



## Obstetric Hemorrhage Initiative Charter

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|-----------------------------------|---|--|
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| Project Kick-Off: January 1, 2024 |   |  |

### Problem Statement

Obstetric hemorrhage (OBH) is defined as a cumulative blood loss of  $\geq 1,000$  ml, regardless of mode of delivery and occurs in 3-5% of all deliveries.<sup>1</sup> OBH is among the leading causes of preventable, pregnancy-related illness and death in the United States and Alabama, representing approximately 13.7% of pregnancy-related deaths between 2017-2019.<sup>2</sup> An estimated 84.2% of pregnancy-related deaths were determined to be preventable by Maternal Mortality Review Committees (MMRCs).<sup>2</sup> However, recognition and early intervention of OBH does not occur consistently across ER, L&D, and postpartum units.

### Rationale

Postpartum hemorrhage can occur in patients without risk factors and is frequently not recognized until massive blood loss has occurred. Consistent active management of the third stage of labor can reduce the incidence and severity of hemorrhagic events, as well as decrease related severe maternal morbidity (SMM) and mortality. Early recognition and interventions are key components in the management and prevention of postpartum hemorrhage.

### Expected Outcomes and Benefits

We expect this project will lead to improvements in readiness, recognition and prevention, response, reporting and systems learning, and respectful, equitable, and supportive care related to obstetric hemorrhage, with the ultimate outcome of decreasing rates of SMM and maternal mortality. Beyond improvements in maternal safety, reducing the burden of obstetric hemorrhage has the potential to reduce healthcare costs, as a 2021 U.S. study reported that the annual national cost of obstetric hemorrhage exceeds \$1.8 billion.<sup>3</sup>

### Project Description

The Obstetric Hemorrhage (OBH) Initiative will implement the [Alliance for Innovation on Maternal Health \(AIM\) Obstetric Hemorrhage Bundle](#). The OBH bundle was created to assist obstetric providers, clinical staff, hospitals and healthcare organizations with timely recognition and response to hemorrhage. Obstetric hemorrhage remains a leading and preventable cause of maternal mortality and severe maternal morbidity, a life-threatening complication during pregnancy. Implementation of obstetric hemorrhage protocols in all delivery hospitals is crucial and should include quantitative measurement of blood loss, massive transfusion protocols, simulation drills, and the availability of a hemorrhage cart or immediate access to medications and instruments. This initiative will help participating hospital teams make breakthrough improvements in patient safety through a

redesign of processes, protocols, and practices by incorporating the latest evidence and best practices to address obstetric hemorrhage, as well as the recently released Joint Commission Standards for Maternal Safety. Hospitals will implement this initiative alongside peer Alabama birthing hospitals. Monthly webinars, Action Period calls, and 1:1 RN-Quality Improvement calls will cover different components of the bundle, review progress toward goals, and learn from hospitals sharing successes and challenges. Hospitals will engage in cycles of testing and implementation of changes that led to improvements. Please see expectations for participation on page four of this document. See the **OBH Getting Started Kit** (under “Key Documents” at [www.alpgc.org/initiatives/obh](http://www.alpgc.org/initiatives/obh)) for first steps to get started with the Initiative.

**Project Aim**

The aim of the Obstetric Hemorrhage Initiative is to reduce by 20% the rate of severe maternal morbidity (SMM) among patients who experienced an obstetric hemorrhage in participating facilities by December 2025.

The key goals of the OBH Initiative are to:

- Increase the % of patients who receive a risk assessment
- Increase the % of vaginal and cesarean deliveries where quantitative blood loss (QBL) is performed
- Increase % patients who receive verbal briefing on OBH event before discharge
- Narrow the Black/White inequities in SMM among patients with OBH

These are the measures we will use to monitor progress toward our aim, as defined by the [AIM Obstetric Hemorrhage Core Data Collection Plan Version 1.0](#):

|                           |  |
|---------------------------|--|
| <b>Structure Measures</b> | The measures we want to use to track clinical protocols and organization.  |
|                           | <ol style="list-style-type: none"> <li>1. Develop a standardized process to conduct debriefs with patients after a severe OBH event.</li> <li>2. Establish a system to perform regular formal debriefs with the clinical team after cases with major complications.</li> <li>3. Establish a process to perform multidisciplinary systems-level reviews on cases of severe maternal morbidity (including, at a minimum, birthing patients admitted to the ICU or receiving ≥ 4 units RBC transfusions).</li> <li>4. Obstetric hemorrhage supplies are readily available in a cart or mobile box.</li> <li>5. Establish/review/update obstetric hemorrhage policies and procedures that contain:             <ul style="list-style-type: none"> <li>○ An obstetric rapid response team appropriate to the facility’s Maternal Level of Care</li> <li>○ A standardized, stage based, obstetric hemorrhage emergency management plan with checklists and escalation policy</li> <li>○ Emergency release and massive transfusions protocols</li> <li>○ A protocol for patients who decline blood products but may accept alternative approaches</li> </ul> </li> <li>6. Develop patient education materials on urgent postpartum warning signs that align with culturally and linguistically appropriate standards.</li> <li>7. Resources and supplies are readily available to quantify cumulative blood loss for both vaginal and cesarean births.</li> </ol> |
| <b>Process Measures</b>   | The measures that will tell us if the system is performing as planned to affect the outcome measure.   |
|                           | <ol style="list-style-type: none"> <li>1. Hemorrhage risk assessment performed on all birth admissions.</li> <li>2. Quantified blood loss performed from birth through the recovery period using quantitative and cumulative techniques.</li> <li>3. Verbal briefing to pregnant and postpartum people with ≥ 1,000 ml blood loss during the birth admission.</li> <li>4. Role-specific education for all OB nurses and providers on obstetric hemorrhage.</li> <li>5. Role-specific education for all OB nurses and providers on respectful and equitable care.</li> <li>6. Quarterly performance of OB unit drills.</li> </ol>   |

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| <b>Outcome Measures</b>                      | The measures we ultimately want to affect as a result of this project.  |  |
|  | <ol style="list-style-type: none"> <li>1. Severe Maternal Morbidity (excluding transfusion codes alone)</li> <li>2. Severe Maternal Morbidity among People who Experienced an Obstetric Hemorrhage (excluding transfusion codes alone)</li> </ol> |  |
| <b>Data Reporting</b>                        |   |  |
| <b>Baseline Data:</b>                        | October, November, December 2023  | ▶ Baseline due January 31, 2024                            |
| <b>Prospective Initiative data:</b>          |   | Due 30 days after the end of the reporting period:         |
| Monthly data – starting January 2024         | ▶   | First month due February 29, 2024 (For January 1-31, 2024) |
| Quarterly data – starting January-March 2024 | ▶   | First quarter due April 30, 2024                           |

## Framework

This initiative takes the structure of an [Institute for Healthcare Improvement’s \(IHI\) Breakthrough Series Collaborative](#). A Breakthrough Series (BTS) Collaborative is a systematic approach to health care quality improvement in which organizations test and measure practice innovations and share their experiences in an effort to accelerate learning and widespread implementation of best practices. Participating in a Collaborative is an excellent foundational tool to creating long-term success, helping hospitals accelerate work that is underway and plan for meaningful progress over time.

Teams will embark on this project with other Alabama birthing hospitals focused on the same aim and objectives. We will achieve our aim via engaging in iterative cycles of testing and implementation of changes in the [Obstetric Hemorrhage Toolkit](#), along the way measuring progress toward meeting our goals, and sharing lessons learned with various forms of support. The overall framework of the collaborative is as follows:

### *Learning Sessions*

Learning Sessions are in-person or virtual meetings bringing together participating hospital teams and expert faculty to exchange ideas in real time. Faculty experts present a vision for ideal care and specific changes, based on the Change Package (Toolkit), that when applied locally will significantly improve the hospital’s performance. The teams also learn the [Model for Improvement](#), which enables them to test these powerful change ideas locally by conducting [Plan-Do-Study-Act \(PDSA\) cycles](#)—PDSAs are a tool to help hospitals test changes in a way that helps them reflect on, learn from, and refine a change before successfully implementing it in their unit.

During learning sessions, team members also learn from one another as they share successes, barriers, and lessons learned during the learning sessions.

### *Action Periods*

Between Learning Sessions, participating hospitals will engage in Action Periods that provide the time for maximal learning—this is when teams implement changes and receive support from ALPQC and peers. The goals of the Action Periods are to support teams in their improvement work, build collaboration and shared learning, and assess collaboration and progress.

Actions Periods will include the following:

- *PDSA Cycles*: Teams implement site-specific tests of change that align with the HTN Collaborative’s aim and their team’s chosen aim.
- *All-Teams Conference Calls*: Hospital teams are to participate in monthly, one-hour calls on different change topics related to the work. These calls are led by ALPQC project faculty and feature opportunities for team learning and highlighting successes and lessons learned in the collaborative.

- *Monthly Reporting:* ALPQC developed a monthly reporting system, including assessment using a 0-5 scale, to collect and review progress on implementation tasks from each hospital, reflect on lessons learned during that month, and plan for the next month. The ALPQC team will review each report submitted by teams to provide feedback.
- *Monthly 1:1 RN-Quality Improvement Meetings:* Hospital-designated contacts will participate in monthly coaching calls with the ALPQC Quality Improvement RN to discuss data, facility performance, opportunities for improvement, challenges, and resources.

### **Expectations for participation in the Collaborative:**

The ALPQC Team will:

- Include a project lead, improvement advisor and coordinator, data portal resources, and faculty who have expertise in the subject matter and improvement methods.
- Provide information on OBH, application of evidence-based practices to improve care, and quality improvement methods for structure, process, and outcome improvement.
- Provide guidance, feedback, and resources to teams throughout the course of the project.
- Facilitate communication to keep teams connected to the ALPQC team and each other.

Participating Hospitals Expectations:

- Form your hospital team consisting of at least one physician champion, one nurse champion, one pharmacy champion, and a data champion (someone with access to medical charts).
- Set an aim and a 30-60-90-Day Plan for your team related to the Collaborative's aim stated above.
- Actively participate in learning sessions, monthly action period calls and coaching calls to share learning and results with your peers and the ALPQC team.
- Conduct tests of change (PDSA cycles) in alignment with your aim and your 30-60-90 Day Plan. After successful testing and adaptation of changes tested, implement changes in your unit. Report PDSAs to ALPQC.
- Complete pre-work activities as applicable to prepare for the learning sessions and action periods, including reviewing the [Getting Started Kit](#) and completing activities inside the kit (found on our website [www.alpqc.org/initiatives/obh](http://www.alpqc.org/initiatives/obh) under "Key Documents").
- Report data measures and narratives monthly and quarterly for the duration of the project.

Alabama is a member of the [Alliance for Innovation on Maternal Health \(AIM\)](#) at the American Congress of Obstetricians and Gynecologists, a national program working to reduce severe maternal morbidity and mortality. By participating, hospitals agree de-identified versions of their data may be shared with the AIM program. The information will be used to provide national benchmarking of de-identified measures and evaluate the ALPQC's initiative.

Aggregate, de-identified data may be presented or published and shared with other participating hospitals and the larger perinatal community for the purposes of group learning and progress updates.

## Opportunities for Spread

In the work of IHI and other states over many years, some important lessons have emerged about promoting and sustaining the spread of improvement over time, including:

- The development of an explicit tracking plan so senior leaders can quickly assess the progress made during spread of the changes, and readily intervene to help when the spread plan is not performing as planned
- The development of a spread infrastructure (training, communication methods, reviews of progress)
- The assessment of groups and individuals for readiness to adapt and adopt the changes before deployment
- The expectation that other sites will want to customize the changes
- Senior leaders decide on the level of desired spread (the number of areas to which applicable changes are spread) and establish a schedule for spread (the tempo and order of spread)
- Senior leaders make the work visible and give it high priority

The strategy for rapid spread within participating hospitals is an integral part of the collaborative that is fueled by participating hospitals documented successes, engages senior leaders, and allows for local adaptation and customization.

## References

- <sup>1</sup>Kogutt, B. K., Kim, J. M., Will, S. E., & Sheffield, J. S. (2022). Development of an Obstetric Hemorrhage Response Intervention: The Postpartum Hemorrhage Cart and Medication Kit. *The Joint Commission Journal on Quality and Patient Safety*, 48, 120-128. <https://doi.org/10.1016/j.jcjq.2021.09.007>
- <sup>2</sup>Centers for Disease Control and Prevention. (2022, September 19). *Pregnancy-Related Deaths: Data from Maternal Mortality Review Committees in 36 US States, 2017-2019*. Accessed July 5, 2023. <https://www.cdc.gov/reproductivehealth/maternal-mortality/erase-mm/data-mmrc.html>
- <sup>3</sup>O'Neil, S., Platt, I., Vohra, D., Pendl-Robinson, E., Dehus, E., Zephyrin, L. C., & Zivin, K. (2021, November 12). *The High Costs of Maternal Morbidity Show Why We Need Greater Investment in Maternal Health*. <https://doi.org/10.26099/nz8s-4708>