

## West Virginia Impact Statement Obstetric Hemorrhage Patient Safety Bundle Implementation 2018-2021

Despite West Virginia having an overall severe maternal morbidity (SMM) rate of 2% or less and having implemented a four-year educational program from 2012-2016 on obstetric hemorrhage in all delivery hospitals, the rate of women experiencing obstetric hemorrhage who developed SMM continued to rise. In response, the West Virginia Perinatal Partnership launched a two-year collaborative to implement the AIM Obstetric Hemorrhage Patient Safety Bundle in 2018.

In collaboration with and support from the WV ACOG Section, WV Hospital Association and the WV Office of Maternal and Child and Family Health, the bundle was kicked off with a full day conference focused on establishing and building engagement among hospital teams, learning about the data portal, and developing individual hospital work plans. Twenty three of the twenty four delivering hospitals in the state signed on and fully participated in the collaborative.

At the start of the bundle implementation obstetrical complications were identified including ICU admission, respiratory support and cardiovascular collapse. These were compounded by hospitals reporting a lack of emergency supplies, policies, and recent education on management of obstetric hemorrhage. As part of the collaborative, state and national experts educated hospital teams on protocols to address hemorrhage in their facilities.

Regional OB simulation trainings were held to teach hospital teams how to prepare for and manage obstetric emergencies. Every participating hospital was granted a low-fidelity simulation model to continue regular drills among their teams. Monthly support phone calls were held to provide technical assistance to teams in the development of their OB hemorrhage policies and protocols as well as in data collection and submission. Data reports were provided to each facility to utilize in assessing their progress toward bundle implementation and improved outcomes. Facilities were encouraged to develop perinatal safety teams to address policy and education concerns as well as systems reviews following simulation training.

Through engagement with the collaborative, 95% of the hospitals implemented safety measures, such as: a hemorrhage policy or protocol, a hemorrhage cart, quantification of blood loss, and emergency drills and simulations. The majority of nurses and providers received education on obstetric hemorrhage and an average of 70% of the facilities participated in debriefings and case reviews. As a result, at the end of the first year of the project, the number of women experiencing SMM, excluding transfusions, had decreased from an average of 7.5% between 2012 and 2017 to 6.0% in 2018.

Delivery facilities are encouraged to continue to work toward full implementation of the patient safety checklist and conduct system reviews using simulation drills. Quantification of blood loss continues to be an area needing improvement in many facilities.

Education has been extended to additional facilities' rural emergency departments where obstetric services are not available in house. The Obstetric Complications in the Emergency Department provides education, networking and practical discussion on triage and treatment of patients presenting during pregnancy and postpartum. For more information contact Melanie Riley, the state AIM coordinator, at [rileym@marshall.edu](mailto:rileym@marshall.edu).