

Why Social Policy Fails at the Last Mile: Referral Integrity and High-Risk Pregnancy Care in India

India has recorded substantial reductions in maternal mortality over the past two decades. The Maternal Mortality Ratio declined from 130 per 100,000 live births in 2014–16 to 93 in 2019–21, according to the Sample Registration System (SRS).¹ More recent United Nations estimates place India’s MMR at 80 in 2023, reflecting a long-term downward trend.²

Yet India accounted for an estimated 19,000 maternal deaths in 2023 — roughly 52 per day.² Most maternal deaths globally are considered preventable, with leading causes including haemorrhage, hypertensive disorders of pregnancy, and infections.²

This paradox — structural progress alongside persistent preventable deaths — shifts attention from policy formulation to policy delivery.

India’s policy framework for maternal health is robust. Risk identification protocols exist. Referral transport is guaranteed. Institutional delivery is incentivised. But maternal survival increasingly depends on whether high-risk pregnancies are linked to appropriate facilities in time. Why do gaps remain at the “last mile” of maternal care despite broad policy success?

Policy Architecture: Linking Incentives, Entitlements, and Risk Identification

India’s maternal health framework operates through interconnected layers of schemes.

The Janani Suraksha Yojana (JSY) incentivised institutional delivery through conditional cash transfers, particularly in high-focus states.³ This shifted childbirth from home settings toward public facilities where skilled attendance is available.

The Janani Shishu Suraksha Karyakram (JSSK) complemented this by eliminating financial barriers at the point of care. It guarantees free and cashless delivery, including caesarean sections, free drugs, diagnostics, diet during stay, blood provision, and transport — including inter-facility referral transport.⁴ This transport component is particularly significant, because

maternal survival often depends not merely on reaching a facility, but on reaching a facility equipped to manage complications.

Risk identification forms the next layer. Under the Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA), pregnant women are assured specialist antenatal screening on a fixed monthly day, with explicit emphasis on identifying and tracking High-Risk Pregnancies (HRPs).⁵ These pregnancies require planned referral to higher-level facilities capable of managing obstetric complications.

Additional support structures — including the Pradhan Mantri Matru Vandana Yojana (PMMVY)⁶ and services delivered through Anganwadi centres under ICDS — address nutritional vulnerability and antenatal tracking at the community level.⁷

Taken together, these programmes reflect a structured pathway: early identification of high-risk pregnancies, advance referral planning, assured transport, and delivery at facilities capable of managing obstetric complications. Maternal survival therefore depends on the integrity of referral pathways. The issue is not the absence of schemes, but whether their operational linkages hold under district-level constraints.

The Last Mile: Where Referral Pathways Fracture

Field-level observations from a district in central India suggest that the most consequential breakdowns occur at the stage of referral for High-Risk Pregnancies.

1. Ambulance Routing and Facility Matching

Although JSSK guarantees free transport, ambulance routing often defaults to the nearest facility rather than the clinically appropriate one. For a high-risk pregnancy requiring advanced obstetric care, initial transfer to a Primary Health Centre (PHC) or Community Health Centre (CHC) may result in secondary referral to a District Hospital (DH), creating additional transit time.

In emergencies involving haemorrhage or hypertensive crises, these intermediate transfers can be decisive. The policy provides for inter-facility transport; the challenge lies in ensuring that routing decisions are risk-sensitive rather than proximity-driven.

2. Documentation and Risk Visibility

High-risk status is expected to be documented through antenatal screening and maternal health cards. In practice, incomplete documentation can delay recognition at the receiving facility. When high-risk indicators — such as previous obstetric history, severe anaemia, abnormal foetal presentation, or anthropometric risk markers — are not clearly recorded, facility staff may identify risk only upon examination, triggering further referral or escalation.

The issue, therefore, is not simply the availability of clinical expertise, but whether risk information travels accurately across levels of care.

3. Facility Burden and Referral Concentration

As institutional deliveries increase, District Hospitals often absorb a high volume of both high-risk and low-risk cases. Non-HRP deliveries at higher-level facilities contribute to congestion, while some HRP cases continue to present at lower-level facilities lacking blood banks, specialist obstetricians, or emergency infrastructure.

Sub-District Hospitals (SDHs), in some contexts, face infrastructure and staffing gaps — including limited blood storage units, specialist availability, or round-the-clock surgical readiness — resulting in further referral to District Hospitals. This further concentrates risk at the tertiary level.

It is neither feasible nor appropriate to restrict patient choice; public facilities are obligated to treat all who seek care. However, referral systems function optimally only when clinical risk, infrastructure capacity, and transport protocols are aligned. When these are misaligned, time-sensitive complications escalate into avoidable mortality.

4. Communication and Preparedness

High-risk designation does not always translate into operational preparedness at the household level. Families may not fully understand the implications of HRP classification — such as the need to proceed directly to higher-level facilities or to arrange for potential blood donors in advance. Community-level counselling is designed to address this, but consistency varies.

The result is not systemic collapse, but systemic friction — small delays across identification, transport, referral, and admission that accumulate into clinically significant risk. Each stage functions, but not always in alignment with the others. It is within this misalignment that avoidable mortality can persist despite broad policy success.

Recommendations on Strengthening Referral Integrity

The first phase of maternal health reform prioritised expanding institutional delivery. The next phase must prioritise referral precision and risk-based facility allocation.

1. Standardised Identification of High-Risk Pregnancies

Introduce uniform, colour-coded marking of High-Risk Pregnancy (HRP) status on maternal health cards across the district. The marking should be recognised across ASHAs, ANMs, PHCs, CHCs, ambulance personnel, and referral facilities. Ambulance crews must be trained to treat HRP-marked cases as referral-sensitive and route them according to predefined risk protocols.

2. Risk-Based Ambulance Routing Protocols

Ambulance Standard Operating Procedures should explicitly map HRP categories to designated higher-level facilities (e.g., SDH or DH with blood bank and specialist availability). Dispatch decisions should be guided by risk classification, not only proximity.

3. Predictive Planning Through Due-Date Mapping

Monthly expected delivery lists — including high-risk classification and geographic location — should be shared in advance with 102 ambulance control rooms. This would enable anticipatory fleet positioning, staffing allocation, and pre-identified referral mapping for high-risk cases. Transport systems would then operate not only as emergency responders, but as planned components of maternal risk management.

4. Routine Audit of Transport Timelines

District-level review mechanisms should periodically assess:

- Time from call to dispatch
- Travel time
- Inter-facility transfer frequency
- Total time to definitive admission

GPS logs and referral records should be integrated into these audits to identify recurring delays or misrouting patterns.

5. Strengthening Sub-District Capacity

Sub-District Hospitals (SDHs) must be equipped with functional blood storage units, round-the-clock obstetric coverage, and basic emergency surgical capability. Strengthening SDHs reduces unnecessary secondary referrals and distributes risk-appropriate care more effectively across the system.

6. Structured Pre-Delivery Preparedness for HRP Cases

High-risk pregnancies should trigger structured birth preparedness planning at the community level. This includes advance transport planning, identification of blood donors where required, and early presentation to the mapped facility in the final weeks of gestation.

7. Integrated Risk Communication Across Levels

HRP status should be digitally and physically visible across the continuum — from community registers to facility admission desks. Risk information must travel ahead of the patient, not restart at each point of contact.

Many digital and monitoring systems already exist within the health system. The priority is ensuring that they reinforce referral decision-making rather than operate as parallel reporting structures.

Maternal mortality reduction in India has entered a more complex phase. Coverage has expanded; financial barriers have narrowed; infrastructure has improved. What remains are the margins where coordination determines outcomes. It is at this last mile — where systems,

people, and protocols intersect — that the future of maternal health progress will be determined.

References

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