

# Perceived effectiveness and recommendations from a childbirth quality assurance and improvement programme in India's private sector: a qualitative evaluation using the RE-AIM framework

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## ABSTRACT

**Introduction** Previous studies have revealed inconsistent quality of care in India's private sector, where nearly one in three facility births take place. Manyata is a quality assurance and improvement programme launched in 2016 by the Federation of Obstetrics and Gynaecological Societies of India (FOGSI) that provides training, mentorship and accreditation to private maternity facilities. We aimed to understand participants' motivations for joining or not joining, the perceived value of Manyata and recommendations for sustainment and scale.

**Methods** We aimed to sample 238 Manyata participants for semi-structured, in-depth interviews between February and July 2021. Participants included facility owners, nurses, FOGSI quality assessors, programme implementers and Manyata leaders. Data were coded and analysed using a deductive and inductive process. Codes were mapped to the Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) framework, which we expanded to include scale.

**Results** We interviewed 185 programme participants. Maternity facility owners joined Manyata due to its affiliation with FOGSI, encouragement from peers and the desire to standardise care and train their staff. Barriers to joining included cost, unclear value and little motivation to improve practice. Participants most valued Manyata for improving staff competency, quality of care, standardised care processes and staff satisfaction. Participants felt that continuous training, mentorship and quality assurance would be necessary to maintain Manyata over time, and Manyata could and should be scaled across India and to other countries.

**Conclusion** Strategies for engaging with the private sector should include building strategic partnerships and messaging a value proposition that emphasises training, standardised care processes and improved quality of care.

## WHAT IS ALREADY KNOWN ON THE TOPIC

⇒ In India, nearly one in three facility births occur in the private sector, yet the quality of care in the private sector is inconsistent. The Federation of Obstetric and Gynaecological Societies of India (FOGSI) led a quality improvement and assurance programme among private-sector maternity care clinics to address the missing quality gap in the private sector.

## WHAT THIS STUDY ADDS

⇒ Through qualitative interviews with programme leaders and implementers, quality assessors and private-sector facility owners and nurses, we explored the perceived value of the programme. We found that private-sector maternity care clinicians valued the programme because it came from their professional society (FOGSI) and they wanted to train their staff and standardise care. Furthermore, virtual training may be a tool for continuous training and scaling up of the programme.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ Our study highlights tangible strategies that governments and professional societies could use to successfully engage private facilities in quality improvement and assurance programmes in their own countries and contexts and ultimately improve the quality of maternity care within their own private-sector maternity care systems.

A blended virtual and in-person model may be leveraged for ongoing training and quality assurance and to scale across contexts. Our evaluation of Manyata distills tangible

lessons that policymakers, professional societies and public health practitioners can use to bridge the quality gap in their own private-sector maternity systems.

**INTRODUCTION**

The provision of consistent and high-quality maternal healthcare services is a fundamental component of global efforts to improve maternal and child health and meet the Sustainable Development Goals.<sup>1 2</sup> While the last two decades have seen a considerable increase in institutional deliveries in low- and middle-income countries (LMICs) due to various efforts by governments and civil society,<sup>3</sup> providing consistent, high-quality care remains a challenge.<sup>4</sup> Quality efforts have primarily focused on public-sector facilities; however, the private sector’s contribution to institutional deliveries in LMICs ranges from 20% to 50% depending on region and household wealth.<sup>5</sup> The private sector’s unique characteristics, including its fragmentation, inconsistent oversight, regulation and quality of care across facilities present a formidable hurdle to ensuring reliable high-quality maternal healthcare services.<sup>5 6</sup>

India, one of the world’s most populous countries, serves as a pertinent example for investigating the challenges associated with ensuring quality maternal healthcare services within the private sector. The most recent National Family Health Survey estimates that nearly one in three facility births occurs in India’s private sector.<sup>7</sup> Nevertheless, ensuring consistent quality within India’s private sector remains a significant challenge.<sup>8-10</sup> Government-led approaches in the private sector have been met with resistance due to reluctance for additional regulations and reporting, which previously has led to reporting of improvements that were not reflective of real change.<sup>11 12</sup>

The Manyata programme has emerged as a pioneering initiative designed to enhance the quality of maternal healthcare services within the private sector in several Indian states.<sup>13-15</sup> Manyata is a quality assurance and improvement programme led by the Federation of Obstetrics and Gynaecological Societies of India (FOGSI) that was launched in 2016 and targets primarily small private maternity facilities for training, mentorship and accreditation. Manyata is grounded in the clinical standards set by the WHO’s Safe Childbirth Checklist and is described in detail elsewhere.<sup>15 16</sup> The programme is meant to foster

an environment of continuous quality improvement in private facilities and is meant to reinforce key skills, but not replace formal training for clinicians.

We aimed to understand facility leaders’ motivations for joining, completing or leaving Manyata; describe participants’ perceived value of Manyata; and establish recommendations for improving, scaling and sustaining Manyata. Our evaluation identified implementation strategies and recommendations that policymakers, healthcare practitioners and researchers may draw upon to improve the quality in the private sector within their unique healthcare contexts.

**METHODS**

**Study design**

The Reach, Effectiveness, Adoption, Implementation and Maintenance (RE-AIM) framework is a widely used implementation science framework that aligned with our research aims.<sup>17 18</sup> We adapted RE-AIM to qualitatively evaluate the implementation of Manyata in four Indian states.<sup>17 18</sup> We expanded RE-AIM to include scale to better answer our research aims. We conducted a descriptive qualitative study using semi-structured, in-depth interviews to understand diverse perspectives about the implementation of Manyata. This qualitative study is part of a larger mixed-methods evaluation of Manyata; additional results will be published elsewhere.<sup>19</sup>

**Study setting and program**

This study focuses on the Manyata programme implemented by Jhpiego in four states: Jharkhand, Maharashtra, Uttar Pradesh and Haryana. Private facilities who had at least one FOGSI member, showed interest in joining and paid the applicable programme fee were eligible to join. Jhpiego and FOGSI deployed several strategies to enroll facilities in each state (e.g., cold-calling facilities, snowball sampling, champions, regional meetings, etc). Once enrolled, each facility began a quality improvement and assurance journey that included baseline assessment, training in 16 clinical standards, mentorship and certification (table 1). Quality improvement is defined as ‘systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups’.<sup>20</sup> In the Manyata context, quality improvement included (1) a baseline assessment of facilities to determine quality gaps, (2) staff training to ensure adequate knowledge, (3) mentorship

**Table 1** Manyata program

Provider orientation and engagement	Outreach led by professional society (FOGSI)
Baseline assessment and planning	Baseline and intermittent ‘Gap Assessments’ to understand challenges and support adherence to 16 Manyata standards
Training	Various training strategies, including in-person and virtual training
Mentorship	Various mentorship strategies, including in-person and virtual support
Certification	Conducted by FOGSI ‘peer assessors’, initially in-person and now virtually

**Table 2** Evolution of the Manyata programme

Model	Facility start dates	Level of engagement*	Programme implementer (quality improvement lead)	Quality assurance lead	Training and mentoring format	Payment
A	March 2018 to February 2019	High touch	Jhpiego	FOGSI	In-person	No fee
B	March 2019 to February 2020	Low touch	Jhpiego	FOGSI	In-person	Enrollment fee to FOGSI†
C	March 2020 to February 2021	Low touch	Jhpiego	FOGSI	Blended‡	Enrollment fee to FOGSI†
D	March 2020 to February 2021	Low touch	Centres for Skills Enhancement§	FOGSI	Blended‡	Enrollment fee to FOGSI.¶

\*High touch engagement included approximately 6–7 mentoring visits. Low touch engagement included approximately 3–5 mentoring visits with the opportunity to add more visits for an additional cost. Mentoring visits were primarily virtual in models C and D due to the COVID-19 pandemic.

†The fee was depending on the number of obstetric beds within each maternity facility and ranged from Rs. 20000 to 30000.

‡Primarily virtual training and mentoring; in-person when possible. During the early months of the COVID-19 pandemic, all training and mentoring were virtual due to the pandemic. By the end of 2020, the Manyata programme was able to resume in-person mentoring as needed.

§Centres for Skill Enhancement (CSE) are local professional societies or private hospitals that received mentorship from Jhpiego to provide quality improvement support for other private hospitals in Manyata.

¶FOGSI paid a portion of the fees to the CSEs.

to address specific gaps and standardise high-quality care and (4) subsequent facility assessments to measure each facility's progress in achieving and maintaining quality. In line with India's National Quality Assurance Standards,<sup>21</sup> the quality assurance process in Manyata refers to the evaluation of a facilities' adherence to childbirth-related quality standards and is a strategy for benchmarking quality. Between March 2019 and September 2021, 410 facilities were enrolled in Manyata.

The Manyata programme evolved over time (table 2). With each new model, Jhpiego adjusted the level of engagement, training and mentoring format, and payment structure. Of note, Jhpiego implemented a blended model, which included both virtual and in-person training and mentoring, earlier than planned in response to the COVID-19 pandemic. In the final Model, Jhpiego recruited and trained eight maternity facilities to serve as Centres for Skills Enhancements, who became responsible for training and mentoring other maternity facilities in Manyata. This strategy allowed Jhpiego to assess the feasibility of implementing Manyata without their direct implementation support.

### Sampling strategy

We used purposive sampling in which we aimed to balance our sample across models (A, B, C and D (table 1)), states (Uttar Pradesh, Maharashtra, Jharkhand and Haryana) and participant groups by sampling 6–10 individuals per participant group, state and model, for a target sample of 238 individuals. There were seven participant groups, which included (1) facility owners who joined and completed Manyata; (2) facility owners who joined but dropped out before completing Manyata certification (dropouts); (3) facility owners who did not join Manyata

(non-joiners); (4) nurses who completed Manyata training; (5) Manyata leadership, which included leadership from FOGSI, Jhpiego and MSD for mothers; (6) FOGSI quality assessors; and (7) programme implementers. Facility owners were primarily physicians.

Jhpiego provided a list of eligible programme implementers, Manyata leaders and facility owners. We used the RAND function in Microsoft Excel to randomly select facilities that were certified in Manyata from each state. Within selected facilities, nurses were nominated by facility leadership, with first priority given to those who had participated in the initial training. FOGSI provided a list of eligible quality assessors. When there were more eligible participants than required for the sample, we randomly selected participants and contacted participants in the order of the random sample until the predetermined sample size was reached.

### Data collection

We developed semi-structured interview guides specific to each participant group based on our research aims (online supplemental file). We pilot-tested the interview guides among facility owners, nurses, quality assessors and implementers. Due to the small pool of potential leadership participants, we tested their guide through role-play. Interviews were conducted between February and July 2021 via phone call by trained data collectors from an Indian-based research firm in English, Hindi or Marathi, based on the preference of the interviewee. All interviews were audio-recorded and supported by note-taking after receiving verbal consent from interviewees. While data collectors instructed participants to find a private space, on occasion, this was not possible, and other clinicians

were present during some of the nurse interviews. The average duration of interviews was 28 min.

**Patient involvement**

Patients were not involved in the conduct and design of this research.

**Data analysis**

All interviews were transcribed and, when applicable, translated into English. We developed a deductive codebook based on the interview guide, and inductive codes were added as new themes emerged. The codebook consisted of 16 parent themes that were further organised into 101 child codes. Interviews were coded by five primary coders (AG, MM, AS, SM, KG), and LS double-coded 10% of transcripts. Coders met weekly to review codes and resolve discrepancies. During the interpretation phase, LS, LB and MMD reviewed and summarised excerpts from each code until saturation was reached (online supplemental file). Summaries were discussed during bi-weekly team meetings among LS, LB and MMD.

Codes were mapped to the RE-AIM framework, which was expanded to include scale. Ten parent codes and 38 child codes mapped to RE-AIM, including barriers and facilitators; the perceived value of the programme; motivations for joining, not joining or dropping out; implementation; sustainment; scale; and recommendations (online supplemental file). The codes that did not map onto RE-AIM or scale were explored elsewhere.<sup>22</sup>

**Reflexivity statement**

As part of the movement to decolonise global health, researchers should critically examine their own positionality.<sup>23</sup> We are a team of researchers, programme implementers and obstetricians from India and the USA. Researchers based in the USA (Ariadne Labs) developed study aims, interview guides, sampling strategies

and coding schemes in collaboration with researchers based in India (Jhpiego). India-based researchers (Outline India) collected qualitative data. Researchers from Ariadne Labs provided training and mentorship to researchers from Outline India in qualitative data collection, coding and analysis. All researchers met regularly to share findings and interpret data together. Our authorship represents co-first authors and co-senior authors from partner organisations based in India and the USA. Gender balance has been maintained in first and senior authorship.

**Ethics statement**

Qualitative data collection was approved in India by Catalyst Foundation (approval granted on 7/2/2021; no approval # assigned) and the Harvard T.H. Chan School of Public Health institutional review board (IRB 20-1455). Participant recruitment efforts used contact information from a database developed through a separate IRB-approved programme activity that was deemed non-research by the Johns Hopkins School of Public Health IRB (JHSPH IRB No. 00012538).

**RESULTS**

**Sample characteristics**

We were provided with a list of 263 eligible participants; of which, 78 were either unable to be contacted or declined to participate (facility owners n=7, nurses n=10, non-joiners n=15, implementers n=2, leaders n=3, dropouts n=21, quality assessors n=20). Ultimately, our sample consisted of 185 individuals: 60 facility owners and 62 nurses who joined and completed Manyata; six facility owners who joined but did not complete training; one facility owner who decided not to participate; 12 members of Manyata leadership; 15 quality assessors; and 29 implementers (table 3).

**Table 3** Sample characteristics

	Participant group				Leaders (n=12)	Quality assessors		Total (n=185)
	Facility owners (n=60)	Nurses (n=62)	Dropouts (n=6)	Non-joiner (n=1)		(n=15)	Implementers* (n=29)	
<b>State</b>								
Jharkhand	14	19	-	-				33
Maharashtra	22	20	2	-				44
Uttar Pradesh	20	19	4	1				44
Haryana	4	4	-	-	Not affiliated with a specific state	Active in all states		8
<b>Manyata Model</b>								
A: High touch, in-person	15	17	4	-				36
B: Low touch, in-person	18	19	2	-				39
C: Low touch, blended	15	12	-	1	Not affiliated with a specific model			28
D: Low touch, blended	12	14	-	-		Active in all models		26

\*26 implementers were active in models A, B and C across all states. Three implementers were active in model D in Haryana.

**Table 4** Evaluation of Manyata using the Reach, Effectiveness, Adoption, Implementation and Maintenance framework

Domain	Definition
Reach	Characteristics of facilities that either participated in Manyata or experienced barriers while joining or completing Manyata.
Effectiveness	Description of the elements of Manyata that participants valued most and why.
Adoption	Description of the reasons facilities decided to join, not join or drop out of Manyata.
Implementation	Description of how Manyata's implementation strategies adapted over time, especially as Manyata shifted to a virtual approach as a result of the COVID-19 pandemic.
Maintenance	Description of which elements of Manyata participants maintained over time.
Scale	Recommendations for how to maintain and scale the programme throughout India and to other LMIC.

LMIC, low- and middle-income country.

### Reach

Manyata was perceived to have reached its intended audience of small- and medium-sized private-sector maternity facilities (table 4).<sup>15</sup> However, a few participants noted that small, rural facilities faced additional barriers to joining and implementing Manyata, including low patient volume, inadequate infrastructure, inconsistent staffing, lack of internet access and difficulty with coordinating training.

They [Manyata implementers] require at least three to four facilities to be registered so that they can come and take lectures for all persons or for all facilities staff...that will not be possible in rural areas...The very next month there was a lockdown [due to COVID-19], so she (the trainer) started online and for me somehow it was not possible for me to conduct online here. (Facility Owner, Maharashtra, Model C)

### Effectiveness

Participants valued Manyata for improving staff competency, quality of care, standardised care processes and staff satisfaction. Perceived effectiveness around patient satisfaction and financial benefits were mixed (table 5).

### Adoption

Staff training was the primary motivation for more than half of all facility owners certified through Manyata. One facility owner explained, 'that is why I joined Manyata. I was like, if the full staff gets training for this, then it will be good for the hospital' (Facility Owner, Uttar Pradesh, Model C). Affiliation with FOGSI, which was considered a trustworthy and credible organisation, was noted by several facility owners to be a motivation for joining. Other motivations to join included encouragement from peers who were part of the programme and the desire to standardise care and support quality improvement (QI) initiatives in their facilities.

When I heard about Manyata from my different friends, I came to know that they are trying to give you a certain protocol, they are trying to teach you the way in which, when a patient enters the hospital, how everything should move. So, I was working on this myself for quite some time, so I was very much interested in knowing that part of the

program, and that helped us a lot. (Facility owner, Maharashtra, Model A)

Explanations for why facilities dropped out diverged by the participant group. Implementers, leaders and the non-joiner pointed to financial reasons for dropping out or not joining (eg, dropping out before the payment was due, lack of return on investment). However, no dropout endorsed this perspective. Dropouts and implementers agreed that dropouts simply lacked interest in the programme. Dropouts also cited barriers such as staff turnover, lack of time and poor communication with the implementation team.

### Implementation

Manyata's models evolved over time, adjusting implementers' level of engagement, training and mentoring format and payment structure (table 2). While Manyata was initially designed for in-person training and mentoring, the COVID-19 pandemic accelerated the implementation of a primarily virtual approach, developed on the Project ECHO platform.<sup>24</sup> Implementers noted strengths of the virtual model, including the ability to convene multiple facilities for virtual training, record training sessions and reduce implementation costs. WhatsApp learning groups, which were part of a 'hub and spoke' learning approach,<sup>25</sup> reinforced learning. However, virtual training and mentoring limited implementers' ability to build rapport with nurses and provide meaningful feedback on clinical skills. Implementers and nurses also noted challenges with connectivity and online learning (eg, fewer opportunities to ask questions). Implementers ultimately recommended a blended approach. For example, registration and training were good virtual activities; however, they emphasised that clinical skills required in-person follow-up. Both implementers and nurses preferred in-person learning.

### Maintenance

Approximately half of all nurses, a quarter of facility owners and a few implementers felt that Manyata quality standards were maintained after Manyata certification: 'Now (6 months after certification) there is no problem. We are thorough and even if the hypertension patient

**Table 5** Perceived effectiveness of Manyata

Perceived effectiveness*	Effective N(%)†	Ineffective N(%)‡	Detailed description	Illustrative quote
Staff competency	143 (77%)	0 (0%)	Most participants valued Manyata for increasing the knowledge of nursing staff in the management of obstetric complications. This was especially valued by facility owners whose nursing staff lacked bachelor-level training.	<i>Earlier we were scared to pick up the baby and to hold the baby. Because of Manyata we have the daring to do it, we have got that confidence also and it is only because of Manyata.</i> (Nurse, Maharashtra, Model A)
Quality of care	137 (74%)	8 (4%)	Nurses and facility owners overwhelmingly valued Manyata for improving the quality of care in facilities, citing improved management of obstetric complication, normal labour, postpartum care and provision of respectful maternity care. This theme was also endorsed by some leaders and quality assessors. A few individuals felt their care practices did not change, and thus, Manyata did not affect the quality of care.	<i>She (the trainer) taught them partograph and to teach them how to tackle the eclampsia patients in my absence and how to tackle the PPH (postpartum hemorrhage). Now they know better.</i> (Facility owner, Uttar Pradesh, Model B)
Standardised care process	120 (65%)	0 (0%)	Nurses and facility owners valued the standardisation of care that Manyata brought into facilities. Standardisation was attributed to the checklist-like systems and protocols used to implement Manyata standards. Some leaders, facility owners and quality assessors valued Manyata for standardising care across all Manyata facilities, which they felt would improve maternal health outcomes on the population level.	<i>It is just a systemic approach, a proper approach, step by step, and we are following that as per Manyata.</i> (Facility owner, Jharkhand, Model B)
Patient satisfaction	89 (48%)	16 (9%)	Nurses and facility owners valued Manyata for its potential to improve patient satisfaction through improved communication, counselling and respectful care. This theme was endorsed by some leaders and quality assessors, but no implementers. While some facility owners felt patient satisfaction would increase the patient volume in the health facility, others felt patients were not knowledgeable enough to detect changes in their care.	<i>...When the patient is happy they compliment us and go.</i> (Nurse, Haryana, Model D) <i>There are no changes seen in the patients, as the patients come and they get good enough support and they are getting good facilities and go back satisfied and again they come back in case of pregnancy.</i> (Nurse, Uttar Pradesh, Model A)

Continued

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Table 5 Continued

Perceived effectiveness*	Effective N(%)†	Ineffective N(%)†	Detailed description	Illustrative quote
Staff satisfaction	49 (26%)	0 (0%)	Nurses and facility owners noted improved confidence, independence and satisfaction among nurses as a result of knowledge gained during the Manyata programme.	<i>Job satisfaction was there...It was not for the sake of bills. It is that we are doing it right. We are doing it ethically according to the textbook and what we were taught...</i> (Facility owner, Uttar Pradesh, Model C).
Financial benefit	13 (7%)	40 (22%)	Over half of all facility owners felt that there were no financial benefits to participating in Manyata. However, a few felt there would eventually be a return on investment due to increased patient volume.	<i>Financially we have not increased the charges. The charges are the same, but the patient's satisfaction is definitely better with the Manyata Programme.</i> (Facility owner, Maharashtra, Model C).

\*Facility owners, nurses and leaders were asked, 'What value do you think this program brings to [your facility/healthcare facilities]?' and 'What do you think are the downsides to having Manyata in [your facility/healthcare facilities]?' Other participant groups contributed to this theme but were not directly asked.

†Number of participants who contributed to the theme. The denominator is the total number of all participants (n=185). Effective indicates the participant felt the theme was a valued part of Manyata. Ineffective indicates the participant did not value the theme.

comes, we are able to handle them' (Nurse, Maharashtra, Model B). However, a few nurses and facility owners noted specific standards that would be difficult to maintain due to low patient volume (eg, managing rare complications), paperwork burdens (eg, Robson's Criteria) or COVID-19 restrictions (eg, allowing a birth companion). Participants widely agreed that continuous training, mentorship and quality assurance activities are necessary to overcome effects of staff turnover and to maintain skills for rare complications. Virtual training can be a tool for ongoing training and mentorship.

### Scale

Most leaders and one-third of implementers and quality assessors felt that Manyata could and should be scaled across India and other countries, citing both relevance and appropriateness for addressing the quality gap in private-sector maternity facilities in other contexts.

I think that there's been recognition of its value globally and regionally...I think that there is a need in other countries where women are receiving care from the providers. This is a model that has been shown to have some success. (Leader)

Those who disagreed felt that the human resources and logistics needed to run the programme would be too difficult to replicate on a larger scale. Implementers and leaders recommended leveraging partnerships with government and professional societies to create a scalable and sustainable model of Manyata. Participants felt that virtual platforms could improve scalability of the programme. Some leaders and implementers recommended differential pricing for Manyata based on facility size and training platform (eg, in person, virtual or

blended training) as well as encouraging local adaptations as needed.

### DISCUSSION

The private sector is a major provider of childbirth care in many settings, requiring policymakers and practitioners to consider strategies to engage with the private sector to ensure high-quality care. We evaluated Manyata to assess reasons that participants joined, did not join or dropped out of the programme, the value that stakeholders found in the programme and recommendations for sustaining a standards-based quality improvement and assurance programme within private-sector maternity facilities in four states in India. Key strategies to foster private-sector participation should include leveraging partnerships with professional societies, creating and communicating a clear value proposition that resonates with facility owners and programme implementers and providing ongoing training and support in quality standards to participating facilities.

Motivating private-sector clinicians to 'buy-in' to quality assurance and improvement programmes is a difficult challenge due to policy environment and clinic-level factors.<sup>11 26</sup> We found that private-sector clinicians were motivated by messaging that came from obstetric societies, a trusted source. Participants noted that Manyata's value centred on standardising care processes, improving staff competency and satisfaction and contributing to the overall quality of care through training and quality assurance, values reflected in similar quality improvement programmes.<sup>27 28 29</sup> The value placed on these programmatic aspects may indicate current unmet needs at private facilities and reflect existing realities in India.

For example, programmes such as LaQshya that support quality improvement and improving staff competency in public facilities are largely not available to private facilities.<sup>28</sup> NABH certification is widely recognised as a national quality certification, yet has low coverage, especially among smaller facilities like those enrolled in Manyata.<sup>29</sup>

Within the Indian context, FOGSI's leadership in the programme gave the programme credibility and persuaded private-sector facility owners to join. However, a study that sampled private-sector facilities from three cities in Uttar Pradesh found that only 22% were FOGSI members,<sup>30</sup> indicating that there may still be a gap reaching private-sector facility owners who are unaffiliated with FOGSI. Furthermore, our findings suggest that facility owners who declined to participate in the programme were concerned about a return on investment. Thus, Manyata and similar quality improvement and assurance programmes should also seek strategic partnerships from other sectors, particularly sectors that may finance support for additional infrastructure enhancements needed to meet certain standards. Strategic partnerships have been tested in sub-Saharan Africa, providing evidence that partners such as governments, national health insurance funds and private insurance companies may be crucial elements to ensure a long-term funding mechanism.<sup>31</sup> In the years since our data were collected, Manyata has begun to forge strategic partnerships to improve the programme's credibility and sustainability, such as with the National Accreditation Board for Hospitals, insurance companies and financial institutions, and local government.<sup>32</sup> More research is needed to understand how these new partnerships affected Manyata implementation and sustainment.

Our findings reinforce that ongoing training and recertification are necessary to be incorporated into the Manyata training programme to maintain quality standards over time; however, financing and staffing perpetual training and certification is a challenge.<sup>33</sup> With the onset of COVID-19, Manyata programme participants were thrust into a virtual learning environment. Our participants noted that a blended virtual and in-person model could be important for overcoming some challenges of maintaining the programme perpetually; however, it is important to note that a complete virtual model would likely not be sufficient in most cases. A similar programme in Kerala, India, noted the need for a 'principled approach', which would allow facilities to tailor the delivery of the quality improvement programme according to local contexts while adhering to key principles.<sup>34</sup> Experience with other virtual training platforms shows the need for a human-centred design process that allows for local adaptation.<sup>35 36</sup> More research is needed to provide feasible, flexible and affordable training options that are catered towards private health facilities of different sizes, resources, rurality and levels of connectivity.

## Strengths and limitations

Our study had several strengths. We conducted a large number of qualitative interviews (n=185) among multiple participant groups (leaders, facility owners, nurses, assessors) and included perspectives from those who either did not complete or join the programme. These diverse perspectives enabled us to compare perspectives qualitatively across groups and develop a better understanding of the reach, effectiveness, adoption, implementation, maintenance and scale of Manyata. Our study had limitations that should be considered when interpreting the results. Non-joiners and dropouts were less likely to participate in our interviews than facility owners who completed the certification programme, which reduced our expected sample. Ultimately, we were only able to recruit six facility owners who dropped out of the programme and one who never joined, limiting information we were able to glean from those perspectives, although we feel that saturation of ideas was reached across other stakeholder groups. We would have liked to quantitatively assess the 'reach' of the programme to complement the qualitative perceptions of 'reach', but the relevant data was not available for each state, and this ultimately went beyond the scope of this study. The delta wave of COVID-19 overwhelmed India in April and May 2021,<sup>37</sup> interrupting data collection. While we resumed collecting data in June 2021, maternity services changed dramatically during that period, and additional strain was placed on healthcare providers. We believe that the COVID-19 pandemic could have affected how participants perceive the role of quality improvement and assurance programmes in maternity care.

## Conclusion

Manyata, a quality improvement and assurance certification programme in India, presents a valuable example for how policymakers and practitioners can fill a critical quality gap in privatesector maternity care services. Strategies for engaging with the private sector should include building strategic partnerships and messaging a value proposition that emphasises training, standardised care processes and improved quality of care. A blended virtual and in-person model may be leveraged for ongoing training and quality assurance and to scale across contexts.

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LB, MD, SD, AG, NH, KS, PS, PM and MMD contributed to the protocol development, sampling strategy and data collection. LS, LB, SD, AG, NH and MMD contributed to coding the transcripts and summarising codes. LS, SP, RC, SJ, GU, NH, KS and MMD developed the concept for the article and analysis. LS led the writing of the article. All authors critically reviewed the article, provided inputs and approved the final article. LS, SP, SKumar and MMD jointly accept full responsibility for the finished work and/or the conduct of the study, had access to the data and controlled the decision to publish.

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#### REFERENCES

- Bhutta ZA, Salam RA, Lassi ZS, *et al*. Approaches to improve quality of care (QoC) for women and newborns: conclusions, evidence gaps and research priorities. *Reprod Health* 2014;11 Suppl 2:S5.
- United Nations. Sustainable development goal 3: ensure health lives and promote well-being for all at all ages. United Nations Sustainable Development Knowledge Platform; 2017. Available: <https://sustainabledevelopment.un.org/sdg3>
- Goudar SS, Goco N, Somannavar MS, *et al*. Institutional deliveries and stillbirth and neonatal mortality in the Global Network's Maternal and Newborn Health Registry. *Reprod Health* 2020;17:179.
- Kruk ME, Gage AD, Arsenault C, *et al*. High-quality health systems in the Sustainable Development Goals era: time for a revolution. *Lancet Glob Health* 2018;6:e1196-252.
- Benova L, Macleod D, Footman K, *et al*. Role of the private sector in childbirth care: cross-sectional survey evidence from 57 low- and middle-income countries using Demographic and Health Surveys. *Trop Med Int Health* 2015;20:1657-73.
- Lattof SR, Maliqi B, Yaqub N, *et al*. Engaging the private sector to deliver quality maternal and newborn health services for universal health coverage: lessons from policy dialogues. *BMJ Glob Health* 2023;8:e008939.
- Ministry of Health and Family Welfare, Government of India. National family health survey - 5. International Institute for Population Sciences; 2021. Available: [http://rchiips.org/nfhs/NFHS-5\\_FCTS/India.pdf](http://rchiips.org/nfhs/NFHS-5_FCTS/India.pdf)
- Hulton LA, Matthews Z, Stones RW. Applying a framework for assessing the quality of maternal health services in urban India. *Soc Sci Med* 2007;64:2083-95.
- Bhate-Deosthali P, Khatri R, Wagle S. Poor standards of care in small, private hospitals in Maharashtra, India: implications for public-private partnerships for maternity care. *Reprod Health Matters* 2011;19:32-41.
- Sharma G, Powell-Jackson T, Haldar K, *et al*. Quality of routine essential care during childbirth: clinical observations of uncomplicated births in Uttar Pradesh, India. *Bull World Health Organ* 2017;95:419-29.
- Gautham M, Spicer N, Subharwal M, *et al*. District decision-making for health in low-income settings: a qualitative study in Uttar Pradesh, India, on engaging the private health sector in sharing health-related data. *Health Policy Plan* 2016;31 Suppl 2:ii35-46.
- Chakravarthi I. Regulation of Private Health Care Providers in India: Current Status, Future Directions. *Ind J Public Adm* 2018;64:587-98.
- Tripathi S, Srivastava A, Memon P, *et al*. Quality of maternity care provided by private sector healthcare facilities in three states of India: a situational analysis. *BMC Health Serv Res* 2019;19:971.
- Nair TS, Memon P, Tripathi S, *et al*. Implementing a quality improvement initiative for private healthcare facilities to achieve accreditation: experience from India. *BMC Health Serv Res* 2023;23:802.
- Delaney MM, Usmanova G, Nair TS, *et al*. Does Quality Certification Work? An Assessment of Manyata, a Childbirth Quality Program in India's Private Sector. *Glob Health Sci Pract* 2022;10:e2200093.
- Jain Y, Chaudhary T, Joshi CS, *et al*. Improving quality of intrapartum and immediate postpartum care in public facilities: experiences and lessons learned from Rajasthan state, India. *BMC Pregnancy Childbirth* 2022;22:586.
- Holtrop JS, Rabin BA, Glasgow RE. Qualitative approaches to use of the RE-AIM framework: rationale and methods. *BMC Health Serv Res* 2018;18:177.
- Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the RE-AIM framework. *Am J Public Health* 1999;89:1322-7.
- Unable to find information for 16678882.
- Backhouse A, Ogunlayi F. Quality improvement into practice. *BMJ* 2020;368:m865.
- National Health Systems Resource Centre. Technical support institute with national health mission. National Quality Assurance Standards. 2024 Available: <https://nhsrcindia.org/national-quality-assurance-standards>
- Marx Delaney M. Improving Quality of Newborn and Child Health Services in Private Facilities: Lessons from Manyata Project in India. *CHTF* 2022.
- Liwanag HJ, Rhule E. Dialogical reflexivity towards collective action to transform global health. *BMJ Glob Health* 2021;6:e006825.
- McBain RK, Sousa JL, Rose AJ, *et al*. Impact of Project ECHO Models of Medical Tele-Education: a Systematic Review. *J Gen Intern Med* 2019;34:2842-57.
- Arora S, Kalishman S, Thornton K, *et al*. Project ECHO (Project Extension for Community Healthcare Outcomes): A National and Global Model for Continuing Professional Development. *J Contin Educ Health Prof* 2016;36 Suppl 1:S48-9.
- Goodman C, Gautham M, Iles R, *et al*. The Nature of Competition faced by Private Providers of Maternal Health Services in Uttar Pradesh, India. *Health Policy Plan* 2017.
- Bogren M, Mwambali SN, Berg M. Contextual factors influencing a training intervention aimed at improved maternal and newborn healthcare in a health zone of the Democratic Republic of Congo. *PLoS One* 2021;16:e0260153.
- Menon A, Arora P. Maternal health: Challenges and the way forward. *Med J Armed Forces India* 2021;77:121-4.
- Bodade AG, Bodade RG. National Accreditation Board for Hospitals and Healthcare Accreditation System for healthcare sector in India. *MGM J Med Sci* 2021;8:66-72.
- Gautham M, Bruxvoort K, Iles R, *et al*. Investigating the nature of competition facing private healthcare facilities: the case of maternity care in Uttar Pradesh, India. *Health Policy Plan* 2019;34:450-60.
- Johnson MC, Schellekens O, Stewart J, *et al*. SafeCare: An Innovative Approach for Improving Quality Through Standards,

- Benchmarking, and Improvement in Low- and Middle- Income Countries. *Jt Comm J Qual Patient Saf* 2016;42:350–71.
- 32 Mandal T, Sharma S. FOGSI inks mou with nabh to collaborate for improving quality standards for maternal healthcare in india. *Business Wire India*; 2022. Available: <https://www.businesswireindia.com/fogsi-inks-mou-with-nabh-to-collaborate-for-improving-quality-standards-for-maternal-healthcare-in-india-80400.html>
- 33 King JJC, Powell-Jackson T, Makungu C, *et al*. Effect of a multifaceted intervention to improve clinical quality of care through stepwise certification (SafeCare) in health-care facilities in Tanzania: a cluster-randomised controlled trial. *Lancet Glob Health* 2021;9:e1262–72.
- 34 Vlad I, Paily V, Sadanandan R, *et al*. Improving quality for maternal care - a case study from Kerala, India. *F1000Res* 2016;5:166.
- 35 Layer E, Slim S, Mussa I, *et al*. The Journey of Zanzibar's Digitally Enabled Community Health Program to National Scale: Implementation Report. *JMIR Med Inform* 2023;11:e48097.
- 36 Bartlett L, Avery L, Ponnappan P, *et al*. Insights into the design, development and implementation of a novel digital health tool for skilled birth attendants to support quality maternity care in Kenya. *Fam Med Community Health* 2021;9:e000845.
- 37 Samieefar N, Rashedi R, Akhlaghdoust M, *et al*. Delta Variant: The New Challenge of COVID-19 Pandemic, an Overview of Epidemiological, Clinical, and Immune Characteristics. *Acta Biomed* 2022;93:e2022179.