

## ABSTRACT

- The literature has established that in the United States maternal and neonatal outcomes regarding morbidity and mortality differ by race.
- In 2018, our data analysis showed that worse health outcomes were seen in our Caucasian patients compared to minorities.
- Understanding that our sample was limited, we expanded our data by increasing our sample size and addressing other socioeconomical factors that could potentially affect healthcare.
- We developed a QI project to determine if other factors aside from race such as insurance coverage and zip code affected maternal outcomes during pregnancy with intention to create channels to address disparities once identified.

## OBJECTIVES

To examine differences in newborn outcomes by race, insurance and socioeconomic status concentrating on maternal risk factors:

Neonatal outcomes

- Low birth weight (<2500 g)
- NICU admission
- Apgars (1 and 5 minutes)
- Prematurity (defined as being born before 37 week gestation)
- Rate of Breast feeding

Maternal Risk Factors

- Late to prenatal care (>20 WGA)
- Smoking during pregnancy
- Positive UDS
- Medicaid/No insurance
- Zip Code
- Race (White vs. Non white).

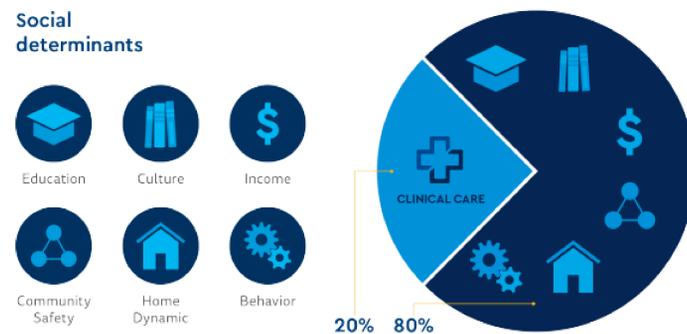
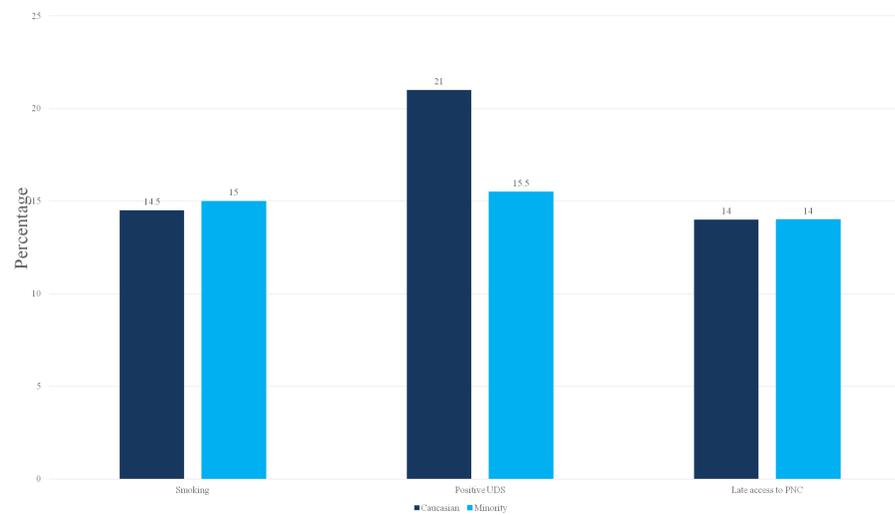
## METHODS

- Review of maternal and newborns charts born at Halifax Health Medical Center, including those requiring NICU stay during the months of July 2018 and August 2019.
- A total of 400 charts were reviewed (200 newborns and 200 mothers). All records were systematically reviewed from our EMR.
- Race was self-reported during registration and obtained from EMR records. All non-white patients were grouped as minorities for our review.
- A Chi square was used for data analysis. Testing for an association between nominal variables.

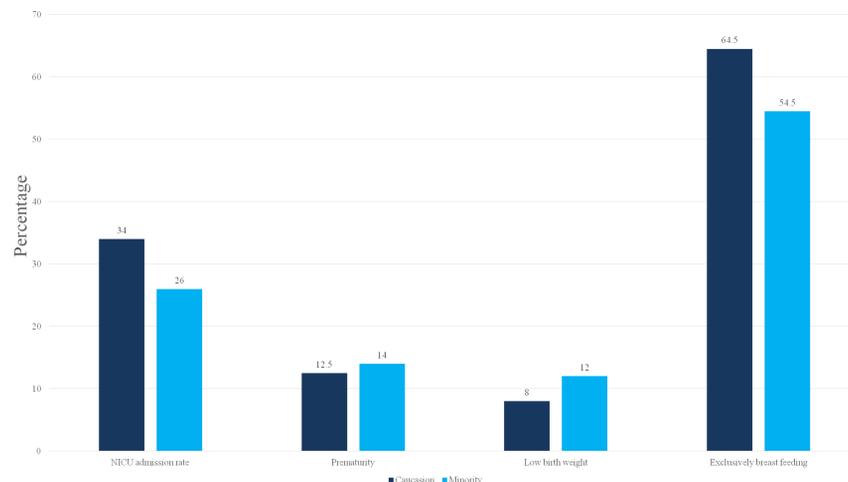
## RESULTS

Out of 200 newborns, 152 were identified as white and 48 as minorities. Minority group is composed mainly of African American newborns, with some other races represented (Hispanic, Asian, and Middle Eastern).

### Maternal Risk Factors



### Neonatal Outcomes



## CONCLUSION

- It is evident that our patient population is affected by lower socio-economic status and degree of education. It includes a large percentage of uninsured patients. It's clear that our patient population is unique from other parts of the country.
- It is also evident that health disparities in our hospital may be driven by socioeconomic status and access to health care rather than by race alone. However, as an organization we need to include more sensitive measures of race and ethnicity to fully understand risk factors and outcomes. To further narrow down these differences, we will examine the impact of insurance status and zip code on our outcomes.
- This has been a great learning point for our residents and faculty on health disparities and population health. By systematically reviewing our data, we were able to understand that our population differs from National trends. To us, the most striking finding is the number of mothers, regardless of race, that have preventable risk factors such as smoking and drug use, as well as late or no prenatal care, that affects the overall health of newborns in our community.
- It is our goal, to develop interventions to attempt to reduce the negative impact of health disparities. Future projects include our resident physicians partnering with other agencies to educate our community of the risks of smoking and drug use during pregnancy, and providing resources to quit. It will also be important to develop ways to allow patients with limited/ no access to transportation to be seen at convenient times.
- From a community point of view, our main area of focus needs to be in understanding barriers to prenatal care for our disadvantaged population and generating avenues to facilitate access to early prenatal care.

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