

Building community capacity to reduce infant mortality and low birthweight in a rural and diverse population

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Background

- Project funded by Health Resources Services Administration (HRSA) since 2002
- Enhance the quality of life in Robeson County, North Carolina consumers within a subpopulation living in rural communities
- Significant disparities in perinatal health are experienced by American Indians, African Americans, Hispanics and immigrant populations.
- Differences may occur by virtue of cultural and linguistic background, health education and training, lifestyles, income, disabilities or living in rural/isolated areas.

Population distributions

Racial-ethnic Group	Robeson County	North Carolina	USA
Non-Hispanic Native	37.7% (Lumbee Tribe)	1.2%	0.7%
Non-Hispanic Black	25.0%	21.4%	12.1%
Non-Hispanic White	30.8%	70.2%	69.1%
Hispanic	4.9%	4.7%	12.5%
Other*	1.6%	2.5%	5.6%
Total	100%	100%	100%

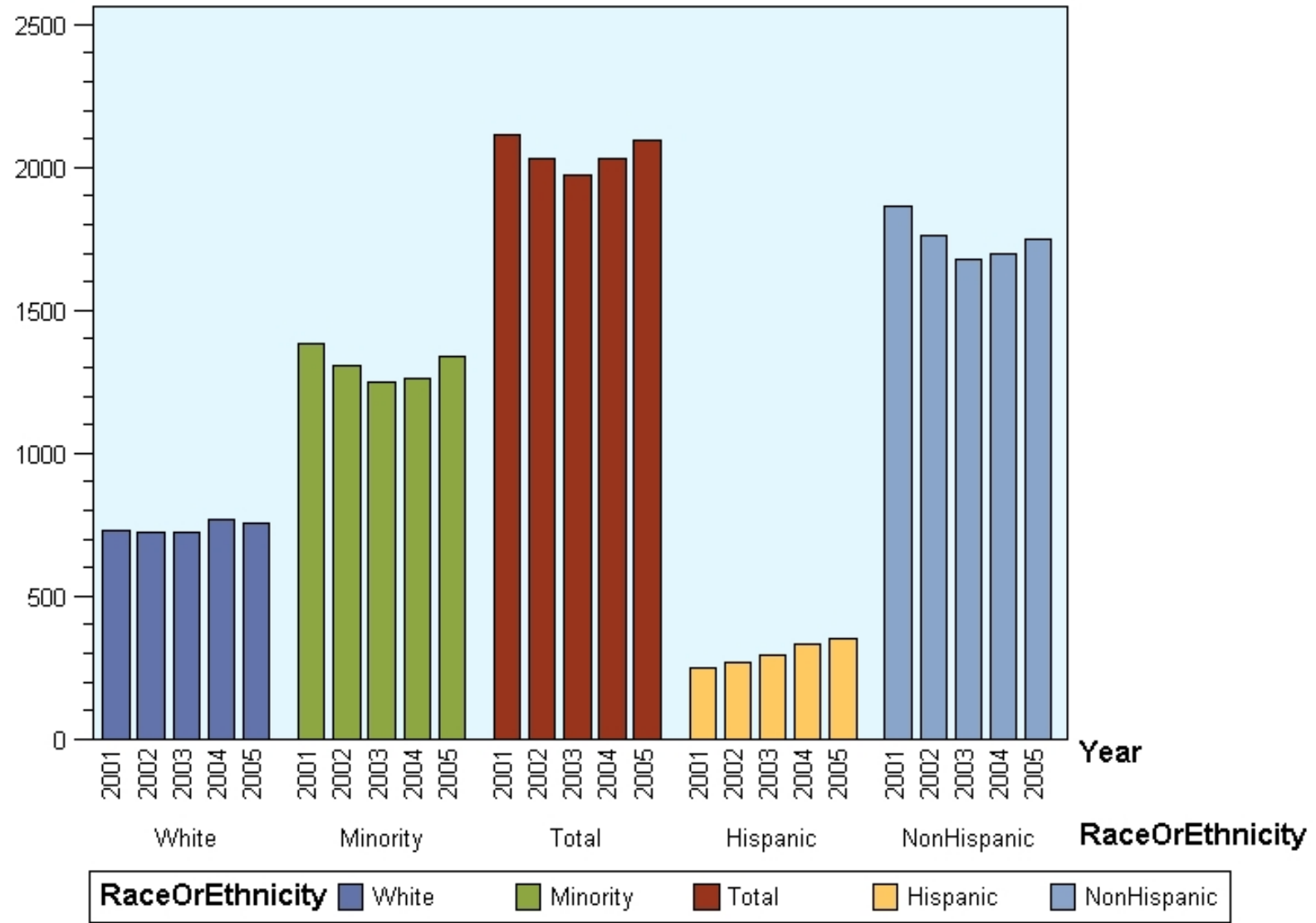
* Non-Hispanic individuals of other races and non-Hispanic individuals of two or more races.

Target population

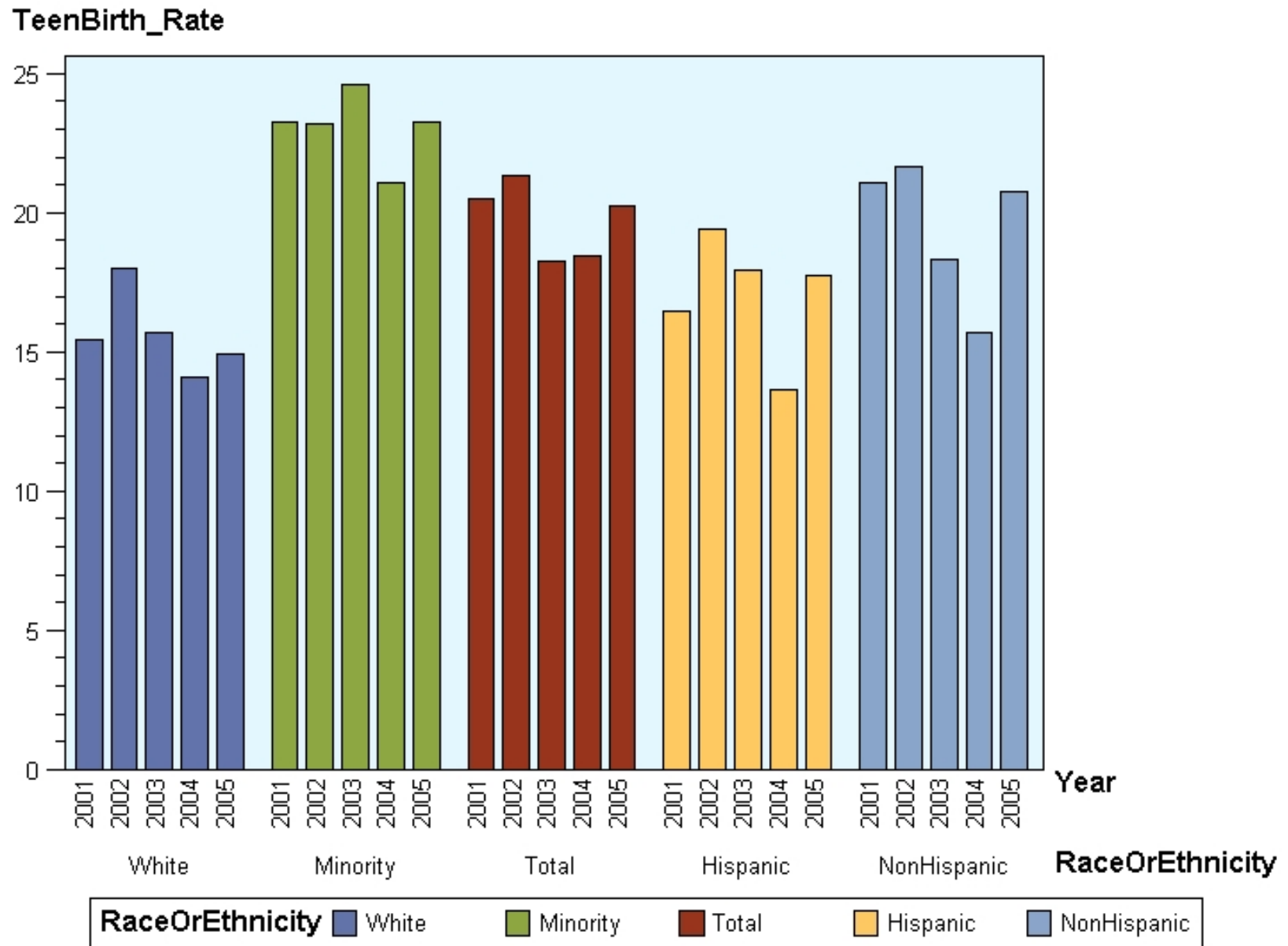
- Native and African Americans suffering high infant mortality largely caused by low birthweight

Robeson County Live Births by Race and by Ethnicity (2001-05)

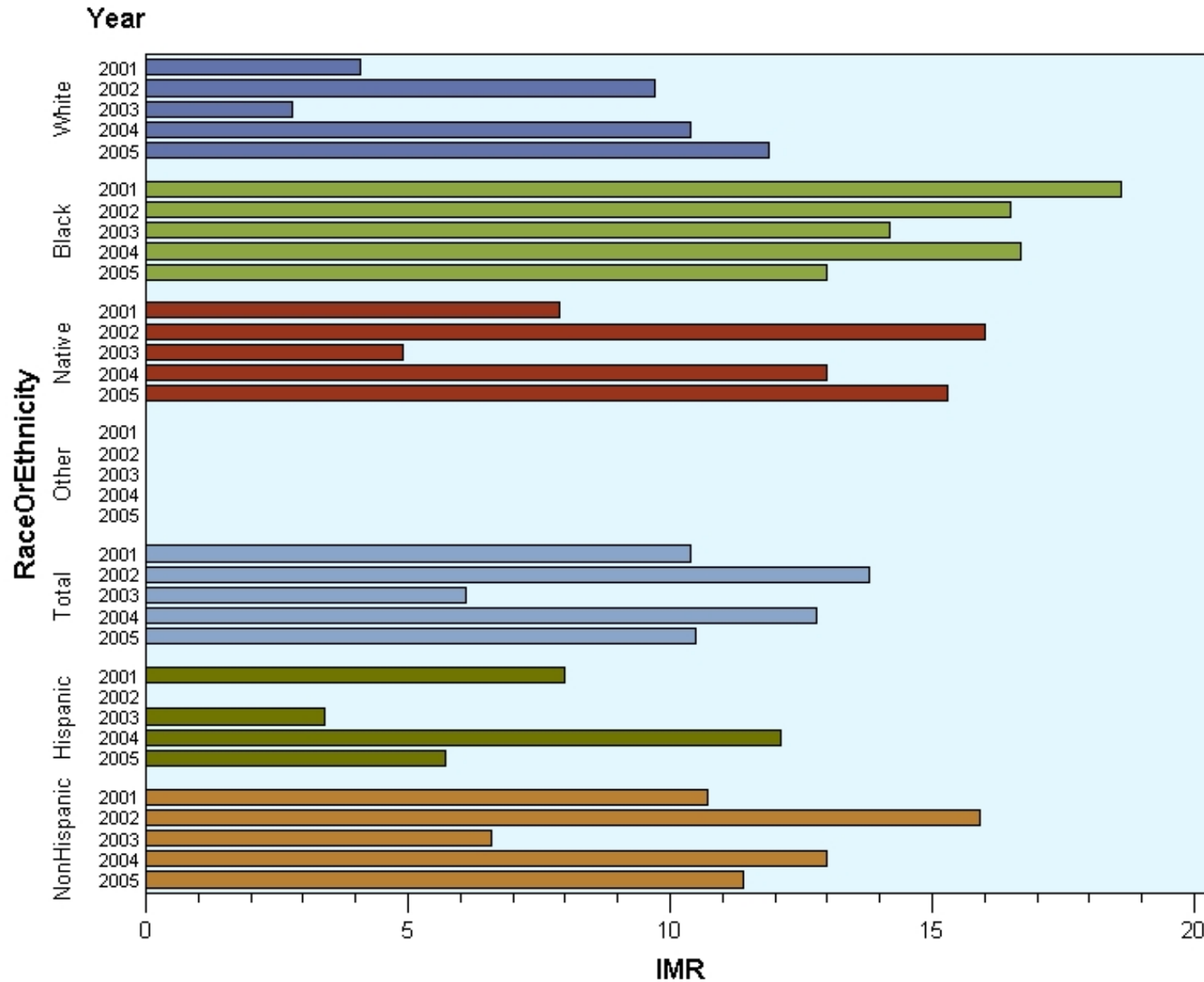
Births



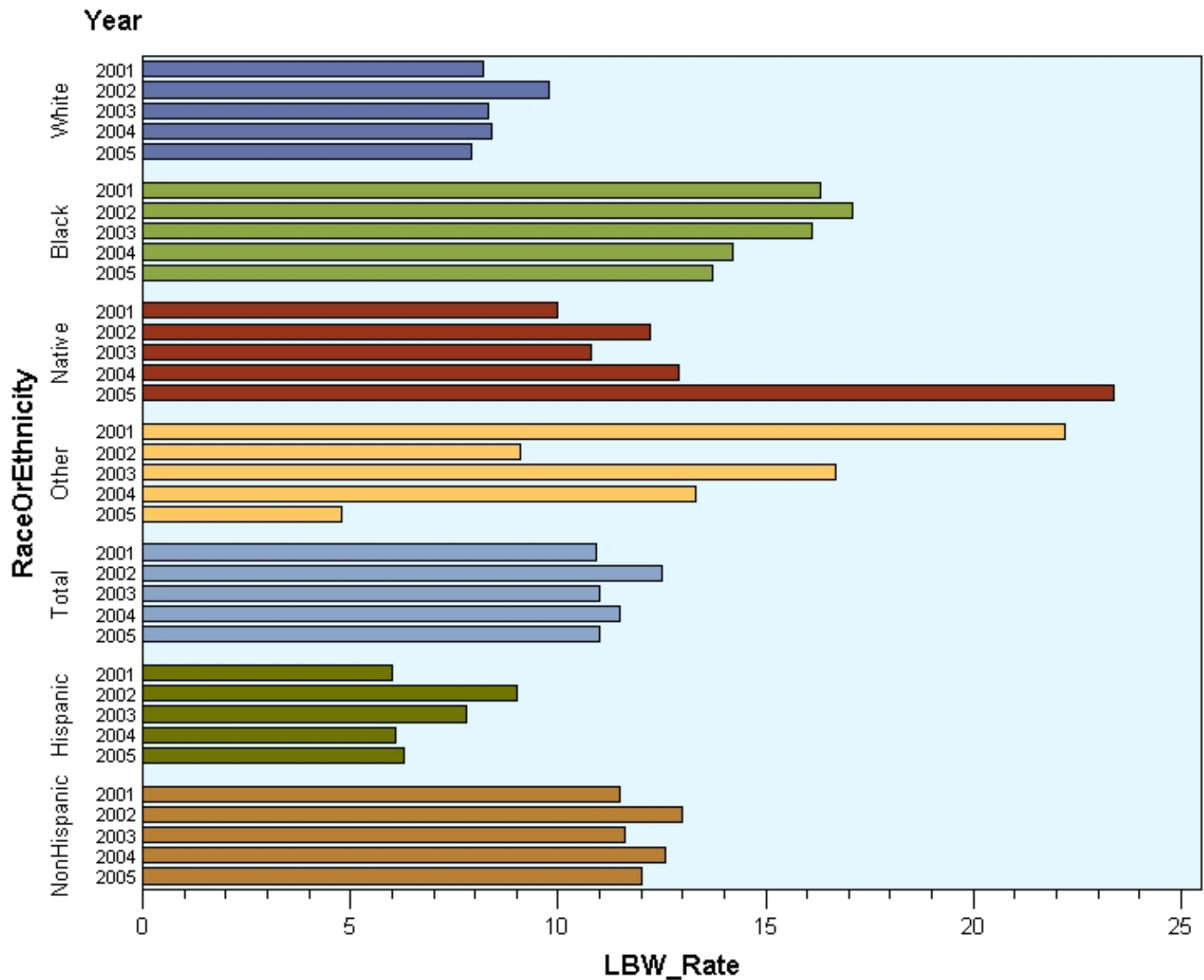
Robeson County Teen Birth Percentages by Race and by Ethnicity (2001-05)



Robeson County Infant Mortality Rates by Race and by Ethnicity (2001-05)

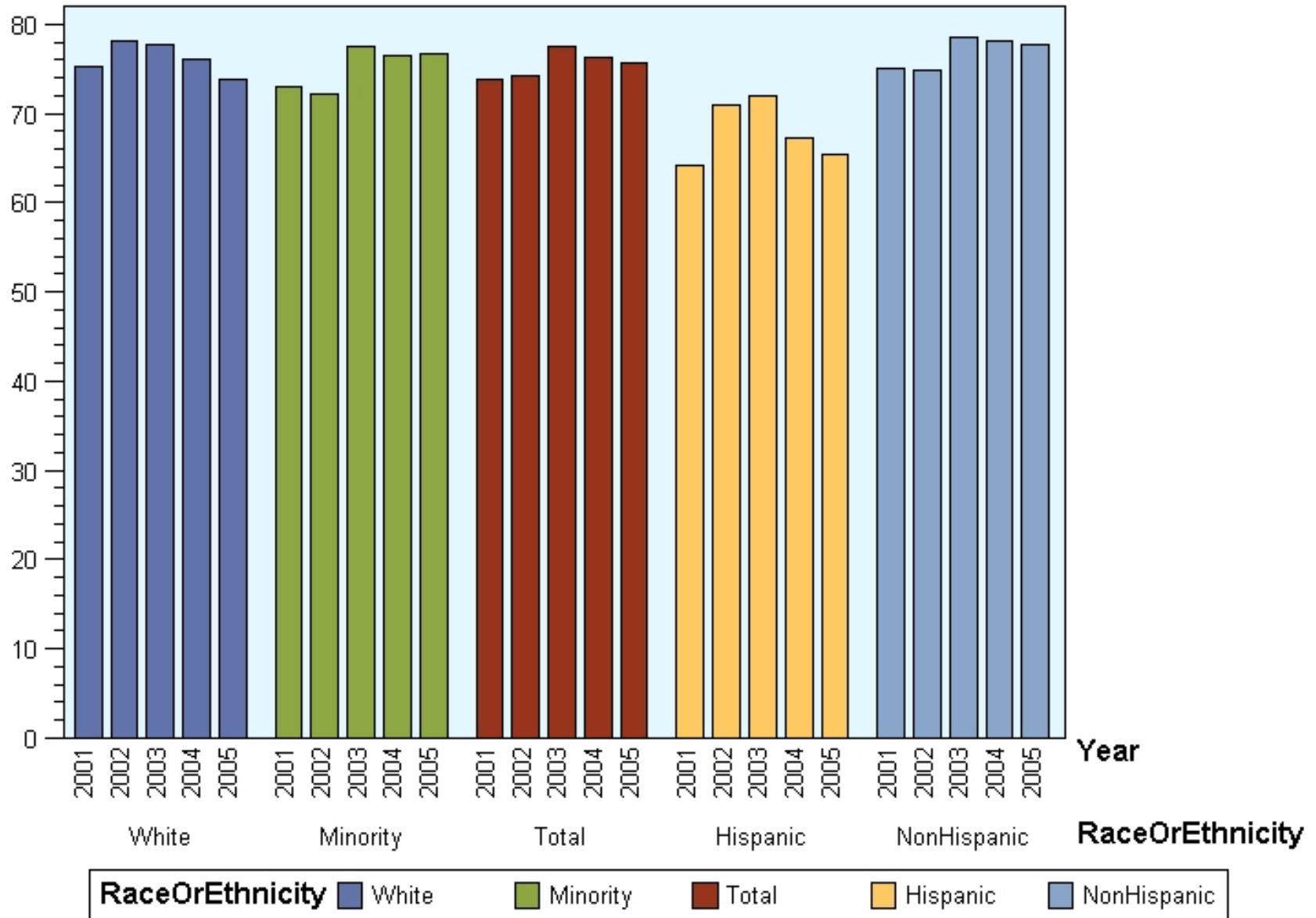


Robeson County Low Birth Weight Rates by Race and by Ethnicity (2001-05)



Robeson County First Trimester Rates by Race and by Ethnicity (2001-05)

FirstTrimester_Rate



Scope

- Home-based preconceptional health through postpartum and interconceptional phases for high-risk mothers and infants to ensure better birth outcomes
- Health Education and Training

Strategies

- Address significant health concerns and relevant cultural and linguistic barriers
- Partner with the Robeson County Health Department for perinatal care
- Implement a core team: Outreach Worker, Social Worker and Case Manager
 - (1) assessment;
 - (2) care planning and goal setting;
 - (3) referral and follow-up services;
 - (4) mother and infant care coordination;
 - (5) community health education.

Strategies (continued)

- Perinatal health assessments, risk factor and depression screens aligned with continuous counseling and goal setting result in better birth outcomes, healthier behaviors, reduced risks for pregnant women and improved self-esteem.

Strategies (continued)

- (1) Alignment with the same Healthy Start social work case managers during preconceptional health through twenty-four months after delivery;
- (2) Hospital visitation after delivery to promote relationship building with mother;
- (3) Telephone follow-up to verify an established medical home for mother and infant;
- (4) Home visitation to assure continuity of care;
- (5) New strategies designed and administered through a consortium of shared governance that provide mother with a consumer voice in planning projects such as Healthy Start Spa to improve self-esteem;
enroll mother in a GED program or skill-building workshops to prepare for reentry into the workforce; involve her in Weigh to Go, an exercise and nutrition project to promote follow-up care;
- (6) Health-risk awareness workshops that promote preconceptional health care for women in high-risk rural North Carolina enterprise communities:
Pembroke, Lumberton, Red Springs, Fairmont, Maxton and St. Pauls.

Strategies (continued)

- Implement a diverse team of lay health advisors
 - reaching deep into diverse communities;
 - providing a lead role in developing the scope of health-risk educational awareness seminars;
 - identifying consumers in high-risk communities using advanced geographical information technology.

Roles of Lay Healthy Advisors

- Periodically conducted infant mortality and morbidity reviews to determine priority locations for perinatal education and training workshops
- Identify underserved pregnant women during the workshops
- Link clients with RCHD for timely interventions and care
- Follow-up services verify client receipt of needed care

Roles of Lay Healthy Advisors (continued)

- Assist in local and national meetings with legislators substantiating the importance of relationship building while serving high-risk minority populations;
- Achieve legislative appropriation;
- Assist in defining objectives and action plans and participate in assessment of outcomes.

Roles of Lay Healthy Advisors (continued)

Community Intervention Locations

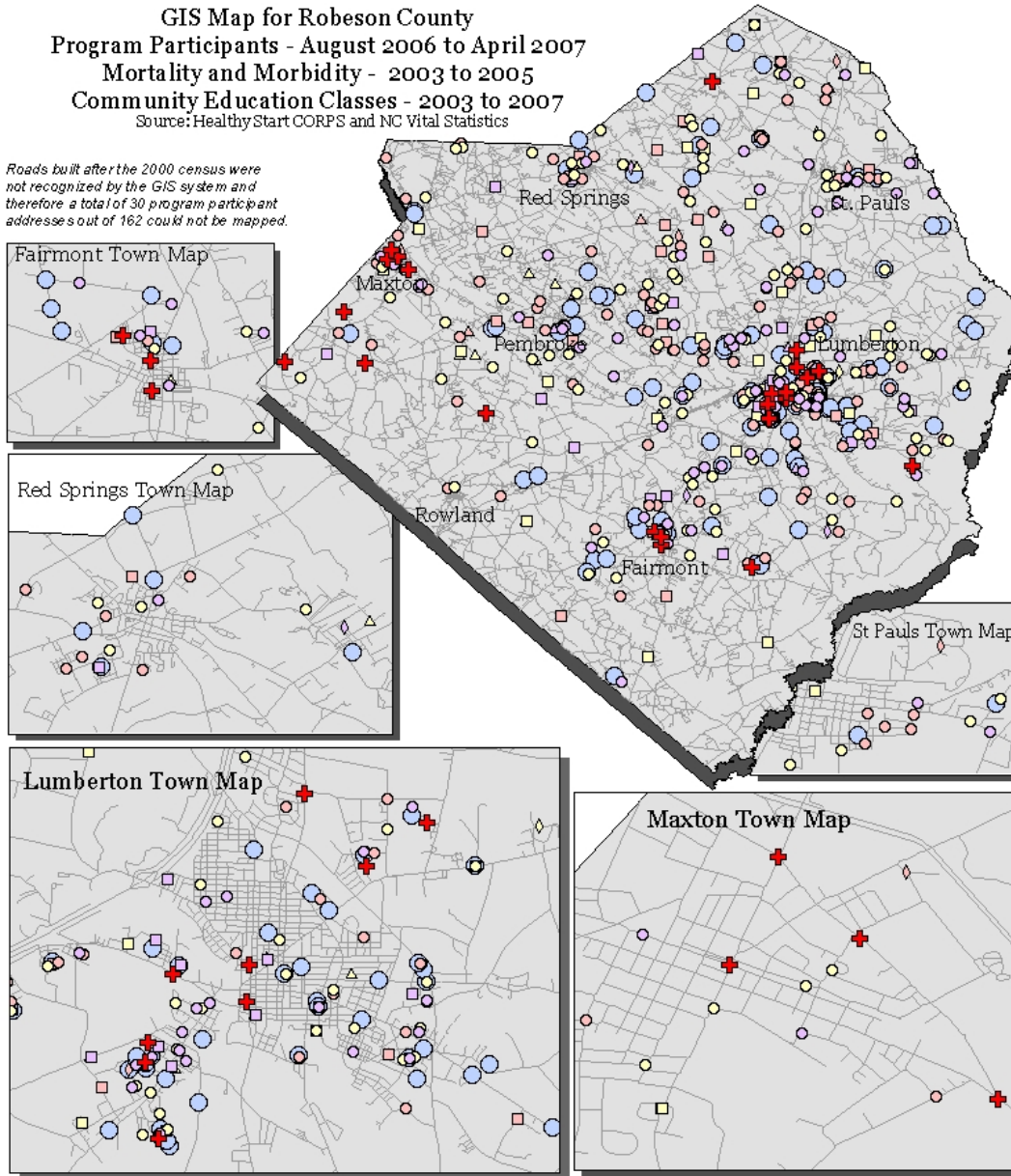
- Carolina Youth Action Association
- Church activities
- One day conference for middle and high school level women
- Turner Terrace Community Association
- Housing authority
- Town Hall meeting and health fair

Health Education Module Topics

- Drugs/Alcohol/Smoking
- Nutrition
- Self-Esteem
- Mentor
- STD/HIV
- Preterm Birth / Low Birthweight Infant Prevention
- Teen Pregnancy Prevention
- Benefits of Breastfeeding
- Prenatal Depression
- Postpartum Depression

GIS Map for Robeson County
 Program Participants - August 2006 to April 2007
 Mortality and Morbidity - 2003 to 2005
 Community Education Classes - 2003 to 2007
 Source: HealthyStart CORPS and NC Vital Statistics

Roads built after the 2000 census were not recognized by the GIS system and therefore a total of 30 program participant addresses out of 162 could not be mapped.



Legend			
○ Moderate Low Birthweight 2005	□ Very Low Birthweight 2005	△ Neonatal Mortality 2005	◇ Postneonatal Mortality 2005
○ Moderate Low Birthweight 2004	□ Very Low Birthweight 2004	△ Neonatal Mortality 2004	◇ Postneonatal Mortality 2004
○ Moderate Low Birthweight 2003	□ Very Low Birthweight 2003	△ Neonatal Mortality 2003	◇ Postneonatal Mortality 2003
● Program Participant	✚ Community Education Classes	— Roads	▭ County Border

Progress

- a) IMR was declined from 15.3 (1999-2001) to 11.4 (2003-2005). For program participants, 2006 IMR was 0.0.
- b) LBW Rate was decreased from 12.5% (2000-2002) to 11.9% (2006). For program participants, 2006 LBW rate was 7.9%.
- c) First Trimester Care Rate was increased from 63.8% (1999) to 76.6% (2005). For 2006, the rate was 70.5%; for program participants, the rate was 73.2%.
- d) Teen Births went down from 24.3% (1999) to 20.6% (2006).
- e) Health Education Program trained 9165 community participants from 2002 Feb. to 2007 April.