Perinatal Quality Improvement Tips

A Resource Guide for Hospitals Seeking to Improve Maternal & Newborn Outcomes

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This resource guide provides a summary of programs and initiatives that may help birthing facilities address some of the greatest challenges affecting maternal and newborn health in South Carolina (SC). It is designed for use within hospitals by perinatal quality improvement leaders and provider Champions to improve systems of care and, consequently, improve obstetric outcomes through the implementation of evidence-based, respectful care. Not only will this improve the quality of life for obstetric patients and their newborns, but will, in turn, support hospitals in the following ways:

- Aid in reporting of national quality indicators (i.e., CMS, AIM, The Joint Commission, and Leapfrog Group)
- · Help meet CMS birthing-friendly credentials
- · Optimize limited staff resources
- Promote greater return on investment

The resources in this guide provide a starting point for conversations surrounding the maternal health issues addressed. We recognize that quality improvement, particularly at the hospital level, requires **many different levels of engagement** as some highlighted action steps include the implementation of new policies or procedures.

Engagement

In its earlier forms, these resources were shared via separate, topical factsheets that have been re-imagined here as a single, integrated resource, reflecting the interconnectedness of the various healthcare concerns that impact mothers and newborns holistically. Resources in this guide include national recommendations and guidelines, toolkits, information on clinical safety bundles for implementation within hospitals, and local initiatives providing support for both providers and patients.

It is important to note that these improvement tips are tailored specifically to the existing work of the South Carolina Birth Outcomes Initiative (SCBOI) and, therefore, focus on

Levels of Engagement for Implementation of Hospital Quality Improvement Initiatives



the measures and characteristics present on the SCBOI dashboard and are not inclusive of all measures of perinatal quality improvement.

SCBOI, a multi-disciplinary effort founded in 2011, with the support of the South Carolina Department of Health and Human Services (SCDHHS), has led numerous efforts supporting perinatal care, such as advocating for the elimination of elective inductions and Cesareans, enhancing behavioral health screening, expanding access to immediate postpartum long-acting reversible contraceptives, and promoting the CenteringPregnancy® group prenatal care model.

As of 2019, SCBOI began its formal partnership with the Alliance for Innovation on Maternal Health (AIM) whose mission led by the American College of Obstetricians and Gynecologists (ACOG) is to support best practices to make birth safer, improve maternal health outcomes, and save lives. In August 2021, SC AIM's first patient safety bundle (PSB) focused on obstetric hemorrhage was introduced. October 2023 marked the last month of this bundle. On November 8, 2023, the severe hypertension in pregnancy PSB was implemented in SC and is the current focus as hypertensive disorders during pregnancy continue to be one of the leading known causes of preventable severe maternal morbidity and mortality.

Given this partnership, throughout the guide, we have integrated existing AIM training videos and patient safety bundle materials. These are bolstered by resources highlighting SC-based perinatal quality improvement initiatives. We hope that if you have not already, you will familiarize yourself with these initiatives, their efforts, and the resources shared in this guide and engage them in action as we continue to work towards the common goal of improving maternal and newborn health in our state.

- WE HAVE DATA THAT SHOWS
 US THAT WE HAVE GAPS, AND
 WE'VE SEEN PROGRAMS THAT
 ACTUALLY CAN MAKE A DIFFERENCE...
 LET'S REPLICATE THEM OR AT LEAST
 TAKE THE MOST IMPORTANT PARTS
 AND SCALE THEM UP AND IMPLEMENT
 THEM IN OUR COMMUNITIES.
 - Community and Clinical Healthcare Provider (CCHP), VOICES/VOCES Initiative

Acknowledgments

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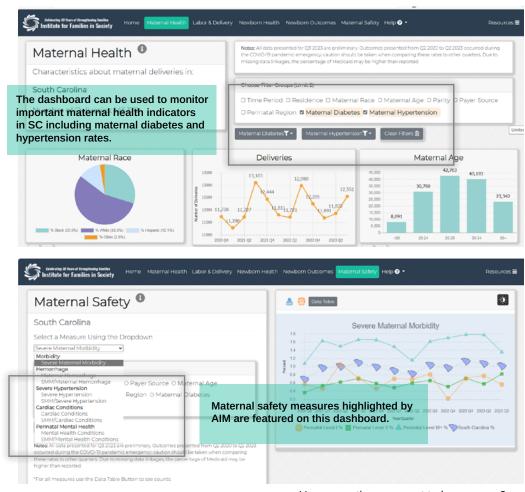
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SCBOI Interactive Dashboard

The SCBOI Interactive Dashboard, developed by the Institute for Families in Society at the University of South Carolina, allows users to explore maternal and newborn outcome metrics across payment, demographic, facility, and geographical characteristics at the state and hospital level. Connecting data to quality improvement information, the dashboard informs collaborative planning and decision making surrounding improved clinical outcomes for mothers and babies in SC. Public-facing data is available in addition to hospital-specific reports that require users to request and receive prior authorization to access.



BOI.IFSREPORTS.COM



Have questions or want to know more?





ON THE SCBOI DASHBOARD

The Maternal Safety tab makes it possible for users to explore trends in severe maternal morbidity (SMM) and those co-occurring conditions that place birthing people at greatest risk of SMM. These include maternal hemorrhage, severe hypertension, cardiac conditions, and perinatal mental health.

QUICK FACTS: What We Know

SMM

Every year, approximately **500 or 1%** of delivery patients in SC experience SMM, and this trend is increasing.

Individuals self-identifying as Black, Non-Hispanic, Medicaid beneficiaries, and those who delivered in a Perinatal Level III/IV facility are more likely to experience SMM at delivery.

SMM encompasses 21 acute conditions defined by <u>AIM</u>, such as sepsis, acute myocardial infarction, eclampsia, and ventricular fibrillation.¹

SMM can result in significant health consequences for birthing people, both in the short term and over an extended period.²

Maternal Hemorrhage

Maternal hemorrhage is a direct cause of maternal morbidity and mortality.^{3,4}

A blood loss threshold of >500ml should be considered regardless of mode of delivery.⁵ Likewise, tracking blood transfusion side-by-side is needed,⁶ but should not count against clinical quality.^{7,8} In 2023, the rate of SMM among obstetric hemorrhage patients was nearly **7% compared to 1%** statewide.

Severe Hypertension

Maternal preeclampsia is a leading cause of maternal morbidity and mortality, prematurity, placental abruption, and low birthweight. 9,10

1 in 5 chronic hypertensive perinatal patients suffered a severe hypertensive event at delivery.

Additionally, it is estimated that over 1 in 2 pregnancies with severe hypertension in SC result in a preterm birth.¹¹

Cardiac Conditions

Together, cardiomyopathy and cardiovascular conditions are responsible for over **1** in **5** pregnancy-related deaths in SC.¹²

In the United States, cardiac conditions are a leading cause of pregnancy-related mortality, especially among those who identify as non-Hispanic Black. 13,14

Perinatal Mental Health

Around **1** in **5** mothers in the United States experiences a serious mental health condition during or after pregnancy. When left untreated, it can increase the risk of negative health outcomes, including preterm birth, low birthweight, substance use, and hypertension.¹⁵

On average, **1** in **6** birthing people in SC have a mental health diagnosis in the perinatal period, the year prior to through one year after delivery.¹⁵

Mental health conditions/substance use disorder was the leading cause of maternal mortality in SC from 2018-2020.16

IMPROVEMENT TIPS: What We Can Do

CONDITION-SPECIFIC RESOURCES

SMM

- 1. The American College of Obstetricians and Gynecologists (ACOG) and Society for Maternal-Fetal Medicine recommend reviewing cases with transfusion of 4 or more units of blood and any admission of a pregnant or postpartum woman to an ICU or any occurrence of unexpected and severe medical events in pregnant or postpartum women (at facility's discretion).¹⁷
- 2. The Alliance for Innovation on Maternal Health (AIM) has <u>a guide to SMM chart reviews</u>, a template review form, and additional resources on best practices to abstracting SMM cases.
- 3. Because obstetric simulation can improve maternal outcomes, integrate severe maternal morbidity patient safety simulations and drills at your hospital.¹⁸
- Implement a <u>Maternal Early Warning System (MEWS)</u> to recognize and respond to mothers with deteriorating conditions.

Maternal Hemorrhage

- To better develop processes for the management of obstetric hemorrhage patients, view the following <u>AIM webinar</u> to learn how to implement a stage-based obstetric hemorrhage emergency management plan.
- Use the <u>ACOG Safe Motherhood Initiative Checklist</u> to properly identify and respond to emergency obstetric events.
- 3. The <u>California Maternal Quality Care Collaborative</u> has tools to assist providers and hospital staff with timely response and recognition of obstetric hemorrhage.

Severe Hypertension

- 1. Following the implementation of the SCBOI Severe Hypertension in Pregnancy bundle, AIM Champions were asked to reflect on existing barriers to timely response to severe hypertension events. Their responses suggested that hospitals should:
 - Establish a set algorithm to promote timely response to severe hypertension events.
 - Make sure all key players are present during training drills.
 - · Implement policies addressing scheduling of postpartum follow-up.
 - Ensure education among ED staff in early recognition and screening for current or recent pregnancy or implement a protocol where postpartum mothers wear an identifier (i.e., a bracelet) to notify ED personnel rapidly.¹⁹
- 2. ED providers can learn more about responding to hypertensive obstetric emergencies in non-obstetric settings by viewing this <u>webinar from AIM</u>.
- 3. ACOG recommends that patients with chronic hypertension should begin taking low-dose aspirin before 16 weeks gestation and continue to take aspirin daily throughout the duration of their pregnancy.
- 4. The <u>Severe Hypertension in Pregnancy Checklist</u> provides guidance for hospital staff who are treating patients with a severe hypertensive event.
- 5. The California Maternal Quality Care Collaborative developed a <u>toolkit</u> to assist providers and hospital staff with timely response and recognition of maternal hypertension and preeclampsia.



IMPROVEMENT TIPS: What We Can Do

CONDITION-SPECIFIC RESOURCES

Cardiac Conditions

- The American Heart Association <u>recommends</u> that perinatal patients with cardiac conditions receive specialized multidisciplinary care throughout the duration of their care and following delivery. Cardio-obstetrics teams can help with care coordination and reduce maternal morbidity and mortality.²⁰
- 2. The American College of Cardiology has <u>guidelines</u> and a <u>webinar</u> tailored for providers caring for pregnant patients with cardiac conditions, which includes medication management.
- Use the Improving Health Care Responses to Cardiovascular Disease in Pregnancy Postpartum
 toolkit to prevent and treat cardiomyopathy cases. Share the toolkit's one-page discharge
 resource with all delivering patients.

Perinatal Mental Health

- ACOG has developed guidelines to diagnose and treat mental health conditions among perinatal patients. Visit their <u>website</u> to learn more.
- The SCBOI Behavioral Health Workgroup is addressing maternal mental health needs and treatment for substance use disorder. <u>Attend a meeting</u> to learn more.
- 3. The National Harm Reduction Coalition and Reproductive Health National Training Center provide toolkits for implementing <u>substance use screening</u>, such as the use of SBIRT, and <u>harm reduction practices</u>.
- MUSC's Mom's IMPACTT program allows providers to receive perinatal psychiatric consultation, training, and toolkits to improve treatment for mental health conditions, as well as resources for patients.
- 5. Learn how to build and implement a Substance Use Resource Map in this webinar.
- 6. Learn more about provider and patient resources to combat perinatal mental health in this AIM webinar.
- 7. Connect your patients with the following emergency resources:

National Maternal Mental Health Hotline: 1-833-852-6262 Free and confidential hotline for pregnant and new moms

SC Mobile Mental Health Crisis Team: 833-364-2274

Resource with 24/7 availability statewide for individuals experiencing a psychiatric emergency

Suicide and Crisis Lifeline: Call or text 988

Free and confidential support for people in suicidal crisis or emotional distress

National Domestic Violence Hotline: 1-800-799-SAFE (7233)

Free and confidential support and resources for those experiencing intimate partner violence



IMPLEMENTING MATERNAL SAFETY QUALITY IMPROVEMENT ACTIONS

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SCBOI Dashboard

View statewide and hospital-specific trends for each maternal safety topic addressed in this guide via the SCBOI portal.

Complete this form to receive approval to view your hospital's data.





AIM Patient Safety Bundles

Implement <u>core AIM patient safety bundles</u> to improve existing hospital processes and promote positive care and outcomes among patients. All maternal safety conditions listed in the portal have a corresponding bundle. Additionally, view <u>AIM webinars</u> which review the implementation of these bundles and additional resources.



AIA

SCBOI Workgroups

Join <u>SCBOI workgroups</u> where individuals can discuss relevant topics associated with each group. Focuses include maternal and newborn healthcare access and care coordination, safe sleep, behavioral health, and quality and patient safety. Each workgroup centers birth equity as part of its aims.



Promoting Health Equity

Review the <u>Voices/Voces training materials</u> and resources from the CDC's <u>HEAR HER Campaign</u> to learn more about pregnancy and birth inequities from the perspective of perinatal patients.



The White House Blueprint for Addressing the Maternal Health Crisis and the National Partnership for Women & Families provide resources to improve equity and reduce negative health outcomes.

Maternal Safety RESOURCE LIST



SMM

- American College of Obstetricians and Gynecologists (ACOG): https://www.acog.org/-/media/project/acog/acogorg/clinical/files/obstetric-care-consensus/articles/2016/09/se-vere-maternal-morbidity-screening-and-review.pdf
- 2. AIM Guide to SMM Chart Reviews: https://saferbirth.org/wp-content/uploads/Guide_to_SMM_Chart_Reviews_SMMReviewForm.pdf
- 3. AIM Template Review Form: https://saferbirth.org/wp-content/uploads/AIM_SMM_Review_Form.pdf
- Maternal Health Learning & Innovation Center's brief Increasing Access to Obstetric Simulation to Improve the Quality of Clinical Practice for Maternal and Infant Health: https://maternalhealthlearning.org/wp-content/uploads/2024/01/Issue-Brief_Increasing-access-to-obstetric-sim-ulation-2023.pdf
- 5. Maternal Early Warning System (MEWS): https://www.tchmb.org/maternal-early-warning-system#:~:text=The%20Maternal%20Early%20Warning%20System,avoiding%20major%20morbidity%20and%20mortality

Maternal Hemorrhage

- 1. AIM Webinar Implementing A Stage-Based Obstetric Hemorrhage Emergency Management Plan: https://vimeo.com/768308756
- 2. ACOG Obstetric Hemorrhage Checklist: https://www.acog.org/-/media/project/acog/acogorg/files/forms/districts/smi-ob-hemorrhage-bundle-hemorrhage-checklist.pdf
- 3. California Maternal Quality Care Collaborative OB Hemorrhage Toolkit: https://www.cmqcc.org/resources-tool-kits/toolkits/ob-hemorrhage-toolkit

Severe Hypertension

- 1. AIM Webinar Responding to Hypertensive Obstetric Emergencies in Non-Obstetric Settings: https://vimeo.com/844619990
- ACOG Committee Opinion on Low-Dose Aspirin Use During Pregnancy: https://www.acog.org/clinical/clinical-guidance/committee-opinion/articles/2018/07/low-dose-aspirin-use-during-pregnancy
- 3. ACOG Severe Hypertension in Pregnancy Checklist: https://www.scdhhs.gov/sites/default/files/ACOG-District-II-Checklist-Severe-Hypertension-in-Pregnancy.pdf
- 4. The California Maternal Quality Care Collaborative *Hypertensive Disorders of Pregnancy Toolkit*: https://www.cmgcc.org/resources-tool-kits/toolkits/HDP

Maternal Safety

RESOURCE LIST

(continued)



Cardiac Conditions

- 1. American Heart Association Scientific Statement: *Pregnant women with CVD need specialized care before, during and postpartum:*
 - https://newsroom.heart.org/news/aha-statement-pregnant-women-with-cvd-need-specialized-care-be-fore-during-and-postpartum#:~:text=Women%20with%20cardiovascular%20disease%20should%20receive%20pre-pregnancy%20counseling.health%20care%20providers%20with%20experience%20in%20high-risk%20pregnancies
- 2. The American College of Cardiology article *Cardiovascular Considerations in Caring for Pregnant Patients*: https://www.acc.org/Latest-in-Cardiology/ten-points-to-remember/2020/05/12/15/58/Cardiovascular-Considerations-in-Caring-for-Pregnant
- 3. ACOG webinar *Maternal Cardiac Conditions*:
 https://www.acog.org/education-and-events/webinars/maternal-cardiac-conditions-addressing-a-lead-ing-cause-of-pregnancy-related-death
- 4. Improving Health Care Response to Cardiovascular Disease in Pregnancy and Postpartum Toolkit is linked from this page: https://www.cmqcc.org/projects/cardiovascular-disease-pregnancy-postpartum

Perinatal Mental Health

- 1. ACOG Clinical Practice Guideline: *Treatment and Management of Mental Health Conditions During Pregnancy and Postpartum*:
 - https://www.acog.org/clinical-guidance/clinical-practice-guideline/articles/2023/06/treatment-and-management-of-mental-health-conditions-during-pregnancy-and-postpartum
- 2. The SCBOI Behavioral Health Workgroup meeting information:

 https://www.scdhhs.gov/resources/programs-and-initiatives/birth-outcomes-initiative/workgroups/behavior-al-health
- 3. The Reproductive Health National Training Center—*Implementing Substance Use Screening Toolkit*: https://rhntc.org/resources/implementing-substance-use-screening-toolkit?utm_campaign=September&utm_source=eNews
- 4. National Harm Reduction Coalition: *Pregnancy & Substance Use A Harm Reduction Toolkit:* https://issuu.com/harmreduction/docs/pregnancy and substance use- a harm 2fa242e7fb6684
- 5. MUSC's Mom's IMPACTT mental health and substance use disorder resource and referral program: https://muschealth.org/medical-services/womens/reproductive-behavioral-health/moms-impactt
- 6. AIM webinar *Get the 411 on WA211: Building and Implementing a Substance Use Resource Map:* https://vimeo.com/772583771
- 7. AIM webinar *PMHC in Action: Resources to Integrate Perinatal and Mental Health Care:* https://vimeo.com/885776334

Maternal Safety

RESOURCE LIST

(continued)



Implementing Maternal Safety Quality Improvement Actions Resources

SCBOI Dashboard

- 1. SCBOI Dashboard: https://boi.ifsreports.com/
- SCBOI Form to receive approval to view your hospital's data: https://boi.ifsreports.com/resources/documents/IFS ReportsBOI UserForms.pdf

AIM Patient Safety Bundles

- 1. Core AIM patient safety bundles: https://saferbirth.org/patient-safety-bundles/
- 2. AIM Webinars: https://vimeo.com/aimprogram

SCBOI Workgroups Information:

https://www.scdhhs.gov/resources/programs-and-initiatives/birth-outcomes-initiative/workgroups

Promoting Health Equity

- 1. Voices/Voces Training Materials and Resources: https://www.schealthviz.sc.edu/voices-voces-initiative
- 2. Centers for Disease Control and Prevention's HEAR HER Campaign: https://www.cdc.gov/hearher/index.html
- 3. The White House Blueprint for Addressing the Maternal Health Crisis: https://www.whitehouse.gov/wp-content/uploads/2022/06/Maternal-Health-Blueprint.pdf
- 4. National Partnership for Women & Families Raising the Bar for Maternal Health Equity and Excellence—Actionable Strategies for Healthcare Systems: https://nationalpartnership.org/wp-content/uploads/2023/04/raisingthebar-report.pdf

Form to request Hospital Report Access



Labor and Delivery



Labor and Delivery

ON THE SCBOI DASHBOARD

The Labor & Delivery tab of the SCBOI dashboard highlights SC C-section trends and focuses primarily on rates of potentially avoidable primary Cesarean sections (as measured by The Joint Commission PC-02 measure). Recognition of these trends is key as the state continues to focus its efforts on the <u>safe reduction of primary Cesareans</u> and associated morbidity and mortality.





QUICK FACTS: What We Know

Over 1 in 5 delivery patients in SC have a primary Cesarean.

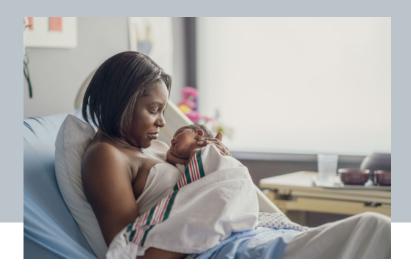
Rates are highest among those who self-identify as non-Hispanic Black.

Increased Cesarean births do not result in reductions in morbidity & mortality, and Cesarean-related health risks include increased rates of infection, hemorrhage, and hospital readmission.^{21,22}

IMPROVEMENT TIPS: What We Can Do

- 1. Learn more from the Institute for Healthcare Improvement regarding the safe reduction of Nulliparous, Term, Singleton, Vertex (NTSV) Cesarean births in this video.
- 2. Obstetric providers can implement strategies from the <u>Support Vaginal Birth (SVB) and</u> <u>Reduce Primary Cesareans Toolkit</u>.
- 3. Additional information about supporting vaginal birth may be reviewed in https://two.ncbi.nlm.nih.gov/. Additional information about supporting vaginal birth may be reviewed in https://two.ncbi.nlm.nih.gov/.
- Centers for Medicare & Medicaid has <u>a webinar series</u> for providers and quality improvement partners called "Improving Maternal Health by Reducing Low-Risk Cesarean Delivery Learning Collaborative."
- 5. For more information about partner engagement to reduce Cesareans, watch <u>this Medicaid</u> <u>webinar</u>.
- 6. Learn more about hospital participation in the safe reduction of primary Cesarean through implementation of the corresponding AIM patient safety bundle.

Labor and Delivery RESOURCE LIST



- 1. Institute for Healthcare Improvement (IHI) video Better Maternal Outcomes: Safe Reduction of NTSV Cesarean Births:
 - https://www.youtube.com/watch?v=cWQZvk0B9P8
- 2. California Maternal Quality Care Collaborative (CMQCC) *Toolkit to Support Vaginal Birth and Reduce Primary Cesareans*:
 - https://www.cmqcc.org/VBirthToolkit
- 3. SCDHHS webinar presentations on supporting vaginal birth can be found at this link. https://vip.scdhhs.gov/boi/site-page/archives
- 4. Centers for Medicare & Medicaid webinar series *Improving Maternal Health by Reducing Low-Risk Cesarean Delivery:*
 - https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/maternal-infant-health-care-quality/Low-Risk-Cesarean-Delivery/index.html
- 5. Webinar Partners Working Together to Reduce Low-Risk Cesarean Deliveries: https://www.youtube.com/watch?v=PhkRrTYgAhl
- 6. Webinar AIM Safe Reduction of Primary Cesarean Birth Implementation: https://vimeo.com/838384386
- 7. AIM patient safety bundle *Safe Reduction of Primary Cesarean Birth*: https://saferbirth.org/psbs/safe-reduction-of-primary-cesarean-birth/

Newborn Outcomes



ON THE SCBOI DASHBOARD

The Newborn Outcomes tab of the SCBOI dashboard provides trends for two of the most common adverse newborn outcomes; low birthweight and preterm birth. A new measure of unexpected complications will be added.



QUICK FACTS: What We Know

In SC, prematurity and low birthweight is a leading cause of infant mortality.²³

Over 12% of infants born in SC are born prematurely (PTB), ranking SC 5th in the country.²⁴

SC also exhibits some of the highest rates of low birthweight (LBW) in the nation, with **1 in 10** babies weighing less than 2,500 grams at birth. These infants commonly have immediate health problems and may be at greater risk for developmental delays and later chronic disease.^{25,26}



IMPROVEMENT TIPS: What We Can Do

- 1. Implementing or sustaining a CenteringPregnancy group at your facility is one strategy that may reduce your hospital's PTB and LBW rates.²⁷ For this reason, the SC Hospital Association considers CenteringPregnancy a best practice.²⁸ View this video to learn about a current program in SC.
- 2. Encourage your obstetric providers to participate in the <u>SC Screening, Brief Intervention, and Referral to Treatment (SBIRT)</u> initiative to identify early risk factors for PTB and LBW, such as domestic violence, mental health stress, and substance use.
- 3. To better understand the process and benefits of implementing SBIRT, watch this <u>video</u> developed by the Florida Perinatal Quality Collaborative, which provides an example of a clinician conducting a SBIRT assessment with an obstetric patient.
- 4. The SCBOI Newborn Care Coordination Workgroup meets monthly to discuss issues impacting SC newborns. Meeting information can be found here.
- 5. By the end of 2024, a new measure of newborn unexpected complications in term newborns (UNC) is planned as an addition to the Newborn Health tab of the dashboard (PC-06). As described by the Joint Commission, "the measure gauges adverse outcomes resulting in severe or moderate morbidity in otherwise healthy term infants without preexisting conditions. It also serves as a balancing measure for other maternal measures such as NTSV Cesarean rates and early elective delivery rates. The purpose of a balancing measure is to guard against any unanticipated or unintended consequences of quality improvement activities for these measures." As California Maternal Quality Care Collaborative describes, among very large delivery volume hospitals, UNC can be useful for identifying quality improvement opportunities as cases occur indicating the need to review cases.
- 6. A measure of PTB among mothers with cardiac conditions will also be added. This measure is part of the new AIM Cardiac Conditions in Obstetric Care <u>bundle</u>. The measure supports the bundle's aim for hospitals to establish coordination of appropriate consultation, co-management, and/or transfer to appropriate level of maternal or newborn care, as well as to develop trauma-informed training and protocols for people experiencing cardiac conditions.

Newborn Outcomes

RESOURCE LIST



- MUSC Health CenteringPregnancy Program video: https://www.youtube.com/watch?v=lp7ZsQ_FEcs
- 2. SCDHHS presentation *SC Screening, Brief Intervention, and Referral to Treatment (SBIRT)*: https://www.scdhhs.gov/sites/default/files/SBIRTProviderpresentation.pdf
- Florida Perinatal Quality Collaborative video providing an example of a clinician conducting a SBIRT assessment with an obstetric patient: https://www.youtube.com/watch?v=o0FIFUj5X3c
- 4. The SCBOI Newborn Care Coordination Workgroup meeting information: https://vip.scdhhs.gov/boi/site-page/newborn-care-coordination
- The Joint Commission PC-06 Measure: https://manual.jointcommission.org/releases/TJC2018B/MIF0393.html
- CMQCC Unexpected Complications in Term Newborns Overview & Frequently Asked Questions: https://www.cmqcc.org/sites/default/files/Unexpected_Newborn_Complications_FAQs_2018%20Datav2.
 https://www.cmqcc.org/sites/default/files/Unexpected_Newborn_Complications_FAQs_2018%20Datav2.
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- 7. AIM Cardiac Conditions in Obstetrical Care: https://saferbirth.org/psbs/cardiac-conditions-in-obstetric-care/

Care Transitions to Improve Maternal Health

Care Transitions to Improve Maternal Health

THIS SECTION

This section provides resources supporting care coordination between OB and other primary, specialty, and ED providers and engagement of community partners serving those with complex healthcare needs. This continuity is particularly important for those individuals with co-occurring health conditions associated with poor maternal and newborn outcomes, such as diabetes—a condition of concern that users can filter by on the SCBOI dashboard.



QUICK FACTS: What We Know

Recent research has shown that chronic conditions are the most significant contributors to rising maternal mortality and morbidity in the United States (CDC, 2021).

It is estimated that **1** in every **10** SC perinatal patients is diagnosed with diabetes. These individuals are more likely to experience SMM, ICU admission, undergo avoidable Cesareans, and have children suffering from birth defects.²⁹

IMPROVEMENT TIPS: What We Can Do



DIABETES

- The <u>Women's Health Initiative Diabetes Free SC</u> serves to increase diabetes awareness, screening, and prevention measures for women living in SC. This initiative funds five diabetes programs across the state that aim to empower women with diabetes to take control of their health, have healthier pregnancies and healthier children, and be agents of positive change for their families and communities.
- 2. The American College of Obstetrics and Gynecology (ACOG) and ADA have released updated <u>guidance</u> for managing gestational diabetes.
- The <u>Management of Maternal (MOMs) Diabetes Program</u> at the Medical University of SC Women's Health has a multidisciplinary team that provides care for mothers with chronic and gestational diabetes. This includes meal planning, glucose monitoring, medication management, and patient support.
- 4. The <u>American Diabetes Association Diabetes</u> <u>Care Journal</u> published an article outlining steps that providers can take to manage gestational and chronic diabetes in pregnant patients, including glycemic targets during pregnancy, drug considerations, and guidelines for postpartum care.



Care Transitions to Improve Maternal Health (continued)

CARE TRANSITION

- Familiarize yourself with ongoing <u>Title V initiatives in SC</u>. Led by the South Carolina Department of <u>Public Health</u>'s (SCDPH) Maternal and Child Health Bureau, every five years, the state is directed to perform a statewide maternal and child health needs assessment which helps in the selection of seven to ten priority needs for programmatic focus.
- Implement training of OB-ED providers and staff. Resources include Prisma Health's
 <u>SimCOACH™</u> and AIM's Obstetric Emergency Readiness Resource Kit. Since 2012, 13
 birthing facilities in SC have closed, therefore, low-fidelity training of safety net primary care
 providers who may find themselves providing obstetric care is warranted.
- 3. Explore more regarding the benefits of doula care. Research shows that doulas, and their support services, which expand the full continuum of maternity care, have a positive impact on maternal and newborn outcomes.
- 4. View the IFS SC County Profiles data showcasing both maternal health and socioeconomic indicators. By viewing both indicators in conjunction with racial disparities and geographical differences, a more holistic understanding of maternal health trends, gaps, and areas of concern can be identified and addressed at the local level more accurately.
- 5. Efforts addressing social determinants of health have the potential to increase access to care and improve maternal health. Working with community partners, such as the Williamsburg County Community Coalition, can aid in improving care transition with a community focus. Read more about the Community Care for Postpartum Safety and Wellness bundle the program implemented.
- MUSC's Listening to Women and Pregnant and Postpartum People is a collaborative, technology-enabled solution to home visitation, connecting mothers to resources. (https://muschealth.org/medical-services/womens/pregnancy/listening-to-women)

EFFORTS PROMOTING PRENATAL AND POSTPARTUM CARE SCHEDULING

Timely scheduling of prenatal and postpartum care is necessary to monitor both pregnancy and recovery and identify potential complications.

In SC:

- 1. Medicaid coverage has been extended to cover 12 months postpartum.
- 2. There is **no limit** on the number of pregnancies or postpartum visits that are covered for full-benefit Medicaid recipients.
- 3. American College of Obstetricians and Gynecologists (ACOG) recommends the scheduling of postpartum care be individualized to address the unique needs of each patient.³⁰
- 4. To better manage acute health issues, the initial postpartum care visit should take place within 3 weeks of delivery, with follow-up care taking place as needed.
- Within 12 weeks of delivery, all postpartum patients should have a comprehensive wellwoman visit.
- 6. The SC Birth Outcomes Initiative (SCBOI) Access and Care Coordination Workgroup is focused on improving coordinated prenatal and postpartum care for patients with chronic conditions. To learn more, visit their <u>website</u>.

Care Transitions to Improve Maternal Health RESOURCE LIST



DIABETES-SPECIFIC RESOURCES

- 1. The Women's Health Initiative Diabetes Free SC: https://www.diabetesfreesc.org/programs/womens-health-initiative
- 2. Updated ACOG Guidance on Gestational Diabetes: https://www.obgproject.com/2023/01/02/acog-releases-updated-guidance-gestational-diabetes/
- 3. MUSC Management of Maternal (MOMs) Diabetes Program: https://muschealth.org/medical-services/diabetes/moms
- American Diabetes Association Diabetes Care Journal article Management of Diabetes in Pregnancy: Standards of Care in Diabetes—2023: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9810465/

CARE TRANSITION RESOURCES

- Title V MCH Block Grant Program–South Carolina State Snapshot: https://scdhec.gov/sites/default/files/media/document/2021-SC-Snapshot-for-Public-Input.pdf
- 2. Prisma Health's SimCOACH™ mobile simulation training center:

 https://prismahealthmidlandsfoundation.org/simcoach-from-mobile-simulation-to-vaccine-outreach/
- AIM's Obstetric Emergency Readiness Resource Kit: https://saferbirth.org/aim-obstetric-emergency-readiness-resource-kit/
- United States Department of Health and Human Services, Assistant Secretary for Planning and Evaluation Policy Brief Doula Care and Maternal Health: An Evidence Review:
 https://aspe.hhs.gov/sites/default/files/documents/dfcd768f1caf6fabf3d281f762e8d068/ASPE-Doula-Issue-Brief-12-13-22.pdf
- 5. USC Institute for Families in Society, SC County Profiles: https://www.schealthviz.sc.edu/county-profiles
- 6. National Academy for State Health Policy Brief Addressing Social Determinants of Health for Pregnant and Postpartum Medicaid Beneficiaries:

 https://nashp.org/addressing-social-determinants-of-health-for-pregnant-and-postpartum-medicaid-beneficiaries/
- Alliance on Innovation on Maternal Health Community Care Initiative (AIM CCI) Community Care for Postpartum Safety and Wellness bundle: https://www.aimcci.org/available-bundles/community-care-for-postpartum-safety-and-wellness/

PROMOTING PRENATAL AND POSTPARTUM CARE SCHEDULING RESOURCE

The SC Birth Outcomes Initiative (SCBOI) Access and Care Coordination Workgroup website: https://www.scdhhs.gov/resources/programs-and-initiatives/birth-outcomes-initiative/workgroups/access-and-care

Sources

- Centers for Disease Control and Prevention. (2023). How Does the CDC Identify Severe Maternal Morbidity? Retrieved from https://www.cdc.gov/reproductive-health/maternalinfanthealth/smm/severe-morbidity-ICD.htm.
- Centers for Disease Control and Prevention. (2023). Severe Maternal Morbidity in the United States. Retrieved from https://www.cdc.gov/reproductivehealth/maternalinfant-health/severematernalmorbidity.html.
- 3. March of Dimes. (2020). Postpartum Hemorrhage. Retrieved from https://www.marchof-dimes.org/pregnancy/postpartum-hemorrhage.aspx.
- 4. Centers for Disease Control and Prevention. (2022). Pregnancy Mortality Surveillance System. Retrieved from https://www.cdc.gov/maternal-mortality/php/pregnancy-mortality-surveillance/.
- 5. Practice Bulletin No. 183: Postpartum Hemorrhage, Obstetrics & Gynecology: October 2017 Volume 130 Issue 4 p e168-e186 doi: 10.1097/AOG.000000000002351.
- The American College of Obstetricians and Gynecologists and Society for Maternal-Fetal Medicine. 2016, September (reaffirmed 2021). Severe Maternal Morbidity: Screening and Review. Retrieved from https://www.acog.org/clinical/clinical-guidance/obstetric-care-con-sensus/articles/2016/09/severe-maternal-morbidity-screening-and-review.
- 7. Alliance for Innovation on Maternal Health. (2022). AIM Severe Maternal Morbidity (SMM) Data Alert for Blood Transfusions. Retrieved from https://saferbirth.org/wp-content/uploads/AIM-SMM-Data-Alert-Blood-Transfusions_January2021.pdf.
- 8. The American College of Obstetricians and Gynecologists. Obstetric Hemorrhage Bundle. Retrieved from https://www.acog.org/community/districts-and-sections/district-ii/programs-and-resources/safe-motherhood-initiative/obstetric-hemorrhage.
- GBD 2015 Maternal Mortality Collaborators. (2017). Global, regional, and national levels of maternal mortality, 1990-2015: A systematic analysis for the Global Burden of Disease Study 2015. Lancet, 8(388): 1775-1812. <u>Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5224694/</u>.
- 10. March of Dimes. (2020). Preeclampsia. Retrieved from https://www.marchofdimes.org/complications/preeclampsia.aspx.
- 11. Gareau, S., López-De Fede, A., & Gaffney, T. (2024, January). An Introduction to the AIM Severe Hypertension in Pregnancy Patient Safety Bundle [PowerPoint Slides]. Institute for Families in Society, University of South Carolina, Columbia, SC.
- South Carolina Maternal Morbidity and Mortality Review Committee. South Carolina Maternal Morbidity and Mortality Review Committee Legislative Brief March 2023. South Carolina Department of Health and Environmental Control. Published 2023. Retrieved from https://scdhec.gov/sites/default/files/Library/CR-013357.pdf.

Sources (continued)

- 13. Mehta LS, Warnes CA, Bradley E, et al. Cardiovascular Considerations in Caring for Pregnant Patients: A Scientific Statement From the American Heart Association. Circulation. 2020;141(23). doi: 10.1161/CIR.0000000000000772
- Centers for Disease Control and Prevention. Four in 5 pregnancy-related deaths in the U.S. are preventable. CDC. Published September 19, 2022. Retrieved from https://www.cdc.gov/media/releases/2022/p0919-pregnancy-related-deaths.html.
- 15. March of Dimes. Take Care of Your Mental Health During Pregnancy. March of Dimes. Published July 22, 2022. Retrieved from https://www.marchofdimes.org/find-support/blog/take-care-your-mental-health-during-pregnancy.
- South Carolina Department of Public Health. South Carolina Maternal Morbidity and Mortality Review Committee 2024 Legislative Brief. https://scdhec.gov/sites/default/files/media/document/2024-SC-MMMRC-Legislative-Brief.pdf.
- 17. The American College of Obstetricians and Gynecologists and Society for Maternal-Fetal Medicine. 2016, September (reaffirmed 2021). Severe Maternal Morbidity: Screening and Review. Retrieved from https://www.acog.org/clinical/clinical-guidance/obstetric-care-consensus/articles/2016/09/severe-maternal-morbidity-screening-and-review.
- 18. The Alliance for Innovation on Maternal Health Simulation and Drills for Patient Safety. Retrieved from https://saferbirth.org/aim-resources/aim-cornerstones/simulations.
- 19. Preeclampsia Foundation. (2022). Postpartum Preeclampsia. Retrieved from https://pre-eclampsia.org/postpartum-preeclampsia.
- 20. Mehta LS, Warnes CA, Bradley E, et al. Cardiovascular Considerations in Caring for Pregnant Patients: A Scientific Statement From the American Heart Association. Circulation. 2020;141(23). doi:10.1161/CIR.00000000000000772.
- 21. Zipori Y, Grunwald O, Ginsberg Y, Beloosesky R, Weiner Z. The impact of extending the second stage of labor to prevent primary cesarean delivery on maternal and neonatal outcomes. American journal of obstetrics and gynecology. 2019 Feb 1;220(2):191-e1 https://doi.org/10.1016/j.ajog.2018.10.028.
- 22. Leapfrog (2022). Factsheet: Maternity Care. Retrieved from https://ratings.leapfroggroup.org/sites/default/files/inline-files/2023%20Maternity%20Care%20Fact%20Sheet.pdf.
- SCDHEC (2023). Infant mortality and selected birth characteristics: 2021 South Carolina residence data. Retrieved from https://scdhec.gov/sites/default/files/Library/CR-012142-2021.pdf.
- 24. Centers for Disease Control and Prevention (2023). National Center for Health Statistics: South Carolina. Retrieved from https://www.cdc.gov/nchs/pressroom/states/southcarolina/sc.htm.
- 25. SCBOI Newborn Health Dashboard. Retrieved from https://boi.ifsreports.com/statewide/newbornhealth.html.

Sources (continued)

- 26. March of Dimes. (2021). Low Birthweight Key Points. Retrieved from https://www.marchof-dimes.org/find-support/topics/birth/low-birthweight.
- Gareau, S., Lòpez-De Fede, A., Loudermilk, B.L. et al. (2016). Group prenatal care results in Medicaid savings with better outcomes: A propensity score analysis of Centering-Pregnancy participation in South Carolina. Maternal & Child Health Journal. 20(7):1,384. https://doi.org/10.1007/s10995-016-1935-y.
- 28. SC Hospital Association. Best Practices: CenteringPregnancy. Retrieved from https://scha.org/best-practices/centeringpregnancy/.
- 29. Gareau, S., López-De Fede, A., Rodriguez Ramos, C., Kotagiri, M., Gaffney, T., Addo, P., Feetham, S. (2024, May). SCBOI Advisory Council: AIM Quarterly Data Update [Power-Point Slides]. Institute for Families in Society, University of South Carolina, Columbia, SC.
- 30. Optimizing postpartum care. ACOG Committee Opinion No. 736. American College of Obstetricians and Gynecologists. Obstet Gynecol 2018;131:e140–50.