First-1000-Days of Life: Implementation Research for a District Model of Care

STAKEHOLDER ENGAGEMENT

Report

April - 2025

Introduction

The First 1000 Days initiative marks a critical window of opportunity to establish optimal foundations for lifelong health and development. This implementation model aims to create a seamless continuum of care from conception to a child's second birthday, addressing key vulnerabilities and intervention points. By mapping essential touchpoints, engaging stakeholders across healthcare and community systems, and establishing robust follow-up mechanisms, we aim to significantly improve early childhood outcomes. Our approach focuses on developing practical solutions for high-risk cases while strengthening communication channels to ensure no child is left behind during this formative period.

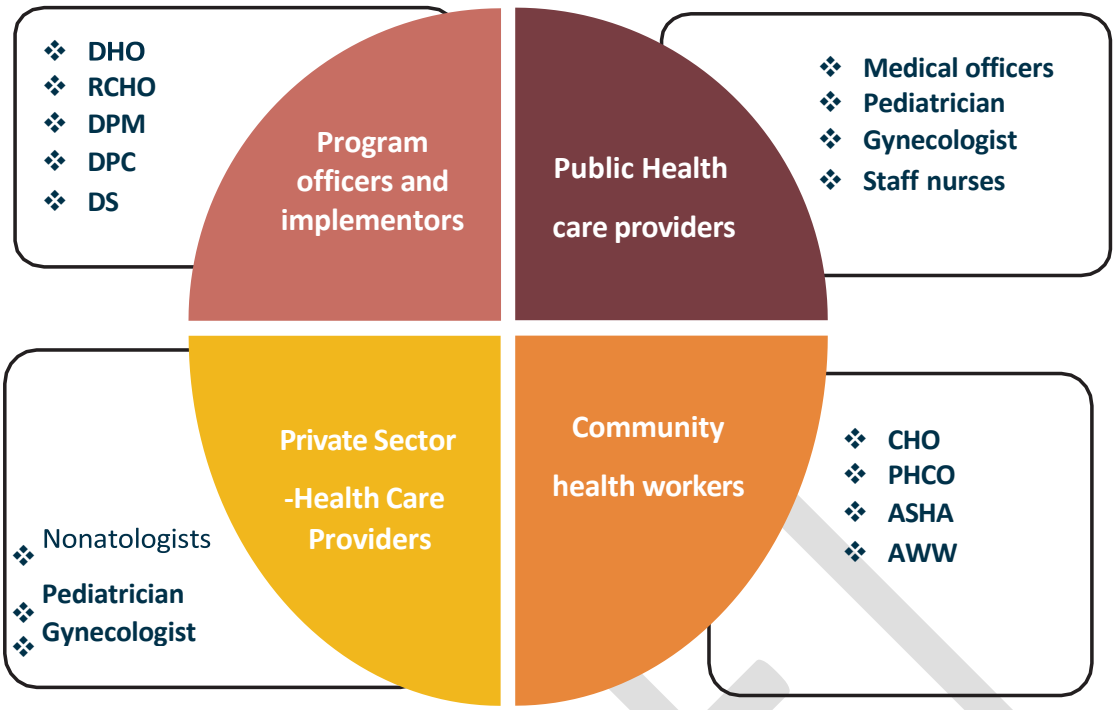
Background

The first 1,000 days, from conception to a child's second birthday, represent a period of unparalleled neurological, physical, and immunological development that fundamentally shapes long-term health. During this critical window, factors such as environment, nutrition, healthcare access, and caregiver support contribute to either strong foundations or persistent vulnerabilities.

Despite strong evidence demonstrating the high return on investment from early interventions, gaps persist in implementing effective monitoring systems that track development from the prenatal period through toddlerhood. These gaps are particularly critical for small, sick, or at-risk newborns who require specialized follow-up, but often face fragmented care across healthcare settings. To understand these challenges and capture stakeholder perspectives, participatory engagement workshops were conducted in two phases: the first involving district-level program officers from the Departments of Health and Family Welfare and Women and Child Development, and the second involving program managers and field-level providers from both departments.

These stakeholder engagements provided opportunities to inform, consult, and deliberate with relevant stakeholders to understand the barriers and enablers in service delivery and to identify actionable areas for intervention. The participants included both public and private sector stakeholders including the district level program officers [DHO, RCHO, DD-WCD] and sub-district and HWC-level service providers. The workshops used participatory methods, with activity-based explorations guided by the research questions. Participants contributed based on their experience, discussed challenges, and deliberated collectively.

Workshop participants



Why did we do this?

To develop and optimize an implementation model to provide comprehensive care across the First 1000 days of life

- Build an understanding of critical touchpoints in the First 1000 Days lifecycle
- Identify key stakeholders and their roles at each stage
- Develop collaborative solutions for high-risk cases
- Establish clear communication channels for post-discharge follow-up

Research questions explored

- What is the follow-up for well and small and sick newborn babies?
- What are the systemic barriers in the life cycle impacting outcomes of early childhood care and development?
- How might we create an effective follow-up for babies (0-2) to survive and thrive?

This report is structured to follow the care pathway from antenatal care to early childhood growth and development. The first section discusses the service delivery gaps identified by healthcare providers, followed by sections that examine processes and follow-up mechanisms for small and sick newborns.

Section 1 - ANC/Intrapartum/PNC

The participants were asked to analyse the gaps in the services, and barriers to care provision in antenatal care, intrapartum care, and postnatal care.

Lack of clear guidelines for Preconception Care (PCC): Currently, certain preconception care services are delivered in a fragmented and inconsistent manner across different blocks. There are no standardized protocols or operational guidelines to ensure uniform service provision, leading to variability in access and quality of care.

Delayed Antenatal Care (ANC) registration: Early ANC registration is still a challenge despite persistent efforts by HCPs. The women register often in the second or later. This delay hampers early detection and management of potential risks during pregnancy.

Challenges faced by ASHAs in supporting pregnant women: ASHAs face difficulties in accompanying pregnant women to health facilities, especially in remote areas where there is a shortage of ASHAs. This at times limits timely access to maternal health services.

Inadequate consumption of nutritional supplements: Iron, calcium, and folic acid supplements provided during pregnancy are not consistently consumed by pregnant women. This compromises efforts by healthcare providers to address anemia and other nutritional deficiencies.

Limited awareness of signs of labor and high-risk pregnancy: Many women and families have minimal understanding of the warning signs of labor and the implications of high-risk pregnancies, leading to delays in seeking appropriate care.

Insufficient family involvement in maternal and newborn care: There is limited participation from family members in supporting the mother and newborn. Care and emotional support from husband and extended family which are considered crucial leave a lot to be desired.

Ineffective ASHA Home Visits: Home visits by ASHAs are often not focused or impactful. There is an overemphasis on the mother, with insufficient attention to the newborn. Additionally, targeted communication on identifying danger signs in both mother and child is inadequate.

Gaps in focused care for HRPs and complicated deliveries: Women with high-risk pregnancies or complications such as breech presentation do not consistently receive

Resistance to diet and hydration advice: Despite counseling, many new mothers do not follow recommended dietary and hydration practices due to prevailing cultural beliefs and traditional norms, which sometimes conflict with medical advice.

Identified causes of neonatal mortality: Key contributors to newborn deaths in the area include neonatal sepsis, hypoglycemia, and respiratory distress syndrome. These were identified as preventable with timely and adequate care.

Improper recording of LMP and EDD: Errors in recording or calculating LMP and EDD result in misjudged timelines, which can affect the scheduling of ANC visits and preparedness for delivery.

Delays in service provision and quality of care at facilities: Even when women reach health facilities, there could be delays in receiving timely care due to staff shortages, inadequate infrastructure, or lack of preparedness. Facility readiness and service provision are often insufficient to meet specific needs.

Role of VHSNCs and VHNDs: Active Village Health Sanitation and Nutrition Committees (VHSNCs) and regular Village Health and Nutrition Days (VHNDs) could play a vital role in raising awareness among families and communities. Strengthening these platforms can promote better health-seeking behavior.

Section 2 - Follow up of well baby and small and sick newborns

Follow-up of Well Babies: Current Practices and Gaps

Existing Points of Contact:

- **HBNC**, **HBYC**, and **Routine Immunization** are currently the primary platforms through which well babies are followed up in the community.
- These provide regular touchpoints however monitoring growth and development are not prioritized.

Conceptual Gap:

- There is limited clarity on the operational definition and implementation of the "thrive" component within child health programs.
- Greater emphasis is placed on survival, which shapes the perceptions and attitudes of healthcare providers

Role Ambiguity:

- A clear delineation of responsibilities between ASHAs and Anganwadi Workers (AWWs) regarding the monitoring of well babies seems to be lacking. This often results in:
    - Overlapping roles or duplication of efforts
    - Missed opportunities for timely intervention and counseling
    - Gaps in comprehensive developmental surveillance and quick corrective actions

Implications:

- The lack of a differentiated approach might undermine the goal of supporting every child to not just survive but to **thrive**.
- A clear framework for **well-baby care**, with **defined roles**, supportive supervision, and capacity-building for both ASHAs and AWWs, was noted to be essential for effective service provision.

Follow-up for Small and Sick Newborns

The follow-up process for newborns, **particularly for small and sick newborns** is critical not only for survival but also for long-term development. A structured and comprehensive approach is essential to ensure timely interventions and continuous monitoring during the early stages of growth and development. Key mechanisms for follow-up include both **facility-based** and **community-based** services. These processes encompass **discharge decisions and caregiver counseling**, **HBNC**, **HBYC**, **SNCU follow-ups**, **routine immunization**, and **growth monitoring**.

Discharge decisions and counseling

- Key criteria for discharge – the weight of the baby, vitals, and discharge counseling are essential.
- Ensuring immunization at birth, breastfeeding techniques, and practices should be reaffirmed with the mother and caregivers.
- NICU baby follow-up system includes informing parents about when to visit during discharge and also telephonic calls

Gaps identified: Criteria for discharge are not always adhered to for various reasons, there are cases of early discharge, LAMA, and DAMA. There are challenges around ensuring discharge protocols as in discharge counselling. IEC and ensuring that the mother and the caregivers understand the caregiving, breastfeeding, and danger signs left more to be desired. Family participation was considered important. Training of mother and caregiver at the time of discharge about KMC, *paladai* feeding, breastfeeding and frequency, handling the baby, using IEC, and ensuring non-discharge before actual weight gain were some of the points that were noted to fill the gap in the services. NICU follow-up up not consistently happening.

HBNC and HBYC

- ASHAs conduct home visits at prescribed intervals to monitor the child's growth and development.
- AWWs do home visits as part of the growth and development monitoring.
- Monitoring includes KMC, breastfeeding practices, immunization, hygiene, nutrition, danger signs, and early detection of developmental delays.

Gaps identified: Bottlenecks at ASHA level as ASHAs are not equipped enough to identify the danger signs in the baby. The technical requirement to assess danger signs and the skills and capacities of ASHA do not match. There have been trainings on HBNC/HBYC, however, there are still challenges with the quality of HBNC/HBYC visits in spite of the number of home visits. The quality of HBNC visits is a concern due to the lack of use of tools and checklists.

The AWW home visit also poses challenges, as the Poshan tracker does not raise red flags if the baby is not available. The follow-up process lacks clarity. There is also a lack of coordination between AWWs and ASHAs regarding the follow-up of small and sick newborns.

Delay in initiation of KMC and breastfeeding for multiple reasons [HR, workload, less priority given]

SNCU Follow-ups

- Babies admitted to SNCU receive follow-up screenings for Retinopathy of Prematurity (ROP), auditory issues (OAE), and overall development.
- SNCU counselors are responsible for ensuring follow-ups.

Gaps identified: Adherence to SNCU follow-up protocols varies and challenges were identified due to a lack of effective counseling services [referral centers, contact details, frequency of follow-up]. Screening for ROP and OAE needs to be strengthened.

One of the key gaps identified was for the clarity on development and development delays in case of premature births. Even in cases where the follow-up call is made the neural developmental delays are often not addressed. ASHAs lack specific knowledge of development delays.

The gap identified includes the need for physiotherapists and super specialty care for developmental delays.

Immunization and Growth Monitoring

- Vaccination is tracked for up to two years, including optional and necessary vaccines like flu and typhoid, which are not free.
- Monthly check-ups by pediatricians include growth and nutrition assessments.

Gaps identified: there appears to be a lack of clarity among the various healthcare providers regarding the birth dose vaccination for small and sick newborns consequentially there are chances of small and sick newborns missing out on the zero dose. Missed vaccination doses are a concern due to the unavailability of the beneficiary. Monthly growth and nutrition assessments through ASHAs and AWWs not happening effectively and consistently.

DEIC required follow-up visits for monitoring and tracking development delays for small and sick newborns a challenge due to the lack of a structured system in place in the district. One of the challenges for monitoring is the high number of SAM babies in the records. However, the discussion is that the criteria of SAM and MAM babies are not followed to identify the babies requiring care and follow-up. It was mentioned that there is over-reporting as the data also includes all the low birth weight babies. All the low birth weight babies may not meet the criteria of SAM and MAM babies.

RBSK team is mentioned to face certain challenges to effectively monitor and track small and sick newborns owing to HR shortage, workload, and frequency of visits.

Challenges in follow-up for healthcare providers

- **MCP card:** Suboptimal use of MCP card by service providers
- **Loss to follow-up:** Some newborns, especially from remote areas, are not tracked post-discharge owing to infrastructural issues such as lack of proper bus/travel facility [ASHA/PHCO].
- **Closed door:** Non availability of the beneficiaries during the visit of healthcare providers making tracking and follow-up difficult. This often leads to delayed or missed services

- **Human resource limitations:** ASHAs and Anganwadi workers (AWWs) are overburdened and the follow-up for SNCU babies is more focused.
- **Equipment failures:** Non-functional weighing scales and HBNC kits reduce the effectiveness of home visits.
- **Sociocultural barriers:** Some communities resist external intervention, leading to gaps in service delivery. Caste hierarchy affects service provision for ASHAs [ex: ASHA belonging to SC is not allowed inside the Golla community]. Specific cultural practices among communities like Golla around delivery care. [post-delivery isolation of mother and newborn outside the house/village]

Challenges in Follow-Up for the community

- The families lack awareness about the importance of regular and advised follow-ups for pregnancy and through delivery and up to 2 years of life.
- Lack of awareness among the community regarding the use of the MCP card

Section 3 - Systemic and social barriers impacting early childhood outcomes

Several systemic factors hinder early childhood care and development, creating persistent challenges for newborns and young children. The identified factors are mentioned here:

Beneficiary level challenges

- Late or improper antenatal care (ANC): Irregular check-ups, lack of early registration, and inadequate tracking of high-risk pregnancies (HRP).
- Home deliveries: Despite institutional delivery incentives, some families still prefer home births, increasing risks.
- Lack of birth preparedness: No structured planning for preterm labor, neonatal care, or postpartum recovery.
- Limited male participation: Fathers are rarely involved in maternal and childcare discussions.

Workforce and Infrastructure Challenges

- Shortage of trained staff: Medical officers (MOs) and ASHAs often lack specialized training on newborn care.
- Heavy workload: ASHAs, AWWs, and PHCOs are overburdened, leading to incomplete or rushed home visits.
- Inconsistent follow-ups: No dedicated system to track whether discharged SNCU babies receive full follow-up care.
- Lack of interdepartmental coordination: Health and Women & Child Development (WCD) departments do not always collaborate effectively.
- High-risk pregnancy (HRP) babies often do not receive the specialized care they require and are treated like well babies.

Several socio-cultural barriers were identified by the participants affecting care provision. These barriers were analysed to be influencing the service acceptance by the community.

Education, awareness, and beliefs

- Lack of education and poverty are major barriers to the acceptance and uptake of maternal and child health services.
- Misinformation and prevalent myths around breastfeeding, newborn care, and immunization deter proper practices.
- Influence of social media: families increasingly rely on unverified sources for maternal and child health information.
- Gaps in nutrition knowledge lead to inadequate dietary intake during pregnancy, contributing to low birth weight (LBW).
- Misconceptions persist around the consumption of supplements during pregnancy.
- A misguided belief that the work patterns of pregnant women directly affect delivery outcomes.
- Lack of understanding about supplementary food—especially regarding quantity (e.g., *Katori* size), quality, use of seasonal produce, and varied textures.
- Early initiation of complementary feeding and negligence of exclusive breastfeeding for the first 6 months due to limited awareness.
- Lack of awareness about the appropriate complementary food and nutritional requirements for infants.
- Unplanned pregnancies and abortions are reported, including m*aad basiru* cases - conceptions during the breastfeeding phase.
- Substance use, including tobacco consumption among women, is linked to complications such as placental insufficiency.

Access and infrastructure barriers

- Delay in reaching health facilities due to indecision and lack of reliable transportation.
- Poverty-related barriers negatively influence health-seeking behaviour; out-of-pocket expenditure deters follow-ups and critical care.
- Lack of proper infrastructure hampers timely access to maternal and child health services.
- Migration (both in and out-migration) disrupts continuity of care and follow-up services.
- Inadequate family support; often, health decisions rest with other family members, limiting the agency of mothers.

Gender and Social Norms

- Prevalence of gender discrimination. Male infants receive better care and follow-up compared to female infants.
- Teenage pregnancies and early marriages are linked to increased rates of LBW and preterm births.
- High prevalence of consanguineous marriages in the district, with potential health implications.
- Domestic violence and family conflict contribute to emotional and mental stress for pregnant women and new mothers

Section 4 - Survive vs Thrive: Gaps in focus and service delivery.

While it was identified that significant progress has been made in ensuring child survival, the shift toward supporting children to truly *thrive* remains limited. Stakeholders across levels acknowledged that current efforts are primarily centered on survival—preventing mortality and managing illness. However, the critical aspects of early childhood development, including cognitive, emotional, and physical growth, might receive inadequate attention. The gaps in understanding, service delivery, and interdepartmental coordination that hinder the realization of the *thrive* component were explored.

Survive	Thrive
• Focus on survival is acknowledged and efforts are made. • Identified that concentrated efforts are for the **survive** component and that a shift to thrive is required	• Focus on the thrive component in the services is neglected and a comprehensive understanding of thrive is lacking across stakeholders • Lack of clarity among the service providers on the measurement of growth and development milestones • Front-line workers focus on growth charts and not on milestones missing out on identifying developmental delays. • Interdepartmental convergence lacking for tracking thrive component

Section 5 - Insights from private practitioners

Maternal Care - Gaps

The high rate of cesarean section in the district was discussed to be often driven by concerns for patient well-being and the need to avoid serious complications, particularly in cases with a history of previous cesarean sections. While the referral system for antenatal care (ANC) was reported to be generally well-established, early referrals are not consistently taking place, limiting the scope for timely and adequate service provision.

An increase in teenage pregnancies has been noted in the district. Involvement of families through counseling could play a role in addressing this issue. Expected Date of Delivery (EDD) management shows inadequate attention in cases, especially with previous cesarean sections. A structured two-week follow-up and consideration of admission before EDD was recommended to reduce complications.

Some of the other identified barriers to care were spacing between pregnancies is often not followed, highlighting the need for stronger preconception care (PCC) counseling. There are instances of mothers requesting pregnancy terminations, some of which occur after counseling. Nutritional concerns were not prominent among communities accessing private practitioners.

Strengthening outreach and timely referral by ASHAs and maintaining a register for high-risk mothers and neonates to enable structured follow-up was recommended.

Newborn Care - Gaps

Early referral continues to be a challenge in neonatal care. Ambulance transport facilities are inadequate. Although the *Nagu Magu* scheme is in place, the ambulances lack the necessary equipment for neonatal care. There is a need for upgraded ambulances suited for newborn transport.

There is a lack of surfactant availability in the district. Sepsis-related issues are prevalent in newborns, as reported by the medical college. The use of adult ventilators for neonates remains inappropriate and ineffective, particularly noted at Basaveshwara Medical College.

Exclusive breastfeeding is not consistently practiced. Early initiation of supplementary feeding is common. Cases have been reported of babies with normal birth weight returning with metabolic acidosis and pulmonary hypertension. While saving a hypoxic baby is not a challenge, the lack of early referral and intervention hampers developmental outcomes. The establishment of an NBCU/NICU unit at Challakere was suggested.

Follow-Up Gaps

Neurodevelopmental assessment remains inadequate due to a lack of skills and awareness regarding the importance of follow-up. Families usually visit health facilities only when the baby presents with health issues such as fever. Documentation of assessments is inadequate. A checklist-based approach is suggested to identify and check components of neurodevelopmental evaluation. ROP screening is not available in private health facilities.

Informal or unqualified providers contribute to inappropriate referrals, causing delays in necessary care. In certain areas such as Molkamur, there are concerns about malnourished mothers and low breastfeeding rates. Structured forms and questionnaires for systematic data collection for assessment and follow-up of high-risk babies were suggested.

Section 6 – Recommendations

Recommendations for effective Follow-up for Babies (0-2 Years)

- To ensure better survival and thriving of newborns and infants, a multi-pronged approach is necessary.
- Additional pediatrician/specialist mandatory monthly visit for development and nutrition assessment

Strengthening Home-Based Care and Follow-ups

- Implement mobile-based [Digital tracking systems] alerts for ASHAs and MOs to follow up on high-risk babies.

- Expanded ASHA visits as a priority. Increase HBNC visits beyond six months for high-risk newborns and those discharged from SNCUs.
- Improved home visit tools by ensuring functional weighing scales, thermometers, and growth monitoring kits for frontline workers.
- Counselor-led outreach was a felt need. SNCU counselors should actively contact families of discharged babies to remind them of follow-ups.
- Updating the HBNC kit with appropriate devices. Also, timely monitoring of the kits and efficiency of the devices.

Capacity Building of Health Workers

- Focused training for ASHAs, AWWs, and MOs on newborn care, including handling preterm and low birth weight babies.
- Focused skill development for managing and trailing labor and perspective building on maintaining a sterile environment for mother and baby in the facility.
- Cross-training between health and WCD departments to ensure streamlined follow-up for immunization, nutrition, and development assessments.
- Refresher training for PHCOs is required and involving AWW in these trainings would serve as backup and support in providing care at the community level.

Strengthening Facility-Based Follow-ups

- Dedicated SNCU follow-up clinics to assess high-risk babies beyond the first year.
- Interdepartmental convergence meetings between Health and WCD to ensure coordinated care.
- Expanded financial support schemes to cover transportation costs for follow-up visits.

Addressing Sociocultural Barriers

- Community engagement programs to promote awareness about breastfeeding, immunization, and early childhood nutrition.
- Male involvement campaigns to encourage fathers to participate in newborn care and postnatal visits.
- Use of local influencers to tackle misinformation about newborn feeding, gender discrimination, and immunization.
- To create awareness among parents and families regarding SAM/MAM children something similar to *handwash andolana dianagalu*.

Other recommendations

- Identified HRP need comprehensive care provision which can be availed under one roof
- Involvement of village-level health volunteers and politically/popular influential people to create awareness. Awareness campaigns also schools and colleges about child marriage
- Focused preconception care with uniform and specific services [initiating services as early as possible]. Addressing the lack of guidelines would be helpful.
- IEC and BCC for improving male participation and family support, and awareness camps to be supplemented with basic physical examination for the satisfaction of the beneficiaries.

Discussion