

# Infant Mortality in South Carolina's Appalachian Mountain Counties

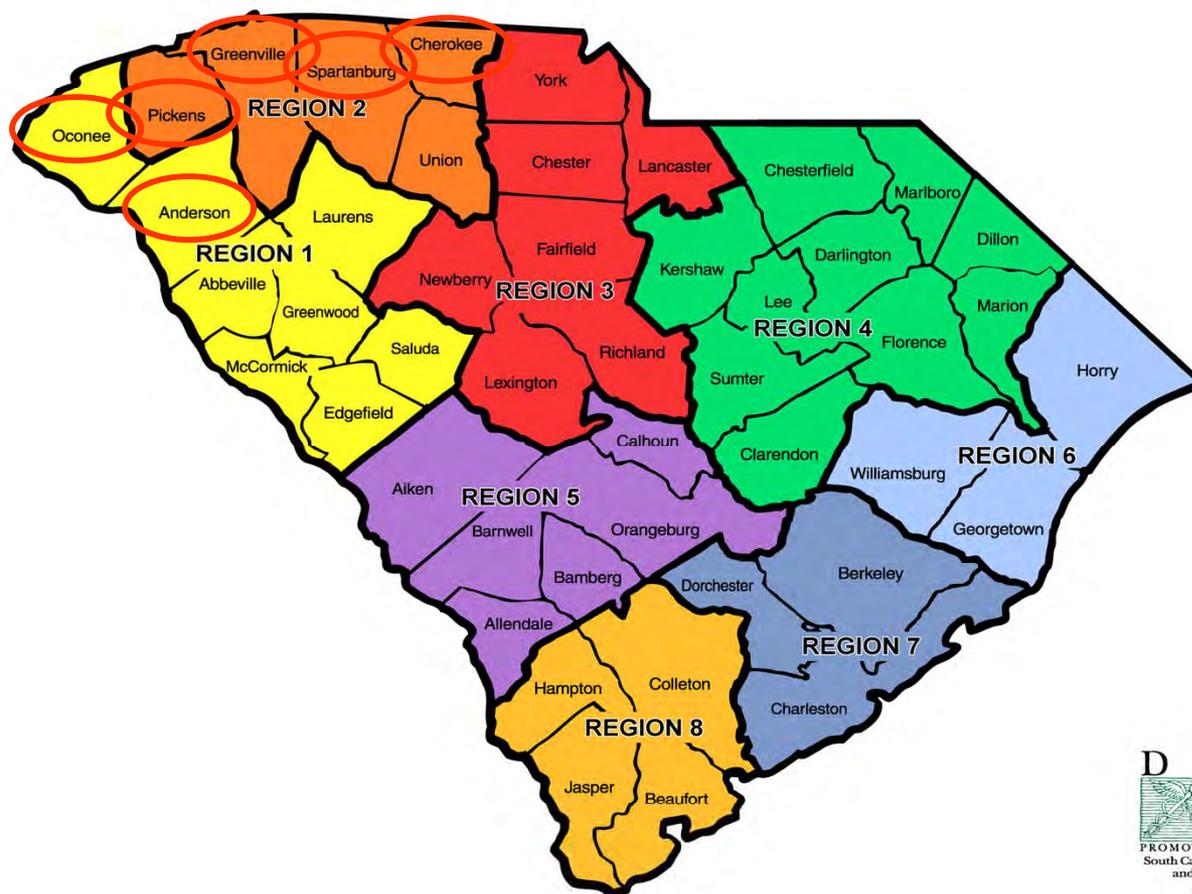
Anderson, Cherokee, Greenville, Oconee,  
Pickens, and Spartanburg

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*South Carolina Department of Health and Environmental Control*



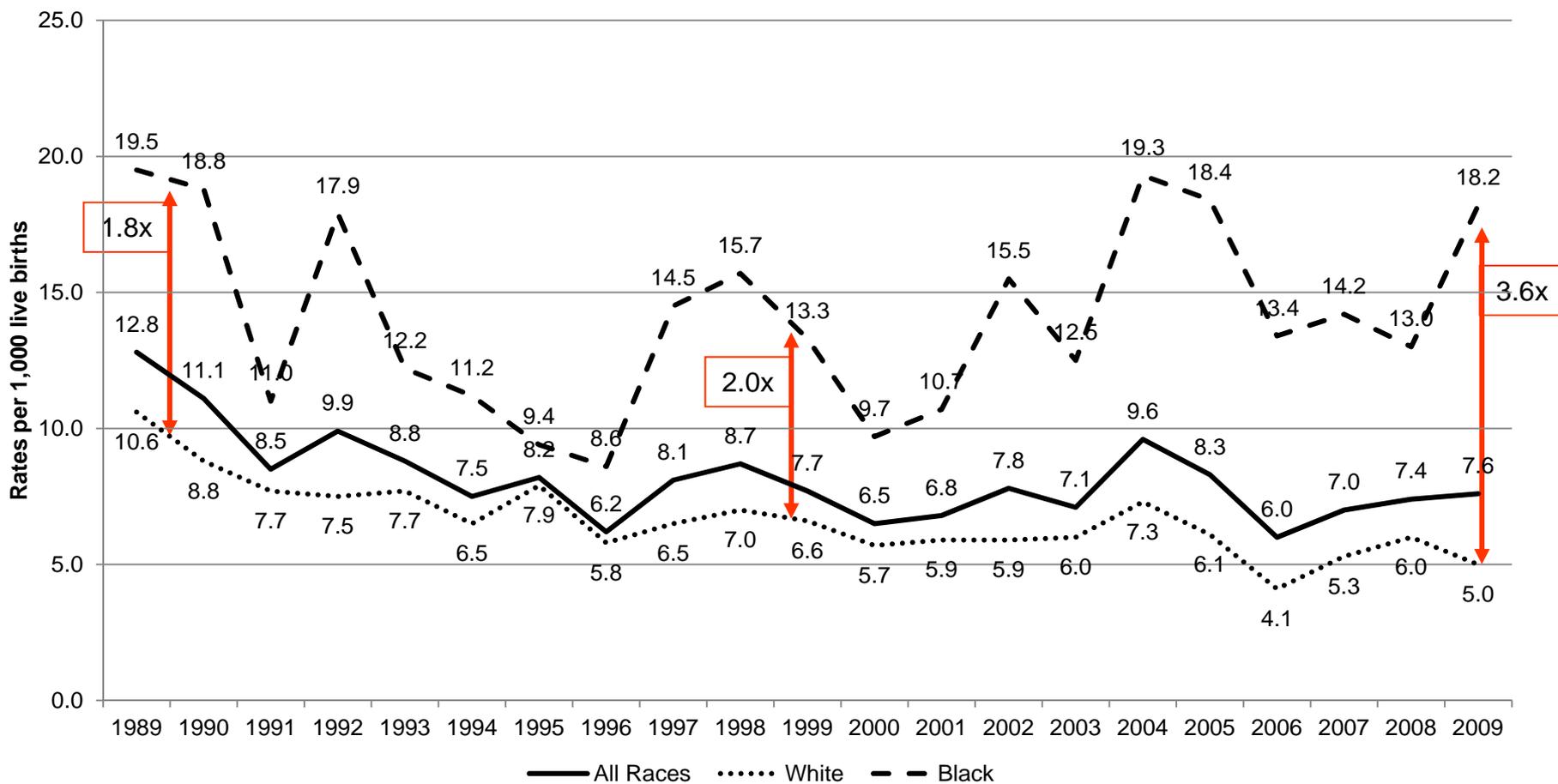
# DHEC Regions



# Overview

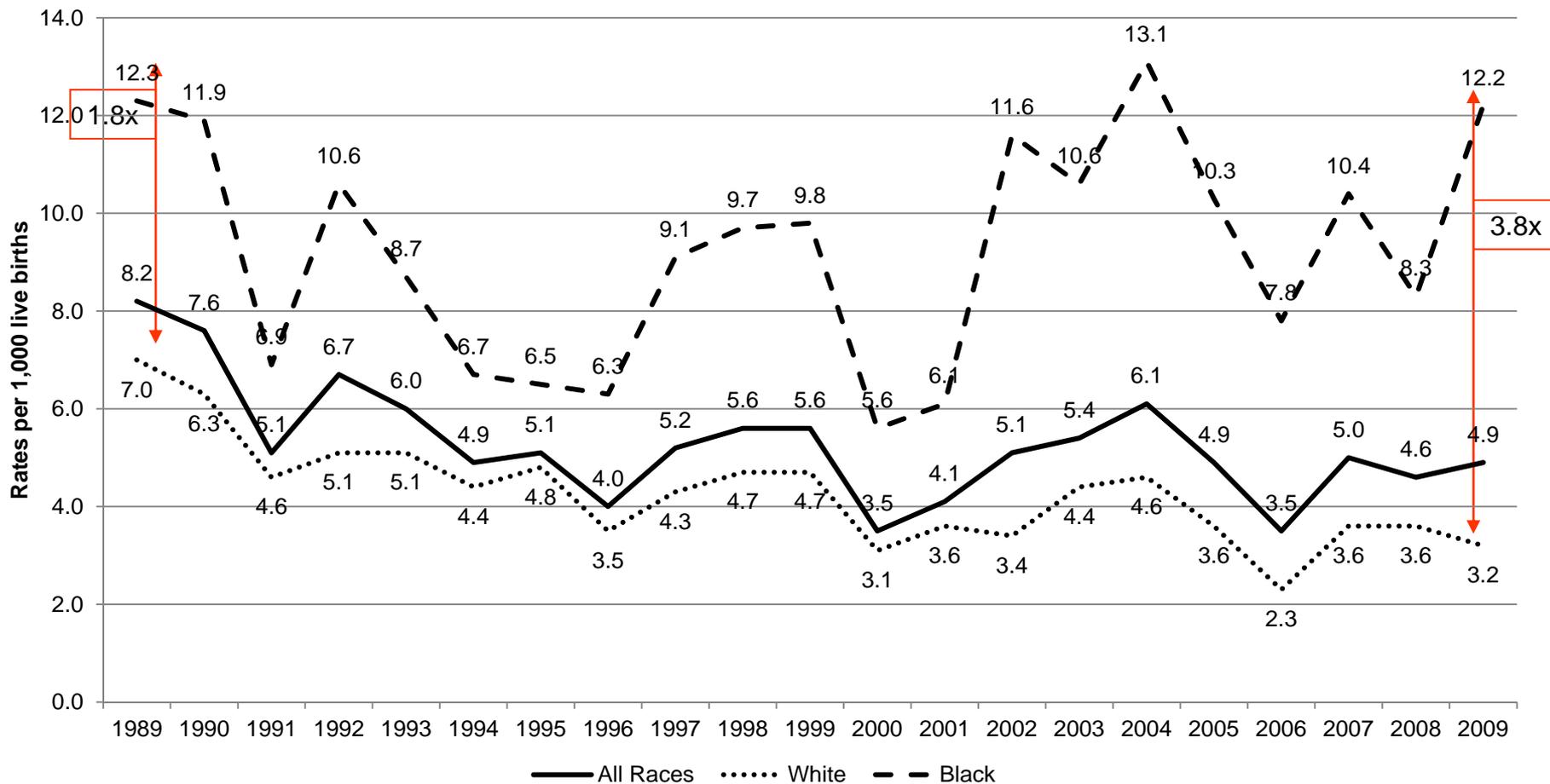
- In SC's Appalachian Mountain counties in 2009...
  - 15,416 births (49.9% Medicaid)
  - 117 babies died before their first birthday
  - IMR was 7.6 (a decline from 12.8 in 1989)
    - Above U.S. rate of 6.5 (provisional)
    - Above HP 2020 Objective of < 6.0

## Infant Mortality Rates by Race\*, Appalachian SC County Residents, 1989-2009



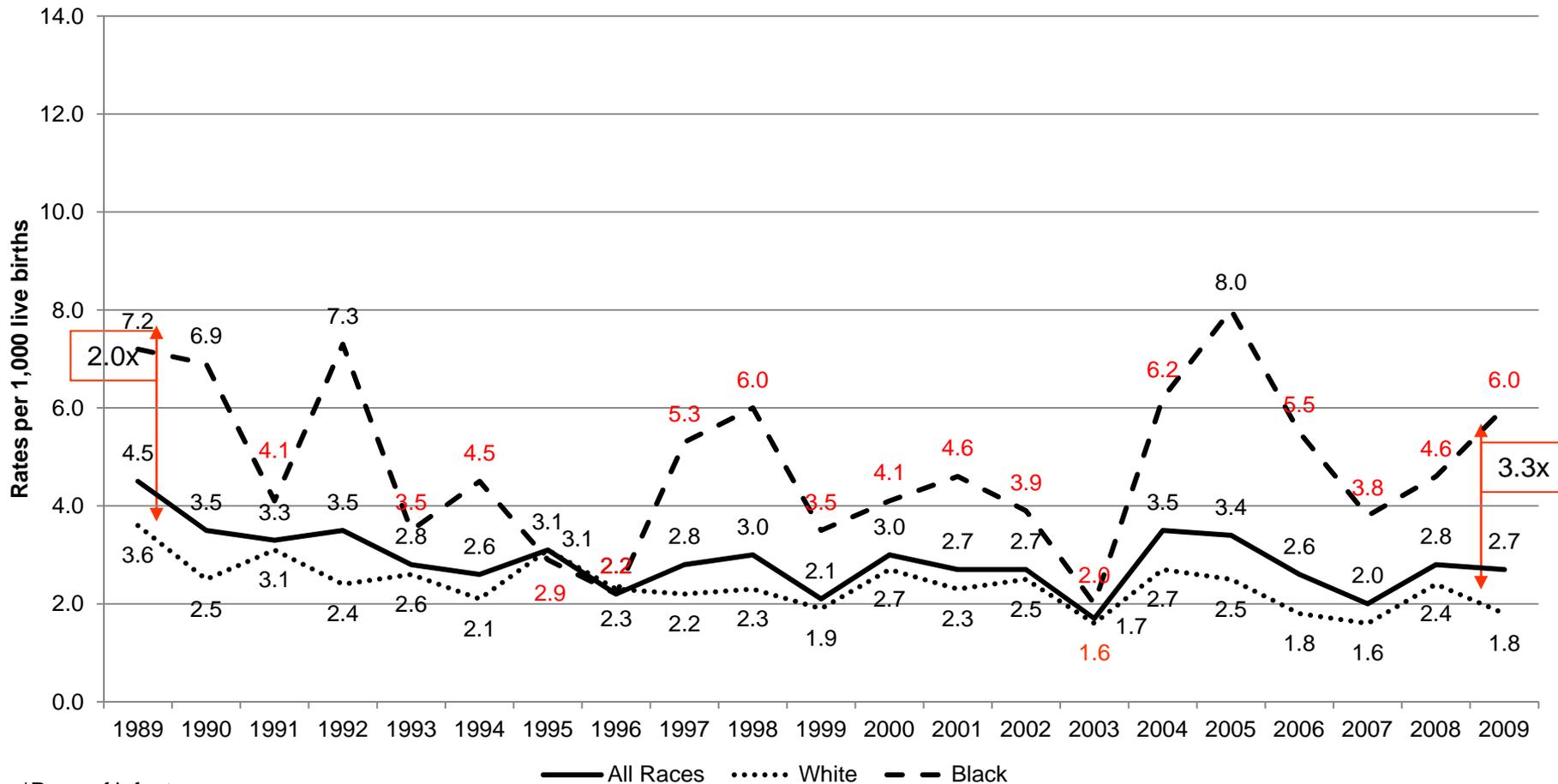
\*Race of infant

## Neonatal Mortality Rates by Race\*, Appalachian SC County Residents, 1989-2009 (< 28 days)



\*Race of infant

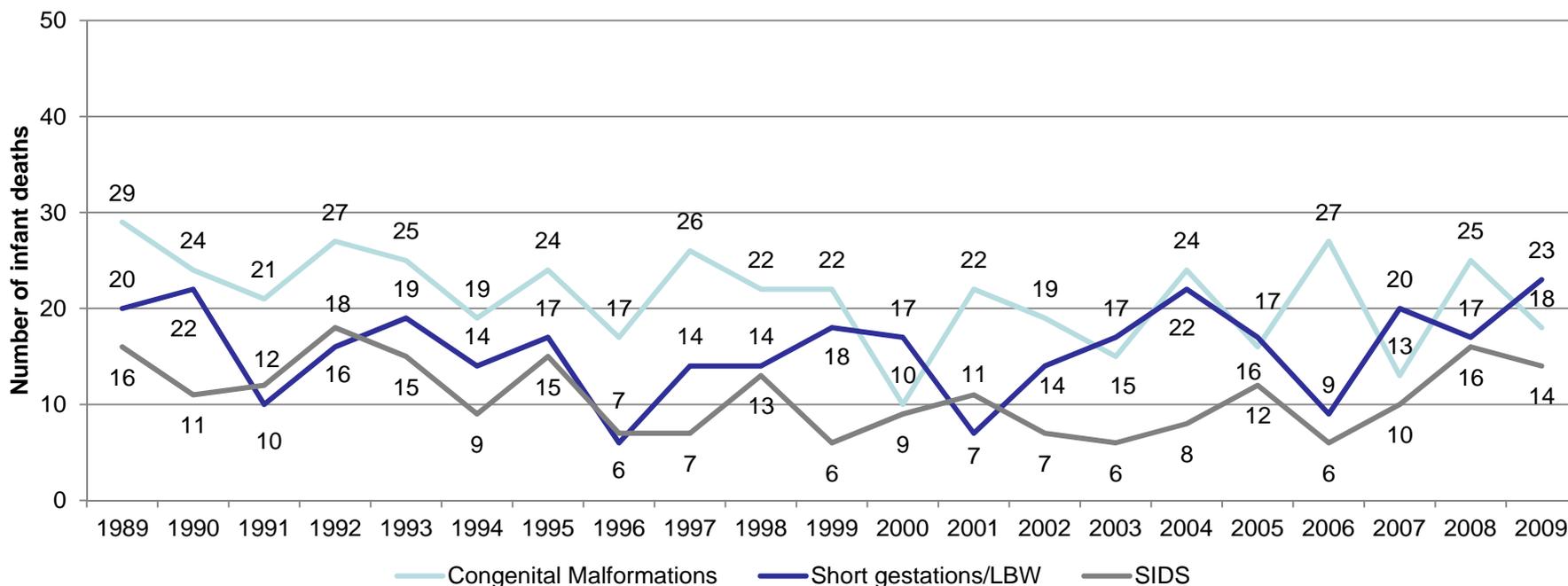
# Postneonatal Mortality Rates by Race\*, Appalachian SC County Residents, 1989-2009 (28 to 364 days)



\*Race of infant

\*\*Note: Rates in red font are based on fewer than 20 deaths.

## Leading Causes of Infant Deaths, Appalachian SC County Residents, 1989-2009



### White (2009)

1. Short Gestation/LBW
2. SIDS
3. Congenital Malformations
4. Accidents
5. Maternal Complications

### Black (2009)

1. Congenital Malformations
2. Short Gestation/LBW
3. SIDS
4. Maternal Complications
5. Accidents

# Disparities among Appalachian SC County Residents, 2009

- Blacks
  - IMR higher (3.6X)
  - Neonatal Mortality rate is higher
  - Post-Neonatal Mortality Rate is higher
  - Premature (early & late) birth rate is higher
  - % of VLBW and LBW are higher

# Current Infant Mortality Prevention Efforts in South Carolina

# SC's Strategies to Address Infant Mortality

- Maintain Perinatal Regionalized System of Care
- Reduce Pre-term and VLBW/LBW babies
- Improve maternal health – prior to pregnancy (chronic diseases and unhealthy behaviors – e.g.: smoking cessation, planned pregnancies, alcohol use prevention)
- Care Coordination (during pregnancy and after delivery – Nurse-Family Partnership, PPNBHV's, Healthy Start)
- Shaken Baby Syndrome Prevention – hospital-based and community-based education

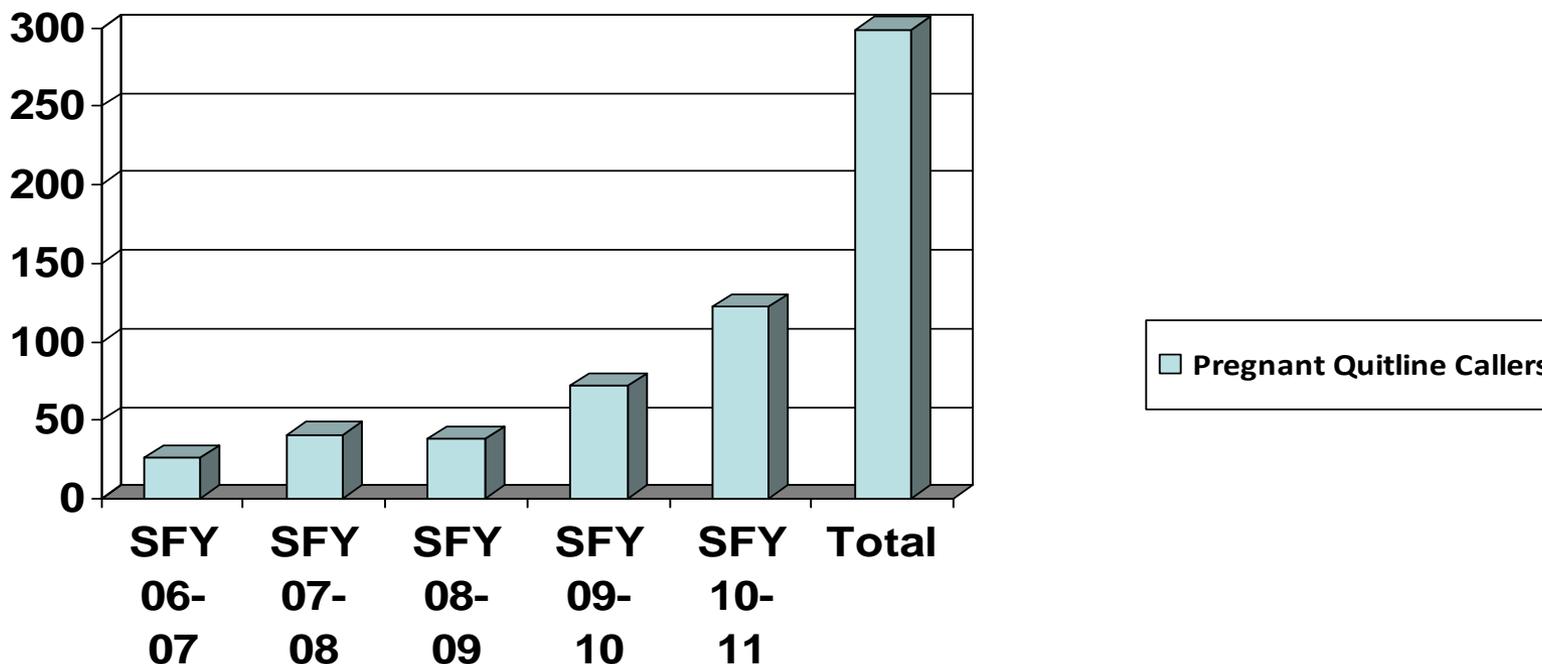
# Prevention of Birth Defects

- Current SC programs/initiatives with the potential to promote vitamin use before pregnancy and alcohol cessation during pregnancy:
  - SC Birth Defects Program
  - Folic Acid Awareness
  - Preconception Health Coalitions and Initiatives
  - Family Planning
  - WIC
  - Secondary prevention via Newborn Metabolic and Hearing Screening

# Prevention of PTB and LBW

- Current SC programs/initiatives with the potential to promote smoking cessation during pregnancy and inter-pregnancy intervals of 18 months or longer:
  - SC Tobacco Quitline
  - 2A's + R
  - Preconception Health Coalitions
  - ASTHO Preconception Health Grant
  - Family Planning
  - WIC
  - Home Visitation

# Steady increase in the number of SC pregnant callers to the Tobacco Quitline 2006-2011



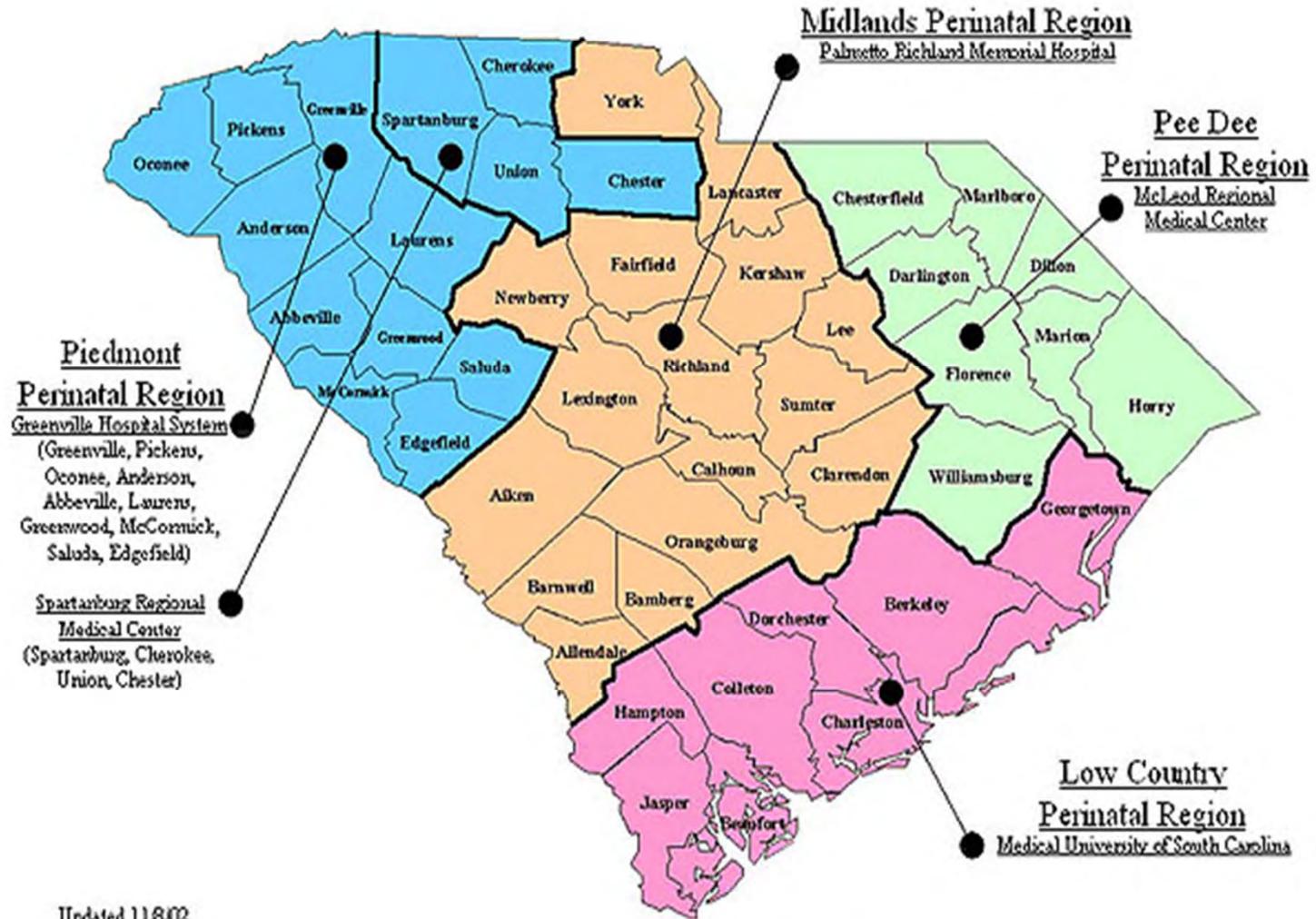
April 2010 – Launched TV ads targeting pregnant tobacco users in geographical areas of SC with highest rates of smoking among pregnant women (PRAMS geo-mapping data).

# Reducing Infant Mortality by Managing High Risk Deliveries

- Perinatal Regionalization
  - Efficient perinatal regionalization has been shown to decrease the likelihood of infant death for very low birth weight and very preterm births<sup>1</sup>.
  - This involves ensuring that high-risk deliveries and very low birth weight and very preterm infants are transferred to level III hospitals, which are more equipped to handle these high-risk patients.

<sup>1</sup>Lasswell SM, Barfield WD, Tochat RW, Blackmon L. Perinatal regionalization for very low-birth-weight and very preterm infants: a meta-analysis. JAMA. 2010; 304:992-1000

# South Carolina Perinatal Regions



Updated 11/8/02

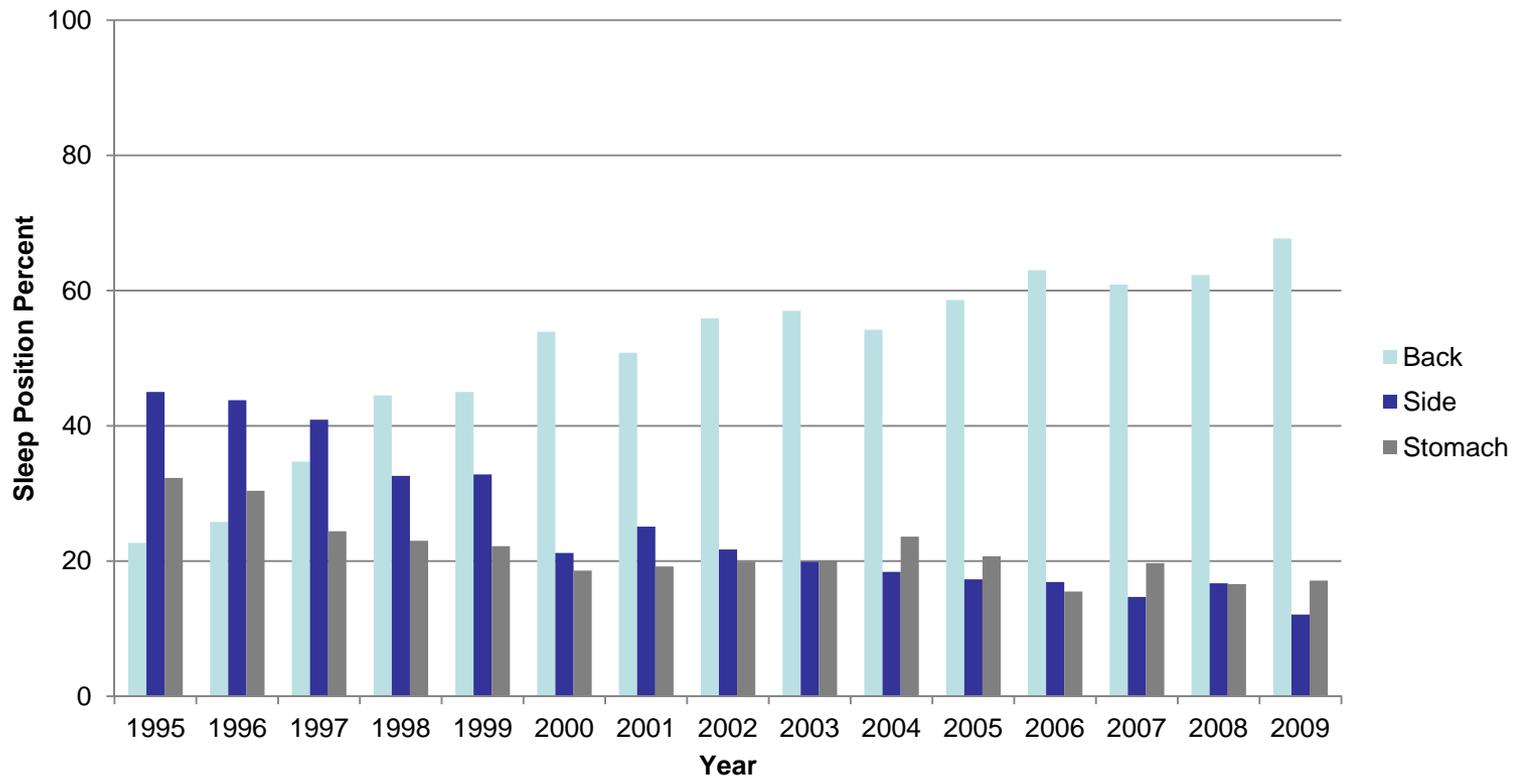
# SIDS Risk Reduction

- Current SC programs/initiatives with the potential to promote safe sleep and smoke-free environments for infants:
  - WIC
  - Region 1 – March of Dimes Grant
  - Cribs for Kids
  - Home Visitation Programs
  - SC Tobacco Quitline
  - 2A's + R

# SIDS Risk Reduction

- Placing infants to sleep on their back.

Trend in Prevalence of Infant Sleep Positions



Data source: SC PRAMS

# Challenges and Opportunities Infant Mortality Prevention Efforts for South Carolina

- According to SC Data, the following populations exhibit the greatest need for interventions:
  - Breastfeeding Initiation
    - African American women<sup>1</sup>
    - Caucasian overweight/obese women<sup>1</sup>
  - Multivitamin Use
    - Women of reproductive age, all races<sup>2</sup>
  - Pregnancy Intendedness
    - African American women of reproductive age<sup>3</sup>
  - Late Preterm Birth
    - African American women
    - Underweight women (BMI <18.5)
    - Women <18 or >35 years of age
  - Tobacco Cessation
    - Caucasian women of reproductive age<sup>2</sup>
  - SIDS Risk Reduction
    - Women <30 years of age<sup>4</sup>
    - WIC eligible Caucasian women<sup>4</sup>
    - African American women<sup>4</sup>

<sup>1</sup>Liu J, Smith MG, Dobre DA, Ferguson JE. Maternal obesity and breast-feeding practices among white and black women. *Obesity* 2010;18:175-182.

<sup>2</sup>PRAMS Data.

<sup>3</sup>Smith MG, Wilkerson KL, Helms KH. Racial disparities in pregnancy planning among South Carolina mothers, 2004-2007. Columbia, SC; South Carolina Department of Health and Environmental Control. 2010.

<sup>4</sup>Smith MG, Liu J-H, Helms KH, Wilkerson KL. Racial differences in trends and predictors of infant sleep positioning in South Carolina, 1996-2007. *Matern Child Health J.* 2010 [Epub ahead of print]



Thank you  
For more information  
[www.scdhec.gov](http://www.scdhec.gov)