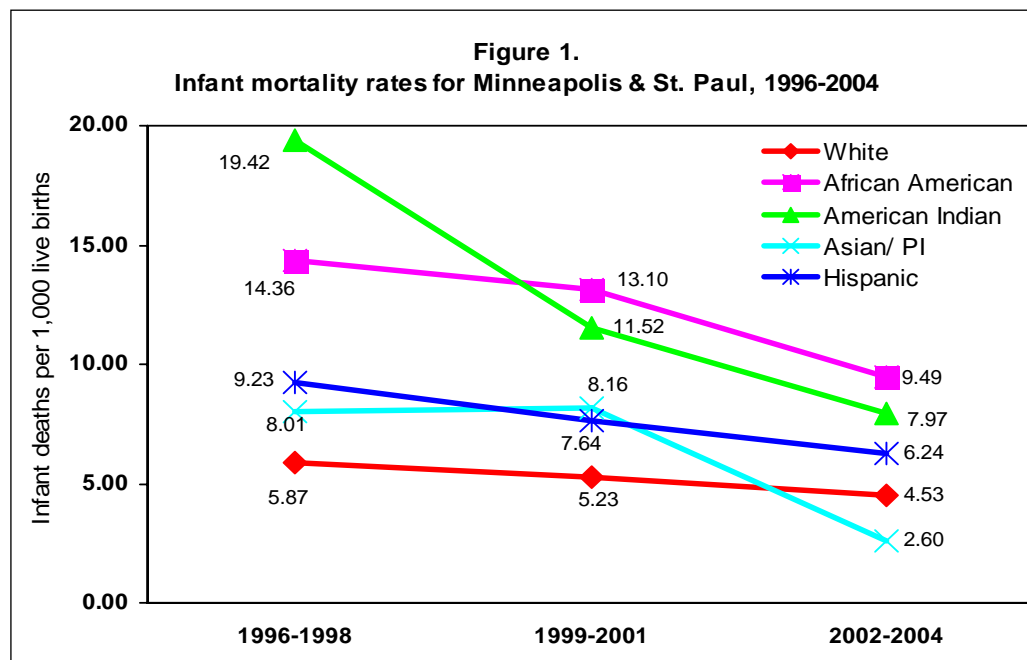




Monitoring Infant Mortality in Minneapolis and St. Paul

Twin Cities Healthy Start has been working to prevent infant mortality and improve birth outcomes among African Americans and American Indians in Minneapolis and St. Paul since 1999. The purpose of this research brief is to provide an update on infant mortality and related trends for the areas served by Twin Cities Healthy Start.

Figure 1 shows infant mortality rates by racial/ethnic group for the two cities combined. It is standard practice to combine 3 years of data to calculate infant mortality rates to provide large enough numbers to



show stable trends. The infant mortality rate is defined as the number of infants who die before reaching their first birthday in a particular year per 1000 live births during that same year.

The trends indicate not only that infant mortality rates are decreasing for all races, but also that the racial/ethnic disparities are also decreasing. In 1996-1998,

the American Indian rate was 3.3 times higher than that of whites and the African American rate was 2.5 times higher. Rates for both of these groups moved closer to the white rate, with the most recent American Indian rate 1.8 times higher and the most recent African American rate 2.1 times higher.

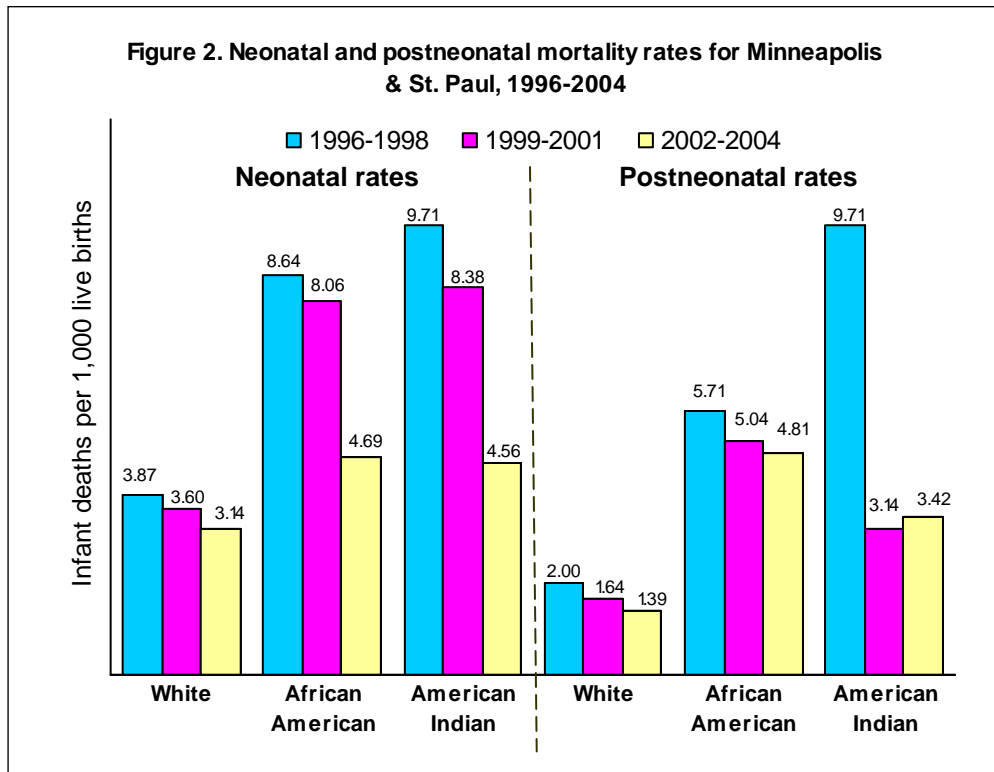
Infant deaths are classified as neonatal (days 1-27) and postneonatal (days 28-365). The postneonatal period includes more deaths considered "preventable," such as those resulting from unintentional injuries and Sudden Infant Death Syndrome (SIDS). Neonatal deaths more often result from congenital anomalies and preterm birth-related complications. However, both periods include a variety of causes of death and any individual cause could be a factor in either time period.

According to state mortality reports, the leading cause of infant death statewide is classified as "conditions originating in the perinatal period," which include maternal health conditions or pregnancy complications, preterm birth, and low birth weight. Just over one-third of deaths are so classified. The second most common cause of death is "congenital anomalies"; almost one-third of these are heart defects or chromosomal abnormalities. SIDS accounts for about 8% of deaths, and 5% of deaths are due to "external causes" such as transportation accidents, drowning, or assault.¹

¹ Minnesota Department of Health, 2003 Minnesota Health Statistics Annual Summary (Published February 2005).

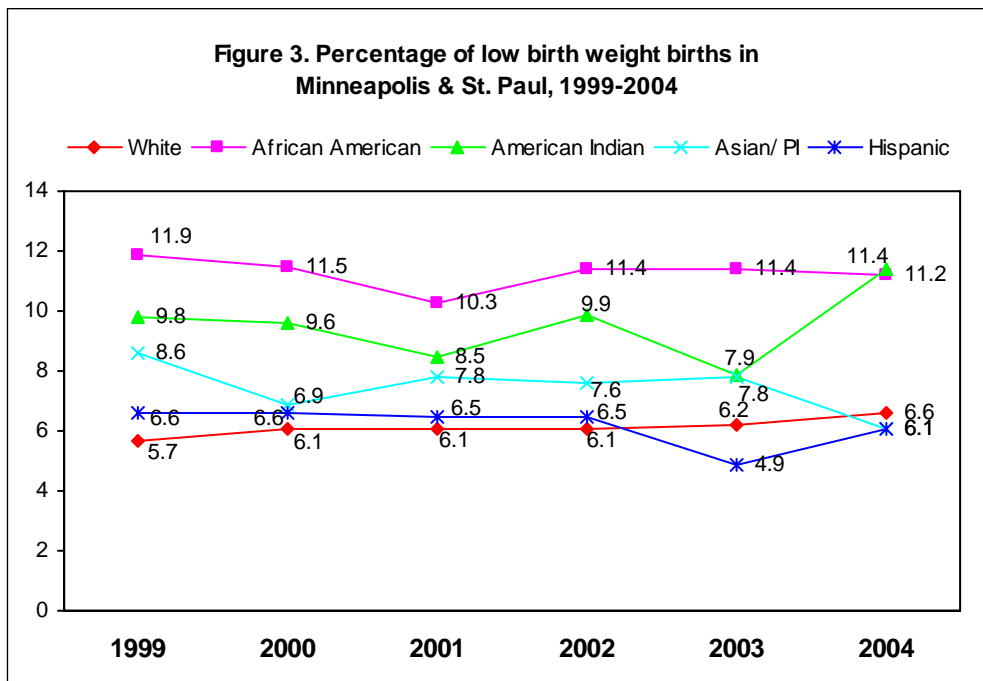
Another positive trend is the decrease in postneonatal death among American Indians. In 1996-1998, and prior to that time period, the postneonatal infant mortality rate for American Indians was as high or higher than their neonatal rate, a situation which was unique to this racial group. This is no longer the case (the trend seems to have shifted in 2001). This change is depicted in Figure 2.

Important indicators of reproductive health include the proportion of low birth weight and preterm births. Low birth weights are defined as less than 5.5 pounds or 2500 grams. Preterm births defined as less than



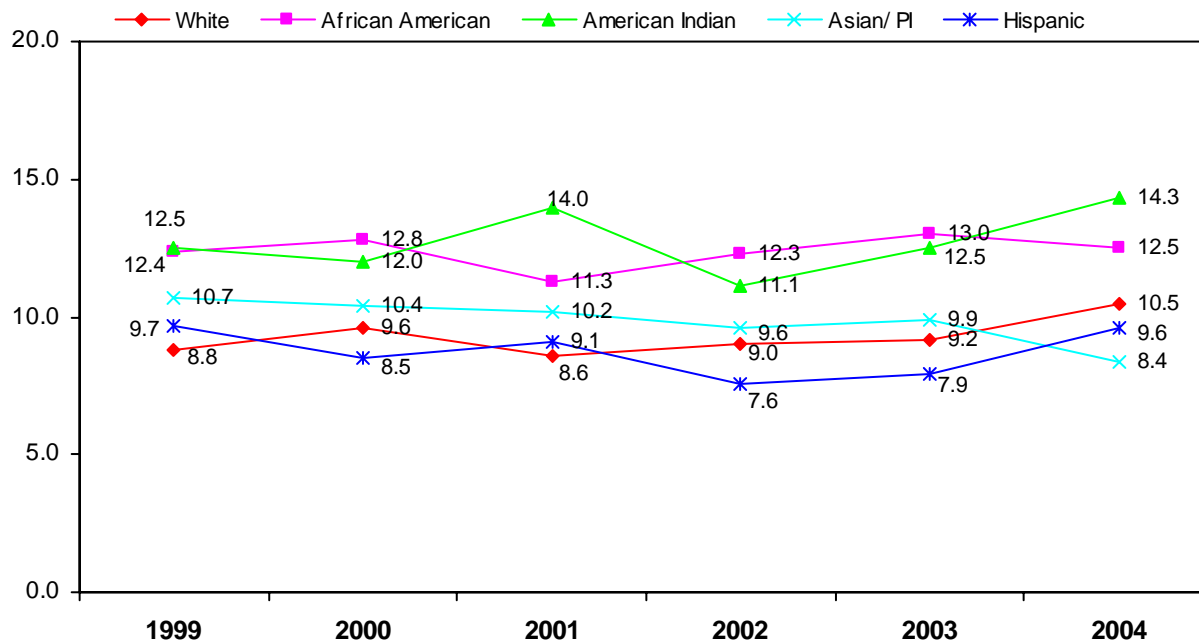
37 weeks gestation. Both of these birth outcomes put infants at higher risk for death, and for medical complications and developmental delays as they grow older.

As Figure 3 indicates, there has been relatively little change in the proportion of low birth weight babies for any racial/ethnic group in the last six years for which data are available. The greater fluctuation seen for American Indians may merely reflect the instability associated with their smaller overall numbers. The magnitude of the racial/ethnic disparities for low birth weight are fairly similar to those seen for infant mortality, and the highest rates are seen among African Americans and American Indians.



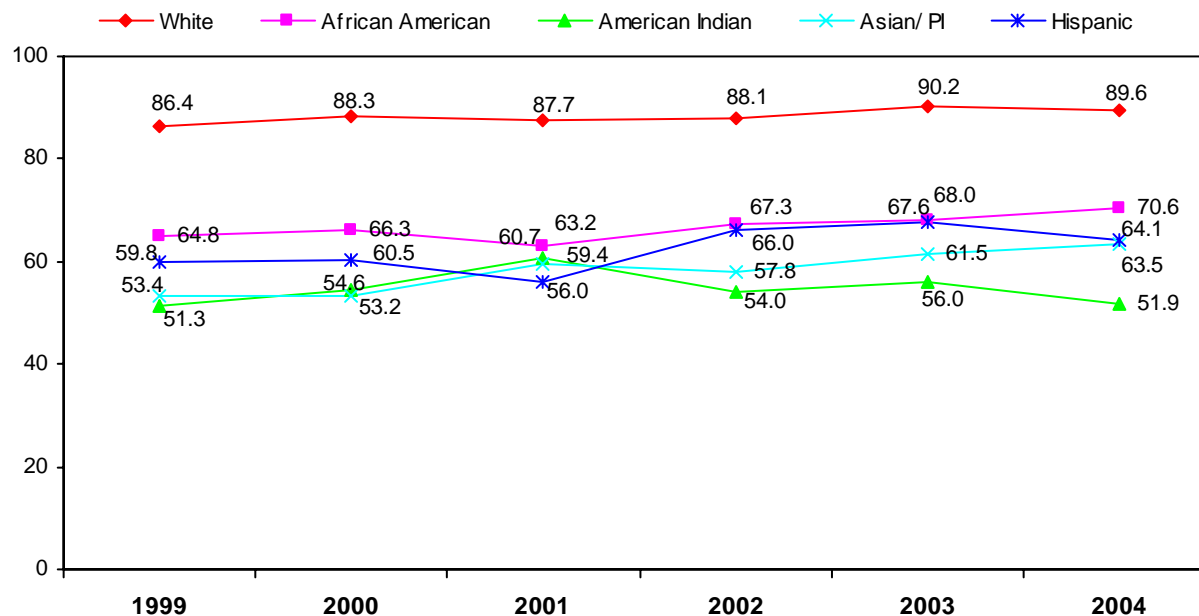
little change over the last six years (see Figure 4, next page). African American and American Indian babies are more likely than those from other racial groups to be born prematurely, a finding consistent with their higher rates of low birth weight and infant mortality.

Figure 4. Percentage of preterm births in Minneapolis & St. Paul, 1999-2004



Women are encouraged to start prenatal care during the first trimester for many reasons, including early detection of and response to risks factors for poor birth outcomes. Early prenatal care is an indicator with large and continuing racial disparities (see Figure 5).

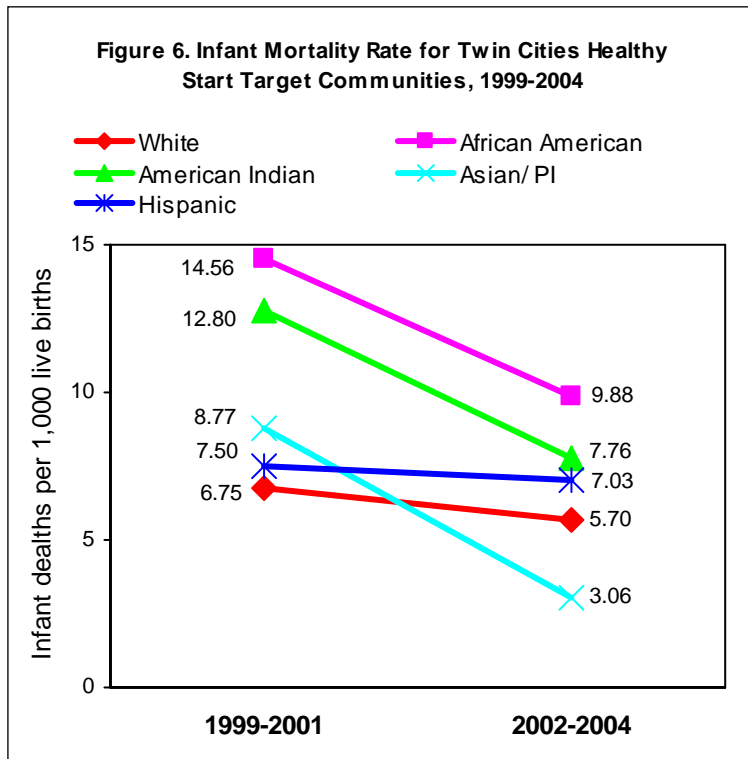
Figure 5. Percentage of women with first trimester prenatal care in Minneapolis & St. Paul, 1999-2004



White women are more likely than women from any racial/ethnic minority group to receive timely prenatal care. Rates are lowest for American Indian, Asian women, and Hispanic women. The rates among African Americans, Hispanics, and Asians have shown some steady improvement in recent years.

Twin Cities Healthy Start (TCHS) serves women from Minneapolis and St. Paul and until recently defined the entire two cities as their target area. Because of decreasing infant mortality rates and a federal requirement to define the target area as specific geographic areas with infant mortality rates above a specified level, the TCHS target area was redefined for the 2005-2009 project period to focus on a limited

number of communities in Minneapolis and St. Paul. In Minneapolis, this smaller area includes 5 of the city's 11 planning communities: Camden, Northeast, Near North, Phillips, and Powderhorn. In St. Paul, this smaller area includes 6 of 17 planning districts: Dayton's Bluff, Hazel Park/ Hayden, North End, Payne/Phalen, Summit/University, and Thomas/Dale. Combined, these areas account for 78% of all African American infant deaths and 82% of all American Indian infant deaths, as well as 70% of all infant deaths in Minneapolis and St. Paul (based on data from 1999-2001). TCHS focuses on these areas by contracting with local providers who serve these higher risk populations. However, any resident of Minneapolis or St. Paul who meets specified medical or psychosocial risk criteria is eligible for program services. Figure 6 shows infant mortality rates for the newly defined target area from 1999 to 2004.



The table below compares the infant mortality rates for Minneapolis and St. Paul combined and for the smaller Twin Cities Healthy Start target areas for the same two three-year periods.

Infant Mortality Rates for Minneapolis/St. Paul and for the Twin Cities Healthy Start target communities				
	Minneapolis and St. Paul 1999-2001	Minneapolis and St. Paul 2002-2004	Smaller Target Area 1999-2001	Smaller Target Area 2002-2004
White	5.23	4.53	6.75	5.70
African American	13.10	9.49	14.56	9.88
American Indian	11.52	7.97	12.80	7.76
Asian/ PI	8.16	2.60	8.77	3.06
Hispanic	7.64	6.24	7.50	7.03

Acknowledgments: We appreciate the assistance provided by the St. Paul-Ramsey County Public Health Department in the analysis of data for the City of St. Paul.