MSD for Mothers

Enhancing Quality of Care in Maternal Health in India

ECOSYSTEM EVOLUTION REPORT

SATTVA
Delivering High Impact.

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Executive Summary

1. **Maternal mortality has declined significantly, and there is still a strong opportunity to further reduce maternal morbidity**

   In the years of 2005 to 2020, India's maternal mortality rate dropped from 254 to 97 per 100,000 live births. While this is commendable, postpartum maternal morbidities such as puerperal sepsis, pre-eclampsia and eclampsia, and postpartum hemorrhage continue to plague Indian women.

2. **A quality-first care approach is increasingly being viewed as imperative to reducing both morbidity and mortality**

   In recent years, the maternal health landscape both in India and globally has witnessed a paradigm shift from a focus on reducing only mortality to addressing morbidity and mortality as twin outcomes, with quality of care at the center.

3. **The study has identified last-mile challenges that impede provision of MHQoC and mapped the effects of those challenges**

   Through the course of the study, last mile challenges faced by women were identified using a three-tier framework. These challenges were bucketed under three determinants of quality maternal healthcare: availability and accessibility, affordability, and governance.

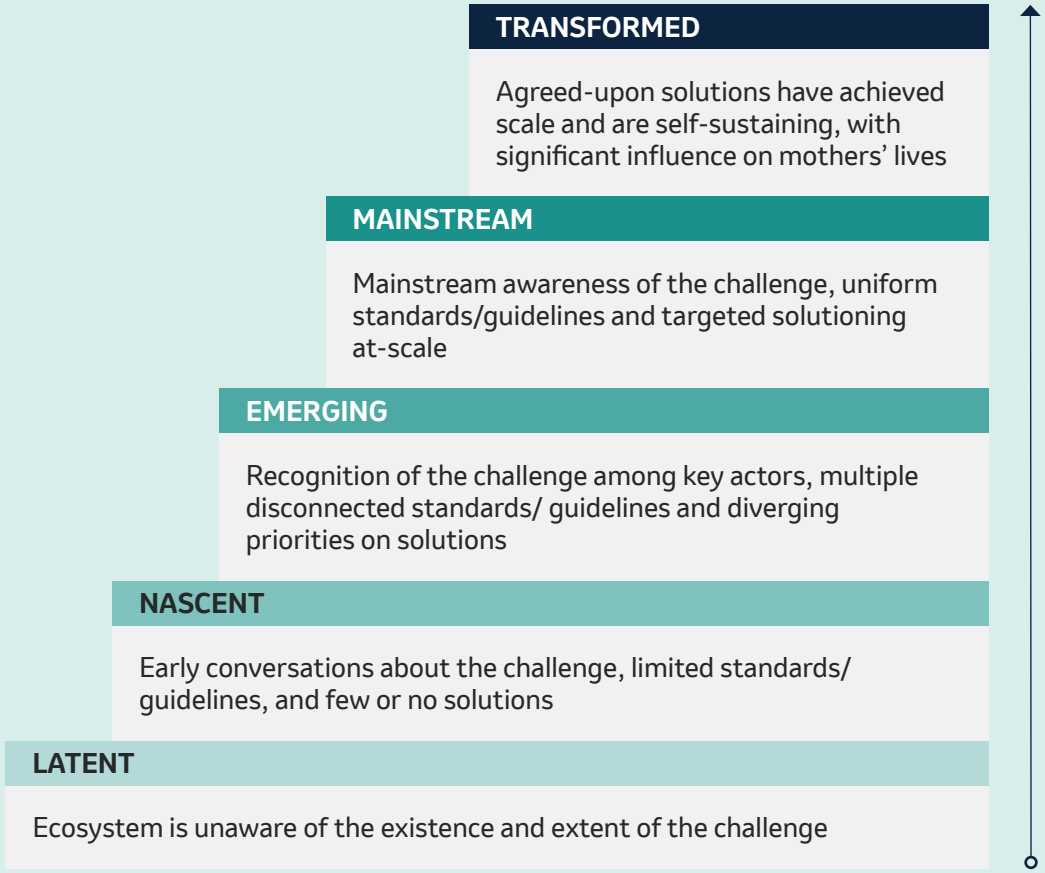
4. **The study has also identified causal factors that amplify last-mile challenges**

   Through analysis, identified five causal factors that impede the delivery of MHQoC : 1. awareness, 2. norms and attitudes, 3. capacity, infrastructure, 4. incentives, and 5. rules and policies.

5. **The study outlines the maternal health ecosystem's evolving response to the last-mile challenges from 2013 to 2023 , with contributions by MSD for Mothers' to address the challenges**

   The ecosystem's response to the last mile challenges is presented through Sattva's 5 stage evolutionary framework across the three key determinants between 2013 and 2023. Refer to exhibit 1.

Exhibit 1: Sattva's 5 stage evolutionary framework



6. **The Indian maternal health has mitigated its last mile challenges to evolve from the nascent to the emerging stage**

   Government schemes and programs such as Janani Suraksha Yojana (JSY), Pradhan Mantri Jan Arogaya Yojana (PMJAY), and the Ayushman Bharat Digital Mission (ABDM), along with private sector efforts such as Manyata and the Utkrisht Development Impact Bond have played a pivotal role in shaping the ecosystem's understanding of the challenges listed above and their response to the same. While the ecosystem has moved from the nascent to the emerging stage, there is still an absence of concerted efforts to tackle challenges at scale.

7. **MSD for Mothers India (MfM India) has played a critical role in boosting MHQoC in the private sector across areas like quality improvement and accreditation, skilling, and integrated care, and complemented the government's ongoing efforts to improve MHQoC in public sector**

   The solutions ranged from medium to high impact in their contributions to addressing all three determinants.

   a. **The impact of the solutions to challenges associated with availability and access was the highest:**Solutions such as Together for her Health, Safe Delivery App (India), askNIVI reached women directly to increase access to information, and facilitated access to care delivery through clinical recommendations.

   b. **While the solutions were able to impact affordability, there is still scope for increasing affordability at scale:** Manyata and The Safe Delivery App contributed to increasing affordability, however, unique interventions like Utkrisht Development Impact Bond were unable to scale up.

   c. **MSD for Mothers contribution to challenges associated with MHQoC governance was medium:** Manyata, Safe Delivery App and SafeCare had the highest contribution in the ecosystem with accelerated scaling, influence and adoption. However, solutions aimed at feedback and measurement were unable to scale.

8. **Three key opportunities emerged for MSD for Mothers and the MHQoC ecosystem**

   The heterogeneity of the ecosystem's response to the three determinants highlights key opportunities to catalyze future action toward boosting the narrative around MHQoC:

   a. Fostering women's leadership and expanding current initiatives through established networks and partnerships will be essential for sustaining growth and improvement in MHQoC in India.

   b. Focusing on building the capacity of healthcare providers across all levels of healthcare, especially at the last mile through community engagement will help strengthen the ecosystem's last-mile reach.

   c. Strengthening evidence-based monitoring systems and guidelines, through collaboration with key stakeholders in the supply and demand of maternal health care in the private sector will be imperative to ensuring a sustainable evolution of the ecosystem.

Study background

Globally, a patient-centred, consistent care approach has become central to reducing maternal morbidity and mortality.

Despite urgent efforts to reduce global maternal mortality rates (MMR) in 2005, progress was uneven, leading to an increased focus on standardizing maternal health quality of care (MHQoC) in low- and middle-income countries (LMICs). By 2010, while global MMR halved, Millennium Development Goals (MDG) targets remained out of reach for these countries. International assistance and multi-stakeholder movements became crucial for achieving these goals. The maternal health landscape has shifted to address both morbidity and mortality as interconnected outcomes, placing quality of care at the center.

Similarly, in India, efforts in the maternal health ecosystem have consciously shifted from a siloed approach to an integrated, quality-first approach in both the public and private sectors.

Between 2005 and 2010, landmark initiatives like the Janani Suraksha Yojana (JSY), the National Accreditation Board for Hospitals & Healthcare Providers (NABH), and the Clinical Establishments Act (CEA) focused on establishing minimum standards in both sectors, promoting equity, affordability, and quality in healthcare. These concerted efforts aimed to make healthcare more accessible, affordable, and of high quality. Building on these foundations, targeted interventions from 2013 to 2023 have been implemented to address specific challenges and further enhance maternal health outcomes.

Exhibit 2: Interventions in the Indian maternal health ecosystem

	2013	2017	2020	2023
Situation	Average annual rate of reduction in MMR increases.[1] Improved quality of and access to RMNCH services cited as a significant enabling factor.[2]	Proactive commitment to improving quality of care and patient safety to address uneven gains in states through National Patient Safety Implementation Framework. Institutional deliveries double. Maternal death reporting improves.[3]	Integration through SUMAN, AB-PMJAY's focus on UHC and sustained commitment across sectors contribute to achievement of NHP 2017 MMR target.[4] LaQshya-Manyata's PPP model implemented in Maharashtra to improve QoC through QI/QA implemented.[5]	MPCDSR digitized and rolled out to improve QoC. SaQushal quality assessment tool to implement patient safety framework launched. SDG Health Dashboard to closely monitor India's progress toward SDGs insitutionalized.
Spotlight	Maternal Death Reporting and Review systems strengthened. States' progress in institutionalizing MDR processes closely monitored by MoHFW. Measurement of QoC takes centrestage as NQAS for DHs is launched.[6]	Spotlight on; NQAS, LaQShya, Dakshata, Mera Aspatal, Kayakalp underlined need for integration of efforts to strengthen and regulate QoC. The launch of Manyata made a case for accreditation.	ABDM launched as first step toward digital transformation; e-Sanjeevani launched to expand access to telemedicine; PM-ABHIM launched to improve tertiary, comprehensive health care. NHA and QCI collaborate to introduce incentives for quality certification under PMJAY.	States encouraged to share data to improve progress in meeting MHQoC outcomes as state wide variations observed. OGD platform institutionalized. Private sector participation in digital transformation journey stressed to improve MHQoC.

About this report

This research was conducted to understand the evolution of MHQoC in India and MSD for Mothers' contribution to the same. Through this report we aim to:

1. Build a stronger understanding of last mile challenges related to MHQoC faced by the average Indian woman
2. Highlight the evolution of the MHQoC discourse in India
3. Highlight the ecosystem's including MSD for Mothers' response to the last mile challenges
4. Highlight opportunities for the ecosystem to sustain India's quality journey

The research, conducted over 6 months, adopted a qualitative approach to study the evolution of the ecosystem.

India's evolution towards adopting quality first approach to maternal care is a complex process, that engages with multiple stakeholders, their diverse perspectives and interactions. Given the emerging nature of this sector, we conducted extensive secondary research covering policy documents, credible press articles, judicial developments and research reports. This study is one of the first attempts in the country to holistically map the evolution of MHQoC efforts over the past ten years and further research will strengthen the evidence and discourse put forth.

The report has been anchored in terms of the key determinants of quality maternal healthcare for the average Indian woman and the last mile challenges associated with such determinants.

Each chapter covers risks on the basis of the following elements:

- The definition of the determinant including the last mile challenges and their manifestation
- Key developments and trends in mitigating the impact of the last mille challenges over the past ten years
- Illustrative solutions across the private, public, and social sectors
- Mapping the contribution of MSD for Mothers
- Opportunities for sustaining the quality journey in India

Objectives and outcomes

The retrospective study unpacks the evolution of MHQoC in India, and maps MSD for Mothers' contributions to complement the MHQoC journey.

Consensus-based identification and unpacking of systemic challenges is a first step to enable design and implementation of appropriate, sustainable solutions that buttress India in its quality journey

Study Objectives

1. Identify **last-mile challenges** that impede a systemic, integrated response to building quality of care in maternal health, as a critical juncture in improving women's health.
2. Track the evolution of the quality maternal care journey in **India and assess India's (public and private sector) responses to last-mile challenges.**
3. Identify and present **emerging opportunity-areas** for focused support, with a vision to sustain India's quality journey

Expected Outcomes

1. **Outline strategies and interventions** that have supported systems shaping, and critical areas where future interventions are recommended
2. **Showcase contribution** of interventions supported by **MSD for Mothers India**, in enhancing and complementing ongoing efforts to accelerate India's quality journey.

Inclusions

- This research exclusively focuses on the transformation of the **maternal health landscape** in India. Further, it emphasizes the role of public and private sector including MSD for Mothers in contributing to its evolution
- The study examines **maternal health and quality of care in India from 2013 to 2023** through three time periods; **2013-16, 2017-20, 2021-23**
- **Select literature and ecosystem engagement reports** have been reviewed for the purpose of this study. This study will be strengthened with focus-group discussions/ one on ones with select ecosystem stakeholders.

Exclusions

- **Neonatal and adolescent health are excluded** from the scope
- Study **does not address global maternal health quality as a primary research focus-area. However, trends and milestones have been included to set context.**

Last-mile challenges

We utilised a three-axes framework to identify last-mile challenges at the intersection of a persona's identity, the types of care they access, and the lifecycle of their interactions with the maternal health quality of care (MHQoC) ecosystem. The identified last-mile challenges that impede the provision of quality maternal healthcare were categorized into three key determinants: availability and accessibility, affordability, and governance

Availability and Accessibility

- Discrimination while seeking maternal health care
- Delay in accessing appropriate maternal health services
- Lack of knowledge/awareness about existing healthcare services and schemes

Governance

- Inconsistency in quality of care received
- Inadequate use of monitoring systems for evidence-based care
- Absence of at-scale robust feedback loops for providers and clients

Affordability

- Expensive continuity of care (including diagnostics) in private health facilities
- Absence of insurance schemes to support maternal health expenditure adequately
- Low uptake of maternal health schemes and incentives

The subsequent section of the report further explores the ecosystem's response to these challenges and traces the evolution of that response over time.

Evolution of maternal health and quality of care

Across the ecosystem, aligned with global shifts, quality improvement, accreditation and patient-centred care have emerged as key strategies to improve MHQoC through a quality culture. In the last decade, public sector efforts have prioritized standardization and patient safety through quality improvement and assurance. The following exhibit shows the snapshot of key trends in the public sector in the last 10 years:

Exhibit 3: Snapshot of key trends in the public sector

	Pre 2013	2013 - 2016	2017 - 2020	2021 - 2023
Priorities	• **Focus on reducing MMR** • **Improve health seeking behaviour; promote institutional births** • **Improve the affordability of healthcare**	• **Enhance the utilization of health services, standardize service quality** • **Address anaemia and malnutrition among pregnant women and children**	• **Reduce the incidence of postpartum complications; Focus on improving the quality of maternal care** • **Address the growing burden of OOPE**	• **Recoup from roll-back effect of COVID-19; focus on strengthening workforce and access to service delivery**
Interventions	• **JSY:** Financial incentives to women for facility births • **JSSK:** Free and cashless services to pregnant women in public facilities • **JEY:** Free emergency transport service to pregnant women to public facilities • **RSBY:** Health insurance coverage for BPL families; INR 30K per family/year	• **MCH wings:** Dedicates wards for quality obstetric & neonatal care • **NQAS:** Framework to assess & improve quality of services in health facilities • **National Iron + Initiative:** Free folic acid supplements to combat anaemia • **Free drugs** and **diagnostic services** initiative	• **PMSMA:** Free of cost antenatal care for pregnant women • **LaQshya:** Improve quality of care in labour room and maternity OTs • **PMJAY:** Insurance scheme; cashless secondary & tertiary health services • **AB HWCs:** Dedicated units providing comprehensive primary care	• **e-Sanjeevani was in the spotlight:** National telemedicine service; free online consultations with doctors and specialists • **ABDM:** Integrated digital health infrastructure; improve healthcare access • **Midwifery:** Cadre of midwives (NPMs) & midwifery-led units created streamlined education & training of the workforce
Impact	• Shortage of infrastructure and providers; **facilities struggled** to meet the **growing demand for institutional deliveries.** • **Poor quality** of services in health facilities further led to **limited adoption** of public health schemes	• Early QI efforts prioritized facility infrastructure; **limited focus on patient satisfaction** & respectful service delivery • Despite an increase in institutional births, **% stillbirth & postpartum complication** rates remained high	• **COVID-19: Disruption** in healthcare service supply. Significant discrepancies in service quality coupled with **widening gap** in the affordability of services between the public and private sectors.	• Renewed emphasis on enhancing the **accessibility** and **equity** of healthcare services • **Concerns persist** about the **quality** of healthcare services, with an emerging need for **patient safety protocols**

Similarly, there is an emphasis on improving the quality of services in the private sector, shifting focus from merely promoting institutional deliveries to quality of care approach.

Private sector investments have evolved from a focus on institutional deliveries to improving access and quality of services via digitisation. There is also greater focus on system strengthening as a critical lever in addition to quality and patient centricity. The following exhibit shows the snapshot of private sector interventions in the last 10 years:

Exhibit 4: Snapshot of key trends in the private sector

	Pre 2013	2013 - 2016	2017 - 2020	2021 - 2023
Priorities	• **Formalization of PPP, focus of these models towards improving institutional births and reducing OoPE**	• **Pioneering effort toward Maternal QoC** • **Strengthened Service delivery through technical expertise**	• **Private sector investments in digital tools for consumer awareness as well as for the provider segment** • **Innovative models of health care financing**	• **Increased focus on data and digitization for increased access to quality services** • **Patient centricity as part of quality**
Interventions	• **Chiranjeevi Yojana and MAMTA Scheme** - Provision of free institutional deliveries by private partners • **JSY - EmOC -** Addresses infrastructural inadequecieis via a contracting-in PPP model • **Clinical establishments Act (2010)** implemented as a regulation across select states and UTs but not successfully adopted	• **Manyata -** a quality certification program for private maternity centers. • **Vriddhi -** A PPP to support roll out and scale up of Laqshya scheme • Partnerships with Andhra Pradesh and Maharashtra state governments for specialized and tertiary care provision[7]	• **Safe Delivery App -** training tool for health care workers reaching remote areas • **askNivi -** AI Powered chatbot for healthcare information • **Utkrisht Impact Bond -** leverages private investor capital to incentivize private maternity providers in Rajasthan to improve the quality of care they deliver. • **AB-PMJAY -** Health insurance scheme empanelled 27,343 private hospitals so far[8]	• **ABDM -** Telemedicine, healthcare providers, technology and health insurance • **MANCH -** Collaboration with ASHAs, community awareness sessions tribal population in Madhya Pradesh. Patient centricity prioritized and support in implementing Laqshya.

Private sector* includes hospitals and clinics, diagnostic centres, health insurance companies, telemedicine firms, speciality clinics, home healthcare services, medical education institutions and more. However, Public-Private Partnerships (PPPs) have been increasingly used as a model in healthcare in India to leverage the strengths of both the public and private sectors.

The levers of private sector engagement includes the following: 1. Resource (equipment, workforce) 2. Philanthropic capital 3. Technical expertise

As a result of multiple ecosystem challenges, including the lack of regulation in the private sector, there is a growing divide between the public and private sectors. There is a need for the two sectors to collaborate for developing innovating solutions, to achieve QoC objectives.

*Lack of consensus on definition of private sector

Unpacking systemic responses to last-mile challenges

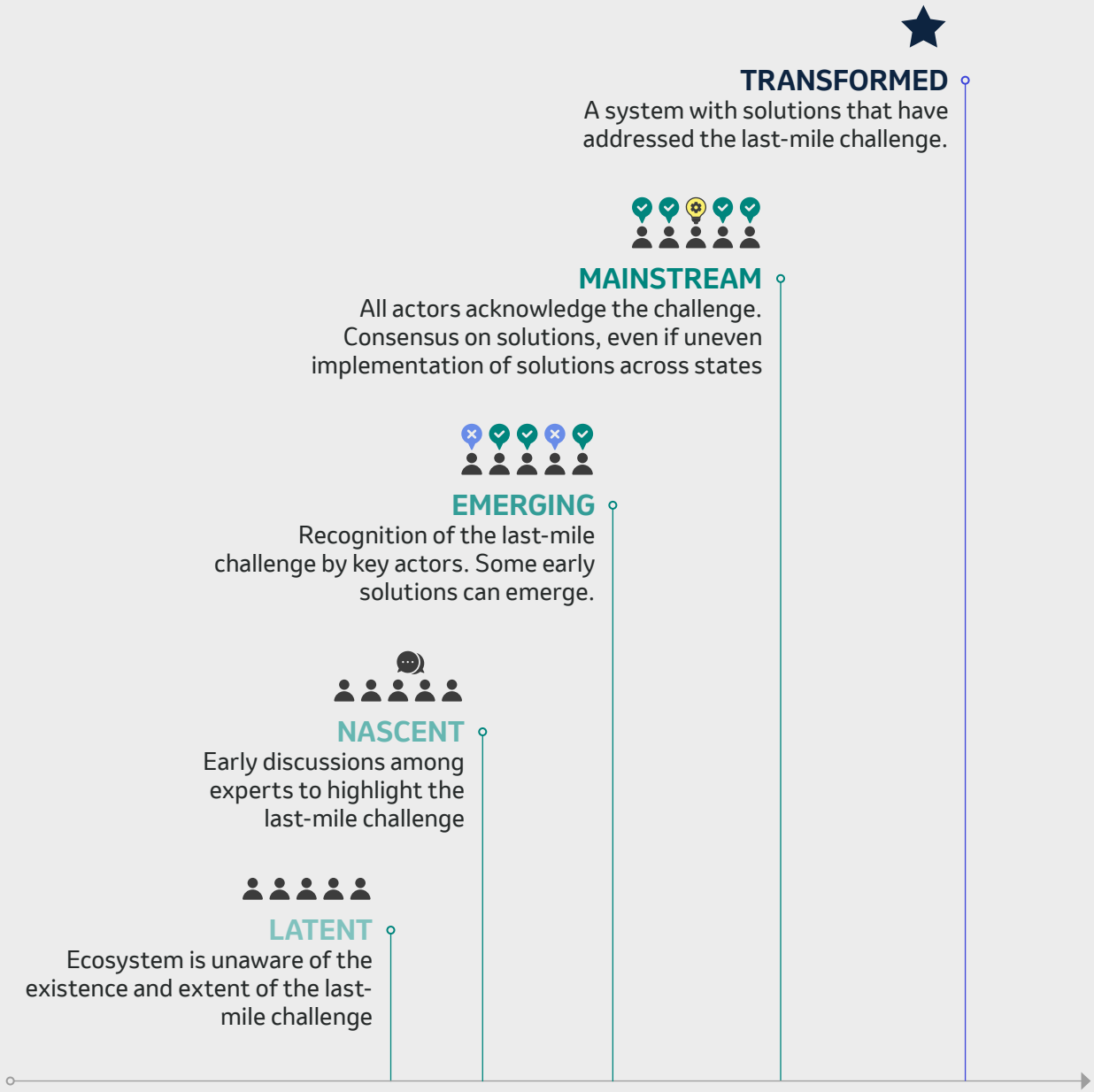
Based on the events and trends in the maternal health ecosystem, we found that there is considerable movement in recognition and rise of solutions for quality of care in maternal health India.

The evolution of a system to respond to new last-mile challenges is a 5-stage process. The first few stages involve recognising and forging a common understanding of the challenges. The system then moves towards building consensus on how the challenges can be resolved while ensuring the benefit of all stakeholders. Post this, mainstream solutioning occurs which eventually leads to the obviation of the challenge.

For instance, in 2013, the lack of consensus among stakeholders about the last-mile challenge 'Delay in timely access of appropriate maternal health services' meant it to be at the Emerging stage. However, increased efforts and interventions among both public and private sector by like Project Matrika, Vriddhi, Together for Her, etc. has helped push the challenge to Emerging stage by 2023.

It is essential to cultivate awareness within the maternal health ecosystem, empowering it to respond effectively to emerging challenges and opportunities. This approach promotes efficient interaction and collaboration among all stakeholders, which is crucial for advancing the system through its various stages of evolution.

Exibit 5: Evolution of a system's response to new last-mile challenges



The MHQoC landscape in India is currently at the 'emerging stage' which indicates recognition of the determinants and their last-mile challenges by key stakeholders and emergence of early, varied solutions

Over the past decade, there have been many efforts towards strengthening MHQoC. However, concerted efforts are still absent to tackle challenges at scale. Leveraging an internally developed stage-wise evolutionary framework, the study investigated the ecosystem's response to last-mile challenges across three key determinants (availability and accessibility, affordability, and governance) between 2013 and 2023, mapping it to different stages below:

Ecosystem Evolution

	Last-mile Challenges	2013 Status	Latent	Nascent	Emerging	Mainstream	Transformed	2023 Status
Availability & Accessibility	Discrimination while seeking maternal health care	Lack of specific guidelines and frameworks						Increased attention but lack of targeted efforts by public and private sector
	Delay in timely access of appropriate maternal health services	Widespread awareness but solutions primarily within public sector						Increased efforts and interventions among both public and private sector
	Lack of knowledge/ awareness about existing healthcare services and schemes	Awareness generation primarily due to public sector efforts						Rise in community engagement and awareness campaigns by both public and private sector
Affordability	Expensive continuity of care (including diagnostics) in private health facilities	Limited OOPE reduction by public sector schemes						Increase in private solutions (telemedicine and mHealth)
	Absence of insurance schemes to support maternal health expenditure adequately	Limited interventions and coverage by PFHI schemes						Interventions exist but ineffective due to lack of overall coverage; lack of social benchmark
	Low uptake of maternal health schemes and incentives	Low awareness of and limited coverage by MH schemes						Lack of uniformity in awareness and utilisation of MCH benefits
Governance	Inconsistency in quality of care received	Wide consensus to standardize MHQoC; but uptake was low						Scale up of QA and QI due to PPP initiatives like NABH-ABDM and Laqshya-Manyata
	Inadequate use of monitoring systems for evidence-based care	Poor implementation and monitoring of data reporting						Digital data reporting through public databases like MPCDSR and by NABH
	Absence of at scale robust feedback loops for providers and beneficiaries	Initiatives for grievance and feedback systems present, but implementation remained weak						Systems and initiatives are yet to be standardized; processes for grievance redressal unmonitored

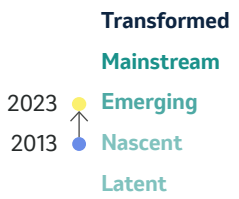
Last-Mile Challenges Deep Dives

Availability and Accessibility

The ecosystem's overall response to challenges associated with availability and accessibility of MHQoC evolved from nascent to emerging

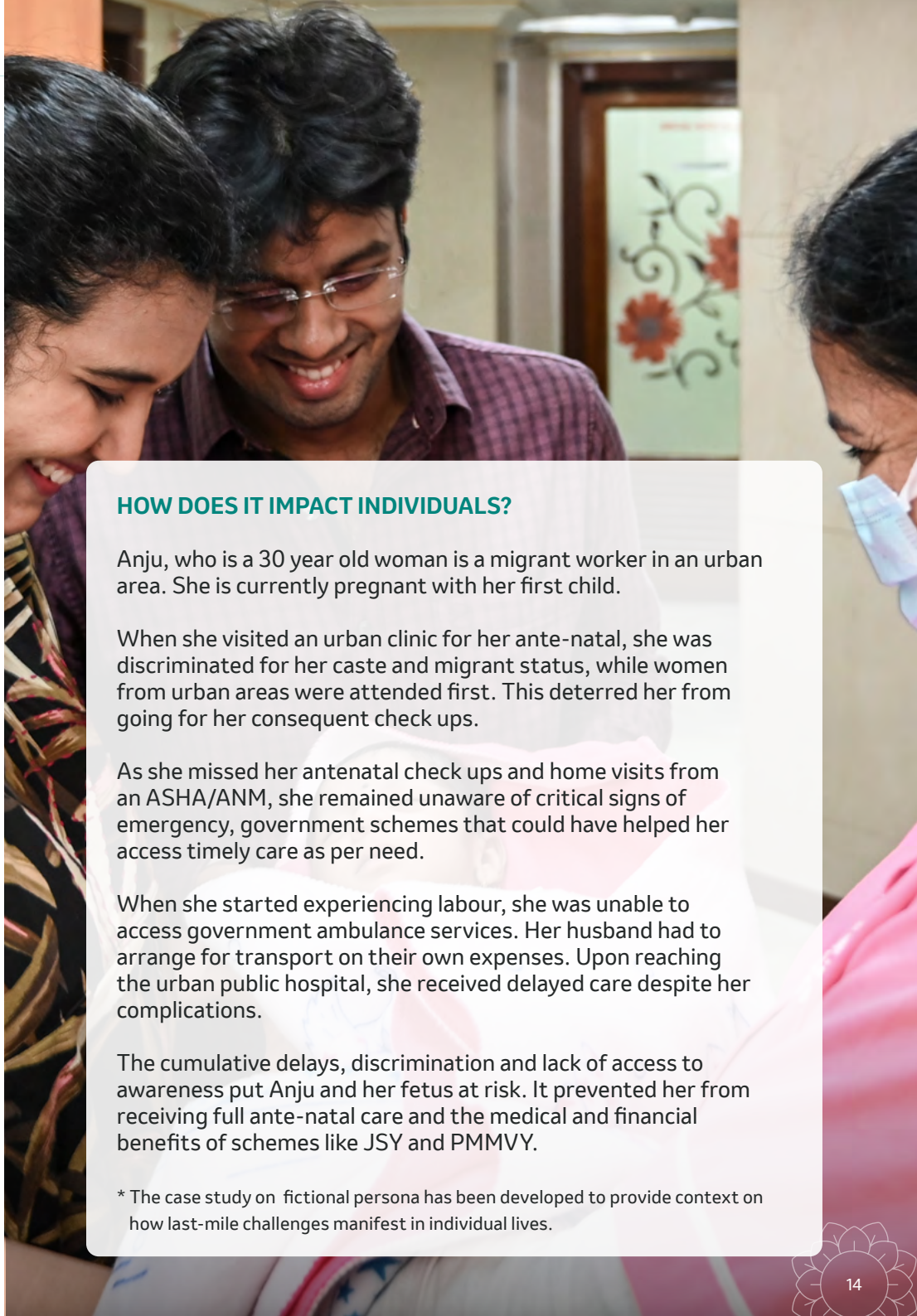
The first determinant of MHQoC encompasses adequate supply and accessibility of healthcare facilities, services, and resources for a population. The narrative also explores challenges such as limited availability of quality health infrastructure and resources, distribution challenges, and performance issues tied to training. The study identified three primary challenges and maps the ecosystem's evolving response to these challenges over the last 10 years.

Evolution of the ecosystem's response to challenges impeding governance



CHALLENGES IMPEDING AVAILABILITY AND ACCESSIBILITY	EVOLUTION OF THE ECOSYSTEM (L / N / E / M / T)
1 **Discrimination while seeking maternal health care** People belonging to disadvantaged castes constituted almost 50% of all maternal deaths in the country.[9] Studies found caste and class to affect likelihood of receiving antenatal care.[10]	
2 **Delay in timely access of appropriate maternal health services** A study in West Bengal's tertiary care facilities found 33.8% of maternal deaths were due to a delay in reaching first level health facility and a delay in receiving adequate care at the health facility contributed to 18.9% maternal deaths.[11]	
3 **Lack of knowledge/ awareness about existing healthcare services and schemes** Women accessing at least 4 ANC visits increased consistently from 43.9% to 58% between 2015 and 2021[12,13]	

2013 2023



HOW DOES IT IMPACT INDIVIDUALS?

Anju, who is a 30 year old woman is a migrant worker in an urban area. She is currently pregnant with her first child.

When she visited an urban clinic for her ante-natal, she was discriminated for her caste and migrant status, while women from urban areas were attended first. This deterred her from going for her consequent check ups.

As she missed her antenatal check ups and home visits from an ASHA/ANM, she remained unaware of critical signs of emergency, government schemes that could have helped her access timely care as per need.

When she started experiencing labour, she was unable to access government ambulance services. Her husband had to arrange for transport on their own expenses. Upon reaching the urban public hospital, she received delayed care despite her complications.

The cumulative delays, discrimination and lack of access to awareness put Anju and her fetus at risk. It prevented her from receiving full ante-natal care and the medical and financial benefits of schemes like JSY and PMMVY.

* The case study on fictional persona has been developed to provide context on how last-mile challenges manifest in individual lives.

Causal factors and gaps

Ensuring availability and accessibility requires addressing deep-rooted sociocultural norms and prejudiced attitudes that prevent women from accessing quality maternal healthcare. Our research shows the list of challenges and gaps to interventions mapped across five causal levers in the ecosystem:

FACTORS THAT LED TO THE CHALLENGE	
CAUSAL FACTORS	**CHALLENGES AND GAPS**
Capacity	There is a lack of capacity in frontline workers to counsel and facilitate care holistically based on the woman's healthcare risks.
Awareness, Norms and Attitudes	Persistence of pre existing socio-cultural norms on maternal health among healthcare providers and communities forces. Further, there is a lack of awareness among women on existing schemes and facilities.
Infrastructure	There is a lack of hard infrastructure such as adequate number of healthcare facilities and transportation; and soft infrastructure such as feedback loops and information systems especially in remote areas.
Rules and Policies	Policies and schemes are not sufficiently addressing nutritional needs, transportation, knowledge about existing healthcare services across the maternal health care journey of women. Further, the absence of simplified procedures for availing cash benefits under MCH schemes remains a challenge.
Incentives	The incentives are misaligned among frontline workers and private health care providers on providing quality maternal health care

Overarching gaps in the existing solution space

Despite some progressive policies and interventions, lack of targeted sensitisation programmes coupled with pre-existing socio-cultural norms and attitudes has caused this challenge to remain under-addressed.

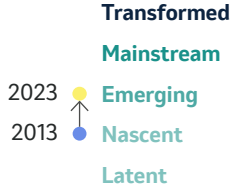
Low literacy rates among rural women and ability in accessing and utilizing existing technologies create challenges in receiving appropriate knowledge and awareness about MHQoC.

Despite ongoing efforts to enhance maternal health infrastructure in the nation, significant deficiencies persist in staffing levels across various tiers and regions.

1. Discrimination while seeking maternal health care

Over the past decade, the system's response to **Discrimination while seeking maternal health care** has moved from a **Latent to the Nascent stage**. The challenge *(i.e caste based discrimination in seeking care and the impact on the patient's behaviour to seek care)* has received increased attention but is still in need of targeted pilot interventions to identify what works / recommended solutions within maternal health by both public and private efforts.

Evolution of the ecosystem's response to the challenge:



2013-2016

Since 2013, the National Quality Assurance Standards (NQAS) have emphasized improving maternal health quality of care (MHQoC). While they do not directly address discrimination, they provide insights into quality assurance.[14]

Initiatives like the Janani Suraksha Yojana (JSY) and Maternal and Child Health (MCH) card have improved inclusion for women from vulnerable groups but lack specific guidelines to tackle discrimination.[15,16]

In the private sector, the Matrika Project enhances connections between rural private and urban public health providers, focusing on high-quality antenatal care (ANC), emergency obstetric care (EmOC), and family planning (FP) services.[17]

2017-2020

From 2017 to 2020, Interventions like Manyata (2017), LaQshya (2018), and Surakshit Matritva Aashwasan (SUMAN 2019) focused on providing quality, respectful care while emphasizing women's autonomy and quality standards.[18,19,20]

Further, there was increasing awareness about the need for equitable access while seeking maternal health services. However, reports indicate that disparities in access among various social groups grew rather than decreased.[21]

For instance, lower caste groups and poorer households primarily relied on public health institutions, receiving fewer services than wealthier households who relied on both private and public facilities.

2021-23

In the last three years, private sector involvement, including MSD for Mothers' investments, has increased. These interventions focused on expanding access to maternal and newborn child health (MNCH) services and equipping healthcare workers with the necessary knowledge, skills, and attitudes for respectful maternal care.

For example, India Health Action Trust (IHAT) launched Project MANCH in 2021 to improve MNCH outcomes in tribal areas of Madhya Pradesh. Additionally, organizations like Centre for Catalyzing Change (C3) and White Ribbon Alliance of India (WRAI) introduced an online program to integrate respectful maternity care (RMC) into healthcare services, standardizing it as a key component of maternal care.[22,23,24]

Key Trends

Prioritization of Quality of Care and Patient Centricity

In recent years, both the public and private sectors in maternal health have begun to prioritize quality of care (QoC) and patient centricity, addressing the long-overlooked impact of discrimination.

Increase in public and private efforts towards improving MHQoC

Initiatives such as Janani Suraksha Yojana (JSY) and LaQshya in the public sector, along with Maternal, Newborn, and Child Health (MNCH) and Matrika in the private sector, were launched to enhance quality of care while reaching marginalized communities.

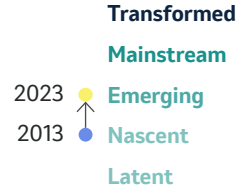
Lack of specific focus on discrimination within maternal health in India.

There is a lack of national-level indicators and guidelines to define or assess discrimination in maternal health.

2. Delay in timely access of appropriate maternal health services

Over the past decade, the system's response to the last-mile challenge 'Delay in timely access of appropriate maternal health services' has moved from a **Nascent to an Emerging** stage. The early recognition of the challenge led to key programs like JSY - EmOC, JSSK, and MAMTA with a focus on transportation and tertiary care facilities. Further, there was an increase in private sector initiatives like Matrika, Vriddhi, and Together for Her (TFH), which addressed infrastructural and logistical challenges in MHQoC. Despite these efforts, the ongoing challenge of staffing and capacity shortages still needs to be addressed.

Evolution of the ecosystem's response to the challenge:



2013-2016

Since 2013, the private sector began addressing infrastructural and logistical challenges with programs like the Matrika Project (2013), Vriddhi (2014), and Together for Her Health (2016).[25,26,27]

Key initiatives such as the Nurse Mentoring program (2014) and the Dakshata program (2015) significantly improved the quality of maternal and child health care. They enhanced the skills of healthcare providers and promoted evidence-based practices.[28,29]

2017-2020

From 2017 to 2020, there were fragmented efforts from the private sector alongside ongoing public sector initiatives to upgrade infrastructure.

The launch of Ayushman Bharat in 2018 expanded primary healthcare services, including maternal care, through Health and Wellness Centers (HWCs).[30]

The national telemedicine program eSanjeevani - AB-HWC was launched to provide quick access to doctors via smartphones, addressing infrastructure gaps in rural areas, with a goal of establishing 150,000 AB-HWCs by 2022.[31]

2021-23

In 2023, the 17th edition of the Annual Publication "National Health Profile" was launched, providing key information on health infrastructure indicators.

Several research studies highlighted the challenge of delays in accessing timely maternal health services. For example, a study in Mumbai found that 19% of referrals were due to a lack of human resources or health infrastructure.[32]

Key Trends

Increase in the usage of capacity building tools within the public healthcare system

The public healthcare system has focused on expanding physical infrastructure for maternal health, while also establishing both offline and online tools for capacity building among healthcare service providers over the past decade.

Lack of communication and feedback mechanisms in place

There is a lack of formal communication system in place between referring and receiving public health facilities.

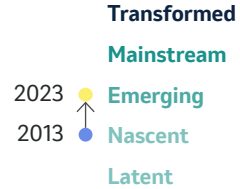
Shift towards strengthening primary healthcare:

There is a growing focus on enhancing primary healthcare facilities, including maternal health centers, to offer basic antenatal and postnatal care services closer to communities. This approach aims to reduce the need for women to travel long distances for healthcare access.

3. Lack of knowledge/awareness about existing healthcare services and schemes

Over the past decade, the system's response to the last-mile challenge **'Lack of knowledge and awareness about existing MHQoC services and schemes'** has moved from a **Nascent to an Emerging state**. The significance of knowledge and awareness and their direct correlation with the utilization of ecosystem response efforts has been apparent and the intensity of efforts has continued to escalate progressively.

Evolution of the ecosystem's response to the challenge:



2013-2016

Community engagement and awareness have grown through public schemes like Janani Shishu Suraksha Karyakaram (JSSK) and National Iron+, with the Rogi Kalyan Samiti (RKS) expanding its role to include service delivery monitoring and advocacy for patient rights.

Kilkari was launched in Bihar to improve women's knowledge about maternal and child health through IVRS messaging and was scaled nationally in 2016.

Schemes like CBMDR and MCTS did not effectively use the maternal health data collected to enhance community engagement.

Additionally, there were insufficient national indicators to measure community awareness, with only one NFHS 4 indicator focusing on the quality of family planning services through counseling.[33]

2017-2020

COVID-19 hindered healthcare providers' engagement with the community and local leaders, significantly impacting awareness-raising meetings and workshops on maternal health.

The Community Link Worker Scheme (CLWS) was introduced to strengthen ASHAs by offering additional training and support for delivering a wider range of primary healthcare at the community level.

The private sector also recognized the role of digital tools, such as Together for Her Health (TFH) and askNivi, in improving access to maternal health.

Despite innovative interventions, progress in measuring community engagement remained limited.

2021-23

Both the public and private sectors focused on enhancing awareness about maternal health by implementing interventions that provided credible, contextual information.

The government revised ASHA incentives, offering cash awards for certifications in counseling and awareness generation on RMNCHA+N. This led to more localized pilot programs, such as MANCH, which conducted community awareness sessions and enhanced healthcare capacity in tribal areas of Madhya Pradesh.[34]

Private initiatives like Together for Her Health (TFH), which reached 800,000 women, and askNivi, with 1.4 million users, showcased the effectiveness of digital tools in boosting maternal health knowledge.[35]

Key Trends

Increase in capacity building of healthcare providers at all levels of delivery on respectful maternity care

Training programs that emphasize cultural competency are being implemented to address discrimination faced by women, particularly those from marginalized communities.

Increase in the recognition of Socio-economic determinants as essential components of legal policies concerning access to maternity care

Advocacy for legal reforms and policies focused on safeguarding women's rights and ensuring equitable access to maternal healthcare services is gaining momentum.

There is an increasing emphasis on engaging communities and women at the grassroots level to raise awareness of their health rights.

Empowering women and communities through education and advocacy initiatives, especially via community-based organizations, is gaining momentum. This trend enables individuals to assert their rights and demand respectful treatment in healthcare settings.

MSD for Mothers' Contribution

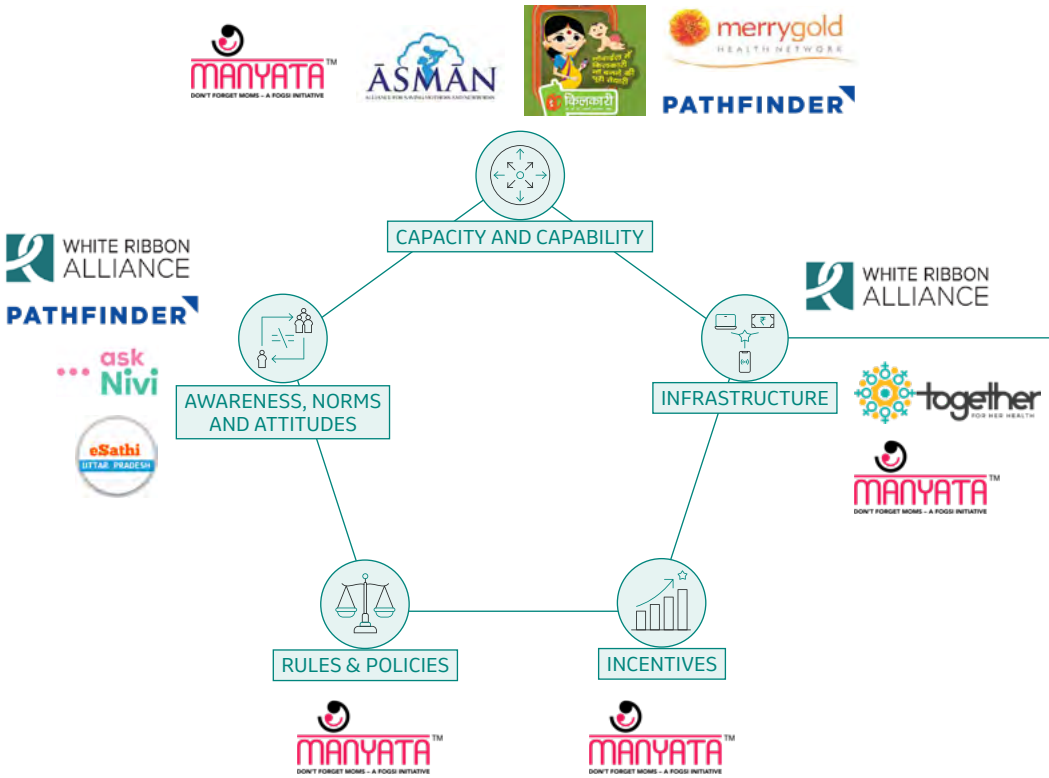
MSD for Mothers' investments tackling challenges associated with availability and accessibility of MHQoC had a high contribution to the evolution. Almost all investments were seminal and stage suitable. Further, most had high sway but fewer were able to achieve scale.

The study mapped the investments addressing governance and the below table illustrates their contribution to evolving the quality of maternal care based on four key indicators:

INVESTMENT	START YEAR	ASSESSMENT RUBRIC				INVESTMENT'S OVERALL CONTRIBUTION
		SEMINALITY	STAGE SUITABILITY	SCALE	SWAY	
Linking Women to Services: Mobile Monitor for QoC (MOM-QoC)	2013	**High**	**High**	Low	Medium	Medium
Manyata (incl Utkrisht)	2013	**High**	**High**	**High**	**High**	**High**
Merrygold Health Network (MGHN)	2013	**High**	**High**	Medium	Medium	Medium
Matrika	2013	**High**	**High**	Low	**High**	**High**
Together for her Health	2016	**High**	**High**	**High**	**High**	**High**
Safe Delivery App (India)	2017	**High**	**High**	**High**	**High**	**High**
askNIVI	2019	**High**	**High**	Medium	**High**	**High**
Advocating for RMC in India	2022	**High**	**High**	**High**	**High**	**High**
Strengthening Systems for Safer Childbirth (e-SAATHI & askNiVI)*	2022	**High**	**High**	Medium	Medium	Medium
Integrating Sustainable Maternal Health Delivery with iKure's Population Health Delivery Model *	2023	**High**	**High**	Medium	Medium	Medium
Kilkari and Mobile Academy 2.0 and Equity Project*	2023	Medium	Medium	**High**	**High**	Medium

MSD for Mothers' Contribution

The evolution of the determinants across the five stages of the LNEMT framework requires selective engagement and intervention via five key levers by the system's stakeholders. For availability, MSD for Mothers' interventions ensured that improved quality does not come at the cost of inconsistent care by targeting all five key levers below:



Intervention spotlight: Together for Her

Together For Her is unique in its service; providing digital pregnancy care programs for women, for free. At its launch very few innovations offered access to comprehensive and evidence based digital care during pregnancy. Since its implementation, it has scaled up to reach 8L pregnant women. An RCT found that there was a 90% increase in maternal health knowledge and 142% in dietary diversity upon using the app. To address the need for accessibility, the app integrated with Manyata's database to direct women to certified hospitals near them.

MSD for Mothers' Opportunities

The opportunities in availability and accessibility have the potential to mainstream MHQoC through system's strenghtening and quality accreditation

The last mile challenges of availability and accessibility are well understood and aligned on by all stakeholders. Despite this alignment, there is a lack of national-level indicators to define these challenges. Further, the solutions ecosystem for solving for such challenges has been scattered and no one mainstream solution has yet emerged. Hence, to ensure an assessment of effectiveness of existing solutions and further improving them, our research suggests the following pathways for philanthropic investment:

Setting up national-level indicators to assess discrimination, awareness, and existing infrastructure in accessing maternal health

Support implementation of scale solutions to mitigate the challenges at scale.

DETERMINANT	OPPORTUNITIES	CAUSAL LEVER ADDRESSED	QUANTUM OF IMPLEMENTATION			
			TEST	SPREAD	SCALE	SUSTAIN
Availability and Accessibility	Leverage the Manyata network to **generate evidence on the value of technology/ utilizing client feedback to improve quality of care,** especially in maternal health (MHQoC) to generate demand for digitized QI/QA.		✓	✓		
	Foster collaboration between public and private sectors through partnerships with NHA-ABDM, NATHEALTH		✓	✓		
	Support **accreditation** in the private sector / public sector by partnering with NQAS-NHSRC / NABH		✓	✓	✓	✓
	Engage with states such as Gujarat, Tamil Nadu etc. that have indicated willingness to collaborate with the private sector to improve maternal health outcomes and patient safety.		✓	✓	✓	

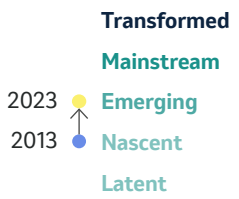
CAUSAL LEVER KEY: Capacity; Rules and Policies; Incentives; Awareness, Norms and Attitudes; Infrastructure

Affordability

The ecosystem's overall response to challenges associated with affordability of MHQoC evolved from nascent to emerging

The second determinant, affordability, is described as whether a person has sufficient income to pay for or fulfil the cost of quality maternal health care. These costs could be insurance premiums or direct health care service costs. The study identified three primary challenges to improve affordability and maps the ecosystem's evolving response to address these challenges over the last 10 years.

Evolution of the ecosystem's response to challenges impeding governance



CHALLENGES IMPEDING AFFORDABILITY	EVOLUTION OF THE ECOSYSTEM (L · N · E · M · T)
1 **High cost of care across the continnum (including diagnostics) in private health facilities** Average OOPE incurred in private facilities for quality maternal healthcare was Rs 20,000 ~ 10x higher than public health facilities[36]	
2 **Absence of insurance schemes to support maternal health expenditure adequately** 80% of Indian population was not covered under any health insurance scheme ~ Heavy reliance among rural population on household income/savings and borrowings to fund hospitalization costs[37]	
3 **Low uptake of maternal health schemes and incentives** Utilization rate for JSY, one of the largest ever centrally funded conditional cash transfer schemes, was only 35%[38]	

2013 2023

HOW DOES IT IMPACT INDIVIDUALS?

Bimla is a 27 year old pregnant and factory worker in Rajasthan.

She recently found out about Janani Shishu Suraksha Karyakram from a fellow factory worker. She visited the closest public health facility ~ 7 kms away and got registered. In one of the first trimester checkups, she was diagnosed with nutritional deficiency due to inadequate dietary intake and overworking.

Initially, she was relieved after discovering that JSSK provided free services like medicine, diet, diagnostic and transport to the pregnant women. She decides to take a break from the factory work for a year.

However, after several visits, she noticed that she is still incurring a substantial cost on the services even after the provision of free services under JSK. Medicine and informal payments constitutes a larger share of the total expenditure. Further, due to lack of ambulances and narrow inaccessible lands, she travels to the facility for her checkups on her own using private transportation.

In order to manage expenses for her treatment, she has to continue working in the factory for another 2-3 months which is now taking a toll on both her mental and physical health.

* The case study on fictional persona has been developed to provide context on how last-mile challenges manifest in individual lives.

Causal factors and gaps

The lack of intermediaries and inefficient last mile infrastructure, coupled with underutilization of existing financial protection schemes due to lack of awareness, capacity, and sufficient coverage, impedes access to affordable MHQoC

FACTORS THAT LED TO THE CHALLENGE	
CAUSAL FACTORS	**CHALLENGES AND GAPS**
Capacity	There is a shortage of skilled and adequate workforce in facilities which result in repeated referrals or hospitalizations, leading to high out-of-pocket expenses
Awareness, Norms and Attitudes	The persistence of pre existing socio-cultural norms on maternal health among healthcare providers and communities forces a lack of awareness among women on existing schemes and facilities
Infrastructure	The low availability of free quality drugs in the public setting, inefficient drug procurement & supply chain management systems and inefficient mechanisms to regularly monitor the performance of insurance schemes to inform policy design, lead to affordability challenges
Rules and Policies	There is an inability to address gaps in financial protection schemes; complex criteria to avail insurance coverage and an inadequate inclusion of health services under insurance schemes that lead to low impact on rising OOPE
Incentives	A lack of incentives to spend on digital health solutions leads to a high reliance on out-of-pocket expenses directly borne by consumers, resulting in catastrophic and impoverishing effects on households

Overarching gaps in the existing solution space

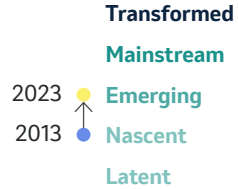
Absence of systems to efficiently disseminate information to strengthen awareness and improve utilization of insurance schemes and telemedicine usage

Lack of public insurance coverage and compensation for OPD diagnostic costs, pre- and post-hospitalization charges, and travel costs

1. High cost of care across the continuum (including diagnostics) in private health facilities

Over the past decade, the ecosystem's response to addressing expensive private health care moved from **the nascent to the emerging stage**. This shift was largely driven by both private and public cash benefit schemes and digital interventions that indirectly reduced OOPE. And in the recent years, there were many private digital health interventions such as teleconsultation services and online AI chatbots, among others. However, there was still a lack of awareness about these solutions among women.

Evolution of the ecosystem's response to the challenge:



2013-2016

The Janani Shishu Suraksha Karyakram (JSSK) scheme, launched in 2011, offered free and cashless services (delivery, drugs, transport, diagnostics) to pregnant women accessing health services in public facilities.[39]

However, conditional cashless treatment services and schemes faced limited adoption, as people preferred private facilities due to the poor quality of healthcare in public facilities.

Consequently, these schemes failed to demonstrate a significant reduction in out-of-pocket expenses (OOPE).

2017-2020

The creation of Health and Wellness Centres (HWCs) provided maternal health services, including free essential drugs and diagnostic services.[40]

Cashless treatment schemes like JSY, JSSK, and PMSMA persisted, while digital health solutions emerged, indirectly reducing out-of-pocket expenses (OOPE).

For example, E-Hospital cut travel costs, and private platforms like mMitra, SnehAI, AskNivi, Kilkari, and Together for Her lowered outpatient consultation expenses.[41]

2021-23

In response to the rollback effect from COVID-19, efforts to enhance digital health solutions continued, with telemedicine and point-of-care devices taking center stage.

Telemedicine services like E-Sanjeevani and Intelehealth have gained traction for offering free online consultations. Meanwhile, point-of-care solutions like AnandiMaa and Fetosense enable frontline workers to perform diagnostic tests at beneficiaries' doorsteps, significantly reducing turnaround times.[42]

While these services helped reduce out-of-pocket expenses (OOPE), public awareness of them and other digital health solutions remained low.

Key Trends

Surge in MCH cash benefit schemes due to public sector efforts

Since 2011, there has been a significant expansion in the implementation of conditional cash incentives and cashless health services aimed at reducing out-of-pocket expenses (OOPE).

Increase in the number of telemedicine and private m-health apps

The operations of telemedicine and private mHealth apps have significantly increased, indirectly reducing out-of-pocket expenses (OOPE) by providing free, quality maternal healthcare through online consultations.

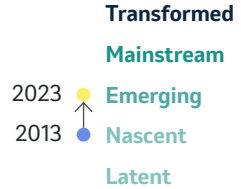
Lack of awareness among clients and communities about private interventions

Private telemedicine and mHealth services have contributed to reducing out-of-pocket expenses (OOPE); however, public awareness of these and other digital health solutions remains low.

2. Absence of insurance schemes to support maternal health expenditure adequately

In the last ten years, the ecosystem's response to addressing the absence of insurance schemes moved from the **nascent to the emerging stage**. This shift was largely driven by intensifying efforts to achieve maternal health coverage and implement health cost subsidy schemes. However, there is no socially-defined benchmark for what qualifies as adequate maternal health insurance coverage. Schemes are primarily focussed on covering deliveries and hospitalisation and not prenatal care. Furthermore, there is lack of monitoring & measurement to estimate if households can afford health insurance in India.

Evolution of the ecosystem's response to the challenge:



2013-2016

Prior to 2013, maternal health affordability was largely unrecognized at the policy level. For example, the NHP 2002, NRHM, and NHM did not acknowledge maternal health as a focus area.[43]

Despite an approximate 10% increase in hospitalization costs from 2010 to 2014, the financial coverage of RSBY remained static at around ₹30,000 per year.[44]

Meanwhile, there was a surge in state-owned health insurance schemes, such as the Bhamashah Swasthya Bima Yojana in Rajasthan and the Mukhyamantri Chiranjeevi Swasthya Bima Yojana in Chhattisgarh.

2017-2020

A policy-level shift occurred with the NHP 2017, which aimed for Universal Health Coverage (UHC) and recognized the affordability challenge in maternal healthcare.

The Pradhan Mantri Jan Arogya Yojana (PMJAY), launched as a Public Health Information System (PHIS), replaced RSBY and provided financial coverage 17 times greater.[45]

However, it still excluded prenatal care, and its adoption varied by state, with an average implementation rate of around 15%, reflecting limited uptake.[46]

2021-23

Despite being viewed as a crucial step, there was no evidence indicating a decrease in out-of-pocket expenditure (OOPE) or catastrophic health expenditure through these insurance schemes.

Additionally, on-ground studies revealed that PMJAY incentivizes the selection of private hospitals but does not compensate for outpatient diagnostic costs, pre- and post-hospitalization charges, or travel expenses, ultimately increasing the financial burden.[47]

Key Trends

Increase in national and state-level health insurance schemes

The implementation of Publicly Funded Health Insurance (PFHI) schemes has been a crucial policy initiative designed to mitigate health-related financial risks.

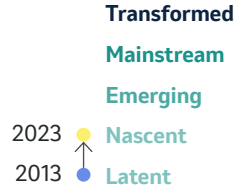
Ineffectiveness of existing public insurance schemes

The current Publicly Funded Health Insurance (PFHI) schemes primarily cover delivery and hospitalization expenses but exclude prenatal care. Additionally, evidence indicates that their effectiveness in reducing financial burdens is limited due to inadequate overall coverage.

3. Low uptake of maternal health schemes and incentives

Over the last decade, the ecosystem's response to improving utilisation of maternal health rights and entitlements moved from **the latent to the nascent stage**. While there was a surge of MCH cash benefit schemes, the utilization of such schemes was inconsistent due to lack of interventions in place to combat entry barriers, social discrimination, awareness generation, and other challenges.

Evolution of the ecosystem's response to the challenge:



2013-2016

In the 2010s, the utilization of cash schemes in India was low, particularly in the public sector, due to a lack of awareness.

Schemes like RSBY, which primarily covered deliveries, achieved high enrollment rates through the implementation of electronic enrollment records, smart cards, and tracking systems to provide cash incentives.[48]

Although there was a surge in maternal and child health (MCH) schemes like JSSK, the uptake of public MCH services and benefits was inconsistent because of low awareness. This highlights the need for significant investment in awareness and registration camps.[49]

2017-2020

The Pradhan Mantri Matru Vandana Yojana (PMMVY) offers financial assistance to pregnant women and lactating mothers in installments throughout their pregnancy, supporting health check-ups, maternal nutrition, and immunization.[50]

Limited research shows that awareness of schemes like JSSK is low in remote areas. For instance, one study found that approximately 68.75% of mothers had poor awareness of JSSK's free entitlements, largely due to insufficient promotions and dependence on healthcare personnel for information.[51]

2021-23

Research studies have shown that caste discrimination against SCs/STs negatively impacts their uptake of cash benefit schemes like JSY.[52]

However, there remains a lack of both public and private interventions to address the entry barriers for women, such as the need for documentation and bank accounts.[53]

Key Trends

Lack of awareness among clients and communities

Awareness and utilization of maternal and child health (MCH) benefits vary significantly by district, community, and among mothers across the country, leading to inconsistent access to these schemes.

Lack of coverage under maternal health schemes

The existing maternal health cash benefit schemes primarily cover deliveries and hospitalisation expenses and excludes prenatal care.

MSD for Mothers' Contribution

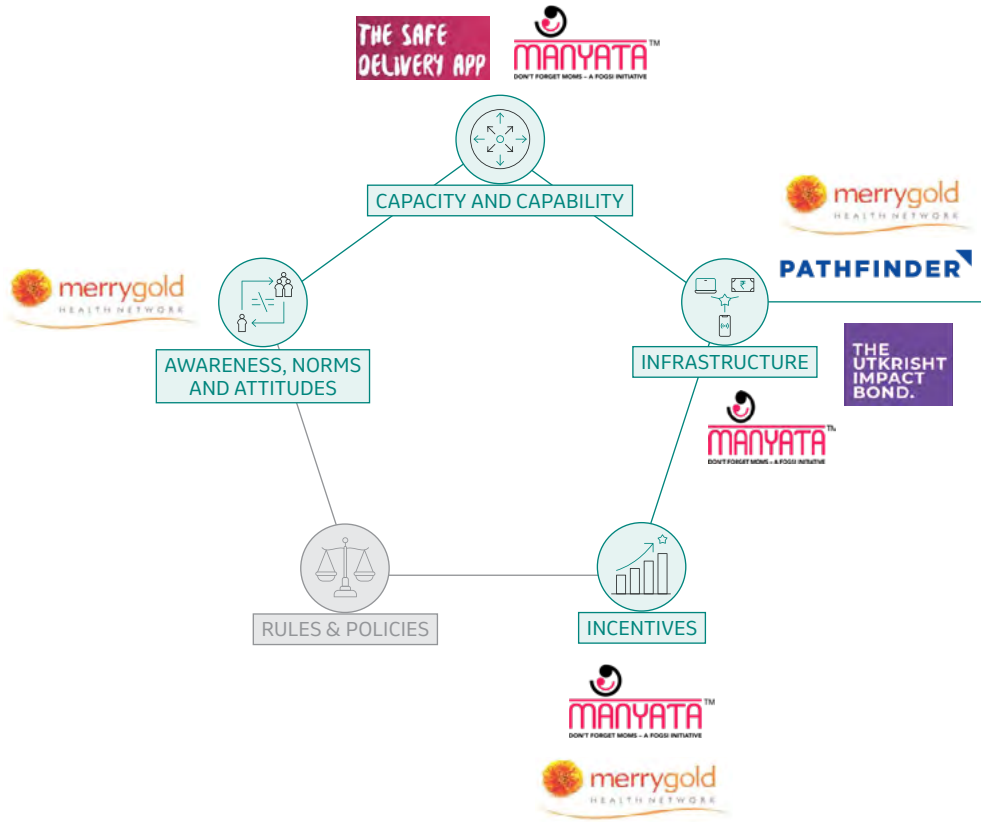
Interventions addressing challenges associated with affordability of MHQoC had a medium contribution to the evolution. Nearly all investments were seminal and suitable for their stages, with most having a significant impact, although only two achieved high scale.

The study mapped the investments addressing governance and the below table illustrates their contribution to evolving the quality of maternal care based on four key indicators:

INVESTMENT	START YEAR	ASSESSMENT RUBRIC				INVESTMENT'S OVERALL CONTRIBUTION
		SEMINALITY	STAGE SUITABILITY	SCALE	SWAY	
Manyata (incl Utkrisht)	2013	**High**	**High**	**High**	**High**	**High**
The Safe Delivery App	2017	**High**	**High**	**High**	**High**	**High**
Project Matrika	2013	**High**	**High**	Low	Low	Medium
Merrygold Health Network	2013	**High**	**High**	Medium	Medium	Medium

MSD for Mothers' Contribution

The evolution of the determinants across the five stages the LNEMT framework requires selective engagement and intervention via five key levers by the system's stakeholders. For affordability, MSD for Mothers' interventions ensured that improved quality does not come at the cost of inconsistent care by targeting all four key levers below:



Intervention spotlight: Utkrisht Impact Bond

THE UTKRISHT IMPACT BOND.

A maternal and infant mortality impact bond in Rajasthan which leveraged private capital for upfront quality improvement costs in private maternity facility. Overall, the quality of private facilities in Rajasthan, India improved due to their participation in the DIB. Through this initiative, MSD for Mothers has supported efforts to not only enhance the quality in facilities but also scale the improvement in quality such that better service quality is not necessarily obtained at a higher cost. Despite low scale, the intervention was unique and relevant in its contributions to move the ecosystem forward.

MSD for Mothers' Opportunities

The opportunities in affordability have the potential to reduce out of pocket expenditure indirectly for women while seeking maternal health care by tagretting causal levers such as awareness, infrastructure, and rules and policies to improve quality of care.

Similar to the first determinant, the last mile challenges of affordability are well understood and aligned on by all stakeholders. Despite this alignment, the interventions have limited coverage and remain widely unknown among women. Our research suggests the following pathways for philanthropic investment to move the system to the next stage of evolution:

Inform policy making efforts by associating with government actors and improving the effectiveness and coverage of MCH cash benefit and insurance schemes

Support implementation of scale solutions to mitigate the challenge at scale.

The following exhibit shows a list of illustrative opportunities across affordability that can be realized through a strategic collaboration between the system's stakeholders.

DETERMINANT	OPPORTUNITIES	CAUSAL LEVER ADDRESSED	QUANTUM OF IMPLEMENTATION			
			TEST	SPREAD	SCALE	SUSTAIN
Affordability	Leverage catalytic financing / innovative financing to support initiatives to test / pilot / scale initiatives to improve quality of care through stakeholders like		✓	✓		
	Generate evidence on value of digitized QI to improve quality of care in the private sector		✓			

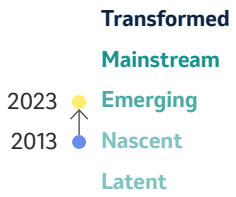
CAUSAL LEVER KEY: Capacity; Rules and Policies; Incentives; Awareness, Norms and Attitudes; Infrastructure

Governance

The ecosystem's overall response to challenges associated with the governance of MHQoC evolved from nascent to emerging

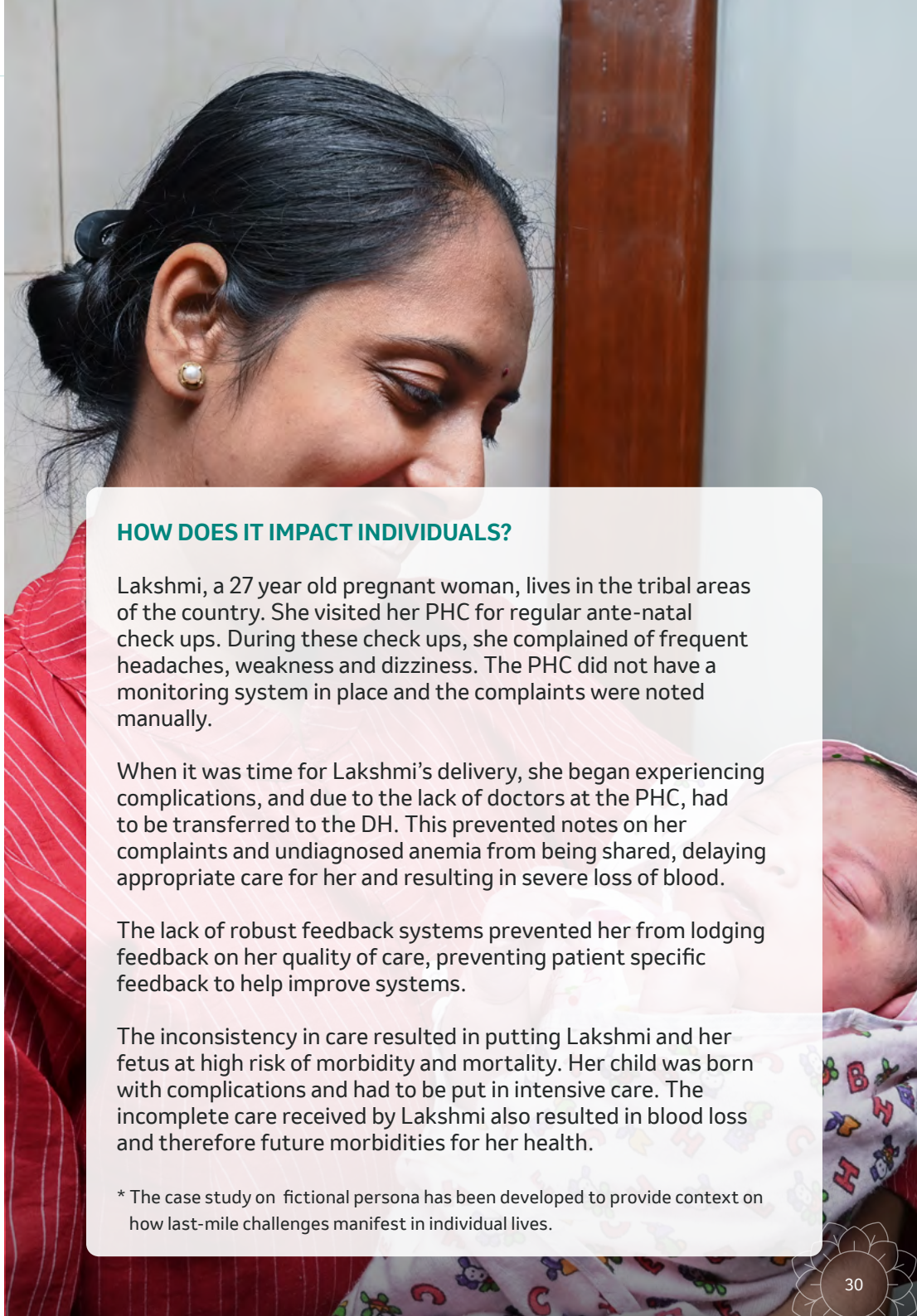
The third determinant, governance, entails rules and norms that shape roles and responsibilities, incentives, and interactions in the health sector. They act through a broad range of legal, policy, planning, and monitoring instruments. The study identified three primary challenges to improve governance and maps the ecosystem's evolving response to address these challenges over the last 10 years.

Evolution of the ecosystem's response to challenges impeding governance



CHALLENGES IMPEDING GOVERNANCE	EVOLUTION OF THE ECOSYSTEM (L · N · E · M · T)
1 **Inconsistency in quality of care received** A study with private and public primary care providers in Odisha misdiagnosed 46% of preeclampsia cases as less severe and 50% prescribed unnecessary medicines.[54,55]	
2 **Inadequate use of monitoring systems for evidence-based care** <50% of maternal deaths were being reported on HMIS despite the implementation of MDSR. Non state actors produce 60% of the total volume of health data; which is yet to be effectively regulated or monitored.[56,57]	
3 **Absence of at scale robust feedback loops for providers and beneficiaries** A study found that none of the RKS committees established in 10 of the studied PHCs of Raigad, had mechanisms to collect feedback or address grievances from the patients.[58] Of the complaints registered with MMC since 1995, 53% were yet to be served justice.[59]	

2013 2023



HOW DOES IT IMPACT INDIVIDUALS?

Lakshmi, a 27 year old pregnant woman, lives in the tribal areas of the country. She visited her PHC for regular ante-natal check ups. During these check ups, she complained of frequent headaches, weakness and dizziness. The PHC did not have a monitoring system in place and the complaints were noted manually.

When it was time for Lakshmi's delivery, she began experiencing complications, and due to the lack of doctors at the PHC, had to be transferred to the DH. This prevented notes on her complaints and undiagnosed anemia from being shared, delaying appropriate care for her and resulting in severe loss of blood.

The lack of robust feedback systems prevented her from lodging feedback on her quality of care, preventing patient specific feedback to help improve systems.

The inconsistency in care resulted in putting Lakshmi and her fetus at high risk of morbidity and mortality. Her child was born with complications and had to be put in intensive care. The incomplete care received by Lakshmi also resulted in blood loss and therefore future morbidities for her health.

* The case study on fictional persona has been developed to provide context on how last-mile challenges manifest in individual lives.

Causal factors and gaps

Systemic frameworks for data documentation and grievance redressals are essential to empowering healthcare providers at all levels of the service delivery. Testing solutions to establish feedback loops and scaling existing M&E and documentation systems are key to sustaining this MHQoC journey.

FACTORS THAT LED TO THE CHALLENGE	
CAUSAL FACTORS	**CHALLENGES AND GAPS**
Capacity	The lack of capacity to document data as part of monitoring mechanisms and the lack of grievance mechanisms for the healthcare providers leads to a workforce that is sometimes disengaged from the vision.
Awareness, Norms and Attitudes	There is a resistance in healthcare providers to adopting digital means for monitoring due to punitive measures as a result of the recorded data and therefore a preference for traditional documentation process.
Infrastructure	MIS systems focus on public databases, while overlooking private datasets. Lack of collaboration among agencies such as NSSO, Population Research Centres or private stakeholders hinders rigor and standardization in processes.
Rules and Policies	Disconnect between the centre versus the state, leads to misalignment in prioritization and implementation. Frequent change in the leadership prevents sustained and efficient implementation of the guidelines and schemes for MHQoC.
Incentives	Schemes like Kayakalp or RKS that enable decentralised decision making are challenged with weak governance mechanisms. This limits the decision making capacity in frontline providers, especially in PHCs, in comparison to CHCs and DHs.

Overarching gaps in the existing solution space

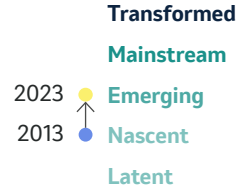
Lack of systems, tools and forums for women and providers to voice grievances and feedback, with mandated resolution for the raised concerns

Absence of monitoring systems that are standardized and scaled with indicators specific to maternal health QoC for use in public and private sector facilities to ensure evidence based and accountability

1. Governance mechanisms exist to bolster QoC, but consensus on measuring MHQoC will sustain momentum

The evolution of governance of MHQoC moved from the **nascent to the emerging stage** through focussed efforts to improve quality of maternal health through regulations, guidelines, national and state based programmes at the community and facility level. Regulations such as the NNMC Act aim to strengthen quality of care by centering on capacity building for RMC and patient safety for all cadres. Public private partnerships are aiming to utilize digitization in accreditation and certification as a key pathway to streamline and standardize quality of care.

Evolution of the ecosystem's response to the challenge:



2013-2016

Focus on IPHS, NQAS, and NABH QCI was strengthened to standardize quality of care delivery. Despite the efforts, implementation of the standards remained uneven, supplemented by weak monitoring systems. Patient safety became dependent on the facility's (public and private) capacity and willingness to implement standards effectively.[60]

The low uptake of quality standards especially in the private facilities motivated the launch of Manyata to effectively streamline and enforce quality standards.[61] This strengthened the focus on quality of care delivery in maternal health in smaller facilities and maternity homes.

2017-2020

Despite NQAS, only 536 of the 37,725 eligible public hospitals in the country had been accredited by 2019.[61,62] Initiatives like AB-PMJAY Quality certification, and National Patient Safety Implementation Framework refocused patient safety and accreditation in the public sector.[63] To strengthen consistency in care, an integrated approach through LaQshya and SUMAN on RMC and Safe Motherhood became a focus.

NABH mandated quality compliances, including patient safety as a core qualifier for accreditation.[63] This was facilitated for maternal care through Manyata scaling to 5 states, along with PPP initiatives like LaQshya-Manyata to standardize MHQoC.[64] Digital solutions like Safe Delivery App implemented through partnerships between MSD for Mothers' and ASMAN focussed on QI by increasing capacity of medical providers on evidence based clinical guidelines for decision making.

2021-23

Private-public partnerships like NABH-ABDM and LaQshya-Manyata launched to accelerate and scale up accreditation and certification of training, care provision and QoC. The NNMC Act for nursing, midwifery and allied healthcare has set in tailwinds for regulating training and service delivery at all levels of care delivery.

Sustaining these initiatives with continuous monitoring especially through NABH's new digital standards will be vital for long term success in achieving consistency in care. Scaling digital solutions such as SafeCare by Pharmaccess can be pivotal in standardizing use of clinical standards and guidelines in public and private facilities.

Key Trends

Policy and programmes amplify accreditation in public and private sectors

LaQshya, NABH, NQAS, ABDM are centering their partnerships on accreditation and certification as the cornerstone for standardizing quality of maternal care. NABH is re-enforcing standardization through compliance measures.

Patient safety and respectful maternity care (RMC) integral to MHQoC

Strengthening the capacity of nurses and midwives on RMC and patient safety through the NNMC act lays a strong foundation for MHQoC. NABH and Manyata have refocused patient safety by mandating it for facilities through certification.

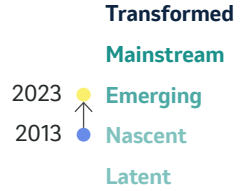
Digital solutions key to sustaining capacity and implementation of MHQoC

Digital solutions play an important role in sustaining quality improvement and assurance, particularly by monitoring the quality of care for long term progress.

2. While select solutions to monitor MHQoC exist, uneven implementation indicates the need to generate consensus on way forward

Use of monitoring systems for evidence based care moved from **the nascent to the emerging state**. While efforts to implement monitoring systems accelerated, the solutions present in the public and private ecosystem did not show the capacity to be scaled. Public private partnerships are focussing on innovating and scaling digital documentation through digital standards, integrated surveillance systems and digital solutions like SafeCare that can reach the last mile. These intervention will be key to sustaining measurable progress for quality of care.

Evolution of the ecosystem's response to the challenge:



2013-2016

MCTS was introduced to enable frontline workers to collect data when delivering care and use the evidence to reduce mortality. However lack of capacity in the frontline workers limited its utilization and inaccuracies in data recording.[65,66,67]

Parallely MDR became a vital strategy to improve MMR through evidence. However, <50% of the MDR data was on HMIS, making it difficult to use the database for evidence based actions.[68,69] While there were public sector initiatives to record data, data documentation in the private sector remained unregulated.[70]

2017-2020

MDSR was institutionalized to bridge the gaps in MDR and focus on continuous surveillance at the community and facility level.[68]

While NFHS became the guiding star for national targets, private health data continued to be missed due to low reporting and transparency.[71] However, measuring quality through tech solutions like Private Maternity Quality Toolkit improved efforts to consolidate health data from the private sector. However, these efforts remained unequal in spread and scale.[72]

2021-23

To prevent maternal deaths the national surveillance system was evolved to MPCDSR and was integrated with SUMAN to create a one-stop data platform accessible to all decision makers.[73] Additionally, the government's outcome-output based budgets served as foundation for accountability.[74]

With ABDM and NABH's new digital standards, private health facilities and professionals are being encouraged to adopt digital data systems for their facilities.[75] Complementing these efforts are digital solutions like SafeCare that measure quality to strengthen and sustain evidence based implementation of quality standards.

Key Trends

Digital health data is integral to monitor and improve delivery of MHQoC

There is an increased focus to digitize health data systems to improve maternal health outcomes. Despite the public and private initiatives, their uptake and implementation remains inconsistent.

Shifting from surveillance to real time digital systems to increase accountability

Digitizing maternal death reviews through MPCDSR highlights efforts to institutionalize real time accountability in improving maternal mortality and morbidity.

Private sector integrating data systems to standardize evidence based care

NABH's push to monitor quality through the new digital standards and partnerships with ABDM will lay foundations to enforce and sustain evidence based care delivery in the private sector.

3. While interventions collect client feedback to improve maternal health quality of care, there is limited evidence that the collected data is used to enhance decision-making and build consensus on MHQoC.

Evolution of the ecosystem's response to the challenge:

Community-based programs like RKS and Kayakalp began as efforts to decentralize decision-making and incorporate feedback from providers and beneficiaries. However, the ecosystem's capacity to strengthen grievance systems **remains in the nascent stage**, with awareness and implementation relying on a few unmonitored solutions. Integrated patient safety and feedback as anchors in the renewed NABH standards is an important step to ensuring quality of care, especially at the last mile. However digital solutions and stronger public grievance systems are needed to scale the interventions in all facilities.

2013-2016

RKS and Kayakalp have become key initiatives for engaging community feedback and redressal, particularly among women. However, studies found that processes to engage feedback systems with the public are often missing.[76,77]

Digital innovations like Together for Her Health allowed women to rate the private sector services they availed and provide feedback to help private providers improve quality of care. However, there was still a lack of grievance mechanisms integrated into private care as a whole.

2017-2020

The Ministry of Health and Family Welfare (MOHFW) implemented the National Human Rights Commission's Charter of Patient's Rights through state governments to ensure quality healthcare for patients.[78] However, its success is dependent on the state's implementation and monitoring.

With SUMAN, there was a national emphasis on grievance redressal for women receiving maternal healthcare. However, there is a lack of research assessing the effectiveness of these grievance systems and their impact on the quality of maternal health.

2021-23

A study in Maharashtra found that the implementation of a patient feedback system in private health facilities improved patient experiences in both inpatient (IPD) and outpatient (OPD) settings, enhancing staff behavior and communication.[79] It provides strong evidence on the impact of grievance systems on quality of care.

NABH's new digital standards prioritize patient choice and feedback, marking a crucial step toward patient-centric care. Effective implementation of patient feedback systems in high-volume facilities in rural and tier 2 and 3 cities, will be essential to ensuring quality of care in the long run.

Key Trends

Erratic and limited engagement of healthcare feedback and grievance redressal systems

Despite initiatives at the community and facility level for beneficiary and provider feedback, their implementation, monitoring and evaluation remains irregular.

Private sector has begun to recognize patient choice and feedback

NABH's integration of patient choice and feedback is a step in the right direction for the private sector. Consistent implementation in private clinics and maternity homes will ensure sustainable quality of care especially in tier 2 and 3 geographies.

MSD for Mothers' Contribution

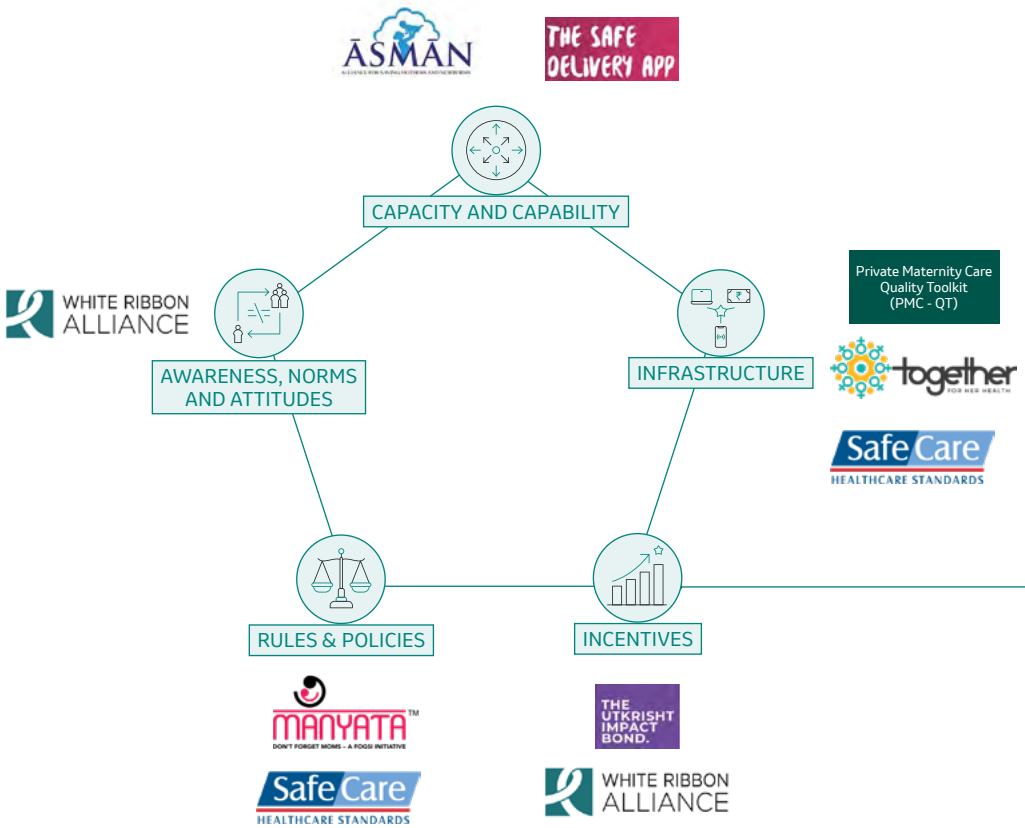
Interventions addressing challenges associated with governance of MHQoC had high contribution to the evolution. Nearly all investments were seminal and suitable for their stages, with Manyata and Safe Delivery App successfully achieving scale and sway.

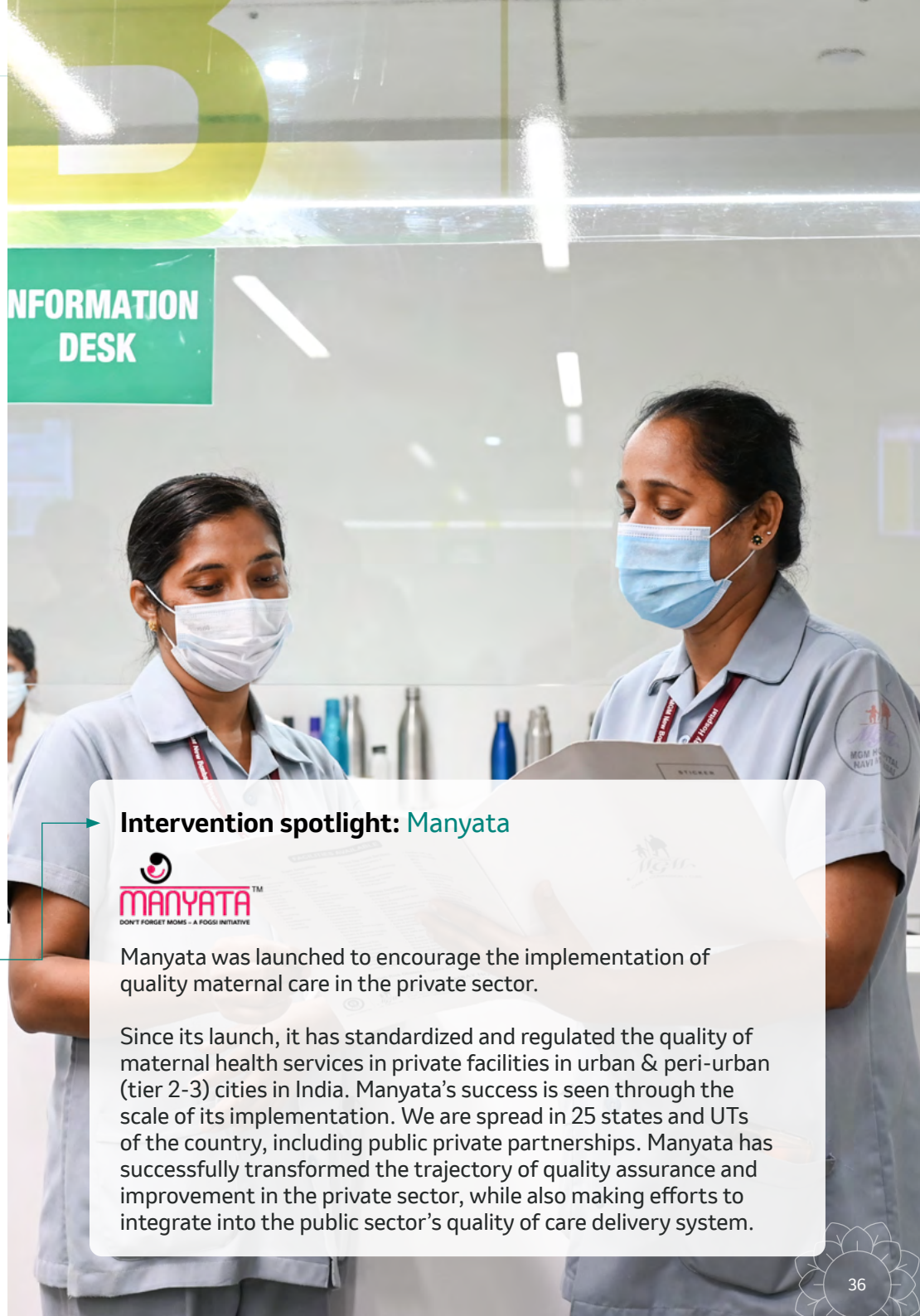
The study mapped the investments addressing governance and the below table illustrates their contribution to evolving the quality of maternal care based on four key indicators:

INVESTMENT	START YEAR	ASSESSMENT RUBRIC				INVESTMENT'S OVERALL CONTRIBUTION
		SEMINALITY	STAGE SUITABILITY	SCALE	SWAY	
Manyata (incl Utkrisht)	2013	**High**	**High**	**High**	**High**	**High**
Mobile Monitor for QoC (MOM-QoC)	2013	**High**	Medium	Low	Low	Low
Together For Her	2016	**High**	Medium	**High**	Low	Medium
Safe Delivery App	2017	**High**	**High**	**High**	**High**	**High**
Asman	2017	**High**	Medium	Medium	Medium	Medium
Pharmaccess-SafeCare	2021	**High**	**High**	Medium	**High**	**High**

MSD for Mothers' Contribution

The evolution of the determinants across the five stages the LNEMT framework requires selective engagement and intervention via five key levers by the system's stakeholders. For governance, MSD for Mothers' interventions ensured that improved quality does not come at the cost of inconsistent care by targeting all five key levers below:





Intervention spotlight: Manyata

MANYATA™
DON'T FORGET MOMS – A FOGSI INITIATIVE

Manyata was launched to encourage the implementation of quality maternal care in the private sector.

Since its launch, it has standardized and regulated the quality of maternal health services in private facilities in urban & peri-urban (tier 2-3) cities in India. Manyata's success is seen through the scale of its implementation. We are spread in 25 states and UTs of the country, including public private partnerships. Manyata has successfully transformed the trajectory of quality assurance and improvement in the private sector, while also making efforts to integrate into the public sector's quality of care delivery system.

MSD for Mothers' Opportunities

The opportunities in governance optimize the capacities and offerings of public and private sector stakeholders to enhance the quality of maternal health at every level of implementation and standardize care across the country's various regions.

While stakeholders recognize the necessity of standardization and accreditation of quality of care delivery, the solutions vary in impact as their implementation remains inconsistent across geographies. Our research suggests the following pathways for philanthropic investment to move the system to the next stage of evolution:

Mainstreaming integration of quality standards through collaboration of public and private accreditation bodies

Scaling solutions that integrate quality measurement to strengthen capacities across the system

Refocusing on building feedback loops through grievance redressals for beneficiaries and providers

The following exhibit shows a list of illustrative opportunities across governance that can be realized through a strategic collaboration between the system's stakeholders.

DETERMINANT	OPPORTUNITIES	CAUSAL LEVER ADDRESSED	QUANTUM OF IMPLEMENTATION			
			TEST	SPREAD	SCALE	SUSTAIN
Governance	Leverage leadership of professional associations like FOGSI, TNAI, SOMI, IAP etc to develop relevant guidelines for the private sector to enable task shifting through midwives		✓			
	Foster collaboration between ecosystem stakeholders to define private health facility archetypes (currently, 50 bedded hospitals and less than 50 bedded hospitals are offered the same pathways to accreditation)		✓			

CAUSAL LEVER KEY: Capacity; Rules and Policies; Incentives; Awareness, Norms and Attitudes; Infrastructure

Conclusion and way forward

Philanthropy can play a catalytic role in enhancing the quality of maternal care in India by aligning collaborative interventions with the ecosystem's maturity to address its needs and challenges.

For any stakeholder in the ecosystem to facilitate the evolution of the three determinants, it is essential to identify and engage with relevant levers (capacity, rules and policies, incentives, awareness, norms and attitudes, and infrastructure). Across all five stages of evolution (LNEMT), identifying and engaging with the 'right' lever can improve the systemic impact of targeted interventions.

The different stages of evolution require specific interventions based on the level of awareness, presence of regulations, and maturity of solutions available across the private and public sectors. For instance, in the early stages of evolution, building vocabulary and awareness is crucial, while in more mature stages, piloting solutions and supporting their effective implementation becomes increasingly important.

The nascent-to-late emerging nature of the maternal health landscape highlights the need for seminal research on certain challenges and the piloting of innovative solutions for others.

Lastly, collaboration among private, public, and social sector stakeholders is critical to tackling these last-mile challenges and enhancing the quality of maternal care in India.

Appendix

Study methodology

A five-step methodology was employed to comprehend the transformation of India's maternal healthcare landscape over the past decade, with respect to the continuum of quality of care.

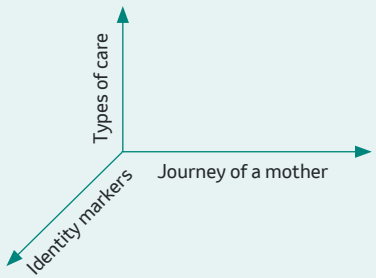
This methodology will involve identifying key challenges, examining the system's interventions as responses to these challenges, mapping shifts and the evolution of the quality continuum care, and presenting the impact of the interventions.

Five step method to chart the evolution of India's MHQoC landscape between 2013 and 2023.

1

Defining last-mile challenges

Used a three-tier framework to identify universal and exclusionary risks



2

Mapping to personas

Developed relevant personas and studied the effects of existing challenges on these personas

Anju is a 30-year-old pregnant and migrant worker in an urban area.

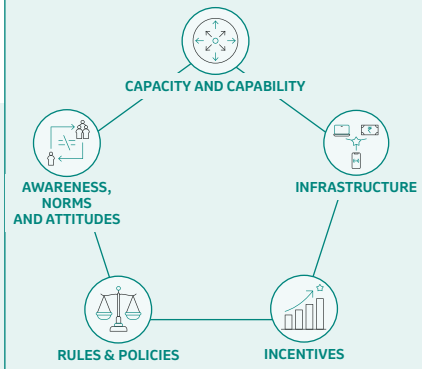
Bimla is a 27-year-old pregnant and factory worker in Rajasthan.

Lakshmi is a 27 year old pregnant woman living in a tribal area.

3

Articulating causal factors

Utilized a five-lever framework to discover causes that generate and amplify these challenges



4

Mapping system evolution

Mapped the shift in the system's response to these challenges

★ **Transformed**

Mainstream

Emerging

Nascent

Latent

5

Mapping MSD for Mother's Contribution

Laid out MSD for Mothers' contribution to India's quality landscape

Seminality
The investment was unique in its contribution to a key development

Stage Suitability
The investment's pathways are relevant for the system's current stage

Scale
The investment reached a large population

Sway
The investment influenced key decision makers to drive an event

Abbreviations

ANC	Antenatal Care
EmOC	Emergency Obstetric Care
FP	Family Planning
JSSK	Janani Shishu Suraksha Karyakram
JSY	Janani Suraksha Yojana
LaQshya	Labour Room Quality Improvement Initiative
MCH	Maternal and Child Health
MDG	Millennium Development Goals
MHQoC	Maternal health quality of care
MMR	Maternal mortality rate
MNCH	Maternal, Newborn, Child health
NQAS	National Quality Assessment Standards
SC	Sub Centre
ST	Scheduled Tribes
TFH	Together for Her
WHO	World Health Organization
UHC	Universal Health Coverage
RMC	Respectful Maternity Care
AB-HWC	Ayushman Bharat - Health and Wellness Centre
NPM	Nurse Practitioner in Midwifery
ICM	International Confederation of Midwives
ASHA	Accredited Social Health Activist
ANM	Auxiliary Nurse and Midwife
NRHM	National Rural Health Mission
RKS	Rogi Kalyan Samiti
CLWS	Community Link Worker Scheme
RMNCHA+N	Reproductive, Maternal, Newborn, Child Health & Adolescents + Nutrition
IVRS	Interactive Voice Response System
CBMDR	Community Based Maternal Death Review
MCTS	Mother and Child Tracking System
MOM-QC	Mobile Monitor for Quality of Care
OOPE	Out of Pocket Expenditure
PMSMA	Pradhan Mantri Surakshit Matritva Abhiyan
PFHI	Publicly Funded Health Insurance
NHP	National Health Policy
NHM	National Health Mission
PHIS	Public Health Information System
RSBY	Rashtriya Swasthya Bima Yojana
PMJAY	Pradhan Mantri Jan Arogaya Yojana
OPD	Out Patient Department
PMMVY	Pradhan Mantri Matru Vandana Yojana
HMIS	Health Management Information System
MDSR	Maternal Dealth Surveillance System
NABH	National Accreditation Board for Hospitals
IPHS	Indian Public Health Standards
MDR	Maternal Death Review
MCPDSR	Maternal and Perinatal Death Surveillance and Response
SUMAN	Surakshit Matritva Aashwasan
QCI	Quality Council of India
CEA	Clinical Establishment Act
IPC	Infection Prevention and Control
WRAI	White Ribbon Alliance
PPP	Public Private Partnership
SDA	Safe Delivery App
QI	Quality Improvement
QA	Quality Assurance
ABDM	Ayushman Bharat Digital Mission
NFHS	National Family Health Survey
AMRIT	Accessible Medical Records via Integrated Technologies
TeCHO+	Technology for Community Health Operation
EMR	Electronic Medical Records
EHR	Electronic Health Records
JSA	Jan Swasthya Abhiyan
MOHFW	Ministry of Health and Family Welfare
IPD	In-Patient Department
OPD	Out-Patient Department
QCI	Quality Council of India
CEA	Clinical Establishment Act
IPC	Infection Prevention and Control
M&E	Monitoring & Evaluation
CHC	Community Health Centre
DH	District Hospital
NSSO	National Survey Sample Office
LMIC	Low and Middle Income Countries

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