

## Reducing Maternal Morbidity Initiative – Interim Report

Early findings from the Louisiana Perinatal Quality Collaborative’s Hemorrhage and Hypertension initiative.

### Overview of Work

Although many Louisiana birthing facilities began working on state-wide quality improvement initiatives through the Louisiana Hospital Association’s Health Engagement Network (HEN) initiative, as well as the Louisiana Department of Health’s 39-Week Initiative, the Louisiana Perinatal Quality Collaborative (LaPQC) launched its first initiative in August 2018. The *Reducing Maternal Morbidity Initiative* (RMMI) focused on reducing preventable maternal mortality and morbidity related to hemorrhage and hypertension, while also focusing on reducing racial disparities in these maternal outcomes. Specifically, the RMMI sought to 1) reduce Severe Maternal Morbidity<sup>i</sup> among those persons who experience hemorrhage and/or severe hypertension/preeclampsia by 20% between August 2018 and May 2020; and 2) decrease the Black-white disparity among these outcomes in the same time period.

Over the last 21 months, teams from participating hospitals worked to implement evidence-based best practices related to the management of hemorrhage and hypertension, as well as health equity. Facility teams participated in 18 Coaching Calls, three in-person Learning Sessions, welcomed the LaPQC planning team into facilities for the Listening Tour, tested countless changes using improvement science and Plan-Do-Study-Act cycles, and shared lessons learned with other hospitals in the Collaborative.

### Measuring Improvement

While using quality improvement methodology to implement best practices related to hemorrhage, hypertension, and equity, facility teams were tasked with collecting and submitting data monthly. Using IHI’s Extranet – a secure data portal – teams tracked their implementation progress and used their data to identify new areas of improvements. Healthcare quality improvement is based on the Donabedian Framework<sup>ii</sup>: structure, process, and outcome. In healthcare, this means when you improve the structure of care, clinical processes improve, and this results in improved patient outcomes. Facility teams worked on the following structures and processes:

improvement area	structure measures	process measures	outcome measures
severe hypertension	unit drills debriefs after SMM events	timely treatment of severe hypertension	SMM among hypertension
hemorrhage	unit drills debriefs after SMM events	risk assessment on admission quantification of blood loss	SMM among hemorrhage
health equity	implicit bias training	hemorrhage and hypertension measures stratified by race	SMM stratified by race/ethnicity

## Progress to Date

Though the RMMI began in August 2018, many facilities began maternal improvement work in 2016. For this reason, we chose the 1st quarter of 2016 as our outcome measure baseline. The baseline for our process measures is August 2018. The table below outlines change since baseline.

measure	outcome measures			process measures		
	2016, quarter 1	2019, quarter 3	change	August 2018	March 2020	change
SMM among hypertension	823.2 per 10,000	640.8 per 10,000	-22%			
SMM among hemorrhage	1037.3 per 10,000	630 per 10,000	-39.3			
SMM among hypertension, disparity ratio	.7	1.1	+4			
SMM among hemorrhage, disparity ratio	2.1	2.3	+2			
timely treatment of hypertension				14.7%	> 40%	+ 30%
risk assessment at admission				48.9%	> 70%	+ 20%
quantification of blood loss				21.3%	~ 50%	+ 30%

While data through the end of the initiative – May 2020 – will not be available until early 2021, the following represent key takeaways from these preliminary data:

- Severe Maternal Morbidity among women with hemorrhage and severe hypertension is decreasing in birthing facilities in the Perinatal Quality Collaborative;
- While the SMM disparity gap is not as stark as reflected in the maternal mortality review, there is still a gap in key outcomes between non-Hispanic Black and non-Hispanic white birthing persons.
- LaPQC facilities strengthened both structures and processes related to hemorrhage and hypertension over the course of the initiative.
- The collaborative nature of the LaPQC helped to create a culture of sharing, improvement, and ensure readiness for change.
- Teams demonstrated increased confidence in the ability to implement new processes and create change in their facility to reach their goal.

## What's Next?

We know RMMI results are preliminary, with final results expected by early 2021. In September 2020, the LaPQC will launch the Safe Births Initiative that will not only continue improvement work related to hemorrhage and hypertension, but also serve as a vehicle for a new focus on reducing Louisiana's primary cesarean section rate. With this constellation of improvements, the goal of Safe Births is the implementation of practices that promote safe, equitable, and dignified birth for all birthing persons in Louisiana.

<sup>i</sup> [Severe Maternal Morbidity in the United States](#). Division of Reproductive Health, National Center for Chronic Disease Prevention and Health Promotion. January 31, 2020. Last accessed on April 29, 2020.

<sup>ii</sup> [Types of Health Care Quality Measures](#). Content last reviewed July 2011. Agency for Healthcare Research and Quality, Rockville, MD. Last accessed on May 1, 2020.