HEALTHY MOTHERS, HEALTHY BABIES
Coalition of Georgia

# 2019 Annual Meeting & Conference

**OCTOBER 28-29, 2019**



***Healthy Mothers, Healthy Babies. In That Order.***

*Centering Mother's Voices in Maternal Care.*

# Translating Data to Action

# to Improve Maternal Care

AIM Bundles and Levels of Care

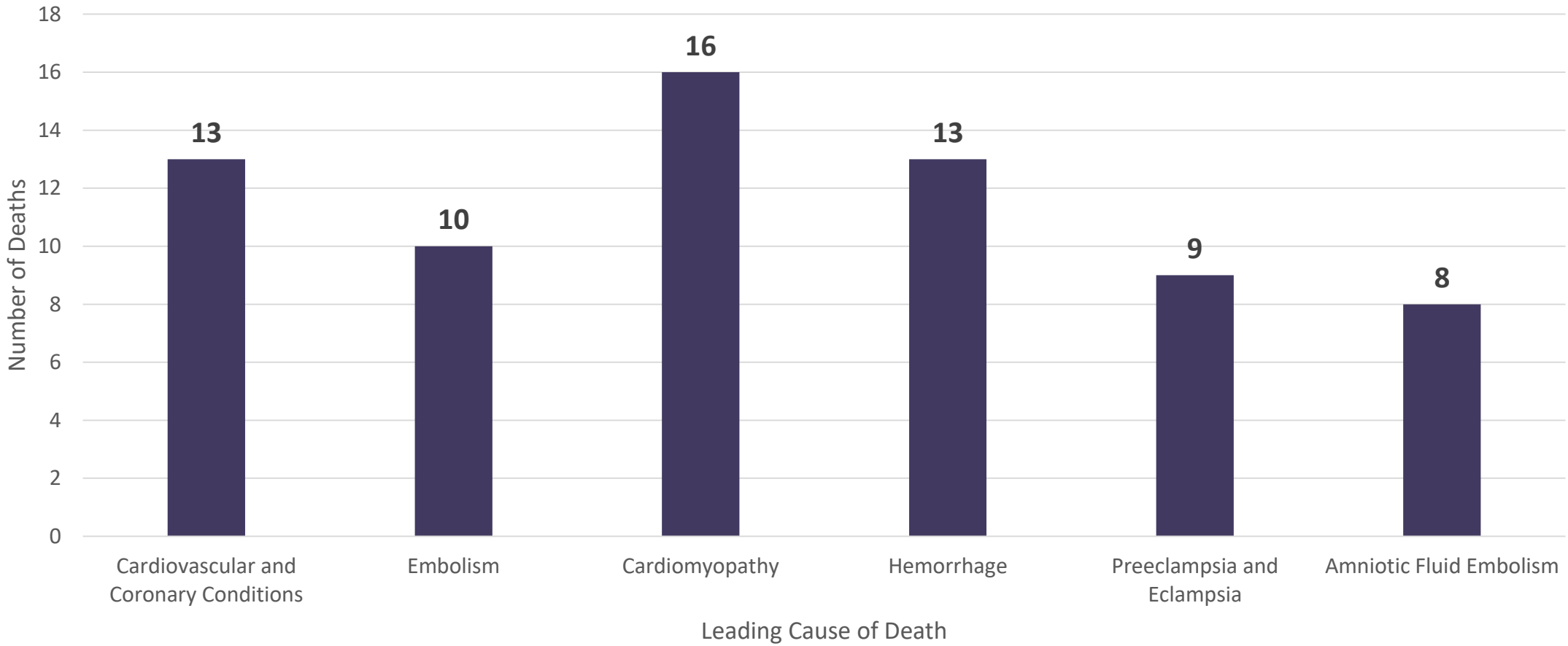
HMHB Annual Conference / Katie Kopp, MPH / October 29, 2019

Georgia Department of Public Health

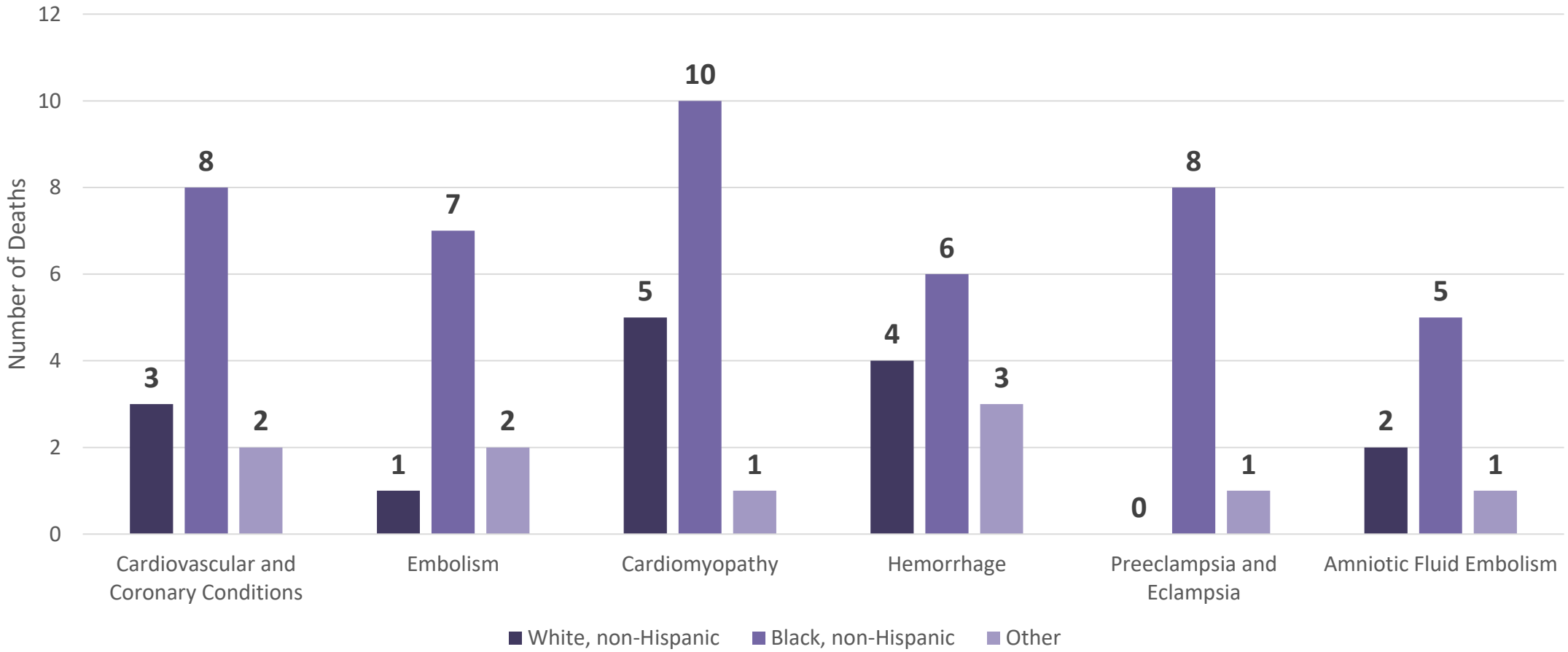
# Pregnancy-Related Mortality Ratio by Race, Georgia, 2012-2014

- White, non-Hispanic: **14.3** deaths per 100,000 live births
- Black, non-Hispanic: **47.0** deaths per 100,000 live births

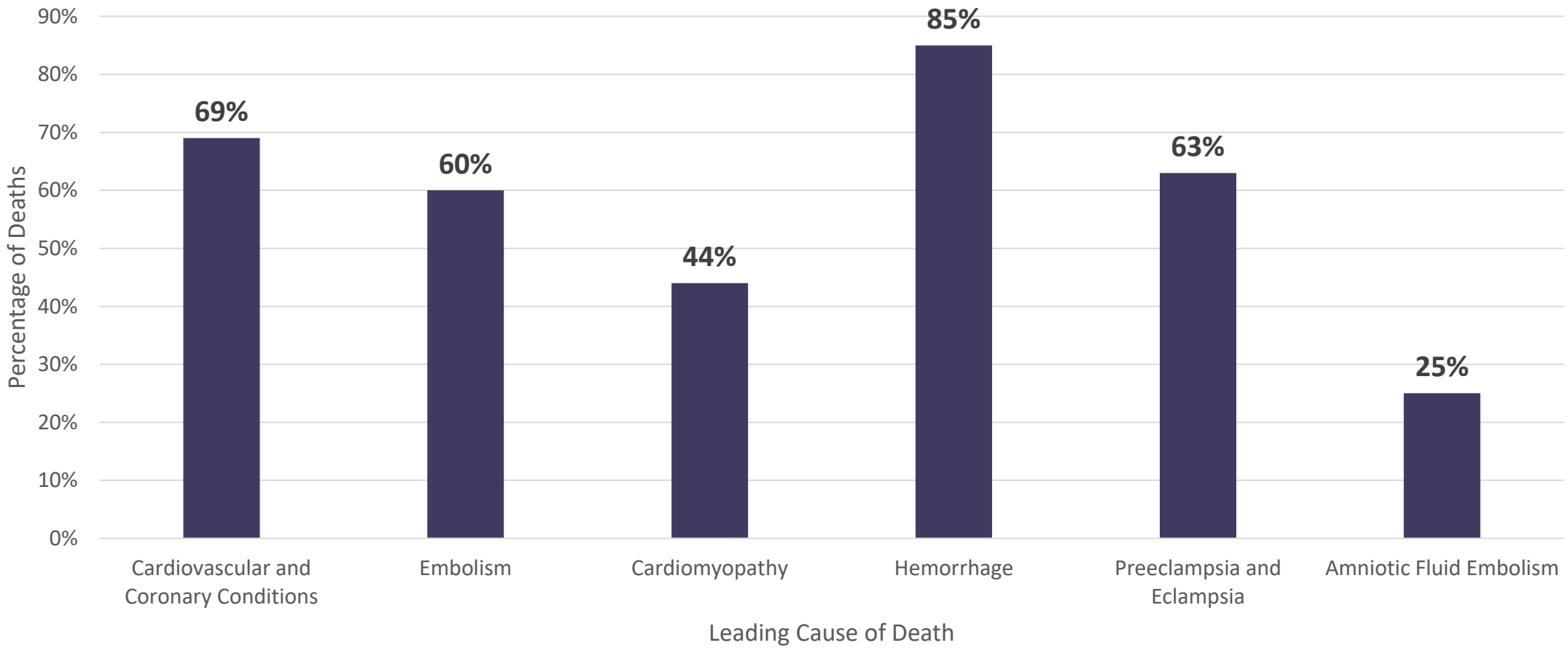
# Leading Causes of Pregnancy-Related Deaths, Georgia, 2012-2014



# Leading Causes of Pregnancy-Related Deaths by Race, Georgia, 2012-2014



# Percentage of Pregnancy-Related Deaths Determined to be Preventable by Leading Causes, Georgia, 2012-2014



# Pregnancy-Related Deaths by Timing of Death, Georgia, 2012-2014

# Improving Timeliness

- Finished review of 2015 cases in September
- Goal- Review cases within two years of the date of death

2019- Review 2016 and 2017 Cases

2020- Review 2017 and 2018 Cases

2021- Review 2019 cases

# Pregnancy-Associated, But Not –Related Cases

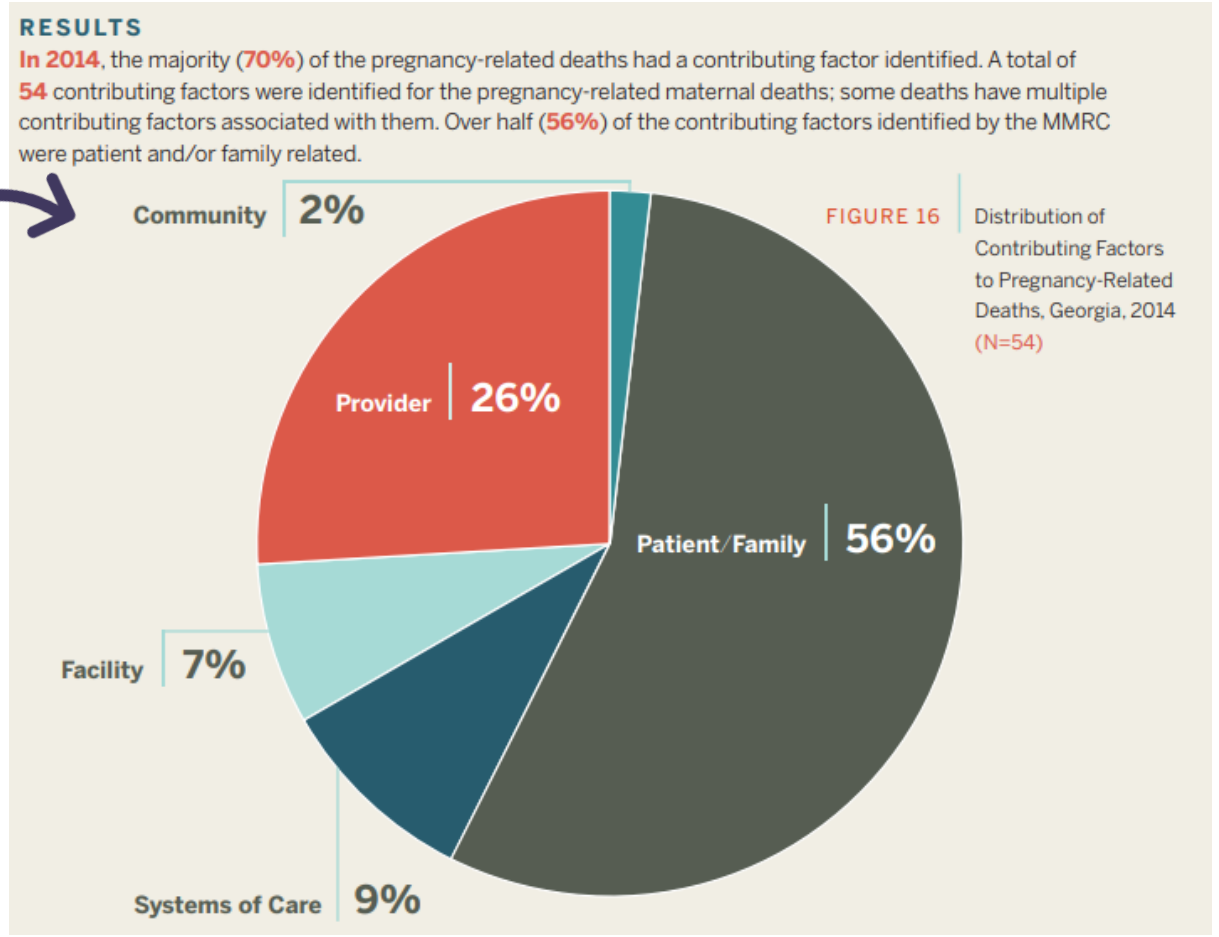
Types of cases: suicides, overdoses, homicides, motor vehicle crashes, cancers

Beginning with 2015 cases we will capture:

- ✓ Underlying Cause of Death
- ✓ Preventability
- ✓ Contributing Factors
- ✓ Recommendations

# Identifying Contributing Factors

Identifying more contributing factors at the facility, systems of care, and community level



# Addressing Social Determinants of Health

Identifying recommendations with a higher level of impact

**Level of Impact**

For each recommendation your committee makes, determine what the expected impact level would be if the recommendation were implemented.[17] Use the following as a guide, which was adapted from CDC Director Tom Frieden's Health Impact Pyramid:[ii]

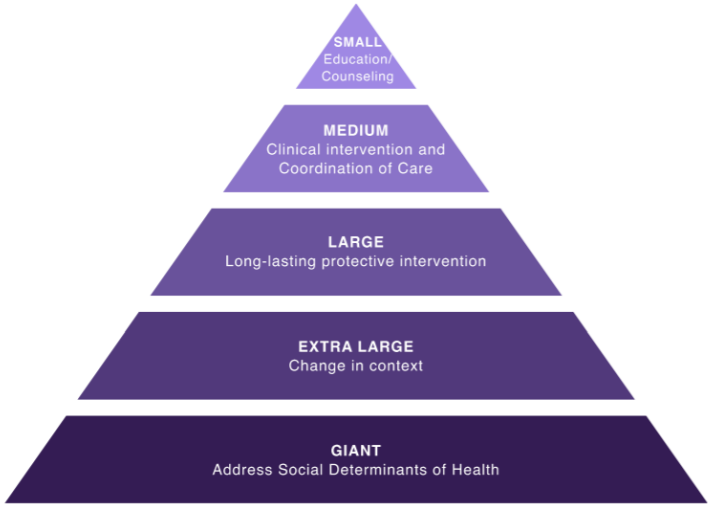
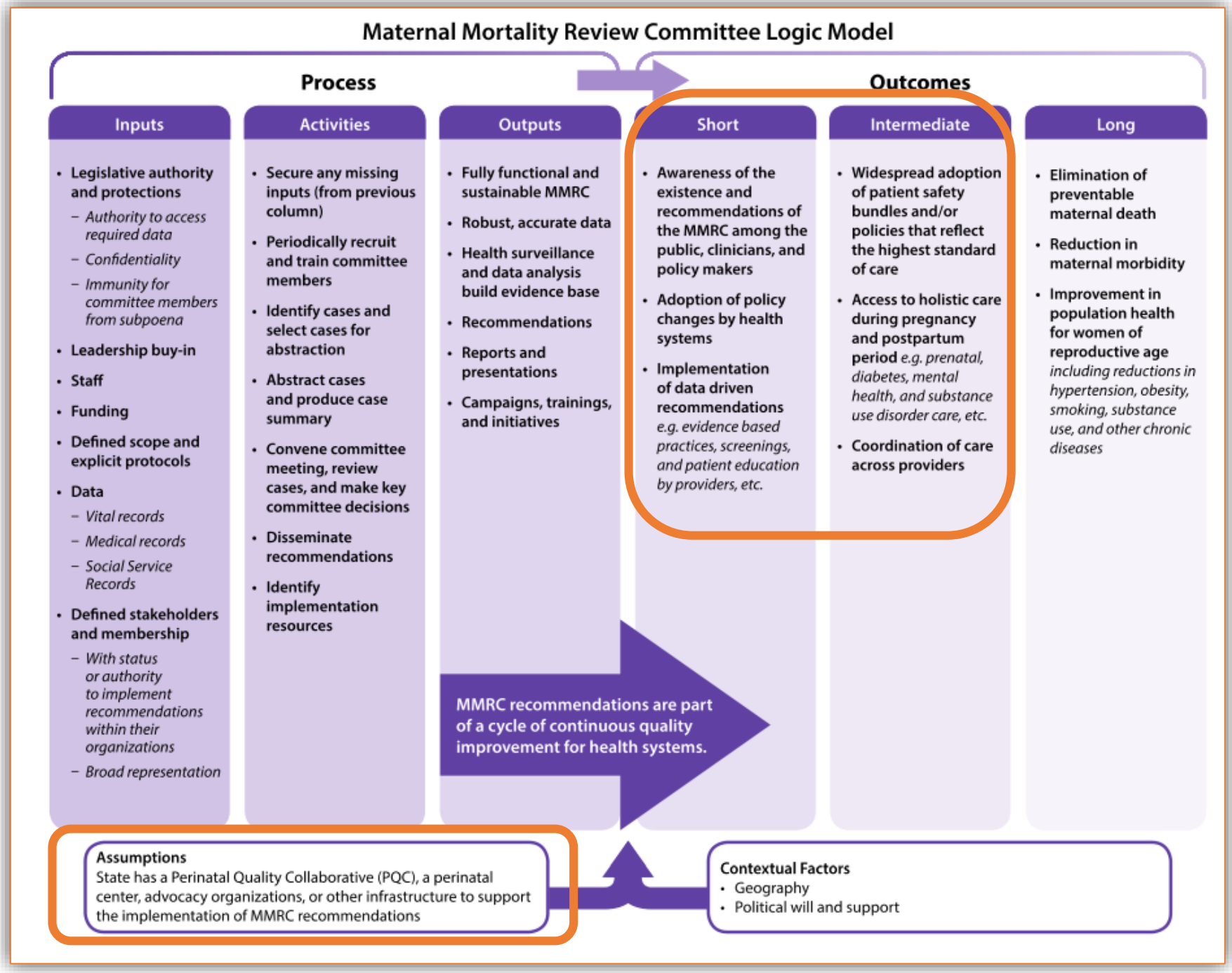
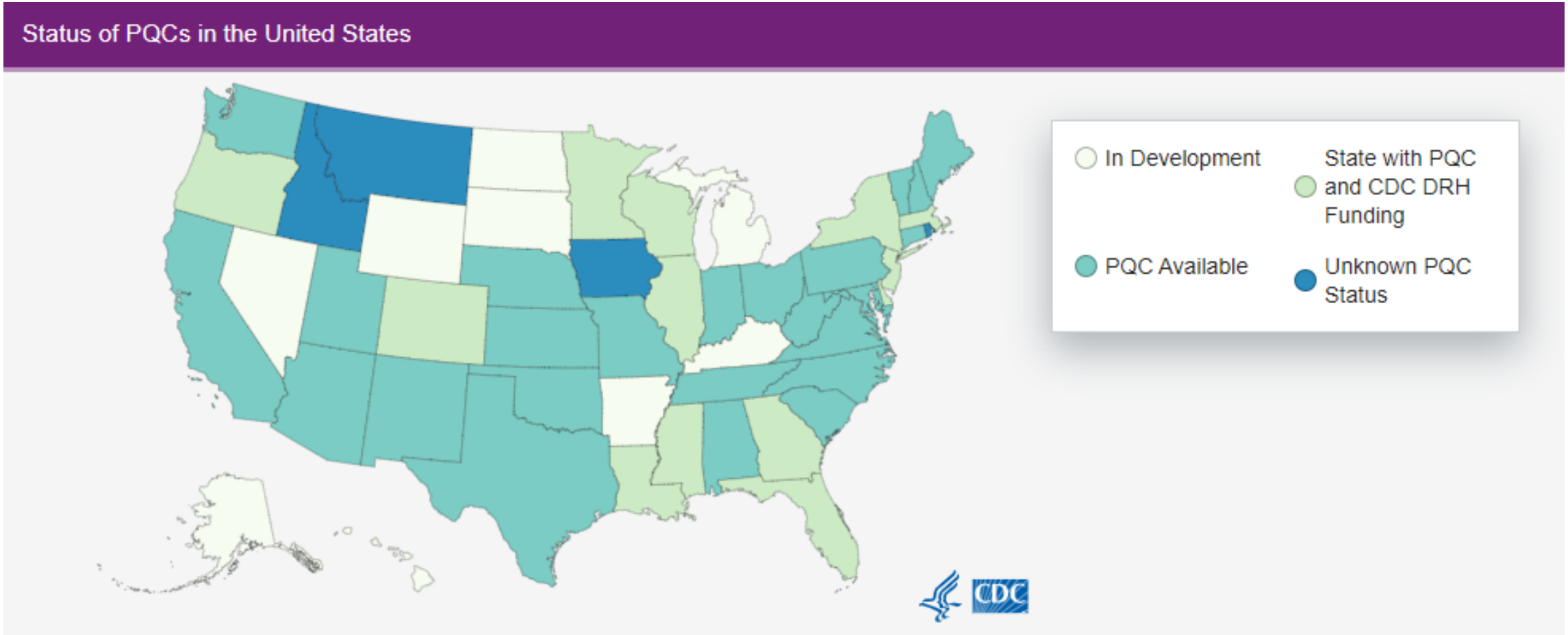



FIGURE 18 Anticipated Level of MMRC Impact of Recommendations if Implemented, Georgia, 2014 (N=45)


Maternal Mortality Review Committee Logic Model
Process
Outcomes
Inputs
Activities
Outputs
Short
Intermediate
Long
• Legislative authority and protections
– Authority to access required data
– Confidentiality
– Immunity for committee members from subpoena
• Leadership buy-in
• Staff
• Funding
• Defined scope and explicit protocols
• Data
– Vital records
– Medical records
– Social Service Records
• Defined stakeholders and membership
– With status or authority to implement recommendations within their organizations
– Broad representation
• Secure any missing inputs (from previous column)
• Periodically recruit and train committee members
• Identify cases and select cases for abstraction
• Abstract cases and produce case summary
• Convene committee meeting, review cases, and make key committee decisions
• Disseminate recommendations
• Identify implementation resources
• Fully functional and sustainable MMRC
• Robust, accurate data
• Health surveillance and data analysis build evidence base
• Recommendations
• Reports and presentations
• Campaigns, trainings, and initiatives
• Awareness of the existence and recommendations of the MMRC among the public, clinicians, and policy makers
• Adoption of policy changes by health systems
• Implementation of data driven recommendations e.g. evidence based practices, screenings, and patient education by providers, etc.
• Widespread adoption of patient safety bundles and/or policies that reflect the highest standard of care
• Access to holistic care during pregnancy and postpartum period e.g. prenatal, diabetes, mental health, and substance use disorder care, etc.
• Coordination of care across providers
• Elimination of preventable maternal death
• Reduction in maternal morbidity
• Improvement in population health for women of reproductive age including reductions in hypertension, obesity, smoking, substance use, and other chronic diseases
MMRC recommendations are part of a cycle of continuous quality improvement for health systems.
Assumptions
State has a Perinatal Quality Collaborative (PQC), a perinatal center, advocacy organizations, or other infrastructure to support the implementation of MMRC recommendations
Contextual Factors
• Geography
• Political will and support

# GaPQC- Translating Data to Action

# Perinatal Quality Collaboratives



# Georgia Perinatal Quality Collaborative

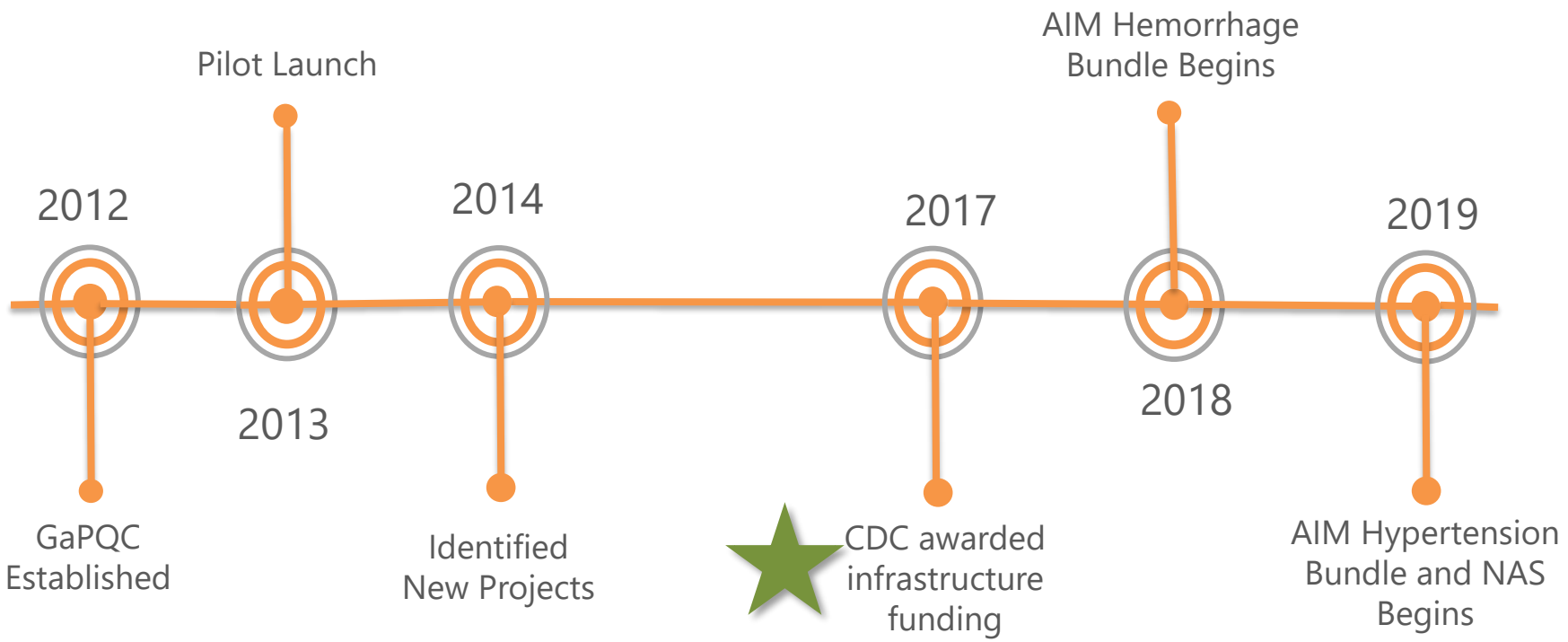
## Vision

Better perinatal outcomes and health equity for every Georgia mother and baby.

## Mission

To engage stakeholders in implementing equitable, evidence-based perinatal care through a robust data-driven quality improvement collaborative.

# GaPQC History



## Leadership

Michael Bryan, MPH, PhD
Diane Durrence, APRN, MSN, MPH
Lynne Hall, RN, BSN
Melissa Kottke, MD, MPH, MBA
David Levine, MD, FAAP, FACP
Lauren Nunally, BSN, RNC-OB, MPH
Ravi Patel, MD, MSc
Kaprice Welsh, CNM, MSN, MPH

## Committees

### Maternal Committee

AIM Hemorrhage Bundle

AIM Hypertension Bundle

### Neonatal Committee

Neonatal Abstinence Syndrome

## Advisory Council

- State-based Agencies and Programs
- Inter-professional and multidisciplinary clinical team members
- Professional Societies
- 3rd Party Payers
- Community Based Organizations
- Patient Advocacy Groups

# GaPQC Activities

Communications, stealing, sharing

- Monthly collaborative webinars
- Technical assistance calls

Training

- Quality Improvement
- Drills
- Implicit Bias

Quarterly data collection/reporting

Annual meeting

# GaPQC Hospital Participation

**62**
Hospitals

**80%**
of Hospitals

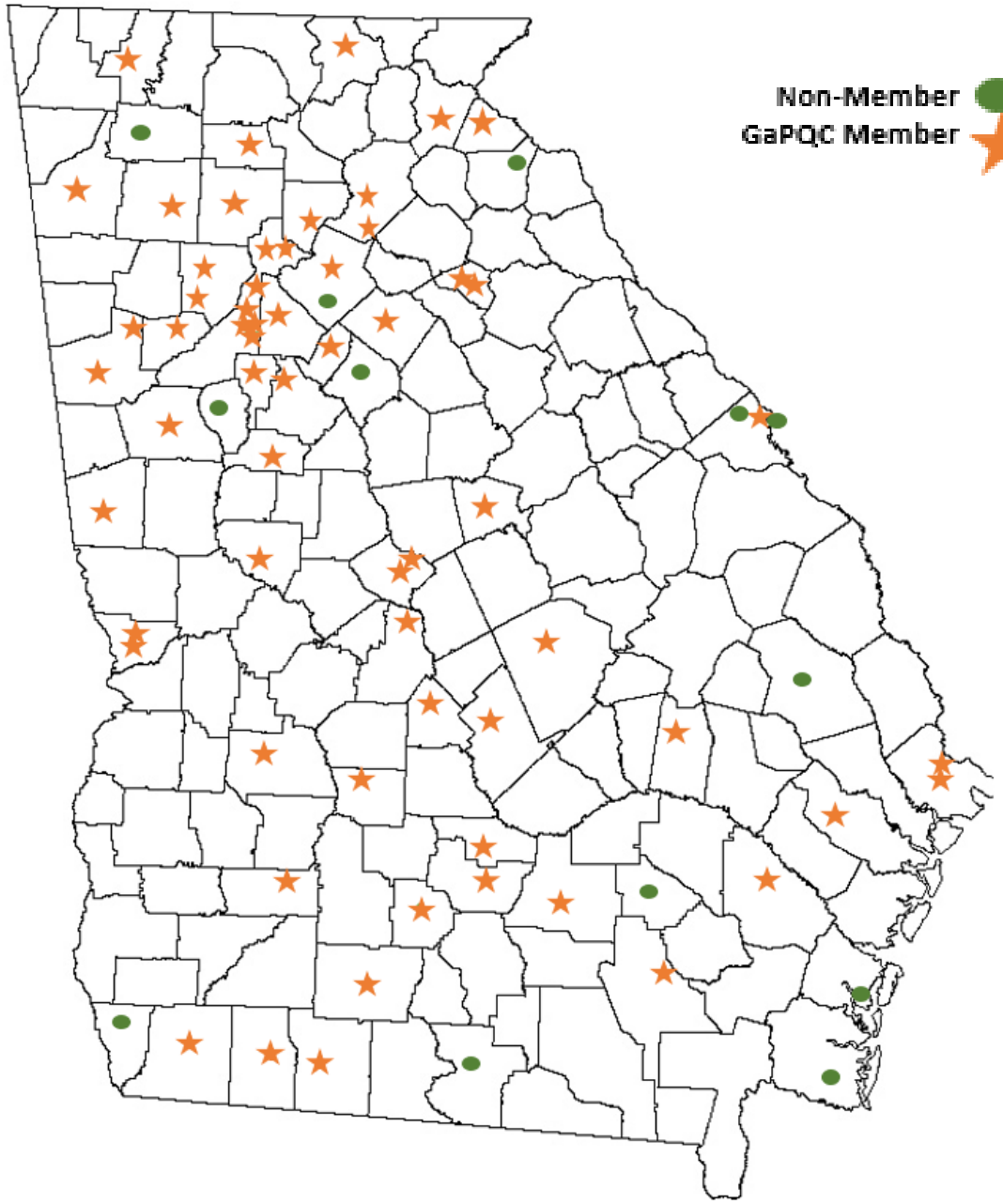
**87%**
of Deliveries

Note- Includes only birthing hospitals

# GaPQC Initiative Participation

| | Hemorrhage | Hypertension | Neonatal Abstinence Syndrome |
|---|---|---|---|
| # of Hospitals | 44 | 36 | 47 |
| % of Hospitals | 59% | 48% | 63% |
| % of Deliveries | 62% | 60% | 72% |

# Geographic Distribution



# Distribution by Birth Volume per Year

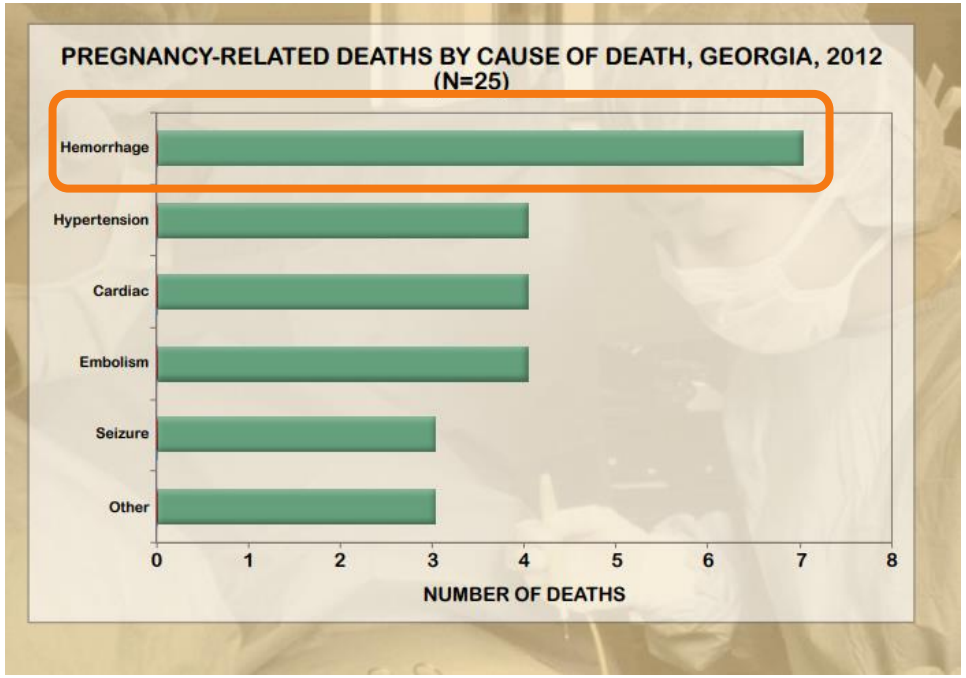
| Annual Birth Volume | # of GaPQC Hospitals |
|---|---|
| < 600 | 23 |
| 600 – 1199 | 9 |
| 1200 – 2399 | 15 |
| 2400 – 3599 | 10 |
| 3600+ | 5 |

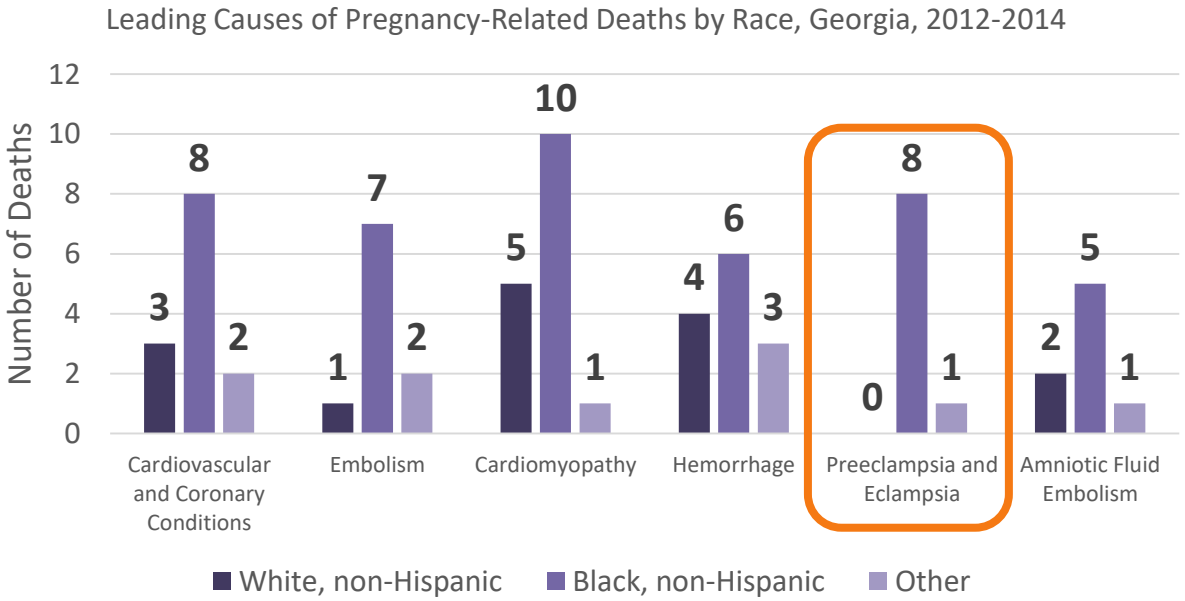
# Distribution by Birth Volume per Year

Rural Hospital Initiative

| Annual Birth Volume | # of GaPQC Hospitals |
|---|---|
| < 600 | 23 |
| 600 – 1199 | 9 |
| 1200 – 2399 | 15 |
| 2400 – 3599 | 10 |
| 3600+ | 5 |

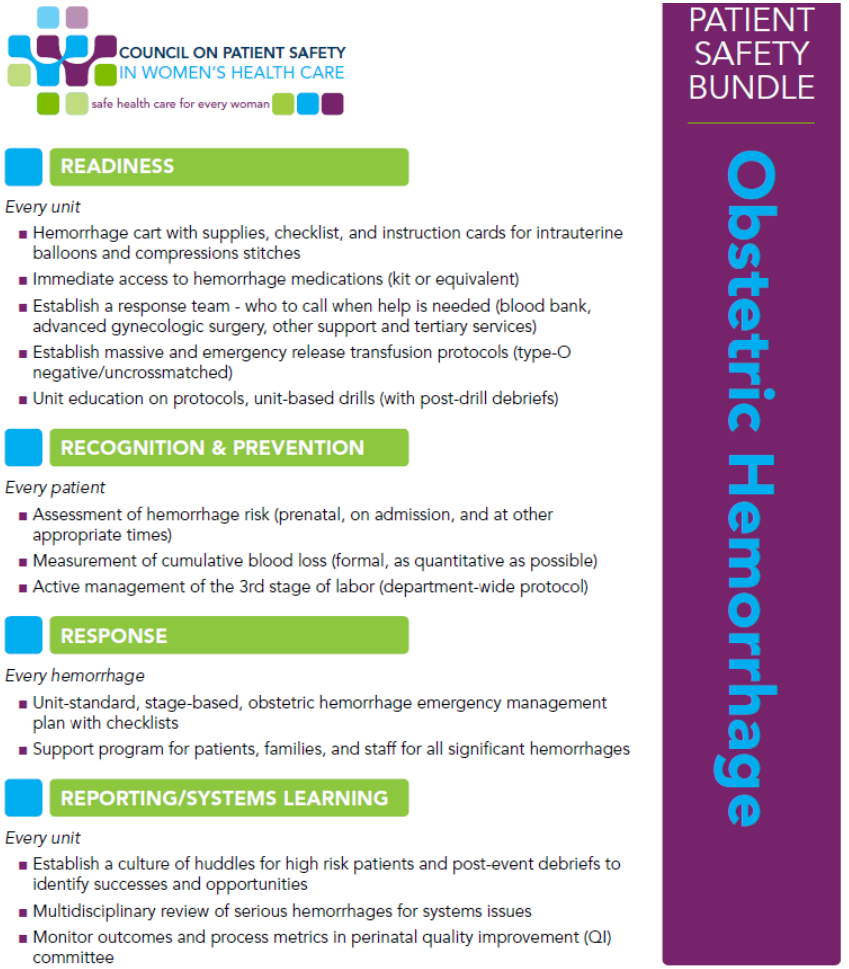
# Data-Driven Selection of Evidence-Based Bundle



# What are AIM bundles?

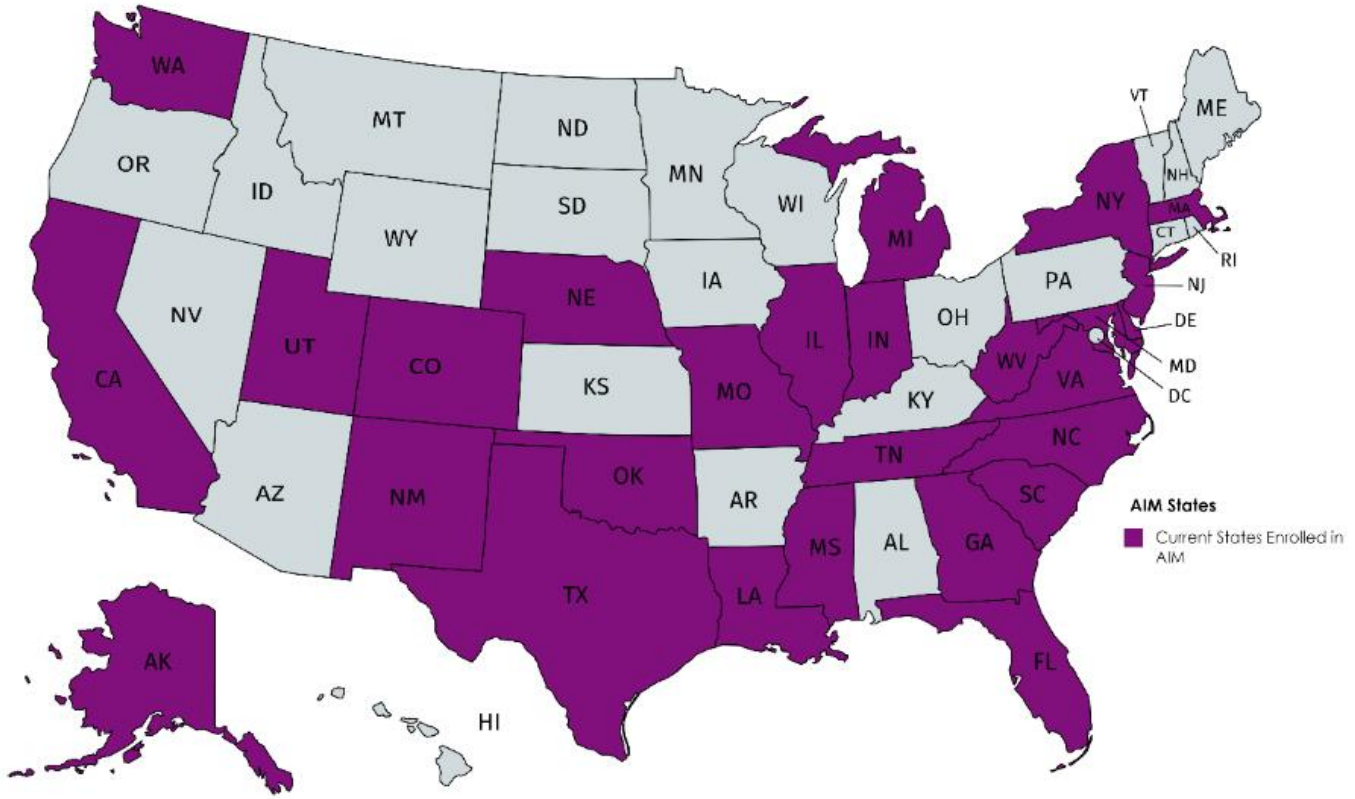
- AIM=Alliance for Innovation in Maternal Health
- Sets of best practices for maternal care
- Include recommendations for hospital-based protocols, policies, practice changes, drills, and system of data tracking
- Represent national consensus



# Council on Patient Safety in Women's Health Care

# Alliance for Innovation in Maternal Health

Georgia became the 13th AIM state in November 2017



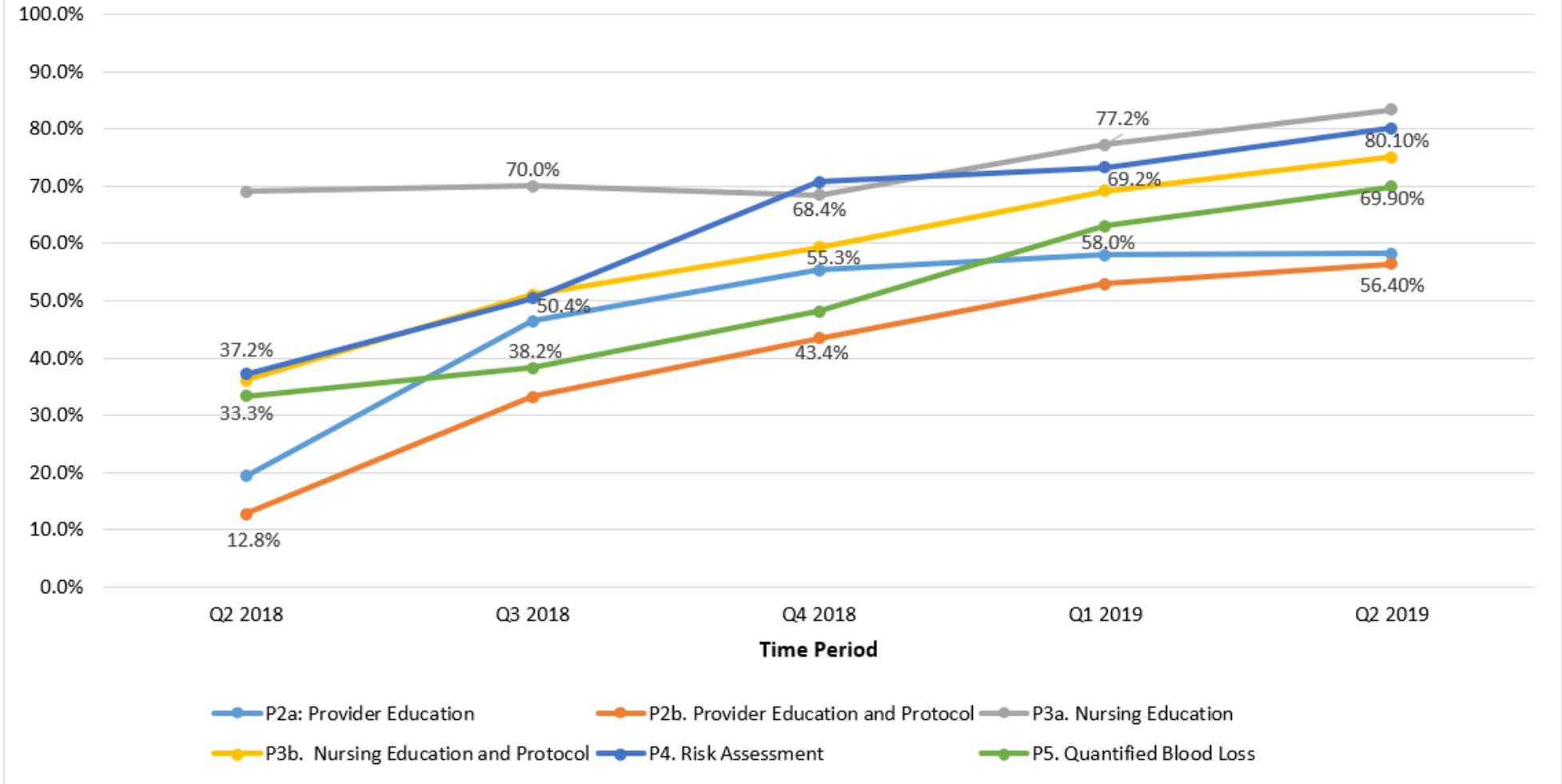
# GaPQC Maternal Initiatives

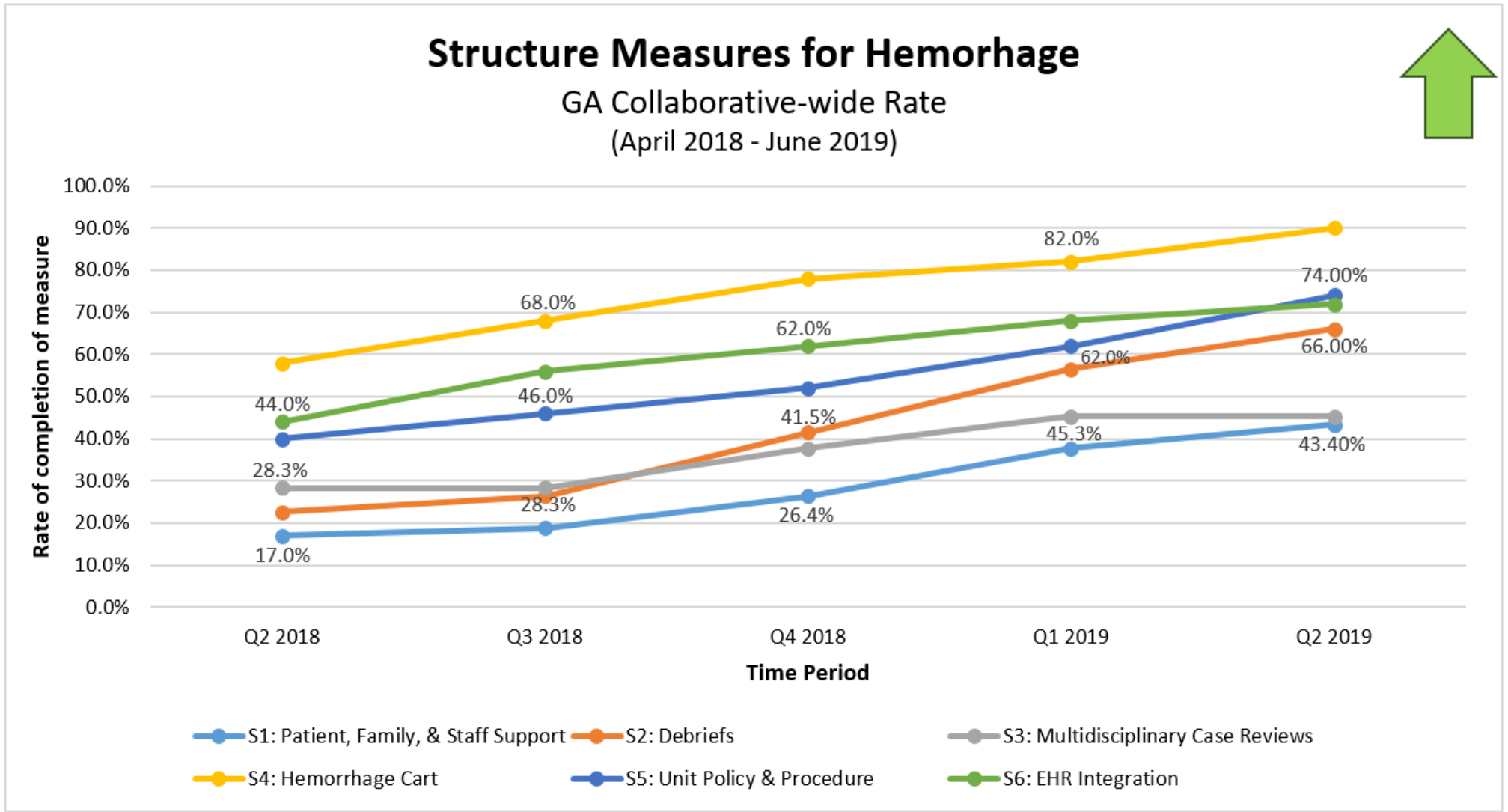
- Launched OB Hemorrhage April 2018
- Launched Severe Hypertension in Pregnancy in June 2019
- Integrating components of the Reduction of Perinatal Disparities Bundle

# Process Measures for Hemorrhage

GA Collaborative-wide Rate

(April 2018 - June 2019)




Structure Measures for Hemorhage
GA Collaborative-wide Rate
(April 2018 - June 2019)
Rate of completion of measure
100.0%
90.0%
80.0%
70.0%
60.0%
50.0%
40.0%
30.0%
20.0%
10.0%
0.0%
Q2 2018
Q3 2018
Q4 2018
Q1 2019
Q2 2019
Time Period
68.0%
82.0%
74.00%
62.0%
44.0%
46.0%
62.0%
66.00%
41.5%
45.3%
43.40%
28.3%
28.3%
26.4%
17.0%
S1: Patient, Family, & Staff Support
S2: Debriefs
S3: Multidisciplinary Case Reviews
S4: Hemorrhage Cart
S5: Unit Policy & Procedure
S6: EHR Integration

# Neonatal Abstinence Syndrome

- Using the VON NAS Universal Training Program
  - Micro-lessons
  - Toolkits
- Based on the VON NAS iNICQ started in 2013

## Improving Care for Neonatal Abstinence Syndrome

Stephen W. Patrick, MD, MPH, MS,[a,b,c,d] Robert E. Schumacher, MD,[e] Jeffrey D. Horbar, MD,[f,g] Madge E. Buus-Frank, DNP, APRN-BC, FAAN,[f,g,h] Erika M. Edwards, PhD, MPH,[f,i] Kate A. Morrow, MS,[f] Karla R. Ferrelli, BA,[f] Alan P. Picarillo, MD,[j,k] Munish Gupta, MD,[k,l,m] Roger F. Soll, MD[f,g]

**BACKGROUND AND OBJECTIVE:** Care for neonatal abstinence syndrome (NAS), a postnatal drug withdrawal syndrome, remains variable. We designed and implemented a multicenter quality improvement collaborative for infants with NAS. Our objective was to determine if the collaborative was effective in standardizing hospital policies and improving patient outcomes.

**METHODS:** From 2012 to 2014, data were collected through serial cross-sectional audits of participating centers. Hospitals assessed institutional policies and patient-level data for infants with NAS requiring pharmacotherapy, including length of pharmacologic treatment and length of hospital stay (LOS). Models were fit, clustered according to hospital, to evaluate changes in patient outcomes over time.

**RESULTS:** Among 199 participating centers, the mean number of NAS-focused guidelines increased from 3.7 to 5.1 of a possible 6 ($P < .001$), with improvements noted in all measured domains. Among infants cared for at participating centers, decreases occurred in median (interquartile range) length of pharmacologic treatment, from 16 days (10 to 27 days) to 15 days (10 to 24 days; $P = .02$), and LOS from 21 days (14 to 33 days) to 19 days (15 to 28 days; $P = .002$). In addition, there was a statistically significant decrease in the proportion of infants discharged on medication for NAS, from 39.7% to 26.5% ($P = .02$). After adjusting for potential confounders, standardized NAS scoring process was associated with shorter LOS (−3.3 days,95% confidence interval, −4.9 to −1.4).

**CONCLUSIONS:** Involvement in a multicenter, multistate quality improvement collaborative focused on infants requiring pharmacologic treatment for NAS was associated with increases in standardizing hospital patient care policies and decreases in health care utilization.

GaPQC
GEORGIA PERINATAL QUALITY COLLABORATIVE

# Key Driver Diagram for VON NAS initiative

## SMART Aim

We aim to decrease length of stay among newborns diagnosed with NAS in participating GaPQC hospitals from 11.2 days to 10.1 days by 9/30/2021

## Global Aim

Improve care for babies and mothers impacted by NAS

Version: 1.2 Date: 7/11/19

## Primary drivers

- Improve identification of mothers and infants at risk
- Increase reliability of scoring for symptoms of NAS
- Increase non-pharmacologic treatment
- Provide family-centered care / avoid mother-infant separation
- Reduce pharmacologic treatment
- Reduce variation in treatment of infants with NAS
- Improve transition to home, engaging parents

## Interventions

- Develop standard screening guidelines
- Educate staff on scoring
- Assess inter-rater reliability of scoring
- Use Eat, Sleep, Console
- Increase breastfeeding
- Use non-pharmacologic bundles of care
- Use a standard opioid treatment protocol
- Back-transfer infants stabilized on treatment
- Collaborate with support organizations/agencies
- Provider education to reduce stigma

## VON Vermont Oxford NETWORK Micro-lessons

- Lesson 1. Improved Family-Centered Care at Lower Cost & Improvement Story: Using Standardization to Create a High Reliability
- Lesson 2. The Prescription Opioid Epidemic and Neonatal Abstinence Syndrome – A Public Health Approach
- Lesson 3. Virtual Video Visit Chapter 1: Linking Attitudes with Outcomes
- Lesson 4. Substance Use 101: Mythbusters
- Lesson 5. Virtual Video Visit Chapter 2: The Face of Trauma
- Lesson 6. Substance Use 101: Frequency and Neonatal Impact by Agent
- Lesson 7. Standardizing Care to Improve Outcomes
- Lesson 8. Screening and Obtaining a Complete Drug History for Substance Use in Pregnancy
- Lesson 9. Presentation and Typical Course
- Lesson 10. Non-Pharmacologic Strategies for Symptom Management
- Lesson 11. Virtual Video Visit Chapter 3: The Birth Story
- Lesson 12. Scoring Redux: Pitfalls and Perils
- Lesson 13. Scoring: Cases, Controversies
- Lesson 14. Withdrawal, Toxidromes, and Confounders
- Lesson 15. Lactation and the Substance-Exposed Mother-Infant Dyad
- Lesson 16. Engaging Families in Feeding and Nutritional Support
- Lesson 17. Developmental Outcomes of Substance-Exposed Infant
- Lesson 18. Virtual Video: Two Stories of Recovery and the Long Road Home

# Building a Collaborative to Last

# SAVE THE DATE

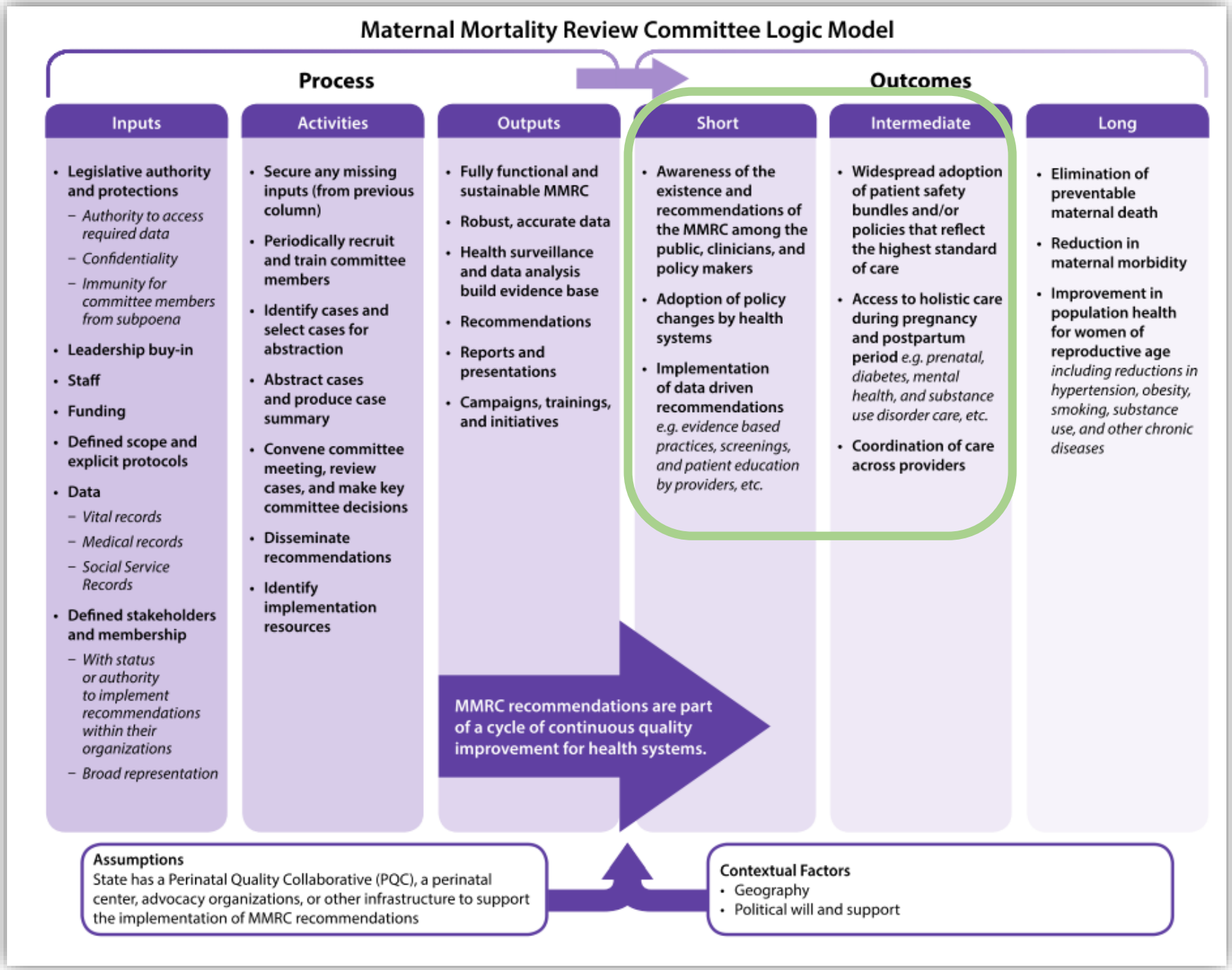
# APRIL 23-24, 2020

## Georgia Perinatal Quality Collaborative
## 3rd Annual Meeting

**Atlanta, GA**

Agenda and registration information to follow.

For more info: Visit www.georgiapqc.org or email info@georgiapqc.org


Maternal Mortality Review Committee Logic Model
Process
Outcomes
Inputs
Activities
Outputs
Short
Intermediate
Long
• Legislative authority and protections
– Authority to access required data
– Confidentiality
– Immunity for committee members from subpoena
• Leadership buy-in
• Staff
• Funding
• Defined scope and explicit protocols
• Data
– Vital records
– Medical records
– Social Service Records
• Defined stakeholders and membership
– With status or authority to implement recommendations within their organizations
– Broad representation
• Secure any missing inputs (from previous column)
• Periodically recruit and train committee members
• Identify cases and select cases for abstraction
• Abstract cases and produce case summary
• Convene committee meeting, review cases, and make key committee decisions
• Disseminate recommendations
• Identify implementation resources
• Fully functional and sustainable MMRC
• Robust, accurate data
• Health surveillance and data analysis build evidence base
• Recommendations
• Reports and presentations
• Campaigns, trainings, and initiatives
• Awareness of the existence and recommendations of the MMRC among the public, clinicians, and policy makers
• Adoption of policy changes by health systems
• Implementation of data driven recommendations e.g. evidence based practices, screenings, and patient education by providers, etc.
• Widespread adoption of patient safety bundles and/or policies that reflect the highest standard of care
• Access to holistic care during pregnancy and postpartum period e.g. prenatal, diabetes, mental health, and substance use disorder care, etc.
• Coordination of care across providers
• Elimination of preventable maternal death
• Reduction in maternal morbidity
• Improvement in population health for women of reproductive age including reductions in hypertension, obesity, smoking, substance use, and other chronic diseases
MMRC recommendations are part of a cycle of continuous quality improvement for health systems.
Assumptions
State has a Perinatal Quality Collaborative (PQC), a perinatal center, advocacy organizations, or other infrastructure to support the implementation of MMRC recommendations
Contextual Factors
• Geography
• Political will and support

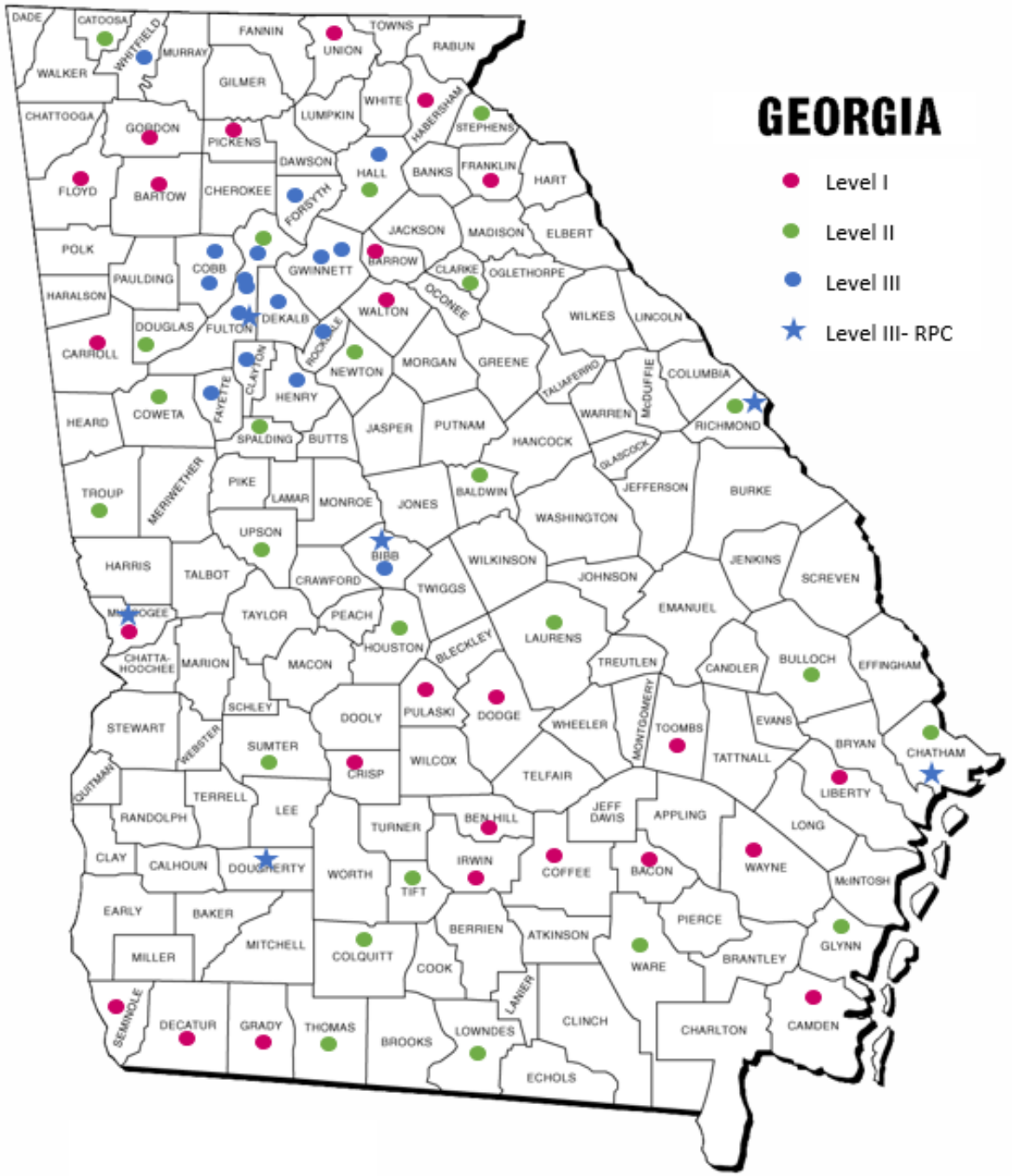
# Certificate of Need Program

- Hospitals receive a certificate of need authorizing hospitals to provide a level of perinatal services
  - Level I, II, or III
- Emphasis is on neonatal care with some maternal requirements
- The purpose of certificate of need is health planning

# Georgia Birthing Hospitals

| CON Perinatal Services | Birthing Hospitals* |
|---|---|
| Level I | 23 |
| Level II | 21 |
| Level III | 24 |
| Level IV (RPC) | 6 |
| TOTAL | 75 |

*Excludes children's hospitals, military hospitals, or hospitals with a CON for perinatal services, but that do not currently deliver



# Leading Authorities

## Levels of Maternal Care- 2019

The American College of Obstetricians and Gynecologists
WOMEN'S HEALTH CARE PHYSICIANS

Society for Maternal-Fetal Medicine

**OBSTETRIC CARE CONSENSUS**

Number 9, August 2019 *Replaces Obstetric Care Consensus Number 2, February 2015*

*The American Association of Birth Centers; the American College of Nurse–Midwives; the Association of Women's Health, Obstetric and Neonatal Nurses; the Commission for the Accreditation of Birth Centers; and the Society for Obstetric Anesthesia and Perinatology endorse this document. The American Academy of Family Physicians and the American Hospital Association support this document. The American Society of Anesthesiologists has reviewed this document. This document was developed jointly by the American College of Obstetricians and Gynecologists and the Society for Maternal–Fetal Medicine in collaboration with Sarah J. Kilpatrick, MD, PhD; M. Kathryn Menard, MD, MPH; Christopher M. Zahn, MD; and the Centers for Disease Control and Prevention's representative William M. Callaghan, MD, MPH. The findings, conclusions, and views in this Obstetric Care Consensus do not necessarily represent the official position of the Centers for Disease Control and Prevention or the U.S. government.*

## Levels of Neonatal Care- 2012

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™

FROM THE AMERICAN ACADEMY OF PEDIATRICS

Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

POLICY STATEMENT

**Levels of Neonatal Care**

COMMITTEE ON FETUS AND NEWBORN

**KEY WORDS**
neonatal intensive care, high-risk infant, regionalization, maternal and child health, health policy, very low birth weight infant, hospital newborn care services, nurseries

**ABBREVIATIONS**
AAP—American Academy of Pediatrics
aOR—adjusted odds ratio
CI—confidence interval
CON—certificate of need
ELBW—extremely low birth weight
TIOP—"Toward Improving the Outcome of Pregnancy"
VLBW—very low birth weight

abstract FREE

Provision of risk-appropriate care for newborn infants and mothers was first proposed in 1976. This updated policy statement provides a review of data supporting evidence for a tiered provision of care and reaffirms the need for uniform, nationally applicable definitions and consistent standards of service for public health to improve neonatal outcomes. Facilities that provide hospital care for newborn infants should be classified on the basis of functional capabilities, and these facilities should be organized within a regionalized system of perinatal care. *Pediatrics* 2012;130:587–597

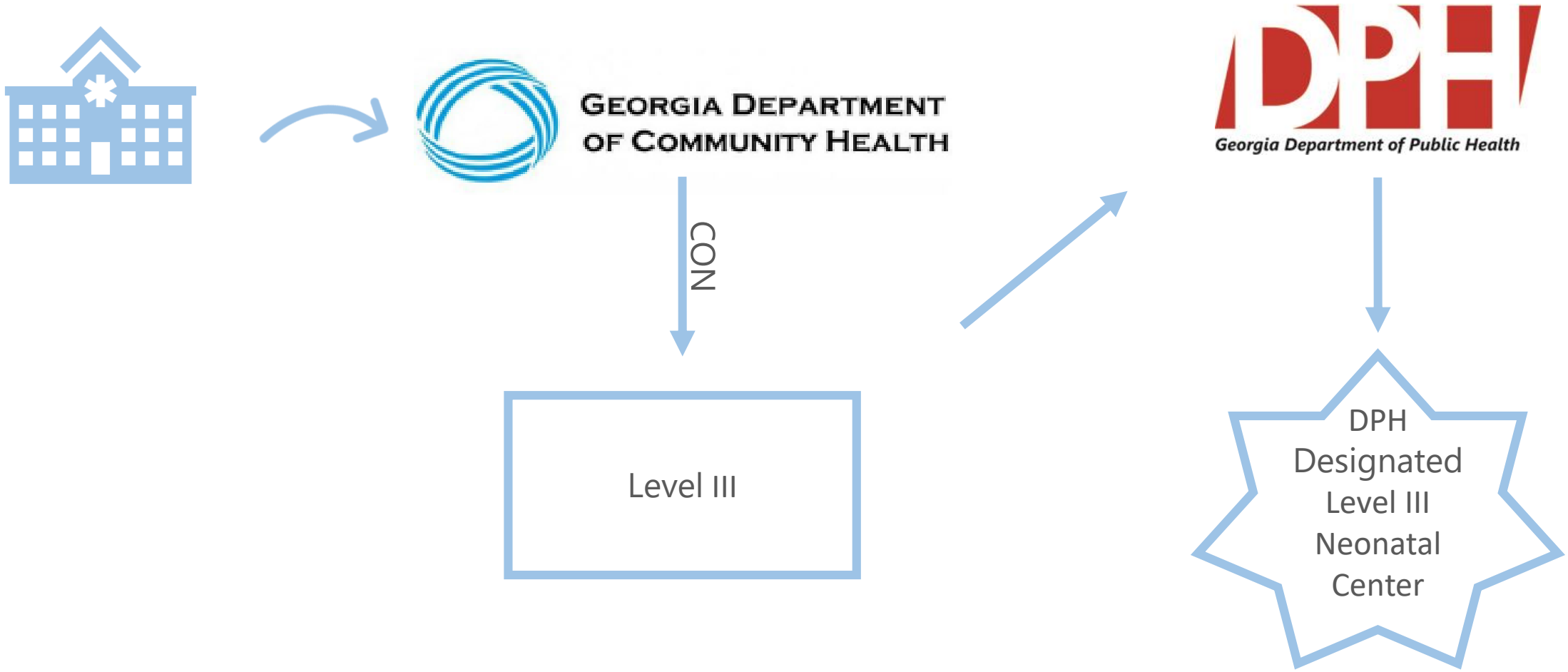
# DPH Designated Maternal and Neonatal Centers: What It Is

- Uses requirements based on most recent AAP and ACOG/SMFM guidelines
  - And AIM bundles!
- Separate designations for maternal and neonatal center
- Gives hospitals a clear sense of their capabilities
- Ensures ongoing onsite verification (site survey conducted every 3 years)
- Site surveys provide consultation to hospitals from the leading authorities

# DPH Designated Maternal and Neonatal Centers: What It Isn't

- Mandatory
- Hospital's certificate of need and the requirements for obtaining a certificate of need will not change
- Hospitals must apply under their current CON level of care
    - Only Levels I-III

# Advertisement



# Advisory Structure

Maternal and Neonatal Advisory Council

- Neonatologist
- Maternal Fetal Medicine Specialist
- Nursing Representative
- Georgia Chapter AAP
- Georgia Obstetrical and Gynecological Society
- Department of Community Health
- Georgia Hospital Association

Maternal and Neonatal Subcommittees comprised of approximately 20 members each (physicians, nurses, and hospital administrators)

# Maternal Centers

| Level I (Basic Care) | Level II (Specialty Care) | Level III (Subspecialty Care) |
|---|---|---|
| Provide care for low- to moderate-risk pregnancies | Provide care for moderate- to high-risk antepartum, intrapartum, or postpartum conditions | Complex maternal medical conditions, obstetric complications, and fetal conditions |
| Physician with privileges to perform an emergency cesarean delivery readily available at all times | OB or family physician readily available at all times | OB physically present at all times |
| | MFM available for consultation | MFM with inpatient privileges readily available at all times<br><br>Subspecialists available for inpatient consultation |
| | Medical and surgical consultants available | Medical and surgical ICUs |
| Labor analgesia and surgical anesthesia | Anesthesiologist readily available at all times | Anesthesiologist physically present at all times |
| Limited obstetric ultrasound | CT scan, MRI, non-obstetric ultrasound, and maternal echocardiography | Specialized obstetric ultrasound and fetal assessment, basic interventional radiology |

# Neonatal Centers

| Level I (Well Newborn Nursery) | Level II (Special Care Nursery) | Level III (NICU) |
|---|---|---|
| Provide infants for ≥35 weeks and who remain physiologically stable | Provide care for infants of ≥32 weeks gestation and weighing ≥1500 grams who have physiologic immaturity, or who are moderately ill with problems that are expected to resolve rapidly | Provide comprehensive care for infants born <32 weeks gestation and weighing <1500 grams |
| MD is pediatrician or family physician | MD is pediatrician<br>Neonatologist available for consultation at all times | MD is a neonatologist<br>Neonatal coverage at all times or ≥30 VLBW admissions |
| | | Pediatric subspecialists available for consultation at all times |
| | Provide mechanical ventilation for up to 24 hours or CPAP | Full range of respiratory support onsite at all times |
| | | Advanced imaging onsite at all times |

# AAP NICU Verification Program

- Hospital submits Pre-Review Questionnaire
- Hospital participates in site survey
  - Site surveys for Neonatal Center Designations will be conducted by the American Academy of Pediatrics
  - Site surveys for Maternal Center Designations will be conducted by a similar organization
  - Hospitals will pay $7,000 for each site survey (DPH is contracting with the survey organizations to reduce the cost for Georgia hospitals)
- Site survey report is sent to hospital and DPH (opportunity to correct deficiencies)
- DPH issues designation


Katie Kopp, MPH
Project Consultant
Women's Health
Georgia Department of Public Health
Phone: 404-657-2852
Email: Kaitlyn.Kopp@dph.ga.gov