

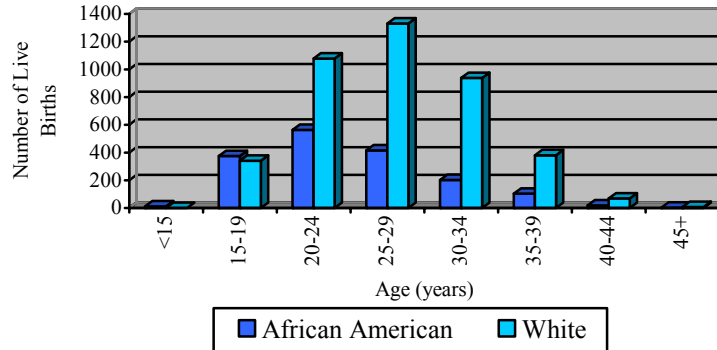
# CHAPTER 8:

## Maternal and Child Health

The health status of mothers and children is often considered one of the most important indicators of a community’s health. This chapter presents data on births and birth outcomes, as well as infant and child mortality data. Measures of access to and utilization of prenatal care are also presented. In the area of maternal and child health, Genesee County still faces many challenges. Racial disparities in birth outcomes, particularly in low birthweight births and infant mortality, exist. Rates of teen pregnancy in Genesee County continue to be higher than State of Michigan rates, although they are decreasing.

### BIRTHS

**Fig. 8.1 Live Births by Age and Race of Mother, Genesee County Residents, 2007**



Source: Michigan Department of Community Health

- ◆ In 2007, there were 6,033 live births in Genesee County and 2,378 (39%) of those were to City of Flint residents.
- ◆ Figure 8.1 shows the distribution of live births by age and race of the mother. Due to small numbers, live births to American Indians (12 births) and all other races (63 births) are not shown.

## Selected Birth Characteristics

**Fig. 8.2 Selected Birth Characteristics, Genesee County and Michigan, 2007**

| <b>Maternal Characteristics</b>                         | <b>Genesee County</b> | <b>Michigan</b> |
|---|-----------------------|-----------------|
| <b>Under 20 years</b>                                   | 12.5%                 | 10.1%           |
| <b>First births</b>                                     | 38.2%                 | 39.3%           |
| <b>Fourth and higher order births</b>                   | 12.7%                 | 11.8%           |
| <b>Less than 12 years of education</b>                  | 18.5%                 | 16.6%           |
| <b>Caesarean delivery rate</b>                          | 37.9%                 | 30.6%           |
| <b>Weight gained while pregnant less than 16 pounds</b> | 12.7%                 | 12.6%           |
| <b>Smoked while pregnant</b>                            | 21.5%                 | 14.8%           |
| <b>Unmarried</b>  | 51.2%                 | 39.6%           |
| <b>Received prenatal care during first trimester</b>    | 81.2%                 | 81.5%           |

Source: Michigan 2007 Resident Birth files, Vital Records & Health Data Development Section, Michigan Department of Community Health

- ◆ Figure 8.2 shows that Genesee County has a higher percentage of births to women younger than 20 years, those with less than 12 years of education, women who smoked while pregnant, and women who were unmarried, than the State of Michigan. There is also a higher percentage of Caesarean section deliveries in the County than the State.

## TEEN PREGNANCY

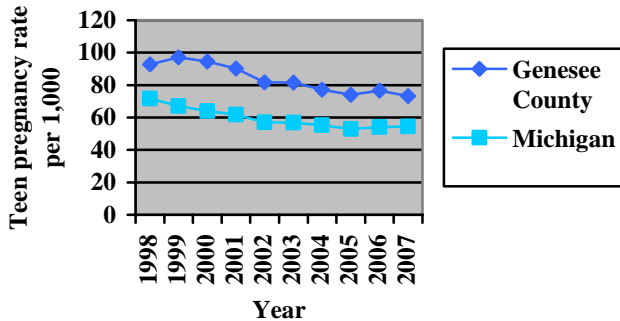
- ◆ Births given by those under 20 years of age made up 12.5% of the total births for Genesee County and 10.1% for Michigan.

**Fig. 8.3 Number of Live Births for Teens <19 years old, Flint and Genesee County Residents, 2007**

|                       | <b>White</b>        |                    | <b>African American</b> |                    | <b>Other</b>        |                    |
|-----------------------|---------------------|--------------------|-------------------------|--------------------|---------------------|--------------------|
|                       | <b>&lt;15 years</b> | <b>15-19 years</b> | <b>&lt;15 years</b>     | <b>15-19 years</b> | <b>&lt;15 years</b> | <b>15-19 years</b> |
| <b>City of Flint</b>  | 0                   | 136                | 11                      | 311                | 2                   | 10                 |
| <b>Genesee County</b> | 1                   | 341                | 13                      | 375                | 2                   | 21                 |

Note: City of Flint live births are also a part of the Genesee County numbers. Source: Michigan 2007 Resident Birth files, Vital Records & Health Data Development Section, Michigan Department of Community Health.

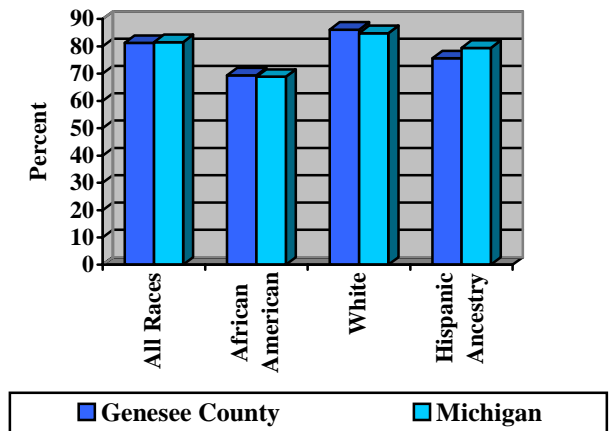
**Fig. 8.4 Estimated Teen Pregnancy Rates, Genesee County and Michigan, 1998-2007**



- ◆ Teen pregnancy in Genesee County and Michigan has generally been decreasing from 1998-2007.
- ◆ However, Genesee County’s teen pregnancy rate is still higher than the State rate.

Note: All rates are per 1,000 age and sex specific population. Source: Live Births, Abortions, and Population Estimates Obtained from Vital Records & Health Data Development Section, Michigan Department of Community Health

**Fig. 8.5 Percent of Live Births with Prenatal Care Beginning in the First Trimester, Genesee County and Michigan, 2007**



**PRENATAL CARE**

- ◆ In 2007, a higher percentage of White women (86.1%) in Genesee County entered prenatal care in the first trimester of pregnancy than African American women (69.3%) and women of Hispanic ancestry (75.6%).
- ◆ Overall, Genesee County’s rates of prenatal care beginning in the first trimester are very similar to the state of Michigan rates.

Source: 2007 Michigan Resident Birth File, Vital Records & Health Data Development Section, Michigan Department of Community Health

## BIRTHWEIGHT

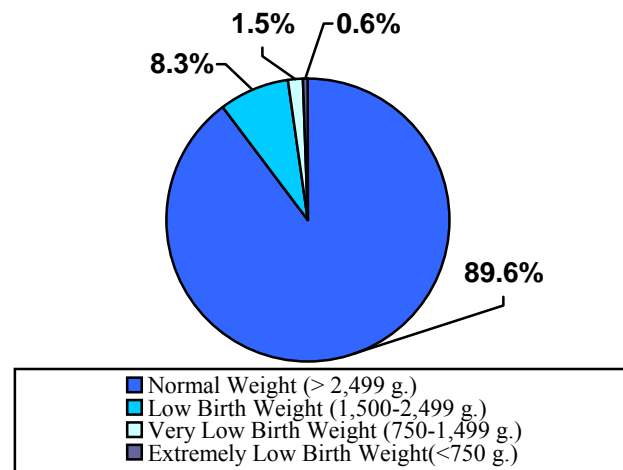
Birthweight is an important indicator of child health, as infants born below a certain birthweight are more likely to have serious health problems as newborns, are at risk for long-term disabilities, and are at higher risk for infant death.

There are several categories of low birth weight:

- ◆ Low weight births are less than 2,500 grams
- ◆ Very low weight births are less than 1,500 grams
- ◆ Extremely low weight births are less than 750 grams

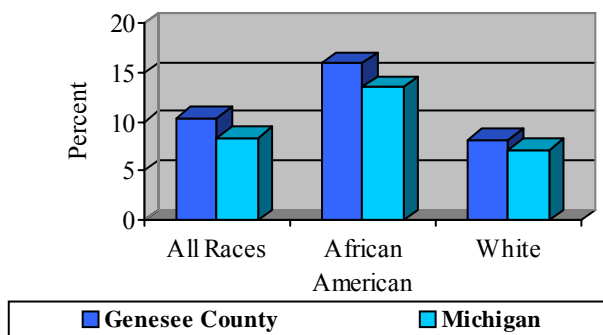
**Fig. 8.6 Percent of Live Births by Birthweight, All Races, Genesee County Residents, 2007**

- ◆ In 2007, Genesee County had a higher proportion (10.4%) of live births that were low birthweight (below 2,500 grams) than Michigan (8.4%).



Source: 2007 Michigan Resident Birth File, Vital Records & Health Data Development Section, Michigan Department of Community Health

**Fig. 8.7 Percent of Live Births that are Low Birthweight (<2,500 g) by Race, Genesee County and Michigan, 2007**



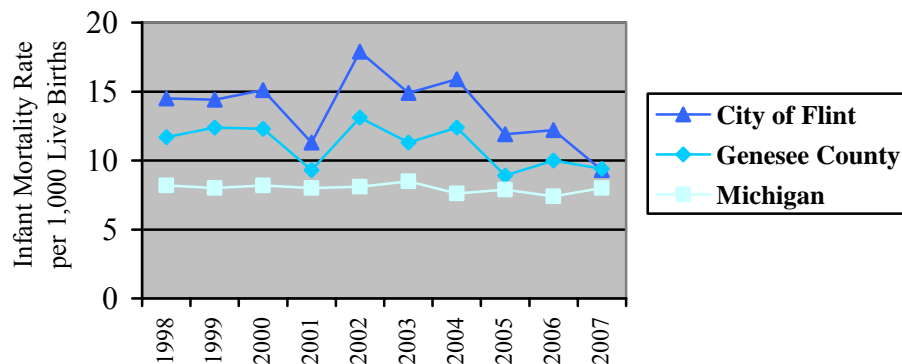
- ◆ In Genesee County, in 2007, 16% of live births to African American mothers were low birthweight (any birth less than 2,500 grams) compared to 8.2% of live births to White mothers. This difference by race is similar for Michigan and the United States.

Source: 2007 Michigan Resident Birth File, Vital Records Health Data Development Section, Michigan Department of Community Health

## INFANT MORTALITY

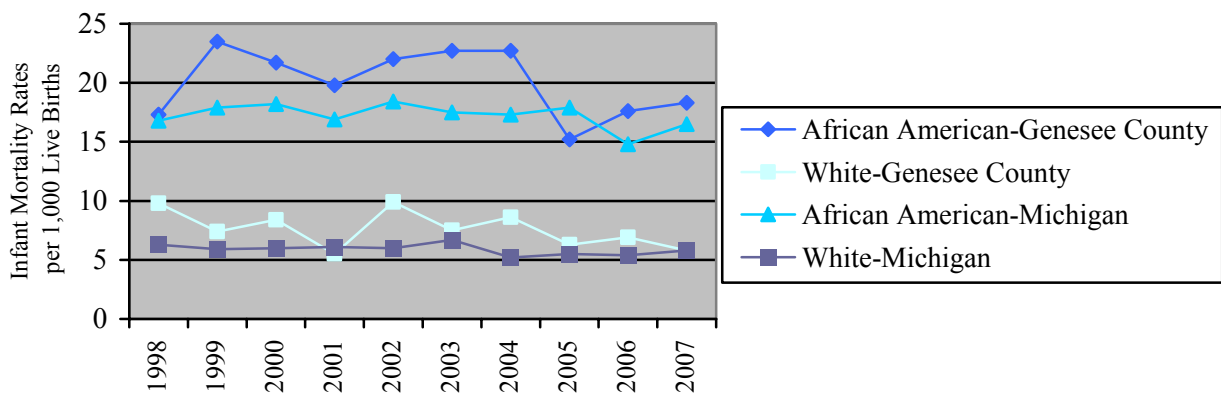
- ◆ Infant mortality is defined as the death of an infant under the age of 1 year.
- ◆ The infant mortality rate in the City of Flint has been declining. In 2007, the infant mortality rate of City of Flint and Genesee County has been the lowest in the last 10 years shown in figure 8.8.
- ◆ The infant mortality rates in both Flint and Genesee County have fluctuated over the nine year period, while Michigan has stayed at a fairly consistent level.
- ◆ In 2007, the infant mortality rate in the City of Flint was 9.3 per 1,000 live births, 9.4 per 1,000 live births in Genesee County, and 8.0 per 1,000 live births in the State of Michigan.
- ◆ Reducing infant deaths and reducing the racial disparity among infant deaths has been a priority of the Genesee County Health Department and its local public health system partners for the last ten years.

**Fig. 8.8 Infant Mortality Rates,  
City of Flint, Genesee County and Michigan,  
1998-2007**



Source: 1998-2007 Michigan Resident Death Files and Michigan Resident Birth Files, Epidemiology Services Division, Vital Records and Health Data Development Section, Michigan Department of Community Health

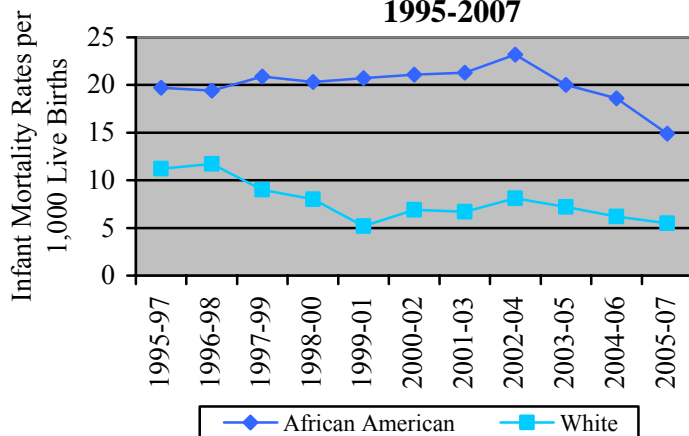
**Fig. 8.9 Infant Mortality Rates by Race, Genesee County and Michigan, 1998-2007**



Source: 1998-2007 Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health

- ◆ Racial disparities in infant mortality exist in both Genesee County and Michigan, with African Americans having higher infant mortality rates than Whites for the years 1998-2007.
- ◆ Figure 8.10 depicts infant mortality by race for the City of Flint. Because of small numbers, infant mortality rates are calculated for three years rather than by individual year.

**Fig. 8.10 Three-Year Moving Average Infant Mortality Rates by Race, City of Flint, 1995-2007**



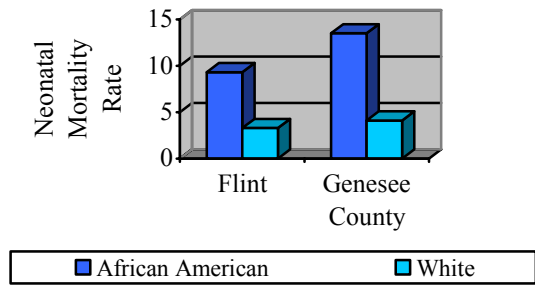
Source: 1998-2007 Michigan Resident Death Files, Division for Vital Records & Health Statistics, Michigan Department of Community Health

## NEONATAL, POST-NEONATAL, AND CHILD MORTALITY

### Neonatal Infant Mortality

- ◆ Infant deaths during the neonatal period (death during the first 27 days of life) are disparate by race and location. African American neonatal mortality rates are higher than White neonatal mortality rates in Flint and Genesee County.
- ◆ In 2007, the overall neonatal infant mortality rate for Genesee County was 6.8 per 1,000 live births and 6.7 per 1,000 live births in Flint.

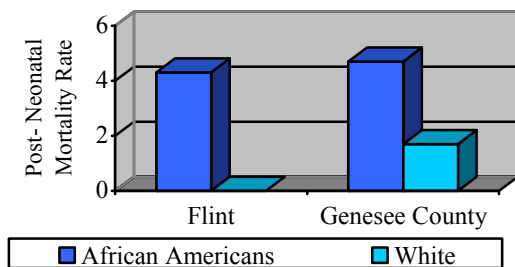
**Fig. 8.11 Neonatal Infant Mortality Rates by Race, Flint and Genesee County, 2007**



\*Rate per 1,000 Live Births. Source: Michigan Department of Community Health and Genesee County Health Department

### Post-Neonatal Infant Mortality

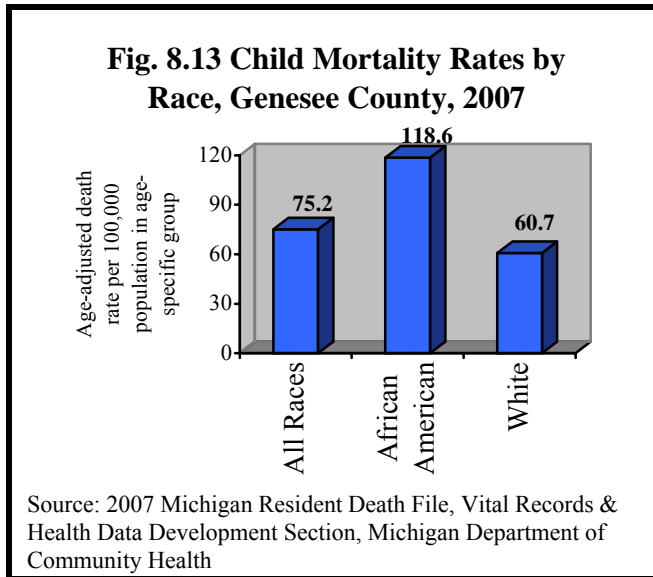
**Fig. 8.12 Post-Neonatal Infant Mortality Rates by Race, Flint and Genesee County, 2007**



\*Rate per 1,000 Live Births. Source: Michigan Department of Community Health and Genesee County Health Department

- ◆ Infant deaths during the post-neonatal period (28 days-364 days of life) are also disparate by race and location. African American post-neonatal rates are higher than White post-neonatal rates in Flint and Genesee County.
- ◆ In 2007, the overall post-neonatal infant mortality rate for Genesee County was 2.7 per 1,000 live births and 2.5 per 1,000 live births for Flint.

## Child Mortality

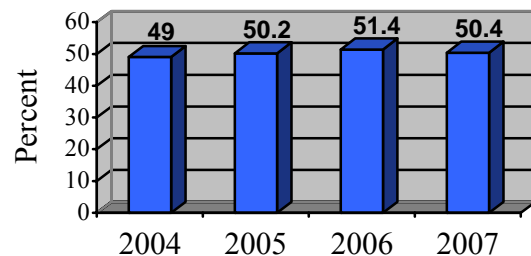


- ◆ In 2007, the child mortality rate (ages 1-14 years) was 75.2 per 100,000 population for all races.
- ◆ Child deaths are disparate by race in Genesee County, with African Americans having a higher death rate than Whites.

## WOMEN, INFANTS, AND CHILDREN (WIC)

- ◆ In 2004-2007, approximately one-half of live births to Genesee County residents were enrolled in the WIC (the Women, Infants, and Children) supplemental nutrition program.

**Fig. 8.14 Percent of Live Births Enrolled in WIC, Genesee County, 2004-2007**



Source: Michigan WIC Program Data, Michigan Department of Community Health