

Indiana State Department of Health  
Infant Mortality Summit  
November 1, 2013

***“Lessons Learned from Reducing  
Infant Mortality in Texas”***

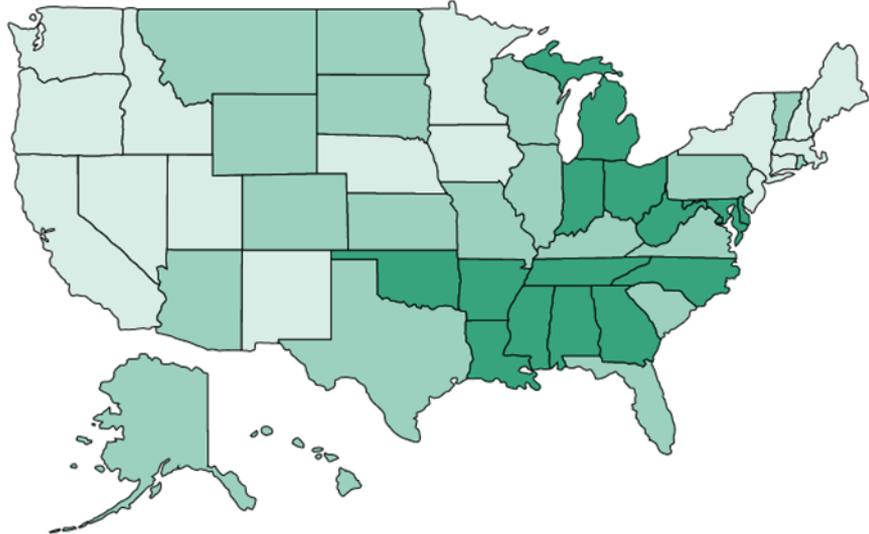
*David Lakey, M.D.  
Commissioner*

*Texas Department of State Health Services*



# Infant Mortality

2009

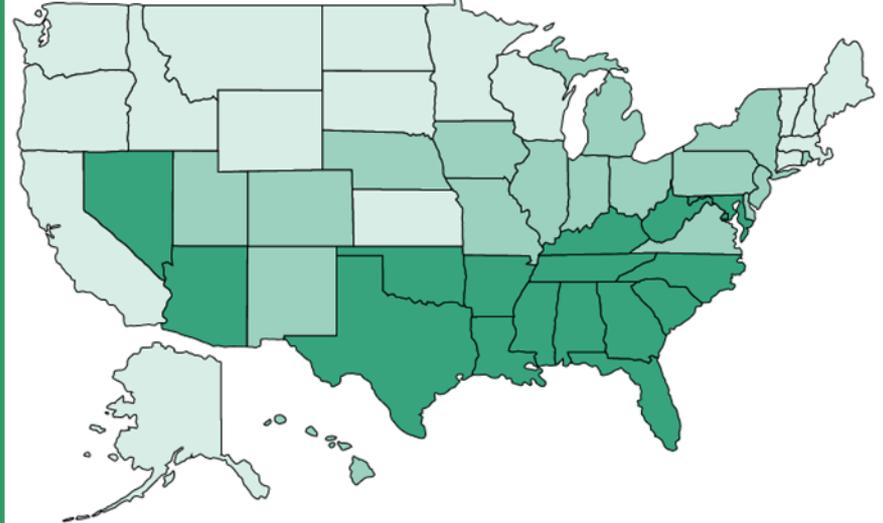


Rate per 1,000 Live Births

Under 5.9    5.9 - 7.1    Over 7.1

# Preterm Births

2009



Percent of Live Births

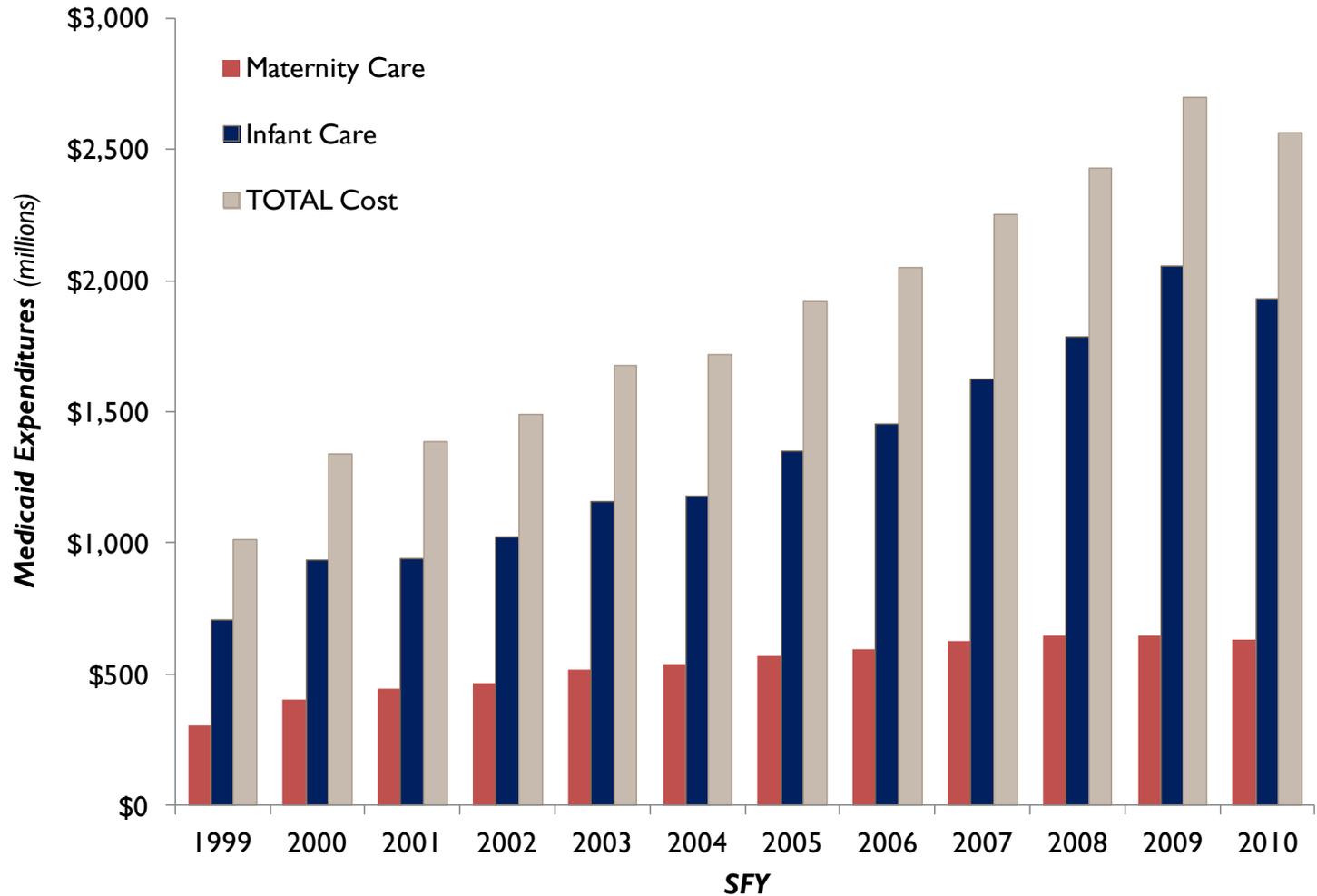
Under 11.3    11.3 - 12.6    Over 12.6

# A High Human Cost of Prematurity

- **Low birth weight**
- **Underdeveloped organs or organ systems**
- **Increased morbidity**
  - Breathing problems, including respiratory distress syndrome
  - Life-threatening infections
- **Increased disability**
  - Cerebral palsy, blindness, and deafness
  - Chronic lung disease
  - Learning and developmental disabilities
- **Increased mortality**
  - Premature birth is the number 1 killer of newborns
  - Increased early childhood and late childhood mortality
- **Significant impact on their family**



# Texas Medicaid Birth Expenditures (1999 – 2010)



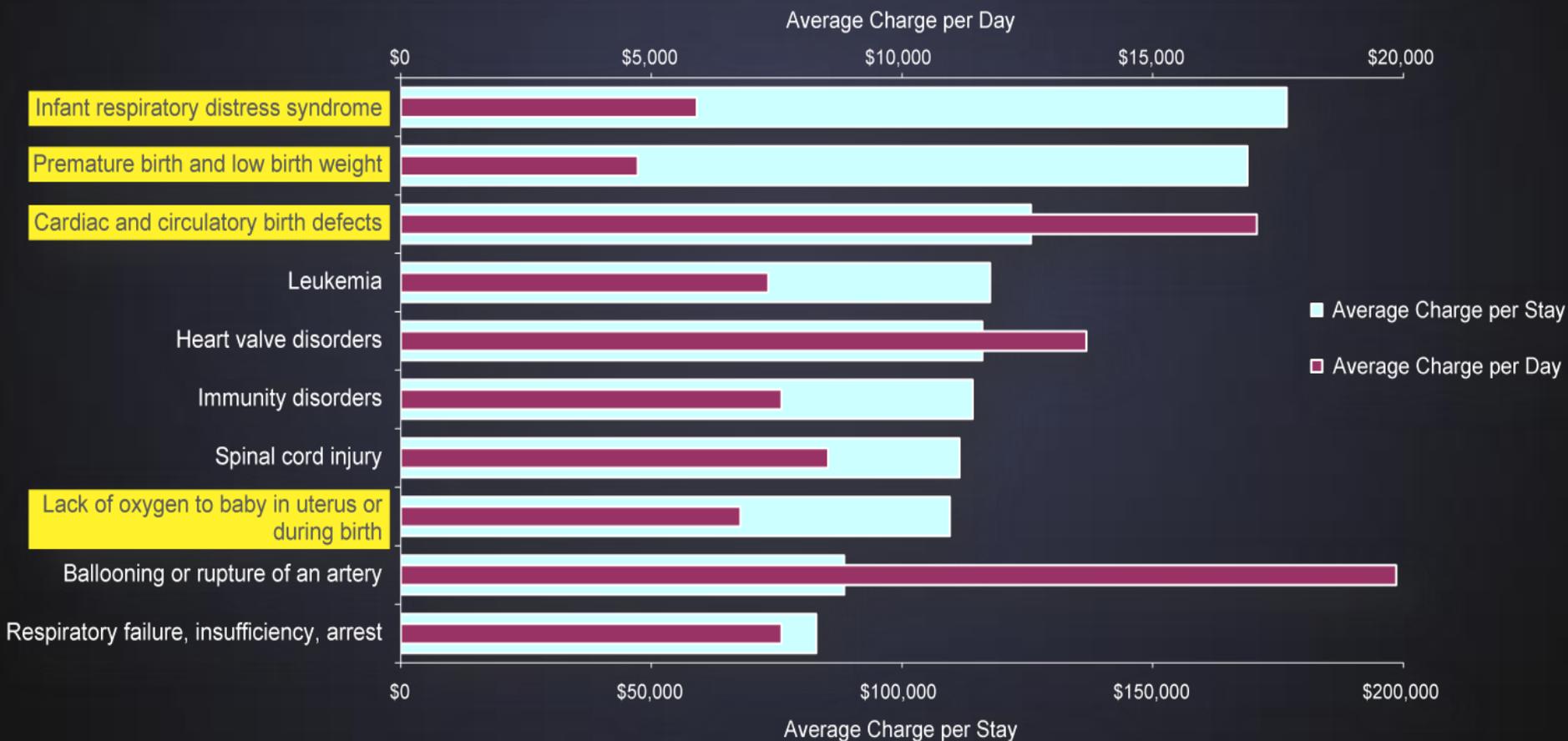
Sources: AHQP Claims Universe, TMHP DSP Delivery records, HHSC.  
 Prepared By: Strategic Decision Support, March 2012.

# Medicaid Costs

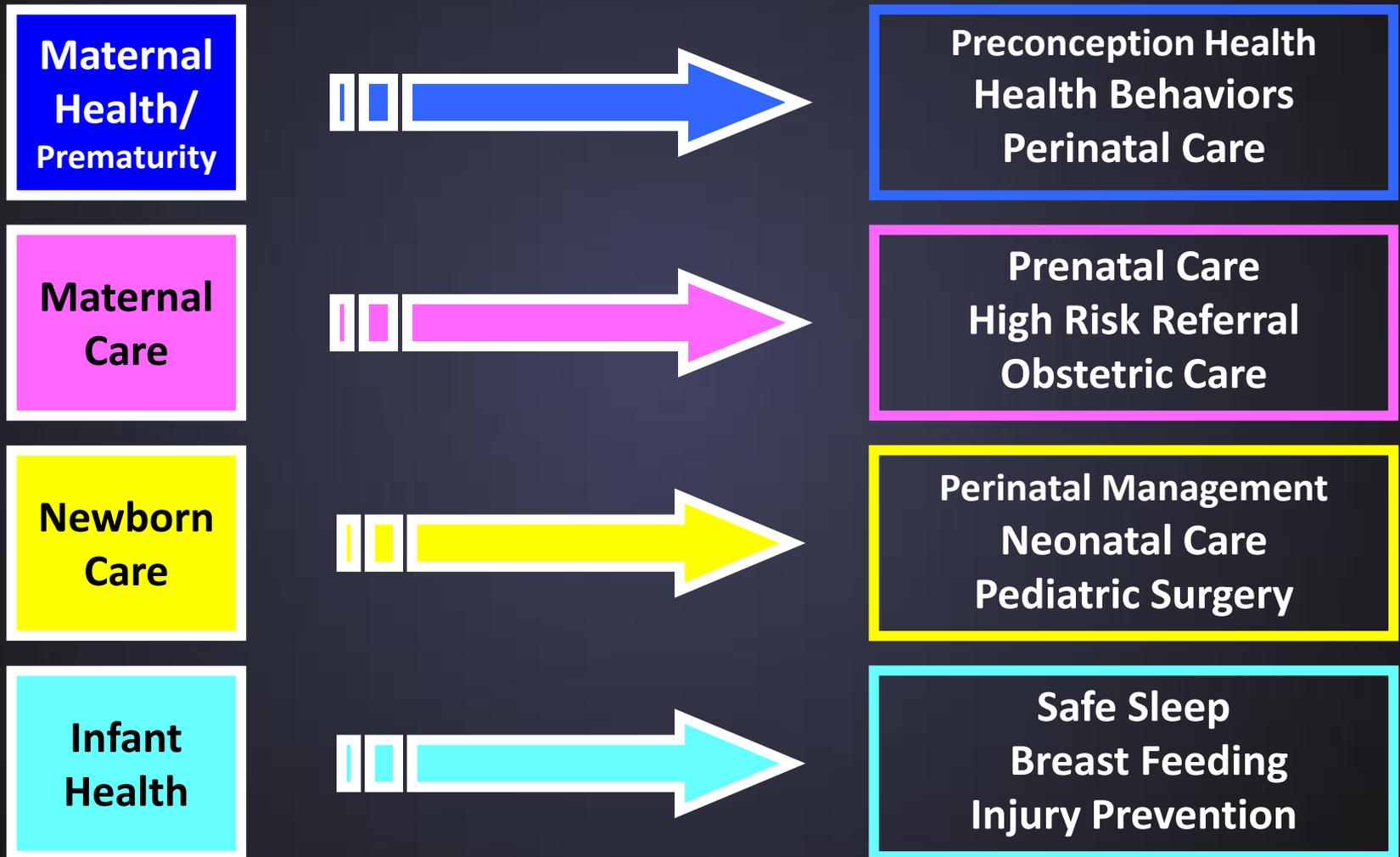
- **~57% of all Texas births (225,000) paid by Medicaid**
- **\$2.6 billion per year** in birth and delivery-related services for moms and infants through first year
  - >73% of Medicaid costs for hospitalized newborns tied to billing codes for prematurity
- **Infant care costs growing by ~7% per year**
  - 54.6% are attributable to extremely preterm infants
- **Newborn costs (1<sup>st</sup> year)**
  - Extreme Preterm infant: \$71,210
  - Term infant: \$420

# Poor Health of Newborn Infants Drives Hospital/Healthcare Costs

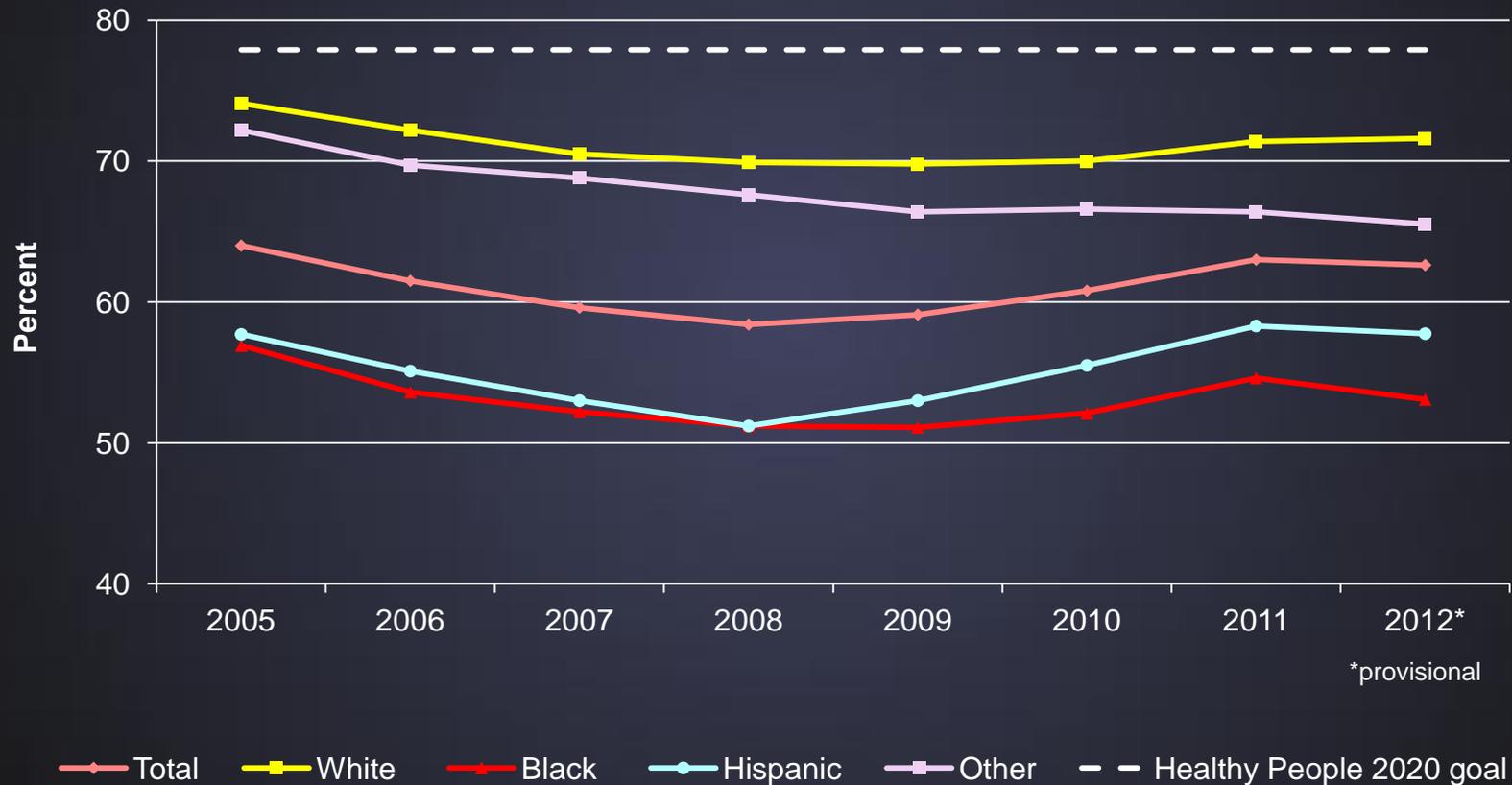
Average Charge per Stay and per Day for the Top 10 Principal Diagnoses with Highest Charges per Stay, 2006



# Possible Points for Intervention



# Percent of Texas Women Receiving Prenatal Care in First Trimester by Race and Ethnicity

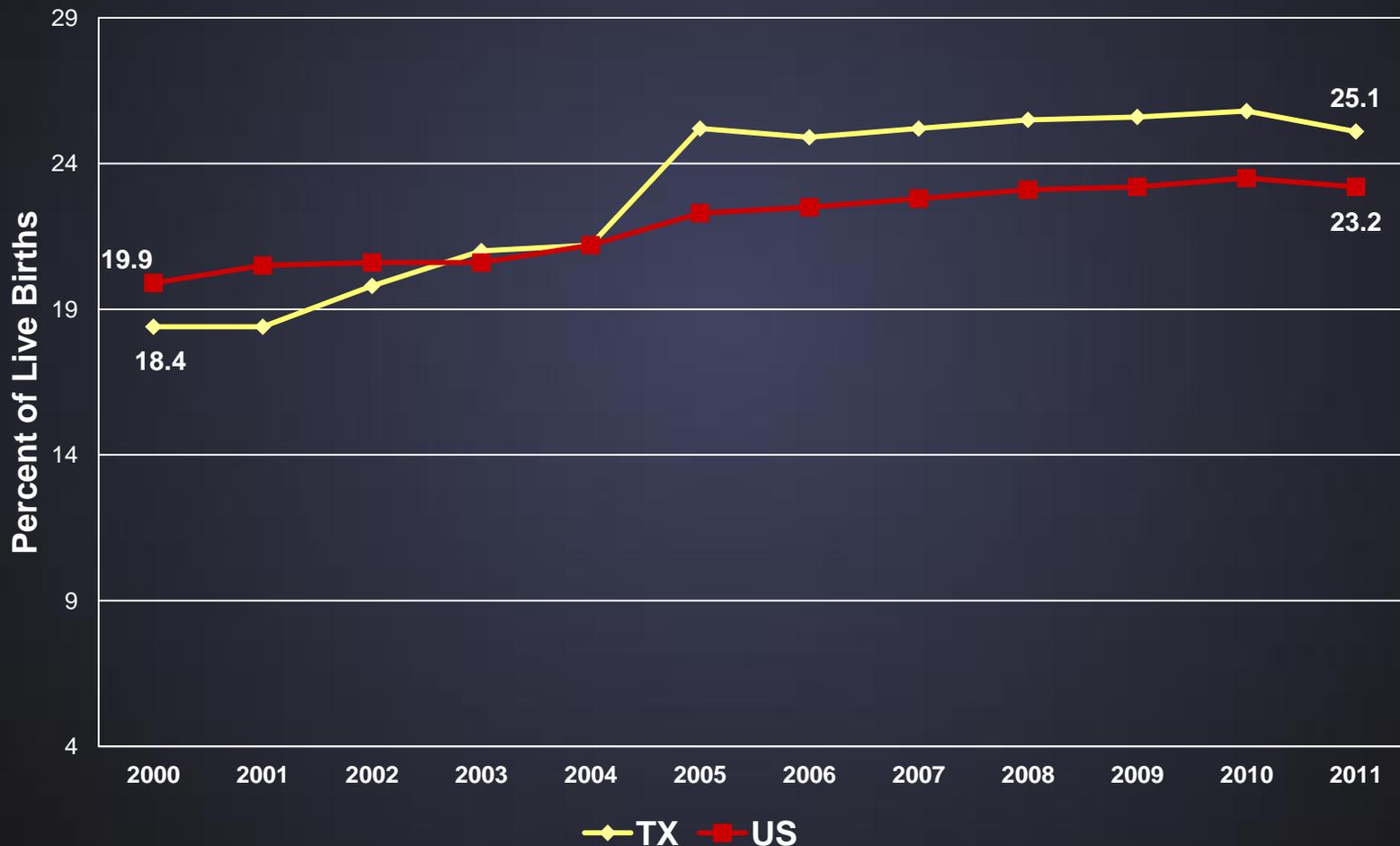


\*provisional

◆ Total   
 ■ White   
 ▲ Black   
 ● Hispanic   
 ■ Other   
 - - Healthy People 2020 goal

# Inductions Have Increased Steadily in Texas and the US

Induction Births, Texas and U.S., 2000-2011



# Elective Inductions Increase Prematurity and C-Section Rates

- In 2011, 1 in 4 deliveries were induced in Texas
- Induction rates increased by 40% in Texas between 2000-2011
- In 2011, 32.2% of single-birth inductions were performed before 39 weeks of gestation
- Labor induction is associated with an increased risk of delivery by cesarean section (C-section)

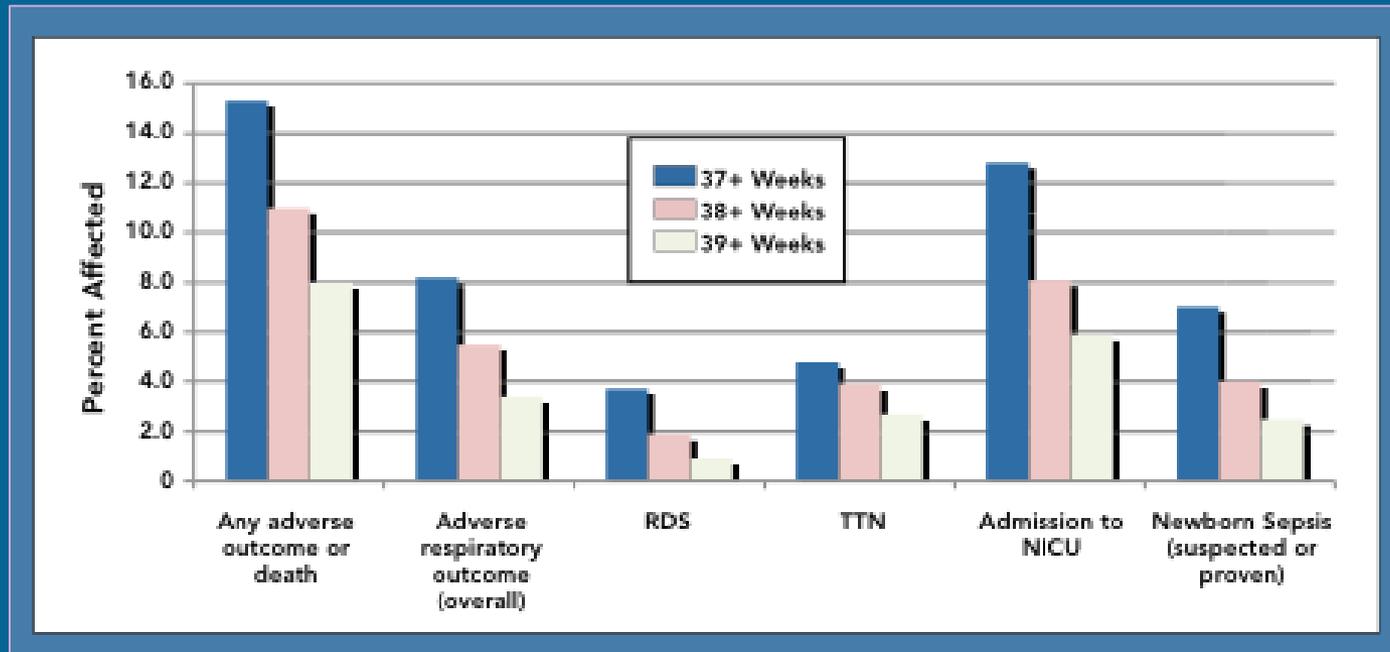
# Complications of Elective Deliveries Between 37 and 39 Weeks

- **Increased NICU admissions**
- **Increased transient tachypnea of the newborn (TTN)**
- **Increased respiratory distress syndrome (RDS)**
- **Increased ventilator support**
- **Increased suspected or proven sepsis**
- **Increased newborn feeding problems and other transition issues**

Clark 2009, Madar 1999, Morrison 1995, Sutton 2001, Hook 1997



# Adverse Neonatal Outcomes By Week of Gestation at Delivery



Adapted from Tita AT, et al. NEJM 2009;360:111

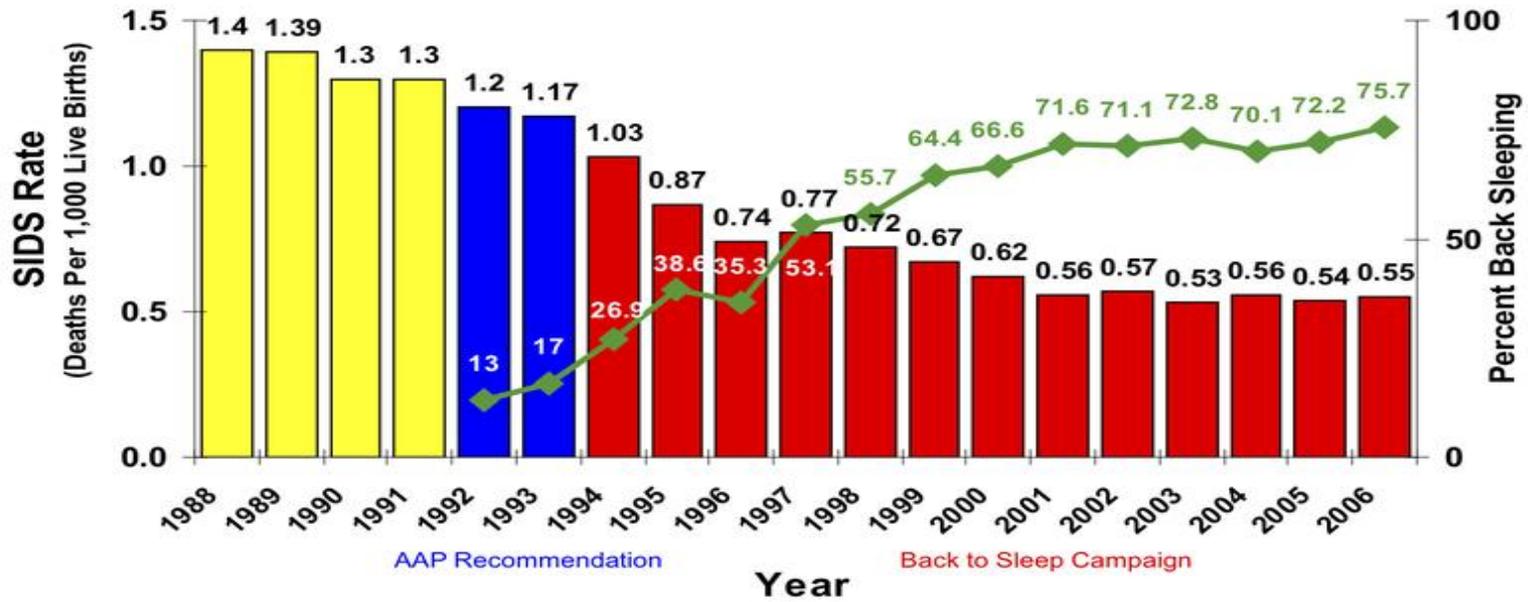


# Preventing Infant Mortality through Regionalization of Perinatal Services

- **Very low birth weight (VLBW) infants represent less than 2% of US births, but account for 55% of infant deaths**
- **Levels of perinatal care (I, II, & III)**
  - Level III facilities have the ability to care for very low birth weight and very preterm (VPT) infants
  - VLBW and VPT infants not born in a level III hospital are more likely to die
- **HP 2010 goal: 90% of all VLBW infants are born in level III hospitals**
  - Has only been met by 5 states
  - 10 states (including TX) are below 70%
  - Less than 50% of VLBW births in Texas occur in level III facilities (49% based on 2005 & 2006 birth certificate data)

# Safe to Sleep

## SIDS Rate and Back Sleeping (1988 – 2006)



SIDS Rate Source: CDC, National Center for Health Statistics,  
 Sleep Position Data: NICHD, National Infant Sleep Position Study.

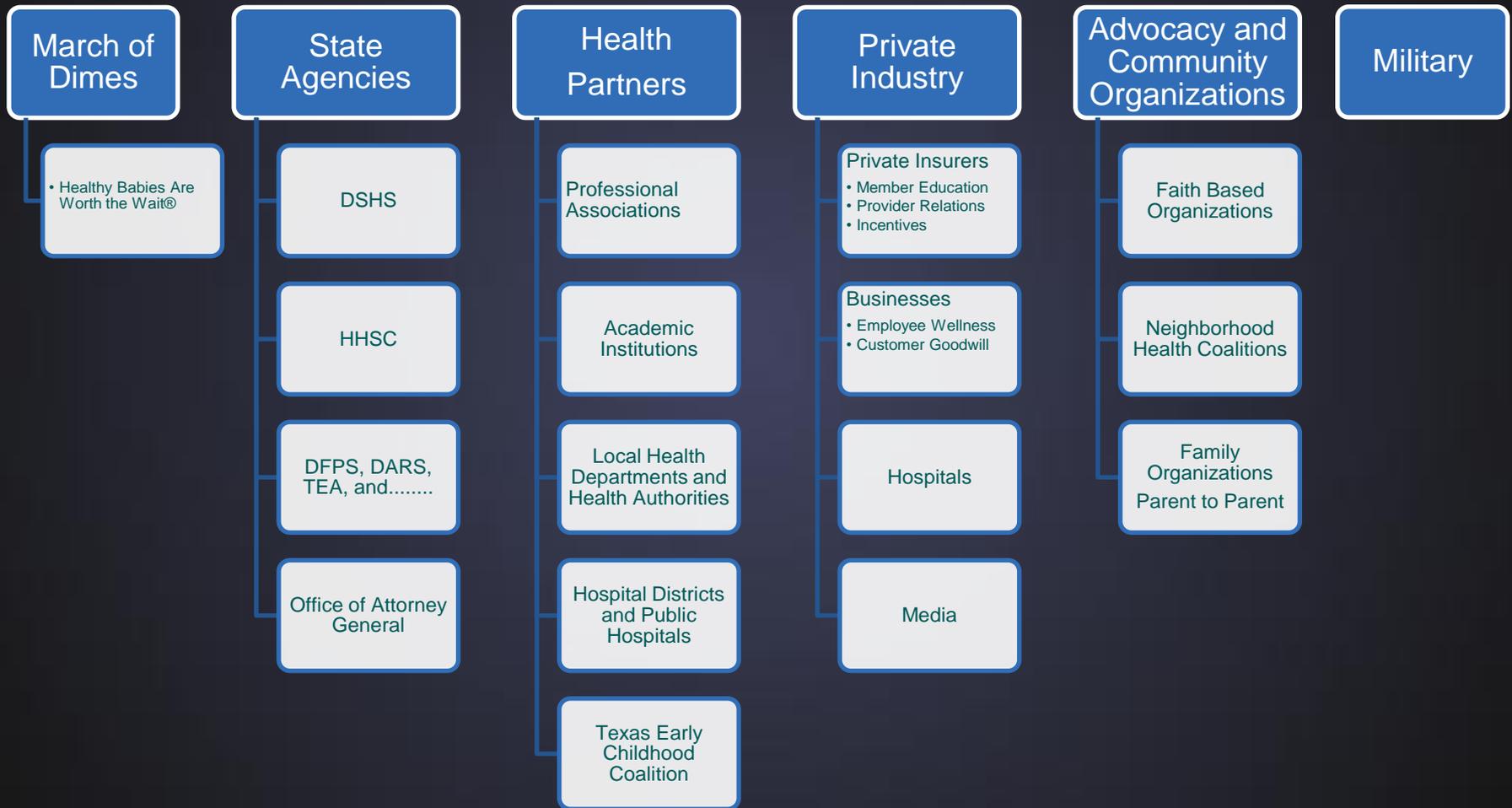


So, how do we solve these  
problems?

# Healthy Texas Babies

- **Healthy Texas Babies (HTB) is an initiative to decrease infant mortality in Texas**
- **Goals of Healthy Texas Babies Initiative:**
  - Provide local partnerships and coalitions with major roles in shaping programs in their communities
  - Use evidence-based interventions
  - Decrease preterm birth rate by 8% over 2 years
  - Save ~ \$7.2 million in Medicaid costs over 2 years

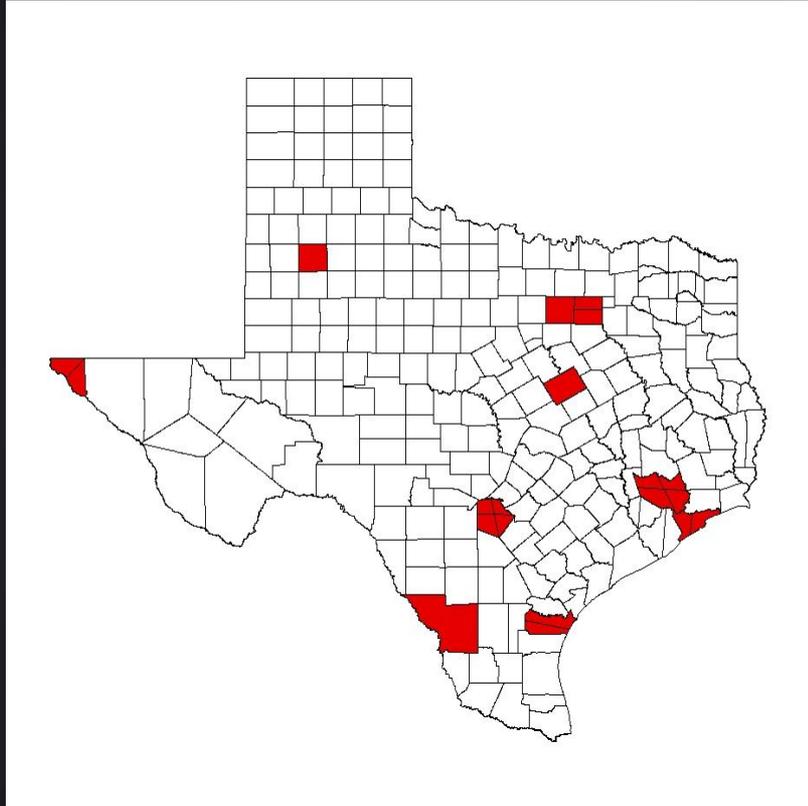
# Healthy Texas Babies



# Legislation 82<sup>nd</sup> Session ( 2011)

- **Legislation** to eliminate Medicaid payment for elective inductions/C-sections <39 weeks
- **Outreach campaign** to promote father's involvement with children before birth
- **Council created** to study neonatal intensive care unit regionalization
- **\$4.1 million** General Revenue appropriated for this effort

# HTB Local Coalitions



## Ten Local Coalitions

- Evidence-based projects
- Broad-based Membership
- December 2011-August 2013
- \$200K contracts awarded to each of the 10 local coalitions

# “Someday Starts Now”

- **Educate men and women** of child-bearing age on steps they can take now to have a healthy baby, someday
- **Change the mind-set** of and motivate healthy actions among Dads-To-Be and Moms-To-Be through specific campaign messaging
- **Deliver an identifiable campaign** with consistent messaging and branding
- **Develop a website** and mobile application that provide top-line information and links to additional resources
- **Evoke an urgency** to be healthier today — not tomorrow, not next week, not someday in the future — **Now**
- **Get people to think** about being healthy today to have healthy babies tomorrow

# Healthy Texas Babies Initiative: Someday Starts Now Campaign



PROVIDERS | STAKEHOLDERS | CONTACT US | ESPAÑOL   

WOMEN

MEN

PARENTS



## Someday starts now.

The choices you make now matter. That's especially true if there's a baby in your future, whether it's months or years away. Your decisions today can affect the health and well-being of your child for the rest of his or her life. Fortunately, you don't have to go it alone. This site is designed to provide the information and resources you and your partner need to start your healthy future — right here, right now.

WOMEN

MEN

PARENTS

**FOR WOMEN:  
A LIFE  
PLANNING TOOL**  
START YOURS NOW >



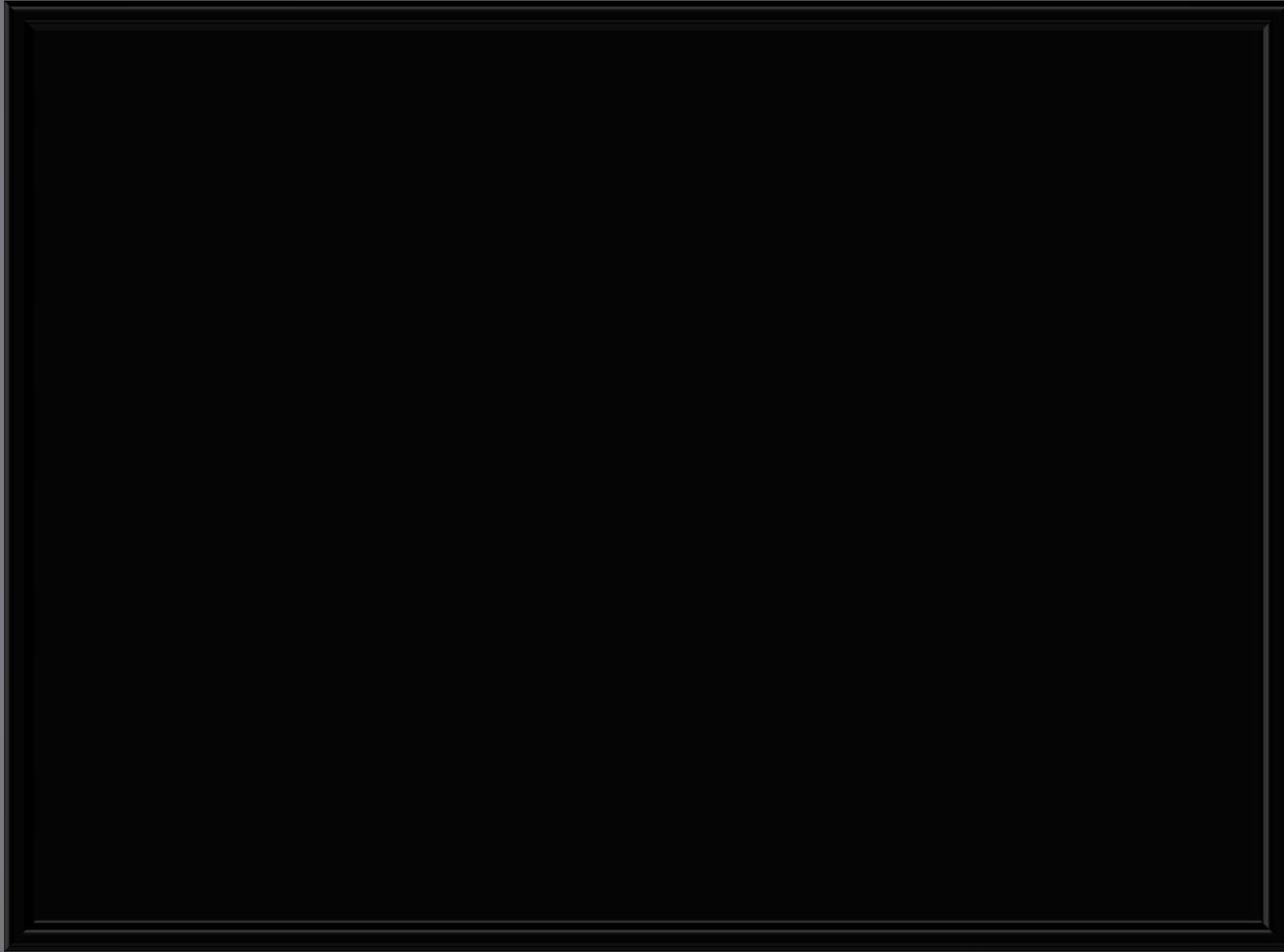
**MAPS FOR NEW DADS:  
A GUIDE TO TAKING  
CARE OF YOUR NEW BABY**  
DOWNLOAD NOW >



**FOR PARENTS-TO-BE:  
A BIRTH PLAN TOOL**  
GET PREPARED NOW >



# “Someday Starts Now”



# Legislation 83<sup>rd</sup> Session (2013)

- SB 495 – Task force to study maternal mortality and severe maternal morbidity
- HB 15 – Perinatal Advisory Council to develop a designation process for neonatal and maternal levels of care
- HB 1605 – Pilot program in Harris County to provide maternity case management to certain Medicaid managed care enrollees

# Designations for Hospitals Providing Neonatal and Maternity Services

## Key Provisions of HB15

- Creates 2 designation programs for hospitals; Maternal and Neonatal
- Requires designation for Medicaid reimbursement of maternal or neonatal services
- Creates a system approach for neonatal and maternal care modeled on trauma designation
  - regions
  - advisory councils
- Effective September 1, 2013
  - full implementation: August 31, 2019

# Other Initiatives

- 1115 Medicaid Transformation Waiver
  - Delivery System Reform Incentive Payment to implement innovative strategies to improve birth outcomes
- Improved Data Sharing
  - DSHS and HHSC developing process to share birth record data with managed care organizations
- Expanded Primary Health Care
  - Preventive and primary care to 170,000 women/year
  - Comprehensive family planning; allows physicians to manage chronic disease to improve women's health

# Transition

Healthy Texas Babies ( November, 2010)

To

Texas Collaborative for Healthy Babies and Mothers ( November, 2013)

# President's Challenge 2012: Healthy Babies

**Goal:** Improve birth outcomes by reducing infant mortality and prematurity in the United States

## Overall Objectives:

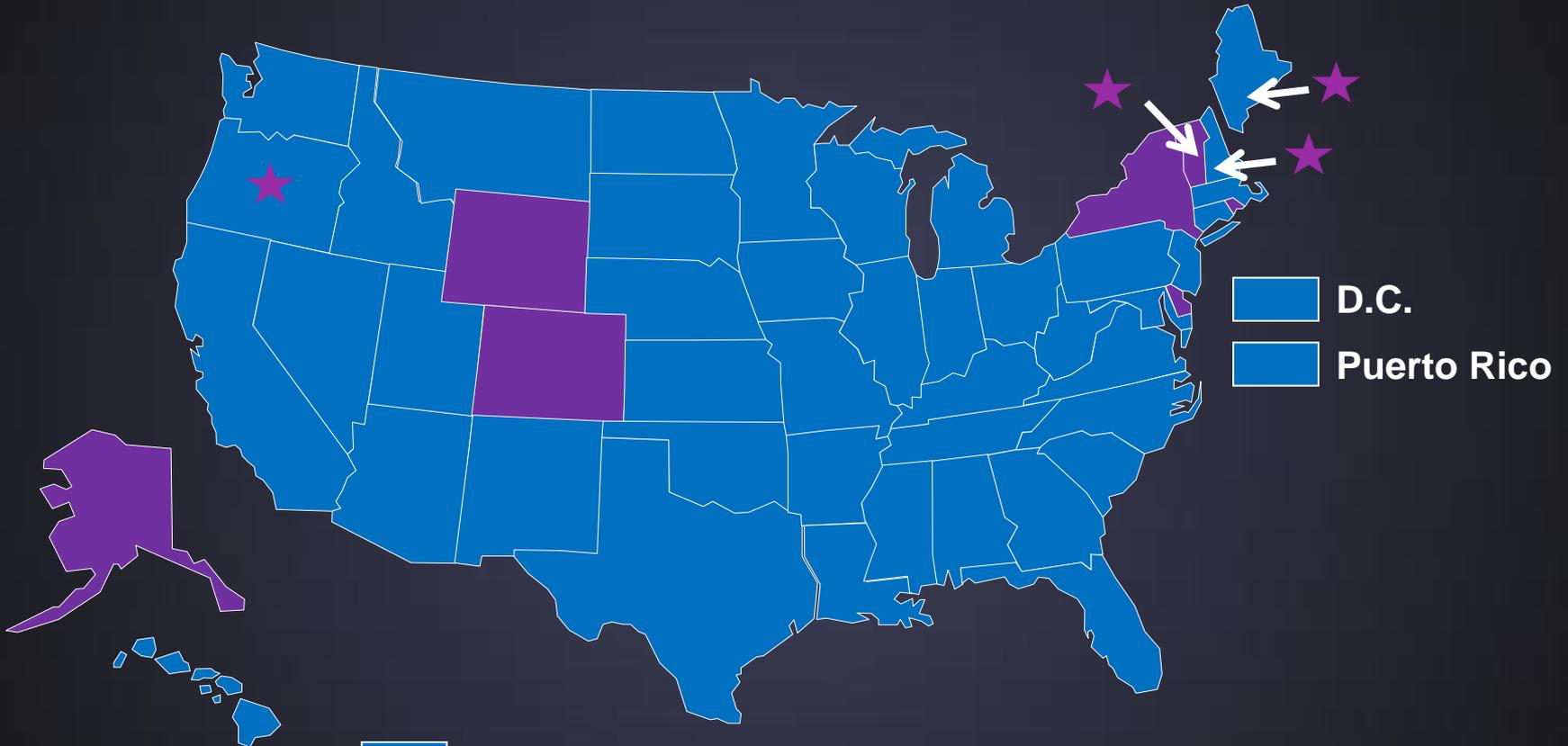
1. Focus on improving birth outcomes as SHOs and state leadership teams work with state partners on health and community system changes
2. Create a unified message that builds on the best practices from around the nation and the efforts from Regions IV and VI, which can be adopted by states, U.S. territories, and the District of Columbia
3. Develop clear measurements to evaluate targeted outreach, progress, and return on investment

# S.M.A.R.T. Goal:

- Reduce prematurity rates:
  - by 8%
  - by 2014

# 50 States Have Taken the Pledge

Pledge to Reduce Prematurity by 8% by 2014



-  Taken Pledge
-  Virginia Apgar Award (8% Reduction)
-  Franklin Delano Roosevelt Award (9.6% Prematurity Rate)



# [www.astho.org/healthybabies/](http://www.astho.org/healthybabies/)

astho™ ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICIALS

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## PRESIDENT'S CHALLENGE 2012: HEALTHY BABIES

In September 2011, ASTHO President David Lakey (TX) issued his **President's Challenge: the Healthy Babies Initiative**. His goal for the challenge is to improve birth outcomes by reducing infant mortality and prematurity in the United States. Specifically, the goal is to decrease prematurity in the United States by 8% by 2014. State and territorial health agencies can make an incredible impact in this area, and the resource these pages are designed to help. The resources are categorized in two ways: by lifestyle, as depicted in the images below, including **Preconception**, **Prenatal**, **Birth to 28 Days**, and **First Year**, and by scope resources, including Policy Resources, Community Resources, Organizational Resources, Health IT Resources, Healthcare Provider Resources, and Self-Management Resources.

### PRECONCEPTION



### PRENATAL



### BIRTH TO 28 DAYS



### FIRST YEAR



### PRECONCEPTION



### PRENATAL



### BIRTH TO 28 DAYS



### FIRST YEAR



### BIRTH TO 28 DAYS

### FIRST YEAR

# [www.astho.org/healthybabies/](http://www.astho.org/healthybabies/)

The screenshot displays the website's header with the **astho** logo and the text "ASSOCIATION OF STATE AND TERRITORIAL HEALTH OFFICIALS". Navigation links include ABOUT, CONTACT, JOB BANK, and PRESS ROOM. A secondary menu lists PROGRAMS, EVENTS, ADVOCACY, RESEARCH, and MEMBER SERVICES. A search bar with a "GO" button and "Advanced Search" link is present.

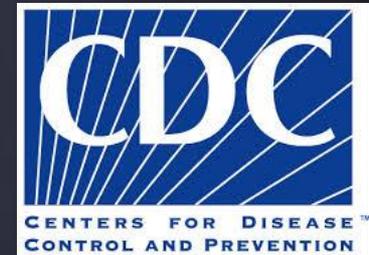
The main content area is titled "HEALTHY BABIES" and "PRENATAL". On the left, a sidebar lists various health topics such as Accreditation and Performance, Branding Public Health, e-Health, Environmental Health, Evidence-Based Public Health, Health Equity, Health Reform, Immunization, Infectious Disease, Preparedness, Prevention, Workforce and Leadership Development, and more.

The central "PRENATAL" section features a banner image of a pregnant woman, a doctor, and a baby. Below the banner, there are several resource categories, each with a plus sign icon:

- Policy Resources** (minus icon):
  - Legislation on Induced Labor Prior to 39 Weeks Gestation**: Many states are creating policies or legislation to have a hard stop against non-medically necessary inductions and C-sections prior to 39 weeks gestation. (TX)
  - Case Management Payments**: In some states, Medicaid and CHIP recipients are enrolled in case management. (WI)
  - Universal Risk Screening**: Universal risk screening for all women and newborn infants across the state can create a healthy start for the family. (FL)
  - [See all Policy Resources »](#)
- Community Resources** (+)
- Organizational Resources** (+)
- Health Information Technology** (+)
- Healthcare Provider Resources** (+)
- Self Management Resources** (+)

At the bottom, there is a logo for **sanofi pasteur** with the tagline "The vaccines division of sanofi-aventis Group".

# National Partners



# Collaborative Improvement & Innovation Network (CoIIN)

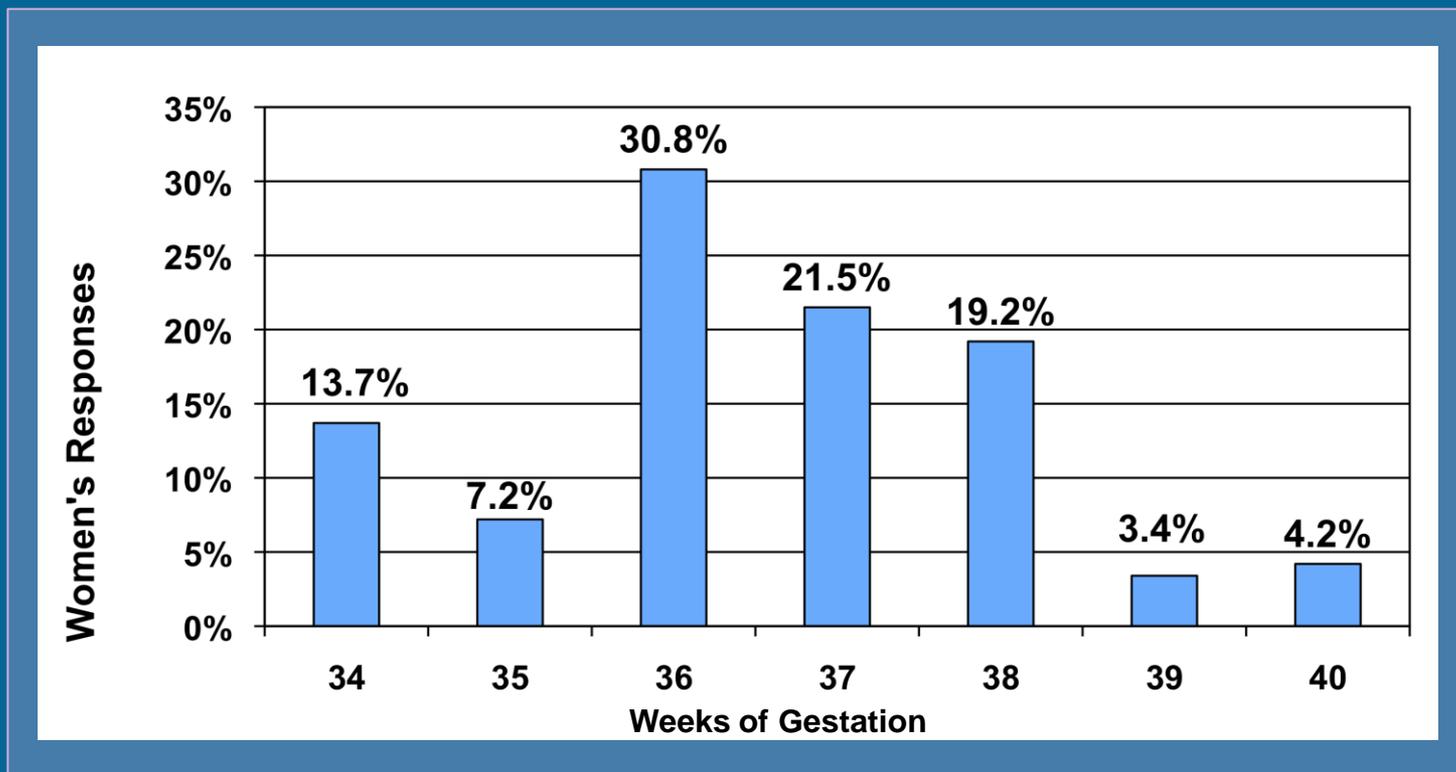


# COIIN Design

*Common Strategies for Regions IV and VI*



# The Gestational Age that Women Considered it Safe to Deliver



Obstet Gynecol 2009;114:1254

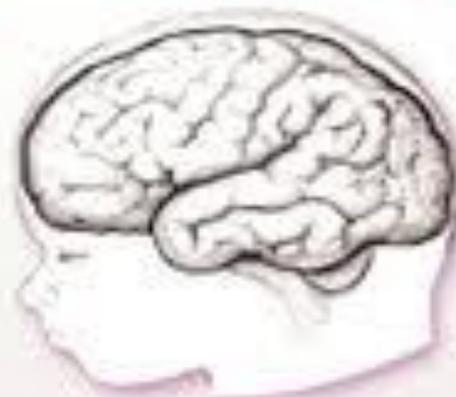


# Healthy Babies Are Worth the Wait: Brain Card

A baby's brain at 35 weeks weighs only two-thirds of what it will weigh at 39 to 40 weeks.



35 weeks



39 to 40 weeks

© 2008 March of Dimes Foundation

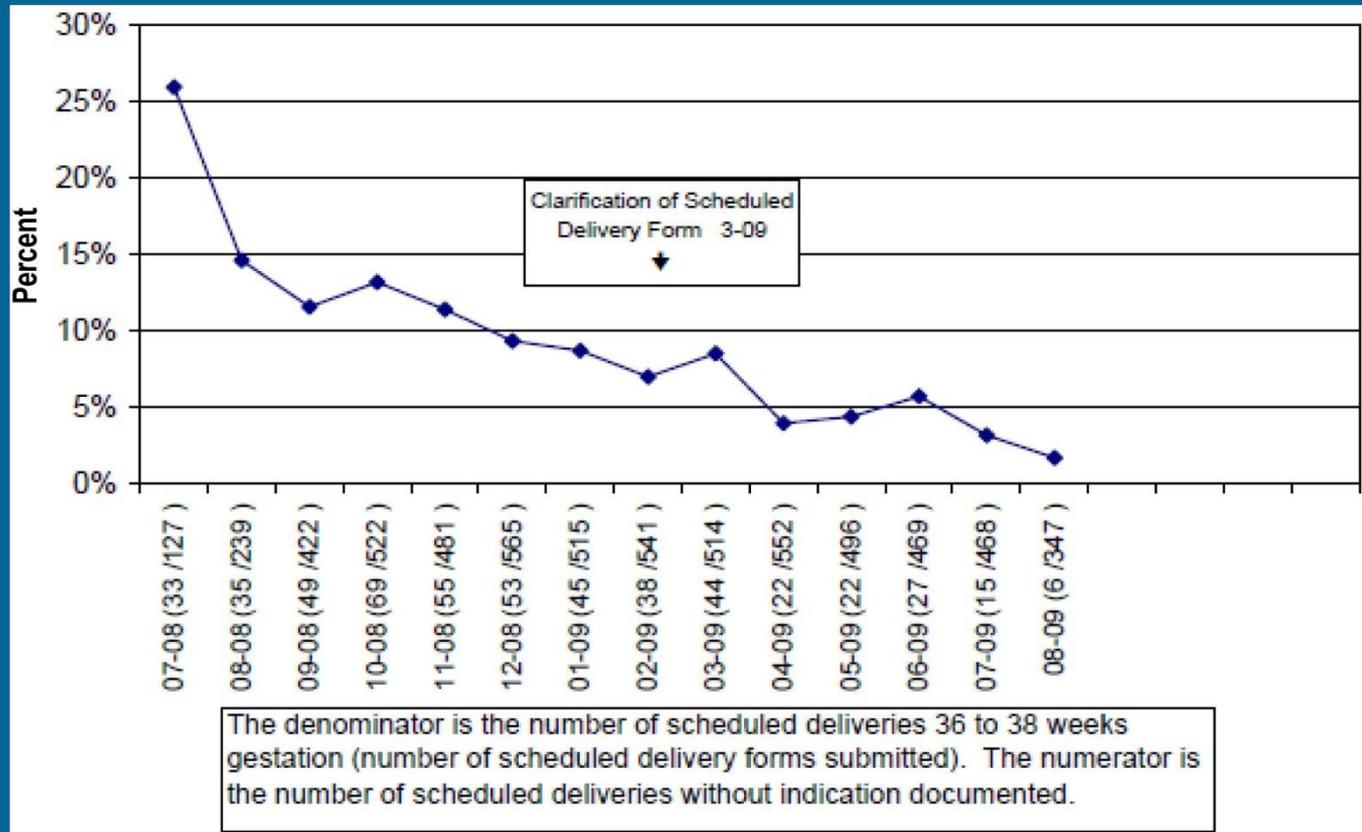
# ACOG Redefinition on “Term Pregnancy”

- **October 22, 2013**
- **Washington, DC** -- The nation’s ob-gyns have redefined ‘term pregnancy’ to improve newborn outcomes and expand efforts to prevent nonmedically indicated deliveries before 39 weeks of gestation. In a joint Committee Opinion, The American College of Obstetricians and Gynecologists (The College) and the Society for Maternal-Fetal Medicine (SMFM) are discouraging use of the general label ‘term pregnancy’ and replacing it with a series of more specific labels: ‘early term,’ ‘full term,’ ‘late term,’ and ‘postterm.’

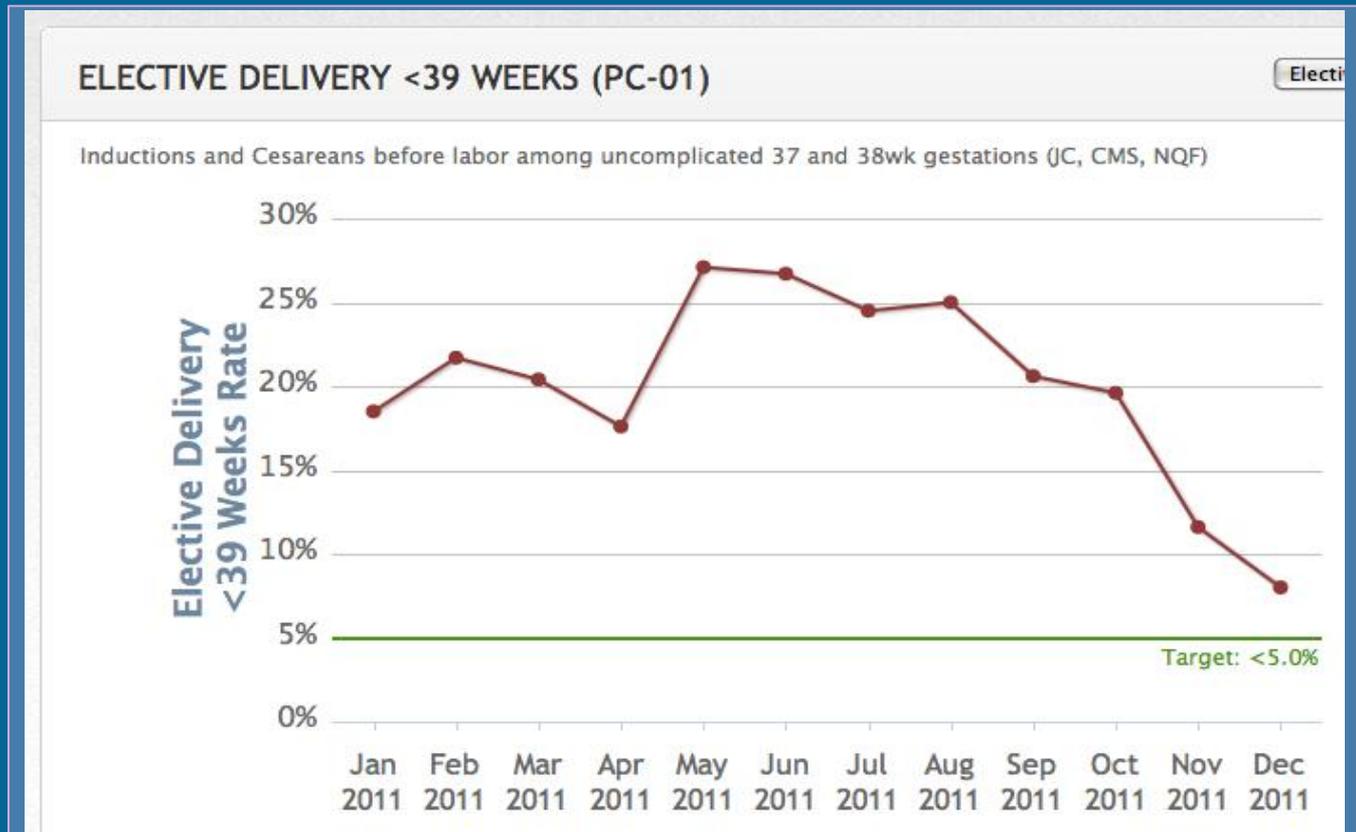
The following represent the four new definitions of ‘term’ deliveries:

- Early Term: Between 37 weeks 0 days and 38 weeks 6 days
- Full Term: Between 39 weeks 0 days and 40 weeks 6 days
- Late Term: Between 41 weeks 0 days and 41 weeks 6 days
- Postterm: Between 42 weeks 0 days and beyond
- “This terminology change makes it clear to both patients and doctors that newborn outcomes are not uniform even after 37 weeks,” said Jeffrey L. Ecker, MD, chair of The College’s Committee on Obstetric Practice. “Each week of gestation up to 39 weeks is important for a fetus to fully develop before delivery and have a healthy start.”

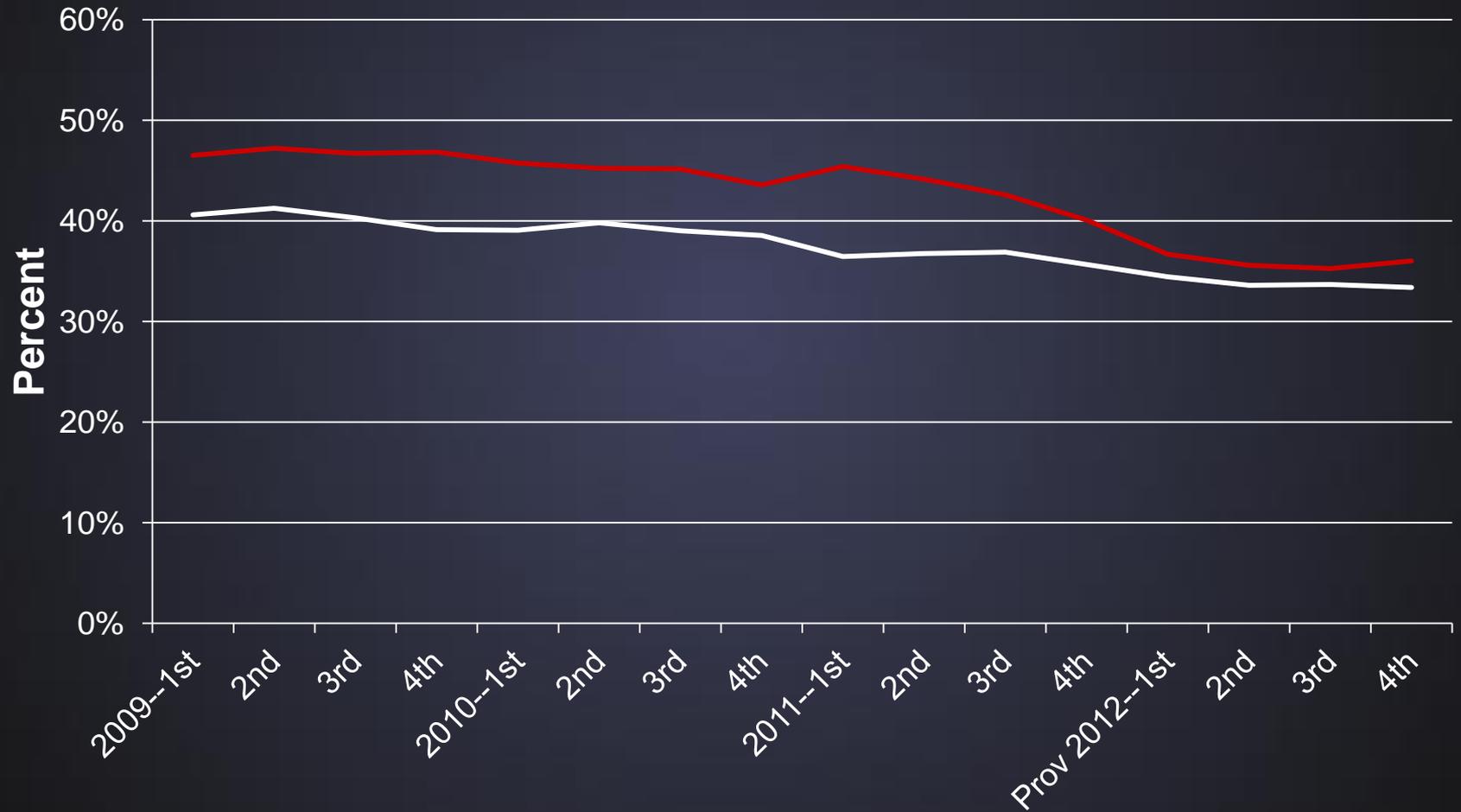
# Percent Elective Deliveries <39 Weeks, Ohio Perinatal Quality Collaborative



# Percent Elective Deliveries <39 Weeks, California Maternal Quality Care Collaborative

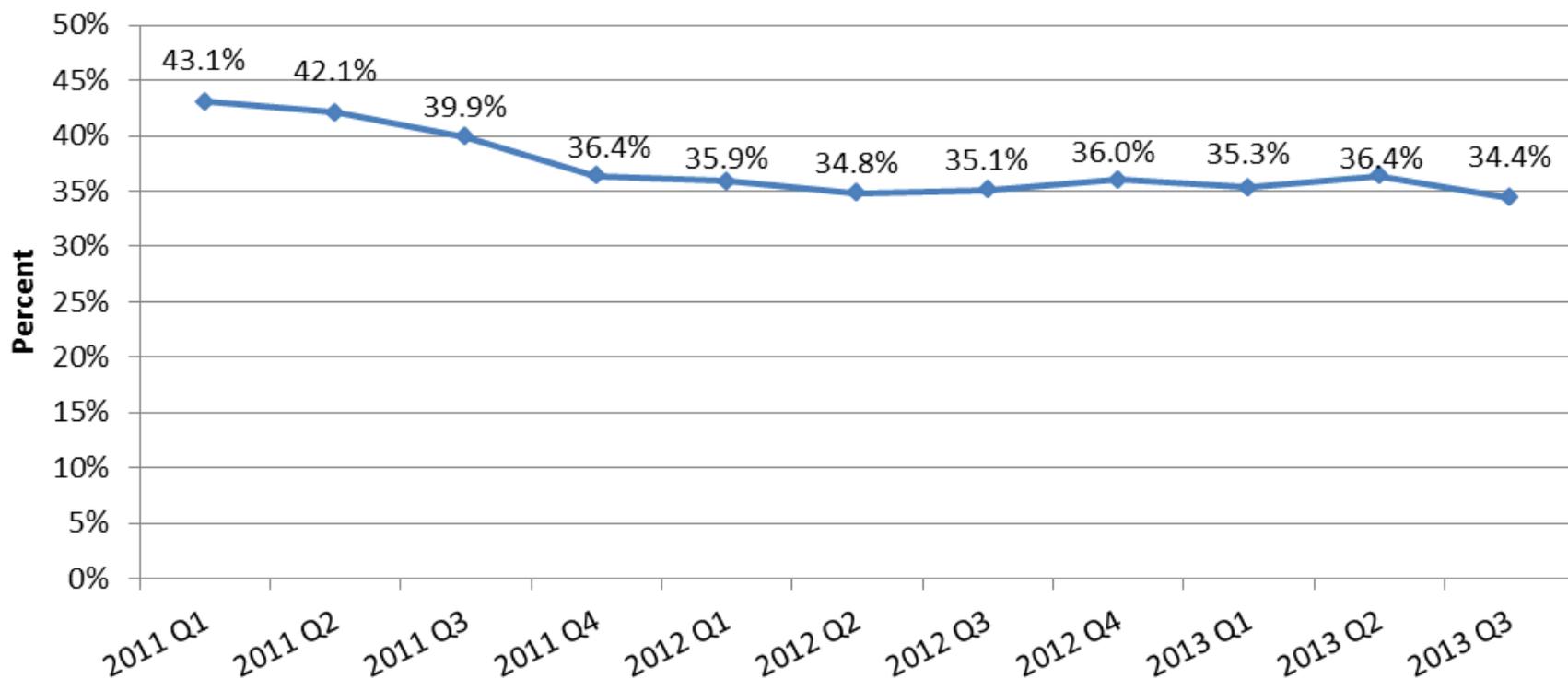


# Percent of Non-Medically Indicated Deliveries Among Singleton Early Term Deliveries, Reg. IV & VI



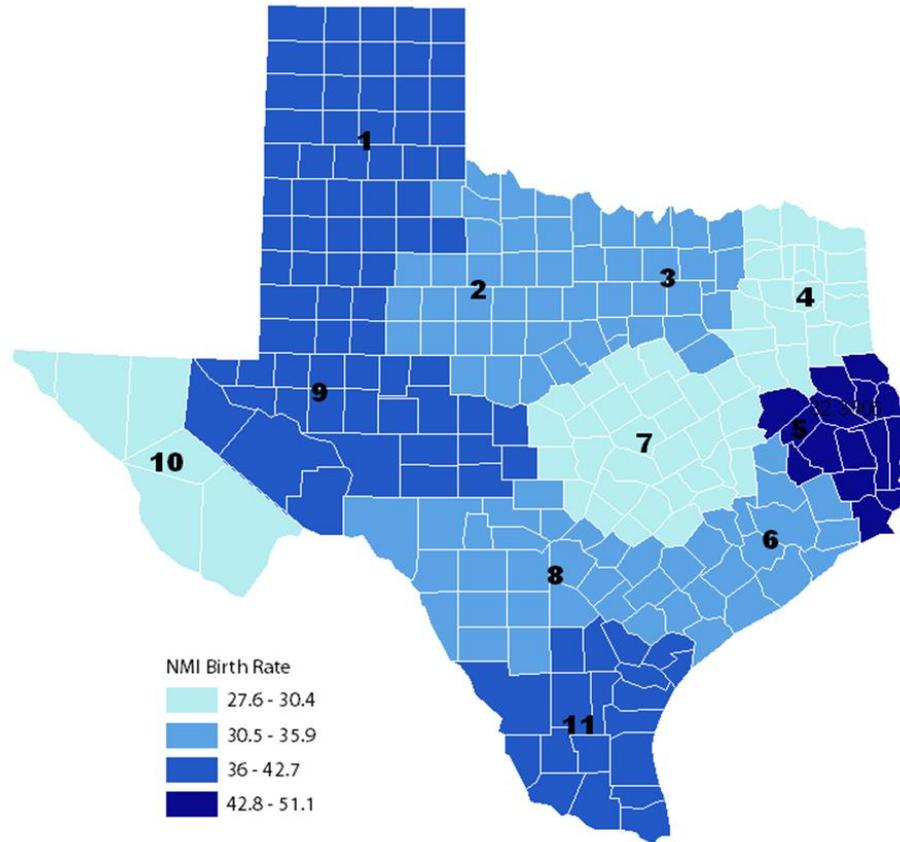
# NON-MEDICALLY INDICATED EARLY TERM BIRTHS IN TEXAS

**Percentage of Non-Medically Indicated (NMI) Early Term Singleton Births\* in Texas, Q1 2011-Q3 2013\*\***



# Non-Medically Indicated Births, 2012-2013

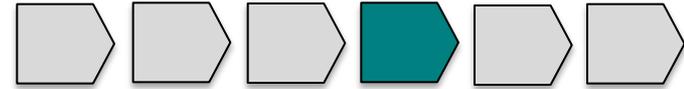
by Public Health Region



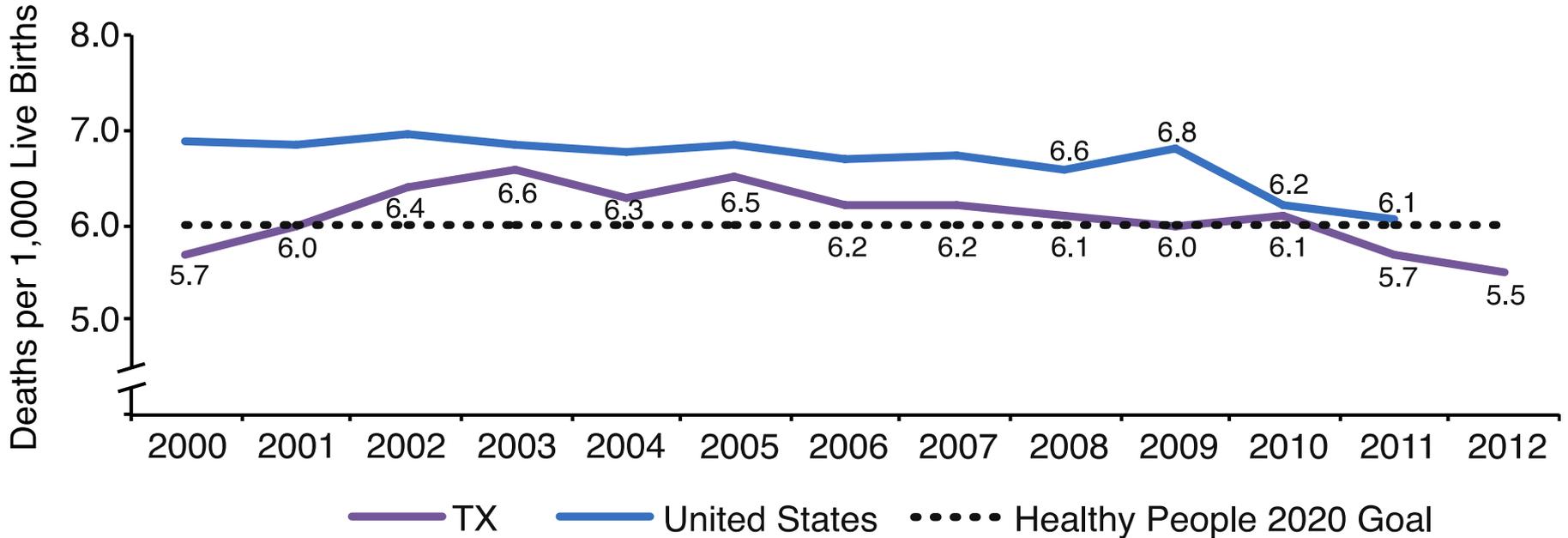
Data source: ?



# Maternal and Infant Health Data



**Figure 1:** Infant mortality rate for the United States and Texas, 2000 – 2012



2012 data are provisional and subject to change

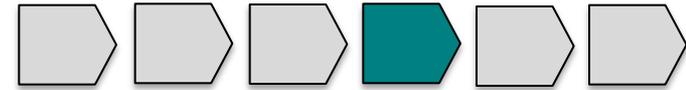
Texas data from Death Vital Records, DSHS, Center for Health Statistics

U.S. data from National Center for Health Statistics Vital Records Report, Deaths

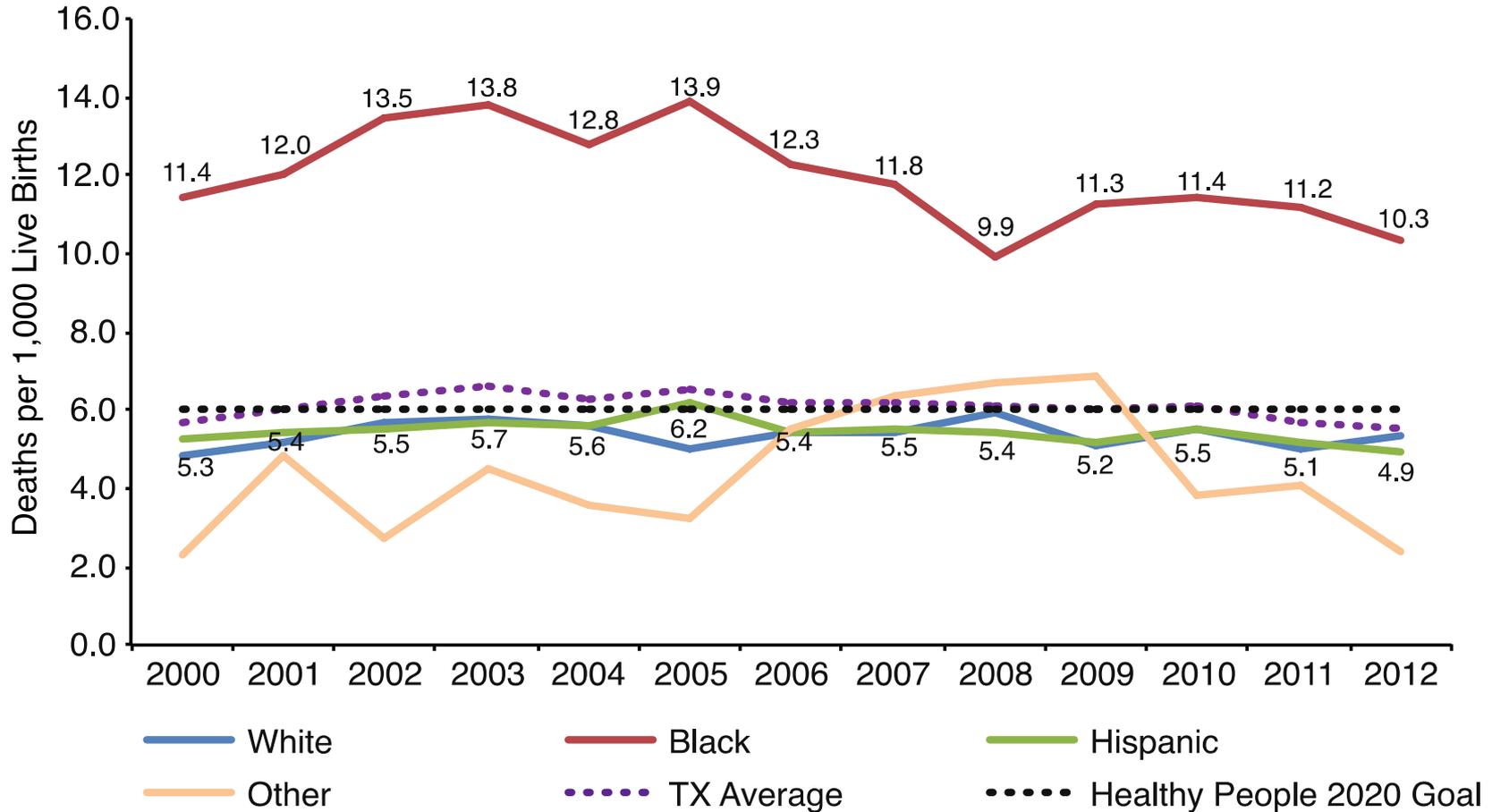
Prepared by FCHS, Office of Program Decision Support



# Maternal and Infant Health Data

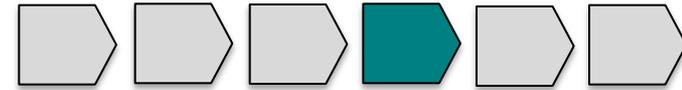


**Figure 2:** Infant mortality rate by race / ethnicity, 2000 - 2012

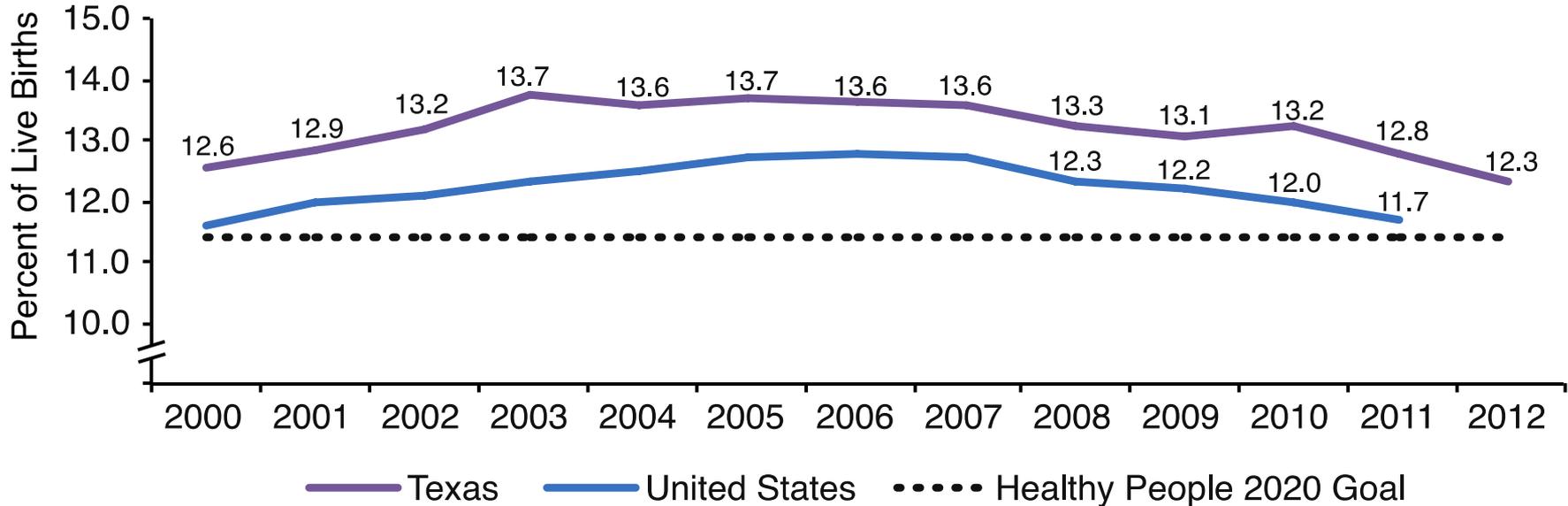


2012 data are provisional and subject to change  
 Texas data from Death Vital Records, DSHS, Center for Health Statistics  
 Prepared by FCHS, Office of Program Decision Support

# Maternal and Infant Health Data



**Figure 5:** Percent of infants born preterm for the United States and Texas, 2000 – 2012



2012 data are provisional and subject to change

Texas data from Birth Vital Records, DSHS, Center for Health Statistics

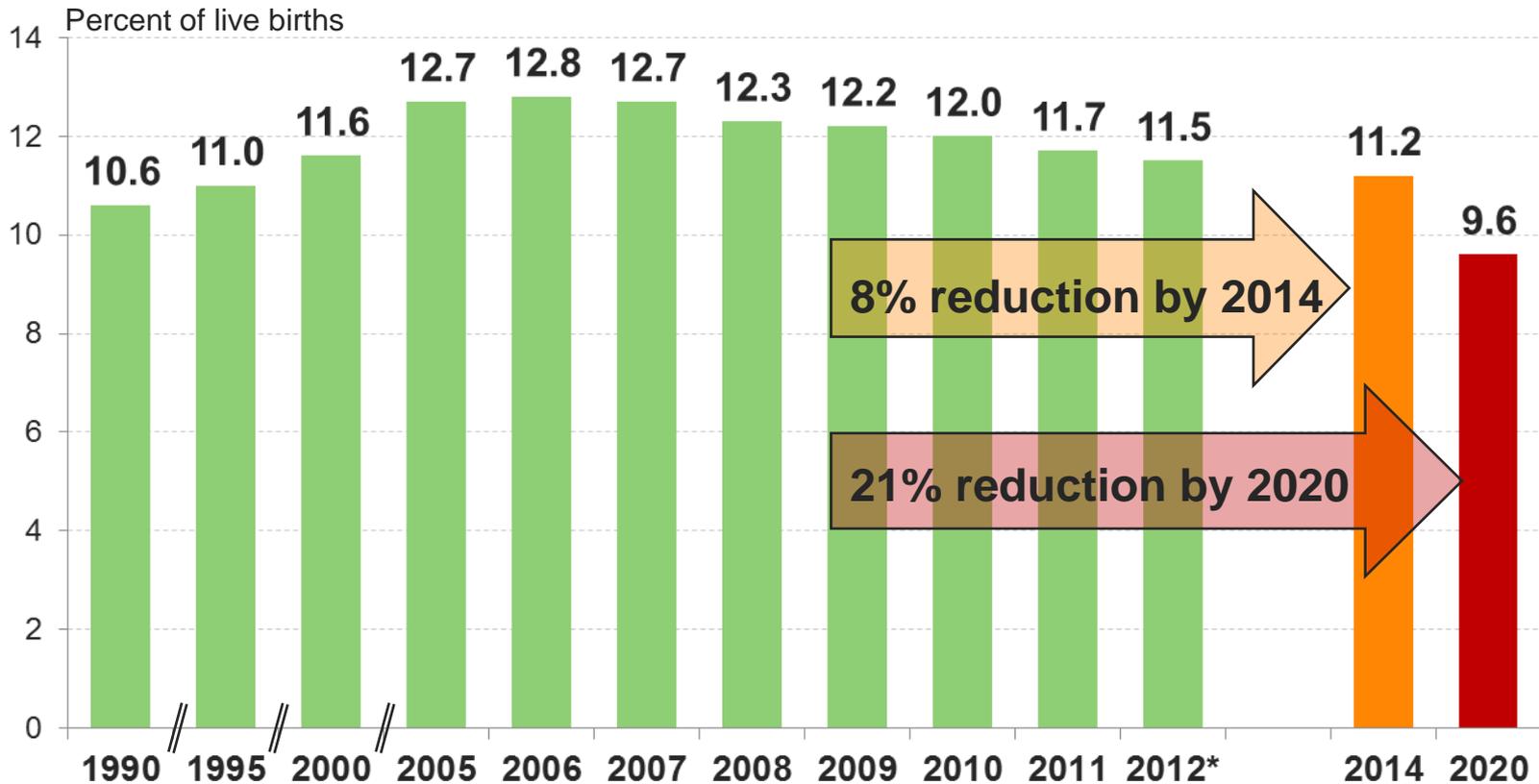
U.S. data from National Center for Health Statistics Vital Statistics Report, Births

Prepared by FCHS, Office of Program Decision Support

- The rate of preterm birth has declined about 6% since 2009
- The decline is mainly among infants born between 34 and 36 weeks gestation



# March of Dimes Preterm Birth Goals



\*Preliminary data

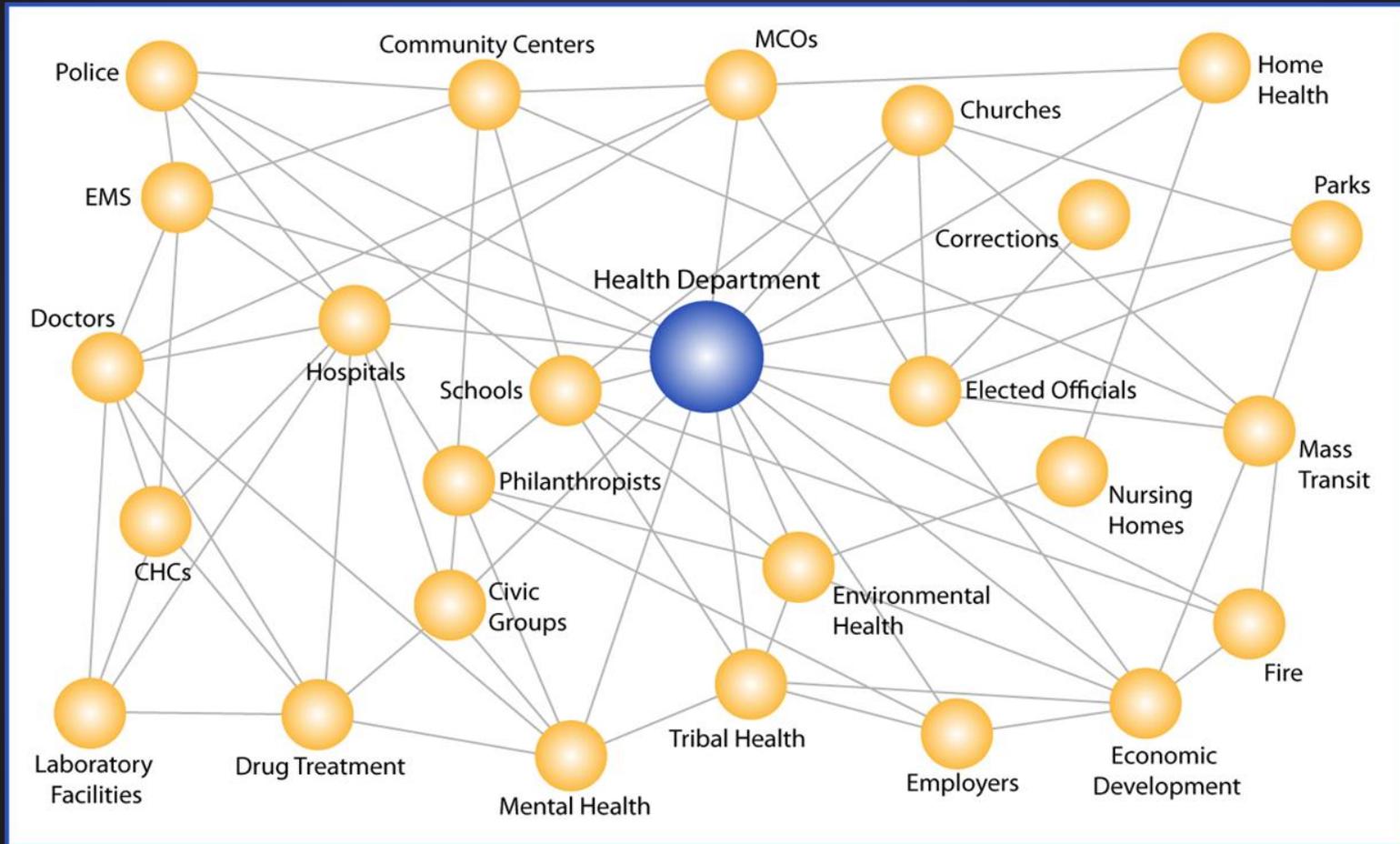
Preterm is less than 37 completed weeks of pregnancy.

Source: National Center for Health Statistics, 1990-2011 final natality data and 2012 preliminary data.

Prepared by March of Dimes Perinatal Data Center



# Partners in the Public Health System



**Thank You!**

# Texas Medicaid Claims Data by Diagnosis Related Group

DRG Code	# of Claims	Total Cost (millions)	Cost per Claim
386 Extreme Immaturity	4,507	\$285	\$63,245
387 Prematurity w/ Major Problems	3,332	\$63.5	\$19,059
388 Prematurity w/out Major Problems	6,461	\$25.9	\$4,019
389 Full term Neonate w/ Major Problems	6,837	\$40.8	\$5,962
390 Neonate w/ Other Significant Problems	20,539	\$26.6	\$1,295
391 Normal Newborn	125,304	\$51.4	\$410

**Note: Texas population is ~23 million**