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Achieving a Balanced Maternal Quality of Care Ecosystem Across India

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More than two decades ago, the John D. and Catherine T. MacArthur Foundation launched its Population and Reproductive Health program to help address gaps in India's health care systems. After making significant progress in the field, particularly in the areas of maternal health and rights, the Foundation prepares to exit this program in India. Results from the Foundation's last round of funding provide key insights into the health care ecosystem in India through the lens of maternal health quality of care—describing the current conditions and where the Foundation's strategy has identified opportunities for strengthening the current system.

Introduction

Health care providers, payers, regulators, consumers, and other health-related entities comprise the health care ecosystem. When the activities of these diverse stakeholders reinforce and complement one another, the ecosystem is balanced. A balanced system provides a structure that supports the delivery of high quality care on a consistent basis, efficient and effective processes for delivering this care, and ultimately positive health outcomes.

But economic market failures inherent to health care—including asymmetric information, in which consumers have little or no information to judge the value of health care services at the time of purchase—can easily disturb this balance. Another market failure is the lack of competition in health care due to providers clustering near urban areas: each provider-patient interaction is unique and, therefore, they do not compete as identical transactions.

These market failures are amplified in India, where socioeconomic inequities are large, and customs and norms perpetuate an imbalanced relationship between providers and patients. Health care providers in India often see themselves and

are seen by others as benefactors, whereas patients are seen as the supplicant beneficiaries (Ganesh 2009).

In response, patient-centered and respectful care have arisen as common buzzwords in India to promote patients' awareness of available services and of their health rights, provision of services tailored to each patient's situation, and access to and delivery of high quality care to all patients. Although health care stakeholders recognize the importance of patient-centered care, the lack of such care continues to be one of the largest barriers to progress in health improvements and a main reason for the imbalanced health care ecosystem in India.

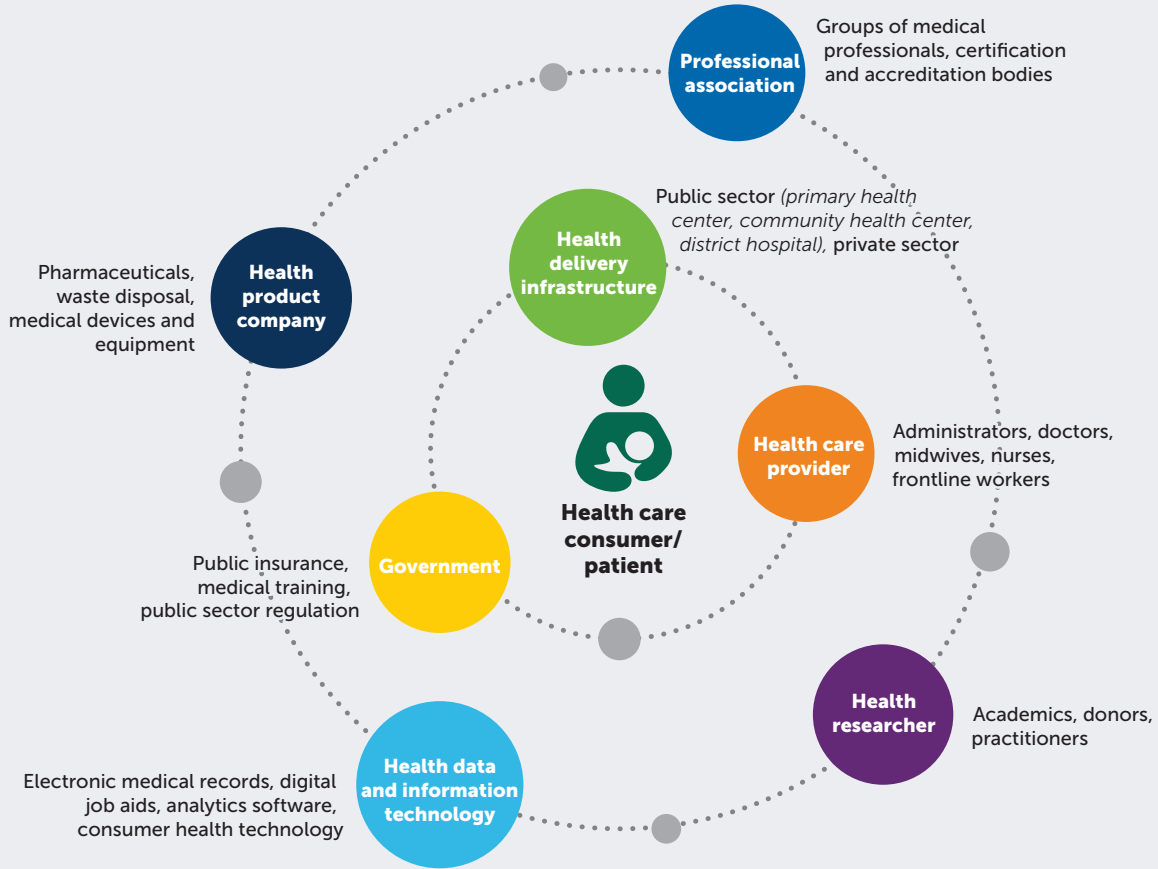


Collaboration represents the key to a functioning health care [ecosystem]. And patient dignity and satisfaction are its beating heart. However, few people see it that way in India.

—MacArthur grantee

Describing the health care ecosystem, its stakeholders, and outcomes

The health care ecosystem is comprised of health care providers, payers, regulators, consumers, and other health-related entities, all working together to improve health care access, delivery, and quality. Health care consumers reside at the center of the ecosystem. Providers, the government sector, and health system infrastructure make up the next tier, interacting directly with health care consumers. The last tier includes other, more auxiliary stakeholders that support care delivery but rarely have direct contact with consumers. If all stakeholders work well together, people receive the services they need when they need them, leading to positive health outcomes and low costs.

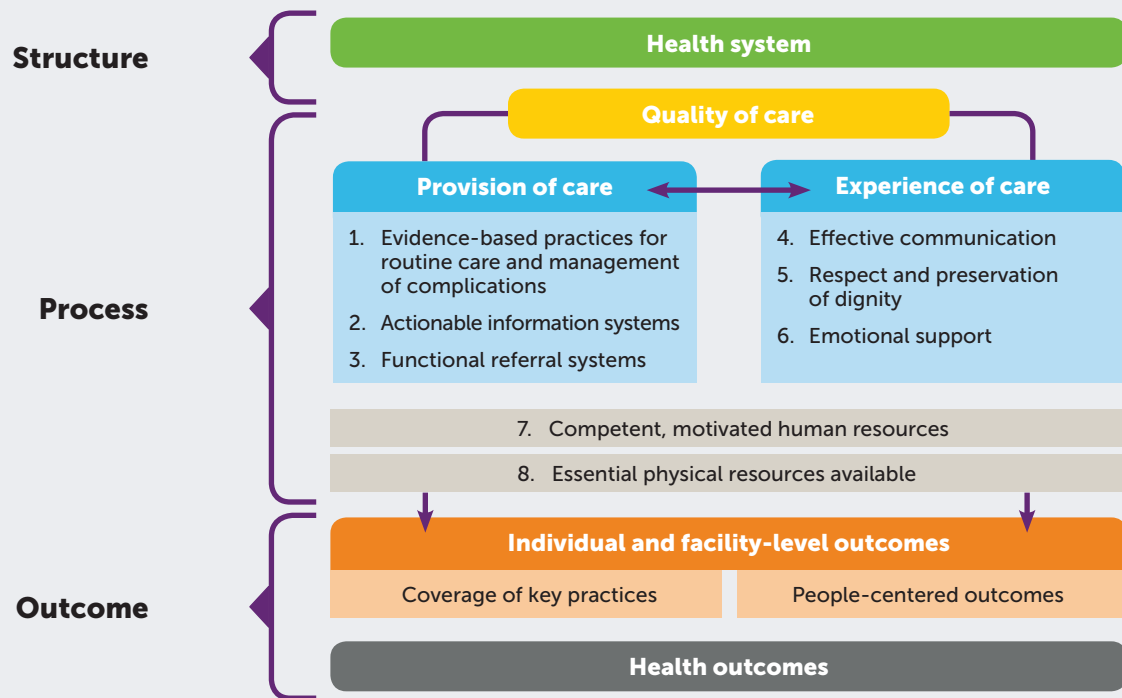


<p>Health care consumer/patient</p>	<p>The consumer or patient uses the health services and products generated from the ecosystem, can be asked to pay out of pocket for services, and might require additional information to judge whether the quality and cost of services and products are appropriate.</p>	<p>Professional association</p>	<p>Professional associations keep the medical profession up to date on current guidelines, promote legitimacy among medical professionals in health care, and can provide certification or accreditation.</p>
<p>Health care provider</p>	<p>The provider has knowledge and skills to deliver quality health care services to patients, accepts payment for services, and works within the care delivery infrastructure.</p>	<p>Health data and information technology</p>	<p>Data and technology help to develop and support platforms for managing and improving the delivery of health care.</p>
<p>Health delivery infrastructure</p>	<p>The infrastructure provides equipment and facilities from which patients receive services and for health providers to deliver services.</p>	<p>Health product company</p>	<p>Private companies develop and market services and products to support health care delivery, such as equipment, medical devices, and waste disposal.</p>
<p>Government</p>	<p>The government pays for services provided through federal and state insurance schemes and other payment plans, and sets up and enforces requirements for facilities and health care providers in the public sector.</p>	<p>Health researcher</p>	<p>Researchers introduce ideas, concepts, tools, and technologies in health care, including their benefits and challenges.</p>

Source: Developed by Mathematica for purposes of this brief.

WHO's framework for quality of maternal and newborn health care

The framework for quality care developed by the World Health Organization (WHO) reflects the results of a balanced health care ecosystem. For example, a strong ecosystem provides the structure in which to deliver high quality care and promote positive patient experiences with care. Within the health system structure, the care delivery process involves the activities that produce health outcomes for patients. If these processes have the necessary human and physical resources, they will result in coverage (availability) of key practices to deliver appropriate care when needed and people-centered outcomes that reflect the priorities of the populations served. Achieving these results will ultimately lead to better health, including fewer health complications during delivery and fewer maternal and infant deaths.



Source: WHO (2016).

This brief discusses the various health system activities of civil society organizations, professional associations, and other entities under the John D. and Catherine T. MacArthur Foundation's maternal health quality of care (MHQoC) strategy. Within this MHQoC context, we examine the various stakeholders and their current roles in the ecosystem, the activities undertaken by MHQoC grantees to promote synergistic interactions among stakeholders in the ecosystem, and areas in the ecosystem that need further improvement.

Improving providers' interactions with other stakeholders: A key step to balancing the ecosystem

As care deliverers, providers have the most influence on patients and often act as the patient's broker in relating to other stakeholders and ensuring access to and receipt of needed services. The work of the MHQoC strategy grantees identified provider interactions with other stakeholders as crucial in balancing the ecosystem—in particular, interactions among providers and patients, the government, professional associations, and health technology. Below, we discuss how MHQoC strategy grantees have created opportunities within each of these interactions.



Provider–patient: Shifting the paradigm to patient-centered care.

Unsanitary labor room practices and refusing mothers' requests to have a birth companion remain all too common across India. In addition, more extreme stories of providers hitting women during labor further highlight the need for patient-centered care among providers. Such practices have led to many patients' bad experiences with care, deterring them from using clinical services when they should (O'Neil et al. 2017).

Given the importance of provider–patient interactions, MHQoC strategy grantees—including Karuna Trust, ARTH, JSS, SEWA Rural, Pathfinder, FOGSI, and C3—working in seven states (Chhattisgarh, Gujarat, Jharkhand, Karnataka, Madhya Pradesh, Maharashtra, and Uttar Pradesh) all focus on patients' treatment and rights. Their activities include integrating respectful maternity care into trainings for public and private providers at all levels; improving facility infrastructure, such as using partitions to increase privacy in labor rooms; and supporting help lines for patients using government services to voice their opinions about the care received.



Provider–government: Tackling the lack of sufficient human resources through public–private partnerships.

Previous studies show that provider shortages leave one-fifth to one-third of public-sector facilities unstaffed (O’Neil et al. 2017). This estimate reflects the lack of human resources in many areas across India—especially in rural areas, which providers commonly perceive as punishment placements. Public sector posts often have issues retaining clinicians for more than a year due to the government’s inability to offer incentives to stay longer or to provide guaranteed assignments for longer than a year.



An estimated 80 percent of the specialty posts in [an eastern Indian state] remained unfilled in 2018.

–MacArthur grantee

MHQoC strategy grantees Karuna Trust and ARTH partner with governments to run, staff, and provide ongoing support to public facilities. In this type of public–private partnership, the government pays for the salaries of the staff and facility maintenance, and the nongovernmental organization run by the grantee brings the know-how to improve conditions, staffing, and skills to efficiently provide high quality services.

Collaborating to develop a cadre of nurse practitioner midwives to fill gaps in human resources

A grant to WHO to formalize and expand the role of midwives demonstrated the importance of collaboration across the health care ecosystem in India. In this case, collaboration among three stakeholders was particularly critical: (1) the government, which would set the regulations on midwifery responsibilities; (2) the Indian Nursing Council, which would deliver the trainings and handle certifying midwives; and (3) the Medical Council of India, which represented the doctors who would have to recognize midwives’ expanded role in maternal care in the public health sector.

After more than a year of discussions, the stakeholders agreed to support development of a formal cadre of nurse practitioner midwives using an 18-month curriculum (rather than a 6-month one), and infrastructure to support these changes. This cadre will ultimately increase the capacity of nurses to fill gaps in human resources in maternal care.



Provider–professional associations: Using peer pressure to increase delivery of quality care and clinician capacity.

The lack of regulation of India’s private health sector has long been an issue, leading to large variations in health care and outcomes (Bhat 1996). Several MHQoC strategy grantees included professional associations in their approaches to addressing this gap. In particular, a grant—co-funded by MSD for Mothers—to the Federation of Obstetric & Gynaecological Societies of India (FOGSI) has led to the development of a national program management unit to provide training and disseminate Manyata standards for safe delivery, based on WHO standards, to private sector providers in its network.

Another effort through a grant to WHO has led to coordinating with a couple of professional associations—the Indian Nursing Council and Medical Council of India—and the Ministry of Health and Family Welfare, Government of India (GOI) to expand midwifery roles and responsibilities in both public and private facilities. Similarly, Karuna Trust requires the public health facilities in which it works to be accredited, a process that obligates providers and other facility staff to engage with accrediting bodies to meet key standards of providing care.



What the [Federation of Obstetric & Gynaecological Societies of India] is doing to promote safe delivery among their members through Manyata is akin to an inside job.... It is a professional association working with its own members to improve quality.

–MacArthur grantee



Provider–health information technology: Using health technology to coordinate and enhance care.

Over the past decade, digital health technology has proliferated in the form of job aids, management tools, and resources for patients. MHQoC strategy grantees such as SEWA Rural and ARTH use mobile health applications to help frontline workers track service delivery, educate consumers, and tailor and coordinate care for each community member. Technologies such as Project ECHO, used by MHQoC grantees Karuna Trust and FOGSI, facilitate continuing education for providers, especially those in remote areas. This technology uses video conferencing to conduct virtual trainings with specialists around the world to increase rural primary care clinicians’ capacity to deliver specialty services.

Other key opportunities to enhance nonprovider stakeholder interactions

- **Government and professional associations.** Professional associations have helped to uphold the government's standards and guidelines for high quality care. For example, FOGSI has disseminated the Manyata safe delivery standards to facilities and verifies whether facilities meet these standards. Although Manyata certification is currently intended only for private facilities, these standards align with the government's requirements for delivery of appropriate care.
- **Health information technology services and researchers.** Researchers and program implementers have used data collected by health information technology platforms to make decisions in real time. Data from electronic health records and mobile health technology applications for frontline workers developed by ARTH, SEWA Rural, and Karuna Trust have been used to monitor frontline workers' performance, inform decisions about their training and supervision, and assess the effect of their delivery of services on key maternal outcomes.

MHQoC strategy's progress in balancing the health care ecosystem

To date, grantees' efforts to promote coordination and alignment between stakeholders in the health care ecosystem have led to important MHQoC gains. The successes have included developing and adopting care delivery standards, decreased corruption at many levels of the system, a cadre of appropriately trained providers, availability of needed physical resources at facilities, and ultimately achieving positive maternal health outcomes. In most cases, the interactions are not only between two stakeholders: multiple parties interact to contribute to improving the ecosystem.

We examined the outcomes of these grantees' efforts in terms of WHO's framework for the quality of maternal and newborn care to gain insight into the structures, processes, and outcomes possible when stakeholders work well together to optimize the health care ecosystem.



Developing and promoting standards for MHQoC infrastructure and service provision. Pathfinder and Jhpiego provided critical input on developing and testing

LaQshya guidelines, which led the GOI to eventually adopt these guidelines. As a result, many facilities increased their compliance with quality-of-care processes in the intrapartum and immediate postpartum periods and structural requirements for safe delivery in the labor room and maternity operating theatres of public health facilities (GOI 2017). Examples of facility improvements include having curtains in labor rooms between beds, appropriate items on labor room trays to manage postpartum hemorrhage, and functional and calibrated instruments.

From 2014 to 2017, Karuna Trust has also helped more than 300 public health centers receive certification from the National Accreditation Board for Hospital and Healthcare Providers, which focuses on bringing facility infrastructure to a basic level of quality. In the private sector, the MHQoC strategy-funded National Programme Management Unit of FOGSI has helped develop Manyata standards for safe delivery and certification of more than 300 facilities through 2018—with a goal for another 2,000 certified in the next three years.



Promoting zero tolerance of corruption in governance and transactions at all levels of the health system. Corruption occurs at all levels of

the Indian health system: providers demanding patients to pay for treatments already covered, facilities withholding payment to providers and staff, and health officials requesting kickbacks for overlooking inadequacies or showing favoritism to certain vendors or providers (Kumar 2003; Chattopadhyay 2013). Several MHQoC strategy grantees have established a track record of transparency in terms of payments made by various parties. For example, Karuna Trust has built a strong reputation for refusing to pay bribes, which has helped to establish trust among government agencies and other stakeholders and has led to efficient use of funding for improving facility infrastructure in Karnataka.



Creating training processes to enhance providers' competency and ensure positive patient experiences.

The training curricula developed by researchers and practitioners under the MHQoC strategy cover all levels of public and private health care professionals, including doctors, auxiliary nurse midwives, nurses, frontline workers, and facility managers. Over a three-year period, grantees (such as Pathfinder, JSS, Jhpiego, ARTH, Karuna Trust, and PFI) supported training of these professionals on maternity care, managing delivery complications, and respectful care—thereby setting standards for quality care and providing nearly 35,000 staff with knowledge and skills consistent with evidence-based practices. In particular, developing training centers and delivering training via virtual platforms helped broaden the reach of these training activities.



After the training, [nurses at the clinic] knew what to do about PPH [postpartum hemorrhage.] For one PPH case, we had everything needed ready on the tray and managed [the case] until the doctor was able to arrive. We are more confident, and the patients see that and are also more confident in us.

—Nurse trained in Manyata in a private facility

Almost all health professionals surveyed after these trainings reported having improved skills (O'Neil et al. 2018). Qualitative information from trained nurses and auxiliary nurse midwives across Karnataka, Madhya Pradesh, Maharashtra, and Rajasthan universally revealed increased confidence in technical skills.



[The government] hands over the infrastructure to us: the land, building, and the equipment.... The existing staff are withdrawn and [reposted to] vacant positions. We recruit [our own staff], train them, and put them in the [primary health center] and start improving the infrastructure.

–MacArthur grantee



Making essential physical resources available. Over the past three years, more than 1,000 health facilities in seven states covered by MHQoC strategy grantees

have made progress in a number of areas. They have taken steps to obtain running water, 24-hour electricity, record management systems, compliant biomedical waste management, provider presence, and quality assurance mechanisms.



Improving individual- and facility-level outcomes.

The structural and process improvements in the ecosystem have led to some outcomes that are directly attributable to the MHQoC strategy. For instance, areas where Karuna Trust took over managing and operating defunct or poorly functioning primary health centers directly increased coverage in care for people in Karnataka, Odisha, and northeastern states.

It is harder to attribute other outcomes to the strategy. For example, the drop in Maharashtra’s maternal mortality ratio from more than 85 deaths per 100,000 live births in 2012 to 61 deaths in 2016 cannot be attributed directly to work by FOGSI to build capacity and develop standards for quality of care in private facilities there, or to Jhpiego’s quality improvement efforts in the public sector. Yet, in an area where progress in reducing maternal mortality has slowed in the past decade, the status quo would not likely produce better outcomes. Introducing Manyata standards and quality improvement programs, along with other factors in the ecosystem, likely contributed to some of the observed reduction (O’Neil et al. 2017).

Remaining gaps in the ecosystem

The work supported under the MHQoC strategy demonstrates potential ways to enhance many systems and processes to achieve positive outcomes. Nevertheless, many of the grantees have pointed to several remaining areas for further work: reforming health system financing, developing and implementing actionable information systems, and creating functional referral systems. These types of gaps will require far-reaching policy changes and major efforts to standardize the infrastructure, which could be beyond the reach of any one grant effort in a limited amount of time.

Health system financing

Despite the many accomplishments of the MHQoC strategy, a barrier often cited by grantees is the complexity of having multiple methods of health system financing and many entities for ascertaining quality. Although public insurance schemes (such as Pradhan Mantri Jan Arogya Yojana [PMJAY], launched in September 2018) have emerged to expand coverage of services, these schemes exclude a large portion of the population and do little to regulate the output from the system. They also leave private sector facilities unregulated.

In response, a few states (such as Chhattisgarh and Karnataka) have replaced or committed to replacing PMJAY with universal health coverage. Many stakeholders feel this would eliminate barriers to accessing care, help standardize quality across geographic areas, and discourage medical providers from choosing to work in an urban over a rural area simply because of pay.

Information systems that promote action

Health care stakeholders generally view the proliferation of digital health technology as a positive development. Case in point: the GOI is preparing to launch a community health worker job-aid application, and the state government of Gujarat has adopted the mobile phone application Technology for Community Health Operations Plus, better known as TeCHO+.

But the many variations in digital technology have also led to fragmentation. For example, it is not uncommon for electronic medical record systems to be unable to communicate with other technologies used by the same facility—much less other facilities’ systems—because of interoperability issues. Thus, although each technology alone might promote management of cases in one setting, these technologies do not help to coordinate care across settings. Aligning and standardizing digital health systems will help stakeholders make full use of the data in the systems to prevent, diagnose, and maintain communities’ health. Support and buy-in from government officials would likely be needed to make this happen.



Free ambulance services help providers who want to send a patient off to a facility and go home and sleep. [Ambulance dispatchers] are instructed by the state to not question referrals because blocking them could be [a liability]. So you have doctors writing a referral note in the evenings so they can commute back home.... [The] most popular reasons for referral [are] labor pain, prolonged labor, and vaginal discharge—all normal birth [occurrences]. When we started providing feedback [and questioning this], people would change the wording, but that was it.

–MacArthur grantee

Functional referral systems

Current accreditation and certification standards seek to enhance clinical infrastructure and practice behaviors *within* a facility. With these standards in hand, some MHQoC strategy grantees say that improving referral systems is the next frontier for improving quality. Tracking of referrals by ARTH in Rajasthan shows that about one-quarter of referrals among intrapartum women might not be required. In fact, ARTH noted that given the circumstances expected for referrals, referred cases seem to have fewer-than-anticipated cesarean sections and blood transfusions for postpartum hemorrhage. These inappropriate referrals from public health centers cause overcrowding in district hospitals, which cannot legally turn away patients in most cases. Thus, systems are needed to better hold doctors accountable for making inappropriate referrals. Although grantees have worked to establish norms and guidelines for referrals in targeted health facilities, government intervention might be needed (and forthcoming) to establish standard procedures for referrals, systems, and incentives for tracking referral completion, and accountability mechanisms for inappropriate referrals.

Moving forward

Examining India's health care ecosystem through the lens of the MHQoC strategy shows that much is being and can be done to strengthen the roles of each stakeholder. It also raises the question of what could happen should some of the MHQoC innovations proliferate beyond community and state levels to the larger regional and national stages. The next few years could answer this question, as momentum gathers for government action on several MHQoC strategy-initiated efforts, such as LaQshya certification, Dakshata trainings, nurse mentoring programs, and digital health technology. Understanding the continuing evolution of India's health care ecosystem will require further support, tracking, and study. Achieving a truly harmonious balance in the ecosystem might also require disruption through sweeping systems change, such as universal health coverage or other changes in health care financing.

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