indicator(s)	Value (Calculations)	Frequency of Data Collection	Data sources/ Methods	Baseline	Total Targets by 2023*
1.3.1 Resource mobilization for IPC and funding grants to support implementation till PC 1s made and approved	Availability of donor contributions/funding support	Reporting of funding availability for IPC	Biennially	Partner mapping on IPC funding support	No available data	To be define
1.3.2 Allocation of the available resources for supporting IPC activities at each level (development of PC1s)	Government budget allocated and utilized for IPC activities	% Utilization	Annually	Official records Funding releases	No available data	To be define
1.3.3 Technical assistance for PC 1 development	PC 1s developed	Approved PC 1s	Biennially	PC 1 available	AMR/IPC PC 1 ICT	To be define

Objective 1.4. Ensure national guidelines IPC and standard operating procedures (SOPs) are in place and remain up to date

Activities	Indicator(s)	Value (Calculations)	Frequency of Data Collection	Data sources/ Methods	Baseline	Total Targets by 2023*
1.4.2 Advocate & disseminate the national IPC Guideline to all health care facilities	National IPC Guideline disseminated to all healthcare facilities	# of HCFs receiving IPC guidelines	Annually	Surveys/ visits, distribution plan, districts records	5000 already distributed	To be define
1.4.1. Translate National guidelines IPC into SOPs and disseminate to HCFs at all levels	Facility tailored SOPs for IPC developed and in place	# of HCFs with SOPs on IPC	Quarterly	Survey/Assessment visits /Distribution plan	No available data	To be define
1.4.2. Development & dissemination of necessary multilingual IEC material (posters, leaflets, brochures etc./print & electronic media)	IEC materials developed and disseminated	# of IEC materials developed	Semi-annually	Consultative meeting for development of IEC tool IEC display	Sporadic IEC material on HH, PPE, TB, etc.	To be define

1.4.3. Ensure periodic update of national IPC guidelines (at least every 2-5 years) through review & adaptation of latest IPC recommendations	Approved up to date national IPC guideline	Yes/No	Biennially	Archives & updated through consultations	National Guidelines IPC 2020 launched and disseminated	To be define

Objective 1.5. Strengthen the microbiology laboratory capacity to support the infection prevention and control service

Activities	Indicator(s)	Value (Calculations)	Frequency of Data Collection	Data sources/ Methods	Baseline	Total Targets by 2023*
1.5.1 Strengthen laboratory systems for HCAI (healthcare-associated infections) surveillance with dedicated medical/clinical microbiologist, biosafety culture, and good lab practices	# of microbiology laboratories supported as per national standards	# of microbiology laboratories with medical/clinical microbiologist	Annually	Regulatory visits Assessment conducted and reported Surveys	Baseline not available in public sector	To be define

Objective 2.1. Establish posts for IPC professionals with career development

Activities	Indicator(s)	Value (Calculations)	Frequency of Data Collection	Data sources/ Methods	Baseline	Total Targets by 2023*
2.1.1 Ensure communication & dialogue for creating posts for IPC professionals	Vacancies created where applicable	# of new posts created at each level	Annually	Official records	No available data	To be define
2.1.1. Hiring dedicated federal/ provincial/ regional IPC focal points/cells/units	Availability of sanctioned dedicated IPC positions	# of assigned/hired dedicated IPC focal points at each level	Annually	Survey/visits/HR records	Provincial IPC units in Sindh and Punjab IPC units in PIMS and CMCH Larkana	To be define
2.1.2. Advocate and monitor retention of trained IPC staff at HCF for at least 02 years	Relevant legislation reviewed/issued	Yes/No	Annually	Review of legislation Consultations	What measured in the baseline survey	To be define
2.1.3. Advocate for formulation of IPC legislation						To be define

Objective 2.2. Support IPC professionals to receive education and training to achieve an expert level of IPC knowledge						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
2.2.1 Development of a standardized IPC training curriculum aligned with national guidelines and WHO training module (Institutionalize through academia) ● Doctors ● Nurses Paramedic/lab/Support staff including housekeeping staff	National IPC training curriculum developed	Yes/No	Annually	Curriculum review, Printed booklets, Consultative meetings	Draft curriculum	To be define
2.2.2. Conduct in-service trainings of HCWs on standard modules (maintain training record)	National & Provincial master trainers	# of IPC certified national/provincial master trainers	Semi-annually	Training reports/attendance sheets Training record with Ministry & DOH	50 certified master trainers	To be define
2.2.3. Enrollment of IPC education in the under-graduate curriculum & post-graduate certification	IPC curriculum adopted by regulatory bodies	# of academia /universities imparting IPC curriculum	Annually	Printed courses Manuals Consultative meeting for curricula development	1- year postgraduate diploma (Indus Hospital)	To be define
Objective 2.3. Capacity building of healthcare workers on IPC at HCF level						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
2.3.1. Establish IPC training and maintain records for all HCFs staff ● Hospital IPC teams ● Regular refresher training of all staff 2.3.2. IPC orientation to newly recruited staff	Regular IPC sessions/training conducted as planned	# HCWs (by category) orientation /certifications on IPC	Quarterly	Training reports/attendance sheets	Pool of 76 national & Provincial master trainers on nurses' course 145 nurses trained on 1 month course	To be define

Objective 3.1. Develop national monitoring and reporting hierarchy to assess and address gaps in IPC practices						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
3.1.1 Develop monitoring mechanisms with specific indicators at each level (federal, provincial, and institutional) to periodically monitor progress (M&E tools printed & web-based)	M&E plan and standardized tools developed at all level	Yes/No	Biannually	Consultative meeting for development of M &E plan & tools, consultations & training sessions	Fragmented data	To be define
3.1.2 Establish a strategy for HCFs data dissemination and usage for decision-making	Reporting framework developed	% of HCFs reporting on tools	Quarterly	IPC team technical Reports/assessments visits	Fragmented data	To be define
Objective 4.1. Strengthening the infrastructure and services for IPC in health care settings						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
4.1.1 Incorporate WASH program essentials in all HCFs	Wash program endorsed in all HCFs	% of HCFs with: ● Running water at all times Functioning handwashing facilities	Quarterly	Assessment reports, visits of IPC teams	What measured in the baseline survey	To be define
4.1.2 Define national standards for IPC compliant building codes for all healthcare facilities	IPC building codes for health care facilities adopted	Yes/No	Annually	Endorsement by Pakistan Standards	No available data	To be define
4.1.3 Define/develop standards and guidelines to ensure effective ventilation (natural, mechanical & AIIR) in HCFs	Guidelines developed	Yes/No	Annually	Monitoring reports	No available data	To be define
4.1.4 Establish a mechanism for proper healthcare waste management at HCFs in collaboration with relevant government bodies	Proper waste management program implemented at all HCFs	# HCFs with regular waste disposal	Quarterly	Coordination meetings Assessment visits IPC teams monitoring reports	What measured in the baseline survey	To be define

Objective 4.2. Optimize the availability of essential IPC supplies and equipment in healthcare facilities						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
4.2.1 Develop/update essential IPC supplies list with standardized specifications	Standardized national essential IPC supplies developed	Yes/No	Annually	Consultative meeting for defining the list		To be define
4.2.2 Strengthen essential IPC supply chain system (procurement, consumption & monitoring) at all levels of health care	Functional procurement mechanism established	# of hospitals with stock out of essential IPC supplies as minimum	Quarterly	Assessment visits Monitoring reports of IPC teams	No available data	To be define
Objective 4.3. Engage the community on IPC						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
4.3.1 Improve public awareness on high-priority IPC practices (e.g., hand hygiene, injection safety, etc.)	IPC public awareness increased	Personal hygiene integrated into school curricula (Yes/No) # of public awareness campaigns or seminars done	Annually	Meetings with Provincial DOH/education	Conduct baseline survey	To be define
4.3.2 Update basic curriculum on hygiene module for LHWs/CHWs	Approved up to date hygiene module for LHWs/CHWs developed	Yes/No	Annually	Consultative meeting for formulating the list	Basic curriculum with basic hygiene & sanitation module	To be define
4.3.3 Train & educate community health workers on basic IPC practices (LHWs, vaccinators & community practitioners)	IPC training and education to community-level workers conducted	# of LHWs /CHWs trained on the updated module	Annually	Training reports/attendance sheets	No available data	To be define

Objective 5.1. Use administrative, engineering & environmental controls to prevent occupational hazards in HCWs						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
5.1.1 Develop/ define SOPs to control occupational infectious hazards and guide the post-exposure management	SOPs to control infectious hazards developed and in place	Yes/No	Reviewed annually	Consultative meetings, SOPS review	Not available	To be define
5.1.2 Develop and establish systems of mandatory reporting and management of HCWs exposure to occupational infections (HCWs surveillance & M &E)	Approved reporting and management systems for occupational exposure of HCWs is adopted	% of HCFs having a system for monitoring HCWs occupational exposure to HIV/ HBV/HIV /SARI including COVID-19	Quarterly	Incident reports, monitoring reports of IPC teams, SOP	Not available	To be define
5.1.3 Conduct regular workplace risk assessment covering all hazards to define the effectiveness of environmental controls (e.g. Triage system, ventilation, sharp hazards, etc.)	Regular risk assessment reports generated	# of HCFs which made an evaluation on the risks for infection exposure for HCWs and taken any response action	Annually	IPC team technical reports, assessment visits	Not available	To be define
5.1.4 Ensure adequate clinical staffing level including surge capacities during outbreaks	Adequate staffing level available	Staff patient ratio	Annually	Assessment visits,	Not available	To be define
5.1.5 Ensure availability of mandatory vaccines including Hepatitis B (HBV) to all HCWs	All the HCWs are vaccinated for HBV	% of HCWs vaccinated for HBV	Annually	Hospital records	Not available	To be define
5.2. Ensure PEP services are available to all HCWs						
Activities	**Indicator(s)**	**Value (Calculations)**	**Frequency of Data Collection**	**Data sources/ Methods**	**Baseline**	**Total Targets by 2023***
5.2.1 Define infectious hazards for screening and provision of PEP	Up to date list with the possible hazards formulated	Yes/No	Annually	List review, Assessment visits,	Not available	To be define
5.2.2 Provide counseling and PEP services to HCWs exposed to sharp injuries & selected infectious diseases	Counseling and PEP services provided to all HCWs	% of exposed HCWs counseled and provided PEP	Quarterly	Hospital records, IPC technical reports, incident forms	Not available	To be define

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