North Carolina's Pregnancy Medical Home

Community Care
OF NORTH CAROLINA

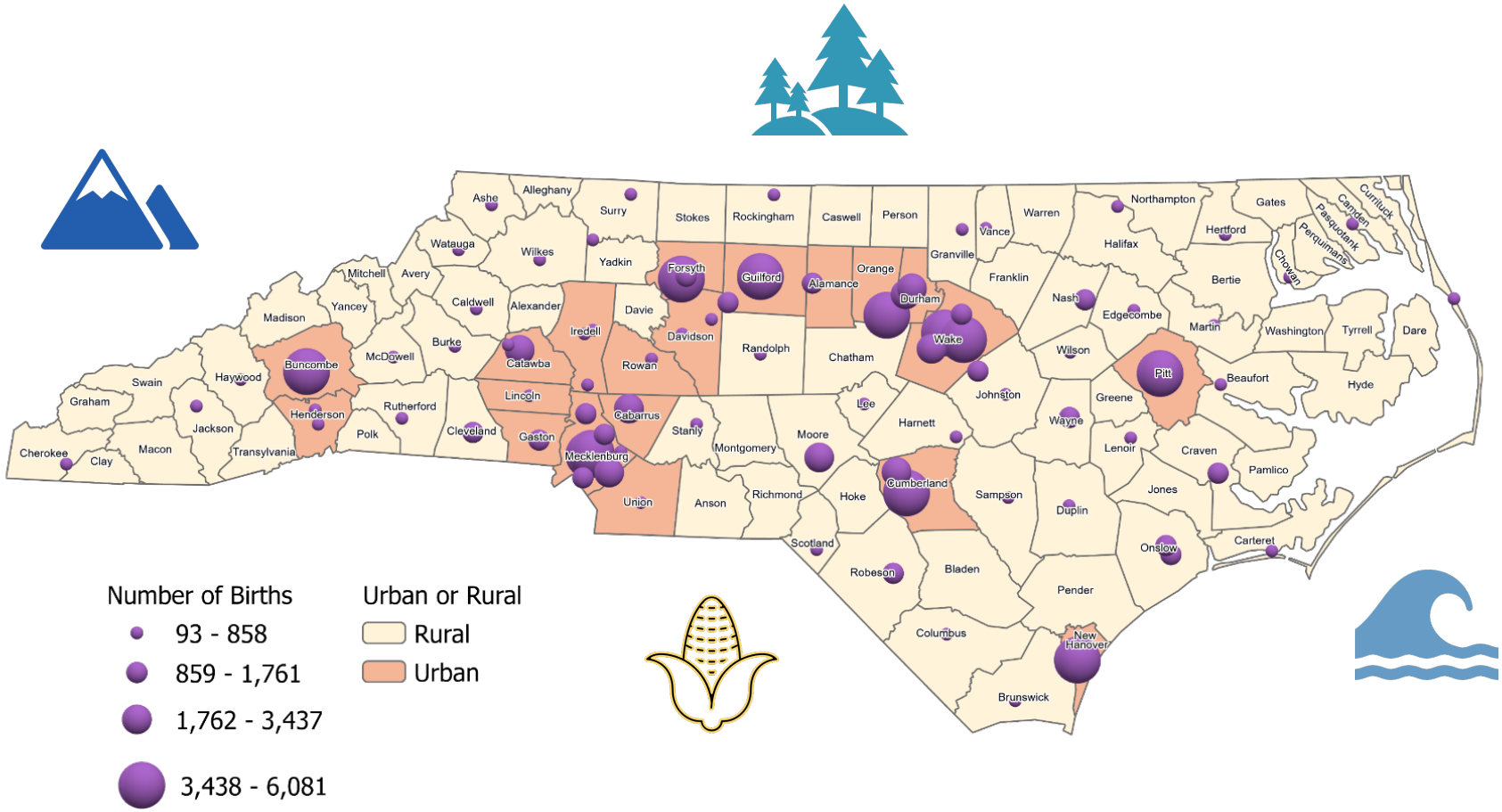
Improving maternity care and birth outcomes in the North Carolina Medicaid population

NASEM Workshop

June 7-8, 2021

Advancing Maternal Health Equity and Reducing Maternal Mortality

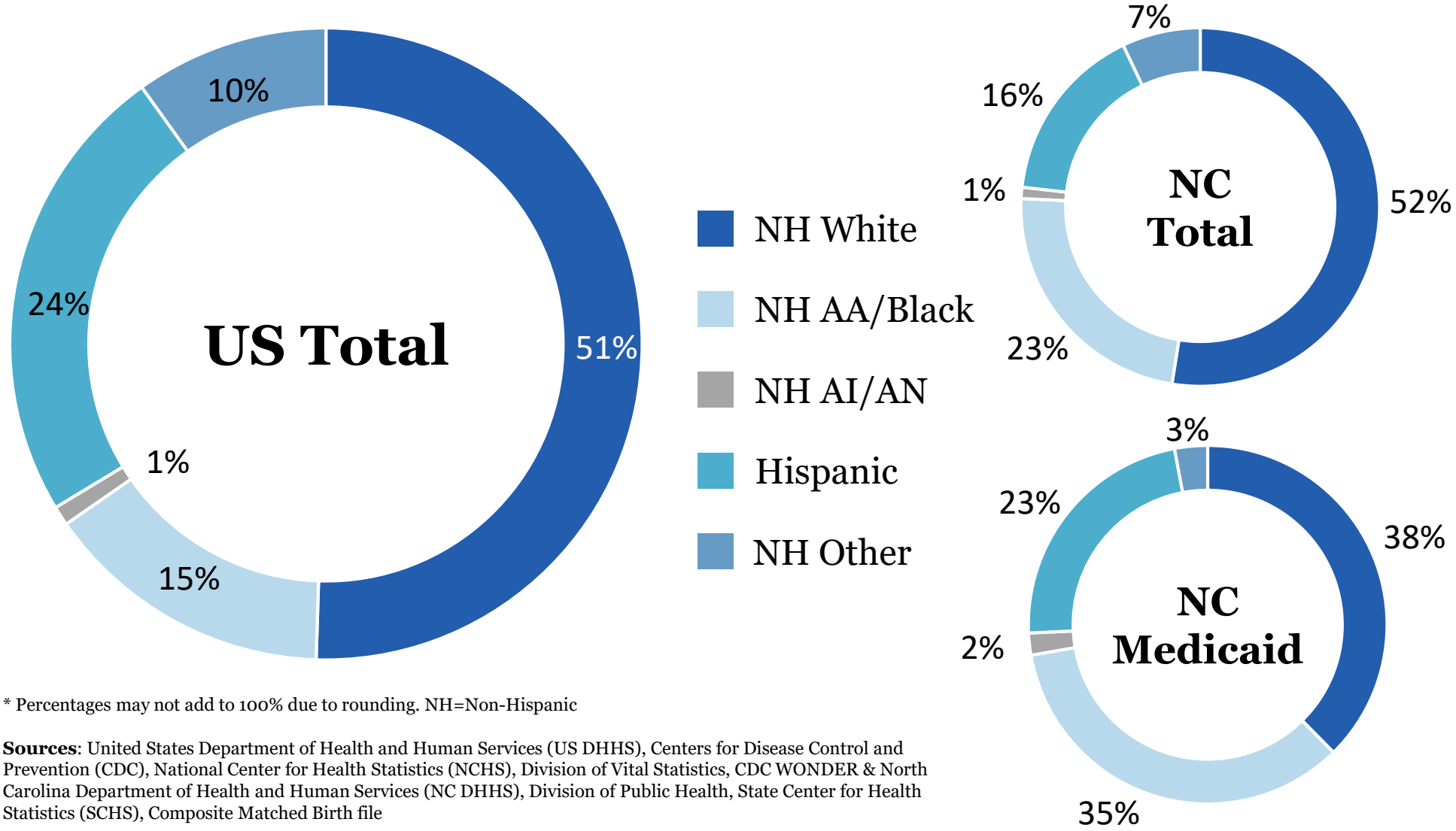
NC Birthing Hospitals and Urban & Rural Counties (2019)



Source: NC State Center for Health Statistics, Birth Certificate Data

Note: Hospitals with less than 20 births have been excluded.
Urban is defined as more than 250 persons per square mile.

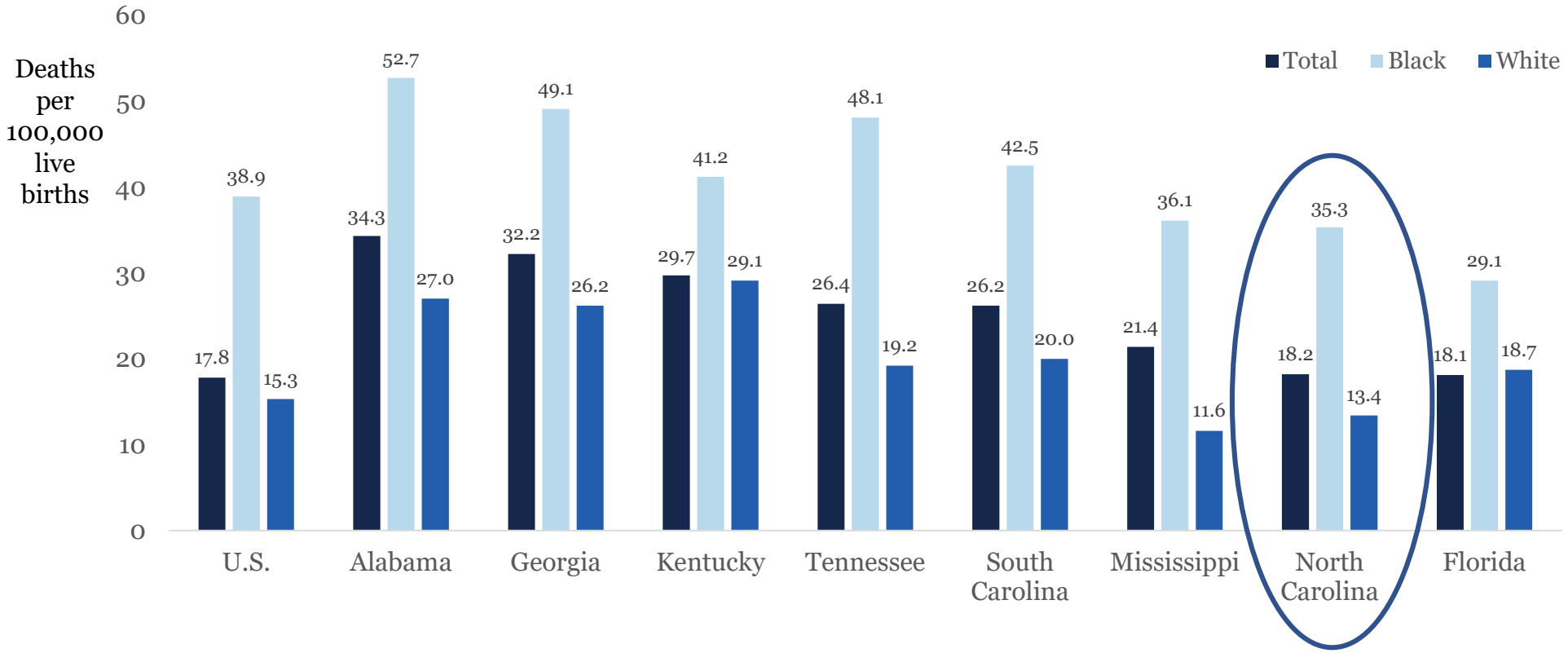
Births by Race/Ethnicity and Medicaid Status (2019)



* Percentages may not add to 100% due to rounding. NH=Non-Hispanic

Sources: United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, CDC WONDER & North Carolina Department of Health and Human Services (NC DHHS), Division of Public Health, State Center for Health Statistics (SCHS), Composite Matched Birth file

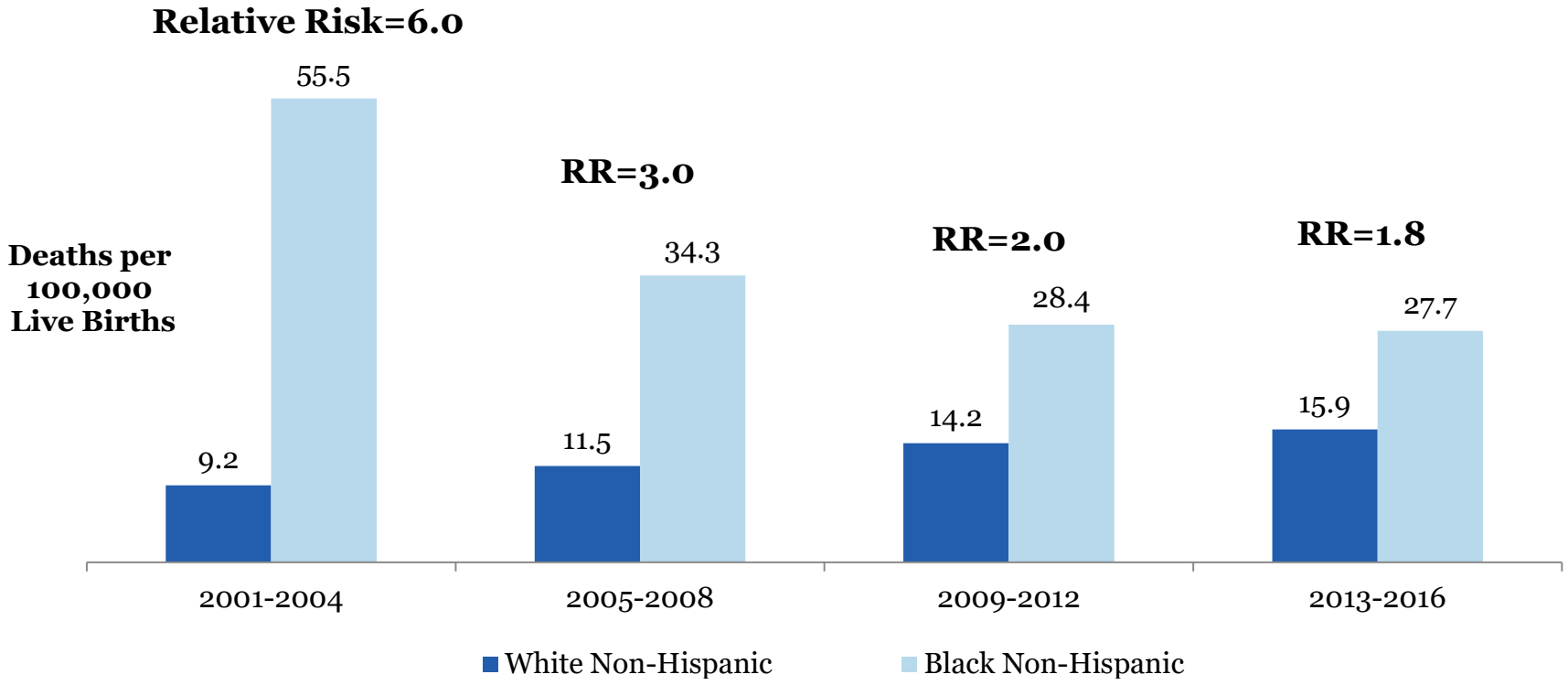
Maternal Mortality Rates by Race/Ethnicity, HRSA Region 4, 2015-2019



Death while pregnancy or within 42 days of termination of pregnancy, cause related to or aggravated by pregnancy

Source: CDC, National Center for Health Statistics, National Vital Statistics System (NVSS), 2015-2019

North Carolina Pregnancy-Related Mortality Ratios Non-Hispanic Black and Non-Hispanic White, 2001-2016

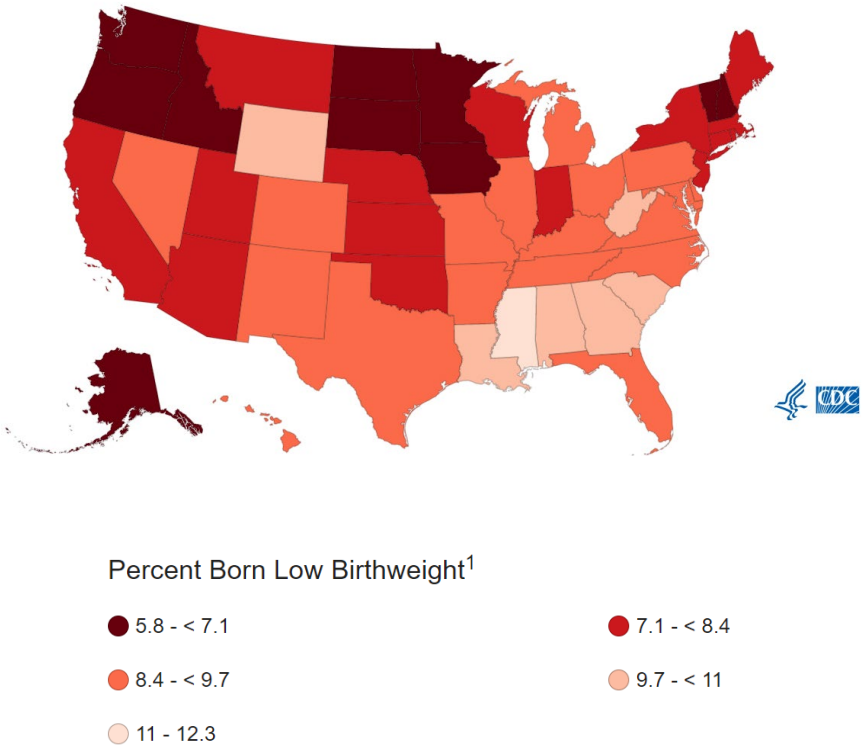


Death while pregnancy or within I year of termination of pregnancy, cause related to or aggravated by pregnancy

Source: North Carolina Department of Health and Human Services (NC DHHS), Division of Public Health, Women & Children's Health Section based on NC Maternal Mortality Review Committee (MMRC) data

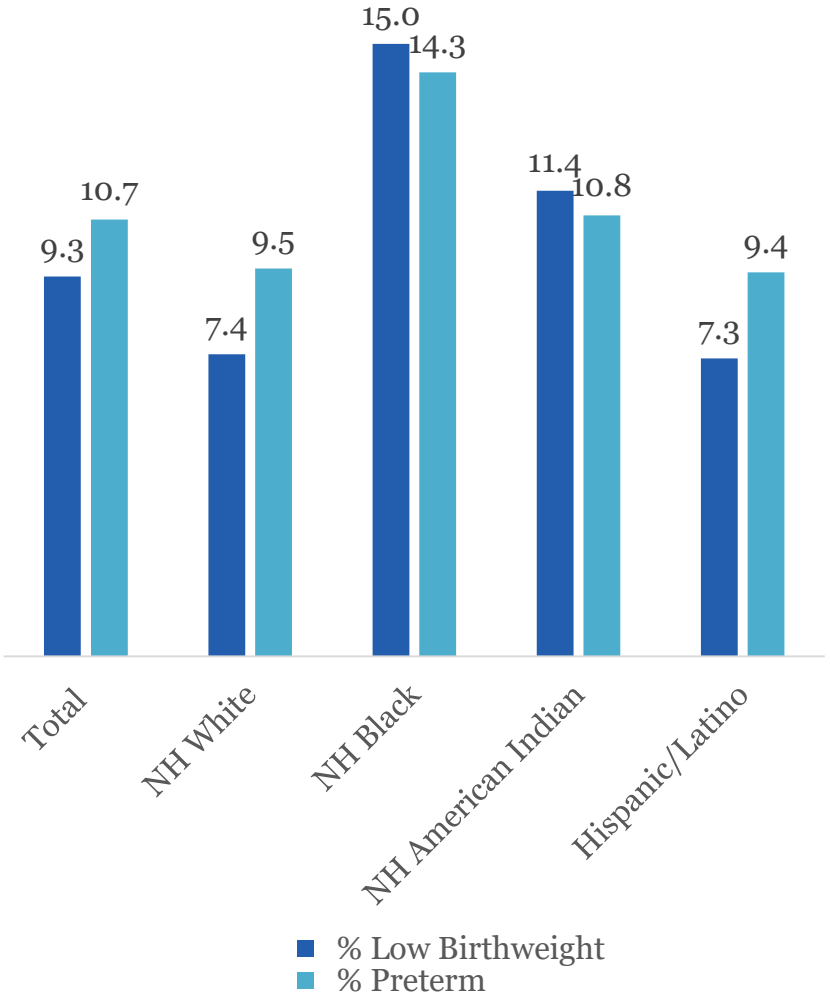
Percentage of Births Born Low Birthweight[1] by State, 2019

[1] Babies born weighing less than 2,500 grams or 5 lbs. 8oz.



Source: United States Department of Health and Human Services (US DHHS), Centers for Disease Control and Prevention (CDC), National Center for Health Statistics (NCHS), Division of Vital Statistics, CDC WONDER

Low Birthweight & Preterm Birth Percentages by Race/Ethnicity: North Carolina, 2019



**NH=Non-Hispanic*

Source: North Carolina Department of Health and Human Services, Division of Public Health, State Center for Health Statistics

North Carolina Pregnancy Medical Home

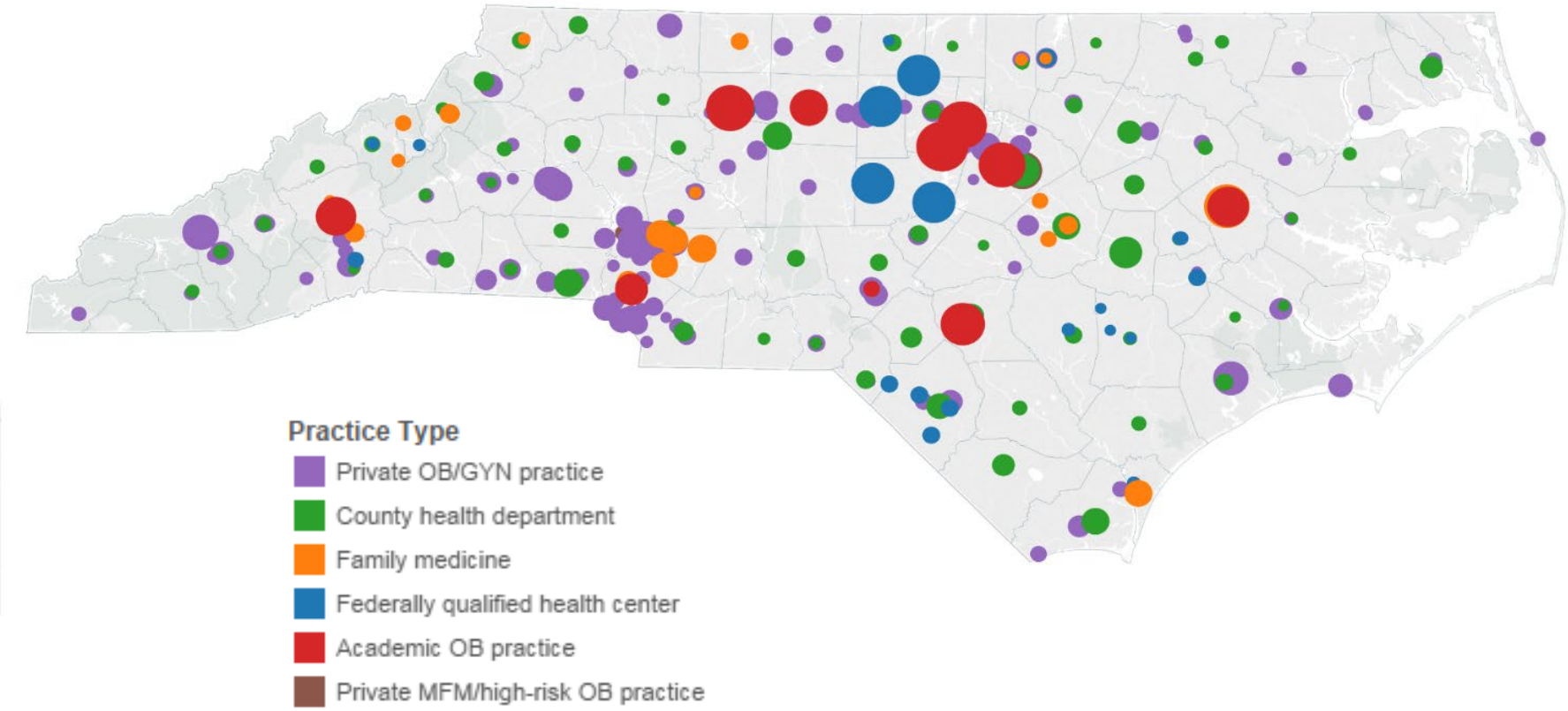
- Established in 2011 in partnership with NC Medicaid, Community Care of NC and NC Department of Public Health
- To improve quality of care, improve birth outcomes and reduce costs in the Medicaid population
- Primary focus is **preterm birth prevention**
  - Engage maternity care providers serving the Medicaid population in quality improvement efforts
  - Community-based care management targeting those at greatest risk

Pregnancy Medical Home Core Components

Population-based enhanced prenatal care model

- **Access to care:** Large network of OB providers
- **Clinical leadership:** Local teams offer provider support, education and technical assistance
- **PMH Care Pathways:** Clinical best practices that reflect the most current evidence base
- **Risk screening:** Standardized, statewide
- **Data:** Informatics at the state, regional, county and practice level
- **Care coordination:** Community-based care management by nurses/social workers

Access to Care – PMH Provider Network



Provider participation: 490 practice locations participate in the PMH program, representing >2,600 providers and more than 90% of maternity care provided to Medicaid patients.

Clinical Leadership

- **CCNC network "OB teams"**
  - **Physician Champion** – active OB practice, local opinion leader
  - **Nurse Coordinator** – dedicated FTE for program support, working with PMH providers and Pregnancy Care Managers
- **OB team provides PMH practices with:**
  - Practice support/technical assistance
  - Education about clinical initiatives and performance expectations
  - Data to engage in quality improvement
- **OB team shares information from the state level AND listens to concerns of local providers, brings feedback to state level**
- **Central office team works with state-level stakeholders**

PMH Care Pathways

Care Pathways

- PMH Care Pathways provide evidence-based guidance to PMH providers across the state
- Developed through a consensus process by CCNC OB Physician Champions with input from local PMH providers and state-level experts
- Includes supporting materials and local resources

Example Topics

- Hypertensive Disorders of Pregnancy
- Perinatal Tobacco Use
- Substance Use in Pregnancy
- Postpartum Care and the Transition to Well Woman Care
- Progesterone Treatment and Cervical Length Screening
- Obesity in Pregnancy
- Reproductive Life Planning/Postpartum Contraception
- Multifetal Gestation
- COVID 19 Care and Resources

Standardized Risk Screening

*Practice Name: _____

Practice Phone Number: _____

*Today's Date: _____ /_____/_____

Date of next prenatal appointment:_____/_____/_____

Care Management for High-Risk Pregnancies (CMHRP) Pregnancy Risk Screening Form

Date of birth:_____/_____/_____

First name:_____ MI:_____ Last name:_____

*EDC:___/___/_____*Determined by what criteria*: ❑ LMP ❑ 1st trimester U/S ❑ 2nd trimester U/S

Height:____ft____in Pre-pregnancy weight:_____ Gravidity:_____Parity:____T____P____A____L

Insurance type: ❑ Medicaid (includes Presumptive) ❑Private ❑None

Medicaid ID#:_____ PHP Name: _____

***CURRENT PREGNANCY**

- ❑ Multifetal Gestation
- ❑ Fetal complications:
  - ❑ Fetal anomaly
  - ❑ Fetal chromosomal abnormality
  - ❑ Intrauterine growth restriction (IUGR)
  - ❑ Oligohydramnios
  - ❑ Polyhydramnios
  - ❑ Other(s): _____
- ❑ Chronic condition which may complicate pregnancy:
  - ❑ Diabetes
  - ❑ Hypertension
  - ❑ Asthma
  - ❑ Mental illness
  - ❑ HIV
  - ❑ Seizure disorder
  - ❑ Renal disease
  - ❑ Systemic lupus erythematosus
  - ❑ Other(s): _____
- ❑ Current use of drugs or alcohol/recent drug use or heavy alcohol use in month prior to learning of pregnancy
- ❑ Late entry into prenatal care (>14 weeks)
- ❑ Hospital utilization in the antepartum period
- ❑ Missed 2+ prenatal appointments
- ❑ Cervical insufficiency
- ❑ Gestational diabetes
- ❑ Vaginal bleeding in 2nd trimester
- ❑ Hypertensive disorders of pregnancy
  - ❑ Preeclampsia
  - ❑ Gestational hypertension
- ❑ Short interpregnancy interval (<12 months between last live birth and current pregnancy)
- ❑ Current sexually transmitted infection
- ❑ Recurrent urinary tract infections (>2 in past 6 months, >5 in past 2 years)
- ❑ Non-English speaking
  - Primary language: _____
- ❑ Positive depression screening
  - ○ Tool used: _____
  - ○ Score = _____

For LHD Use Only: Date RSF was received:_____

*Date RSF was entered: _____

***OBSTETRIC HISTORY**

- ❑ Preterm birth (<37 completed weeks)
  Gestational age(s) of previous preterm birth(s):
  _____weeks,_____weeks,_____weeks
- ❑ At least one spontaneous preterm labor and/or rupture of the membranes
  **If this is a singleton gestation, this patient is eligible for 17P treatment.*
- ❑ Low birth weight (<2500g)
- ❑ Fetal death >20 weeks
- ❑ Neonatal death (within first 28 days of life)
- ❑ Second trimester pregnancy loss
- ❑ Three or more first trimester pregnancy losses
- ❑ Cervical insufficiency
- ❑ Gestational diabetes
- ❑ Postpartum depression
- ❑ Hypertensive disorders of pregnancy
  - ❑ Eclampsia
  - ❑ Preeclampsia
  - ❑ Gestational hypertension
  - ❑ HELLP syndrome

❑ Provider requests care management

Reason(s):_____

Provider Comments/Notes: _____

*Person Completing Form: _____

*Credentials: _____

*Signature: _____

Care Management for High-Risk Pregnancies (CMHRP) Pregnancy Risk Screening Form

Complete this side of the form as honestly as possible and give it to your nurse or doctor. The information you provide allows us to coordinate services with the care manager and provide the best care for you and your baby.

Name:_____Date of birth:_____Today's date: _____

Physical Address:_____City:_____ ZIP:_____

Mailing Address (if different):_____City:_____ZIP:_____

County:_____Home phone number:_____Work phone number: _____

Cell phone number:_____ Social security number (if available): _____

Race: ❑American-Indian or Alaska Native ❑Asian ❑Black/African-American ❑Pacific Islander/Native Hawaiian ❑White ❑Other (specify):_____

Ethnicity: ❑ Not Hispanic ❑ Cuban ❑ Mexican ❑ Puerto Rican ❑ Other Hispanic

Education: ❑ Less than high school diploma ❑ GED or high school diploma ❑ Some college ❑ College graduate

1. Thinking back to just before you got pregnant, how did you feel about becoming pregnant?
   - ❑ I wanted to be pregnant sooner
   - ❑ I wanted to be pregnant now
   - ❑ I wanted to be pregnant later
   - ❑ I did not want to be pregnant then or any time in the future
   - ❑ I don't know
2. Within the last year, have you been hit, slapped, kicked or otherwise physically hurt by someone? ❑ Yes ❑ No
3. Are you in a relationship with a person who threatens or physically hurts you? ❑ Yes ❑ No
4. Has anyone forced you to have sexual activities that made you feel uncomfortable? ❑ Yes ❑ No
5. In the last 12 months were you ever hungry but didn't eat because you couldn't afford enough food? ❑ Yes ❑ No
6. Is your living situation unsafe or unstable? ❑ Yes ❑ No
7. Which statement best describes your smoking status? Check one answer.
   - ❑ I have never smoked, or have smoked less than 100 cigarettes in my lifetime
   - ❑ I stopped smoking BEFORE I found out I was pregnant and am not smoking now
   - ❑ I stopped smoking AFTER I found out I was pregnant and am not smoking now
   - ❑ I smoke now but have cut down some since I found out I was pregnant
   - ❑ I smoke about the same amount now as I did before I found out I was pregnant
8. Did any of your parents have a problem with alcohol or other drug use? ❑ Yes ❑ No
9. Do any of your friends have a problem with alcohol or other drug use? ❑ Yes ❑ No
10. Does your partner have a problem with alcohol or other drug use? ❑ Yes ❑No
11. In the past, have you had difficulties in your life due to alcohol or other drugs, including prescription medications? ❑ Yes ❑ No
12. Before you knew you were pregnant, how often did you drink any alcohol, including beer or wine, or use other drugs? ❑Not at all ❑Rarely ❑Sometimes ❑Frequently
13. In the past month, how often did you drink any alcohol, including beer or wine, or use other drugs? ❑ Not at all ❑Rarely ❑Sometimes ❑Frequently

*Required fields

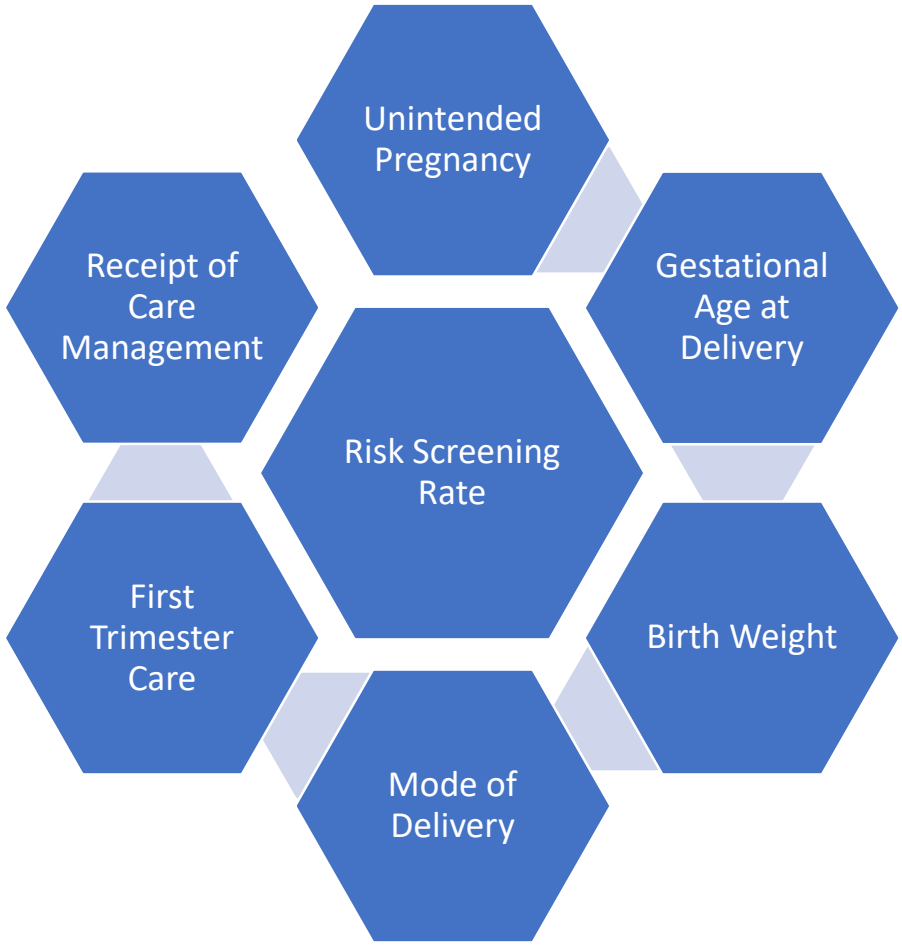
Version 2 (Rev. 12/01/2020) Submit completed form to the CMHRP staff at the local health department in the patient's county of residence.

Informatics

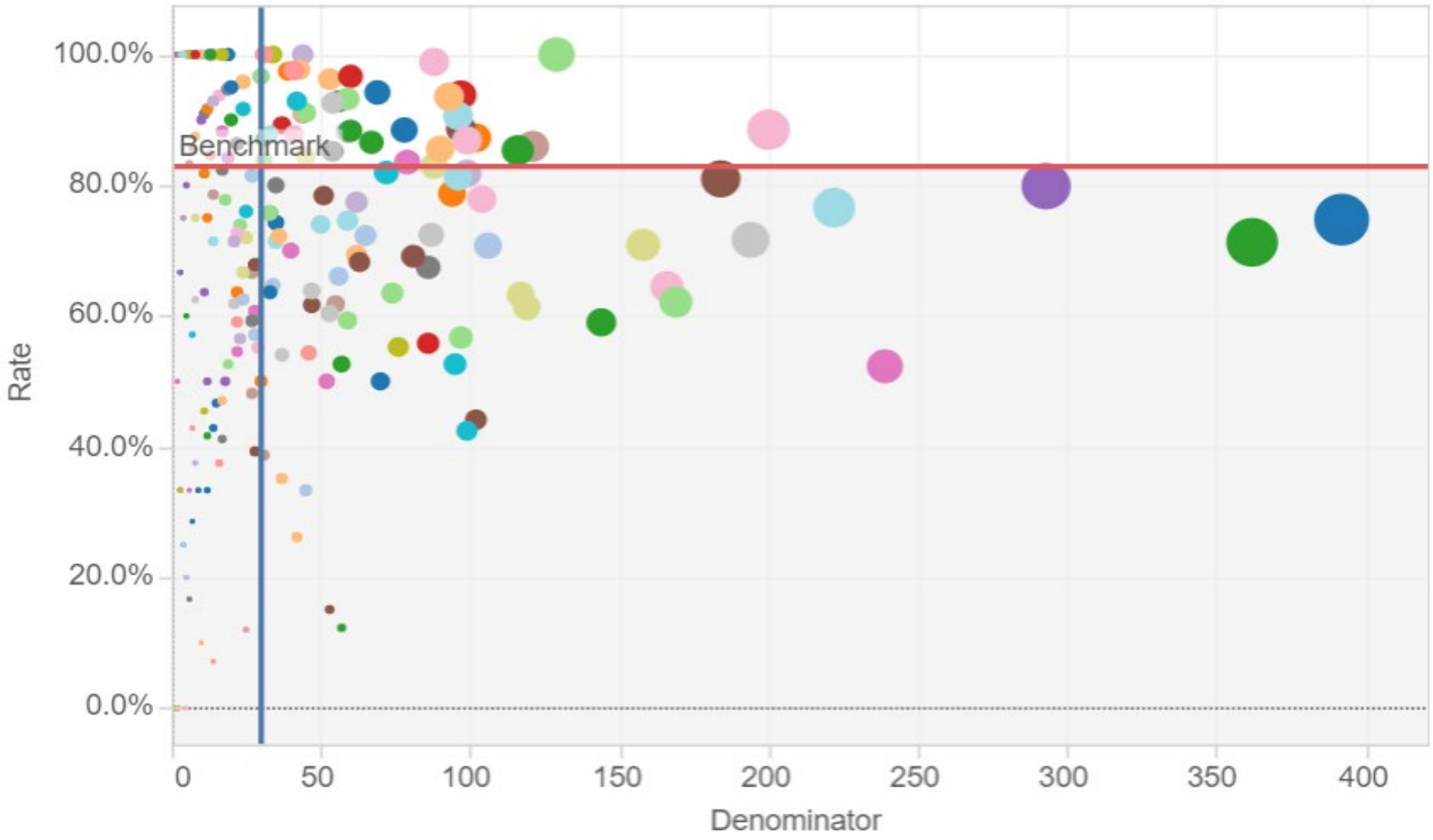
CCNC uses Medicaid claims, birth certificates, risk screening data, and care management documentation to produce quarterly metrics for:

- NC Medicaid
- CCNC networks
- PMH practices
- County pregnancy care management programs

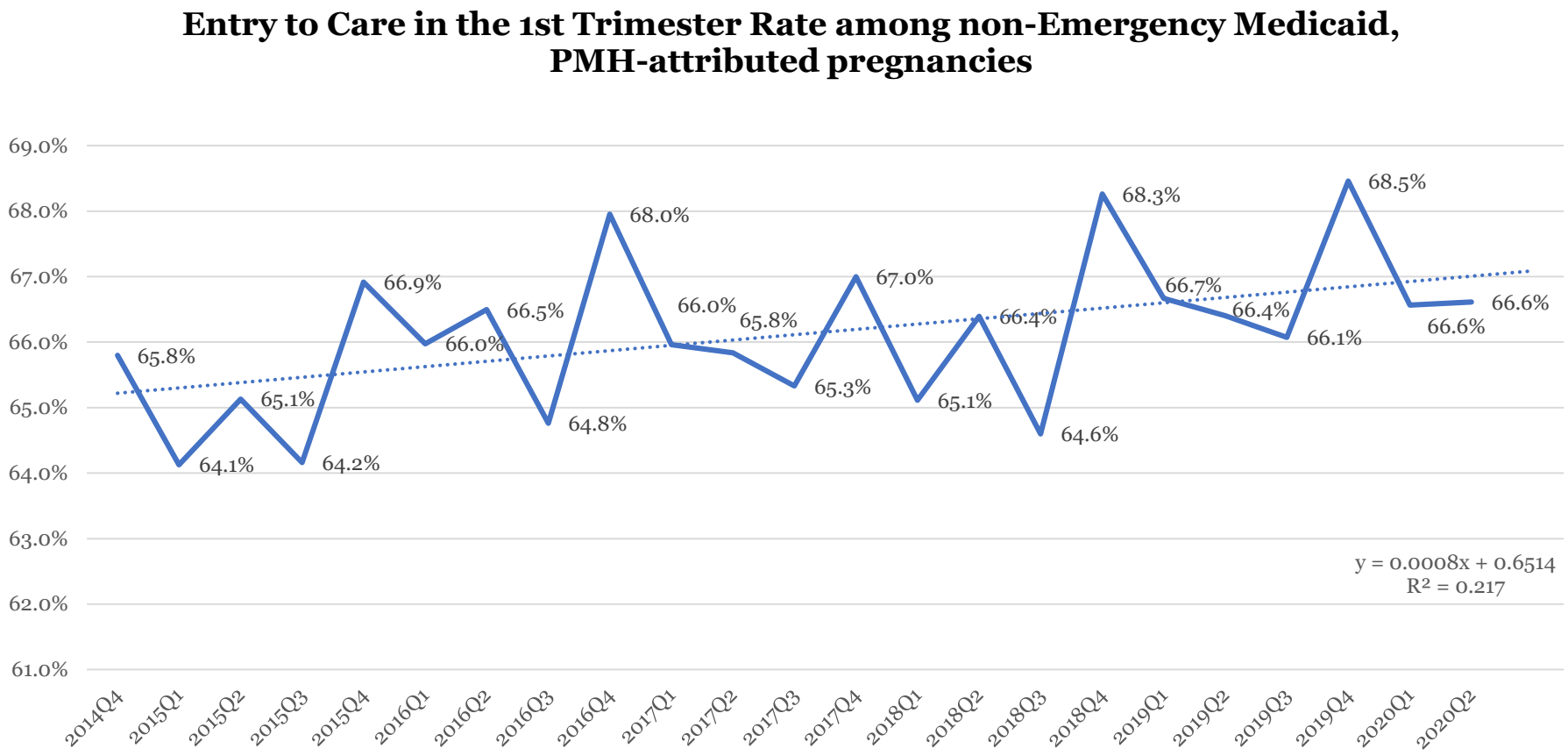
Quality measures include:



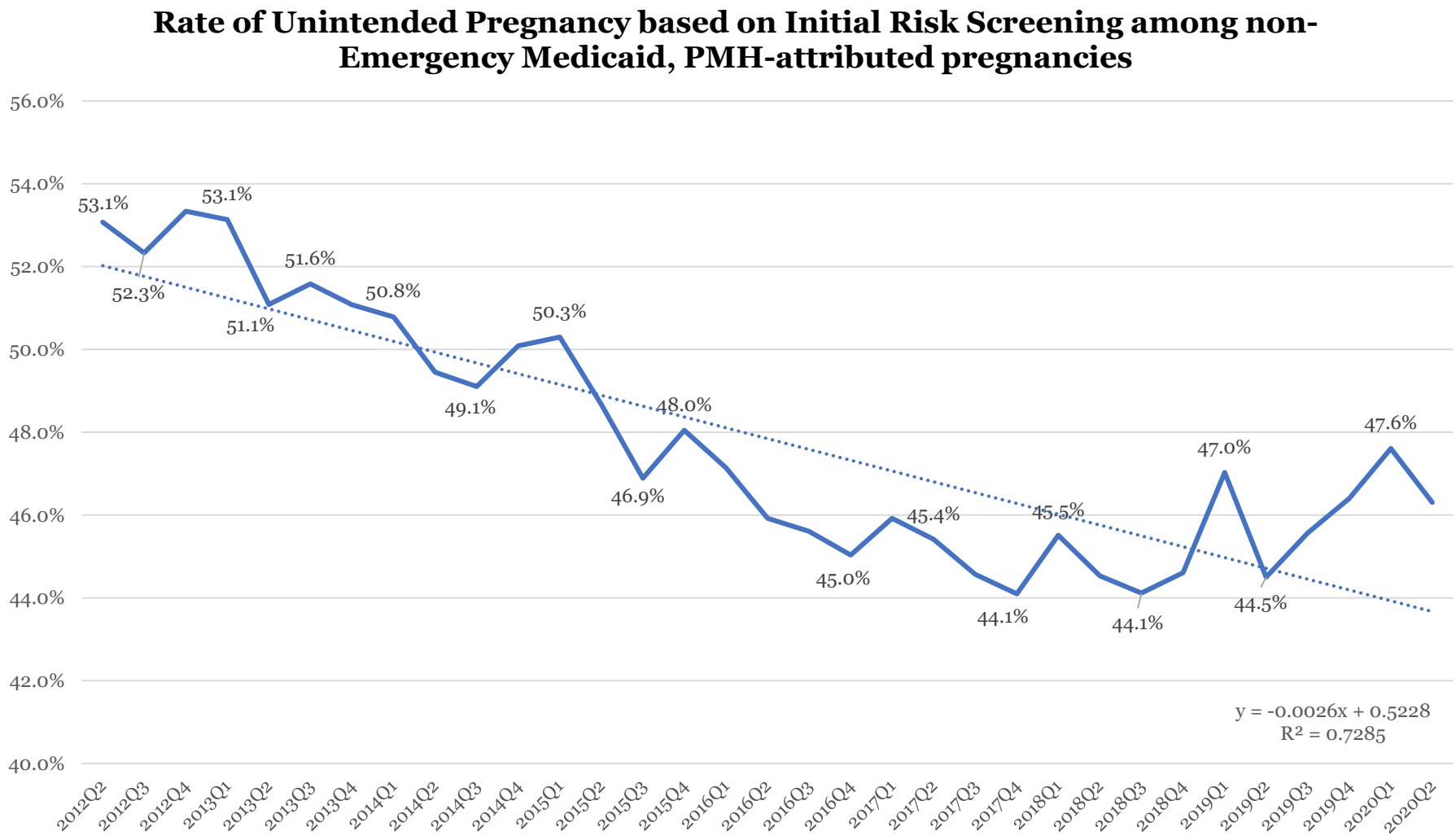
PMH Practice Comparison for Risk Screening During Pregnancy



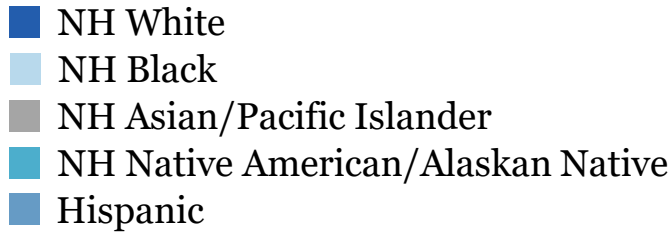
First Trimester Care



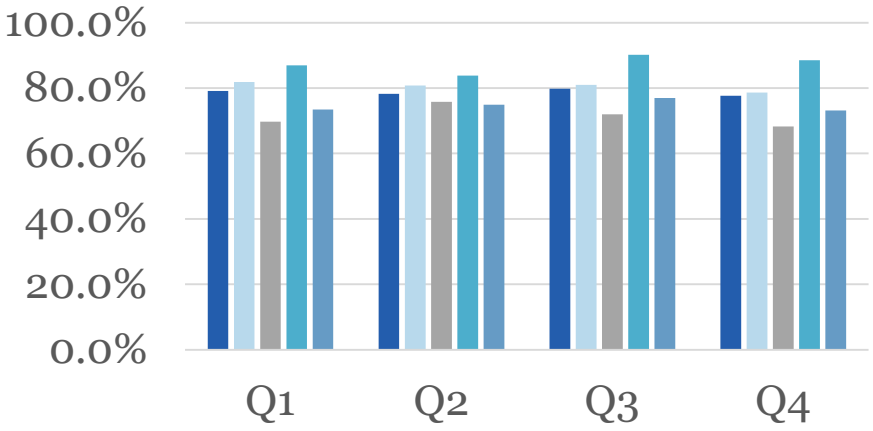
Unintended Pregnancy



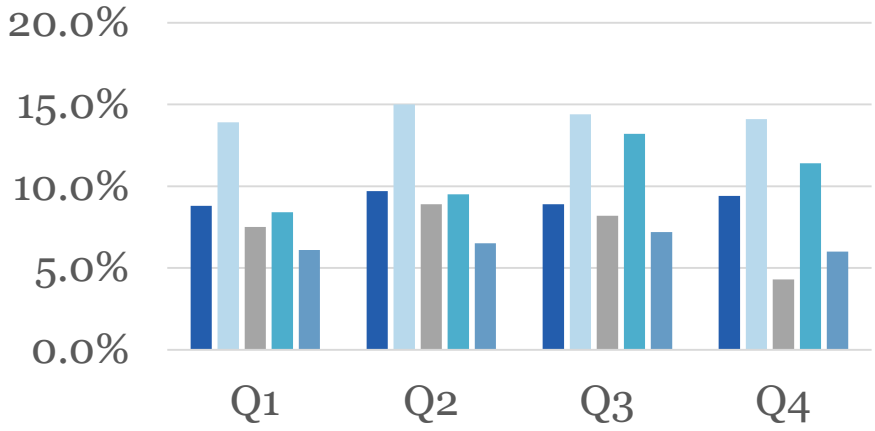
Data Visualization



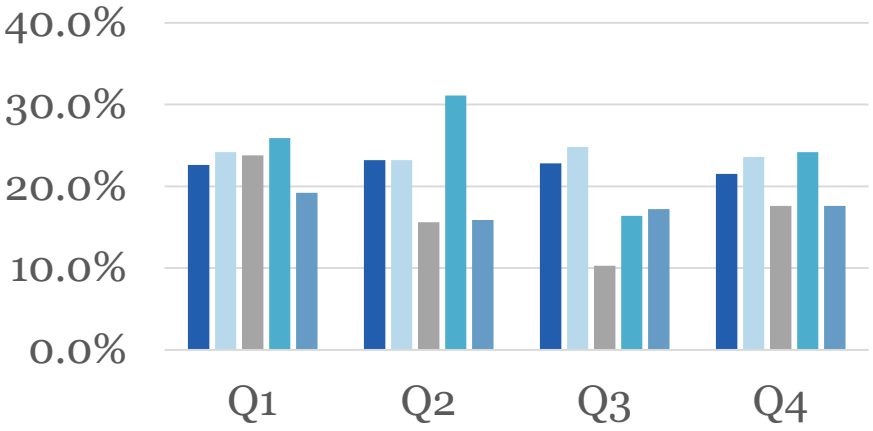
2019 Risk Screening



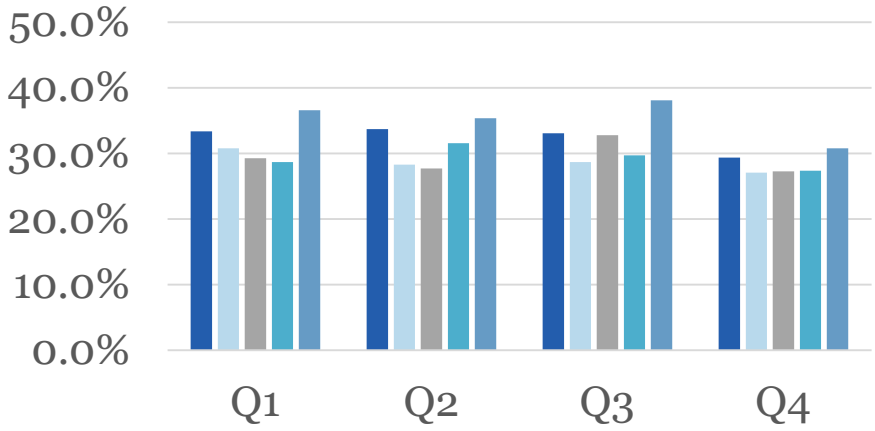
2019 Low Birth Weight



2019 NTSV Cesarean

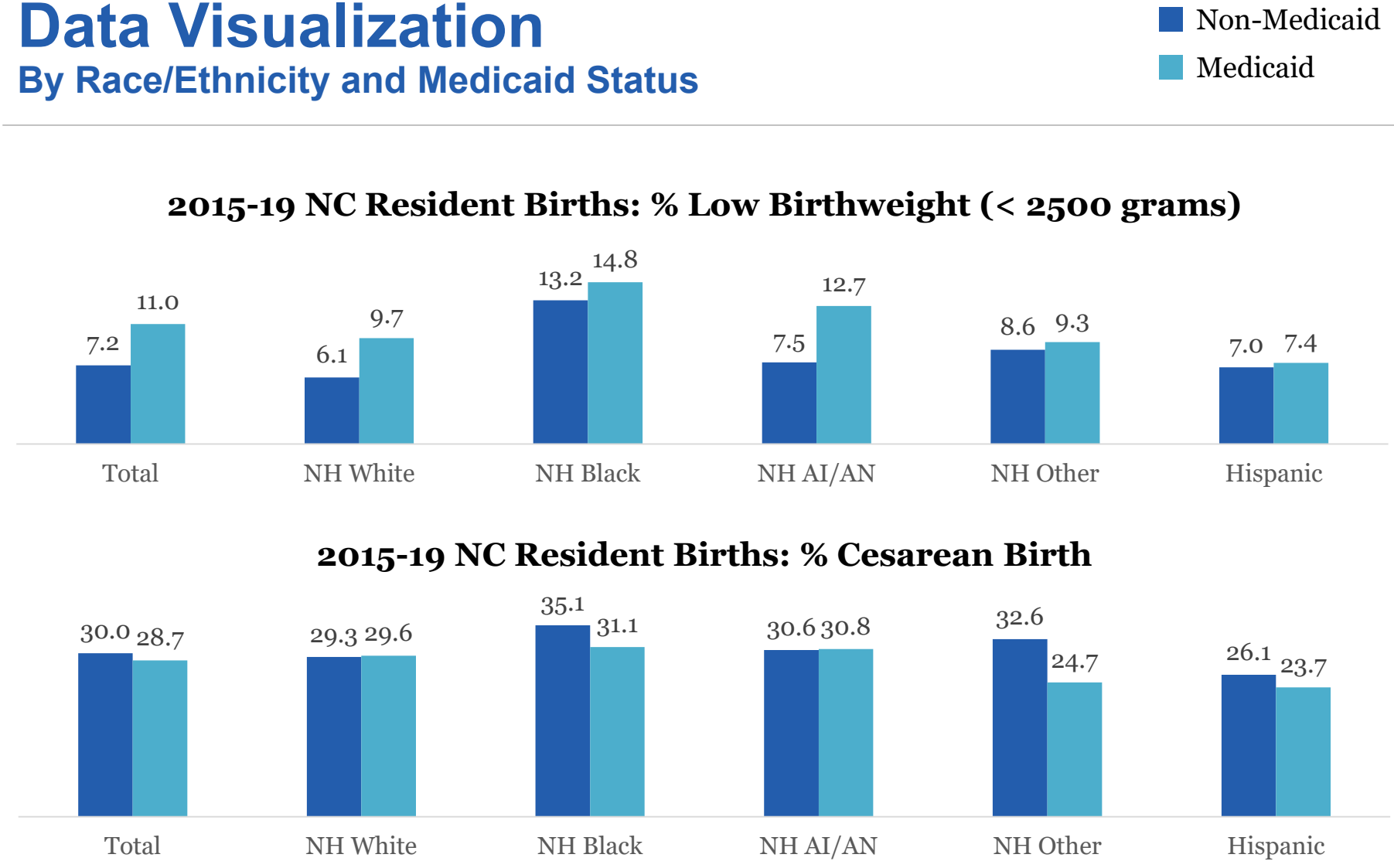


2019 Contraceptive



Data Visualization

By Race/Ethnicity and Medicaid Status



* *NH=Non-Hispanic*

Source: North Carolina Department of Health and Human Services (NC DHHS), Division of Public Health, State Center for Health Statistics (SCHS), Composite Matched Birth/Medicaid file

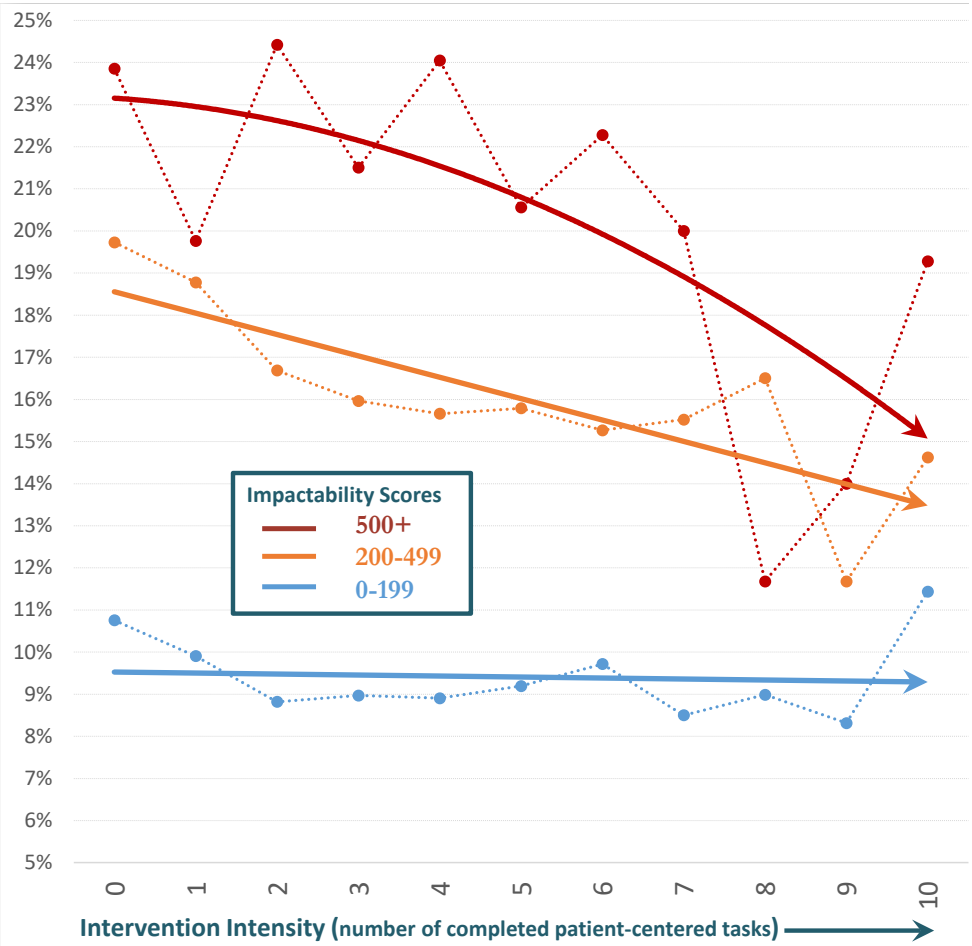
Community-Based Pregnancy Care Management Serves Women in All 100 Counties

- Nurses and social workers in local health departments provide assessment, education, advocacy, referral, monitoring
- Pregnancy care managers work closely with prenatal care team; Most are embedded in PMH practices; Face to face contact is encouraged
- Prior to the creation of the PMH program, Maternity Care Coordination in NC was county based and did not target resources to those patients at highest risk of poor birth outcome
- Risk screening form, provider referral, community referral and hospital "admission/discharge/transfer" data feeds identify at-risk patients for care management

Risk vs. Impact: A more effective prioritization model for pregnancy care management

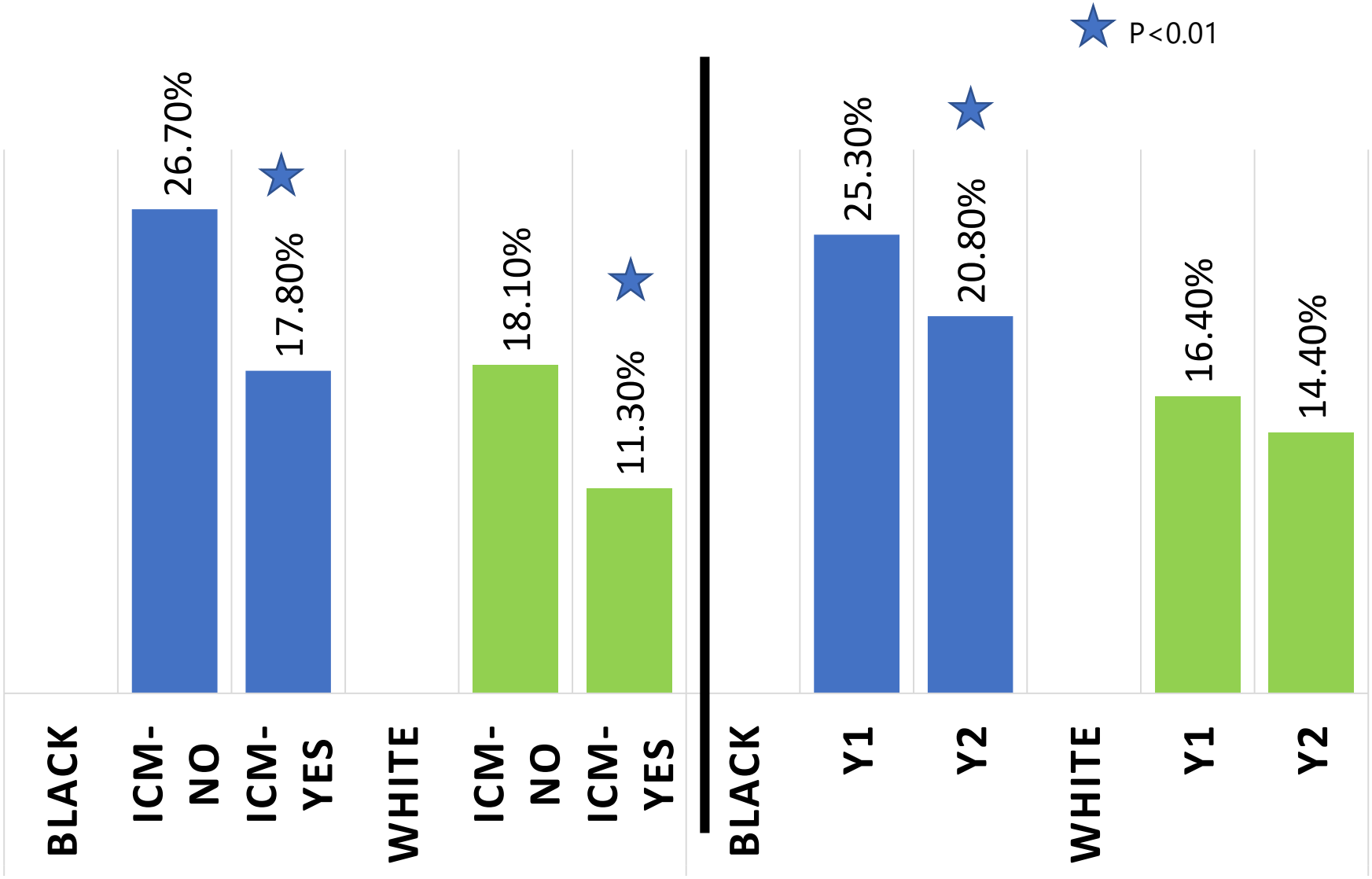
- Risk screening identifies women at risk of preterm birth and low birth weight
  - Does not predict which women will benefit most from care management interventions
  - Identifies 70% of Medicaid pregnancies at high risk
- CCNC used risk screening and care management data to create an **Maternal-Infant Impactability™ Score,** based on risk factors found on the risk screening form
  - A higher score indicates that the patient is more likely to benefit from pregnancy care management

Impactability™ Score for Pregnant Women



- "Patient-centered task" = phone call or face-to-face encounter
- Benefit at 5 completed patient-centered tasks; greater benefit with 8-10 completed patient-centered tasks
- Greater benefit with face-to-face vs. telephonic

LBW rates among Black and White women in high-risk strata before and after MIIS implementation, 2016 vs 2017



Potential for Pregnancy Medical Home Model to Advance Maternal Health Equity and Reduce Maternal Mortality

- Standardized risk assessment, appropriate identification of need, and connection with local resources
- Practice level process and outcome data, stratified by race/ethnicity
- Locally designed patient centered team-based model
  - Care managers are community members providing culturally appropriate face to face care coordination, education and social support
  - Care managers are embedded in practices
- Provider engagement and accountability
- Practice support for program implementation and quality improvement
- System level monitoring of access, program performance and quality

Contact & Acknowledgements

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