2023-2024 AIM Impact Statements

Severe Hypertension in Pregnancy

Arizona
In December 2020, the severe maternal morbidity (SMM) rate in Arizona among people with hypertensive disorders of pregnancy was reported to be three times as high as the rate among people without hypertensive disorders of pregnancy. In April 2021, Arizona began implementing the AIM Severe Hypertension in Pregnancy Patient Safety Bundle with 32 of the state's 42 birthing facilities. After bundle implementation, in participating facilities the percentage of pregnant and postpartum people with persistent severe hypertension who were treated within one hour increased by 38% between 2021 and 2023 (55% in April-June 2021 and 76% in October-December 2023). Among people with persistent severe hypertension who were not treated within one hour, the percentage who were debriefed by their care team increased from 11% to 57% between April-June 2021 and October-December 2023. Arizona continues to support facilities through learning sessions, data support, and opportunities to meet and discuss topics of interest such as health equity and quality improvement.

District of Columbia
In Washington, DC, 16% of birthing patients had gestational or pre-existing hypertension in 2016 through 2019. In August 2021, the District of Columbia Perinatal Quality Collaborative (DCPQC) began implementing AIM's Severe Hypertension in Pregnancy Patient Safety Bundle in all five of the district's birthing facilities. The percentage of birthing facilities that have patient education materials on urgent postpartum warning signs increased from 0% in October 2021 to 80% in July 2023. Between October 2021 and October 2023, the proportion of women receiving timely treatment for persistent severe hypertension increased from 36% to 85%. The DCPQC continues to work with birthing facilities to implement AIM patient safety bundles through structured communities of learning that incorporate quality improvement support and sharing of clinical best practices resources.

Hawaii
In July 2021, in response to high rates of severe maternal morbidity (SMM) due to severe hypertension in pregnancy, the Hawaii Perinatal Collaborative, in partnership with the Healthcare Association of Hawaii (HAH), began implementation of the AIM Severe Hypertension in Pregnancy Patient Safety Bundle in 10 of the state's 12 birthing facilities. Between July 2021 and September 2022, in participating facilities, the percentage of pregnant and postpartum people with persistent severe hypertension who were treated within one hour increased from 46.3% to 63.9%, an increase of 38%. HAH continues to assist facilities with quarterly reporting of data, learning opportunities, and quality improvement support.

Indiana
The Indiana Department of Health (IDOH), in collaboration with the state's Maternal Mortality Review Committee, the Indiana Hospital Association, and the Indiana Perinatal Quality Improvement Collaborative, began implementation of the AIM Severe Hypertension in Pregnancy Patient Safety Bundle in March 2021 with seven of Indiana's birthing facilities. Between January 2021 and June 2023, the percentage of obstetric physicians and midwives who received education on severe hypertension and preeclampsia increased from 54.9% to 82.9% and the percentage of obstetric nurses who received education on severe hypertension and preeclampsia increased from 78.4% to 92.7%. IDOH continues to support bundle implementation at participating facilities through the development of supporting

resources and facilitation of webinars and trainings. As of February 2024, all of Indiana's 77 birthing facilities are participating in implementation of the AIM Severe Hypertension in Pregnancy Patient Safety Bundle. IDOH continues to support bundle implementation at participating facilities.

Michigan

In Michigan, complications from sepsis, hemorrhage, and hypertension are the leading causes of maternal mortality and severe maternal morbidity (SMM). Between November 2015 and September 2023, more than 64% of birthing hospitals in the state participated in the implementation of AIM's Severe Hypertension in Pregnancy Patient Safety Bundle, with the MI AIM Collaborative providing technical assistance, conducting site visits, facilitating education, and offering data support to collect structure and process data. Between 2011-2015 and 2016-2021, the statewide SMM rate excluding blood transfusions alone among patients with preeclampsia/eclampsia decreased from 7.7% to 6.6%, an overall reduction of 14.3%. The MI AIM Collaborative has a goal of engaging all Michigan birthing hospitals in quality improvement efforts that address drivers of maternal mortality and SMM to improve health outcomes for all.

Nebraska

In July 2019, the Nebraska Perinatal Quality Improvement Collaborative (NPQIC) began implementing the AIM Severe Hypertension in Pregnancy Patient Safety Bundle in 28 of the state's 52 birthing facilities. Between July 2019 and June 2022, the proportion of obstetric physicians and midwives who completed education on severe hypertension and preeclampsia increased from 51.1% to 93.4%. Nursing education increased from 69.6% to 92.9% during the same period. Between 2019 and April 2021-June 2022, the rate of SMM excluding blood transfusions alone among patients with preeclampsia, eclampsia, and HELLP syndrome decreased by 37.3%, from 5.1% to 3.2% among participating facilities. NPQIC continues to work with participating birthing facilities to implement the patient safety bundle and educate all birthing facilities in the state on implementing best practices for the timely treatment of persistent severe hypertension.

Ohio

In Ohio, preeclampsia and eclampsia were found to be the leading causes of pregnancy-related death between 2008 and 2016, with 85% of those deaths determined by review to have been preventable. In 2020, Ohio began implementation of the AIM Severe Hypertension in Pregnancy Patient Safety Bundle in 30 of the state's 91 birthing facilities. Between October 2020 and September 2021, the percentage of pregnant and postpartum people with persistent severe hypertension who were treated within one hour increased from 56.8% to 71.4%, an increase of 25.7%, with no statistically significant differences observed across racial and ethnic groups. As of April 2024, Ohio has reached 81 of its 91 birthing facilities through the AIM Severe Hypertension in Pregnancy bundle. The Ohio Hospital Association and Ohio Department of Health continue to work with birthing facilities to expand the bundle to all hospitals in the state and sustain improvements among those already participating in patient safety bundle implementation.

New Jersey

Between 2014 and 2016, hypertensive disorders in pregnancy were among the leading causes of severe maternal morbidity and mortality in New Jersey. In January 2017, the New Jersey Perinatal Quality Collaborative (NJPQC) began implementing AIM's Severe Hypertension in Pregnancy Patient Safety Bundle in 39 of the 48 birthing facilities in New Jersey. Between 2018 and 2019, the first two years data were collected, the proportion of providers who received education on severe hypertension and preeclampsia increased from 46.8% to 64.3%. Between 2016 and 2022, the statewide rate of severe

maternal morbidity excluding blood transfusions among people with preeclampsia, eclampsia, and HELLP syndrome declined from 8.5% to 6.0%, a reduction of 29.4%. The NJPQC continues to work with their birthing facilities to fully implement the AIM Severe Hypertension in Pregnancy Patient Safety Bundle through expanded education and other technical assistance opportunities.

West Virginia
In 2020, the West Virginia Perinatal Partnership began implementation of the AIM Severe Hypertension in Pregnancy Patient Safety Bundle. Between October 2022 and September 2023, the percentage of patients who experienced persistent severe hypertension during their birth admission and had a postpartum blood pressure and symptoms check scheduled before their hospital discharge increased from 17.5% to 36.7%. Additionally, the proportion of nurses who received education on respectful, equitable, and supportive care increased from 67.2% in October 2022 to 79.2% in September 2023. The WV Perinatal Partnership continues to coordinate the implementation of the patient safety bundle, with additional focus on identifying potential disparities through improved data collection and analysis of race, ethnicity, and socioeconomic status, and improving clinician education on respectful, non-judgmental care.

Obstetric Hemorrhage

Hawaii
In June 2021, in response to high rates of severe maternal morbidity (SMM) due to hemorrhage, the Hawaii Perinatal Collaborative, in partnership with the Healthcare Association of Hawaii (HAH), began implementation of the AIM Obstetric Hemorrhage Patient Safety Bundle in 10 of the state's 12 birthing facilities. Between April 2021 and June 2022, the proportion of patients who had their blood loss measured from birth through the recovery period using quantitative and cumulative techniques increased from 49.0% to 67.0%. Among participating birthing facilities, the rate of SMM among people who experienced an obstetric hemorrhage, excluding those who received blood transfusions alone, decreased from 9.0% in 2019 to 7.1% in 2021, a reduction of 21.1%. HAH continues to assist facilities with quarterly reporting of data, learning opportunities, and quality improvement support.

Indiana
The Indiana Department of Health (IDOH), in collaboration with the state's Maternal Mortality Review Committee, the Indiana Hospital Association, and the Indiana Perinatal Quality Improvement Collaborative, began implementation of the AIM Obstetric Hemorrhage Patient Safety Bundle in December 2019 with 80 of the state's birthing facilities. Between July 2022 and June of 2023, the percentage of people who had their blood loss measured through quantitative and cumulative techniques remained high and increased from 86.5% to 89.0%. During the same time, the percentage of patients who received a hemorrhage risk assessment for the duration of their birth hospitalization also remained high and increased from 88.6% to 90.2%. As of April 2024, 99% of the state's birthing facilities participate in bundle implementation. IDOH continues to support bundle implementation at participating facilities with obstetric services and works to continuously recruit new facilities to engage in implementing the AIM Obstetric Hemorrhage Patient Safety Bundle.

Massachusetts
Maternal deaths due to obstetric hemorrhage are largely preventable in the U.S., including Massachusetts. Alarmingly, Black pregnant and postpartum people who experience obstetric hemorrhage have disparate rates of severe maternal morbidity (SMM). The Perinatal-Neonatal Quality

Improvement Network of Massachusetts (PNQIN) began implementation of the AIM Obstetric Hemorrhage Patient Safety Bundle in June 2021 with 21 of the state's 40 birthing facilities. Between April 2021 and June 2022, the percentage of patients who had their blood loss measured from birth through the recovery period using quantitative and cumulative techniques increased by 33%, from 60% to 80%. During the same time, MA observed a decrease of 8.1% in SMM excluding blood transfusions among birthing people with an obstetric hemorrhage, from 6.2% to 5.7%. SMM decreased for all racial groups with the greatest decrease observed among Black patients. PNQIN continues to collect process and structure measures data for the patient safety bundle, focusing on collecting data disaggregated by race and ethnicity to assess inequities in care and disparities in outcomes.

Montana

Obstetric hemorrhage is a leading cause of severe maternal morbidity in Montana. To strengthen capacity of birthing facility teams to respond to obstetric hemorrhages using evidence-informed practices, the Montana Perinatal Quality Collaborative (MPQC) began implementation of the AIM Obstetric Hemorrhage Patient Safety Bundle in October 2021 with 17 of the state's 26 birthing facilities. Between July 2021 and September 2022, the percentage of birthing facilities conducting hemorrhage risk assessments increased from 59.0% to 87.2%. During the same period, the percentage of participating birthing facilities who had policies and procedures in place to measure blood loss during the birth admission using quantitative and cumulative techniques increased from 23.5% to 68.9%. The MPQC continues to support hospitals in their quality improvement work and will assess and monitor rates of severe maternal morbidity as data are available.

Rhode Island

In Rhode Island, hemorrhage is a key contributor to maternal morbidity. In July 2020, the Hospital Association of Rhode Island and the National Perinatal Information Center began implementation of the AIM Obstetric Hemorrhage Patient Safety Bundle with four of the five birthing facilities in the state. Between July 2020 and January 2022, the percentage of obstetric physicians and midwives receiving obstetric hemorrhage education increased from 5% to 50%, and the percentage of obstetric nurses receiving the same education increased from 10% to 90%. Rhode Island continues to support participating birthing facilities by providing virtual monthly collaborative meetings, focused hospital coaching calls, and sharing of best practices.

Safe Reduction of Primary Cesarean Birth

Illinois

In ILPQC participating hospitals, the rate of nulliparous, term, singleton, vertex (NTSV) cesarean births was 25% in 2019, higher than the Healthy People 2030 target of 23.6%. In December 2020, ILPQC began implementation of the AIM Safe Reduction of Primary Cesarean Birth Patient Safety Bundle with 94 of the state's 102 birthing facilities. Between December 2020 and December 2023, the collaborative's NTSV cesarean birth rate declined from 24.9% to 22.8%. In December of 2023, due to hospital closures and other factors precluding ongoing participation, there were 74 teams actively participating in the bundle. ILPQC plans to continue implementation of the bundle through 2024 to support facility teams who have not yet achieved initiative goals in reducing their NTSV cesarean birth rates and associated racial and ethnic disparities and maintaining systems and cultural changes to promote safe vaginal births through a small group coaching model.

Opioid Care for Women with Opioid Use Disorder

Louisiana
In 2017, Louisiana's Pregnancy-Associated Mortality Review Report identified substance use as one of the leading causes of pregnancy-associated deaths among pregnant and postpartum people. In September 2021, the Louisiana Perinatal Quality Collaborative (LaPQC) began implementation of the AIM Obstetric Care for Women with Opioid Use Disorder Patient Safety Bundle among 11 of the state's 47 birthing facilities. Between January and December 2022, universal screening increased from 70% to 72%; referral to treatment for those who screened positive increased from 36% to 48%; and referral to medication for opioid use disorder (MOUD) increased from 29% to 34%. The LaPQC continues to work with participating facilities to provide evidence-informed, respectful care to pregnant and postpartum patients with substance use conditions and their families.

New York
In New York, the rate of opioid overdose deaths for women aged 18-44 tripled between 2010 and 2016. In response, the New York State Perinatal Quality Collaborative (NYSPQC) implemented the AIM Obstetric Care for Women with Opioid Use Disorder Patient Safety Bundle through the NYS Opioid Use Disorder in Pregnancy & Neonatal Abstinence Syndrome Project. The NYSPQC provides participating birthing facilities with education, data collection and analysis, and other clinical and quality improvement support. The project began as a pilot in September 2018 with 15 birthing hospitals participating and expanded in December 2020. As of the project close in June 2023, 41 of the state's 119 birthing facilities were participating. The percentage of birthing facilities that had a unit standard policy to screen every person giving birth for substance use disorder increased from 20% in January 2019 to 93% in May 2023 among the 15 hospitals participating in the pilot phase and from 40% in December 2020 to 96% to in May 2023 among the 26 hospitals participating in the expansion phase. Additionally, the percentage of pregnant and postpartum people with opioid use disorder with existing referral or linkage to medication-assisted treatment or behavioral health treatment on admission increased from 73% to 91% among pilot phase hospitals and from 64% to 100% among expansion phase hospitals, between December 2020 and May 2023.

Utah
In Utah, substance use disorder contributed to 35% of maternal deaths between 2015 and 2016. In March 2020, the Utah Women and Newborns Quality Collaborative (UWNQC) began implementing the AIM Opioid Use Disorder (now Substance Use Disorder) Patient Safety Bundle. At the kick-off training, 25 of 46 birthing facilities in Utah and six birthing facilities in Wyoming participated. From March 2020 to October 2022, the percentage of pregnant and postpartum people who were screened for substance use conditions using a validated verbal screening tool in participating hospitals increased from 46% to 87%. UWNQC continues to work with participating hospitals on patient safety bundle implementation strategies.

Washington
The Washington State Maternal Mortality Review Panel findings for 2014 through 2016 showed that over a third of pregnancy-related deaths were due to mental health conditions, including suicide and overdose. In April 2022, the Washington State Hospital Association (WSHA), in partnership with the Department of Health, began implementation of the AIM Opioid Use Disorder Patient Safety Bundle with 47 of the state's 56 birthing facilities. From April to December of 2022, the percentage of facilities that had a unit standard policy and procedure to universally screen every person giving birth for substance use disorder using a validated verbal screening tool increased from 30% to 50%. WSHA and the

Department of Health continue to support participating hospitals by focusing efforts on capturing current data to further evaluate progress within this initiative.