Infant Mortality

Plans for Improvement

In Arkansas

Memphis Presentation, May 22

Numbers and Rates

- In 2006 in Arkansas
  - Number of infant deaths: 359
  - Infant death rate: 8.8
- In 2007 in Arkansas
  - Low weight birth rate: 9.3
  - Very low weight birth rate: 1.8

2007 Infant death data are not available

2007 Birth data are provisional

Infant Deaths and Rates by Age at Death, Arkansas and US, 2006

Age at Death	AR Number[1]	AR Rate[1]	US Rate[2]
Infant	359	8.8	6.8
Neonatal	211	5.2	4.5
Post Neonatal	148	3.6	2.3

In 2006, Arkansas ranked 41st in the US.

Sources: **Health Statistics Branch, Center for Health Practice, ADH (not linked file),**
NCHS, *National Vital Statistics Reports*, Vol. 55, No. 14, May 2007
State Health Rankings: United Health Foundation
US Health Rankings: Centers for Disease Control and Prevention

Neonatal Deaths
Top Five Causes, 2006

• Congenital malformations	58
• Short gestation and low birth weight	37
• Placenta, cord and membranes	15
• Respiratory distress	12
• Maternal complications of pregnancy	11

Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

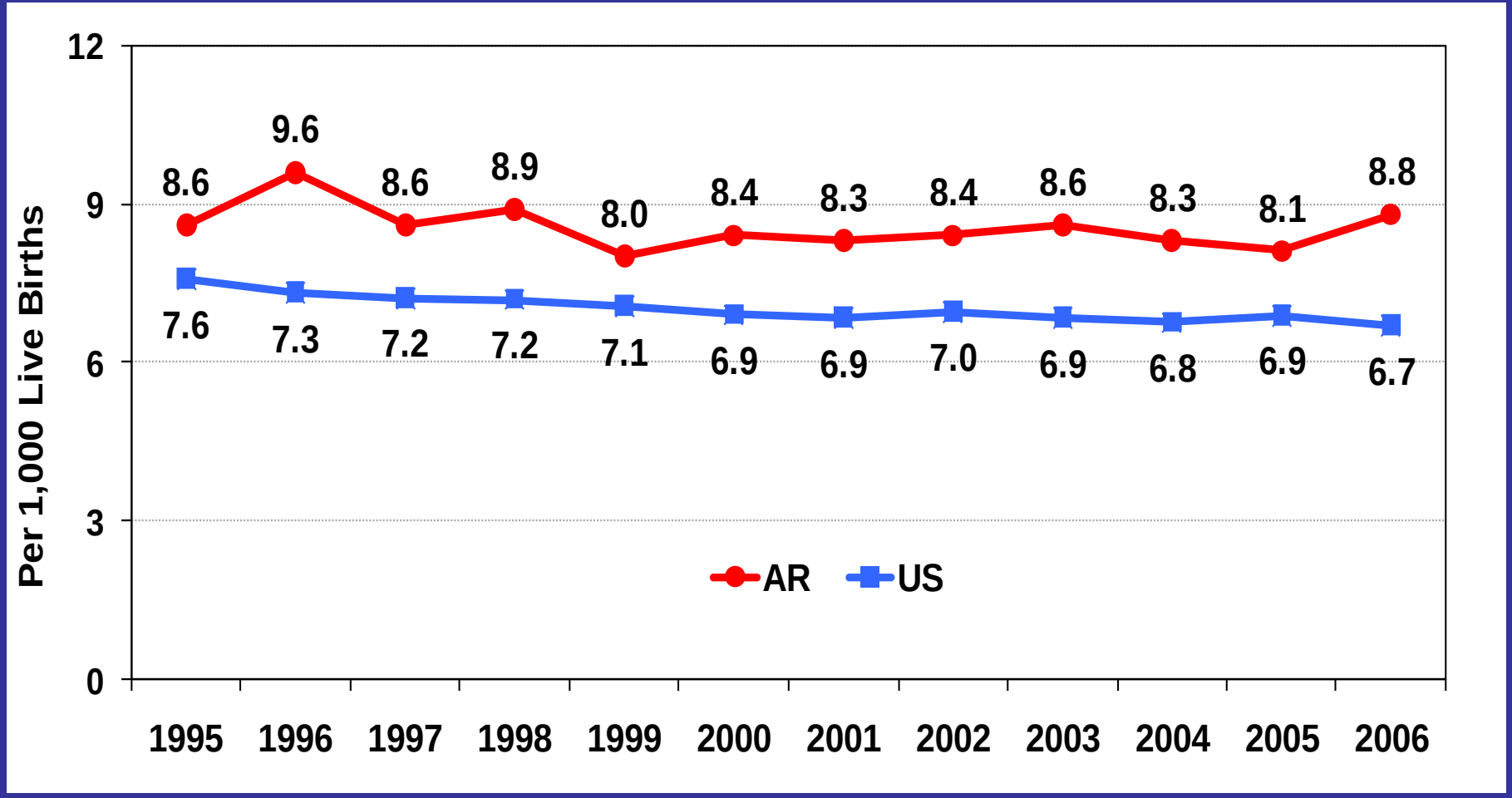
Post-neonatal Deaths
Top Five Causes, 2006

• Sudden infant death syndrome	44
• Congenital malformations	20
• Unintentional injuries	12
• Diseases of the circulatory system	8
• Chronic respiratory disease	7

Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

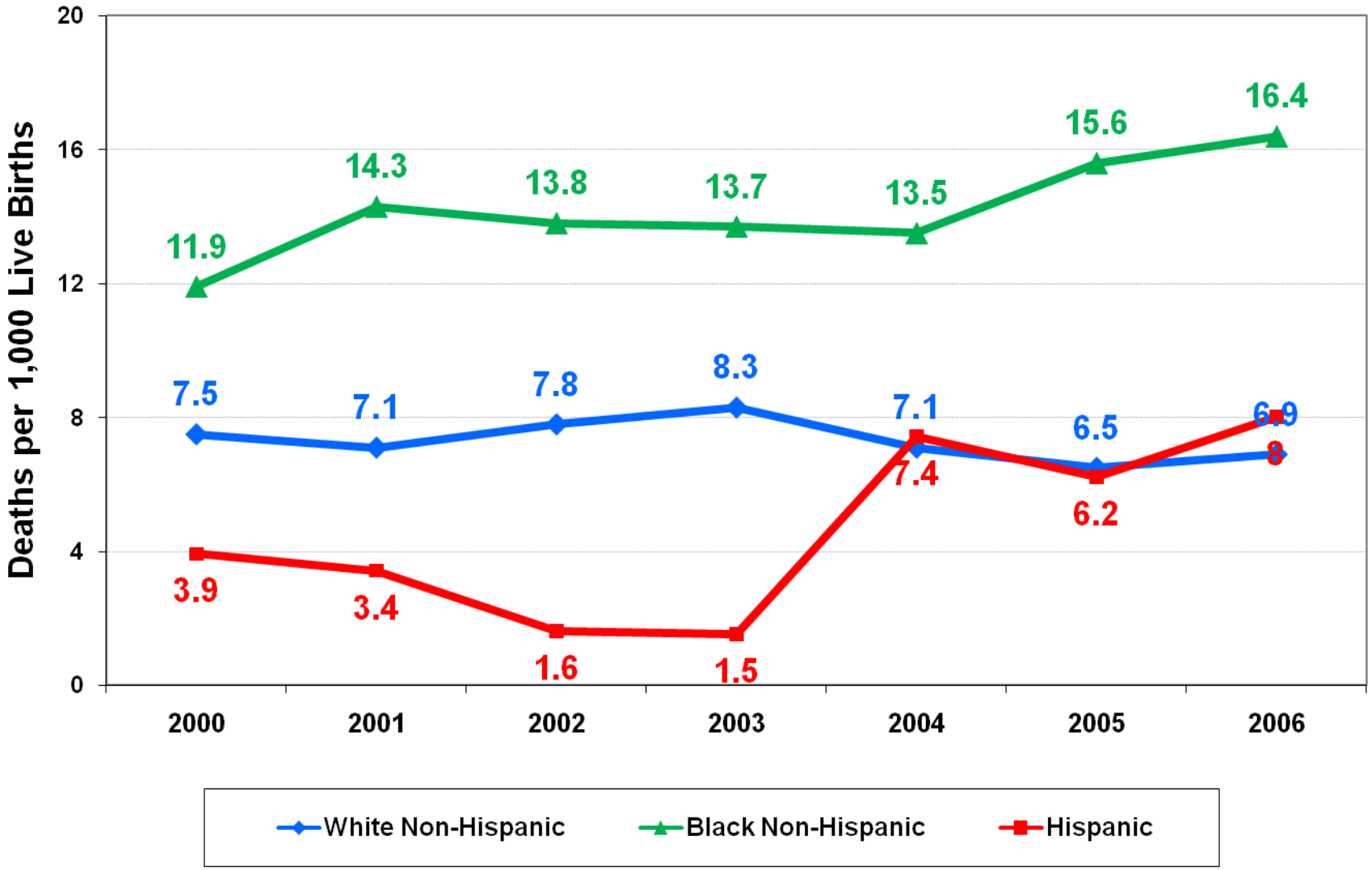
Trends and Comparisons (Disparities)

Infant Mortality Rate, AR & US



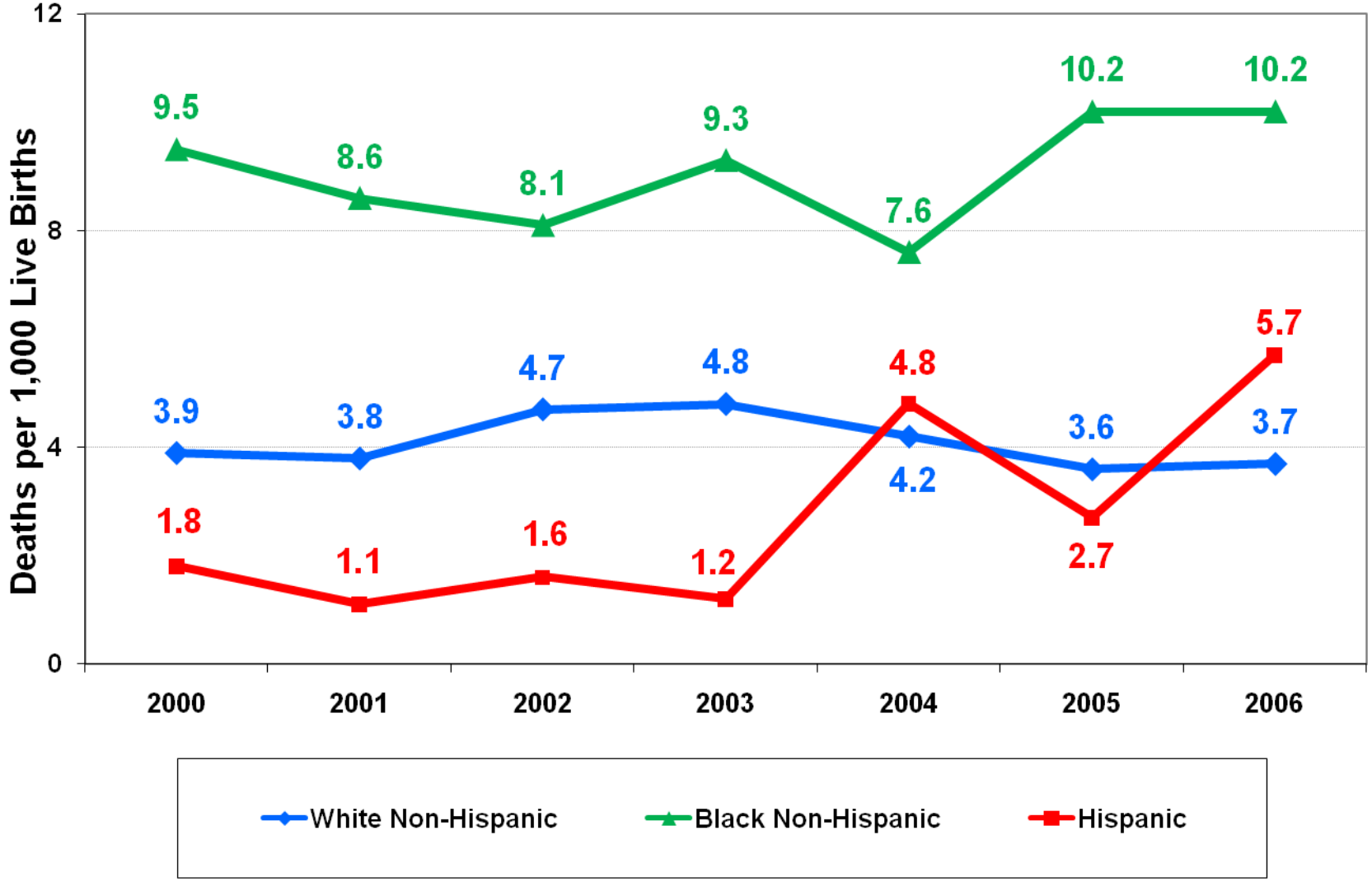
Sources: National Center for Health Statistics (NCHS) and Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

Infant Mortality



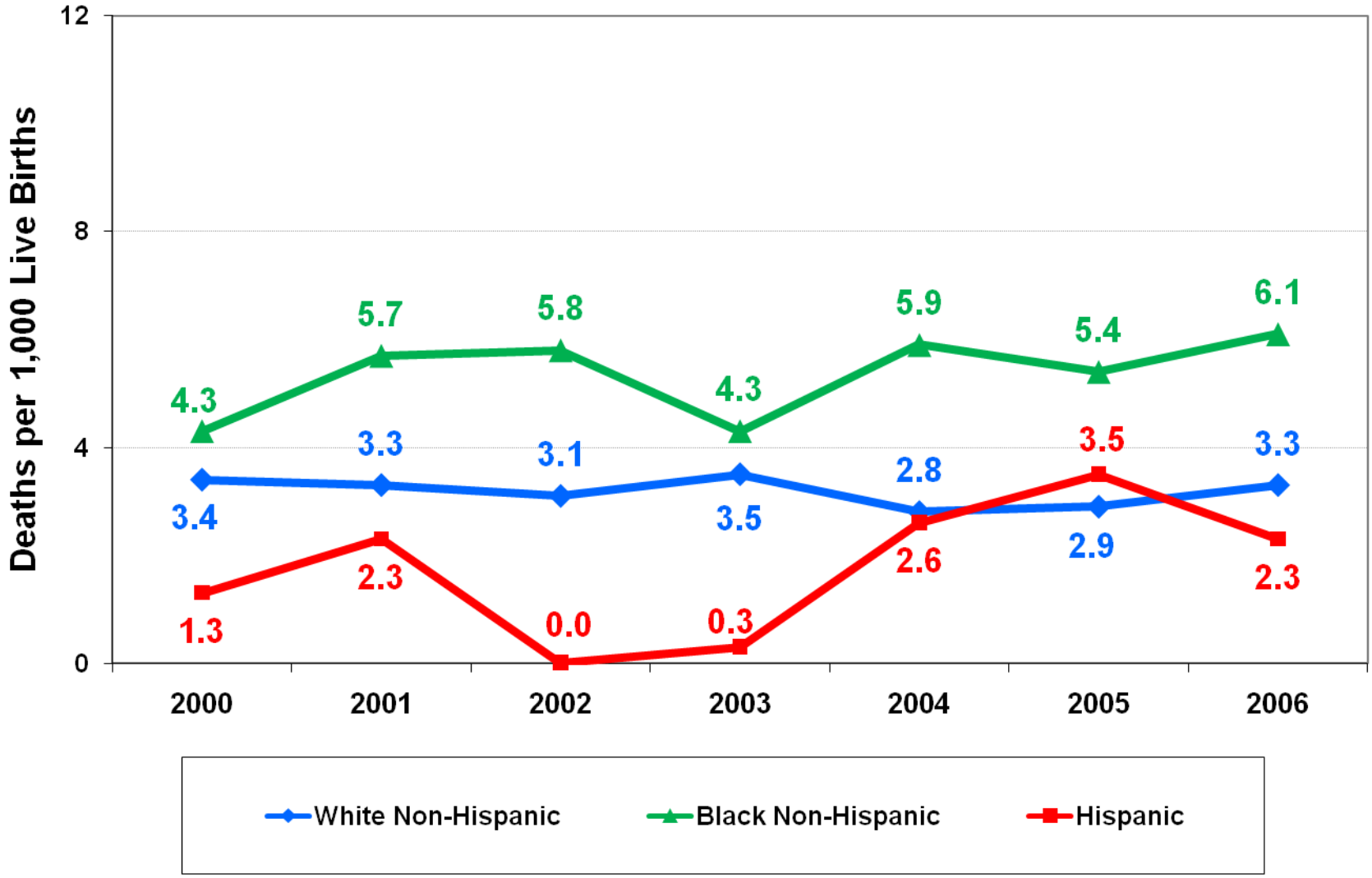
Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

Neonatal Mortality



Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

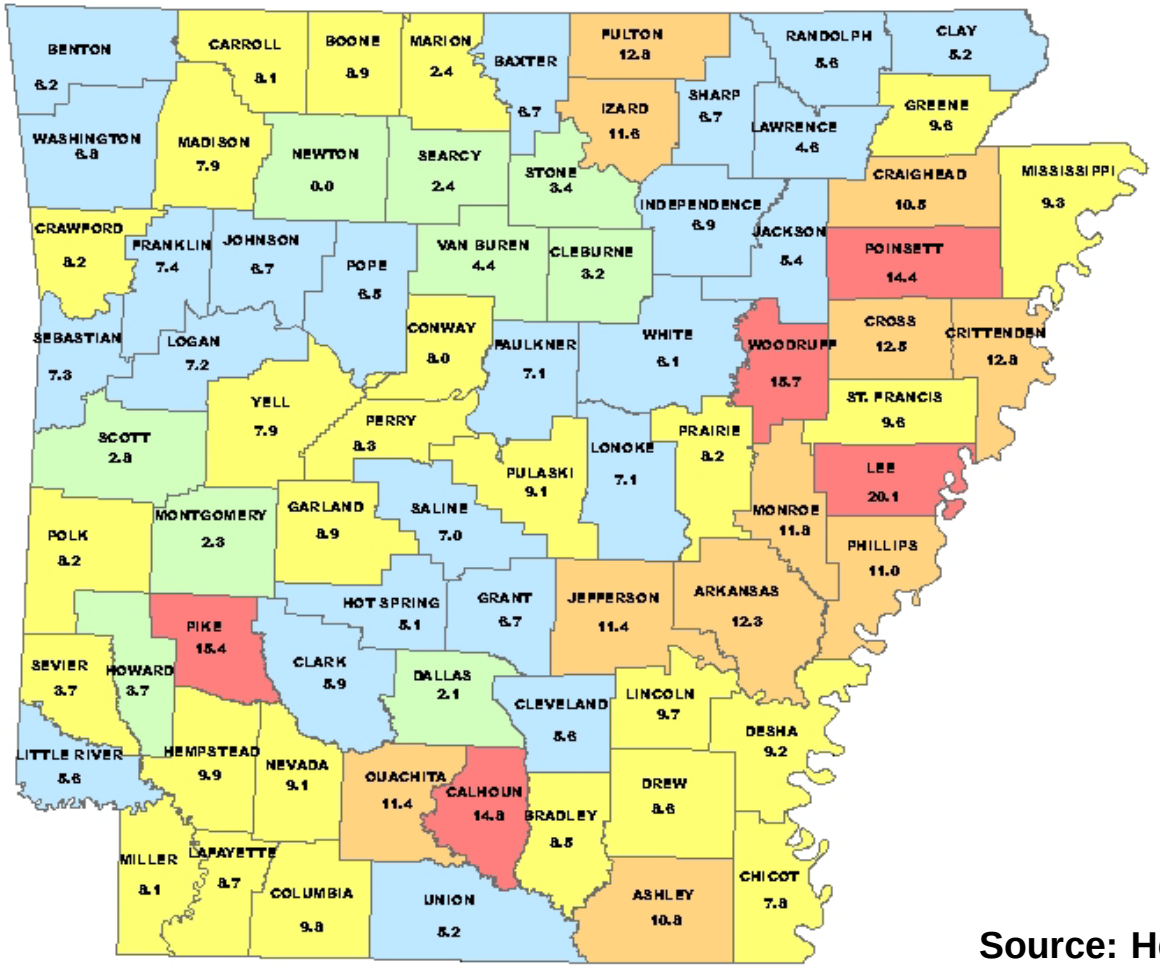
Post-Neonatal Mortality



Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

Infant Mortality by County

2001-2005

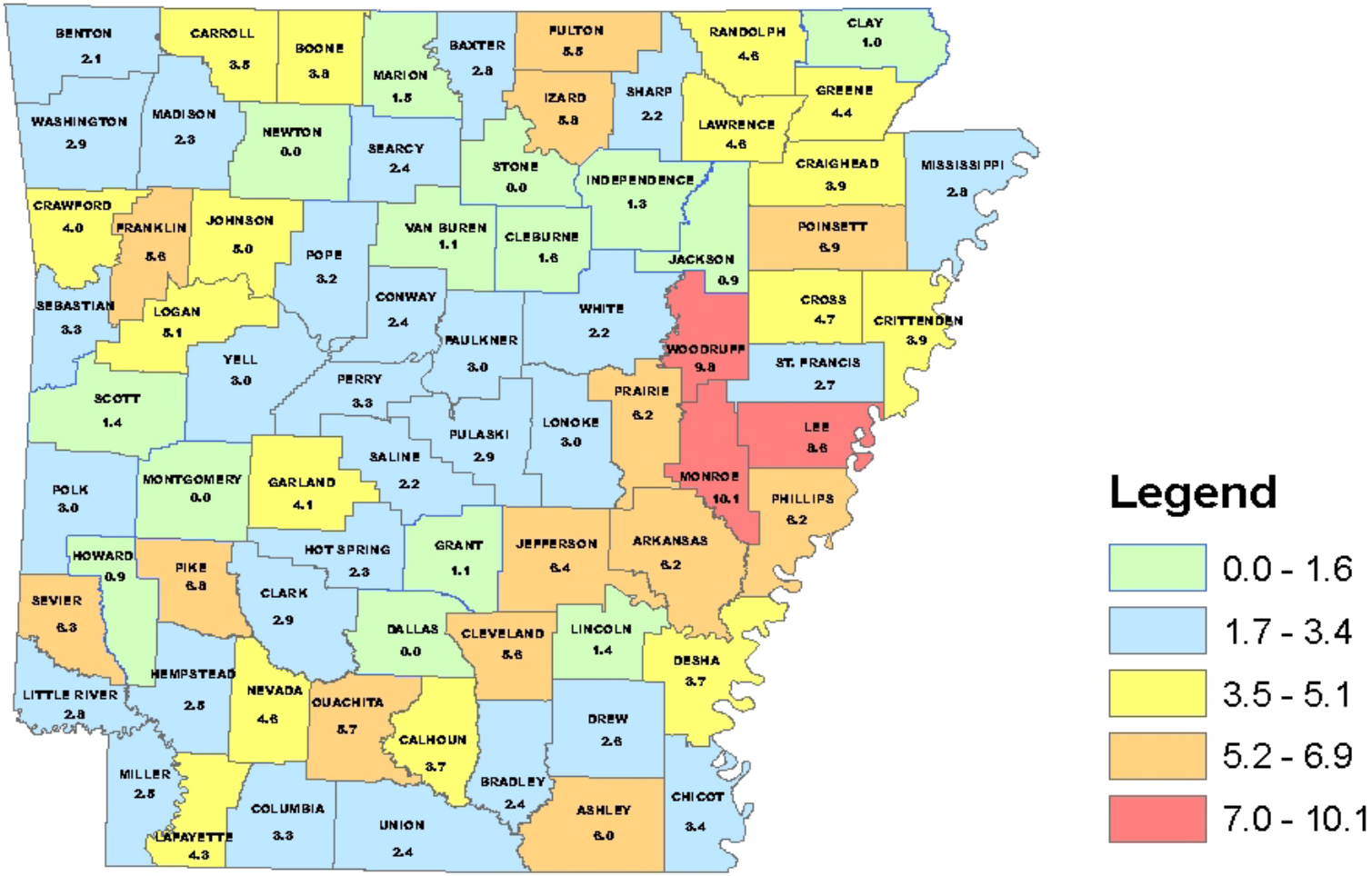


Legend

- 0.0 - 4.4
- 4.5 - 7.4
- 7.5 - 9.9
- 10.0 - 12.8
- 12.9 - 20.1

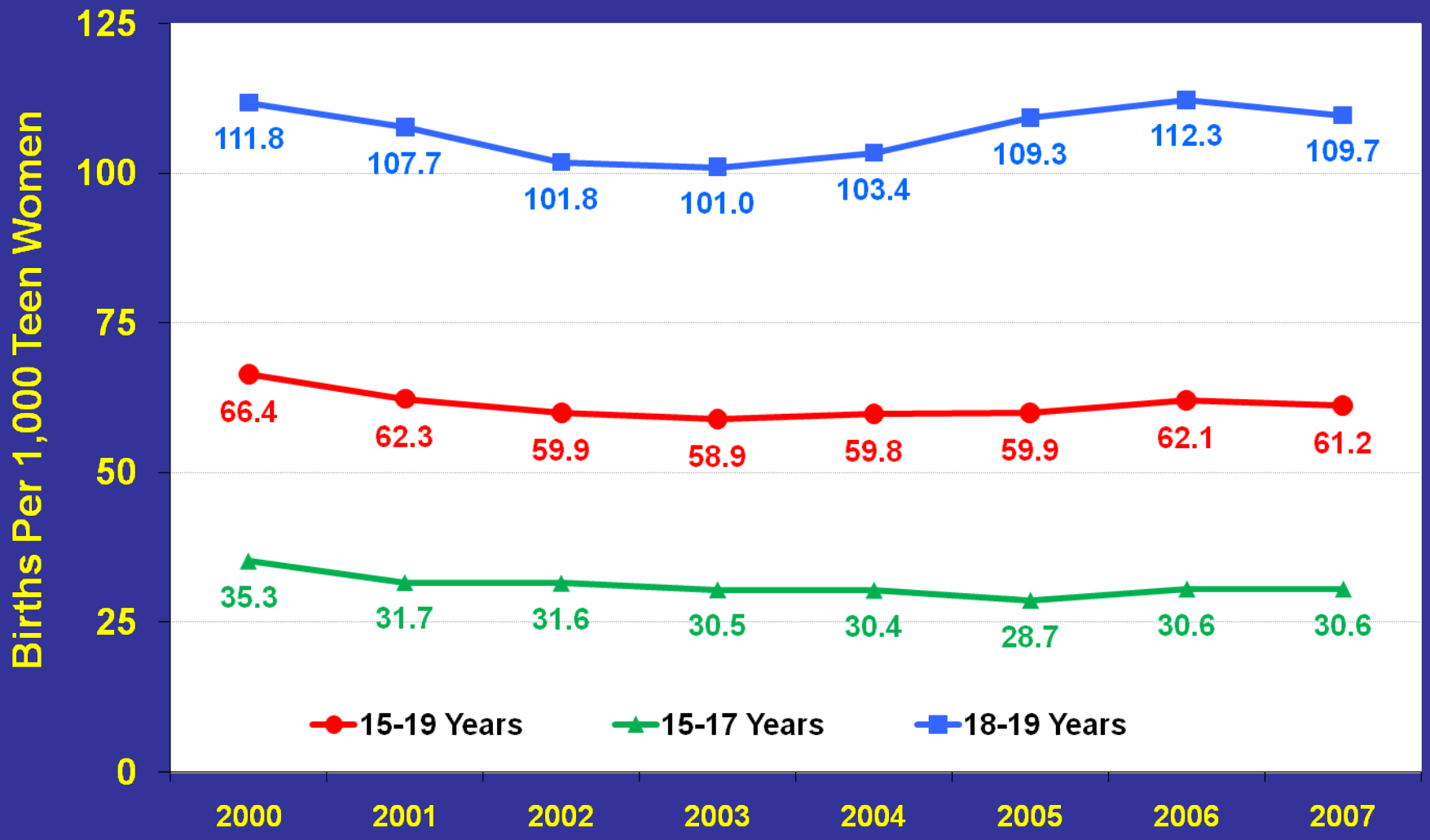
Source: Health Statistics Branch, Center for Health Practice, ADH

Postneonatal Mortality by County



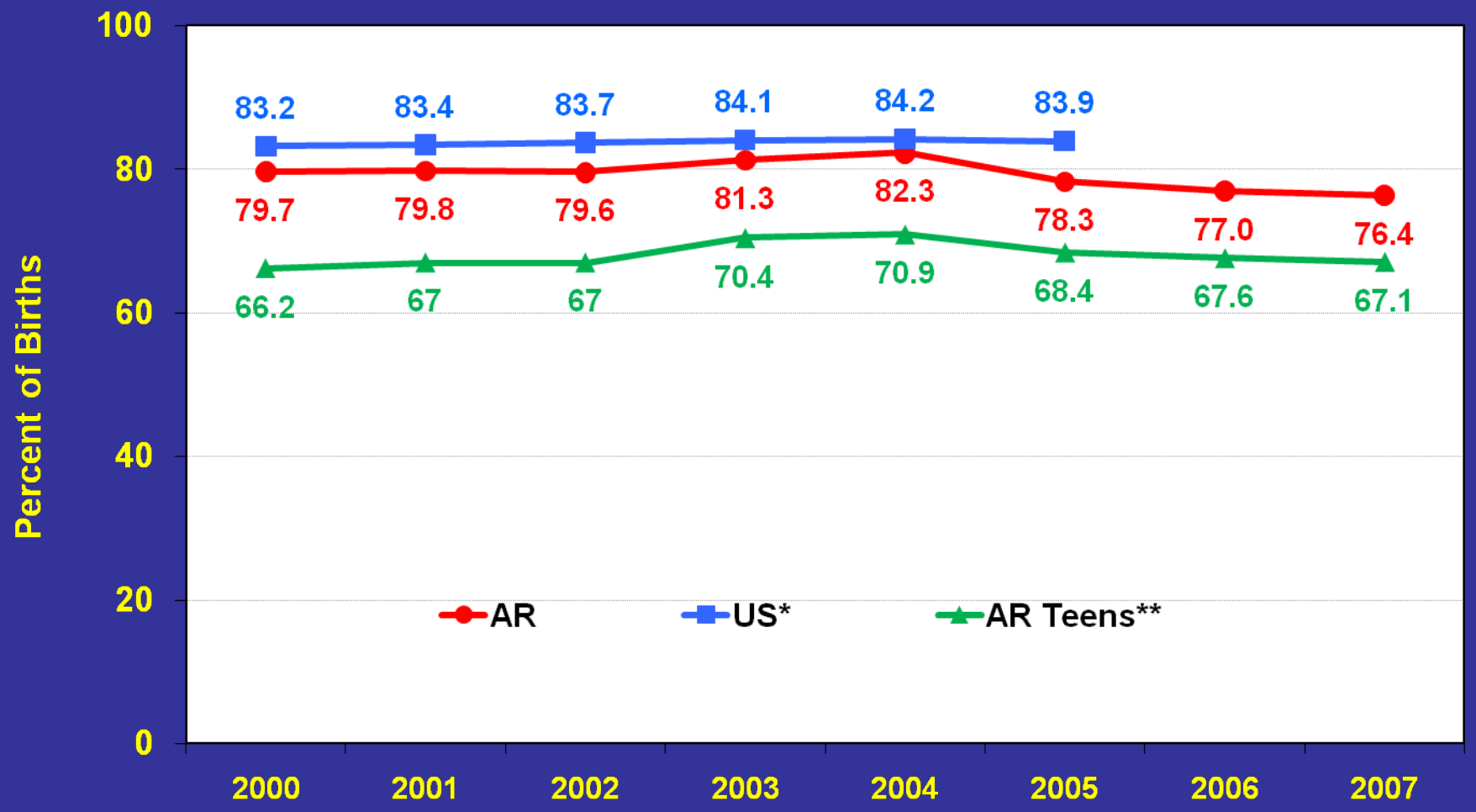
Trends and Findings that put “Upward Pressure” on Arkansas Infant Mortality

Increasing Teen Birth Rate



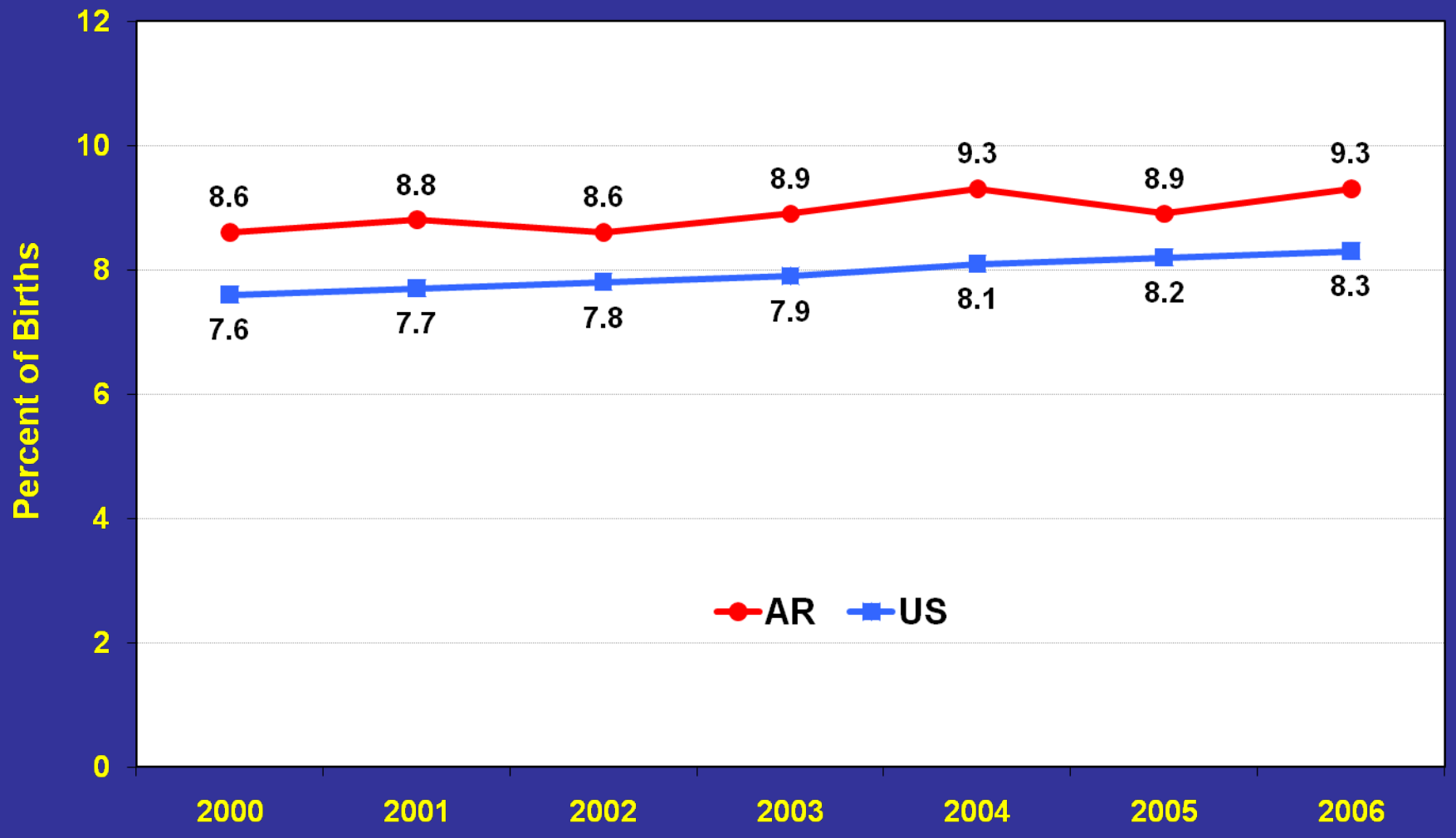
Sources: National Center for Health Statistics (NCHS) and Health Statistics Branch, Arkansas Department of Health.

Decreasing Early Prenatal Care



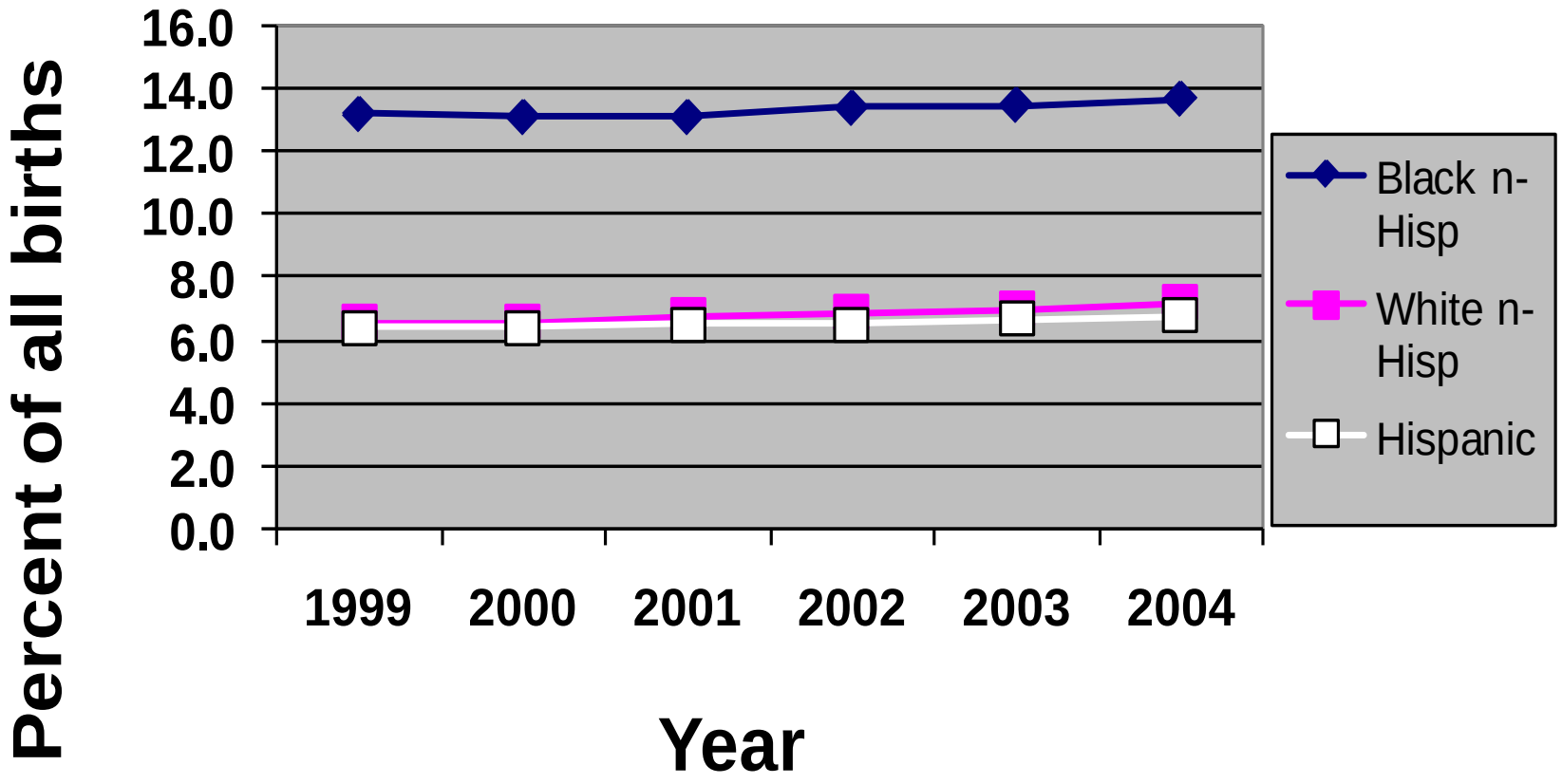
*2006 and 2007 US data not available.
**AR Teens are adolescents less than 20 years.
Sources: National Center for Health Statistics (NCHS) and Health Statistics Branch, Arkansas Department of Health.

Increasing Low Birth Weight



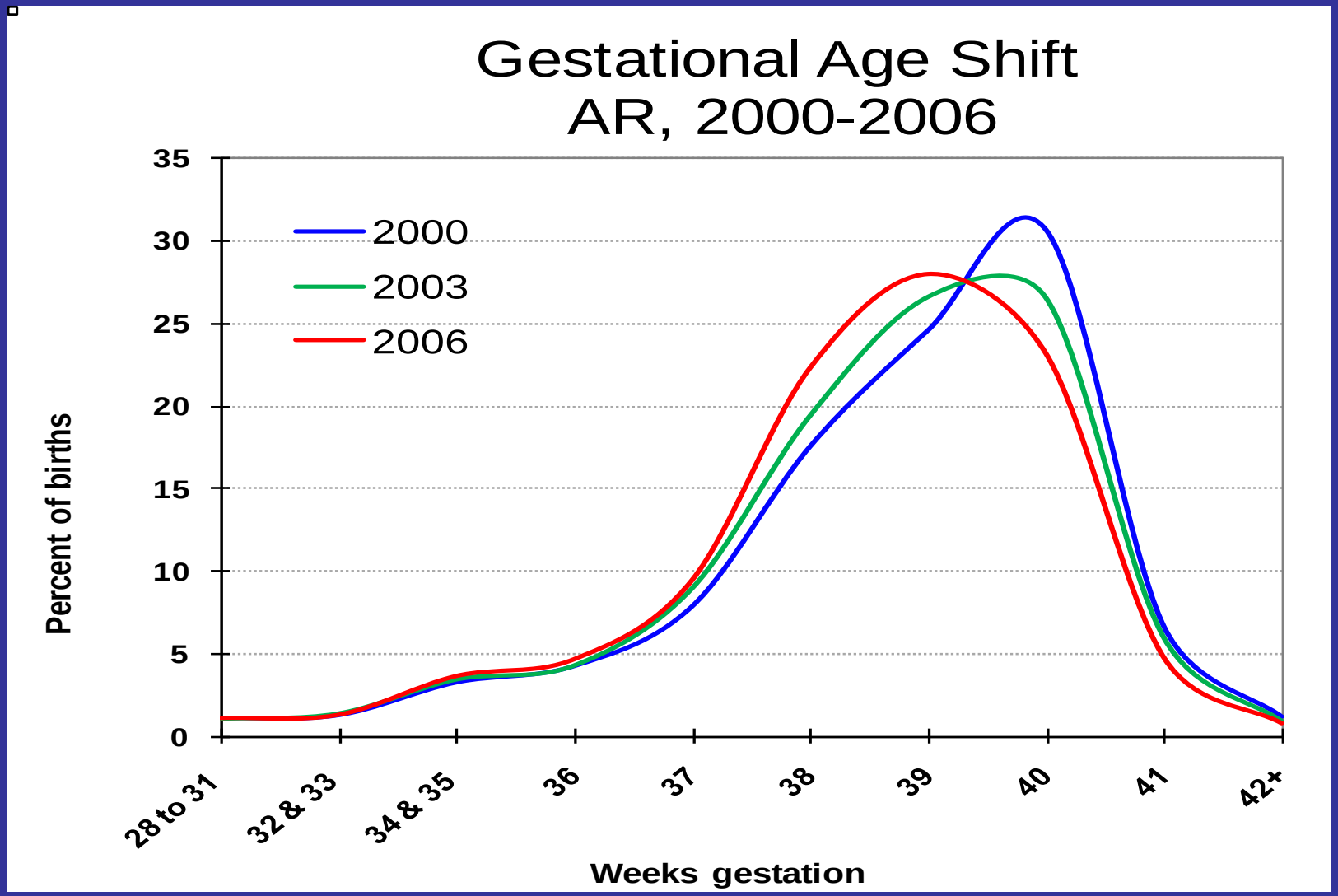
Sources: National Center for Health Statistics (NCHS) and Health Statistics Branch, Center for Health Practice, Arkansas Department of Health.

Percent Low Birthweight Births, AR by Race and Ethnicity, 1999-2004

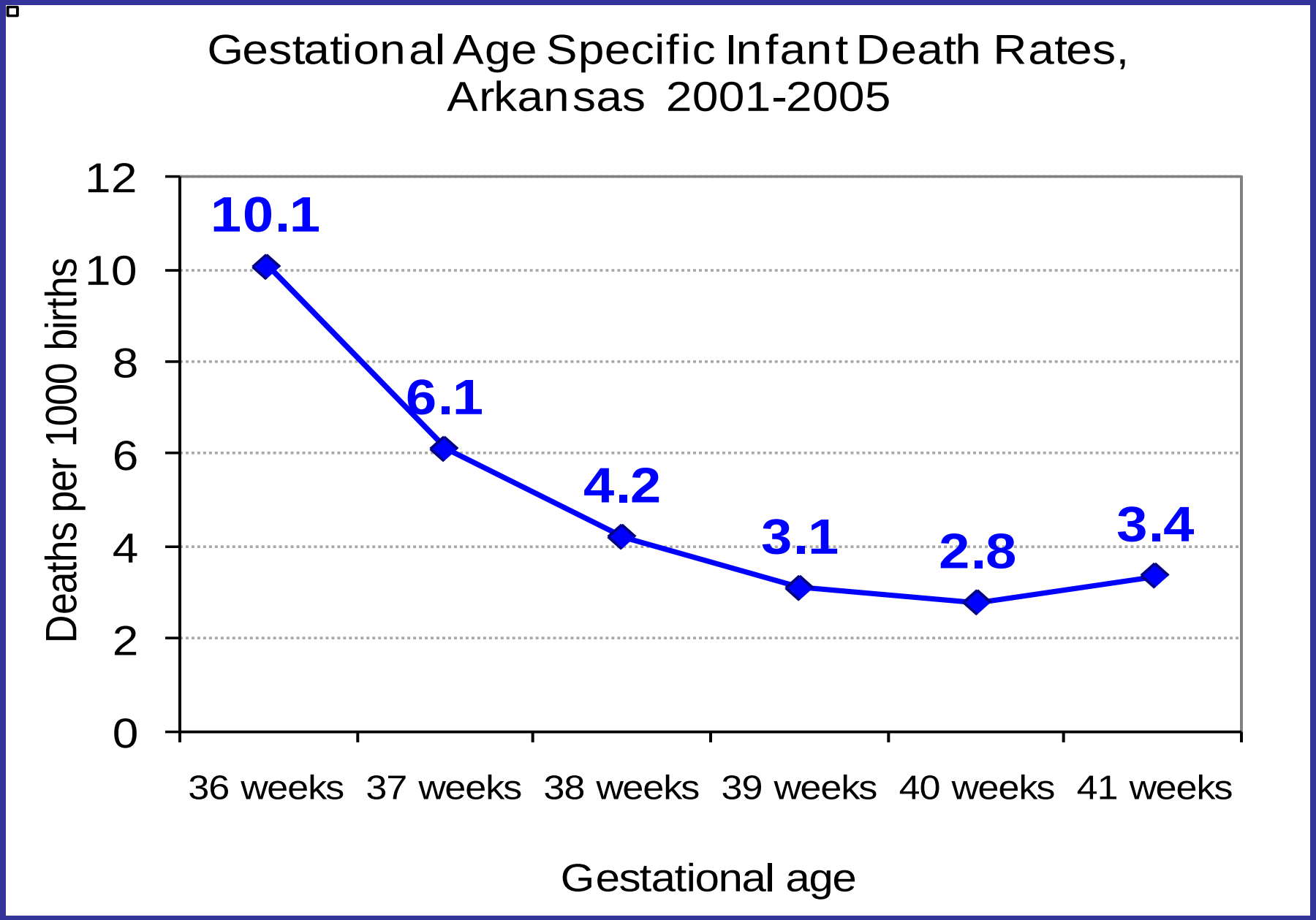


Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

The Gestational Age Shift



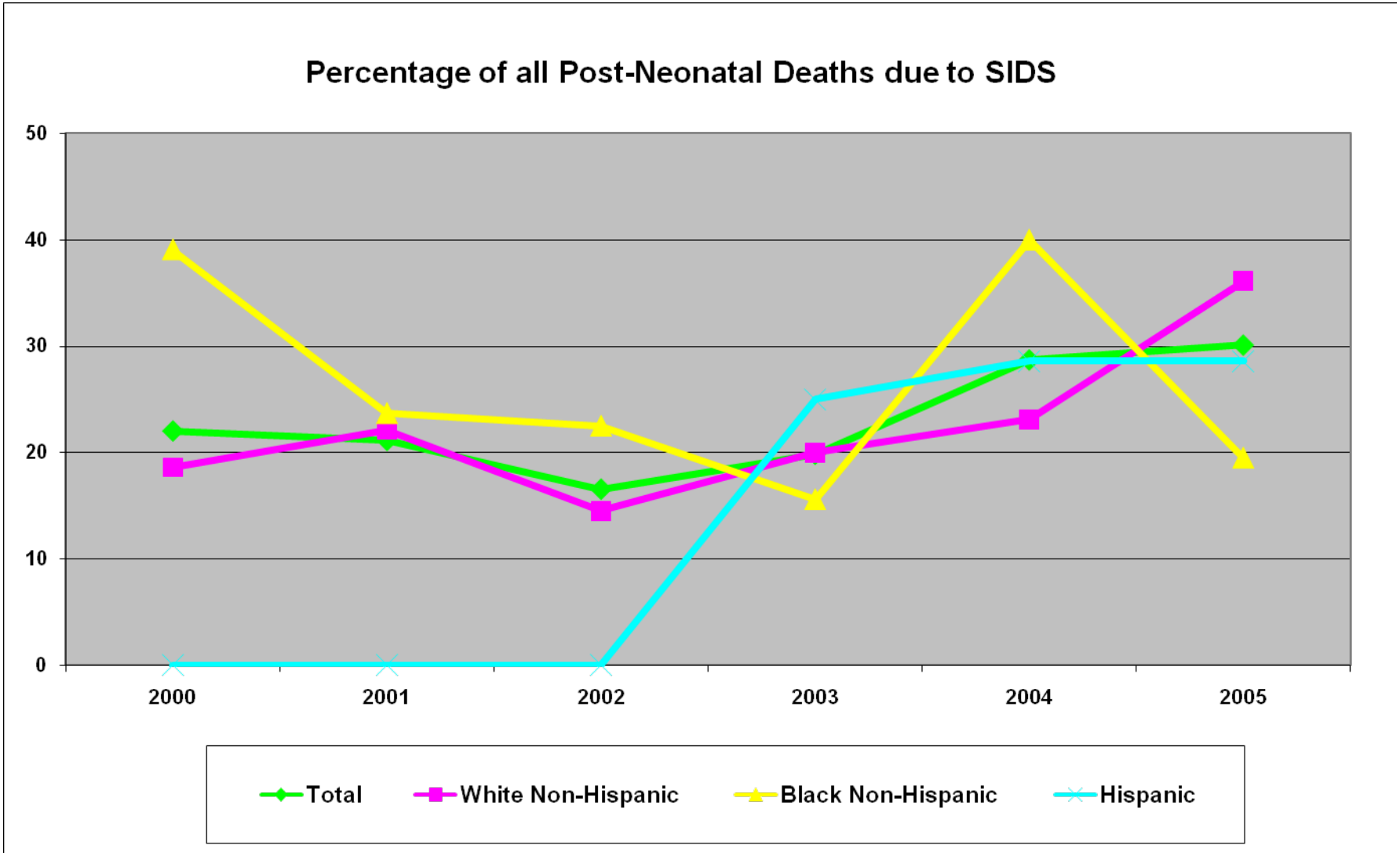
Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health



Source: Health Statistics Branch, Center for Health Practice, Arkansas Department of Health

SIDS as a priority

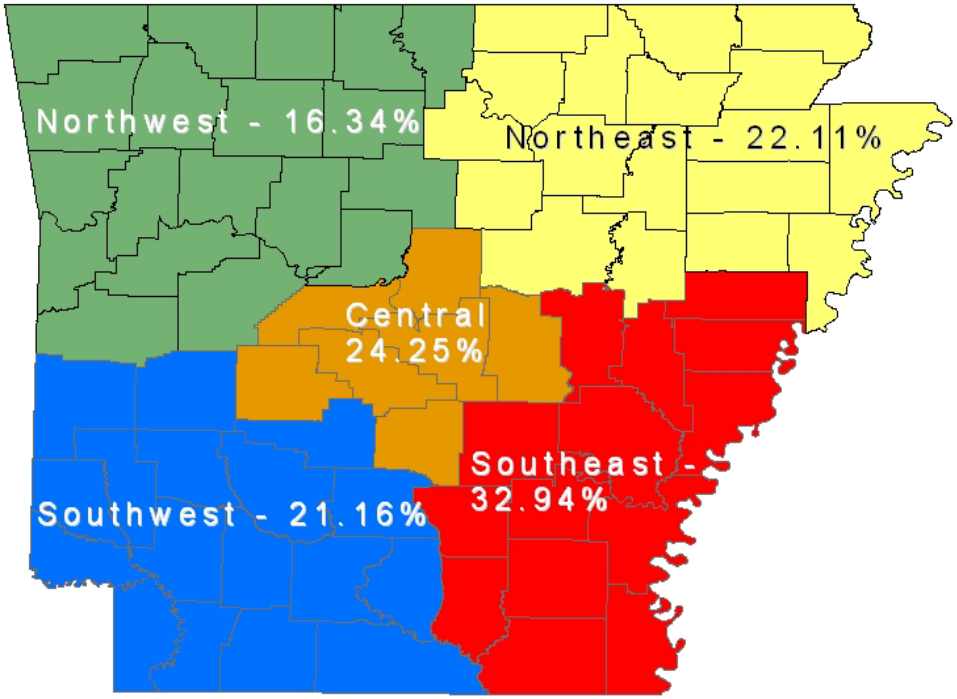
- Scientific papers from as long ago as 1991 have documented prone sleep position as a risk factor for SIDS, as well as other hazards in the sleeping environment.
- PRAMS data from Arkansas indicate that many more mothers should be using back-lying sleep position for their babies.


Percentage of all Post-Neonatal Deaths due to SIDS
50
40
30
20
10
0
2000
2001
2002
2003
2004
2005
Total
White Non-Hispanic
Black Non-Hispanic
Hispanic

Use of stomach (prone) sleeping by race and ethnicity, AR

Race/ Ethnicity	% Prone	% Back
White, Non-Hispanic	20.7	55.2
Black, Non-Hispanic	37.1	28.1
Hispanic	5.5	49.3
Total	21.9	50.0

Sleep Position on Stomach by Public Health Region; Percentage of Infants in Arkansas, 2001-2005



Legend

PUBLIC HEALTH REGIONS

- Southeast - 32.94%
- Central - 24.26%
- Northeast - 22.11%
- Southwest - 21.16%
- Northwest - 16.34%

Evidence Based Recommendations to reduce Infant Mortality (ADH discussions)

Potential Issues for Action

- Teen births
- Prematurity (preterm and low weight births)
- High risk perinatal patients
- Congenital anomalies (neural tube defects)
- Sudden Infant Death Syndrome
- Unintentional injury deaths

Potential System Improvements

- Health Promotion interventions
  - Public awareness
  - Marketing for behavior change
  - Neighborhood outreach and recruitment
- Enhanced Primary Care Activities
  - Preconception health counseling
  - ID and refer young women with chronic disease
  - Improve access to prevention
    (FP, PC, WIC, STI clinics, Immunizations)

Potential System Improvements

- Medical Care Improvements
  - ID and refer high risk pregnant women
  - Refer women in preterm labor to NICU hospitals if birth weight < 1500 grams is predicted, or to UAMS/ACH if <1000 grams
- Implement a trauma system
- Begin to understand socio-cultural aspects of disparities