

# DELAWARE VITAL STATISTICS ANNUAL REPORT INFANT MORTALITY, 2014

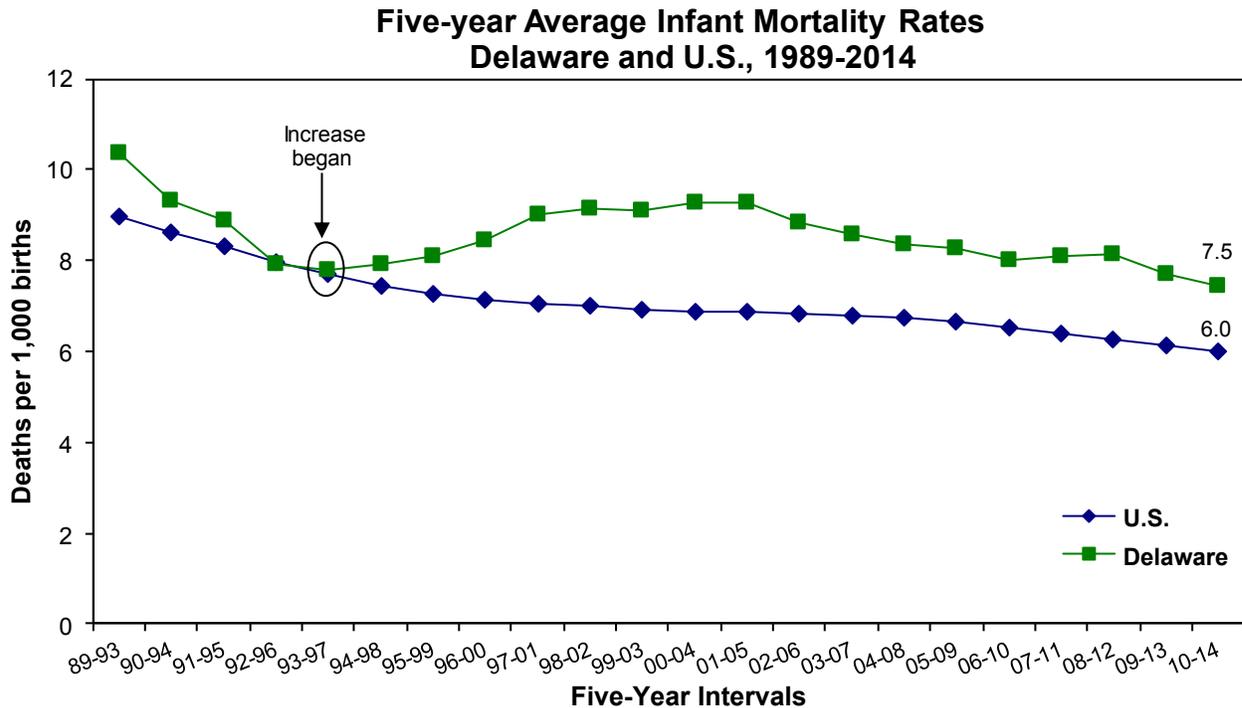


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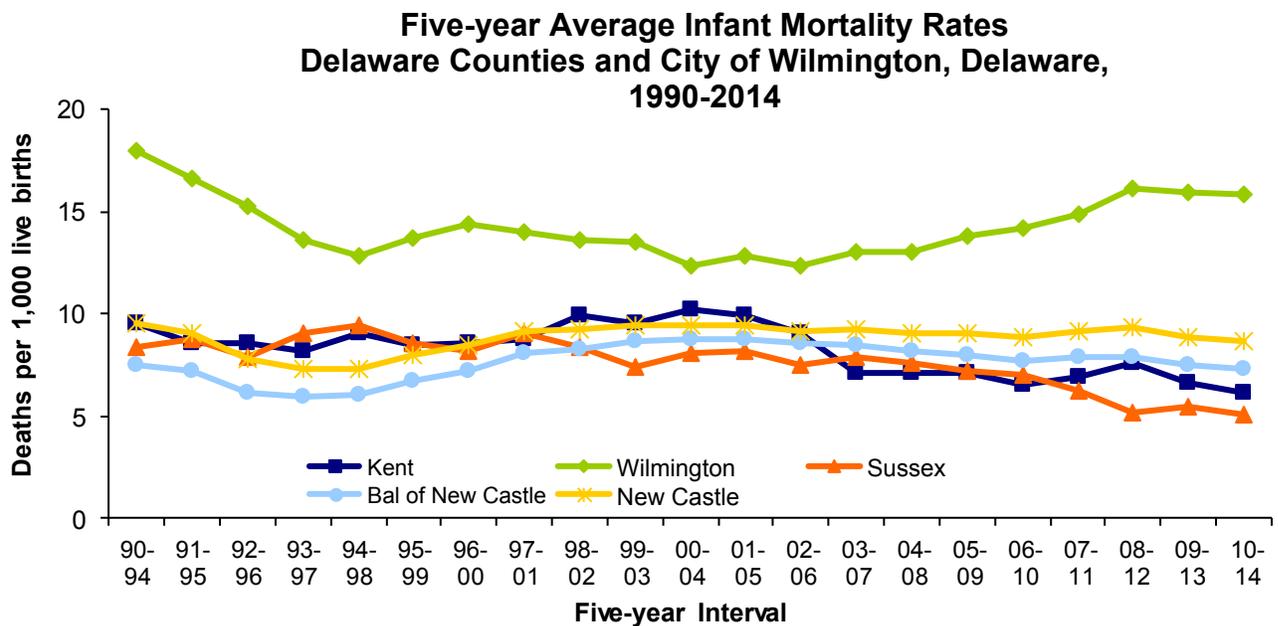
## INFANT MORTALITY

In 2010-2014, Delaware's infant mortality rate (IMR) was 7.5 infant deaths per 1,000 live births, resulting in a total decline of 19.4 percent from its 2000-2004 peak of 9.3 infant deaths per 1,000 live births. At 6.0 infant deaths per 1,000 live births, the U.S. rate remained lower than the Delaware rate.



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Wilmington's IMR continued to be the highest in Delaware. The combination of Wilmington's high IMR and a higher IMR in the balance of New Castle County resulted in New Castle County's IMR being higher than the IMRs of both Kent and Sussex counties. Sussex County's IMR remained the lowest at 5.1. In 2010-2014, the balance of New Castle County's IMR was 7.3, Wilmington's IMR was 15.8, and Kent County's IMR was 6.2.

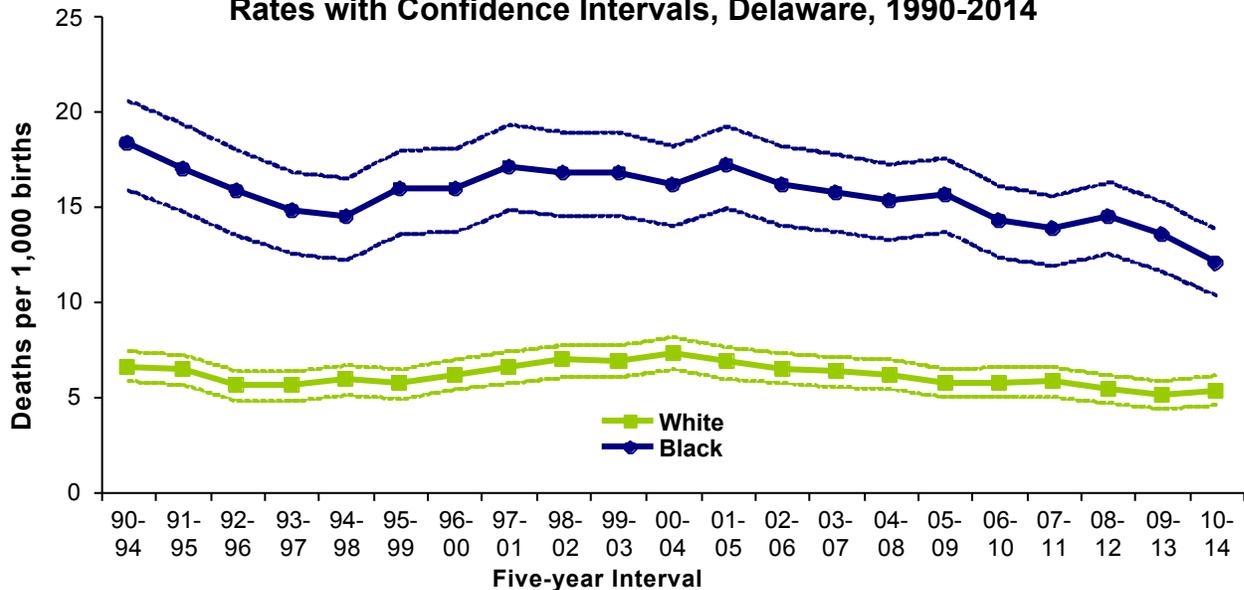


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## INFANT MORTALITY

Black infants experienced significantly higher mortality rates than white infants, but the gap is decreasing. In 2010-2014, the black IMR was two times higher than the white IMR, whereas in 1990-1994 the black IMR was three times higher.

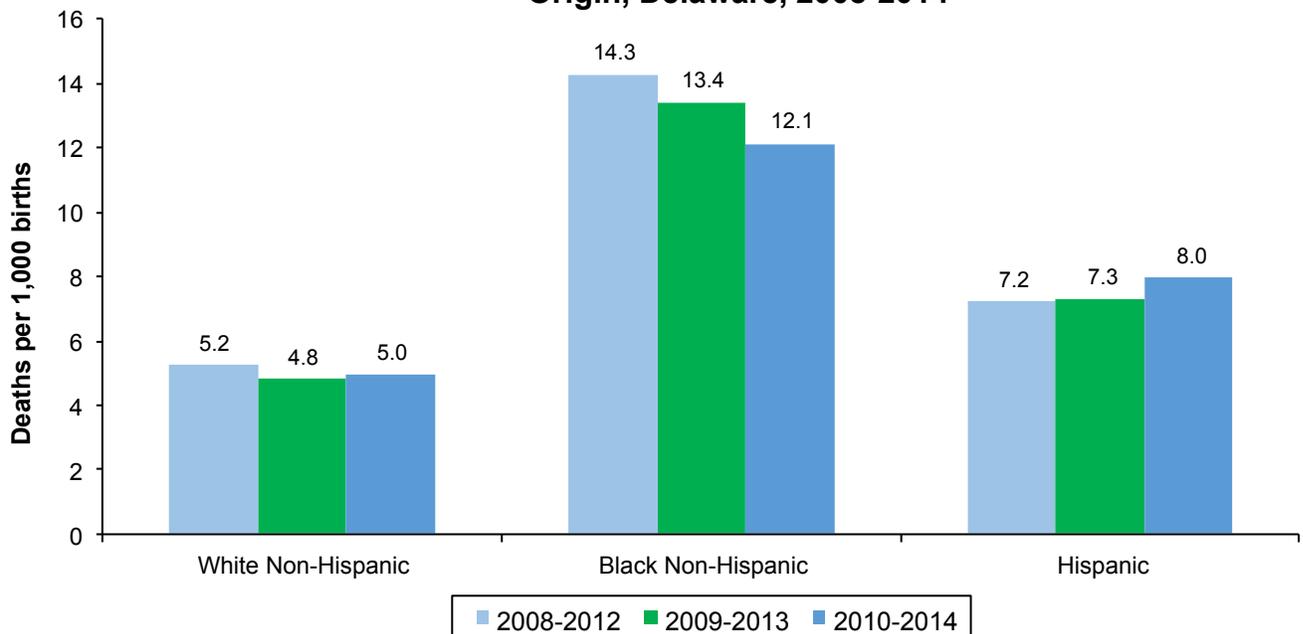
**Five-year Average Black and White Infant Mortality Rates with Confidence Intervals, Delaware, 1990-2014**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Significant disparities existed between black non-Hispanics and each of the two other groups: white non-Hispanics and Hispanics. Black non-Hispanics had the highest IMRs in all three time periods, and their rate of 12.1 infant deaths per 1,000 live births in 2010-2014 was more than double the white non-Hispanic rate of 5.0 and 1.5 times the Hispanic rate of 8.0.

**Five-year Average Infant Mortality Rates by Race and Hispanic Origin, Delaware, 2008-2014**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

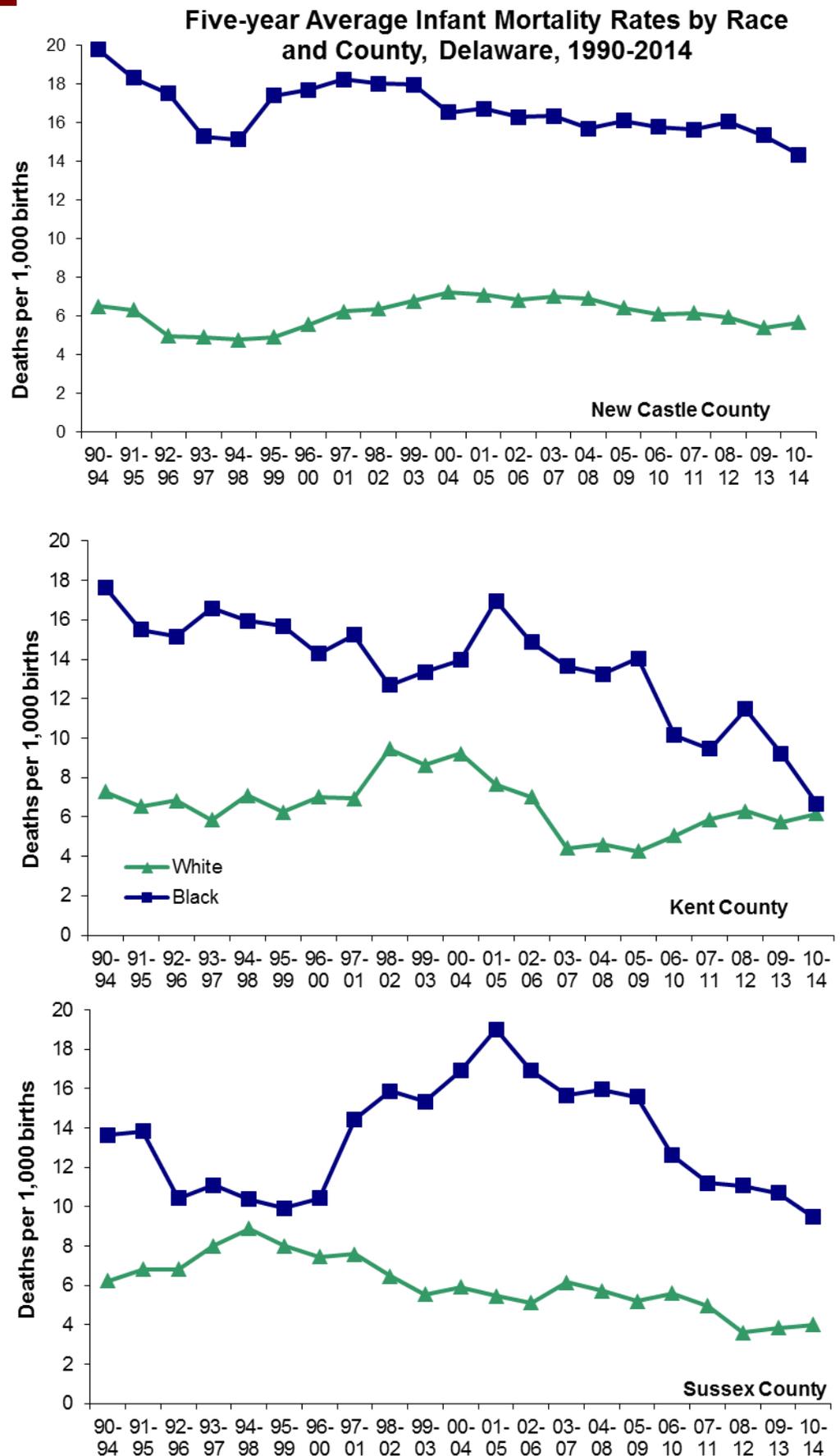
## INFANT MORTALITY

In 2010-2014, New Castle County had the highest IMRs and Sussex County had the lowest.

Black IMRs in New Castle County have hovered around 16 infants per 1,000 live births since 2002-2006, and decreased the last two time periods to 14.3 infant deaths per 1,000 live births.

Black IMRs in Kent County peaked at 17 infant deaths per 1,000 live births in 2001-2005. The IMR dropped to 6.7 in 2010-2014, a 61 percent decrease in black IMRs from 2001-2005. The white IMR had a 44 percent increase from 2005-2009 to 2010-2014 (4.3 to 6.2 infant deaths per 1,000 live births), thus narrowing the disparity between the white and black IMR.

Sussex County's black IMR dropped to 9.5 infant deaths per 1,000 live births in 2010-2014, its lowest rate since 1996-2000; a 50 percent reduction from the 2001-2005 peak of 19. Sussex County's white IMR fluctuated between 5 and 6 from 1999-2003 to 2007-2011, and in 2010-2014 the rate dropped to 4 infant deaths per 1,000 births.



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## INFANT MORTALITY- Leading Causes of Death

In 2010-2014, the five leading causes of infant death in Delaware were:

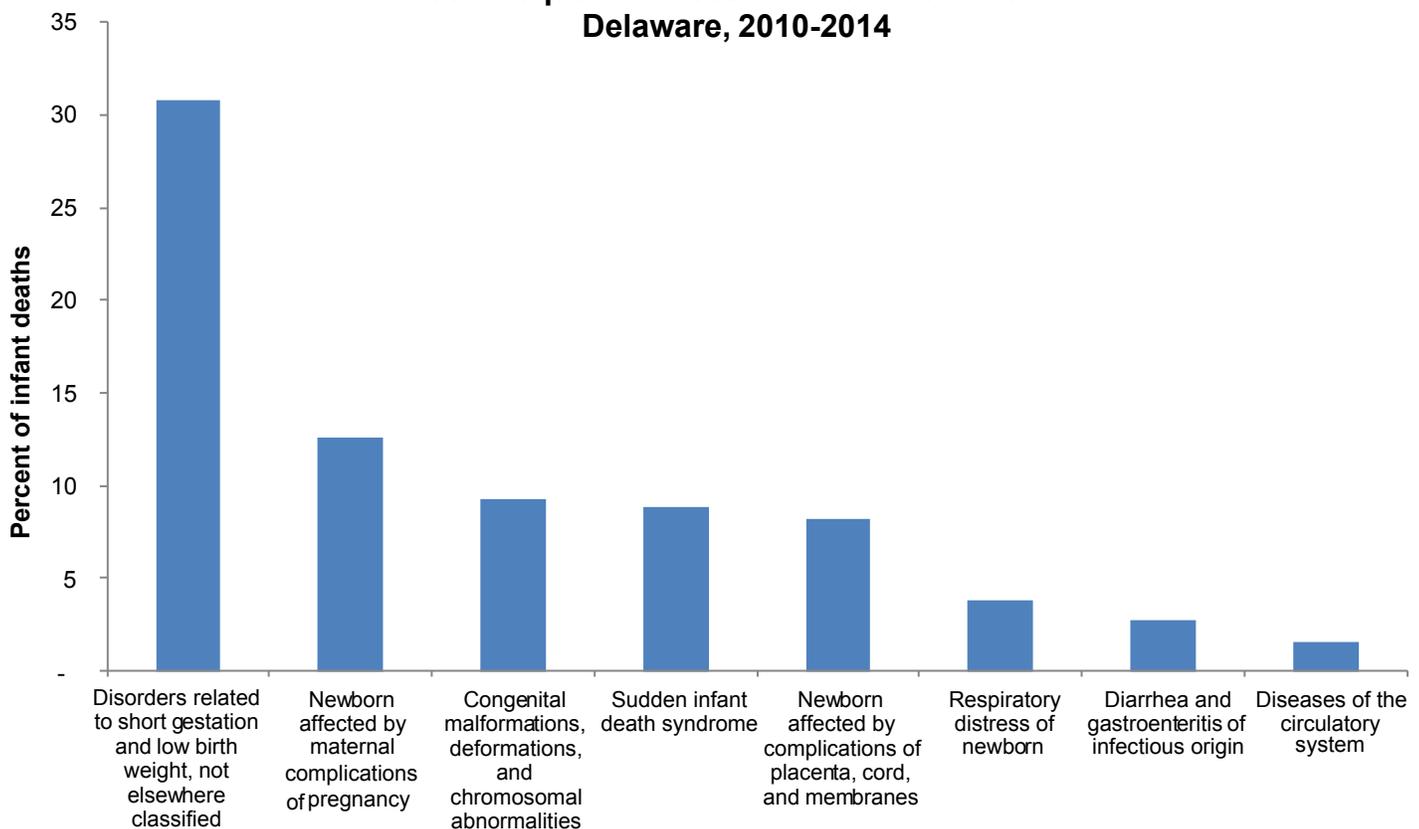
- Disorders related to short gestation and fetal malnutrition (prematurity and low birthweight), which accounted for 23.1 percent of infant deaths.
- Congenital anomalies (birth defects), which accounted for 15.5 percent of infant deaths.
- Newborns affected by maternal complications of pregnancy, which accounted for 10.4 percent of infant deaths. Of the 43 deaths attributed to this cause, 37 were due to the newborn being affected by incompetent cervix and premature rupture of membranes.
- Sudden infant death syndrome (SIDS), which accounted for 10 percent of all infant deaths.
- Newborns affected by complications of placenta, cord, and membranes were 6.6 percent of infant deaths.

In sum, the five most common causes of infant death accounted for 66 percent, or 286 of the 412 total infant deaths.

The most frequent causes of death by race are shown in the graphs below and on the following page. Birth defects and disorders related to short gestation and low birthweight were listed in the top three most frequent causes of death for both black and white infants.

Though the proportions of deaths by race were similar for many of the causes of death, notable exceptions were birth defects and disorders due to prematurity and low birthweight. While birth defects were responsible for 23 percent of all white infant deaths, they accounted for only 9 percent of black infant deaths. Conversely in 2010-2014, infant deaths due to disorders related to prematurity and low birthweight accounted for larger percentages of black infant deaths than white infant deaths (31 percent versus 14 percent for prematurity and low birthweight).

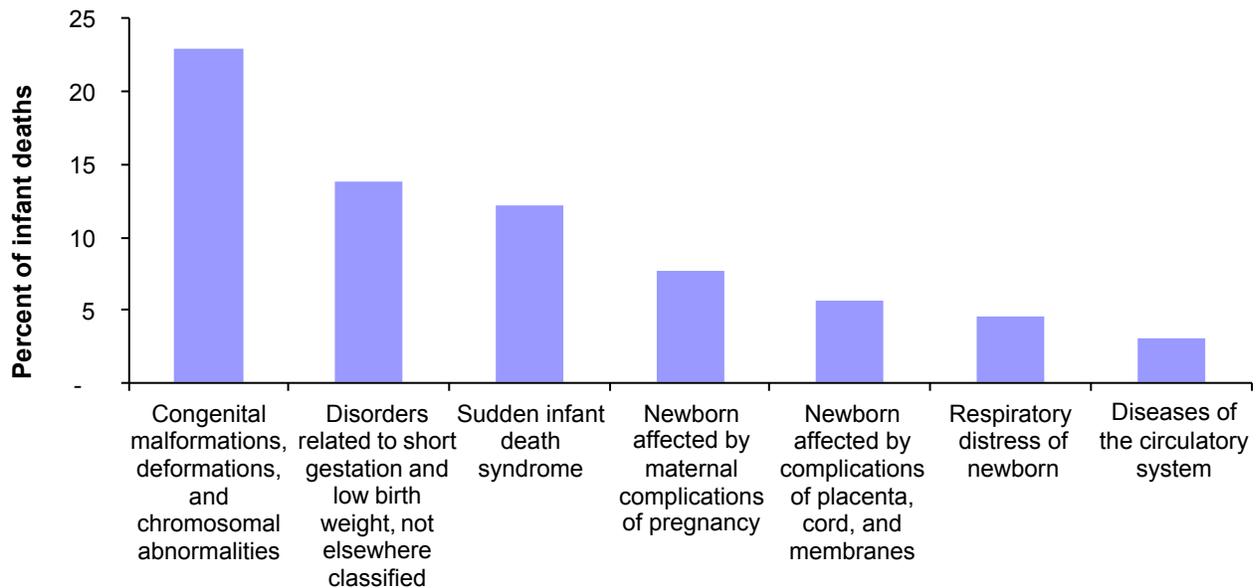
### Most Frequent Causes of Black Infant Death Delaware, 2010-2014



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## INFANT MORTALITY- Leading Causes of Death

### Most Frequent Causes of White Infant Death Delaware, 2010-2014

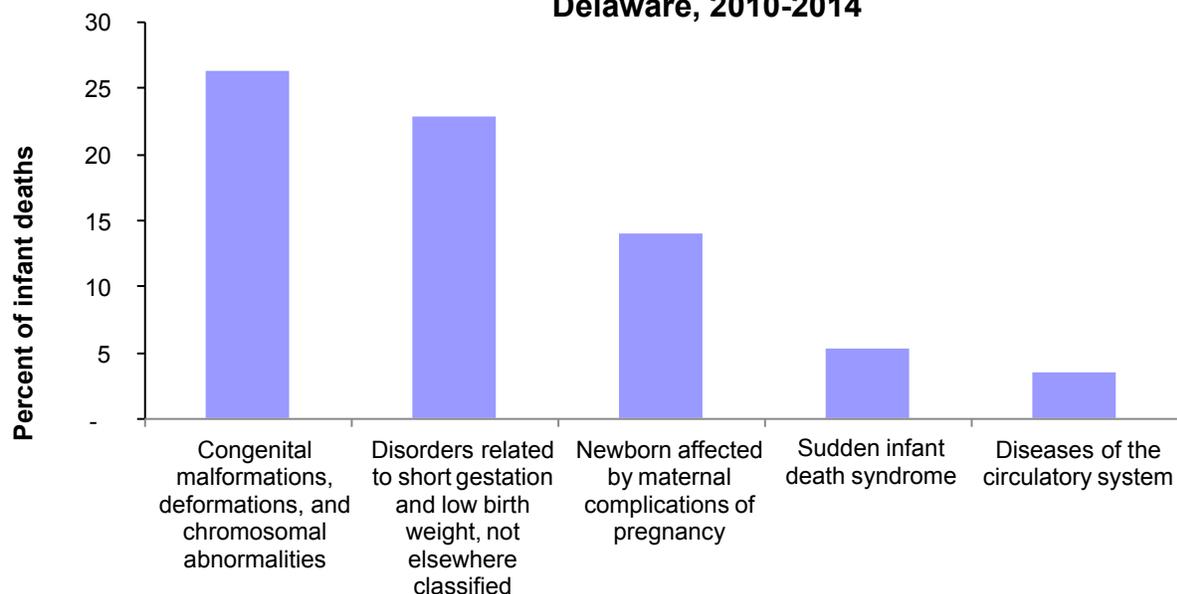


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

In 1989-1993, Hispanics accounted for 3.6 percent of all live births and 3.4 percent of infant deaths; since that time, the proportion of births to Hispanic mothers has nearly quadrupled. In the most recent five-year period, 2010-2014, 13.0 percent of all live births were to Hispanic mothers, and 13.8 percent of all infant deaths were of Hispanic origin.

Two causes of death accounted for the greatest number of Hispanic infant deaths: birth defects and disorders related to prematurity and low birthweight.

### Most Frequent Causes of Hispanic Infant Death Delaware, 2010-2014



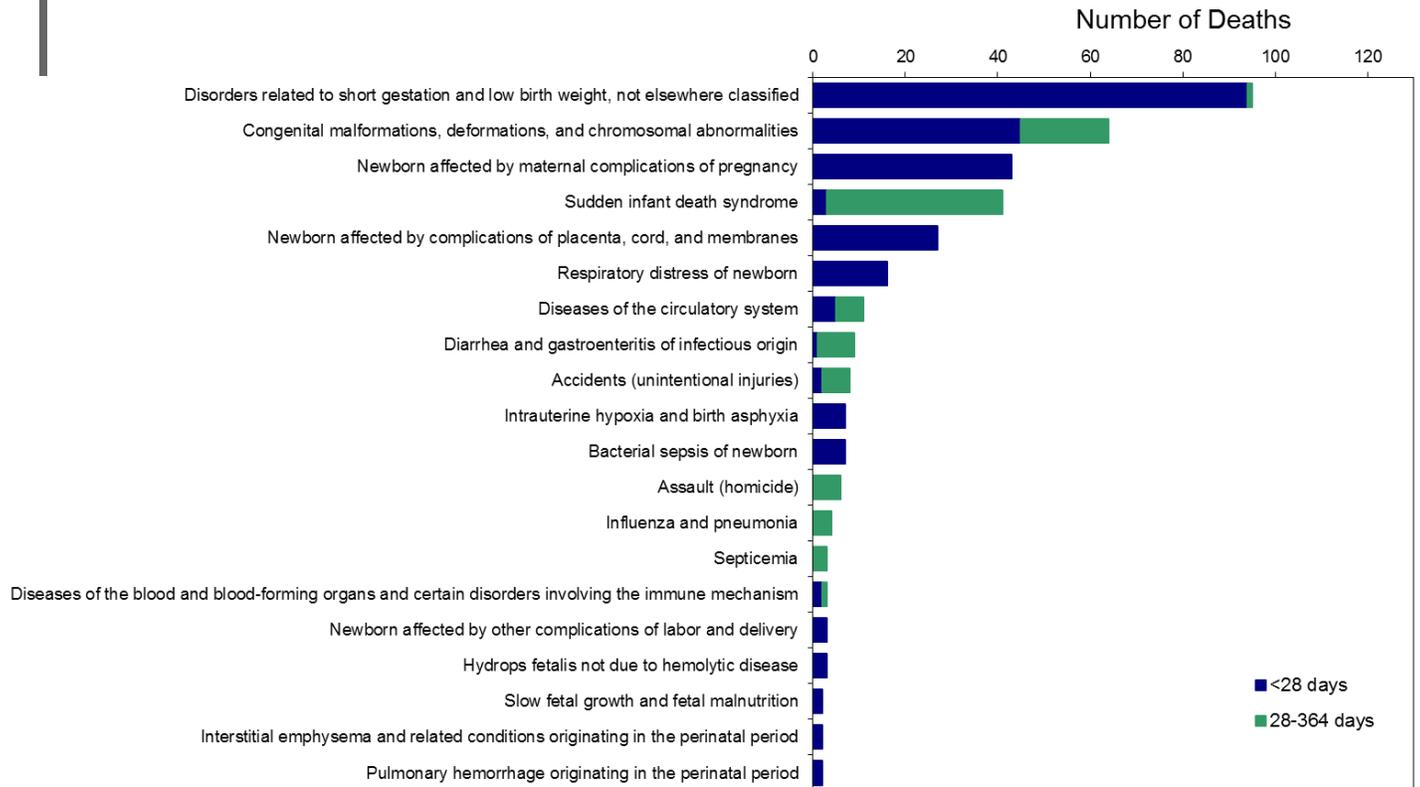
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## INFANT MORTALITY - Leading Causes of Death

In Delaware in 2010-2014, approximately 94 percent of all infant deaths occurred within the first six months of life, 73 percent occurred within the first 28 days of life, and 44 percent occurred within 24 hours of birth.

The graph below displays deaths by specific cause and the infant's age classification at death: neonatal (<28 days), or postneonatal (28-364 days).

Most Frequent Causes of Infant Death  
Delaware, 2010-2014



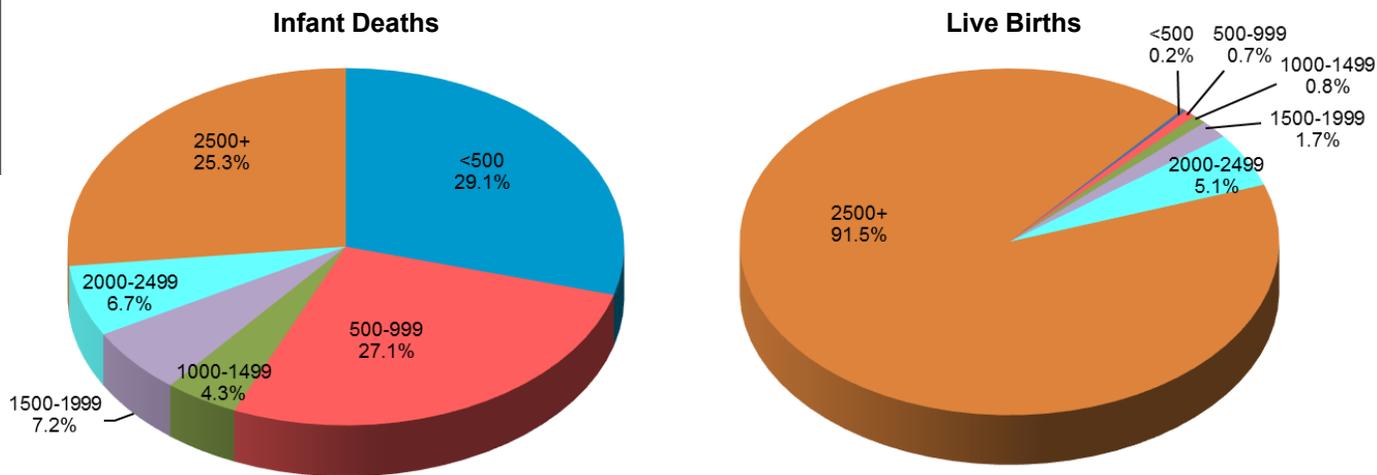
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

- Prematurity and low birthweight accounted for the greatest number of infant deaths in 2010-2014; all but one of these deaths occurred in the neonatal period.
- Sudden infant death syndrome (SIDS) was the only one of the top five causes of death that had the majority of deaths occurring in the postneonatal period, with a mean age at death of 107 days. Although fewer infants died in 2010-2014 compared to 2009-2013 and less infants died due to SIDS, it remained in the top five leading causes of infant death in 2010-2014.
  - ⇒ 41 percent (17 out of 41) of the SIDS deaths were associated with co-sleeping and/or sleeping on soft surfaces, such as couches and adult beds.
- In 2010-2014, there were eight additional infant deaths, coded under a different cause of death, that were associated with co-sleeping and/or sleeping on a soft surface. In total, 6.1 percent of all infant deaths were associated with co-sleeping and/or unsafe sleep practices.

## INFANT MORTALITY - Live Birth Cohort

Though only 1 percent of all live births in 2009-2013 were infants weighing less than 1,000 grams, they accounted for over half (56 percent) of all infant deaths. In total, 8.5 percent of all live births in 2009-2013 were infants of low birthweight (under 2,500 grams), while 74.4 percent of infant deaths were low birthweight.

### Distribution by Birthweight, Delaware Live Birth Cohort, 2009-2013

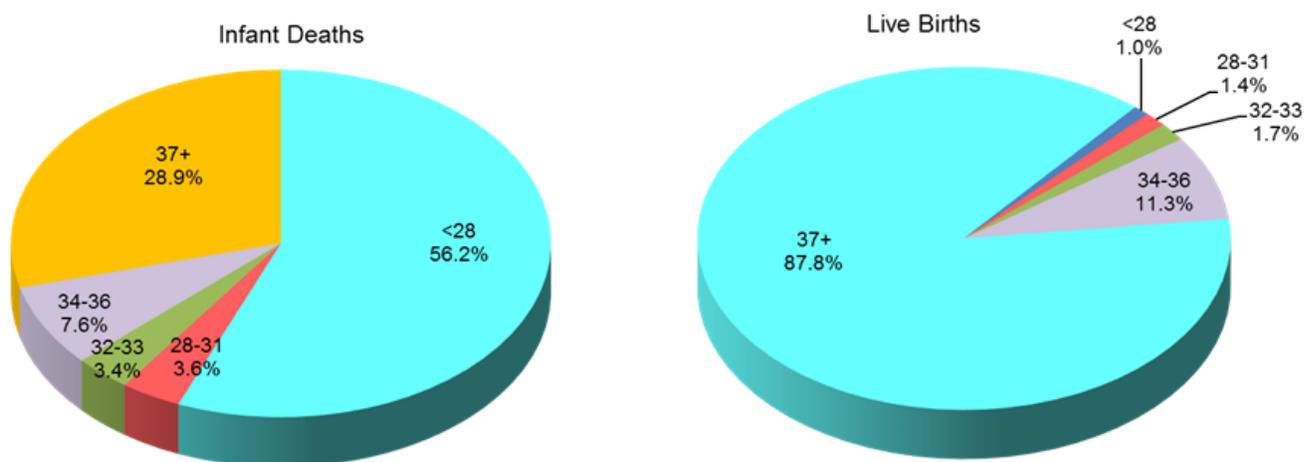


Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

Gestation and infant death demonstrated the same relationship as birthweight and infant death. Infants born at the youngest gestational age made up a very small percentage of live births, yet they accounted for the majority of infant deaths.

One percent of live births in 2009-2013 were less than 28 weeks gestation at birth, but they accounted for 56 percent of all infant deaths. In total, 15 percent of all live births in 2009-2013 were born preterm (<37 weeks of gestation) and 71 percent of infant deaths were born preterm.

### Distribution by Gestation, Delaware Live Birth Cohort, 2009-2013



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

## INFANT MORTALITY - Live Birth Cohort

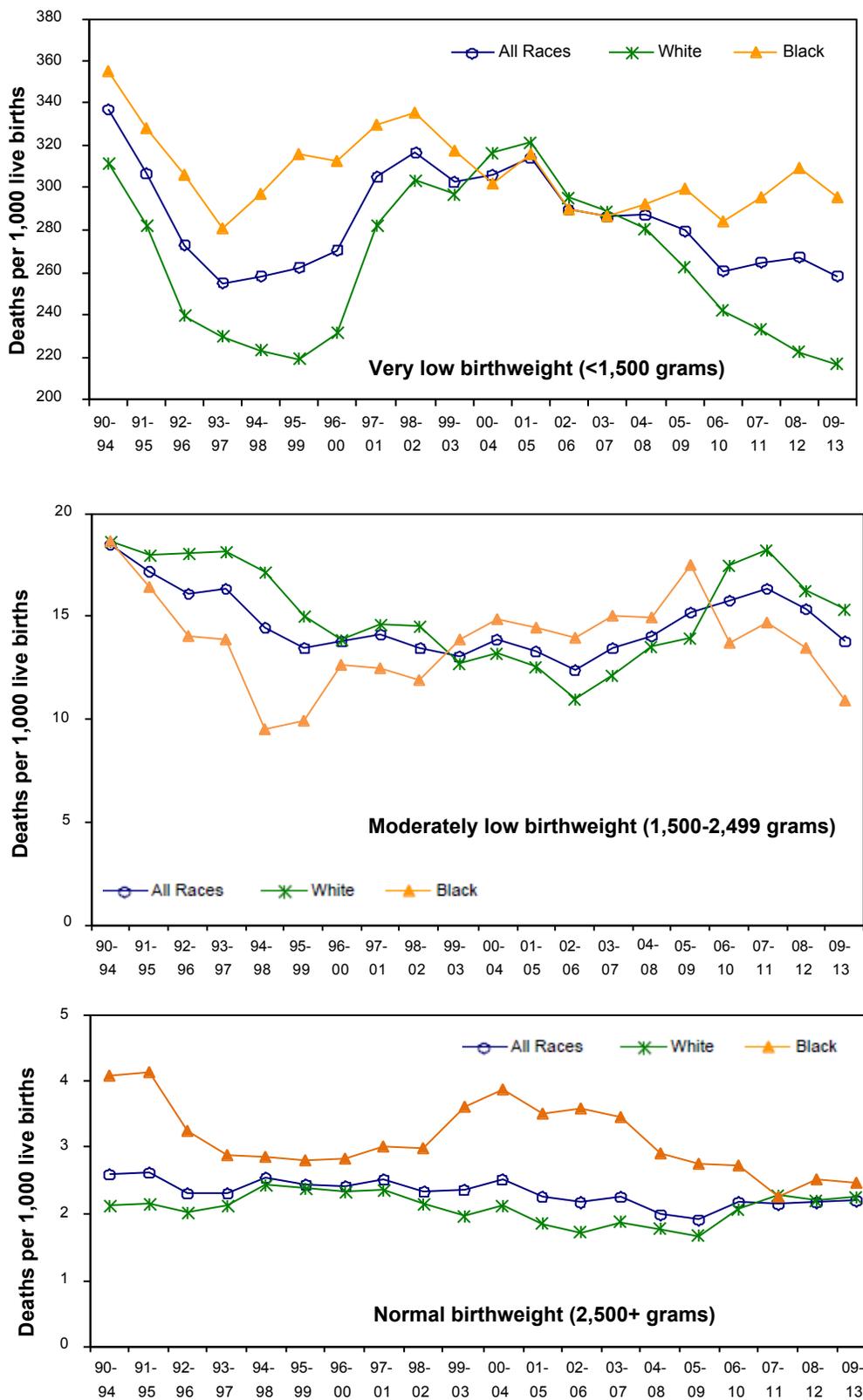
Birthweight and gestation are considered to be the most important predictors of infant health and mortality risk. Infants born too small or too early have a much greater risk of mortality than those who reach a normal birthweight (2,500+ grams) or full-term gestation (37+ weeks).

The IMR for very low birthweight (VLBW) black infants decreased in the most recent year after increasing for two years while the IMR for VLBW white infants decreased for the eighth straight year. In 2009-2013, IMRs for VLBW infants were 217 white infant deaths and 295 black infant deaths per 1,000 live births.

IMRs for moderately low birthweight infants of all races declined 15.3 percent between 2007-2011 and 2009-2013. During that time, white IMRs decreased 15.4 percent while the black IMR decreased by 25.6 percent, making their rates lower than the white rates (10.9 vs 15.4).

The IMR for all races remained the same from 2007-2011 to 2009-2013. IMRs for normal birthweight white infants also remained stable, resulting in no net change since 2000-2004, while the IMRs for black infants declined 36 percent between 2000-2004 and 2009-2013. The divergent movement in black and white rates in 2009-2013 narrowed the black/white disparity ratio; the black IMR for normal birthweight infants was 2.5, versus 2.3 for white infants of normal birthweight.

### Five-year Average Infant Mortality Rate by Birthweight and Race, Delaware, 1990-2013 Live Birth Cohort

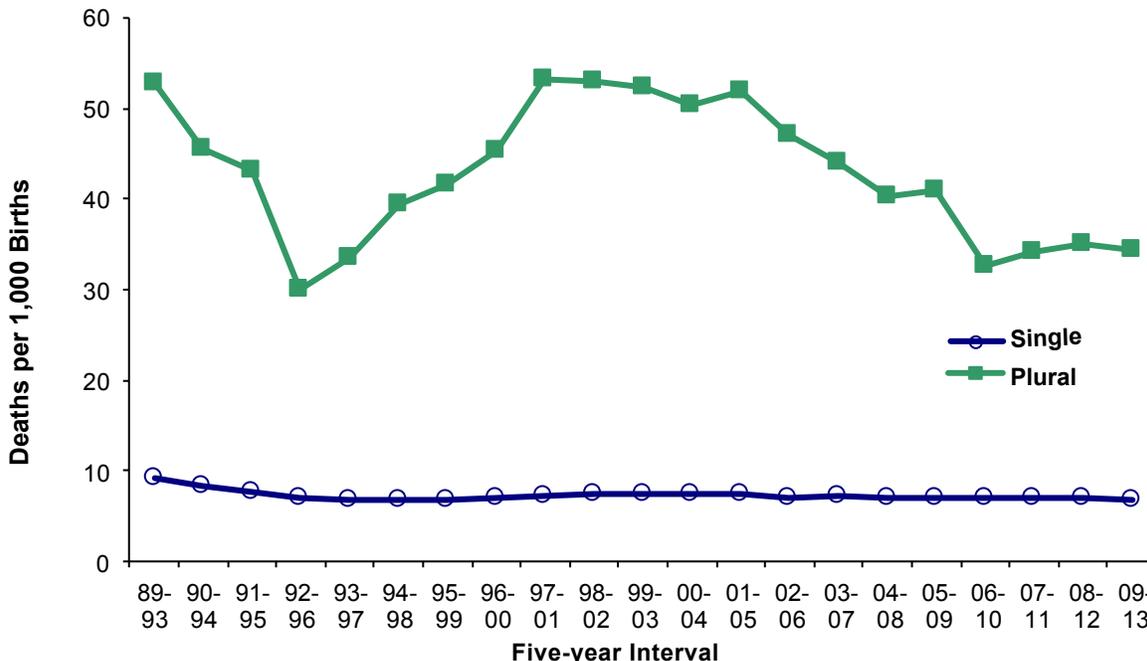


Source: Delaware Health and Social Services, Division of Public Health, Health Statistics Center

## INFANT MORTALITY - Live Birth Cohort

From 1992-1996 to 1997-2001, IMRs for plural births increased 77 percent, to 53.1 infant deaths per 1,000 live births. During the same time, IMRs for singleton births increased by 5 percent. Since then, plural IMRs have decreased 35 percent. IMRs for singleton births experienced a decrease of 8 percent. In 2009-2013, the infant mortality rate for plural births was more than five times that of singleton births (34.5 versus 6.7 infant deaths per 1,000 live births).

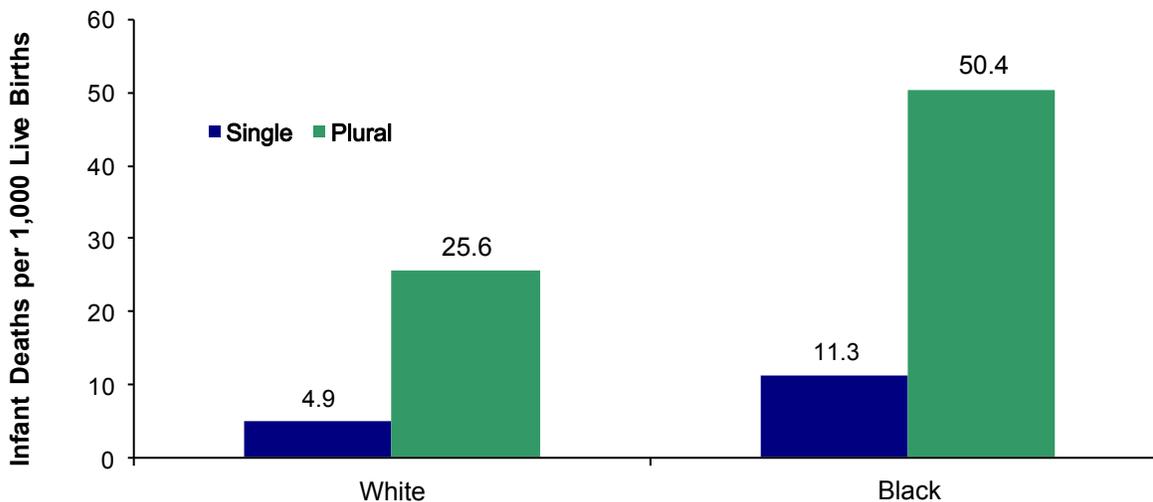
### Five-year Average Infant Mortality Rates by Plurality, Delaware Live Birth Cohort, 1989-2013



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

The magnitude of difference between singleton and plural IMRs remained the same regardless of race, though rates for black infants, both singleton and plural, were nearly double those of white infants.

### Five-year Average Infant Mortality Rates by Plurality and Race, Delaware Live Birth Cohort, 2009-2013



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-1  
NUMBER OF INFANT DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1997-2014

| Area/<br>Race           | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013  | 2014  |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>U.S.</b>             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 28045 | 28371 | 27937 | 28035 | 27568 | 28034 | 28025 | 27936 | 28440 | 28527 | 29138 | 28059 | 26412 | 24586 | 23985 | 23629 | 23446 | 23215 |
| White                   | 18539 | 18561 | 18067 | 18144 | 17955 | 18369 | 18440 | 18231 | 18514 | 18403 | 18807 | 18164 | 16817 | 15954 | 15460 | 15258 | 15152 | 14883 |
| Black                   | 8496  | 8726  | 8822  | 8771  | 8498  | 8524  | 8402  | 8494  | 8695  | 8858  | 8944  | 8543  | 8312  | 7401  | 7284  | 7095  | 6862  | 7076  |
| Other                   | 1010  | 1084  | 1048  | 1120  | 1115  | 1141  | 1183  | 1211  | 1231  | 1266  | 1387  | 1352  | 1283  | 1231  | 1241  | 1276  | 1432  | 1256  |
| <b>Delaware</b>         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 81    | 103   | 81    | 102   | 114   | 96    | 107   | 97    | 106   | 99    | 91    | 101   | 91    | 88    | 98    | 84    | 68    | 74    |
| White                   | 42    | 54    | 31    | 65    | 60    | 57    | 53    | 51    | 48    | 50    | 52    | 49    | 30    | 47    | 48    | 34    | 30    | 38    |
| Black                   | 36    | 49    | 49    | 37    | 53    | 35    | 53    | 44    | 55    | 44    | 38    | 52    | 54    | 36    | 38    | 44    | 34    | 30    |
| Other                   | 3     | 0     | 1     | 0     | 1     | 4     | 1     | 2     | 3     | 5     | 1     | 0     | 7     | 5     | 12    | 6     | 4     | 6     |
| <b>Kent</b>             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 14    | 18    | 10    | 21    | 19    | 27    | 16    | 17    | 21    | 13    | 9     | 18    | 18    | 15    | 17    | 17    | 6     | 13    |
| White                   | 4     | 13    | 4     | 16    | 10    | 22    | 8     | 8     | 6     | 7     | 4     | 10    | 6     | 12    | 13    | 7     | 5     | 9     |
| Black                   | 10    | 5     | 6     | 5     | 9     | 5     | 8     | 8     | 14    | 5     | 4     | 8     | 12    | 3     | 3     | 10    | 1     | 4     |
| Other                   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 1     | 1     | 1     | 0     | 0     | 0     | 1     | 0     | 0     | 0     |
| <b>New Castle</b>       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 48    | 65    | 61    | 67    | 72    | 55    | 78    | 60    | 68    | 68    | 60    | 70    | 57    | 58    | 74    | 58    | 48    | 49    |
| White                   | 26    | 27    | 22    | 40    | 37    | 30    | 37    | 33    | 35    | 31    | 33    | 32    | 18    | 24    | 29    | 24    | 17    | 22    |
| Black                   | 20    | 38    | 38    | 27    | 35    | 22    | 40    | 27    | 31    | 35    | 27    | 38    | 34    | 30    | 34    | 28    | 28    | 21    |
| Other                   | 2     | 0     | 1     | 0     | 0     | 3     | 1     | 0     | 2     | 2     | 0     | 0     | 5     | 4     | 11    | 6     | 3     | 6     |
| Wilmington              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 14    | 18    | 20    | 16    | 17    | 12    | 18    | 12    | 18    | 16    | 17    | 19    | 18    | 18    | 17    | 20    | 14    | 14    |
| White                   | 4     | 2     | 4     | 4     | 2     | 2     | 4     | 4     | 3     | 2     | 3     | 7     | 0     | 4     | 2     | 8     | 2     | 5     |
| Black                   | 10    | 16    | 16    | 12    | 15    | 10    | 14    | 8     | 15    | 14    | 14    | 12    | 16    | 13    | 15    | 11    | 11    | 8     |
| Other                   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2     | 1     | 0     | 1     | 1     | 1     |
| Balance of<br>NC County |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 34    | 47    | 41    | 51    | 55    | 43    | 60    | 48    | 50    | 52    | 43    | 51    | 39    | 40    | 57    | 38    | 34    | 35    |
| White                   | 22    | 25    | 18    | 36    | 35    | 28    | 33    | 29    | 32    | 29    | 30    | 25    | 18    | 20    | 27    | 16    | 15    | 17    |
| Black                   | 10    | 22    | 22    | 15    | 20    | 12    | 26    | 19    | 16    | 21    | 13    | 26    | 18    | 17    | 19    | 17    | 17    | 13    |
| Other                   | 2     | 0     | 1     | 0     | 0     | 3     | 1     | 0     | 2     | 2     | 0     | 0     | 3     | 3     | 11    | 5     | 2     | 5     |
| <b>Sussex</b>           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |
| All Races               | 19    | 20    | 10    | 14    | 23    | 14    | 13    | 20    | 17    | 18    | 22    | 13    | 16    | 15    | 7     | 9     | 14    | 12    |
| White                   | 12    | 14    | 5     | 9     | 13    | 5     | 8     | 10    | 7     | 12    | 15    | 7     | 6     | 11    | 6     | 3     | 8     | 7     |
| Black                   | 6     | 6     | 5     | 5     | 9     | 8     | 5     | 9     | 10    | 4     | 7     | 6     | 8     | 3     | 1     | 6     | 5     | 5     |
| Other                   | 1     | 0     | 0     | 0     | 1     | 1     | 0     | 1     | 0     | 2     | 0     | 0     | 2     | 1     | 0     | 0     | 1     | 0     |

**Notes:**

- \*Based on NCHS estimate.
- Infant deaths refer to deaths to children under one year of age.

INFANT1

**Sources:**

National Center for Health Statistics  
Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-2  
NUMBER OF NEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1997-2014

| Area/<br>Race           | 1997  | 1998  | 1999  | 2000  | 2001  | 2002  | 2003  | 2004  | 2005  | 2006  | 2007  | 2008  | 2009  | 2010  | 2011  | 2012  | 2013   | 2014  |
|-------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|
| <b>U.S.</b>             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 18524 | 18918 | 18728 | 18776 | 18265 | 18749 | 18893 | 18593 | 18770 | 18989 | 19058 | 18211 | 17255 | 16188 | 15954 | 15886 | 15893* | 15720 |
| White                   | 12269 | 12406 | 12164 | 12201 | 12013 | 12354 | 12495 | 12238 | 12239 | 12302 | 12333 | 11843 | 11054 | 10612 | 10422 | 10267 | 10264* | 10170 |
| Black                   | 5637  | 5824  | 5920  | 5843  | 5585  | 5646  | 5640  | 5495  | 5740  | 5876  | 5842  | 5523  | 5374  | 4769  | 4719  | 4610  | 4647*  | 4686  |
| Other                   | 618   | 688   | 644   | 732   | 667   | 749   | 758   | 860   | 791   | 811   | 883   | 845   | 827   | 807   | 813   | 1009  | 982*   | 864   |
| <b>Delaware</b>         |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 55    | 74    | 58    | 71    | 82    | 79    | 75    | 63    | 79    | 72    | 65    | 68    | 66    | 58    | 73    | 66    | 47     | 55    |
| White                   | 26    | 33    | 21    | 45    | 44    | 48    | 36    | 33    | 36    | 36    | 37    | 32    | 19    | 27    | 30    | 25    | 18     | 29    |
| Black                   | 27    | 41    | 37    | 26    | 37    | 28    | 38    | 28    | 40    | 33    | 28    | 36    | 40    | 26    | 35    | 35    | 25     | 21    |
| Other                   | 2     | 0     | 0     | 0     | 1     | 3     | 1     | 2     | 3     | 3     | 0     | 0     | 7     | 5     | 8     | 6     | 4      | 5     |
| <b>Kent</b>             |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 10    | 9     | 8     | 15    | 15    | 22    | 8     | 11    | 14    | 7     | 6     | 12    | 14    | 11    | 13    | 12    | 3      | 10    |
| White                   | 1     | 6     | 3     | 11    | 10    | 18    | 3     | 5     | 3     | 4     | 3     | 7     | 4     | 9     | 9     | 4     | 3      | 8     |
| Black                   | 9     | 3     | 5     | 4     | 5     | 4     | 5     | 5     | 10    | 3     | 3     | 5     | 10    | 2     | 3     | 8     | 0      | 2     |
| Other                   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 1     | 1     | 0     | 0     | 0     | 0     | 0     | 1     | 0     | 0      | 0     |
| <b>New Castle</b>       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 33    | 47    | 44    | 50    | 54    | 47    | 56    | 39    | 54    | 52    | 43    | 48    | 42    | 36    | 57    | 47    | 34     | 37    |
| White                   | 19    | 15    | 14    | 29    | 27    | 26    | 27    | 21    | 28    | 22    | 23    | 20    | 13    | 9     | 18    | 20    | 9      | 15    |
| Black                   | 13    | 32    | 30    | 21    | 27    | 19    | 28    | 18    | 24    | 28    | 20    | 28    | 24    | 23    | 32    | 21    | 22     | 17    |
| Other                   | 1     | 0     | 0     | 0     | 0     | 2     | 1     | 0     | 2     | 2     | 0     | 0     | 5     | 4     | 7     | 6     | 3      | 5     |
| Wilmington              |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 6     | 12    | 14    | 13    | 14    | 9     | 10    | 9     | 15    | 12    | 10    | 10    | 14    | 10    | 14    | 18    | 11     | 12    |
| White                   | 3     | 1     | 2     | 4     | 1     | 1     | 1     | 3     | 3     | 1     | 1     | 3     | 0     | 0     | 1     | 8     | 2      | 5     |
| Black                   | 3     | 11    | 12    | 9     | 13    | 8     | 9     | 6     | 12    | 11    | 9     | 7     | 12    | 9     | 13    | 9     | 8      | 6     |
| Other                   | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 2     | 1     | 0     | 1     | 1      | 1     |
| Balance of<br>NC County |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 27    | 35    | 30    | 37    | 40    | 38    | 46    | 30    | 39    | 40    | 33    | 38    | 28    | 26    | 43    | 29    | 23     | 25    |
| White                   | 16    | 14    | 12    | 25    | 26    | 25    | 26    | 18    | 25    | 21    | 22    | 17    | 13    | 9     | 17    | 12    | 7      | 10    |
| Black                   | 10    | 21    | 18    | 12    | 14    | 11    | 19    | 12    | 12    | 17    | 11    | 21    | 12    | 14    | 19    | 12    | 14     | 11    |
| Other                   | 1     | 0     | 0     | 0     | 0     | 2     | 1     | 0     | 2     | 2     | 0     | 0     | 3     | 3     | 7     | 5     | 2      | 4     |
| <b>Sussex</b>           |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |       |        |       |
| All Races               | 12    | 18    | 6     | 6     | 13    | 10    | 11    | 13    | 11    | 13    | 16    | 8     | 10    | 11    | 3     | 7     | 10     | 8     |
| White                   | 6     | 12    | 4     | 5     | 7     | 4     | 6     | 7     | 5     | 10    | 11    | 5     | 2     | 9     | 3     | 1     | 6      | 6     |
| Black                   | 5     | 6     | 2     | 1     | 5     | 5     | 5     | 5     | 6     | 2     | 5     | 3     | 6     | 1     | 0     | 6     | 3      | 2     |
| Other                   | 1     | 0     | 0     | 0     | 1     | 1     | 0     | 1     | 0     | 1     | 0     | 0     | 2     | 1     | 0     | 0     | 1      | 0     |

**Notes:**

- \*Based on NCHS estimate.
- Neonatal deaths refer to deaths of children under 28 days of age.

**Sources:**

National Center for Health Statistics  
Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

INFANT2

TABLE E-3  
NUMBER OF POSTNEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1997-2014

| Area/<br>Race           | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007  | 2008 | 2009 | 2010 | 2011 | 2012 | 2013  | 2014 |
|-------------------------|------|------|------|------|------|------|------|------|------|------|-------|------|------|------|------|------|-------|------|
| <b>U.S.</b>             |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 9521 | 9453 | 9209 | 9259 | 9303 | 9285 | 9132 | 9343 | 9670 | 9538 | 10080 | 9848 | 9157 | 8398 | 8031 | 7743 | 7553* | 7495 |
| White                   | 6270 | 6155 | 5903 | 5943 | 5942 | 6015 | 5945 | 5993 | 6275 | 6101 | 6474  | 6321 | 5763 | 5342 | 5038 | 4991 | 4888* | 4713 |
| Black                   | 2859 | 2902 | 2902 | 2928 | 2913 | 2878 | 2762 | 2999 | 2955 | 2982 | 3102  | 3020 | 2938 | 2632 | 2565 | 2485 | 2215* | 2390 |
| Other                   | 392  | 396  | 404  | 388  | 448  | 392  | 425  | 351  | 440  | 455  | 504   | 507  | 456  | 424  | 428  | 267  | 450*  | 392  |
| <b>Delaware</b>         |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 26   | 29   | 23   | 31   | 32   | 17   | 32   | 34   | 27   | 27   | 26    | 33   | 25   | 30   | 25   | 18   | 21    | 19   |
| White                   | 16   | 21   | 10   | 20   | 16   | 9    | 17   | 18   | 12   | 14   | 15    | 17   | 11   | 20   | 18   | 9    | 12    | 9    |
| Black                   | 9    | 8    | 12   | 11   | 16   | 7    | 15   | 16   | 15   | 11   | 10    | 16   | 14   | 10   | 3    | 9    | 9     | 9    |
| Other                   | 1    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 2    | 1     | 0    | 0    | 0    | 4    | 0    | 0     | 1    |
| <b>Kent</b>             |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 4    | 9    | 2    | 6    | 4    | 5    | 8    | 6    | 7    | 6    | 3     | 6    | 4    | 4    | 4    | 5    | 3     | 3    |
| White                   | 3    | 7    | 1    | 5    | 0    | 4    | 5    | 3    | 3    | 3    | 1     | 3    | 2    | 3    | 4    | 3    | 2     | 1    |
| Black                   | 1    | 2    | 1    | 1    | 4    | 1    | 3    | 3    | 4    | 2    | 1     | 3    | 2    | 1    | 0    | 2    | 1     | 2    |
| Other                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1     | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| <b>New Castle</b>       |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 15   | 18   | 17   | 17   | 18   | 8    | 22   | 21   | 14   | 16   | 17    | 22   | 15   | 22   | 17   | 11   | 14    | 12   |
| White                   | 7    | 12   | 8    | 11   | 10   | 4    | 10   | 12   | 7    | 9    | 10    | 12   | 5    | 15   | 11   | 4    | 8     | 7    |
| Black                   | 7    | 6    | 8    | 6    | 8    | 3    | 12   | 9    | 7    | 7    | 7     | 10   | 10   | 7    | 2    | 7    | 6     | 4    |
| Other                   | 1    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 4    | 0    | 0     | 1    |
| Wilmington              |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 8    | 6    | 6    | 3    | 3    | 3    | 8    | 3    | 3    | 4    | 7     | 9    | 4    | 8    | 3    | 2    | 3     | 2    |
| White                   | 1    | 1    | 2    | 0    | 1    | 1    | 3    | 1    | 0    | 1    | 2     | 4    | 0    | 4    | 1    | 0    | 0     | 0    |
| Black                   | 7    | 5    | 4    | 3    | 2    | 2    | 5    | 2    | 3    | 3    | 5     | 5    | 4    | 4    | 2    | 2    | 3     | 2    |
| Other                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    |
| Balance of<br>NC County |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 7    | 12   | 11   | 14   | 15   | 5    | 14   | 18   | 11   | 12   | 10    | 13   | 11   | 14   | 14   | 9    | 11    | 10   |
| White                   | 6    | 11   | 6    | 11   | 9    | 3    | 7    | 11   | 7    | 8    | 8     | 8    | 5    | 11   | 10   | 4    | 8     | 7    |
| Black                   | 0    | 1    | 4    | 3    | 6    | 1    | 7    | 7    | 4    | 4    | 2     | 5    | 6    | 3    | 0    | 5    | 3     | 2    |
| Other                   | 1    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0     | 0    | 0    | 0    | 4    | 0    | 0     | 1    |
| <b>Sussex</b>           |      |      |      |      |      |      |      |      |      |      |       |      |      |      |      |      |       |      |
| All Races               | 7    | 2    | 4    | 8    | 10   | 4    | 2    | 7    | 6    | 5    | 6     | 5    | 6    | 4    | 4    | 2    | 4     | 4    |
| White                   | 6    | 2    | 1    | 4    | 6    | 1    | 2    | 3    | 2    | 2    | 4     | 2    | 4    | 2    | 3    | 2    | 2     | 1    |
| Black                   | 1    | 0    | 3    | 4    | 4    | 3    | 0    | 4    | 4    | 2    | 2     | 3    | 2    | 2    | 1    | 0    | 2     | 3    |
| Other                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0     | 0    | 0    | 0    | 0    | 0    | 0     | 0    |

**Notes:**

- \*Based on NCHS estimate.
- Postneonatal deaths refer to deaths of children 28 to 364 days of age.

INFANT3

**Sources:**

National Center for Health Statistics  
Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E- 4  
FIVE-YEAR AVERAGE INFANT MORTALITY RATES BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2014

| Area/<br>Race           | 1994<br>-1998 | 1995<br>-1999 | 1996<br>-2000 | 1997<br>-2001 | 1998<br>-2002 | 1999<br>-2003 | 2000<br>-2004 | 2001<br>-2005 | 2002<br>-2006 | 2003<br>-2007 | 2004<br>-2008 | 2005<br>-2009 | 2006<br>-2010 | 2007<br>-2011 | 2008<br>-2012 | 2009<br>-2013 | 2010<br>-2014 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>U.S.</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 7.5           | 7.3           | 7.1           | 7.0           | 7.0           | 6.9           | 6.9           | 6.9           | 6.8           | 6.8           | 6.7           | 6.7           | 6.5           | 6.4           | 6.2           | 6.1           | 6.0           |
| White                   | 6.2           | 6.0           | 5.9           | 5.8           | 5.8           | 5.7           | 5.7           | 5.7           | 5.7           | 5.7           | 5.6           | 5.6           | 5.5           | 5.4           | 5.3           | 5.2           | 5.1           |
| Black                   | 14.8          | 14.6          | 14.4          | 14.2          | 14.3          | 14.2          | 14.0          | 14.0          | 13.8          | 13.6          | 13.3          | 13.1          | 12.7          | 12.4          | 12.0          | 11.6          | 11.2          |
| <b>Delaware</b>         |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 7.9           | 8.1+          | 8.4+          | 9.0+          | 9.2+          | 9.1+          | 9.3+          | 9.3+          | 8.8+          | 8.6+          | 8.4+          | 8.3+          | 8.0+          | 8.1+          | 8.1+          | 7.7+          | 7.5           |
| White                   | 5.9           | 5.7           | 6.2           | 6.6           | 6.9+          | 6.9+          | 7.3+          | 6.9+          | 6.5+          | 6.4           | 6.2           | 5.7           | 5.8           | 5.8           | 5.5           | 5.1           | 5.4           |
| Black                   | 14.4          | 15.8          | 15.9          | 17.1+         | 16.7+         | 16.7+         | 16.1          | 17.1+         | 16.1+         | 15.7+         | 15.3          | 15.6+         | 14.2          | 13.8          | 14.4+         | 13.4          | 12.1          |
| <b>Kent</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 9.0           | 8.4           | 8.6           | 8.7           | 9.9           | 9.5           | 10.2          | 10.0          | 9.1           | 7.1           | 7.1           | 7.1           | 6.5           | 6.9           | 7.6           | 6.6           | 6.2           |
| White                   | 7.1           | 6.3           | 7.0           | 6.9           | 9.5           | 8.6           | 9.2           | 7.6           | 7.0           | 4.4           | 4.6           | 4.3           | 5.1           | 5.9           | 6.3           | 5.7           | 6.2           |
| Black                   | 15.9          | 15.7          | 14.3          | 15.2          | 12.7          | 13.4          | 13.9          | 17.0          | 14.9          | 13.6          | 13.2          | 14.0          | 10.2          | 9.4           | 11.5          | 9.2           | 6.7           |
| <b>New Castle</b>       |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 7.3           | 7.9           | 8.5           | 9.1           | 9.2           | 9.5           | 9.4           | 9.4           | 9.2           | 9.2           | 9.0           | 9.0           | 8.8           | 9.1           | 9.3           | 8.8           | 8.7           |
| White                   | 4.8           | 4.9           | 5.6           | 6.2           | 6.4           | 6.8           | 7.3           | 7.1           | 6.8           | 7.0           | 6.9           | 6.4           | 6.1           | 6.2           | 5.9           | 5.4           | 5.7           |
| Black                   | 15.1          | 17.4          | 17.7          | 18.2          | 18.0          | 18.0          | 16.5          | 16.7          | 16.3          | 16.3          | 15.7          | 16.1          | 15.8          | 15.6          | 16.1          | 15.3          | 14.3          |
| Wilmington              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 12.8          | 13.7          | 14.4          | 14.0          | 13.5          | 13.5          | 12.4          | 12.8          | 12.3          | 13.0          | 13.0          | 13.8          | 14.1          | 14.8          | 16.1          | 15.9          | 15.8          |
| White                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | 9.8           | ---           | 10.1          |
| Black                   | 16.8          | 18.0          | 18.7          | 18.0          | 17.9          | 17.6          | 15.9          | 17.0          | 16.3          | 17.3          | 16.3          | 18.0          | 18.0          | 19.1          | 19.3          | 20.3          | 19.2          |
| Balance of<br>NC County |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 6.0           | 6.7           | 7.2           | 8.1           | 8.3           | 8.6           | 8.8           | 8.7           | 8.5           | 8.5           | 8.2           | 8.0           | 7.7           | 7.9           | 7.9           | 7.5           | 7.3           |
| White                   | 4.7           | 4.8           | 5.4           | 6.1           | 6.4           | 6.8           | 7.3           | 7.2           | 6.9           | 7.0           | 6.8           | 6.4           | 6.0           | 6.0           | 5.5           | 5.1           | 5.2           |
| Black                   | 13.6          | 16.8          | 16.8          | 18.5          | 18.1          | 18.2          | 17.0          | 16.6          | 16.3          | 15.8          | 15.3          | 14.9          | 14.5          | 13.8          | 14.4          | 13.0          | 12.2          |
| <b>Sussex</b>           |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 9.5           | 8.5           | 8.1           | 9.0           | 8.3           | 7.4           | 8.1           | 8.2           | 7.5           | 7.9           | 7.6           | 7.2           | 7.0           | 6.2           | 5.2           | 5.4           | 5.1           |
| White                   | 8.9           | 8.0           | 7.5           | 7.6           | 6.5           | 5.5           | 5.9           | 5.5           | 5.1           | 6.2           | 5.7           | 5.2           | 5.6           | 5.0           | 3.6           | 3.8           | 4.0           |
| Black                   | 10.4          | 9.9           | 10.4          | 14.4          | 15.9          | 15.4          | 16.9          | 19.0          | 16.9          | 15.7          | 16.0          | 15.6          | 12.6          | 11.2          | 11.1          | 10.7          | 9.5           |

INFANT4

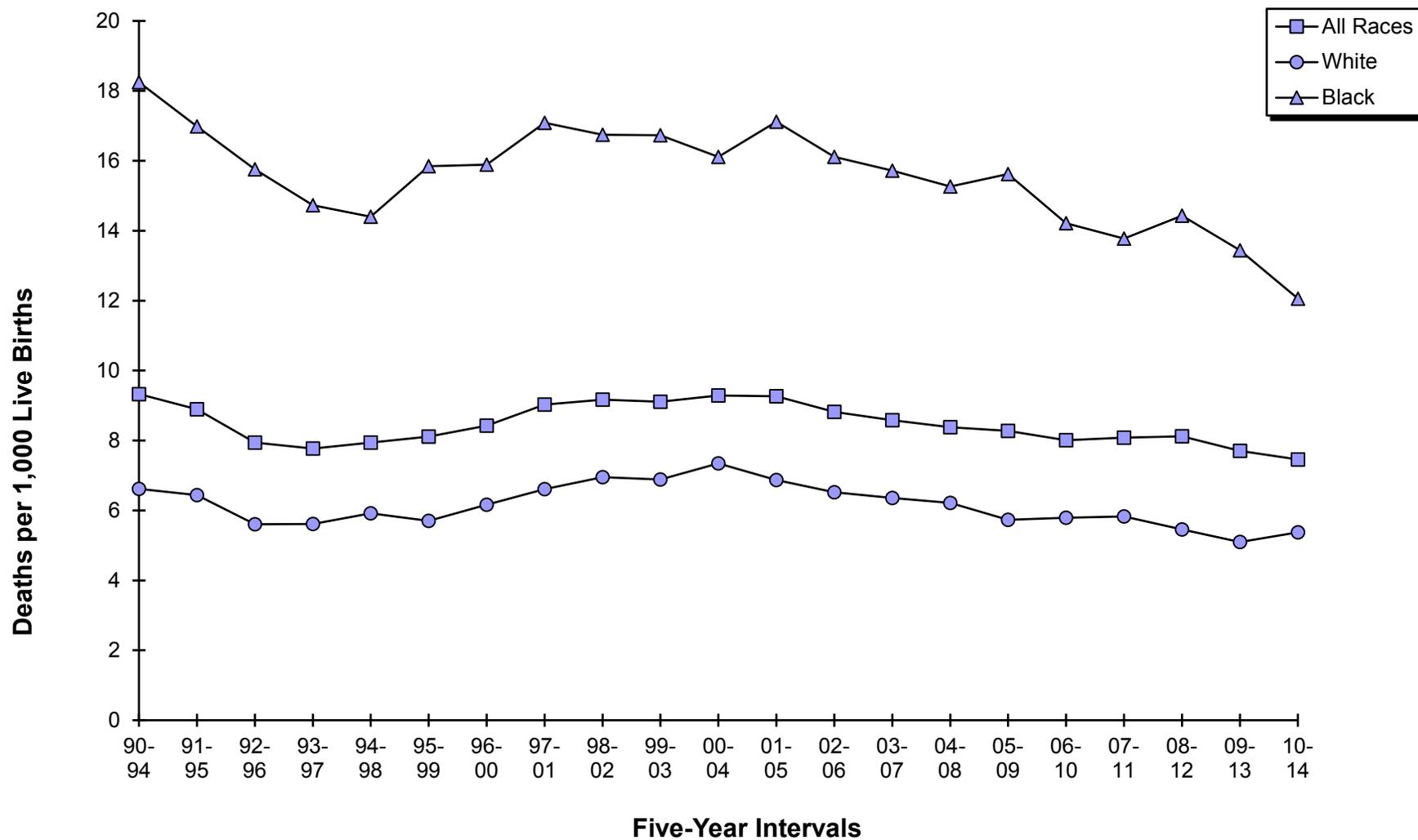
**Notes:**

1. 2010-2014 U.S. data are based on NCHS estimates.
2. Infant mortality rates represent the number of deaths of children under one year of age per 1000 live births.
3. '+' indicates that the Delaware rate is significantly higher than the U.S. rate.  
 '-' indicates that the Delaware rate is significantly lower than the U.S. rate.
4. "----" Indicates rate does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
5. No statistical comparisons were made between the county rates and the U.S. rate due to small numbers. See Appendix C for details.

**Sources:**

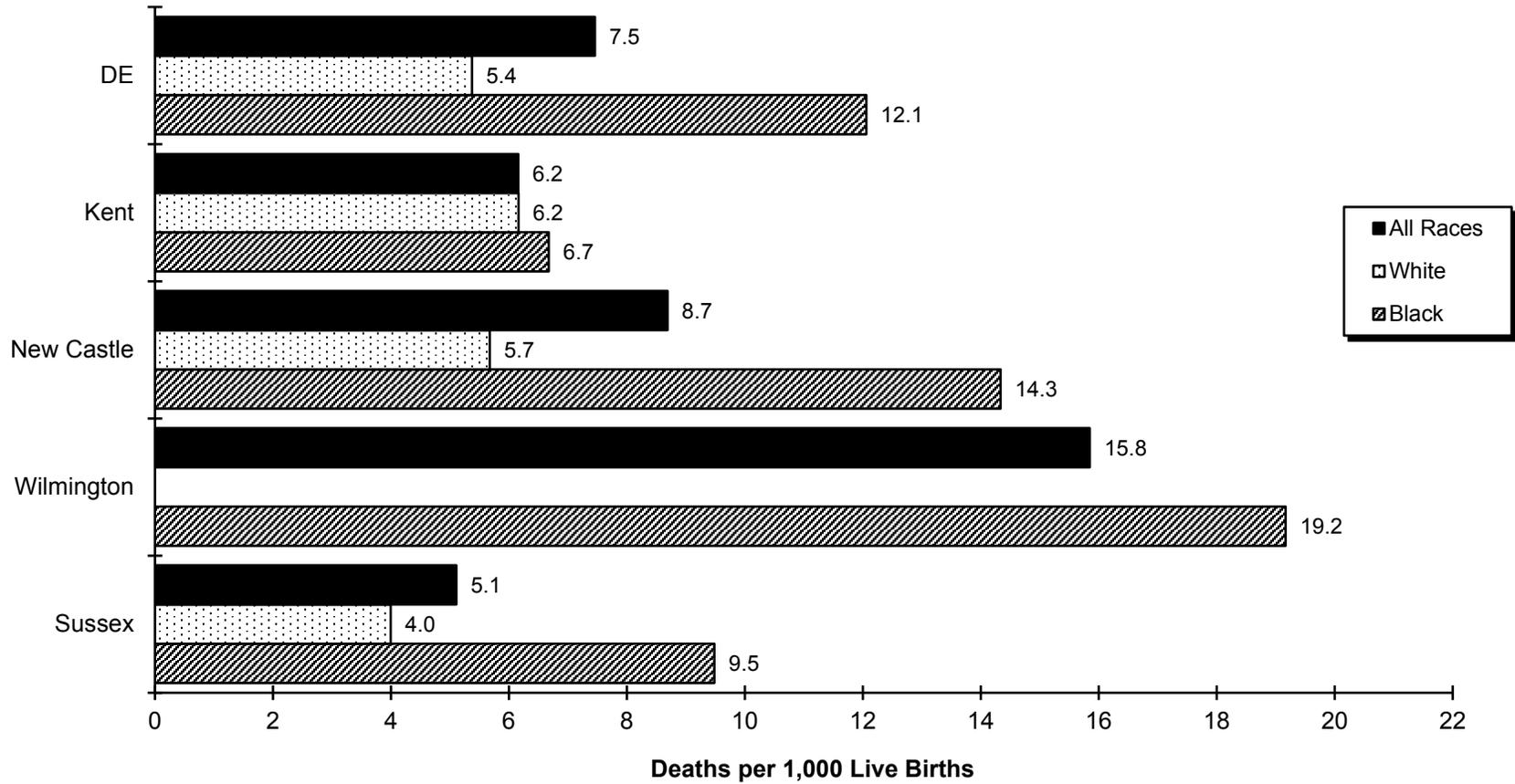
National Center for Health Statistics, Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure E-1  
Five-Year Average Infant Mortality Rates by Race  
Delaware, 1990-2014**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure E-2**  
**Five-Year Average Infant Mortality Rates by Race**  
**Delaware, Counties and the City of Wilmington, 2010-2014**



*Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center*

TABLE E-5  
 FIVE-YEAR AVERAGE NEONATAL MORTALITY RATES BY RACE  
 U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2014

| Area/<br>Race           | 1994<br>-1998 | 1995<br>-1999 | 1996<br>-2000 | 1997<br>-2001 | 1998<br>-2002 | 1999<br>-2003 | 2000<br>-2004 | 2001<br>-2005 | 2002<br>-2006 | 2003<br>-2007 | 2004<br>-2008 | 2005<br>-2009 | 2006<br>-2010 | 2007<br>-2011 | 2008<br>-2012 | 2009<br>-2013 | 2010<br>-2014 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>U.S.</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 4.9           | 4.8           | 4.7           | 4.7           | 4.7           | 4.6           | 4.6           | 4.6           | 4.6           | 4.5           | 4.4           | 4.4           | 4.3           | 4.2           | 4.1           | 4.1           | 4.0           |
| White                   | 4.0           | 4.0           | 3.9           | 3.9           | 3.9           | 3.9           | 3.8           | 3.8           | 3.8           | 3.8           | 3.7           | 3.7           | 3.6           | 3.5           | 3.5           | 3.5           | 3.4           |
| Black                   | 9.7           | 9.6           | 9.5           | 9.5           | 9.5           | 9.5           | 9.3           | 9.2           | 9.1           | 9.0           | 8.7           | 8.6           | 8.3           | 8.0           | 7.7           | 7.5           | 7.4           |
| <b>Delaware</b>         |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 5.4           | 5.5+          | 5.9+          | 6.4+          | 6.7+          | 6.7+          | 6.7+          | 6.7+          | 6.4+          | 6.1+          | 5.9+          | 5.9+          | 5.6+          | 5.7+          | 5.8+          | 5.6+          | 5.4+          |
| White                   | 3.7           | 3.5           | 4.0           | 4.4           | 5.0+          | 5.0+          | 5.3+          | 5.0+          | 4.8+          | 4.5+          | 4.3           | 4.0           | 3.8           | 3.7           | 3.5           | 3.2           | 3.5           |
| Black                   | 10.6          | 11.9+         | 12.1+         | 12.8+         | 12.7+         | 12.2+         | 11.4+         | 12.2+         | 11.6+         | 11.2+         | 10.8+         | 11.4+         | 10.3+         | 10.4+         | 11.1+         | 10.5+         | 9.4+          |
| <b>Kent</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 5.4           | 5.5           | 5.9           | 6.1           | 7.2           | 7.0           | 7.2           | 7.0           | 6.0           | 4.3           | 4.6           | 4.7           | 4.4           | 5.0           | 5.6           | 4.8           | 4.4           |
| White                   | 3.4           | 3.4           | 4.1           | 4.6           | 7.0           | 6.5           | 6.8           | 5.5           | 4.5           | ---           | 2.9           | 2.7           | 3.5           | 4.2           | 4.3           | 3.9           | 4.4           |
| Black                   | 12.1          | 12.0          | 12.1          | 11.3          | 8.9           | 9.3           | 9.2           | 11.2          | 10.0          | 9.1           | 8.8           | 10.1          | 7.3           | 7.2           | 8.9           | 7.3           | ---           |
| <b>New Castle</b>       |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 5.0           | 5.4           | 6.1           | 6.6           | 6.9           | 7.1           | 7.0           | 7.1           | 6.9           | 6.8           | 6.5           | 6.7           | 6.2           | 6.4           | 6.7           | 6.5           | 6.4           |
| White                   | 3.1           | 3.0           | 3.7           | 4.3           | 4.5           | 5.0           | 5.3           | 5.3           | 5.1           | 5.0           | 4.8           | 4.6           | 3.9           | 3.8           | 3.7           | 3.3           | 3.5           |
| Black                   | 10.8          | 13.0          | 13.5          | 14.2          | 14.5          | 13.9          | 12.4          | 12.5          | 12.3          | 12.1          | 11.7          | 12.1          | 11.8          | 12.2          | 12.5          | 12.2          | 11.7          |
| Wilmington              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 8.0           | 8.7           | 9.8           | 9.7           | 10.1          | 9.8           | 9.1           | 9.5           | 8.9           | 9.0           | 8.9           | 9.6           | 9.0           | 9.7           | 11.6          | 12.2          | 12.4          |
| White                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |
| Black                   | 10.2          | 11.8          | 12.5          | 12.5          | 13.8          | 13.4          | 12.1          | 13.1          | 12.3          | 12.5          | 11.6          | 12.9          | 12.5          | 13.6          | 14.4          | 15.7          | 14.9          |
| Balance of<br>NC County |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 4.3           | 4.7           | 5.3           | 6.0           | 6.3           | 6.6           | 6.5           | 6.6           | 6.5           | 6.3           | 6.0           | 6.0           | 5.6           | 5.8           | 5.8           | 5.3           | 5.3           |
| White                   | 3.1           | 3.0           | 3.6           | 4.2           | 4.6           | 5.1           | 5.4           | 5.5           | 5.2           | 5.2           | 4.8           | 4.7           | 4.0           | 3.9           | 3.5           | 3.1           | 3.0           |
| Black                   | 11.4          | 14.1          | 14.4          | 15.6          | 15.1          | 14.2          | 12.5          | 12.1          | 12.3          | 11.8          | 11.8          | 11.6          | 11.5          | 11.4          | 11.6          | 10.5          | 10.3          |
| <b>Sussex</b>           |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 6.8           | 6.0           | 5.3           | 5.8           | 5.5           | 4.6           | 5.1           | 5.5           | 5.3           | 5.6           | 5.2           | 4.9           | 4.9           | 4.1           | 3.4           | 3.6           | 3.5           |
| White                   | 6.2           | 5.5           | 5.0           | 4.9           | 4.5           | 3.6           | 3.8           | 3.7           | 3.9           | 4.6           | 4.3           | 3.7           | 4.1           | 3.3           | 2.2           | 2.4           | 2.9           |
| Black                   | ---           | ---           | ---           | ---           | ---           | ---           | 9.9           | 12.1          | 10.8          | 10.3          | 9.3           | 9.8           | ---           | ---           | ---           | ---           | ---           |

**Notes:**

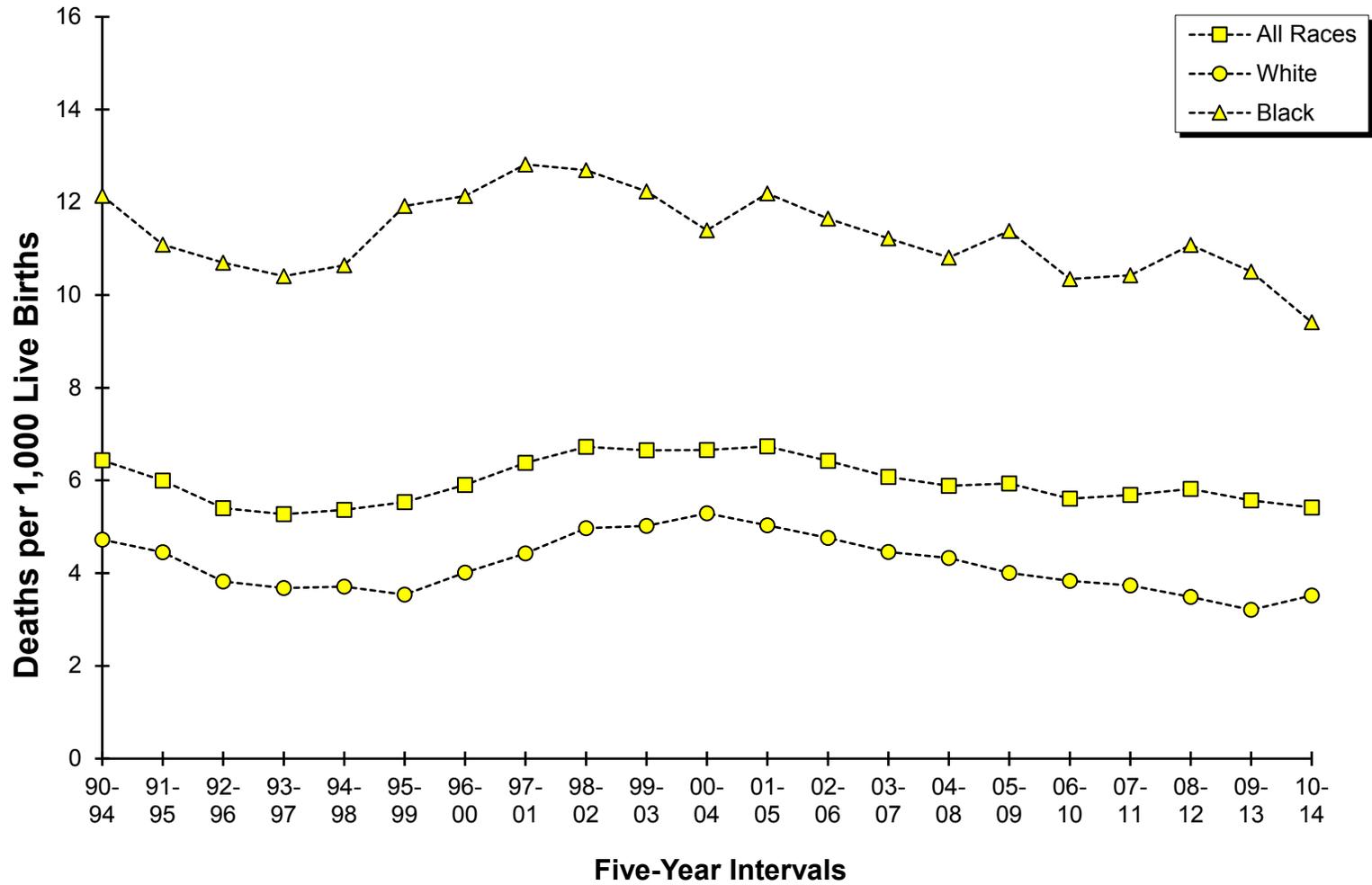
1. 2006-2010 U.S. data are based on NCHS estimates.
2. Neonatal mortality rates represent the number of deaths of children under 28 days of age per 1000 live births.
3. '+' indicates that the Delaware rate is significantly higher than the U.S. rate.
4. '---' Indicates rate does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
5. No statistical comparisons were made between the county rates and the U.S. rate due to small numbers. See Appendix C for details.

INFANTS

**Sources:**

National Center for Health Statistics  
 Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure E-3  
Five-Year Average Neonatal Mortality Rates by Race  
Delaware, 1990-2014**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-6  
 FIVE-YEAR AVERAGE POSTNEONATAL MORTALITY RATES BY RACE  
 U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2014

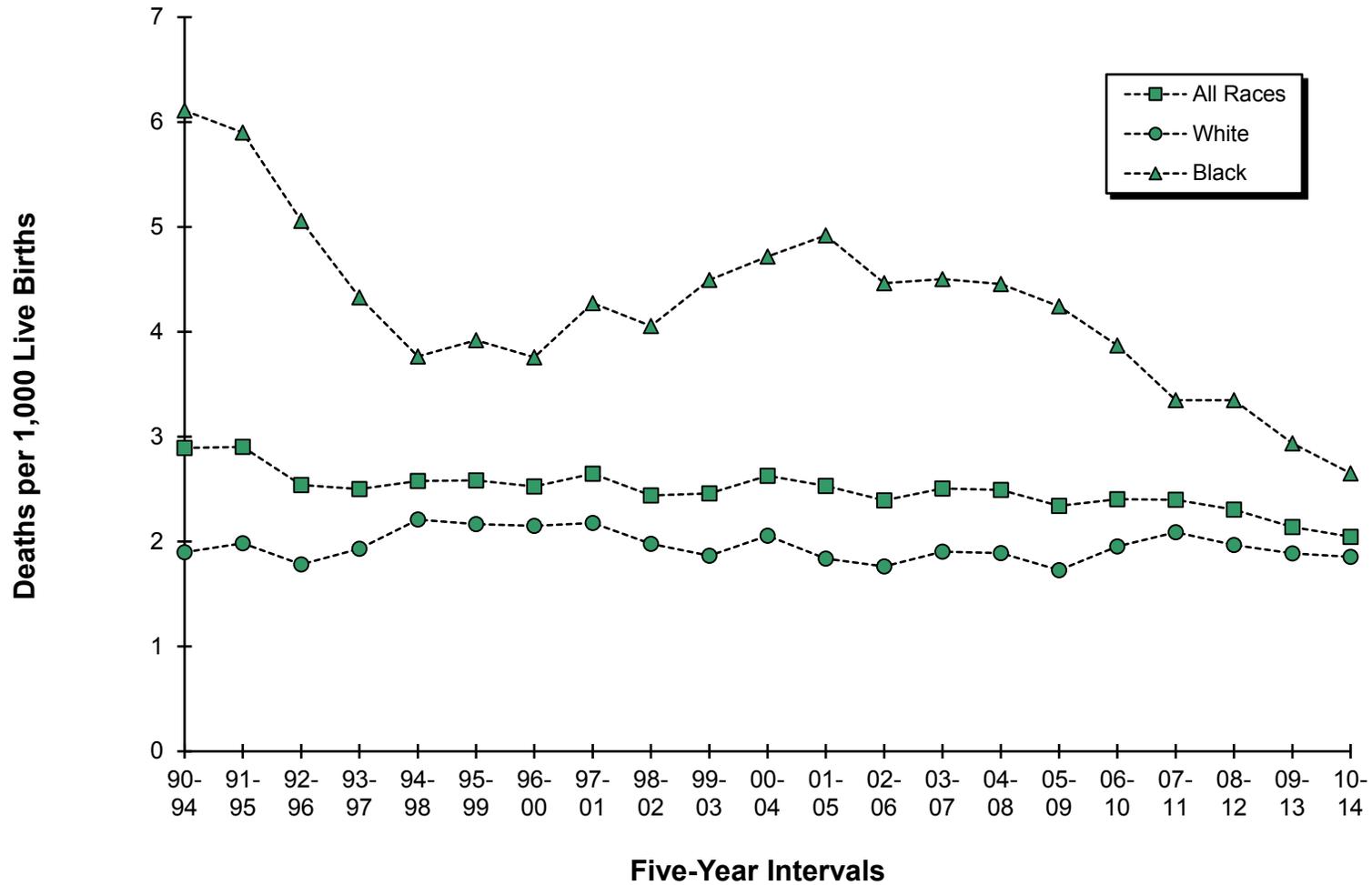
| Area/<br>Race           | 1994<br>-1998 | 1995<br>-1999 | 1996<br>-2000 | 1997<br>-2001 | 1998<br>-2002 | 1999<br>-2003 | 2000<br>-2004 | 2001<br>-2005 | 2002<br>-2006 | 2003<br>-2007 | 2004<br>-2008 | 2005<br>-2009 | 2006<br>-2010 | 2007<br>-2011 | 2008<br>-2012 | 2009<br>-2013 | 2010<br>-2014 |
|-------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>U.S.</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 2.6           | 2.5           | 2.4           | 2.4           | 2.3           | 2.3           | 2.3           | 2.3           | 2.3           | 2.3           | 2.3           | 2.3           | 2.2           | 2.2           | 2.1           | 2.0           | 2.0           |
| White                   | 2.1           | 2.0           | 2.0           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.9           | 1.8           | 1.8           | 1.7           | 1.7           |
| Black                   | 5.1           | 5.0           | 4.8           | 4.8           | 4.8           | 4.7           | 4.8           | 4.8           | 4.7           | 4.6           | 4.6           | 4.5           | 4.4           | 4.4           | 4.2           | 4.0           | 3.9           |
| <b>Delaware</b>         |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 2.6           | 2.6           | 2.5           | 2.6           | 2.4           | 2.5           | 2.6           | 2.5           | 2.4           | 2.5           | 2.5           | 2.3           | 2.4           | 2.4           | 2.3           | 2.1           | 2.0           |
| White                   | 2.2           | 2.2           | 2.2           | 2.2           | 2.0           | 1.9           | 2.1           | 1.8           | 1.8           | 1.9           | 1.9           | 1.7           | 2.0           | 2.1           | 2.0           | 1.9           | 1.9           |
| Black                   | 3.8-          | 3.9           | 3.8           | 4.3           | 4.1           | 4.5           | 4.7           | 4.9           | 4.5           | 4.5           | 4.5           | 4.2           | 3.9           | 3.3-          | 3.3           | 2.9-          | 2.7-          |
| <b>Kent</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 3.6           | 3.0           | 2.7           | 2.7           | 2.7           | 2.6           | 2.9           | 3.0           | 3.1           | 2.8           | 2.6           | 2.3           | 2.0           | 1.9           | 2.1           | 1.8           | ---           |
| White                   | 3.7           | ---           | 2.9           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |
| Black                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |
| <b>New Castle</b>       |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 2.3           | 2.5           | 2.4           | 2.5           | 2.2           | 2.3           | 2.4           | 2.3           | 2.3           | 2.5           | 2.5           | 2.3           | 2.6           | 2.7           | 2.5           | 2.4           | 2.3           |
| White                   | 1.7           | 1.9           | 1.8           | 2.0           | 1.8           | 1.8           | 1.9           | 1.8           | 1.7           | 2.0           | 2.1           | 1.9           | 2.3           | 2.4           | 2.2           | 2.1           | 2.2           |
| Black                   | 4.3           | 4.4           | 4.2           | 4.0           | 3.5           | 4.1           | 4.2           | 4.2           | 4.0           | 4.3           | 4.0           | 4.0           | 3.9           | 3.5           | 3.5           | 3.2           | 2.6           |
| Wilmington              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 4.8           | 5.0           | 4.6           | 4.3           | 3.4           | 3.7           | 3.3           | 3.3           | 3.4           | 4.0           | 4.1           | 4.2           | 5.1           | 5.2           | 4.6           | 3.7           | ---           |
| White                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |
| Black                   | 6.6           | 6.3           | 6.2           | 5.5           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | 5.1           | 5.5           | 5.5           | ---           | ---           | ---           |
| Balance of<br>NC County |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 1.7           | 1.9           | 1.9           | 2.1           | 2.0           | 2.0           | 2.3           | 2.1           | 2.0           | 2.2           | 2.1           | 1.9           | 2.1           | 2.1           | 2.1           | 2.1           | 2.1           |
| White                   | 1.6           | 1.8           | 1.8           | 1.9           | 1.8           | 1.6           | 1.9           | 1.7           | 1.6           | 1.9           | 2.0           | 1.7           | 2.0           | 2.1           | 2.0           | 2.0           | 2.2           |
| Black                   | ---           | ---           | ---           | ---           | ---           | 4.0           | 4.4           | 4.4           | 4.0           | 4.0           | 3.5           | 3.3           | 3.1           | ---           | ---           | ---           | ---           |
| <b>Sussex</b>           |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races               | 2.7           | 2.5           | 2.8           | 3.3           | 2.9           | 2.8           | 3.0           | 2.7           | 2.2           | 2.3           | 2.4           | 2.3           | 2.2           | 2.1           | 1.8           | 1.8           | ---           |
| White                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |
| Black                   | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           | ---           |

**Notes:**  
 1. 2006-2010 U.S. data are based on NCHS estimates.  
 2. Postneonatal mortality rates represent the number of deaths of children 28 to 364 days of age per 1000 live births.  
 3. "-" indicates that the Delaware rate is significantly lower than the U.S. rate.  
 4. "----" Indicates rate does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.  
 5. No statistical comparisons were made between the county rates and the U.S. rate due to small numbers. See Appendix C for details.

**Sources:**  
 National Center for Health Statistics  
 Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

INFANT6

**Figure E-4**  
**Five-Year Average Postneonatal Mortality Rates by Race**  
**Delaware, 1990-2014**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-7  
FIVE-YEAR AVERAGE INFANT MORTALITY  
RATES BY SELECTED RISK MARKERS AND RACE OF MOTHER

DELAWARE, 2009-2013 LIVE BIRTH COHORT

| Risk Factor                           | Race      |       |       |
|---------------------------------------|-----------|-------|-------|
|                                       | All Races | White | Black |
| <b>Birth Weight of Child</b>          |           |       |       |
| <2500                                 | 64.6      | 50.1  | 83.1  |
| <1500                                 | 258.6     | 216.6 | 295.4 |
| 1500-2499                             | 13.8      | 15.4  | ---   |
| 2500+                                 | 2.2       | 2.3   | 2.5   |
| <b>Age of Mother</b>                  |           |       |       |
| <20                                   | 9.6       | 8.1   | 11.5  |
| 20-24                                 | 8.3       | 6.2   | 11.7  |
| 25-29                                 | 7.2       | 5.3   | 12.5  |
| 30+                                   | 7.0       | 5.0   | 14.9  |
| <b>Marital Status of Mother</b>       |           |       |       |
| Married                               | 5.5       | 4.7   | 10.2  |
| Single                                | 9.9       | 6.9   | 13.9  |
| <b>Education of Mother</b>            |           |       |       |
| <12 years                             | 7.1       | 5.4   | 11.7  |
| H.S. diploma                          | 11.3      | 7.8   | 16.5  |
| 1+ years college                      | 5.7       | 4.6   | 9.6   |
| <b>Interval Since Last Live Birth</b> |           |       |       |
| <18 months                            | 9.5       | ---   | 14.1  |
| 18+ months                            | 5.1       | 4.3   | 7.5   |

COHRATES

**Notes:**

1. Infant mortality rates represent the number of deaths to children under one year of age per 1,000 live births.

**Source:** Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-8  
LEADING CAUSES OF INFANT DEATH BY GESTATIONAL AGE CATEGORY

DELAWARE, 2009-2013 LIVE BIRTH COHORT

| Leading causes of death   | Gestational Age Category |                    |            |          |            | % Born Very Preterm | % Born Preterm |
|---|--------------------------|--------------------|------------|----------|------------|---------------------|----------------|
|   | Very preterm             | Moderately preterm | Term       | Unknown  | Total      |                     |                |
| Disorders related to short gestation and low birth weight, not elsewhere classified | 103                      | 0                  | 2          | 1        | 106        | 97.2                | 97.2           |
| Congenital malformations, deformations, and chromosomal abnormalities               | 7                        | 23                 | 34         | 0        | 64         | 10.9                | 46.9           |
| Sudden infant death syndrome  | 2                        | 8                  | 34         | 0        | 44         | 4.5                 | 22.7           |
| Newborn affected by maternal complications of pregnancy                             | 42                       | 0                  | 0          | 0        | 42         | 100.0               | 100.0          |
| Newborn affected by complications of placenta, cord, and membranes                  | 20                       | 1                  | 0          | 0        | 21         | 95.2                | 100.0          |
| Diseases of the circulatory system  | 1                        | 3                  | 9          | 0        | 13         | 7.7                 | 30.8           |
| Respiratory distress of newborn   | 12                       | 1                  | 2          | 0        | 15         | 80.0                | 86.7           |
| Atelectasis   | 3                        | 0                  | 0          | 0        | 3          | 100.0               | 100.0          |
| Accidents (unintentional injuries)  | 1                        | 0                  | 6          | 0        | 7          | 14.3                | 14.3           |
| Bacterial sepsis of newborn   | 5                        | 0                  | 2          | 0        | 7          | 71.4                | 71.4           |
| Intrauterine hypoxia and birth asphyxia   | 5                        | 0                  | 2          | 1        | 8          | 62.5                | 62.5           |
| Neonatal hemorrhage   | 3                        | 0                  | 0          | 0        | 3          | 100.0               | 100.0          |
| Septicemia  | 2                        | 0                  | 1          | 0        | 3          | 66.7                | 66.7           |
| Diarrhea and gastroenteritis of infectious origin                                   | 7                        | 0                  | 1          | 0        | 8          | 87.5                | 87.5           |
| Gastritis, duodenitis, and noninfective enteritis and colitis                       | 0                        | 1                  | 0          | 0        | 1          | 0.0                 | 100.0          |
| Newborn affected by other complications of labor and delivery                       | 4                        | 0                  | 0          | 0        | 4          | 100.0               | 100.0          |
| Renal failure and other disorders of kidney period                                  | 1                        | 0                  | 0          | 0        | 1          | 100.0               | 100.0          |
| Necrotizing enterocolitis of newborn  | 2                        | 0                  | 0          | 0        | 2          | 100.0               | 100.0          |
| Assault (homicide)  | 0                        | 0                  | 4          | 0        | 4          | 0.0                 | 0.0            |
| All other causes  | 26                       | 10                 | 27         | 1        | 64         | 40.6                | 56.3           |
| <b>TOTAL</b>  | <b>248</b>               | <b>47</b>          | <b>124</b> | <b>3</b> | <b>422</b> | <b>58.8</b>         | <b>69.9</b>    |

**Notes:**

1. Leading causes of infant death are categorized using NCHS rankable causes of infant death, specific ICD-10 codes are shown in Appendix D.
2. Very preterm is defined as less than 32 weeks of gestation.
3. Moderately preterm is defined as between 32 and 36 weeks of gestation.
4. Term is defined as 37 and greater weeks of gestation.
5. The percent born preterm includes both the very preterm and moderately preterm groups.

**Source:** Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

INFLCOD

TABLE E-9  
FIVE-YEAR AVERAGE INFANT MORTALITY RATES BY RACE AND SELECTED RISK MARKERS

DELAWARE LIVE BIRTH COHORT, 1994-2013

| Parameter/<br>Race              | 1994<br>-1998 | 1995<br>-1999 | 1996<br>-2000 | 1997<br>-2001 | 1998<br>-2002 | 1999<br>-2003 | 2000<br>-2004 | 2001<br>-2005 | 2002<br>-2006 | 2003<br>-2007 | 2004<br>-2008 | 2005<br>-2009 | 2006<br>-2010 | 2007<br>-2011 | 2008<br>-2012 | 2009<br>-2013 |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>BIRTHWEIGHT</b>              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>2500+</b>                    |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 2.5           | 2.4           | 2.4           | 2.5           | 2.3           | 2.4           | 2.5           | 2.2           | 2.2           | 2.3           | 2.0           | 1.9           | 2.2           | 2.2           | 2.2           | 2.2           |
| White                           | 2.4           | 2.4           | 2.3           | 2.4           | 2.1           | 2.0           | 2.1           | 1.9           | 1.7           | 1.9           | 1.8           | 1.7           | 2.1           | 2.3           | 2.2           | 2.3           |
| Black                           | 2.8           | 2.8           | 2.8           | 3.0           | 3.0           | 3.6           | 3.9           | 3.5           | 3.6           | 3.5           | 2.9           | 2.8           | 2.7           | 2.3           | 2.5           | 2.5           |
| <b>&lt;2500</b>                 |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 64.8          | 66.5          | 69.5          | 75.2          | 76.4          | 74.2          | 73.1          | 74.5          | 69.9          | 68.8          | 69.2          | 70.6          | 65.5          | 67.1          | 68.2          | 64.6          |
| White                           | 55.4          | 53.9          | 55.9          | 63.2          | 68.7          | 67.4          | 68.8          | 68.4          | 64.3          | 60.8          | 60.0          | 58.5          | 55.6          | 54.9          | 52.8          | 50.1          |
| Black                           | 78.8          | 86.0          | 88.2          | 93.7          | 90.5          | 88.3          | 83.0          | 88.0          | 80.9          | 82.2          | 83.9          | 89.5          | 81.6          | 85.9          | 89.1          | 83.1          |
| <b>&lt;1500</b>                 |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 258.5         | 262.7         | 270.9         | 304.8         | 316.2         | 302.4         | 306.2         | 313.9         | 289.4         | 285.8         | 286.8         | 279.3         | 260.8         | 264.7         | 267.6         | 258.6         |
| White                           | 223.2         | 219.3         | 231.5         | 281.9         | 303.4         | 297.2         | 316.8         | 321.2         | 295.3         | 289.0         | 280.2         | 262.0         | 242.2         | 233.3         | 222.0         | 216.6         |
| Black                           | 296.8         | 315.8         | 312.1         | 329.8         | 335.5         | 317.0         | 301.5         | 315.7         | 289.4         | 286.0         | 291.9         | 298.9         | 283.9         | 295.1         | 309.2         | 295.4         |
| <b>GESTATION</b>                |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>37+ weeks</b>                |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 2.6           | 2.6           | 2.5           | 2.5           | 2.3           | 2.3           | 2.4           | 2.2           | 2.2           | 2.3           | 2.0           | 2.0           | 2.4           | 2.6           | 2.6           | 2.5           |
| White                           | 2.6           | 2.6           | 2.4           | 2.3           | 2.1           | 1.9           | 2.0           | 1.7           | 1.8           | 1.9           | 1.8           | 1.8           | 2.4           | 2.7           | 2.7           | 2.6           |
| Black                           | 2.8           | 2.7           | 2.8           | 3.1           | 2.9           | 3.7           | 4.0           | 3.4           | 3.4           | 3.4           | 2.9           | 2.7           | 2.8           | 2.7           | 2.8           | 2.7           |
| <b>&lt;37 weeks</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 45.6          | 45.9          | 48.2          | 53.0          | 54.3          | 52.8          | 52.6          | 53.5          | 49.1          | 47.1          | 47.0          | 47.3          | 43.6          | 44.3          | 45.5          | 44.0          |
| White                           | 35.4          | 33.6          | 35.7          | 41.8          | 45.5          | 45.1          | 46.5          | 45.2          | 40.5          | 37.5          | 36.2          | 34.9          | 33.0          | 32.3          | 30.9          | 30.3          |
| Black                           | 64.1          | 69.6          | 70.5          | 73.5          | 72.5          | 70.5          | 67.7          | 72.7          | 68.2          | 66.9          | 68.3          | 71.1          | 64.0          | 66.3          | 69.7          | 65.4          |
| <b>&lt;32 weeks</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 199.8         | 201.3         | 214.9         | 238.1         | 249.6         | 238.7         | 239.4         | 249.1         | 232.4         | 220.4         | 220.4         | 216.9         | 195.0         | 195.7         | 198.7         | 190.8         |
| White                           | 179.4         | 174.0         | 191.5         | 228.4         | 249.2         | 238.2         | 244.0         | 248.3         | 223.0         | 202.7         | 193.2         | 184.8         | 159.9         | 153.0         | 144.2         | 140.1         |
| Black                           | 222.2         | 235.6         | 238.7         | 250.4         | 255.4         | 246.3         | 239.8         | 259.4         | 250.0         | 246.4         | 255.2         | 258.8         | 237.4         | 240.9         | 250.4         | 234.6         |
| <b>PLURALITY</b>                |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>Single</b>                   |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 6.7           | 6.8           | 6.9           | 7.3           | 7.3           | 7.3           | 7.5           | 7.4           | 7.1           | 7.2           | 7.0           | 7.0           | 7.0           | 7.0           | 6.9           | 6.7           |
| White                           | 5.1           | 5.1           | 4.9           | 5.2           | 5.4           | 5.2           | 5.6           | 5.4           | 5.1           | 5.2           | 5.2           | 4.9           | 5.4           | 5.4           | 5.1           | 4.9           |
| Black                           | 11.5          | 12.2          | 12.9          | 13.4          | 13.4          | 13.8          | 13.5          | 13.6          | 13.0          | 12.8          | 12.2          | 12.7          | 11.8          | 11.6          | 11.7          | 11.3          |
| <b>Plural</b>                   |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 39.3          | 41.6          | 45.4          | 53.1          | 52.9          | 52.3          | 50.3          | 52.0          | 47.0          | 44.0          | 40.3          | 41.0          | 32.6          | 34.2          | 35.0          | 34.5          |
| White                           | 30.4          | 28.6          | 35.1          | 43.4          | 48.0          | 50.3          | 49.2          | 49.9          | 44.0          | 36.6          | 29.6          | 30.6          | 23.0          | 23.5          | 23.2          | 25.6          |
| Black                           | 68.7          | 84.6          | 73.0          | 80.7          | 68.5          | 60.8          | 54.1          | 64.6          | 59.1          | 63.5          | 67.7          | 69.5          | 54.4          | 55.5          | 60.4          | 50.4          |
| <b>SMOKING DURING PREGNANCY</b> |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>No</b>                       |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 7.1           | 7.4           | 7.6           | 8.1           | 8.0           | 8.2           | 8.2           | 8.2           | 7.9           | 7.7           | 7.4           | 7.6           | 7.4           | 7.4           | 7.4           | 7.2           |
| White                           | 5.2           | 5.3           | 5.3           | 5.7           | 5.8           | 5.9           | 6.2           | 6.1           | 6.0           | 5.7           | 5.4           | 5.3           | 5.6           | 5.5           | 5.4           | 5.2           |
| Black                           | 12.7          | 14.0          | 14.3          | 15.3          | 14.8          | 15.0          | 14.3          | 14.7          | 13.7          | 13.4          | 13.2          | 13.9          | 12.9          | 12.9          | 13.2          | 12.3          |
| <b>Yes</b>                      |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                       | 10.6          | 10.6          | 11.3          | 13.4          | 15.1          | 14.1          | 14.8          | 15.1          | 13.4          | 13.9          | 13.3          | 12.1          | 10.7          | 10.8          | 10.0          | 9.7           |
| White                           | 9.4           | 9.3           | 9.8           | 12.2          | 14.2          | 12.7          | 13.3          | 13.0          | 10.2          | 10.7          | 10.7          | 8.9           | 8.2           | 8.9           | 7.6           | 7.2           |
| Black                           | 15.3          | 16.3          | 17.3          | 18.0          | 18.9          | 19.4          | 19.5          | 22.0          | 23.9          | 23.8          | 21.2          | 21.5          | 17.5          | 15.8          | 15.9          | 15.7          |

TABLE E-9 (continued)  
 FIVE-YEAR AVERAGE INFANT MORTALITY RATES BY RACE AND SELECTED RISK  
 MARKERS

DELAWARE LIVE BIRTH COHORT, 1993-2013

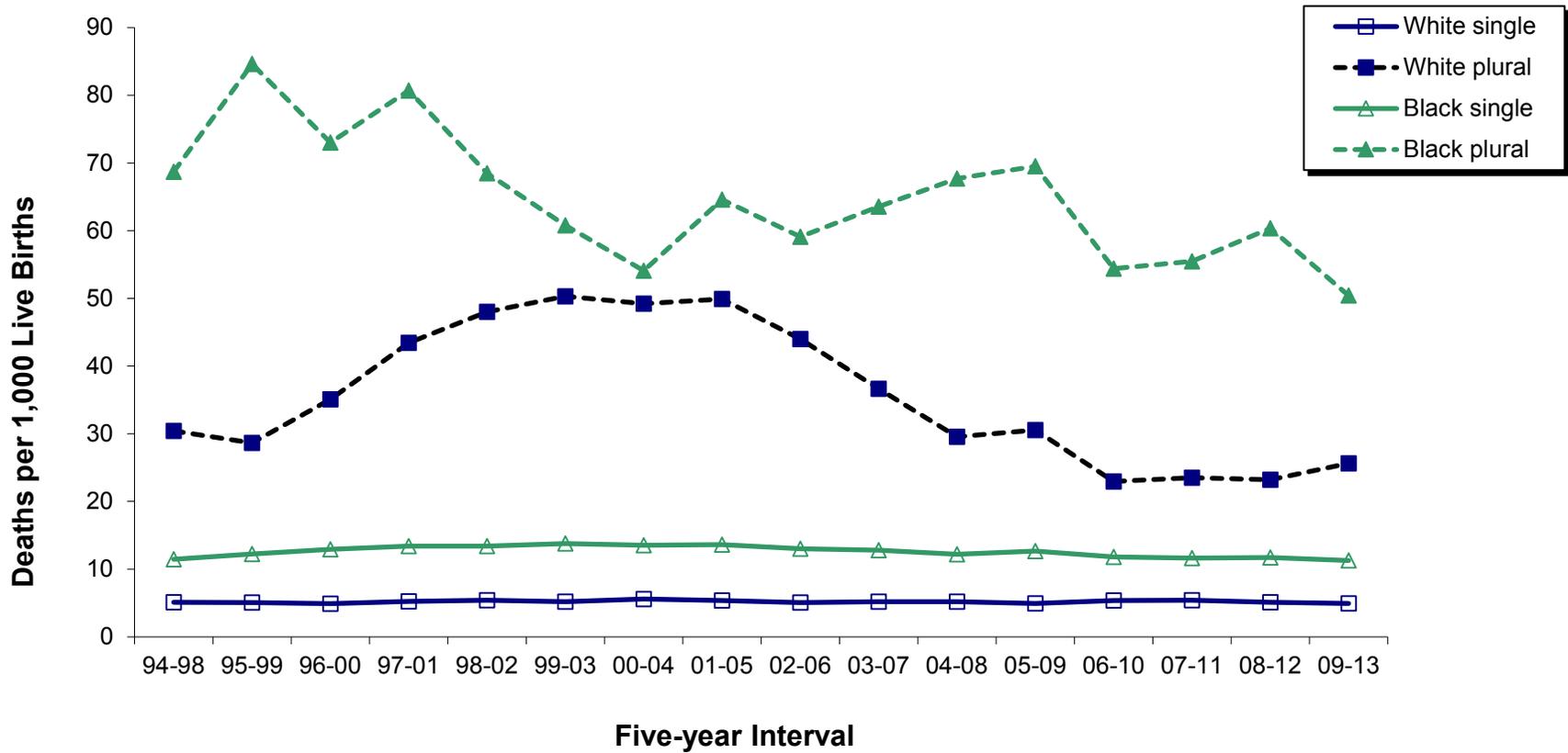
| Parameter/<br>Race          | 1993<br>-1997 | 1994<br>-1998 | 1995<br>-1999 | 1996<br>-2000 | 1997<br>-2001 | 1998<br>-2002 | 1999<br>-2003 | 2000<br>-2004 | 2001<br>-2005 | 2002<br>-2006 | 2003<br>-2007 | 2004<br>-2008 | 2005<br>-2009 | 2006<br>-2010 | 2007<br>-2011 | 2008<br>-2012 | 2009<br>-2013 |
|-----------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>EDUCATION</b>            |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>HS Grad or less</b>      |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                   | 9.4           | 9.9           | 10.4          | 10.3          | 11.1          | 11.5          | 11.4          | 11.4          | 11.1          | 10.7          | 10.8          | 10.1          | 10.0          | 10.0          | 10.0          | 9.5           | 9.5           |
| White                       | 7.2           | 8.0           | 8.0           | 7.8           | 8.4           | 9.1           | 8.8           | 9.1           | 8.7           | 8.3           | 8.4           | 7.8           | 7.6           | 7.7           | 7.6           | 6.7           | 6.7           |
| Black                       | 14.3          | 14.3          | 15.8          | 15.6          | 16.8          | 16.9          | 17.2          | 16.9          | 17.2          | 16.6          | 16.4          | 15.4          | 15.4          | 14.8          | 14.8          | 15.1          | 14.7          |
| <b>1+ yrs college</b>       |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                   | 4.9           | 4.9           | 4.9           | 5.5           | 6.1           | 6.0           | 6.0           | 6.0           | 6.3           | 5.8           | 5.4           | 5.6           | 5.9           | 5.6           | 5.8           | 6.2           | 5.7           |
| White                       | 3.9           | 3.7           | 3.6           | 4.1           | 4.6           | 4.7           | 4.7           | 5.0           | 5.0           | 4.5           | 4.1           | 4.2           | 4.1           | 4.3           | 4.6           | 4.9           | 4.6           |
| Black                       | 10.2          | 10.5          | 11.8          | 13.5          | 13.9          | 12.6          | 12.2          | 11.0          | 12.0          | 11.1          | 10.9          | 11.4          | 13.1          | 11.2          | 10.8          | 11.0          | 9.6           |
| <b>PAYMENT FOR DELIVERY</b> |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| <b>Medicaid</b>             |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                   | 10.0          | 10.3          | 10.9          | 9.9           | 10.6          | 10.1          | 9.5           | 9.8           | 10.2          | 9.6           | 10.4          | 10.2          | 9.9           | 9.5           | 9.3           | 8.8           | 8.5           |
| White                       | 7.9           | 8.8           | 9.1           | 7.7           | 8.6           | 8.3           | 7.1           | 7.5           | 7.7           | 7.1           | 8.0           | 8.0           | 7.5           | 7.5           | 7.0           | 6.3           | 6.0           |
| Black                       | 12.9          | 12.7          | 13.6          | 13.1          | 13.8          | 13.0          | 13.3          | 13.7          | 14.7          | 14.0          | 14.4          | 14.1          | 14.1          | 13.0          | 13.3          | 13.3          | 12.8          |
| <b>Private Insurance</b>    |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| All Races                   | 5.3           | 5.5           | 5.7           | 6.5           | 6.8           | 7.4           | 7.7           | 7.8           | 7.6           | 7.4           | 6.7           | 6.4           | 6.6           | 6.4           | 6.4           | 6.6           | 6.4           |
| White                       | 4.2           | 4.2           | 4.3           | 4.9           | 5.2           | 5.7           | 5.9           | 6.1           | 5.8           | 5.6           | 5.0           | 4.6           | 4.5           | 4.7           | 5.0           | 4.9           | 4.9           |
| Black                       | 11.6          | 12.8          | 13.7          | 14.8          | 15.6          | 16.5          | 17.1          | 16.9          | 17.0          | 16.6          | 15.3          | 15.0          | 16.4          | 14.8          | 13.7          | 14.6          | 13.0          |

COTREND

**Notes:**  
 1. See the Basic Definitions' section for definitions of birthweight, gestation, prenatal care attainment, and plurality.  
 2. "--" indicates rate does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.  
 3. Primary source of payment for delivery not available prior to 1991.

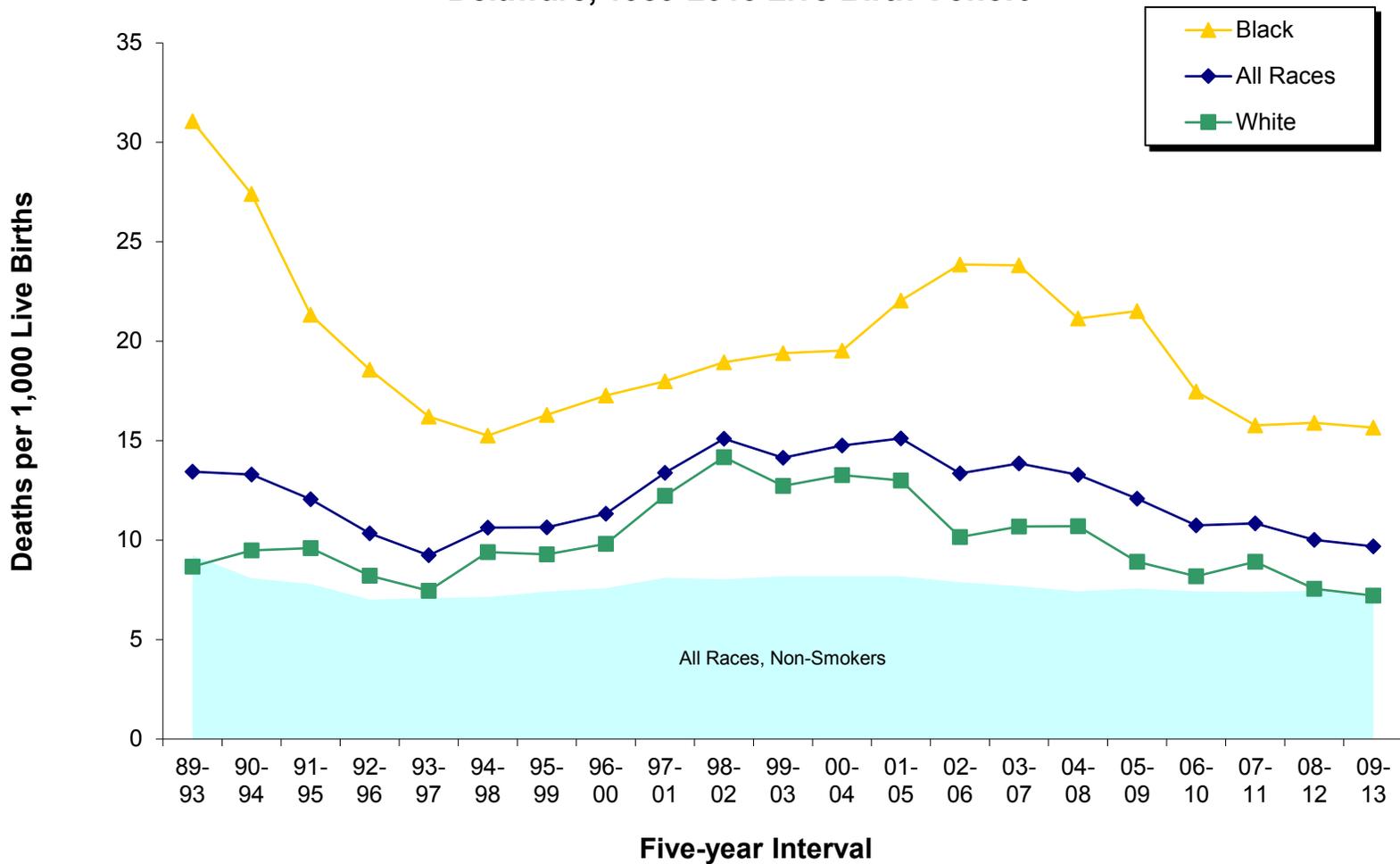
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure E-5**  
**Five-year Average Infant Mortality Rates by Race and Plurality**  
**Delaware, 1994-2013 Live Birth Cohort**



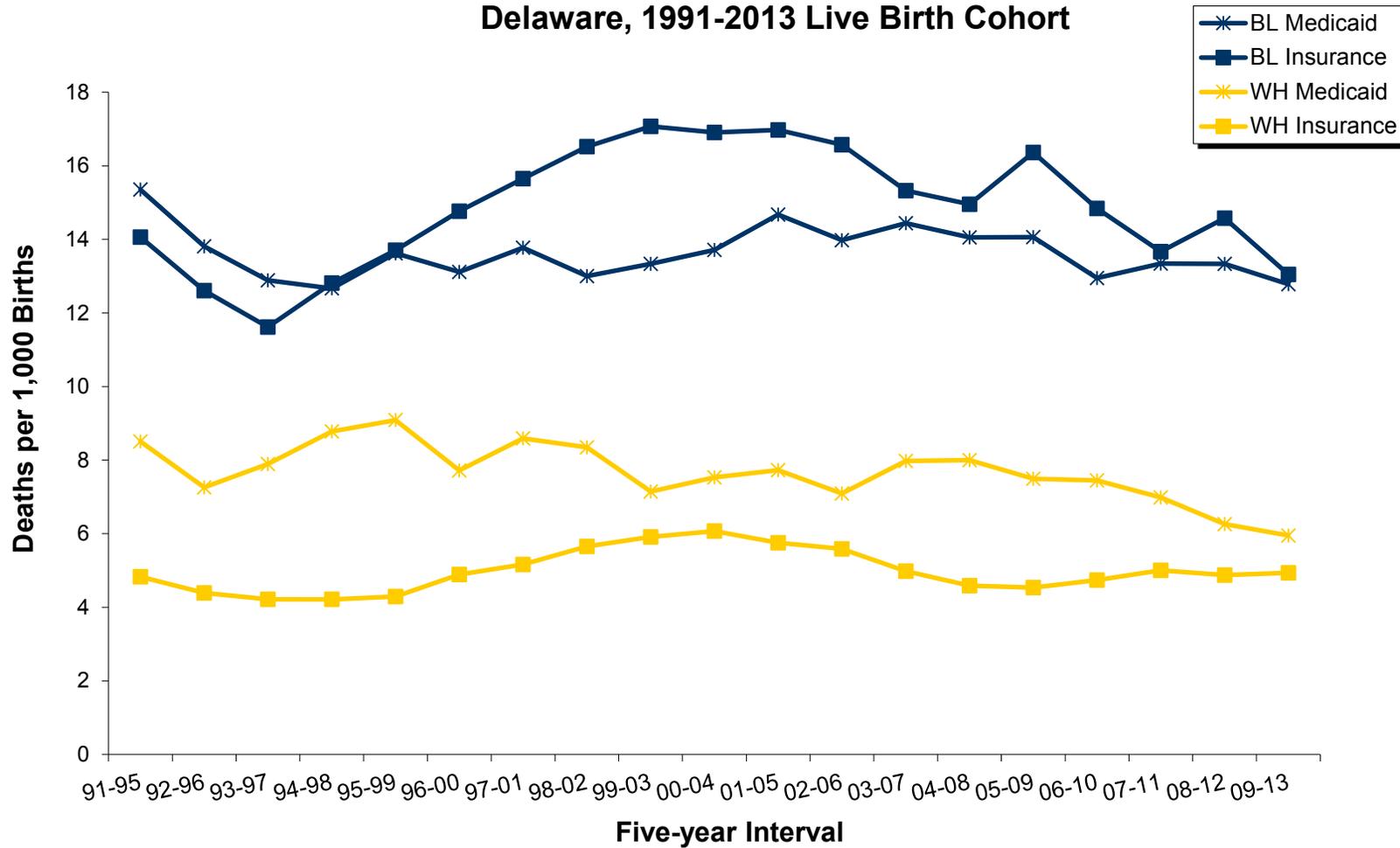
Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

**Figure E-6**  
**Five-year Average Infant Mortality Rates by Race of Mothers who Smoked during Pregnancy versus all Non-smoking Mothers**  
**Delaware, 1989-2013 Live Birth Cohort**



Source: Delaware Health and Social Services, Division of Public Health, Health Statistics Center

**Figure E-7**  
**Five-year Average Infant Mortality Rates by Race and**  
**Source of Payment for Delivery**  
**Delaware, 1991-2013 Live Birth Cohort**



Source: Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-10  
NUMBER OF INFANT DEATHS BY PLURALITY, BIRTH WEIGHT IN GRAMS, RACE OF MOTHER AND SEX OF CHILD  
DELAWARE, 2009-2013 LIVE BIRTH COHORT

| Plurality/<br>Birth Weight | Race and Sex  |      |        |               |      |        |               |      |        |               |      |
|----------------------------|---------------|------|--------|---------------|------|--------|---------------|------|--------|---------------|------|
|                            | All Races     |      |        | White         |      |        | Black         |      |        | Other         |      |
|                            | Both<br>Sexes | Male | Female | Both<br>Sexes | Male | Female | Both<br>Sexes | Male | Female | Both<br>Sexes | Male |
| <b>All Births</b>          | 422           | 232  | 190    | 207           | 106  | 101    | 197           | 113  | 84     | 18            | 13   |
| <2500                      | 307           | 180  | 127    | 126           | 74   | 52     | 164           | 94   | 70     | 17            | 12   |
| <1500                      | 255           | 155  | 100    | 94            | 59   | 35     | 148           | 87   | 61     | 13            | 9    |
| <500                       | 123           | 67   | 56     | 34            | 16   | 18     | 80            | 45   | 35     | 9             | 6    |
| 500-999                    | 114           | 76   | 38     | 47            | 33   | 14     | 63            | 40   | 23     | 4             | 3    |
| 1000-1499                  | 18            | 12   | 6      | 13            | 10   | 3      | 5             | 2    | 3      | 0             | 0    |
| 1500-1999                  | 25            | 14   | 11     | 17            | 10   | 7      | 6             | 3    | 3      | 2             | 1    |
| 2000-2499                  | 27            | 11   | 16     | 15            | 5    | 10     | 10            | 4    | 6      | 2             | 2    |
| 2500+                      | 112           | 50   | 62     | 78            | 30   | 48     | 33            | 19   | 14     | 1             | 1    |
| 2500-2999                  | 43            | 18   | 25     | 29            | 13   | 16     | 13            | 4    | 9      | 1             | 1    |
| 3000-3499                  | 39            | 17   | 22     | 25            | 7    | 18     | 14            | 10   | 4      | 0             | 0    |
| 3500-3999                  | 25            | 12   | 13     | 20            | 8    | 12     | 5             | 4    | 1      | 0             | 0    |
| 4000-4499                  | 5             | 3    | 2      | 4             | 2    | 2      | 1             | 1    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 3             | 2    | 1      | 3             | 2    | 1      | 0             | 0    | 0      | 0             | 0    |
| <b>Single Births</b>       | 358           | 197  | 161    | 177           | 89   | 88     | 166           | 97   | 69     | 15            | 11   |
| <2500                      | 250           | 147  | 103    | 102           | 59   | 43     | 134           | 78   | 56     | 14            | 10   |
| <1500                      | 201           | 124  | 77     | 72            | 46   | 26     | 119           | 71   | 48     | 10            | 7    |
| <500                       | 97            | 52   | 45     | 28            | 13   | 15     | 63            | 35   | 28     | 6             | 4    |
| 500-999                    | 91            | 64   | 27     | 36            | 27   | 9      | 51            | 34   | 17     | 4             | 3    |
| 1000-1499                  | 13            | 8    | 5      | 8             | 6    | 2      | 5             | 2    | 3      | 0             | 0    |
| 1500-1999                  | 24            | 13   | 11     | 16            | 9    | 7      | 6             | 3    | 3      | 2             | 1    |
| 2000-2499                  | 25            | 10   | 15     | 14            | 4    | 10     | 9             | 4    | 5      | 2             | 2    |
| 2500+                      | 105           | 48   | 57     | 72            | 28   | 44     | 32            | 19   | 13     | 1             | 1    |
| 2500-2999                  | 40            | 17   | 23     | 27            | 12   | 15     | 12            | 4    | 8      | 1             | 1    |
| 3000-3499                  | 36            | 16   | 20     | 22            | 6    | 16     | 14            | 10   | 4      | 0             | 0    |
| 3500-3999                  | 24            | 12   | 12     | 19            | 8    | 11     | 5             | 4    | 1      | 0             | 0    |
| 4000-4499                  | 5             | 3    | 2      | 4             | 2    | 2      | 1             | 1    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 3             | 2    | 1      | 3             | 2    | 1      | 0             | 0    | 0      | 0             | 0    |
| <b>Plural Births</b>       | 64            | 35   | 29     | 30            | 17   | 13     | 31            | 16   | 15     | 3             | 2    |
| <2500                      | 57            | 33   | 24     | 24            | 15   | 9      | 30            | 16   | 14     | 3             | 2    |
| <1500                      | 54            | 31   | 23     | 22            | 13   | 9      | 29            | 16   | 13     | 3             | 2    |
| <500                       | 26            | 15   | 11     | 6             | 3    | 3      | 17            | 10   | 7      | 3             | 2    |
| 500-999                    | 23            | 12   | 11     | 11            | 6    | 5      | 12            | 6    | 6      | 0             | 0    |
| 1000-1499                  | 5             | 4    | 1      | 5             | 4    | 1      | 0             | 0    | 0      | 0             | 0    |
| 1500-1999                  | 1             | 1    | 0      | 1             | 1    | 0      | 0             | 0    | 0      | 0             | 0    |
| 2000-2499                  | 2             | 1    | 1      | 1             | 1    | 0      | 1             | 0    | 1      | 0             | 0    |
| 2500+                      | 7             | 2    | 5      | 6             | 2    | 4      | 1             | 0    | 1      | 0             | 0    |
| 2500-2999                  | 3             | 1    | 2      | 2             | 1    | 1      | 1             | 0    | 1      | 0             | 0    |
| 3000-3499                  | 3             | 1    | 2      | 3             | 1    | 2      | 0             | 0    | 0      | 0             | 0    |
| 3500-3999                  | 1             | 0    | 1      | 1             | 0    | 1      | 0             | 0    | 0      | 0             | 0    |
| 4000-4499                  | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |

PLBWRCSX

**Note:**  
Infant deaths refer to deaths of children under one year of age.

**Source:** Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center

TABLE E-11  
NUMBER OF NEONATAL DEATHS BY PLURALITY, BIRTH WEIGHT IN GRAMS, RACE OF MOTHER AND SEX OF CHILD  
DELAWARE, 2009-2013 LIVE BIRTH COHORT

| Plurality/<br>Birth Weight | Race and Sex  |      |        |               |      |        |               |      |        |               |      |
|----------------------------|---------------|------|--------|---------------|------|--------|---------------|------|--------|---------------|------|
|                            | All Races     |      |        | White         |      |        | Black         |      |        | Other         |      |
|                            | Both<br>Sexes | Male | Female | Both<br>Sexes | Male | Female | Both<br>Sexes | Male | Female | Both<br>Sexes | Male |
| <b>All Births</b>          | 306           | 182  | 124    | 128           | 73   | 55     | 160           | 96   | 64     | 18            | 13   |
| <2500                      | 265           | 157  | 108    | 101           | 59   | 42     | 147           | 86   | 61     | 17            | 12   |
| <1500                      | 236           | 143  | 93     | 85            | 52   | 33     | 138           | 82   | 56     | 13            | 9    |
| <500                       | 123           | 67   | 56     | 34            | 16   | 18     | 80            | 45   | 35     | 9             | 6    |
| 500-999                    | 99            | 66   | 33     | 40            | 27   | 13     | 55            | 36   | 19     | 4             | 3    |
| 1000-1499                  | 14            | 10   | 4      | 11            | 9    | 2      | 3             | 1    | 2      | 0             | 0    |
| 1500-1999                  | 15            | 9    | 6      | 8             | 5    | 3      | 5             | 3    | 2      | 2             | 1    |
| 2000-2499                  | 14            | 5    | 9      | 8             | 2    | 6      | 4             | 1    | 3      | 2             | 2    |
| 2500+                      | 39            | 23   | 16     | 25            | 12   | 13     | 13            | 10   | 3      | 1             | 1    |
| 2500-2999                  | 16            | 11   | 5      | 11            | 7    | 4      | 4             | 3    | 1      | 1             | 1    |
| 3000-3499                  | 12            | 5    | 7      | 6             | 1    | 5      | 6             | 4    | 2      | 0             | 0    |
| 3500-3999                  | 8             | 6    | 2      | 5             | 3    | 2      | 3             | 3    | 0      | 0             | 0    |
| 4000-4499                  | 3             | 1    | 2      | 3             | 1    | 2      | 0             | 0    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 2             | 2    | 0      | 2             | 2    | 0      | 0             | 0    | 0      | 0             | 0    |
| <b>Single Births</b>       | 250           | 150  | 100    | 103           | 59   | 44     | 132           | 80   | 52     | 15            | 11   |
| <2500                      | 213           | 127  | 86     | 80            | 47   | 33     | 119           | 70   | 49     | 14            | 10   |
| <1500                      | 184           | 113  | 71     | 64            | 40   | 24     | 110           | 66   | 44     | 10            | 7    |
| <500                       | 97            | 52   | 45     | 28            | 13   | 15     | 63            | 35   | 28     | 6             | 4    |
| 500-999                    | 77            | 54   | 23     | 29            | 21   | 8      | 44            | 30   | 14     | 4             | 3    |
| 1000-1499                  | 10            | 7    | 3      | 7             | 6    | 1      | 3             | 1    | 2      | 0             | 0    |
| 1500-1999                  | 15            | 9    | 6      | 8             | 5    | 3      | 5             | 3    | 2      | 2             | 1    |
| 2000-2499                  | 14            | 5    | 9      | 8             | 2    | 6      | 4             | 1    | 3      | 2             | 2    |
| 2500+                      | 35            | 21   | 14     | 21            | 10   | 11     | 13            | 10   | 3      | 1             | 1    |
| 2500-2999                  | 15            | 10   | 5      | 10            | 6    | 4      | 4             | 3    | 1      | 1             | 1    |
| 3000-3499                  | 9             | 4    | 5      | 3             | 0    | 3      | 6             | 4    | 2      | 0             | 0    |
| 3500-3999                  | 8             | 6    | 2      | 5             | 3    | 2      | 3             | 3    | 0      | 0             | 0    |
| 4000-4499                  | 3             | 1    | 2      | 3             | 1    | 2      | 0             | 0    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 2             | 2    | 0      | 2             | 2    | 0      | 0             | 0    | 0      | 0             | 0    |
| <b>Plural Births</b>       | 56            | 32   | 24     | 25            | 14   | 11     | 28            | 16   | 12     | 3             | 2    |
| <2500                      | 52            | 30   | 22     | 21            | 12   | 9      | 28            | 16   | 12     | 3             | 2    |
| <1500                      | 52            | 30   | 22     | 21            | 12   | 9      | 28            | 16   | 12     | 3             | 2    |
| <500                       | 26            | 15   | 11     | 6             | 3    | 3      | 17            | 10   | 7      | 3             | 2    |
| 500-999                    | 22            | 12   | 10     | 11            | 6    | 5      | 11            | 6    | 5      | 0             | 0    |
| 1000-1499                  | 4             | 3    | 1      | 4             | 3    | 1      | 0             | 0    | 0      | 0             | 0    |
| 1500-1999                  | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| 2000-2499                  | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| 2500+                      | 4             | 2    | 2      | 4             | 2    | 2      | 0             | 0    | 0      | 0             | 0    |
| 2500-2999                  | 1             | 1    | 0      | 1             | 1    | 0      | 0             | 0    | 0      | 0             | 0    |
| 3000-3499                  | 3             | 1    | 2      | 3             | 1    | 2      | 0             | 0    | 0      | 0             | 0    |
| 3500-3999                  | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| 4000-4499                  | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| 4500+                      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |
| Unknown                    | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    | 0      | 0             | 0    |

NEOPLBW

**Note:**  
Neonatal deaths refer to deaths of children under 28 days of age.

**Source:** Delaware Health and Social Services, Division of Public Health, Delaware Health Statistics Center