

Executive Summary

Fall 2022

Introduction

Cesarean birth is a lifesaving procedure, with obvious benefits to mother and baby when vaginal birth is no longer safe. Nonetheless, previous decades saw an extraordinary rise and remarkable variation in cesarean birth rates, creating concern for the quality and cost of maternity care.¹⁻⁴ In the ten years from 1998 to 2008, cesarean birth rates in the United States rose from 22% to 33% of all births,³ making it the nation's most common hospital surgery. Having the largest population and the largest number of births of any state, birth trends in California at that time mirrored the increased cesarean rates nationwide, with cesarean birth accounting for approximately one-third of all births.⁵

The Unintended Consequences of Cesarean Birth

Cesarean birth creates more risk for most low-risk birthing people, including the risk of hemorrhage, uterine rupture, abnormal placentation, and cardiac events.³ Because the rate of vaginal birth after cesarean (VBAC) remains below 15% in the United States,⁶ the biggest risk of the first cesarean may very well be the likelihood of subsequent cesareans. The risk of uterine rupture, uterine atony, placenta previa, placenta accreta, and surgical adhesions increase with each cesarean. By the third cesarean, the risk of placenta previa nearly triples, and roughly 40% of people with placenta previa will also have placenta accreta.⁷ Psychological stress, anxiety, and post-traumatic stress disorder (PTSD) have been identified as risks of cesarean.⁸ Patients also experience less acute but significant consequences: longer hospital stays, increased pain and fatigue, and slower return to normal activities and productivity.⁹⁻¹²

Risks of cesarean birth for neonates are equally concerning. Apart from fetuses in breech presentation, neonates have reaped few benefits from the rising cesarean birth rate.¹³ As cesarean rates increased in recent decades, cerebral palsy rates remained unchanged.¹⁴ Evidence also indicates that significant health consequences, including higher rates of serious respiratory complications and higher rates

of admission to the Neonatal Intensive Care Unit (NICU), are more likely to occur in babies born by cesarean.^{13,15-19} Furthermore, cesarean birth remains a barrier to early breastfeeding support, delays the first feeding, and may interfere with early skin-to-skin contact, all of which adversely affect the ability to breastfeed exclusively.^{3,10-12}

The Cost of Cesarean Birth

The financial burden of cesarean extends well beyond the surgery itself. The costs are significant for insurers, employers, taxpayers, the government, and ultimately the consumer. Studies of actual payments to hospitals and providers indicate that each cesarean costs \$5,000 to \$10,000 more than vaginal birth.² Most people with a previous cesarean will undergo a second or third cesarean birth, further increasing cost. An economic model created in collaboration with the Purchaser Business Group on Health conservatively estimates a potential annual savings in California of \$80 million to \$440 million, depending on the rate of cesarean reduction.¹³

California's Journey

The *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans* was published in 2016. This toolkit represents a collaborative effort by a diverse task force of over fifty experts, including obstetricians, anesthesiologists, midwives, labor nurses, doulas, patient advocates, childbirth education professionals, public health professionals, policymakers, and health care purchasers. It is a comprehensive, evidence-based, how-to guide to reducing avoidable cesarean births in the Nulliparous Term Singleton Vertex (NTSV) population.

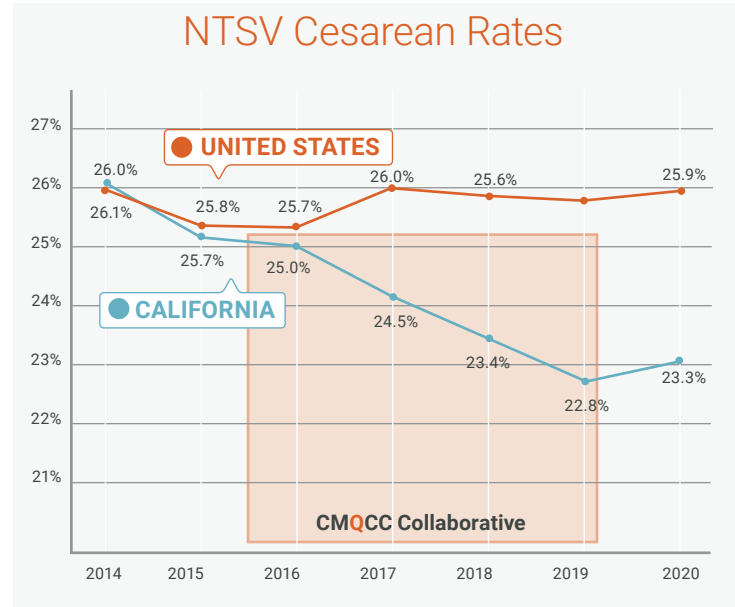
When the CMQCC Supporting Vaginal Birth Task Force began its work in 2015, a primary motivation for creating the toolkit was the significant variation in NTSV cesarean rates across California. For example, in 2013, the Los Angeles region had the highest average NTSV cesarean birth (PC-02) rate of 33.1%, with 49 percentage points separating the facilities with the highest and lowest cesarean rates.² However, people giving birth in the North Bay Region (Solano, Napa, and Sonoma counties), had a considerably lower average NTSV cesarean rate of 22.1% and experienced much less variation, with a difference of only 10 percentage points between facilities with the highest and lowest rates.² Large variation also existed between similar hospitals and even between providers within

single facilities. These variations indicated that the patient's risk level was not driving the high rates of NTSV cesarean within certain facilities, nor was patient request. Instead, various cultural and clinical components were at play, including variations in practice style and clinical decision making.²⁰

Between 2016 to 2018, CMQCC led a large, statewide collaborative of 91 birthing hospitals in California. Hospitals with NTSV cesarean rates above the Healthy People 2020 goal of 23.9% (along with two sister campuses of two selected hospitals) were invited to participate. At the same time, CMQCC coordinated a series of statewide activities with outside stakeholders that focused on transparency, public agenda setting, consumer outreach, and financial incentives by several payers. These activities had a dramatic effect. By the end of 2019, NTSV cesarean rates in California had dropped to 22.8%, down from 26% in 2014 (Figure 1). A subsequent safety study of the first two cohorts of the hospital collaborative analyzed rates of chorioamnionitis, blood transfusions, third- or fourth-degree lacerations, operative vaginal deliveries, severe unexpected newborn complications (UNC) (PC-06.1), and 5-minute Apgar scores. This safety study revealed that none of the six safety measures showed any statistically significant difference between 2015 to 2017. **No measure was statistically worse, and the rate of severe UNC declined.**²¹ This study was essential in showing that primary cesareans

could be safely reduced when strategies are specific to the needs of each hospital and aimed at improving outcomes through a patient-centered approach.

Figure 1. NTSV Cesarean Rates in the United States and California, 2014-2020

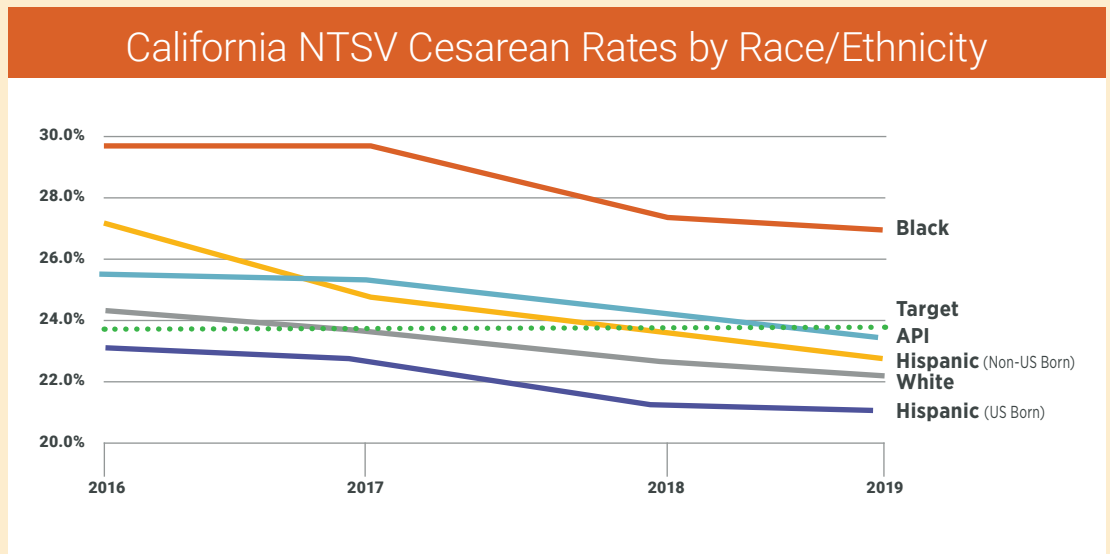


Source of US Data: National Vital Statistics System – Natality (NVSS-N), CDC/NCHS
Source of CA Data: CMQCC Maternal Data Center based on linked patient discharge and birth certificate data

Strategies that Consider the Complex Root Causes of Disparate Birth Outcomes

While the data showed a decrease in overall NTSV cesarean, it also revealed a disturbing trend of lingering racial inequity, particularly for Black birthing people in the state, whose NTSV cesarean rates declined overall but remain significantly higher than their white counterparts (Figure 2).

Figure 2. California NTSV Cesarean Rates by Race Ethnicity



Source: Department of Health Care Access and Information, 2019.

CMQCC is committed to our mission of ending preventable morbidity, mortality, and racial disparities in California maternity care. This mission will not be complete until the disparity gap is closed. During our recent pilot birth equity initiative, CMQCC adopted the definition of birth equity by Dr. Joia Crear-Perry, Founder and President of the National Birth Equity Collaborative. This definition explains that birth equity is “the assurance of the conditions of optimal births for all people with a willingness to address racial and social inequities in a sustained effort.”

Moving forward, it is clear that disparities in NTSV cesarean and other birth outcomes – especially racism-based disparities – can only be remedied by relationships that shift power and see the patient not only as a member of the team, but an expert in their own care.²² Until recently, there has been a reluctance to include a participatory role for patients and communities as content experts in deciding which strategies should be amplified to reduce disparities, potentially reproducing the racism-based disparities we aim to eliminate.²³ The first iteration of the *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans* began a much-needed discussion about shared decision making. Six years after the toolkit’s first publication, community leaders are issuing a clarion call demanding strategies that consider the complexity of disparities and their root causes.^{24,25} A recent report by the National Partnership for Women and Families also showed that birthing people in California explicitly desire midwifery and doula care.²⁶

To support these continued efforts, we have added Section V to the *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans*. This section focuses on team-based care with the integration of midwives and doulas as a standard complement within a highly functioning system. This new section will also consider – even in the absence of midwives and doulas – the benefit of using a universal physiologic approach with all essentially healthy birthing people to decrease unnecessary interventions and thus improve overall outcomes.^{27,28}

Together, Improvement Is Possible

Multiple strategies are necessary to reduce cesarean rates. Changes in clinical practice represent only one component. Other critical pressure points must come to bear, including (but not limited to) payment reform, consumer knowledge and expectations, transparency of hospital and provider-level data (all of which are discussed in the toolkit), and more. A national effort to reduce cesarean rates and disparities in birth outcomes is currently mounting from many collective, cohesive fronts. Together, improvement is possible.

Key Strategies for Improving the Culture of Care, Awareness, and Education for Cesarean Reduction

1 Improve Quality of and Access to Childbirth Education

- Align hospital practices and philosophies with evidence-based childbirth education
- Collaborate to assess and mitigate barriers to childbirth education (including cost, time of day), and include flexible educational formats such as high quality web content or interactive web-based learning
- Implement prenatal care models that efficiently integrate comprehensive pregnancy and childbirth education into routine visits, such as group prenatal care

2 Improve Communication through Shared Decision Making at Critical Points in Care

- Train providers, nurses, and staff on the essential elements of effective communication and shared decision making
- Design shared decision making discussions around the major decision points that impact the risk for cesarean, and effectively and routinely incorporate these discussions into regular prenatal visits
- Improve the shared decision making process through the utilization of high-quality, evidence-based decision aids in consumer-preferred formats specific to the patient's literacy level
- Adapt the clinical environment in order to integrate patient engagement and shared decision making into routine care (such as adjusting workflows to allow ample time for questions and educational opportunities)
- Respect and value differences in culture and religious beliefs

3 Bridge the Provider Knowledge and Skills Gap

- Improve the content of professional education and continuing education to support a "wellness approach" to obstetric care for the majority of people giving birth, including a redesign of standard curriculum to include principles of physiologic childbearing and a greater focus on the reduction of routine interventions for low-risk patients
- Incorporate interprofessional training and mentorship of nursing and medical students, nurse-midwifery graduates, and medical residents to foster a generational change in how routine obstetric care is delivered
- Ensure that all providers and nurses maintain the critical skills necessary to support vaginal birth
- Create a culture of transparency for hospital and provider-level data

4 Improve Support from Senior Hospital Leadership and Harness the Power of Clinical Champions

- Utilize the power of hospital leadership at all levels (e.g., executive and departmental) to promote an environment of continuous quality improvement
- Create, nurture, and sustain a core group of enthusiastic clinical champions

5 Transition from Paying for Volume to Paying for Value

- Implement alternative payment models (APMs) that reward quality, reduce incentives to perform cesarean deliveries, and focus on coordinated patient-centered care

Key Strategies for Supporting Intended Vaginal Birth

1 Implement Institutional Policies that Uphold Best Practices in Obstetrics, Safely Reduce Routine Interventions in Low-Risk People, and Consistently Support Vaginal Birth

- Perform a comprehensive review of existing unit policies and edit such policies to provide a consistent focus on supporting vaginal birth

2 Implement Early Labor Supportive Care Policies and Establish Criteria for Active Labor Admission

- Implement policies that support the physiologic onset of active labor, reduce stress and anxiety for the patient and family, and improve coping and pain management
- Implement written policies that establish criteria for active labor admission, versus continued observation of labor status and/or discharge home
- Give adequate anticipatory guidance during the prenatal period about early labor expectations and the safety of completing early labor at home
- Educate patients and families on supportive care practices and comfort measures to facilitate completion of early labor at home

3 Improve the Support Infrastructure and Supportive Care during Labor

- Improve nursing knowledge and skill in supportive care techniques that promote comfort and coping
- Improve unit infrastructure and availability of support tools
- Improve assessment of pain and coping
- Remove staffing and documentation barriers to supportive bedside care
- Educate and empower spouses, partners, and families to provide supportive care

4 Encourage Partnership with Doulas and Work Collaboratively to Provide Labor Support

- Integrate doulas into the birth care team (see Part V of this toolkit for more specific strategies)
- Improve teamwork, communication, and collegial rapport between nurses, providers, and doulas in order to promote safe, patient-centered care and continuous labor support

5 Utilize Best Practice Recommendations for Laboring Patients with Regional Anesthesia (Epidural, Spinal, and Combined Spinal Epidural)

- Do not avoid or delay placement of epidural anesthesia as a method of reducing risk for cesarean birth
- There is no arbitrary cervical dilation that must be met in order to administer epidural anesthesia
- The patient should be assisted in changing position at least every 20 minutes to assist necessary fetal rotation
- Allow for longer durations of the second stage of labor for patients with regional anesthesia (e.g., 4 hours in nulliparous people, 3 hours in multiparous people), as long as maternal and fetal statuses remain reassuring
- Allow for passive descent when there is no urge to push (delayed pushing until there is a stronger urge to push, generally 1-2 hours after complete dilation)
- Preserve as much motor function as possible by administering the lowest concentration of epidural local anesthetic necessary to provide adequate maternal pain relief
- Turning an epidural off during the second stage of labor likely has minimal beneficial effect on the length of the second stage
- Utilize patient-controlled epidural anesthesia (PCEA) with background maintenance infusion that is intermittent or continuous (for laboring patients, this is superior to PCEA alone and continuous infusion epidural)

6 Implement Intermittent Monitoring Policies for Low-Risk People

- Implement policies that include a risk assessment tool, or checklist with exclusion criteria, to assist in identifying patients for which intermittent auscultation or intermittent EFM is appropriate
- Modify standing admission orders to reflect the use of intermittent auscultation or EFM as the default mode of monitoring for people who do not meet exclusion criteria
- Implement initial and ongoing training and education of all nurses and providers on intermittent auscultation and/or intermittent EFM procedures
- Provide patient education for the use of intermittent methods of monitoring and engage in shared decision making in order to determine the most appropriate method for each patient
- Ensure appropriate nurse staffing to accommodate intermittent monitoring

7 Implement Current Treatment and Prevention Guidelines for Potentially Modifiable Conditions

- Assess fetal presentation by 36 weeks gestation and offer external cephalic version (ECV) to patients with a singleton breech fetus
- Ensure initial training and ongoing physician competency in ECV
- Offer oral suppressive therapy at 36 weeks gestation, or within 3-4 weeks of anticipated delivery, to all patients with a history of genital herpes, including those without active lesions during the current pregnancy
- A cesarean birth is not necessary for people with a history of genital herpes but no active genital lesions at the time of labor

Key Strategies to Manage Labor Abnormalities and Safely Reduce Cesarean Births

1 Create Highly Reliable Teams and Improve Interprofessional Communication at Critical Points in Care

- Develop protocols and institutional policies that promote and support teamwork and effective communication
- Create a culture of collegiality and mutual respect
- Implement formal programs for the development and ongoing evaluation of teamwork and communication (e.g., TeamSTEPPS®)
- Promote standardized communication techniques to improve efficiency and clarity of communication (e.g., SBAR)
- Promote situational awareness through impromptu huddles, team rounds, and debriefings
- Develop Rapid Response Teams

2 Implement Standard Diagnostic Criteria and Standard Responses to Labor Challenges and Fetal Heart Rate Abnormalities

- Utilize standard diagnostic criteria and algorithms to reduce and respond to labor dystocia
- Implement policies for the safe use of oxytocin
- Endorse NICHD categories and standardize responses to abnormal fetal heart rate patterns and uterine activity
- Standardize induction of labor (e.g., patient selection, scheduling, and induction process)

3 Utilize Operative Vaginal Delivery in Eligible Cases

- Ensure training and ongoing physician competency in forceps and vacuum extraction

4 Identify Malposition and Implement Appropriate Interventions

- Identify malposition early (ideally by early second stage of labor), and employ the use of ultrasound if unable to clearly define the position of the vertex with digital exam and Leopold's Maneuvers
- Promote rotation of the vertex from an OP position with maternal positioning including during second stage, and manual or instrumented rotation by an experienced, well-trained provider
- As long as incremental descent is being made, and fetal and maternal statuses permit, allow for longer durations of the second stage (e.g., at least 4 hours for nulliparous patients and at least 3 hours for multiparous patients)

5 Consider Alternative Coverage Programs (Laborist Models and Physician/Midwife Collaborative Practice Models)

- Laborist models of care promote on-site readiness, remove the time-based and economic incentives to perform cesareans, and lend to the retention of core knowledge and skills
- Midwifery care has been identified as an underused maternity service, with the potential to curb costs, improve overall outcomes, and reduce rates of cesarean
- See Part V for more specific strategies for midwifery integration

6 Develop Systems that Facilitate Safe, Patient-Centered Transfer of Care Between the Out-of-Hospital Birth Environment and the Hospital

- See Part V for specific strategies

7 Reduce Liability-Driven Decision Making by Focusing on Quality and Safety

- Educate providers on the benefits of a well-designed quality improvement program to reduce cesarean
- Specifically address the situations that contribute the most to obstetric liability claims
- Well-chosen cesareans are sometimes necessary to prevent avoidable maternal and fetal harm. The goal of a quality improvement program to reduce cesarean is not to prevent cesarean birth "at all costs"

Key Strategies for Using Data to Drive Reduction in Cesareans

1 Strategies to Make Data Compelling to Providers

- Provide timely data to providers in a persuasive manner using display tools, background information, benchmarks, historical data, and broader outcome data (such as infant outcomes and maternal morbidity measures)
- Present comparative data in a manner that demonstrates a sense of urgency
- Present identical measures across multiple levels – MD / practice group / hospital / medical group / health plan / purchaser / region / state
- When presenting the data, include a goal that is attainable/achievable by showing that similar providers have already reached the goal
- “Package” the data for the audience – data can be supplemented by patient stories, not just graphs and figures

2 Strategies to Assist Organizations to Understand Data Associated with their Hospital, and Identify Steps to Improve Care

- Create meaningful sub-measures that indicate the drivers for the cesarean rate and benchmark these against other facilities
- For internal hospital use, create provider-level rates to help utilize “peer pressure” and identify those who would benefit from specific educational programs including reviews of their processes of care
- Use rapid-cycle data (30-75 days old) to provide immediate feedback for QI projects including, but not limited to, peer comparisons (health system, geographic, level of facility)
- Expand use of balancing measures to document lack of harm from interventions
- Disaggregate data by race/ethnicity to identify where disparities exist (payor, language, and social vulnerability indices such as patient address/region are other useful data sets for identifying disparities but may not be readily available for clinician use at the department level)

3 Strategies to Assist Providers to Understand their Cesarean Rates and be Comfortable with the Quality of the Data

- Provider-level data is a very important tool for driving QI but opens new issues of attribution, especially in facilities that have midwives or family medicine physicians who perform vaginal births with covering obstetricians performing the cesarean deliveries
- Create data tools that allow practitioners to “roll-up” outcomes together (group statistics) or reassign attribution within the data set
- Create tools for sub-analysis of physician-level rates to help providers understand where improvement opportunities may exist

4 Strategies to Engage Patients, Employers, and the General Public in the Improvement Project

- Public release of selected hospital-level measures that have been well vetted
- Provide a lay explanation of the measures
- Widely distribute these measures through multiple media channels to capture the greatest attention

Key Strategies for Midwifery Integration

1 Administrative Strategies

- Hire or contract with midwives to establish a team-based model for all patients (*See resources in Table 44*)
- Prioritize a diverse midwifery workforce – one that reflects the community being served
- Develop interdisciplinary leadership opportunities for midwives in your department
- Consider ideas for future quality improvement projects from midwives in your department
- Encourage midwives who attend births at your facility to lead quality improvement efforts, especially those efforts that promote low intervention care to improve outcomes
- Midwives involved in quality improvement efforts should have access to the Maternal Data Center (MDC)
- Foster a departmental culture that values reduced intervention for low-risk birthing people
- Privilege community midwives (midwives who attend births in homes or birth centers) at your hospital to enhance continuity of care and seamless transfer when needed
- Collect and analyze quality metrics for all provider types

2 Clinical Strategies

- Intentionally cultivate a culture on the birthing unit that values reduced intervention and physiologic birth through the standardization of clinical practices such as intermittent auscultation, mobility in labor, continuous labor support, and preservation of the patient-baby dyad
 - See expanded content on supporting vaginal birth in Section II of this toolkit
 - ACOG's Committee Opinion #766– Approaches to Limit Intervention During Labor and Birth
 - Appendix T: Model Policies for Intermittent Auscultation
 - Hands-On Understanding and Demonstration of Labor Support (HUDLS) is an e-learning tool available to CMQCC member hospitals at <https://accounts.cmqcc.org>
- Utilize a “right care at the right time by the right provider” approach to all patients – in a team-based model, this means care is led by the clinician who is “closest to the patient and whose scope best matches the clinical situation”
- Review hospital bylaws and ensure that midwives privileged at your facility can practice to the highest level allowed by state law; remove requirements that diminish autonomy such as physician co-signature of basic orders and progress notes
- Establish explicit standards or expectations for team-based physician-midwife care that is collaborative, collegial, and utilizes ACOG's guidelines for collaborative care (*see Figure 14*)
- Create mutually agreed-upon clinical practice guidelines that can serve as the “language of collaboration.” Ensure that these policies and guidelines are not more restrictive than what is legally permissible in the state and that midwives retain the ability to practice according to the midwifery philosophy of care
- Improve systems that facilitate safe, patient-centered transfer of care between the community birth settings and the hospital (*see Table 43* for specific strategies)

3 Educational Strategies

- Department-level educational opportunities should include a deeper dive into the components and strategies for successful team-based care
- “Shadowing” opportunities may be useful in facilities where team-based care is new, or in places where physiologic birth is historically rare. In this way, physicians and midwives can learn from each other and see how/where their practices complement each other
- Create expanded opportunities for department-wide interprofessional education and casual team-building opportunities to learn from all members of the care team and build better relationships across professions
- Debrief about – and learn from – normal, physiologic births
- Ensure that provider and nursing education not only addresses racism-based disparities in maternity care and implicit bias, but also an appreciation for the contribution of midwifery care to curbing this trend

Key Strategies for Integration and Improved Safety Across Birth Settings

- Create a standardized system of consultation between hospital-based and community birth providers upon transfer of care
- Promote timely access to consultation, continuous risk assessment, and seamless, respectful transfer of care from the community to the hospital setting throughout the entire care journey (antepartum, intrapartum, and postpartum)
- Create pathways and processes for ease of antenatal assessment or intervention, such as scheduling antenatal testing or induction of labor when needed
- Privilege community midwives (midwives who attend births in homes or birth centers) at your hospital to enhance continuity and seamless transfer when needed
- Promote timely and efficient transfer by directly admitting patients to the labor floor rather than through the Emergency Department
- Adhere to elements of “Just Culture” when responding to an emergency community birth transfer; regardless of emotions felt in the heat of the moment, all providers and staff should treat each other with respect and compassion
- Respect autonomy and destigmatize the choice to safely birth at home or in a birth center
 - Labeling a patient or situation as a “failed home birth” is depersonalizing and ignores that transfer to the hospital is a “right care at the right time” approach in an integrated system that utilizes differing levels of care
 - “Community birth” is preferable to the phrase “out-of-hospital birth” because it normalizes birth in all settings
 - Labeling midwives who are not nurses as “lay midwives” is inaccurate and devalues their training and role in an integrated system
- Understand that transferring to the hospital setting can be traumatic for patients and – without supportive systems in place – may negatively alter a person’s labor course and birth experience
- Treat community birth providers respectfully and as colleagues with shared goals
- Keep the patient and newborn together during transfer and after admission to the hospital; only separate the patient and newborn if there is a substantial concern for safety or well-being that requires separation
- Hold joint learning opportunities such as debriefs, grand rounds, and meet-and-greets for providers across birth settings to establish and deepen relationships, improve transfer and care coordination, and create shared expectations
- Establish a case review process that allows equal contribution and engagement from providers in all birth settings
- Obtain clinical information and report directly from the midwife
- Evaluate your current system for emergency community birth transfers with community birth input, create guidelines or standardized processes for emergency transfer
- Implement practice drills for emergency community birth transfer and include EMS and community birth midwives (see resources in *Table 44*)
- Consider the community midwife as part of the support team even after hospital transfer; hospital policies should reflect that the transferring midwife is not a “visitor” in the traditional sense (specifically, they should not be bound by time limits or other visitor rules that would restrict their ability to remain with the patient)
- Coordinate postpartum care appointments and sending of relevant medical records with the community midwife

Key Strategies for Integrating Doulas Into the Birth Care Team

1 Administrative Strategies

- Foster a departmental culture that values physiologic birth and reduced intervention for normal, low-risk birthing people
- Work together with local doula organizations to provide consistent, accessible support and resources to families
- Connect with community-based doula programs and show interest in supporting and welcoming community-based doulas at your facility
- Explore the feasibility of establishing a hospital-based doula program at your facility that prioritizes a doula workforce that reflects the community being served
- Even if your hospital already has a doula program, do not prevent or restrict the ability of patients to bring their own doula
- All doulas – whether community-based or hospital volunteers – should be empowered to remain independent champions for patients
- Hospital policies should reflect that doulas are not “visitors” in the traditional sense (specifically, they should not bound by time limits or other visitor rules that would restrict their ability to remain with the patient)

2 Clinical Strategies

- Intentionally cultivate a culture on the birthing unit that values physiologic birth through the standardization of clinical practices such as intermittent auscultation, mobility in labor, continuous labor support, and preserving the patient-baby dyad. Resources include:
 - Section II of this toolkit
 - ACNM’s Pearls of Physiologic Birth
 - ACOG’s Approaches to Limit Intervention During Labor and Birth
- Understand and value the doula’s extensive knowledge of labor support techniques as a complement to technical and medical skill sets
- Establish expectations for how providers, nurses, and doulas interact and support each other, and consistently model collegial rapport and open communication
- Develop unit guidelines or educational materials that delineate a mutual understanding of roles and invite local doulas to help create these materials
 - Share these materials with nurses and providers and invite local community groups to share the materials widely with other doulas and patients
 - For facilities with hospital-based doula programs, posting this information at the bedside may help patients to understand the role of their doula
- Foster a culture of patient-centered care that values shared decision making and autonomy and the understanding that doulas are there to consistently advocate on behalf of the patient
- Engage in mutual learning at the time of clinical interaction. Doulas and nurses can learn an enormous amount from each other, and patients also benefit from this shared interaction
 - Some doulas desire to learn more about the medical and nursing aspects of labor
 - Doulas can teach evidence-based, culturally informed techniques that are not often taught in traditional medical and nursing training
- Update policies to include doulas as support people in the operating room if the patient desires

3 Educational Strategies

- Department educational opportunities should include a deeper dive into the components and strategies for successful team-based care that incorporate doulas as part of the team
- Create expanded opportunities for department-wide, interprofessional education that includes doulas from your community or a doula organization with whom you have a relationship
- Debrief about – and learn from – normal, physiologic birth where doula care was, or could have been, pivotal in the patient’s progress and outcome
- Ensure that provider and nursing education includes racism-based disparities in maternity care, implicit bias, and an understanding of the role of doula care in curbing this trend

1. Safe reduction of primary cesarean birth. Web page. Alliance for Innovation on Maternal Health. Accessed Aug 15, 2022, <https://saferbirth.org/psbs/safe-reduction-of-primary-cesarean-birth/>
2. Report: Variation in NTSV c-section rates among California hospitals. 2015. Accessed Aug 16, 2022. https://www.leapfrog-group.org/sites/default/files/Files/PBGH_NTSV-C-Section-Variation-Report.pdf
3. Main EK, Morton CH, Melsop K, Hopkins D, Giuliani G, Gould JB. Creating a public agenda for maternity safety and quality in cesarean delivery. *Obstet Gynecol.* Nov 2012;120(5):1194-8. doi:<http://10.1097/AOG.0b013e31826fc13d10.1097/aog.0b013e31826fc13d>
4. Obstetric care consensus no. 1: safe prevention of the primary cesarean delivery. *Obstet Gynecol.* Mar 2014;123(3):693-711. doi:[10.1097/01.AOG.0000444441.04111.1d](https://doi.org/10.1097/01.AOG.0000444441.04111.1d)
5. Hamilton BE, Martin JA, Osterman MJ, Curtain SC. Births: Preliminary Data for 2014. *Natl Vital Stat Rep.* Jun 2015;64(6):1-19.
6. Basile Ibrahim B, Knobf MT, Shorten A, et al. "I had to fight for my VBAC": A mixed methods exploration of women's experiences of pregnancy and vaginal birth after cesarean in the United States. *Birth.* Jun 2021;48(2):164-177. doi:[10.1111/birt.12513](https://doi.org/10.1111/birt.12513)
7. Silver RM, Landon MB, Rouse DJ, et al. Maternal morbidity associated with multiple repeat cesarean deliveries. *Obstet Gynecol.* Jun 2006;107(6):1226-32. doi:[10.1097/01.Aog.0000219750.79480.84](https://doi.org/10.1097/01.Aog.0000219750.79480.84)
8. Lobel M, DeLuca RS. Psychosocial sequelae of cesarean delivery: review and analysis of their causes and implications. *Soc Sci Med.* Jun 2007;64(11):2272-84. doi:[10.1016/j.socscimed.2007.02.028](https://doi.org/10.1016/j.socscimed.2007.02.028)
9. Declercq E, Barger M, Cabral HJ, et al. Maternal outcomes associated with planned primary cesarean births compared with planned vaginal births. *Obstet Gynecol.* Mar 2007;109(3):669-77. doi:[10.1097/01.Aog.0000255668.20639.40](https://doi.org/10.1097/01.Aog.0000255668.20639.40)
10. Chalmers B, Kaczorowski J, Darling E, et al. Cesarean and vaginal birth in Canadian women: a comparison of experiences. *Birth.* Mar 2010;37(1):44-9. doi:[10.1111/j.1523-536X.2009.00377.x](https://doi.org/10.1111/j.1523-536X.2009.00377.x)
11. Rowe-Murray HJ, Fisher JR. Baby friendly hospital practices: cesarean section is a persistent barrier to early initiation of breastfeeding. *Birth.* Jun 2002;29(2):124-31. doi:[10.1046/j.1523-536x.2002.00172.x](https://doi.org/10.1046/j.1523-536x.2002.00172.x)
12. Zanardo V, Svegliado G, Cavallin F, et al. Elective cesarean delivery: does it have a negative effect on breastfeeding? *Birth.* Dec 2010;37(4):275-9. doi:[10.1111/j.1523-536X.2010.00421.x](https://doi.org/10.1111/j.1523-536X.2010.00421.x)
13. Main E, Morton C, Hopkins D, Giuliani G, Melsop K, Gould J. Cesarean deliveries, outcomes, and opportunities for change in California: Toward a public agenda for maternity care safety and policy. 2011.
14. Birth prevalence of cerebral palsy. Web page. Centers for Disease Control (CDC). Accessed September 8, 2022, <https://www.cdc.gov/ncbddd/cp/features/birth-prevalence.html#:~:text=Main%20Findings&text=The%20birth%20prevalence%20of%20CP,555%20children%20born%20in%202002.>
15. Kamath BD, Todd JK, Glazner JE, Lezotte D, Lynch AM. Neonatal outcomes after elective cesarean delivery. *Obstet Gynecol.* Jun 2009;113(6):1231-1238. doi:[10.1097/AOG.0b013e3181a66d57](https://doi.org/10.1097/AOG.0b013e3181a66d57)
16. Villar J, Carroli G, Zavaleta N, et al. Maternal and neonatal individual risks and benefits associated with cesarean delivery: multicentre prospective study. *Bmj.* Nov 17 2007;335(7628):1025. doi:[10.1136/bmj.39363.706956.55](https://doi.org/10.1136/bmj.39363.706956.55)
17. Go MD, Emeis C, Guise JM, Schelonka RL. Fetal and neonatal morbidity and mortality following delivery after previous cesarean. *Clin Perinatol.* Jun 2011;38(2):311-9. doi:[10.1016/j.clp.2011.03.001](https://doi.org/10.1016/j.clp.2011.03.001)
18. Black M, Bhattacharya S, Philip S, Norman JE, McLernon DJ. Planned Cesarean Delivery at Term and Adverse Outcomes in Childhood Health. *Jama.* Dec 1 2015;314(21):2271-9. doi:[10.1001/jama.2015.16176](https://doi.org/10.1001/jama.2015.16176)
19. Sinha A, Bewley S, McIntosh T. Myth: babies would choose prelabour caesarean section. *Semin Fetal Neonatal Med.* Oct 2011;16(5):247-53. doi:[10.1016/j.siny.2011.03.003](https://doi.org/10.1016/j.siny.2011.03.003)
20. MacDorman MF, Menacker F, Declercq E. Cesarean birth in the United States: epidemiology, trends, and outcomes. *Clin Perinatol.* Jun 2008;35(2):293-307, v. doi:[10.1016/j.clp.2008.03.007](https://doi.org/10.1016/j.clp.2008.03.007)
21. Main E, Chang SC, Cape V, Sakowski C, Smith H, Vasher J. Safety Assessment of a Large-Scale Improvement Collaborative to Reduce Nulliparous Cesarean Delivery Rates. *Obstet Gynecol.* Apr 2019;133(4):613-623. doi:[10.1097/aog.00000000000003109](https://doi.org/10.1097/aog.00000000000003109)
22. Hardeman RR, Karbeah J, Kozhimannil KB. Applying a critical race lens to relationship-centered care in pregnancy and childbirth: An antidote to structural racism. *Birth.* Mar 2020;47(1):3-7. doi:[10.1111/birt.12462](https://doi.org/10.1111/birt.12462)
23. Scott K. Prioritizing patient narratives & community wisdom in quality improvement & implementation science. Webinar presentation. Accessed June 26, 2022, <https://tinyurl.com/3hxf3nk624>. Reversing the U.S. Maternal Mortality Crisis: A Report of the Aspen Health Strategy Group. 2021.
25. Crear-Perry J, Hernández-Cancio S. Saving the lives of moms and babies: Addressing racism and socioeconomic influencers. 2021. <https://www.nationalpartnership.org/our-work/resources/health-care/saving-the-lives-of-moms-and.pdf>
26. Sakala C, Declercq E, Turon JM, Corry MP. Listening to mothers in California: A population-based study of women's childbearing experiences. 2018. <https://www.chcf.org/wp-content/uploads/2018/09/ListeningMothersCAFullSurveyReport2018.pdf>
27. Committee Opinion No. 687: Approaches to Limit Intervention During Labor and Birth. *Obstet Gynecol.* Feb 2017;129(2):e20-e28. doi:[10.1097/aog.0000000000001905](https://doi.org/10.1097/aog.0000000000001905)
28. Pearls of physiologic birth. American College of Nurse-Midwives 2019. Accessed July 12, 2022. <https://www.midwife.org/pearls>