HOW INDIA’S DISTRICT AND SUB-DISTRICT FACILITIES ARE
Catalysing Change
for Maternal, Infant and Young Child Nutrition

QUALITY IMPROVEMENT CASE STUDIES FROM DISTRICT AND SUB-DISTRICT FACILITIES

MAY 2023
BACKGROUND

Health facilities are crucial touchpoints for improving nutrition outcomes for newborns/infants, children, and women. For leveraging these platforms, Alive & Thrive (A&T) collaborated with government medical colleges and affiliated hospitals in Uttar Pradesh and Bihar to undertake a point of care quality-focused approach for strengthening maternal, infant, and young child nutrition (MIYCN) service delivery. The first phase of the initiative, which began in 2019, focused on implementing interventions using the Point of Care Continuous Quality Improvement (POCQI) approach at select medical college hospitals (tertiary care level). An encouraging success rate in the first phase resulted in the cascading and amplification of quality improvement (QI) interventions to both private and public health facilities.

Secondary level health care facilities of district hospitals and community health centres (CHCs) were selected as sites for amplifying the POCQI approach considering their strategic placement within the Indian public health system. This document captures case studies from pilots conducted in a district hospital and a community health centre (CHC) to demonstrate the effectiveness of the POCQI approach for strengthening the quality of MIYCN services and ensuring that prescribed protocols and guidelines are followed.

The facilities include Muzaffarpur District Hospital, located in Muzaffarpur, Bihar and Vinod Dixit Hospital, Kannauj, which is a CHC in Uttar Pradesh. The interventions in both facilities were supported by trained faculty from local medical college hospitals located in the districts who had implementation experience in strengthening MIYCN service delivery. Sri Krishna Medical College and Hospital (SKMCH) supported the intervention in Muzaffarpur while the Government Medical College in Kannauj supported the intervention there.

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

PLAN-DO-STUDY-ACT

PDSA is a cycle 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 feasibility of changes and integrate the changes into existing systems.
Muzaffarpur District Hospital is one of the largest public healthcare providers in the district and nearby region. Every month, an average of 300 babies are born at the hospital—approximately 250 are normal vaginal deliveries and 50 are Cesarean section deliveries (C-sections). The facility provides both outpatient- and inpatient-based maternal, newborn and child health services.

**TRAINING OF SERVICE PROVIDERS**

In November 2021, a two-day training was conducted for 13 doctors and 38 nurses of Muzaffarpur District Hospital on evidence based MIYCN service delivery using a POCQI approach, by trained medical college faculty from Sri Krishna Medical College and Hospital and experts from A&T. The trainees also included doctors and nurses of Sakra Referral Hospital and Kanti Community Health Centre in Muzaffarpur. Faculty from the medical college also shared best practices on improving early initiation of breastfeeding (EIBF) with participants.

Hospital staff assisting a mother to initiate breastfeeding immediately after birth at Muzaffarpur District Hospital. Before the intervention, early initiation of breastfeeding was rarely practiced at the hospital.
FORMING THE TEAM, IDENTIFYING THE PROBLEM, AND ESTABLISHING THE AIM

After the POCQI training, experts provided ongoing support as select Muzaffurpur District Hospital staff formed a QI team and applied the 4-Step POCQI Framework to improve MIYCN services. Though EIBF has been associated with optimal development and reduced neonatal mortality rates globally, the EIBF practices at the hospital were suboptimal, resulting in a missed critical opportunity. There was a delay of 1–4 hours in the initiation of breastfeeding after deliveries and the hospital neither promoted nor practiced EIBF in case of C-section deliveries. In addition, there was no structured counselling and support for mothers and their families on exclusive breastfeeding and maternal nutrition post-delivery. A significant contact point to impart awareness on the importance of exclusive breastfeeding for optimal physical and cognitive development of children and adequate maternal nutrition postpartum was not being optimally leveraged.

As part of the QI team, doctors and nurses identified two major gap areas and decided to work on these as a part of the intervention:

- Increasing EIBF rates in non-complicated C-section deliveries
- Increasing and improving the quality of postpartum counselling

Two specific aims were chosen post training, whereby a full set of activities was developed using the Plan, Develop, Study and Act (PDSA) cycle to close the identified gaps. The QI team split into two teams to address the specific aims selected. QI team members were comprised of hospital staff including doctors, nurses and female general duty assistants working in labour rooms and operating theatres.

SPECIFIC AIMS SELECTED

- **Aim 1:** Improving EIBF in non-complicated C-section deliveries from 0% to 40% in 3 months
- **Aim 2:** Increasing maternal nutrition and infant feeding counselling from 0% to 40% in postnatal wards in 3 months

QI TEAM MEMBERS

**TEAM 1: EIBF**

- Dr Rashmi Rekha
  Gynaecologist
- Dr M N Kamal
  Pediatrician
- Ms Aayushi Kumari
  General Nurse
- Sister Jyoti Kumari
  Operating Theatre Senior Staff Nurse
- Sister Kiran Kumari
  Auxiliary Nurse
- Ms Anupama Kumari
  General Nurse In-charge II, Labour room
- Ms Savitri Sinha
  General Nurse, Labour room
- Ms Kanta Bara
  General Nurse In-charge I, Labour room

**TEAM 2: COUNSELLING**

- Dr Chinmey Sharma
  Pediatrician (team lead)
- Sister Reeta
  General Nurse In-charge, Maternity ward
- Sister Sabita Kumari
  Auxiliary Nurse, Maternity ward
- Sister Amrita
  Auxiliary Nurse, Labour room
AIM 1: IMPROVING EIBF IN NON-COMPLICATED C-SECTION DELIVERY FROM 0% TO 40% WITHIN 3 MONTHS

ANALYZE AND MEASURE THE QUALITY OF CARE

With support from hospital leadership, the QI team analyzed underlying factors causing delays in EIBF by observing non-complicated C-section deliveries and developing a process map. It was noted that newborns were dried and wrapped, vitals were checked, Vitamin K injections were given, and then babies were handed over to accompanying family members. Newborns were not brought to mothers until they were sent to the postnatal ward, leading to a delay of 1-4 hours in initiating breastfeeding. Further analysis by the QI team revealed that EIBF was considered difficult for all C-section deliveries, and the staff present at the time of C-section were not confident to take the initiative to start breastfeeding immediately.

FIGURE 1: Process flow chart before the intervention

Developing a Measurement System

The QI team was aware of the absence of an EIBF recording procedure and observed that the time of initiation of breastfeeding in the C-section deliveries was not being documented. The team developed a system whereby the staff nurse present during the deliveries was assigned responsibility to record the data in a new column added to the birth register. A decision was taken by the QI team to review this data on a weekly basis after completion of the first PDSA cycle.
DEVELOPING AND TESTING

The QI team developed the changes to be implemented and tested these changes. Table 1 outlines the PDSA cycle and steps to improve EIBF.

TABLE 1: Steps under PDSA cycle to improve EIBF in C-section deliveries

<table>
<thead>
<tr>
<th>Change Idea Tested</th>
<th>Plan</th>
<th>Do</th>
<th>Study</th>
<th>Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing time of separation between mother and child for EIBF after C-section delivery in non-complicated cases.</td>
<td>The team assigned a staff nurse to support the EIBF in OT.</td>
<td>Skin-to-skin contact with mother was initiated post quick drying, and breastfeeding was commenced within an hour in the operating room itself.</td>
<td>Separation time between mother and newborn was reduced. There was no significant reluctance on part of family members/mother.</td>
<td>Breastfeeding before shifting mother to post-natal ward was found to be doable and the change idea was accepted.</td>
</tr>
<tr>
<td>Spinal anaesthesia for non-complicated C-section deliveries instead of using general anesthesia.</td>
<td>The team planned to test the feasibility of administering spinal anaesthesia to mothers in C-section deliveries to increase chances of breastfeeding within an hour.</td>
<td>Spinal anaesthesia was given to the mother.</td>
<td>Permission was required for anaesthesia.</td>
<td>Counselling of the mother and family in advance on the need and benefits of spinal anaesthesia in C-section deliveries and significance of EIBF was undertaken which helped mitigate this challenge. The change idea was accepted and integrated as part of the intervention.</td>
</tr>
</tbody>
</table>

Post PDSA cycle, the team is having regular meetings to monitor the progress and mitigate any challenges that occur. The changes have been amplified to all the C-section deliveries. The changed process is depicted in figure 2.

FIGURE 2: Post intervention process flow chart
Key Outcomes and Results
Data shows that EIBF rates in non-complicated C-section deliveries increased from 0% to 100% within 3 months and are being sustained. Since no data was previously being collected on EIBF in C-section deliveries, the QI team decided to set the baseline as zero. After the PDSA cycle and adoption of the interventions, data was collected monthly and the improvement in EIBF is shown in Graph 1.

WHAT WORKED WELL?

- Technical training of doctors and staff, and best practices shared by Sri Krishna Medical College and Hospital on EIBF experience were important determinants in increasing awareness levels and self-efficacy in medical personnel.
- The senior faculty from SKMCH conducted regular visits to the district hospital, provided close support in the labour room, and conducted follow-up meetings with the doctors and nursing staff.
- The addition of recording EIBF for C-section deliveries in the birth register played an instrumental role in tracking progress.
- Counselling of mothers and their families on EIBF helped in encouraging families to support the measures needed for ensuring EIBF.

SUSTAINING THE IMPROVEMENTS
EIBF in C-section deliveries has continued in Muzaffarpur District Hospital. The hospital administration has prioritized the practice of EIBF including institutionalization of EIBF in C-section deliveries as a standard protocol. Moreover, the hospital management has committed to conduct peer-to-peer knowledge and skills transfer on EIBF and QI methods.
AIM 2: INCREASING MATERNAL NUTRITION AND INFANT FEEDING COUNSELLING FROM 0% TO 40% IN POSTNATAL WARDS IN 3 MONTHS

ANALYZING THE GAPS AND MEASURING THE QUALITY OF CARE

The QI team observed and mapped the process from the time an expecting mother was admitted to the hospital until she was discharged following delivery (both normal vaginal deliveries (NVDs) and C-section deliveries). After delivery, mothers were sent to the postnatal ward. A close look at the process revealed that mothers with NVDs stayed in the hospital for 24 hours post-delivery and mothers with C-section deliveries stayed between 2–6 days. During their stay, mothers and newborns undergo routine check-ups for vitals. The QI team observed that no counselling was being done in the postnatal ward pertaining to exclusive breastfeeding and maternal nutrition care, and counselling was limited to the time of discharge.

Further analysis of the counselling process by the QI team showed that counselling materials were not used and several important points on maternal nutrition and breastfeeding were missed at the time of discharge. The accompanying family members were not engaged during counselling and there was no system in place for assessing the recall of messages.

The team started to record the counselling event for mothers and family members and put a review system in place that accounted for all relevant stakeholders to be reached during counselling. A new column was added to report counselling in the Reproductive and Child Health register. The staff involved in counselling were entrusted with the responsibility of maintaining the register. During the initial stages, data was compiled weekly, and it was observed that the reporting was being done regularly.

DEVELOPING AND TESTING THE CHANGES

The QI team discussed possible changes that could leverage the stay of postpartum mothers in the hospital for improved nutrition counselling and prepared a stepwise plan. The team decided to initiate comprehensive nutrition counselling for mothers and their families on maternal and child nutrition.

<table>
<thead>
<tr>
<th>Change Ideas Tested</th>
<th>Plan</th>
<th>Do</th>
<th>Study</th>
<th>Act</th>
</tr>
</thead>
<tbody>
<tr>
<td>Counselling to be conducted in postnatal ward in case of both normal deliveries and C-section deliveries.</td>
<td>The team planned to test the feasibility of ensuring trained nurses counselling mothers and their families thrice, over a 24-hour period post-delivery for normal deliveries.</td>
<td>Trained nurses counselled mothers and their families in the postnatal ward during their rounds.</td>
<td>Initially, the nurses lacked confidence and awareness to conduct effective counselling. Post training, the nurses became more open to counselling mothers and their families owing to increased awareness and confidence in their own abilities.</td>
<td>After the nurses commenced regular counselling, they were encouraged to pass on their knowledge to their peers to build capacity for enhancing MIYCN services at the point of care in the hospital. The team decided to continue the change.</td>
</tr>
<tr>
<td>In case of C-section deliveries, frequency of counselling was planned as twice a day during the post-delivery stay.</td>
<td>Trained nurses counselled mothers and their families in the postnatal ward during their rounds.</td>
<td>Initially, the nurses lacked confidence to conduct effective counselling. Post training, the nurses became more open to counselling mothers and their families owing to increased awareness and confidence in their own abilities.</td>
<td>After the nurses commenced regular counselling, they were encouraged to pass on their knowledge to their peers and build capacity for enhancing MIYCN services at the point of care in the hospital. It was decided by the team to continue with this change.</td>
<td>The change was found to be feasible, and availability of IEC materials were facilitated by A&amp;T for the chosen thematic areas. The team decided to continue with this change.</td>
</tr>
</tbody>
</table>

TABLE 2: STEPS IN THE PDSA CYCLE TO IMPROVE EBF COUNSELLING IN IMMEDIATE POSTPARTUM PERIOD
Key Outcomes and Results

A comparison of counselling approaches (processes and techniques) before and after the QI initiative is shown in Table 3. Counselling in postnatal wards improved from 0% to 83% within a month, and by March 2022, reached 98%. Exit interviews were scheduled after one and a half months to assess the quality of counselling being provided.

TABLE 3: COMPARISON OF COUNSELLING APPROACHES

<table>
<thead>
<tr>
<th></th>
<th>Before the QI Initiative</th>
<th>After the QI Initiative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of counselling</td>
<td>Counselling was only done at the time of discharge with low focus on maternal nutrition and exclusive breastfeeding.</td>
<td>Counselling started every day during the rounds with a focus on exclusive breastfeeding and maternal nutrition.</td>
</tr>
<tr>
<td>Value addition</td>
<td>IEC material was not used.</td>
<td>Flip charts and other IEC aids are being used to make counselling more effective and to increase recall.</td>
</tr>
<tr>
<td>Wider coverage of beneficiaries</td>
<td>Accompanying family members were not involved during counselling.</td>
<td>Accompanying family members are also involved during counselling.</td>
</tr>
<tr>
<td>Recall assessment</td>
<td>No one tested the mother’s recall of counselling messages on maternal nutrition and exclusive breastfeeding.</td>
<td>A recall for checking the mother and family's knowledge retention has been put in place.</td>
</tr>
<tr>
<td>Structured counselling</td>
<td>Counselling was neither structured nor complete.</td>
<td>Counselling has become structured and is being regularly monitored.</td>
</tr>
</tbody>
</table>

GRAPH 2: IMPROVEMENTS IN COUNSELLING ON EBF AND MATERNAL NUTRITION IN POSTNATAL WARD (ALL NUMBERS ARE IN PERCENTAGE)
Analysis of exit interviews at the time of discharge is shown in Table 4.

**TABLE 4: EXIT INTERVIEW FINDINGS**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Jan '22</th>
<th>Feb '22</th>
<th>Mar '22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of Counselling</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>MIYCN-related Messages</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Messages on daily iron-folic acid consumption by mother</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Messages on exclusive breastfeeding</td>
<td>97%</td>
<td>94%</td>
<td>100%</td>
</tr>
<tr>
<td>Messages on no water to be given to child until 6 months even in summer</td>
<td>69%</td>
<td>70%</td>
<td>90%</td>
</tr>
<tr>
<td>Messages on duration of iron-folic acid and calcium consumption</td>
<td>90%</td>
<td>82%</td>
<td>100%</td>
</tr>
<tr>
<td>Messages on not consuming iron-folic acid and calcium supplements together</td>
<td>84%</td>
<td>94%</td>
<td>90%</td>
</tr>
<tr>
<td>Family support for breastfeeding</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Messages on continued breastfeeding of sick infants</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Messages on the importance of handwashing</td>
<td>94%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

**SUSTAINING THE IMPROVEMENTS**

Two significant steps have been taken by the hospital to sustain the changes. First, counselling sessions are monitored by the QI team to observe counselling sessions to ensure quality and the build capacity of new nursing staff. Second, the QI team meets on a regular basis to analyze exit interviews and troubleshoot identified issues. Leadership has played a critical role in making these steps part of the hospital’s procedural system.

*Dr Birendra Kumar, Civil Surgeon, Muzaffarpur,*

“Counselling is an important process to make mothers and their families aware of nutritional care. It will aid adoption of desired nutrition practices. It is great to see that the nurses are doing good work and I hope this will bring a positive improvement in the nutrition status of mother and child.”
QUALITY IMPROVEMENT IN MIYCN

Improving Early Initiation of Breastfeeding and Postpartum Exclusive Breastfeeding Counselling in Secondary Level Facilities

ABOUT THE HOSPITAL

The Kannauj Community Health Centre (CHC Kannauj) at Vinod Dixon Hospital is one of the maternity hospitals located in the Kannauj district of Uttar Pradesh. On average, about 125-150 normal deliveries take place per month at the CHC.

TRAINING OF SERVICE PROVIDERS

In December 2021, trained faculty from the Government Medical College in Kannauj, along with experts from Alive & Thrive (A&T), conducted a two-day training programme for doctors, nurses, counsellors, and other healthcare providers on the implementation of evidence based MIYCN interventions using the POCQI approach.

A mother at CHC Kannauj continuing with exclusive breastfeeding during her stay after delivery at the hospital. After the intervention by A&T, mothers and their families are being counselled on exclusive breastfeeding in the postnatal ward.
IDENTIFYING THE PROBLEM, FORMING THE TEAM, AND ESTABLISHING THE AIM

The EIBF practices at CHC Kannauj were found to be suboptimal. Baseline data collected showed that EIBF was initiated for only five of the 17 newborns born of normal vaginal deliveries over a seven-day period. Other recommended practices such as skin-to-skin contact of mother and baby after delivery, prevention of pre-lacteal feeding, and counselling new mothers on exclusive breastfeeding were not followed as per standard protocols.

SELECTING SPECIFIC AIMS

After the training, a QI team including senior doctors, medical officers, staff nurses and nurse mentors, identified two specific aims to explore using the PDSA approach:

- **Aim 1:** Improving EIBF in non-complicated normal vaginal deliveries in the hospital from 30% to 90% in 3 months
- **Aim 2:** Improving counselling for EBF in all normal deliveries in the hospital in postnatal ward from 0% to 80% in 3 months

AIM 1: IMPROVING EIBF RATES IN NON-COMPPLICATED NORMAL VAGINAL DELIVERIES IN THE HOSPITAL FROM 30% TO 90% IN 3 MONTHS

ANALYZING AND MEASURING THE QUALITY OF CARE

The QI team mapped the process starting from delivery until the initiation of breastfeeding for the newborn. A delay of almost 2 hours or more was observed between the birth and the start of breastfeeding. A process flow chart based on the mapping is presented in Figure 5. In addition, it was observed that the register used to record delivery-related information did not include EIBF, so a new column was added to capture EIBF data.

QI TEAM MEMBERS

- **Dr Amita Pateria**
  Medical Officer
- **Dr Jyotsana Shukla**
  Medical Officer
- **Dr Pooja Vashistha**
  Medical Officer
- **Ms Shiwani Devi**
  Nursing Officer/Nurse Mentor
- **Ms Neelam Devi**
  Auxiliary Nurse
- **Ms Mansi Devi**
  Counselor
- **Ms Anita Devi**
  Staff Nurse
- **Ms Rajeshwari Devi**
  Staff Nurse
- **Ms Shiv Kumari**
  Female General Duty Assistant
Quality Gap

Breastfeeding was being initiated after the mother was sent to the postnatal ward which caused a delay of almost two hours. Although some staff nurses were aware of the importance of EIBF and were placing the baby immediately on mother's chest to initiate EIBF, most were not following this process. Staff nurses who were on night duty were not implementing EIBF as they were neither trained nor accountable to ensure and document EIBF post-delivery.
DEVELOPING AND TESTING THE CHANGES

The QI team deliberated on the observed problems and formulated a strategy that involved:

- Orienting staff nurses and sensitizing female GDAs who work in the labour room on the significance of EIBF for deliveries regardless of time of day or night.
- Developing skill sets of staff nurses to place newborns in immediate skin-to-skin contact with mothers for the first one hour after their birth.
- Building capacity of staff nurses on providing skilled support to mothers for helping them to initiate breastfeeding.

After developing the strategy, the QI team, used the Plan-Do-Study-Act (PDSA) Cycle to implement the changes.

Planning the Changes

Two change ideas were initiated to improve EIBF within an hour in non-complicated normal vaginal deliveries:

1. Training of all staff nurses along with the female GDAs by medical officers regarding the importance of EIBF and EBF and how EIBF could be supported in the labour room. Female GDAs were trained to support the staff nurses in this process.
2. Initiating breastfeeding in the labour room immediately after delivery rather than the postnatal ward. This change was tested for a week. In addition, on-duty staff nurses were assigned to record the information on EIBF in the delivery register.

Doing the Tests

- For one week, the QI team tested initiating EIBF in the labour room.
- It was ensured that the night duty staff started EIBF for newborns and GDAs were used to help the process.

Studying the Change Process

The change idea of utilizing general duty assistants to support the staff nurse and mother in EIBF worked well. Some of the staff nurses were not willing to take the responsibility to start EIBF at night citing that the mothers usually were exhausted and fell asleep. They were counselled, supported onsite, and encouraged to take the help of assistants to support the mother with EIBF quickly after delivery. Initiating EIBF in the labour room reduced the time gap between delivery and initiation of breastfeeding.

Acting on the Study Findings

Both change ideas were tested for a period of one week and found to be feasible for further continuation. A schedule was prepared to regularly train new nurses on EIBF. After training and practicing EIBF, staff nurses were motivated to continue with the process of facilitating EIBF in the labour room regardless of the time of birth. Mothers and family members appreciated the preparatory counselling and support for EIBF which also boosted their confidence for continuing exclusive breastfeeding.
**WHAT WORKED WELL?**

- Initiating breastfeeding in the labour room helped to stop the practice of feeding pre-lacteals to the newborn by family members.
- Sensitizing and training of female GDAs helped with essential support to staff nurses especially for EIBF during the night shift.
- Utilizing a WhatsApp group for posting information on EIBF, along with appreciation from leadership, functioned as a catalyst for motivating the staff nurses and assistants.
- Mentoring visits were conducted by the Department of Community Medicine at the Government Medical College, Kannauj to assess progress, challenges, and any changes required to ensure success. For the first two months, visits were conducted biweekly, and thereafter bimonthly.

**Key Outcomes and Results**

- EIBF rates improved from 29% to 95% over a three-month period from May to July 2022. By September 2022, it was sustained at 94%.
- All change ideas related to strengthening EIBF were introduced gradually one-by-one, and each idea was sustained.
SUSTAINING IMPROVEMENTS

The process of placing the newborn on the mother’s chest for immediate skin-to-skin contact and facilitating EIBF has been actively owned and institutionalized by the facility leadership as a standard care process. The Chief Medical Superintendent and medical officers began weekly review meetings with all the team members to track progress and take facilitative action to address any identified challenges. The senior doctors also visit the labour room and postnatal ward frequently to interact with mothers post-delivery. Timely recording and regular weekly reporting of EIBF to medical officers, along with the WhatsApp group-based discussion and monitoring, has worked well and is being continued on a regular basis.

GRAPH 1: IMPROVEMENT IN EIBF RATES IN NORMAL DELIVERIES

EIBF Percentage

0% 10% 20% 30% 40% 50% 60% 70% 80% 90% 100%

May ‘22 June ‘22 July ‘22 August ‘22 September ‘22

416 | QUALITY IMPROVEMENT FOR MIYCN
AIM 2: IMPROVING COUNSELLING ON EXCLUSIVE BREASTFEEDING IN THE POSTNATAL WARD (WITHIN 48 HOURS OF BIRTH) FROM 0% TO 80% IN 3 MONTHS

ANALYZING THE GAPS AND MEASURING THE QUALITY OF CARE

The QI team that worked together on the EIBF change process also observed a lack of counselling and support on exclusive breastfeeding to recently delivered mothers in the postnatal ward and decided to address the issue.

A problem analysis of the barriers to exclusive breastfeeding counselling was conducted by the QI team. The results are represented in figure 3.

Figure 3: Fishbone analysis of barriers to exclusive breastfeeding counselling

The fishbone root cause analysis exercise completed by the QI team revealed the following gaps in exclusive breastfeeding counselling quality in the postnatal ward:

- A staff member had not been assigned responsibility for counselling mothers and caregivers of newborns on exclusive breastfeeding in the postnatal ward.
- The staff nurses were not motivated and did not have optimal knowledge about either the various aspects of exclusive breastfeeding or the risks to the newborn if exclusive breastfeeding was not done.
- Staff nurses lacked adequate skills to address existing cultural practices like giving *janam ghutti* or pre-lacteal feed or misperceptions of the need to give water, instead of breastmilk, to quench a newborn’s thirst.
- Counselling materials or job aids such as flipcharts were not available.
- There was no mechanism for monitoring counselling on exclusive breastfeeding.
A training session for the staff nurses was organized by the medical officer and covered topics such as the significance and benefits of exclusive breastfeeding, risks for the newborn if exclusive breastfeeding was not continued, support to mothers on the correct position and attachment for breastfeeding, and use of visual aids such as flipcharts to make counselling more effective.

Developing a Measuring System
There was no measurement system in place to record counselling in the postnatal ward. An additional column was added to the delivery register for recording the occurrence of exclusive breastfeeding counselling and data collection for tracking and reporting.

DEVELOPING AND TESTING THE CHANGES
The QI team discussed possible changes to improve counselling in the postnatal ward. Changes that the team agreed to introduce included:

- Assigning responsibility for counselling to every staff nurse as per the new counselling schedule.
- Junior doctors from the Government Medical College (GMC, Kannauj) were assigned to support nurses and mothers.
- Counselling materials such as flip charts, cards, and posters were provided to nurses.

Planning the Changes
- Staff nurses along with the junior doctors from GMC, Kannauj were assigned the responsibility of counselling and providing support to new mothers and family members on exclusive breastfeeding. It was decided to follow the Bed Head Ticket system where mothers were counselled at intervals of 2, 6 and 9 hours on the first day after delivery and once in 12 hours on the second day.
- Key counselling messages on exclusive breastfeeding for new mothers and caregivers/family members in the postnatal ward were defined based on global and national recommendations.

Doing the Tests
The change was tested for a week at the beginning of June 2022. The medical officers ensured that the changes were applied for all the women who had delivered recently in the hospital and stayed in the postnatal ward.

Studying the Change Process
The number of postpartum women counselled by hospital staff were closely monitored and recorded. It was observed that post training, staff nurses and auxiliary nurses were motivated to provide counselling and support to mothers and caregivers of newborns on exclusive breastfeeding. The presence of GMC, Kannauj team was an added advantage and helped in providing additional support to the staff nurses.

Acting on the Study Findings
The new procedures tested by the QI team were found to be feasible and the hospital decided to institute the changes going forward.
Key Outcomes and Results
Counselling on exclusive breastfeeding for all mothers and family members who stayed in the postnatal ward improved from 0% to 93% from May to July 2022.

GRAPH 2: IMPROVEMENT IN EXCLUSIVE BREASTFEEDING COUNSELLING FOR POSTNATAL MOTHERS

WHAT WORKED WELL?
- The capacity building session helped auxiliary nurses and staff nurses to become confident in their knowledge and skills and motivated them to provide exclusive breastfeeding counselling and support to mothers and caregivers.
- As the responsibility for counselling was assigned to every staff nurse and auxiliary nurse, they collectively ensured that every mother received essential messages.
- Flip charts helped staff in undertaking exclusive breastfeeding counselling to provide consistent messaging.

SUSTAINING THE IMPROVEMENTS
Due to the positive outcomes, the Medical Superintendent of CHC Kannauj issued a guidance letter to ensure staff implement the QI team’s recommended changes as well as update and institutionalize the recommendations into CHC Kannauj’s procedures. The Medical Superintendent and medical officers now have weekly review meetings with all team members to track progress, show appreciation to hospital staff, and take facilitative actions to address any identified challenges. The senior doctors also visit the labour room and postnatal ward frequently to interact with mothers who have recently delivered. Timely recording and regular weekly reporting of exclusive breastfeeding counselling to the medical officers has worked well and is being continued.
“By applying the quality improvement approach with the help of technical support from Alive & Thrive and GMC, Kannauj, we were able to improve the early initiation of breastfeeding rates substantially. EIBF has immensely reduced the risk of neonatal infection and hospital admission of neonates. Training and capacity building on MIYCN protocols and mentoring for quality improvement was the key to improvements. It was a simple process and the success achieved is sustainable.”

Dr Sudhanshu Dubey, Medical Superintendent, CHC Kannauj

“We used QI approaches at Government Medical College, Kannauj to improve EIBF and it was a success. Improving MIYCN services at the hospitals can improve outcomes for both mothers and children. We are happy to support CHC Kannauj in their efforts to improve EIBF and EBF counselling and share our learnings.”

Dr Tanu Midha, Head of Department, Community Medicine, GMC, Kannauj

CONCLUSION

All change ideas were adopted and institutionalized due to active engagement and ownership of the effort by facility leadership. Since no external support is required to continue the practices, these are being sustained using the existing resources of the facilities. Doctors, nurses and paramedical staff are well trained and skilled to continue the practices. Timely and regular reporting and monitoring mechanisms have been established to continuously track progress and address any identified challenge.

Interested in Learning More about Our Earlier Work on Quality Improvement in Health Facilities?

PHASE 1: MEDICAL COLLEGES
How India’s Medical Colleges are Catalysing Change for Maternal, Infant and Young Child Nutrition: Quality Improvement Case Studies from Uttar Pradesh and Bihar (2021)

PHASE 2: PRIVATE HOSPITALS
How India’s Private Hospitals are Catalysing Change for Maternal, Infant and Young Child Nutrition: Quality Improvement Case Studies from Private Hospitals in Bihar (2023)

Photo credits: Sarita Kumari, Shakti Arya, and Rajendra Prasad