

# NNEPQIN

NORTHERN NEW ENGLAND  
PERINATAL QUALITY IMPROVEMENT NETWORK

## Welcome!

New Hampshire AIM Launch  
November 12, 2020



# NNEPQIN's history with AIM

- Summer 2016: Tim and Vicki go to Baltimore for AIM kickoff meeting
- November 2017: Vicki, Maggie and Daisy go to D.C. NNEPQIN welcomed as an AIM member (!)
- January 2017 NNEPQIN Winter Meeting: *"Taking Action to Promote Physiologic Birth and Safely Reduce Primary Cesarean Sections: The NNEPQIN/AIM Partnership"*
- May 2017 NNEPQIN Spring Meeting: Jeanne Mahoney, RN, BSN, Senior Director, ACOG Director AIM Program, *"AIM Progress and Vision"*
- November 2017 Mt. Washington: *"Results of the Hospital Level Maternal Morbidity Data Analysis: New Hampshire, Vermont & Maine"*, David J. Laflamme PhD, MPH (NH), Laurin Kasehagen, MA, PhD (VT), Fleur Hopper MSW, MPH, (ME)
- November 2019 Mt. Washington: *"Implementing the New AIM Bundles"*, Daisy Goodman, CNM, DNP, MPH, Department of Obstetrics & Gynecology and *"CDC Maternal Mortality Grant Proposal"*
- May 2020: State of NH/NNEPQIN ERASE Maternal Mortality Grant awarded
- October 2020: New Hampshire officially enrolled as AIM State



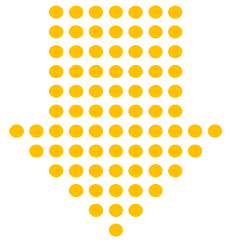
# Acknowledgements and Thank You's

- Maggie Minnock
- Vicki Flanagan
- Daisy Goodman
- Karen Lee
- Karen Boedtker
- Jennifer Reining
- David LaFlamme
- Ann Collins
- Rhonda Siegel
- Jeanne Mahoney
- Karmah Mcilvain
- Andrea Carillo
- Christie Allen



Robert Wood Johnson  
Foundation

# AIM's Primary Objective

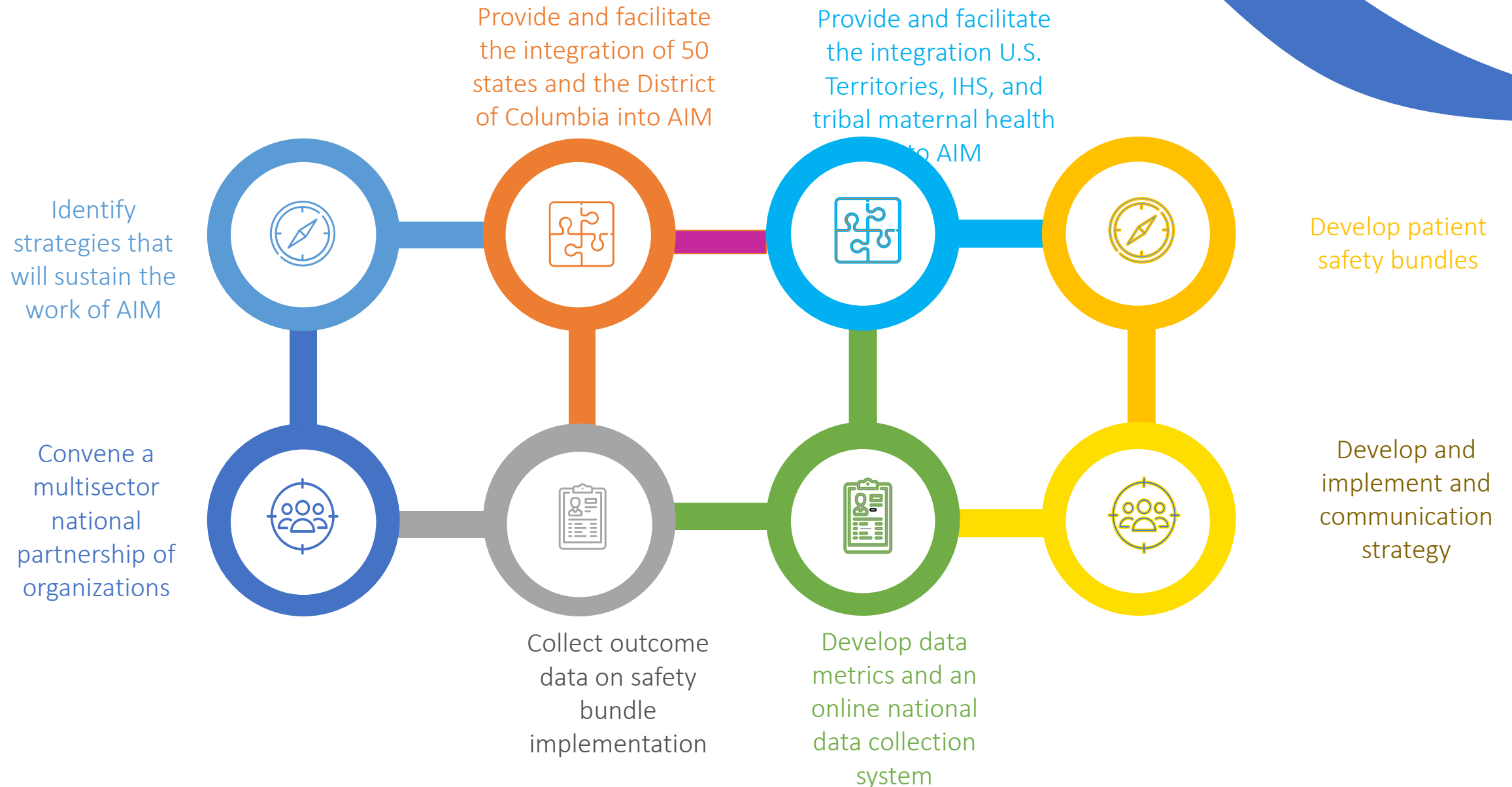


Reduce preventable maternal deaths and severe maternal morbidity (SMM) in the United States.

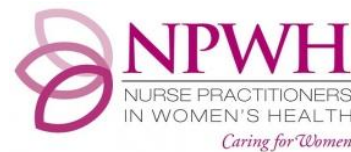
By:

- Promoting safe care for every U.S. birth.
- Engaging multidisciplinary partners at the national, state and hospital levels.
- Developing and providing tools for implementation of evidence-based patient safety bundles.
- Utilizing data-driven quality improvement strategies.
- Aligning existing efforts and disseminating evidence-based resources.

# AIM's Workplan Goals

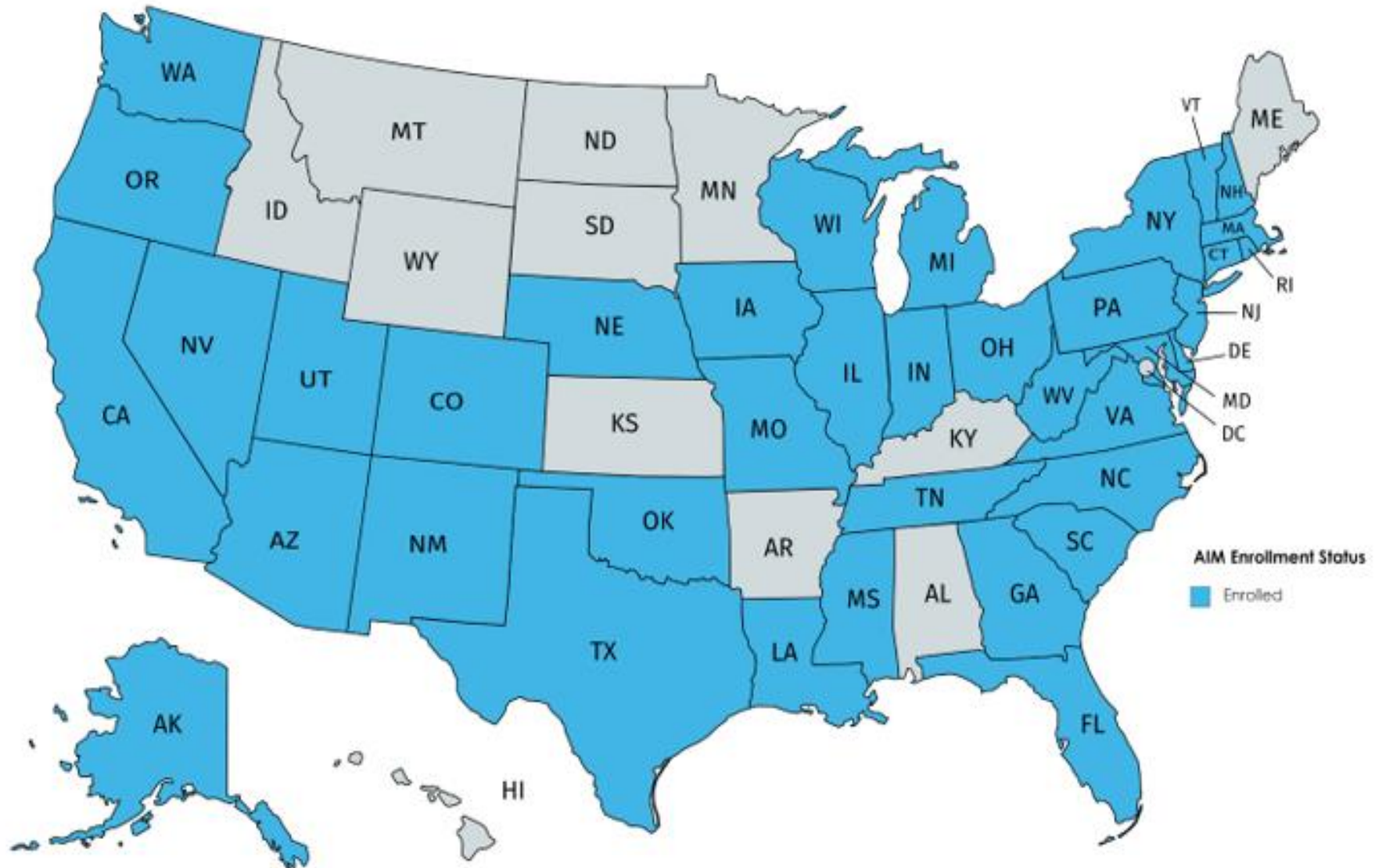


# AIM Partners

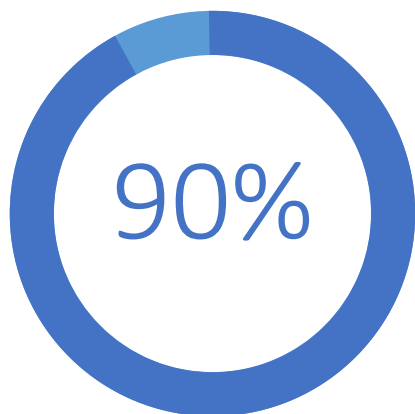




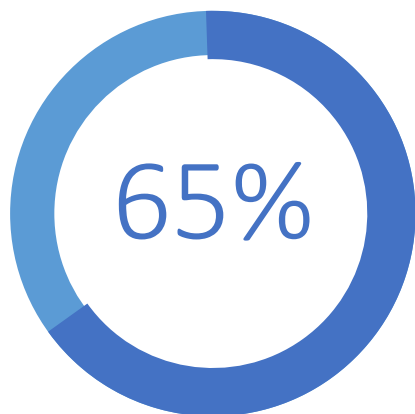
# AIM States



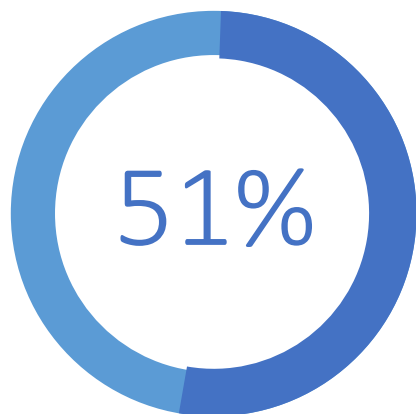
# AIM By the Numbers



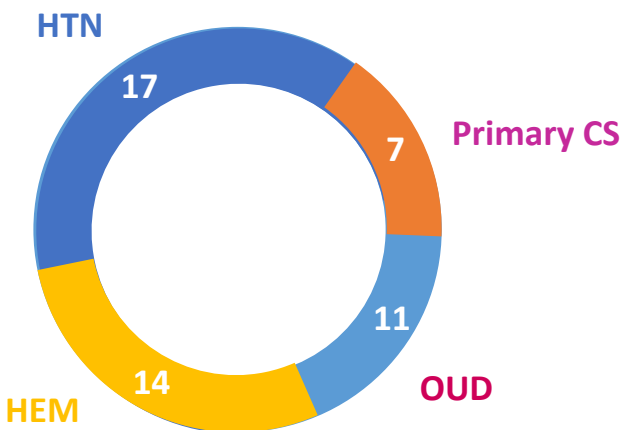
% U.S. States  
Engaged in AIM



% U.S. States  
Enrolled  
in AIM



% U.S. States  
Implementing a  
Bundle with AIM



AIM Bundle  
Implementation

*\*\*Multiple states are  
implementing more than one*



# AIM National Team



## Project Oversight

Provide assistance to state teams on the development of bundle implementation workplans. Offer ongoing guidance to help state teams achieve program objectives.



## Engagement Opportunities

Facilitate opportunities for collaboration, learning, and information sharing amongst state teams. Offerings include bundle interest groups and knowledge library.



## Data Strategy

Support state teams with the development of a data collection strategy that meets local needs. Provide resources to enable ongoing collection and reporting of hospital-level data.



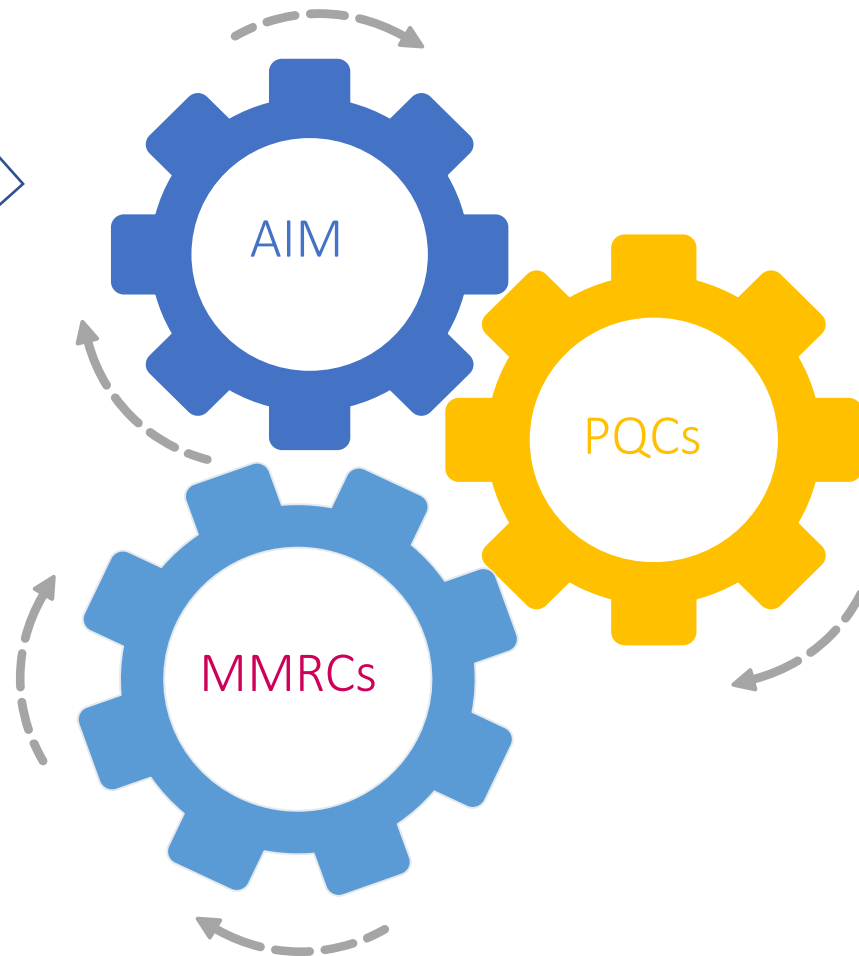
## Budget Guidance

Offer guidance on the design of project budgets and strategies for effective utilization of HRSA funds to support program objectives within the state.

# Critical Collaborations

**Alliance for Innovation on Maternal Health** moves established guidelines into practice with a standard approach to improve safety in care

**Maternal Mortality Review Committees** conduct detailed reviews for complete and comprehensive data on maternal deaths to prioritize statewide prevention efforts

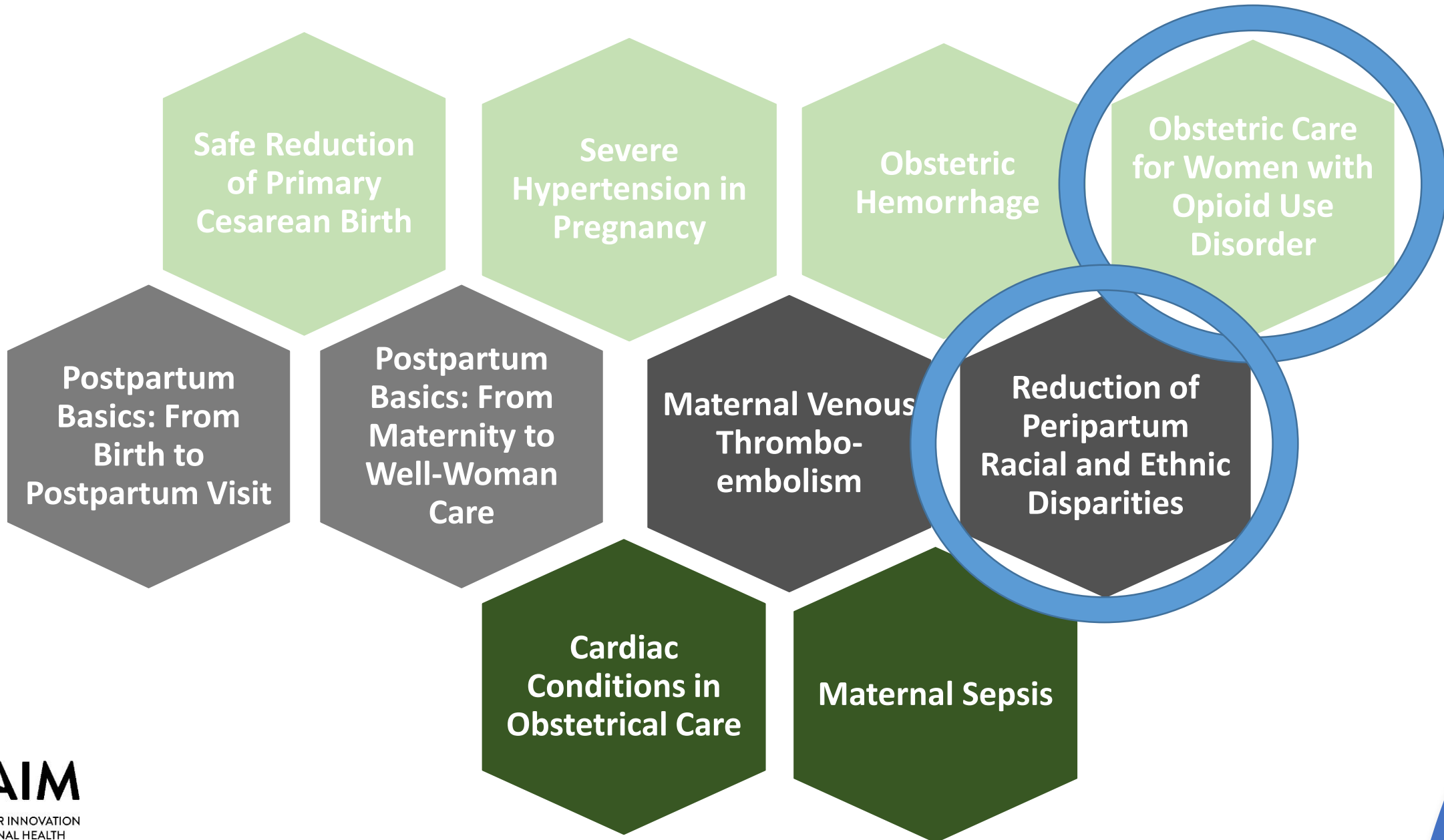


**Perinatal Quality Collaboratives** mobilize state or multi-state networks to implement clinical quality improvement efforts and improve care for mothers and babies

# AIM Bundle Components



# AIM Patient Safety Bundles




# AIM Patient Safety Bundles

Patient Safety Bundles can be found on the [Council on Patient Safety in Women's Health Care](http://www.safehealthcareforeverywoman.org) Website

Accompanied by resources and implementation supporting documents

Will be undergoing updates and template format changes over the next year



**COUNCIL ON PATIENT SAFETY  
IN WOMEN'S HEALTH CARE**  
safe health care for every woman

**PATIENT SAFETY BUNDLE**

**Maternal Venous Thromboembolism Prevention**

**Obstetric Hemorrhage**

**READINESS**

Every Unit

- Use a standardized thromboembolism risk assessment tool for VTE during:
  - Outpatient prenatal care
  - Antepartum hospitalization

**RECOGNITION & PREVENTION**

Every patient

- Assessment of hemorrhage risk (prenatal, on admission, and at other appropriate times)
- Measurement of cumulative blood loss (formal, as quantitative as possible)
- Active management of the 3rd stage of labor (department-wide protocol)

**RESPONSE**

Every hemorrhage

- Unit-standard, stage-based, obstetric hemorrhage emergency management plan with checklists
- Support program for patients, families, and staff for all significant hemorrhages

**REPORTING/SYSTEMS LEARNING**

Every unit

- Establish a culture of huddles for high risk patients and post-event debriefs to identify successes and opportunities
- Multidisciplinary review of serious hemorrhages for systems issues
- Monitor outcomes and process metrics in perinatal quality improvement (QI) committee

Standardization of health care processes and reduced variation has been shown to improve outcomes and quality of care. The Council on Patient Safety in Women's Health Care disseminates patient safety bundles to help facilitate the standardization process. This bundle reflects emerging clinical, scientific, and patient safety advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Although the components of a particular bundle may be adapted to local resources, standardization within an institution is strongly encouraged.

The Council on Patient Safety in Women's Health Care is a broad consortium of organizations across the spectrum of women's health for the promotion of safe health care for every woman.

©2014 Council on Patient Safety in Women's Health Care  
For more information visit the Council's website at [www.safehealthcareforeverywoman.org](http://www.safehealthcareforeverywoman.org)

October 2015  
[www.safehealthcareforeverywoman.org](http://www.safehealthcareforeverywoman.org)

# Why an AIM Data Center?



Supports data-driven quality improvement



Benchmark metrics against “like” hospitals and stratifies outcomes by patient demographics



Allows for comparison across state collaboratives



Tracks bundle implementation and SMM rates overtime



# Built to Accommodate Three Audiences



## Participating Hospitals

- Track processes and structures over time
- Monitor facility-specific outcomes
- Benchmark against “like” hospitals within collaborative



## Statewide Collaboratives

- Track bundle implementation and data submission across facilities in collaborative
- Use data to assess facility and collaborative impacts
- Benchmark against other collaboratives



## AIM National

- Track nation-wide bundle implementation
- Determine areas for program support and improvement
- Evaluate program and analyze impacts

# What is in the AIM Data Portal?



## Outcome Measures

- Calculated and submitted on behalf of hospitals by collaborative administrators
- Data primarily sourced from hospital discharge and birth certificate data



## Structure and Process Measures

- Data collected by participating facilities and submitted by hospital administrators
- Based on AIM Data Collection Plan



## Data from other AIM state teams

- Provides collaborative-wide data for all metrics provided by all states
- Allowing for improved benchmarking

# ***Welcome, Christie!***



Christie Allen MSN, RNC-NIC, CPHQ, C-ONQS is the Senior Director, AIM Projects and Programs. She provides clinical support to and supervision of the AIM Program and other affiliated grants. Prior to this role, Christie served as the Associate Director of Clinical Quality for ACOG, as a quality coordinator for a Planned Parenthood affiliate, and as the coordinator of a statewide Medicaid program for people with opiate use disorder in pregnancy. Christie has practiced as a clinical bedside nurse for over 20 years in adult, pediatric, and neonatal intensive care and inpatient obstetrics, as well as a lactation consultant and is certified in neonatal intensive care as well as healthcare quality. She holds a Bachelor of Science in nursing and a Master of Science in nursing with a concentration in health policy.

**CHRISTIE ALLEN**

Senior Director, AIM Projects and Programs

# Thank you!



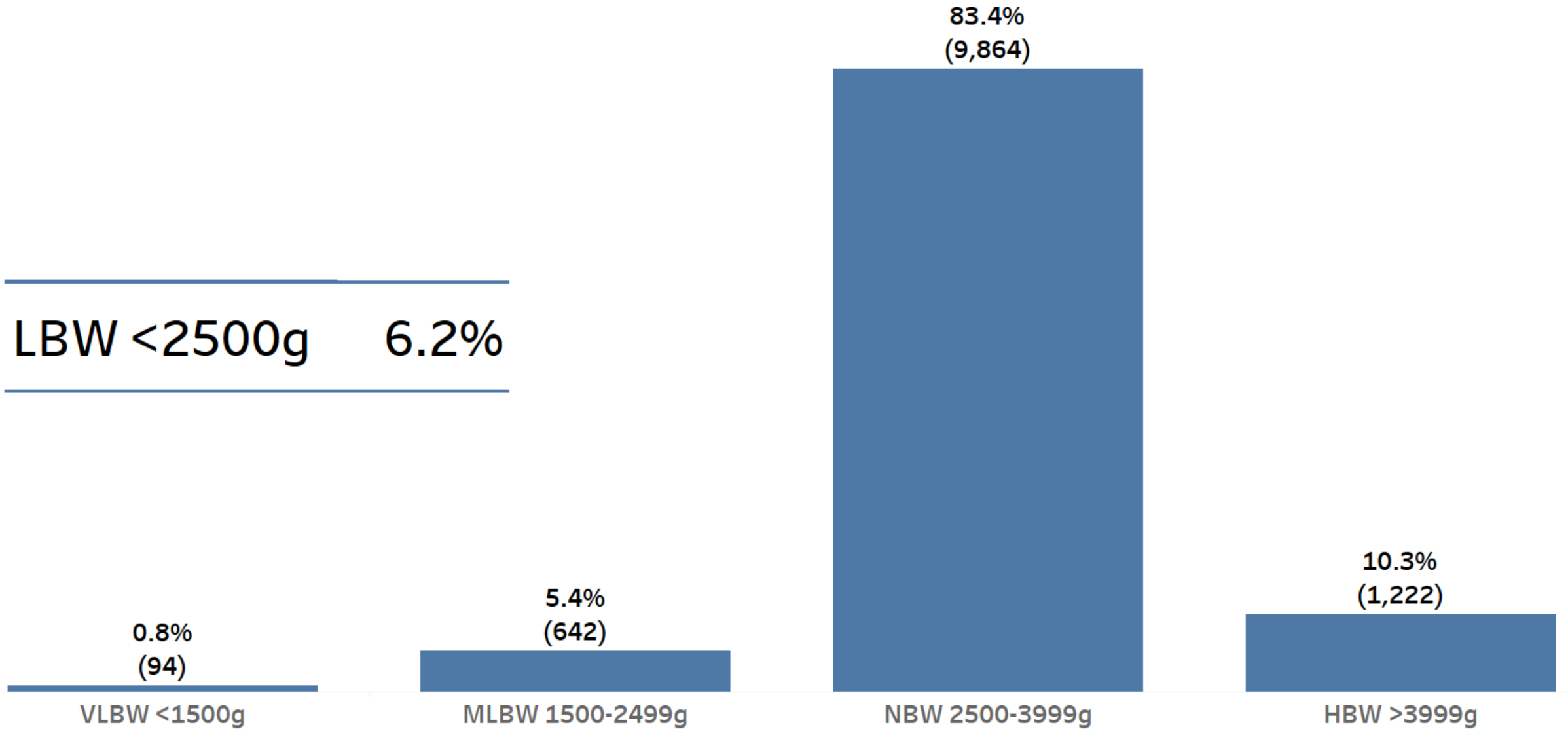
ALLIANCE FOR INNOVATION  
ON MATERNAL HEALTH

*This program is supported by a cooperative agreement with the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) under grant number UC4MC28042, Alliance for Innovation on Maternal Health. This information or content and conclusions are those of the author and should not be construed as the official position or policy of, nor should any endorsements be inferred by HRSA, HHS or the U.S. Government.*

# Maternal and Infant Outcomes in New Hampshire

# Birth weight

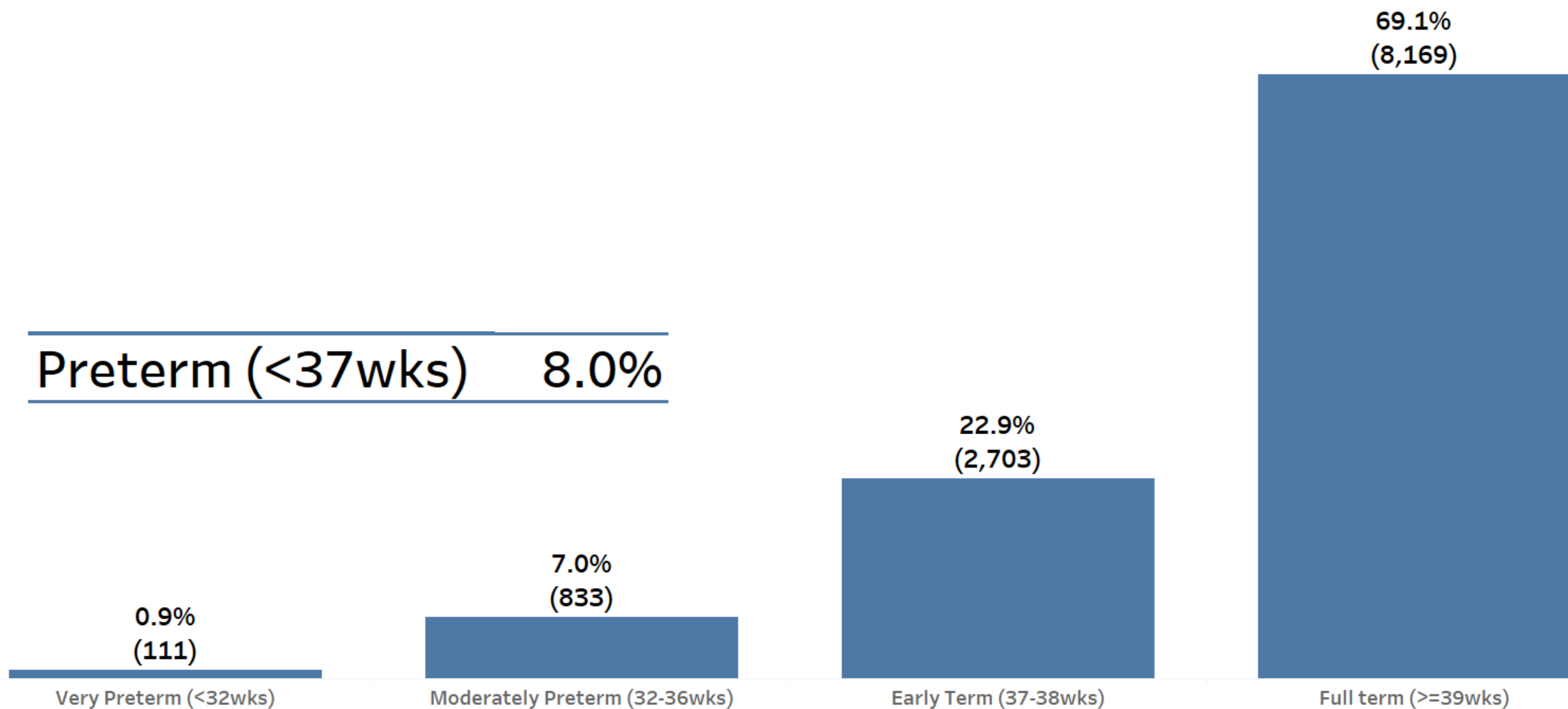
*Deliveries occurring in New Hampshire: 2019*



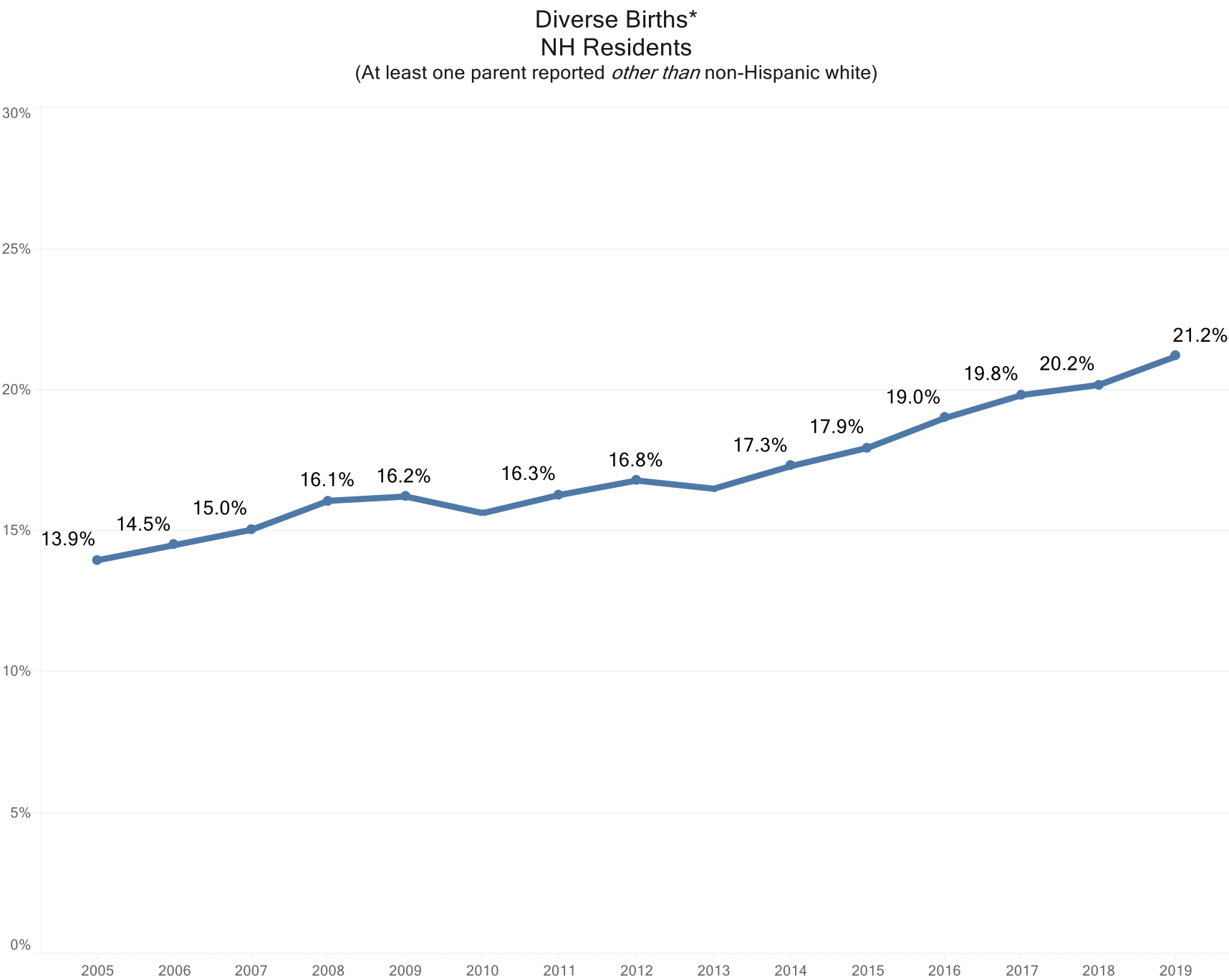


# Gestational Age

*Deliveries occurring in New Hampshire: 2019*



# Diversity Among Birthing Families in New Hampshire

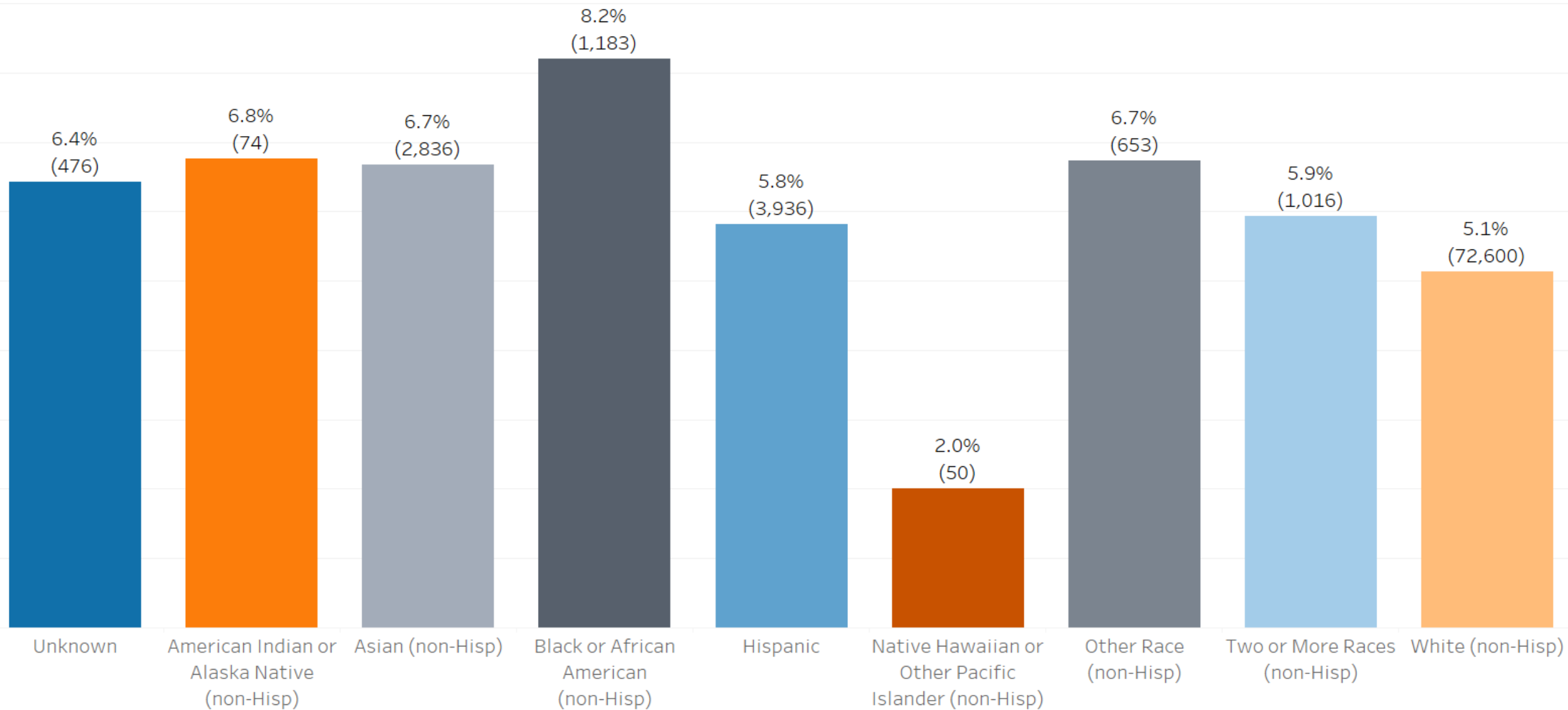


\*Note that the y-axis of this graph ends at 30% in order to call attention to the increase over time. This affects the appearance of the line slope.

# Percent Low Birth Weight by Maternal Race/Hispanic Origin

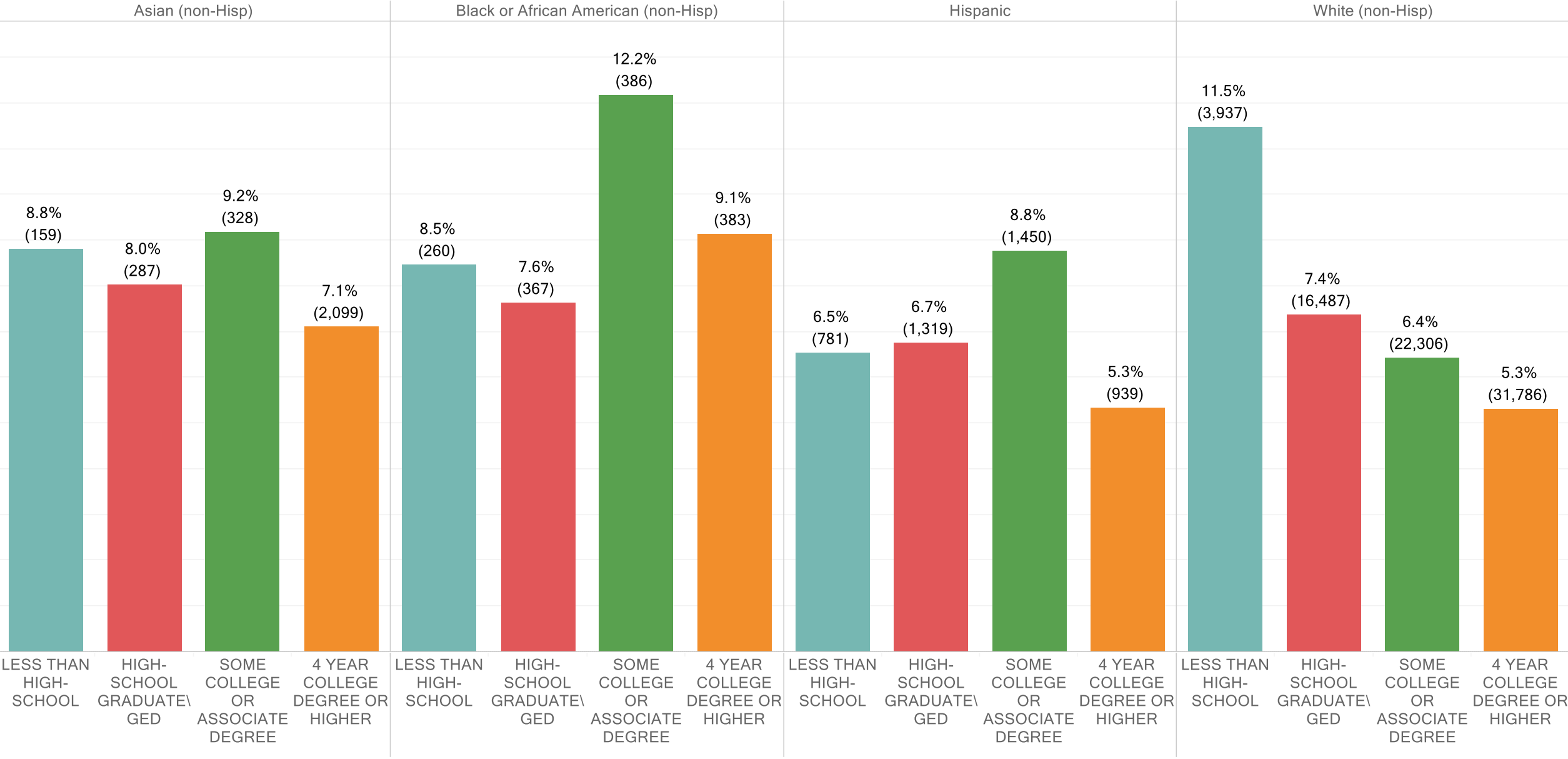
Deliveries occurring in New Hampshire: 2013 to 2019

Plurality: Single



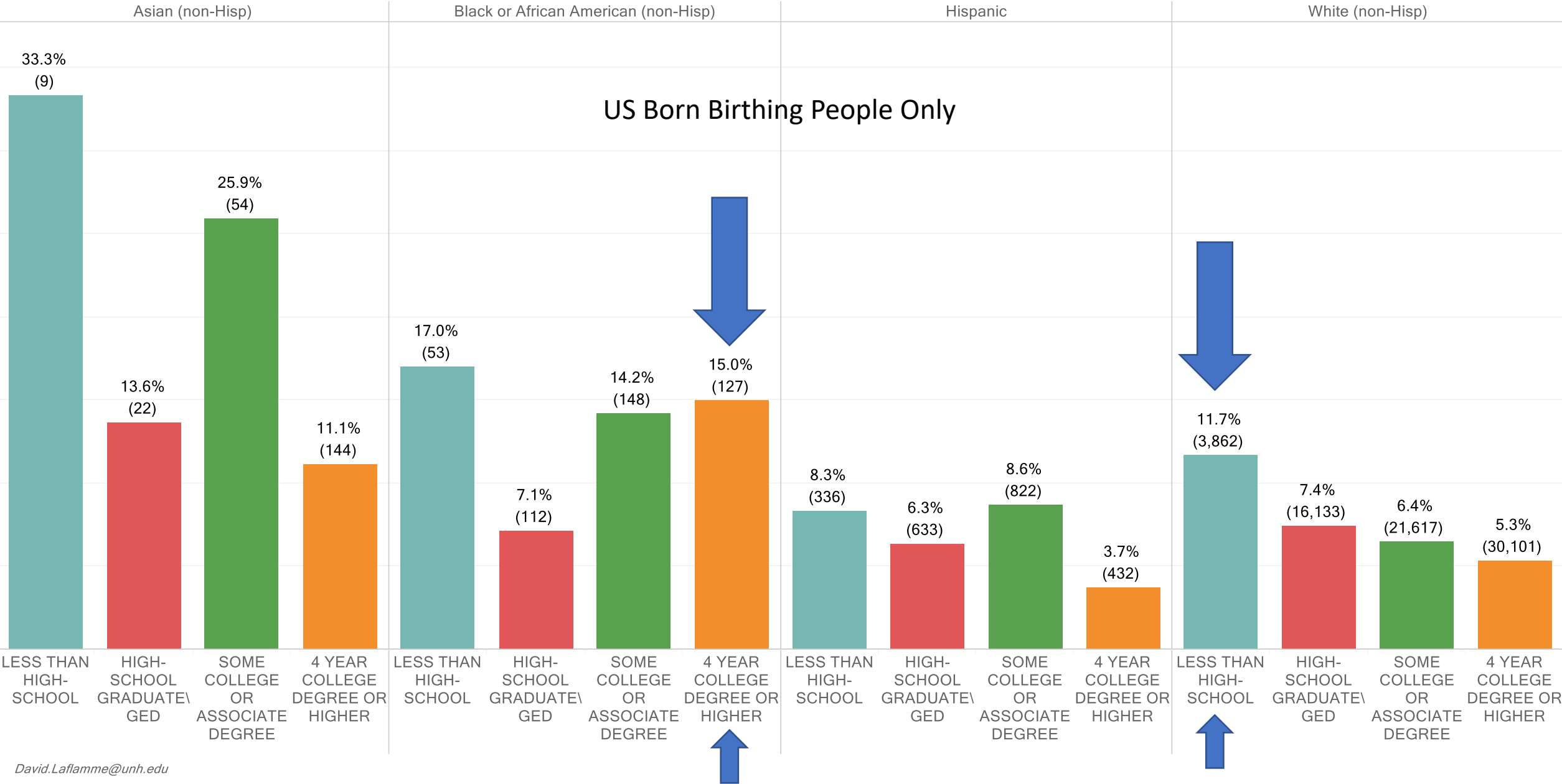
Percent Low Birth Weight by Maternal Race/Hispanic Origin and Education

Deliveries occurring in New Hampshire: 2013 to 2019



Percent Low Birth Weight by Maternal Race/Hispanic Origin and Education

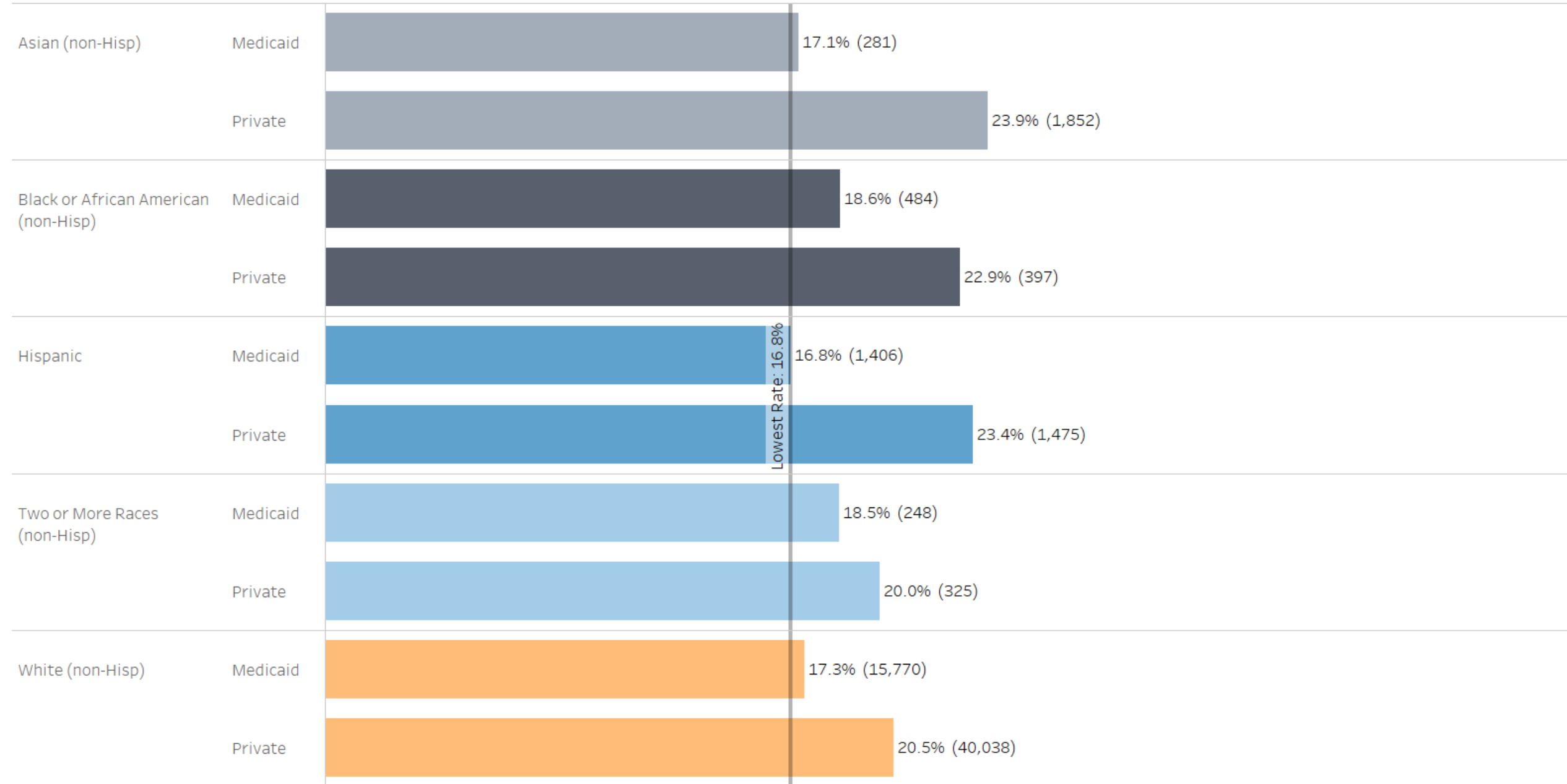
Deliveries occurring in New Hampshire: 2013 to 2019



# Cesarean Delivery by Maternal Race and Hispanic Origin

Birth Year(s): 2013 to 2019

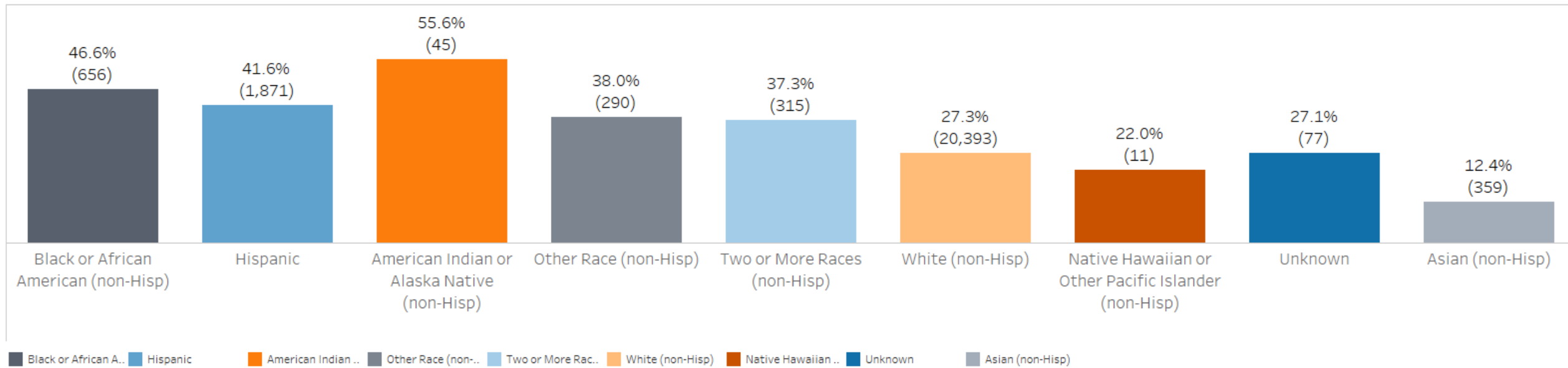
Plurality: **Single** | Gestation: **Early Term (37-38wks) & Full term (>=39wks)** | Previous Cesarean: **No**





## Percent of Deliveries Paid by Medicaid by Maternal Race and Hispanic Origin

Deliveries occurring in New Hampshire: 2013 to 2019



## Percent of Medicaid-paid Deliveries by Maternal Race and Hispanic Origin

Deliveries occurring in New Hampshire: 2013 to 2019



# Perinatal Substance Exposure

## 82A: Was the infant monitored for effects of in utero substance exposure?

Infant born 5/1/2020 to 10/31/2020  
Data refreshed: 11/12/2020 8:00:33 AM  
Data source: VR\_BIRTH (EBI\_DATAMART.VR\_BIRTH)+  
(EBI\_DATAMART)

Yes	407 (6.5%)
No	5,834 (93.5%)
Total	6,241 (100.0%)

## 82A Substance Type Summary

82A: If YES, Type of substance(s)  
Total Births w/ 1 or more substances reported: 407

Note: The numbers in the table may add up to more than 407 (# monitored) because multiple substances could be reported  
Infants born 5/1/2020 to 10/31/2020  
Data refreshed: 11/12/2020 8:00:33 AM  
Data source: VR\_BIRTH (EBI\_DATAMART.VR\_BIRTH)+  
(EBI\_DATAMART)

Cannabis	237
Opioids	144
Nicotine	124
Other substance	64
Stimulants	42
Cocaine	25
Benzodiazepines	11
Alcohol	17
Kratom	0
Bath salts	1
Barbiturates	7

82A Type Other Specify  
Infants born 5/1/2020 to 10/31/2020  
Data refreshed: 11/12/2020 8:00:33 AM  
Data source: VR\_BIRTH  
(EBI\_DATAMART.VR\_BIRTH)+  
(EBI\_DATAMART)

METHADONE	12
SUBOXONE	8
SUBUTEX	7
BUPENORPHINE	6
ZOLOFT	3
BUPRENORPHINE	2
HEROIN	2
ZOLPIDEM	1
UNKNOWN LEFT AMA	1
SUBOXONE AND METHODONE	1
SUBOXEN	1
SSR1	1
SEDATIVES	1
MARIJUANA	1
MAGNESIUM SULFATE	1
LEXAPRO	1
HEROINE USE IN 1ST TRIMESTER	1
HEROIN/CRACK	1
HERION-FENTANYL	1
FENTANYL/SUBOXONE/HERION	1
FENTANYE	1
BUPRENORPHINE	1
FENTANYL	1
METHODONE (MAINTENANCE)	1
PRESCRIBED FOR CHRONIC PAIN	1
PRESCRIBED ADDERALL	1
PRESCRIBED METHADONE	1
RX ADDERALL	1
THC	1
VAPE	1
XTC, FENTANYL	1
Grand Total	64

# Perinatal Substance Exposure

**82B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder?**

CAPTA/CARA

Infants born: 5/1/2020 to 10/31/2020

Data refreshed: 11/12/2020 8:00:33 AM

Data source: VR\_BIRTH (EBI\_DATAMART.VR\_BIRTH)+  
(EBI\_DATAMART)

Yes	164 (2.6%)
No	6,077 (97.4%)
Total	6,241 (100.0%)

**83: Was a Plan of Safe/Supportive Care (POSC) created?**

Infants born 5/1/2020 to 10/31/2020

Data refreshed: 11/12/2020 8:00:33 AM

Data source: VR\_BIRTH (EBI\_DATAMART.VR\_BIRTH)+  
(EBI\_DATAMART)

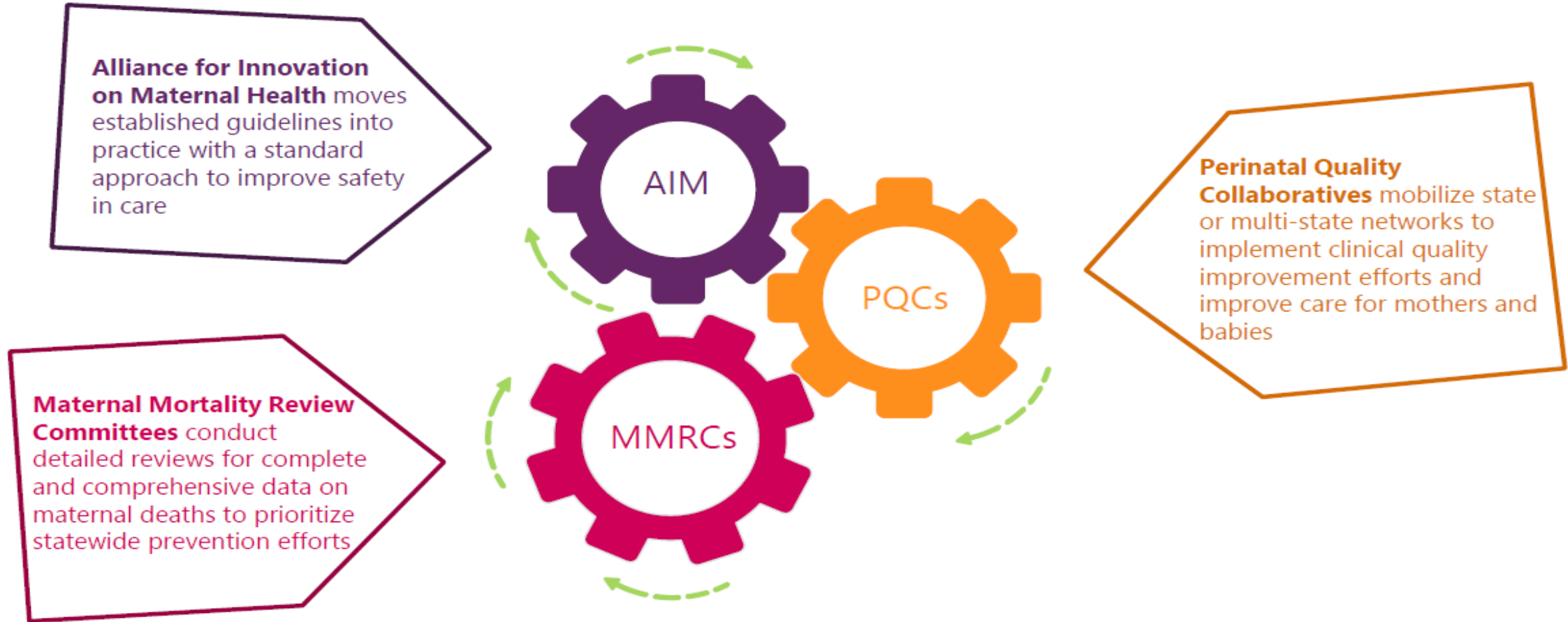
Yes	6.0% (374)
No	94.0% (5,867)
Total	100.0% (6,241)

# Perinatal Substance Exposure

		83: Was a Plan of Safe/Supportive Care (POSC) created?	
		No	Yes
82B. Was the infant identified as being affected by substance misuse or withdrawal symptoms resulting from prenatal drug exposure, or a Fetal Alcohol Spectrum Disorder?	Yes	16 (9.8%)	148 (90.2%)
	No	5,851 (96.3%)	226 (3.7%)

90.2% of infants identified per CAPTA/CARA criteria had a POSC created.

# Critical Collaborations



Created from a Centers for Disease Control, Division of Reproductive Health source

# Findings From New Hampshire's Maternal Mortality Review



- **Eleven of the twelve** pregnancy-associated deaths in 2016-2017 occurred **during the postpartum period**, and one occurred during pregnancy
- The **leading causes** of pregnancy-associated deaths in NH are **accidental drug overdose** and **suicide**
- **Almost all deaths reviewed were substance-involved**

# New Hampshire MMRC Recommendations to Maternity Care Providers



## Support engagement in prenatal care and substance use treatment

- Educate healthcare teams to reduce stigma against people who use substances
- Provide warm handoff from PCP to facilitate engagement in prenatal care
- Improve collaboration between substance use providers and mental health providers

## Address social determinants of health

- Assess social determinants and link to services directly from Emergency Department for patients with substance-related complaints
- Increase outreach to unhoused people, prioritizing access to women's services

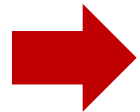
## Overdose prevention

- Standardize perinatal education about risk for overdose after pregnancy or any period of abstinence
- Provide naloxone kits and standard education at discharge for postpartum patients with OUD

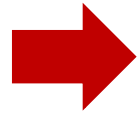
# How Does AIM Work To Reduce Maternal Mortality?

## Selection and implementation of maternal safety bundles

1. Maternal hemorrhage
2. Hypertension in pregnancy
3. Reduction of venous thromboembolism
4. Supporting vaginal birth/Reduction of low-risk primary Cesarean births



**5. Reduction of peripartum racial and ethnic disparities**



6. Postpartum care basics for maternal safety

***7. Obstetric care for women with opioid use disorder***



# A SMART Aim

Achieve 100% reduction in opioid- and other substance- related maternal mortality in New Hampshire by 1/1/2023

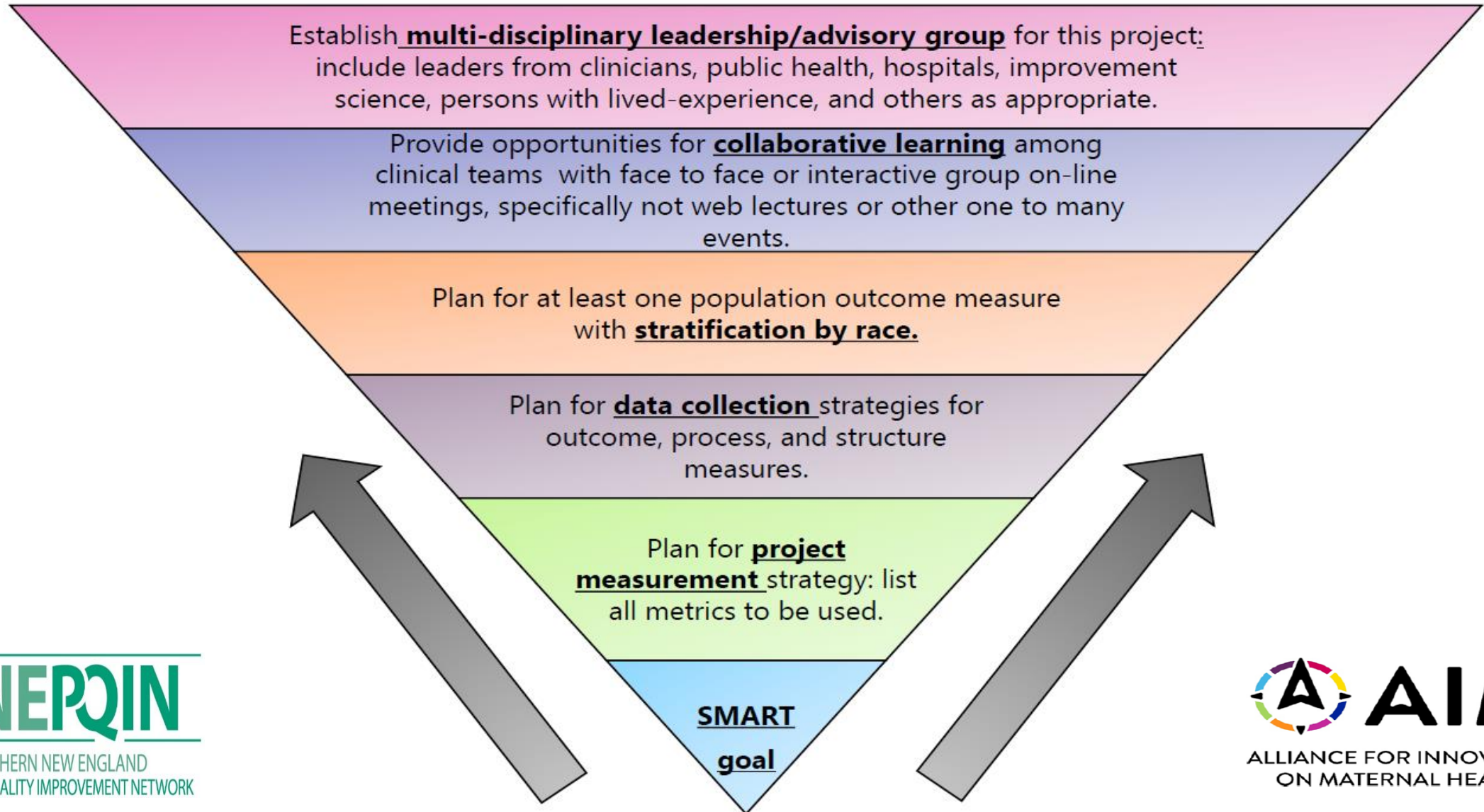
- **Specific**
- **Measurable**
- **Achievable**
- **Relevant**
- **Timed**

# Initial Implementation Targets

- **Provide naloxone** to all pregnant and postpartum people with opioid use disorder at hospital discharge and during prenatal/postpartum care
- **Improve collection of Race, Ethnicity, and Language (REaL) data** at New Hampshire birthing hospitals and ambulatory maternity care settings



# Initial Steps to AIM Program Implementation



# Engaging A Multidisciplinary Advisory Group

- **AIM Champions**

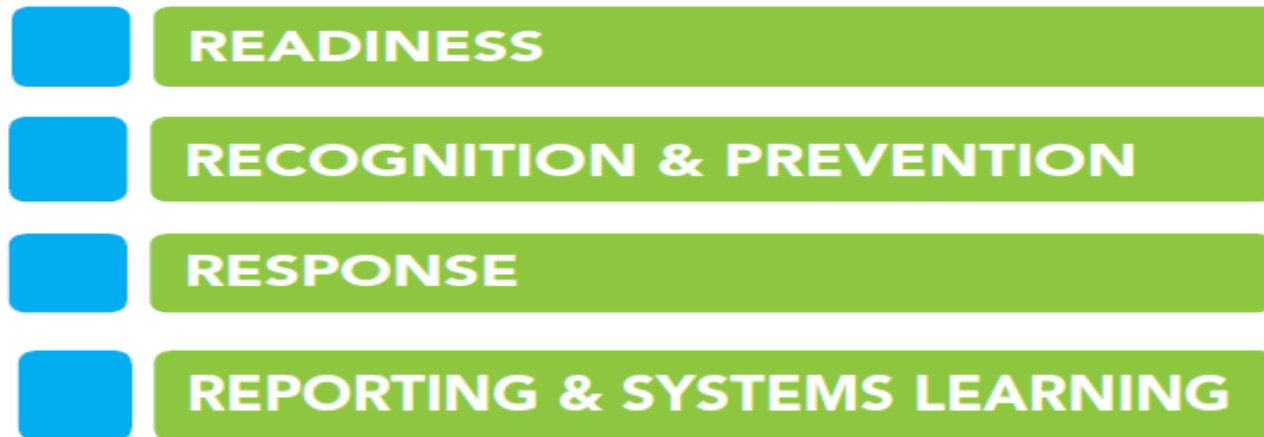
- Professional organizations
- Clinicians
- Policymakers
- Payors

- **Patient and Family Advisory Committee**

- **AIM Implementation Team**

- NNEPQIN Leadership
  - Timothy Fisher, MD
  - Victoria Flanagan, RN, MS
  - Maggie Rose Minnock, MBA
- AIM Lead coordinators
  - Daisy Goodman, DNP, MPH, CNM
  - Ann Collins, RN, BSN
- AIM Data coordinator
  - David Laflamme, PhD, MPH
- AIM Improvement Advisor
  - Karen Boedtke, RN

# Opportunities for Collaborative Learning



PATIENT  
SAFETY  
BUNDLE

**Obstetric Care for Women  
with Opioid Use Disorder**

PATIENT  
SAFETY  
BUNDLE

**Reduction of Peripartum  
Racial/Ethnic Disparities**

# AIM OUD Bundle Measures

## Alliance for Innovation in Maternal Health OUD Safety Bundle Measures (AIM Participants)

### Outcomes

- O1: Severe Maternal Morbidity
- O2: Severe Maternal Morbidity
- O3: Pregnancy Associated Opioid Deaths
- O4: Average length of stay for newborns with Neonatal Abstinence Syndrome (NAS)

### Process

- P1: Percent of women with OUD during pregnancy who receive medication assisted treatment MAT or behavioral health tx
- 2: Percent of Opioid Exposed Newborns receiving mother's milk at newborn discharge
- P3: Percent of Opioid Exposed Newborns who go home to biological mother
- P4: Universal Screening at Prenatal Care Sites

### Structure

- S1: Universal Screening on L&D
- S2: General pain management practices
- S3: OUD pain management guidelines

### State Surveillance

- SS1: Percent of newborns diagnosed as affected by maternal use of opiates
- SS2: Percent of newborns diagnosed with NAS

**Outcome, Process,  
and Surveillance  
data stratified by  
race, ethnicity, &  
payor to identify  
disparities in care  
and outcomes**

# Data Collection

- **Clinical Outcomes**
  - **Payor-level data**
- **Process**
  - De-identified, hospital level data
  - Baseline survey about screening practices
  - Compare Race, Ethnicity, and Language (REaL) Data from administrative record to BC
- **Structure**
  - Hospital level data about policy and procedure
- **Implementation**
  - Baseline QI needs assessment (required by AIM)
  - Organizational readiness assessment (optional)



# Implementation Strategies

- Promote messaging about Maternal Mortality through partner organizations, professional societies, and NH DHHS website
- Engage birth facilities and associated prenatal/postpartum care providers
- Partner with Public Health
- Share tools and technical assistance for self-evaluation and quality improvement planning
- Provide step by step implementation support
- Generate real time data to promote quality improvement initiatives



# Implementation Goals

- Focus on interventions which are relevant across different types of settings
- Recognize that every participating program will have a unique path to success
- Identify and build on existing work to maintain momentum
- Expect incremental adoption
- Learn from each other
- Involve patients and families
- Keep the public informed about our work

# Invitation to Engage

Next steps:

- AIM implementation webinars: **second Thursday of each month from 12-1pm – To register, email: [Karen.G.Lee@Hitchcock.Org](mailto:Karen.G.Lee@Hitchcock.Org)**
- Individual calls with each participating site to identify key opportunities and develop strategies
- Initial implementation targets:
  - **Provide naloxone access** at hospital discharge and in prenatal/postpartum settings
  - **Improve collection of REaL data** at all maternity care providing sites



# Fall Meeting

## *November 13, 2020*

To Register, Email: [Karen.G.Lee@Hitchcock.Org](mailto:Karen.G.Lee@Hitchcock.Org)

AIM Questions: [Daisy.J.Goodman@hitchcock.org](mailto:Daisy.J.Goodman@hitchcock.org)

[Victoria.A.Flanagan@hitchcock.org](mailto:Victoria.A.Flanagan@hitchcock.org)