# Improving Pregnancy Outcomes Update from MCHB

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**Maternal and Child Health Bureau (MCHB)**

**Grantmakers In Health Meeting on**

*Improving the Health of Parents, Children, and Families through Public-Private Collaboration*

*Washington, DC, December 10, 2014*

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# The Good News

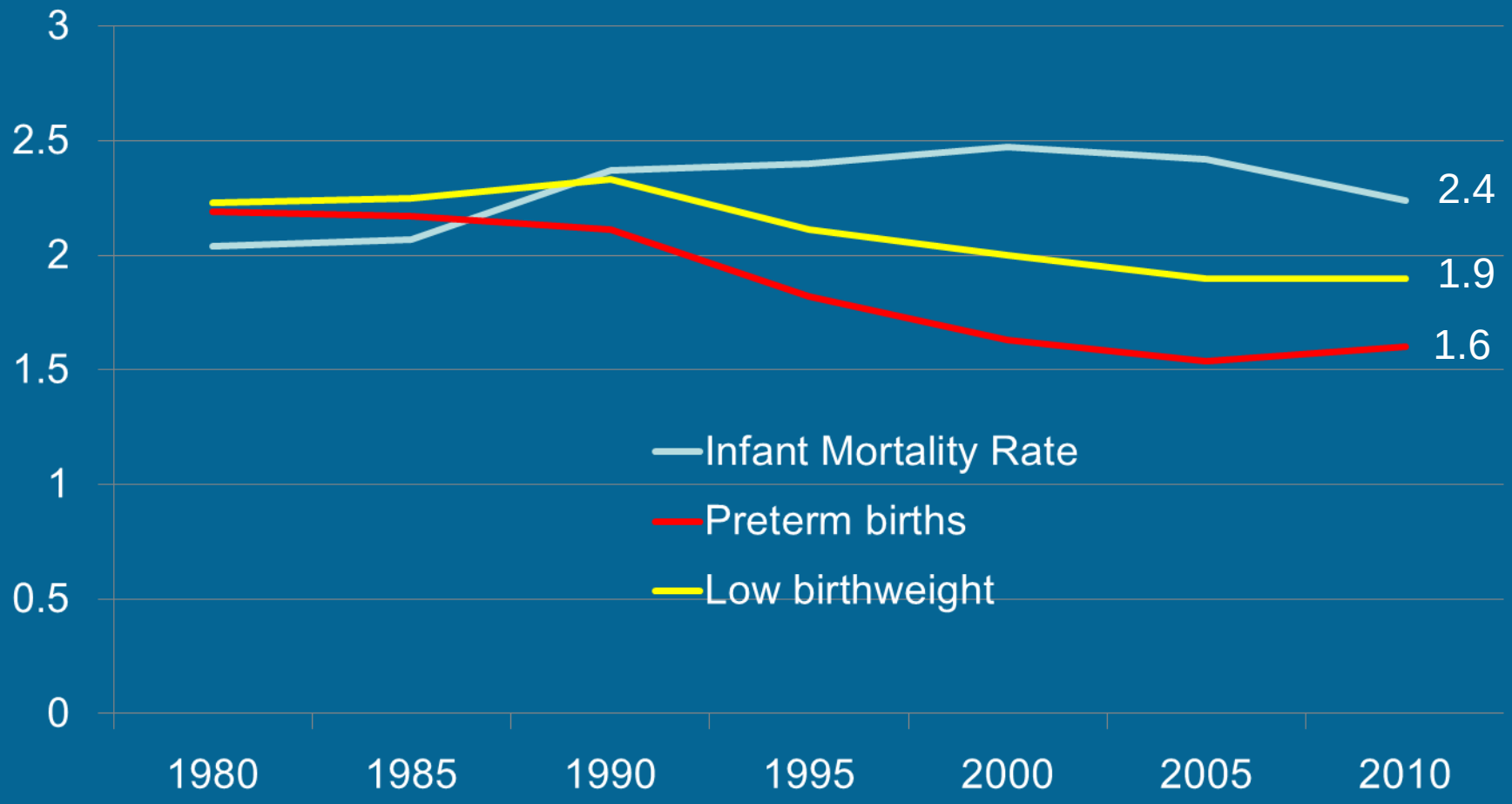
- Infant Mortality Rate decreased by 12.2% from 2000 to 2011

- Between 2006 and 2012:
  - Preterm delivery rate decreased by 9.8%
  - Low birth weight rate decreased by 3.3%

# The Continuing Challenges

- Persistent health disparities
- Other countries have achieved better outcomes
- Worsening maternal outcomes contribute to poor pregnancy outcomes

# Black-White disparities in perinatal outcomes - United States 1980 to 2010

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# Other Countries Have Done it!

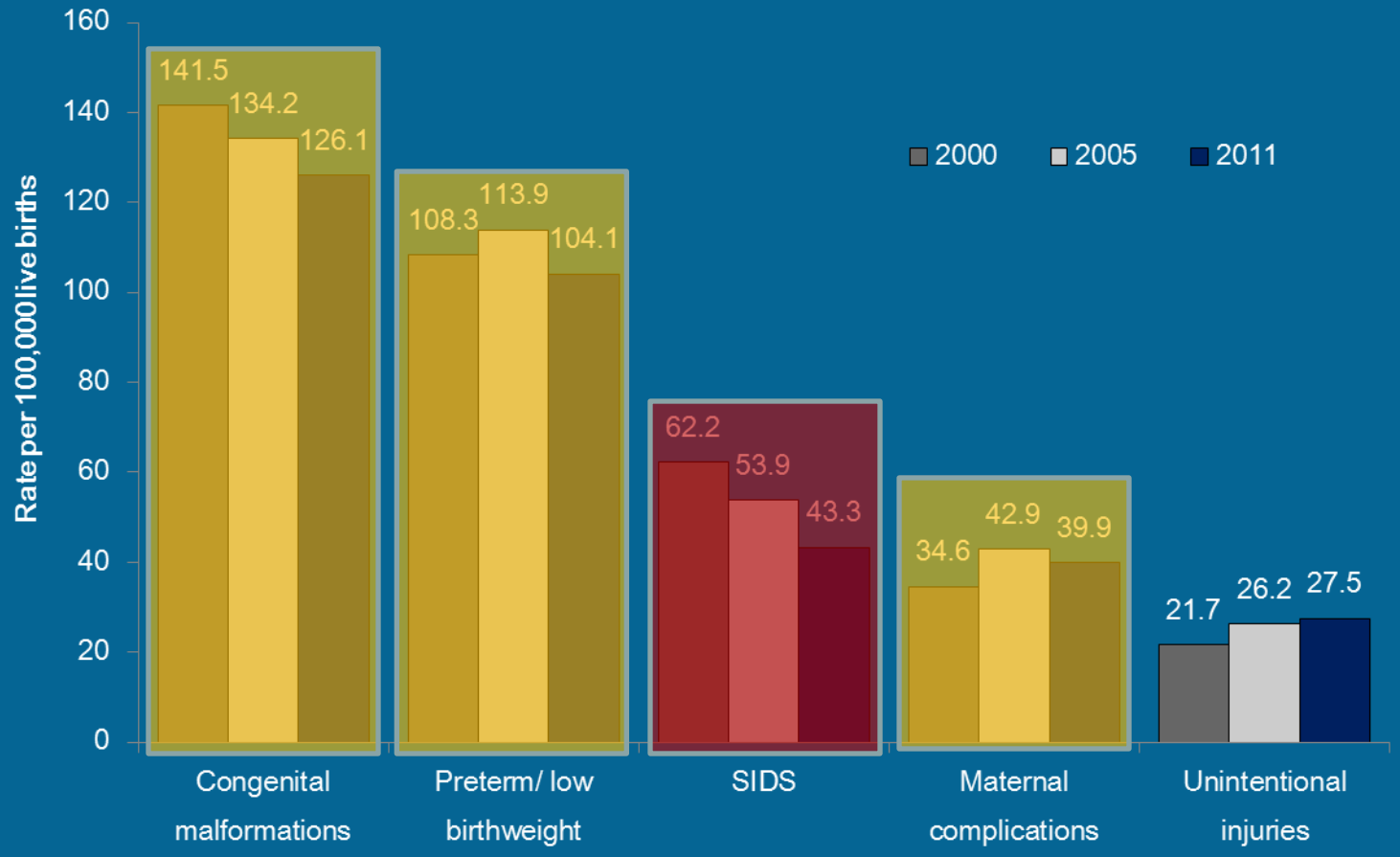
**Compared to the United States:**

- 27 countries have lower IMRs
- 35 countries have lower PTB Rates, and
- >50 countries have lower MMRs

# Contributors to Pregnancy Outcomes

- **Socioeconomic status:** household income, occupational status, or parental educational attainment
- **Risky behaviors:** maternal cigarette smoking, delayed and inadequate utilization of prenatal care, alcohol and drug use
- **Maternal conditions:** psychological stress, stressful life events or perceived stress or anxiety during pregnancy, chronic conditions, perinatal infection

# Infant Mortality Rates for the Five Leading Causes of Death, United States, 2000, 2005, and 2011




*Source: CDC/NCHS, Mortality Data. 2011 data are preliminary.*
*Prepared by MacDorman for SACIM, November 2012.*

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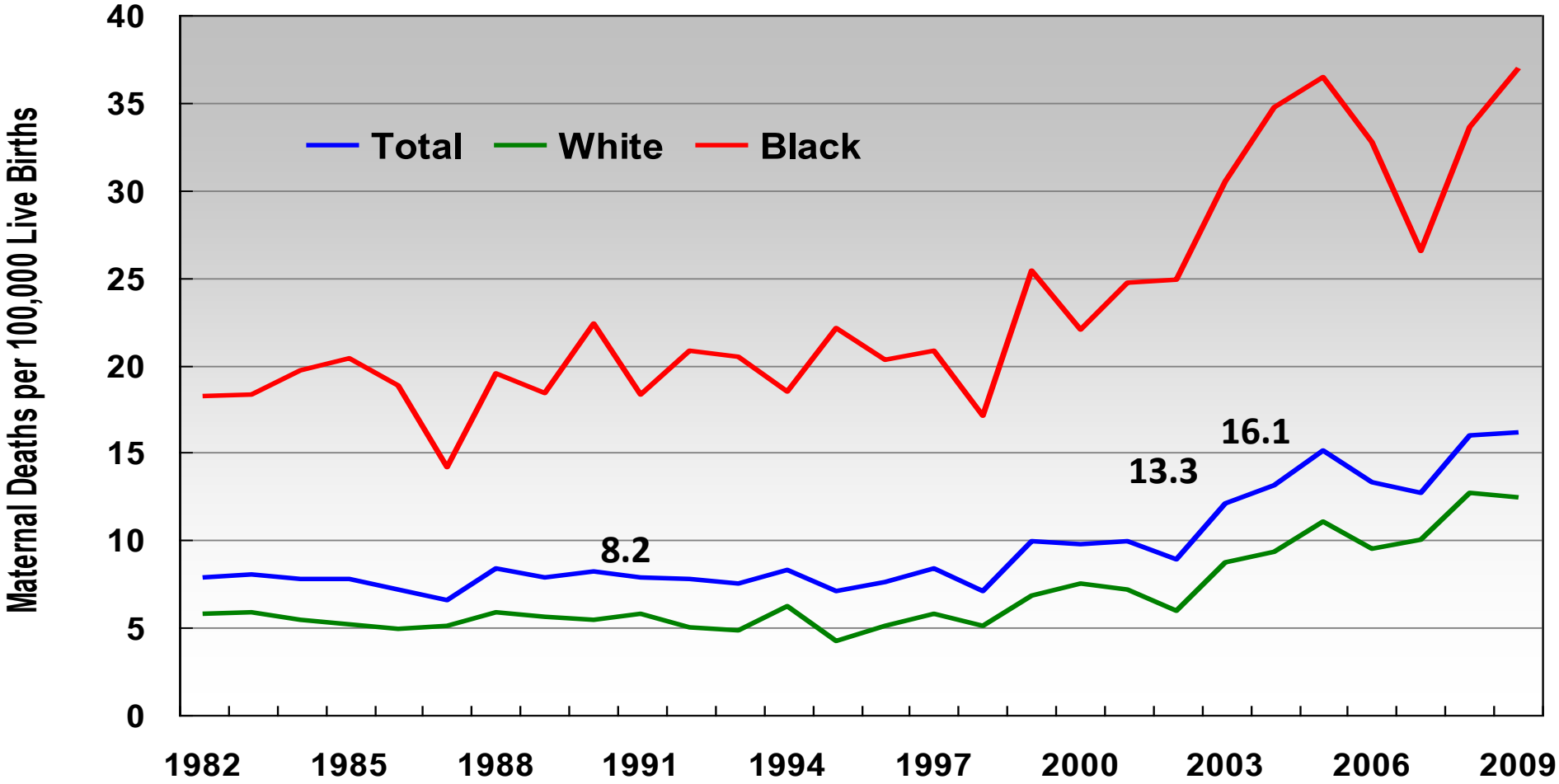
# U.S. Maternal Mortality




Source: Singh GK. Maternal Mortality in the United States. A 75th Anniversary Title V Publication. HRSA 2010

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# Severe Maternal Morbidity

- Severe maternal morbidity increased by 75% and 114% for delivery and postpartum hospitalizations respectively from 1998-99 to 2008-09

- Rates increased during delivery hospitalizations for:
  - Thrombotic embolism (72%)
  - Respiratory distress syndrome (75%)
  - Cardiac surgery (75%)
  - Acute renal failure (97%)
  - Shock (101%)
  - Blood transfusion (183%)
  - Aneurysms (195%)

*Callaghan et al: Severe maternal morbidity among delivery and postpartum hospitalizations in the United States. Obstet Gynecol 120:1029-36, 2012*

# Risk factors for adverse pregnancy outcomes among women who recently delivered a live-born baby – PRAMS 2004 – Preconception health conditions and behaviors

| Behavior /Condition | % | | Behavior /Condition | % |
|---|---|---|---|---|
| Overweight or obese | 35 | | Previous preterm delivery | 11.9 |
| Diabetes | 1.8 | | | |
| Asthma | 6.9 | | Tobacco (3 months bef preg) | 23.2 |
| Hypertension | 2.2 | | Alcohol (3 months bef preg) | 50.1 |
| Heart problems | 1.2 | | Multivitamins (>=4/week) | 35.1 |
| Anemia | 10.2 | | No contraception / not planning | 53.1 |
| Previous Low Birth weight | 11.6 | | Pre-pregnancy counseling | 30.3 |

Centers for Disease Control and Prevention: Preconception and Interconception Health Status of Women Who Recently Gave Birth to a Live-Born Infant --- Pregnancy Risk Assessment Monitoring System (PRAMS), United States, 26 Reporting Areas, 2004. MMWR 2007:56(SS10);1-35

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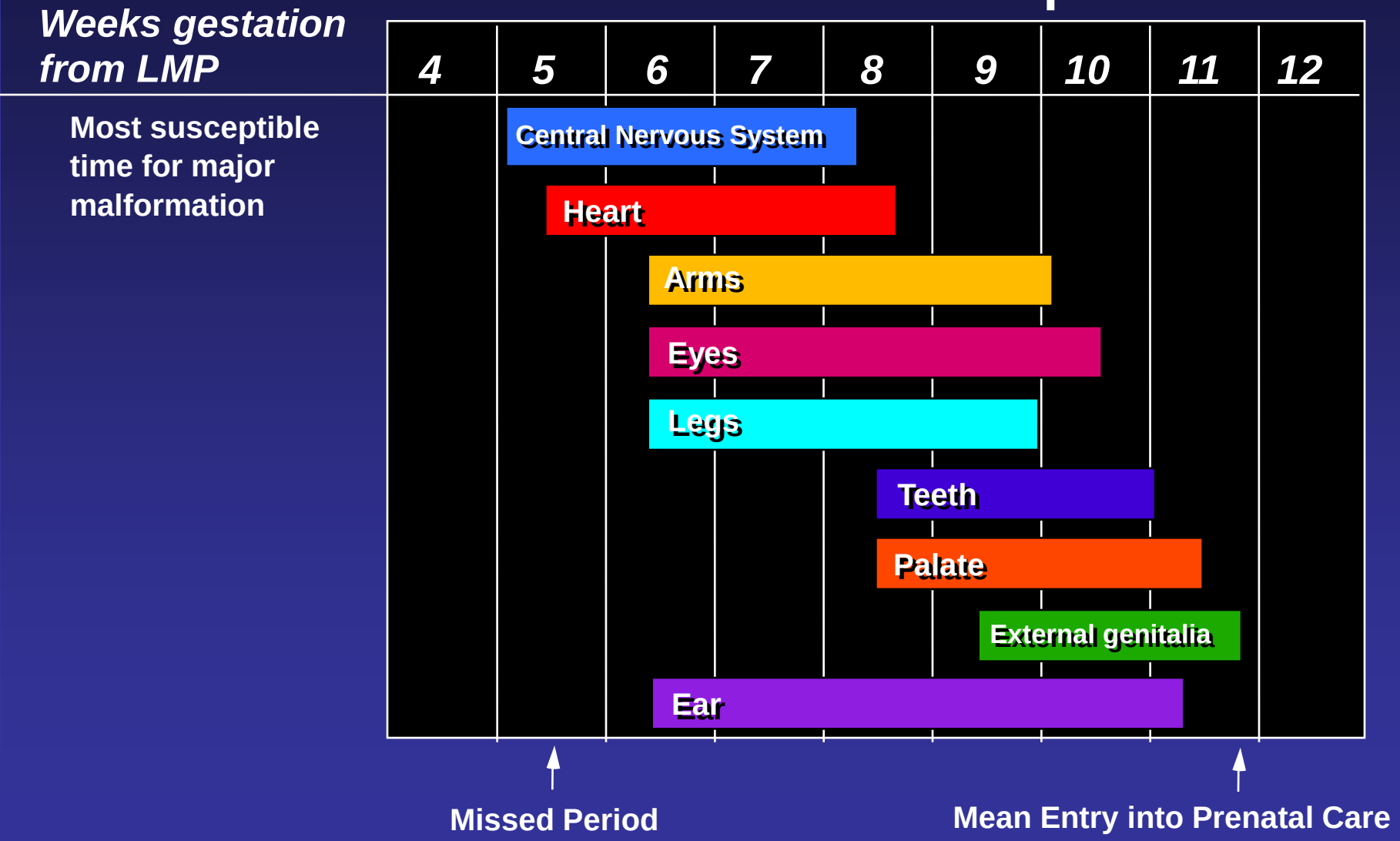
# We Currently Intervene Too Late

## Critical Periods of Development



**Early prenatal care is not enough, and in many cases it is too late!**

# Working smarter

- Implement what we know works
- Work beyond the 9 months of pregnancy:
  - Comprehensive women's health
  - Preconception / interconception
  - Across the life span - "Life-course approach"
- How we do it:
  - Consider multiple contributing factors
  - COINs
  - Collective impact

# Lifecourse Perspective to Improve Pregnancy Outcomes

**The lifecourse approach proposes that disparities in birth outcomes are the consequences of differential developmental trajectories set forth by early life experiences and cumulative allostatic load over the life course.**

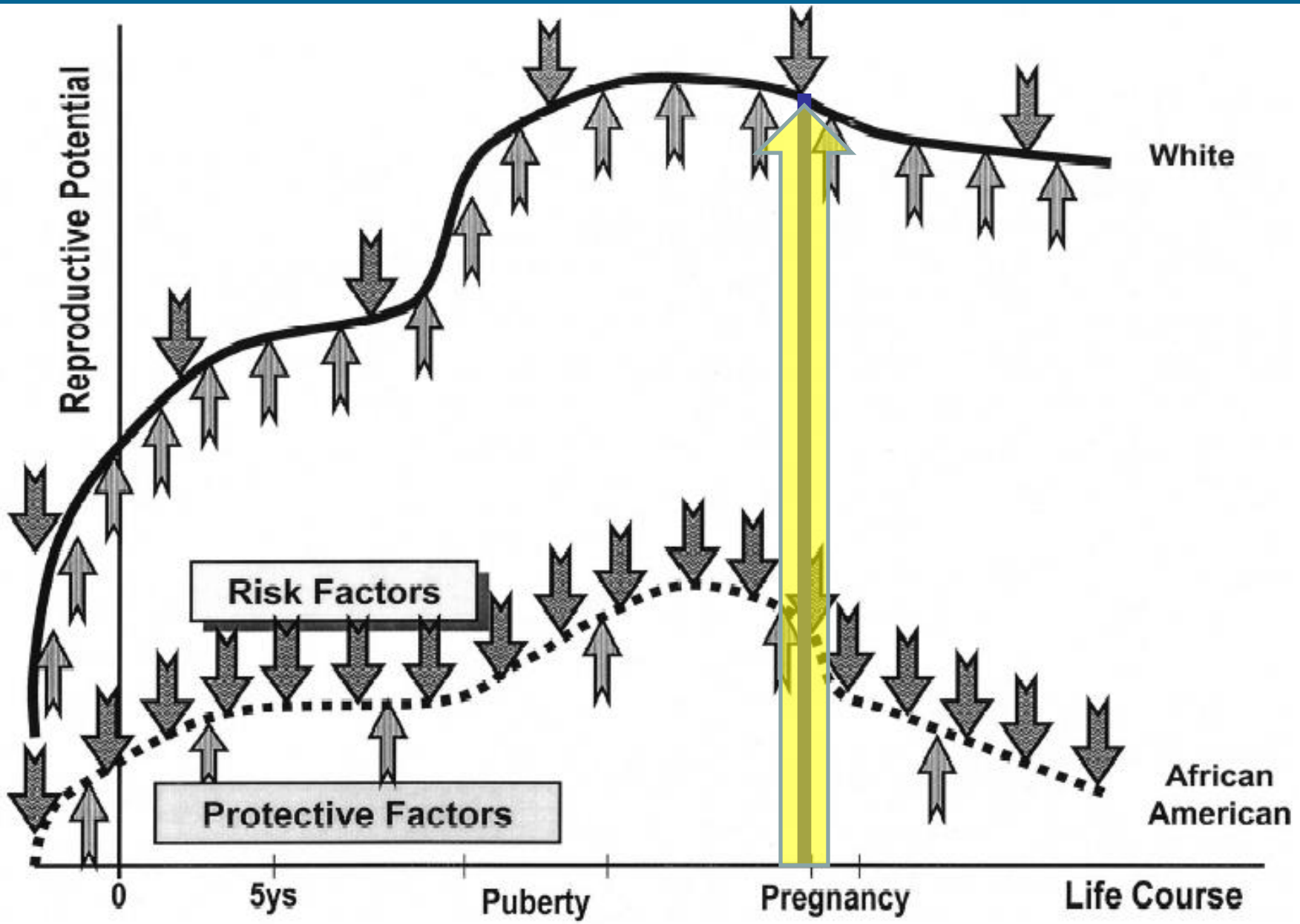
*Source: Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. Matern Child Health J. 2003;7:13-30.*

# Lifecourse Perspective to Improve Pregnancy Outcomes

**Scientific evidence from two leading longitudinal models:**

- **The early programming model** - exposures in early life could influence future reproductive potential
- **The cumulative pathways model** - decline in reproductive health results from cumulative wear and tear to the body's allostatic systems
- These two models are not mutually exclusive

*Source: Lu MC, Halfon N. Racial and ethnic disparities in birth outcomes: a life-course perspective. Matern Child Health J. 2003;7:13-30.*

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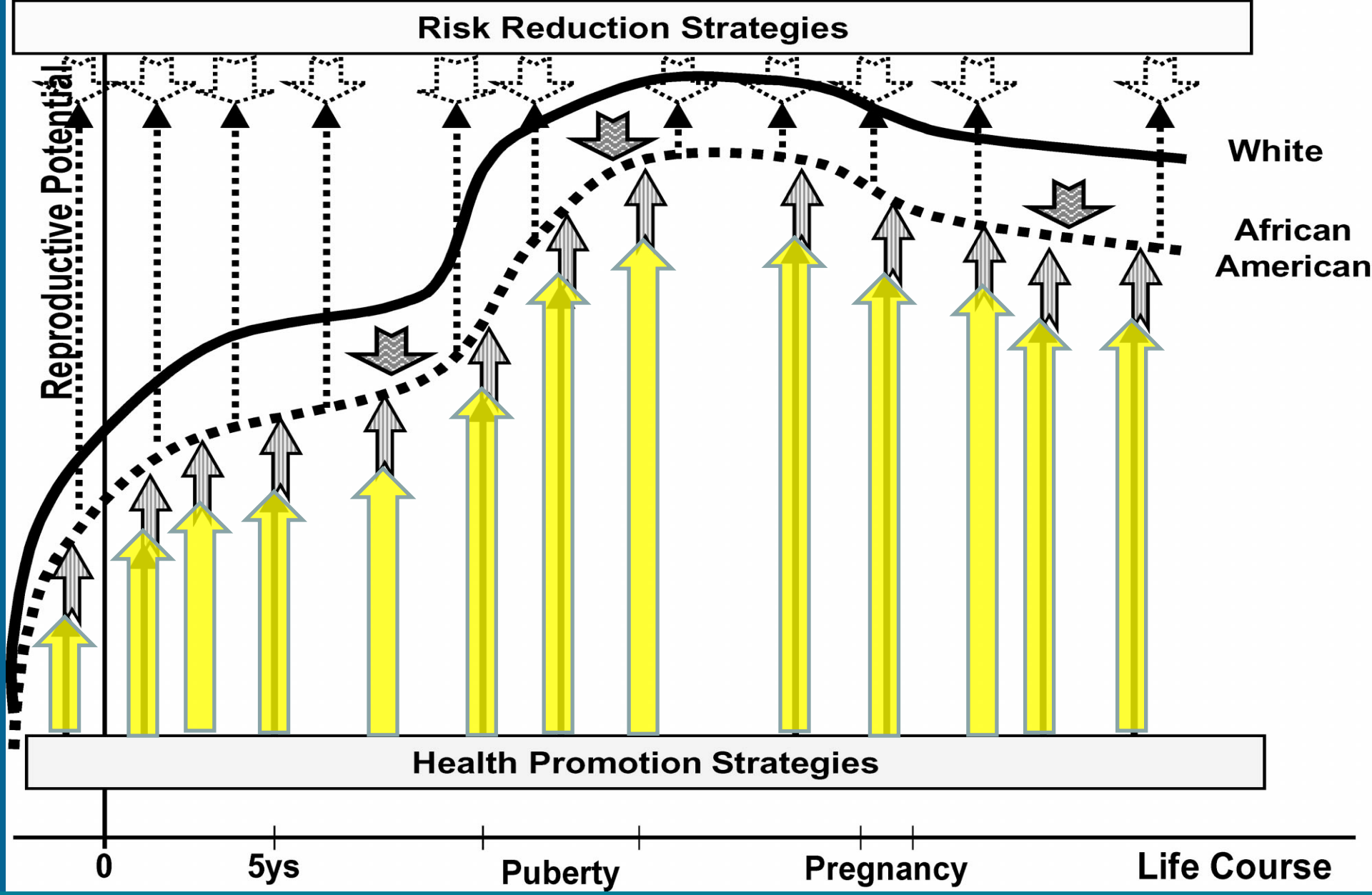


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# Key HRSA Improving Pregnancy Outcome Programs

- SACIM
- Women's Health Preventive Services Clinical Care Guidelines
- The National Maternal Health Initiative
- The Infant Mortality COIIN, and
- Healthy Start

# Recommendations for HHS Action and Framework for a National Strategy to Reduce Infant Mortality SACIM Strategic Directions: 6 Big Ideas (1/2013)

1. Improve the health of women.
2. Ensure access to a continuum of safe and high quality, patient-centered care.
3. Redeploy key evidence-based, highly effective preventive interventions to a new generation.
4. Increase health equity and reduce disparities by targeting social determinants of health through investments in high-risk communities and initiatives to address poverty.
5. Invest in adequate data, monitoring, and surveillance systems to measure access, quality, and outcomes.
6. Maximize the potential of interagency, public-private, and multi-disciplinary collaboration.

# Women's and Maternal Health - HRSA Initiatives

## Women's Health Preventive Services Clinical Visit Guidelines

- Support the development of clinical preventive health guidelines for well woman visit
- Compile the guidelines into a succinct resource
- Disseminate these guidelines and promote their adoption into standard clinical practice among women's health care providers

# Women's and Maternal Health - HRSA Initiatives
# National Maternal Health Initiative

- Promote coordination and collaboration within HRSA, across HHS agencies and with professional and private organizations.

- Five priorities:
  - Improve women's health before, during, and after pregnancy
  - Improve systems of maternity care including clinical and public health systems
  - Improve public awareness and education
  - Improve research and surveillance
  - Improve the quality and safety of maternity care

# Women's and Maternal Health - HRSA Initiatives Improving Maternal Health and Safety

- Purpose: reduce the number of maternal deaths and/or preventable severe morbidities
- Goal: engaging health care providers, State leaders, hospitals, payers, and consumers
- Strategies:
  - Promote knowledge of and access to preconception and interconception care through a provider education campaign
  - Engage stakeholders in efforts to reduce primary cesarean delivery
  - Facilitate the adoption of the maternal safety bundle through development of a CoIIN of early adopter states

# THE NATIONAL HEALTHY START PROGRAM
## History

- Established in 1991 as a presidential initiative
- Provides funding and supports communities with high infant mortality rates and other adverse perinatal outcomes
- Focused on community innovation and creativity and encouraged communities to do what was best for them
- Today, HRSA supports healthy start projects in 196 communities

# Main Changes to Healthy Start Healthy Start Approaches

- Improve Women's Health
- Promote Quality Services
- Strengthen Family Resilience
- Achieve Collective Impact
- Increase Accountability through Quality Improvement, Performance Monitoring, and Evaluation

# Implementing Healthy Start 3.0

- Two new programs are being launched:
  - Supporting Healthy Start Performance Project
  - Healthy Start Information System

# Supporting Healthy Start Performance Project

- SHSPP will promote the uniform implementation of Healthy Start by:
  - Ensuring skilled, well qualified workers at all levels of the program
  - Identifying and better defining effective services and interventions
  - Offering mentoring, education, and training to staff delivering these interventions and services
  - Providing shared resources

# Healthy Start Information System

- Data Dashboard for real-time monitoring of progress of activities

- Individual client data, program data, and community outcome data for:
  - Continuous quality improvement
  - Provision of targeted technical assistance, and
  - Ongoing local and national evaluations

# Healthy Start CAN Drive Collective Impact

**Healthy Start programs are uniquely situated to:**

- **Champion the infant mortality cause in their communities**
- **Serve as backbone organizations to ensure collective impact**
- **Implement its six main functions of a backbone organization:**
  - Provide overall strategic direction
  - Facilitate dialogue between partners
  - Manage data collection and analysis
  - Handle communications
  - Coordinate community outreach, and
  - Mobilize funding

Source: Turner S, Merchant K, Kania J, Martin E. Understanding the Value of Backbone Organizations in Collective Impact: Part 3. Stanford Social Innovation Review. Jul. 19, 2012 http://www.ssireview.org/blog/entry/understanding_the_value_of_backbone_organizations_in_collective_impact_3 accessed March 2014

# The Infant Mortality CoIIN

## The Collaborative *Improvement* & Innovation Network to Reduce Infant Mortality

- Designed to help States innovate and improve their approaches to improving birth outcomes

- Initiated March 2012 as a mechanism to support the adoption of collaborative learning and quality improvement principles and practices to reduce infant mortality and improve birth outcomes.

# COIN: Strategies & Structure

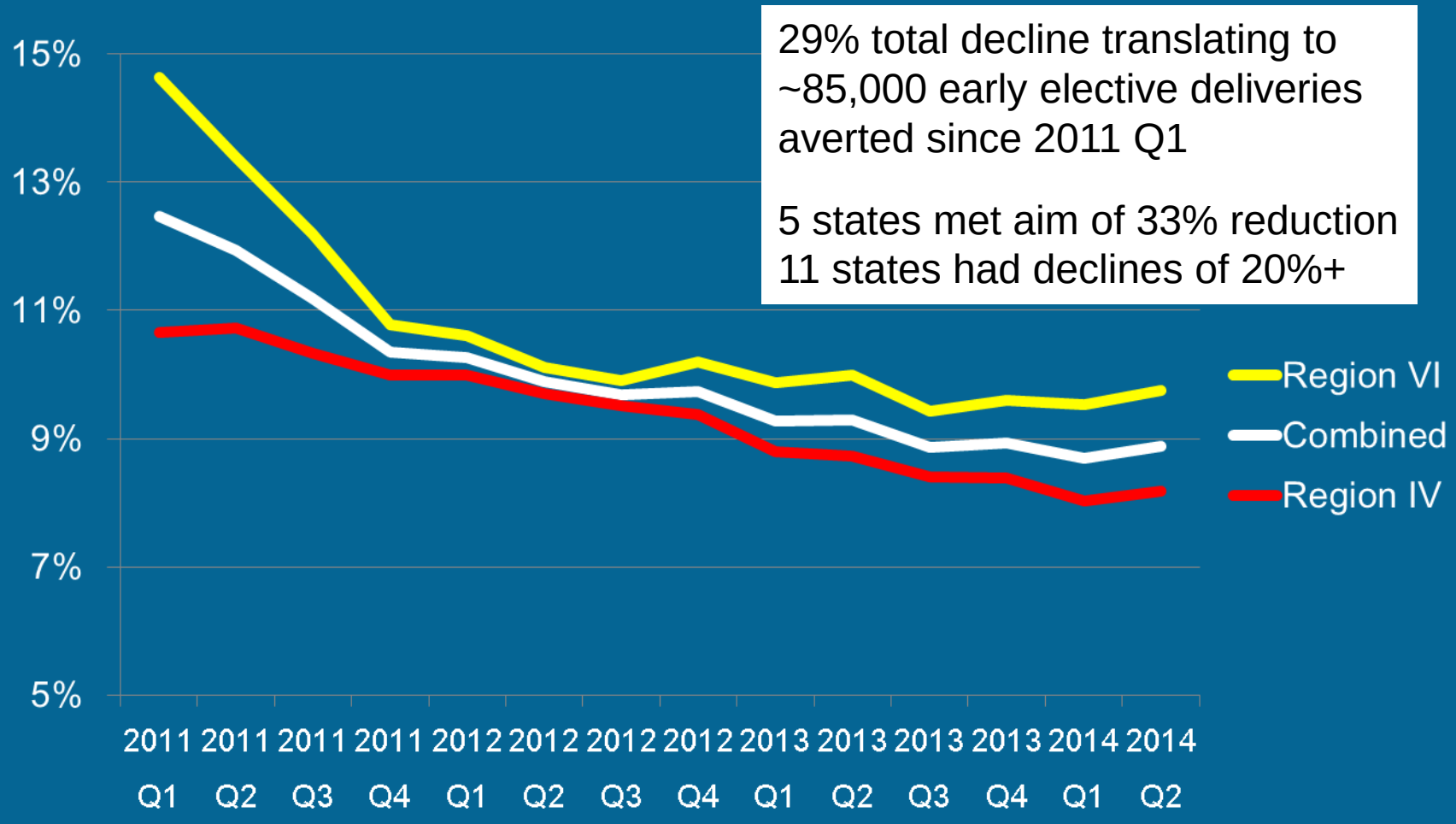
## 5 Strategy Teams

1. Reducing early elective deliveries <39 weeks (ED);
2. Enhancing interconception care in Medicaid (ICC);
3. Reducing SIDS/SUID (SS);
4. Increasing smoking cessation among pregnant women (SC);
5. Enhancing perinatal regionalization (RS).

## Teams

- 2-3 Leads (Content Experts);
- Data and/or Method Experts
- Staff support (MCHB & partner organizations)
- State representatives
- Shared Workspace
- Data Dashboard

# Non-Medically Indicated Early Term Deliveries Among Singleton, Term Deliveries*




29% total decline translating to ~85,000 early elective deliveries averted since 2011 Q1

5 states met aim of 33% reduction
11 states had declines of 20%+

* Includes provisional birth certificate data
Excludes 1 Region IV State that did not submit 2014 data

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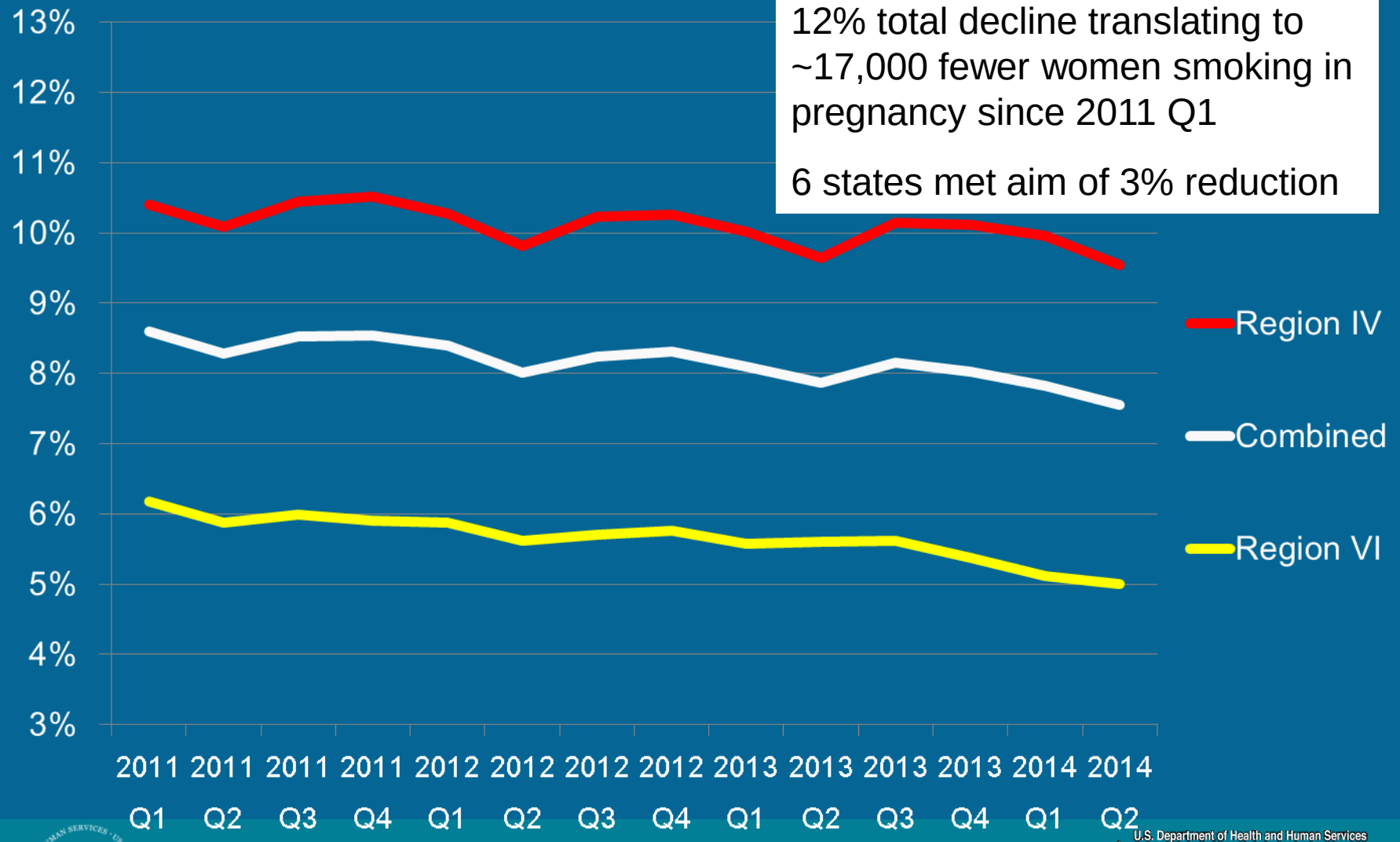
# Smoking During Pregnancy*




12% total decline translating to ~17,000 fewer women smoking in pregnancy since 2011 Q1

6 states met aim of 3% reduction

* Includes provisional birth certificate data reflecting smoking in any trimester; Excludes 1 Region IV State that did not submit 2014 data

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# For More Information

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