

Reducing Maternal Anaemia in Vulnerable Urban Settings – Lessons and Insights

Maternal anaemia is a major health and nutrition concern. It affects woman, their pregnancy, and their child⁵. It can cause tiredness, weakness, and poor work capacity, and during pregnancy, it is linked with premature birth, low birth weight, and may lead to maternal death⁶. Anaemia can be prevented and treated. Yet it remains common across many low-income countries⁷. WHO estimates that 37% of pregnant women worldwide have iron-deficiency anaemia. About 30% of all women aged 15 to 49 years are also affected¹. The burden is the highest in low- and lower-middle-income countries. UNICEF links maternal nutrition with child survival, growth, and development. Poor diets during pregnancy may lack iron, folate, and other key nutrients². This can increase the risk of anaemia, bleeding, and poor birth outcomes, with a higher risk of low birth weight, wasting, and delays in development. India continues to carry a high burden. NFHS-5, conducted during 2019-2021³, found:

- 52.2% of pregnant women in India had anaemia
- 57% of all Indian women aged 15 to 49 years had anaemia
- In Maharashtra, 45.7% of pregnant women had anaemia
- In Maharashtra, 54.2% of all women aged 15 to 49 years had anaemia.

These figures show the need for early identification and treatment at every stage of the lifecycle.



Figure 1: Nurturing care model

Nurturing Care Model and Maternal Anaemia

A global, evidence-based roadmap launched by the WHO, UNICEF, and the World Bank⁴. It outlines how policies and services must support parents and caregivers to ensure children survive, thrive, and reach their full developmental potential.

In the context of the nurturing care model (refer to Figure 1), the Healthy Cities Program worked on maternal anaemia to improve the health and nutrition of children and their mothers. A woman needs good health and adequate nutrition to support her child. Family support also affects food access, rest, treatment and care-seeking. The intervention therefore connected maternal care, family behaviour and child development.

Background:

The Project is an integrated family-centric mother and child intervention implemented from 2021 to 2026 in Azmi Nagar, Malad, in Mumbai's P/North Ward. Its goal has been to facilitate an environment conducive to the optimum growth and development of children living in informal urban settlements.

The project aimed to improve the growth and development of children under three years of age by working with their mothers from pregnancy through early childhood. Its approach recognised that improving child outcomes requires action before birth, particularly through early antenatal registration, maternal nutrition assessment, maternal anaemia management and sustained behaviour change.

SNEHA's Maternal Anaemia Intervention

PROCESS

Stakeholder Coordination:

The intervention brought together SNEHA staff, community volunteers, mothers, families, public health partners, including the Brihanmumbai Municipal Corporation (BMC) and the Integrated Child Development Services (ICDS) Scheme, and local healthcare providers. Each stakeholder had a defined role. Community teams identified women early, families supported care at home, and health facilities ensured screening, treatment and referral. This coordinated approach improved continuity of maternal care.

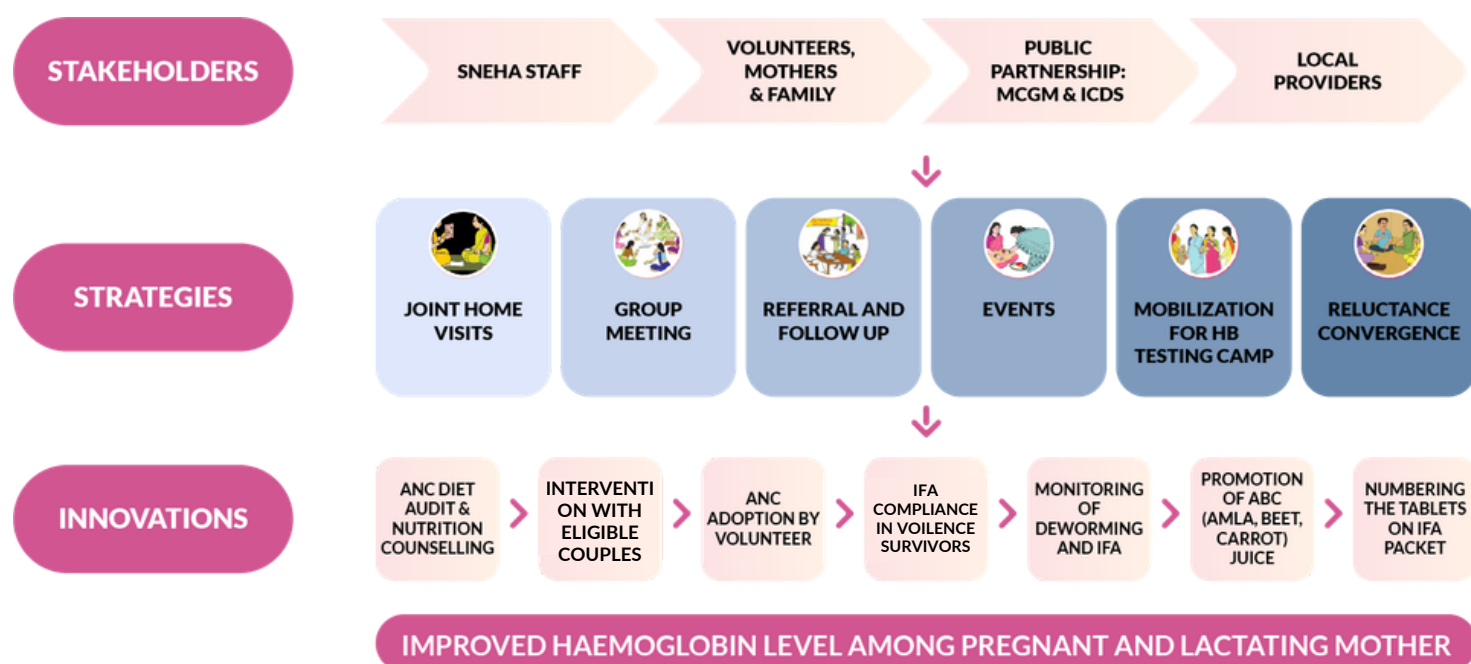
Community-Based Strategies:

Mainly focused on influencing the behaviour of pregnant mothers, their immediate caregivers, and mothers of children aged 0-3 years. The programme implemented multiple strategies such as organising haemoglobin screening camps, joint home visits, group meetings, community events, referral and follow-up. These activities increased awareness, encouraged early care-seeking during pregnancy, improved participation in anaemia testing, and helped women continue treatment through regular support from family caregivers and community engagement processes.

Service Innovations:

The intervention introduced home-based nutrition counselling, antenatal diet audits, volunteer support to encourage pregnant women to seek early antenatal care, adhere to iron and folic acid, and deworming advice. The programme also provided crisis counselling and legal service support to the pregnant women who faced domestic violence. These innovations strengthened women's agency, which helped raise self-care awareness and appropriate actions, contributing to improved haemoglobin levels among pregnant and lactating women.

STRATEGIC ROADMAP

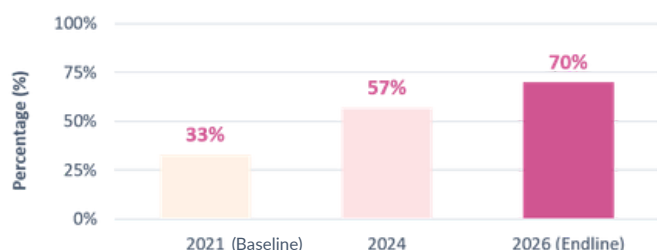


ANC adoption refers to the term where community volunteers look after the intake of iron-rich foods and haemoglobin levels of the pregnant mother in their area.

KEY RESULTS OF HEALTHY CITIES PROGRAM

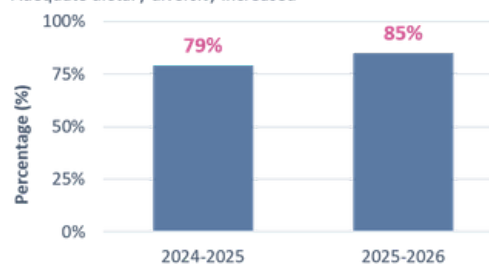
EARLY ANTENATAL REGISTRATION

First-trimester registration increased steadily



DIETARY DIVERSITY (MONITORING DATA)

Adequate dietary diversity increased



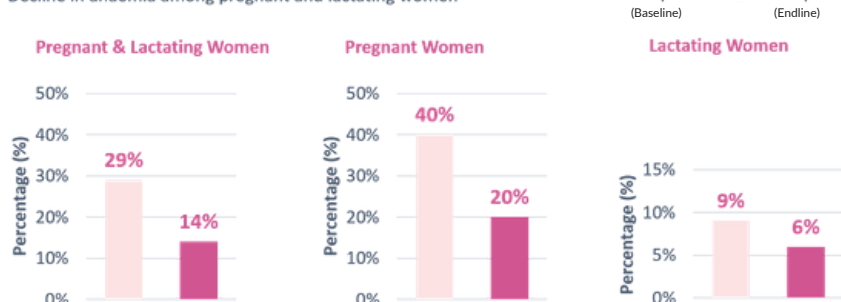
Among women with inadequate diet,

80%

moved to an adequate diet

ANAEMIA PREVALENCE OVER TIME

Decline in anaemia among pregnant and lactating women



Anaemia severity at Camp 1 vs Camp 14

Normal Hb	-	→	77%
Mild anaemia	18%	→	9%
Moderate anaemia	9%	→	4%
Severe anaemia	<1%	→	<1%

These results highlight key improvements in maternal health between 2021 and 2026. It shows first-trimester antenatal registration rising from 33% to 70%, while adequate dietary diversity increased from 79% to 85%, with 80% of women improving their diets. Results also present a clear decline in anaemia among pregnant and lactating women across anaemia testing camps from 29% to 14%. This shows improved haemoglobin levels and reduced mild, moderate, and severe anaemia, reflecting positive health outcomes over time.

RECOMMENDATIONS

01. Promoting Dietary Diversity

Diet counselling is a critical gap to be filled at the outreach and institutional level. The counselling skills of ASHAs and ICDS sevikas need to be enhanced to create a supportive environment for expectant and nursing mothers, helping them modify their dietary habits. Health facilities can use every opportunity to interact and dialogue with pregnant women on promoting dietary diversity. Advice should be more context-specific, where low-cost and locally available foods are suggested. Diet counselling coupled with healthy recipe demonstrations at health facilities and the community level encourages women and their family members to incorporate the desired changes in their food habits.

02. Supply and Monitoring mechanisms for IFA

Ensuring a continued IFA availability and establishing monitoring mechanisms for the IFA consumption can achieve better outcomes for anaemia among pregnant women. At the household level, introducing a self-monitoring mechanism allows women to take control of their health. The major concern around the side effects of IFA tablets needs to be addressed during the counselling sessions and during the routine check-ups at the health facility. All the urban healthcare facilities need to have an uninterrupted IFA supply. Stock-outs can break treatment continuity. Facility-level stock reviews and early refill alerts need to be institutionalised.

03. Engaging Men for the well-being of mothers

Involvement of men as fathers, husbands and brothers plays a pivotal role in enabling women to take action and make decisions about their own health. Health care providers need to be sensitised and trained on how and why to engage with men during every pregnancy and after delivery. Especially while dealing with high-risk pregnancies, engaging with male members of the family ensures better compliance with the advice and follow-up.

04. Integration of Maternal-Child Health Indicators and Violence

Women facing violence require confidential screening and safe referral. Nutrition services and violence response services should work together to ensure safety and access to nutritious food during pregnancy. Health care providers need to be sensitized and trained on the early identification of violence. Providing necessary support and facilitating appropriate referral will ensure the safe and healthy outcome of the pregnancy.

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