DELAWARE VITAL STATISTICS ANNUAL REPORT INFANT MORTALITY, 2011

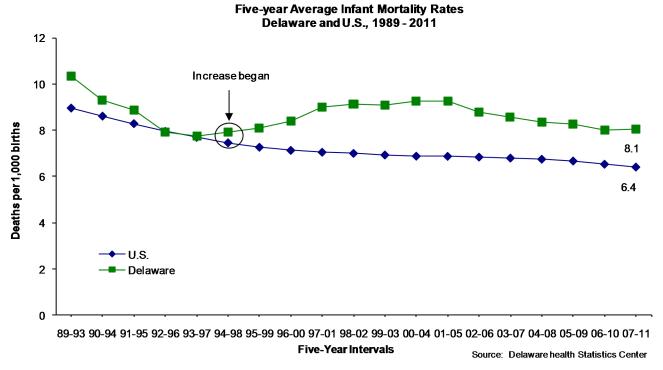


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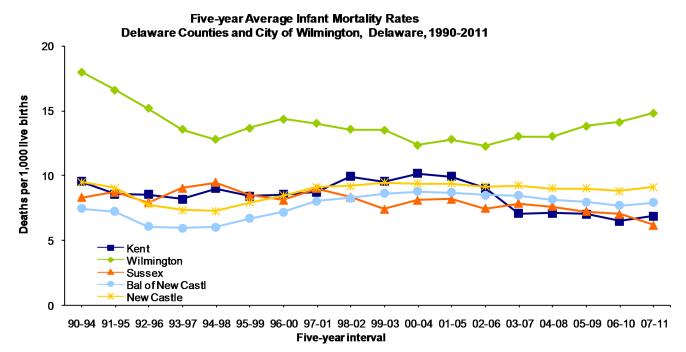
Delaware Health Statistics Center. Delaware Vital Statistics Annual Report, 2011. Delaware Department of Health and Social Services, Division of Public Health: 2015.

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Between 2006-2010 and 2007-2011, Delaware's infant mortality rate (IMR) decreased to 8.1 infant deaths per 1,000 live births, resulting in a total decline of 12.9 percent from its 2000-2004 peak of 9.3 infant deaths per 1,000 live births. At 6.4, the U.S. rate remained significantly lower than the Delaware rate.

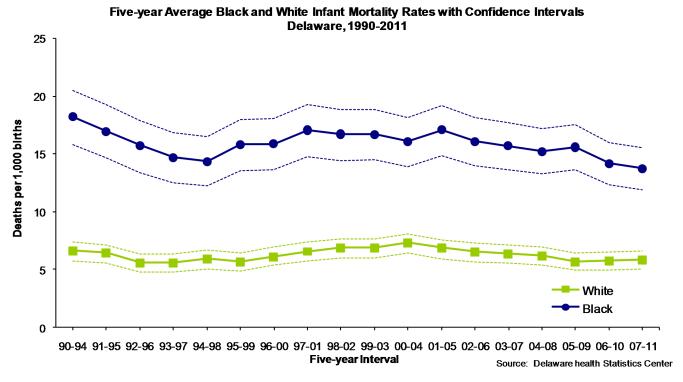


Wilmington's IMR increased for the fifth straight year. The combination of Wilmington's high IMR and a higher IMR in the balance of New Castle County, resulted in New Castle County's IMR being higher than the IMRs of both Kent and Sussex Counties. The decrease in IMR of Sussex from 2006-2010 to 2007-2011 resulted in Sussex's IMR being the lowest. In 2007-2011, the balance of New Castle County's IMR was 7.9, Wilmington's IMR was 14.8, Kent County's IMR was 6.9, and Sussex County's IMR was 6.2.

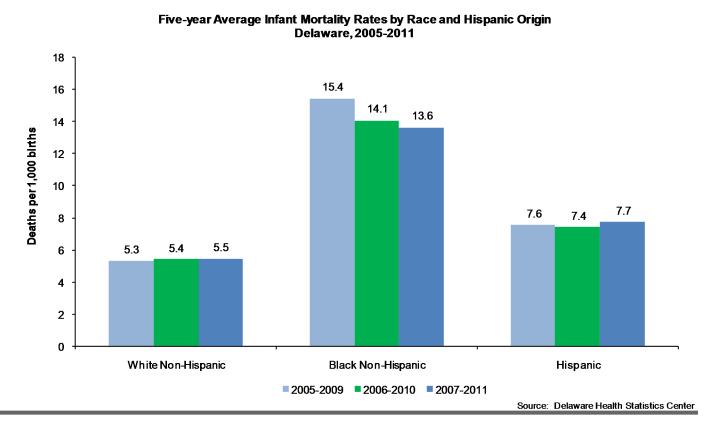


Source: Delaware health Statistics Center

Black infants experienced significantly higher mortality rates than white infants, and from 1990-1994 to 2007-2011, black IMRs were anywhere from 2.2 to 2.8 times that of white IMRs.



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 13.6 in 2007-2011 was more than double the white non-Hispanic rate of 5.5 and nearly twice the Hispanic rate of 7.7 infant deaths per 1,000 live births.

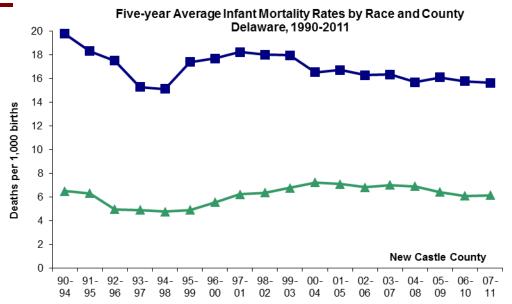


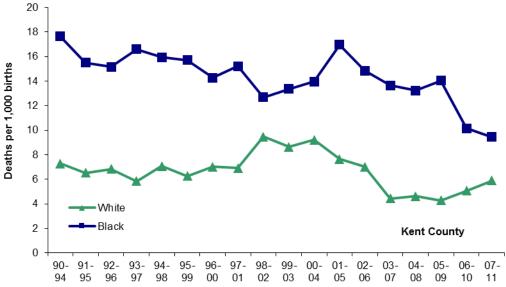
In 2007-2011, New Castle County had the highest IMRs and Sussex County had the lowest.

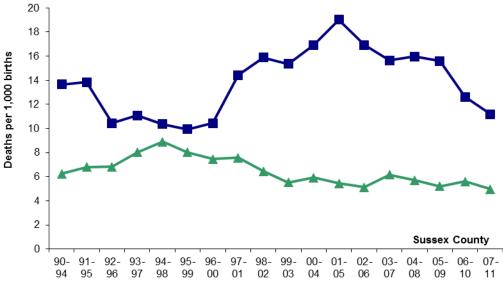
Black IMRs in New Castle County have hovered around 16 since 2002-2006, and in 2007-2011 the black IMR was 15.6 infant deaths per 1,000 live births. White IMRs remained stable at 6.2 from 2006-2010 to 2007-2011.

Black IMRs in Kent County peaked at 17 in 2001-2005; the recent drop in 2007-2011 resulted in a 45 percent reduction in black IMRs between 2001-2005 and 2007-2011. Despite increasing from their 2005-2009 rate, the white IMR in Kent County was 22 percent lower in 2007-2011 than in 2001-2005.

Sussex County's black IMR dropped to 11.2 in 2007-2011, its lowest rate since 1996-2000, and a 41 percent reduction from the 2001-2005 peak of 19. Sussex County's white IMR has fluctuated between 5 and 6 since 1999-2003, and in 2007-2011 the rate moved down to 5.0 infant deaths per 1,000 births.







Source: Delaware Health Statistics Center

INFANT MORTALITY- Leading Causes of Death

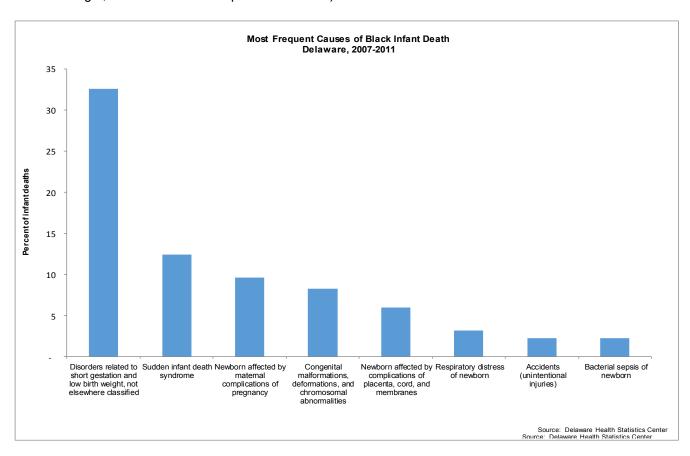
In 2007-2011 the five leading causes of infant death were:

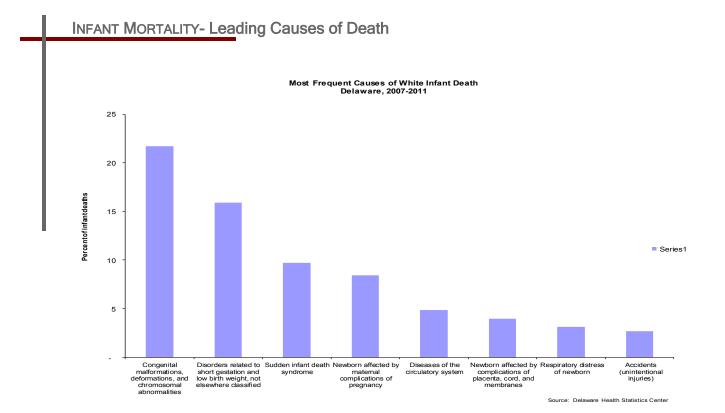
- Disorders related to short gestation and fetal malnutrition (prematurity and low birthweight), which accounted for 24.5 percent of infant deaths.
- Congenital anomalies (birth defects), which accounted for 14.9 percent of infant deaths.
- Sudden infant death syndrome (SIDS), which accounted for 10.9 percent.
- Newborn affected by maternal complications of pregnancy, which accounted for 9.4 percent of infant deaths. Of the 44 deaths attributed to this cause, 40 were due to the newborn being affected by incompetent cervix and premature rupture of membranes.
- Newborn affected by complications of placenta, cord, and membranes (4.9 percent).

In sum, the five most common causes of infant death accounted for 64.6 percent, or 303 of the 469 total infant deaths.

The most frequent causes of death by race are shown in the graphs below and on the following page. SIDS 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.

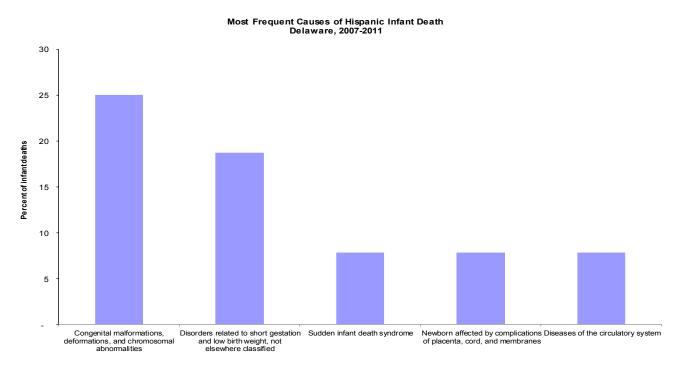
Though the proportions of deaths by race were similar for many of the causes of death, notable exceptions were birth defects, disorders due to prematurity and low birthweight, and SIDS. While birth defects were responsible for 21.7 percent of all white infant deaths, they accounted for only 8.3 percent of black infant deaths. Conversely, infant deaths due to disorders related to prematurity and low birthweight and SIDS accounted for larger percentages of black infant deaths than white infant deaths (32.6 versus 15.9 percent for prematurity and low birthweight, and 12.4 versus 9.7 percent for SIDS).





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 quadrupled. In the most recent five-year period, 2007-2011, 14.3 percent of all live births were to Hispanic mothers, and 13.6 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.

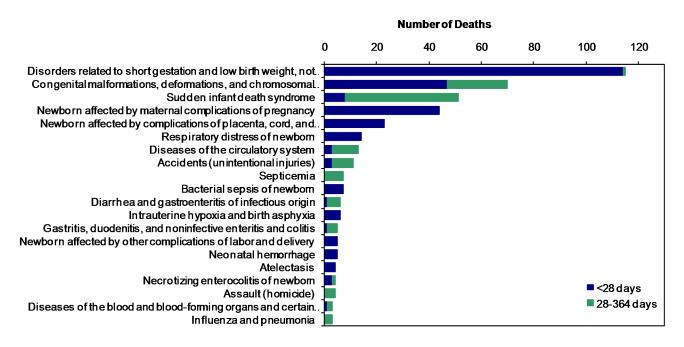


INFANT MORTALITY - Leading Causes of Death

Approximately 91 percent of all infant deaths occurred within the first six months of life, 71 percent of all infant deaths 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, 2007-2011



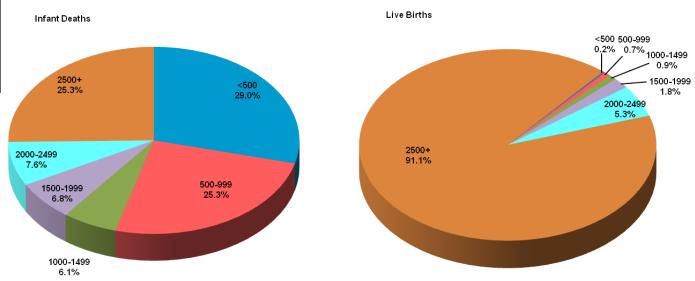
Source: Delaware Health Statistics Center

- Prematurity and low birthweight accounted for the greatest number of infant deaths in 2007-2011; 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 108 days. Though fewer infants died in 2007-2011 compared to 2006-2010, more infants died due to SIDS, which remained to be the third leading cause of infant death in 2007-2011.
 - ⇒ 43 percent (22 out of 51) of the SIDS deaths were associated with co-sleeping and/or sleeping on soft surfaces, such as couches and adult beds.
- During that same time period there were 14 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, 7.6 percent of all infant deaths in 2007-2011 were associated with co-sleeping and/or unsafe sleep practices.

INFANT MORTALITY - Live Birth Cohort

Though only 1 percent of all live births in 2006-2010 were infants weighing less than 1000 grams, they accounted for over half (54 percent) of all infant deaths. In total, 9 percent of all live births in 2006-2010 were infants of low birthweight (under 2500 grams) and 74 percent of infant deaths were low birthweight.

Distribution by Birthweight, Delaware Live Birth Cohort, 2006-2010

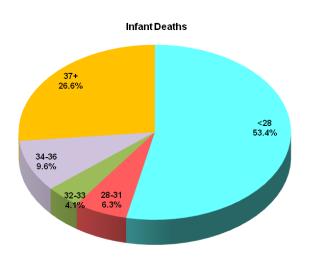


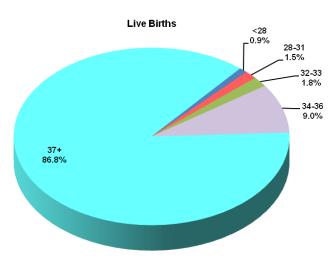
Source: Delaware Health Statistics Center

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 2006-2010 were less than 28 weeks gestation at birth, but they accounted for 53 percent of all infant deaths. In total, 13 percent of all live births in 2006-2010 were born preterm (<37 weeks of gestation) and 73 percent of infant deaths were born preterm.

Distribution by Gestation, Delaware Live Birth Cohort, 2006-2010





Source: Delaware Health Statistics Center

Source: Delaware Health Statistics Center

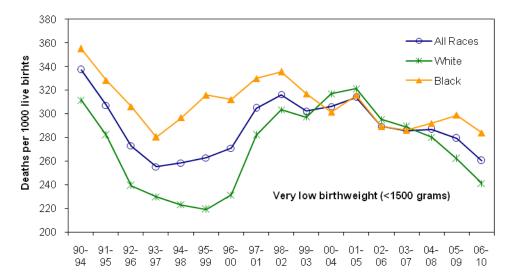
Birthweight and gestation are considered to be the most important predictors of infant health and mortality risk. Infants born too small or too early have a much greater risk of mortality than those who reach a normal birthweight (2500+ grams) or full-term gestation (37+ weeks).

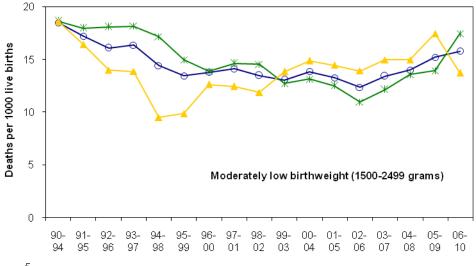
The IMR for very low birthweight (VLBW) black infants decreased in the most recent year after increasing for two years while the IMR for VLBW white infants decreased for the fifth straight year. In 2006-2010, IMRs for white and black VLBW infants were 241 and 284 infant deaths per 1,000 live births.

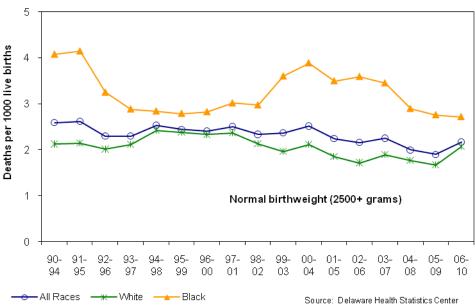
IMRs for moderately LBW infants of all races rose 14 percent between 2000-2004 and 2006-2010; during that time, white IMRs increased 32 percent while the black IMR reversed direction in 2006-2010, which made their rates lower than the white rates (13.7 vs 17.5).

As a result of the 24% increase from 2005-2009 to 2006-2010, IMRs for normal birthweight white infants experienced no net change since 2000-2004 while the IMRs for black infants declined 31 percent between 2000-2004 and 2006-2010. The divergent movement in black and white rates in the most recent year narrowed the black/white disparity ratio. In 2006-2010, the black IMR for normal birthweight infant was 2.7, versus 2.1 for white infant of normal birthweight.

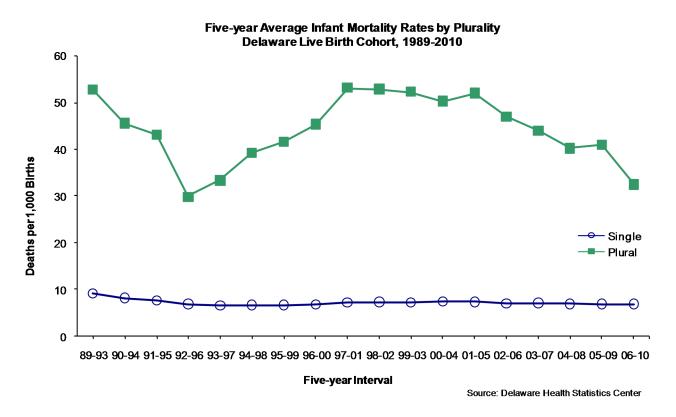
Five-year Average Infant Mortality Rate by Birthweight and Race Delaware, 1990-2010 Live Birth Cohort



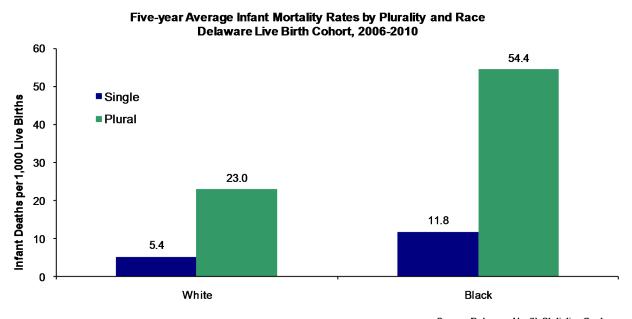




From 1992-1996 to 1997-2001, IMRs for plural births increased 77 percent, to 53.1 deaths per 1000 live births; during the same time, IMRs for singleton births increased by 4 percent. Since then, plural IMRs have decreased 39 percent, with the majority of the decrease occurring in the most recent time period. IMRs for singleton births experienced a slight decrease of 4 percent. In 2006-2010, the infant mortality rate for plural births was 4.6 times that of singleton births (33 versus 7).



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 more than double those of white infants.



Source: Delaware Health Statistics Center

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TABLE E-1 NUMBER OF INFANT DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2011

Area/	1004	1005	4000	4007	4000	4000	2000	2004	2002	2002	2004	2005	2000	2007	2000	2000	2040	2014
Race	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
U.S. All Races White Black Other	31710 20504 10072 1134	29583 19490 9118 975	28237 18749 8490 998	28045 18539 8496 1010	28371 18561 8726 1084	27937 18067 8822 1048	28035 18144 8771 1120	27568 17955 8498 1115	28034 18369 8524 1141	28025 18440 8402 1183	27936 18231 8494 1211	28440 18514 8695 1231	28527 18403 8858 1266	29138 18807 8944 1387	28059 18164 8543 1352	26412 16817 8312 1283	24586 15954 7401 1231	23910* 15438* 7234* 1238*
Delaware All Races White Black Other	70 40 27 3	79 46 32 1	77 43 32 2	81 42 36 3	103 54 49 0	81 31 49 1	102 65 37 0	114 60 53 1	96 57 35 4	107 53 53 1	97 51 44 2	106 48 55 3	99 50 44 5	91 52 38 1	101 49 52 0	91 30 54 7	88 47 36 5	98 48 38 12
Kent All Races White Black Other	15 10 5 0	18 10 7 1	17 11 6 0	14 4 10 0	18 13 5 0	10 4 6 0	21 16 5 0	19 10 9 0	27 22 5 0	16 8 8 0	17 8 8 1	21 6 14 1	13 7 5 1	9 4 4 1	18 10 8 0	18 6 12 0	15 12 3 0	17 13 3 1
New Castle All Races White Black Other	37 20 15 2	45 24 21 0	48 21 26 1	48 26 20 2	65 27 38 0	61 22 38 1	67 40 27 0	72 37 35 0	55 30 22 3	78 37 40 1	60 33 27 0	68 35 31 2	68 31 35 2	60 33 27 0	70 32 38 0	57 18 34 5	58 24 30 4	74 29 34 11
Wilmington All Races White Black Other	15 3 11 1	11 2 9 0	19 1 18 0	14 4 10 0	18 2 16 0	20 4 16 0	16 4 12 0	17 2 15 0	12 2 10 0	18 4 14 0	12 4 8 0	18 3 15 0	16 2 14 0	17 3 14 0	19 7 12 0	18 0 16 2	18 4 13 1	17 2 15 0
Balance of NC County All Races White Black Other	22 17 4 1	34 22 12 0	29 20 8 1	34 22 10 2	47 25 22 0	41 18 22 1	51 36 15 0	55 35 20 0	43 28 12 3	60 33 26 1	48 29 19 0	50 32 16 2	52 29 21 2	43 30 13 0	51 25 26 0	39 18 18 3	40 20 17 3	57 27 19 11
Sussex All Races White Black Other	18 10 7 1	16 12 4 0	12 11 0 1	19 12 6 1	20 14 6 0	10 5 5 0	14 9 5 0	23 13 9 1	14 5 8 1	13 8 5 0	20 10 9 1	17 7 10 0	18 12 4 2	22 15 7 0	13 7 6 0	16 6 8 2	15 11 3 1	7 6 1 0

Notes:

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

Sources:

National Center for Health Statistics Delaware Health Statistics Center

TABLE E-2 NUMBER OF NEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2011

Area/	1001	1005	1000	1007	4000	4000	2222	2224	2222	2222	2224	2225	2222	2227	2222	2222	2242	2244
Race	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
U.S. All Races White Black Other	20250 13100 6499 651	19155 12644 5940 571	18326 12252 5483 591	18524 12269 5637 618	18918 12406 5824 688	18728 12164 5920 644	18776 12201 5843 732	18265 12013 5585 667	18749 12354 5646 749	18893 12495 5640 758	18593 12238 5495 860	18770 12239 5740 791	18989 12302 5876 811	19058 12333 5842 883	18211 11843 5523 845	17255 11054 5374 827	16188 10612 4769 807	15954* 10422* 4719* 813*
Delaware All Races White Black Other	48 28 18 2	47 26 20 1	53 28 24 1	55 26 27 2	74 33 41 0	58 21 37 0	71 45 26 0	82 44 37 1	79 48 28 3	75 36 38 1	63 33 28 2	79 36 40 3	72 36 33 3	65 37 28 0	68 32 36 0	66 19 40 7	58 27 26 5	73 30 35 8
Kent All Races White Black Other	7 3 4 0	10 6 3 1	13 7 6 0	10 1 9 0	9 6 3 0	8 3 5 0	15 11 4 0	15 10 5 0	22 18 4 0	8 3 5 0	11 5 5 1	14 3 10 1	7 4 3 0	6 3 3 0	12 7 5 0	14 4 10 0	11 9 2 0	13 9 3 1
New Castle All Races White Black Other	28 17 9 2	26 12 14 0	33 14 18 1	33 19 13 1	47 15 32 0	44 14 30 0	50 29 21 0	54 27 27 0	47 26 19 2	56 27 28 1	39 21 18 0	54 28 24 2	52 22 28 2	43 23 20 0	48 20 28 0	42 13 24 5	36 9 23 4	57 18 32 7
Wilmington All Races White Black Other	10 3 6 1	6 0 6 0	14 1 13 0	6 3 3 0	12 1 11 0	14 2 12 0	13 4 9 0	14 1 13 0	9 1 8 0	10 1 9 0	9 3 6 0	15 3 12 0	12 1 11 0	10 1 9 0	10 3 7 0	14 0 12 2	10 0 9 1	14 1 13 0
Balance of NC County All Races White Black Other	18 14 3 1	20 12 8 0	19 13 5 1	27 16 10 1	35 14 21 0	30 12 18 0	37 25 12 0	40 26 14 0	38 25 11 2	46 26 19 1	30 18 12 0	39 25 12 2	40 21 17 2	33 22 11 0	38 17 21 0	28 13 12 3	26 9 14 3	43 17 19 7
Sussex All Races White Black Other	13 8 5 0	11 8 3 0	7 7 0 0	12 6 5 1	18 12 6 0	6 4 2 0	6 5 1 0	13 7 5 1	10 4 5 1	11 6 5 0	13 7 5 1	11 5 6 0	13 10 2 1	16 11 5 0	8 5 3 0	10 2 6 2	11 9 1 1	3 3 0 0

Notes:

*Based on NCHS estimate.

2. Neonatal deaths refer to deaths of children under 28 days of age.

Sources:

National Center for Health Statistics

TABLE E-3 NUMBER OF POSTNEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1994-2011

Area/								2224			2224						2212	2011
Race	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
U.S. All Races White Black Other	11460 7404 3573 483	10428 6846 3178 404	9911 6497 3007 407	9521 6270 2859 392	9453 6155 2902 396	9209 5903 2902 404	9259 5943 2928 388	9303 5942 2913 448	9285 6015 2878 392	9132 5945 2762 425	9343 5993 2999 351	9670 6275 2955 440	9538 6101 2982 455	10080 6474 3102 504	9848 6321 3020 507	9157 5763 2938 456	8398 5342 2632 424	7956* 5016* 2515* 425*
Delaware All Races White Black Other	22 12 9 1	32 20 12 0	24 15 8 1	26 16 9 1	29 21 8 0	23 10 12 1	31 20 11 0	32 16 16 0	17 9 7 1	32 17 15 0	34 18 16 0	27 12 15 0	27 14 11 2	26 15 10 1	33 17 16 0	25 11 14 0	30 20 10 0	25 18 3 4
Kent All Races White Black Other	8 7 1 0	8 4 4 0	4 4 0 0	4 3 1 0	9 7 2 0	2 1 1 0	6 5 1 0	4 0 4 0	5 4 1 0	8 5 3 0	6 3 3 0	7 3 4 0	6 3 2 1	3 1 1 1	6 3 3 0	4 2 2 0	4 3 1 0	4 4 0 0
New Castle All Races White Black Other	9 3 6 0	19 12 7 0	15 7 8 0	15 7 7 1	18 12 6 0	17 8 8 1	17 11 6 0	18 10 8 0	8 4 3 1	22 10 12 0	21 12 9 0	14 7 7 0	16 9 7 0	17 10 7 0	22 12 10 0	15 5 10 0	22 15 7 0	17 11 2 4
Wilmington All Races White Black Other	5 0 5 0	5 2 3 0	5 0 5 0	8 1 7 0	6 1 5 0	6 2 4 0	3 0 3 0	3 1 2 0	3 1 2 0	8 3 5 0	3 1 2 0	3 0 3 0	4 1 3 0	7 2 5 0	9 4 5 0	4 0 4 0	8 4 4 0	3 1 2 0
Balance of NC County All Races White Black Other	4 3 1 0	14 10 4 0	10 7 3 0	7 6 0 1	12 11 1 0	11 6 4 1	14 11 3 0	15 9 6 0	5 3 1 1	14 7 7 0	18 11 7 0	11 7 4 0	12 8 4 0	10 8 2 0	13 8 5 0	11 5 6 0	14 11 3 0	14 10 0 4
Sussex All Races White Black Other	5 2 2 1	5 4 1 0	5 4 0 1	7 6 1 0	2 2 0 0	4 1 3 0	8 4 4 0	10 6 4 0	4 1 3 0	2 2 0 0	7 3 4 0	6 2 4 0	5 2 2 1	6 4 2 0	5 2 3 0	6 4 2 0	4 2 2 0	4 3 1 0

Sources:National Center for Health Statistics
Delaware Health Statistics Center

Notes:
1. *Based on NCHS estimate.
2. Postneonatal deaths refer to deaths of children 28 to 364 days of age.

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

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1991-2011

Area/	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Race	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	-2006	-2007	-2008	-2009	-2010	-2011
U.S. All Races	8.3	8.0	7.7	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
White	6.8	6.5	6.4	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
Black	16.4	15.8	15.3	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
Delaware																	
All Races	8.9	7.9	7.8	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+
White	6.4	5.6-	5.6	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
Black	17.0	15.8	14.7	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
Kent																	
All Races	8.6	8.6	8.2	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
White	6.5	6.8	5.8	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
Black	15.5	15.2	16.6	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
New Castle																	
All Races	9.0	7.8	7.3	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
White	6.3	7.8 5.0	7.3 4.9	7.3 4.8	7.9 4.9	5.6	6.2	9.2 6.4	9.5 6.8	7.3	9. 4 7.1	9.2 6.8	7.0	6.9	9.0 6.4	6.1	6.2
Black	18.3	5.0 17.5	4.9 15.3	4.8 15.1	4.9 17.4	5.6 17.7	6.2 18.2	18.0	18.0	7.3 16.5	16.7	16.3	16.3	15.7	6.4 16.1	15.8	6.∠ 15.6
DIACK	10.3	17.5	15.5	15.1	17.4	17.7	10.2	16.0	16.0	16.5	16.7	10.3	10.3	13.7	16.1	13.6	15.6
Wilmington																	
All Races	16.6	15.2	13.6	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
White	10.1																
Black	20.4	20.5	17.8	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
Balance of NC County																	
All Races	7.2	6.1	5.9	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
White	5.9	4.8	4.8	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
Black	16.0	14.4	12.9	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
Sussex																	
All Races	8.7	7.9	9.0	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
White	6.8	6.8	8.0	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
Black	13.8	10.4	11.1	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

1. 2006-2010 U.S. data are based on NCHS estimates.

- Infant mortality rates represent the number of deaths of children under one year of age per 1000 live births.
 Infant mortality rates represent the number of deaths of children under one year of age per 1000 live births.
 Infant mortality rates represent the number of deaths of children under one year of age per 1000 live births.
 Indicates that the Delaware rate is significantly lower than the U.S. rate.
 Indicates rate does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
 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 Statistics Center

Figure E-1
Five-Year Average Infant Mortality Rates by Race

Delaware, 1990-2011

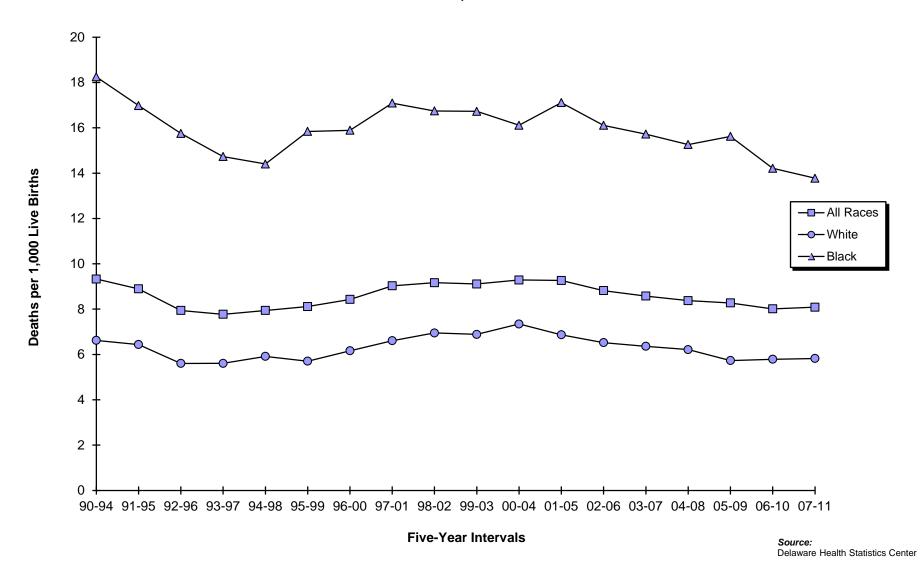
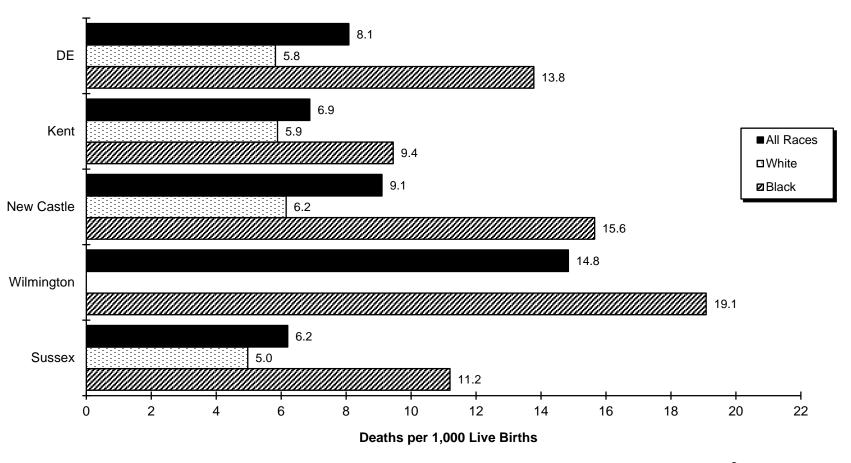


Figure E-2
Five-Year Average Infant Mortality Rates by Race

Delaware, Counties and the City of Wilmington, 2007-2011



Source:

TABLE E-5 FIVE-YEAR AVERAGE NEONATAL MORTALITY RATES BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1991-2011

Area/	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Race	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	-2006	-2007	-2008	-2009	-2010	-2011
U.S. All Races	5.3	5.1	5.0	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
White	4.3	4.2	4.1	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
Black	10.6	10.2	9.9	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
Delaware																	
All Races	6.0+	5.4	5.3	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+
White	4.5	3.8	3.7	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
Black	11.1	10.7	10.4	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+
Kent																	
All Races	4.9	5.0	5.0	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
White	3.6	3.8		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
Black			12.7	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
New Castle																	
All Races	6.4	5.6	5.2	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
White	4.6	3.6	3.6	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
Black	12.6	12.4	10.8	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
Wilmington																	
All Races	11.1	10.5	8.7	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
White				40.0	44.0	40.5	40.5	40.0		40.4	40.4	40.0	40.5		40.0		40.0
Black	13.0	14.2	11.2	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
Balance of NC County																	
All Races	5.3	4.5	4.5	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
White	4.3	3.5	3.5	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
Black	12.1	10.6	10.3	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
Sussex																	
All Races	5.5	5.0	5.6	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
White	4.8	4.8	5.1	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
Black										9.9	12.1	10.8	10.3	9.3	9.8		

1. 2006-2010 U.S. data are based on NCHS estimates.

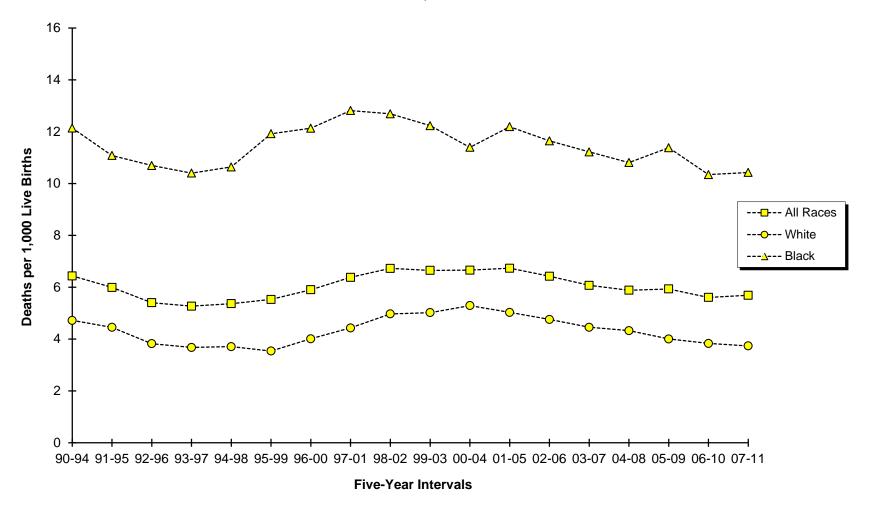
Neonatal mortality rates represent the number of deaths of children under 28 days of age per 1000 live births.
 '+' indicates that the Delaware rate is significantly higher than the U.S. rate.
 "---" Indicates rate does not meet standard of reliability or precision; based on fewer than 20 deaths in the numerator.
 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 Statistics Center

Figure E-3
Five-Year Average Neonatal Mortality Rates by Race

Delaware, 1990-2011



Source:

TABLE E-6 FIVE-YEAR AVERAGE POSTNEONATAL MORTALITY RATES BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1991-2011

Race	Area/	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
All Races 3.0 2.9 2.7 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 2.2 White 2.5 2.4 2.3 2.1 2.0 2.0 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 1.9 All Races 2.9 2.5 2.5 2.6 2.6 2.5 2.6 2.4 2.5 2.6 2.5 Black 5.9 5.1 4.3 3.8 3.9 3.8 4.3 4.1 4.5 4.7 4.8 4.8 4.8 4.7 4.6 4.6 4.5 4.4 All Races 3.7 3.5 3.2 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 All Races 3.0 3.0 3.1 3.7 2.9 New Castle All Races 2.6 2.2 2.1 2.3 2.5 2.4 2.5 2.5 2.3 2.4 2.4 All Races 2.6 2.2 2.1 2.3 2.5 2.4 2.5 2.2 2.2 2.3 2.4 All Races 2.6 2.2 2.1 2.3 2.5 2.4 2.5 2.5 2.3 2.5 2.5 2.3 2.0 1.9 All Races 2.6 2.2 2.1 2.3 2.5 2.4 2.5 2.2 2.3 2.4 2.3 2.5 2.5 All Races 3.7 3.5 3.2 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 All Races 3.0 3.0 3.1 3.7 2.9	Race	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	-2006	-2007	-2008	-2009	-2010	-2011
White 2.5 2.4 2.3 2.1 2.0 2.0 1.9 1.8 1.0 1.9 1.8 1.0 1.0 1.0 1.0 1.0 1.0 1.0 1.0 </td <td></td>																		
Black 5.8 5.6 5.4 5.1 5.0 4.8 4.8 4.7 4.8 4.8 4.7 4.8 4.8 4.7 4.6 4.6 4.5 4.4 4.3																		
Delaware Color C																		
All Races	Black	5.8	5.6	5.4	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	4.3
White 2.0 1.8 1.9 2.2 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																		
Black 5.9 5.1 4.3 3.8 3.9 3.8 4.3 4.1 4.5 4.7 4.9 4.5 4.5 4.5 4.5 4.2 3.9 3.3 Kent																		2.4
Kent All Races 3.7 3.5 3.2 3.6 3.0 2.7 2.7 2.6 2.9 3.0 3.1 2.8 2.6 2.3 2.0 1.9 White 3.0 3.0 3.1 3.7 2.9 <td< td=""><td></td><td></td><td></td><td>1.9</td><td></td><td></td><td></td><td></td><td>2.0</td><td>1.9</td><td></td><td></td><td></td><td></td><td>1.9</td><td>1.7</td><td></td><td></td></td<>				1.9					2.0	1.9					1.9	1.7		
All Races 3.7 3.5 3.2 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 White 3.0 3.0 3.1 3.7 2.9 New Castle All Races 2.6 2.2 2.1 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 White 1.7 1.4 1.4 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 Black 5.7 5.1 4.5 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 Wilmington All Races 3.2 3.6 3.	Black	5.9	5.1	4.3	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-
White Black	Kent																	
White Black	All Races	3.7	3.5	3.2	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
Black	White				3.7													
All Races 2.6 2.2 2.1 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 White 1.7 1.4 1.4 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 Black 5.7 5.1 4.5 4.3 4.4 4.2 4.0 3.5 4.1 4.2 4.2 4.0 4.0 4.3 4.0 4.0 3.9 3.5 Wilmington All Races 5.5 4.8 4.9 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 White 7.3 6.3 6.5 6.6 6.3 6.2 5.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	Black																	
All Races 2.6 2.2 2.1 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 White 1.7 1.4 1.4 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 Black 5.7 5.1 4.5 4.3 4.4 4.2 4.0 3.5 4.1 4.2 4.2 4.0 4.0 4.3 4.0 4.0 3.9 3.5 Wilmington All Races 5.5 4.8 4.9 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 White 7.3 6.3 6.5 6.6 6.3 6.2 5.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5 7.5	New Castle																	
White Black 1.7 1.4 1.4 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 Black 5.7 5.1 4.5 4.3 4.4 4.2 4.0 3.5 4.1 4.2 4.0 4.3 4.0 4.0 4.3 4.0 4.1 4.2 5.1 5.2 Wilmington All Races 5.5 4.8 4.9 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 White 5.5 5.5 5.5 5.5 5.1 5.5 5.5 5.5 5.5 5.1 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5		26	2.2	2.1	23	2.5	2.4	2.5	2.2	2.3	2.4	2.3	2.3	2.5	2.5	2.3	2.6	27
Black 5.7 5.1 4.5 4.3 4.4 4.2 4.0 3.5 4.1 4.2 4.2 4.0 4.3 4.0 4.3 4.0 4.0 3.9 3.5 Wilmington All Races White		17							1.2									2.7
Wilmington All Races 5.5 4.8 4.9 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 White 5.5 5.5																		
All Races 5.5 4.8 4.9 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 White Black 7.3 6.3 6.5 6.6 6.3 6.2 5.5 NC County All Races 1.9 1.6 1.5 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 White 1.6 1.3 1.3 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 Black 4.0 4.4 4.4 4.0 4.0 3.5 3.3 3.1 Sussex All Races 3.2 2.9 3.4 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 White	DIACK	5.7	5.1	4.5	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	3.3
White <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>																		
Black 7.3 6.3 6.5 6.6 6.3 6.2 5.5 5.1 5.5 5.5 Balance of NC County All Races 1.9 1.6 1.5 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 White 1.6 1.3 1.3 1.3 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 Black 4.0 4.4 4.4 4.0 4.0 3.5 3.3 3.1 Sussex All Races 3.2 2.9 3.4 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 White				_			_		_					-			_	
Balance of NC County All Races 1.9 1.6 1.5 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 White 1.6 1.3 1.3 1.6 1.8 1.8 1.9 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 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1 2.1																		
NC County All Races 1.9 1.6 1.5 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 2.1 2.1 2.1 2.1 2.1	Black	7.3	6.3	6.5	6.6	6.3	6.2	5.5								5.1	5.5	5.5
All Races 1.9 1.6 1.5 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																		
White Black 1.6 1.3 1.3 1.6 1.8 1.8 1.9 1.8 1.9 1.7 1.6 1.9 2.0 1.7 2.0 2.1 Black 4.0 4.4 4.4 4.0 4.0 3.5 3.3 3.1 Sussex All Races 3.2 2.9 3.4 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 White		1.9	1.6	1.5	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
Black 4.0 4.4 4.4 4.0 4.0 3.5 3.3 3.1 Sussex All Races 3.2 2.9 3.4 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 White					1.6													
All Races 3.2 2.9 3.4 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 White					_													
All Races 3.2 2.9 3.4 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 White	Sussex																	
White		3.2	2.9	3.4	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
			_	_		_	_		-	_				_				

Notes:

1. 2006-2010 U.S. data are based on NCHS estimates.

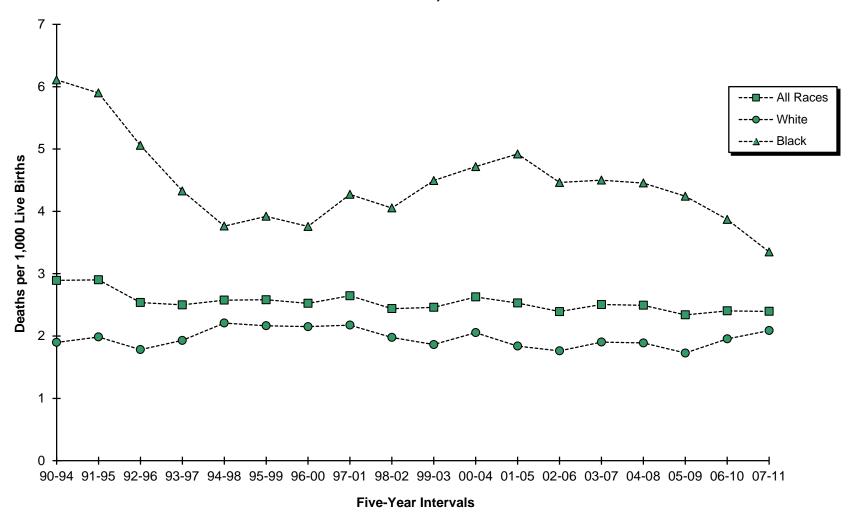
- 2. Postneonatal mortality rates represent the number of deaths of children 28 to 364 days of age per 1000 live births.
- 3. '-' indicates that the Delaware rate is significantly lower than the U.S. rate.
- 4. "---" Indicates rate does not meet standard of reliability or precision; based on fewer than 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 Statistics Center

Figure E-4
Five-Year Average Postneonatal Mortality Rates by Race

Delaware, 1990-2011



Source:

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

DELAWARE, 2006-2010 LIVE BIRTH COHORT

Risk		Race	
Factor	All Races	White	Black
Birth Weight of Child <2500 <1500 1500-2499 2500+	65.4 260.3 15.8 2.2	55.5 241.2 17.5 2.1	81.6 283.9 13.7 2.7
Age of Mother <20 20-24 25-29 30+	11.5 8.2 8.1 6.6	7.8 6.1 6.6 5.0	16.1 12.4 13.2 13.6
Marital Status of Mother Married Single	5.5 10.6	4.6 8.0	11.6 14.3
Education of Mother <12 years H.S. diploma 1+ years college	9.7 10.4 5.6	6.9 8.5 4.3	16.4 13.6 11.2
Interval Since Last Live Birth <18 months 18+ months	9.9 5.8	 4.7	15.9 9.1

Notes:

COHRATES

Source:

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

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

DELAWARE, 2006-2010 LIVE BIRTH COHORT

		Gestation	al Age C	ategory			
Leading causes of death	Very preterm	Moderately preterm	Term	Unknown	Total	% Born Very Preterm	% Born Preterm
Disorders related to short gestation and low birth weight, not elsewhere classified	102	0	1	2	105	97.1	97.1
Congenital malformations, deformations, and chromosomal abnormalities	12	23	33	0	68	17.6	51.5
Sudden infant death syndrome	0	14	36	0	50	0.0	28.0
Newborn affected by maternal complications of pregnancy	39	2	0	0	41	95.1	100.0
Newborn affected by complications of placenta, cord, and membranes	22	0	1	0	23	95.7	95.7
Diseases of the circulatory system	2	5	7	0	14	14.3	50.0
Respiratory distress of newborn	12	1	1	0	14	85.7	92.9
Atelectasis	10	0	0	0	10	100.0	100.0
Accidents (unintentional injuries)	2	3	4	0	9	22.2	55.6
Bacterial sepsis of newborn	7	1	0	0	8	87.5	100.0
Intrauterine hypoxia and birth asphyxia	4	1	1	1	7	57.1	71.4
Neonatal hemorrhage	7	0	0	0	7	100.0	100.0
Septicemia	3	1	2	0	6	50.0	66.7
Diarrhea and gastroenteritis of infectious origin	5	0	0	0	5	100.0	100.0
Gastritis, duodenitis, and noninfective enteritis and colitis	4	1	0	0	5	80.0	100.0
Newborn affected by other complications of labor and delivery	5	0	0	0	5	100.0	100.0
Renal failure and other disorders of kidney	3	1	0	0	4	75.0	100.0
period	4	0	0	0	4	100.0	100.0
Necrotizing enterocolitis of newborn	4	0	0	0	4	100.0	100.0
Assault (homicide)	0	1	3	0	4	0.0	25.0
All other causes	27	9	33	1	70	38.6	51.4
TOTAL	274	63	122	4	463	59.2	72.8

INFLCOD

- 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 Statistics Center

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

DELAWARE LIVE BIRTH COHORT, 1990-2010

Parameter/ Race	1990 -1994	1991 -1995	1992 -1996	1993 -1997	1994 -1998	1995 -1999	1996 -2000	1997 -2001	1998 -2002	1999 -2003	2000 -2004	2001 -2005	2002 -2006	2003 -2007	2004 -2008	2005 -2009	2006 -2010
114400		.000	.000			.000	2000	BIRTHW		2000	200.	2000	2000	200.	2000	2000	20.0
2500+ All Races White Black	2.6 2.1 4.1	2.6 2.1 4.1	2.3 2.0 3.3	2.3 2.1 2.9	2.5 2.4 2.8	2.4 2.4 2.8	2.4 2.3 2.8	2.5 2.4 3.0	2.3 2.1 3.0	2.4 2.0 3.6	2.5 2.1 3.9	2.2 1.9 3.5	2.2 1.7 3.6	2.3 1.9 3.5	2.0 1.8 2.9	1.9 1.7 2.8	2.2 2.1 2.7
<2500 All Races White Black	83.8 70.0 102.9	76.4 66.3 91.1	68.7 58.4 85.3	65.4 56.9 78.9	64.8 55.4 78.8	66.5 53.9 86.0	69.5 55.9 88.2	75.2 63.2 93.7	76.4 68.7 90.5	74.2 67.4 88.3	73.1 68.8 83.0	74.5 68.4 88.0	69.9 64.3 80.9	68.8 60.8 82.2	69.2 60.0 83.9	70.6 58.5 89.5	65.4 55.5 81.6
<1500 All Races White Black	337.3 311.4 355.0	307.1 282.1 328.4	272.9 239.3 306.1	255.2 229.8 280.3	258.5 223.2 296.8	262.7 219.3 315.8	270.9 231.5 312.1	304.8 281.9 329.8	316.2 303.4 335.5	302.4 297.2 317.0	306.2 316.8 301.5	313.9 321.2 315.7	289.4 295.3 289.4	285.8 289.0 286.0	286.8 280.2 291.9	279.3 262.0 298.9	260.3 241.2 283.9
								GESTA	TION								
37+ weeks All Races White Black	2.6 2.1 3.9	2.7 2.3 3.8	2.3 2.2 2.8	2.4 2.3 2.8	2.6 2.6 2.8	2.6 2.6 2.7	2.5 2.4 2.8	2.5 2.3 3.1	2.3 2.1 2.9	2.3 1.9 3.7	2.4 2.0 4.0	2.2 1.7 3.4	2.2 1.8 3.4	2.3 1.9 3.4	2.0 1.8 2.9	2.0 1.8 2.7	2.4 2.4 2.8
<37 weeks All Races White Black	62.9 51.4 79.8	56.2 45.6 73.4	50.3 38.1 72.3	47.1 37.2 65.3	45.6 35.4 64.1	45.9 33.6 69.6	48.2 35.7 70.5	53.0 41.8 73.5	54.3 45.5 72.5	52.8 45.1 70.5	52.6 46.5 67.7	53.5 45.2 72.7	49.1 40.5 68.2	47.1 37.5 66.9	47.0 36.2 68.3	47.3 34.9 71.1	43.6 33.0 64.0
<32 weeks All Races White Black	260.8 260.0 258.2	238.6 231.0 242.8	212.4 186.3 239.1	196.5 177.7 215.4	199.8 179.4 222.2	201.3 174.0 235.6	214.9 191.5 238.7	238.1 228.4 250.4	249.6 249.2 255.4	238.7 238.2 246.3	239.4 244.0 239.8	249.1 248.3 259.4	232.4 223.0 250.0	220.4 202.7 246.4	220.4 193.2 255.2	216.9 184.8 258.8	194.7 159.7 237.0
								PLURA	LITY								
Single All Races White Black	8.2 5.4 16.8	7.7 5.4 14.8	7.0 5.0 13.3	6.7 5.0 12.1	6.7 5.1 11.5	6.8 5.1 12.2	6.9 4.9 12.9	7.3 5.2 13.4	7.3 5.4 13.4	7.3 5.2 13.8	7.5 5.6 13.5	7.4 5.4 13.6	7.1 5.1 13.0	7.2 5.2 12.8	7.0 5.2 12.2	7.0 4.9 12.7	7.0 5.4 11.8
Plural All Races White Black	45.6 41.9 	43.1 37.9 	30.0 24.5 	33.5 28.9 	39.3 30.4 68.7	41.6 28.6 84.6	45.4 35.1 73.0	53.1 43.4 80.7	52.9 48.0 68.5	52.3 50.3 60.8	50.3 49.2 54.1	52.0 49.9 64.6	47.0 44.0 59.1	44.0 36.6 63.5	40.3 29.6 67.7	41.0 30.6 69.5	32.6 23.0 54.4
							SMOKIN	G DURING	G PREGNA	NCY							
No All Races White Black	8.1 5.5 15.9	7.8 5.4 15.0	7.0 5.0 13.4	7.1 5.3 12.6	7.1 5.2 12.7	7.4 5.3 14.0	7.6 5.3 14.3	8.1 5.7 15.3	8.0 5.8 14.8	8.2 5.9 15.0	8.2 6.2 14.3	8.2 6.1 14.7	7.9 6.0 13.7	7.7 5.7 13.4	7.4 5.4 13.2	7.6 5.3 13.9	7.4 5.6 12.8
Yes All Races White Black	13.3 9.5 27.4	12.1 9.6 21.3	10.3 8.2 18.6	9.2 7.4 16.2	10.6 9.4 15.3	10.6 9.3 16.3	11.3 9.8 17.3	13.4 12.2 18.0	15.1 14.2 18.9	14.1 12.7 19.4	14.8 13.3 19.5	15.1 13.0 22.0	13.4 10.2 23.9	13.9 10.7 23.8	13.3 10.7 21.2	12.1 8.9 21.5	10.9 8.2 18.0

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

DELAWARE LIVE BIRTH COHORT, 1990-2010

Parameter/	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Race	-1994	-1995	-1996	-1997	-1998	-1999	-2000	-2001	-2002	-2003	-2004	-2005	-2006	-2007	-2008	-2009	-2010
							E	OUCATIO	N								
HS Grad or less																	
All Races	10.6	10.4	9.5	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
White	7.4	7.6		7.2	8.0	8.0	7.8	8.4	9.1	8.8	9.1	8.7	8.3		7.8		7.7
Black	17.8	16.8		14.3		15.8	-	16.8	-			-	16.6		15.4	15.4	14.8
Diack	17.0	10.0	13.7	14.5	14.3	13.0	13.0	10.0	10.9	17.2	10.9	17.2	10.0	10.4	13.4	13.4	14.0
1+ yrs college																	
All Races	6.5	5.7	5.0	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
White	4.6	4.2	4.0	3.9	3.7	3.6	4.1	4.6		4.7	5.0	5.0	4.5		4.2	4.1	4.3
Black	16.9	13.0	9.9	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
						PAY	MENT FO	R DELIV	ERY								
Medicaid																	
All Races	NA	11.7	10.1	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
White	NA NA	8.5		7.9	8.8	9.1	7.7	8.6		7.1	7.5	7.7	7.1	8.0	8.0		7.5
Black	NA NA	15.4	13.8	12.9	12.7	13.6	13.1	13.8			_	14.7	14.0		14.1	14.1	13.0
Diack	INA	13.4	13.0	12.9	12.7	13.0	13.1	13.0	13.0	13.3	13.7	14.7	14.0	14.4	14.1	14.1	13.0
Private Insurance																	
All Races	NA	6.1	5.5	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
White	NA	4.8	4.4	4.2	4.2	4.3	4.9	5.2	5.7	5.9	6.1	5.8	5.6		4.6		4.7
Black	NA	14.1	12.6		12.8	13.7	14.8	15.6	16.5		16.9	17.0	16.6	15.3	15.0	16.4	14.8

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 Statistics Center

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Figure E-5
Five-year Average Infant Mortality Rates by Race and Plurality
Delaware, 1994-2010 Live Birth Cohort

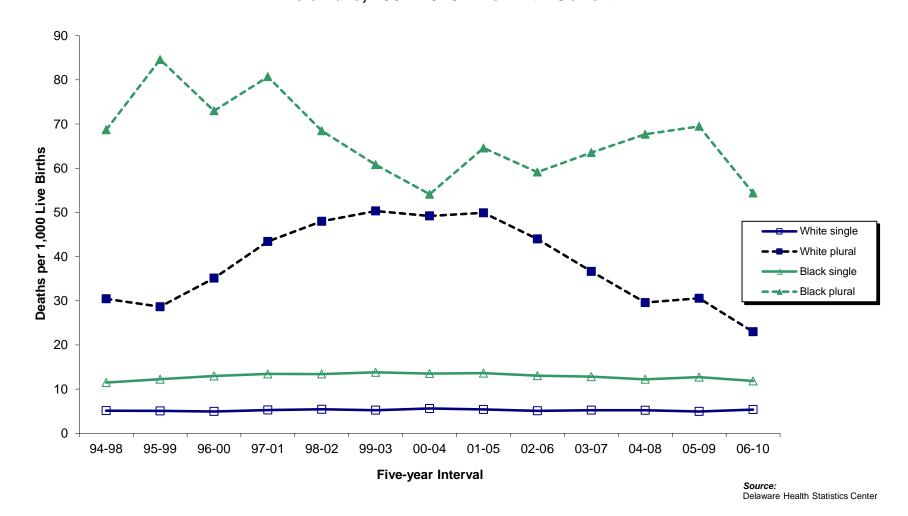


Figure E-6
Five-year Average Infant Mortality Rates by Race of Mothers who Smoked during
Pregnancy versus all Non-smoking Mothers

Delaware, 1989-2010 Live Birth Cohort

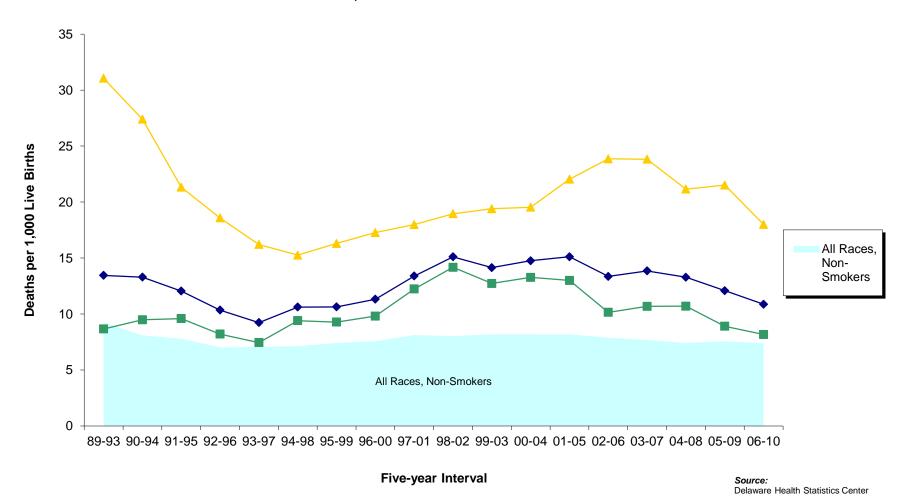


Figure E-7
Five-year Average Infant Mortality Rates by Race and Source of Payment for Delivery

Delaware, 1991-2010 Live Birth Cohort

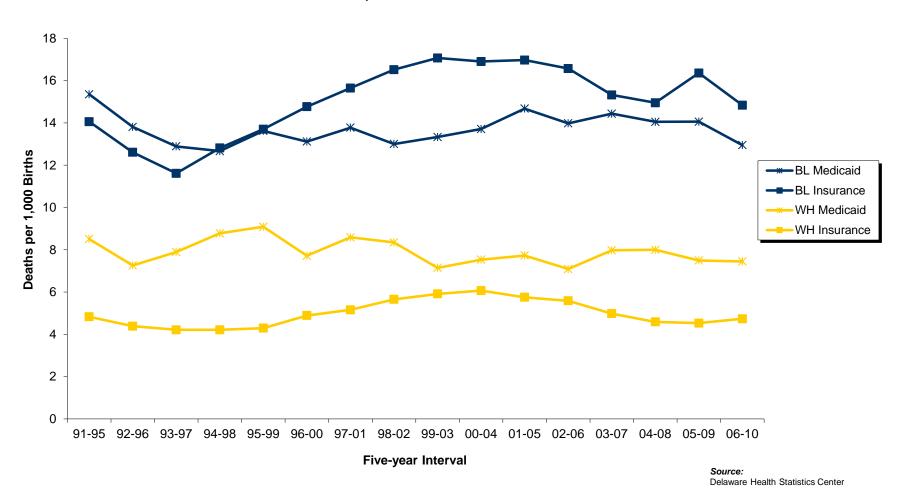


TABLE E-10

NUMBER OF INFANT DEATHS BY PLURALITY, BIRTH WEIGHT IN GRAMS, RACE OF MOTHER AND SEX OF CHILD

DELAWARE, 2006-2010 LIVE BIRTH COHORT

					Ra	ace and S	Sex				
Plurality/		All Races	3		White			Black		Oth	ner
Birth Weight	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male
	Sexes	iviale	remale	Sexes	iviale	remale	Sexes	iviale	remale	Sexes	iviale
All Births	463	248	215	235	126	109	213	111	102	15	11
<2500	343	186	157	157	88	69	175	89	86	11	9
<1500	277	155	122	116	71	45	153	77	76	8	7
<500	133	67	66	44	23	21	85	40	45	4	4
500-999	116	69	47	54	35	19	59	32	27	3	2
1000-1499	28	19	9	18	13	5	9	5	4	1	1
1500-1999	31	14	17	21	9	12	9	5	4	1	0
2000-2499	35	17	18	20	8	12	13	7	6	2	2
2500+	116	58	58	76	36	40	37	21	16	3	1
2500-2999	46	21	25	30	15	15	15	6	9	1	0
3000-3499	44	23	21	24	9	15	18	13	5	2	1
3500-3999	20	10	10	17	8	9	3	2	1	0	0
4000-4499	4	3	1	4	3	1	0	0	0	0	0
4500+	2	1	1	1	1	0	1	0	1	0	0
Unknown	4	4	0	2	2	0	1	1	0	1	1
Single Births	396	214	182	204	106	98	179	98	81	13	10
<2500	284	155	129	130	69	61	144	78	66	10	8
<1500	222	127	95	91	54	37	124	67	57	7	6
<500	111	55	56	34	16	18	73	35	38	4	4
500-999	91	60	31	45	30	15	43	28	15	3	2
1000-1499	20	12	8	12	8	4	8	4	4	0	0
1500-1999	31	14	17	21	9	12	9	5	4	1	0
2000-2499	31	14	17	18	6	12	11	6	5	2	2
2500+	109	56	53	72	35	37	35	20	15	2	1
2500-2999	42	20	22	28	14	14	14	6	8	0	0
3000-3499	41	22	19	22	9	13	17	12	5	2	1
3500-3999	20	10	10	17	8	9	3	2	1	0	0
4000-4499	4	3	1	4	3	1	0	0	0	0	0
4500+	2	1	1	1	1	0	1	0	1	0	0
Unknown	3	3	0	2	2	0	0	0	0	1	1
Plural Births	67	34	33	31	20	11	34	13	21	2	1
<2500	59	31	28	27	19	8	31	11	20	1	1
<1500	55	28	27	25	17	8	29	10	19	1	i 1
<500	22	12	10	10	7	3	12	5	7	0	0
500-999	25	9	16	9	5	4	16	4	12	0	0
1000-1499	8	7	10	6	5	1	1	1	0	1	1
1500-1999	0	0	0	0	0	0	0	0	0	0	0
2000-2499	4	3	1	2	2	0		1	1	0	0
2500+	7	2	5	4	1	3	2	1	1	1	0
2500-2999	4	1	3	2	1	1	1	0	1	1	0
3000-2999	3	1	2	2	0	2		1	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	1	1	0	0	0	0	1	1	0	0	0
Note:		1	U	U	J	U	'	1	U	·	BWRCSX

Note

Infant deaths refer to deaths of children under one year of age.

Source:

TABLE E-11

NUMBER OF NEONATAL DEATHS BY PLURALITY, BIRTH WEIGHT IN GRAMS, RACE OF MOTHER AND SEX OF CHILD

DELAWARE, 2006-2010 LIVE BIRTH COHORT

					Ra	ace and S	Sex				
Plurality/		All Races	3		White			Black		Otl	ner
Birth Weight	Both			Both			Both			Both	
	Sexes	Male	Female	Sexes	Male	Female	Sexes	Male	Female	Sexes	Male
All Births	324	100	144	150	86	67	161	86	75	10	0
	286	180	128	153	74	54	161 149	77	75 72	9	8 7
<2500		158		128						7	
<1500	251	142	109	105	65	40	139	71	68		6
<500	133	67	66	44	23	21	85	40	45	4	4
500-999	94	58	36	46	30	16	46	27	19	2	1
1000-1499	24	17	7	15	12	3	8	4	4	1	1
1500-1999	19	8	11	12	5	7	6	3	3	1	0
2000-2499	16	8	8	11	4	7	4	3	1	1	1
2500+	35	19	16	23	10	13	11	8	3	1	1
2500-2999	14	8	6	11	6	5	3	2	1	0	0
3000-3499	14	8	6	8	2	6	5	5	0	1	1
3500-3999	4	2	2	2	1	1	2	1	1	0	0
4000-4499	2	1	1	2	1	1	0	0	0	0	0
4500+	1	0	1	0	0	0	1	0	1	0	0
Unknown	3	3	0	2	2	0	1	1	0	0	0
Single Births	267	149	118	126	68	58	132	74	58	9	7
<2500	233	129	104	104	57	47	121	66	55	8	6
<1500	199	114	85	81	48	33	112	61	51	6	5
<500	111	55	56	34	16	18	73	35	38	4	4
500-999	72	49	23	38	25	13	32	23	9	2	1
1000-1499	16	10	6	9	7	2	7	3	4	0	0
1500-1999	19	8	11	12	5	7	6	3	3	1	0
2000-2499	15	7	8	11	4	7	3	2	1	1	1
2500+	32	18	14	20	9	11	11	8	3	1	1
2500-2999	13	7	6	10	5	5	3	2	1	0	0
3000-3499	12	8	4	6	2	4	5	5	0	1	1
3500-3999	4	2	2	2	1	1	2	1	1	0	0
4000-4499	2	1	1	2	1	1	0	Ó	0	0	0
4500+	1	0	1	0	0	0	1	0	1	0	0
Unknown	2	2	0	2	2	0	0	0	0	0	0
Olikilowii	2	2	U	2	2	U	U	U	U	U	U
Plural Births	57	31	26	27	18	9	29	12	17	1	1
<2500	53	29	24	24	17	7	28	11	17	1	1
<1500	52	28	24	24	17	7	27	10	17	1	1
<500	22	12	10	10	7	3	12	5	7	0	0
500-999	22	9	13	8	5	3	14	4	10	0	0
1000-1499	8	7	1	6	5	1	1	1	0	1	1
1500-1999	0	0	0	0	0	0	0	0	0	0	0
2000-2499	1	1	0	0	0	0	1	1	0	0	0
2500+	3	1	2	3	1	2	0	0	0	0	0
2500-2999	1	1	0	1	1	0	0	0	0	0	0
3000-3499	2	0	2	2	0	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	1	1	0	0	0	0	1	1	0	0	0
Note:											NEOPLBW

Note

Neonatal deaths refer to deaths of children under 28 days of age.

Source: