CASE STUDY

The first 3 months experience in improving labour and delivery care at Godda District Hospital, Jharkhand, India

By picking specific improvement goals and testing different interventions to improve care, Godda Hospital was able to make dramatic improvements in labour and delivery in three months. The hospital focused on reducing postpartum hemorrhage by ensuring that all women receive oxytocin immediately after delivery. Within three months, there has been substantial decrease in postpartum hemorrhage and increase in neonates receiving elements of essential newborn care.

Introduction:

Godda District Hospital is a 46 bed hospital serving a population of 1.3 million. It is staffed by 8 medical officers, 10 staff nurses and 11 auxiliary nurse midwives. The labour and delivery room is staffed by 8 staff nurses and delivers approximately 12 women per day. As part of the government's RMNCH+A initiative the hospital is striving to improve maternal and newborn care. The recently conducted gap analysis showed that there were some issues with labour and delivery. The hospital’s initial focus was to reduce postpartum hemorrhage (PPH) by ensuring that all women receive oxytocin immediately after they deliver their babies and to ensure that all babies receive essential newborn care (ENC). Within three months they have seen a substantial decrease in PPH (Figure 1) and an increase in the number of neonates receiving the elements of ENC (Figure 2).

Figure 1: Number of women who deliver between cases of post-partum hemorrhage

Godda Quality Improvement Team
1. Dr. Bandevi Jha – Medical Officer
2. Dr. Ram Prasad – DRCHO
3. Smt. Nirmala Devi – Labor Room Incharge, Grade A Staff Nurse
4. Smt. Anju Rani – Grade A Staff Nurse
5. Mr. Mukesh Kumar – Hospital Manager
6. Mr. Pradeep Kumar – District Program Manager

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Improving labour and delivery services

December 4th:
Six staff from Godda attended a 1.5 day introduction to the science of improvement facilitated by USAID ASSIST project. During this meeting they learned about six steps to improve care (see box 1) and were supported to develop an improvement plan that they would enact when they returned to the clinic to ensure that women received oxytocin immediately after delivery and babies received ENC.

December 9th:
The team who had attended the workshop met with their colleagues from the labour and delivery suite for two hours to review what they had learned about improvement science.

December 16th:
The team met again and decided to focus on making it easier to give oxytocin by prefilling a syringe when the head crowns so that the syringe was kept ready and could be administered within one minute. Prior to this, the nurses were going to fill the syringe after the baby was born and there was a delay in giving oxytocin. The team decided to try this change idea for a week. They were worried that the change may take too much time still and wanted to see if this idea worked before making it a permanent way of work.

They also determined that they needed additional materials in the labor and delivery suite to improve ENC including: sterile cord clamp, ambubag, towels, weighing scale. They also needed the sterilizer and radiant warmer to be fixed. The team took this information to the civil surgeon the same day. An autoclave was put in place that day and all other materials were supplied within 2 weeks.

December 23rd:
The team met and discussed how the work had gone the previous week. They found that the change had led to more women getting oxytocin on time but that it was too time consuming and the nurses had too much work when the baby was born – providing essential newborn care, giving oxytocin, delivering the placenta etc. They decided that they would approach the civil surgeon about assigning extra staff to the clinic.

The selected team member met with the civil surgeon to discuss the issue and request for an additional staff. They shared their findings that they were better able to provide care to mothers and babies but needed an extra staff person to ensure that care was more reliably provided. The civil surgeon agreed with their assessment and identified a staff nurse who was currently working on the male ward but who had been recently trained to provide skilled labour and delivery care. He moved this nurse and then back-filled this position with an ANM who had previously been assigned to work on immunization campaigns two days a week.

December 24th:
The clinic made the change to always have two nurses in the labour and delivery room.

February 14th:
The team was pleased with how well they were doing with giving oxytocin and ENC and decided to start working on ensuring that all babies start breast feeding within one hour of delivery. The team decided that the staff nurse will counsel Sahiya (community health workers) and relatives to remind mothers to breast feed just after shifting from labor table to bed. The change was tested for two days. This resulted in an
improvement from 45% before testing to 69% in the testing period. The team decided to continue with the change idea and added one more step in the process that the Staff Nurse will visit to the mother after 45 minutes of delivery to reinforce the message and ensure breastfeeding if not done earlier. This has further improved to 78% babies’ breastfed within one hour of delivery (based on interview with mothers at labor ward). The team has decided to continue with the change idea.

**Figure 2: % of neonates receiving essential newborn care, Godda Hospital**

**Conclusion:**

Within two months, the hospital was able to ensure that over 90% of women delivering in their facility were receiving oxytocin in the first minute of life and over 90% of babies were receiving sterile cord care and Vitamin K injection. The clinic was not recording all cases of PPH before starting this work but there were 3 cases the first week they started collecting data, and no more than 1 since then. The staff also reported a subjective decrease in the amount of bleeding in all women. The team has also been active in adding new improvement aims and is currently working to ensure that all infants are breast fed within the first hour of life. As they solve these problems the team will address other issues along the RMNCH+A continuum of care.

After the meeting on December 4th, the QI team has been meeting weekly. Initial meetings took over an hour but now a day it took 30-45 minutes. According to Anju Rani, a staff nurse on the improvement team, this is the first time she had an opportunity to work in a team to improve services in the labor room. She likes the QI team because the team discusses real problems in providing good care and identifies solutions. Godda Hospital now plans on addressing other priority issues along the RMNCH+A continuum using this approach.