Our Babies Are Dying

From Data to Action: Improving Birth Outcomes in Northeast Florida

Northeast Florida Healthy Start Coalition

Continuing Education Presentation for Women's Health, Perinatal & Pediatric Providers

Learning Objectives

After viewing this presentation, participants will:

- Be able to identify key medical, system, social and environmental risk factors and impacting birth outcomes in NEF,
- Understand periods of risk and their contribution to fetal and infant death rates, and
- Be aware of specific actions providers can take to improve maternal and child health.

Disclosures

The presenters have no conflicts of interest to declare.

Overview

- Review trends in birth outcomes in NEFL over last five years
- Examine contributing factors based on case reviews & analysis of vital stats data
- Outline specific strategies for physicians and other health care providers

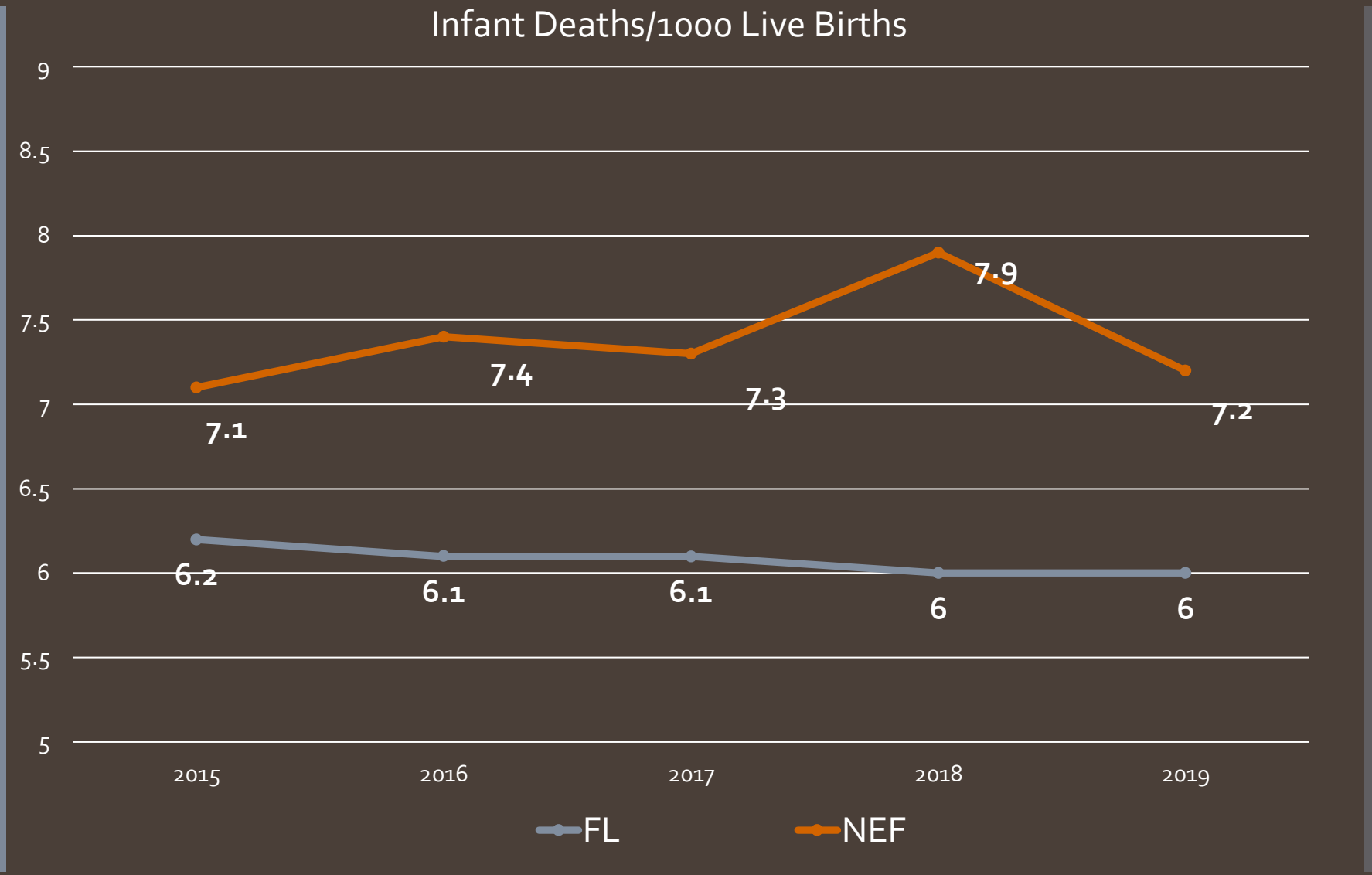
Terms

- Infant mortality: death of a live born infant < 365 days old
- Neonatal mortality: death of live born infant <29 days old
- Postneonatal mortality: death of a live born infant 29-364 days old
- Fetal death: stillbirth >20 weeks gestation

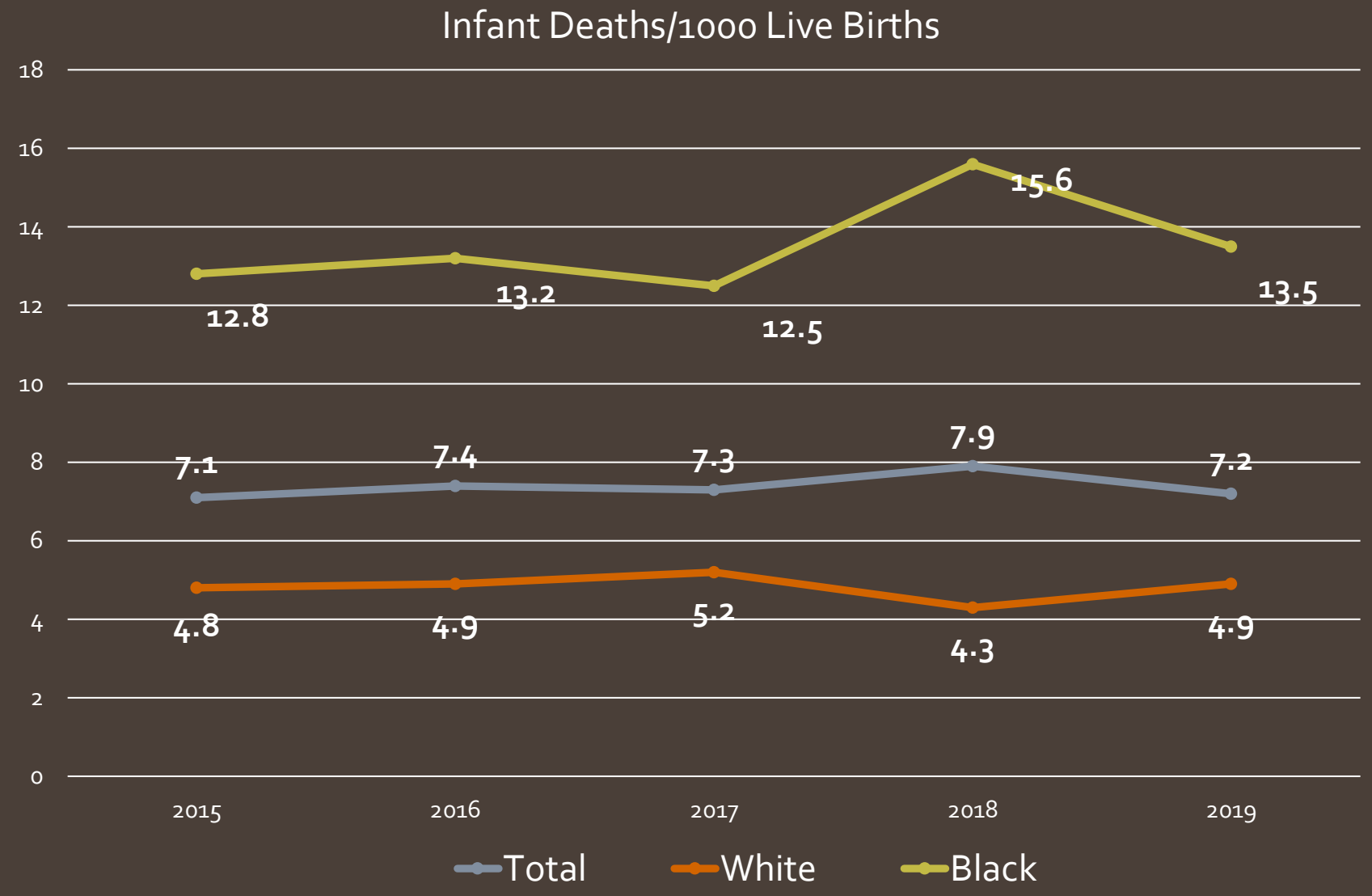
Significance

- Infant mortality is considered a sentinel indicator of a community's health
  - Impacted by social determinants (poverty, education, housing, food security)
  - Health care (access, utilization, quality, content)

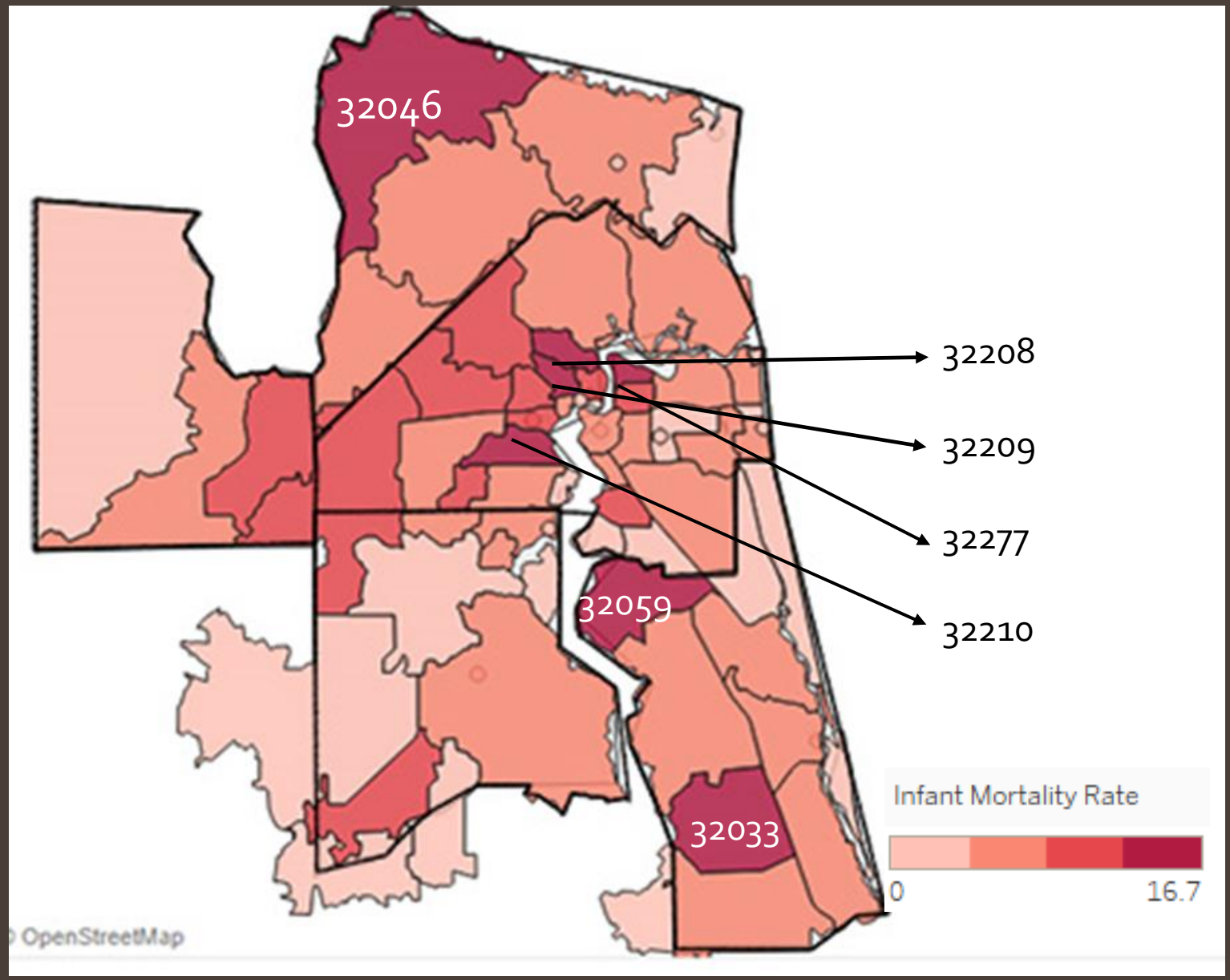
FL & NEF Infant Mortality 2015-2019



NEF Infant Mortality by Race 2015-2019



NEF Zipcodes with Highest Infant Mortality Rates 2015-2019

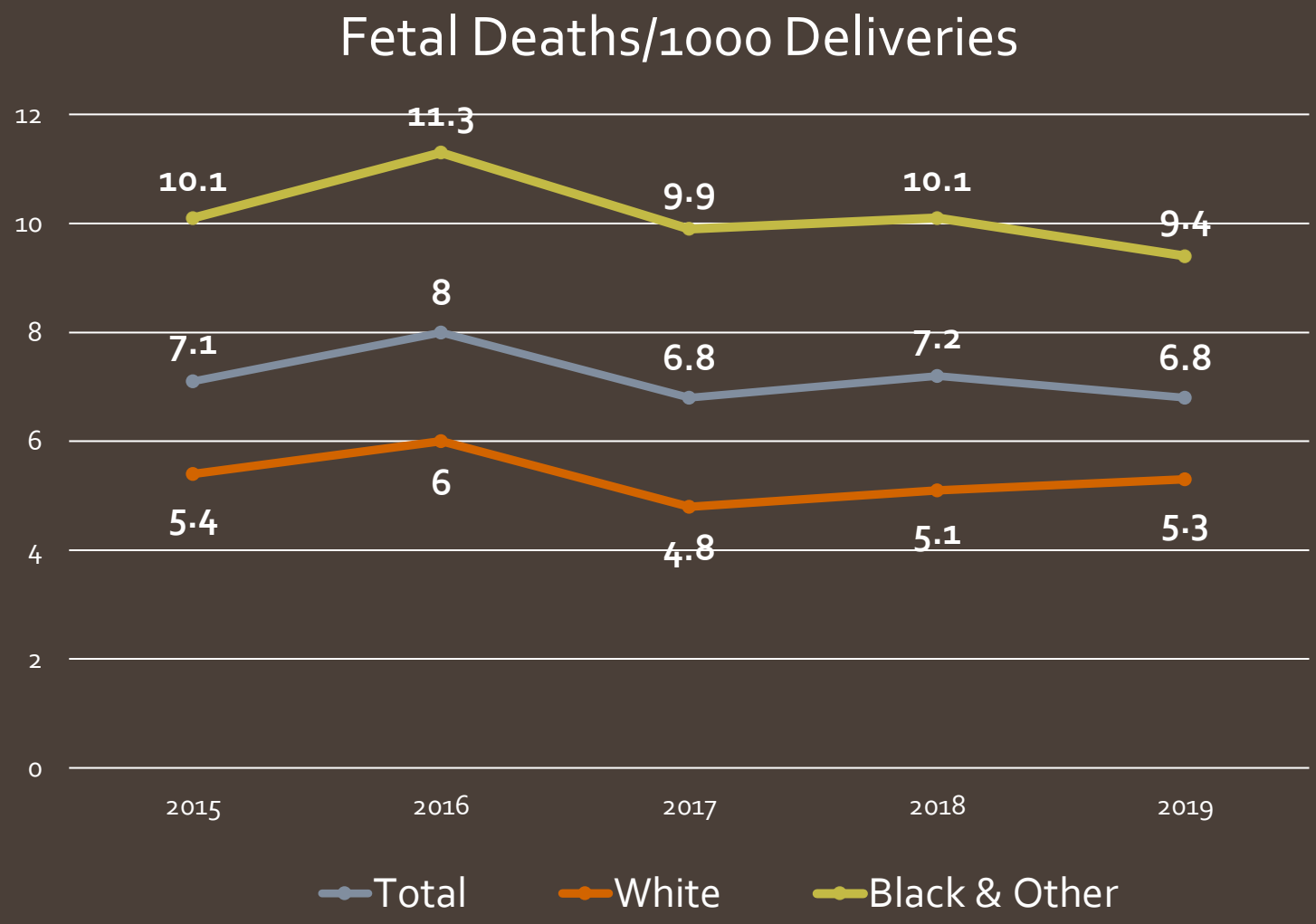


Leading Causes of Infant Death 2019

Cause	Number	Percent
Prematurity/Low Birthweight	29	21
Other Perinatal Conditions	44	32
Congenital Anomalies	18	13
Sudden Unexpected Infant Deaths	23	17
Infections	6	4
Injuries	4	3
Other Causes	12	9
TOTAL	147	100

More than half: Prematurity/LBW & Other Perinatal Conditions

Fetal Deaths 2015-2019



Fetal Deaths 2019

- 70% unknown or unspecified cause
- 30% 24+ weeks gestation & 1500+ grams

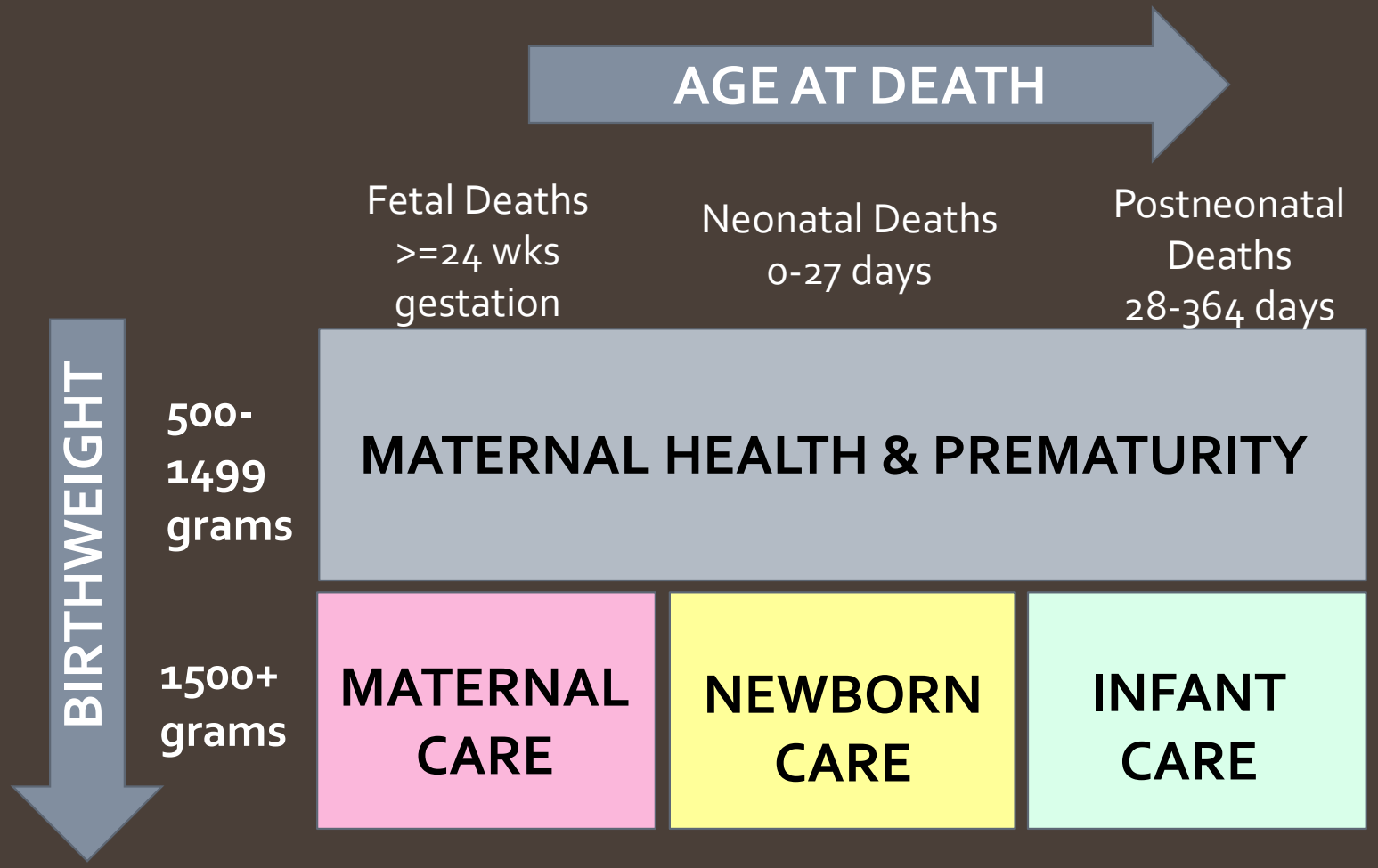
Infant mortality in NEF

- NEF consistently exceeds national, state infant death rates
- Persistent & significant disparities in poor outcomes by race

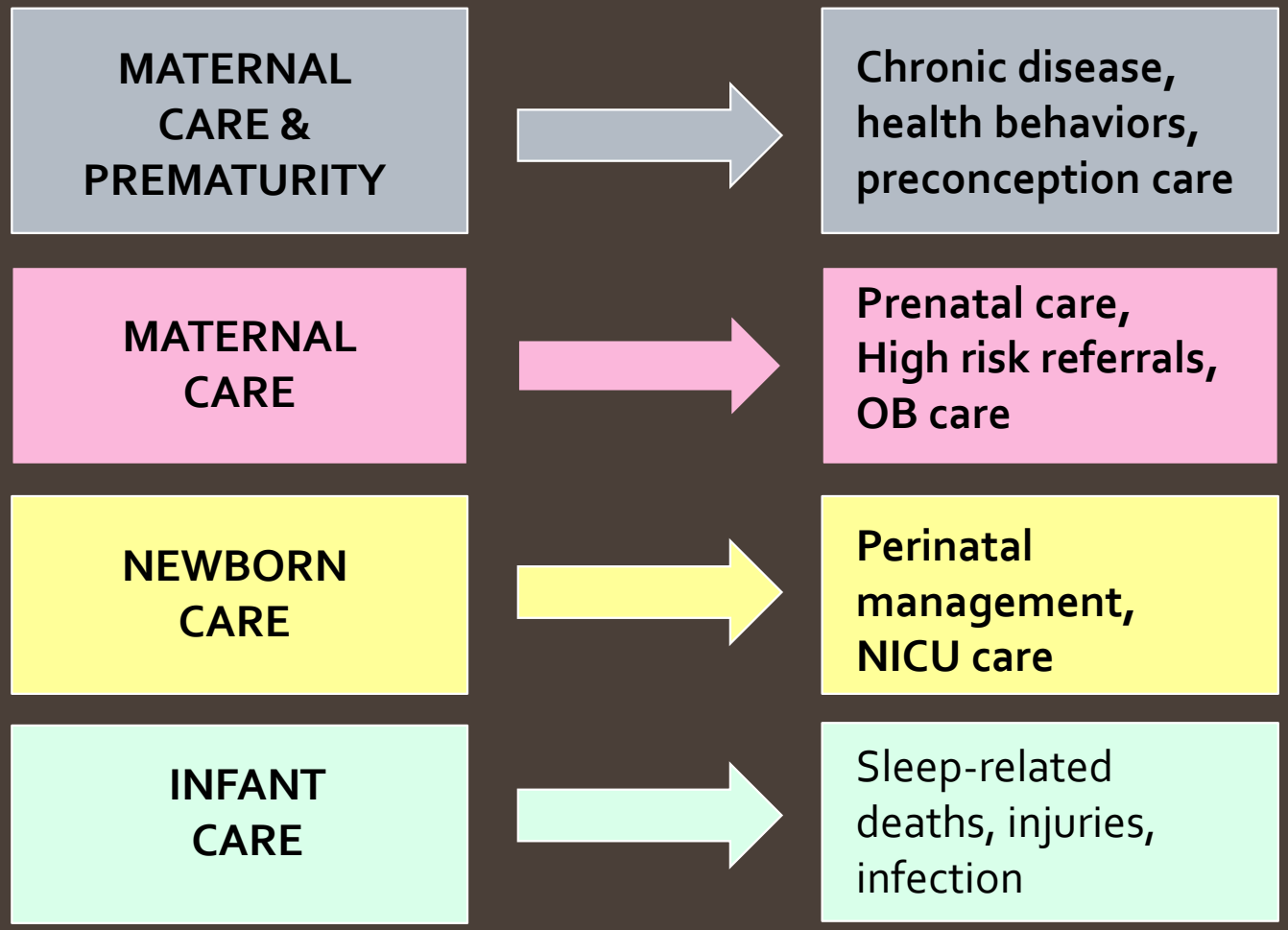
Approach

- Analysis of fetal & infant deaths (linked vital stats records)
  - Identify specific "periods of risk"
  - Examine contribution of birthweight
- Pinpoint contributing factors, issues in NEF (case abstractions)
- Identify strategies for improving outcomes
- Engage community to take action!

Periods of Risk

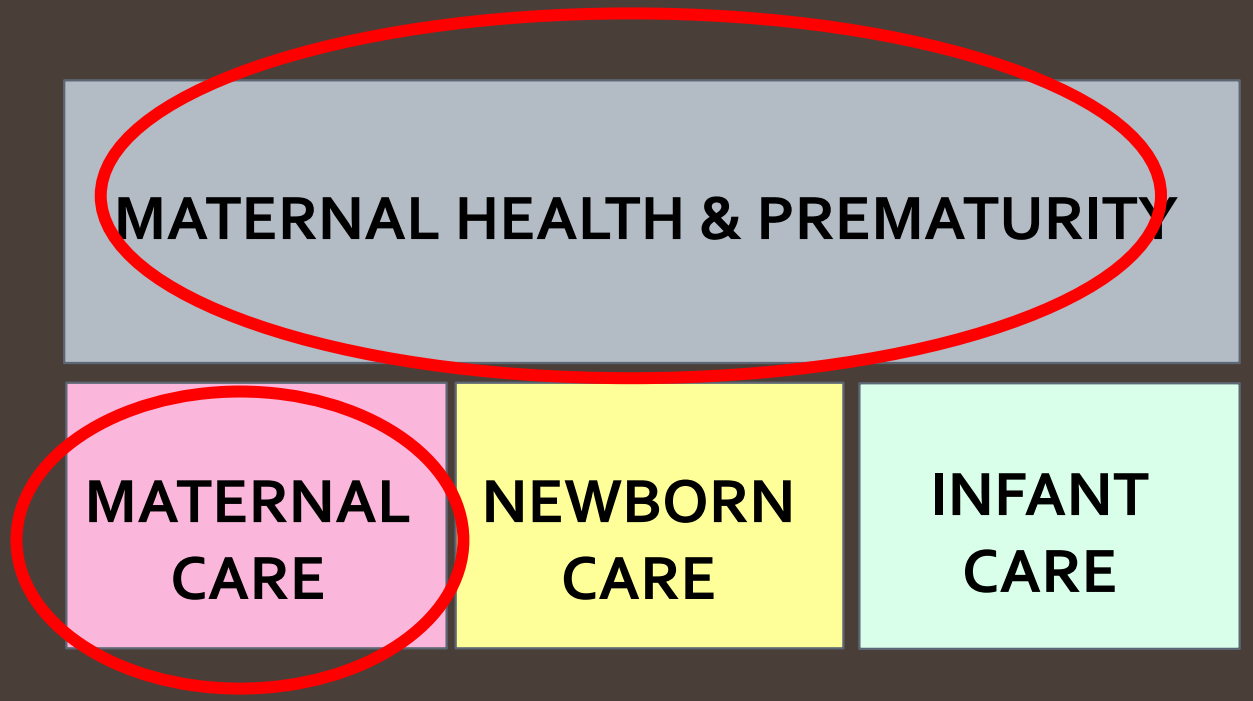


Each period of risk is associated with its own set of risks and prevention factors



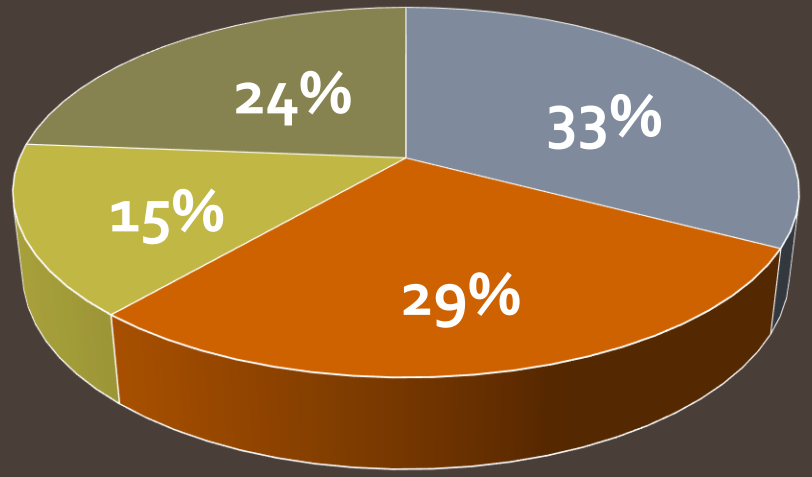
Summary of Findings

Largest proportion of fetal-infant deaths
&
Most significant disparities



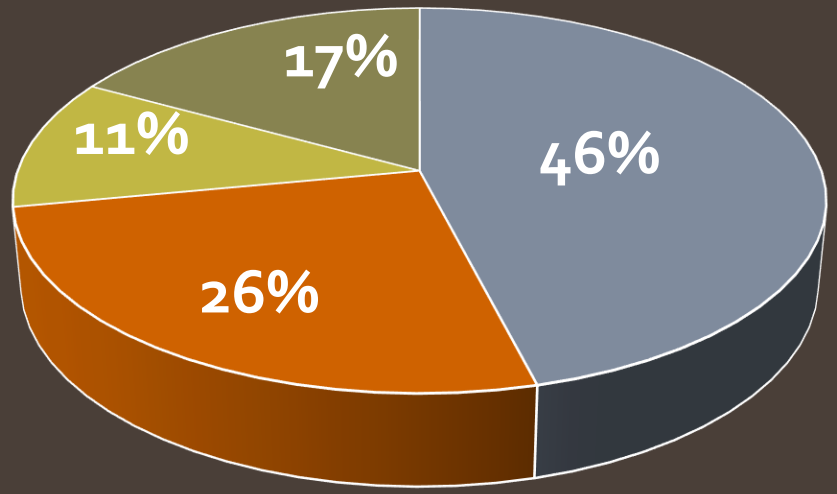
2016-2018 linked birth, death & fetal death files

PPOR Results by Race 2016-2018



White

- Maternal Health & Prematurity
- Maternal Care
- Newborn Care
- Infant Care



Black

Contribution of Birthweight

Difference in Outcomes (Groups with Best vs. Poor Outcomes)

=

Birth weight advantage? (Birth weight distribution)

+

Survival advantage? (Birthweight specific mortality)

Root causes 

Behavioral, social, health, economic disparities

Perinatal or medical care

Findings

Too many babies born too soon and too small (90% of "excess deaths")

- Social determinants of health

10% due to medical/health care

- Access, service delivery, quality improvement opportunities

What we learned

Two periods of risk account for largest proportion of poor birth outcomes in NEF:

- Maternal health & prematurity
- Maternal care

These periods of risk reflect the greatest disparities in birth outcomes.

Infant care also contributes to poor outcomes among white babies (sleep-related deaths, accidents, abuse/neglect)

Difference in mortality between groups with best and worst outcomes – too many babies are born in NEF too soon and too small

Next Step: NEF Case Reviews

- Prenatal, hospital, other medical records abstracted using NFIMR tool for 147 infant deaths (2018)
- 12 Maternal interviews completed
- Healthy Start prenatal screens (2018)
- Findings:
  - Summary information on key issues, with particular focus on Maternal Health & Maternal Care
- Challenges & limitations of review
  - Missing data, inconsistent documentation
  - No fetal cases

Key issues: pre-pregnancy

Social determinants of health

- 61% unmarried (single, divorced, separated)
- 12% < 18 years old at first pregnancy
- 77% high school or less education
- 55% low income
- 41% employed
- Dads had similar profiles (although lots of missing info)
- Lack of insurance prior to pregnancy
- Disproportionate impact on black moms

Prior poor outcome

- 27% previous pre-term of LBW birth
- More likely among black moms

Key issues: pre-pregnancy

Lack of family planning

- 40% had < 18 months between pregnancies
- About 30% not using birth control
- 50% of these moms report pregnancy as unintended or mistimed

Substance use (prescription & illegal)

- 43% self-report
- 20% used tobacco during pregnancy (white moms at higher rates)
- 10% documented MAT

Poor pre-pregnancy health

- 59% overweight or obese
- Chronic hypertension, diabetes
- One-third with STIs

2019 Update

- **Significant number of co-morbidities, but**
- **Not connected to care**

Key issues: Prenatal

Prenatal care

- 82% received some prenatal care
- One third entered care late or not at all
- 50% covered by Medicaid
- 45% received < 5 visits prior to delivery
- Access or compliance issues were documented in nearly half of the cases
  - Transportation
  - Medicaid, other insurance problems

Pregnancy complications

- Most common: gestational hypertension, diabetes, pre-eclampsia
- Multiple births in 11 cases

Key issues: Prenatal

Stressors during pregnancy

- One-third of cases with documented stressors
- Financial problems, IPV, depression

Use of services, support

- Most cases (72%) documented receipt of social services
- About half received referral to case management
- Lack of follow-up by mom
- Lack of engagement, follow-up by provider
- 40% of cases had documented home visit, BUT
- Low intensity, short duration of services across programs

Key issues: Delivery

Medical complications

- One-third documented pre-term labor
- One in five cases experienced PROM, PPROM
- Chorioamnionitis, placental abruption
- Cord problems
- UTI, HELLP syndrome

Key issues: Baby, Postpartum

Prematurity & very low birthweight

- 36% of babies lived < 1 day
- 59% of babies born VLBW lived < 1 day
- 52% of babies lived < 1 week
- Disproportionate impact on Black babies

Nursery & NICU

- 40% with documented morbidity during nursery stay
- RDS, neonatal sepsis, jaundice, other most common
- 40% with NICU stay > 1 day

Substance use

- 11% documented with substance exposure

Preventable post-discharge deaths

- Sleep-related, accidents

Postpartum visit

- Only 23 of 147 cases included some documentation of a postpartum visit by mom

What we learned

Pre-pregnancy health of mother is a key factor contributing to poor outcomes

Lack of insurance coverage (before & after pregnancy)

Chronic health conditions, especially among black moms

Severe co-morbidities, but not in care

Lack of family planning

Non-use

Birth intervals <18 months

Postpartum visit?

Social determinants of health

Poverty, lack of education, transportation, violence = STRESS

Screening, documentation by providers?

Culturally sensitive/trauma informed care?

Lack of awareness among policymakers, at-risk families

Siloed, fragmented care

Disconnect between clinical/medical/ hospital and community support services

Lack of follow-through, engagement, retention in home visiting, other care coordination

From Data to Action: Recommendations

- Increase Provider Screening Rates
- Develop Medical Home Model
- Medical and Social Needs Model
- Centering Pregnancy Group Care Models -Chronic Disease and Stress Model
- Universal Home Visitation
- Improve Quality of Care

What Physicians & Other Health Care Providers: Can Do

- Prenatal screening
- Postpartum care
- Patient education – Safe Sleep
- Quality of care
- Advocacy

Screening

- Screen every pregnant woman prenatally
  - Healthy Start (home visiting programs)
  - Substance use
  - Depression/IPV

Connect

Connecting families to community programs

Screening

- In Florida, state law requires every prenatal care provider to offer a Healthy Start Risk Screen to all pregnant women to assess risk for preterm birth. The Universal Screen is voluntary.

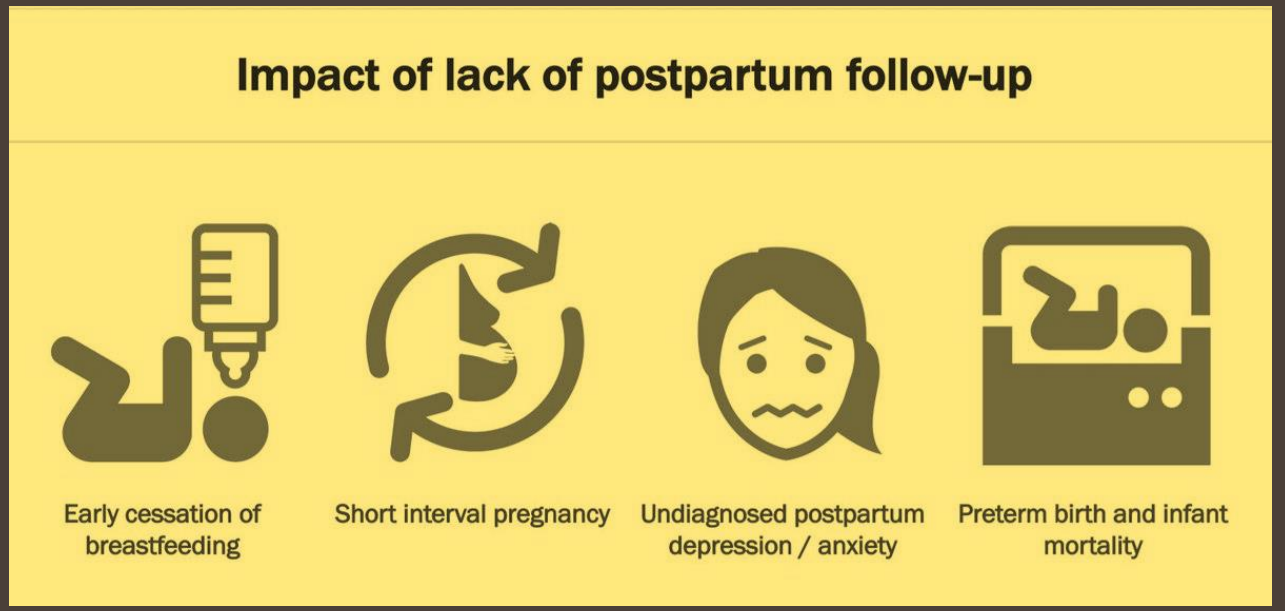
  State Screening Rate 66%

  NEFL Rate 63%.

- Screen helps identify social determinants & links women to community services and support.
- Encourage women to complete screen & consent to share info so they can learn about services available to them.

Postpartum Care

- Postpartum follow-up
  - Family planning
  - BF support
  - Management of chronic disease
  - Screening for depression



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Education

- Sleep-related deaths are most PREVENTABLE cause of infant mortality
- Education on safe sleep practices beginning in pregnancy and after delivery

Quality of Care

- Recognize and mitigate implicit bias, racism and continued inequities in health & health care
- Staff training
- Participate in Florida Perinatal Quality Collaborative, other quality initiatives

Advocacy

- Expand Medicaid coverage from 60 days to 12 months postpartum
- Increase reimbursement for family planning services

Engagement of community is key

- Families, community residents & leaders, faith-based orgs
- MCH providers, stakeholders
  - Doctors, hospitals, midwives, other MCH providers
  - Hospitals
  - Family planning, public health social service providers
  - Healthy Start, home visiting programs
  - Public & private payers (insurers, MCOs)
- Policymakers
- Business
- Others

How do we make this happen?