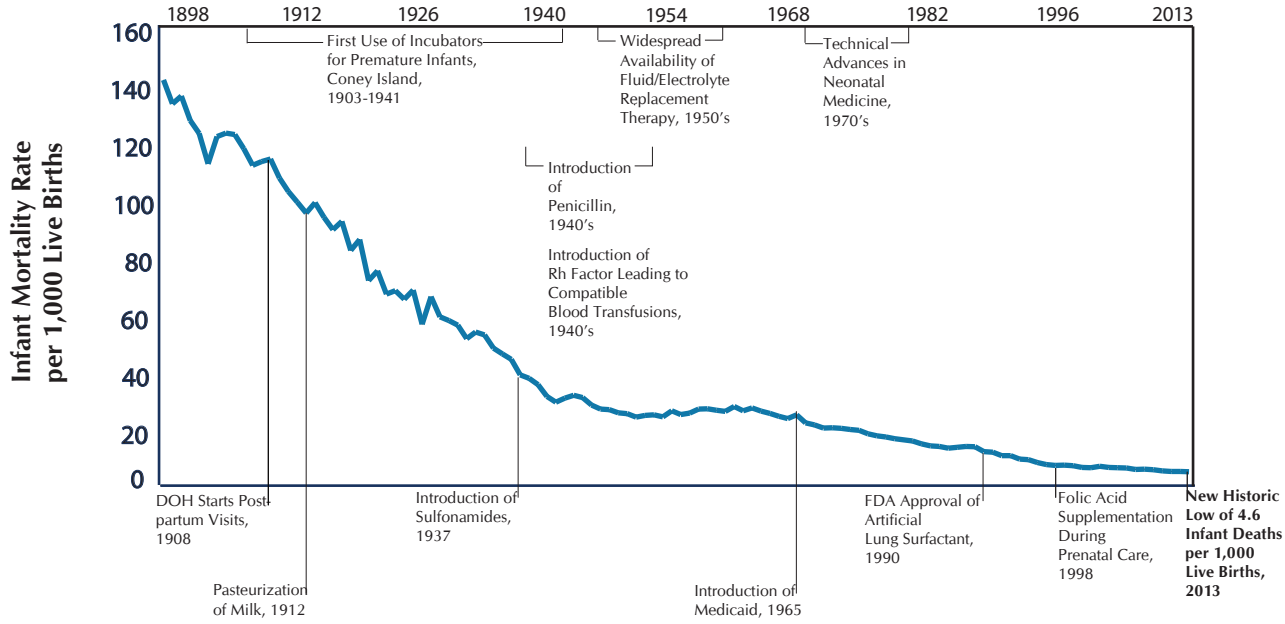
SUMMARY OF VITAL STATISTICS
2013
THE CITY OF NEW YORK

INFANT MORTALITY



Health

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SUMMARY OF VITAL STATISTICS 2013
THE CITY OF NEW YORK
INFANT MORTALITY

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2013 Infant Mortality, Mortality, Pregnancy Outcomes, and Executive Summary Reports are available online at http://www.nyc.gov/vitalstats.

INFANT MORTALITY CONTENTS

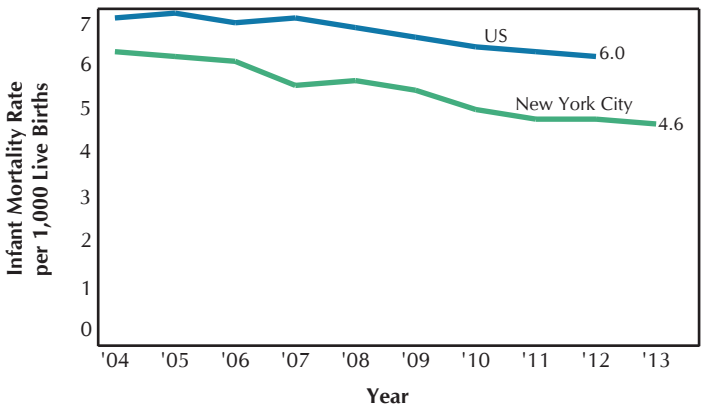
INFANT MORTALITY OVERVIEW

Infant mortality is a key indicator of a population's overall health and is defined as the number of infant deaths occurring within the first year of life per 1,000 live births. To characterize infant mortality in New York City, the Bureau of Vital Statistics links the mother's demographic data from the child's birth certificate to data from the death certificate and confidential medical report of death. Rates are displayed as three-year rolling averages or as single year depending on the stability of the measure. For technical notes, sample certificates, and additional data tables, please see the Bureau of Vital Statistics website at www.nyc.gov/vitalstats.

Select Key Findings:

- The 2013 New York City infant mortality rate reached an historic low of 4.6 infant deaths per 1,000 live births, a 24.6% decline from 6.0 in 2004 and a 2.1% decline from 4.7 in 2012. The Healthy People 2020 goal of 6.0 was met in 2005 (Figure 1).
- In 2012 (the most recent year for which US data are available), the New York City infant mortality rate was 4.7 per 1,000 live births, 27.7% lower than the US rate of 6.0 per 1,000 live births. In 2004, the New York City rate was just 11.3% lower than the US rate (Figure 1).
- Although infant mortality rates have declined among all racial/ethnic groups, disparities persist. In 2013, the infant mortality rate among non-Hispanic blacks was 2.8 times higher than among non-Hispanic whites, down from 3.3 in 2004 indicative of a health disparity reduction. However, these rates will fluctuate due to small numbers of infant deaths (Figure 3).
- The effect of education on the infant mortality rate varies by racial/ethnic group. Women with more than a high school education consistently have the lowest infant mortality rate. Among mothers with more than a high school education, the infant mortality rate among non-Hispanic black mothers was 3.6 times greater than among non-Hispanic white mothers, at 7.2 infant deaths per 1,000 live births compared to 2.0, respectively. (Figure 4).
- In 2013, infant mortality rates were 1.9 times greater in areas with very high poverty compared to areas with low poverty at 5.2 infant deaths per 1,000 live births and 2.8, respectively (Figure 5).
- The three leading causes of infant death in New York City were prematurity (short gestation and low birth weight) (20.9%), followed by birth defects (congenital malformations/deformations) (20.3%), and cardiovascular disease deaths originating in the perinatal period (11.3%) in 2013. External causes, which include injuries, homicides, and deaths of undetermined intent also accounted for a substantial percentage of these deaths (9.6%) (Figure 9).
- DOHMH continues to address these disparities through its initiatives in the District Public Health Offices, Center for Health Equity, and the Bureau of Maternal Infant and Reproductive Health, by targeting the underlying health and social factors that contribute to the disproportionately high infant mortality rates in some areas of the city.

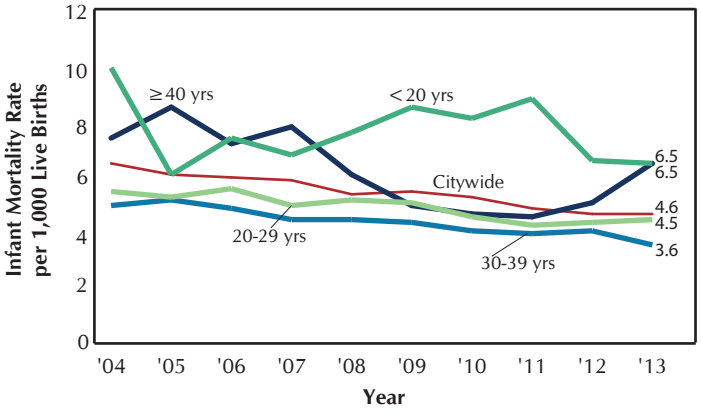
Figure 1. Infant Mortality Rate, New York City, 2004–2013, United States, 2004-2012*



*Latest year available.

DEMOGRAPHIC INDICATORS

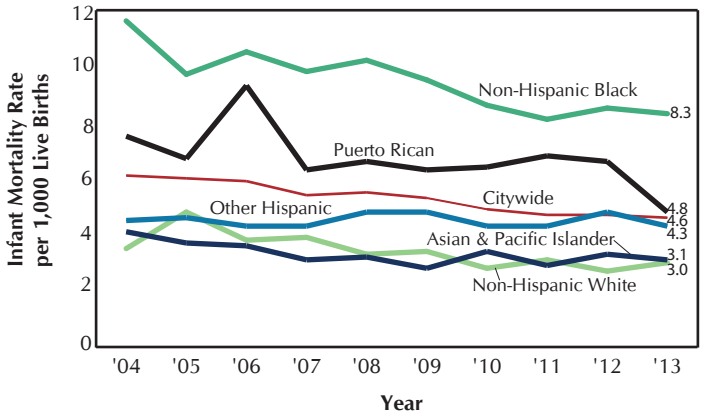
Figure 2. Infant Mortality Rate by Mother's Age*, New York City, 2004–2013



*The fluctuation in the infant mortality rate among infants born to mothers <20 and ≥40 is likely due to small numbers.

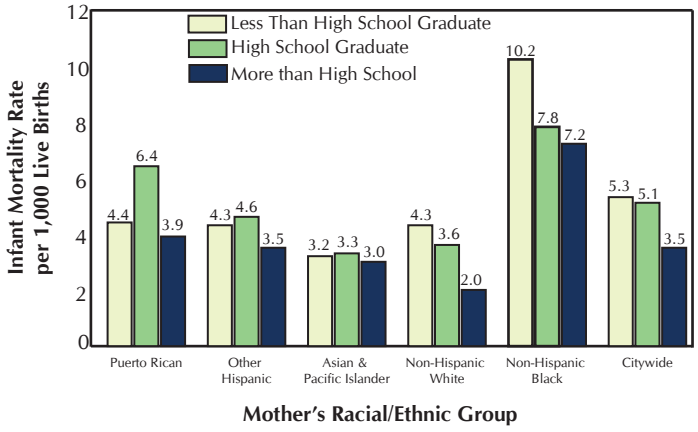
- In 2013, the infant mortality rate was highest among infants born to the youngest and oldest mothers (<20 years of age and ≥40 years of age), both at 6.5 infant deaths per 1,000 live births, followed by 4.5 among infants born to mothers 20 to 29 years of age. Mothers 30 to 39 years of age had the lowest infant mortality rate, at 3.6 infant deaths per 1,000 live births.
- Infant mortality rates have decreased among infants born to mothers in all age groups since 2004: 34.3% among mothers ages younger than 20, 28.0% among mothers ages 30 to 39, 18.2% among mothers ages 20 to 29, and 12.2% among mothers ages 40 and older.

Figure 3. Infant Mortality Rate by Mother's Racial/Ethnic Group, New York City, 2004–2013



- Although infant mortality rates have declined among all racial/ethnic groups, disparities persist. In 2013, the infant mortality rate among non-Hispanic blacks was 2.8 times higher than among non-Hispanic whites, down from 3.3 in 2004 indicative of a health disparity reduction. However, these rates will fluctuate due to small numbers of infant deaths.
- From 2004 to 2013, the infant mortality rate declined 36.0% among Puerto Ricans. It declined 28.4% among non-Hispanic blacks, 24.4% among Asian and Pacific Islanders, 14.3% among non-Hispanic whites, and 4.4% among other Hispanics.

Figure 4. Infant Mortality by Mother's Racial/Ethnic Group and Education, New York City, 2013

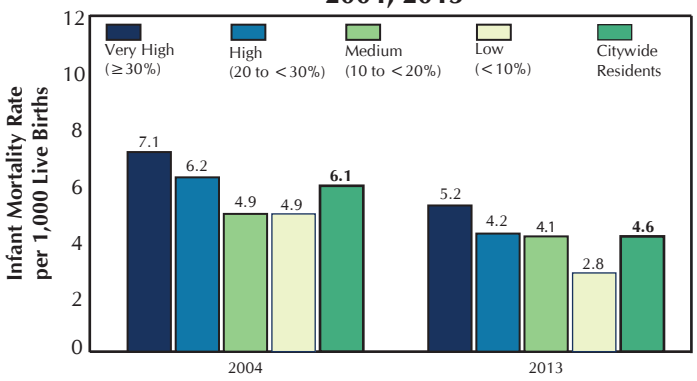


- Citywide, the 2013 infant mortality rate was approximately 1.5 times higher among infants born to mothers with less than a high school education, at 5.3 infant deaths per 1,000 live births, compared to mothers with more than a high school education, at 3.5.
- The effect of education on the infant mortality rate varies by racial/ethnic group. Across all racial/ethnic groups, however, women with more than a high school education consistently had the lowest infant mortality rate.

DEMOGRAPHIC INDICATORS

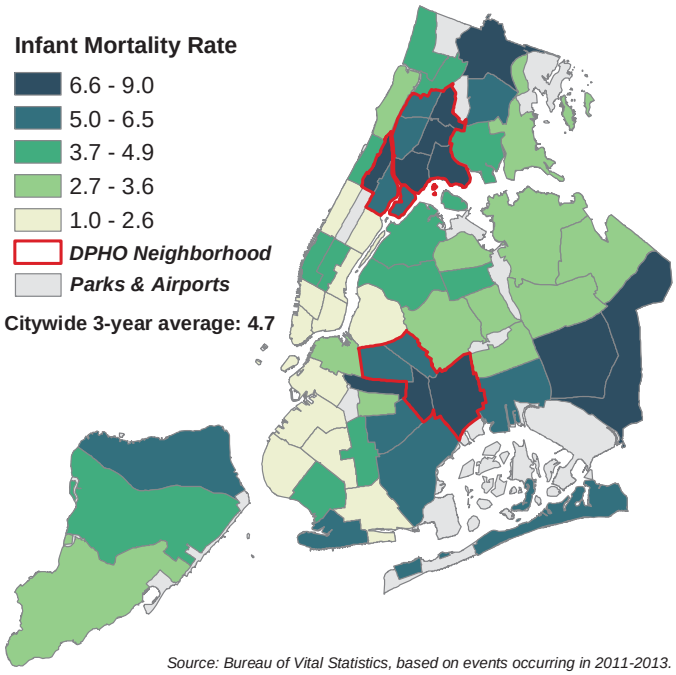
- In 2013, infant mortality rates were 1.9 times greater in areas with very high poverty compared to areas with low poverty (5.2 infant deaths per 1,000 live births vs. 2.8, respectively). The relative difference in rates will fluctuate due to small numbers.
- From 2004 to 2013, the infant mortality rate declined in all groups: 42.9% in low poverty areas, followed by 32.3% in high poverty areas, 26.8% in very high poverty areas and 16.3% in medium poverty areas.

Figure 5. Infant Mortality Rate by Neighborhood Poverty*, New York City Residents, 2004, 2013



*Neighborhood poverty (based on mother's NYC resident census tract) defined as percent of residents with incomes below 100% of the Federal Poverty Level, per Census 2000 for 2004 data and per American Community Survey 2008-2012 for 2013 data.

Figure 6. Average* Infant Mortality Rate by Community District of Residence and DPHO†, New York City, 2011–2013



Source: Bureau of Vital Statistics, based on events occurring in 2011-2013.

*Due to instability in the infant mortality rates by community district, rates are presented as three-year averages.

†See Technical Notes Community Districts, Boroughs, and District Public Health Offices.

- The community districts with the highest average infant mortality rates (2011–2013) were Jamaica/St. Albans at 9.0 infant deaths per 1,000 live births, followed by East Tremont at 8.7, Central Harlem at 8.1, Brownsville at 8.0, and Hunts Point, Williamsbridge, and East New York, each at 7.8.
- The community districts with the lowest average infant mortality rates were the Upper East Side, at 1.0 infant deaths per 1,000 live births, followed by Battery Park/Tribeca at 1.5, Sunset Park at 1.6, Borough Park at 1.8, and Greenwich Village/SOHO at 2.0.
- The average infant mortality rates in the community districts with the 5 highest rates were 4 to 9 times greater than the average infant mortality rates in the community districts with the 5 lowest rates.

DEMOGRAPHIC INDICATORS

Table 1. Average* Infant and Neonatal Mortality Rates by Community District of Residence, New York City, 2009–2013

Community District		2009–2011*		2010–2012*		2011–2013*	
		Infant Mortality Rate	Neonatal† Mortality Rate	Infant Mortality Rate	Neonatal† Mortality Rate	Infant Mortality Rate	Neonatal† Mortality Rate
	NEW YORK CITY	**4.9**	**3.3**	**4.8**	**3.1**	**4.7**	**3.1**
	MANHATTAN	**3.9**	**2.6**	**3.5**	**2.2**	**3.4**	**2.3**
101	Battery Park, Tribeca	1.6	1.3	1.2	1.2	1.5	1.2
102	Greenwich Village, SOHO	2.4	2.4	2.4	2.4	2.0	2.0
103	Lower East Side	3.4	1.1	2.6	1.3	2.4	1.0
104	Chelsea, Clinton	3.3	2.5	2.9	1.4	4.9	3.9
105	Midtown Business District	4.0	2.3	5.7	3.4	4.5	2.2
106	Murray Hill	3.9	3.1	2.3	1.5	2.1	1.0
107	Upper West Side	1.3	0.7	2.2	1.3	2.2	1.6
108	Upper East Side	2.5	1.9	1.5	1.1	1.0	0.8
109	Manhattanville	4.7	3.2	4.9	3.6	4.7	3.6
110	Central Harlem	8.5	6.2	8.4	5.7	8.1	5.7
111	East Harlem	6.9	4.5	5.3	3.9	6.0	4.5
112	Washington Heights	4.9	2.6	4.2	1.8	3.6	1.7
	BRONX	**5.9**	**3.9**	**5.6**	**3.7**	**5.7**	**3.7**
201	Mott Haven	6.3	4.1	6.6	4.2	6.6	3.7
202	Hunts Point	7.6	4.5	8.7	5.5	7.8	3.7
203	Morrisania	7.7	4.8	6.9	3.9	7.7	4.9
204	Concourse, Highbridge	4.8	3.3	5.5	3.4	5.5	3.3
205	University/Morris Heights	7.3	4.9	6.1	4.4	5.4	3.6
206	East Tremont	6.6	3.6	9.0	6.0	8.7	5.9
207	Fordham	4.6	3.6	4.3	3.3	3.9	2.9
208	Riverdale	5.3	4.5	4.0	2.8	4.1	1.7
209	Unionport, Soundview	5.4	3.3	4.2	2.4	4.4	2.7
210	Throgs Neck	4.6	3.0	2.4	1.4	3.1	2.1
211	Pelham Parkway	6.3	5.1	3.8	3.0	5.0	4.3
212	Williamsbridge	6.0	3.4	6.6	4.3	7.8	5.3
	BROOKLYN	**4.4**	**2.8**	**4.2**	**2.6**	**3.9**	**2.5**
301	Williamsburg, Greenpoint	2.4	1.5	2.4	1.6	2.4	1.4
302	Fort Greene, Brooklyn Heights	3.5	2.6	3.4	2.5	2.7	1.9
303	Bedford Stuyvesant	7.0	4.0	6.0	3.5	5.0	3.2
304	Bushwick	4.4	3.2	4.5	2.7	5.0	2.3
305	East New York	8.4	4.5	7.7	4.5	7.8	4.9
306	Park Slope	1.9	0.9	2.6	1.3	2.2	1.3
307	Sunset Park	2.9	2.0	2.2	1.7	1.6	1.5
308	Crown Heights North	4.2	3.1	7.2	3.8	7.1	3.9
309	Crown Heights South	4.4	2.6	3.1	1.4	2.8	1.3
310	Bay Ridge	4.0	2.5	3.5	2.2	2.5	1.6
311	Bensonhurst	4.2	3.1	4.4	2.6	3.9	2.5
312	Borough Park	2.8	2.0	2.0	1.4	1.8	1.3
313	Coney Island	5.6	3.6	6.3	4.1	5.5	3.6
314	Flatbush, Midwood	3.8	2.3	3.9	2.8	4.0	3.3
315	Sheepshead Bay	2.1	1.3	2.6	1.1	2.6	1.4
316	Brownsville	9.2	5.6	7.4	5.1	8.0	5.2
317	East Flatbush	6.8	4.6	7.2	5.1	6.1	4.5
318	Canarsie	4.8	3.2	5.2	3.0	5.6	3.5
	QUEENS	**4.5**	**2.9**	**4.8**	**3.2**	**4.7**	**3.2**
401	Astoria, Long Island City	4.3	2.5	4.7	3.2	4.5	3.3
402	Sunnyside, Woodside	2.4	1.9	2.9	2.5	4.6	3.6
403	Jackson Heights	3.2	1.7	4.1	2.2	3.3	2.2
404	Elmhurst, Corona	4.1	2.9	5.1	3.5	4.9	3.0
405	Ridgewood, Glendale	3.7	2.4	3.4	2.4	3.4	2.4
406	Rego Park, Forest Hills	2.3	2.1	2.8	2.3	3.0	2.2
407	Flushing	2.7	1.5	3.3	2.3	2.9	2.0
408	Fresh Meadows, Briarwood	5.1	3.0	4.3	2.7	3.6	2.5
409	Woodhaven	3.5	1.2	2.8	1.4	2.7	1.6
410	Howard Beach	4.9	2.7	4.6	2.8	5.5	4.2
411	Bayside	3.0	3.0	2.4	2.4	2.9	2.4
412	Jamaica, St. Albans	8.4	5.2	8.7	5.6	9.0	5.8
413	Queens Village	6.4	4.9	7.2	5.6	7.2	5.4
414	The Rockaways	7.2	4.8	7.5	5.0	6.5	4.6
	STATEN ISLAND	**4.8**	**3.6**	**5.0**	**3.9**	**4.7**	**3.1**
501	Port Richmond	5.5	3.9	6.0	4.2	6.1	3.6
502	Willowbrook, South Beach	4.5	3.8	5.1	4.6	4.2	3.3
503	Tottenville	3.6	2.7	3.3	2.6	2.9	2.0

*Due to instability in the infant mortality rates by community district, rates are presented in rolling three-year averages.

†Neonatal infants are those less than 28 days old.

DEMOGRAPHIC INDICATORS

Table 2. Average Infant Mortality Rate* by Mother's Birthplace†, New York City, 2007–2013

Birthplace	2007-2009	2008-2010	2009-2011	2010-2012	2011-2013
Total, New York City	**5.4**	**5.2**	**4.9**	**4.8**	**4.7**
Nigeria	6.9	7.2	8.1	7.1	7.4
Honduras	4.2	6.8	7.4	8.3	7.2
Jamaica	5.8	6.2	5.6	7.0	6.7
Yemen Arab Republic	3.4	3.7	6.3	8.5	6.6
Puerto Rico‡	7.0	7.9	8.5	8.4	6.5
Peru	3.8	2.0	2.1	2.3	6.3
Guyana	7.6	7.8	6.6	6.7	6.2
Haiti	5.7	6.1	4.9	5.4	6.0
India	2.5	2.3	2.4	5.2	5.8
Pakistan	6.2	5.4	5.6	6.1	5.6
Trinidad and Tobago	4.7	5.1	3.4	6.1	5.3
United States‡	6.3	6.0	5.7	5.2	5.0
Mexico	3.8	3.8	3.4	4.0	4.2
Bangladesh	3.9	3.9	4.6	4.1	4.1
Dominican Republic	4.2	4.2	4.0	3.8	4.0
Ghana	6.2	4.8	4.3	4.0	3.9
Colombia	1.4	1.5	2.8	2.9	3.8
Guatemala	4.5	6.0	6.4	6.4	3.6
Canada	2.2	2.2	2.1	2.0	3.6
Korea	1.3	0.7	0.7	1.1	3.4
Ecuador	3.3	3.0	3.2	3.7	3.2
El Salvador	2.9	2.9	3.4	3.0	3.2
Poland	2.4	1.8	0.7	1.6	2.1
Uzbekistan	0.6	0.6	1.5	1.4	2.0
Japan	2.8	1.4	1.3	1.3	2.0
Philippines	1.6	3.0	3.4	3.9	1.7
Egypt	3.1	2.9	1.3	1.7	1.5
Russia	1.8	2.8	2.8	2.0	1.4
China	2.0	2.3	2.1	1.7	1.4
United Kingdom	1.7	2.3	1.2	1.8	1.2
Israel	1.4	0.6	0.6	0.3	0.7
Ukraine	2.9	2.1	1.2	0.8	0.4

*The infant mortality rate is listed only for countries with 500 or more live births in any year of 2007-2013.

†Foreign countries are listed according to the descending order of infant mortality rates in the most current period.

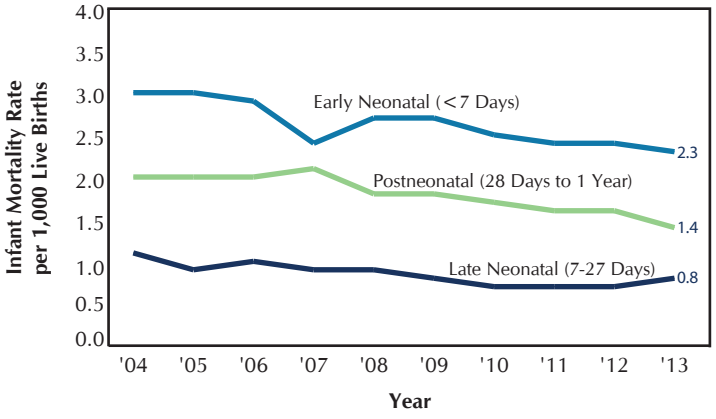
‡As of 2006, US Virgin Islands and Guam are included in the US. Puerto Rico is a US territory, but is not included as a birthplace in the United States due to the large number of births to Puerto Rican-born women.

- Average infant mortality rates (2011-2013) by mother's birthplace were highest among mothers born in Nigeria at 7.4 deaths per 1,000 live births, followed by 7.2 among mothers born in Honduras, 6.7 among mothers born in Jamaica, 6.6 among mothers born in Yemen Arab Republic, and 5.5 among mothers born in Puerto Rico.

NEONATAL AND POSTNEONATAL MORTALITY

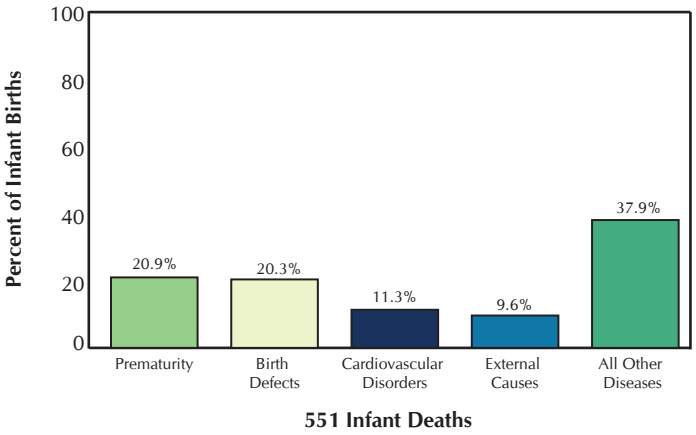
- In 2013, the highest infant mortality rate occurred during the early neonatal period (age younger than 7 days) at 2.3 deaths per 1,000 live births, followed by 1.4 during the postneonatal period (age 28 days to 1 year), and 0.8 among late neonatal (age 7 to 27 days).
- Since 2004, the early, late, and post neonatal mortality rates declined 23.3%, 27.3%, and 30.0%, respectively.

Figure 7. Neonatal and Postneonatal Mortality Rates, New York City, 2004–2013



NEONATAL AND POSTNEONATAL MORTALITY

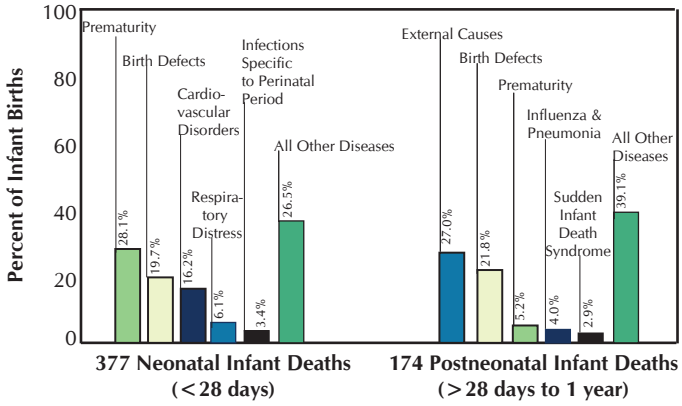
Figure 8. Leading Causes of Infant Deaths, New York City, 2013



- The three leading causes of infant death in 2013 were prematurity (short gestation and low birth weight) (20.9%), followed by birth defects (congenital malformations/deformations) (20.3%) and cardiovascular disorders originating in the perinatal period (11.3%). External causes, which include injuries, homicides, and deaths of undetermined intent, also contributed to a substantial number of deaths (9.6%).

- Neonatal deaths (<28 days old) were primarily caused by prematurity (short gestation and low birth weight) (28.1%), followed by birth defects (congenital malformations/ deformations) (19.7%) and cardiovascular disorders originating in the perinatal period (16.2%).
- Postneonatal deaths (28 days to 1 year) were primarily due to external causes (27.0%), followed by birth defects (congenital malformations/ deformations) (21.8%). Prematurity (short gestation and low birth weight) (5.2%) and influenza and pneumonia (4.0%) were also among the leading causes of death in the postneonatal period.

Figure 9. Leading Causes of Neonatal and Postneonatal Deaths, New York City, 2013



*External causes of infant death include accidents, assault, events of undetermined intent, and complications of medical and surgical care.

Table 3. Infant Deaths by Cause, Sex, and Age, New York City, 2013

	Cause of Death (ICD-10 Codes)	Total	Male		Female	
			Neonatal (<28 Days)	Postneonatal (≥ 28 Days)	Neonatal (<28 Days)	Postneonatal (≥ 28 Days)
	Total	**551**	**231**	**93**	**146**	**81**
1	HIV Infection (B20-B24)†	0	-	-	-	-
2	Diseases of the Circulatory System (I00-I99)†	4	-	3	1	-
3	Influenza and Pneumonia (J10-J18)†	7	-	5	-	2
4	Newborn Affected by Maternal Complications of Pregnancy (P01)†	7	5	-	2	-
5	Newborn Affected by Complications of Placenta, Cord, and Membranes (P02)†	11	10	-	1	-
6	Short Gestation and Low Birthweight (P07)†	115	63	3	43	6
7	Intrauterine Hypoxia and Birth Asphyxia (P20-P21)†	5	2	-	3	-
8	Respiratory Distress of Newborn (P22)†	23	15	-	8	-
9	Pulmonary Hemorrhage Originating in the Perinatal Period (P26)†	7	4	-	3	-
10	Atelectasis (P28.0-P28.1)†	4	-	-	1	3
11	Other Respiratory Conditions Originating in the Perinatal Period (P23-P28)‡	8	3	1	2	2
12	Cardiovascular Disorders Originating in the Perinatal Period (P29)‡	62	38	1	23	-
13	Infections Specific to the Perinatal Period (P35-P39)‡	15	9	2	4	-
	Bacterial sepsis of newborn (P36)	10	6	1	3	-
14	Neonatal Hemorrhage (P50-P52, P54)†	8	3	-	4	1
15	Necrotizing Enterocolitis of Newborn (P77)†	7	3	1	3	-
16	Remainder of Conditions Originating in the Perinatal Period (Rest of P00-P99)	33	17	2	14	-
17	Congenital Malformations, Deformations (Q00-Q99)†	112	48	12	26	26
	Congenital malformations of heart (Q20-Q24)	39	15	5	7	12
18	Sudden Infant Death Syndrome (R95)†	5	-	2	-	3
19	All Other Diseases (Rest of A00-R99)	65	7	35	6	17
20	External Causes (V01-Y89)‡	53	4	26	2	21

†Eligible to be ranked as leading causes nationally and in New York City.

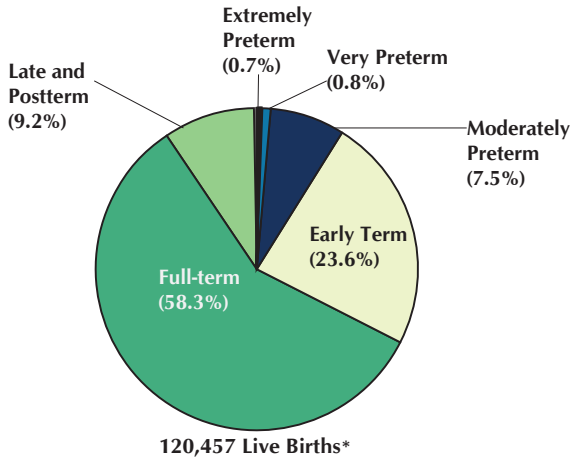
‡Contains causes not eligible to be ranked as a leading cause nationally but frequent in New York City. Including these groups permits recognition of important causes of infant death.

PRETERM BIRTHS

- The percent of births that are preterm has remained constant over time (data not shown) and continues to be a risk factor for infant mortality.
- In 2013, term births accounted for 91.0% of all New York City births; they decreased 1.7% since 2004 (data not shown).
- Preterm births accounted for 9.0% of 2013 births and decreased 10.9% since 2004 (data not shown).

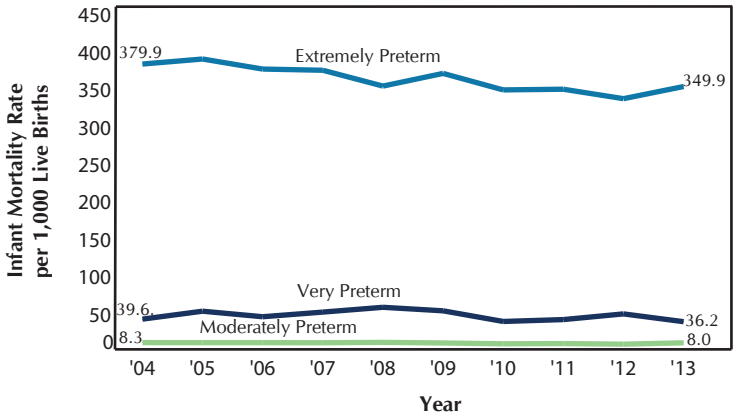
Preterm	**<37 weeks**
Extremely preterm	<28 weeks
Very preterm	28≤ weeks <32
Moderately preterm	32≤ weeks <37
Early preterm	32≤ weeks ≤33
Late preterm	34≤ weeks ≤36
Term Births	**≥37 weeks**
Early term	37≤ weeks <39
Full term	39≤ weeks <41
Late and postterm	≥41 weeks

Figure 10. Live Births by Gestational Age, New York City, 2013



*Live births for which gestational age was reported in 2013.

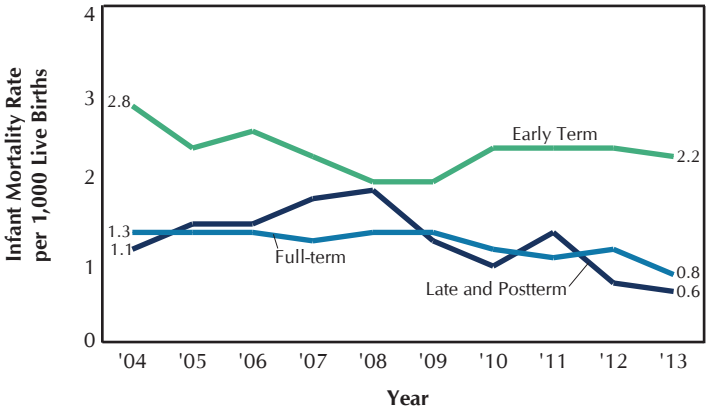
Figure 11. Infant Mortality Rate among Preterm Live Births, New York City, 2004–2013



- The less than 2% of infants born extremely and very preterm had very high risks for death, with infant mortality rates of 349.9 and 36.2 infant deaths per 1,000 live births, respectively, in 2013. Rates of infant death for early preterm and late preterm births were 15.2 and 6.7, respectively (data not shown), averaging to 8.0 deaths among moderately preterm births.
- Since 2004, infant mortality declined 7.9% among extremely preterm births, 8.7% among very preterm births, and 3.8% among moderately preterm births.

- Among term births in 2013, the infant mortality rate was highest among early term births, at 2.2 deaths per 1,000 live births, followed by 0.8 for full-term births, and lowest among late and postterm births at 0.6.
- Since 2004, the infant mortality rate declined 43.2% among postterm births, 38.4% among full-term births, and 22.0% among early term births.

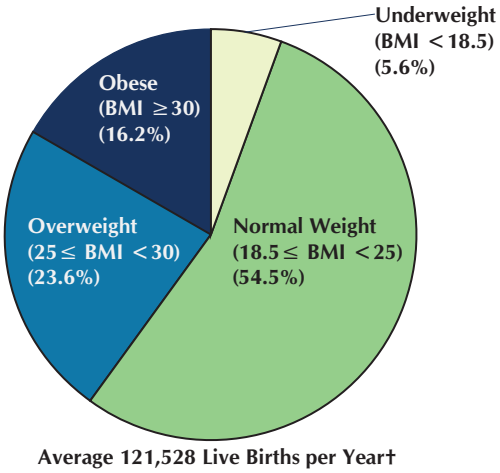
Figure 12. Infant Mortality Rate among Term Live Births*, New York City, 2004–2013



*See Technical Notes for revised definition of term births.

MOTHER'S BODY MASS INDEX

Figure 13. Live Births by Mother's Pre-pregnancy Body Mass Index (BMI)*, New York City, 2011-2013



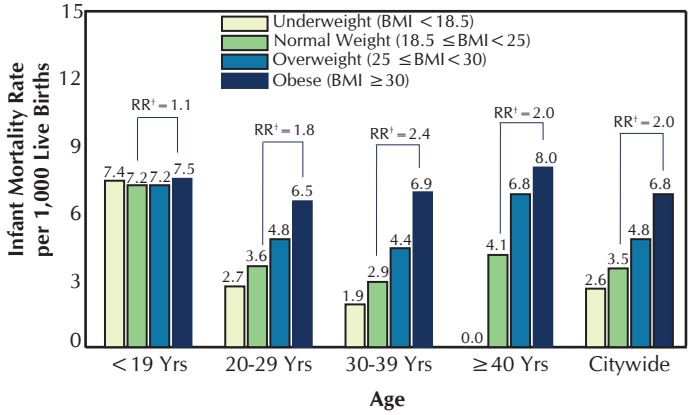
*Live births for which mother's pre-pregnancy height and weight were reported in 2011-2013.

†Due to instability, the infant mortality rates by certain mother's characteristics, are presented in three-year averages.

- Obesity is strongly associated with chronic disease, which increases the risk of adverse birth outcomes such as preterm birth and birth defects.
- Nearly 40% of mothers were either obese (16.2%) or overweight (23.6%) pre-pregnancy in 2011 to 2013.

- City wide, the infant mortality rate was 2 times greater among infants born to mothers who were obese (6.8 infant deaths per 1,000 live births) compared to infants born to normal weight mothers (3.5).
- The infant mortality rate was over 7.0 deaths per 1,000 live births among mother's less than 20 years old, regardless of mother's BMI.
- Among mothers 20 to 29, 30 to 39 and 40 years and older, the infant mortality rate was 1.8, 2.4 and 2.0 times greater among obese vs. normal weight mothers, respectively.

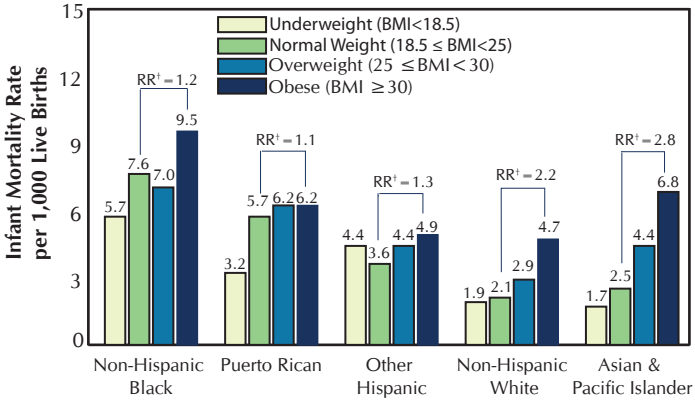
Figure 14. Average† Infant Mortality Rate by Mother's Pre-pregnancy Body Mass Index (BMI) and Age, New York City, 2011–2013



†Due to instability, the infant mortality rates by certain mother's characteristics, are presented in three-year averages.

†Rate Ratio

Figure 15. Average* Infant Mortality Rate by Mother's Pre-pregnancy Body Mass Index (BMI) and Racial/Ethnic Group, New York City, 2011–2013



*Due to instability, the infant mortality rates by certain mother's characteristics, are presented in three-year averages.

†Rate Ratio

- The average infant mortality rate among women who were obese prior to pregnancy was 9.5 deaths per 1,000 live births among non-Hispanic blacks, followed by 6.8 among Asian & Pacific Islanders, 6.2 among Puerto Ricans, 4.9 among other Hispanic and 4.7 among non-Hispanic whites.
- Among non-Hispanic black, Puerto Rican, other Hispanic, non-Hispanic white, and Asian and Pacific Islander mothers, the infant mortality rate was 1.2, 1.1, 1.3, 2.2, and 2.8 times greater among obese vs normal weight mothers, respectively.

MOTHER'S CHARACTERISTICS

Table 4. Live Births and Infant Mortality Rate by Characteristics of Mother, New York City, 2013

Characteristics	Live Births		Infant Mortality Rate (IMR) per 1,000 Live Births					
			All		Neonatal		Postneonatal	
	Number	Percent	Deaths	Rate	Deaths	Rate	Deaths	Rate
Total	**120,457**	**100.0**	**551**	**4.6**	**377**	**3.1**	**174**	**1.4**
Race/Ethnicity								
Puerto Rican	7,960	6.6	38	4.8	28	3.5	10	1.3
Other Hispanic	27,621	22.9	120	4.3	72	2.6	48	1.7
Asian and Pacific Islander	19,767	16.4	62	3.1	50	2.5	12	0.6
Non-Hispanic White	39,573	32.9	117	3.0	85	2.1	32	0.8
Non-Hispanic Black	24,108	20.0	201	8.3	132	5.5	69	2.9
Other and unknown	1,428	1.2	13	-	10	-	3	-
Borough								
Manhattan	18,201	15.1	58	3.2	42	2.3	16	0.9
Bronx	19,936	16.6	124	6.2	77	3.9	47	2.4
Brooklyn	40,633	33.7	137	3.4	97	2.4	40	1.0
Queens	26,536	22	109	4.1	77	2.9	32	1.2
Staten Island	5,269	4.4	30	5.7	18	3.4	12	2.3
Unknown								
Age of Mother								
Age < 18	1,443	1.2	11	7.6	7	4.9	4	2.8
Age 18-19	3,603	3.0	22	6.1	14	3.9	8	2.2
Age 20-29	51,570	42.8	233	4.5	159	3.1	74	1.4
Age 30-39	57,220	47.5	204	3.6	150	2.6	54	0.9
Age ≥ 40	6,619	5.5	43	6.5	32	4.8	11	1.7
Age unknown	2	0.0	1	-	1	-	0	-
Unmatched*	-	-	37	-	14	-	23	-
Mother's Education								
11th grade or less/12th grade, no diploma	24,319	20.2	128	5.3	79	3.2	49	2.0
High school graduate or GED	26,095	21.7	133	5.1	97	3.7	36	1.4
Some college/associate degree	26,373	21.9	138	5.2	92	3.5	46	1.7
Bachelor's degree	23,997	19.9	64	2.7	48	2.0	16	0.7
Master's degree or higher	19,257	16.0	40	2.1	36	1.9	4	0.2
Mother's education unknown	416	0.3	11	-	11	-	0	-
Unmatched*	-	-	37	-	14	-	23	-
Marital Status of Mother†								
Not married	48,733	40.5	283	5.8	182	3.7	101	2.1
Married	71,724	59.5	231	3.2	181	2.5	50	0.7
Unmatched*	-	-	37	-	14	-	23	-
Mother's Birthplace								
US born, including territories	58,914	48.9	292	5.0	198	3.4	94	1.6
Foreign born	61,507	51.1	221	3.6	164	2.7	57	0.9
Birthplace unknown	36	0.0	1	-	1	-	0	-
Unmatched*	-	-	37	-	14	-	23	-
Primary Payer for This Birth								
Medicaid/Family Plus/Child PlusB/other govt	70,657	58.7	326	4.6	217	3.1	109	1.5
Other	49,438	41.0	182	3.7	140	2.8	42	0.8
Coverage unknown	362	0.3	6	.	6	.	0	.
Unmatched*	-	-	37	-	14	-	23	-
Plurality								
Singletons	115,751	96.1	416	3.6	286	2.5	130	1.1
Multiples	4,704	3.9	98	20.8	77	16.4	21	4.5
Plurality unknown	2	0.0	-	-	-	-	-	-
Unmatched*	-	-	37	-	14	-	23	-
Parity								
First birth	53,050	44.0	218	4.1	168	3.2	50	0.9
Second birth or higher	67,317	55.9	290	4.3	189	2.8	101	1.5
Unknown	90	0.1	6	-	6	-	0	-
Unmatched*	-	-	37	-	14	-	23	-
First Prenatal Care Visit								
No prenatal care	848	0.7	20	23.6	18	21.2	2	2.4
First trimester (1-3 months)	86,374	71.7	334	3.9	241	2.8	93	1.1
Second trimester (4-6 months)	23,711	19.7	87	3.7	57	2.4	30	1.3
Late (7-9 months)	7,905	6.6	29	3.7	12	1.5	17	2.2
Prenatal care unknown	1,619	1.3	44	-	35	-	9	-
Unmatched*	-	-	37	-	14	-	23	-
Pre-pregnancy Body Mass Index (BMI)								
Underweight (BMI < 18.5)	6,583	5.5	18	2.7	10	1.5	8	1.2
Normal weight (18.5 ≤ BMI < 25)	65,115	54.1	228	3.5	165	2.5	63	1.0
Overweight (25 ≤ BMI < 30)	28,488	23.6	131	4.6	96	3.4	35	1.2
Obese (BMI ≥ 30)	19,598	16.3	122	6.2	78	4.0	44	2.2
Pre-pregnancy BMI unknown	673	0.6	15	-	14	-	1	-
Unmatched*	-	-	37	-	14	-	23	-

*Infants who died in New York City who were born elsewhere were classified as unmatched.

†Reporting the mother's marital status on the birth certificate is prohibited by the New York City Health Code 201.05(b). Marital status was computed using father's name. When missing or accompanied by an Acknowledgment of Paternity, marital status is categorized as unmarried; all others with father's name were categorized as married.