

FAST FACTS

- Maryland's infant mortality rate in 2020 was 5.7 per 1,000 live births, a 3% decrease compared with the 2019 rate. This is the lowest infant mortality rate recorded in Maryland's history.

- The infant mortality rate increased by 6% between 2019 and 2020 among NH black infants. There were substantial decreases among other race/ethnicities during this period: 20% among NH white infants, 18% among NH Asian/Pacific Islander infants, and 10% among Hispanic infants.

- The neonatal rate increased by 5% between 2019 and 2020. The postneonatal mortality rates decreased by 20% between 2019 and 2020.

- The leading causes of infant death in 2020 were low birth weight, congenital abnormalities, maternal complications of pregnancy, Sudden Infant Death Syndrome, and circulatory system disorders.

- The average infant mortality rate has fallen by 6% in Maryland over the past decade, with an 7% decline in the average rate among NH black infants and a 6% decline among NH white infants. Over the same time period, the Hispanic infant mortality rate has risen by 2%.

- 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, 2020

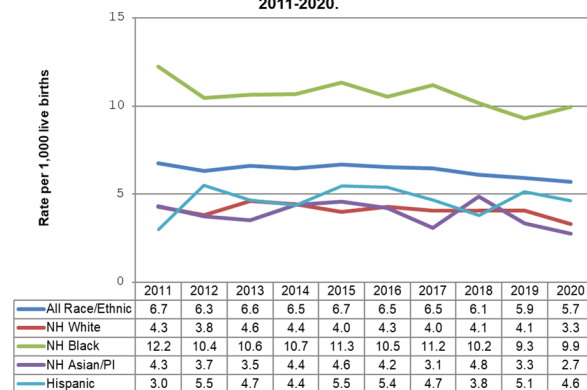
December 2021

Trends

The infant mortality rate in Maryland was 5.7 per 1,000 live births in 2020, a 3% decrease compared with the 2019 rate (5.9). The total number of infant deaths declined between 2019 (414) and 2020 (391), along with the number of births. In 2020 there were 215 deaths among infants born to non-Hispanic (NH) black women, 95 deaths among infants born to non-Hispanic (NH) white women, 60 deaths among infants born to Hispanic women, and 13 deaths among infants born to non-Hispanic Asian/Pacific Islander women.

There was a 6% increase in the non-Hispanic black infant mortality rate, from 9.3 in 2019 to 9.9 in 2020. Rates decreased by 20% among non-Hispanic white infants, by 18% among non-Hispanic Asian/Pacific Islander infants, and by 10% among Hispanic infants over the same period. (Table 1).

Figure A. Infant Mortality Rates by Race/ethnicity, Maryland, 2011-2020.



Age at Time of Death

The overall neonatal mortality rate (i.e., deaths to infants under 28 days of age per 1,000 live births) increased 5% from 3.9 in 2019 to 4.1 in 2020 (Table 1). The rate decreased 11% from 2.7 to 2.4 among non-Hispanic white infants. The rate increased 6% from 6.4 to 6.8 among non-Hispanic black neonates, 6% from 3.3 to 3.5 among Hispanic neonates, and increased by 10% from 2.1 to 2.3 among non-Hispanic Asian neonates.

The postneonatal mortality rate (i.e., deaths from 28 days through 11 months of age per

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

	Rate* by year		Average rate*	
	2019	2020	2011-2015	2016-2020
Infant mortality				
All Race/Ethnic	5.9	5.7	6.6	6.1 ***
NH White	4.1	3.3	4.2	4.0
NH Black	9.3	9.9	11.1	10.2
NH Asian/PI	3.3	2.7	4.1	3.7
Hispanic	5.1	4.6	4.6	4.7
Neonatal mortality				
All Race/Ethnic	3.9	4.1	4.8	4.3 ***
NH White	2.7	2.4	3.0	2.6
NH Black	6.4	6.8	8.1	7.0 ***
NH Asian/PI	2.1	2.3	3.3	2.9
Hispanic	3.3	3.5	3.4	3.4
Postneonatal mortality				
All Race/Ethnic	2.0	1.6	1.8	1.9
NH White	1.4	0.9	1.2	1.3
NH Black	2.9	3.1	3.0	3.2
NH Asian/PI	1.2	0.4	0.9	0.7
Hispanic	1.9	1.2	1.2	1.3

*Per 1,000 live births

***Rates for 2011-2015 and 2016-2020 differ significantly (p<.05)

Infant mortality rates have improved in Maryland over the past decade, falling from an average rate of 6.6 per 1,000 live births during the years 2011-2015 to an average of 6.1 per 1,000 live births during 2016-2020. The average rates fell by 11% among non-Hispanic Asian/Pacific Islanders, by 7% among non-Hispanic blacks, and by 6% among non-Hispanic whites. However, the average infant mortality rate increased by 2% over the two periods among Hispanic infants (Table 1).

1,000 live births) decreased 20% from 2.0 in 2019 to 1.6 in 2020. The rate decreased 36% among non-Hispanic white infants, from 1.4 to 0.9, decreased 67% among non-Hispanic Asian infants, and decreased 37% among Hispanic infants. The postneonatal rate increased by 7% from among non-Hispanic black infants. (Table 1).

Comparing the five year periods of 2011-2015 to 2016-2020, the average neonatal mortality rate declined significantly by 10%. There was also a significant decline (14%) among non-Hispanic black neonates. The average postneonatal mortality rate increased by 5% over this time period.

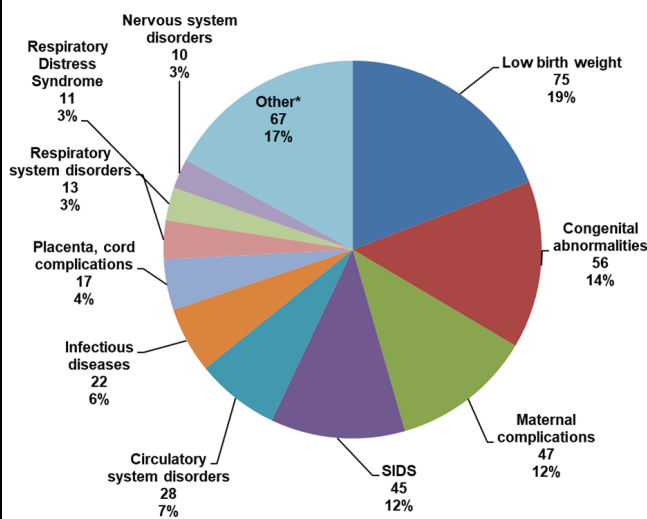
Causes of death

The leading causes of infant death in 2020 were disorders relating to short gestation and low birth weight (LBW); congenital malformations, deformations, and chromosomal abnormalities (Congenital abnormalities); maternal complications of pregnancy; Sudden Infant Death Syndrome (SIDS); circulatory system disorders; infectious diseases, 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).

Infant deaths attributed to SIDS had generally declined from 64 in 2015 to a low of 38 in 2019. SIDS deaths increased in 2020 to 45, an 18% increase since 2019. There were 4 infant homicides in 2020, 8 unintentional injuries, and one injury death due to undetermined intent.

The leading causes of neonatal mortality in 2020 were LBW (27%), maternal complications of pregnancy (17%), and congenital abnormalities (14%). The leading causes of postneonatal mortality were SIDS (35%), congenital abnormalities (14%), and respiratory system disorders (8%).

Figure B. Leading Causes of Infant Death, Maryland 2020



*Includes causes of death with <10 events

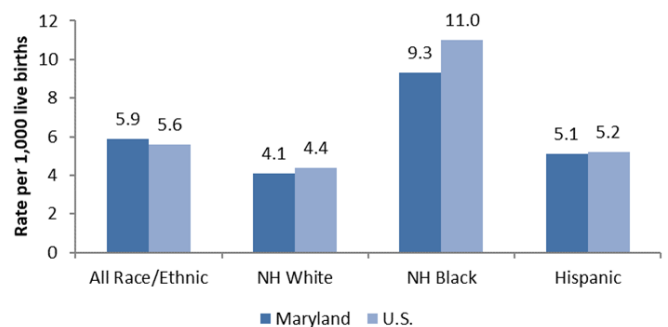
Low birth weight was the leading cause of death among non-Hispanic black infants (22%) and non-Hispanic white infants (19%) in 2020. Congenital abnormalities were the leading cause of death among Hispanic (35%) infants. Cause-specific mortality rates continue to be higher for non-Hispanic black infants than non-Hispanic white infants for all leading causes of death. Compared with non-Hispanic white infants, non-Hispanic black infants were nearly four times more likely to die in 2020 as a result of LBW, seven times more likely to die from maternal complications, and five times as likely to die from SIDS. Compared with non-Hispanic white infants, Hispanic infants were three times more likely to die from congenital abnormalities.

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 2019, the most recent year for which national data are available.

Maryland’s infant mortality rate for all race and ethnicities 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. White infant mortality rates have historically been lower in Maryland than in the nation, and this remained true in 2019. Maryland’s non-Hispanic Black and Hispanic infant mortality rates were also lower than the national rate in 2019.

Figure C. Infant Mortality Rates by Race/ethnicity, Maryland and the U.S., 2019



Regional and county differences

The number of infant deaths and infant mortality rates by race/ethnicity, region, and political subdivision for 2019 and 2020 are shown in Table 2. There were no statistically significant changes between 2019 and 2020 among all races/ethnicities in total or among select race/ethnicities. Most jurisdictions had declines in infant deaths in 2020, with only a few having modest increases: Baltimore City, Anne Arundel, Montgomery, Calvert, Caroline, Dorchester, and Wicomico.

Over the past decade, comparing the periods between 2011-2015 and 2016-2020, there has been a 6% decline in infant mortality rates statewide (Table 3). This drop was led by declines in the National Capital Area which had a statistically

significant 10% drop, including a significant 15% decrease in Prince George’s County. The Baltimore Metro Area also had important declines, including a significant 22% drop in Anne Arundel County.

There were also several areas of Maryland that experienced increases over this time frame, including counties in the Northwest Area (except Garrett), Charles County in the Southern Area, and Dorchester, Wicomico, and Somerset in the Eastern Shore Area (Table 3).

TABLE 2. INFANT DEATHS AND INFANT MORTALITY RATES BY RACE/ETHNICITY, REGION AND POLITICAL SUBDIVISION, MARYLAND, 2019 AND 2020.

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*	
	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020	2019	2020
Maryland	414	391	5.9	5.7	120	95	4.1	3.3	207	215	9.3	9.9	66	60	5.1	4.6
Northwest Area	38	23	6.9	4.1	22	17	5.6	4.3	11	4	17.0	**	5	2	7.3	**
Garrett	2	0	**	**	2	0	**	**	0	0	**	**	0	0	**	**
Allegany	10	6	15.5	9.5	9	5	15.2	8.5	1	1	**	**	0	0	**	**
Washington	13	9	7.9	5.3	6	6	5.0	4.9	6	3	23.2	**	1	0	**	**
Frederick	13	8	4.4	2.7	5	6	2.6	3.1	4	0	**	**	4	2	**	**
Baltimore Metro Area	205	196	6.4	6.3	58	41	3.9	2.8	113	119	10.8	11.7	23	21	5.9	5.2
Baltimore City	68	76	8.8	10.3	9	8	4.4	4.1	51	59	11.4	14.0	6	7	6.3	7.2
Baltimore County	68	60	7.1	6.4	17	10	4.0	2.4	40	37	12.0	11.5	8	6	6.9	4.9
Anne Arundel	29	31	4.2	4.5	9	13	2.3	3.3	11	8	8.3	5.5	7	6	6.5	5.7
Carroll	8	4	4.9	**	8	2	5.5	**	0	1	**	**	0	0	**	**
Howard	17	12	5.1	3.6	6	2	4.4	**	8	8	10.3	10.1	1	1	**	**
Harford	15	13	5.6	5.0	9	6	4.8	3.3	3	6	**	12.6	1	1	**	**
National Capital Area	124	123	5.2	5.4	18	16	3.6	3.3	62	69	7.0	8.1	35	33	4.7	4.5
Montgomery	51	61	4.2	5.2	17	14	4.3	3.6	16	21	6.2	8.3	12	21	3.4	5.9
Prince George's	73	62	6.2	5.5	1	2	**	**	46	48	7.3	8.0	23	12	5.9	3.1
Southern Area	22	21	5.3	5.1	9	7	3.8	3.0	12	14	9.6	11.1	0	0	**	**
Calvert	2	4	**	**	2	2	**	**	0	2	**	**	0	0	**	**
Charles	14	11	7.5	6.1	3	2	**	**	10	9	11.1	9.9	0	0	**	**
Saint Mary's	6	6	4.4	4.3	4	3	**	**	2	3	**	**	0	0	**	**
Eastern Shore Area	25	28	5.2	5.9	13	14	4.1	4.5	9	9	8.9	8.7	3	4	**	**
Cecil	6	4	5.1	**	5	4	5.1	**	1	0	**	**	0	0	**	**
Kent	1	0	**	**	1	0	**	**	0	0	**	**	0	0	**	**
Queen Anne's	2	1	**	**	2	0	**	**	0	0	**	**	0	1	**	**
Caroline	0	2	**	**	0	1	**	**	0	1	**	**	0	0	**	**
Talbot	2	1	**	**	1	0	**	**	1	0	**	**	0	1	**	**
Dorchester	3	5	**	13.3	0	2	**	**	2	2	**	**	1	0	**	**
Wicomico	9	14	7.2	11.2	4	6	**	10.3	3	6	**	12.3	2	2	**	**
Somerset	2	1	**	**	0	1	**	**	2	0	**	**	0	0	**	**
Worcester	0	0	**	**	0	0	**	**	0	0	**	**	0	0	**	**

*Per 1,000 live births

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

***Rates for 2019 and 2020 differ significantly (p<.05).

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, 2011-2015 AND 2016-2020.

Region and political subdivision	Number of infant deaths		Average infant mortality rate*		Percent change [^]
	2011-2015	2016-2020	2011-2015	2016-2020	
Maryland	2392	2177	6.6	6.1	-6.3 ***
Northwest Area	139	152	5.1	5.6	9.4
Garrett	12	6	8.3	4.3	-47.4
Allegany	24	28	7.1	8.7	22.5
Washington	47	57	5.4	6.8	25.9
Frederick	56	61	4.0	4.2	4.8
Baltimore Metro Area	1112	996	6.7	6.2	-7.2
Baltimore City	437	359	9.9	9.1	-7.3
Baltimore County	304	310	6.2	6.4	3.3
Anne Arundel	192	149	5.6	4.3	-22.3 ***
Carroll	27	27	3.4	3.2	-4.5
Howard	92	88	5.3	5.1	-3.6
Harford	60	63	4.5	4.8	6.7
National Capital Area	834	723	6.6	5.9	-10.2 ***
Montgomery	329	295	5.0	4.8	-4.8
Prince George's	505	428	8.3	7.1	-14.5 ***
Southern Area	116	130	5.5	6.3	14.4
Calvert	23	22	5.0	4.9	-2.6
Charles	56	74	6.0	8.1	33.3
Saint Mary's	37	34	5.2	5.0	-4.6
Eastern Shore Area	191	176	8.0	7.4	-8.3
Cecil	34	31	6.2	5.5	-11.1
Kent	8	4	9.3	**	**
Queen Anne's	11	10	4.8	4.0	-16.7
Caroline	19	13	9.8	6.5	-33.8
Talbot	19	11	11.6	6.4	-44.7
Dorchester	12	18	6.3	9.9	57.3
Wicomico	55	58	9.0	9.2	2.7
Somerset	15	18	11.7	15.3	31.2
Worcester	18	13	8.1	6.5	-19.8

*Per 1,000 live births

[^]Percent change is based on the exact rates and not on the rounded rates presented here.

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

***Rates for 2011-2015 and 2016-2020 differ significantly (p<.05).



Maryland Department of Health
Vital Statistics Administration

Larry Hogan, Governor, Boyd K. Rutherford, Lt. Governor, Dennis R. Schrader, Secretary,
Lee Hurt, Dr.P.H., Director, Vital Statistics Administration

The services and facilities of the Maryland Department of Health (MDH) are operated on a non-discriminatory basis. This policy prohibits discrimination on the basis of race, color, sex, or national origin and applies to the provisions of employment and granting of advantages, privileges, and accommodations.

The Department, in compliance with the Americans With Disabilities Act, ensures that qualified individuals with disabilities are given an opportunity to participate in and benefit from MDH services, programs, benefits, and employment opportunities.

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

Vital Statistics Administration

Maryland Department of Health
4201 Patterson Avenue
Baltimore, MD 21215

Phone: 410-764-3514

or visit:

www.health.maryland.gov/vsa