



CASE STUDY

Capturing physician feedback to inform opportunities to reduce non-medically necessary Cesarean births: A collaborative project with March of Dimes and HCA Healthcare

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Introduction

Over the last 50 years, the rate of Cesarean births has increased rapidly from 5% to almost 33%; whereby 1 in 3 women currently experience Cesarean births.¹ When medically necessary, Cesarean birth is a lifesaving procedure—but simultaneously, it’s associated with a higher risk for moms and their babies. Increased incidences of blood clots, infection, placenta previa, placenta accreta, Cesarean scar, and other long-term complications, which coincide with the rise in Cesarean births, have contributed to a rise in maternal mortality and morbidity. Maternal morbidity is defined as unexpected outcomes of labor and delivery that result in short or long-term consequences to a woman’s health.² Maternal mortality is defined as death during pregnancy or within one year of, or the end of pregnancy from a complication.³ Research has shown that the risk of maternal morbidity and mortality for Cesarean births is higher than that of vaginal births.^{4,5} Research also shows that women whose first birth is by Cesarean are more likely to have Cesarean birth in subsequent pregnancies, and the risk of complications increases with each additional Cesarean birth.⁶

The American College of Obstetricians and Gynecologists (ACOG) recommends that in the absence of maternal or fetal indicators for Cesarean delivery, vaginal delivery is safe and appropriate and should be recommended.⁷ More than a quarter of Cesarean births (26.3%) are among first-time moms (also called Nulliparous, Term, Singleton, Vertex [NTSV] Cesarean births), which refers to Cesarean births among first-time moms at term, with one baby in the head first position.⁸ A safe reduction in non-medically indicated NTSV Cesarean births that balance the benefits and risks of the procedure could lead to better outcomes for moms and babies. Research has shown that there are several quality improvement activities that can help reduce the rate of NTSV Cesarean births.⁹



HCA Healthcare and March of Dimes partnership

In 2021, HCA Healthcare and March of Dimes announced a unique partnership to reduce maternal mortality and morbidity through improved postpartum discharge education and lowering NTSV Cesarean rates.



Nashville-based HCA Healthcare is one of the nation's leading providers of healthcare services, comprising 182 hospitals and approximately 2,300 ambulatory sites of care, including surgery centers, freestanding emergency rooms, urgent care centers, and physician clinics, across 20 states as well as the United Kingdom (as of Dec. 31, 2022). With its founding in 1968, HCA Healthcare created a new model for hospital care in the U.S., using combined resources to strengthen hospitals, deliver patient-focused care, and improve the practice of medicine. HCA Healthcare has conducted a number of clinical studies, including one that demonstrated that full-term delivery is healthier than early elective delivery of babies and another that identified a clinical protocol that can reduce bloodstream infections in ICU patients by 44 percent. Importantly, more than 217,000 babies are delivered at HCA Healthcare hospitals every year.

March of Dimes is a nonprofit leading the fight for the health of all moms and babies by supporting research, leading programs, and providing education and advocacy so that every family can have the best possible start. Building on a successful 85-year legacy of impact and innovation, March of Dimes embraced the opportunity to make a difference in lowering NTSV Cesarean rates.

As part of the partnership work focused on NTSV Cesarean reduction, March of Dimes and HCA Healthcare collaborated to capture physician-identified approaches for effective reduction of non-medically indicated NTSV Cesarean births.

This case study describes the methodology used to capture approaches, describes findings discovered through the interviews, and provides recommendations.

Methodology

Interview Guide Development

The March of Dimes' Evaluation and Professional Education teams developed an interview guide to capture perspectives and experiences through semi-structured, in-depth interviews with physicians. The interviews focused on gathering information about strategies to minimize non-medically directed NTSV Cesarean births, educate patients, and change or update perceptions of support staff in Labor and Delivery.



Physician Selection

HCA Healthcare sought to identify 20 high-performing physicians from across all HCA Healthcare-affiliated hospitals to share their experience and expertise on the topic of NTSV Cesarean births. Physicians were chosen based on metrics that HCA Healthcare believed would indicate the use of evidence-based practices to best support both vaginal births and safe maternal and neonatal outcomes. Only physicians who had delivered more than 100 babies in the prior 12 months were considered. Physicians were chosen based on three metrics: Rate of NTSV Cesarean sections (PC-02), percent of infants with unexpected newborn complications among full term newborns with no preexisting conditions (PC-06), and obstetrical hemorrhage or postpartum hemorrhage. HCA Healthcare internally

captured these metrics, by provider, using ICD-10 codes. These metrics were based on both published recommendations and internal benchmarks. The three metrics were then weighted to create a performance grade in which each physician was organized into a rank order (Figure 1). Physicians could achieve a maximum of 30 points, with each metric allowing for a maximum score of 10 points. Physicians who scored between 27 and 30 points were considered for interviews. Rank order was further sub-grouped by the division in which the physician practiced, which included 15 divisions in total, in order to consider facility geographical and cultural variation as well as patient demographic variation across all HCA Healthcare-affiliated hospitals.

All methodology and rankings were reviewed by HCA Healthcare physician and executive leadership. A final list of physicians was submitted to the Division Chief Medical Officers to validate and confirm whether any physicians should be excluded, such as physicians who have been placed on performance improvement plans due to behavior or action in the workplace.

Interview methodology

Physicians were contacted and invited to participate in the March of Dimes-led interview. Two members of the March of Dimes team interviewed each physician for approximately one-hour using HIPAA-Compliant Zoom. At the beginning of each interview, physicians were provided with an overview of the project and a statement of consent. Physicians indicated their willingness to participate before proceeding with the interview. The interviews were video recorded via the online video conference platform, Zoom®.

Interviews were transcribed by a third-party transcription company. Transcripts were read by the March of Dimes Evaluation team and were coded into themes based on the interview protocol. Findings were discussed iteratively with the March of Dimes Evaluation team as they emerged and themes were further coded into subthemes. The March of Dimes Evaluation team used MaxQDA 2020, a qualitative data analysis software (VERBI Software, 2019), as a supportive organization tool to code and highlight themes. All themes were human-generated and not derived from automated analysis.

Metrics scoring as follows:

Rates of NTSV Cesarean sections¹:

- 15.0-25.0% 10 points
- 00.0-14.9% 07 points
- 25.1-30.0% 05 points
- 30.0-35.0% 03 points
- 35.0% > 00 points

Percentage of unexpected newborn complications²:

- 0.00-2.99% 10 points
- 3.00-5.00% 05 points
- 5.00% > 00 points

Postpartum hemorrhage³:

- 0.0-1.5% 10 points
- 1.5-2.5% 07 points
- 2.6-3.9% 05 points
- 4.0% > 00 points

1. WHO considers the "ideal" Cesarean section rate to be: 10-15%.
Current HCA rate: 25%
2. Rankings based on CMS percentiles
3. HCA goal: 3% 2018 ARRIVE trial goal: 3-5%

Figure 1: HCA Healthcare Metric Scoring for Physician Selection

Interview findings

Of the 29 physicians recommended by HCA Healthcare, 18 (62%) completed interviews with March of Dimes staff. Physicians were located in Colorado, Virginia, Nevada, Florida, Idaho, Tennessee, Kansas, and South Carolina. The majority were female (89%), worked in private practice (61%), and had between two and 31 years in practice.

Reported physician-level factors that influence NTSV Cesarean rates:

Participants were asked to provide their perspectives describing the different ways that individual practicing physicians might influence the frequency of use of Cesarean birth among NTSV deliveries. Several themes were noted including provider patience, providers giving patient education about the length of a healthy pregnancy, providing support and reassurance, and others listed below.

Provider patience

Patience was voiced as one of the best ways to minimize non-medically indicated NTSV Cesarean births.

“The level of patience that we can show is important. It’s really easy to forget that every patient is unique and we become impatient with the process.”

“The big thing is, a lot of times, is patience. Not our patients, but having patience.”

“I realized early on that babies come when they so choose the majority of the time. Women will say, ‘Well, when is my baby coming?’ I’m like, ‘Well, that’s up to the baby. Hopefully I’ll be there to help, if necessary,’ and so you need to have patience, I think, all across the board.”

“Patience is really important. Not worrying if things are going a little bit slow. You want to actively manage labor, but sometimes funny things happen and at the very end when you think it’s time for the patient to deliver, it’s just not happening.”



Educating patients about length of a healthy pregnancy

Physicians emphasized the importance of patient education to ensure that their patients have realistic expectations related to the duration of a healthy pregnancy and the labor process. Most physicians spoke about wanting their patients to reach 39-40 weeks before inducing labor. Physicians said many patients do not realize that pregnancy can last as long as 40 weeks. In regards to patient education over the course of the pregnancy, physicians stressed the importance of educating women about the length of a healthy pregnancy.

“I think a lot of patients don’t even realize the normal gestation of a pregnancy being 40 weeks.”

“I do set the tone at my very first encounter with the patient when they’re pregnant by talking about what a due date means and what it doesn’t mean.”

Educating patients about length of labor and pain management

Physicians said it was important to understand patients' expectations around labor and to educate them on the labor process and birthing techniques to reduce any anxieties they might have.

"...sometimes people have a false sense of how long labor should take and they get frustrated or anxious and just want to be delivered if things aren't happening in as quick a fashion as they want. It's important to talk to patients and go over expectations with them, that this can be a longer process than just a few hours or even more than a day, so that they understand."

"...the key is good communication with the patient as far as expectations go. Labor can go quickly. Labor can go very slowly. Labor can move along and then suddenly seem to stall out. Communication and preparing expectations is very helpful so that you don't get discouraged, disappointed patients that are frustrated, and then pushing to have something done."

"...make sure they're invested in what could be a prolonged induction. It's not just our investment. It's not just labor and delivery's investment and the resources that they can access, but it's keeping your patient ready to go and still moving forward and accepting that inductions can be prolonged."

Offering encouragement and easing fears

While the thought of a long labor process may make patients anxious, physicians stressed the importance of offering encouragement and easing fears in a number of ways. Physicians recommended birthing classes that are available either in their hospital or in the community. Physicians also made sure to go over the various pain management options that were available in their hospital. Over the course of their pregnancy, physicians prioritized allowing patients to ask any questions that they have and encouraged the patients to be open-minded as they move throughout pregnancy and labor, even if everything doesn't go as planned.

"I really encourage patients to have an open mind, to understand that it may not look like what they have planned and that the ultimate goal is safety of mom and baby—and there's so much flexibility in that where we can support everything that they want, up to a point, as long as it's not interfering with mom and baby."

"This is the first time you're ever going to experience labor pains, this is the first time you're ever going to have a baby, and I just want you to have an open mind about it so that if you change your mind, you're not beating yourself up or feeling like you're a failure."

Educating patients about risks associated with Cesarean birth

If patients asked for elective Cesarean births, physicians did not shy away from making sure that patients knew all risks associated with that.

"If somebody's asking about a primary elective Cesarean birth, I always tell them that in the end, the decision is ultimately theirs but that this would not be the recommended route of delivery without a medical reason and go over the risks of Cesarean birth, and then while it is a very common surgery and it seems like it's not a big deal, it still is a major abdominal surgery that comes with risks—to damage the bladder and bowel; future risks of developing abnormal placental locations; risks of scar tissue in the future; difficulty with future pregnancies; difficulty with other future surgeries; and possibly even difficulty with pain from scar tissue."



Setting realistic expectations with patients helped to build trust between the patient, providers, and support staff.

“You have to reassure them that you have pain medication, anesthesia in-house 24 hours. That your nurses are going to work with them to make sure that they’re comfortable and that we’re doing everything to facilitate this delivery process. Also knowing that we’re not going to do anything to put the baby or her at risk.”

“...a patient has to trust the providers. If they don’t trust us to take care of them, then it doesn’t matter how involved, how much education we provide. We spend 10 months earning a patient’s trust by showing them we’re here for them best interest and their baby’s best interest.”

“I want them to feel empowered to always ask questions and feel like they understand what’s happening with their body and their baby.”

Reported hospital-level factors that influence NTSV Cesarean rates

The interviewed physicians also identified critical hospital-level factors that influence NTSV Cesarean rates. Several themes were noted including the role of support staff, laborist, or hospitalist working model, having equipment available and data to build NTSV Cesarean rate awareness.

Support staff: Nurses

Support staff play a key role in healthy delivery of babies in hospitals. Physicians repeatedly praised the nursing staff as one of the key components for successful labor.

“Our nurses have done an incredible job with respect to health and labor [for] our patients, and making them comfortable [in] labor. Changing positions in labor, facilitating this process such that we can get to the point where we can have a safe delivery. To me, it’s a team effort.”

“When there’s somebody who’s an extension of the practice, who’s the patient’s advocate, who has the practices and the patient’s best interest in mind, they’re by their side all day



long, it has changed the landscape of the satisfaction rate of the patients in the hospital.”

“I’ve had a lot of patients tell me that their positive birth experience is largely related to the nurses at the hospital as well.”

Support staff: Doulas and midwives

While many physicians said that they do not have midwives or doulas on staff at their hospitals, those who had the opportunity to work with midwives and doulas found them to be helpful in providing support for laboring patients.

“Midwives bring an element of calmness to a delivery room. They approach patients in a totally different way—not better or worse than physicians, just different.”

“[Midwives] do a fabulous job helping guide the patients along the labor process, reinforcing what’s going on, communicating with patients on a regular basis. That really helps patients stay patient with the process, which I think is a critical factor.”

“I think that the level of communication and care that midwifery brings to the hospital has really allowed patients to feel much more comfortable and safe and well taken care of in the hospital setting.”

“My experience with the doulas I’ve worked with here has been very positive, certainly patient-centered. We feel we’re working together, we’re on the same team to help take care of the patient and help the patient achieve their goals and keep them safe.”

OB hospitalists

Many physicians pointed to the OB hospitalist or laborist as a key contributor to successful labors, whereby having a designated physician staffed at the hospital 24/7/365 alleviated the worry of physicians to finish a labor within a specific period of time.

“... we have [a] laborist, an obstetrician in the hospital 24 hours a day, seven days a week. It takes away the temptation of physicians wanting to do Cesarean births at the end of the day because the office is over, they have somewhere else they want to be, or would much rather go home and not have to be called back.”

“They have what we call laborers call schedule, meaning that when you are on call, you’re on call, you’re only in the hospital, you don’t have any other patient responsibility, so you’re there dedicated to those laboring patients. When you’re in clinic, same thing. I’m in clinic, I’m only in clinic. I’m not back and forth between here and the hospital. I’m not being pulled in 20 different directions and I feel like that’s really helped.”

Available equipment and targeted activities

In addition, physicians mentioned several pieces of equipment and additional techniques that have helped contribute to successful rates, such as peanut balls, squat balls, and wireless monitoring. They also noted that many nurses have training on spinning baby techniques which they found to be helpful.

Physicians noted that several targeted activities have been put into place at their hospitals to promote the reduction of NTSV Cesarean rates. These activities included but were not limited to:

- Team meetings to review cases
- Creating hospital perinatal committees
- Implementation of the Alliance for Innovation on Maternal Health (AIM) bundles such as the Safe Reduction of Primary Cesarean Bundle¹⁰
- Joining their state’s Perinatal Quality Collaborative
- Having staff available to give second opinions when necessary
- Patient options for early labor at home
- Intermittent fetal monitoring

Data on NTSV Cesarean rates

Physicians felt that it was most important for data sharing to be educational in nature and not to single out specific physicians.

Physicians noted that seeing data on NTSV Cesarean rates allowed them to understand where their rates fell in relation to state or national trends. Data sharing happens through different channels, such as meetings or emails sent to physicians, and is helpful in ensuring an understanding of the situation.

“The program that we have, it’s all about quality. We’re looking at outcomes and if we look at cases from an educational standpoint, how would you call it? We’re not looking—it’s not punitive by any means. Could we have done something better from a nursing or physician standpoint to have a better outcome with these cases?”

“[This] promotes the entire team remembering what tools we have to do this ... Sometimes it’s just a matter of remembering it when you’re in labor and delivery. The more we go over this and think about it, the more accessible it is to us in the moment. The more the nurses are thinking about it, the more the midwives are thinking about it.”

Final takeaways, recommendations, and next steps

Final takeaways

- Overall, physicians identified patience with labor and managing patient expectations as means to decrease non-medically indicated NTSV Cesarean births.
- Physicians acknowledge that their hospital environment and their support staff played a critical role in successful birth outcomes.
- OB hospitalists relieved physicians from constantly being pulled in multiple directions and are seen as a vital part of the labor and delivery care team.
- Physicians felt that one-on-one nursing was important to encourage patient mobility and allowed for nurses to be more attentive to patients.
- Finally, physicians stressed the importance of trust. Many physicians felt that hospitals could not be successful if there was no trust between the physician and patient and the physician and support staff, highlighting the importance of patient engagement and alignment with care teams.

Recommendations

In summary, physicians recommended:

- Patience with labor
- Managing patient expectations
- Ensuring trained and experience support staff
- OB hospitalists
- One-on-one nursing
- Support staff training on birthing equipment and techniques
- Building trust with patients and within care teams

Next steps

Using this feedback, March of Dimes and HCA Healthcare are producing a peer physician education video where several physicians shared best practices to reduce non-medically indicated NTSV Cesarean births. This video will be available in spring 2023.

March of Dimes and HCA Healthcare are committed to improving maternal and neonatal outcomes and will continue to support efforts to reduce medically unnecessary Cesarean births and improve the health of all moms and babies.



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