# PA PQC Maternal Mortality Key Driver Diagram

* Implement training, assessment, and re-assessment of organizations’ systemic racism and individuals’ implicit bias
* Build a culture of equity, including systems for reporting, response, and learning, and applying resources towards identified problems
* Engage diverse patient, family, and community advocates on quality and safety leadership teams
* Train staff and provide ongoing coaching on shared decision making and motivational interviewing methods

**Global Aim**

Decrease maternal mortality and severe morbidity across races, ethnicities, and regions in the Commonwealth

Recognition of and Response to Racial and Ethnic Disparities

**INTERVENTIONS**

**AIMS**

**DRIVERS**

* Review records of severe maternal morbidity and mortality with multi-disciplinary teams and support the PA Maternal Mortality Review Committee’s (PA MMRC) collection of complete medical records

Review of Mortality

& Severe Maternal Morbidity

Establish Levels of Maternity Care

* Establish levels of risk and levels of maternity care to properly triage patients and connect to the right provider
* Educate families and providers to make informed decisions about the appropriate place of birth
* Ensure integration and communication across levels of maternity care to ensure appropriate transfers
* Administer validated social determinants of health, mental health, and substance misuse screens during prenatal and postpartum visits
* Connect patients to mental health, substance misuse services, and community-based social services through warm handoffs, co-location, or integration models
* Engage women who smoke in smoking cessation programs
* Establish processes for screening, managing, and preventing intimate partner violence
* Apply trauma-responsive principles
* Offer access to comprehensive prenatal care that adheres to guidelines, including group education models and virtual options
* Implement policies on risk factor assessment, counseling, and follow-up for high risk patients prior to discharge
* Create and implement communication and referral workflows between hospitals/clinics and care manager, home visiting, and community support programs to meet patients where they are
* Deploy care managers (with health plans) for women with individualized needs, to ensure connections to wrap around supports, track outcomes, and increase self-efficacy in identifying warning signs and when to seek care

Comprehensive Perinatal Assessments & Connections to Behavioral Health and Wraparound Supports

Team-Based Care

* Educate families and providers to make informed decisions regarding diverse clinical provider options and appropriate scope of practice (e.g., licensed physicians (OBGYNs and family physicians) and midwives)
* Increase the use and impact of integration of CHWs and doulas in prenatal, laboring/intrapartum and postpartum care
* Create workflows and establish procedures related to communication and coordination between providers (supported by technology)

Standardized Protocols for Hemorrhage, VTE, and Severe Hypertension

* Establish and implement standardized protocols for identifying and reducing delays in diagnosis and effective treatment, missed diagnosis, and ineffective treatments for hemorrhage, VTE, and severe hypertension

Expand Postpartum Care

* Document postpartum care plans with warning signs, responses, and support teams
* Provide post-partum care within three weeks from delivery with ongoing care as needed (based on ACOG’s fourth trimester guidelines, including telehealth, home visits, and other innovative patient-centered approach)
* Ensure that each woman has a source of ongoing primary care and a pediatrician
* Use evaluation and management strategies for issues facing the mother-infant dyad
* Increase access to immediate postpartum contraception LARC and other options
* Increase utilization of pre-conception and inter-conception care, and prevent or control various conditions (e.g., high blood pressure and diabetes, depression, multivitamin use)

Pre-Conception and   
Inter-conception Care

Availability of Comprehensive Reproductive Services

* Optimize and measure utilization of comprehensive reproductive services

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## Maternal Mortality Quality Metrics

| Metric | Numerator (Out of the Denominator) | Denominator | Data Source | Notes | Source |
| --- | --- | --- | --- | --- | --- |
| Severe Maternal Morbidity  *(Required)* | Number of cases with any severe maternal morbidity (SMM) code | All mothers during their birth admission, excluding ectopics and miscarriages | Hospital Discharge Data File (ICD-10) | Report the aggregate numbers across all races/ethnicities ***quarterly***, starting in January 2019. In the PA PQC Data Portal, please enter the quarterly data in the last month of the quarter. For example, if you are entering data for the first quarter of 2019 (January through March), enter the quarterly data by selecting March 2019 in the drop down menu that is labeled as “date.”  Report by race/ethnicity ***annually*** (non-Hispanic white, non-Hispanic black, Hispanic, and non-Hispanic other), starting in January 2019. In the PA PQC Data Portal, please enter the annual data in the last month of the year. For example, if you are entering data for 2019, enter the annual data by selecting December 2019 in the drop down menu that is labeled as “date.”  Using the [AIM SMM Codes List](https://safehealthcareforeverywoman.org/aim-data/), use the tabs called “ICD-10 SMM Numerator Codes” and “Denominator | Birth Admit Codes” for the numerator and denominator codes, respectively. (For the purposes of this PA PQC measure, please disregard the other tabs, including “SMM Denominator | Hemorrhage” and “SMM Denominator | Preeclampsia.”)  For an FAQ about Blood Transfusion Coding, please [click here](https://safehealthcareforeverywoman.org/aim-data/). A national task force is working on updated guidance.  The extracted data should be based on discharge date, representing  inpatient discharges during the reporting period.  Exclude cases where the birth occurred in a location other than the hospital or birth center (e.g., home, car, and ED). | <https://safehealthcareforeverywoman.org/aim-data/>  <https://www.acog.org/Clinical-Guidance-and-Publications/Obstetric-Care-Consensus-Series/Severe-Maternal-Morbidity-Screening-and-Review> |
| Severe Maternal Morbidity (excluding cases with only a transfusion code)  *(Required)* | Number of cases with any non-transfusion SMM code | All mothers during their birth admission, excluding ectopics and miscarriages | Hospital Discharge Data File (ICD-10) | Report the aggregate numbers across all races/ethnicities *quarterly*, starting in January 2019. Please see above for advice on how to enter quarterly data in the PA PQC Data Portal.  Report by race/ethnicity *annually* (non-Hispanic white, non-Hispanic black, Hispanic, and non-Hispanic other), starting in January 2019. Please see above for advice on how to enter annual data in the PA PQC Data Portal.  Using the [AIM SMM Codes List](https://safehealthcareforeverywoman.org/aim-data/), use the tabs called “ICD-10 SMM Numerator Codes” and “Denominator | Birth Admit Codes” for the numerator and denominator codes, respectively. **However, in the case of this measure that excludes cases with only a transfusion code from the numerator, remember to exclude cases with only a blood transfusion code.** (For the purposes of this PA PQC measure, please disregard the other tabs, including “SMM Denominator | Hemorrhage” and “SMM Denominator | Preeclampsia.”)  The extracted data should be based on discharge date, representing  inpatient discharges during the reporting period  Exclude cases where the birth occurred in a location other than the hospital or birth center (e.g., home, car, and ED). | <https://safehealthcareforeverywoman.org/aim-data/>  <https://www.acog.org/Clinical-Guidance-and-Publications/Obstetric-Care-Consensus-Series/Severe-Maternal-Morbidity-Screening-and-Review> |
| Treatment of Severe HTN within 1 hour  *(Optional; prioritized)* | Cases who were treated within 1 hour with IV Labetalol, IV Hydralazine, or PO Nifedipine | Women with persistent (twice within 15 minutes) new-onset Severe HTN (Systolic: ≥ 160 or Diastolic: ≥ 110) | Hospital logbooks, EHR, and pharmacy records | Report monthly, starting in January 2019  Denominator excludes women with an exacerbation of chronic HTN  It is best to use at least two systems (i.e. logbooks, EHR, pharmacy records) for identification of denominator cases.  This measure captures data related to the initial presentation associated with first-line treatment protocols. | AIM Severe Hypertension P4  https://safehealthcareforeverywoman.org/aim-data/  <https://safehealthcareforeverywoman.org/wp-content/uploads/2017/02/AIM-FAQ-Topic-for-Treatment-for-Acute-Onset-Severe-HTN_Latest-.docx>  https://www.acog.org/Clinical-Guidance-and-Publications/Committee-Opinions/Committee-on-Obstetric-Practice/Emergent-Therapy-for-Acute-Onset-Severe-Hypertension-During-Pregnancy-and-the-Postpartum-Period  https://safehealthcareforeverywoman.org/patient-safety-bundles/severe-hypertension-in-pregnancy/#link\_acc-1-4-d |
| Fourth Trimester Contact  *(Optional; prioritized)* | Number of patients receiving postpartum care contact within first three weeks from discharge | All patients who were discharged due to a birth 3 weeks prior to the end of the month and no later than 3 weeks prior to the month | EHR and Claims Data | Report on a monthly basis, starting in May 2019  “Postpartum care” can be counted as OB or OB/GYN provider visits, home health visits, nursing care visits, or telemedicine visits (i.e., videoconferencing but not including telephone calls) | Based on ACOG Fourth Trimester  <https://www.acog.org/Womens-Health/Optimizing-Postpartum-Care?IsMobileSet=false> |