

**Digital Public Health Interventions  
Diagnostic Toolkit  
(RMNCH focused)**

## LIST OF ABBREVIATION

ABDM	Ayushman Bharat Digital Mission
ABHA	Ayushman Bharat Health Account
ANM	Auxiliary Nurse Midwife
ANMOL	Auxiliary Nurse Midwife Online (Application)
ASHA	Accredited Social Health Activist
CHC	Community Health Centre
CHO	Community Health Officer
CPHC	Comprehensive Primary Health Care
DH	District Hospital
DPH	Digital Public Health
EHR	Electronic Health Record
FLW	Frontline Health worker
HBNC	Home Based Newborn Care
HFR	Health Facility Registry
HMIS	Hospital Management Information System
HPR	Healthcare Professionals Registry
IPHS	Indian Public Health Standards
OPD	Outpatient Department
PHC-HWC	Primary health Centre - Health and Wellness Centre
PW	Pregnant Woman
RMNCH	Reproductive, Maternal, Neonatal, and Child Health
SHC-HWC	Sub-Health Centre - Health and Wellness Centre
VHSND	Village Health, Sanitation and Nutrition Day

## Context

Efforts to strengthen RMNCH services through digital transformation remain hindered by systemic inefficiencies, fragmentation of service delivery, along with infrastructural inadequacies, deficiencies in digital adoption, and disparities in policy implementation leading to sub-optimal healthcare outcomes. Conducting a rigorous diagnostic study is essential to comprehensively evaluate the healthcare landscape, identify systemic deficiencies, and formulate targeted, evidence-based interventions to optimize RMNCH services.

## Key Objectives

With the objective of generating actionable insights that inform strategic initiatives for enhancing RMNCH service efficacy, this diagnostic toolkit helps execute the following:

- understand and map the key processes related to healthcare service delivery, particularly RMNCH services at the community, SHC-HWC, PHC-HWC and CHC level to gain insights on the areas of improvement
- digital health competencies baseline of FLW, specifically ASHA and ANM
- understand the progress on implementation of ABDM building blocks including ABHA ID, HFR, HPR and comprehend key challenges through interactions with stakeholders
- evaluate infrastructure readiness, encompassing medical equipment availability, digital connectivity, and resource allocation
- evaluate the extent of adoption of digital health tools, including ANMOL and UWIN
- clinical competencies baseline of frontline healthcare providers, particularly, staff nurses

## Methodological Approach to Diagnostic Study

The diagnostic study requires a multi-phased methodology for data collection, validation, and analysis:

1. **Stakeholder Consultation:** Conduct structured interviews and focus group discussions with healthcare providers, government officials, and beneficiaries.
2. **Empirical Data Collection:** Employ standardized assessment tools, observational checklists, and field-based evaluations to gather quantitative and qualitative insights.

3. **Comparative Gap Analysis:** Benchmark collected data against national healthcare frameworks and best practices.
4. **Validation:** Utilize expert reviews and cross-referenced datasets to enhance analytical rigor and eliminate bias.
5. **Synthesis and Strategic Reporting:** Formulate comprehensive reports that delineate inefficiencies, propose targeted interventions, and recommend strategic reforms.

## **Development of Analytical Tools**

### **Framework for Designing Questions:**

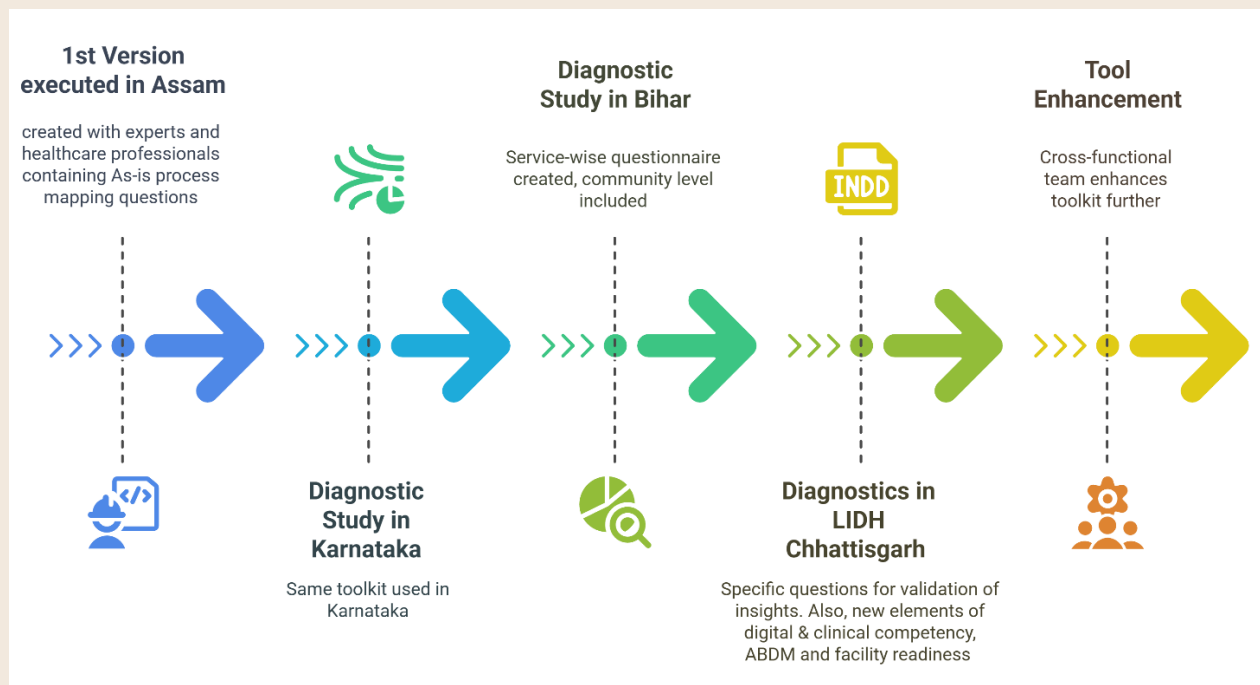
To ensure a systematic and comprehensive diagnostic study, the framework for question formulation is based on the 5W2H methodology (Who, What, Why, When, Where, How, and How Much/How Many). This approach ensures that every aspect of all steps in RMNCH service delivery is thoroughly examined.

For instance, in assessing the role of ASHAs in family planning:

- **What:** What is the first activity she performs in family planning?
- **When:** When does she conduct this activity?
- **How many:** How many times does she need to perform this activity?
- **How much:** How much time does it take to complete this activity?
- **Why:** Why is it necessary to perform this activity?
- **Where:** Where does she conduct this activity (e.g., household visits, health centers)?
- **How:** How does she carry out this activity (e.g., counseling, distributing contraceptives)?
- **Challenges:** What challenges does she face in delivering family planning services?
- **Recommendations:** What recommendations can improve the efficiency and effectiveness of family planning service delivery?

A collaborative, iterative process was undertaken to ensure the analytical tools' accuracy and applicability. The process encompassed:

- **Interdisciplinary Co-Creation:** Engaged subject-matter experts and healthcare professionals in tool design.
- **Pilot Implementation:** The initial version consisted of As-Is Process Mapping questionnaire only, which had been executed in the states of Bihar, Karnataka and Assam. Then, scope of the tool was expanded to include digital & clinical competency baseline, ABDM implementation progress and digital health tools adoption. A three-day pilot study in Mahasamund District, Chhattisgarh, was conducted to evaluate tool functionality and real-world applicability.
- **Refinement through Empirical Insights:** Incorporated findings from the pilot phase to enhance the tools' precision, usability, and effectiveness.
- **Final Deployment:** Deployed the validated tools for widescale implementation, ensuring their integration into RMNCH service specific studies.



*Figure: Evolution of Digital Public Health Interventions Diagnostic Toolkit*

## Anticipated Output

By evaluating the following key quantifiable output indicators, the diagnostic study using this toolkit is expected to generate policy-aligned recommendations to inform the development of digital health interventions to improve RMNCH service delivery:

1. **Percentage of Population with Unique Health ID:** Measure the proportion of the population enrolled in the digital health ecosystem with a unique health ID.
2. **Turnaround Time for Frontline Workers:** Evaluate the average time taken by ASHA, ANM, and CHO in completing the administrative tasks to assess workflow efficiency.
3. **Clinical Competency Baseline:** Percentage of staff nurses demonstrating proficiency in RMNCH service provision based on standardized competency evaluations.
4. **Digital Tool Adoption Rate:** Measure the percentage of healthcare workers effectively using ANMOL and U-WIN for service delivery.
5. **Service Delivery Efficiency:** Average beneficiary waiting time and service completion time at HWCs, PHCs, and CHCs.
6. **Infrastructure Readiness:** An index assessing the availability of medical equipment, digital connectivity, and essential drug.
7. **Digital Competency level:** Percentage of front-line workers who are competent in using digital devices.

## Core Components of the Diagnostic Toolkit

The toolkit is structured to capture a multifaceted dataset across key healthcare parameters:

1. **As-Is Process Mapping:** A systematic identification of As-Is process to identify process inefficiencies, procedural delays, and administrative bottlenecks impacting service delivery at community level, HWCs, PHCs, and CHCs.
2. **Digital Competency Baseline:** Evaluation of engagement of ASHA and ANM with digital platforms to gauge their ability of documentation and real-time reporting.

3. **Understanding ABDM Implementation:** Understand the perspectives of district leadership around ABDM and the progress of implementation initiatives around ABDM building blocks in government as well as private facilities.
4. **Infrastructure and Resource Readiness Assessment:** A comprehensive evaluation of essential service enablers, including power supply stability, internet connectivity, medical equipment availability, and pharmaceutical logistics.
5. **Adoption of Digital Health Tools including ANMOL and U-WIN:** Analysis of utilization trends, technological barriers, and challenges in the adoption of the two digital health platforms.
6. **Clinical Competency Baseline:** To capture the proficiency level of staff nurses in RMNCH service provision, emergency management, and adherence to standardized clinical protocols.

## Conclusion

This diagnostic toolkit offers a structured and tested approach to evaluating RMNCH services, ensuring that digital health intervention strategies align with healthcare needs. By systematically identifying areas of improvements and leveraging data-driven insights, this framework empowers stakeholders to work towards improvement of health outcomes and fostering a resilient public health ecosystem.

To access the Digital Public Health Interventions  
Diagnostic Toolkit, scan this QR code:



## Annexure

### List of Literature reviewed

NAME OF DOCUMENT	REFERENCE
Ayushman Bharat: Comprehensive Primary Health Care through HWC Operational Guidelines	National Health Mission. 2018. Operational guidelines for CPHC <a href="https://www.nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Comprehensive_primary_health_care/letter/Operational_Guidelines_For_CPHC.pdf">https://www.nhm.gov.in/New_Updates_2018/NHM_Components/Health_System_Stregthening/Comprehensive_primary_health_care/letter/Operational_Guidelines_For_CPHC.pdf</a>
Indian Public Health Standards: Health and Wellness Centre – Sub Health Centre Guidelines 2022 Vol. 4	National Health Systems Resource Centre. (2022). Guidelines for sub-health centres and health & wellness centres, urban health & wellness centres <a href="https://nhsrcindia.org/sites/default/files/SHC-HWC%20%26%20UHC%20IPHS%202022%20Guidelines%20pdf.pdf">https://nhsrcindia.org/sites/default/files/SHC-HWC%20%26%20UHC%20IPHS%202022%20Guidelines%20pdf.pdf</a>
Indian Public Health Standards: Health and Wellness Centre – Primary Health Centre 2022 Vol. 3	National Health Systems Resource Centre. (2022). IPHS 2022 guidelines <a href="https://nhm.gov.in/images/pdf/guidelines/iphs/iphs-revised-guidlines-2022/03_PHC_IPHS_Guidelines-2022.pdf">https://nhm.gov.in/images/pdf/guidelines/iphs/iphs-revised-guidlines-2022/03_PHC_IPHS_Guidelines-2022.pdf</a>
National Health Policy 2017	Ministry of Health and Family Welfare. 2017. <a href="https://mohfw.gov.in/sites/default/files/9147562941489753121.pdf">https://mohfw.gov.in/sites/default/files/9147562941489753121.pdf</a>
NQAS Assessor's Guidebook for SHC-HWC	National Health Systems Resource Centre. <a href="https://nhsrcindia.org/sites/default/files/2021-05/1524_NQASA_Guidebook%20for%20Health%20and%20Wellness%20Centre%20%28Subcentre%29_Web_12%20March%202021.pdf">https://nhsrcindia.org/sites/default/files/2021-05/1524_NQASA_Guidebook%20for%20Health%20and%20Wellness%20Centre%20%28Subcentre%29_Web_12%20March%202021.pdf</a>
National Guidelines for VHSND	National Health Mission. 2019. <a href="https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/CH/Guidelines/National_Guidelines_on_VHSND_English_High_Res_Print_ready.pdf">https://nhm.gov.in/New_Updates_2018/NHM_Components/RMNCHA/CH/Guidelines/National_Guidelines_on_VHSND_English_High_Res_Print_ready.pdf</a>
National Digital Health Blueprint	Ayushman Bharat Digital Mission. <a href="https://abdm.gov.in:8081/uploads/ndhb_1_56ec695bc8.pdf">https://abdm.gov.in:8081/uploads/ndhb_1_56ec695bc8.pdf</a>



Induction Training Module for ASHA	<p>National Health Mission.</p> <p><a href="https://nhm.gov.in/images/pdf/communitisation/asha/ASHA_Induction_Module_English.pdf">https://nhm.gov.in/images/pdf/communitisation/asha/ASHA_Induction_Module_English.pdf</a></p>
Induction Training Module for CHO	<p>National Health Systems Resource Centre.</p> <p><a href="https://nhsrcindia.org/sites/default/files/2021-12/Induction%20Training%20Module%20for%20CHO%20at%20AB-HWC%28English%29.pdf">https://nhsrcindia.org/sites/default/files/2021-12/Induction%20Training%20Module%20for%20CHO%20at%20AB-HWC%28English%29.pdf</a></p>