

FAST FACTS

- Maryland's infant mortality rate in 2016 was 6.5 per 1,000 live births, a 3% decrease over the 2015 rate of 6.7.

- The infant mortality rate decreased by 7% between 2015 and 2016 among NH black infants, but increased 8% among NH white infants.

- The neonatal mortality rate declined by 4% and the postneonatal mortality rate rose by 6% between 2015 and 2016.

- The leading causes of infant death in 2016 were low birth weight, congenital abnormalities, maternal complications of pregnancy, sudden infant death syndrome, and complications of the placenta, cord and membranes.

- The average infant mortality rate has fallen by 11% in Maryland over the past decade, with an 18% decline in the average rate among NH black infants and a 13% decline among NH white infants. Over the same time period, the Hispanic infant mortality rate has risen by 50%.

- Despite the statewide decline in the infant mortality rate over the past decade, there are areas of the State where rates have been increasing.

Maryland Vital Statistics

Infant Mortality in Maryland, 2016

December 2017

Trends

The infant mortality rate in Maryland was 6.5 per 1,000 live births in 2016, a 3% decrease over the 2015 rate of 6.7. A total of 478 infants died in 2016 compared with 491 in 2015. There were 247 deaths among infants born to non-Hispanic (NH) black women, 136 deaths among infants born to non-Hispanic white women, 64 deaths among infants born to Hispanic women, and 23 deaths among infants born to non-Hispanic Asian women.

The decrease in the overall infant mortality rate between 2015 and 2016 was the result of a 7% drop in the non-Hispanic black infant mortality rate, which decreased from 11.3 in 2015 to 10.5 in 2016, and a 2% drop in the Hispanic infant mortality rate, which decreased from 5.5 in 2015 to 5.4 in 2016 (Table 1).

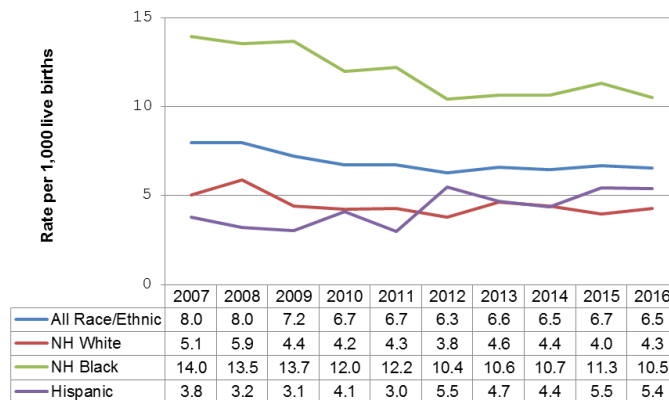
Table 1. Infant, Neonatal and Postneonatal Mortality Rates* for Selected Years, Maryland.

	Rate* by year		Average rate*	
	2015	2016	2007-11	2012-16
Infant mortality				
All Race/Ethnic	6.7	6.5	7.3	6.5 ***
NH White	4.0	4.3	4.8	4.2 ***
NH Black	11.3	10.5	13.1	10.7 ***
Hispanic	5.5	5.4	3.4	5.1 ***
Neonatal mortality				
All Race/Ethnic	4.9	4.7	5.3	4.7 ***
NH White	2.7	2.9	3.4	2.9 ***
NH Black	8.5	7.5	9.5	7.8 ***
Hispanic	4.1	3.8	2.6	3.7 ***
Postneonatal mortality				
All Race/Ethnic	1.8	1.9	2.0	1.9
NH White	1.3	1.4	1.4	1.3
NH Black	2.8	3.1	3.6	2.9 ***
Hispanic	1.4	1.6	0.9	1.4 ***

*Per 1,000 live births

***Rates for 2007-2011 and 2012-2016 differ significantly (p<.05)

Figure A. Infant Mortality Rates by Race/ethnicity, Maryland, 2007-2016.



Infant mortality rates have improved substantially in Maryland over the past decade, falling from an average rate of 7.3 per 1,000 live births during the years 2007-2011 to an average of 6.5 per 1,000 live births during 2012-2016. This 11% decline is statistically significant. The rates also fell by 13% among non-Hispanic whites and by 18% among non-Hispanic blacks. There was a statistically significant increase of 50% over the two periods among infants born to Hispanic women (Table 1).

Age at Time of Death

The overall neonatal mortality rate (deaths to infants under 28 days of age per 1,000 live births) decreased from 4.9 in 2015 to 4.7 in 2016 (Table 1). The rate decreased from 8.5 to 7.5 among non-Hispanic black infants and from 4.1 to 3.8 among Hispanic infants, while it increased from 2.7 to 2.9 among non-Hispanic white infants. The postneonatal mortality rate (deaths from 28 days through 11 months of age per 1,000 live births) increased slightly, from 1.8 in 2015 to 1.9 in 2016. Postneonatal mortality rates increased from 1.3 to 1.4 among non-Hispanic white infants, from 2.8 to

3.1 among non-Hispanic black infants, and from 1.4 to 1.6 among Hispanic infants (Table 1).

Neonatal mortality rates have shown statistically significant declines over the past 10 years. From 2007-2011 to 2012-2016, the average neonatal mortality rate declined by 11%. Significant declines were noted among non-Hispanic white, non-Hispanic black, and Hispanic infant neonatal mortality rates. There was a statistically significant decrease in postneonatal mortality rates among non-Hispanic black infants and a significant increase among Hispanic infants.

Causes of death

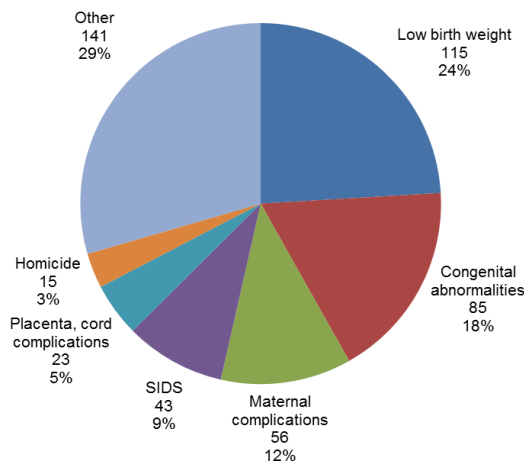
The leading causes of infant death in 2016 were disorders relating to short gestation and unspecified low birth weight (LBW); congenital malformations, deformations, and chromosomal abnormalities (Congenital abnormalities); maternal complications of pregnancy; Sudden Infant Death Syndrome (SIDS); and complications of the placenta, cord and membranes. Maternal complications of pregnancy include conditions such as premature rupture of membranes and cervical incompetence. (Figure B).

There was a substantial decline in infant deaths attributed to SIDS between 2015, 64, and 2016, 43. There were no substantial changes in the numbers of infant deaths due to other leading causes of infant death.

The leading causes of neonatal mortality in 2016 were LBW, congenital abnormalities, and maternal complications of pregnancy. Sudden Infant Death Syndrome, congenital abnormalities, and homicide were the leading causes of postneonatal mortality.

Congenital abnormalities were the leading cause of death among non-Hispanic white and Hispanic infants, and low birth weight was the leading cause of death among non-Hispanic black infants. Cause-specific mortality rates continue to be higher for non-Hispanic black infants than non-Hispanic white infants for all leading causes of death. Compared with non-Hispanic white infants, non-Hispanic black infants were four times more likely to die in 2016 as a result of LBW, three times more likely to die from SIDS, and twice as likely to die from maternal complications of pregnancy.

Figure B. Leading Causes of Infant Death, Maryland 2016

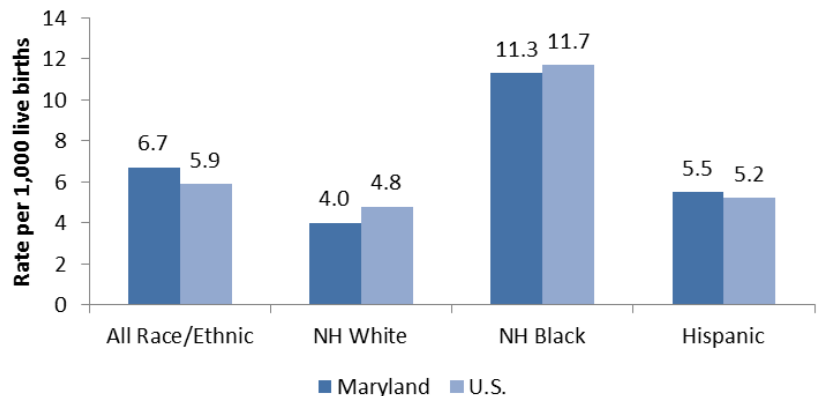


Comparison of rates in Maryland and the U.S.

Figure C shows a comparison of infant mortality rates in Maryland and the U.S. in 2015, the most recent year for which national data are available.

Maryland’s infant mortality rate for all races combined has historically been higher than the national rate, mainly because the Maryland population is comprised of a higher proportion of black residents, a group with typically higher infant mortality rates than whites. While white infant mortality rates have historically been lower in Maryland than in the nation, black rates have also been lower in Maryland than nationally in recent years. Maryland’s Hispanic infant mortality rate was higher than the national rate in 2015.

Figure C. Infant Mortality Rates by Race/ethnicity, Maryland and the U.S., 2015



Regional and county differences

The number of infant deaths and infant mortality rates by race/ethnicity, region, and political subdivision for 2015 and 2016 are shown in Table 2. The only statistically significant changes between 2015 and 2016 among jurisdictions occurred in Prince George's County, where there was a 28% drop in the non-Hispanic black infant mortality rate, and a simultaneous rise of 135% in the Hispanic infant mortality rate. There was also a significant regional decline in Hispanic infant mortality rates of 51% in the Baltimore Metro Area.

Over the past decade, there has been a statistically significant decline of 11% in infant mortality rates statewide (Table 3).

This drop was led by declines in the Baltimore Metro Area, especially in Baltimore City which experienced a 19% reduction, and by the National Capital Area, especially in Prince George's County which experienced a 20% drop over the periods between 2007-2011 and 2012-2016. Dorchester County saw a 58% decline in infant mortality rates over the last decade.

There were some areas of Maryland that experienced increases over this time frame, including most counties in the Northwest and Eastern Shore regions.

TABLE 2. INFANT DEATHS AND INFANT MORTALITY RATES BY RACE/ETHNICITY, REGION AND POLITICAL SUBDIVISION, MARYLAND, 2015 AND 2016.

Region and political subdivision	ALL RACE/ETHNICITIES				NON-HISPANIC WHITE				NON-HISPANIC BLACK				HISPANIC			
	Number of infant deaths		Infant mortality rate*		Number of infant deaths		Infant mortality rate*		Number of infant deaths		Infant mortality rate*		Number of infant deaths		Infant mortality Rate*	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Maryland	491	478	6.7	6.5	129	136	4.0	4.3	267	247	11.3	10.5	64	64	5.5	5.4
Northwest Area	33	27	6.0	5.0	21	20	5.0	4.8	9	5	15.5	9.0	2	2	**	**
Garrett	4	1	**	**	4	1	**	**	0	0	**	**	0	0	**	**
Allegany	5	5	7.3	8.1	5	4	7.9	**	0	1	**	**	0	0	**	**
Washington	13	12	7.7	7.1	8	8	6.2	6.3	5	2	20.4	**	0	2	**	**
Frederick	11	9	3.9	3.2	4	7	**	3.5	4	2	**	**	2	0	**	**
Baltimore Metro Area	210	207	6.3	6.2	61	73	3.7	4.5	110	113	10.0	10.4	22	11	6.8	3.3 ***
Baltimore City	73	75	8.4	8.8	10	13	4.5	5.9	51	58	9.7	11.3	7	3	8.7	**
Baltimore County	61	58	6.1	5.9	20	19	4.1	4.0	32	31	9.9	9.8	7	3	7.2	**
Anne Arundel	35	39	5.1	5.6	16	23	3.6	5.3	12	13	9.5	10.1	3	3	**	**
Carroll	5	5	3.0	2.9	3	5	**	3.3	1	0	**	**	1	0	**	**
Howard	27	17	7.6	4.8	8	7	4.8	4.3	10	4	13.9	**	3	2	**	**
Harford	9	13	3.3	4.8	4	6	**	3.1	4	7	**	14.4	1	0	**	**
National Capital Area	180	167	7.1	6.6	14	18	2.4	3.2	117	93	11.9	9.5	37	42	5.1	5.8
Montgomery	70	73	5.3	5.6	10	16	2.2	3.6	23	26	8.1	9.2	28	20	7.5	5.5
Prince George's	110	94	8.9	7.6	4	2	**	**	94	67	13.4	9.7***	9	22	2.6	6.1***
Southern Area	25	35	5.9	8.4	8	11	3.1	4.4	14	19	12.1	15.7	2	2	**	**
Calvert	4	6	**	6.6	2	1	**	**	2	3	**	**	0	1	**	**
Charles	9	19	4.9	10.5	1	4	**	**	7	13	8.3	14.9	1	0	**	**
Saint Mary's	12	10	8.3	7.0	5	6	4.6	5.7	5	3	22.5	**	1	1	**	**
Eastern Shore Area	43	42	9.0	8.8	25	14	7.7	4.4	17	17	16.4	16.3	1	7	**	15.6
Cecil	8	8	6.8	7.2	7	3	7.1	**	1	3	**	**	0	2	**	**
Kent	2	2	**	**	0	1	**	**	2	1	**	**	0	0	**	**
Queen Anne's	1	0	**	**	1	0	**	**	0	0	**	**	0	0	**	**
Caroline	5	4	12.8	**	4	3	**	**	1	0	**	**	0	0	**	**
Talbot	6	3	18.6	**	3	2	**	**	3	0	**	**	0	1	**	**
Dorchester	4	1	**	**	1	0	**	**	3	1	**	**	0	0	**	**
Wicomico	8	12	6.5	9.7	5	2	8.0	**	2	9	**	19.9	1	1	**	**
Somerset	3	4	**	**	2	1	**	**	1	2	**	**	0	1	**	**
Worcester	6	8	13.8	19.0	2	2	**	**	4	1	**	**	0	2	**	**

*Per 1,000 live births

**Rates based on <5 deaths are not shown since rates based on small numbers are statistically unreliable.

***Rates for 2015 and 2016 differ significantly (p<.05).



MARYLAND
Department of Health

TABLE 3. NUMBER OF INFANT DEATHS, AVERAGE INFANT MORTALITY RATE BY FIVE YEAR INTERVAL AND PERCENT CHANGE IN RATES BETWEEN INTERVALS BY REGION AND POLITICAL SUBDIVISION, MARYLAND, 2007-2011 AND 2012-2016.

Region and political subdivision	Number of infant deaths		Average infant mortality rate*		Percent change**
	2007-2011	2012-2016	2007-2011	2012-2016	
Maryland	2769	2377	7.3	6.5	-11.2 ***
Northwest Area	147	146	5.1	5.3	3.5
Garrett	7	12	4.8	8.1	69.3
Allegany	24	24	6.8	7.2	5.6
Washington	49	55	5.4	6.4	16.9
Frederick	67	55	4.6	3.9	-14.2
Baltimore Metro Area	1312	1099	7.6	6.6	-13.5 ***
Baltimore City	551	419	11.7	9.5	-18.5 ***
Baltimore County	350	300	7.0	6.1	-12.3
Anne Arundel	211	196	6.0	5.7	-5.2
Carroll	34	28	4.1	3.4	-16.0
Howard	91	93	5.4	5.3	-0.8
Harford	75	63	5.3	4.7	-10.9
National Capital Area	976	817	7.5	6.5	-14.2 ***
Montgomery	358	333	5.3	5.1	-4.3
Prince George's	618	484	10.0	8.0	-20.1 ***
Southern Area	145	126	6.8	6.0	-11.2
Calvert	25	22	5.3	4.8	-9.0
Charles	67	60	7.2	6.5	-9.5
Saint Mary's	53	44	7.3	6.2	-14.5
Eastern Shore Area	189	189	7.3	8.0	9.4
Cecil	29	32	4.7	5.8	22.7
Kent	6	8	6.4	9.7	51.1
Queen Anne's	16	9	6.2	4.0	-36.4
Caroline	17	20	7.5	10.4	38.8
Talbot	10	15	5.6	9.1	61.6
Dorchester	29	12	14.5	6.2	-57.5 ***
Wicomico	49	57	7.5	9.4	26.0
Somerset	15	15	11.5	11.6	0.9
Worcester	18	21	7.7	9.6	24.5

*Per 1,000 live births

**Percent change is based on the exact rates and not on the rounded rates presented here.

***Rates for 2007-2011 and 2012-2016 differ significantly (p<.05).

For more information or to obtain Maryland vital statistics data please contact the:

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Vital Statistics Administration**

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