

Towards Improved Maternal and Child Health

▶ **India**, Insights Brief



The aim of the insights brief is to recommend clear considerations to ensure that all *births should be assisted by skilled health professionals and services should continue post-childbirth, as timely management and treatment can make a difference towards survival of at-risk mothers and babies.*

Introduction

15,000 children and 800 women still die mostly of preventable or treatable causes every day

Improvement in health care services addressing the needs of women and newborns across the continuum of care remains critical to safeguarding the lives of mothers and their children around the time of birth. Despite innovations in logistics and practices around many essential, evidence-based reproductive, maternal, newborn, and child health (RMNCH) interventions, significant gaps remain in their universal coverage. Progress has been slow and uneven in spite of marked improvements in maternal, newborn, and child health (MNCH) outcomes globally. Accordingly, evidence-based interventions are recommended to close this gap in health outcomes.

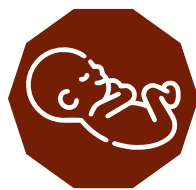
Phase I Assessment

Asset Tracker Phase I assessment identified 14 assets including drugs, devices, and approaches which could effectively improve maternal, newborn, child health, and nutrition (MNCHN) outcomes at national and subnational levels. An analysis conducted from September to December 2019, leveraged publicly available data from 81 countries monitored through the Countdown to 2030 mechanism for MNCHN. This Phase I assessment identified more than 11,000 data points notwithstanding limitations in data availability and quality.

The MNCHN interventions across various countries were grouped into three categories based on common features and barriers to scale. Appropriate policy, guidelines, training, health management information system (HMIS), supply chain, and effective governance for these interventions emerged as vital for realizing an equitable and complete provision of MNCHN at subnational, national, and global levels.



Maternal
Health



Child-Health



Nutrition

Phase I Assessment, 2019

A rapid, multi-pronged analysis to describe progress toward scale-up of key maternal, newborn, and child health interventions and approaches.



81 countries with deep-dives into Burkina Faso, Ethiopia, India (Bihar and Uttar Pradesh), Kenya, Malawi, Nigeria, Tanzania.



Nine Interventions: Amoxicillin dispersible tablets, 7.1% Chlorhexidine, Misoprostol, community regimen for Possible Serious Bacterial Infection, Kangaroo Mother Care, Magnesium Sulfate, tools for Neonatal Resuscitation, Iron Folic Acid, Oxytocin.



Literature review



Key-informant interviews



Data visualization resulting in >11,000 data points.

Phase II Assessment

An Asset Tracker Phase II assessment was planned during 2021 to further validate and improve pathways to scaling MNCHN services. The Phase II assessment was designed to first understand programmatic implementation of 14 interventions, and secondly to validate pathways to scale-up and group assets that were hypothesized in Phase I. The assessments for Phase II were carried out in Burkina Faso, Ethiopia, India, Kenya, and Nigeria. Nine subnational geographies, provinces, were selected in each of these five countries. Mixed methods were used for the assessments, including interviewing key service providers and health management staff, inventory spot checks, facility data, and focus group discussions (FGDs) with community health workers (CHWs).

The evidence from Phase II led to fine-tuning of pathways (linear to multilevel), identification of indicators, and a recognition that stages could overlap or occur concurrently. Contextualized archetypes and pathways are the outcome of the Phase II assessments.

Phase II - Qualitative Assessment

To further analyze the information; identify barriers and enablers to access, uptake, implementation, and coverage; and recommend strategies to accelerate progress toward equitable uptake, implementation, and coverage of each.



Burkina Faso



Ethiopia



Kenya



Nigeria



India

Five Countries: The assessments for Phase II were carried out in Burkina Faso, Ethiopia, India, Kenya, and Nigeria. Nine subnational geographies, provinces, were selected in each of these five countries.



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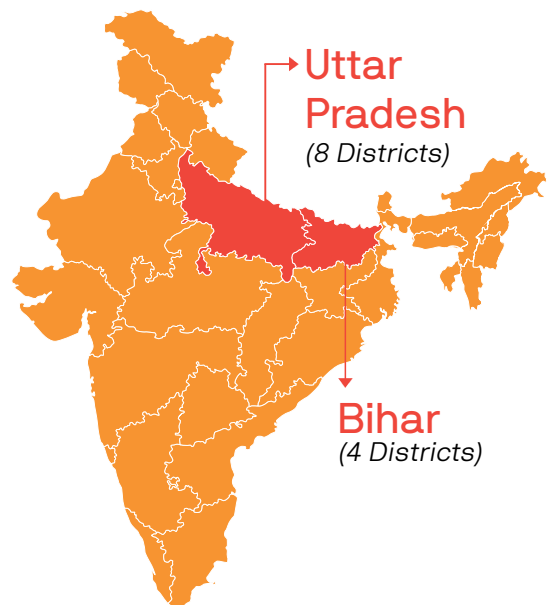
158 facilities, 275 provider interviews, 94 DHMT interviews, and 158 facility observations.

Phase II Coverage: India

The two states of Bihar and Uttar Pradesh were covered in India. Four districts in Bihar and eight districts in Uttar Pradesh were identified using MNCH service provision and performance. These were Bahraich, Balrampur, Chitrakoot, Fatehpur, Gautam Buddha Nagar, Kanpur Nagar, Lucknow, and Sonbhadra in Uttar Pradesh, and Araria, Gaya, Patna, and Saran in Bihar. Thereby, six facilities representing different tiers were selected from each of the districts.

Mixed methods used in-depth interviews (53 District Health Management Team (DHMT) and 130 service providers), FGDs/dyads/triads (133 CHWs in 66 dyads/triads/FGD), and facility observation (78 health facilities). The fieldwork was conducted from June to September 2021.

Information, insights, and data were organized as themes specifically pertaining to policy awareness, routine use, enablers, and barriers for 12 assets.



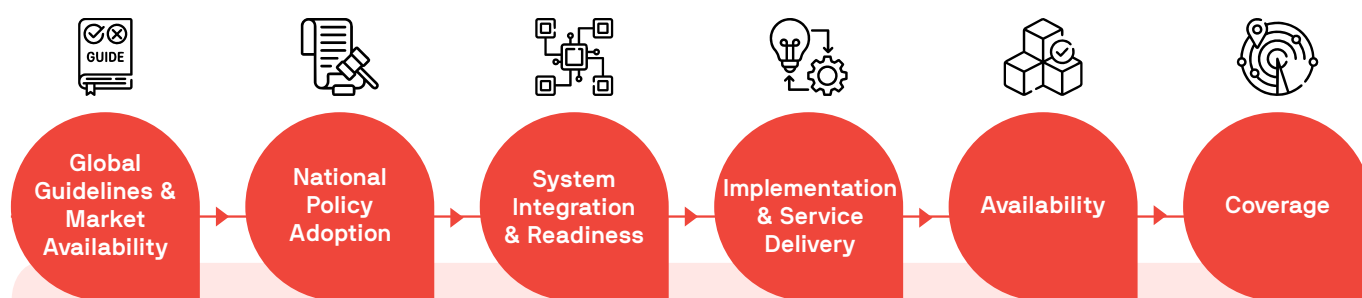
Tracking Interventions for MNCHN

The Asset Tracker Framework uses three interrelated components. The first component classifies the interventions (referred to as assets) by use, newer/older/complex to deliver interventions, maternal/newborn/childhood interventions, or used for preventive (community) or treatment (clinical) purpose. Use of these assets effectively at community, primary, secondary, and tertiary level can improve MNCHN at the subnational level.

The second component classifies assets based on how they are supported by policy, program, delivery, and last mile coverage (referred to as the four archetypes). The threshold indicators for each archetype provide a guideline for advancing towards the last mile, that of equitable population coverage.

The third component is an adapted six-stage framework that moves use of assets and MNCHN program effectiveness at the subnational, national, and eventually the global level by realizing equitable and universal coverage. The performance of each threshold indicator reflects milestones along this six-stage pathway to scale.

Data-driven, Contextualized Archetypes



Archetype 1: "Policy Jumpstart"

Policy framework in place at national level. Commodity (if needed) on nEML.

Archetype 2: "No Product, No Program"

Clinical guidelines in place. Commodity (if needed) available in at least 70% of facilities.

Archetype 3: "Supported Service Delivery" Training, job aids, and mentorship reported by at least 70% of providers/DHMT.

Archetype 4: "Advancing to the Last Mile"













Integration of asset specific indicators into HMIS reported by at least 70% of providers/DHMT. Population coverage achieved.

- Threshold indicators are listed under each archetype.
- Indicators reflect milestones along six-stage pathway to scale.
- Data collected during Phase 1 and 2 can be applied to categorize assets into archetypes.

Assets, National Policy, Enablers and Barriers

India is implementing a strategic RMNCH plus Adolescent (RMNCH+A) interventions across the different life stages of adolescence/pre-pregnancy, pregnancy, birth, newborn/postnatal and childhood. RMNCH+A is implemented through outreach at community/household level (outreach/sub-centre) and care at secondary and tertiary hospitals (clinical).

The second phase assessment findings helped identify the enablers and barriers as perceived by providers and DHMT, summarized in the table below. The National Policy is identified as a threshold essential for introduction and supported service and coverage, and relevant policies are indicated below:

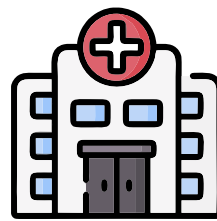
Asset	National Policy	Enablers	Barriers
 Iron and Folic Acid (IFA)	Anemia Mukht Bharat	Proper guideline, awareness among people, and health promotion activities	Inadequate supply, irregular consumption at times
 Oxytocin	Prevention and Management of Postpartum Hemorrhage	Awareness of guidelines, job aid, supervision for service providers, and training	Inconsistent supply and improper storage facility
 Magnesium Sulphate (MgSO ₄)	Prevention, Identification and Management of Preeclampsia and Eclampsia discusses symptoms and management of preeclampsia and eclampsia	Job aid, supervision for service providers, and training	Inadequate supply, absence of proper guidelines, and lack of skilled staff
 Misoprostol	Prevention of Postpartum Hemorrhage through community-based distribution of misoprostol	Availability and awareness of guidelines	Nonavailability, lack of skilled staff, and misuse
 Newborn Resuscitation Equipment (NRE)	Navjaat Shishu Suraksha Karyakram	Available guideline and training for service providers	Lack of infrastructure, lack of skilled staff, and lack of training
 Kangaroo Mother Care (KMC)	Kangaroo Mother Care and optimal feeding of low birth-weight infants	Available guideline, training, supervision, job aid for service providers	Lack of infrastructure, staff shortage, and lack of awareness among mothers
 Community Regimen to Treat Possible Serious Bacterial Infections (PSBI)	Guidelines for syndromic identification of young infants (0–59 days) with PSBI	Available national guideline	Nonavailability, poor community health-seeking behavior, and lack of staff
 Amoxicillin DT	Social Awareness and Actions to Neutralize Pneumonia Successfully (SAANS)	Available national guideline	Inconsistent supply and lack of community awareness
 Balanced Energy Protein (BEP) Supplementation	No guideline/policy		No proper guideline, nonavailability, lack of community awareness, and lack of training
 Early Initiation and Exclusive Breastfeeding (EIBF/EBF)	Mothers' Absolute Affection (MAA) Programme	Awareness of guidelines, training, demand generation	Mothers' health condition, myths and misconceptions, and lack of proper counseling
 Feeding of Small and Sick Newborns (FSSN)	Infant and Young Child Feeding (IYCF) practices	Available national guideline	Nonavailability, inconsistent supply, and lack of training
 Management of Severe and Moderate Acute Malnutrition	Community-based Management of Acute Malnutrition (CMAM) under Positive and Optimum Care of Children Through a Social Household Approach for Nutrition (POSHAN)	Available national guideline	Lack of community awareness, staff shortage, lack of training, and inconsistent supply

Supportive Policy, Program Delivery, and Last Mile Coverage for Effective Coverage

Policies, programs, systems, implementation framework, HMIS, monitoring and capacity building, and governance are in place for India. Interventions like IFA, EIBF/EBF, misoprostol, and MgSO₄ have been part of the system for over a decade and sometimes more. The effects are reflected in reduced mortality, in severity of postpartum and birth complications, and in neonatal deaths.

There are certain threshold indicators that can potentially jumpstart introduction of interventions, scaling up of interventions, improving effectiveness of interventions, and realizing equitable and effective coverage. Realizing the threshold value for each indicator should be the focus.

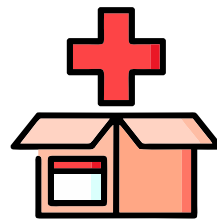
The table below lists those threshold indicators. The interventions in India are slotted under the four archetypes based on Phase I and Phase II assessments. Focusing on attaining/surpassing 70% on the threshold indicators is critical to progress to the next stage at subnational level. These threshold indicators could converge infrastructure, equipment, supply, training, practice, demand, documentation, leadership, and governance.



Infrastructure



Equipment



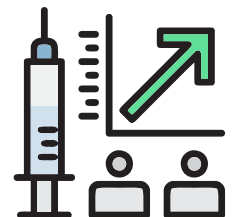
Supply



Training



Practice



Demand



Documentation



Leadership



Governance

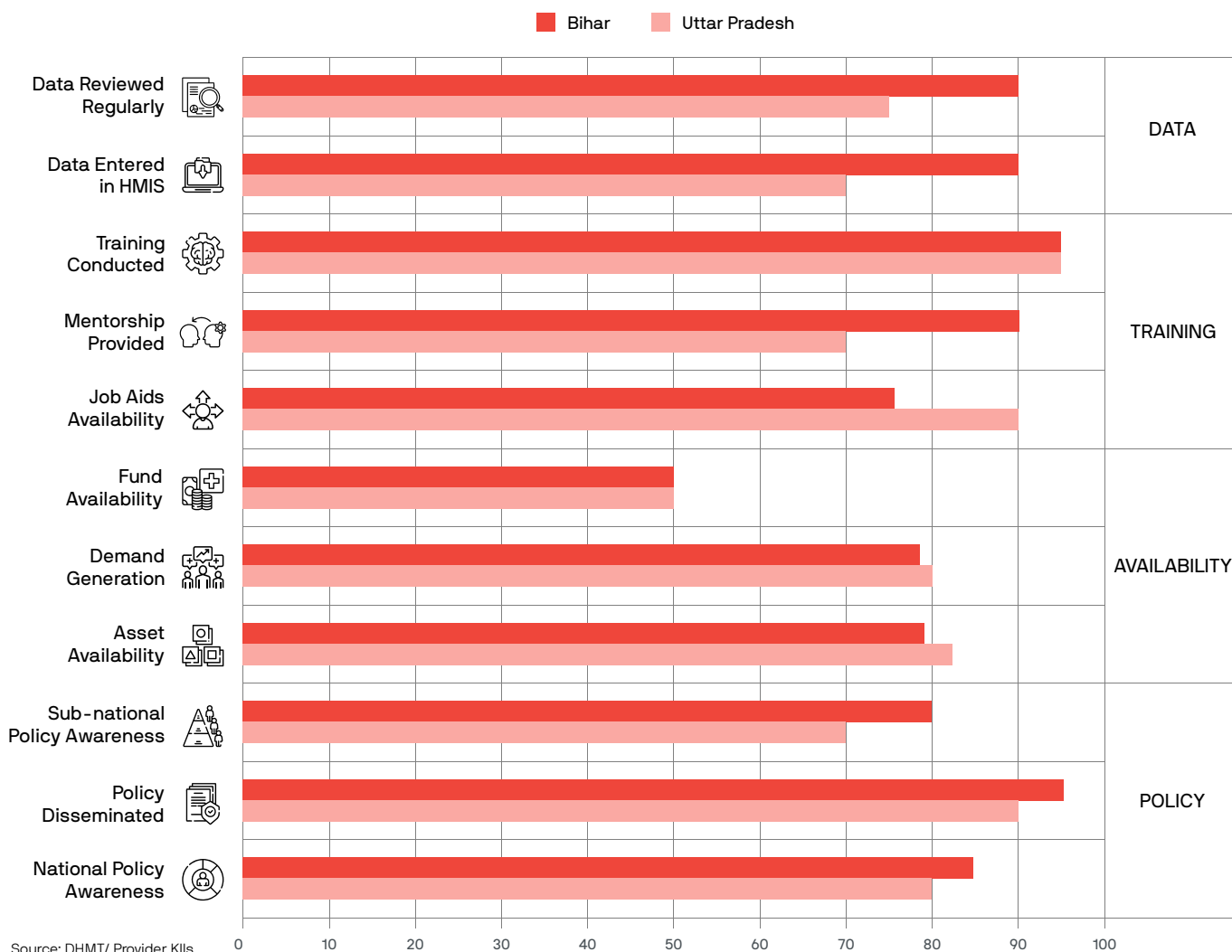
	Archetype 1: Policy Jumpstart	Archetype 2: No Product, No Program	Archetype 3: Supported Service Delivery	Archetype 4: Advancing to the Last Mile
Threshold Indicators	Policy framework in place at national level Commodity (if needed) on nEML	Clinical guidelines in place Commodity (if needed) available in at least 70% of facilities	Training reported by at least 70% of providers/DHMT Job aids reported by at least 70% of providers/DHMT Mentorship reported by at least 70% of providers/DHMT	Integration of asset-specific indicators into HMIS reported by at least 70% of providers/DHMT Population coverage achieved
Progress	BEP	Misoprostol NRE PSBI Amoxicillin DT FSSN CMAM	MgSO ₄ KMC	IFA Oxytocin EIBF/EBF
	Policy and guidelines are available for all the interventions except for BEP Maternal food supplements (fortified flours, biscuits, pastes) for BEP supplementati on available only in 22% facilities	The assets that are available in less than 70% of the facilities (CHC and Tertiary Hospitals) are: Misoprostol (51%) NRE/NNE suction bulb / Penguin Sucker (69%) PSBI Gentamycin (67%) and Ampicillin injection (48%) Amoxicillin DT (Tablet or syrup) (56%) FSSN Breast pump (10.3%) and infant cups (8%) CMAM RUTF (3%) and therapeutic milk (5%)	Trainings reported By providers for MgSO ₄ (73%) and KMC (96%) By DHMT for MgSO ₄ (79%) and KMC (92%) Job aids reported By providers for MgSO ₄ (79%) and KMC (84%) By DHMT for MgSO ₄ (79%) and KMC (94%) Mentorship reported By providers for MgSO ₄ (75%) and KMC (86%) By DHMT for MgSO ₄ (75%) and KMC (94%)	Asset-specific indicators included in HMIS Less than 70% as reported By providers for EIBF/EBF (65%) By DHMT for oxytocin (68%)

Addition and strengthening of interventions that align with global MNCH focus could further improve effectiveness of MNCHN outcomes. The requirement in India is pushing towards (1) equitable and complete coverage of population, and (2) overcoming certain hesitancy on the part of people and providers. The former requires improving effectiveness of supply, capabilities, service provision, HMIS, monitoring, and accountability. The latter requires improving awareness, acceptance, and increasing institution-based service delivery.

Country Spotlight: India

KMC scale-up in India is a good example of how availability of policy, guidelines, demand, training, data, and leadership converged, resulting in improving effective and equitable coverage. Awareness of policies for KMC is high among DHMT (84%) and so is its dissemination at the facilities (93%). The same can be said for training (96%), as well as HMIS (79%) updating and its periodic reviewing.

Sub-National Comparison of Asset Details



- KMC was cited as being scaled successfully by DHMT/providers from India; this was distinct from other geographies.
- 84% of DHMT/providers were aware of national policies and 93% indicated that policies had been disseminated to the facility levels.
- 96% of providers overall reported being trained on KMC.
- Overall reported performance of both subnational areas was comparable.
- Strengthening of facility infrastructure via Special Newborn Care Units (SNCU) and follow up protocols at community level contributed to successful KMC. Home-Based Newborn Care protocols have also contributed to successful KMC implementation.

The analyses of these assessment findings help identify key strategies that can help accelerate adoption, scale-up of assets, and thereby, impact MNCH indicators in India. The broad areas of intervention focuses on building blocks of health systems that include leadership and governance, health system financing, essential medicine and devices, infrastructure, human resources, health information system, and service delivery. This insights brief lists recommendations aligned with these building blocks of health systems and outlines the efforts required to be raised, reduced, eliminated, and created.

“

In SNCU... when KMC launch happened, so in that the mother has facility available to lie down and sit and to eat, plus the child is cared properly. Previously premature mortality was more but now we are preventing mortality

Provider, Uttar Pradesh

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“

In KMC, we have three staff nurse and many of them are already trained. The other ASHA have also trained in this and that is why we are successful in it.

DHMT, Uttar Pradesh

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“

It is easily available. There is no expense in KMC. We tell the mother that if her child is less than 2500 grams, then she should place the child naked on her chest or stomach. The child should be skin-to-skin with her

CHW, Uttar Pradesh

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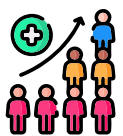
“

Communication. We explain [sic] the mothers about the skin contact, and that is why it is quite effective

DHMT, Uttar Pradesh

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Recommendations



Raise

1. Augment availability of assets:
 - At Hospitals
 - At CHC
 - At PHC
 - At Community
2. Raise adoption of clinical guidelines
3. Amplify use of assets for complex cases, both existing and newer assets
4. Increase low dose of training and reinforcement of consistent and correct use of assets at the facilities for effective reduction in mortality (maternal, neonatal, and during childhood)
5. Boost adoption of assets at community/sub-centre, such as PSBI, BEP, CMAM, and EIBF/EBF
6. Intensify community awareness, acceptance, and demand through continuous outreach efforts and buy-in of community influencers, gatekeepers at the household, and by strengthening women's conviction in accepting treatments



Reduce

1. Gradually lower stockout of medicines, specifically those required for treating complex situations at the facilities for

Strategies to accelerate uptake, implementation, and coverage of assets by health system building block; based on five countries' assessment



Leadership and Governance

Establish a national integrated strategy for MNCH/nutrition and a collaborative team led by the Ministry of Health to champion it at national and subnational levels. Any national integrated strategy needs to be informed by the realities of subnational data and representation from subnational-level stakeholders should be included in the team. Integrate assets into service delivery packages/bundles focused on the target population. Leverage existing cross-programmatic linkages and infrastructure such as integrating temperature-sensitive MNH commodities.



Health System Financing

Use subnational level data to make the economic case for assets, provide a means of tracking progress, and ensure accountability. Advocate for continuous budget allocations to support provision of quality care at all levels with specific focus on district and facility levels. Community health insurance can remove barriers to accessing health services, while at the same time transform health-seeking behavior (relevant for all assets). This approach is critical due to the undue financial burden that patients are facing because they have to buy commodities that are stocked out.

prenatal, childbirth, and postnatal cases

2. Lower nonavailability of trained staff with sufficient motivation to follow the guidelines and appropriate use of assets quickly
3. Optimize number of registers to be managed by caregivers by creating hybrid formats and focusing on assets, utilization, demand, and constraints that improve uptake, contribute to reproductive and child health, and reduce mortality. Where feasible, use digital devices and dashboards both at the facilities and in the field (outreach)



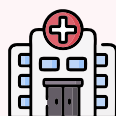
Eliminate

1. Gradually eradicate providers' hesitancy leading to non-use of assets for complex cases. Achieve this through continuous education, low-dose training, monitoring, post-episode briefing, counseling, and equipping providers with communication skills to effectively explain to patients and their families for securing their consent
2. Eliminate supply chain bottlenecks and ensure proper storage of assets, wastage, and stockouts



Essential Medicines and Devices

Standardize equipment, medicines, and supplies for inclusion into routine supply chain requirements. Ensure continuity of care by establishing equipment maintenance and replacement plans at all levels of care (especially relevant for chlorhexidine (CHX), Amoxicillin DT, NRE, and PSBI). Strengthen procurement forecasting capabilities and planning and strategically leverage donor, partner, and internally generated funds for strategic procurements.



Infrastructure

Develop stronger advocacy to ensure electricity, running water, and adequate space availability at all service delivery points (especially relevant for FSSN, KMC, NRE, and oxytocin).



Human Resources

Build staff skills through continuous quality improvement efforts that include mentoring and supportive supervision through engagement with professional organizations and academia. Strengthen preservice and Continuous Quality Improvement (CQI) in service efforts for maintenance of skills (relevant for all assets). Use innovative learning methodologies to refresh capacity and knowledge of service providers in use of assets. Implement low-dose high frequency trainings, particularly for assets like Neonatal Resuscitation (NNR) and MgSO₄



Create

1. Include all asset related parameters in HMIS – supply, storage, inventory, expiry, raising demand, utilization, challenges, and others
2. Target vulnerable groups in a subnational area to ensure equitable coverage – specifically groups or families affected by social, economic, cultural, religious, and location constraints to available MCHN services
3. Create a national level mechanism for equitable and effective provision/utilization of interventions (assets) which have potential for scaling up
4. Ensure appropriate support, linkages, and information systems for rolling out strategies at state, district, and facility levels for equitable and effective coverage
5. Conduct periodic assessment to track progress, cross feed learnings, and optimize strategies
6. Converge governments, administration, private sector, and community for uptake of interventions managing and expectations at all levels for effective sharing and collaboration

used on a subset of the target population. Recruit and retain providers to circumvent staff shortages.



Health Information System

Strengthen data review at facility level to solidify awareness of HMIS indicators and relevance. Invest in electronic data dashboards or real-time data monitoring systems to facilitate the use of data for decision-making and program improvement (relevant for all assets).



Service Delivery

Strengthen referral and follow-up protocols and utilize a continuum of care approach to expand care to the community. Consider integrating nutrition interventions into established care guidelines and referral protocols (especially relevant for FSSN, KMC, misoprostol, and PSBI). Social and behavior change strategies for families and communities to improve awareness and care-seeking particularly around assets with a strong community component like KMC, IFA, PSBI, and CHX. Integrate assets into service delivery packages/bundles focused on the target population (for example, linking KMC to early initiation of breastfeeding (EIBF) and exclusive breastfeeding (EBF), and FSSN training, support, supplies and funding). Conduct implementation science to inform policies for introduction of early-stage assets like Multiple Micronutrient Supplements (MMS) and optimal scale-up strategies for more established assets such as MgSO₄ and NNR encountering challenges to scale-up.