

# EVALUATING RACIAL DISPARITIES IN A NEONATAL INTENSIVE CARE UNIT PARENTAL SUPPORT BUNDLE

Tiffany Bittle, DNP-Candidate, MSN, NNP-BC  
March 27<sup>th</sup>, 2024



SCHOOL *of* NURSING

# DNP SCHOLARLY PROJECT TEAM

- Dr. Barbara Reyna (Advisor, First Reviewer)
- Dr. Melissa Gomes (Second Reviewer)
- Jan Thape (Practice Site Mentor)



SCHOOL *of* NURSING

# CONTENTS

- Background
- Review of Literature
- Project Purpose
- Framework – Easy Evaluation
- Logic Model
- Methods/Design
- Demographics & Analysis of the sample
- Findings/Results
- Analysis & Interpretation of Data
- Implications for Practice
- Report

# ARE THERE RACIAL DISPARITIES IN PARENTAL SUPPORT IN THE NICU ?



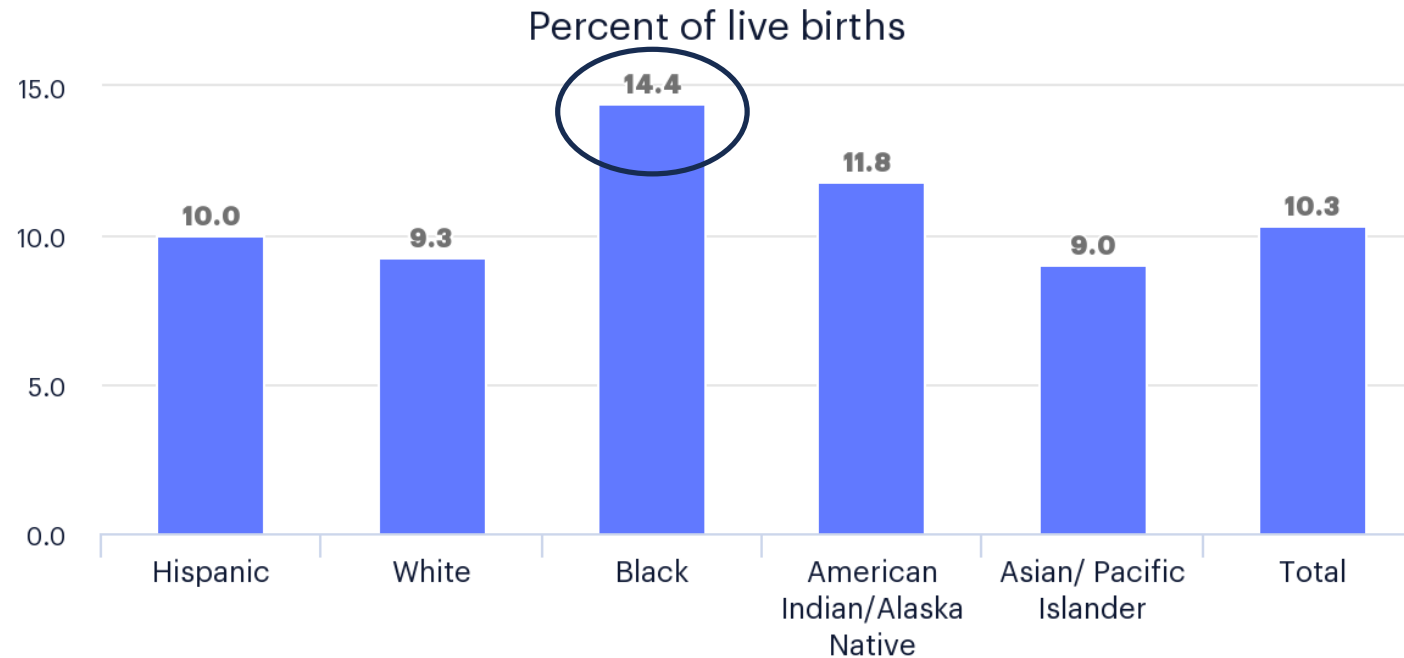
SCHOOL *of* NURSING

# BACKGROUND

- **Preterm birth rates in Black women are 49% higher** compared to other women in the United States (Sigurdson et al, 2019)
- **Black neonates experience severe complications** related to preterm birth (Ravi et al & Glazer et al, 2021)
- **Black neonates receive disproportionate quality of care** contributing to increased rates of **adverse developmental outcomes** (Johnson et al, 2022)
- **Racism and inequality of care are contributing social determinants** impacting health outcomes for Black neonates and their families (Beck et al, 2019 & Montoya-Williams et al, 2022)

# PRETERM BIRTH RATE BY RACE/ETHNICITY

United States, 2019-2021 Average



© 2023 March of Dimes Foundation. All rights reserved.



All race categories exclude Hispanics. Preterm is less than 37 weeks of pregnancy.

National Center for Health Statistics, final natality data. Retrieved July 27, 2023, from [www.marchofdimes.org/peristats](http://www.marchofdimes.org/peristats).



SCHOOL of NURSING

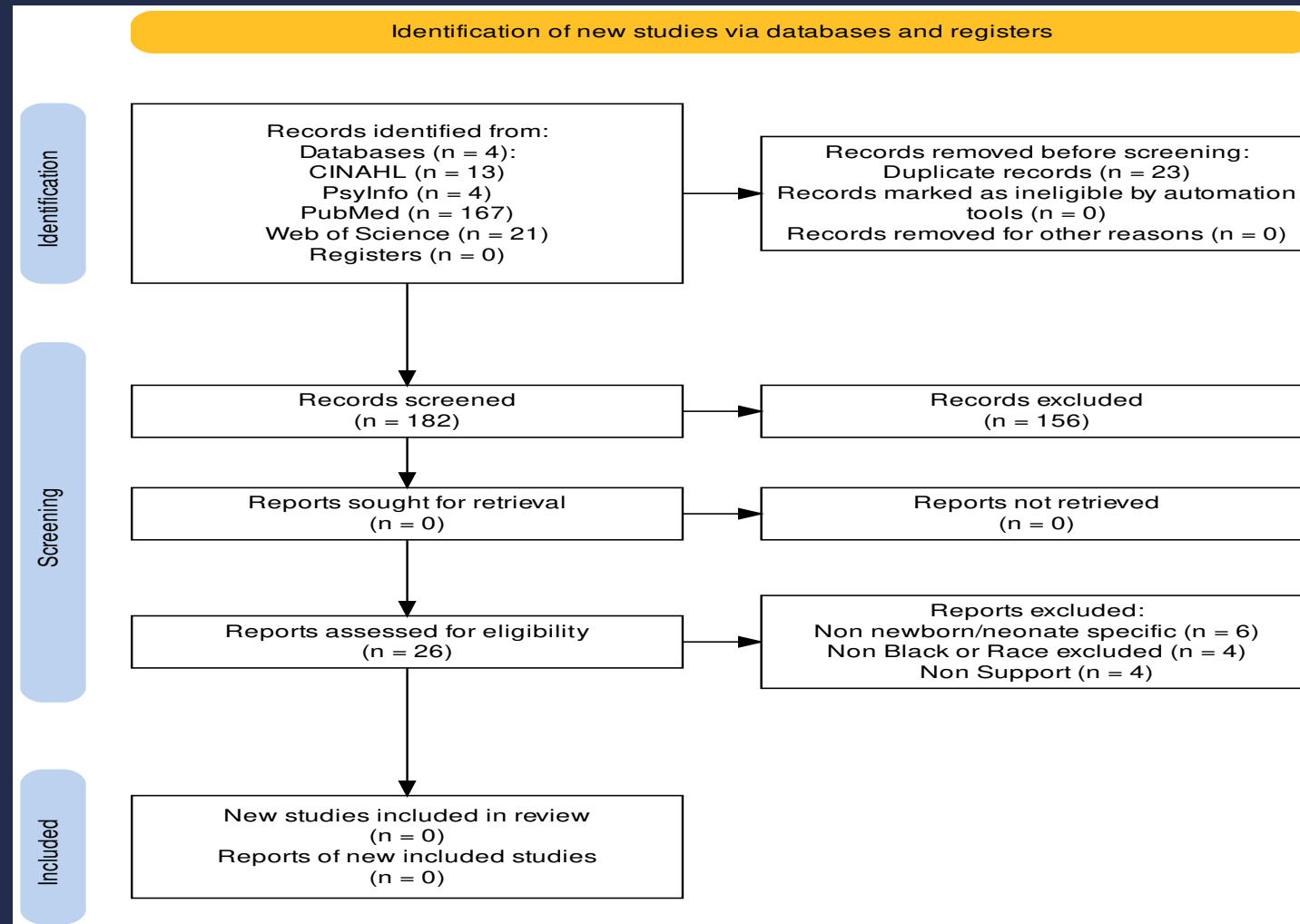


**“Racism creates a system of restricting the lives of Black people  
while creating advantages for white people”**

(Montoya-Williams et al, 2022)

# REVIEW OF THE LITERATURE

What are the racial disparities to providing parental support to Black neonates & their families in the NICU?





# REVIEW OF THE LITERATURE



Gaps in the literature

Black families desire to be consulted & included

Clinicians must establish relationships of trust

Various factors contribute to Black mother's usage of human milk

# PROJECT PURPOSE

To examine for the presence of racial disparities in a parental “support bundle” in a 72 bed Level IV, NICU in a children’s hospital in Southeast Virginia

# ETHICS

## EQUALITY



## EQUITY

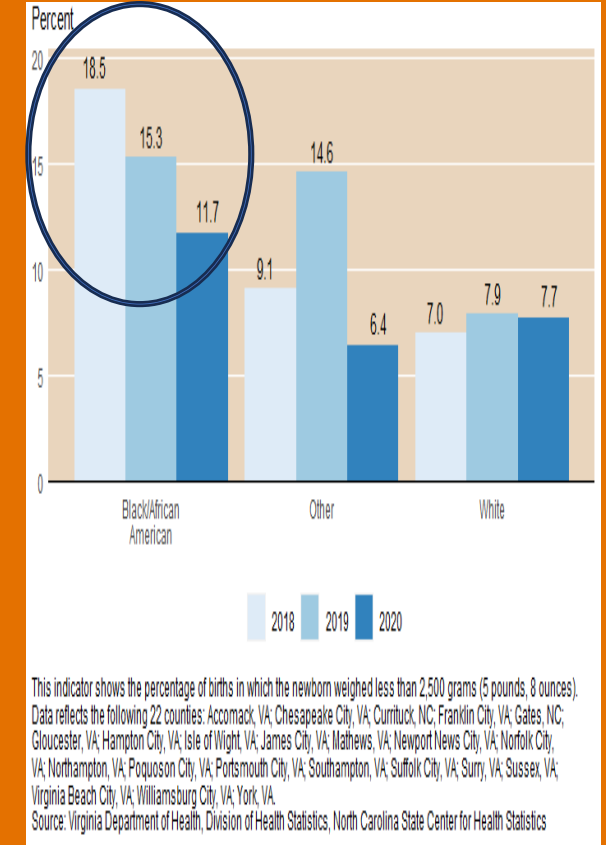


Autonomy  
Beneficence  
Justice  
Nonmaleficence

# NICU PRACTICE SITE

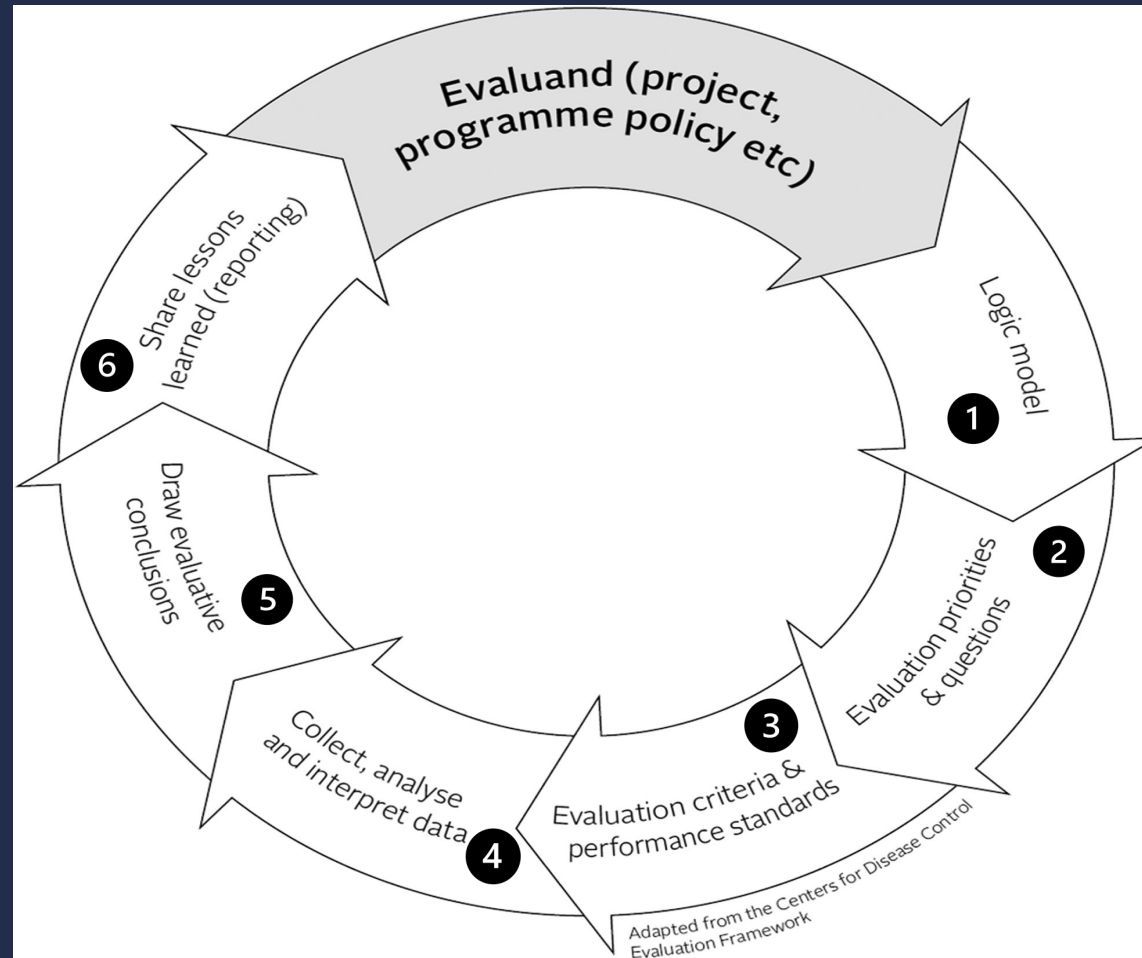


- Children's hospital Southeast Virginia
- 72 bed, Level IV NICU
- Average daily census of 65 neonates
- Specialties:
  - Cardiac surgery
  - Neurosurgery
  - Orthopedic surgery
  - General surgery
  - Plastic & reconstructive surgery
  - Urology
- 485 admissions in 2023

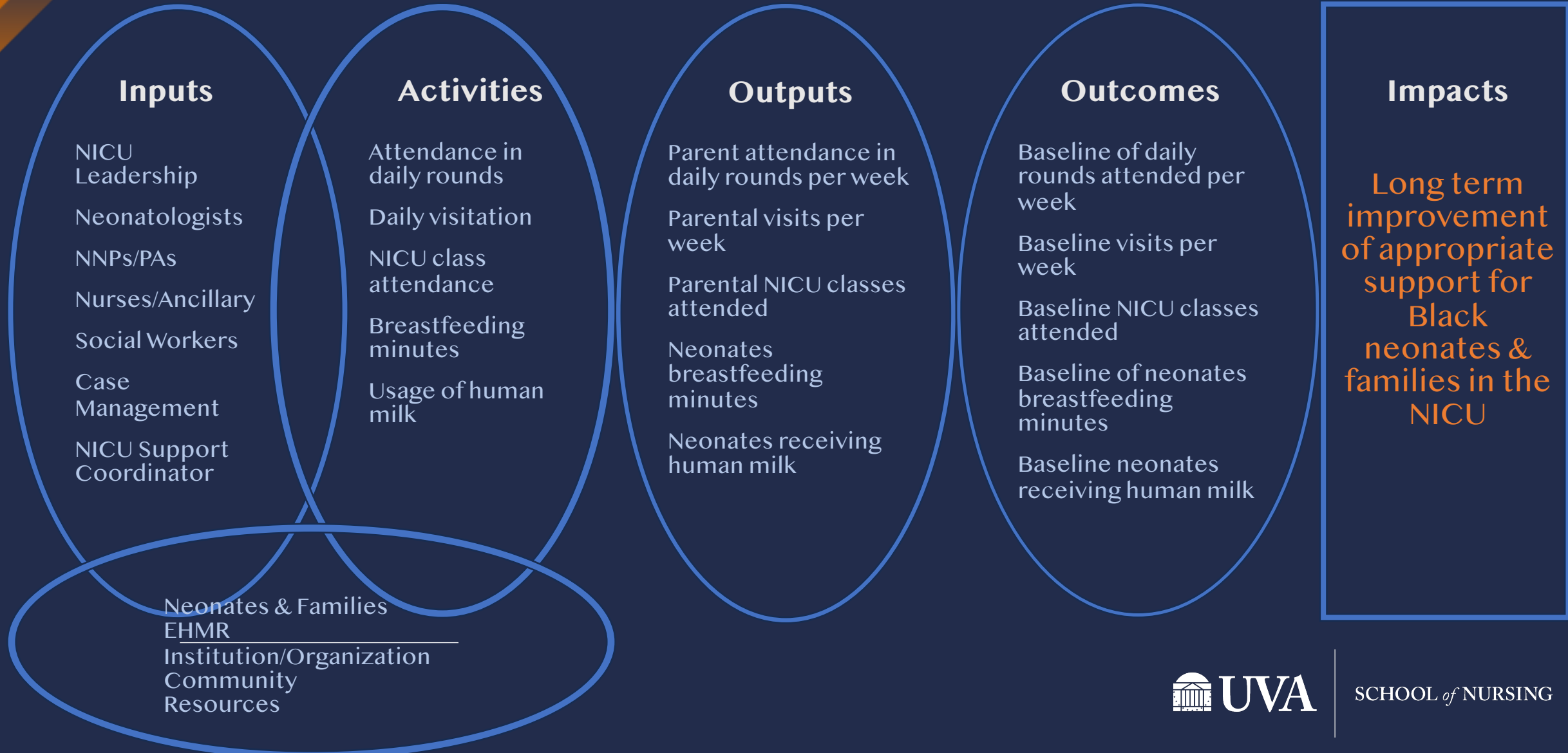


SCHOOL of NURSING

# FRAMEWORK - EASY EVALUATION (ADAMS & NEVILLE, 2020)



# PHASE 1 - Logic Model (includes phase 2 & 3)



# PHASE 4 - METHODS/DESIGN

- **Sample 38 random neonates & families**
  - GA: 22 to 40+
  - BW: 350g – 5kg
- **Inclusion Criteria**
  - Admitted to NICU
- **Exclusion Criteria**
  - Neonates admitted after the initiation of data collection
  - Neonates discharged prior to the conclusion of data collection
  - Neonates who expired (deceased) during data collection
- **Teaching & reinforcement of documentation in EMHR**
- **6 week time line**
  - October 15, 2023 to November 26, 2023

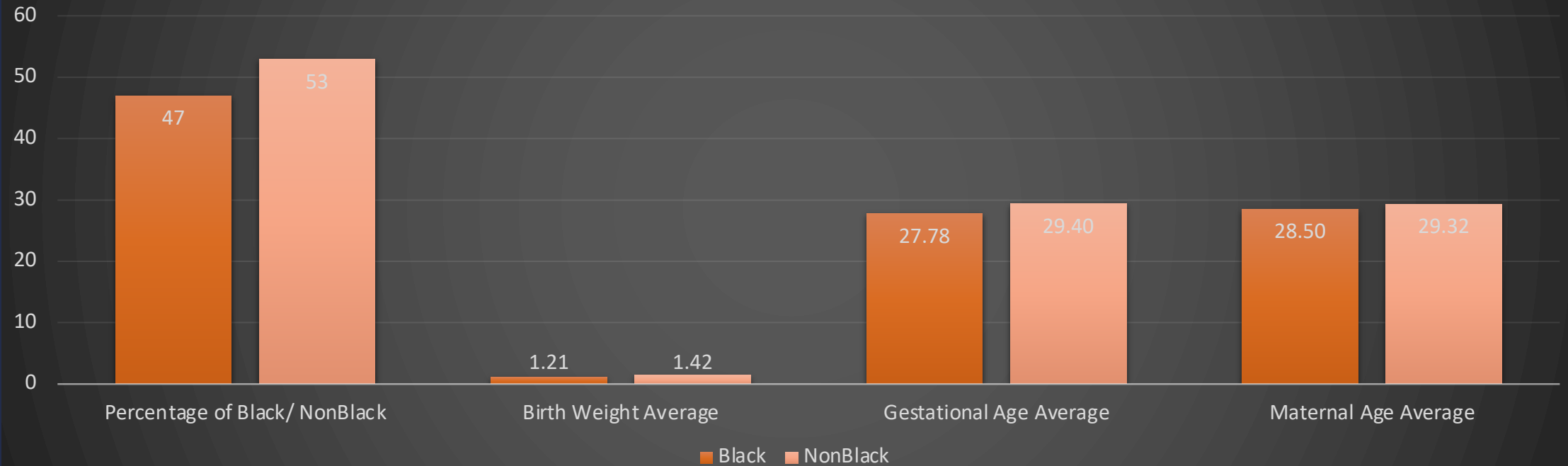
# PHASE 4 - METHODS/DESIGN (CONT.)

- **Collection of 5 data points “Support Bundle” from the EMHR & class facilitators for comparison Black vs. NonBlack neonates**
  - ✓ Parental attendance in daily rounds
  - ✓ Parental daily visitation
  - ✓ NICU classes attended
  - ✓ Breastfeeding minutes
  - ✓ Usage of human milk
- **Deidentified data collected & stored on the secured file on hospital network**
- **No Institutional Review Board (IRB) approval necessary (nonhuman research)**
- **Analysis conducted using descriptive statistics via SPSS for analysis**
  - Sample demographics
  - Support bundle data





## Demographics of Sample



# PHASE 4 - FINDINGS/RESULTS

No comparable differences between groups in parental attendance in daily rounds

Black neonate's parents visited 2 days a week less than NonBlack neonates

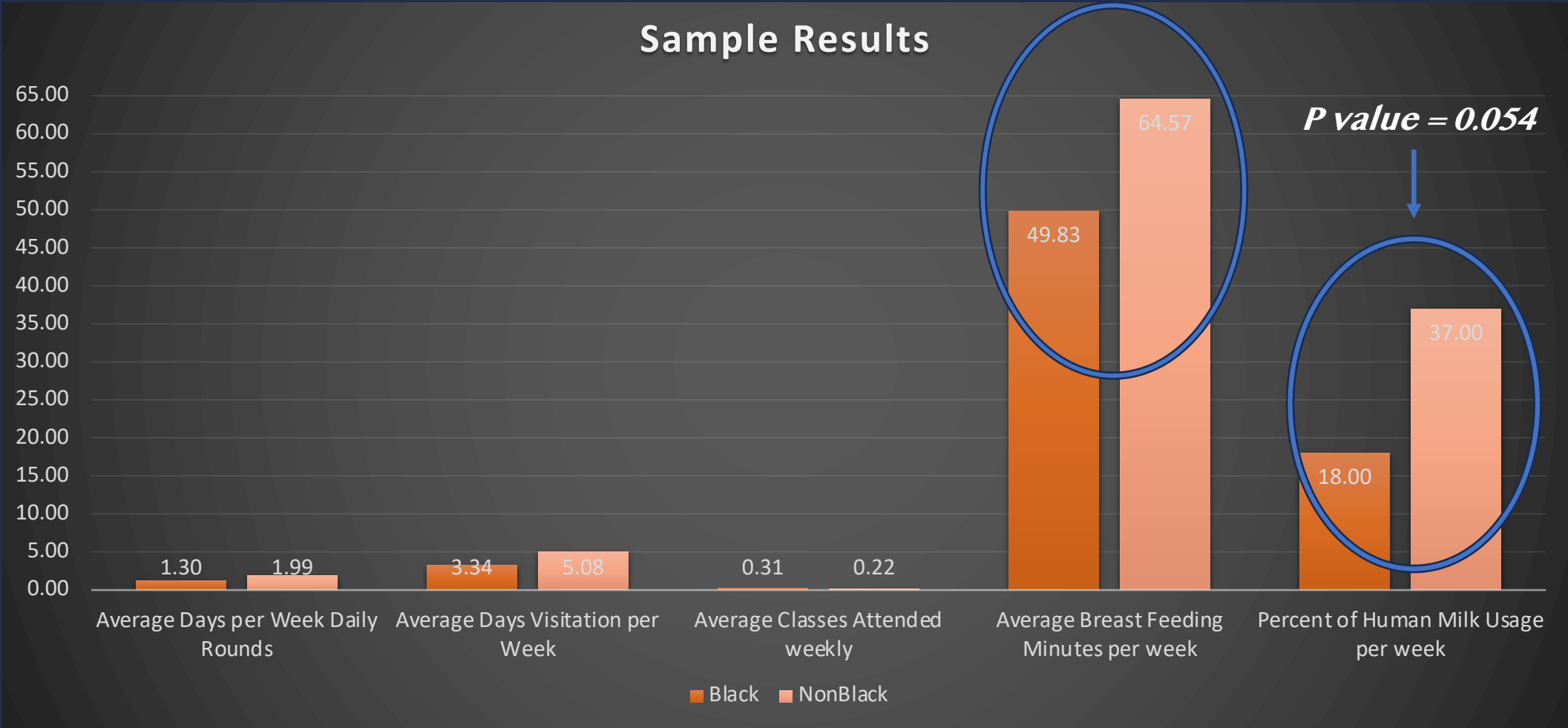
Minimal participation in NICU class attendance for ALL neonates

# PHASE 4 - FINDINGS/RESULTS (CONT.)

**Black neonates were breast fed 15 minutes fewer per week compared to NonBlack neonates**

**The percent of human milk usage was almost 20% less for Black neonates compared to NonBlack neonates**

# PHASE 4 - FINDINGS/RESULTS (CONT.)



# PHASE 5 - IMPLICATIONS FOR PRACTICE

Establish quality measures & benchmarks & Implement measurable interventions

Daily Rounds for **ALL** neonates:

- ✓ Virtual alternatives
- ✓ On-site child care support

NICU Parent Classes for **ALL** neonates:

- ✓ Virtual
- ✓ Recorded
- ✓ Alternative formats (hard copies, Apps)
- ✓ Multiple teachers (diverse backgrounds)
- ✓ Increase in frequency

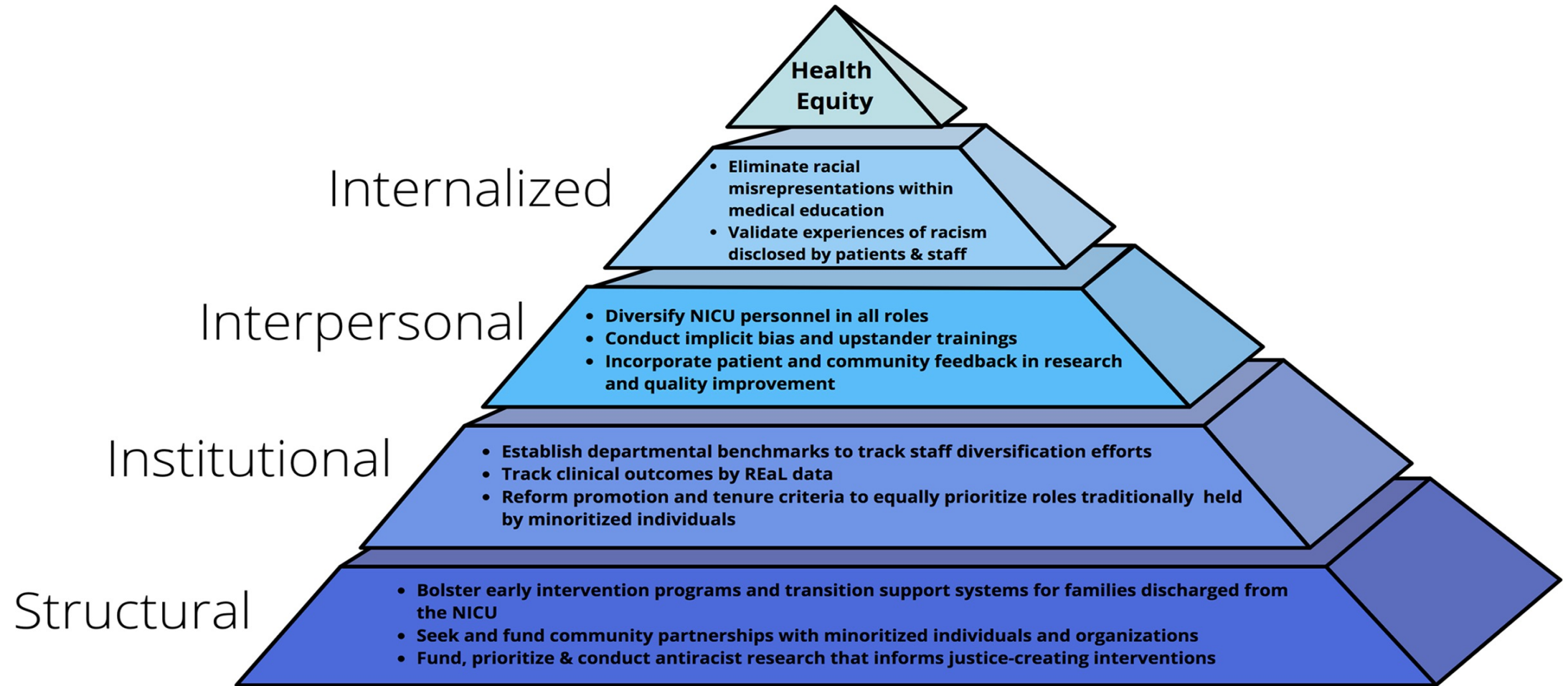
Breastfeeding support for **ALL** neonates:

- ✓ Modified Breastfeeding Friendly Hospital Initiative (BFHI)

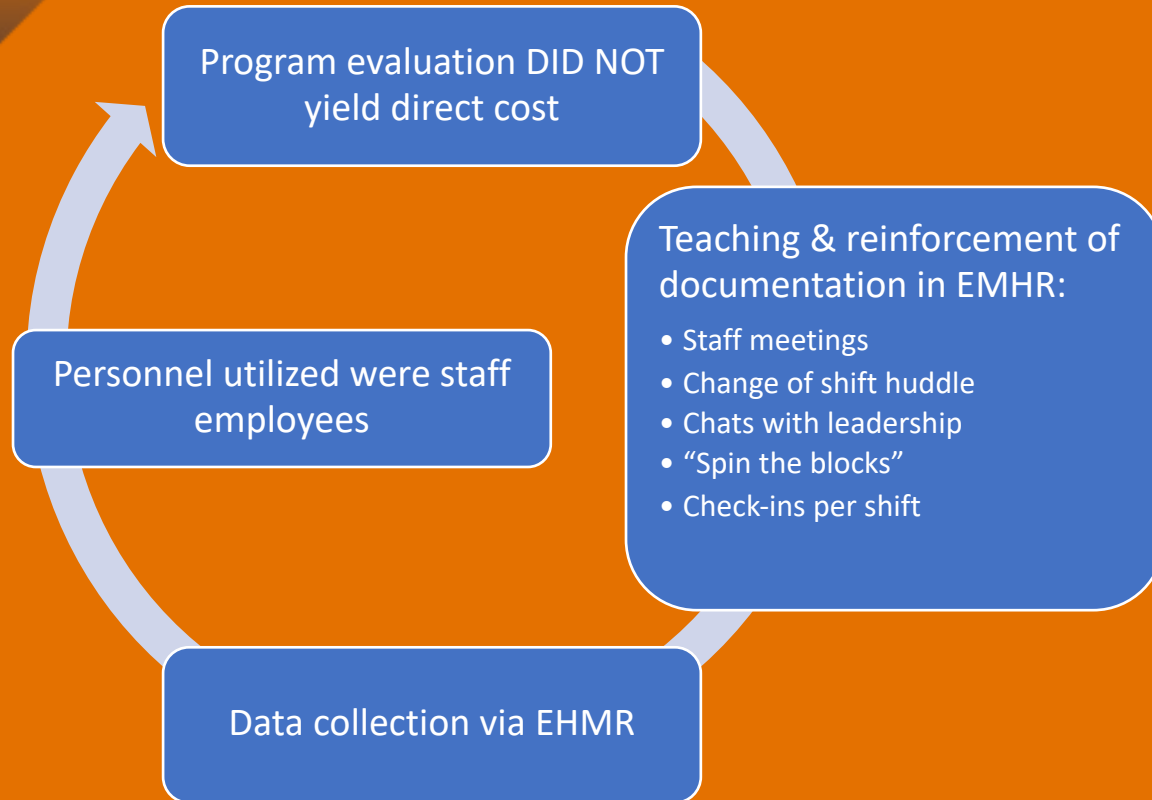
**Provide customized breastfeeding support to Black mothers:**

- ✓ Support groups for Black mothers (on-site, virtual, web-based)
- ✓ Access to national breastfeeding support organizations
- ✓ Racial concordance related to Lactation Consultants (LC)

# STRATEGIES TO TACKLE RACISM AT EVERY LEVEL



# FINANCIAL ANALYSIS



## Cost involved with implications for practice:

- Virtual, alternative support
- On-site childcare
- Modified BFHI
- Breastfeeding support for Black mothers
- Additional teacher, LCs
- Employment of personnel from historically underrepresented groups
- Antiracism training



# SUSTAINABILITY

Continue to evaluate & establish how to improve parental involvement in daily rounds

Continue to evaluate reasons for less frequent visitation of Black neonates & support specific needs

Offer parental classes more frequently & provide alternative methods

**Increase lactation support for Black mothers**

Continue to evaluate why Black mothers use less human milk & support specific needs



# LIMITATIONS & STRENGTHS OF THE PROJECT

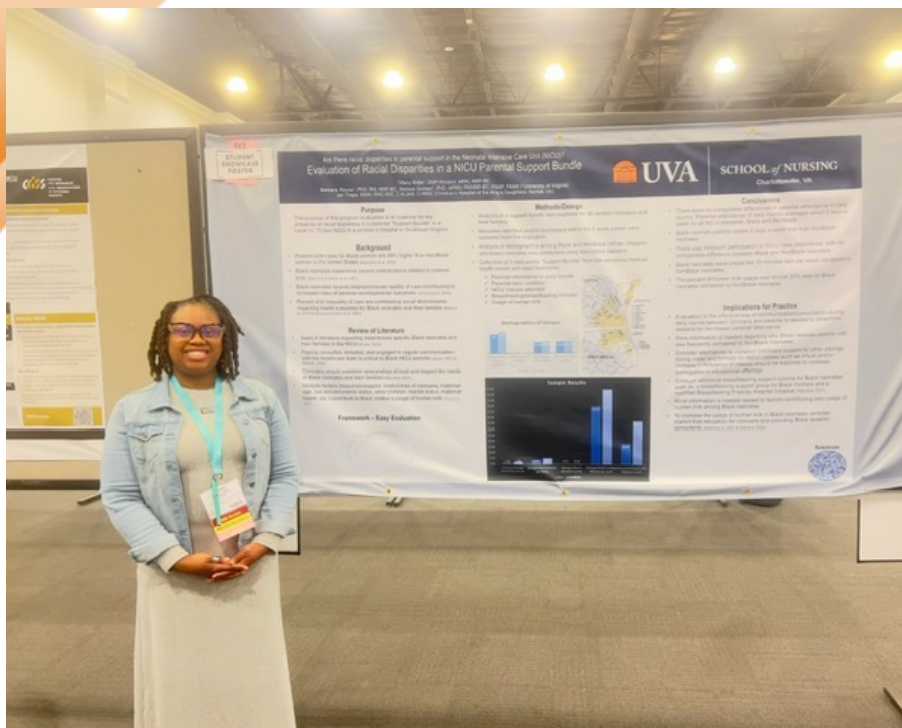
## Limitations

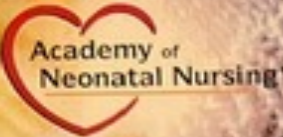
- Reliance of documented data in the EMHR
- 6 week time frame of data collection

## Strengths


- Data contributes to the gap in the literature for Black neonates & their families
- Data guides interventions for Black neonates & families related to human milk usage
- Data also provides direction for interventions for ALL neonates & families related to daily rounding, visitation, NICU class attendance, & breastfeeding support

# PHASE 6 - DISSEMINATION





**Academy of Neonatal Nursing**



**EVALUATION DEADLINE:**  
March 25, 2024

*Spring 2024*

**National Advanced Practice  
Neonatal Nurses Conference**

**March 6-9, 2024**  
San Diego, California

**Event Summary**

---

Handouts

---

CE Evaluations & Transcript

**How to Claim CNE Contact Hours**

1. Go to [www.academyonline.org](http://www.academyonline.org).
2. Log in or create an account.  
(make sure your ANN user account email matches the email address you used when registering for the conference.)
3. Once logged in, go to [www.academyonline.org](http://www.academyonline.org)

# SUMMARY

- Racial Disparities in NICU Parental Support Bundle
- What Current Literature Suggests
- Project Purpose
- Framework – Easy Evaluation
- Logic Model
- Methods/Design
- Demographics & Analysis of the sample
- Findings/Results
- Analysis & Interpretation of Data
- Implications for Practice
- Dissemination

# ACKNOWLEDGMENTS

Dr. Beth Quatrara – DNP Program Director  
Dr. Barbara Reyna - Advisor & 1<sup>st</sup> Reviewer  
Dr. Melissa Gomes - 2<sup>nd</sup> Reviewer  
Dr. Regina DeGennaro – DNP Seminar Professor  
Dan Wilson – HSL Nursing Librarian  
David Martin – Clinical Research Data Specialist  
Jan Thape - Practice site mentor  
Laura Biava – CHKD NICU Nursing Director  
Dr. Green – CHKD NICU Neonatology Medical Director  
Dr. Jamil Khan – CHKD NICU Attending Neonatologist  
Amy Quinn – CHKD Director of Research Administration  
Julie Minter – CHKD IS Data & Analytics Development  
Leslie Worley – CHKD NICU Data Coordinator  
Felicia Baker-Davis – NICU Support Coordinator  
NNP, PA, and Resident colleagues  
CHKD Nursing Staff  
Family and friends who are family

Thank  
you

# REFERENCES



**WHAT QUESTIONS DO YOU HAVE?**