Improvement of Readiness in Health Facilities for Providing Health & FP Services

National Institute of Population Research and Training (NIPORT)
Medical Education and Family Welfare Division
Ministry of Health and Family Welfare (MOHFW)
Dhaka, Bangladesh

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National Institute of Population Research and Training (NIPORT)
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Dhaka, Bangladesh

HDRC Human Development Research Centre
humane development through research and action
Dhaka, Bangladesh

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FOREWORD

Director General
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The National Institute of Population Research and Training (NIPORT) initiated a study **titled "Improvement of Readiness in Health Facilities for Providing Health & FP Services"** in 2023. To undertake this assignment, NIPORT conducted a competitive bidding process, through which the Human Development Research Centre (HDRC) was selected and assigned to conduct this study to explore readiness improvement opportunities in health facilities for providing health and family planning services. HDRC was tasked to conduct a situation analysis to establish and implement a conceptual model to test organisational readiness and assess the model's feasibility and acceptability.

This operation research study report is an outcome of the concerted efforts, contributions and involvement of several institutions, researchers, professionals and individuals, including the members of Stakeholder Advisory Committee (SAC), Technical Working Committee (TWC); officials of the Directorate General of Health Services (DGHS); Directorate General of Family Planning (DGFP); Human Development Research Centre (HDRC) research team members; the field staffs; data processing team and especially the respondents. I would like to acknowledge with great appreciation the professionals and individuals for their contributions. I would like to congratulate the professionals of the Research Unit of NIPORT, particularly the guidance of the Director (Research) and Line Director, OP-TRD, NIPORT, Mr Mohammed Ahsanul Alam, for successfully completing the research study. We must acknowledge the contribution of the Government of Bangladesh (GOB) in providing financial support. We are deeply indebted and grateful to our Honourable Secretary, Medical Education and Family Welfare Division, MOHFW, Md Azizur Rahman, for his sincere guidance and direction in the smooth implementation of the survey. Without his guidance, completing the work in time would not be possible.

I am grateful to the HDRC research team. They have devoted their fullest possible intellect, time, and efforts to complete this study report. Special thanks go to the field staff and data reviewers for their tireless efforts in making the fieldwork successful. I am also grateful to the research management team and support staff, registration assistants, coders, editors, and data entry operators for their intensive support in completing this research study promptly. I thank all individual researchers for their contribution to this study.

I hope that the research study results will be useful for actionable planning to improve service delivery in public health facilities.

Md. Shafiqul Islam

PREFACE

Director (Research)
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The research study titled **"Improvement of Readiness in Health Facilities for Providing Health & FP Services"** conducted during the years 2022-2023 is an outcome of the highest-order intellectual effort of the researchers of the Human Development Research Centre (HDRC). This research study focuses on the readiness of public health facilities to provide ESP services as well as designing and implementing a model to improve facility readiness to provide quality service, leading to an improved public health scenario in Bangladesh.

This study belongs to operation research. This operation research was modified to test the functionality and impact of an Organizational ESP Readiness Model. Following a situation analysis, a model was developed and implemented to explore the possibilities of a readiness improvement to provide ESP services at public health facilities. The research followed an experimental design with pre-post assessments. It involved 6-month implementation activities at intervention Upazila health Complexes covering baseline, monitoring activities, and endline.

This research study is a commendable activity of NIPORT. It is the outcome of dedication, support, involvement, and inputs of several institutions and professionals convened under the Stakeholder Advisory Committee (SAC) and the Technical Working Committee (TWC) consisting of experts, researchers and professionals working in the Health Nutrition and Population Sector. I want to extend my thanks to the SAC and TWC members, officials of the Directorate General of Family Planning (DGFP) and Directorate General of Health Services (DGHS) for their support and valuable suggestions in all stages of the study. I want to congratulate the professionals of the Research Unit of NIPORT for their active participation in every stage of the study.

I express my heartfelt thanks to the professionals and the staff of the Human Development Research Centre (HDRC), as well as the professionals of the research unit of NIPORT, for their sincere efforts in successfully completing the study. We sincerely thank the study respondents who willingly cooperated with the survey teams by providing information. We are deeply indebted and grateful to the GOB for providing financial support. Last but not least, I would like to express my special gratitude to the honourable Director General of NIPORT for his valuable guidance and direction at every stage of the survey's implementation.

Mohammed Ahsanul Alam

ABBREVIATIONS AND ACRONYMS

ACPR	Community and Population Research
AIDS	Acquired Immune Deficiency Syndrome
AMR	Antimicrobial Resistance
ANC	Antenatal Care
BDT	Bangladesh Taka
BEmONC	Basic Emergency Obstetric and Newborn Care
BEOC	Basic Emergency Obstetric Care
BESP	Bangladesh Essential Health Service Package
BHFS	Bangladesh Health Health Facility Survey since
CB	Control Group Before-intervention
CBHC	Community-Based Health Care
CC	Community Clinics
CemOC	Comprehensive Emergency Care
CEmONC	Comprehensive Emergency Obstetric and Newborn Care
CFA	Client flow analysis
CMSD	Central Medical Storage Depot
COVID-19	Corona Virus Diseases-2019
DGHS	Directorate General of Health Services
DH	District Hospital
EB	Experimental Group Before-intervention
ECG	Electrocardiogram
EmONC	Emergency Obstetric and Newborn Care
EPHS	Essential Package of Health Services
ESD	Essential Services Delivery
ESP	Essential Health Service Package
FP	Family Planning
GoB	Government of Bangladesh
HBP	Health Benefit Plan
HBV	Hepatitis B Virus
HCV	Hepatitis C Virus
HDRC	Human Development Research Centre
HIV	Human Immune Deficiency Virus
HNPSP	Health Nutrition and Population Sector Program
HPNSP	Health, Population and Nutrition Sector Programmme
HPSP	Health and Population Sector Programme
ICF	Inner City Fund
IMCI	Integrated Management of Childhood Illness
IPS	Instant Power Supply
IUD	Intrauterine Device
KMC	Kangaroo Mother Care
LBW	Low-Birth-Weight

LMICs	Low and Middle-Income Countries
MAM	Moderate Acute Malnutrition
MCH	Maternal and Child Health
MCWC	Maternal and Child Welfare Centre
MDG	Millennium Development Goal
MOHFW	Ministry of Health and Family Welfare
MSR	Medical Store Register
MSR	Medical and Surgical Requisites
NCD	Nation Capital Development
NCDC	Non-Communicable Diseases
NIPORT	National Institute of Population Research and Training
NSV	No-Scale Vascular
NSV	No-Scalpel Vasectomy
OR	Operations Research
OT	Operation Theatre
PHC	Primary Health Care
PMO	Programme Management Office
PNC	Postnatal Care
PPFP	Postpartum Family Planning
RA	Randomly Assigned
RDQA	Rapid Data Quality assessments
RO	Reverse Osmosis
SAM	Severe Acute Malnutrition
SARA	Service Availability and Readiness Assessment
SBCC	Social and Behaviour Change Communication
SCABU	Special Care Baby Unit
SDG	Sustainable Development Goal
SWAP	Sector-Wide Approach
TB	Tuberculosis
UH&FPO	Upazila Health and Family Planning Officer
UHC	Universal Health Coverage
UHC	Upazila Health Complex
UHCM	Upazila Hospital Management Committee
UHFWC	Union Health and Family Welfare Centres
UNO	Upazila Nirbahi Officer
USC	Union Health Sub-Centres
VDRL	Venereal Disease Research Laboratory Test
VIA	Visual Inspection with Acetic Acid
VMC	Volunteer Management Committee
WASH	Water, Sanitation, and Hygiene
WHO	World Health Organization

Contents

LIST OF DIAGRAMS, FIGURES AND TABLES

Figure

Table

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Executive Summary

Health facility readiness is critical to achieving universal health coverage (UHC). Over the years, the government has made significant investments in expanding the healthcare infrastructure across the country, with the establishment of hospitals, clinics, diagnostic centres, and community health centres. Initiatives such as the Essential Service Package and the Health, Population and Nutrition Sector Development Program have strengthened primary healthcare services and improved facility readiness, particularly in rural and underserved areas. However, significant challenges persist in ensuring that health facilities are ready to provide quality services.

The National Institute of Population Research and Training (NIPORT) sanctioned this research to enhance the readiness of health facilities in Bangladesh to provide health and family planning services. The research focused on developing the Organizational ESP Readiness Model based on the Essential Health Service Package (ESP) established by the Ministry of Health and Family Welfare (MOHFW). The model aimed to assess organisational readiness for change, identify improvement areas, and enhance facility readiness.

The objective of the proposed operational research for the improvement of readiness in health facilities for providing health and family planning services will be to identify the factors that contribute to organisational readiness in public health facilities, develop assessment instruments to analyse organisational readiness for change in healthcare and identify the weaker elements or essentials to improve healthcare facilities' readiness levels.

The research followed an experimental design with pre-post assessments and involved situational analysis, problem formulation, model design, model application, model assessment, and model dissemination. Research questions were formulated to address ESP delivery readiness, and a conceptual model was developed to bridge identified gaps, offering practical solutions for improved health facility readiness.

Service Delivery Readiness Status: Baseline

Significant challenges in infrastructure, such as electricity and water supply, meant that even basic amenities like functional electric fans, seating arrangements, and running water often needed to be improved. These deficiencies adversely affect the facilities' patient care and operational efficiency- which is a matter of great concern. The readiness and maintenance of essential services like general patient care areas, operation theatres, and sanitation facilities are either under-equipped or disrepair, further exacerbating the situation.

Also, medical equipment and supplies necessary for primary healthcare, including diagnostics and essential medicines, are not available or functional. Basic diagnostic tools and medicines are scarce, particularly affecting reproductive, maternal, and child health services. Inadequate personal protective equipment and infection control readiness hinder the safety of patients and healthcare staff. The lack of equipment and supplies limits the UHCs' ability to provide quality services and forces patients to seek more expensive treatments at private facilities, thereby increasing their financial burden.

The human resource deployment within the Upazila Health Complexes also presents considerable challenges, with significant staff vacancies, leading to impaired service delivery and increased workload on the existing staff. Also, there are irregularities in service provider attendance and availability within service hours. Furthermore, inadequate stock-keeping and restocking of supplies further hinder the service delivery readiness.

Interventions (Readiness Improvement Model)

The interventions aimed at improving healthcare services readiness by addressing critical gaps identified through a needs assessment. The interventions were customised to consider specific readiness gaps in target health facilities. This bottom-up approach facilitated engagement with local health managers and service providers across various departments within the health complexes to pinpoint specific deficiencies in equipment, logistics, and service delivery. In response, targeted initiatives such as providing essential medical equipment, improving facility infrastructure like washrooms and waiting areas, and implementing a colour-coded ticketing system were implemented. These measures aimed to streamline patient management, improve the quality of care, and ensure a more welcoming environment for patients and staff.

Significantly, the intervention focused on material improvements and systemic changes to enhance operational efficiency and service readiness. The interventions an attendance tracking system to ensure staff availability, regular monitoring of service delivery, and strategic supply chain adjustments to maintain necessary medical and logistical stocks. The intervention endeavoured to ensure a comfortable and efficient service experience that reduces waiting times and increases overall patient satisfaction. It was a holistic approach aimed at fostering a more reliable and patient-centric service environment at the UHCs.

Additionally, the intervention addressed broader health system challenges such as referral linkages and emergency services. By developing a robust referral system and enhancing the infrastructure for emergency and utility services, the initiative aimed to create a seamless care pathway for patients. These efforts were complemented by community engagement strategies and capacity-building measures for health staff, which included workshops, regular feedback collection, and continuous improvement cycles. The comprehensive nature of these interventions highlights a strategic approach to health service enhancement that is responsive to both immediate needs and long-term healthcare goals.

Upazila Health Complex Readiness Improvements

The intervention UHCs (Daulatpur and Gwainghat) exhibited notable improvements across all readiness spectrums. The intervention UHCs reported nearly double the increase in readiness scores across physical, organisational, and functional spectrums, highlighting effective changes in infrastructure, management systems, and service delivery. The physical readiness enhancements, particularly the availability of safe drinking water and the cleanliness of latrines and operation theatres, were highly encouraging. For instance, the availability of safe drinking water improved from 2.1 to 3.6 out of 5 and latrine hygiene scores improved to 3.0 from 1.8. Organisational readiness also saw significant advancements, especially in managing patient records and implementing token/ticket distribution systems, which rose from 0.0 to 4.0. Establishing systematic queue management protocols improved the overall organisational readiness score from an average of around 1.7 to 3.7. Improving staff presence and managing client queues enhanced functional readiness. The score for client management based on queues dramatically increased from 0.0 to 4.0, reflecting a more organised and efficient service delivery system. Other areas, such as prescription explanations and follow-up procedures, also improved.

However, the control UHCs, in contrast, revealed minimal to no improvements. The physical readiness indicators, such as the availability of safe drinking water and the management of hygienic latrines, showed almost no change, with scores around 1.0 to 2.0. Similarly, organisational and functional readiness indicators also remained largely stagnant. For instance, queue management systems and patient record management showed little improvement, indicating a pressing need for intervention.

The Impact of Readiness Improvement

An expected result of these interventions was to boost client satisfaction and increase the UHCs' client load, indicating successful outcomes. The interventions increased satisfaction among service recipients, particularly in services like ANC/PNC and outpatient care for females and children. The overall changes indicate a 22.3% positive net change in client satisfaction at the experimental (intervention) UHCs. The improvement in client satisfaction can be attributed to the interventions designed to different extents, as the service recipients reported specific interventions as their causes of satisfaction. Around half (49%) of the service recipients mentioned that they had heard about the improvements in the UHCs from their family, friends, or neighbours, indicating the active participation of a satisfied client as an ambassador to convey the notion of service quality improvement to the community. Furthermore, the average client load in intervention UHCs increased by 5.05%, while it increased by 2.0% in control UHCs. The net increase in the average client load in the intervention UHCs was three percentage points more than in the control UHCs.

Conclusion

The operational research underscores the effectiveness of targeted interventions in improving the readiness and functionality of health facilities. Focus on repairing and maintaining selected physical infrastructure, organising service delivery, and improving functional capacities, the intervention UHCs significantly enhanced client satisfaction and service quality, a success not mirrored in the control UHCs. The positive outcomes of the interventions provide a scalable model for enhancing health facility readiness nationwide. While notable progress has been made, continuous effort and strategic planning are required to sustain these gains and to address the remaining challenges. Future strategies should focus on adapting and implementing similar models across different geographic and demographic settings within the country, aiming for universal health coverage that is both equitable and effective.

Recommendations and Way-forward

The study highlights that targeted interventions in organisational, functional, and physical domains can enhance the readiness of health facilities, resulting in improved service quality and client satisfaction. The recommendations are as follows:

1. **Regular Needs Assessment:** Conduct regular needs assessments every 3-4 months to identify and address critical gaps in equipment, logistics, and service delivery.
2. **Problem-Raising and Resolving Platform:** Establish a committee chaired by the Upazila Health and Family Planning Officer (UHFPO) and Upazila Mayor to meet monthly, identify problems, and propose solutions.
3. **Address Priority Items:** Focus on the cleanliness of toilets, availability of safe drinking water, and crowd management, with regular reports sent to the Civil Surgeon’s office.
4. **Digital Patient Registration and Payment:** Implement digital systems for patient registration and payment, using provided tablets and printers.
5. **Referral Linkages and Emergency Services:** Develop a robust referral system and enhance emergency and utility services infrastructure.
6. **Community Engagement:** Engage the local community, especially influential members, in health initiatives.

7. **Staff Efficiency:** Improve the capacity of health staff and field workers through workshops, feedback collection, and continuous improvement.
8. **Sustained Investment:** Ensure ongoing financial and material support for facility readiness.
9. **Policy Advocacy:** Advocate for stronger policies to allocate necessary resources and support for healthcare facilities.
10. **Research and Monitoring:** Conduct continuous monitoring and research to evaluate and adjust interventions as needed.