

## Equity Measure Domain: Clinical Outcomes

### Post-partum Hemorrhage

#### Description:

Patients are at increased risk of severe maternal morbidity due to obstetric hemorrhage if they are of non-white race.

Measure: Rate of patients with post-partum hemorrhage per 10,000 births, stratified by race and ethnicity.

Numerator: Number of patients with post-partum hemorrhage.

Denominator: Number of patients with an included pregnancy diagnosis code.

Source: NCHA Patient Data System (PDS) - All hospitals and Ambulatory Surgical Centers in North Carolina submit pre-adjudicated claims data to the Patient Data System on a quarterly basis in accordance with the NC Medical Care Act. Through its partnership with providers, NC DHHS and the State Certified Data Processor, the Hospital Industry Data Institute (HIDI), NCHA may use the compiled database to provide aggregate analyses of health system utilization.

#### Rationale for measure selection:

Obstetric hemorrhage (OBH) is a major cause of maternal death and morbidity in North Carolina. Each year approximately three women die, 150 women require a hysterectomy and thousands of women require a blood transfusion due to obstetric hemorrhage. Some health systems and hospitals have been successful with their efforts to establish, disseminate and implement a structured team approach for the care of a mother with hemorrhage. However, there is great variation in the approach that has been taken. Massive obstetric hemorrhage can occur with any birth, so it is imperative that all obstetrical units are equipped to address it.<sup>123</sup>

In North Carolina, there are more births per 100,000 population among Black and Asian race groups. However, the number of post-partum hemorrhages in these groups is greater than their share of population or total births. Due to the relatively infrequent nature of severe post-partum hemorrhage, the number of cases is small and fluctuates somewhat between years.

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1 North Carolina AIM Obstetric Hemorrhage (AIM OBH) Charter. Accessed at: <https://www.pqcnc.org/node/13805>

2 American College of Obstetrics and Gynecology. Accessed at: <https://safehealthcareforeverywoman.org/aim/patient-safety-bundles/maternal-safety-bundles/obstetric-hemorrhage-patient-safety-bundle-2/>

3 Centers for Disease Control and Prevention. Accessed at: <https://www.cdc.gov/reproductivehealth/maternalinfanthealth/severematernalmorbidity.html>

Figure 1

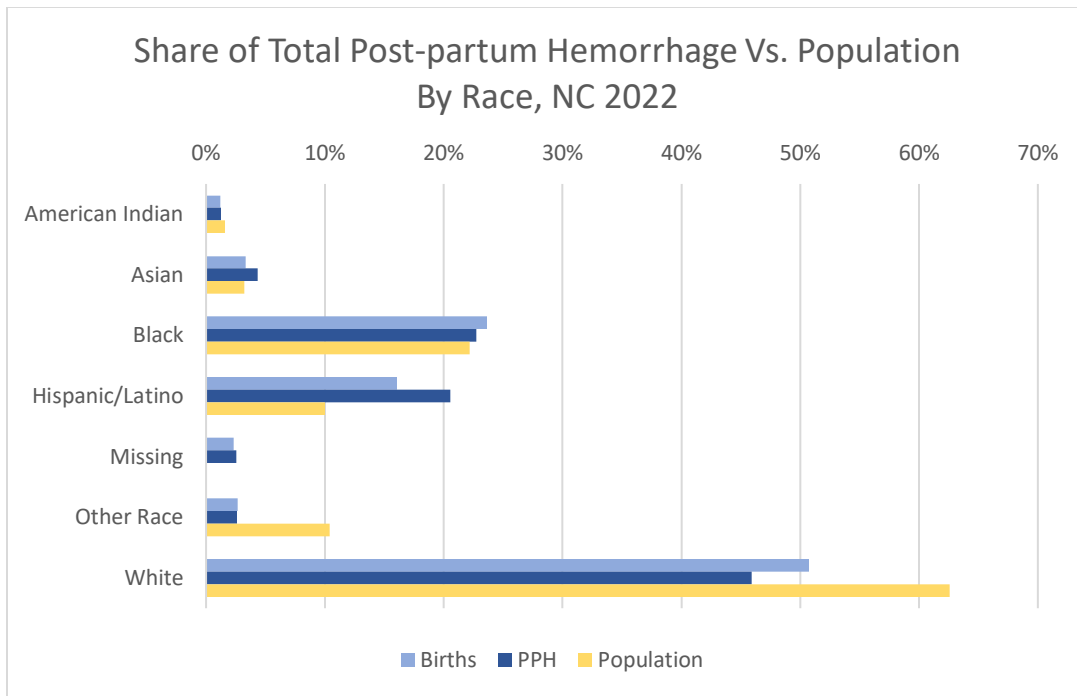


Figure 2

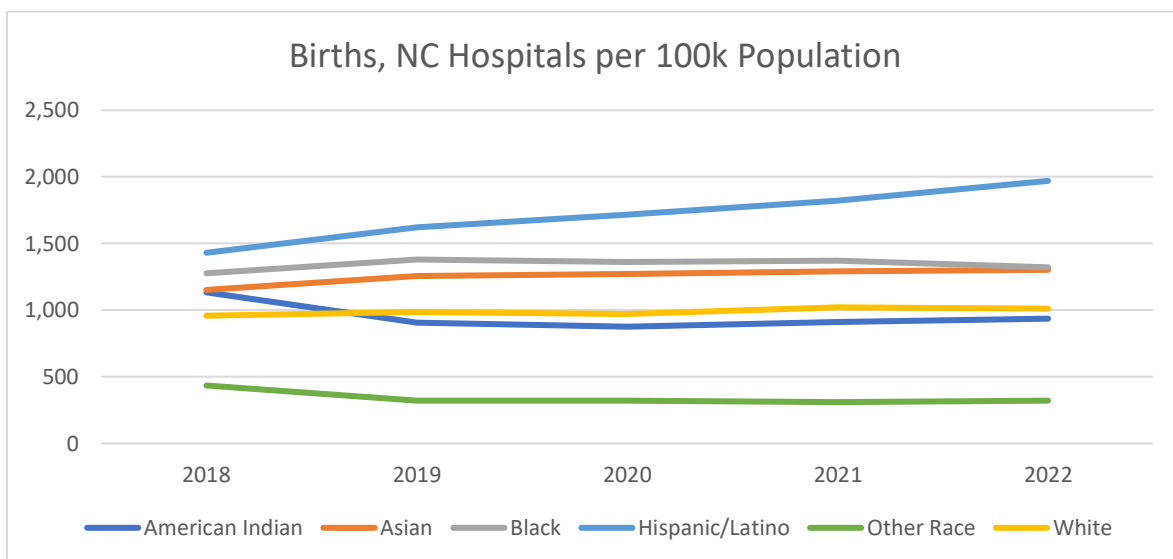
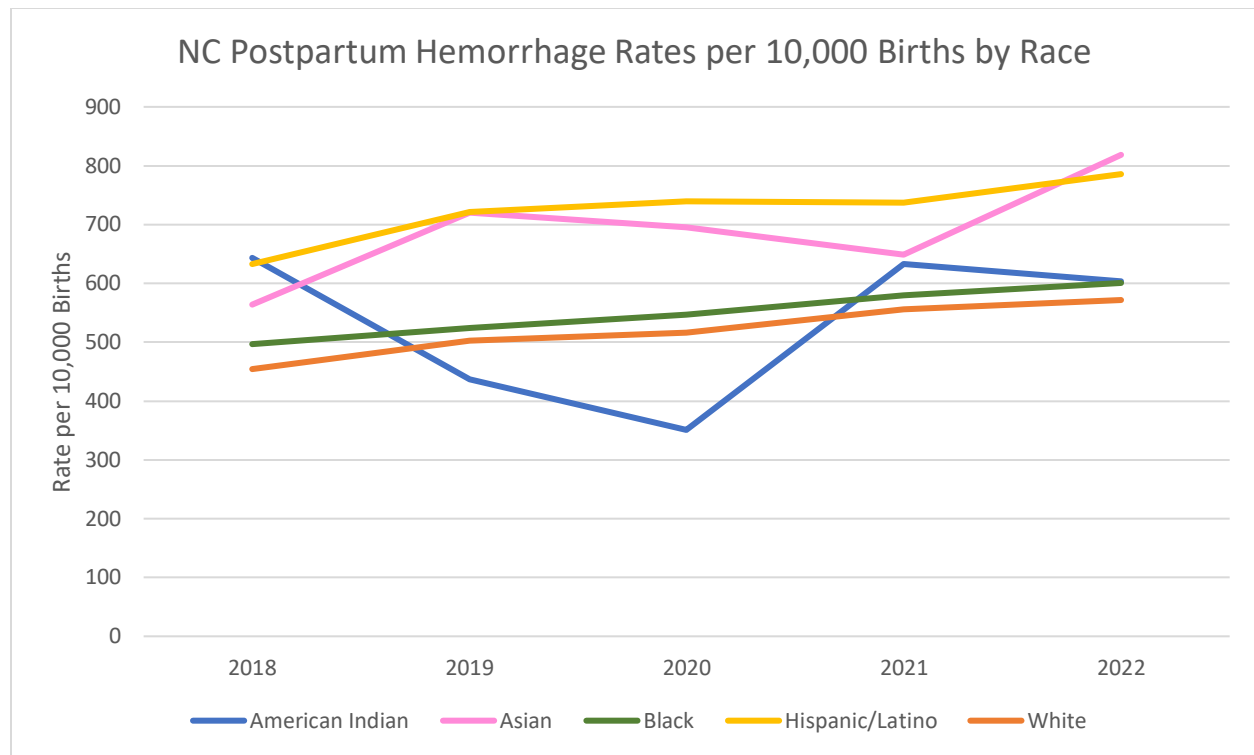


Figure 3



Annotated citations:

Sabato, Emily DO; Gobern, Joseph MD; Meske, Sam MS; Buckley, Meghan MS. *Obstetrics & Gynecology*: May 2020 - Volume 135 - Issue - p 35S-36S doi: 10.1097/01.AOG.0000663324.67045.80. Racial Disparities in Postpartum Hemorrhage in a Community Hospital: A Retrospective Cohort Analysis [24C]. [https://journals.lww.com/greenjournal/Abstract/2020/05001/Racial\\_Disparities\\_in\\_Postpartum\\_Hemorrhage\\_in\\_a.119.aspx](https://journals.lww.com/greenjournal/Abstract/2020/05001/Racial_Disparities_in_Postpartum_Hemorrhage_in_a.119.aspx)

Even after controlling for risk factors associated with PPH, black mothers at our community hospital are nearly 2 times more likely to experience hemorrhage.

Gyamfi-Bannerman C, Srinivas SK, Wright JD, Goffman D, Siddiq Z, D'Alton ME, Friedman AM. Postpartum hemorrhage outcomes and race. *Am J Obstet Gynecol*. 2018 Aug;219(2):185.e1-185.e10. doi: 10.1016/j.ajog.2018.04.052. Epub 2018 May 9. PMID: 29752934. <https://pubmed.ncbi.nlm.nih.gov/29752934/>

Black women were at higher risk for severe morbidity and mortality associated with postpartum hemorrhage.

Grobman, William A et al. "Racial and ethnic disparities in maternal morbidity and obstetric care." *Obstetrics and gynecology* vol. 125,6 (2015): 1460-1467. doi:10.1097/AOG.0000000000000735.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4443856/>

Racial and ethnic disparities exist for multiple adverse obstetric outcomes and types of obstetric care, and do not appear to be explained by differences in patient characteristics or by delivery hospital.

Codes:

Alliance for Innovation on Maternal Health Severe Maternal Morbidity Codes List v9-1-2017

[https://safehealthcareforeverywoman.org/wp-content/uploads/2017/09/AIM-SMM-Codes-List\\_Latest.xlsx](https://safehealthcareforeverywoman.org/wp-content/uploads/2017/09/AIM-SMM-Codes-List_Latest.xlsx)