

DELAWARE VITAL STATISTICS ANNUAL REPORT, 2009



Suggested citation:

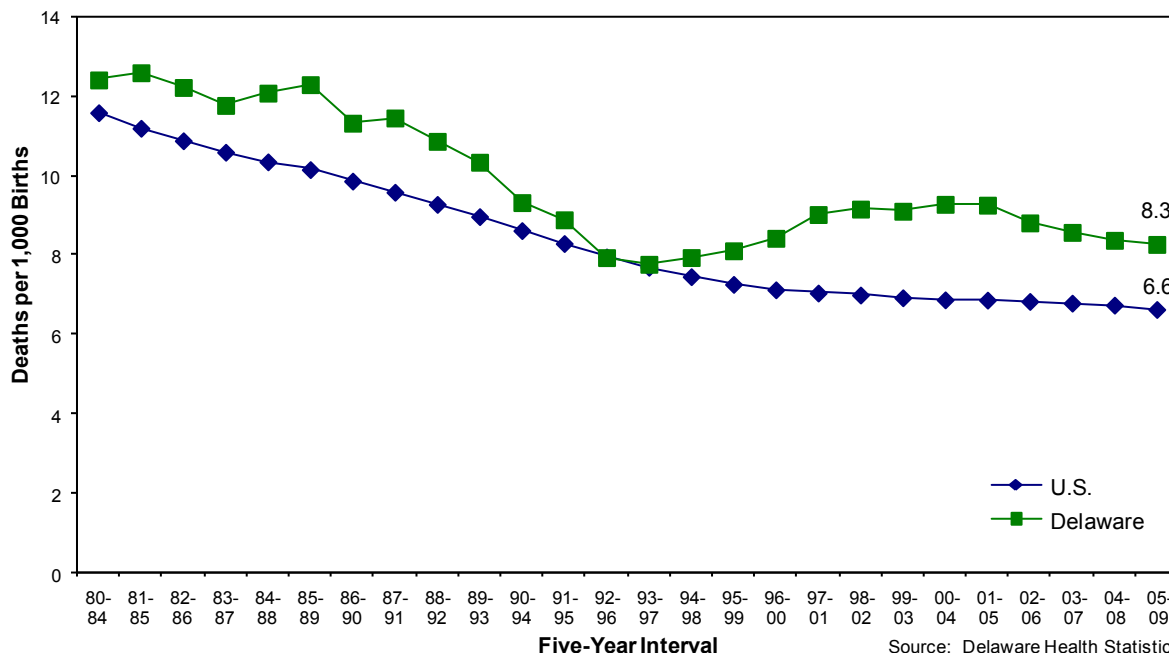
Delaware Health Statistics Center. *Delaware Vital Statistics Annual Report, 2009*.
Delaware Department of Health and Social Services, Division of Public Health: 2011.

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INFANT MORTALITY

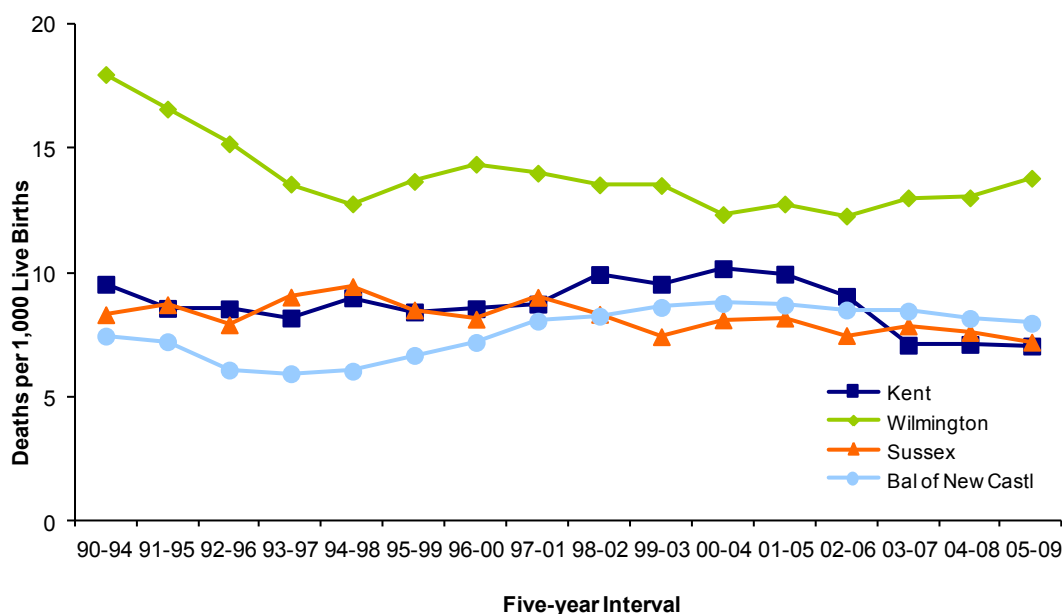
Though Delaware's infant mortality rate (IMR) remained stable between 2004-2008 and 2005-2009, it has declined 11 percent from its 2000-2004 peak of 9.3, to 8.3 infant deaths per 1000 live births in 2005-2009. At 6.6, the U.S. rate remained significantly lower than the Delaware rate.

**Five-year Average Infant Mortality Rates
Delaware and U.S., 1980 - 2009**



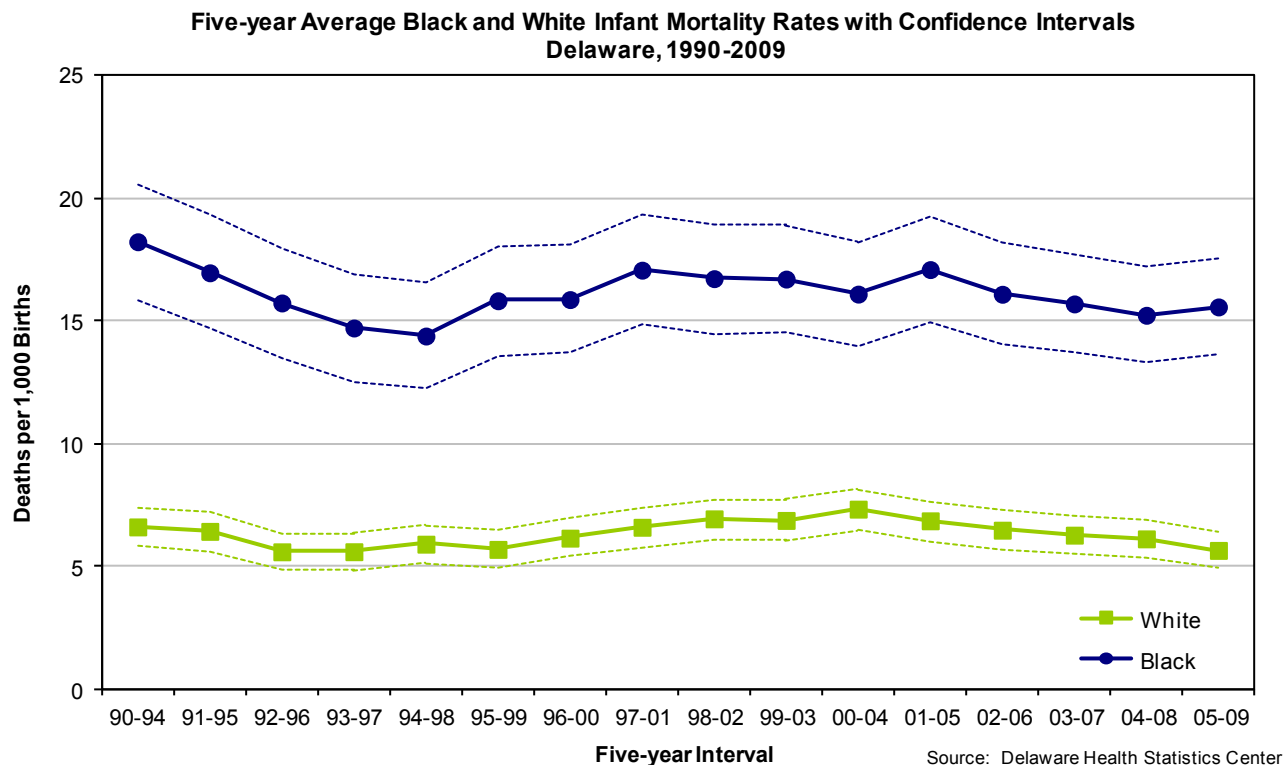
As IMRs for New Castle and Kent Counties changed little between 2004-2008 and 2005-2009, IMRs remained highest in New Castle County (9.0) and lowest in Kent County (7.1). The IMR in Sussex County decreased from 7.6 to 7.2. New Castle County's relative stability masked the rate fluctuations of Wilmington and the balance of New Castle County; Wilmington's IMR rose slightly as the balance of New Castle County's IMR moved downward.

**Five-year Average Infant Mortality Rates
Delaware Counties and City of Wilmington, Delaware, 1990-2009**

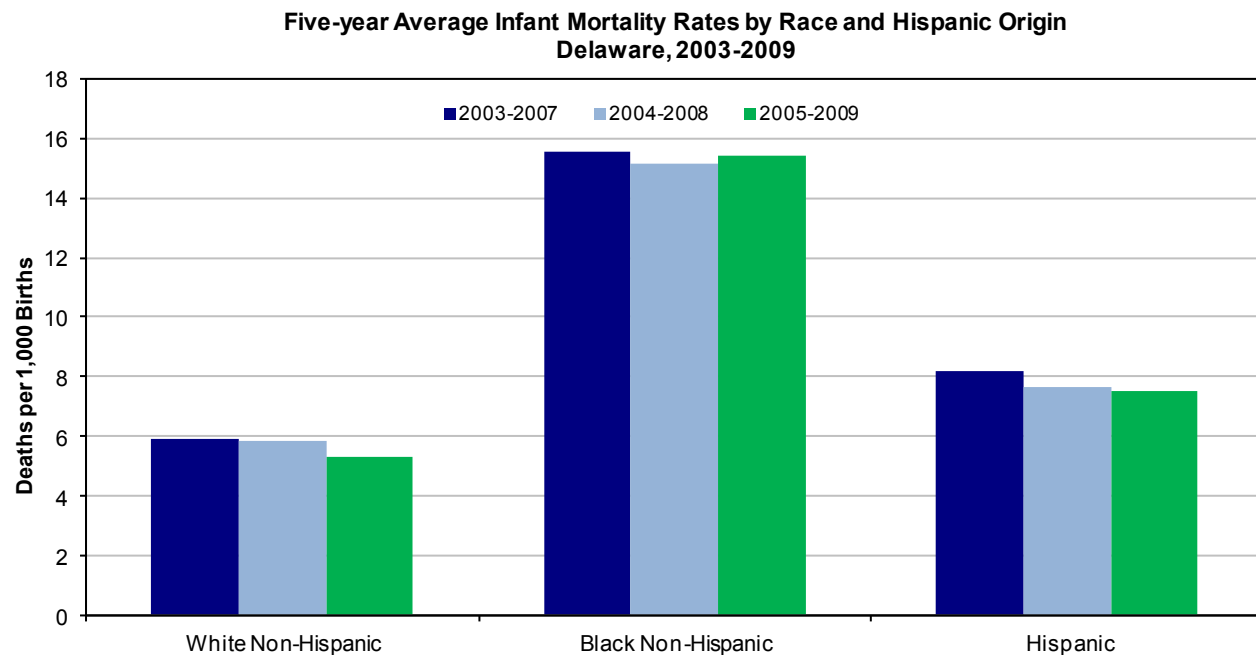


INFANT MORTALITY

As shown in the graph below, black infants experienced significantly higher mortality rates than white infants, and from 1990-1994 to 2005-2009, black IMRs were anywhere from 2.2 to 2.8 times that of white IMRs.



Significant disparities existed between black non-Hispanic IMRs and each of the two other groups, white non-Hispanic and Hispanic. Black non-Hispanics had the highest IMRs in all three time periods, and their rate of 15.4 deaths per 1,000 live births in 2005-2009 was nearly 3 times the white non-Hispanic rate of 5.3 and twice the Hispanic rate of 7.5.



Source: Delaware Health Statistics Center

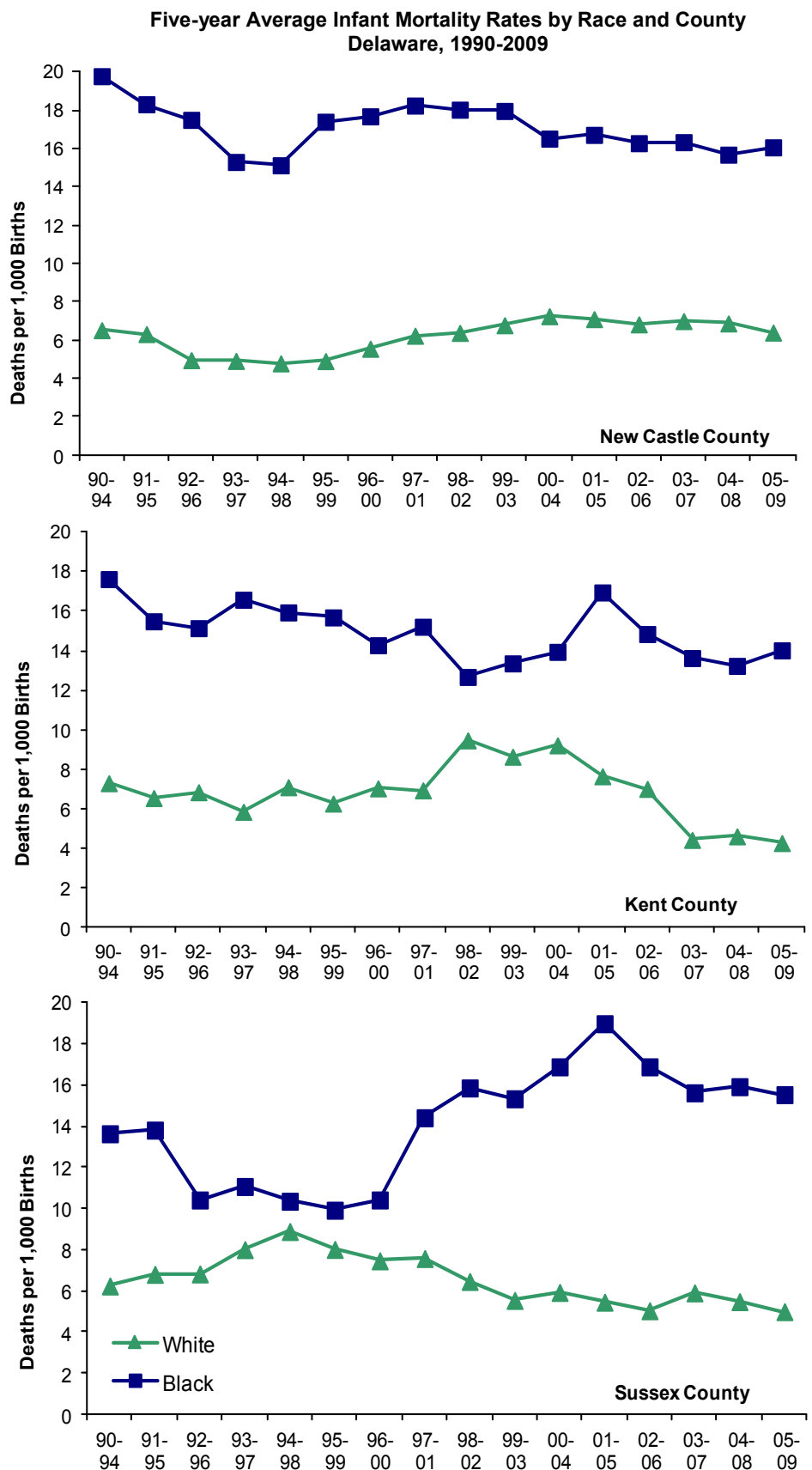
INFANT MORTALITY

Black IMRs were consistently higher than white IMRs in all three counties, for every time period. Disparity ratios¹ were used to gauge the disparity between black and white IMRs. However, as is shown in the graphs to the right, both the disparity ratio and the rates should be considered when examining differences in infant mortality.

Though Kent County had the lowest IMRs for both black and white infants (14.0 and 4.3), it also had the largest black/white disparity ratio; black infants died at a rate 3.3 times that of white infants.

In contrast, New Castle County had the highest IMRs for both black and white infants (16.1 and 6.4), and had the narrowest disparity ratio, at 2.5.

Though both black and white IMRs in Sussex County experienced downward movement from 2004-2008 to 2005-2009, the decrease in white IMRs was larger (an 8.9 percent decline versus 2.4 percent), which widened the disparity ratio to 3.1.



1. Disparity ratios were calculated by dividing the black IMR by the white IMR; the resulting number demonstrated the magnitude of difference between black and white.

INFANT MORTALITY- Leading Causes of Death

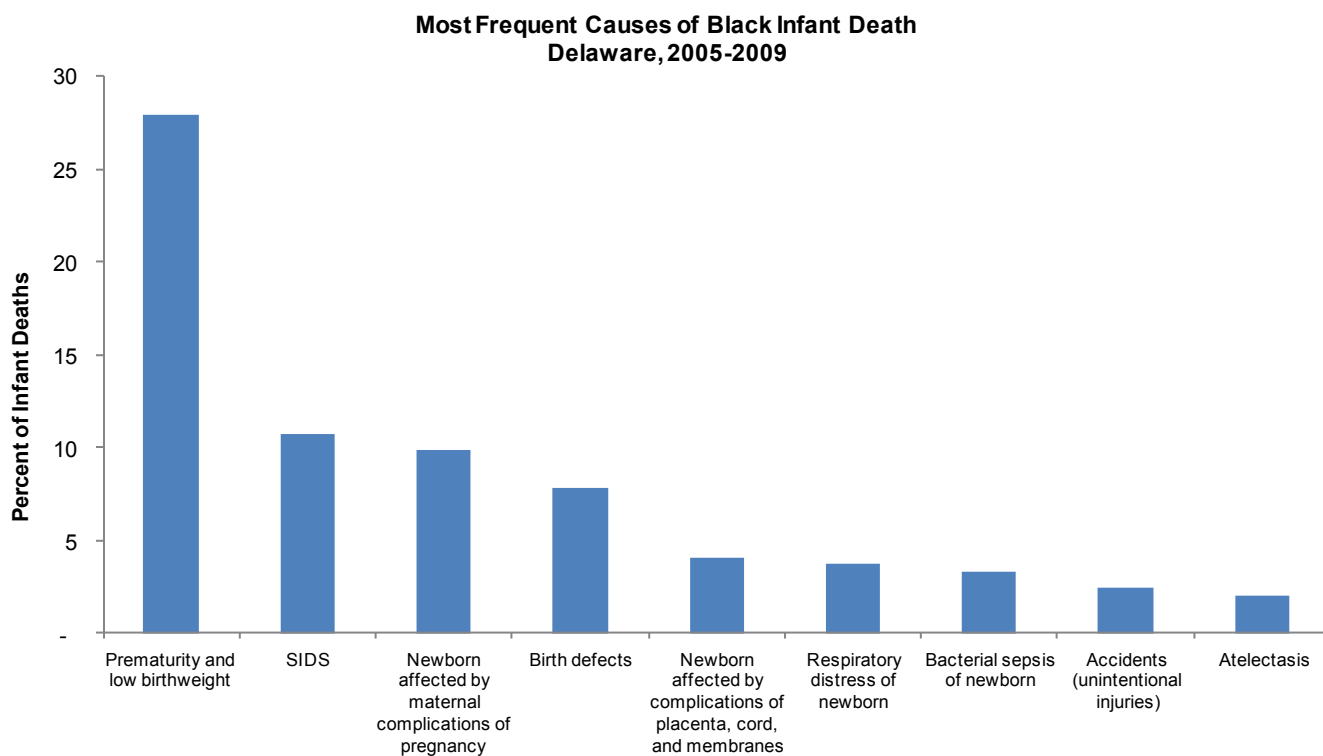
In 2005-2009 the five leading causes of infant death were:

- Disorders related to short gestation and fetal malnutrition (prematurity and low birthweight), which accounted for 24.8 percent of infant deaths,
- Congenital anomalies (birth defects), which accounted for 12.7 percent of infant deaths,
- Newborn affected by maternal complications of pregnancy, which accounted for 9.8 percent of infant deaths. Of the 48 deaths attributed to this cause, 46 were due to the newborn being affected by incompetent cervix and premature rupture of membranes,
- Sudden infant death syndrome (SIDS) accounted for 8 percent, and
- Newborn affected by complications of placenta, cord, and membranes (4.5 percent).

In sum, the five most common causes of infant death accounted for 60 percent, or 292 of the 488 total infant deaths.

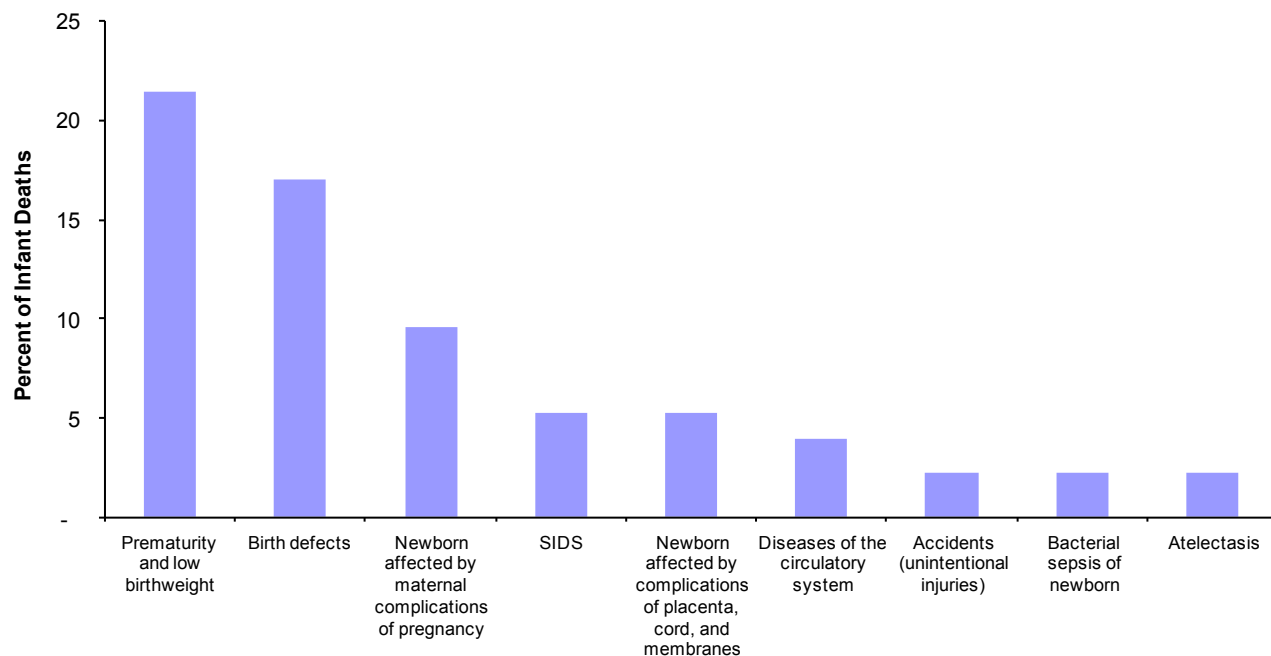
The most frequent causes of death by race are shown in the graphs below and on the following page. Disorders related to short gestation and low birthweight and newborn affected by maternal complications of pregnancy were listed in the top three most frequent causes of death for both black and white infants.

Though the proportions of deaths by race were similar for many of the causes of death, notable exceptions were birth defects and SIDS. While birth defects were responsible for 17 percent of all white infant deaths, they accounted for only 7.8 percent of black infant deaths. Conversely, infant deaths due to SIDS accounted for a larger percentage of black infant deaths than white infant deaths (10.7 versus 5.2 percent)



INFANT MORTALITY- Leading Causes of Death

**Most Frequent Causes of White Infant Death
Delaware, 2005-2009**

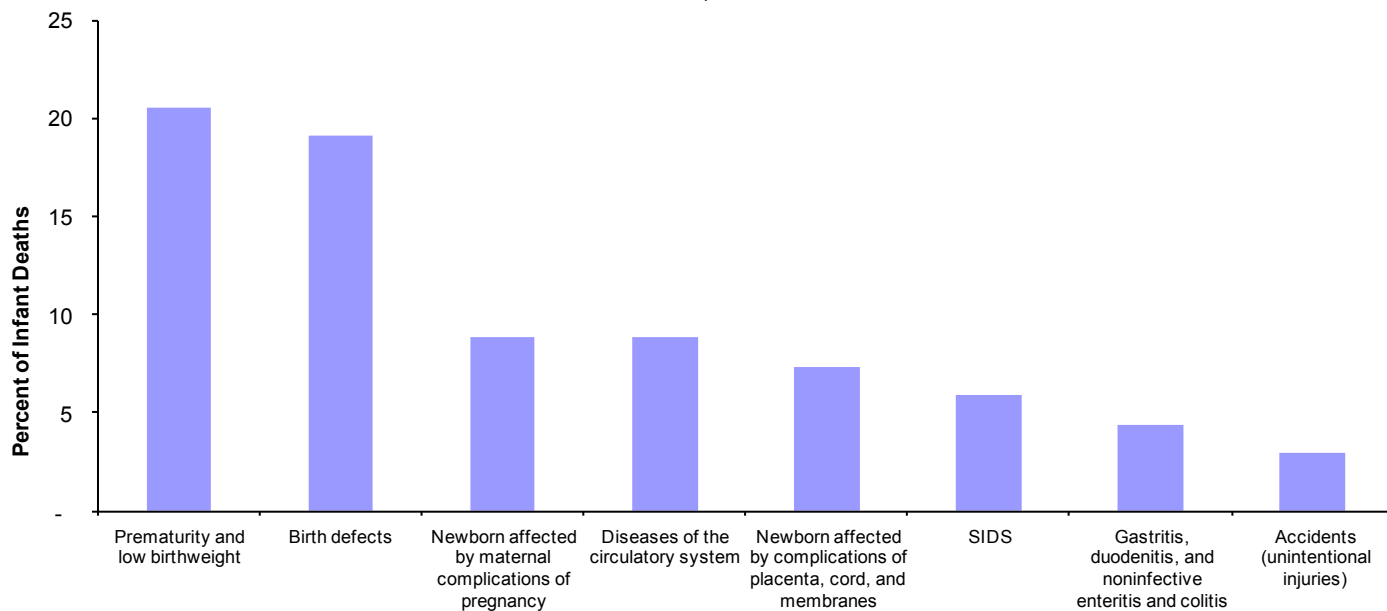


Source: Delaware Health Statistics Center

In the 1989-1993 time period, 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 been increasing. In the most recent five-year period, 2005-2009, 15.3 percent of all live births were to Hispanic mothers, and 13.9 percent of all infant deaths were of Hispanic origin.

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

**Most Frequent Causes of Hispanic Infant Death
Delaware, 2005-2009**



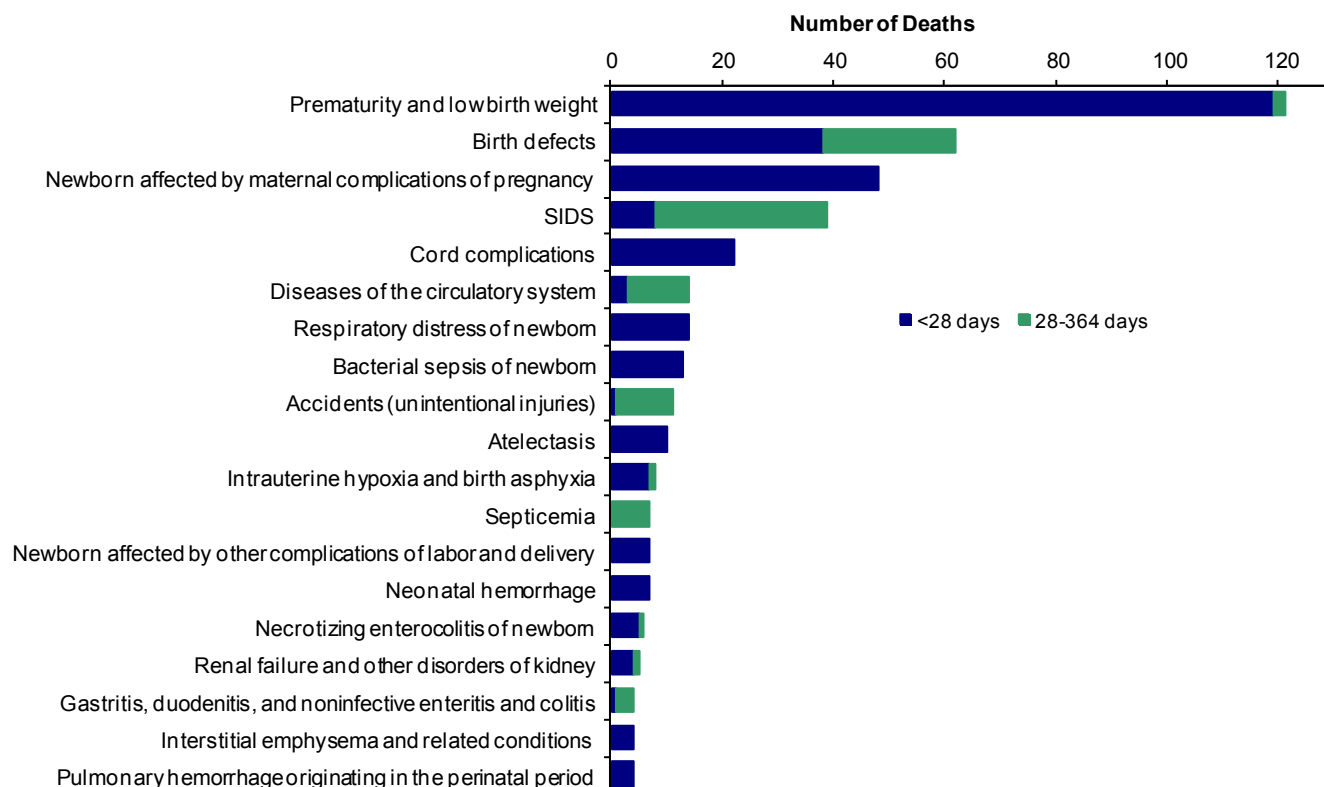
Source: Delaware Health Statistics Center

INFANT MORTALITY - Leading Causes of Death

Approximately 93 percent of all infant deaths occurred within the first six months of life, 72 percent of all infant deaths occurred within the first 28 days of life, and 43 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 by Infant's Age Group
Delaware, 2005-2009**



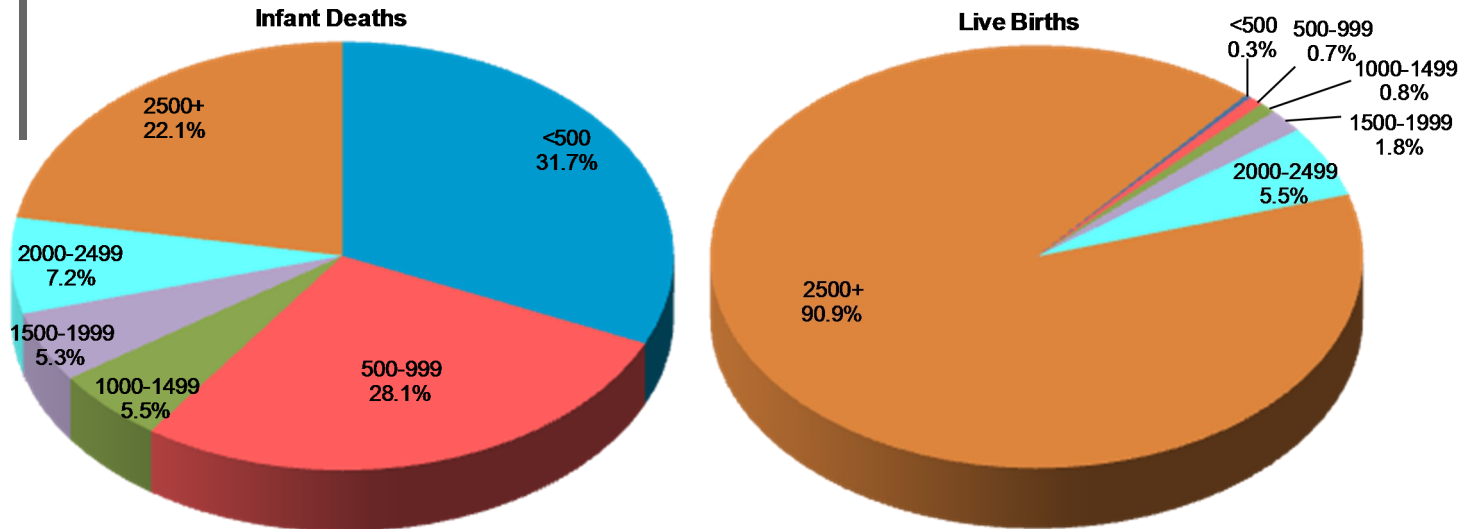
Source: Delaware Health Statistics Center

- Prematurity and low birthweight accounted for the greatest number of infant deaths in 2005-2009; all but two 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 102 days.
⇒ 33 percent (13 out of 39) 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 23 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, 7.4 percent of all infant deaths in 2005-2009 were associated with co-sleeping and/or sleeping on a soft surface.

INFANT MORTALITY - Live Birth Cohort

Though only 1 percent of all live births in 2004-2008 were infants weighing less than 1000 grams, they accounted for over half (59.3 percent) of all infant deaths. In total, 9 percent of all live births in 2004-2008 were infants of low birthweight (under 2500 grams) and 77.2 percent of infant deaths were low birthweight.

Distribution by Birthweight, Delaware Live Birth Cohort, 2004-2008

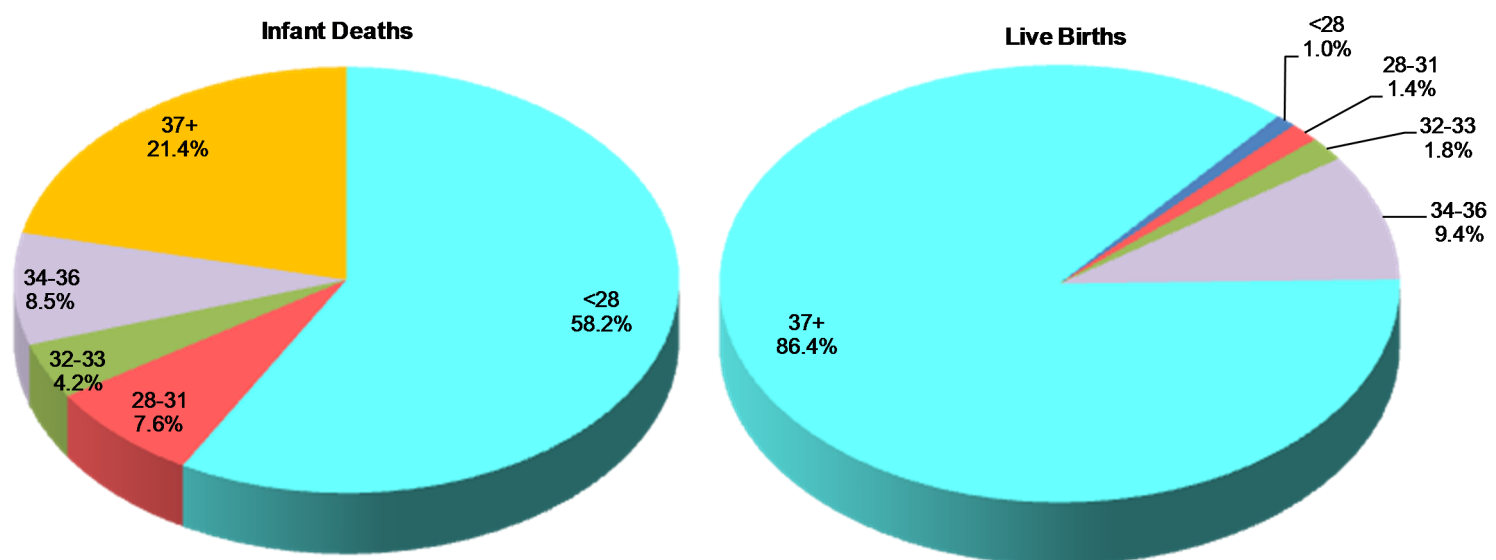


Source: Delaware Health Statistics Center

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 2004-2008 were less than 28 weeks gestation at birth, but they accounted for 58 percent of all infant deaths. In total, 13.6 percent of all live births in 2004-2008 were born preterm (<37 weeks of gestation) and 78.1 percent of infant deaths were born preterm.

Distribution by Gestation, Delaware Live Birth Cohort, 2004-2008



Source: Delaware Health Statistics Center

INFANT MORTALITY - Live Birth Cohort

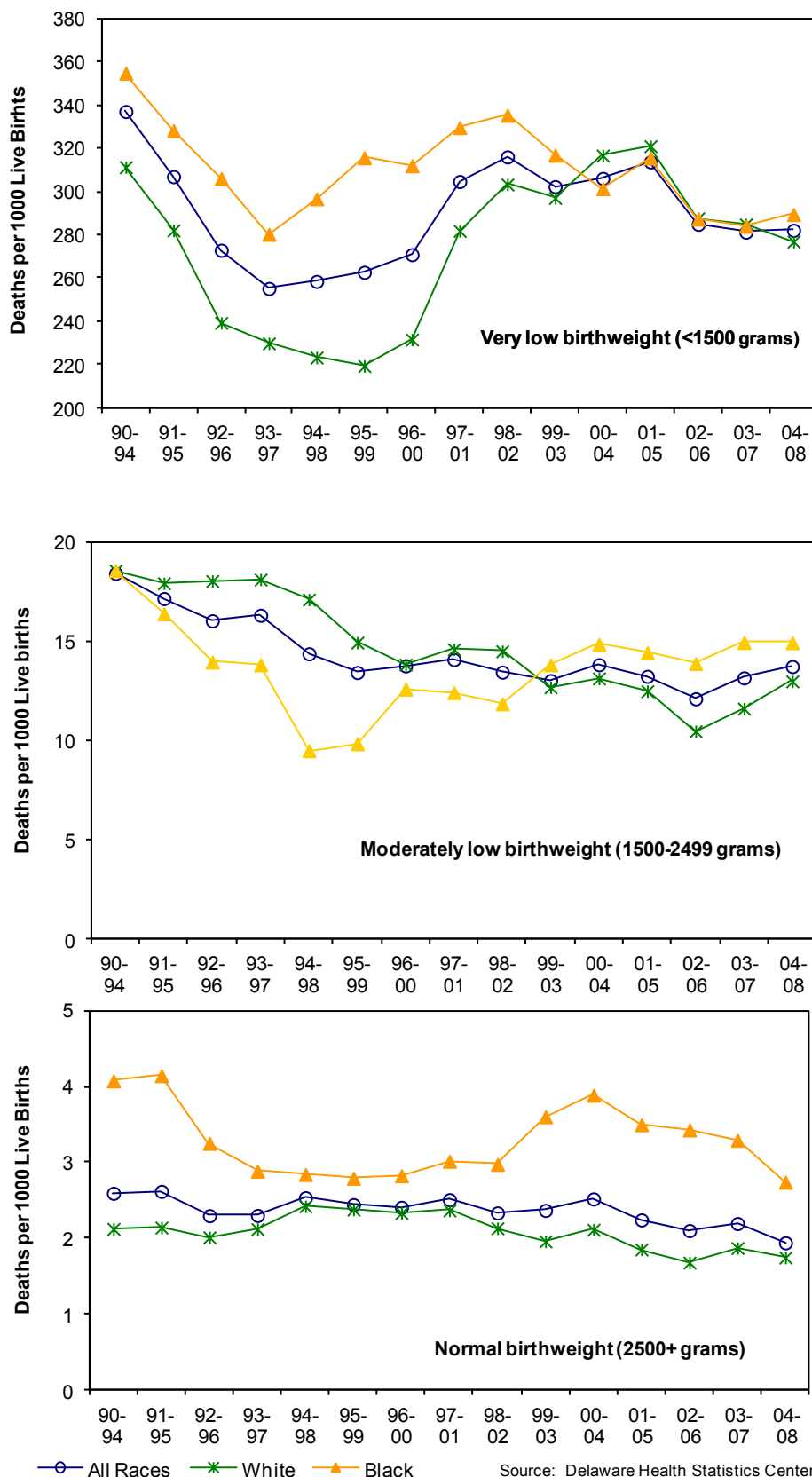
Birthweight and gestation are considered to be the most important predictors of infant health and mortality risk. Infants born too small or too early have a much greater risk of mortality than those who reach a normal birthweight (2500+ grams) or full-term gestation (37+ weeks).

Most recently, IMRs for very low birthweight (VLBW) infants demonstrated no significant change (285 in 2002-2006 to 282 in 2004-2008). In 2004-2008, IMRs for white and black VLBW infants were 277 and 290 infant deaths per 1,000 live births.

What looked like the beginning of a downward trend in moderately LBW IMRs in 2001-2005 and 2002-2006, reversed direction in 2003-2007 and continued to move upward in 2004-2008. As a result, during the last five-year intervals, there was no net change in the rates.

IMRs for normal birthweight infants trended downward between 2000-2004 and 2004-2008. During that time, white IMRs decreased 17 percent and black IMRs decreased by 30 percent. In 2004-2008, the black IMR for normal birthweight infants was 2.7, versus 1.7 for white infant of normal birthweight.

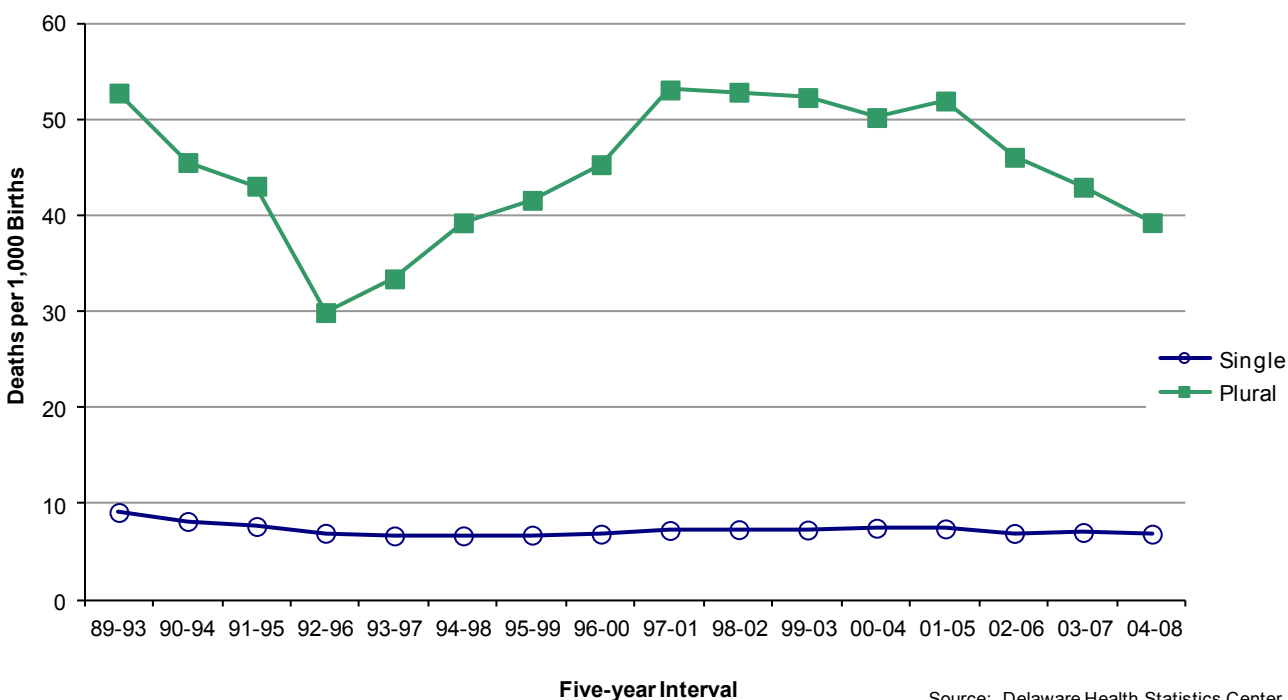
**Five-year Average Infant Mortality Rate by Birthweight and Race
Delaware, 1990-2008 Live Birth Cohort**



INFANT MORTALITY - Live Birth Cohort

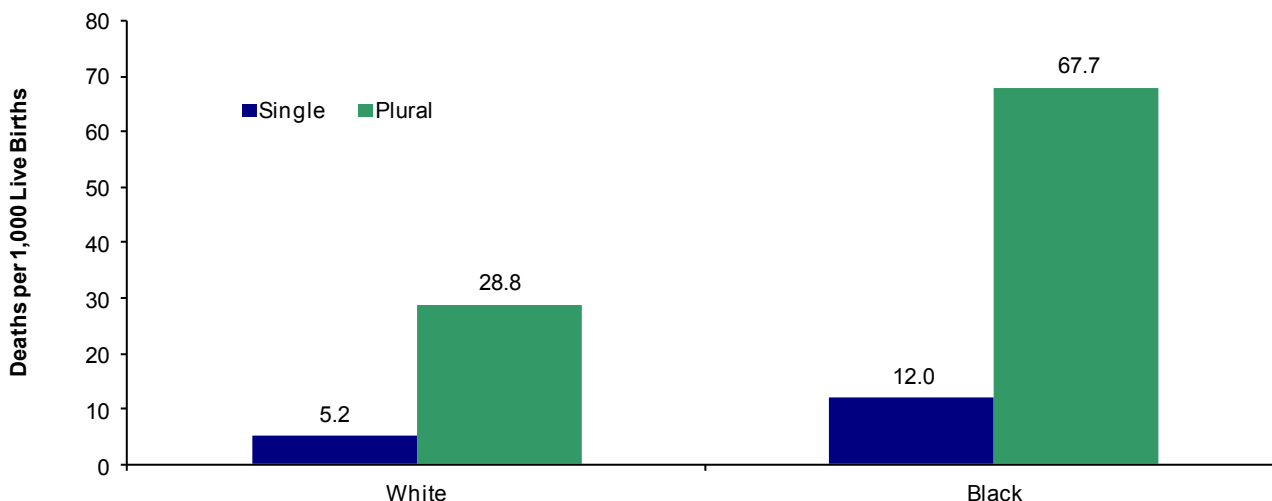
From 1992-1996 to 1997-2001, IMRs for plural births increased 77 percent, to 53.1 deaths per 1000 live births; during the same time, IMRs for singleton births increased by 4 percent. Since then, plural IMRs have decreased 26 percent, with the majority of that occurring in the most recent time period. IMRs for singleton births experienced a slight decrease of only 5 percent. In 2004-2008, the infant mortality rate for plural births was 5.7 times that of singleton births (39.3 versus 6.9).

Five-year Average Infant Mortality Rates by Plurality
Delaware Live Birth Cohort, 1989-2008



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.

Five-year Average Infant Mortality Rates by Plurality and Race
Delaware Live Birth Cohort, 2004-2008



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TABLE E-1
NUMBER OF INFANT DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1992-2009

Area/ Race	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
U.S.																		
All Races	34628	33466	31710	29583	28237	28045	28371	27937	28035	27568	28034	28025	27936	28440	28527	29138	28033*	26531*
White	22164	21497	20504	19490	18749	18539	18561	18067	18144	17955	18369	18440	18231	18514	18403	18807	18162	16897
Black	11348	10887	10072	9118	8490	8496	8726	8822	8771	8498	8524	8402	8494	8695	8858	8944	8513	8356
Other	1116	1082	1134	975	998	1010	1084	1048	1120	1115	1141	1183	1211	1231	1266	1387	1358	1278
Delaware																		
All Races	93	94	70	79	77	81	103	81	102	114	96	107	97	106	99	91	101	91
White	44	44	40	46	43	42	54	31	65	60	57	53	51	48	50	52	49	30
Black	49	50	27	32	32	36	49	49	37	53	35	53	44	55	44	38	52	54
Other	0	0	3	1	2	3	0	1	0	1	4	1	2	3	5	1	0	7
Kent																		
All Races	19	11	15	18	17	14	18	10	21	19	27	16	17	21	13	9	18	18
White	12	5	10	10	11	4	13	4	16	10	22	8	8	6	7	4	10	6
Black	7	6	5	7	6	10	5	6	5	9	5	8	8	14	5	4	8	12
Other	0	0	0	1	0	0	0	0	0	0	0	0	1	1	1	1	0	0
New Castle																		
All Races	66	68	37	45	48	48	65	61	67	72	55	78	60	68	68	60	70	57
White	29	32	20	24	21	26	27	22	40	37	30	37	33	35	31	33	32	18
Black	37	36	15	21	26	20	38	38	27	35	22	40	27	31	35	27	38	34
Other	0	0	2	0	1	2	0	1	0	0	3	1	0	2	2	0	0	5
Wilmington																		
All Races	27	24	15	11	19	14	18	20	16	17	12	18	12	18	16	17	19	18
White	4	4	3	2	1	4	2	4	4	2	2	4	4	3	2	3	7	0
Black	23	20	11	9	18	10	16	16	12	15	10	14	8	15	14	14	12	16
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Balance of NC County																		
All Races	39	44	22	34	29	34	47	41	51	55	43	60	48	50	52	43	51	39
White	25	28	17	22	20	22	25	18	36	35	28	33	29	32	29	30	25	18
Black	14	16	4	12	8	10	22	22	15	20	12	26	19	16	21	13	26	18
Other	0	0	1	0	1	2	0	1	0	0	3	1	0	2	2	0	0	3
Sussex																		
All Races	8	15	18	16	12	19	20	10	14	23	14	13	20	17	18	22	13	16
White	3	7	10	12	11	12	14	5	9	13	5	8	10	7	12	15	7	6
Black	5	8	7	4	0	6	6	5	5	9	8	5	9	10	4	7	6	8
Other	0	0	1	0	1	1	0	0	0	1	1	0	1	0	2	0	0	2

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

INFANT1

TABLE E-2
NUMBER OF NEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1992-2009

Area/ Race	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
U.S.																		
All Races	21849	21174	20250	19155	18326	18524	18918	18728	18776	18265	18749	18893	18593	18770	18989	19058	18154*	17298*
White	13915	13506	13100	12644	12252	12269	12406	12164	12201	12013	12354	12495	12238	12239	12302	12333	11820*	11083*
Black	7296	7044	6499	5940	5483	5637	5824	5920	5843	5585	5646	5640	5495	5740	5876	5842	5483*	5393*
Other	638	624	651	571	591	618	688	644	732	667	749	758	860	791	811	883	851*	822*
Delaware																		
All Races	64	69	48	47	53	55	74	58	71	82	79	75	63	79	72	65	68	66
White	33	33	28	26	28	26	33	21	45	44	48	36	33	36	36	37	32	19
Black	31	36	18	20	24	27	41	37	26	37	28	38	28	40	33	28	36	40
Other	0	0	2	1	1	2	0	0	0	1	3	1	2	3	3	0	0	7
Kent																		
All Races	11	6	7	10	13	10	9	8	15	15	22	8	11	14	7	6	12	14
White	9	2	3	6	7	1	6	3	11	10	18	3	5	3	4	3	7	4
Black	2	4	4	3	6	9	3	5	4	5	4	5	5	10	3	3	5	10
Other	0	0	0	1	0	0	0	0	0	0	0	0	1	1	0	0	0	0
New Castle																		
All Races	47	56	28	26	33	33	47	44	50	54	47	56	39	54	52	43	48	42
White	21	27	17	12	14	19	15	14	29	27	26	27	21	28	22	23	20	13
Black	26	29	9	14	18	13	32	30	21	27	19	28	18	24	28	20	28	24
Other	0	0	2	0	1	1	0	0	0	0	2	1	0	2	2	0	0	5
Wilmington																		
All Races	19	17	10	6	14	6	12	14	13	14	9	10	9	15	12	10	10	14
White	3	2	3	0	1	3	1	2	4	1	1	1	3	3	1	1	3	0
Black	16	15	6	6	13	3	11	12	9	13	8	9	6	12	11	9	7	12
Other	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Balance of NC County																		
All Races	28	39	18	20	19	27	35	30	37	40	38	46	30	39	40	33	38	28
White	18	25	14	12	13	16	14	12	25	26	25	26	18	25	21	22	17	13
Black	10	14	3	8	5	10	21	18	12	14	11	19	12	12	17	11	21	12
Other	0	0	1	0	1	1	0	0	0	0	2	1	0	2	2	0	0	3
Sussex																		
All Races	6	7	13	11	7	12	18	6	6	13	10	11	13	11	13	16	8	10
White	3	4	8	8	7	6	12	4	5	7	4	6	7	5	10	11	5	2
Black	3	3	5	3	0	5	6	2	1	5	5	5	5	6	2	5	3	6
Other	0	0	0	0	0	1	0	0	0	1	1	0	1	0	1	0	0	2

Notes:

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

Sources:

National Center for Health Statistics

INFANT2

TABLE E-3
NUMBER OF POSTNEONATAL DEATHS BY RACE

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1992-2009

Area/ Race	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
U.S.																		
All Races	12779	12292	11460	10428	9911	9521	9453	9209	9259	9303	9285	9132	9343	9670	9538	10080	9879*	9233*
White	8249	7991	7404	6846	6497	6270	6155	5903	5943	5942	6015	5945	5993	6275	6101	6474	6342*	5814*
Black	4052	3843	3573	3178	3007	2859	2902	2902	2928	2913	2878	2762	2999	2955	2982	3102	3030*	2963*
Other	478	458	483	404	407	392	396	404	388	448	392	425	351	440	455	504	507*	456*
Delaware																		
All Races	29	25	22	32	24	26	29	23	31	32	17	32	34	27	27	26	33	25
White	11	11	12	20	15	16	21	10	20	16	9	17	18	12	14	15	17	11
Black	18	14	9	12	8	9	8	12	11	16	7	15	16	15	11	10	16	14
Other	0	0	1	0	1	1	0	1	0	0	1	0	0	0	2	1	0	0
Kent																		
All Races	8	5	8	8	4	4	9	2	6	4	5	8	6	7	6	3	6	4
White	3	3	7	4	4	3	7	1	5	0	4	5	3	3	3	1	3	2
Black	5	2	1	4	0	1	2	1	1	4	1	3	3	4	2	1	3	2
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0
New Castle																		
All Races	19	12	9	19	15	15	18	17	17	18	8	22	21	14	16	17	22	15
White	8	5	3	12	7	7	12	8	11	10	4	10	12	7	9	10	12	5
Black	11	7	6	7	8	7	6	8	6	8	3	12	9	7	7	7	10	10
Other	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0
Wilmington																		
All Races	8	7	5	5	5	8	6	6	3	3	3	8	3	3	4	7	9	4
White	1	2	0	2	0	1	1	2	0	1	1	3	1	0	1	2	4	0
Black	7	5	5	3	5	7	5	4	3	2	2	5	2	3	3	5	5	4
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Balance of NC County																		
All Races	11	5	4	14	10	7	12	11	14	15	5	14	18	11	12	10	13	11
White	7	3	3	10	7	6	11	6	11	9	3	7	11	7	8	8	8	5
Black	4	2	1	4	3	0	1	4	3	6	1	7	7	4	4	2	5	6
Other	0	0	0	0	0	1	0	1	0	0	1	0	0	0	0	0	0	0
Sussex																		
All Races	2	8	5	5	5	7	2	4	8	10	4	2	7	6	5	6	5	6
White	0	3	2	4	4	6	2	1	4	6	1	2	3	2	2	4	2	4
Black	2	5	2	1	0	1	0	3	4	4	3	0	4	4	2	2	3	2
Other	0	0	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0

Notes:

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

Sources:

National Center for Health Statistics
Delaware Health Statistics Center

INFANT3

TABLE E- 4
FIVE-YEAR AVERAGE INFANT MORTALITY RATES BY RACE
U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1989-2009

Area/ Race	1989 -1993	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
U.S.																	
All Races	9.0	8.6	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	6.6
White	7.3	7.0	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	5.5
Black	17.5	17.0	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
Delaware																	
All Races	10.3+	9.3	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+
White	7.5	6.6	6.4	5.6-	5.6	5.9	5.7	6.2	6.6	6.9+	6.9+	7.3+	6.9+	6.5	6.3	6.1	5.7
Black	19.9	18.2	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+
Kent																	
All Races	9.7	9.5	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
White	7.3	7.3	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
Black	17.9	17.6	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
New Castle																	
All Races	10.7	9.5	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
White	7.5	6.5	6.3	5.0	4.9	4.8	4.9	5.6	6.2	6.4	6.8	7.3	7.1	6.8	7.0	6.9	6.4
Black	21.7	19.8	18.3	17.5	15.3	15.1	17.4	17.7	18.2	18.0	18.0	16.5	16.7	16.3	16.3	15.7	16.1
Wilmington																	
All Races	19.4	18.0	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
White	11.2	9.7	10.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Black	24.3	22.7	20.4	20.5	17.8	16.8	18.0	18.7	18.0	17.9	17.6	15.9	17.0	16.3	17.2	16.3	18.0
Balance of NC County																	
All Races	8.5	7.5	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
White	7.1	6.2	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	6.7	6.4
Black	18.6	16.3	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
Sussex																	
All Races	9.7	8.3	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
White	7.8	6.2	6.8	6.8	8.0	8.9	8.0	7.5	7.6	6.5	5.5	5.9	5.5	5.0	5.9	5.5	5.0
Black	15.3	13.7	13.8	10.4	11.1	10.4	9.9	10.4	14.4	15.9	15.4	16.9	19.0	16.9	15.6	15.9	15.6

Notes:

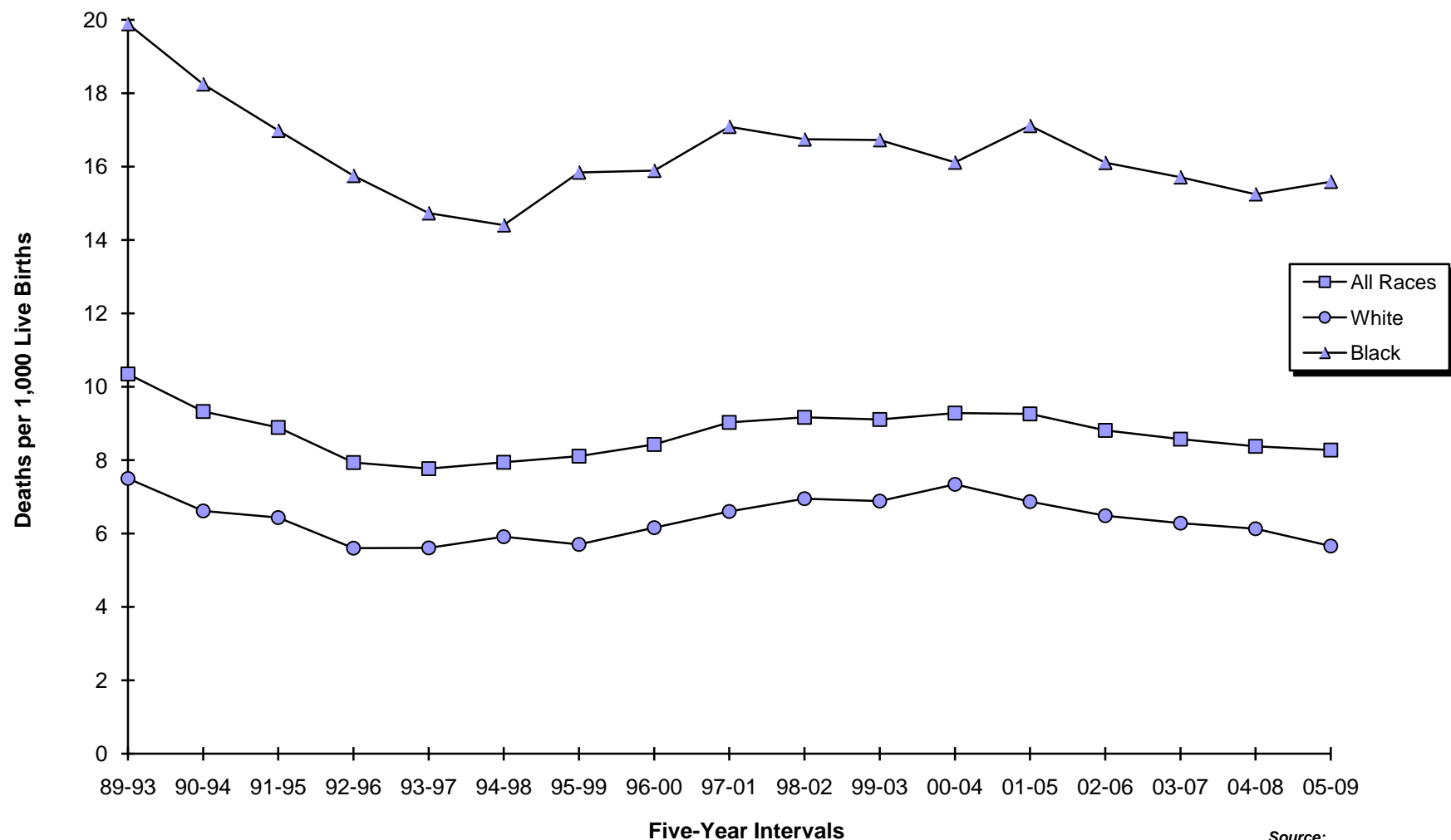
1. 2004-2008 and 2005-2009 U.S. data are based on NCHS estimates.
2. Infant mortality rates represent the number of deaths of children under one year of age per 1000 live births.
3. '+' indicates that the Delaware rate is significantly higher than the U.S. rate.
'-' indicates that the Delaware rate is 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 Statistics Center

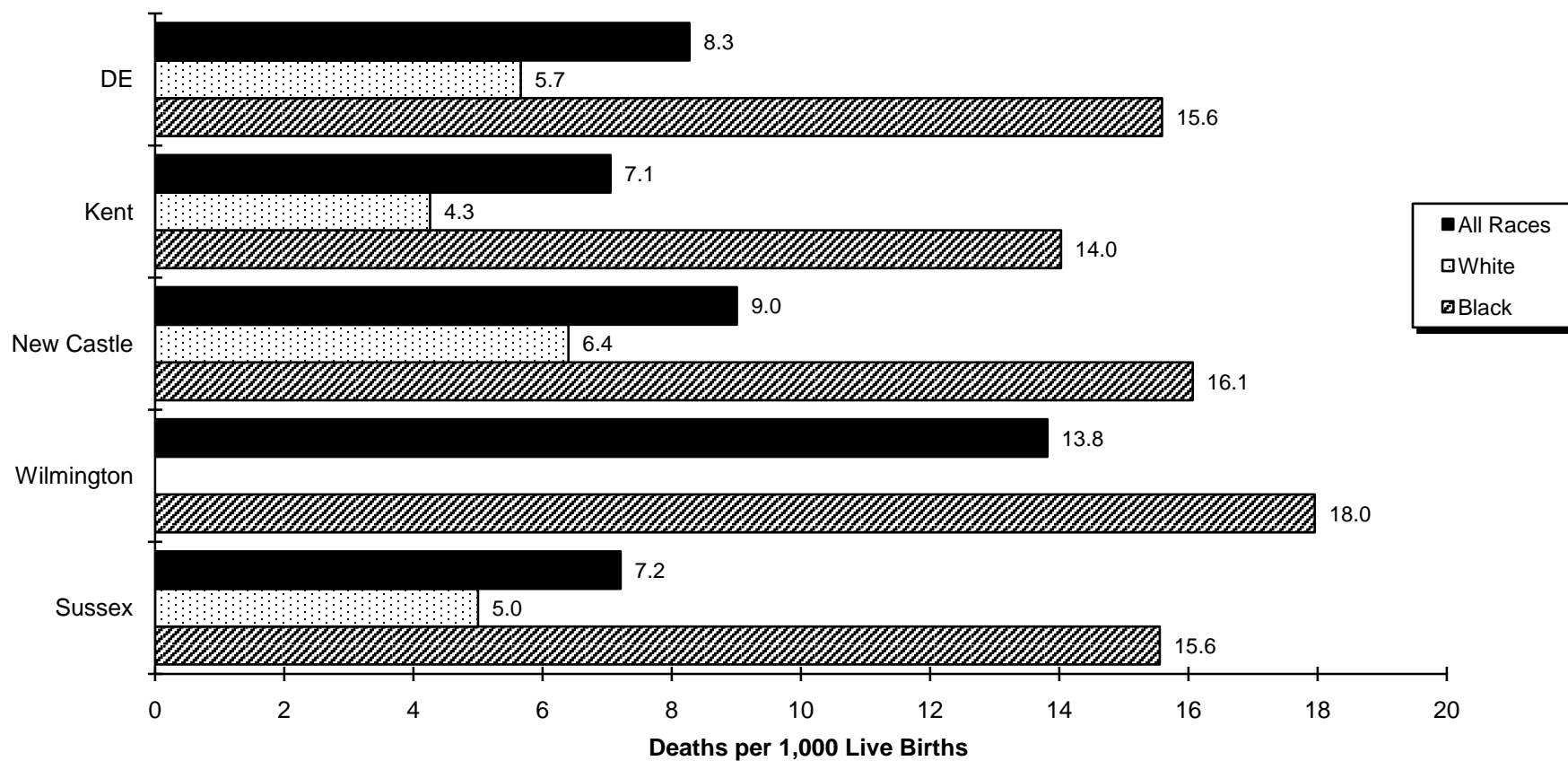
INFANT4

Figure E-1
Five-Year Average Infant Mortality Rates by Race
Delaware, 1989-2009



Source:
Delaware Health Statistics Center

Figure E-2
Five-Year Average Infant Mortality Rates by Race
Delaware, Counties and the City of Wilmington, 2005-2009



Source:
Delaware Health Statistics Center

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

U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1989-2009

Area/ 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
U.S.																
All Races	5.4	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	4.3
White	4.4	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	3.6
Black	10.9	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	8.5
Delaware																
All Races	6.4+	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+
White	4.7	4.5	3.8	3.7	3.7	3.5	4.0	4.4	5.0+	5.0+	5.3+	5.0+	4.7+	4.4	4.3	4.0
Black	12.1	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+
Kent																
All Races	5.6	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
White	4.4	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
Black	10.0	---	---	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
New Castle																
All Races	6.9	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
White	4.8	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
Black	13.9	12.6	12.4	10.8	10.8	13.0	13.5	14.2	14.5	13.9	12.4	12.5	12.3	12.0	11.7	12.1
Wilmington																
All Races	12.7	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
White	8.1	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Black	15.2	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
Balance of NC County																
All Races	5.5	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
White	4.5	4.3	3.5	3.5	3.1	3.0	3.6	4.2	4.6	5.1	5.4	5.5	5.2	5.1	4.8	4.7
Black	12.3	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
Sussex																
All Races	5.6	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
White	4.6	4.8	4.8	5.1	6.2	5.5	5.0	4.9	4.5	3.6	3.8	3.7	3.8	4.4	4.1	3.5
Black	8.3	---	---	---	---	---	---	---	---	---	9.9	12.1	10.8	10.3	9.3	9.8

INFANT5

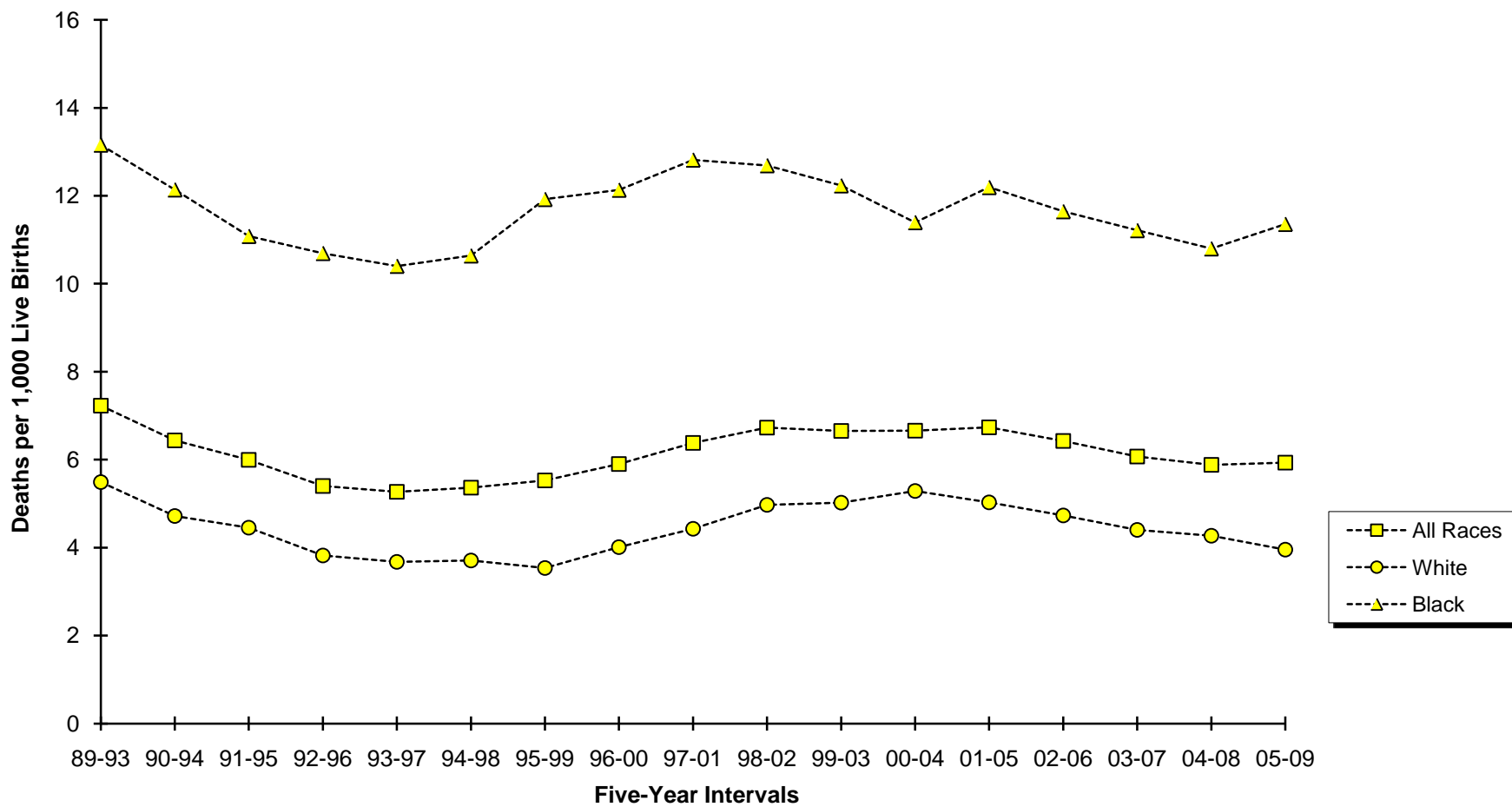
Notes:

1. 2004-2008 and 2005-2009 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.

Sources:

National Center for Health Statistics
Delaware Health Statistics Center

Figure E-3
Five-Year Average Neonatal Mortality Rates by Race
Delaware, 1989-2009



Source:
Delaware Health Statistics Center

TABLE E-6
FIVE-YEAR AVERAGE POSTNEONATAL MORTALITY RATES BY RACE
U.S., DELAWARE, COUNTIES AND CITY OF WILMINGTON, 1989-2009

Area/ 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
U.S.																
All Races	3.2	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
White	2.6	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
Black	6.0	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
Delaware																
All Races	2.9	2.9	2.5	2.5	2.6	2.6	2.5	2.6	2.4	2.5	2.6	2.5	2.4	2.5	2.5	2.3
White	1.9-	2.0-	1.8-	1.9	2.2	2.2	2.2	2.2	2.0	1.9	2.1	1.8	1.8	1.9	1.9	1.7
Black	6.1	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
Kent																
All Races	3.9	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
White	2.9	3.0	3.0	3.1	3.7	---	2.9	---	---	---	---	---	---	---	---	---
Black	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
New Castle																
All Races	2.7	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
White	1.7	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	1.8
Black	5.9	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
Wilmington																
All Races	5.3	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
White	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Black	7.5	7.3	6.3	6.5	6.6	6.3	6.2	5.5	---	---	---	---	---	---	---	5.1
Balance of NC County																
All Races	2.0	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
White	1.7	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
Black	---	---	---	---	---	---	---	---	---	4.0	4.4	4.4	4.0	4.0	3.5	3.3
Sussex																
All Races	2.7	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
White	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
Black	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

INFANT6

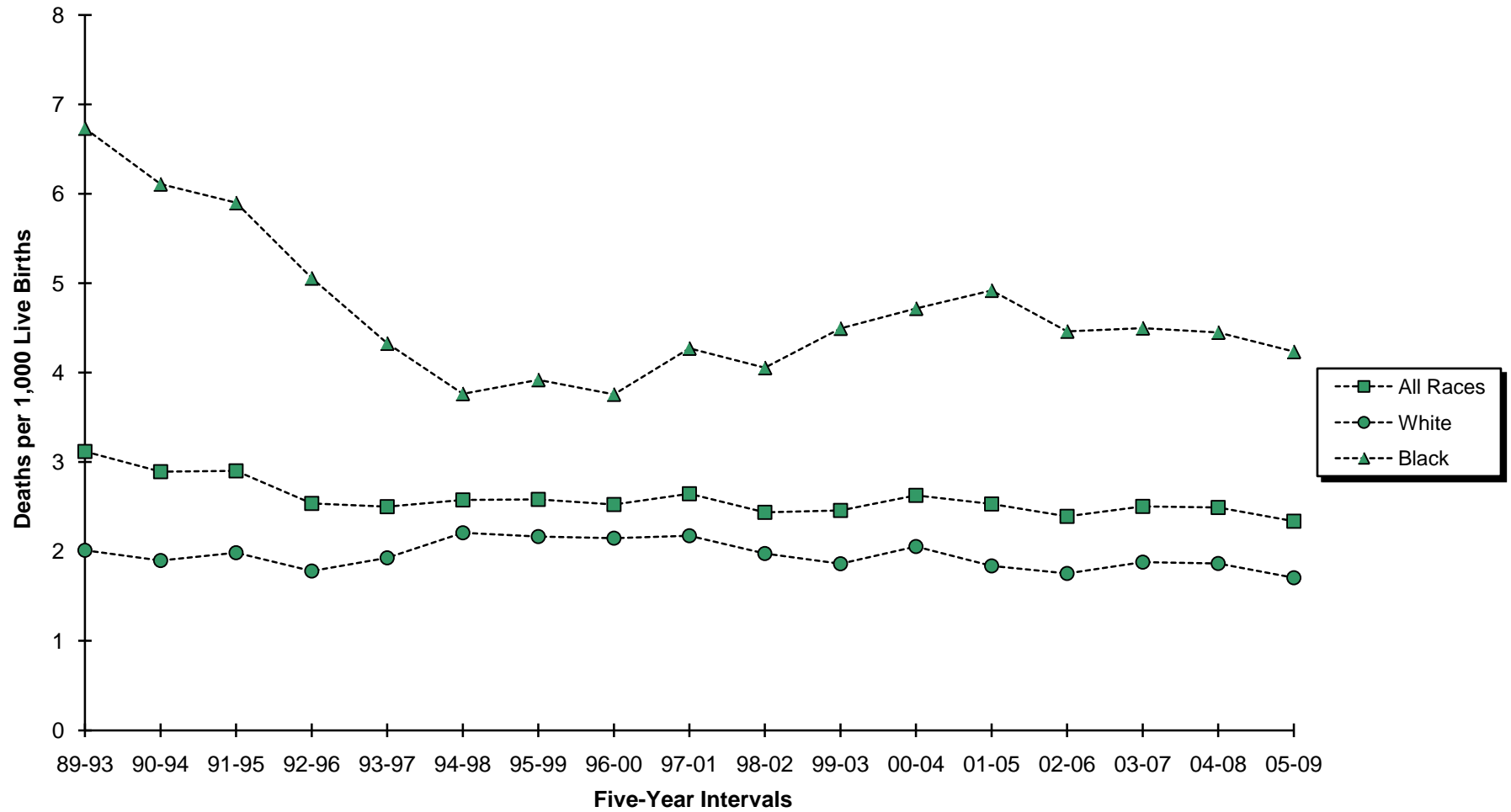
Notes:

1. 2004-2008 and 2005-2009 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, 1989-2009



Source:
Delaware Health Statistics Center

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

DELAWARE, 2004-2008 LIVE BIRTH COHORT

Risk Factor	Race		
	All Races	White	Black
Birth Weight of Child			
<2500	68.1	59.1	83.4
<1500	282.2	276.9	289.5
1500-2499	13.8	13.0	15.0
2500+	1.9	1.7	2.7
Age of Mother			
<20	11.1	8.8	14.7
20-24	9.4	7.1	14.1
25-29	8.1	6.2	14.3
30+	6.2	4.6	13.7
Marital Status of Mother			
Married	5.4	4.3	11.7
Single	11.3	8.7	15.1
Education of Mother			
<12 years	10.3	8.5	15.0
H.S. diploma	9.9	7.0	15.5
1+ years college	5.5	4.2	11.0
Trimester Care Received			
Late/No PNC ²	13.2	9.4	22.2
First	7.8	5.9	13.7
Interval Since Last Live Birth			
<18 months	10.3	6.9	16.9
18+ months	6.2	4.5	11.1

COHRATES

Notes:

1. Infant mortality rates represent the number of deaths to children under one year of age per 1,000 live births.
2. Defined as receiving no care or care in the third trimester.

Source:

Delaware Health Statistics Center

TABLE E-8
LEADING CAUSES OF INFANT DEATH BY GESTATIONAL AGE CATEGORY
DELAWARE, 2004-2008 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	114	0	1	2	117	97.4	97.4
Congenital malformations, deformations, and chromosomal abnormalities	22	16	23	0	61	36.1	62.3
Newborn affected by maternal complications of pregnancy	37	3	0	0	40	92.5	100.0
Sudden infant death syndrome	2	10	28	0	40	5.0	30.0
Newborn affected by complications of placenta, cord, and membranes	24	0	1	0	25	96.0	96.0
Respiratory distress of newborn	16	0	0	0	16	100.0	100.0
Bacterial sepsis of newborn	12	1	1	0	14	85.7	92.9
Diseases of the circulatory system	2	4	7	0	13	15.4	46.2
Accidents (unintentional injuries)	2	4	4	0	10	20.0	60.0
Atelectasis	9	0	0	0	9	100.0	100.0
Septicemia	4	1	2	0	7	57.1	71.4
Intrauterine hypoxia and birth asphyxia	5	1	1	0	7	71.4	85.7
Neonatal hemorrhage	6	0	0	0	6	100.0	100.0
Gastritis, duodenitis, and noninfective enteritis and colitis	5	0	0	0	5	100.0	100.0
Newborn affected by other complications of labor and delivery	5	0	0	0	5	100.0	100.0
Interstitial emphysema & related conditions	5	0	0	0	5	100.0	100.0
Hernia of abdominal cavity and intestinal obstruction without hernia	0	1	3	0	4	0.0	25.0
Renal failure and other disorders of kidney	3	1	0	0	4	75.0	100.0
Pulmonary hemorrhage originating in the perinatal period	4	0	0	0	4	100.0	100.0
Necrotizing enterocolitis of newborn	3	1	0	0	4	75.0	100.0
All other causes	30	17	30	1	78	38.5	60.3
TOTAL	310	60	101	3	474	65.4	78.1

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, 1989-2008

Parameter/ Race	1989 -1993	1990 -1994	1991 -1995	1992 -1996	1993 -1997	1994 -1998	1995 -1999	1996 -2000	1997 -2001	1998 -2002	2000 -2004	2001 -2005	2002 -2006	2003 -2007	2004 -2008
BIRTHWEIGHT															
2500+															
All Races	2.8	2.6	2.6	2.3	2.3	2.5	2.4	2.4	2.5	2.3	2.5	2.2	2.1	2.2	1.9
White	2.3	2.1	2.1	2.0	2.1	2.4	2.4	2.3	2.4	2.1	2.1	1.9	1.7	1.9	1.7
Black	4.7	4.1	4.1	3.3	2.9	2.8	2.8	2.8	3.0	3.0	3.9	3.5	3.4	3.3	2.7
<2500															
All Races	94.4	83.8	76.4	68.7	65.4	64.8	66.5	69.5	75.2	76.4	73.1	74.5	68.8	67.7	68.1
White	82.6	69.9	66.3	58.4	56.9	55.4	53.9	55.9	63.2	68.7	68.8	68.4	62.3	59.6	59.1
Black	110.9	102.9	91.1	85.3	78.9	78.8	86.0	88.2	93.7	90.5	83.0	88.0	80.4	81.7	83.4
<1500															
All Races	364.7	337.3	307.1	272.9	255.2	258.5	262.7	270.9	304.8	316.2	306.2	313.9	285.0	281.3	282.2
White	361.0	311.4	282.1	239.3	229.8	223.2	219.3	231.5	281.9	303.4	316.8	321.2	287.7	284.9	276.9
Black	366.2	355.0	328.4	306.1	280.3	296.8	315.8	312.1	329.8	335.5	301.5	315.7	287.4	284.1	289.5
GESTATION															
37+ weeks															
All Races	3.0	2.6	2.7	2.3	2.4	2.6	2.6	2.5	2.5	2.3	2.4	2.2	2.1	2.2	2.0
White	2.5	2.1	2.3	2.2	2.3	2.6	2.6	2.4	2.3	2.1	2.0	1.7	1.7	1.9	1.8
Black	4.7	3.9	3.8	2.8	2.8	2.8	2.7	2.8	3.1	2.9	4.0	3.4	3.2	3.3	2.7
<37 weeks															
All Races	68.2	62.9	56.2	50.3	47.1	45.6	45.9	48.2	53.0	54.3	52.6	53.5	48.3	46.3	46.2
White	58.9	51.3	45.6	38.1	37.2	35.4	33.6	35.7	41.8	45.5	46.5	45.2	39.2	36.5	35.4
Black	81.5	79.8	73.4	72.3	65.3	64.1	69.6	70.5	73.5	72.5	67.7	72.7	67.8	66.5	67.9
<32 weeks															
All Races	267.6	260.6	238.6	212.4	196.5	199.8	201.3	214.9	238.1	249.6	239.4	249.1	228.9	216.9	216.9
White	283.3	259.5	231.0	186.3	177.7	179.4	174.0	191.5	228.4	249.2	244.0	248.3	215.8	196.8	187.7
Black	254.4	258.2	242.8	239.1	215.4	222.2	235.6	238.7	250.4	255.4	239.8	259.4	248.4	244.9	253.6
PLURALITY															
Single															
All Races	9.1	8.2	7.7	7.0	6.7	6.7	6.8	6.9	7.3	7.3	7.5	7.4	6.9	7.0	6.9
White	6.1	5.4	5.4	5.0	5.0	5.1	5.1	4.9	5.2	5.4	5.6	5.4	4.9	5.2	5.2
Black	18.8	16.8	14.8	13.3	12.1	11.5	12.2	12.9	13.4	13.4	13.5	13.6	12.8	12.6	12.0
Plural															
All Races	52.8	45.6	43.1	30.0	33.5	39.3	41.6	45.4	53.1	52.9	50.3	52.0	46.1	43.0	39.3
White	49.8	41.9	37.9	24.5	28.9	30.4	28.6	35.1	43.4	48.0	49.2	49.9	42.6	35.8	28.8
Black	65.2	---	---	---	---	68.7	84.6	73.0	80.7	68.5	54.1	64.6	59.1	63.5	67.7
SMOKING DURING PREGNANCY															
No															
All Races	9.2	8.1	7.8	7.0	7.1	7.1	7.4	7.6	8.1	8.0	8.2	8.2	7.8	7.5	7.3
White	6.7	5.5	5.4	5.0	5.3	5.2	5.3	5.3	5.7	5.8	6.2	6.1	5.8	5.6	5.3
Black	17.1	15.9	15.0	13.4	12.6	12.7	14.0	14.3	15.3	14.8	14.3	14.7	13.5	13.3	13.1
Yes															
All Races	13.4	13.3	12.1	10.3	9.2	10.6	10.6	11.3	13.4	15.1	14.8	15.1	13.1	13.6	13.0
White	8.7	9.5	9.6	8.2	7.4	9.4	9.3	9.8	12.2	14.2	13.3	13.0	9.9	10.5	10.5
Black	31.1	27.4	21.3	18.6	16.2	15.3	16.3	17.3	18.0	18.9	19.5	22.0	23.2	23.2	20.6

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

DELAWARE LIVE BIRTH COHORT, 1989-2008

Parameter/ Race	1989 -1993	1990 -1994	1991 -1995	1992 -1996	1993 -1997	1994 -1998	1995 -1999	1996 -2000	1997 -2001	1998 -2002	1999 -2003	2001 -2005	2002 -2006	2003 -2007	2004 -2008
EDUCATION															
HS Grad or less															
All Races	11.8	10.6	10.4	9.5	9.4	9.9	10.4	10.3	11.1	11.5	11.4	11.1	10.6	10.8	10.1
White	8.4	7.4	7.6	6.9	7.2	8.0	8.0	7.8	8.4	9.1	8.8	8.7	8.1	8.3	7.7
Black	19.8	17.8	16.8	15.7	14.3	14.3	15.8	15.6	16.8	16.9	17.2	17.2	16.5	16.3	15.3
1+ yrs college															
All Races	7.2	6.5	5.7	5.0	4.9	4.9	4.9	5.5	6.1	6.0	6.0	6.3	5.6	5.3	5.5
White	5.5	4.6	4.2	4.0	3.9	3.7	3.6	4.1	4.6	4.7	4.7	5.0	4.4	4.0	4.2
Black	18.1	16.9	13.0	9.9	10.2	10.5	11.8	13.5	13.9	12.6	12.2	12.0	10.7	10.5	11.0
PRENATAL CARE ATTAINMENT															
First															
All Races	9.1	8.0	7.4	6.7	6.5	6.9	7.3	7.7	8.2	8.3	8.2	8.3	7.8	7.8	7.8
White	6.7	5.6	5.5	5.1	5.1	5.3	5.5	5.8	6.2	6.4	6.2	6.4	5.9	5.8	5.9
Black	19.9	18.0	15.0	13.5	12.3	12.6	14.2	14.6	15.2	14.8	15.0	14.5	13.9	14.0	13.7
Late or no															
All Races	26.4	23.8	27.2	24.0	25.2	21.9	19.4	15.5	20.1	21.7	25.8	25.4	20.5	17.1	13.2
White	20.8	24.3	29.6	20.5	24.9	22.3	16.7	11.5	17.4	19.6	24.2	19.7	15.6	12.7	9.4
Black	31.1	24.3	26.3	28.5	25.5	21.5	21.2	19.0	23.0	25.8	30.6	38.0	31.7	27.4	22.2
PAYMENT FOR DELIVERY															
Medicaid															
All Races	NA	NA	11.7	10.1	10.0	10.3	10.9	9.9	10.6	10.1	9.5	10.2	9.5	10.3	10.1
White	NA	NA	8.5	7.3	7.9	8.8	9.1	7.7	8.6	8.3	7.1	7.7	7.0	8.0	8.0
Black	NA	NA	15.4	13.8	12.9	12.7	13.6	13.1	13.8	13.0	13.3	14.7	13.8	14.2	13.8
Private Insurance															
All Races	NA	NA	6.1	5.5	5.3	5.5	5.7	6.5	6.8	7.4	7.7	7.5	7.2	6.5	6.1
White	NA	NA	4.8	4.4	4.2	4.2	4.3	4.9	5.2	5.7	5.9	5.7	5.3	4.7	4.4
Black	NA	NA	14.1	12.6	11.6	12.8	13.7	14.8	15.6	16.5	17.1	17.0	16.4	15.2	14.8

Notes:

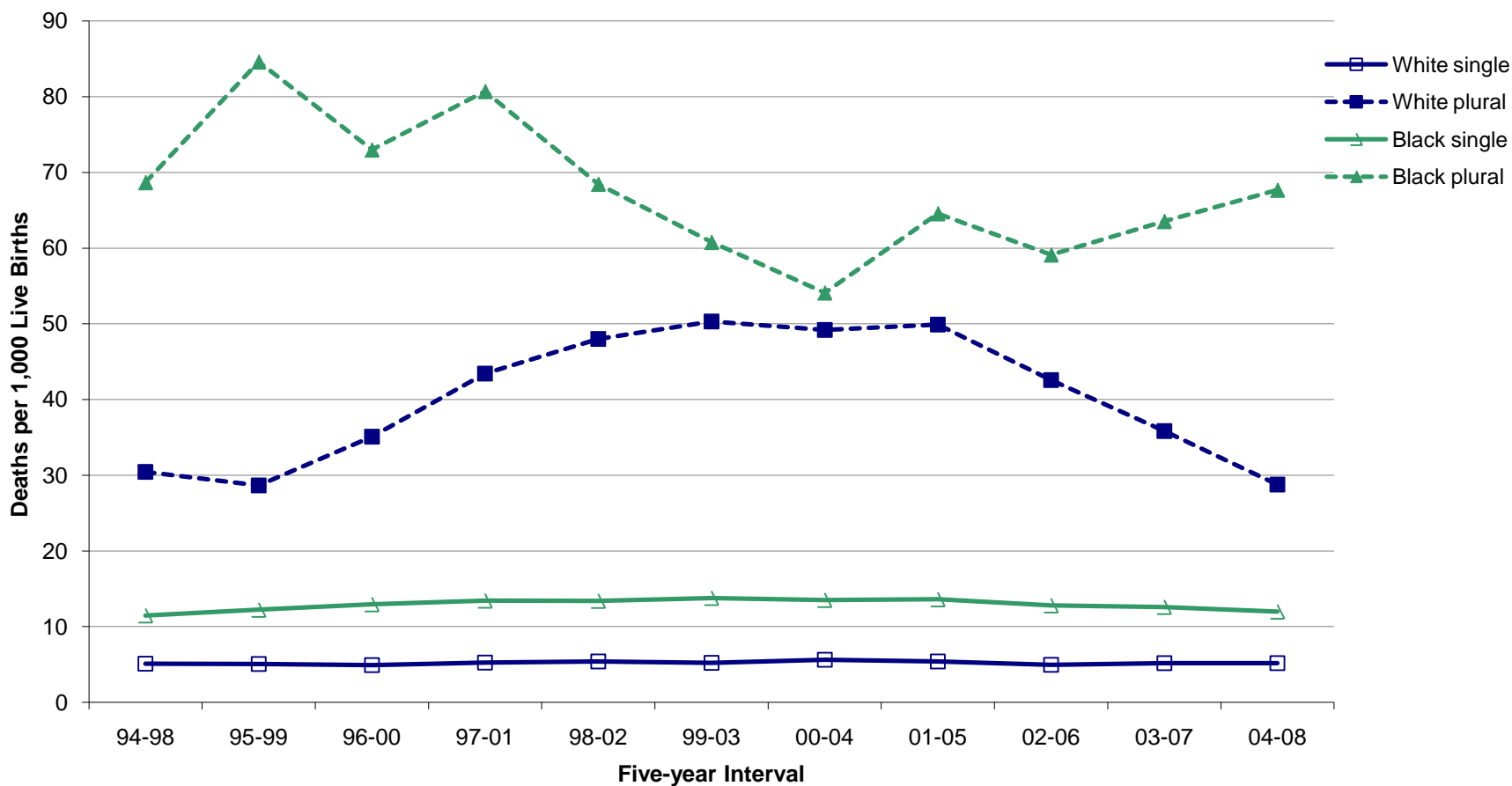
1. See the Basic Definitions section for definitions of birthweight, gestation, prenatal care attainment, and plurality.
2. "—" indicates rate does not meet standards of reliability or precision; based on fewer than 20 deaths in the numerator.
3. Primary source of payment for delivery not available prior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

Source:

Delaware Health Statistics Center

COTREND

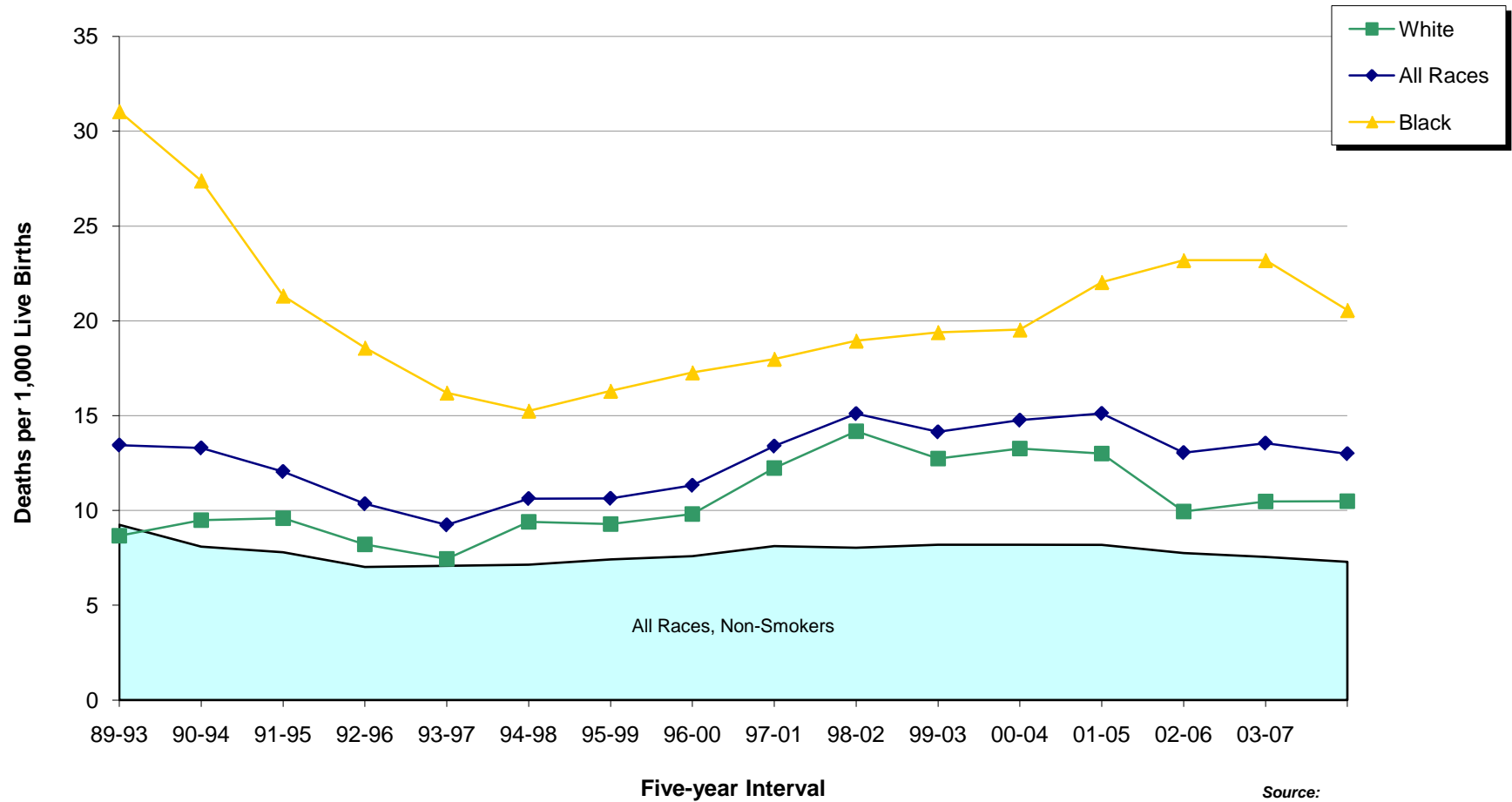
Figure E-5
Five-year Average Infant Mortality Rates by Race and Plurality
Delaware, 1994-2008 Live Birth Cohort



Source:
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

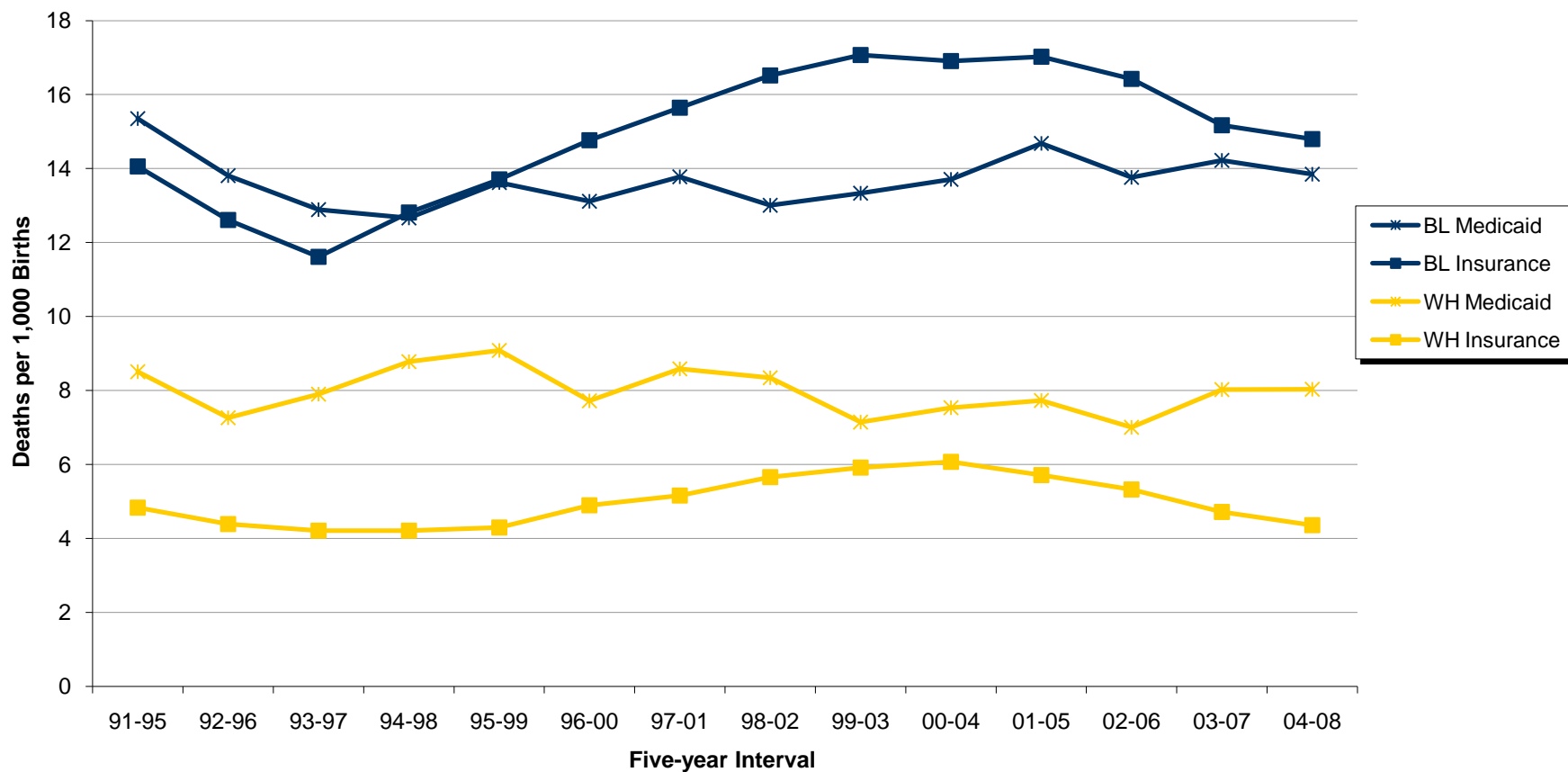
Delaware, 1989-2008 Live Birth Cohort



Source:
Delaware Health Statistics Center

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

Delaware, 1991-2008 Live Birth Cohort



Source:
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, 2004-2008 LIVE BIRTH COHORT

Plurality/ Birth Weight	Race and Sex										
	All Races			White			Black			Other	
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male
All Births	474	254	220	244	135	109	216	113	103	14	6
<2500	366	189	177	176	96	80	178	88	90	12	5
<1500	307	165	142	144	85	59	154	77	77	9	3
<500	149	79	70	53	35	18	91	43	48	5	1
500-999	132	68	64	73	38	35	56	29	27	3	1
1000-1499	26	18	8	18	12	6	7	5	2	1	1
1500-1999	25	10	15	14	5	9	10	4	6	1	1
2000-2499	34	14	20	18	6	12	14	7	7	2	1
2500+	104	62	42	66	38	28	36	23	13	2	1
2500-2999	39	25	14	28	18	10	10	7	3	1	0
3000-3499	37	20	17	18	7	11	18	12	6	1	1
3500-3999	18	9	9	11	5	6	7	4	3	0	0
4000-4499	6	5	1	6	5	1	0	0	0	0	0
4500+	4	3	1	3	3	0	1	0	1	0	0
Unknown	4	3	1	2	1	1	2	2	0	0	0
Single Births	391	208	183	203	108	95	176	95	81	12	5
<2500	288	146	142	136	70	66	141	72	69	11	4
<1500	234	125	109	105	60	45	120	62	58	9	3
<500	115	59	56	38	25	13	72	33	39	5	1
500-999	98	52	46	53	26	27	42	25	17	3	1
1000-1499	21	14	7	14	9	5	6	4	2	1	1
1500-1999	24	9	15	14	5	9	10	4	6	0	0
2000-2499	30	12	18	17	5	12	11	6	5	2	1
2500+	100	60	40	65	37	28	34	22	12	1	1
2500-2999	36	24	12	27	17	10	9	7	2	0	0
3000-3499	36	19	17	18	7	11	17	11	6	1	1
3500-3999	18	9	9	11	5	6	7	4	3	0	0
4000-4499	6	5	1	6	5	1	0	0	0	0	0
4500+	4	3	1	3	3	0	1	0	1	0	0
Unknown	3	2	1	2	1	1	1	1	0	0	0
Plural Births	83	46	37	41	27	14	40	18	22	2	1
<2500	78	43	35	40	26	14	37	16	21	1	1
<1500	73	40	33	39	25	14	34	15	19	0	0
<500	34	20	14	15	10	5	19	10	9	0	0
500-999	34	16	18	20	12	8	14	4	10	0	0
1000-1499	5	4	1	4	3	1	1	1	0	0	0
1500-1999	1	1	0	0	0	0	0	0	0	1	1
2000-2499	4	2	2	1	1	0	3	1	2	0	0
2500+	4	2	2	1	1	0	2	1	1	1	0
2500-2999	3	1	2	1	1	0	1	0	1	1	0
3000-3499	1	1	0	0	0	0	1	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:
Infant deaths refer to deaths of children under one year of age.

Source:
Delaware Health Statistics Center

PLBWRC SX

TABLE E-11
NUMBER OF NEONATAL DEATHS BY PLURALITY, BIRTH WEIGHT IN GRAMS, RACE OF MOTHER AND SEX OF CHILD
DELAWARE, 2004-2008 LIVE BIRTH COHORT

Plurality/ Birth Weight	Race and Sex										
	All Races			White			Black			Other	
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male
All Births	340	186	154	169	95	74	161	88	73	10	3
<2500	305	163	142	148	84	64	148	77	71	9	2
<1500	280	153	127	132	78	54	140	73	67	8	2
<500	149	79	70	53	35	18	91	43	48	5	1
500-999	110	60	50	64	33	31	43	26	17	3	1
1000-1499	21	14	7	15	10	5	6	4	2	0	0
1500-1999	11	3	8	7	2	5	4	1	3	0	0
2000-2499	14	7	7	9	4	5	4	3	1	1	0
2500+	32	21	11	20	11	9	11	9	2	1	1
2500-2999	13	9	4	11	7	4	2	2	0	0	0
3000-3499	12	9	3	5	2	3	6	6	0	1	1
3500-3999	3	1	2	1	0	1	2	1	1	0	0
4000-4499	3	2	1	3	2	1	0	0	0	0	0
4500+	1	0	1	0	0	0	1	0	1	0	0
Unknown	3	2	1	1	0	1	2	2	0	0	0
Single Births	268	143	125	131	69	62	127	71	56	10	3
<2500	235	122	113	111	59	52	115	61	54	9	2
<1500	211	113	98	95	53	42	108	58	50	8	2
<500	115	59	56	38	25	13	72	33	39	5	1
500-999	80	44	36	46	21	25	31	22	9	3	1
1000-1499	16	10	6	11	7	4	5	3	2	0	0
1500-1999	11	3	8	7	2	5	4	1	3	0	0
2000-2499	13	6	7	9	4	5	3	2	1	1	0
2500+	31	20	11	19	10	9	11	9	2	1	1
2500-2999	12	8	4	10	6	4	2	2	0	0	0
3000-3499	12	9	3	5	2	3	6	6	0	1	1
3500-3999	3	1	2	1	0	1	2	1	1	0	0
4000-4499	3	2	1	3	2	1	0	0	0	0	0
4500+	1	0	1	0	0	0	1	0	1	0	0
Unknown	2	1	1	1	0	1	1	1	0	0	0
Plural Births	72	43	29	38	26	12	34	17	17	0	0
<2500	70	41	29	37	25	12	33	16	17	0	0
<1500	69	40	29	37	25	12	32	15	17	0	0
<500	34	20	14	15	10	5	19	10	9	0	0
500-999	30	16	14	18	12	6	12	4	8	0	0
1000-1499	5	4	1	4	3	1	1	1	0	0	0
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+	1	1	0	1	1	0	0	0	0	0	0
2500-2999	1	1	0	1	1	0	0	0	0	0	0
3000-3499	0	0	0	0	0	0	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:

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

Source:

Delaware Health Statistics Center

NEOPLBW