

Health Disparities Affecting Maternal Morbidity

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Background

- Research has shown that women of color are at a significantly higher risk for maternal morbidity and mortality, compared to their Caucasian counterparts ¹⁻³.
- Social determinants of health, including, lack of transportation, unstable housing, limited or lack of insurance, and higher rates of discrimination ^{1,2} may contribute to these poor outcomes.
- The Accreditation Council for Graduate Medical Education (ACGME) cite healthcare disparities as an important component of healthcare quality.
- The ability to identify and address adverse outcomes due to health disparities is essential to the practice of prudent medical care and for the education of new generations of physicians.

Project Aims

To examine differences in maternal outcomes according to race/ethnicity.

Hypothesis: Non-Caucasian women will experience a higher rate of complications compared to White women.

Methods

Data Extraction

- Patient data extracted from Meditech Expanse for all L&D admissions from 01/01/2018 – 06/30/2019

Diagnosis Codes

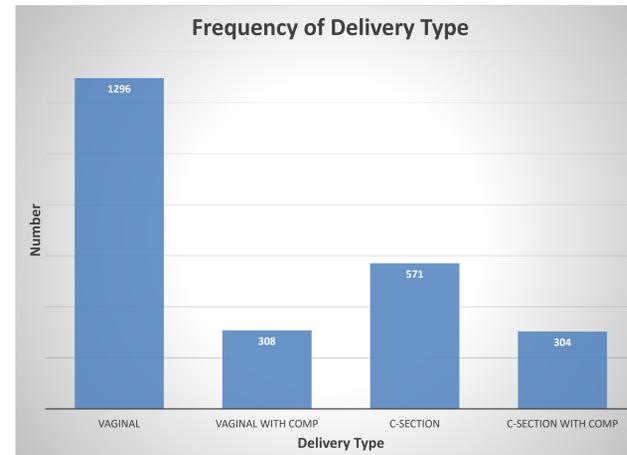
- Vaginal deliveries without complications (DRG codes 775 or 807 or 768 or 767 or 798)
- Vaginal deliveries WITH complications (DRG codes 806 or 774 or 805 or 797)
- C-Section without complications (DRG codes 766 or 788 or 785)
- C-Section WITH complications (DRG codes 765 or 787 or 784 or 786 or 783)

Race Categories

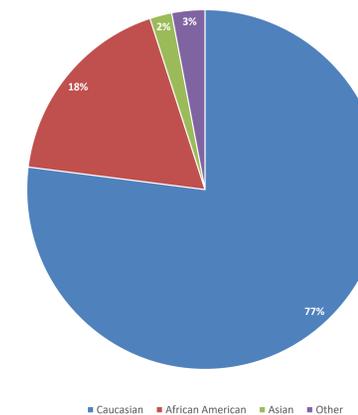
- Caucasian
- African American
- Asian
- 'Other' – comprising Mid-Eastern, Native American, other, unknown, Pacific Islander/Hawaiian

Results

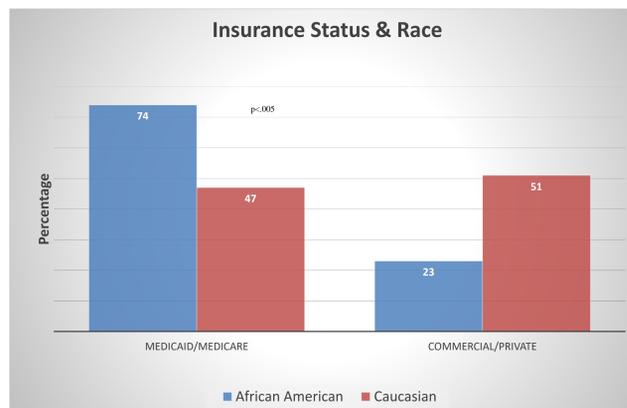
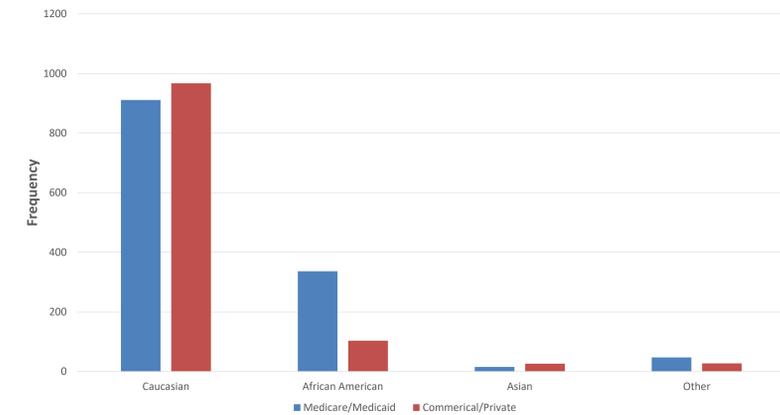
- 2551 admissions. Average age 28.5 years (SD 5.7, range 13-50 years). Mean length of stay 2.6 days (SD 1.6, range 1-28).
- 53% of sample received Medicare/Medicaid.
- Non-Caucasian women are significantly more likely to receive Medicare/Medicaid ($X=105.1$, $df=3$, $p<.0005$) and have a significantly longer length of stay ($t=3.5$, $df=2477$, $p<.001$).
- No difference in rates of complications by race.
- Women receiving Medicare/Medicaid are significantly more likely to experience delivery complications ($X=37.7$, $df=9$, $p<.005$)



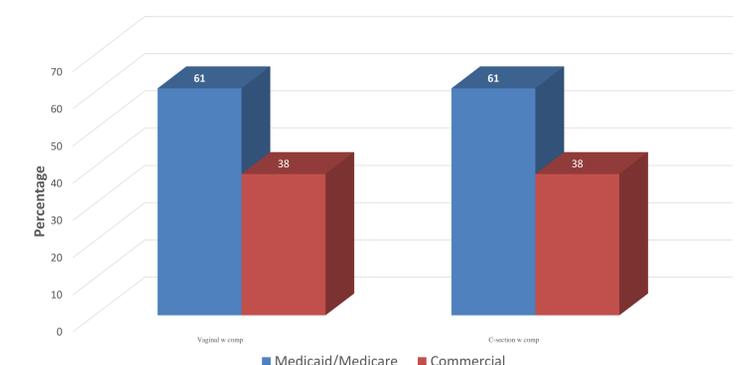
Race Categories by Percentage (n=2551)



Insurance Type by Race Category



Deliveries with complications by Insurance



Discussion

- Our rates of C-section and Medicare/Medicaid insured patients, are consistent with county and state statistics ⁴.
- 74% of all African American females in our sample were receiving Medicare/Medicaid.
- This payer source was also found to experience higher rates of delivery complications.
- Non-Caucasian women had a significantly longer lengths of stay, despite these similar complication rates. Therefore, social factors such as late or inadequate access to care, may be contributing factors.
- Unfortunately, as in previous research ¹⁻³ race and ethnicity were not classified consistently in our electronic medical record. Consequently, we are unable to obtain data specific to our Hispanic population which may confound our results and limit our ability to compare results to recent national findings.
- Future studies need to address implicit bias by physicians, social determinants of health, and access to care ³. We plan to further examine risk factors in our own population and work to implement action plans to overcome possible barriers.

1. <https://www.pennmedicine.org/news/news-releases/2016/january/cost-of-endoflife-care-in-the>

2. <https://www.atsjournals.org/doi/abs/10.1164/ajrccm-conference.2017.195.1.MeetingAbstracts.A7099>

3. The SUPPORT Principal Investigators. A controlled trial to improve care for seriously ill hospitalized patients. The study to understand prognoses and preferences for outcomes and risks of treatments (SUPPORT). *JAMA*. 1995 Nov 22-29;274(20):1591-8.

4. https://erj.ersjournals.com/content/48/suppl_60/PA718.abstract