

Problem

C-section rates have risen dramatically in recent years from about 20% in the mid 1980's to about 33% in 2010, with the rates of primary C-sections due to labor complications increasing by almost 60%. Furthermore, overall c-section rates are highest nationally among Black mothers, hovering just under 36% between 2017 and 2019. Our institution is a Level 3 Perinatal Center in Chicago with over 2300 annual births. Of the women that we currently care for, about 32% of our patients self-identify as Black, 30% identify as Hispanic, 10% identify as Asian, 20% identify as White and 3% as Other. In calendar year 2020, the overall cesarean section rate at our institution rose about 4% from 35% to 39% when compared to calendar year 2019. Upon further investigation, our team found that the most common indication for C-section was abnormal fetal heart tones, followed by cesarean after induction. At a foundational level, position changes are the most used intervention to enhance fetal perfusion in the setting of abnormal fetal heart tones in labor. Furthermore, knowledge of pelvic anatomy and physiologic labor are also critical to help labor progress appropriately. Our intention was to train our staff to be more intentional and proactive with position changes based on knowledge of the pelvis and the normal course of labor. Our QI project team for this initiative is comprised of 5 L&D RN's and 1 Perinatal Safety Nurse. Our project focuses on how we can prevent the development of labor indications for C-sections in the hospital setting for Nulliparous, Term, Singleton, Vertex (NTSV) patients through targeted labor support training for both provider and nurses at our institution. We chose NTSV patients to target due to the number of modifiable risk factors for caesarean among this group of patients.

Project Implementation

In the early stages of project implementation our group focused on a goal that we believed would not only make strides to reducing our NTSV c-section rate but would also generate the highest level of buy-in from our staff. A handful of our nurses who have completed labor support trainings such as Spinning Babies, among others, had seen success in achieving vaginal births for their patients and this had generated excitement among both providers and nurses to learn more about what these champions were implementing in their practice. A team of these champion nurses developed an evidence-based curriculum for a hands-on labor support class that targeted coping and pain, labor anatomy and physiology, and intentional positioning during pregnancy and labor. We first conducted one class for a group of ten nurses and providers as a pilot. After refining the curriculum and execution of the training, we expanded to a total of 11 classes, each two hours long, taught to both physicians and nurses over the course of one month. We also proposed a new policy for intermittent monitoring and a new coping algorithm to compliment our original pain scale for assessing pain in labor. Pre and posttest surveys were administered to each participant who attended the training. Furthermore, a resource board was displayed in our communal workspace to reinforce information presented in the class and data was collected in the months that followed to evaluate the potential impact on caesarean indications and rates. We are currently in the process of planning a re-boot of our training for newly hired nurses, residents, and providers, as we have seen a significant shift in staffing over the last two to three months.

Results

In the initial month after starting the labor support classes, our NTSV c-section rate fell from 35% in May 2021 to 26% in June 2021. The YTD rolling average was about 31% in June 2021, down from 33%. Of those surveyed after the class, 79% of participants reported feeling more confidence in using position changes to help labor their patients than they did prior to the class, and 50% of participants reporting a decreased perception of barriers to labor support. The key to successful integration of this knowledge for our staff was adhering to small groups of no more than ten people with two instructors with hands-on, partner practiced learning in labor rooms, using labor support tools that are normally at our disposal during patient care. The classes generated significant anticipation among staff to practice skills on their next shift and understanding among providers who expressed more comfort with intentional positioning as well. We did find that a two-hour time frame was likely not sufficient for the breadth of information covered and anticipate that staff will need repeated re-boot classes. We intend to survey staff to assess current perceptions of both comfort level with intentional labor support and perceptions of barriers that hinder their ability to implement the techniques effectively as our next hurdle is ensuring long term success with this initiative rather than a short-term win.

Table 1.

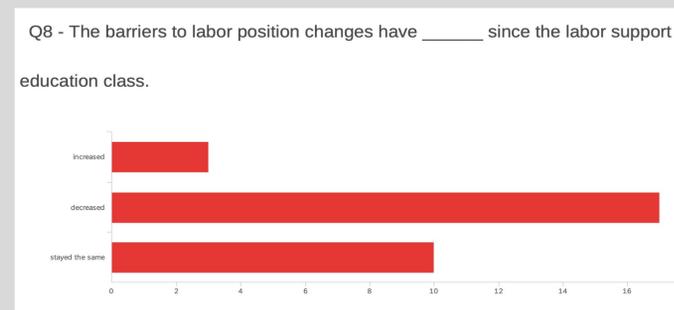


Table 2.

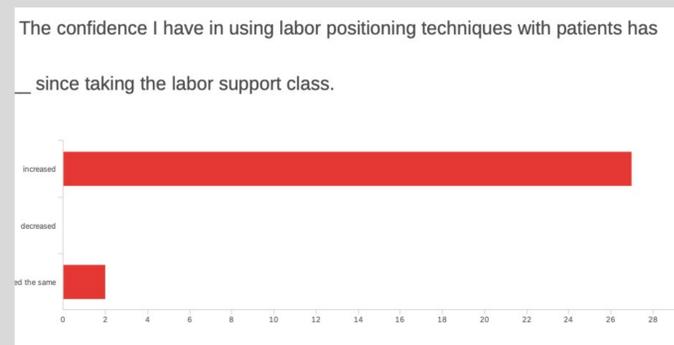
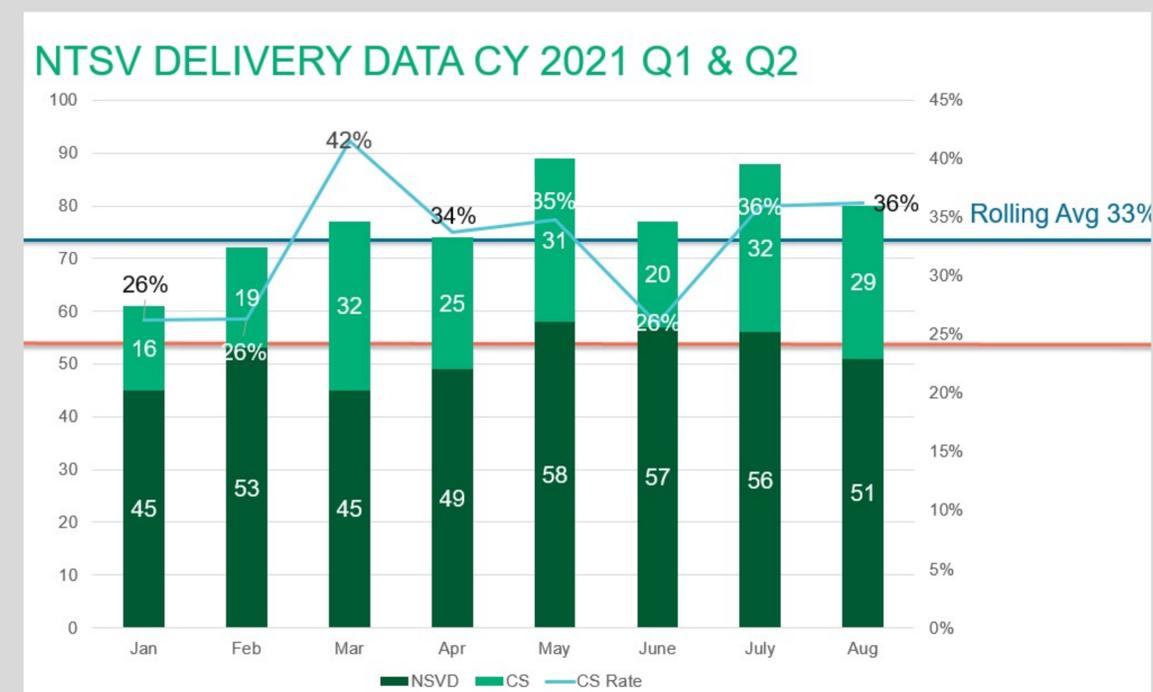


Figure 1.



Conclusions

The impact of labor support training for both providers and nurses in the immediate time after our labor support class was implemented was promising. We saw a very real shift in the culture on our unit around supporting physiologic labor. An unintended complication of our project was an influx of new providers and nurses in the month of July that did not receive the training in June. Our team has learned that this class likely needs to be taught multiple times throughout the year to achieve sustainability and long-term change. We intend to implement a reboot of the classes in the coming months and develop quarterly programming to support mastery of labor support skills and knowledge. We also intend to create a physicians-focused course that will be taught every July at new resident training to address future staffing changes on the unit.