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Overview of Maternal Health Issues

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Chair, Maternal Mortality & Morbidity Task Force

Objectives

Statewide Data Trends

1. Challenges and barriers related to maternal mortality and morbidity
2. Population health disparities in maternal health

Public Health Initiatives

3. Evidence-based quality initiatives for improving maternal health
4. State agency resources for accessing care
5. Client service programs for substance use



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*Let us have a moment of silence for the families in Texas
forever impacted by the loss of a mother*



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Statewide Data Trends

Confirmed Maternal Deaths by Timing and Cause of Death, 2012-2015

<i>Cause of Death</i>	<i>While Pregnant</i>	<i>0-7 Days Post-partum</i>	<i>8-42 Days Post-partum</i>	<i>43-60 Days Post-partum</i>	<i>61+ Days Post-partum</i>	<i>Total</i>
<i>Amniotic Embolism</i>	1	9	0	0	0	10
<i>Cardiac Event</i>	2	12	9	5	27	55
<i>Cerebrovascular Event</i>	0	8	9	1	9	27
<i>Drug Overdose</i>	0	3	7	5	49	64
<i>Hemorrhage</i>	3	12	2	0	3	20
<i>Homicide</i>	2	1	5	2	32	42
<i>Hypertension/Eclampsia</i>	0	7	4	0	7	18
<i>Infection/Sepsis</i>	1	3	14	3	11	32
<i>Pulmonary Embolism</i>	2	3	4	2	2	13
<i>Substance Use Sequelae (e.g., liver cirrhosis)</i>	0	0	2	0	3	5
<i>Suicide</i>	0	1	2	2	28	33
<i>Other</i>	5	5	6	3	44	63
<i>Total</i>	16	64	64	23	215	382



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Role of Opioid Overdoses in Maternal Deaths, 2012-2015

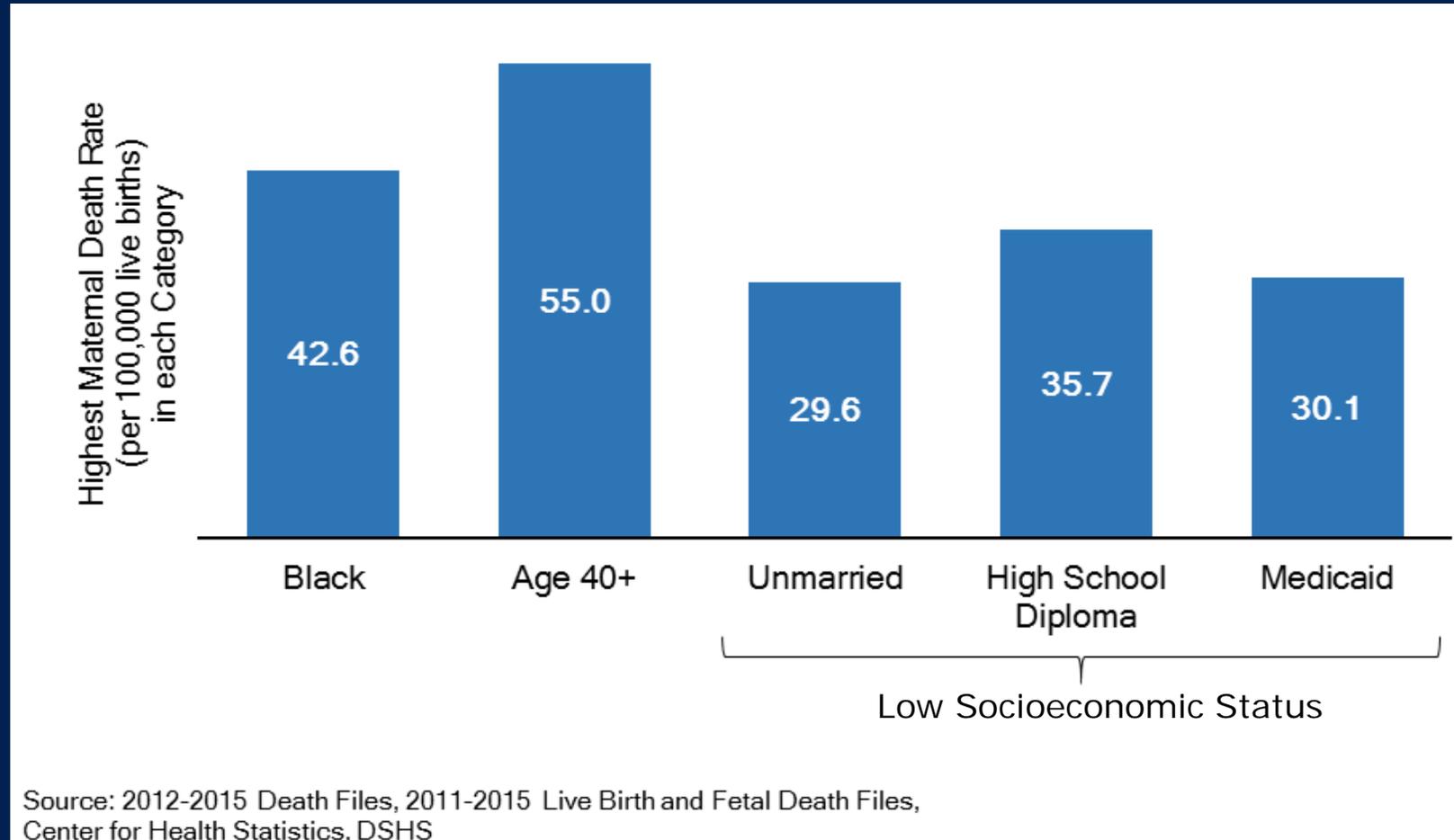
- Drug overdose leading cause of maternal death, mostly occurring after 60 days postpartum
 - Combination of drugs involved in 77%
 - Opioids detected in 58%
- Demographic groups at higher risk:
 - White women
 - Ages 40+
 - Medicaid at delivery (low socioeconomic status)
 - Urban counties
 - Region 2/3 (includes Dallas-Forth-Worth) and Region 1 (Panhandle)



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Demographic Risk Factors for Maternal Death, 2012-2015

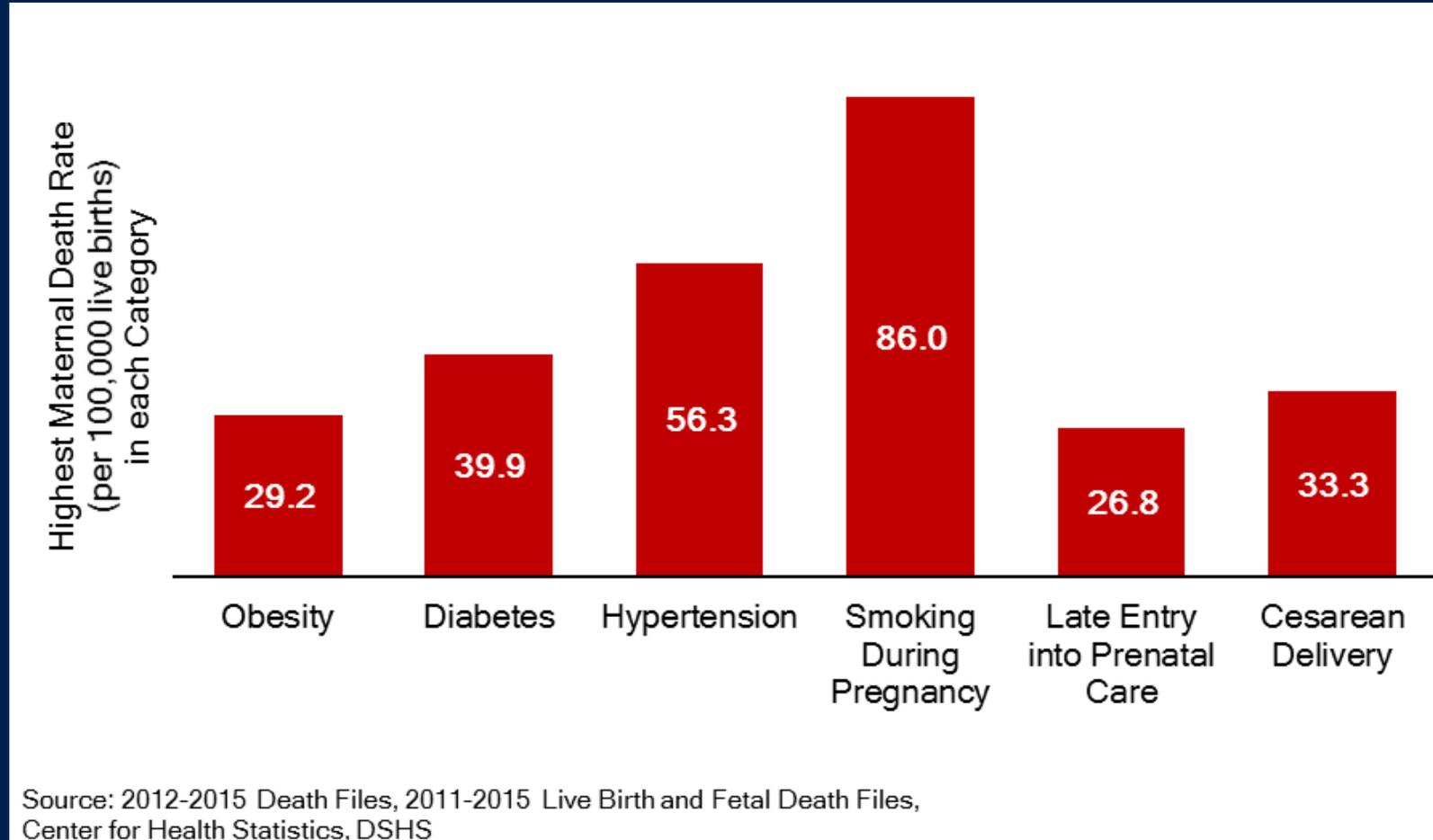


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Health Risk Factors for Maternal Death, 2012-2015



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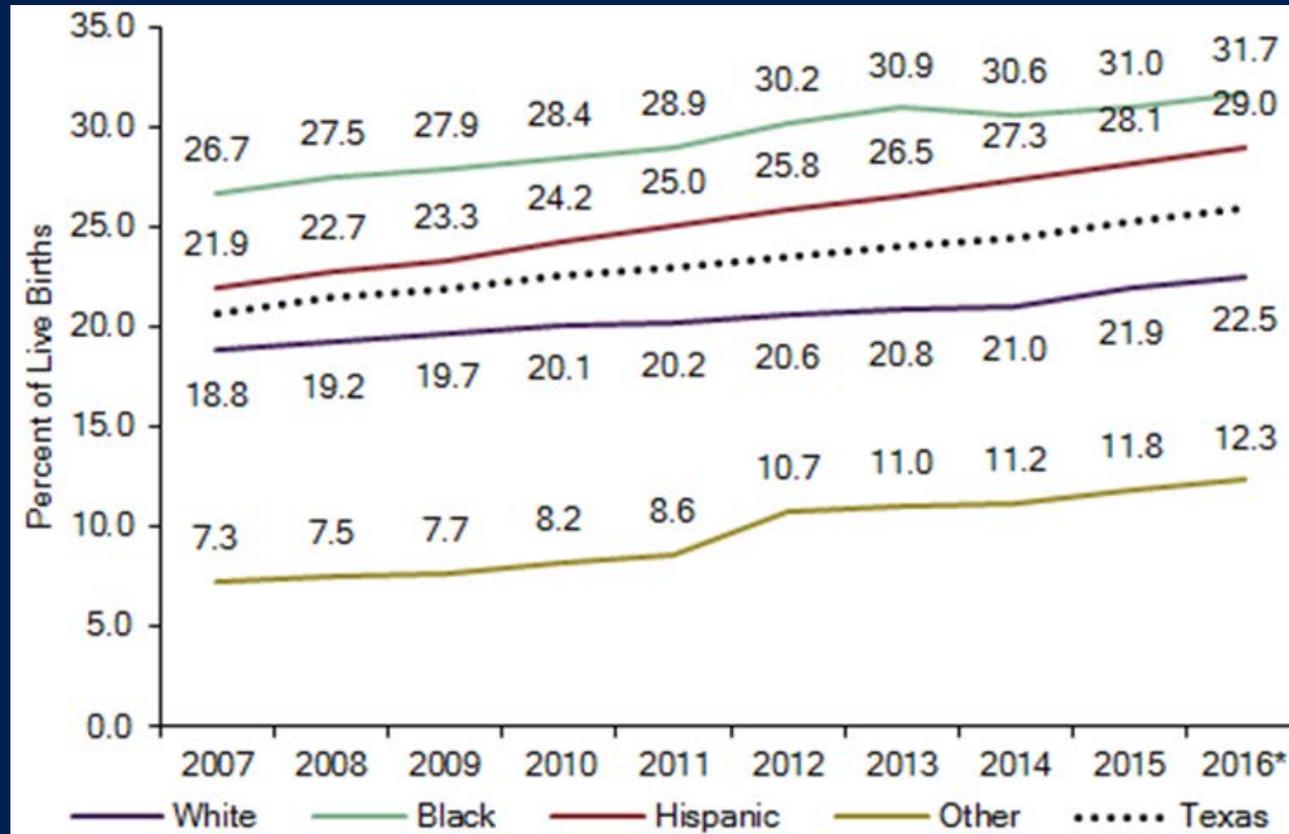
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Pre-pregnancy Obesity by Race/Ethnicity, 2007-2016



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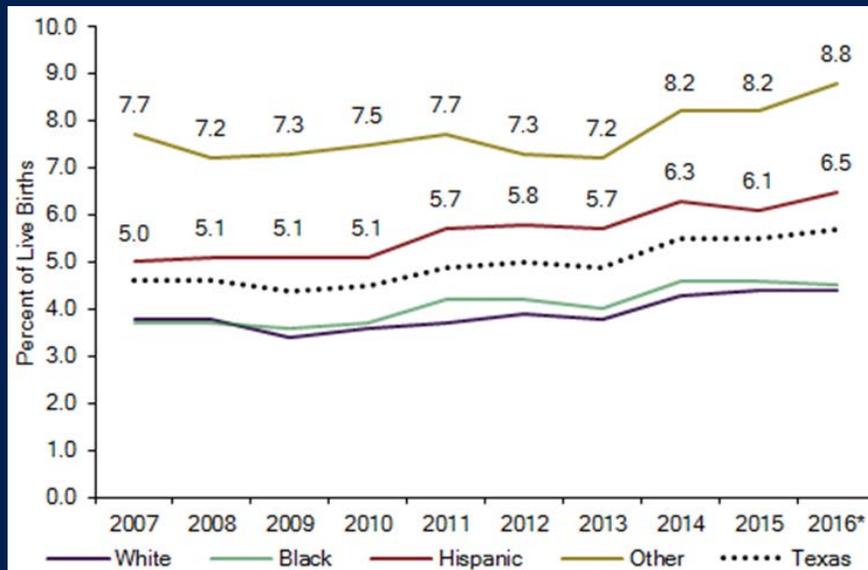
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*2016 Texas data are preliminary
 Source: 2007-2016 Birth Files
 Prepared by: Maternal & Child Health Epidemiology Unit
 Oct 2017

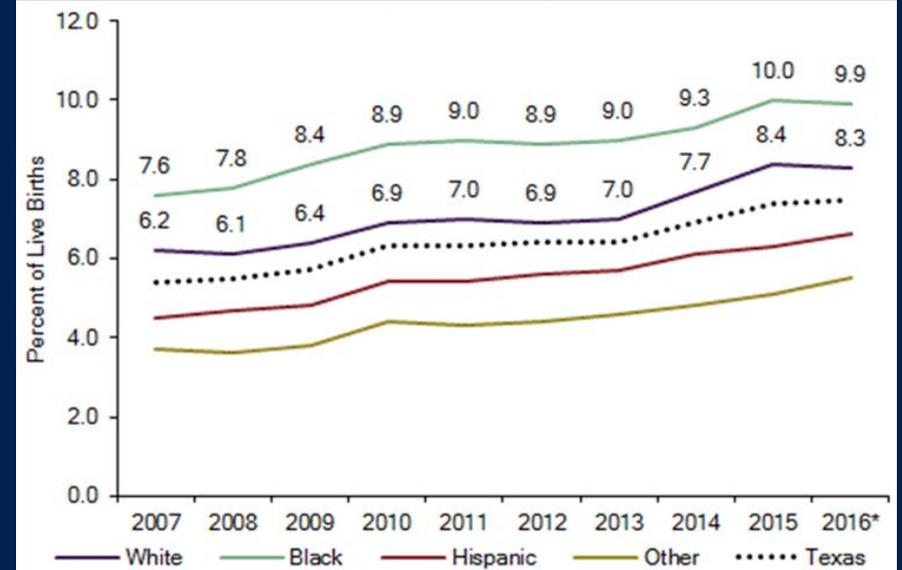
Maternal Diabetes and Hypertension by Race/Ethnicity, 2007-2016

MATERNAL DIABETES



*2016 Texas data are preliminary
 Source: 2007-2016 Birth Files
 Prepared by: Maternal & Child Health Epidemiology Unit
 Oct 2017

MATERNAL HYPERTENSION



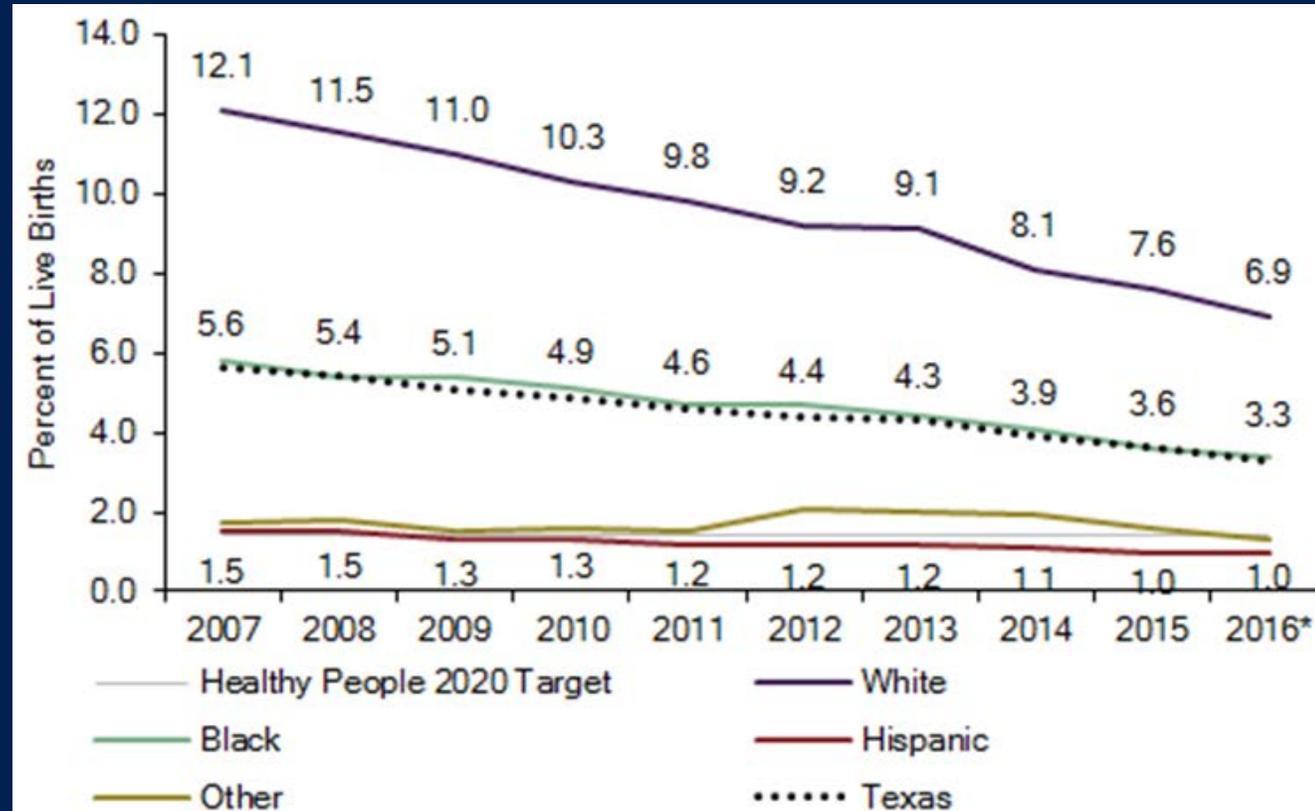
*2016 Texas data are preliminary
 Source: 2007-2016 Birth Files
 Prepared by: Maternal & Child Health Epidemiology Unit
 Oct 2017



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Smoking during Pregnancy by Race/Ethnicity, 2007-2016



*2016 Texas data are preliminary
 Source: 2007-2016 Birth Files
 Prepared by: Maternal & Child Health Epidemiology Unit
 Oct 2017

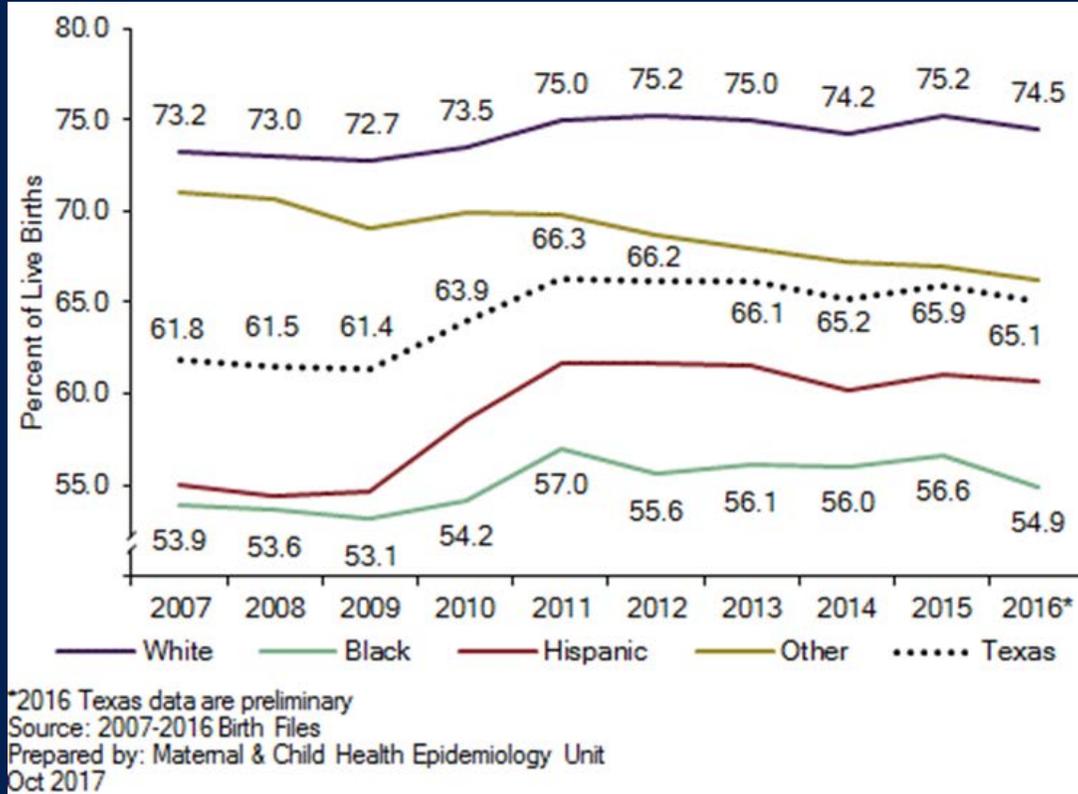


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Timely Prenatal Care by Race/Ethnicity, 2007-2016



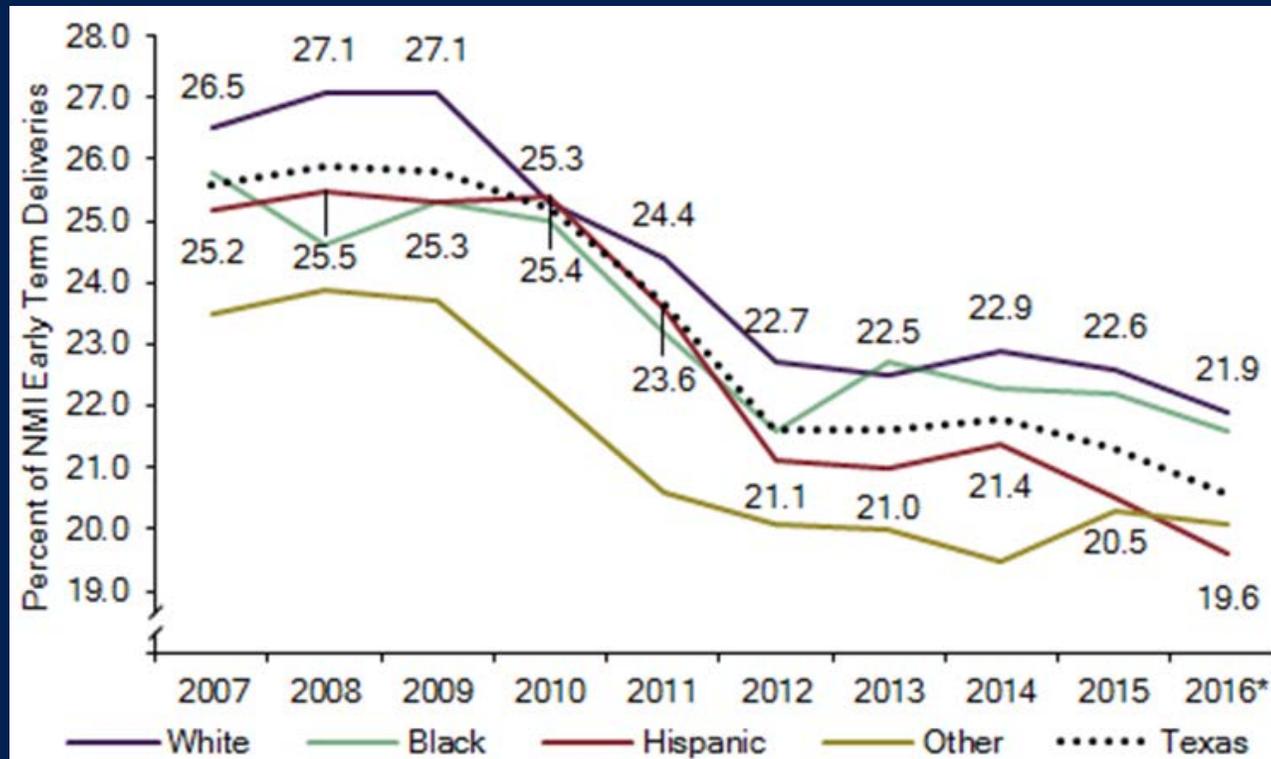
However, among those not receiving care in first trimester, 51.5% still reported receiving prenatal care as early as they wanted (Texas Pregnancy Risk Assessment Monitoring System, 2015)

Early Non-medically Indicated Elective Cesarean Delivery by Race/Ethnicity, 2007-2016



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*2016 Texas data are preliminary

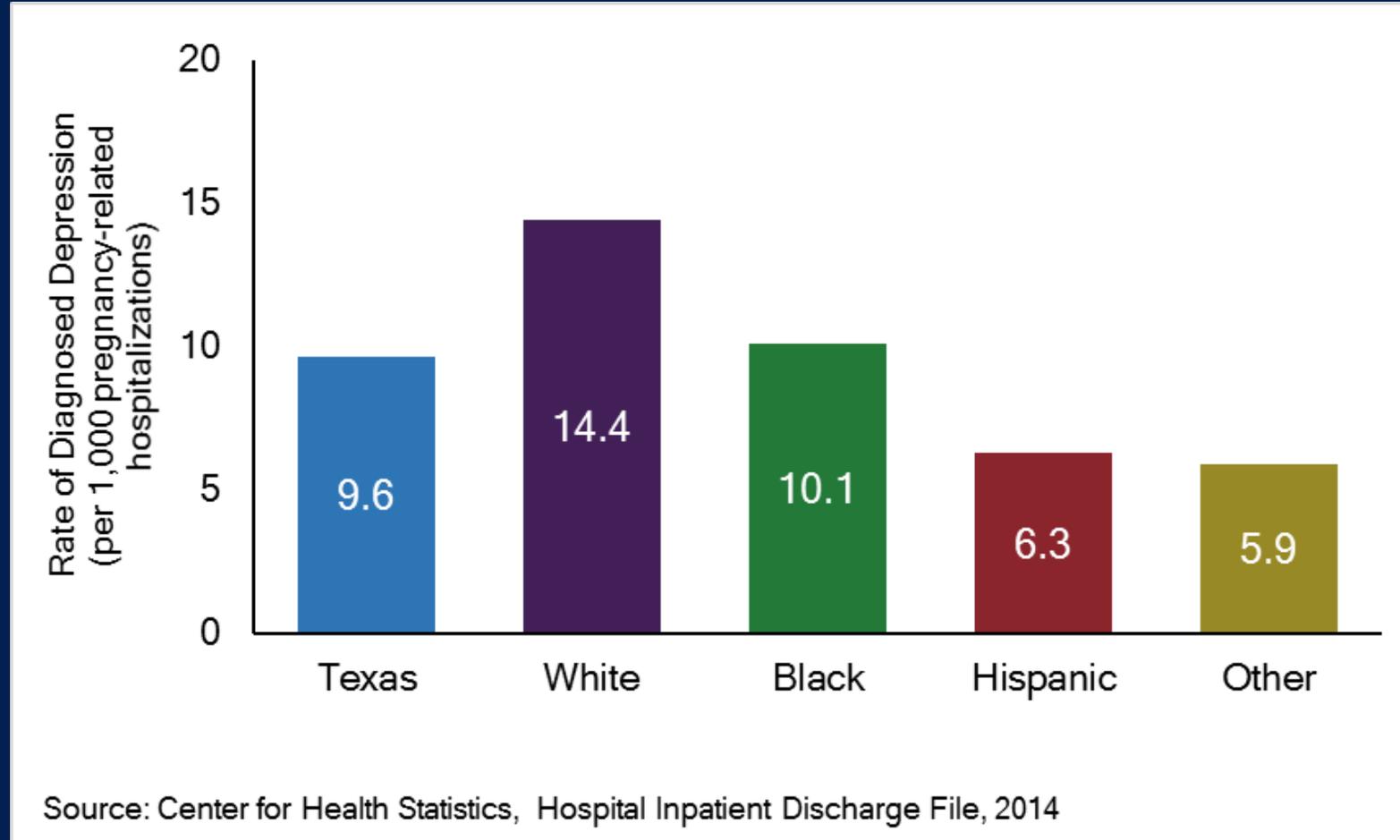
The IM CollIN method was used to identify early NMI elective cesarean deliveries.

Source: 2007-2016 Birth Files

Prepared by: Maternal & Child Health Epidemiology Unit

Oct 2017

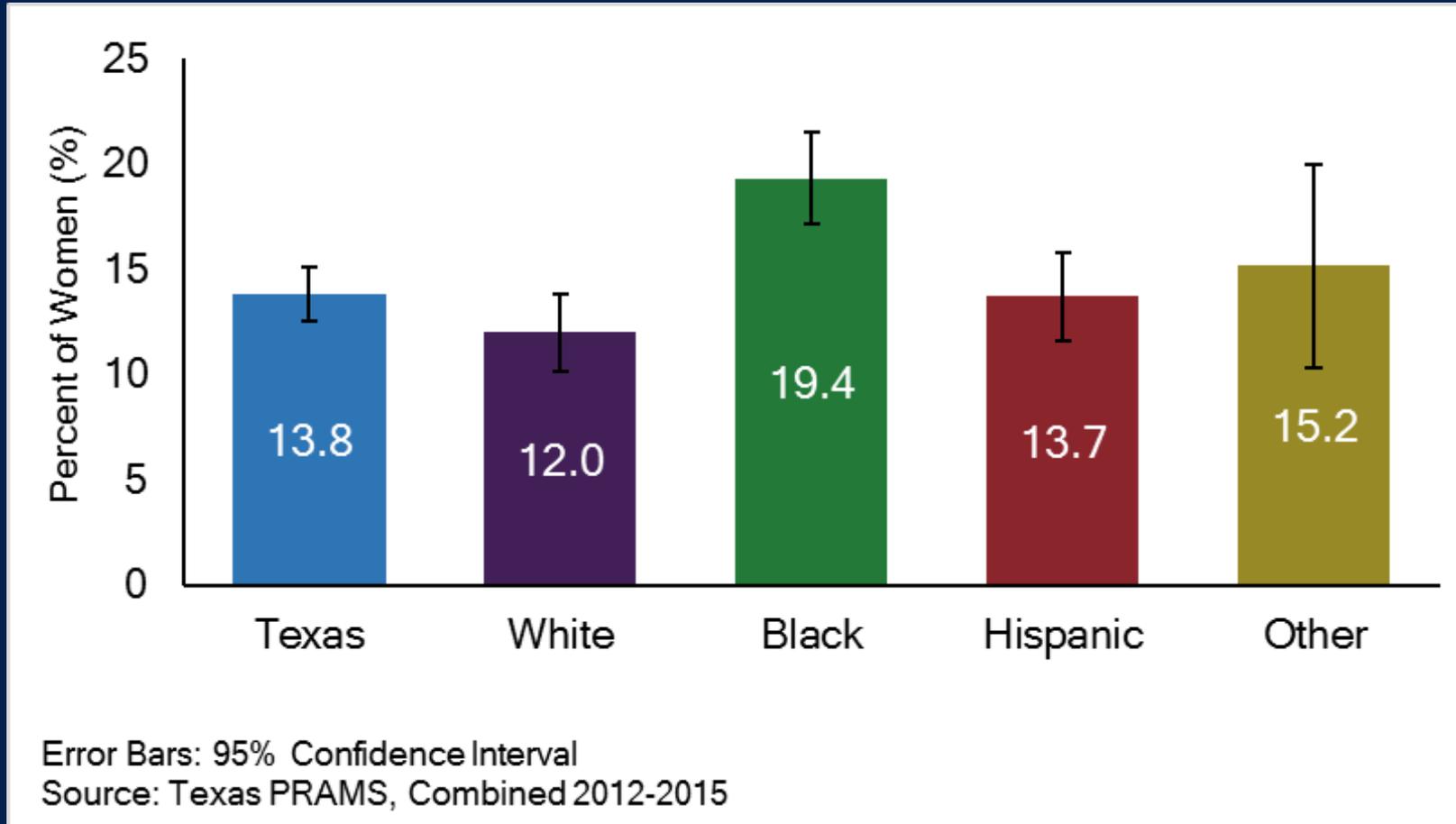
Depression during Pregnancy-related hospitalization by race/ethnicity, 2014



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Percent of Postpartum Depression Reported by Recent Texas Mothers by Race/Ethnicity, 2012-2015



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Severe Maternal Morbidity

- Unexpected outcomes of labor and delivery resulting in significant short- or long-term consequences to a woman's health
- Identified using specific ICD codes for delivery hospitalizations
- Examples include:
 - Hemorrhage
 - Eclampsia
 - Emergency hysterectomy
 - Thrombotic embolism



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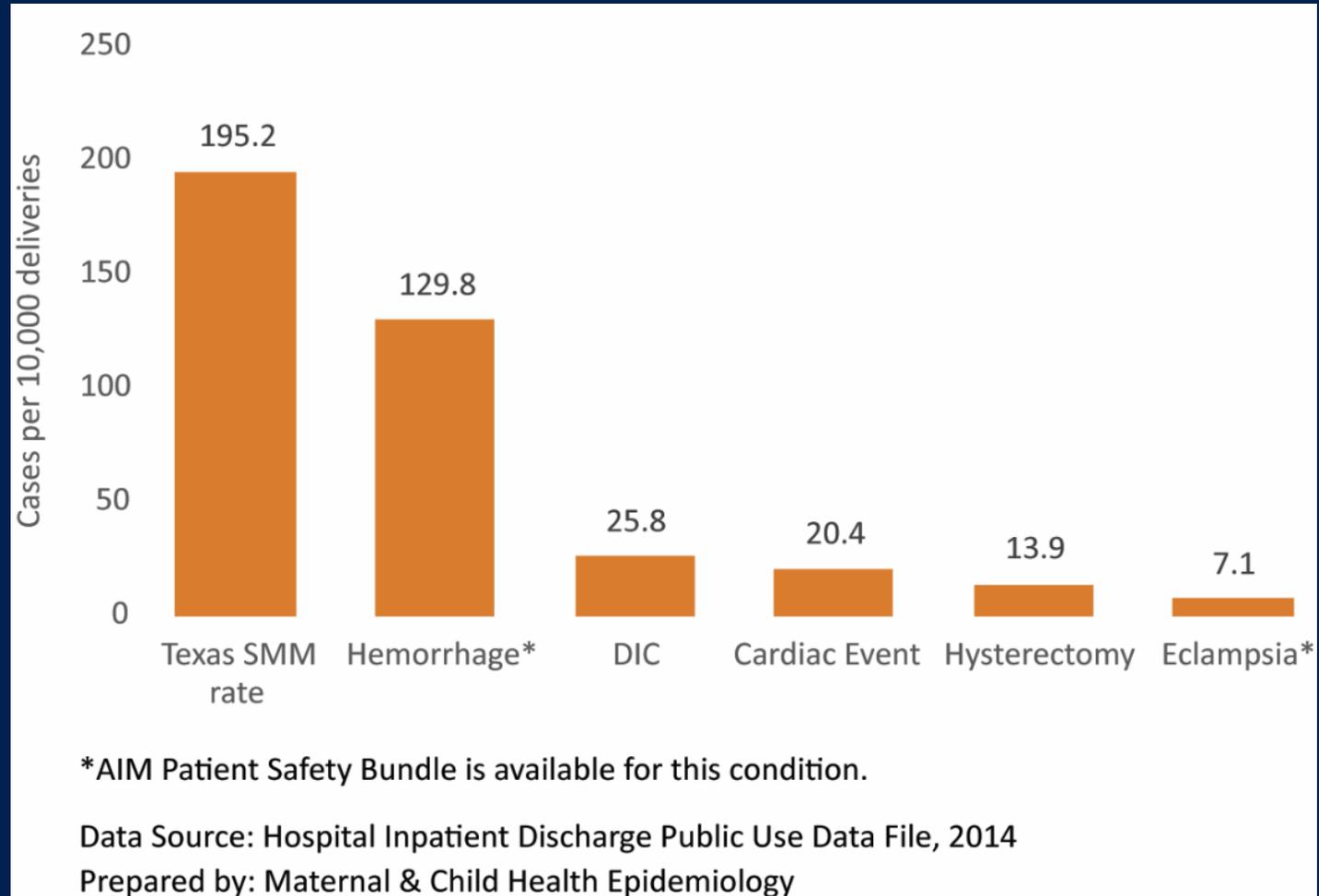
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Severe Maternal Morbidity, Overall and Top Causes, 2014



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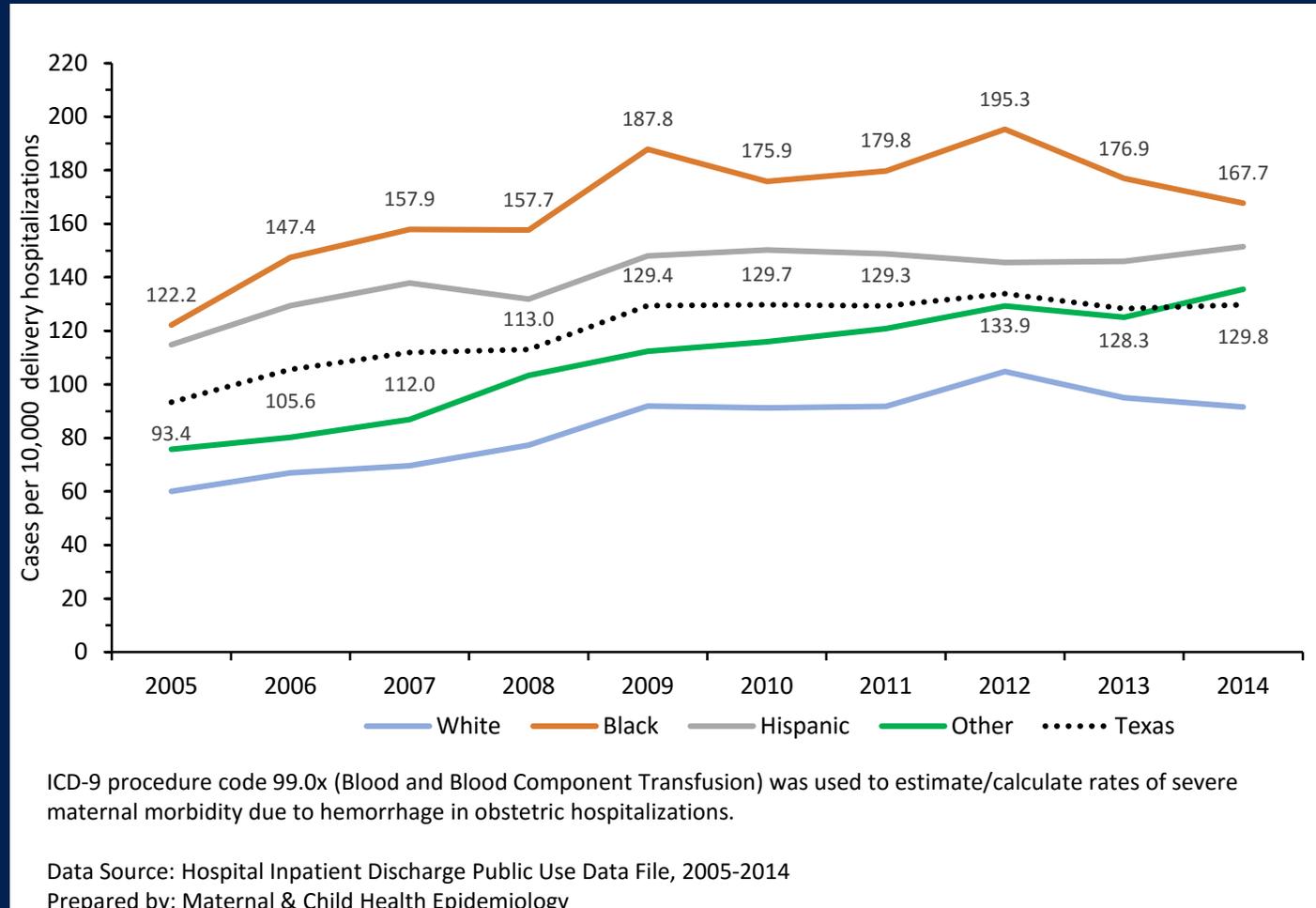


Obstetric Hemorrhage Rates by Race/Ethnicity, 2005-2014



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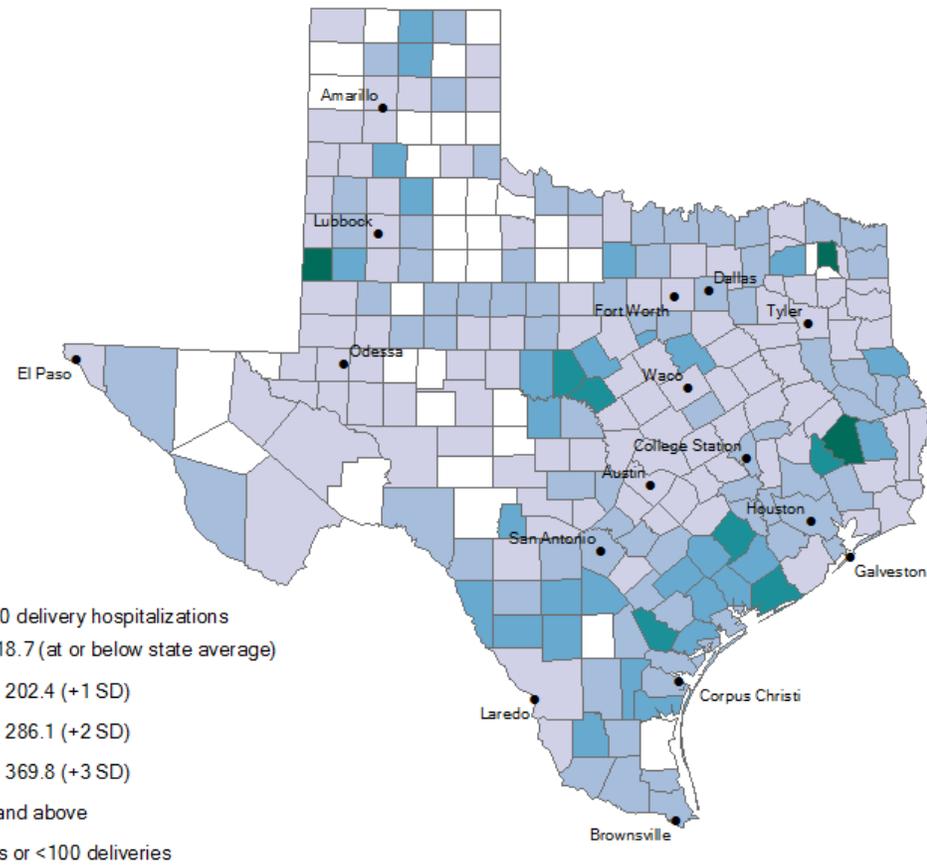


Obstetric Hemorrhage Rates by County of Residence, 2010-2014



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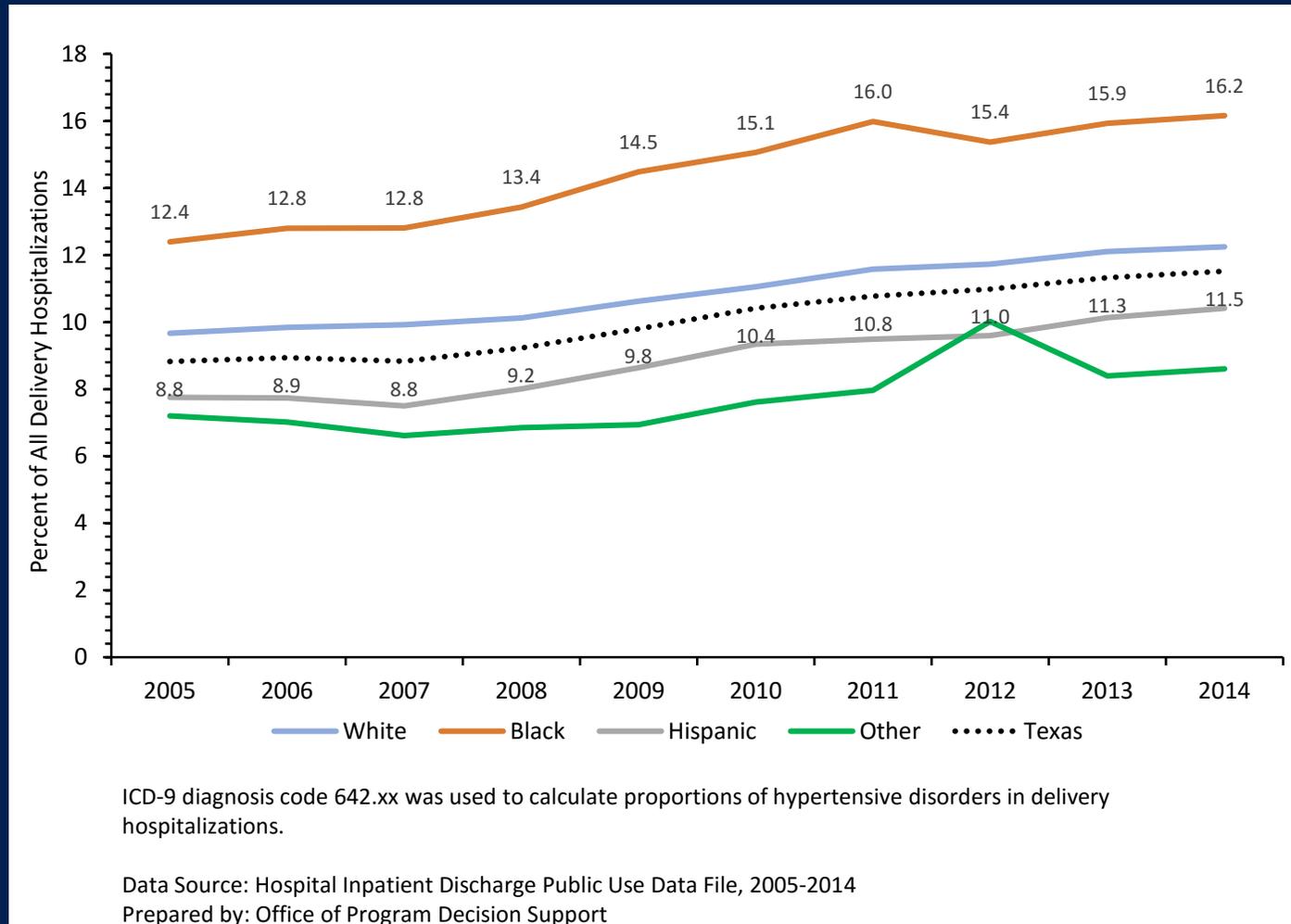
Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2010-2014.
ICD-9 Procedure Code 99.0x (Blood and Blood Component Transfusion) was used to calculate rates of hemorrhage in delivery hospitalizations.
Prepared by: Office of Program Decision Support, 10/4/2017, (sb).

Percent of Hospitalizations due to Obstetric Hypertension by Race/Ethnicity, 2005-2014



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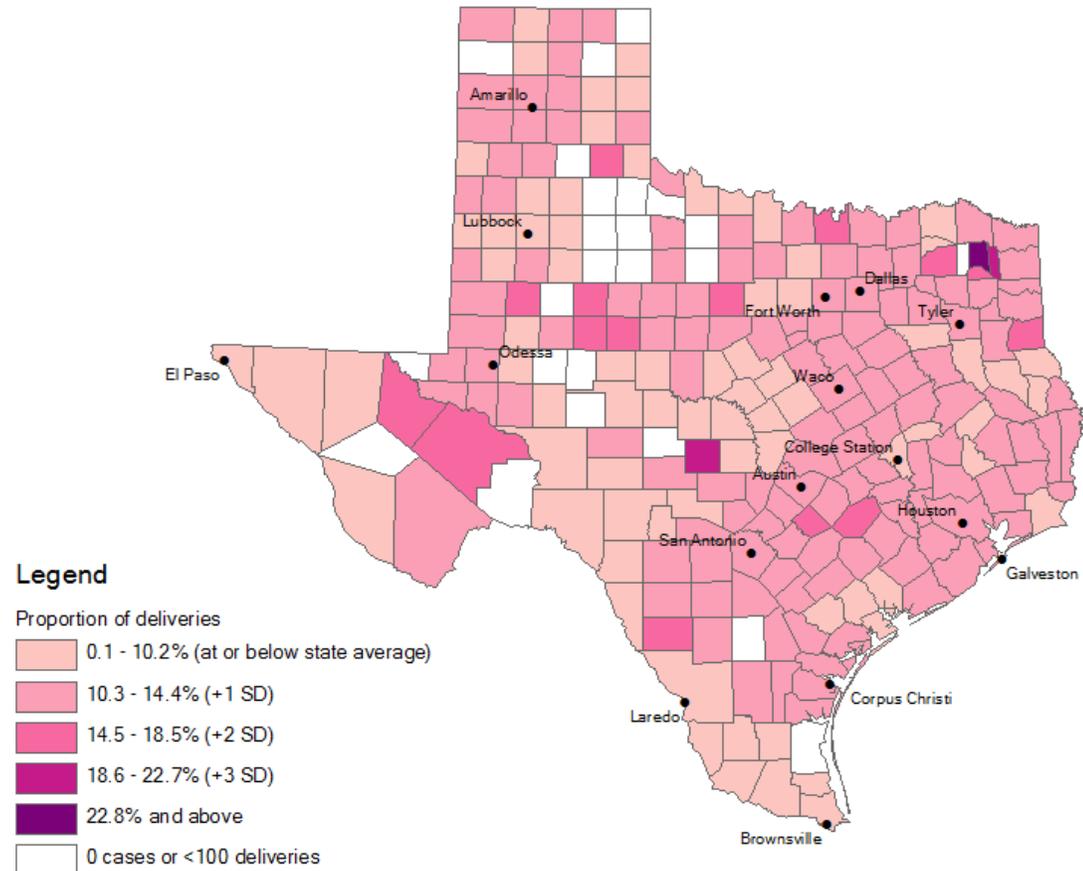


Percent of Hospitalizations due to Obstetric Hypertension by County of Residence, 2010-2014



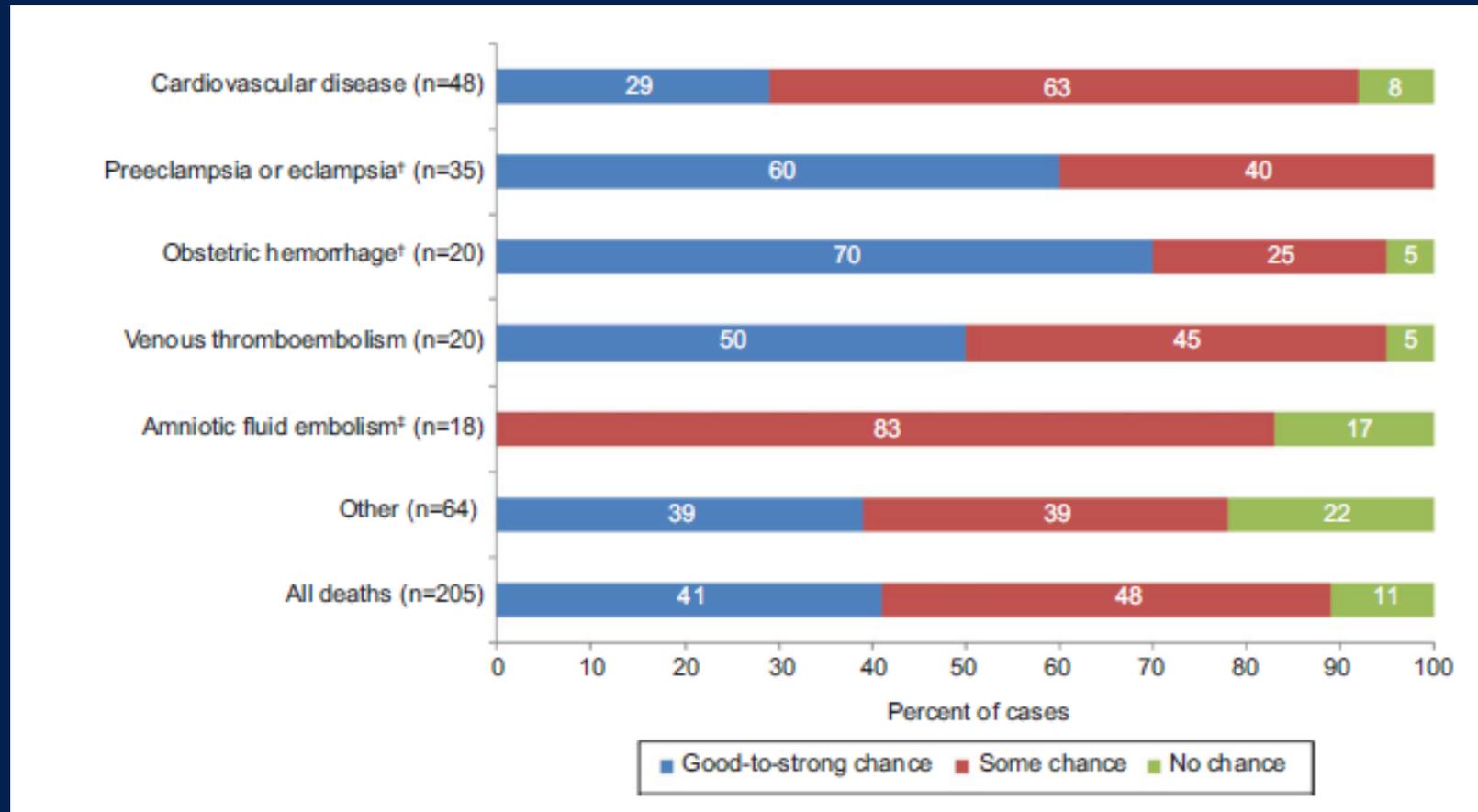
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Source: Texas Hospital Inpatient Discharge Public Use Data File (PUDF), 2010-2014.
ICD-9 Diagnosis Code 642.xx (Hypertension Complicating Pregnancy, Childbirth, and the Puerperium) was used to calculate proportions of hypertensive disorder in delivery hospitalizations.
Prepared by: Office of Program Decision Support, 8/11/2017, (sb).

Maternal Mortality and Morbidity are Preventable



From: Main et al. *Obstet Gynecol* 2015; 125(4): 938-947



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AIM Maternal Safety Bundles

- Instructions, checklists, and supplies for health care staff to effectively prepare, identify, and prevent severe maternal morbidity due to specific causes
- Evidence-based best-practices for maternity care endorsed by many national organizations, including ACOG

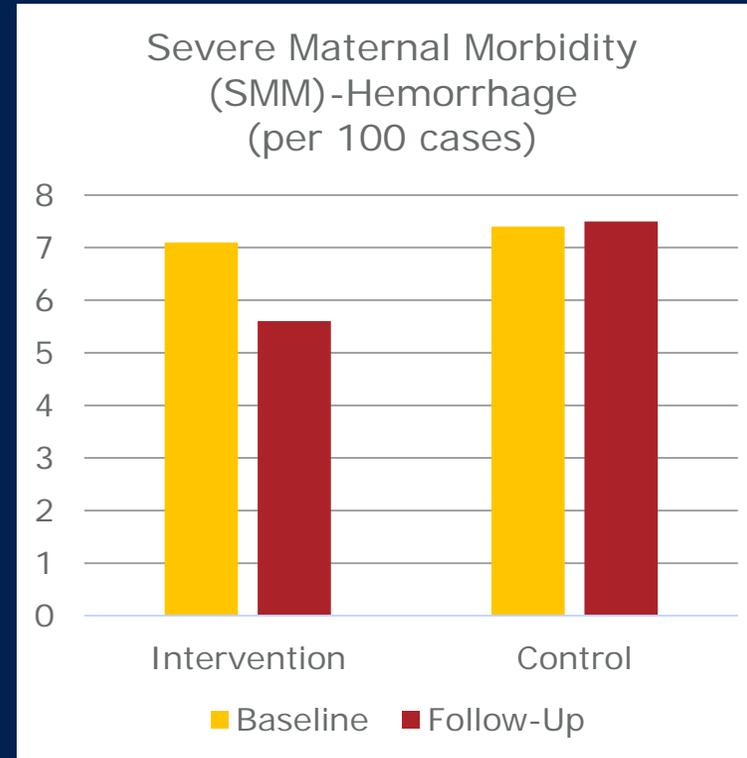


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Severe Morbidity Reduction - Hemorrhage

- Hospitals that implemented hemorrhage safety bundle had 11.7% decrease in severe maternal morbidity among all obstetric patients (compared to baseline)



Main et al. Am J Obstet Gynecol 2017;216(3):298.e1-298.e11.



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Severe Morbidity Reduction

- The four initial AIM states submitted baseline data for three years prior to joining the initiative
- Each state's baseline data indicated a severe maternal morbidity rate between 1.9% to 2.1%
- Data from AIM participating hospitals in those same states for the second to fourth quarter of 2016 (collectively representing 266,717 births) showed a reduction in the severe maternal morbidity rate to 1.5% to 1.9% — **an overall 20% decrease**



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Public Health Initiatives

Increase Death Certificate Accuracy

- To more efficiently identify maternal deaths from pregnancy status and cause of death as intended, consistent with Rider 36 (85th Texas Legislature)
- Action plan calls for:
 - Focused outreach
 - Best-practice guidelines (Senate Bill 1599, 85th Texas Legislature)
 - Training and education
 - Texas Electronic Vital Events Registrar (TxEVER)



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Healthy Texas Mothers and Babies

Healthy Women

Healthy Mothers

Healthy Babies

DSHS Maternal and Child Health Knowledge, Leadership, and Partners

Individual and Public Awareness and Knowledge

Increase Knowledge to Change Attitudes and Behaviors for Improved Maternal and Infant Health Outcomes

Someday Starts Now

Preconception Peer Education Program

Peer Dads Program

One Key Question

Support from Day One

Information for Parents of Newborn Children

Professional Education

Strengthen Competencies and Prepare Professionals to Optimize Clinical Outcomes

Online Provider Education

HTMB Life Course Conferences

DSHS Grand Rounds

Lactation Management Trainings and Skills

Community Empowerment

Engage Community Partners to Strengthen Networks for Collaboration, Innovation, and Collective Impact

HTMB Community Coalitions

Collaborative Improvement and Innovation Networks

State and National Networks

Community Forums

Community Improvement

Foster Development of Environments that Reduce Barriers, Promote Healthy Lifestyle Choices, and Optimize Maternal and Infant Health Outcomes

Texas Mother-Friendly Worksite Program

Child Care

Health Care

Public Spaces

Perinatal Quality Improvement Network

Drive System Changes to Support Adoption and Diffusion of Quality Improvements for Maternal and Infant Health and Safety

Maternal Mortality & Morbidity Task Force

Texas Collaborative for Healthy Mothers and Babies

Texas Ten Step Star Achiever Initiative

Maternal Safety Initiatives

Special Forums

Strategic Planning

DSHS Maternal and Child Health Epidemiology, Surveillance, Research, and Analytics



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Individual and Public Awareness and Knowledge

- To emphasize importance of:
 - Healthy living
 - Timely prenatal care
 - Role of health disparities
 - Chronic disease risk factors
- Key initiatives:
 - Someday Starts Now
 - Preconception Peer Education
 - One Key Question



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Perinatal Quality Improvement Network

- To drive adoption and diffusion of quality improvements for maternal and infant health and safety
- Key initiatives:
 - Risk appropriate maternal care
 - AIM maternal safety bundles



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Risk Appropriate Maternal Care

- To ensure pregnant women at high risk receive care in facilities prepared to provide required level of specialized care
- DSHS is responsible for establishing rules for maternal level of care designation
- DSHS will also be calculating maternal health outcome measures for ongoing monitoring and re-designation



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House Bill 15

83rd Legislature, Regular Session



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Sec. 241.183. LEVEL OF CARE DESIGNATION RULES.

- (a) The executive commissioner, in consultation with the department, shall adopt rules:
- (1) establishing the levels of care for neonatal and maternal care to be assigned to hospitals;
 - (2) prescribing criteria for designating levels of neonatal and maternal care, respectively, including specifying the minimum requirements to qualify for each level designation;

TexasAIM Maternal Safety Bundles

- To reduce severe maternal morbidity using evidence-based systems to enhance maternal care
- Implementing AIM bundles for:
 - Obstetric hemorrhage
 - Severe hypertension in pregnancy
 - Obstetric care for women with opioid use disorder
- Next steps:
 - Enrolling hospitals on a voluntary basis
 - DSHS AIM information webinar (March 28th)
 - Maternal Safety Needs Assessment Survey
- For more information, email TexasAIM@dshs.texas.gov or visit www.dshs.texas.gov/mch/TexasAIM.aspx



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Senate Bill 17

85th Legislature, 1st Special Session



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Sec. 34.0156. MATERNAL HEALTH AND SAFETY INITIATIVE.

(a) Using existing resources, the department, in collaboration with the task force, shall promote and facilitate the use among health care providers in this state of maternal health and safety informational materials, including tools and procedures related to best practices in maternal health and safety.

Inter-Agency Policy Workgroup

- To ensure coordinated policy for maternal health issues, including prenatal and postpartum care for chronic disease and behavioral health
- HHSC client programs:
 - Women's Health Services
 - Behavioral Health Services
 - Medicaid Services



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Thank you
