

Dissemination Event - 2026

Sustaining
Impact

THROUGH PARTNERSHIPS



Strengthening Maternal Referrals in Urban Health Systems

Lessons from an NGO-public health system partnership in the Mumbai Metropolitan Region

This brief draws on evidence from SNEHA's long-term partnership with municipal corporations in the Mumbai Metropolitan Region (MMR) to demonstrate how strengthening referral processes, including formal referral pathways, communication, monitoring mechanisms and institutional ownership, can improve maternal referrals.

KEY FINDINGS

- **Structured referral pathways improved referral practices:** Between 2016 and 2023, the proportion of referred women confirmed to have reached the designated referral facility increased from 48% to 81%.
- **Communication emerged as the strongest component of the referral intervention:** Pre-referral communication, standardised referral documentation and regular coordination between facilities improved continuity of care and were consistently valued by both providers and women.
- **Referral interventions are most effective when they address operational bottlenecks:** The intervention responded to practical challenges identified by providers, including unclear referral pathways, weak communication, inconsistent documentation and limited accountability, contributing to its acceptance and integration within routine practice.
- **Sustaining referral improvements may require continued support beyond implementation:** While municipal health systems have increasingly taken ownership of referral processes, periodic technical support for monitoring, evidence synthesis and advocacy may help sustain these gains.

With urban institutional delivery coverage at 95.2% (NFHS-6)¹, expanding facility-based births is no longer the primary policy challenge. Improving maternal outcomes increasingly depends on ensuring that women with obstetric complications reach the right facility at the right time and receive appropriate care. Effective maternal referral not only improves access to specialised obstetric care and reduces adverse maternal and neonatal outcomes, but also supports more appropriate use of health system resources by directing women to facilities equipped to manage their clinical needs.²⁻³ These challenges correspond to the second and third delays in the Three Delays framework⁴. Yet, while referral has been widely studied in rural settings, far less attention has been paid to the coordination challenges of referral in complex urban health systems⁵.

THE CONTEXT

Why urban referral is a different problem

Most referral evidence comes from rural settings, where distance is a key barrier. In urban areas, the concerns related to traffic and congestion which increase the time period of referrals is less considered. Urban health systems are often embedded within complex governance arrangements and involve different public authorities (such as municipal corporations along with State health departments), and exist alongside a heterogeneous private sector. So, referrals need to transverse both administrative jurisdictions as well as levels of care. For example, in the MMR, Mumbai city has most of the tertiary level public hospitals in the region while other municipalities have peripheral and primary level facilities. Specialized care in the case of high-risk pregnancies often requires inter-municipality referrals to the tertiary-level hospitals which are at a distance of 30-60km in the metropolitan region.

In the time before SNEHA initiated an intervention to strengthen referrals, referrals from primary tier health facilities were loosely organized. Peripheral facilities were often bypassed by maternity homes and patients, and there was overcrowding at some tertiary care facilities while others remained underutilized.

“The different levels of facilities did not know about each other’s resources; we worked like islands.”

~Practitioner, Maternity Home, Tier-I municipality, on the situation before the linkages.

The referral intervention model and SNEHA’s role in it

SNEHA, a non-governmental organization, partnered with the municipal corporations to co-develop an intervention to strengthen maternal referrals, expanding from one corporation in 2007 to seven by 2016. The core components of the intervention included instituting formal referral linkages between different facility levels, making clinical protocols for guidelines in the referral process, setting up processes to improve communication between facilities, monitoring through referral review meetings, selecting nodal officers to oversee the referral mechanisms, data management and advocacy for strengthening facilities.

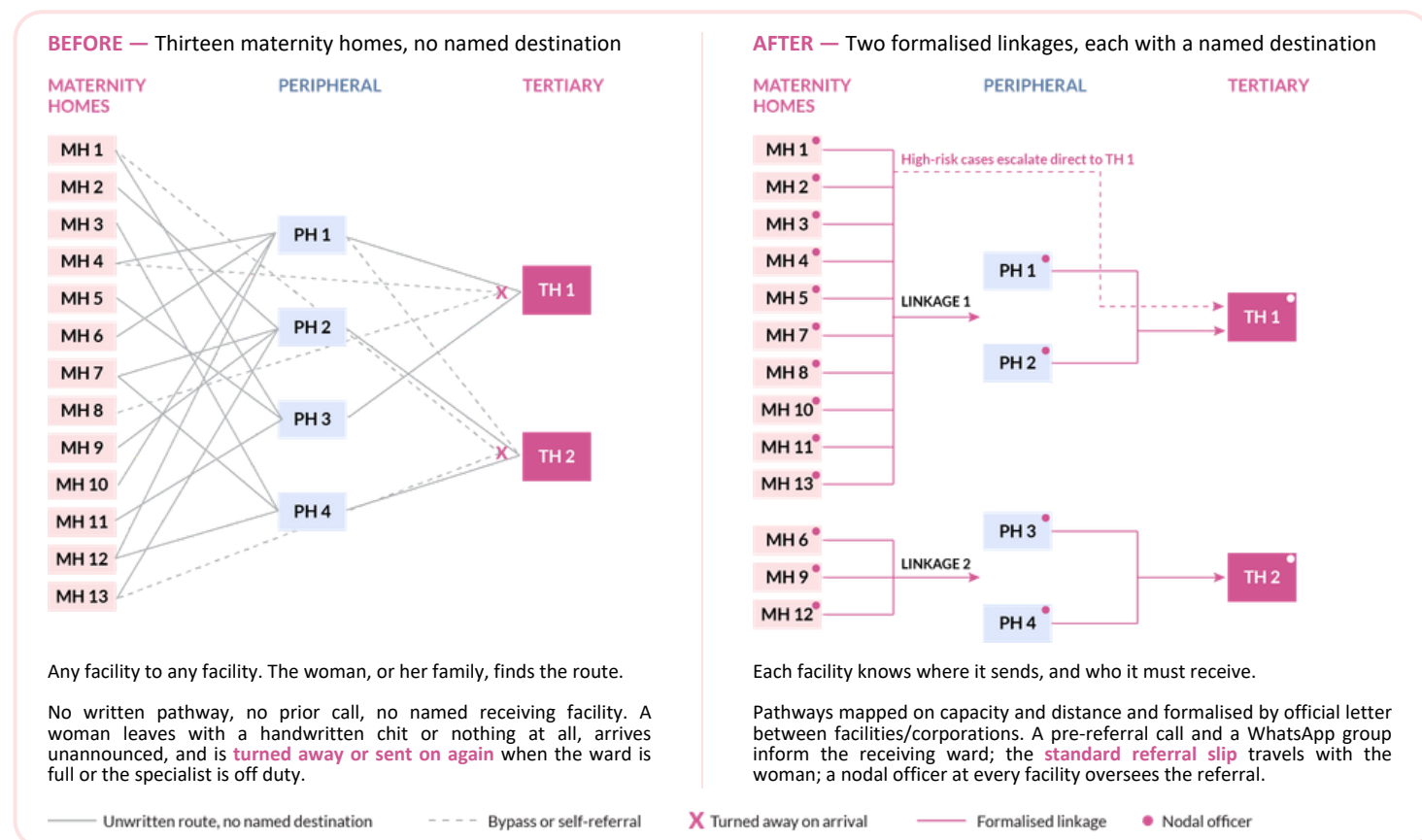


Figure 1: Referral pathways in a Tier-I municipal corporation, before and after the maternal referral intervention.

WHAT THE EVIDENCE SHOWS

Improvements in referral processes

Programme monitoring data analysed across the municipal corporations show substantial improvement in processes. Referred women are now more likely to be confirmed as reaching the referral facility, with that facility informed in advance and the paperwork complete - the marks of improved adherence to referral protocols and greater standardization in referral practices.

Process indicator	2016	2023
Referred women confirmed to have reached the designated facility	48%	81%
Referral slips completed (≥8 out of 10 key groups)	84%	92%
Receiving facility informed before transfer	68%	94%

Source: programme monitoring data.

A qualitative evaluation across four corporations and 23 health facilities, including 53 interviews with health system staff, women who had been referred and SNEHA programme staff, examined the key strengths and challenges of the maternal referral intervention.

Component	Strengths	Further work needed
Linkages & protocols	Designated linkages, including across corporations, are in place. Staff know where to send patients and when; receiving facilities know their catchment. Risk-based triaging is perceived to reduce unnecessary load on tertiary hospitals.	Distance and capacity constraints disrupt pathways in high-risk emergencies, and there is no formal backup when the referral centre is full. Clinical protocols remain informally adopted.
Communication (call & WhatsApp)	Perceived as enabling receiving facilities to reduce delay by preparing the operation theatre or arranging blood products for example, in advance. WhatsApp groups enable quick sharing of reports and real-time facility status.	Difficulties still faced in reaching receiving facilities (unanswered or busy lines); perceived rude responses a hindrance to effective communication; lack of one direct mobile contact access at receiving facilities; weak post-referral feedback.
The referral slip	A standardized tool for documenting clinical information across facilities. Reduces delays and enables fast-tracking — patients with a pink slip are taken directly to the labour room. The pink slip serves as a marker of an obstetric emergency at the referred facility and a medico-legal record.	Occasionally incomplete, incorrect or missing slips; inconsistent use for same-level transfers of the patient (example- from one maternity home to other)
Evidence and data	Systematic documentation enables monitoring of whether referrals are appropriate and what outcomes follow. A shift from SNEHA-led collection toward staff entering data digitally reflects growing ownership.	No dedicated data-entry staff in many facilities; the outcome column often stays empty for want of feedback; limited administrative interest in referral data.
Meetings and nodal officers	A platform to review referral data now exists and its value is recognized at all levels. Local intra-corporation meetings enable better opportunity for context-specific discussion. A designated focal point (nodal officer) exists per corporation.	Meetings focus toward reporting over action; attendees often lack decision authority; the nodal role is loosely defined and unincentivized.

“Earlier, referrals went to whichever tertiary might accept; now our referral hospital is fixed, and refusals have largely stopped.”

~Practitioner, Maternity Home, Tier-II municipality

“When patients hear that the doctor there is ready to receive them, they are also more willing to be transferred.”

~Practitioner, Maternity Home, Tier-I municipality

RECOMMENDATIONS

01. Design referral pathways as flexible networks

The current referral system has established clear referral linkages, but fixed one-to-one pathways do not always accommodate emergencies, distance barriers or capacity constraints. Future referral systems should evolve towards networked, capacity-aware pathways that include designated backup referral facilities and use real-time information on bed availability and critical care services to support timely referral decisions.

02. Institutionalise the referral coordination and accountability function

Referral coordination should become a defined health system function rather than an additional responsibility undertaken alongside routine clinical duties. Formalising the role of maternal referral nodal officers, with clearly defined responsibilities, rotational appointments and appropriate administrative support, would strengthen accountability.

03. Strengthen referral communication and feedback

Effective referrals depend on timely communication before and after patient transfer. Dedicated communication channels between treating clinicians, together with a routine mechanism for sharing referral outcomes and reviewing follow-up actions, would strengthen clinical decision-making and enable continuous improvement in referral practices.

04. Embed referral monitoring within routine health systems

Referral data should be used not only to document patient movement but also to improve service delivery. Integrating referral monitoring into routine health information systems, strengthening referral review meetings and supporting evidence synthesis would enable referral performance to be regularly reviewed and acted upon.

05. Expand referral networks as health system capacity grows

The maternal referral model provides a foundation that can be adapted to other time-critical referrals, including neonatal, paediatric and medical emergencies. As infrastructure and service capacity expand, referral networks may be extended across departments and, where appropriate, linked with accredited private facilities to improve access to specialised care.

A key lesson from the intervention is that referral strengthening depends not only on introducing new processes, but on embedding them within routine health system practice. The intervention accordingly shifted from a SNEHA-led model to a SNEHA-supported, health system-led one, so that improvements in referral practices would continue beyond the period of active facilitation. In the sustainability literature, maintenance of programme components is widely recognised as a practical measure of programme-level sustainability.⁶ As health systems assume greater ownership, periodic technical support for evidence synthesis, monitoring and advocacy may help consolidate these gains.

"You have made the system; we have to manage it. It's up to us how we run it. But every three to six months you should come, ask if there is any problem, use parameters to monitor."

~ Practitioner, Peripheral Hospital, Tier-II municipality, reflecting on SNEHA's role as a systems intermediary.

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