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HOW INDIA'S PRIVATE HOSPITALS ARE **Catalysing Change**

for Maternal, Infant and Young Child Nutrition

QUALITY IMPROVEMENT CASE STUDIES FROM PRIVATE HOSPITALS IN BIHAR

JANUARY 2023

BACKGROUND

In India, more than 60% of the healthcare infrastructure is private. Half of all births in urban areas and a quarter of all births in rural areas take place in private facilities. With the right support, private hospitals and clinics can play a critical role in delivering essential maternal, infant and young child nutrition (MIYCN) services through their standard care for women and children.

In 2019, Alive & Thrive (A&T) partnered with leading medical professionals and medical colleges in Uttar Pradesh and Bihar to develop an integrated package of MIYCN protocols that were based on global and national standards. These protocols included services such as counselling on diet and micronutrient supplements, gestational weight tracking during antenatal care, initiating breastfeeding within an hour of birth, and counselling on exclusive breastfeeding and complementary feeding. After successfully supporting several teaching hospitals to adopt the new protocols, A&T expanded its efforts to private hospitals in the region.

These case studies from Tripolia Social Service Hospital and Kurji Holy Family Hospital demonstrate the application of Point of Care Quality Improvement (POCQI) to improve early initiation of breastfeeding. They serve as an example for other private hospitals hoping to facilitate similar changes to longstanding procedures.

By involving and empowering frontline health workers to apply the latest scientific evidence, we can collectively improve MIYCN service delivery and have a lasting impact on the health and wellbeing of women and children.

POINT OF CARE QUALITY IMPROVEMENT

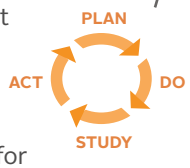
Point of Care Quality Improvement (POCQI) is a systematic methodology to identify and solve problems with the aim of improving practices. It was developed by the World Health Organization (WHO), USAID Applying Science to Strengthen and Improve Systems (ASSIST) Project and All India Institute of Medical Sciences (AIIMS). It uses a 4-step process to address gaps between the current practices and desired standards.

4-Step POCQI Framework

1. **Identify a problem, form a team and define the aim**
2. **Analyse and measure the quality of care**
3. **Develop and test changes**
4. **Sustain improvements**

PDSA applied here

PLAN-DO-STUDY-ACT



Plan-Do-Study-Act (PDSA) is a cycle used to test the effectiveness of a change. It is used for action-oriented learning and was applied during Step 3 of POCQI to check the effectiveness of changes and integrate the changes into existing systems.

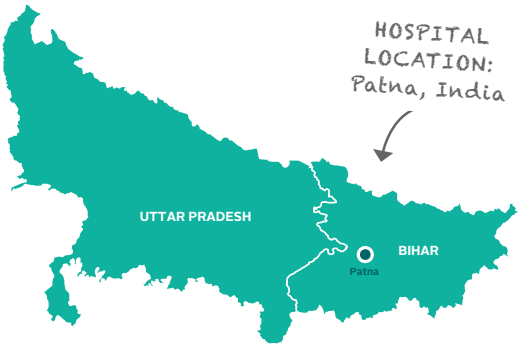
Early Initiation of Breastfeeding
in C-Section and Normal Vaginal Deliveries

TRIPOLIA SOCIAL SERVICE HOSPITAL, PATNA

BIHAR STATE

DR SARITA SINHA | TRIPOLIA SOCIAL SERVICE HOSPITAL

Health workers help a mother breastfeed her child immediately after C-section delivery at Tripolia Social Service Hospital, Patna. Before A&T's quality improvement initiative, EIBF was rarely practiced and delays to initiate breastfeeding were anywhere from 5-24 hours or more. After the first month of addressing the delays with Point of Care Quality Improvement, breastfeeding was initiated within the first hour for more than 70% of deliveries.



ABOUT THE HOSPITAL

Tripolia Social Service Hospital is a tertiary care referral facility with competent gynaecology and obstetrics and pediatrics departments. The hospital has a well-equipped operation theatre and a neonatal and pediatric intensive care unit. It conducts about 300 deliveries every month, out of which approximately one-third are normal vaginal deliveries and two-thirds are C-section deliveries.

In 2019, Tripolia Social Service Hospital was one of the first private hospitals to adapt the standard MIYCN protocols developed by A&T. To initiate the process at the hospital, A&T visited the facility, engaged the hospital's management, and trained eight doctors and 71 nurses on the POCQI approach. After the training, a team from the hospital applied the four steps of POCQI to identify a problem and test a solution. Their experience improving early initiation of breastfeeding is documented in the POCQI steps that follow.

1 IDENTIFY A PROBLEM, FORM A TEAM AND DEFINE THE AIM

The Team

Local ownership is often the driving force of quality improvement efforts. After the POCQI training, the hospital leadership formed a team of doctors and nurses who are on the "front lines" of maternal and child healthcare. This team of clinicians was best positioned to tackle the gaps in MIYCN services because they understood the ins and outs of the hospitals processes and would be there to sustain and potentially scale the changes if they proved to be effective.

The Problem

The team worked with a QI expert to compare the hospital's existing services with the global benchmarks for MIYCN. After realizing that they couldn't address all the gaps at once, they prioritized early initiation of breastfeeding (EIBF) within one hour of birth—a globally recommended practice known to reduce infection-specific neonatal mortality. They believed it would be relatively easy to improve, require no additional costs, and would lead to significant benefits for newborn health and survival.

The Aim

Since the hospital didn't have any existing data on the timing of breastfeeding, the team determined that the aims would be based on the situation at the start of the POCQI intervention. They set the intervention period for two months with the following aims for deliveries occurring at their hospital:

SMART AIMS

TIMEFRAME: September–October 2019

- Increase EIBF in non-complicated C-section deliveries by 40% in two months
- Increase EIBF in normal vaginal deliveries by 30% in two months

.

TEAM MEMBERS

Sister Celestine Mathias
Administrator

Dr Sarita Sinha
Senior Resident Medical Officer

Dr Veena Sinha
Senior Resident Medical Officer

Dr Reshmi Kumari
Resident Surgical Officer

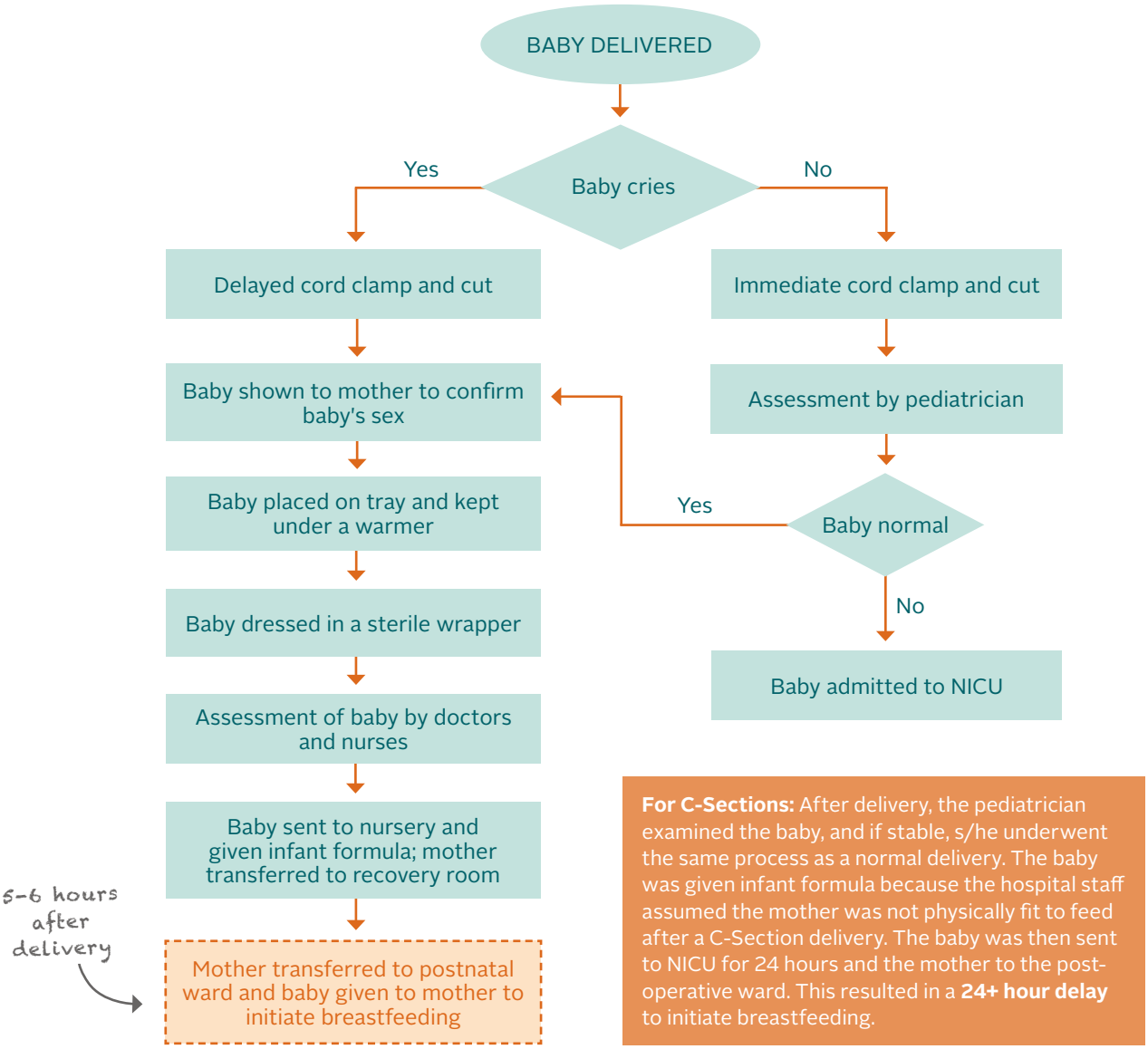
Sister Jagrani Tigga
Operating Theatre Nurse, Labour Room and C-OT

2 ANALYSE AND MEASURE THE QUALITY OF CARE

The Analysis

The team observed normal vaginal deliveries and non-complicated C-section deliveries using a process mapping tool to chart the steps from the time of delivery to the point that the newborn was handed over to the mother for breastfeeding (Figure 1).

FIGURE 1. The process for normal vaginal deliveries before quality improvement



The Quality Gap

Based on the observations, the following issues were identified:

- There was no defined system or guideline for measuring EIBF.
- The post-operative ward for mothers, the C-section operation theatre (OT) and the nursery were on separate floors, increasing the separation time of mother and newborn.
- After babies were taken to the nursery, they weren't handed over to their mothers until the mothers reached the postnatal/post-operative ward after delivery.
- There was no counselling of mothers and families on EIBF.
- There was no proper data recording mechanism.

3 DEVELOP AND TEST CHANGES

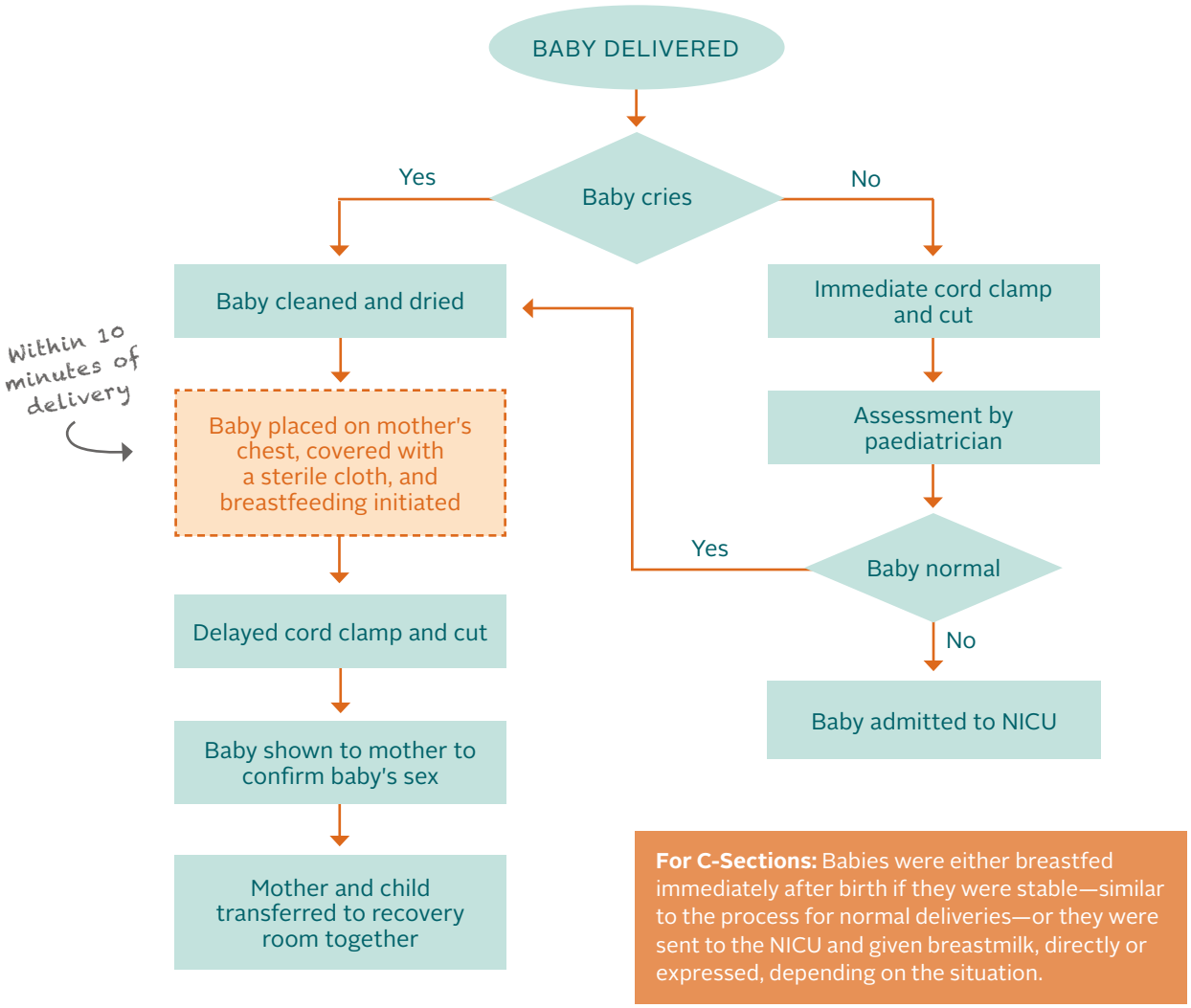
The Intervention

Within this step, the QI team applied the Plan-Do-Study-Act (PDSA) cycle to develop and test the changes in EIBF for normal deliveries and non-complicated C-Section deliveries.

Planning the Changes

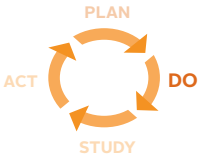
First, the QI team hypothesized what potential changes might improve the process. For non-complicated, normal vaginal deliveries, they agreed that EIBF was to be initiated in the labour room with on-duty nurses facilitating skin-to-skin contact. For non-complicated C-Section deliveries, EIBF was to be started on the OT table within 10-15 minutes of the delivery, instead of initiating in the nursery. They created new process maps with the changes that would ensure EIBF could occur within one hour of delivery (Figure 2).

FIGURE 2. The new process for normal vaginal deliveries after quality improvement



After agreeing on the key changes, the team decided to test them in a small number of deliveries, but first they determined who would be responsible for new tasks like recording data, counselling families and supporting other clinicians with the changes. They agreed on the following roles:

- One staff nurse in the labour room and one in the OT would be responsible for recording the time of initiation of breastfeeding after every delivery.
- The QI team leader would counsel mothers and families on EIBF.
- The trained nurses with the support of trained doctors would support mothers to breastfeed before they were shifted out of the OT or Labour Room.
- The sister-in-charge of the OT and labour room was trained and would lead the process for initiating breastfeeding on the OT or labour table by providing necessary support.

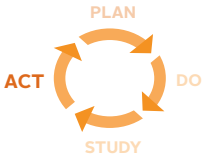


Doing the Test

In September 2019, the team began testing the changes. Within the first month they saw rapid improvements despite some initial challenges to address.

Studying the Change Process

To study the process, the team met every week and examined what was working well and what areas needed improvement. They found that there were some positive actions that were reinforcing the process, and they found a couple gaps that needed additional support. (See their analysis in the sidebar.)



Acting on the Study Findings

Based on the findings, the nursing staff started cleaning and drying the baby quickly before placing the baby directly on the mother's chest for skin-to-skin contact, self-attachment and initiation of breastfeeding.

In response to the recording challenges, the nursing staff began documenting the time of initiation of breastfeeding, the type of delivery and the type of complications (if there were any) in the delivery register.

After the initial trial, the sister-in-charge and the doctor in the team trained other nurses and doctors to initiate breastfeeding for both C-section and normal delivery so that the changes could be implemented for all deliveries.

The Results

After the first month, 82% of non-complicated normal deliveries and 70% of non-complicated C-Section deliveries initiated breastfeeding within one hour (Figure 3). Continuous monitoring and handholding were important to address any dips and sustain the improvements. There is no data available between March 2020 to November 2020 because the hospital was converted to a COVID-19 management hospital and no deliveries took place during this time. In February 2021, the hospital once again achieved 90% EIBF for all the deliveries (normal and C-Section) for two continuous months.

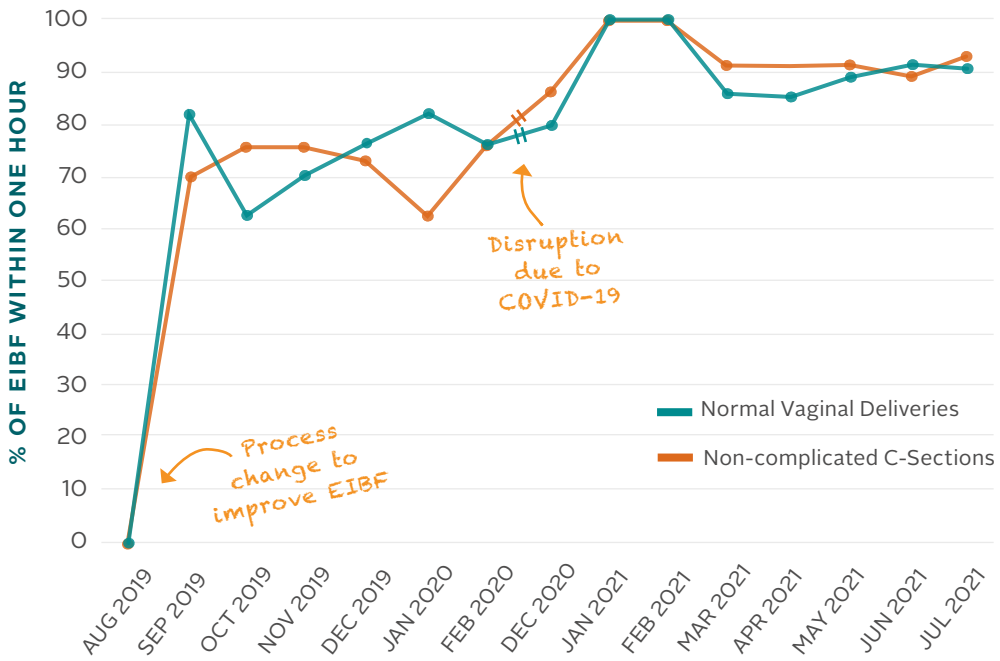
WHAT WORKED WELL?

- The POCQI training helped the hospital staff understand how to observe processes with the intent of identifying issues and systematically making adjustments to optimise maternal and newborn care.
- The C-Section QI team leader started counselling expectant parents on EIBF as early as possible to create a support system for EIBF.
- With permission from hospital authorities and consent from mothers, the QI lead used actual photographs of EIBF to prepare and instill confidence in mothers and family members for EIBF after C-section deliveries.

WHAT WERE THE GAPS?

- It was observed that the nursing staff was handing over the baby to the mother to help her initiate breastfeeding without an initial cleaning and drying, which was not the intended practice.
- Recording of the time of the initiation of breastfeeding was not done properly.

FIGURE 3. Percentage of EIBF in normal vaginal and non-complicated C-section deliveries



4 SUSTAIN IMPROVEMENTS

The Way Forward

The hospital initiated the following steps to sustain the changes:

- The QI team from the hospital is maintaining data on EIBF on a weekly basis. Progress is continually assessed using a time series chart. Any lapse is being noted and action is being taken to close the gap.
- The hospital is now issuing official communication in the form of letters to the doctors from obstetrics, gynaecology and paediatrics, as well as the nursing staff to be particular about initiating breastfeeding within an hour of birth in the OT and maintain records on EIBF.
- The new EIBF processes are part of the hospital system as the standard operating procedures have been updated to enable EIBF.

CONCLUSION

Tripolia Social Service Hospital stands as a key milestone in the journey of improving MIYCN indicators in private hospitals. The QI initiative was implemented and achieved desired outcomes using the hospital's existing resources. The initial POCQI training, motivation of the hospital staff, as well as the leadership of the administration, were pivotal in bringing about the change.

"After the training given by Alive & Thrive, we decided to work on the initiation of breastfeeding in C-section and normal vaginal deliveries. This QI approach is one of the best approaches to achieve a set of goals, as the goals are defined and there is a dedicated team to work on it. The tireless work of the team has resulted in inspiring achievements towards improving the quality of care in our hospital."

—Dr Sarita Sinha, Senior Resident Medical Officer

Early Initiation of Breastfeeding
in C-Section and Normal Vaginal Deliveries

KURJI HOLY FAMILY HOSPITAL, PATNA

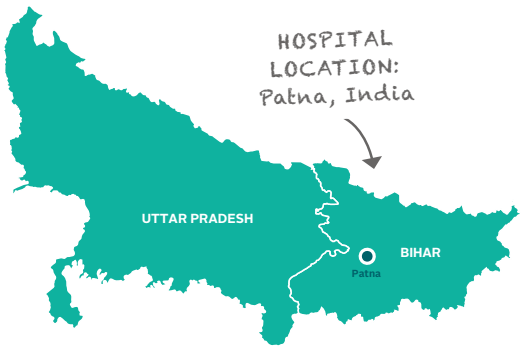
BIHAR STATE

SISTER PRASANA KUJUR | KURJI HOLY FAMILY HOSPITAL

A health worker helps a mother breastfeed her child immediately after delivery at Kurji Holy Family Hospital. Before A&T's quality improvement initiative, EIBF within one hour was rarely practiced. After the first month of addressing the delays with Point of Care Quality Improvement, breastfeeding was initiated within the first hour for more than 70% of deliveries.

ABOUT THE HOSPITAL

Kurji Holy Family Hospital is a tertiary-level facility offering multiple disciplines of specialized care including obstetrics, gynaecology and paediatrics. As a major provider of Patna's maternal and child health services, the hospital conducts about 450-500 deliveries per month, of which about 200 are normal vaginal deliveries and 250 are C-Section deliveries.



In July 2019, A&T met with the hospital's leadership to lay the groundwork for the quality improvement initiative for MIYCN. The institute's head, Juliana D'Cunah, was wholeheartedly in favor of the approach because it aligned with the hospital's intent to become a mother- and baby-friendly facility. QI experts from A&T engaged various departments responsible for normal and C-section deliveries and trained 24 doctors and 73 nurses on the implementation of MIYCN protocols and the POCQI approach. After the training, a team from the hospital applied the 4 steps of POCQI to identify a problem and test a solution. Their experience improving early initiation of breastfeeding is documented in this case study.

1 IDENTIFY A PROBLEM, FORM A TEAM AND DEFINE THE AIM

The Team

After the POCQI training, the hospital's leadership formed a team of doctors and nurses who were involved in the day-to-day delivery of maternal and child health services. By including a variety of positions—department leader, medical officer and nurses—the team was able to fully understand the existing processes and practices for MIYCN services.

The Problem

The team worked with a QI expert to conduct a situation analysis. They compared the hospital's services with the global benchmarks for MIYCN and decided to address early initiation of breastfeeding (EIBF) within one hour of birth.

The Aim

Since the hospital didn't have any existing data on the timing of breastfeeding, the team determined that the aims would be based on the situation at the start of the POCQI intervention. In August 2019, they set the intervention period for two months with the following aims for deliveries occurring at their hospital:

SMART AIMS

- Increase EIBF in non-complicated C-section deliveries by 30% in two months
- Increase EIBF in normal vaginal deliveries by 50% in two months

.

TEAM MEMBERS

Dr Meena Samant
Head of Department, OB/GYN

Dr Anjali Thakur
Medical Officer

Sister Punam Pyari Kujur
Nursing Directress

Sister Prasanna Kujur
Asst Nursing Directress
In Charge – Delivery Room

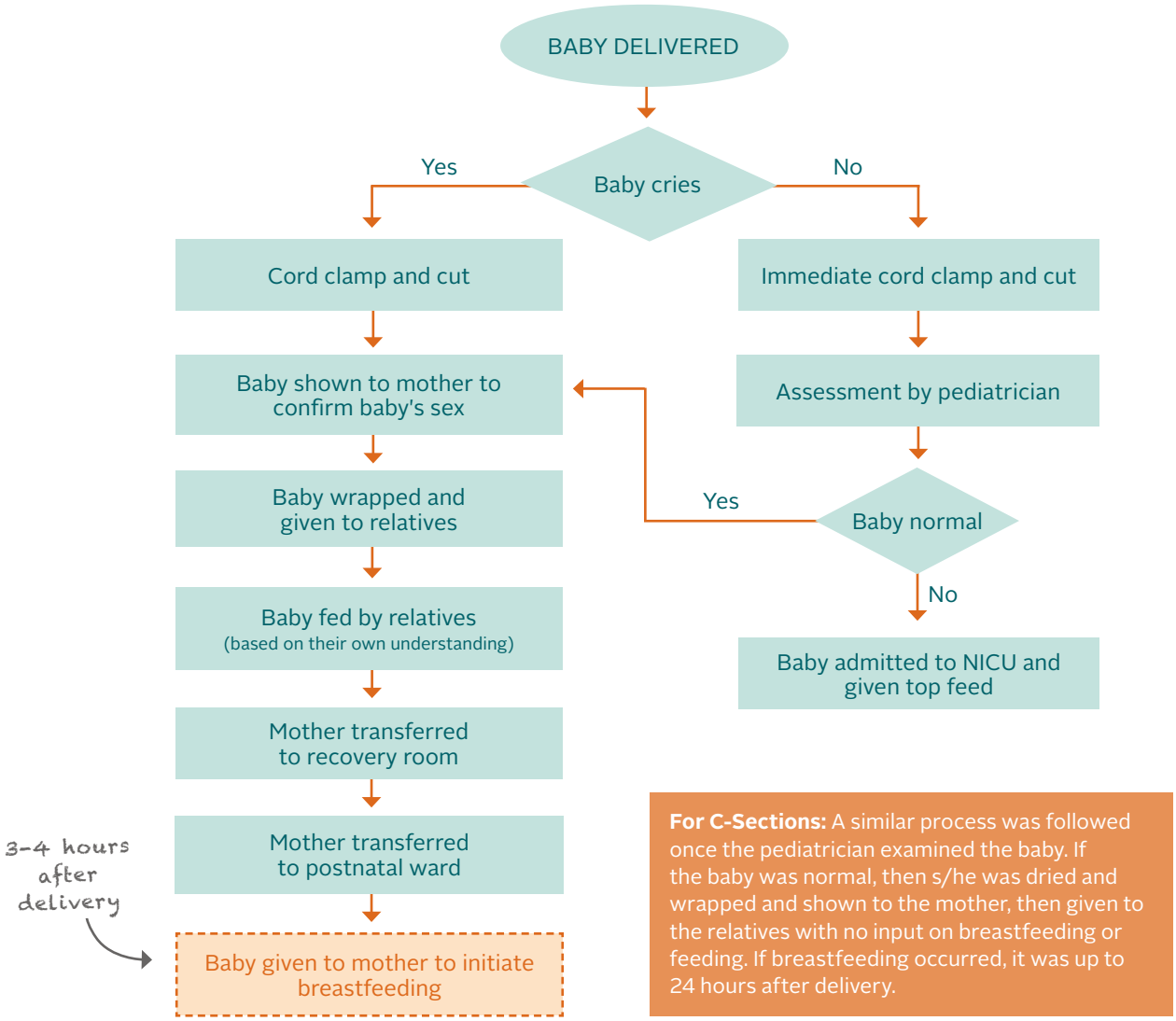
Sister Salomi Ekka
Staff Nurse

2 ANALYSE AND MEASURE THE QUALITY OF CARE

The Analysis

The team conducted a baseline study of non-complicated, normal vaginal deliveries and non-complicated C-section deliveries using a process mapping tool to chart the steps from the time of delivery to the point that the newborn was handed over to the mother for breastfeeding (Figure 4).

FIGURE 4. The process for vaginal deliveries before quality improvement



The Quality Gap

Based on the observations, the following issues were identified:

- There were no hospital policies to promote or support immediate skin-to-skin contact between mothers and babies or policies for EIBF.
- Newborns were always taken to the hospital's nursery after birth.
- Not only were skills and confidence lacking, but there was also resistance among nursing staff and doctors to support EIBF in C-section deliveries.
- After both normal and C-section deliveries, mothers were kept in recovery for 6-24 hours, which delayed breastfeeding until the mother and children were reunited.
- There was no counselling of mothers and families on EIBF.
- There was no proper data recording mechanism.

3 DEVELOP AND TEST CHANGES

The Intervention

Within this step, the QI team applied the Plan-Do-Study-Act (PDSA) cycle to develop and test the changes in EIBF for normal deliveries and non-complicated C-Section deliveries.

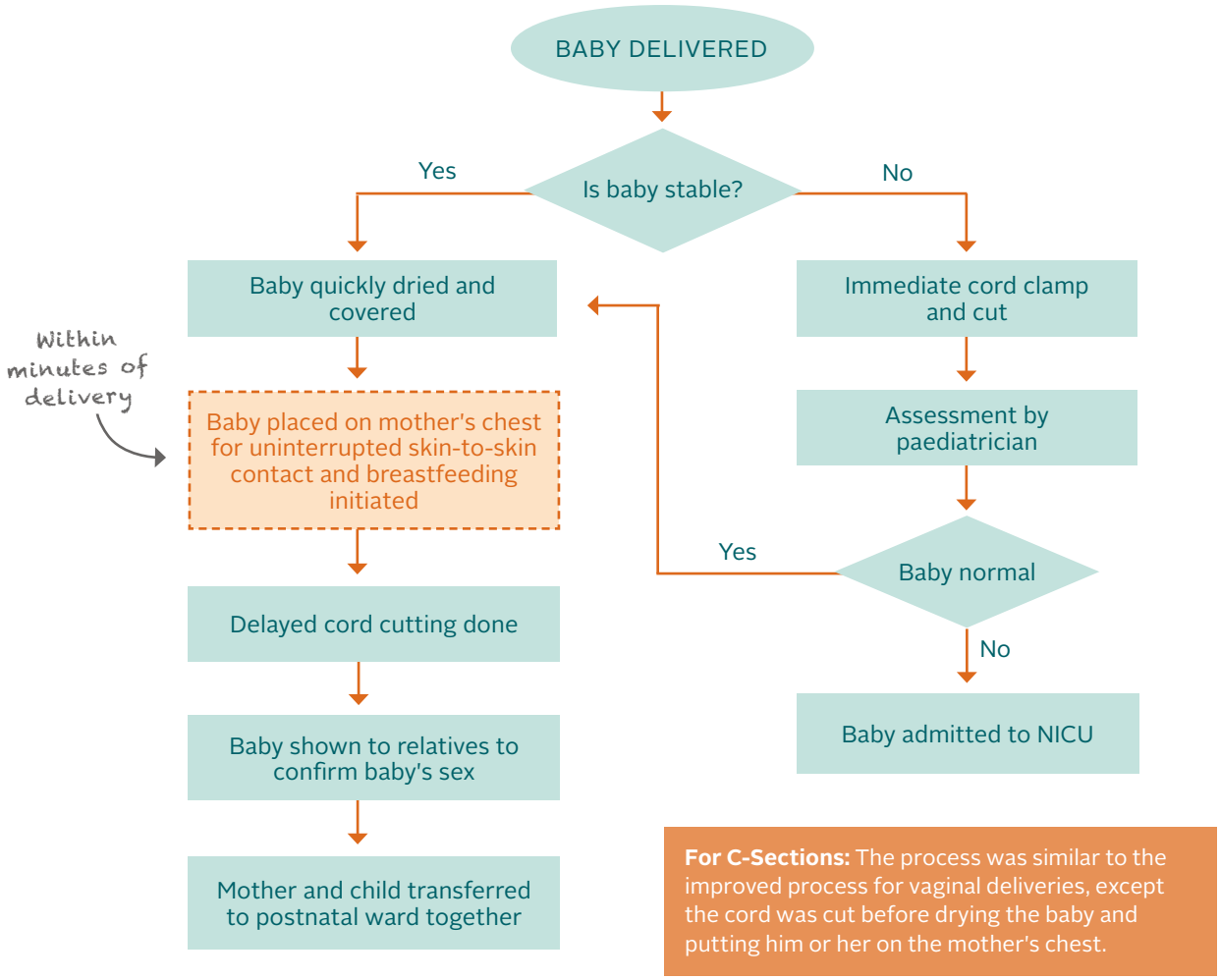
Planning the Changes

First, the QI team hypothesized what potential changes might improve the process. They agreed to the following changes:

1. Rather than initiating breastfeeding after the mother was transferred to the postnatal ward, they would support immediate skin-to-skin contact and initiation of breastfeeding in the labour room.
2. The baby would remain with mother and be seen by relatives only after breastfeeding was initiated and skin-to-skin contact was maintained for at least one uninterrupted hour.
3. They would start documenting the time of breastfeeding to track their progress.

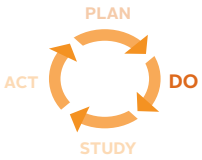
They created new process maps with the changes that would ensure EIBF could occur within one hour of delivery (Figure 5).

FIGURE 5. The new process for vaginal deliveries after quality improvement



After agreeing on the key changes, the team determined who would be responsible for the new tasks. They agreed on the following roles:

- The QI team members would be responsible for EIBF immediately after delivery.
- The nurses would be responsible for ensuring the baby was shown to the relatives after EIBF and skin-to-skin contact occurred for one hour.
- The nurse on duty in the delivery room was entrusted to note the time of breastfeeding in the column next to the time of birth.
- The QI team would be responsible for observing the process after introducing the changes and making adjustments as needed.

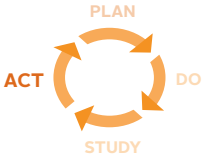


Doing the Test

In September 2019, the team began testing the changes. Within the first month they saw improvements despite some initial challenges.

Studying the Change Process

The QI team met regularly to examine what was working well and what needed improvement. They found that the changes were well-received by the mothers and their relatives, but initially the process changes met resistance with some of the nursing staff. (See sidebar.)



Acting on the Study Findings

The QI team determined that some nursing staff needed to learn more about EIBF. A follow-up training conducted by the hospital's previously trained doctors was held with support from A&T's QI experts. The one-day training of 30 nurses focused on how to support EIBF and highlighted the significance of the nurses' role in initiating breastfeeding. The training successfully created buy-in for the new process.

To standardize the process, new guidelines were introduced to ensure immediate skin-to-skin contact and no separation of baby and mother in the first one hour. These guidelines have been implemented by nurses.

The Results

While the hospital did not meet their QI targets of a 30% and 50% increase in EIBF within the first two months, they did see steady improvement. EIBF for normal vaginal deliveries jumped from 53% in September 2019 to 76% in November 2019. For non-complicated C-section deliveries, EIBF increased from 8% in September 2019 to 26% in November 2019. (Figure 6).

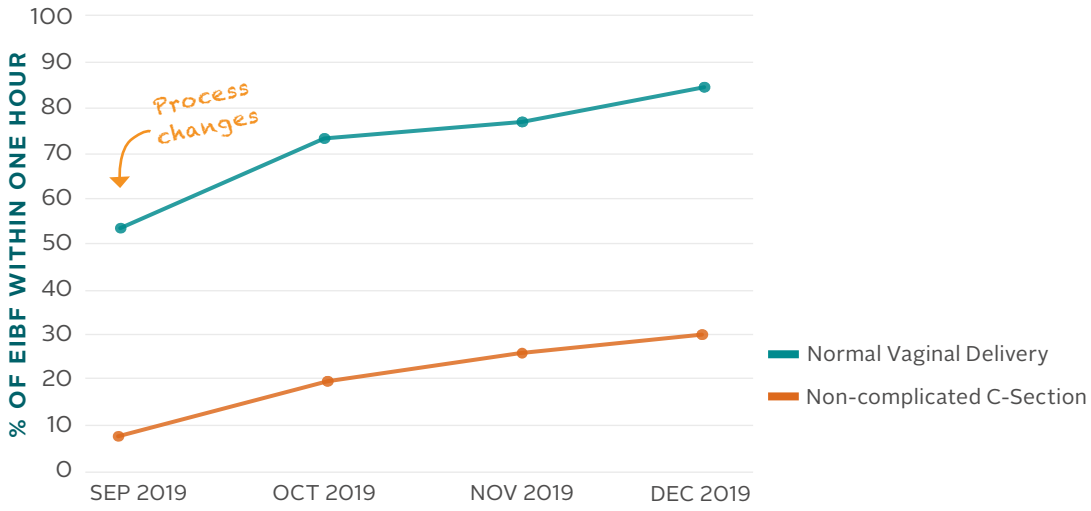
WHAT WORKED WELL?

- The mothers and relatives accepted the process change without any complaints.
- The nurse on duty accepted responsibility for recording the time of breastfeeding, and this was seen as a useful, doable task.
- The changes did not require any additional staff.

WHAT WERE THE GAPS?

- Some of the nursing staff who lacked MIYCN training were reluctant to initiate breastfeeding within an hour of birth. These nurses were used to the previous process that had been in place for many years, and without refresher trainings to introduce the latest global evidence for EIBF, they relied on their previous training.

FIGURE 6. Percentage of EIBF in normal vaginal and non-complicated C-section deliveries



4 SUSTAIN IMPROVEMENTS

The Way Forward

To sustain the changes, the QI team and hospital leadership have continued to monitor the practice through monthly data-review meetings and regular troubleshooting.

From 2020-2021, the hospital struggled to consistently maintain the higher rates of EIBF, largely due to the impact of the COVID-19 pandemic, but recent data indicate that the improved processes have been normalized and have become widely accepted in the hospital. EIBF rates from April–June 2022 averaged above 95% for normal vaginal deliveries and around 90% for non-complicated C-section deliveries.

CONCLUSION

The initial trainings motivated the hospital staff and were pivotal in improving the indicators for EIBF. Success also hinged on the staff and leadership's willingness to adopt the improved practices, integrate them into the hospital's policies and protocols, and monitor progress through better data collection and regular review. Changes to standard operating procedures can be difficult for staff, particularly when they don't understand or agree with the rationale for the changes. Kurji Holy Family Hospital has shown that these barriers can be overcome by engaging staff in the change process. They have demonstrated how private hospitals can be instrumental in improving indicators for maternal, infant and young child nutrition.

"Training, retraining and understanding the importance of breastfeeding worked very well for the hospital doctors and nurses. EIBF in normal vaginal deliveries and lower segment C-sections were included in the protocol and included in the ward teaching by the trained nurses and doctors. This has sustained the program."

—Dr Meena Samant, Head of Department, OB/GYN

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