

Creating Opportunities for Virginia's Infants to Thrive

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Virginia State Health Commissioner
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VISION: VIRGINIA IS THE HEALTHIEST STATE IN THE NATION

WHAT: Thriving Infants is a national and state initiative to improve birth outcomes for all babies

HOW: Coordinate and integrated statewide actions including Thriving Infants

Thriving infants (TI) short term priorities by 2016

1. **Preconception/Interconception Health:**

Action plan: Long Acting Reversible Contraception (LARC)

Action plan: Behavioral health

Action plan: Tobacco

Action plan: Obesity

2. **SIDS/SUIDS/Safe Sleep**

Action plan: Hospital based

3. **Breastfeeding**

Action plan: 5 star program

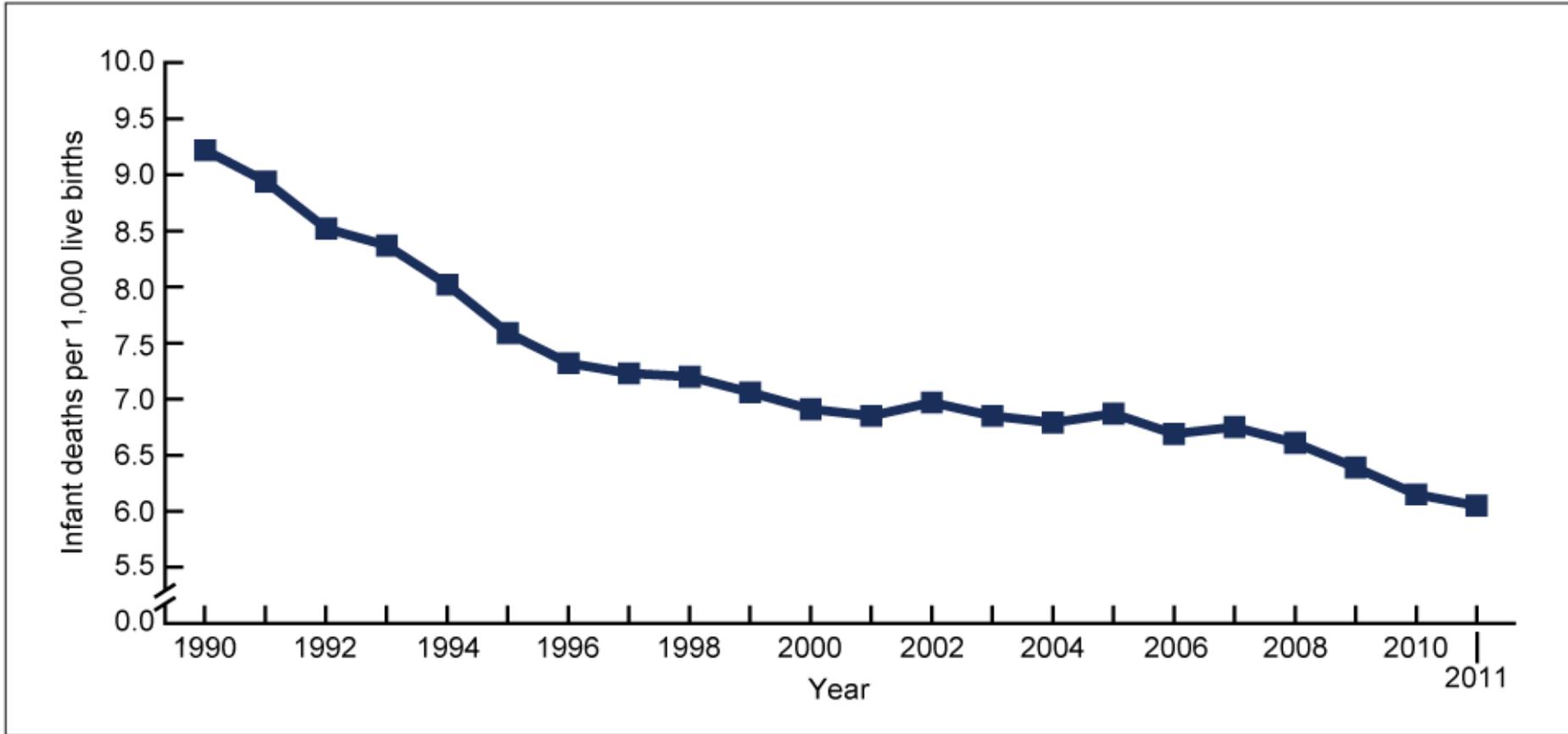
4. **Overarching action plan for all 3 priorities: Home Visiting**

TI long term goals by 2018

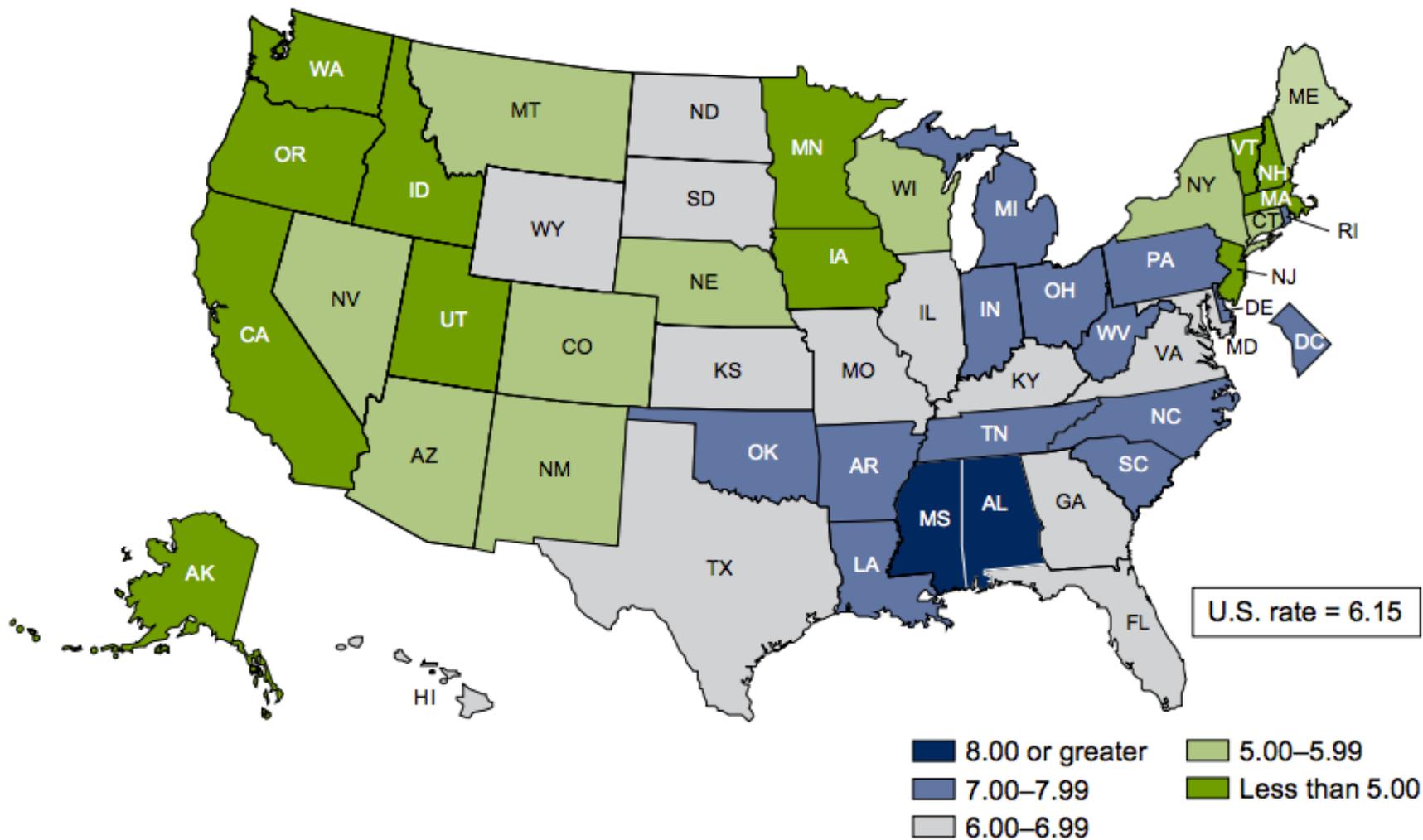
1. **IMR:** Reduce the IMR from 6.7 to 5.7

2. **Disparities:** Eliminate disparities related to birth outcomes

Figure 5. Infant mortality rates: United States, 1990–2010 final and preliminary 2011

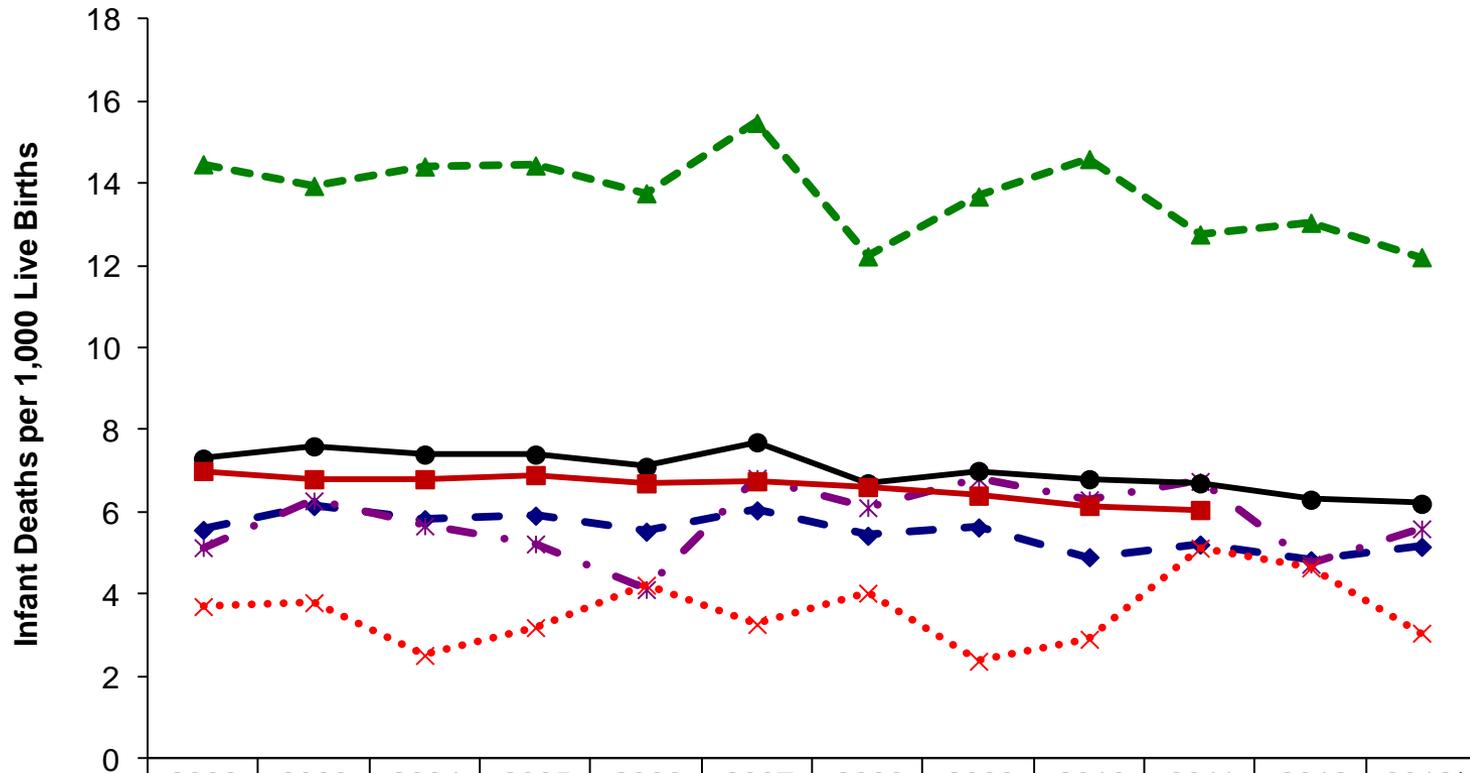


SOURCE: National Vital Statistics System, Mortality.



Infant mortality rates, by state: United States, 2010 (CDC)

Resident Infant (>1 year of age) Death Rates By Race/Ethnicity, Virginia and U.S. Rate, 2002-2013*

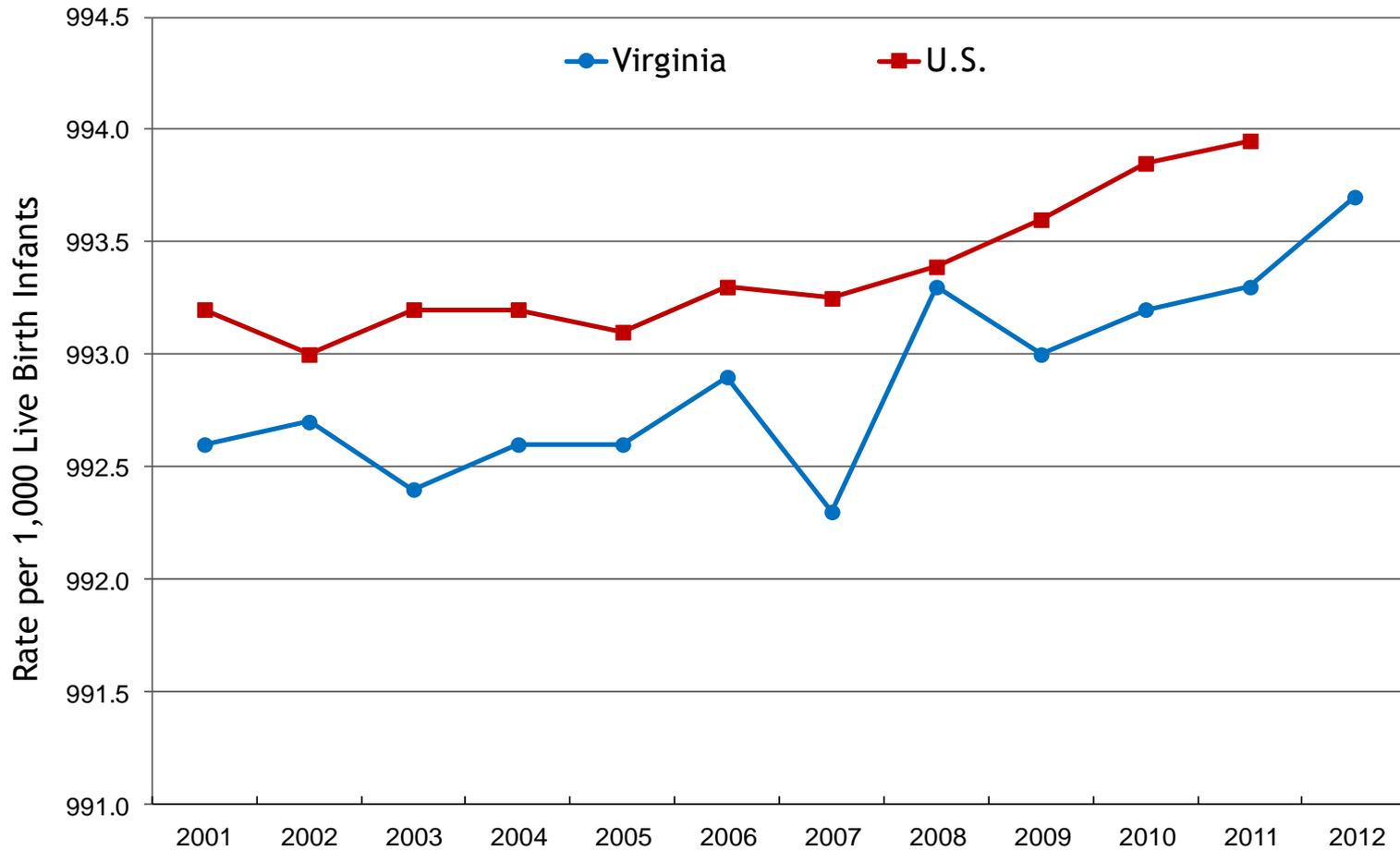


	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013*
White	5.6	6.1	5.8	5.9	5.5	6.0	5.4	5.6	4.9	5.2	4.8	5.2
Black	14.5	13.9	14.4	14.4	13.8	15.5	12.2	13.7	14.6	12.8	13.0	12.2
Hispanic	5.1	6.3	5.7	5.2	4.1	6.8	6.1	6.8	6.3	6.7	4.7	5.6
Asian	3.7	3.8	2.5	3.2	4.2	3.3	4.0	2.4	2.9	5.1	4.6	3.0
Virginia	7.3	7.6	7.4	7.4	7.1	7.7	6.7	7.0	6.8	6.7	6.3	6.2
U.S.	7.0	6.8	6.8	6.9	6.7	6.8	6.6	6.4	6.2	6.1		

Source: VDH Division of Health Statistics, compiled by the Division of Policy & Evaluation, Office of Family Health Services

* Data for 2013 is provisional as of 01/05/2015.

Increase In Infants Surviving



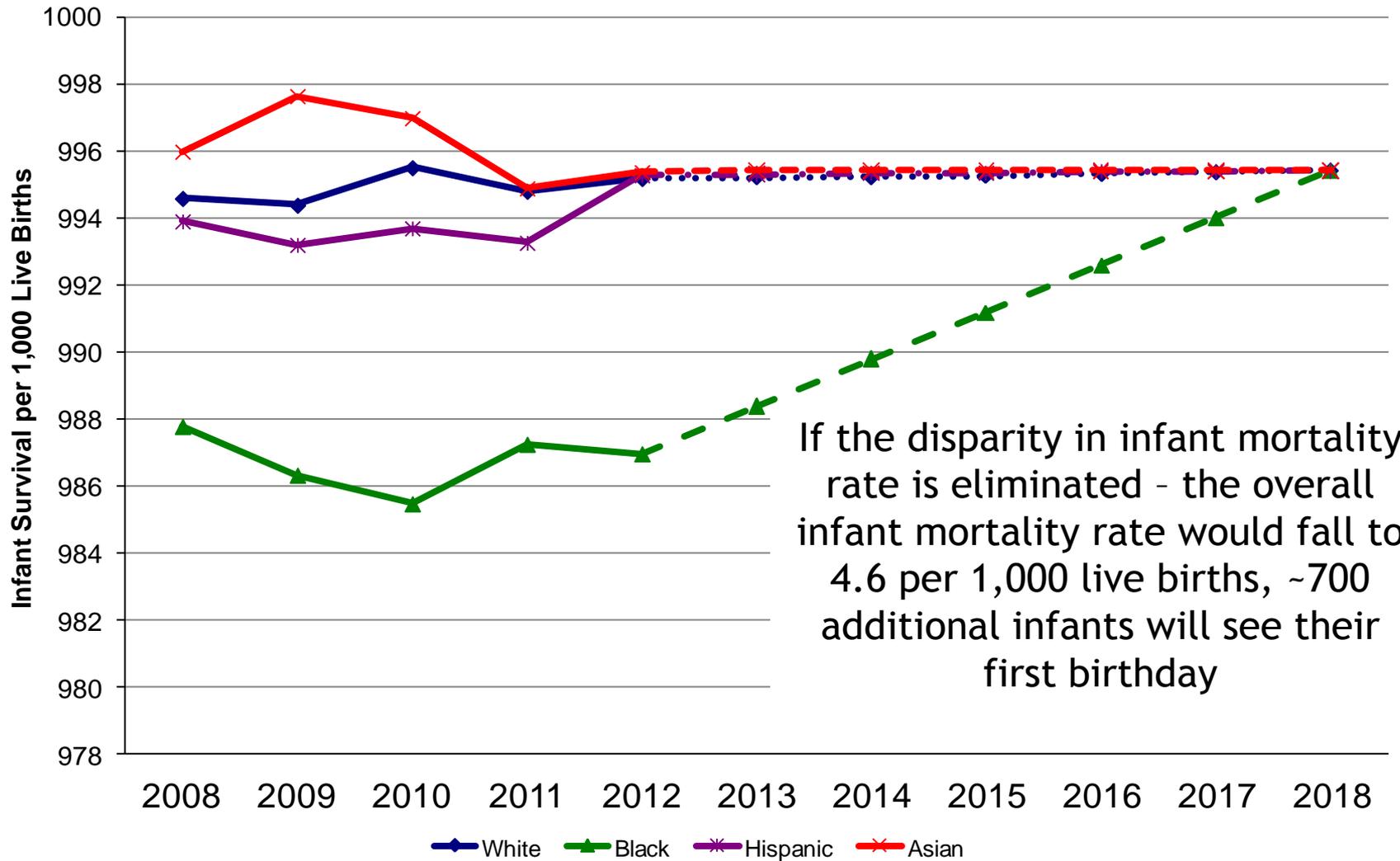
Source: VDH Division of Health Statistics, compiled by the Division of Policy & Evaluation, Office of Family Health Services

Virginia's Infant ~~Mortality~~ Strategic Plan THRIVING

994 thriving infants per 1000 live births



Resident Infant (>1 year of age) Survival Rates By Race/Ethnicity, Virginia 2008-2018



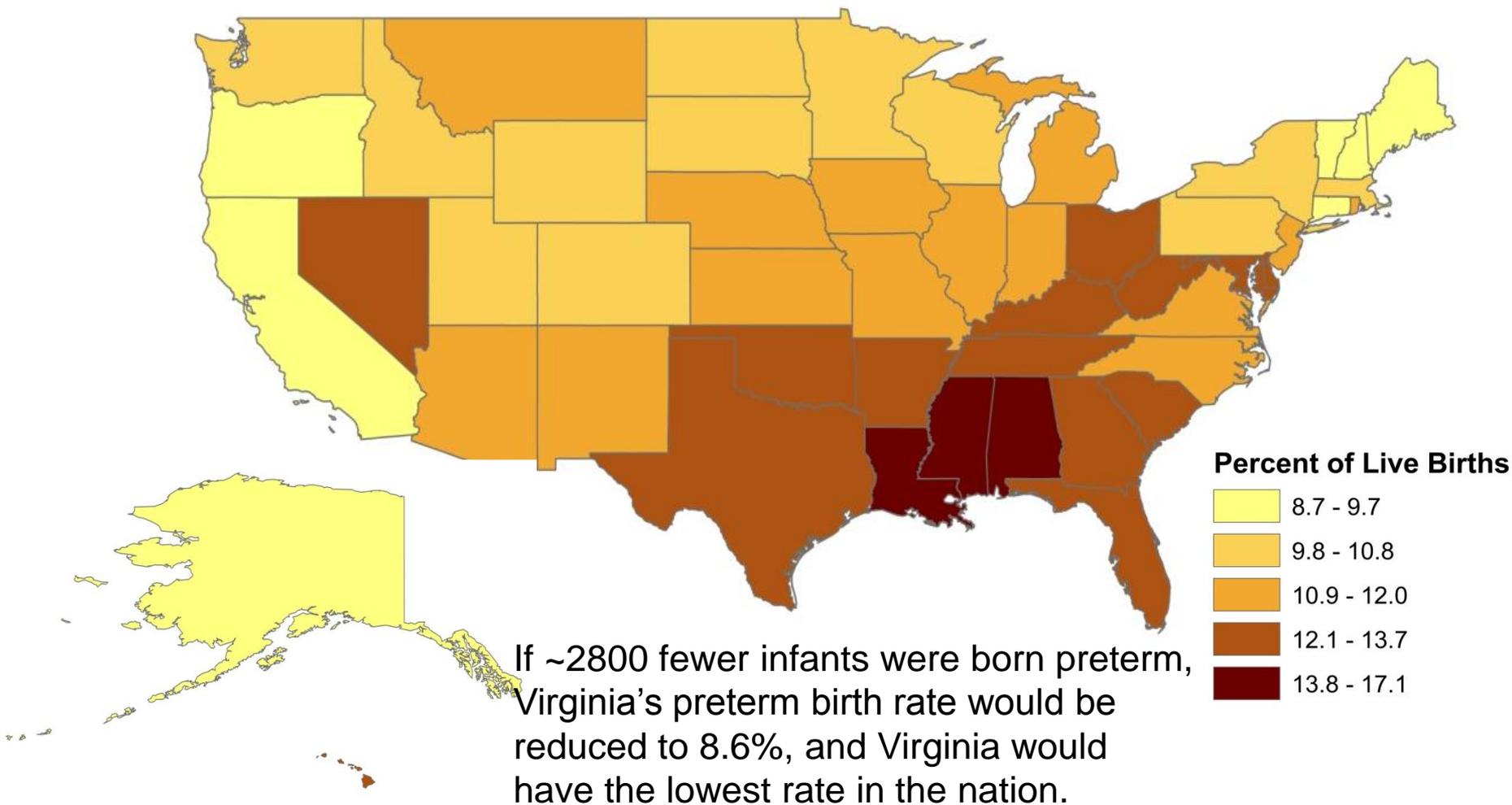
Perinatal Risk Factors & Behaviors

- Alcohol Use During Pregnancy
- Breastfeeding
- Impaired Fertility & Infertility Services
- Intimate Partner Violence
- Maternal Age
- Preconception Health
- Pregnancy Spacing
- Safe Sleep Behaviors
- Smoking During Pregnancy
- Stress During Pregnancy
- Unintended Pregnancy and Contraception Use
- Weight Gain During Pregnancy

2011 Top 5 Causes of Infant Mortality

- Born too small and too early (i.e. preterm birth, birth before 37 weeks gestation)
 - Adequate birth spacing
 - No early elective delivery
 - Preconception health (clean air, normal weight)
- Born with a serious birth defect - **Folic Acid**
- Victims of Sudden Infant Death Syndrome (SIDS)-
 - **Safe Sleep**
- Affected by maternal complications of pregnancy
 - **Early and regular prenatal care**
 - **Preconception health**
- Victims of injuries (e.g. suffocation) -
 - **Domestic violence prevention**

Preterm (<37 completed wks) Birth Across the Nation, 2012



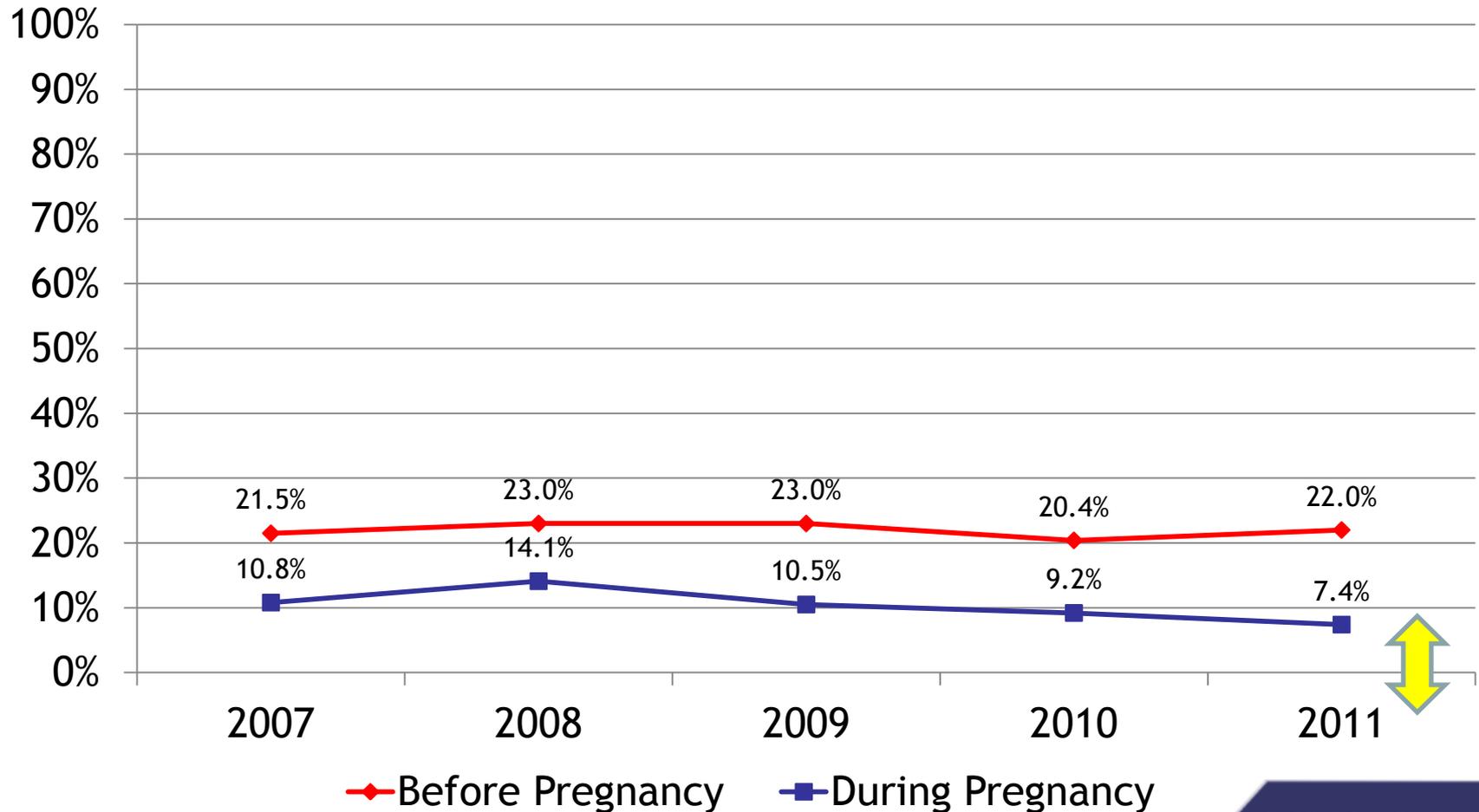
Virginia's Goal: The best term rate in the nation

Improving pre-conception health could take Virginia more than two thirds (82.0%) of the way to our goal of having the best term rates in the country, with 2,295 more infants born at full-term.

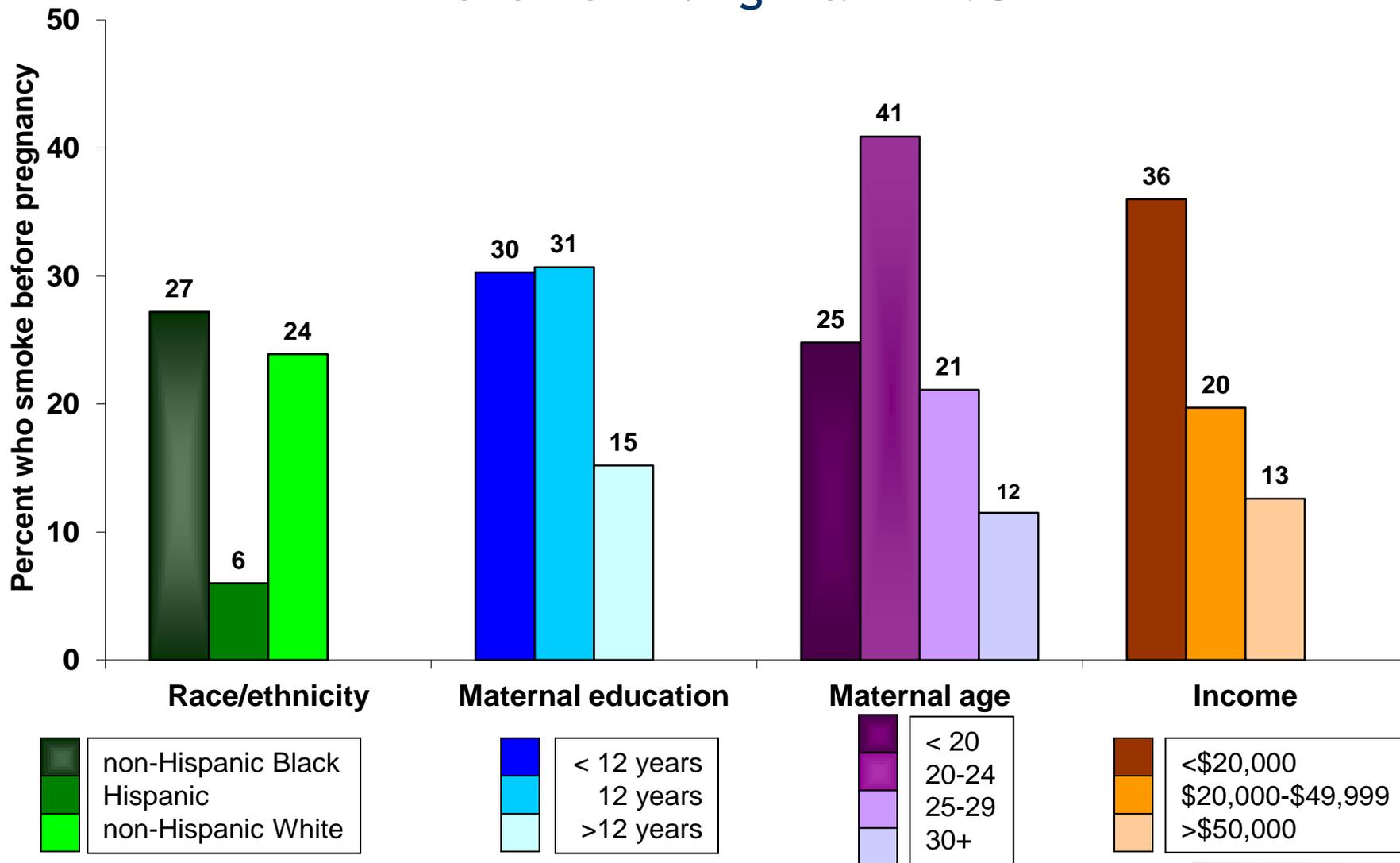
Risk Factor Among Pregnant Women	Additional Infants Born Full-term
Smoking	1548
Diabetes	275
Chronic hypertension	190
Risks from prior preterm birth	179
Anemia	103

Maternal Smoking

Percent of women having a live birth who reported smoking before or during their most recent pregnancy, Virginia 2007-2011



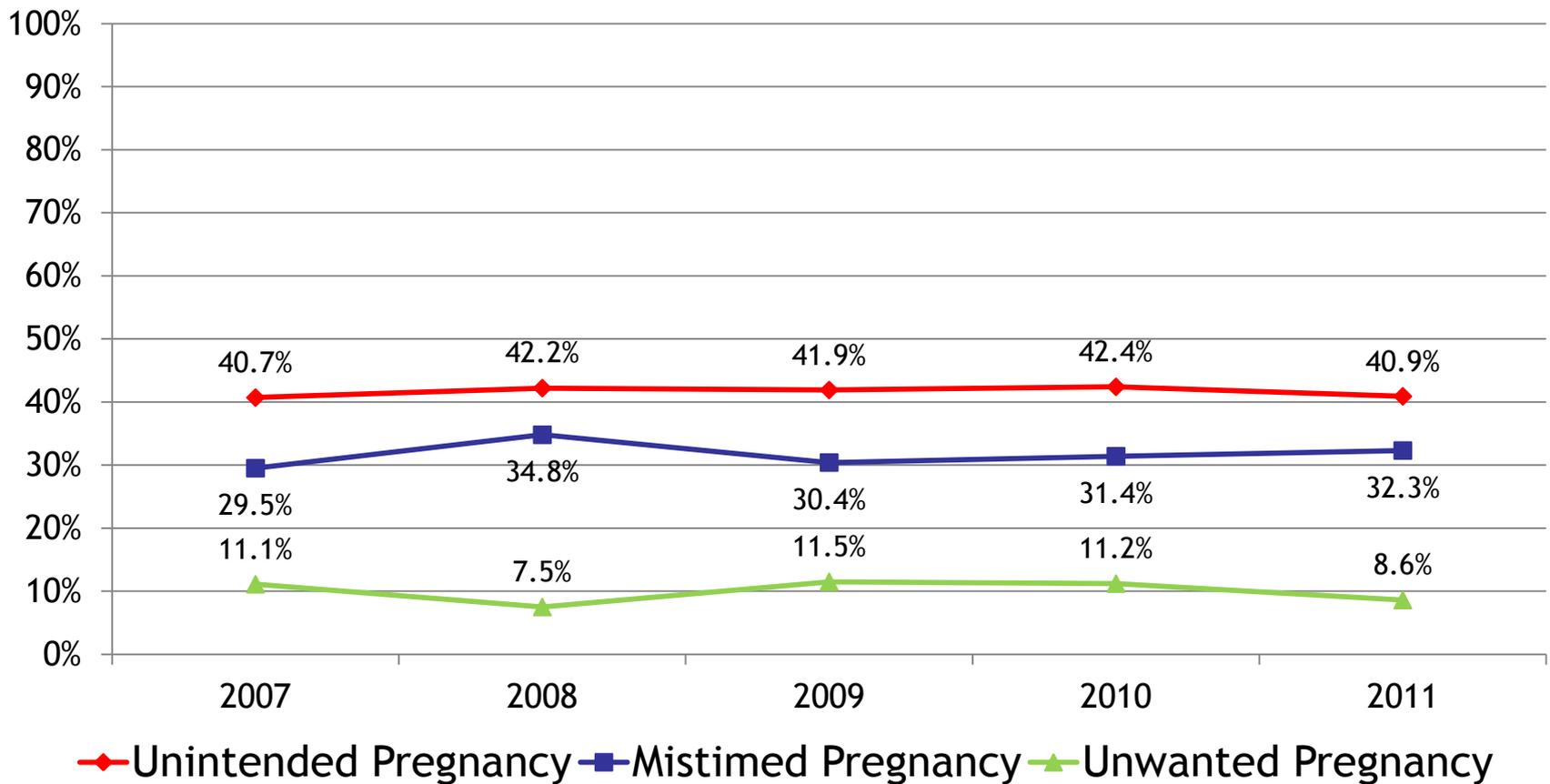
Percent of women who smoked before pregnancy, 2010-2011 Virginia PRAMS



Source: Virginia Department of Health, Pregnancy Risk Assessment Monitoring System, 2010-11.

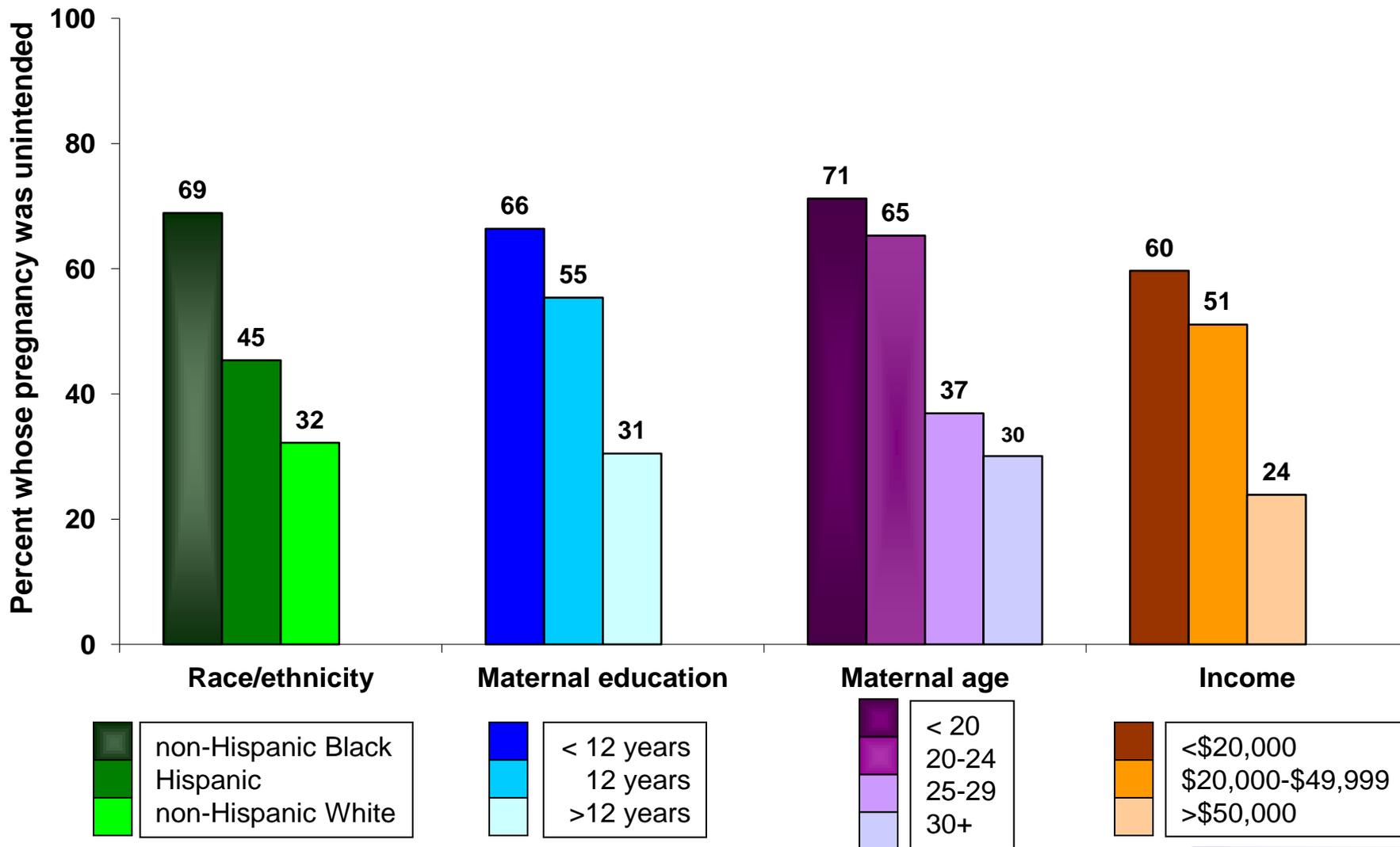
Pregnancy Intention

Percent of women having a live birth who reported their most recent pregnancy was Unintended [Mistimed or Unwanted], Virginia 2007-2011



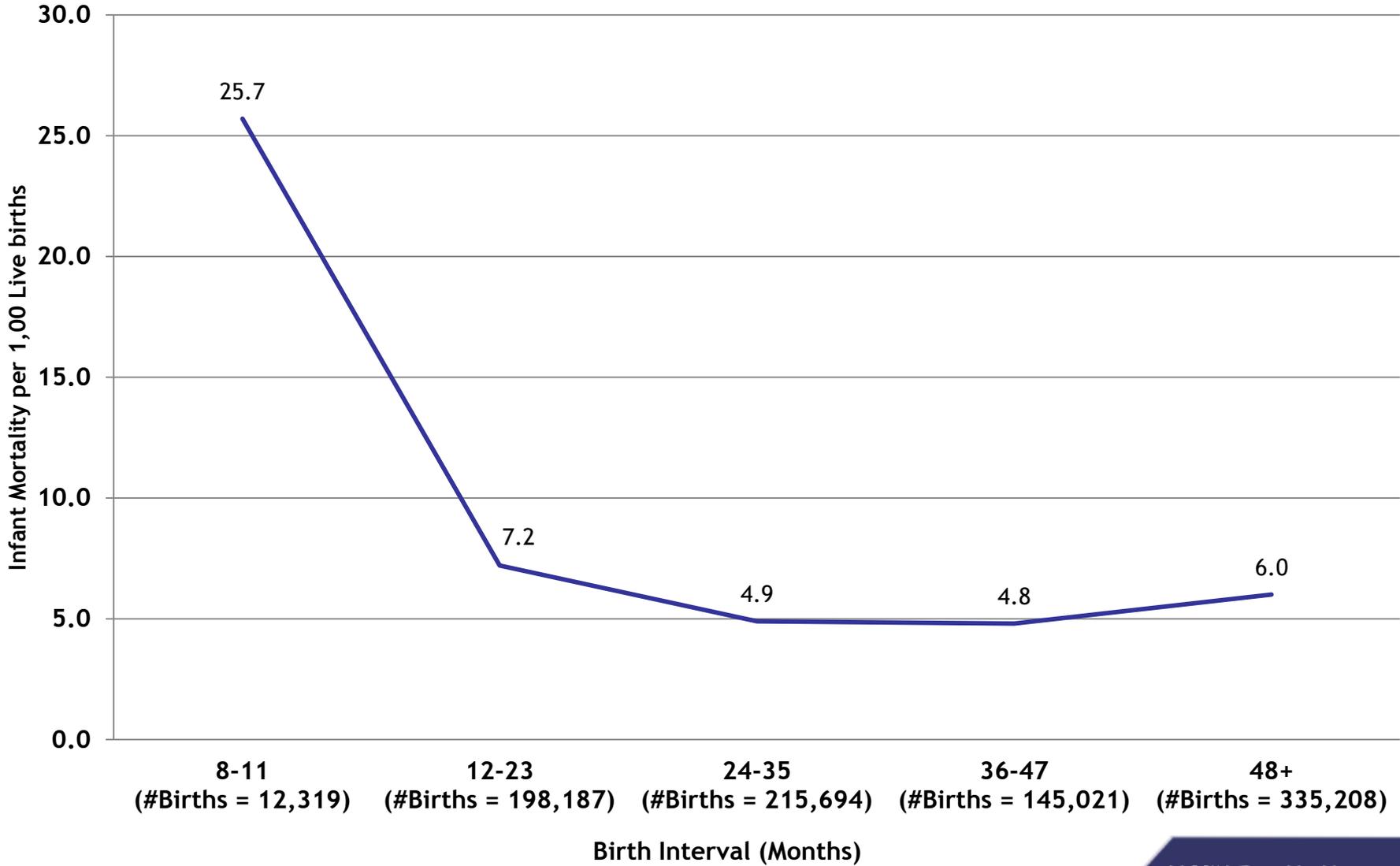
Source: Virginia Department of Health, Pregnancy Risk Assessment Monitoring System, 2007-2011

Percent of mothers who had an unintended pregnancy 2010-2011 Virginia PRAMS



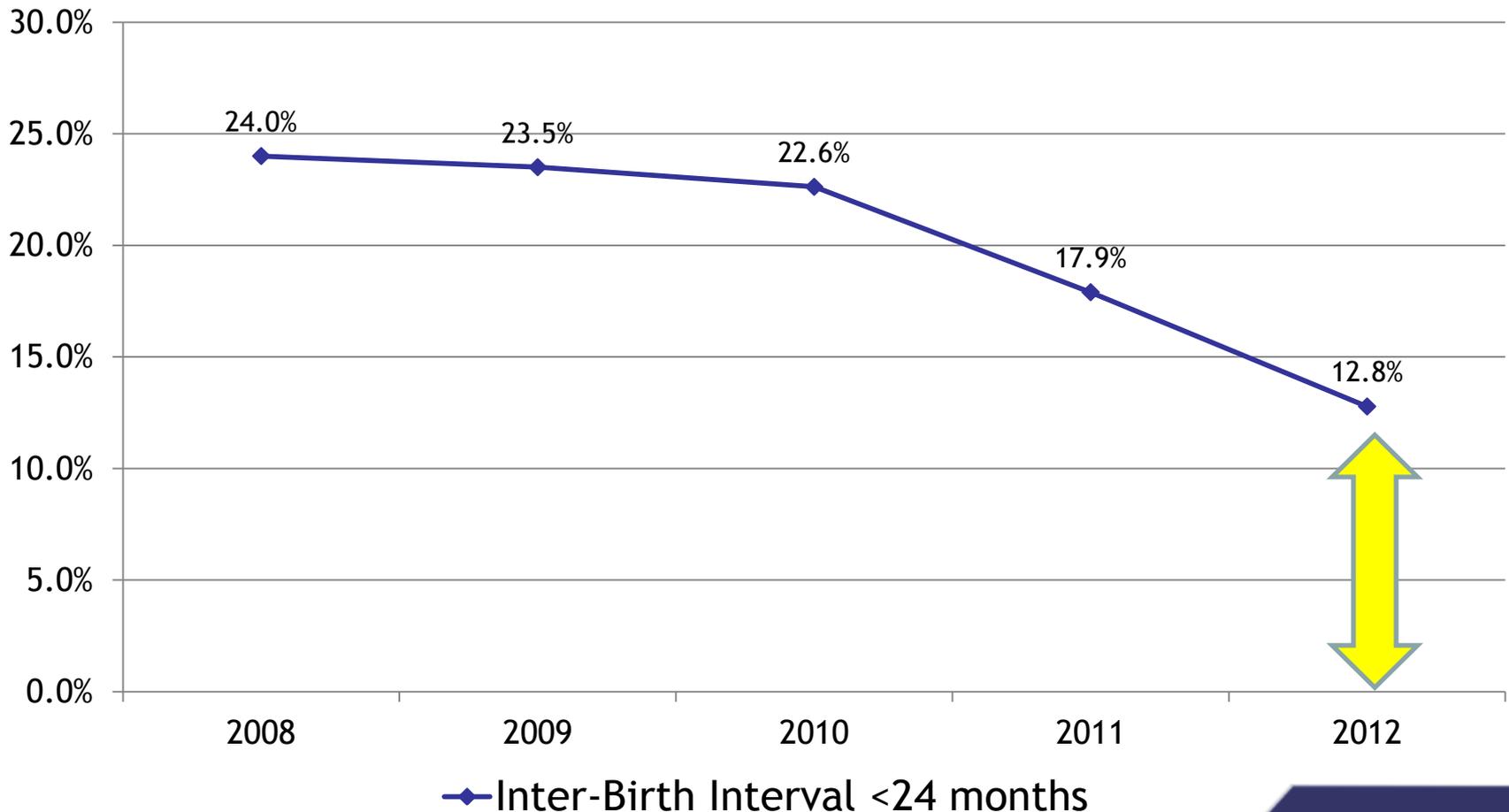
Source: Virginia Department of Health, Pregnancy Risk Assessment Monitoring System, 2010-11.

Infant Mortality Rate by Preceding Birth Interval, Virginia 1993-2009



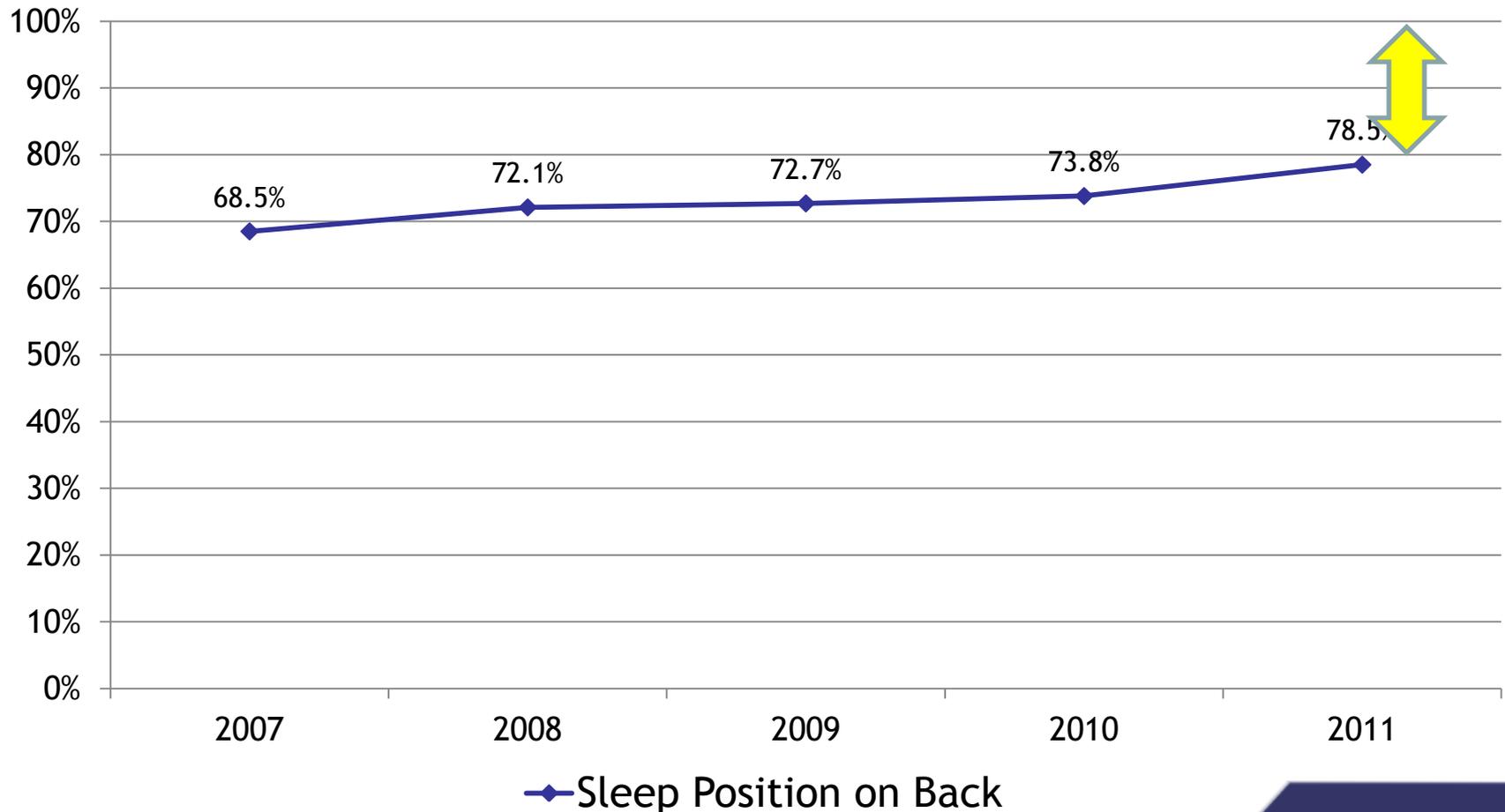
Inter-Birth Interval

Percent of women having an inter-birth Interval less than 24 months since their last live birth, Virginia 2008-2012



Infant Safe Sleep

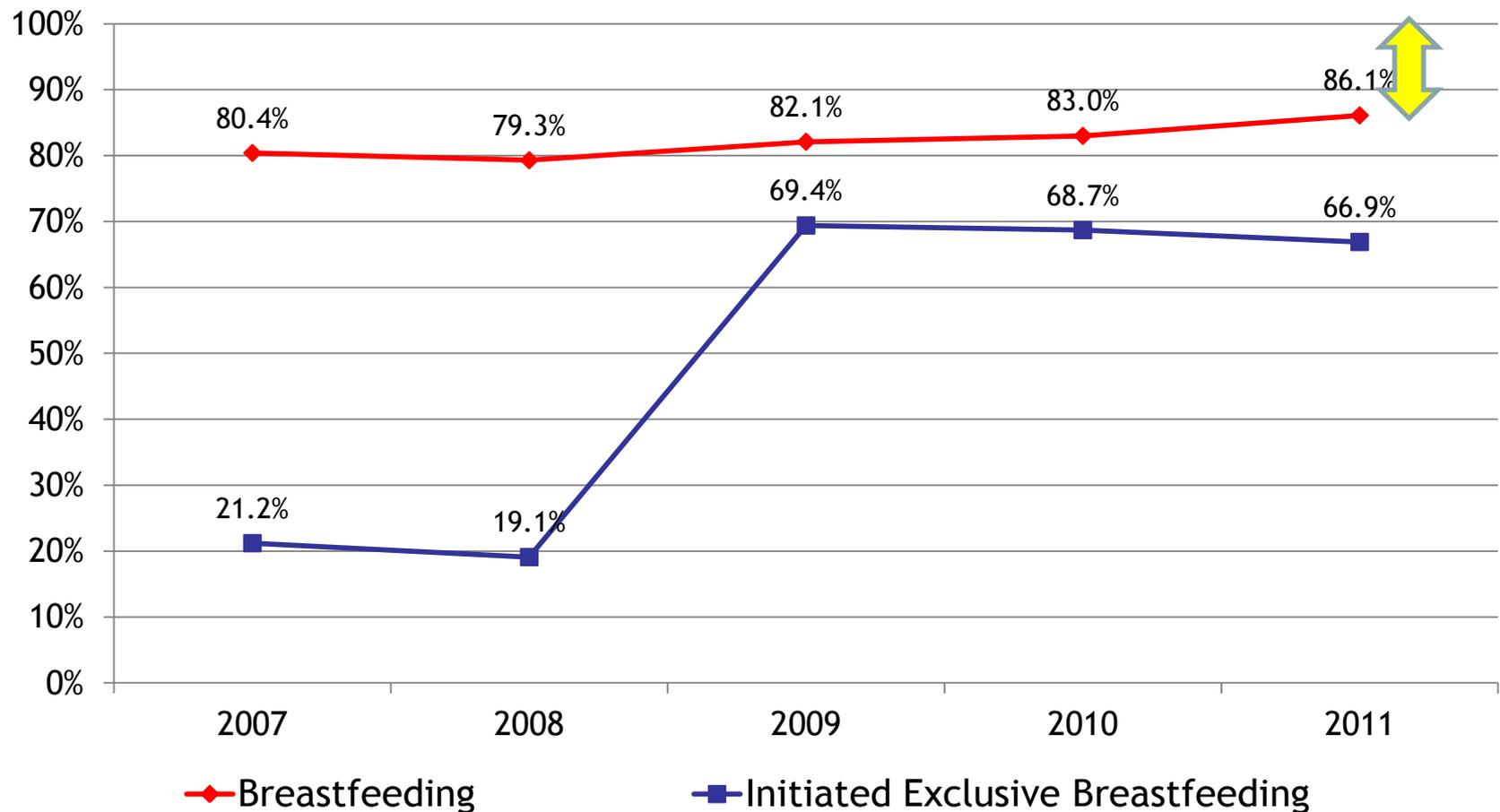
Percent of women having a live birth who reported Always or Almost Always places their infant to sleep on its back, Virginia 2007-2011



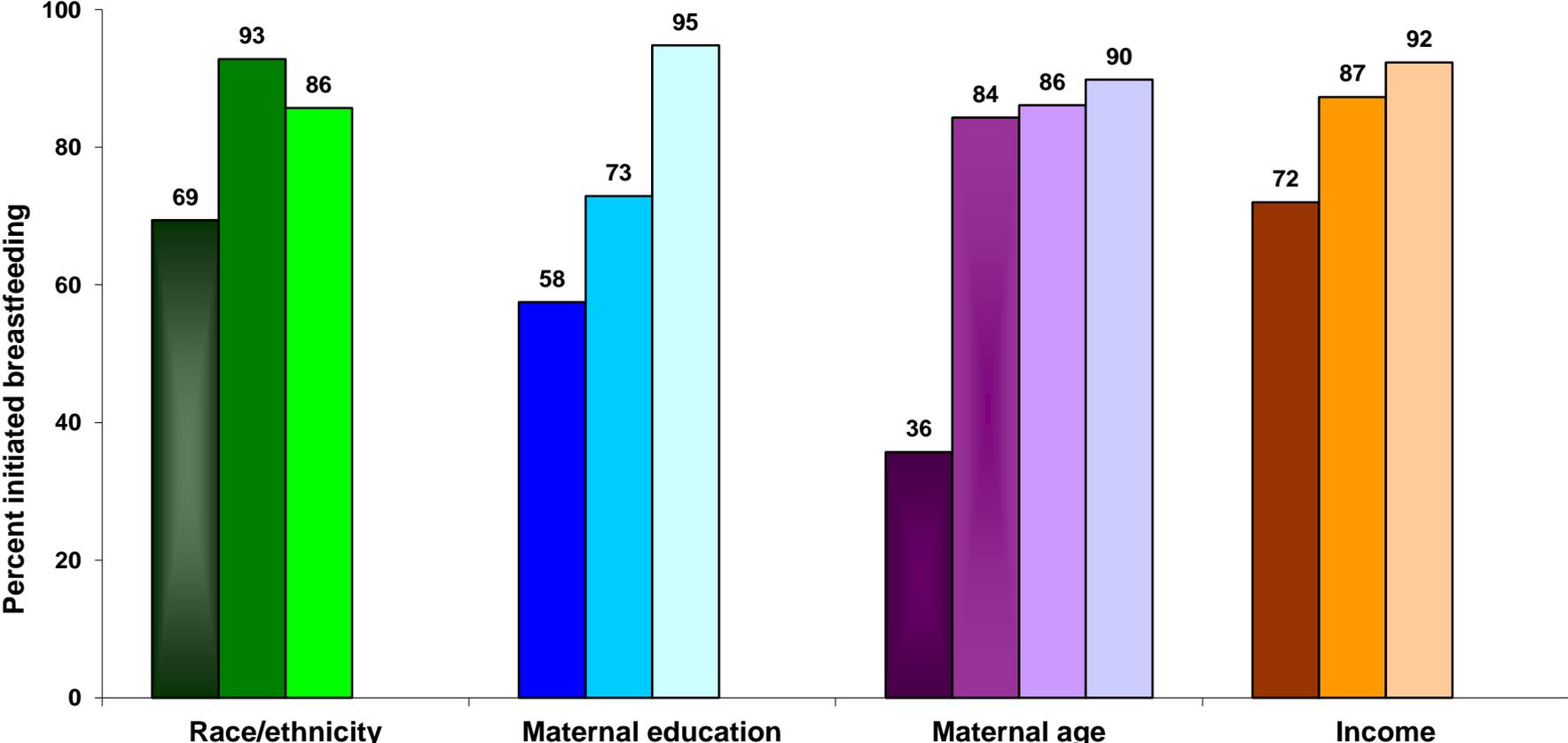
Source: Virginia Department of Health, Pregnancy Risk Assessment Monitoring System, 2007-2011

Breastfeeding Initiation

Percent of women having a live birth who reported initiation of breastfeeding, Virginia 2007-2011



Percent of women who initiated breastfeeding 2010-2011 Virginia PRAMS



Dark Green	non-Hispanic Black
Medium Green	Hispanic
Bright Green	non-Hispanic White

Blue	< 12 years
Cyan	12 years
Light Blue	>12 years

Dark Purple	< 20
Medium Purple	20-24
Light Purple	25-29
Very Light Purple	30+

Dark Orange	<\$20,000
Medium Orange	\$20,000-\$49,999
Light Orange	≥\$50,000

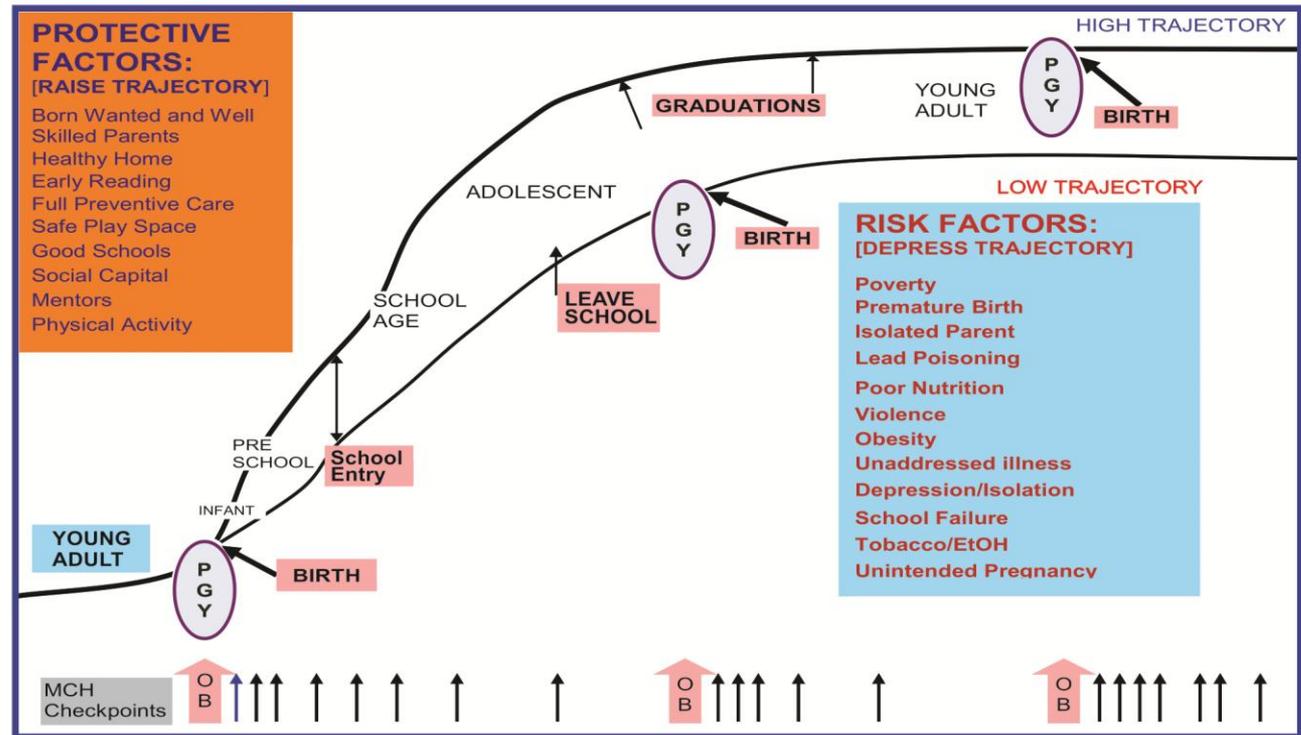
Source: Virginia Department of Health, Pregnancy Risk Assessment Monitoring System, 2010-11.

Newer Life Course Framework: For Healthy Child and Family Development

Trajectories of Health and Child Development, and MCH Checkpoints

DOMAINS OF HEALTHY CHILD AND FAMILY DEVELOPMENT:

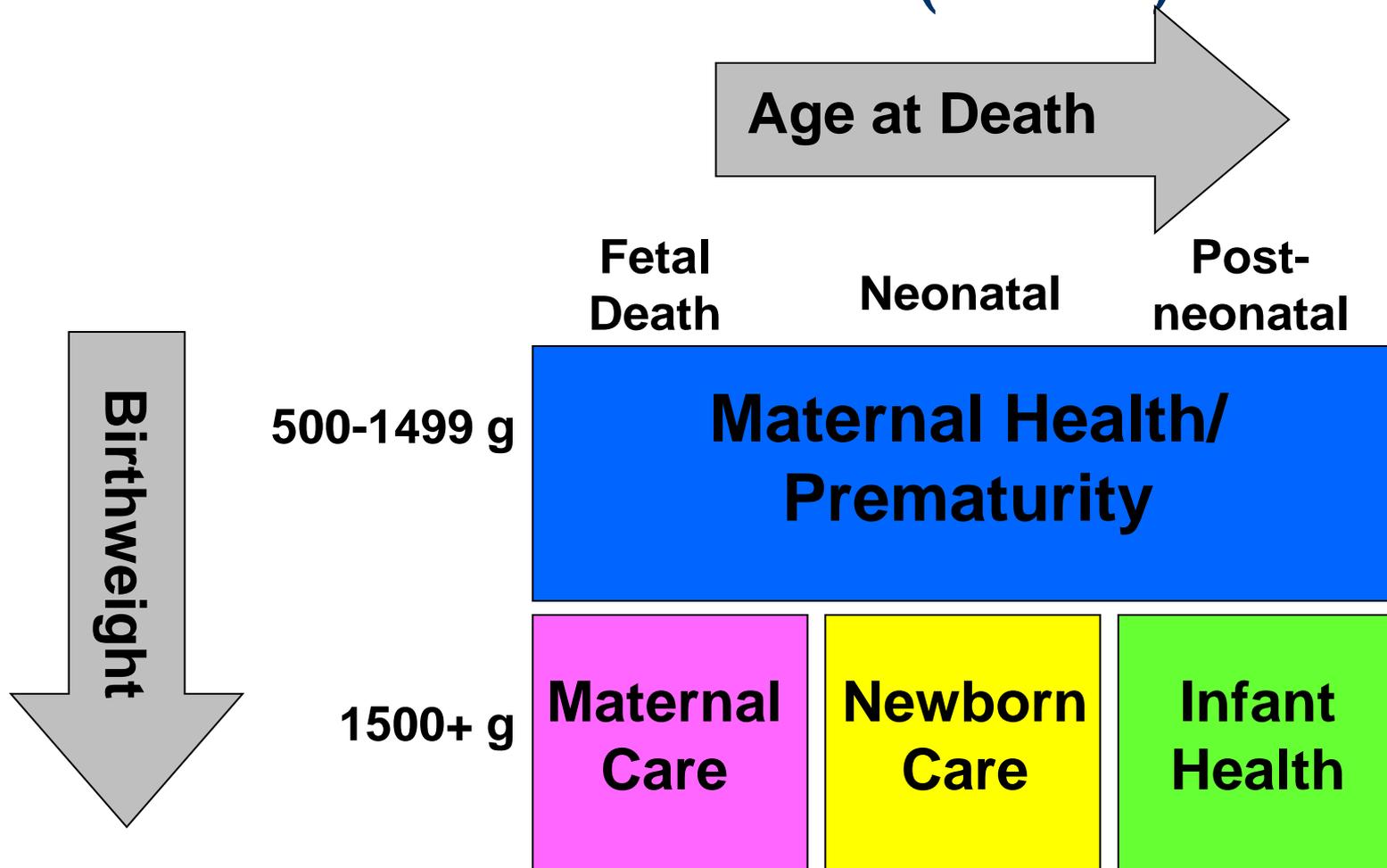
- Environmental** – Poverty
- Employment
 - Safety
 - Stress
 - Toxins
- Social** – Communication
- Education
 - Social Support
 - Mobility
- Behavioral** – Mental Health
- Tobacco/EtOH/drugs
 - Diet/Fitness
- Genetic** – Familial Factors
- Geo-Ethnic ff
 - Personal
- Medical** – Chronic Disease
- Infections
 - Disabilities



MCH Checkpoints are regular and prn times of contact between parents/children and health professionals: 

In a community system of family-centered medical homes, these MCH Checkpoints are organized into a coherent, connected, longitudinal system. That Family Health system recognizes and address risks and protective factors that will influence childrens' healthy development, as it responds to acute needs, and offers prevention opportunities for all generations.

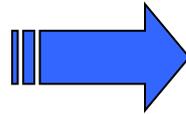
Perinatal Periods of Risk (PPOR)



Magda Peck , Sappenfield W, Skala J. Perinatal Periods of Risk: A Community Approach for Using Data to Improve Women and Infants' Health . *Matern Child Health J* (2010) 14:864–874

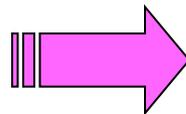
PPOR Example Potential Actions

**Maternal Health/
Prematurity**



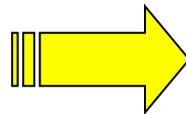
Preconception Health
Health Behaviors
Perinatal Care

Maternal Care



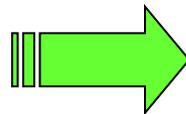
Prenatal Care
High Risk Referral
Obstetric Care

Newborn Care



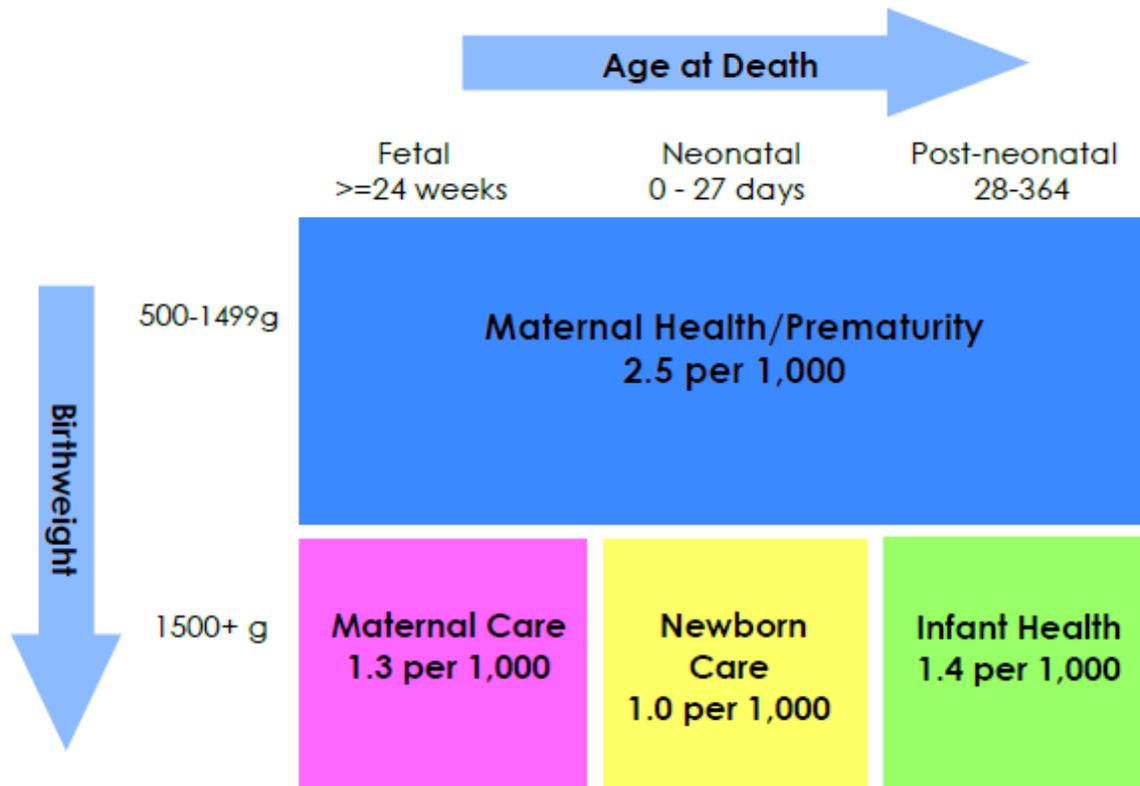
Perinatal Management
Neonatal Care
Pediatric Surgery

Infant Health



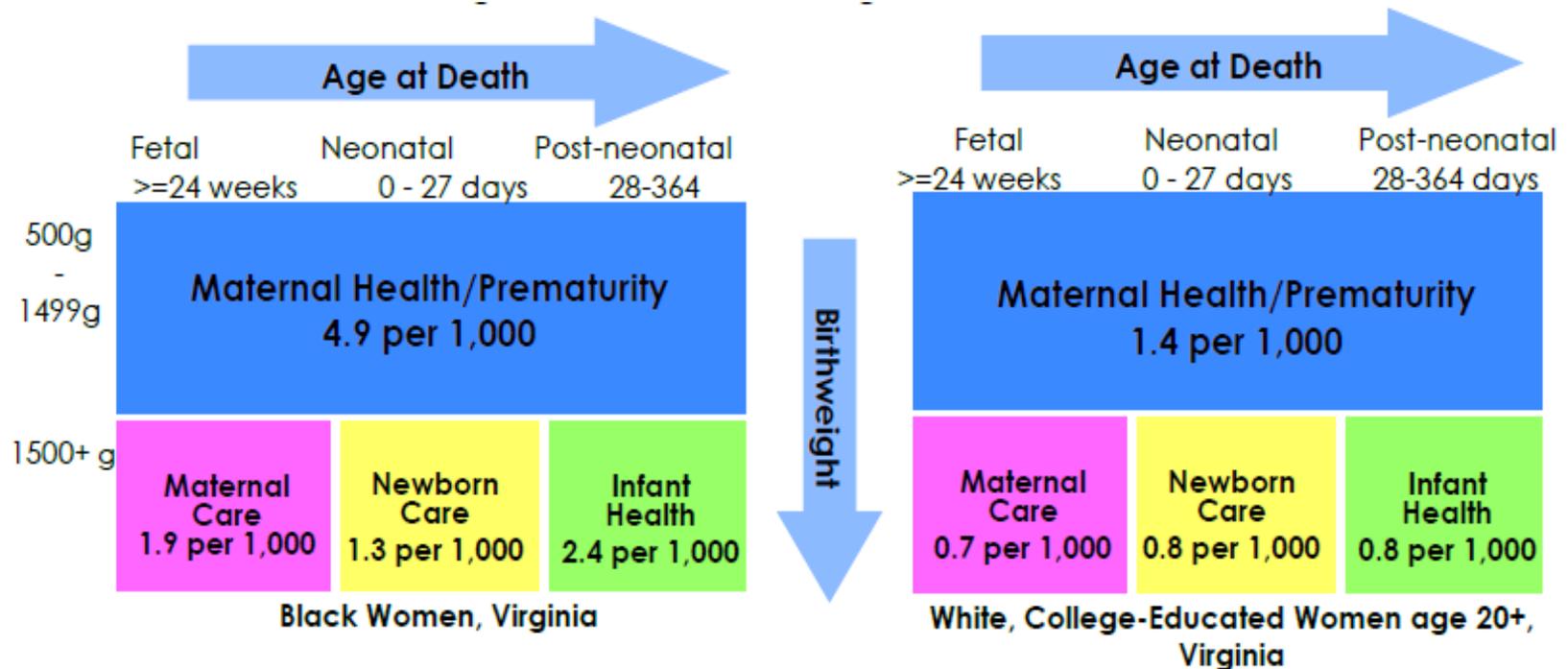
Sleep Position
Breast Feeding
Injury Prevention

Virginia - Statewide Data



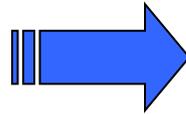
Virginia State, Feto-Infant Overall Mortality
PPOR Map

Virginia - Race Disparity



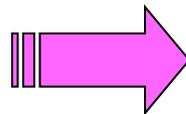
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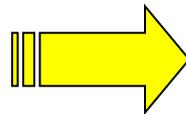
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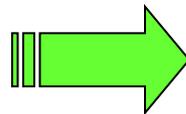
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VIRGINIA THRIVING INFANTS PARTNERS and CHAMPIONS

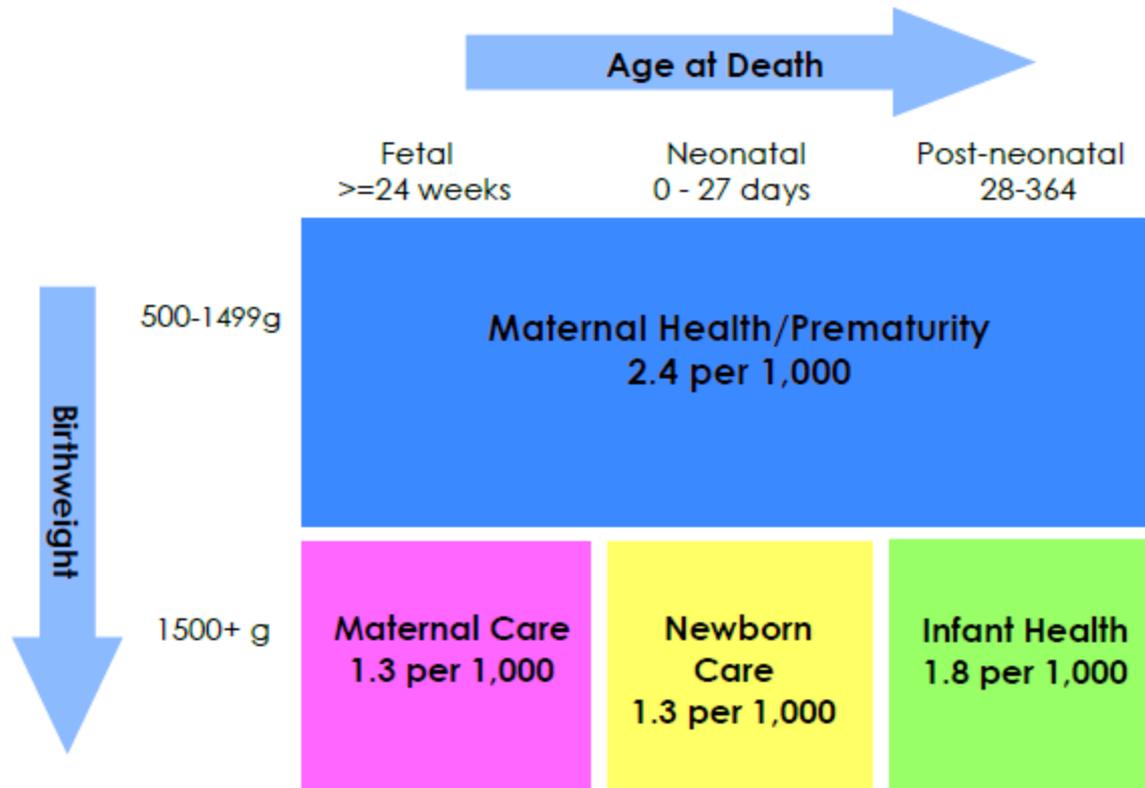


Questions?



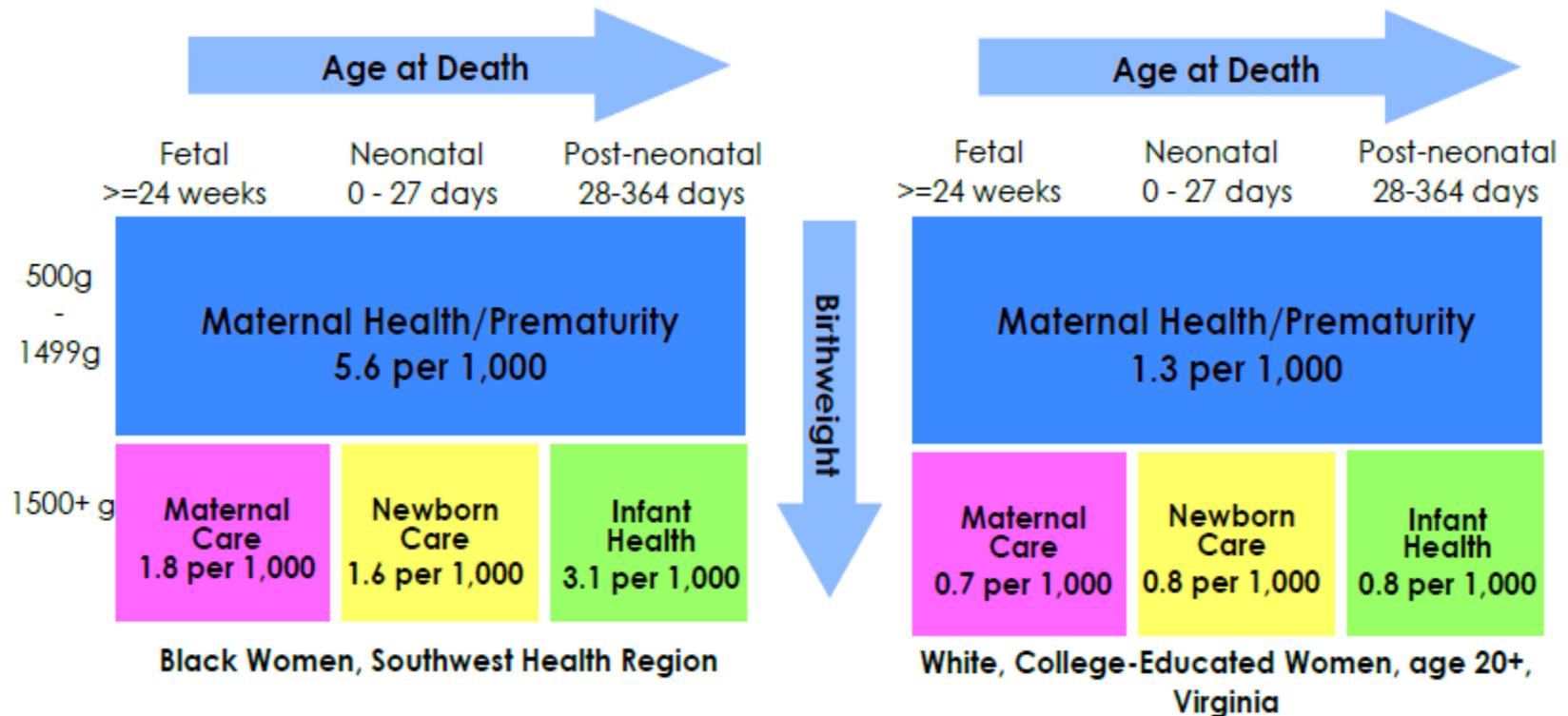
Additional Reference Slides

Southwest Region

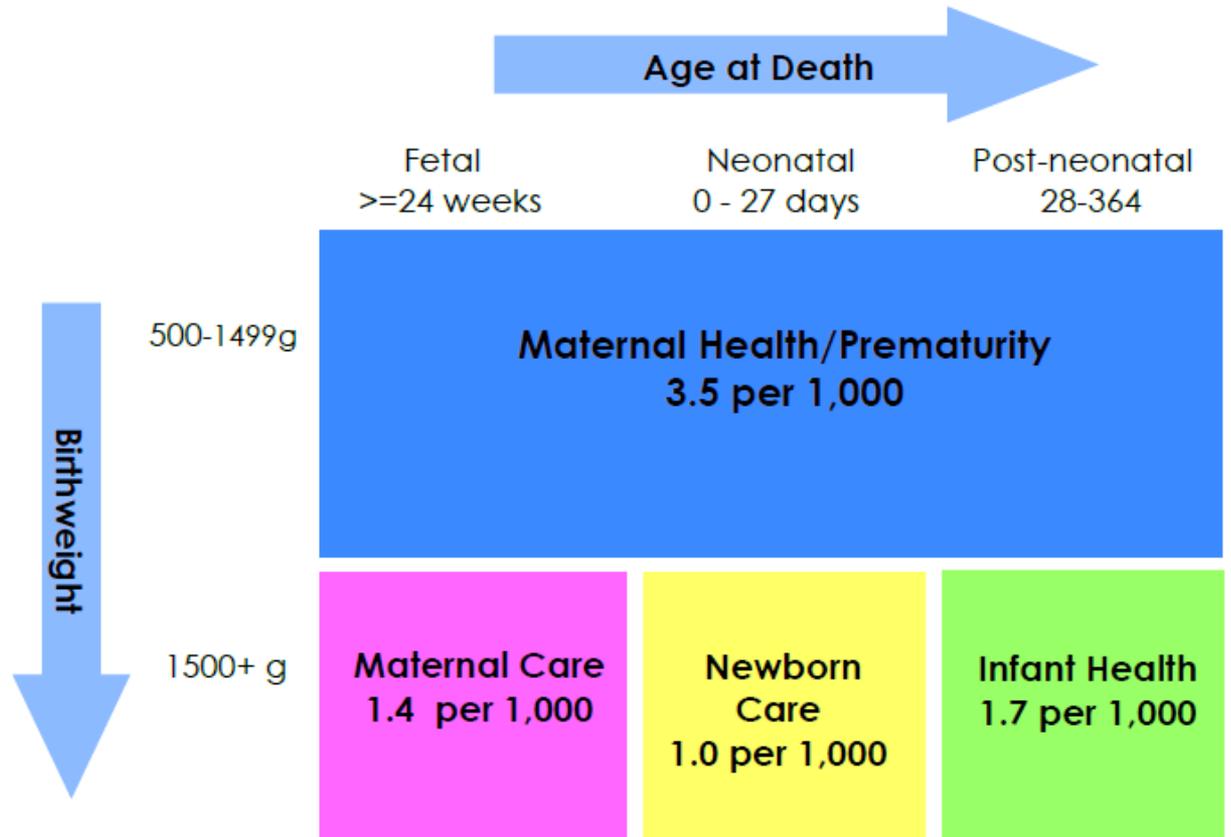


Southwest Health Region, Feto-Infant Overall Mortality
PPOR Map

Southwest Region - Racial Disparity

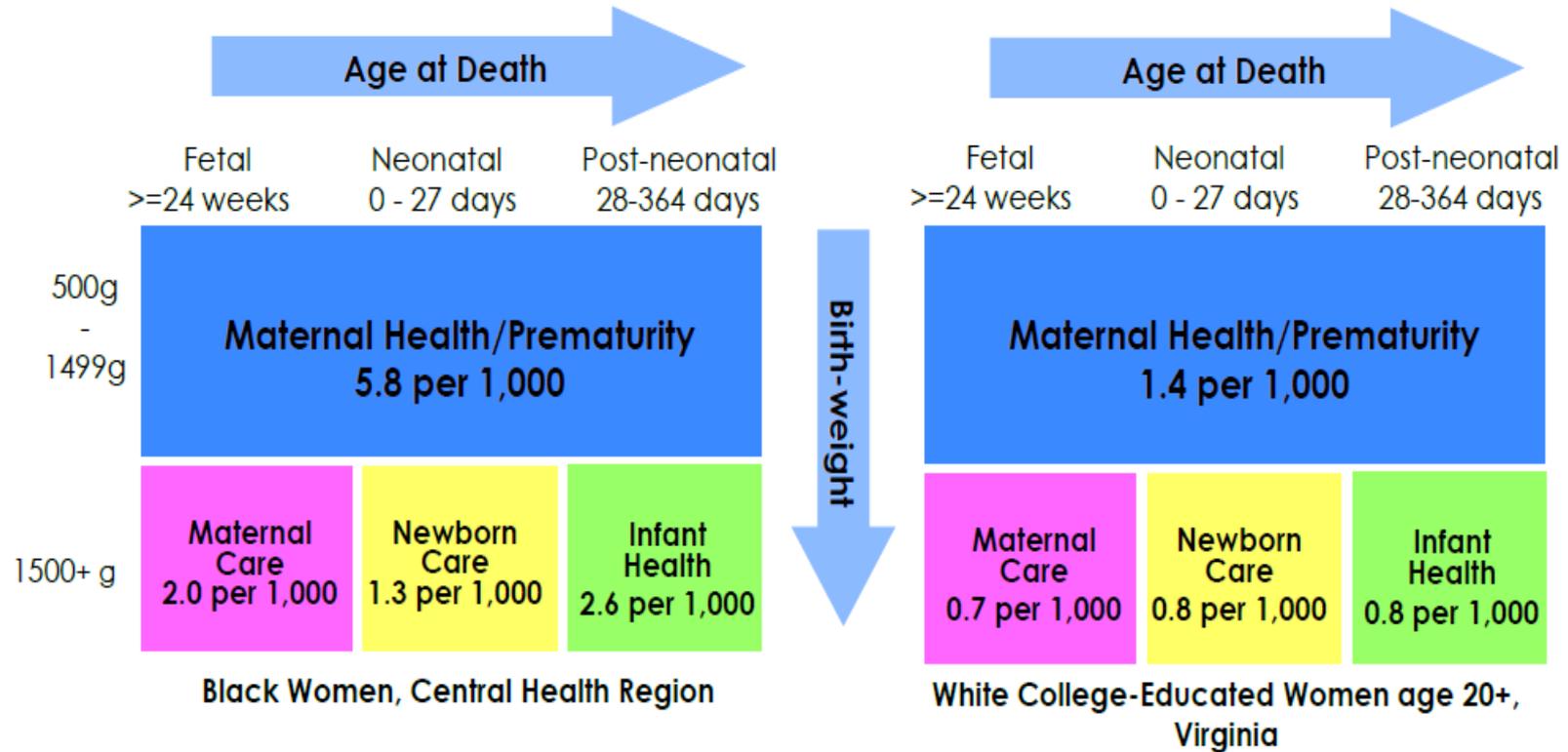


Central Region

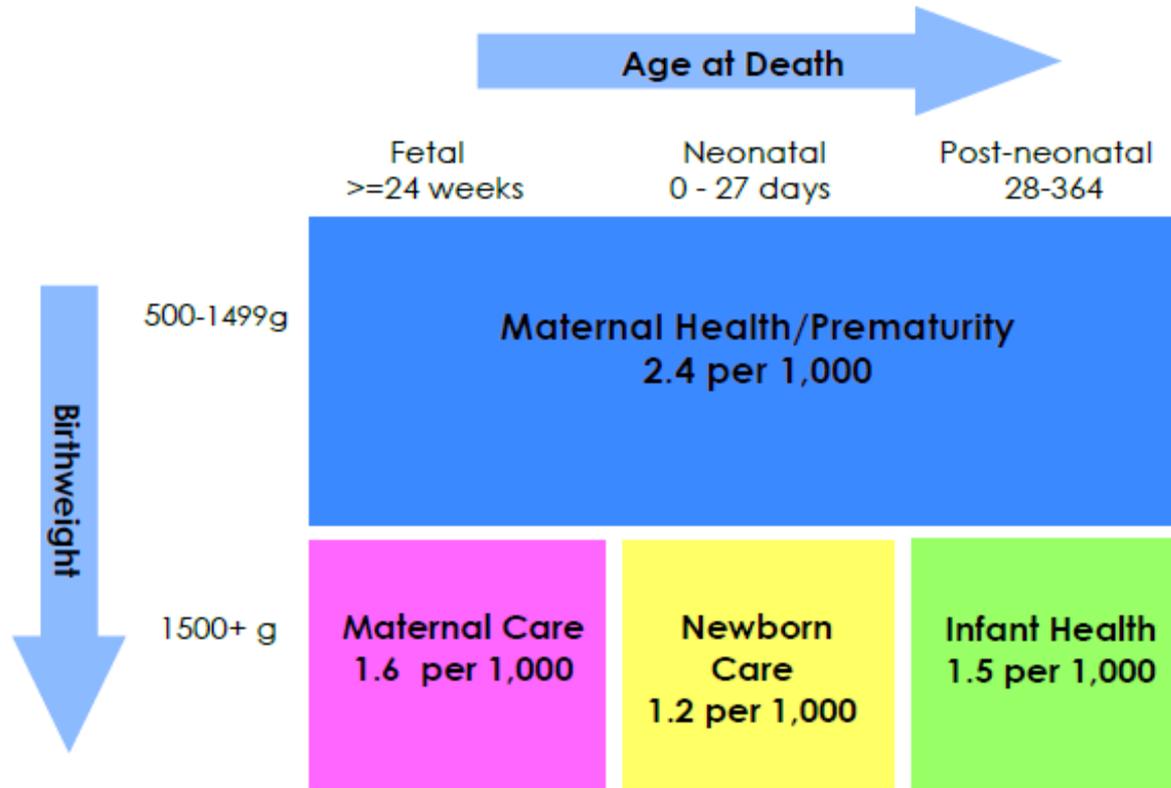


Central Health Region , Feto-Infant Overall Mortality
PPOR Map

Central Region - Race Disparity

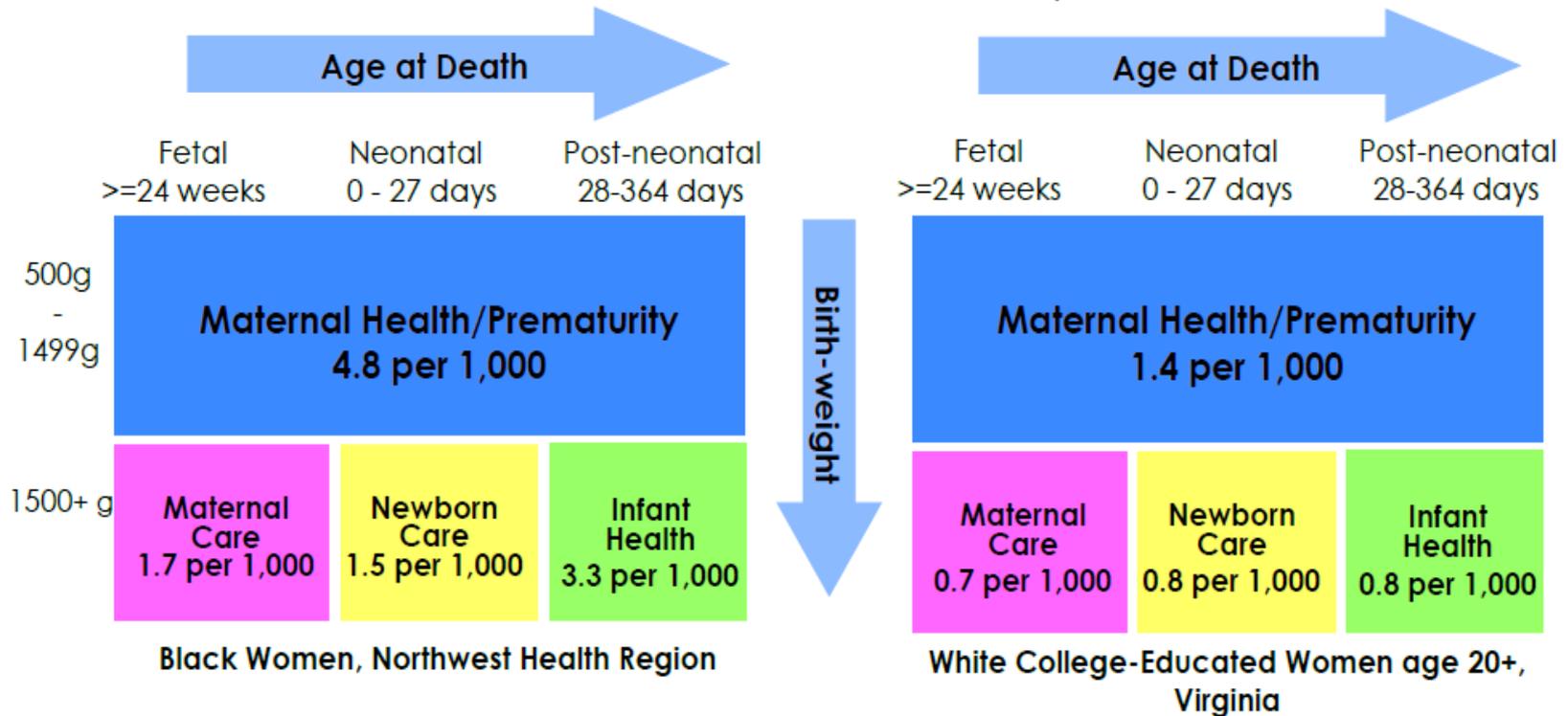


Northwest Region

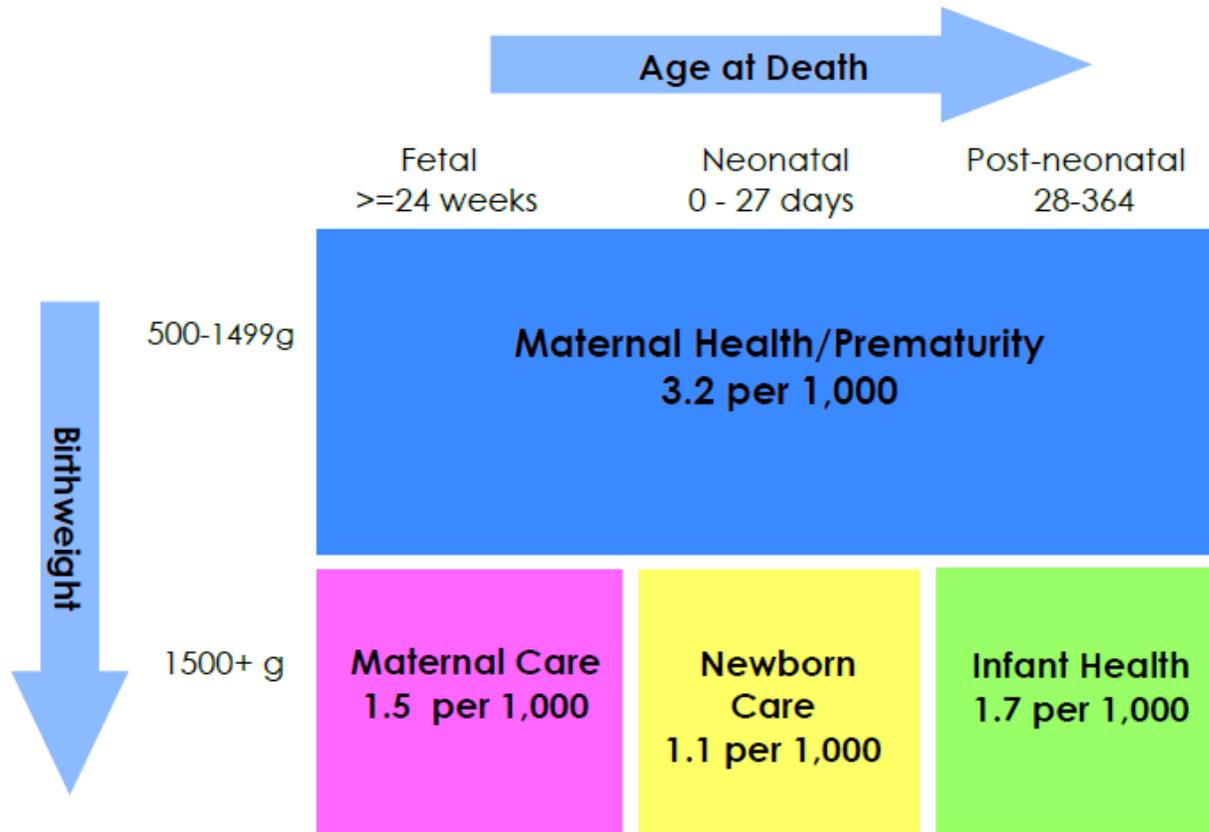


Northwest Health Region , Feto-Infant Overall Mortality

Northwest Region - Race Disparity

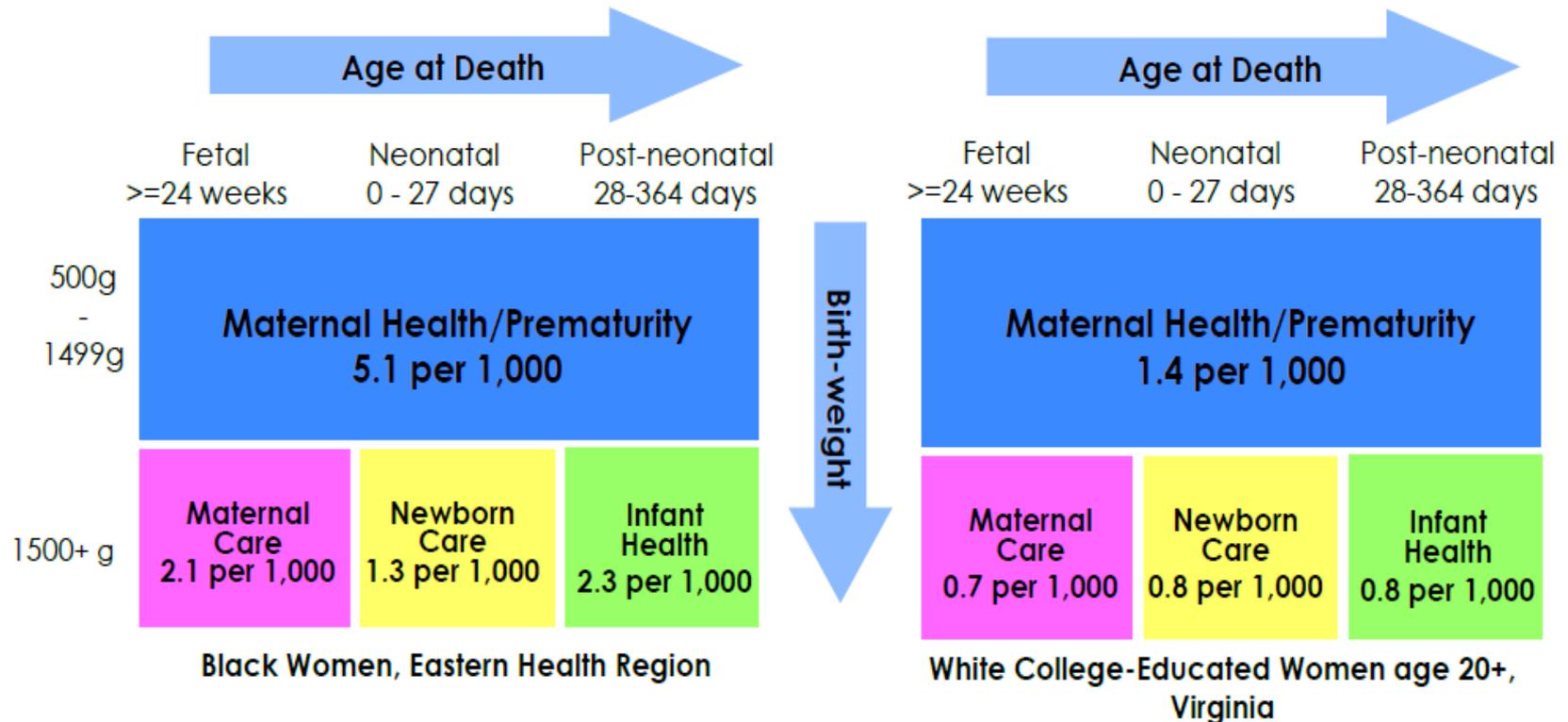


Eastern Region



Eastern Health Region , Feto-Infant Overall Mortality

Eastern Region - Race Disparity



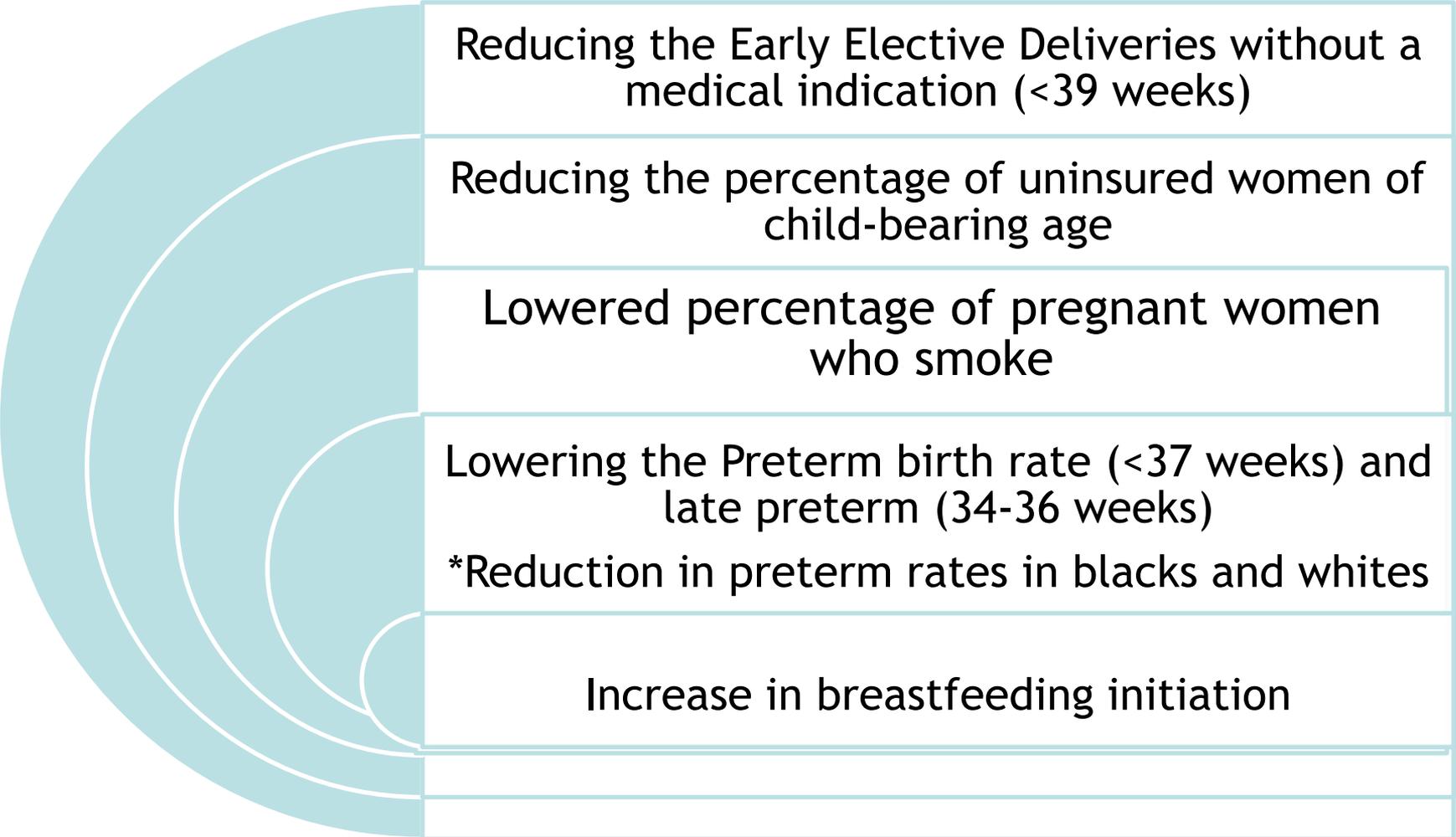
National Infant Mortality CoIN

- A Collaborative Improvement & Innovation Network
- A national strategy to reduce infant mortality and improve birth outcomes
- Began in HHS Regions IV, V, and VI and now being implemented nationally
- Is a state-driven initiative, with focus on a learning collaborative, local, state, and federal collaboration and strong federal technical support
- Designed to accelerate improvement by uniting key state stakeholders in infant mortality reduction

Virginia's State Infant Mortality CoIN Team

- Virginia's State Team: First Regional Summit in July, 2014
 - Expanded team from 11 to 25 key organizations and their champion representatives for additional expertise around strategies
 - Working sessions completed to identify key state priorities, strategies, and evidence based, data driven action plans
 - Moving from action planning to implementation in 2015

What Prevention Strategies are Working to Improve Birth Outcomes in Virginia?



Reducing the Early Elective Deliveries without a medical indication (<39 weeks)

Reducing the percentage of uninsured women of child-bearing age

Lowered percentage of pregnant women who smoke

Lowering the Preterm birth rate (<37 weeks) and late preterm (34-36 weeks)

*Reduction in preterm rates in blacks and whites

Increase in breastfeeding initiation

Moving Forward in Virginia with the Thriving Infants' Strategic Initiative

- Actionable strategic priorities with measurable objectives with a focus on health equity and a life course framework
- Build upon the enhanced collaborative relationships across Virginia
- Maximizing engagement of stakeholders and resources
- Implementation at state, regional, local levels
- Short, intermediate, and long term outcomes

Why is Infant Mortality *Important*?

- Indicator to measure the health/well-being of a nation, state, and community.
- Broad range of factors affect the health
- Changes in infant mortality rates are a signal that factors are changing
- Causes and rates of mortality can vary at different times during the first year of life
 - Impacts type of evidence-based strategies to focus on

What is Infant Mortality & Infant Mortality Rate?

- The Centers for Disease Control and Prevention (CDC, 2014) defines infant mortality as “a death of a baby before his/her first birthday.”
- Infant Mortality rate “is an estimate of the number of infant deaths for every 1,000 live births” (CDC, 2014)

Accessed at <http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm>