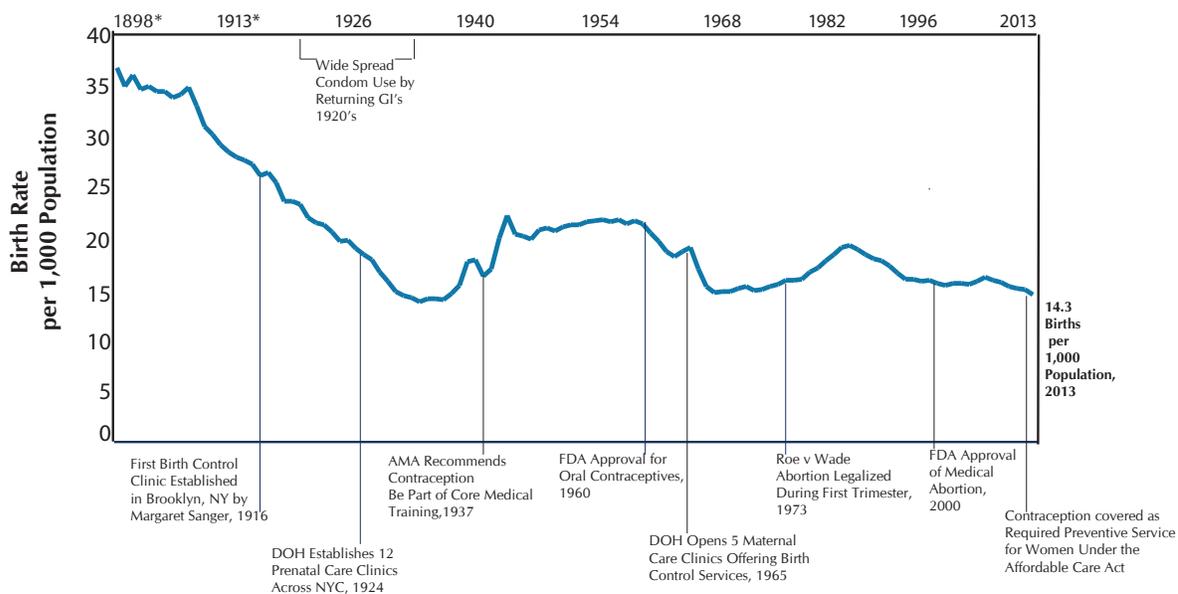


# SUMMARY OF VITAL STATISTICS 2013

## THE CITY OF NEW YORK

### PREGNANCY OUTCOMES



\*1898-1913 Birth counts are estimated as number reported was determined to be incomplete.



Bill de Blasio, Mayor

Mary T. Bassett, MD, MPH, Commissioner

# SUMMARY OF VITAL STATISTICS 2013 THE CITY OF NEW YORK PREGNANCY OUTCOMES

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February 2015

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THIS REPORT WAS PREPARED BY THE DEPARTMENT OF HEALTH AND MENTAL HYGIENE, OFFICE OF VITAL STATISTICS STAFF UNDER THE DIRECTION OF REGINA ZIMMERMAN, PhD, MPH AND WENHUI LI, PhD.

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PREGNANCY OUTCOMES, INFANT MORTALITY, MORTALITY, EXECUTIVE SUMMARY AND SUMMARY OF VITAL STATISTICS ARCHIVES ARE AVAILABLE ONLINE AT [HTTP://WWW.NYC.GOV/VITALSTATS](http://www.nyc.gov/vitalstats).

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# PREGNANCY OUTCOMES OVERVIEW

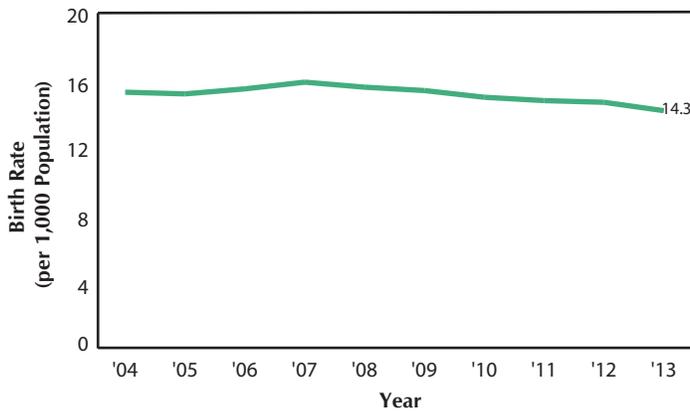
All pregnancy outcomes, whether a live birth or a spontaneous or induced termination of pregnancy, are required by law to be reported to the Department of Health and Mental Hygiene in New York City. This report compiles the information reported about these events to monitor the health of women and their infants in New York City. For additional tables, technical notes and samples of NYC certificates of birth, please see the Bureau of Vital Statistics website at [www.nyc.gov/vitalstats](http://www.nyc.gov/vitalstats).

## Select Key Findings:

- The 2013 citywide crude birth rate was 14.3 births per 1,000 population, the lowest rate since 1936 when, according to historical records, the rate was 13.6. The rate decreased 7.1% from 15.4 births per 1,000 population in 2004 and 3.4% from 14.8 births per 1,000 population in 2012. (Figure 1).
- Since 2004, the teen birth rate continued its steady decline to a new low of 21.2 births per 1,000 females age 15-19 years in 2013. The rate decreased 37.6% from 34.0 in 2004, and 10.2% from 23.6 in 2012 (Figure 6). The narrowing gaps between teen birth rates in the highest and lowest racial/ethnic group and very high and low poverty area from 2004 to 2013 are indicative of narrowing health disparities (Figures 36-37).
- Preterm (<37 weeks) and low birthweight (<2,500g) infants each accounted for less than or equal to 9.0% of live births in 2013. Non-Hispanic blacks were 1.7 and 1.9 times more likely to have preterm (12.7%) and low birthweight infants (12.6%), respectively, than non-Hispanic whites (Figures 8, 12).
- In 2013, 40.2% of mothers were either overweight (23.8%) or obese (16.4%) pre-pregnancy. Disproportionately more non-Hispanic black (58.7%), and Hispanic (52.4%) mothers were overweight or obese pre-pregnancy than non-Hispanic white (27.6%) and Asian and Pacific Islanders (21.1%) (Figure 16).
- C-section deliveries increased 13.8% since 2004 accounting for 32.9% of deliveries city-wide in 2013. (Figures 20-22).
- The majority (88.2%) of infants born citywide in 2013 were fed some breast milk within five days of birth; 32.1% of newborns were exclusively fed breastmilk (Figure 28). Since 2008 (the first year infant feeding data was collected), percentages of exclusive breastmilk fed infants remained virtually unchanged. However, formula-only fed infants declined 31.2%, at 10.6% of infants citywide in 2013 (Data not shown).
- Citywide, 7.4% of mothers received either late (3rd trimester) or no prenatal care in 2013; non-Hispanic black mothers (13.2%) were more likely to have received late or no prenatal care than other racial/ethnic groups (Figure 32).
- Numerous birth characteristics correlate with the percentage of neighborhood population living below poverty. Neighborhoods with a higher percentage of the population living below the federal poverty level have higher teen birth rates, more preterm births, low birthweight newborns, mothers who are overweight or obese pre-pregnancy and who have late or no prenatal care (Figures 9, 13, 17, 33, 37). Neighborhoods with a higher percent of the population living below the federal poverty level tend to have fewer mothers who are normal weight pre-pregnancy, C-sections, multiple births and exclusively breastfed babies (Figures 17, 21, 25, 29).
- The citywide crude rate of induced terminations of pregnancy, at 36.3 terminations per 1,000 female aged 15 to 44 years in 2013 has declined 24.5% since 2004 (Figure 3). Similarly, age-adjusted rates among each racial/ethnic group declined: 25.3% among Hispanics, 21.8% among non-Hispanic blacks, 20.9% among Asian and Pacific Islanders, and 5.3% among non-Hispanic whites. The non-Hispanic black: non-Hispanic white age-adjusted rate disparity for induced termination of pregnancy narrowed since 2004. The rate was 4.3 times greater among non-Hispanic blacks than non-Hispanic whites (67.3 vs. 15.6) per 1,000 females age (15-44) in 2013, compared to 5.2 times greater in 2004. (Figures 39, 40).

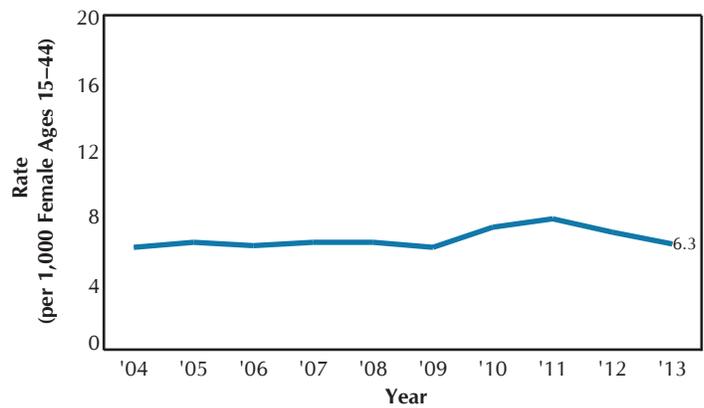
# PREGNANCY OUTCOMES OVERVIEW

**Figure 1. Crude Birth Rate, New York City, 2004–2013**



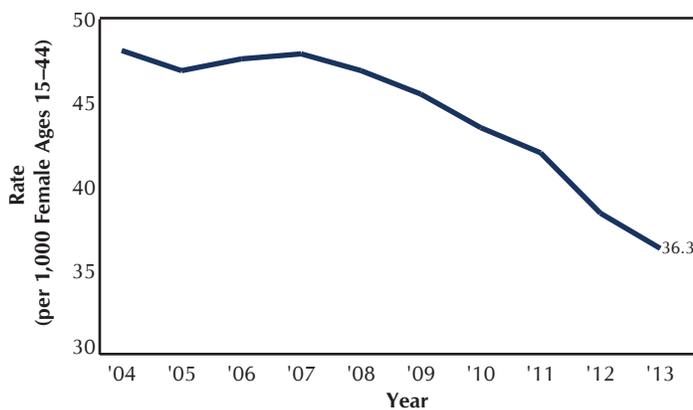
- The 2013 citywide crude birth rate was 14.3 births per 1,000 population, the lowest rate since 1936 when, according to historical records, the rate was 13.6. Since 2004, the rate decreased 7.1% from 15.4 births per 1,000 population and since 2012, the rate decreased 3.4% from 14.8.
- More detailed information on current birth rates can be found in Table 1 and Figures 4, 5, and 6.

**Figure 2. Crude Spontaneous Termination of Pregnancy Rate, New York City, 2004–2013**



- The 2013 citywide crude rate of spontaneous terminations of pregnancy (miscarriages and still births), at 6.3 terminations per 1,000 female aged 15 to 44 years hovers between 6.1 and 7.8 since 2004.
- Changes in rates of spontaneous terminations of pregnancy are likely due to variations in reporting facilities' responsiveness to legal reporting requirements rather than true changes in such events. DOHMH continues to conduct outreach and education of targeted medical facilities about legal reporting requirements.
- More detailed information on spontaneous terminations of pregnancy rates can be found in Table 1.

**Figure 3. Crude Induced Termination of Pregnancy Rate, New York City, 2004–2013**



- The 2013 citywide crude rate of induced terminations of pregnancy was 36.3 terminations per 1,000 females aged 15 to 44 years, continuing its decline, down 5.5% since 2012.
- Prior to 2007, this rate hovered near 47 terminations per 1,000 female aged 15 to 44 years and declined 24.2% since.
- More detailed information on induced terminations of pregnancy rates can be found in Table 1.

# PREGNANCY OUTCOMES OVERVIEW

**Table 1. Pregnancy Outcomes, Pregnancy Outcome Rates\*, and Pregnancy Rates\* by Mother's Age Group, Racial/Ethnic Group, and Borough of Residence, New York City, 2013**

	Age of Woman Years	Live Births		Spontaneous Terminations		Induced Terminations		Pregnancy
		Counts <sup>†</sup>	Rates per 1,000	Counts <sup>†</sup>	Rates per 1,000	Counts <sup>†</sup>	Rates per 1,000	Rates per 1,000
<b>New York City<sup>‡</sup></b>	15-19	5,046	21.2	507	2.1	8,063	33.8	57.1
	20-29	51,570	71.6	4,221	5.9	39,022	54.2	131.6
	30-39	57,220	85.1	5,829	8.7	19,909	29.6	123.4
	40-49	6,619	11.4	1,510	2.6	2,846	4.9	18.8
	<b>Total</b>	<b>120,457</b>	<b>14.3</b>	<b>12,068</b>	<b>6.3</b>	<b>69,840</b>	<b>36.3</b>	<b>105.1</b>
<b>Ethnic Group<sup>§</sup></b>								
<b>Hispanic</b>	15-19	2,897	34.0	184	2.2	2,868	33.6	69.7
	20-29	18,198	88.1	1,237	6.0	12,540	60.7	154.8
	30-39	13,217	70.5	1,194	6.4	5,515	29.4	106.3
	40-49	1,269	7.6	306	1.8	632	3.8	13.2
	<b>Total</b>	<b>35,581</b>	<b>14.6</b>	<b>2,921</b>	<b>5.2</b>	<b>21,555</b>	<b>38.2</b>	<b>106.6</b>
<b>Asian and Pacific Islander</b>	15-19	168	5.8	6	0.2	305	10.5	16.5
	20-29	8,102	77.7	251	2.4	2,195	21.0	101.1
	30-39	10,376	95.7	485	4.5	1,777	16.4	116.5
	40-49	1,121	12.4	103	1.1	338	3.7	17.3
	<b>Total</b>	<b>19,767</b>	<b>17.1</b>	<b>845</b>	<b>2.9</b>	<b>4,615</b>	<b>16.0</b>	<b>87.3</b>
<b>Non-Hispanic White</b>	15-19	436	7.9	54	1.0	576	10.4	19.2
	20-29	13,347	55.7	752	3.1	4,964	20.7	79.6
	30-39	22,952	102.8	1,658	7.4	3,272	14.7	124.9
	40-49	2,838	17.1	398	2.4	610	3.7	23.2
	<b>Total</b>	<b>39,573</b>	<b>14.3</b>	<b>2,862</b>	<b>4.7</b>	<b>9,422</b>	<b>15.6</b>	<b>85.8</b>
<b>Non-Hispanic Black</b>	15-19	1,480	23.4	156	2.5	3,726	58.8	84.7
	20-29	11,353	72.9	1,186	7.6	16,413	105.4	185.9
	30-39	9,962	70.6	1,340	9.5	7,820	55.5	135.6
	40-49	1,313	8.8	368	2.5	1,048	7.0	18.3
	<b>Total</b>	<b>24,108</b>	<b>12.7</b>	<b>3,050</b>	<b>7.1</b>	<b>29,007</b>	<b>67.3</b>	<b>130.2</b>
<b>Borough of Residence<sup>  </sup></b>								
<b>Manhattan</b>	15-19	535	14.4	64	1.7	1,204	32.4	48.5
	20-29	5,138	29.4	518	3.0	7,240	41.5	73.9
	30-39	10,938	72.6	1,010	6.7	3,755	24.9	104.3
	40-49	1,590	14.8	326	3.0	637	5.9	23.7
	<b>Total</b>	<b>18,201</b>	<b>11.2</b>	<b>1,918</b>	<b>4.6</b>	<b>12,836</b>	<b>30.7</b>	<b>78.7</b>
<b>Bronx</b>	15-19	1,564	31.3	141	2.8	2,139	42.7	76.8
	20-29	10,472	88.7	954	8.1	9,524	80.6	177.4
	30-39	7,156	69.3	850	8.2	4,331	42.0	119.5
	40-49	743	7.4	213	2.1	481	4.8	14.2
	<b>Total</b>	<b>19,936</b>	<b>14.1</b>	<b>2,158</b>	<b>6.7</b>	<b>16,475</b>	<b>51.4</b>	<b>120.4</b>
<b>Brooklyn</b>	15-19	1,602	21.3	185	2.5	2,350	31.2	55.0
	20-29	19,162	86.2	1,443	6.5	11,142	50.1	142.9
	30-39	17,922	84.5	1,880	8.9	5,665	26.7	120.0
	40-49	1,947	11.1	457	2.6	800	4.6	18.3
	<b>Total</b>	<b>40,633</b>	<b>15.7</b>	<b>3,965</b>	<b>6.6</b>	<b>19,957</b>	<b>33.3</b>	<b>107.8</b>
<b>Queens</b>	15-19	1,035	16.9	69	1.1	1,605	26.2	44.2
	20-29	11,950	68.6	870	5.0	7,418	42.6	116.2
	30-39	12,260	69.8	1,211	6.9	4,036	23.0	99.7
	40-49	1,291	7.9	304	1.9	595	3.6	13.4
	<b>Total</b>	<b>26,536</b>	<b>11.6</b>	<b>2,454</b>	<b>5.0</b>	<b>13,654</b>	<b>27.7</b>	<b>86.5</b>
<b>Staten Island</b>	15-19	186	12.7	27	1.8	272	18.5	33.1
	20-29	2,131	67.9	224	7.1	1,080	34.4	109.4
	30-39	2,714	88.4	301	9.8	490	16.0	114.2
	40-49	238	6.9	71	2.0	75	2.2	11.1
	<b>Total</b>	<b>5,269</b>	<b>11.1</b>	<b>623</b>	<b>6.7</b>	<b>1,917</b>	<b>20.5</b>	<b>83.4</b>

Note: Population data used to calculate rates are 2013 estimates from US Census Bureau. See Technical Notes: Population.

\*See Technical Notes: Population, Vital Event Rates.

†Counts for females age 15 to 19 are the number of events to females age <20; counts for females age 40 to 49 are the number of events to females age 40 and over.

See Technical Notes: Vital Event Rates.

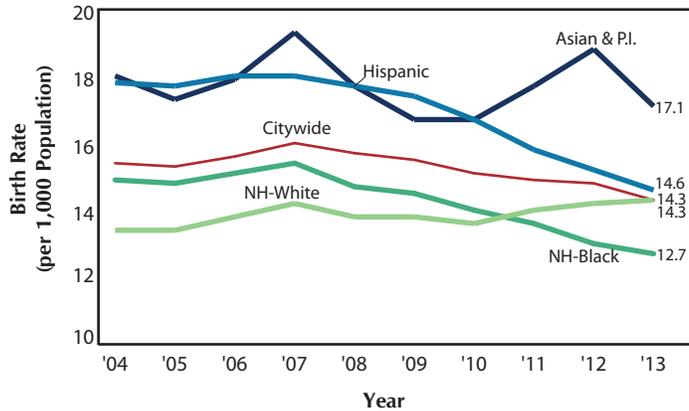
‡Includes all events occurring in NYC regardless of residence.

§Other/unknown ethnicities are excluded.

||Numbers and rates are limited to events occurring in NYC to NYC residents only.

# BIRTH RATE

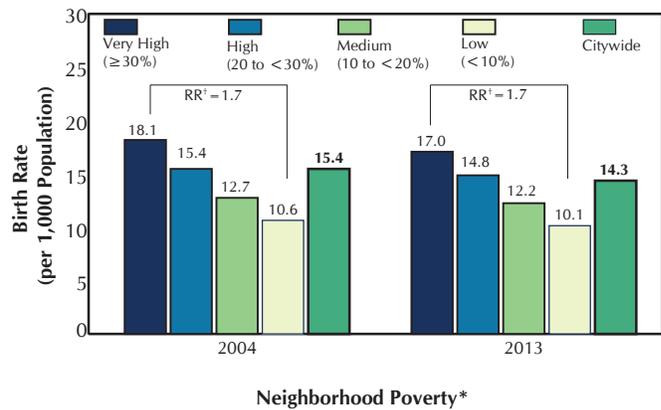
**Figure 4. Birth Rate by Mother's Racial/Ethnic Group, New York City, 2004–2013**



- In 2013, the birth rate was the highest among Asians and Pacific Islanders at 17.1 births per 1,000 population, followed by 14.6 among Hispanics, 14.3 among non-Hispanic whites and 12.7 among non-Hispanic blacks.
- From 2004 to 2013, birth rates increased among non-Hispanic whites (6.7%) and decreased among Hispanics (18.0%), non-Hispanic blacks (14.8%), and Asians and Pacific Islanders (5.0%).

- Birth rates are the highest in the city's poorest neighborhoods. In 2004 and 2013, birth rates were 1.7 times greater in the city's very high poverty neighborhoods compared to the city's low poverty neighborhoods.
- Since 2004, birth rates decreased by 6.1% in the very high poverty neighborhood, 3.9% in the high and medium poverty neighborhoods, respectively, and 4.7% in the low poverty neighborhoods.

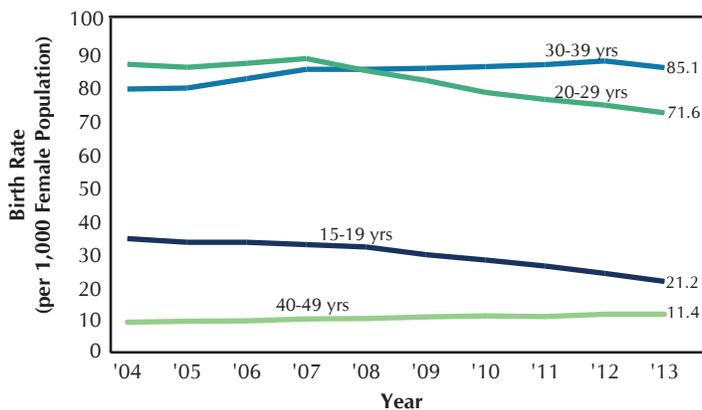
**Figure 5. Birth Rate by Neighborhood Poverty\*, New York City Residents, 2004, 2013**



\*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..

†Rate Ratio.

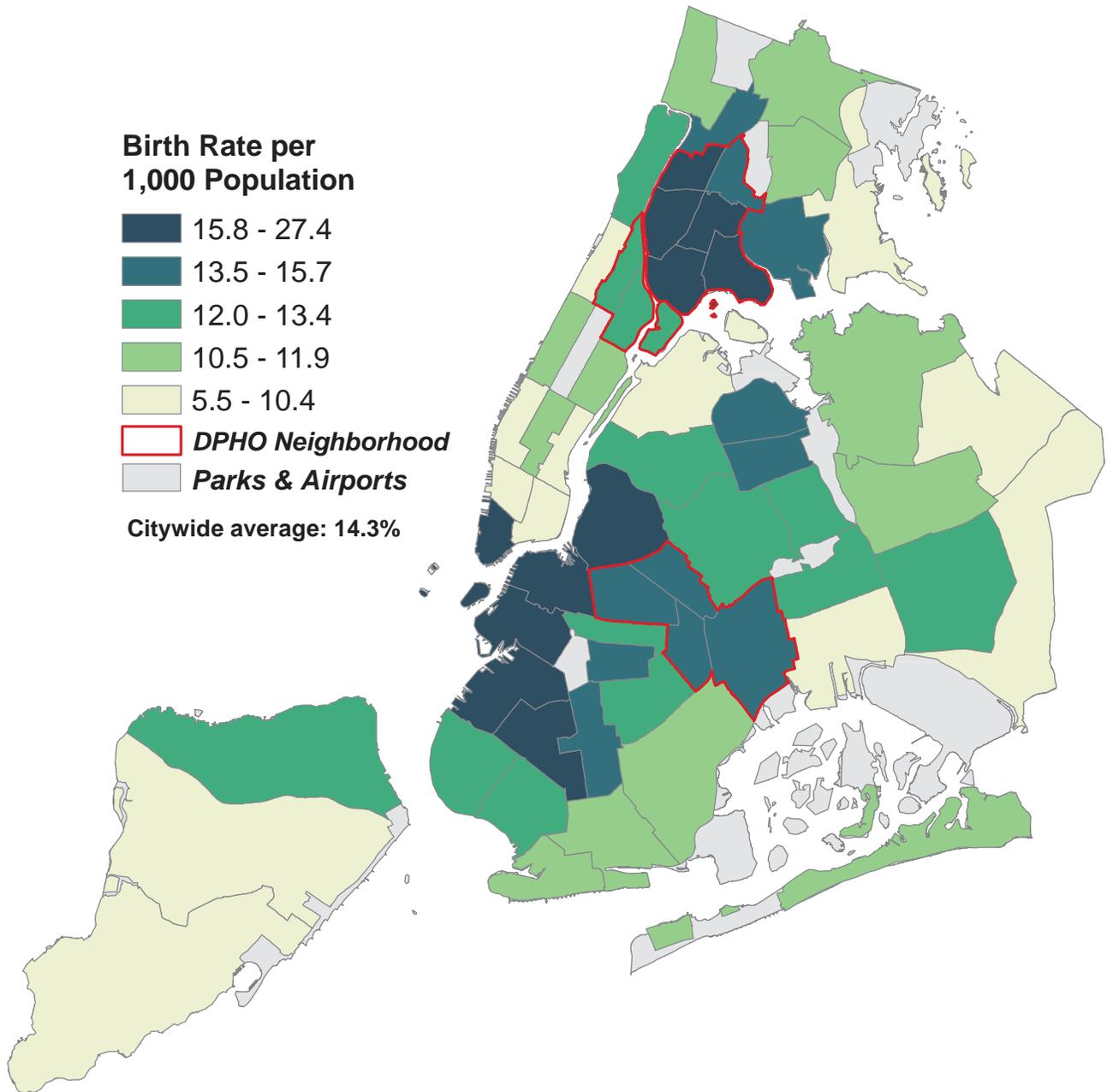
**Figure 6. Birth Rate by Mother's Age Group, New York City, 2004–2013**



- In 2013, the birth rate among women aged 30 to 39 years of age continued to be highest in New York City, at 85.1 births per 1,000 female population than among women 20 to 29 at 71.6, followed by women 15 to 19 years old and 40 to 49 years old with birth rates of 21.2 and 11.4, respectively.
- Since 2004, teen birth rate decreased 37.6% from 34.0 births per 1,000 women 15-19 years of age and since 2012, the rate decreased 10.2% from 23.6.

# BIRTH RATE

Figure 7. Crude Birth Rate by Community District of Residence, New York City, 2013



Map Revised April 2015.

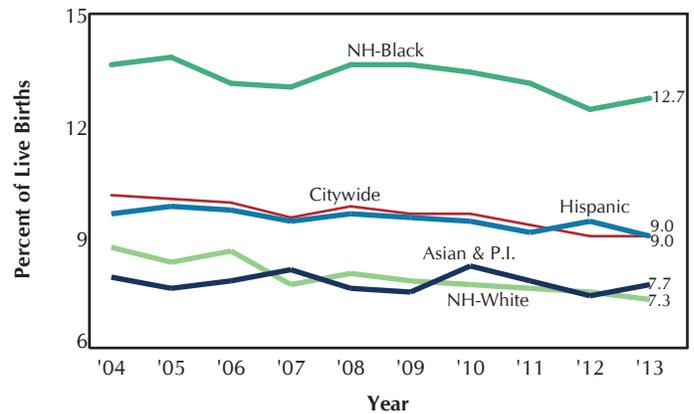
Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the lowest birth rates in New York City was Bayside at 5.6 births per 1,000 population, followed by 7.8 in Throgs Neck, 8.5 in Murray Hill, 8.5 in both Queens Village and Greenwich Village, and 9.0 in Chelsea/Clinton.
- The community district with the highest birth rates in 2013 was Borough Park at 27.9 births per 1,000 population, followed by 22.2 in Sunset Park, 20.5 in Williamsburg/Greenpoint, 18.3 in Battery Park/Tribeca, and 17.8 in University/Morris Heights.

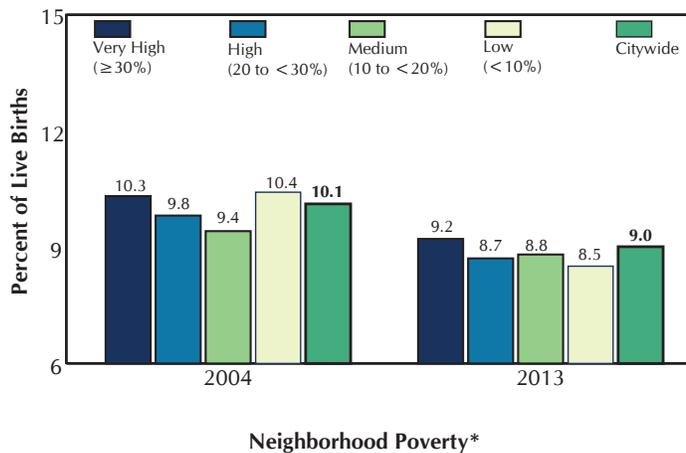
# PRETERM LIVE BIRTHS

- Since 2004, preterm live births (<37 weeks) have declined 10.9%, accounting for 9.0% of all births citywide in 2013.
- In 2013, non-Hispanic blacks were more likely to have preterm live births (12.7%) than other racial/ethnic groups (range: 7.3% to 9.0%).
- Since 2004, preterm births have declined most among non-Hispanic whites (16.1%), and less among non-Hispanic blacks, Hispanics and Asians and Pacific Islanders (6.6%, 6.3% and 1.3% respectively).

**Figure 8. Percent Preterm Live Births by Mother's Racial/Ethnic Group, New York City, 2004–2013**



**Figure 9. Percent Preterm Live Births by Neighborhood Poverty\*, New York City Residents, 2004, 2013**

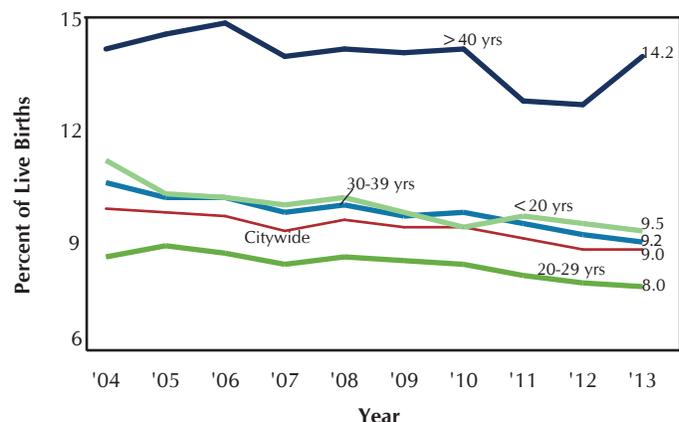


\*Neighborhood poverty (based on mother's NYC resident census tract) defined as percent of residents with incomes below 100% of the Federal Poverty Level, per Census 2000 for 2004 data and per American Community Survey 2008-2012 for 2013 data..

- In 2013, 9.2% of births were preterm in the very high poverty neighborhoods compared to 8.7, 8.8 and 8.5 in the high, medium and low poverty neighborhoods.
- From 2004 to 2013, preterm live births decreased most in the low poverty neighborhoods (18.3%) and less in the medium, high and very high poverty neighborhoods (6.4%, 11.2% and 9.7%, respectively).

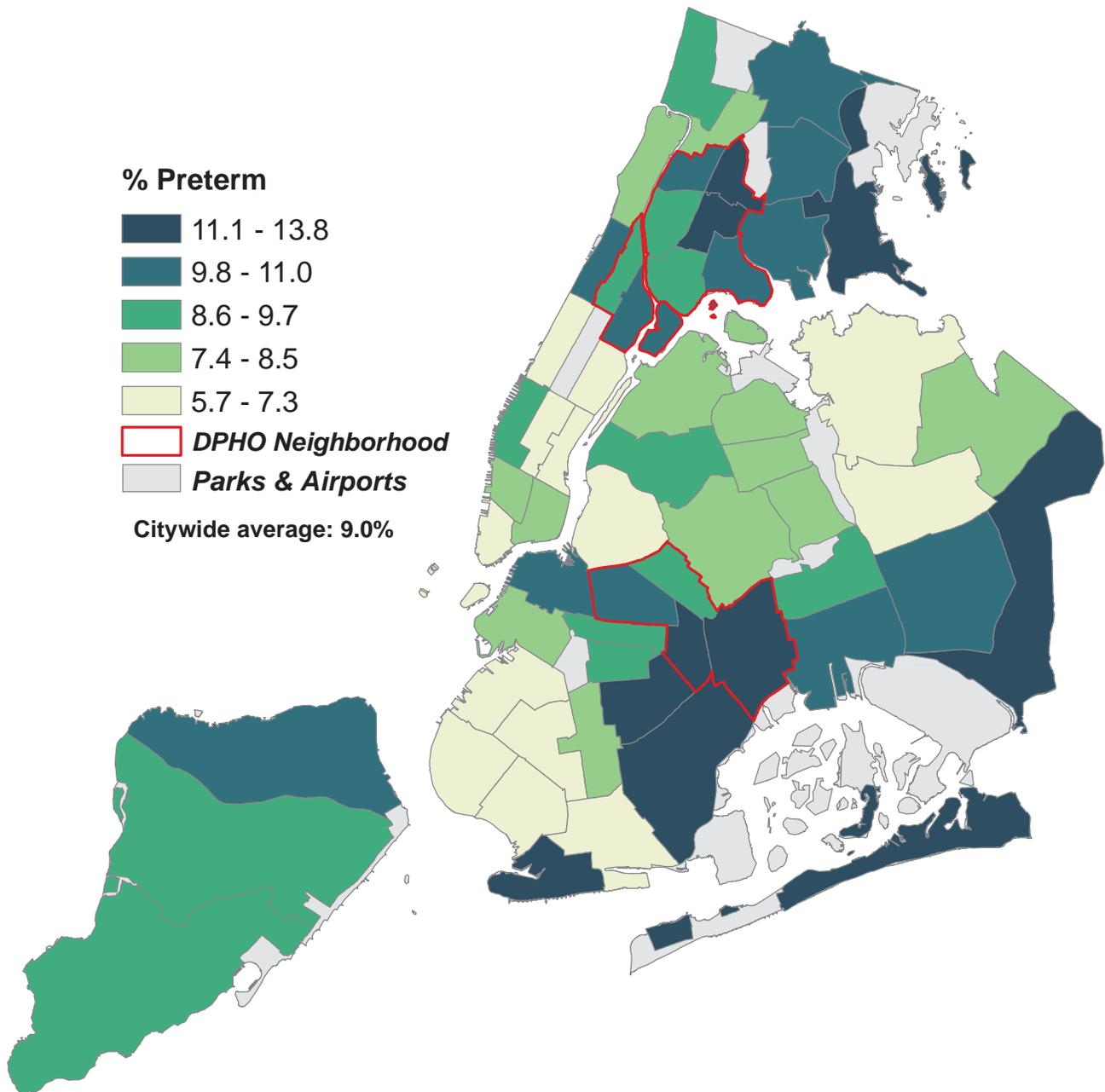
- In 2013, mothers 40 years or older had more preterm births (14.2%) than younger mothers (range: 8.0% to 9.5%).
- Since 2004, preterm births have declined 1.4% among mothers 40 years or older, 14.8% among mothers 30 to 39, 9.1% among mothers 20 to 29 and 16.7% among mothers less than 20 years of age.

**Figure 10. Percent Preterm Live Births by Mother's Age Group, New York City, 2004–2013**



# PRETERM LIVE BIRTHS

Figure 11. Percent Preterm Live Births by Community District of Residence, New York City, 2013

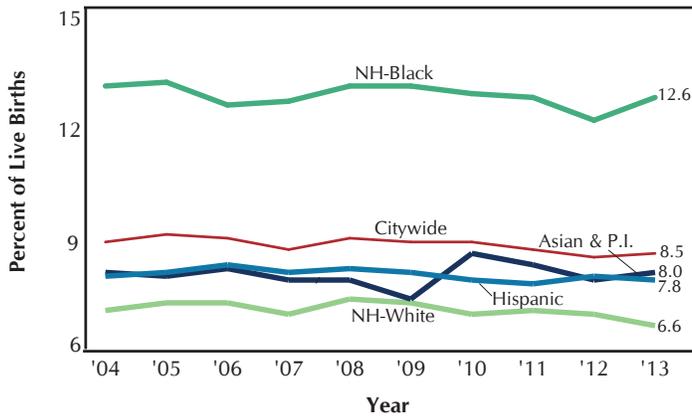


Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of preterm live births was East Flatbush at 13.8%, followed by 13.3% in Brownsville, 12.3% in East Tremont, 11.6% in both the Rockaways and East New York, and 11.5% in Canarsie.
- In 2013, the community district with the lowest percentage of preterm live births was Midtown Business District at 5.7%, followed by 6.0% in both Flushing and Williamsburg/Greenpoint, 6.4% in Borough Park, 6.9% in Murray Hill, and 7.0% in Bay Ridge.

# LOW BIRTHWEIGHT

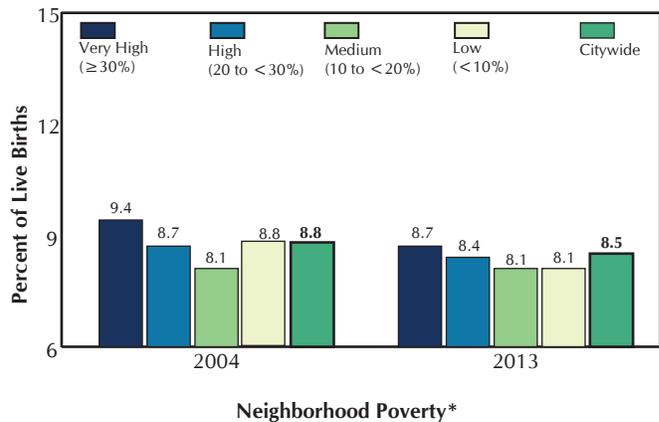
**Figure 12. Percent Low Birthweight Live Births by Mother's Racial/Ethnic Group, New York City, 2004–2013**



- In 2013, 8.5% of citywide live births were low birthweight (<2,500g), a 3.4% decline since 2004.
- In 2013, non-Hispanic blacks were more likely to have low birthweight births (12.6%) than other racial/ethnic groups (range: 6.6% to 8.0%).
- Declines since 2004 were seen among non-Hispanic whites, Non-Hispanic blacks and Hispanics at 5.7%, 2.3% and 1.3%, respectively.

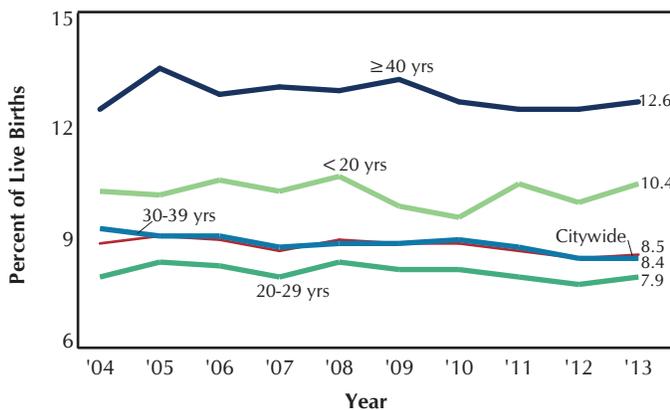
- In 2013, very high poverty neighborhoods ( $\geq 30\%$ ) had the highest percent of low birth weight births (8.7%), followed by high poverty neighborhoods with 8.4% low birth weight, and medium and low poverty neighborhoods, both with 8.1% low birth weight births.
- Since 2004, declines in low birth weight were the greatest in the low and very high poverty neighborhoods with 8.0% and 7.4% declines respectively.

**Figure 13. Percent Low Birthweight Live Births 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.

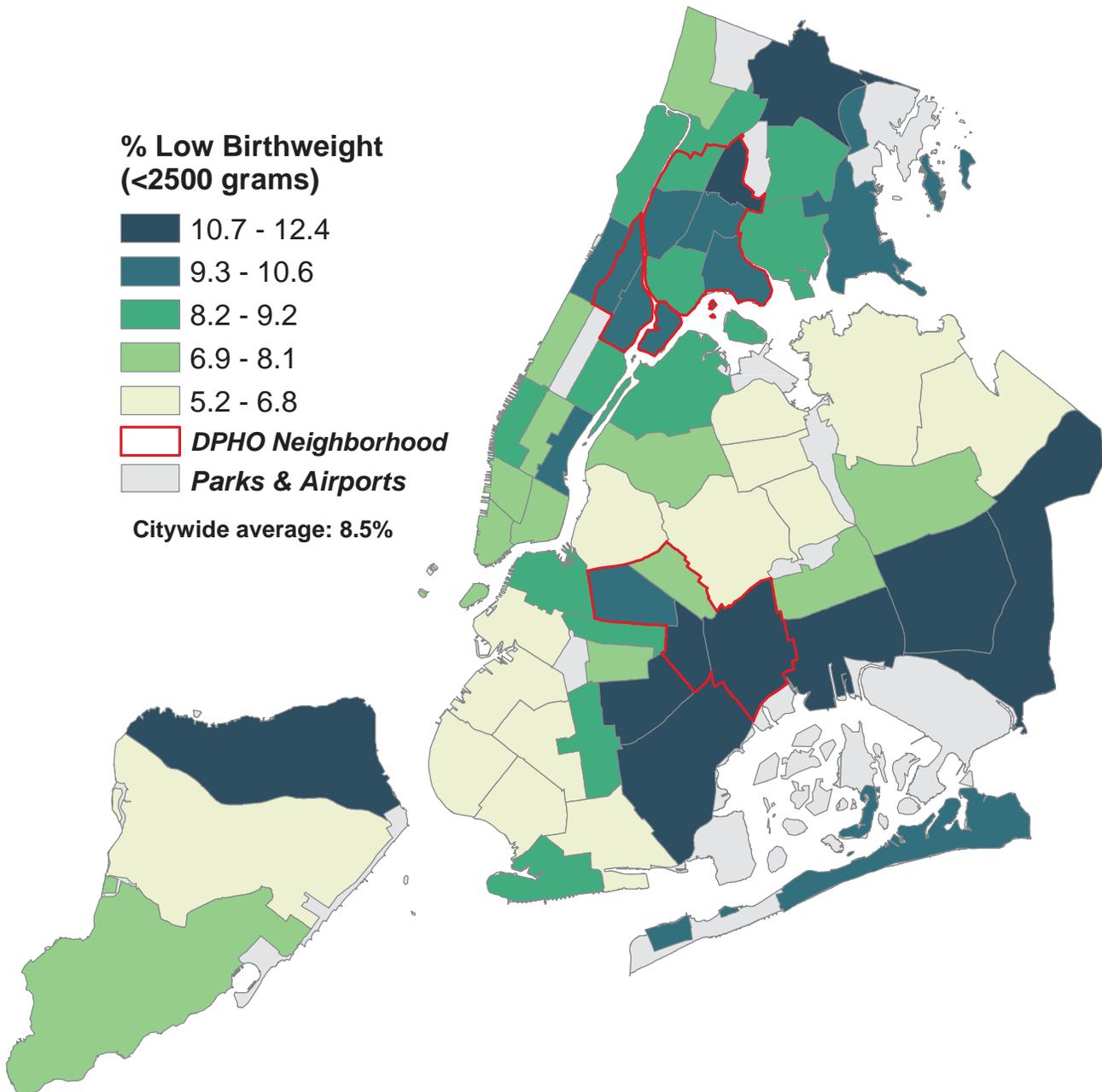
**Figure 14. Percent Low Birthweight Live Births by Mother's Age Group, New York City, 2004-2013**



- In 2013, mothers aged 40 years or older had the highest percentage of low birthweight live births (12.6%), followed by mothers aged less than 20 (10.4%), 30 to 39 (8.4%), and 20 to 29 (7.9%).
- Since 2004, the percentage of low birthweight live births among mothers aged 30-39 has declined 8.7%. The remaining age groups remained relatively stable over the ten year period.

# LOW BIRTHWEIGHT

Figure 15. Percent Low Birthweight Live Births by Community District of Residence, New York City, 2013



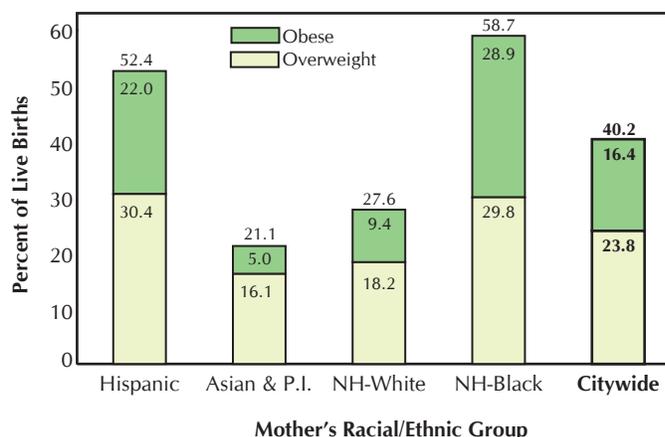
Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of infants born weighing less than 2,500 grams was East Tremont at 12.4%, followed by 12.3% in East Flatbush, 12.0% in Brownsville, 11.8% in East New York, and 11.7% in Queens Village.
- In 2013, the community district with the lowest percentage of low birthweight live births was Williamsburg/Greenpoint at 5.2%, followed by 5.4% in Flushing, 5.5% in Sunset Park, 5.7% in Sheepshead Bay, and 5.8% in Borough Park.

# MOTHER'S BODY MASS INDEX (BMI)

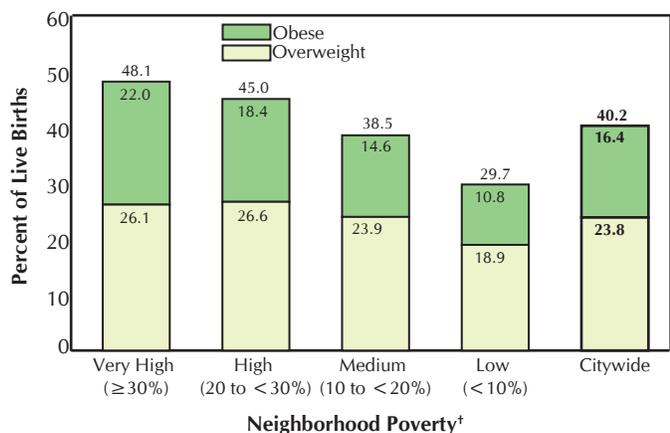
- In 2013, 40.2% of mothers were either overweight (23.8%) or obese (16.4%) pre-pregnancy, virtually the same distribution as in 2008, the first year data were collected (data not shown).
- Disproportionately more non-Hispanic black (58.7%), and Hispanic (52.4%) mothers were overweight or obese pre-pregnancy than non-Hispanic white (27.6%) and Asian and Pacific Islanders (21.1%).
- Non-Hispanic black mothers were 2.1 times more likely to be overweight or obese pre-pregnancy than non-Hispanic white mothers.

**Figure 16. Pre-pregnancy BMI\* by Mother's Racial/Ethnic Group, New York City, 2013**



\*Body Mass Index (BMI): Overweight: ( $25 \leq \text{BMI} < 30$ ), Obese: ( $\text{BMI} \geq 30$ ); data unavailable prior to 2008.

**Figure 17. Pre-pregnancy BMI\* by Neighborhood Poverty<sup>†</sup>, New York City Residents, 2013**



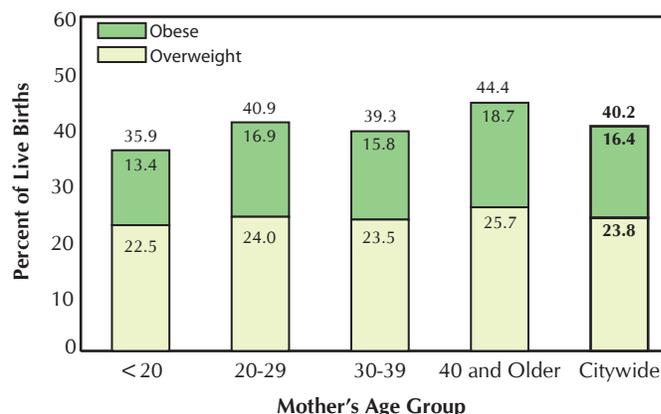
\*Body Mass Index (BMI): Overweight: ( $25 \leq \text{BMI} < 30$ ), Obese: ( $\text{BMI} \geq 30$ ).

<sup>†</sup>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.

- Neighborhoods with a higher percent of the population living below the federal poverty level have more obese and overweight pre-pregnant mothers.
- In 2013, 1.6 times more birth mothers in the very high poverty neighborhoods were obese or overweight prior to pregnancy than in the low poverty neighborhoods (48.1% vs. 29.7%).

- In 2013, the percentage of pre-pregnancy overweight and obese mothers was the lowest among mothers less than 20 years of age (35.9%), followed by mothers 30 to 39 years of age (39.3%), mothers 20 to 29 years of age (40.9%) and highest among mothers age 40 years or older (44.4%).
- In 2013, teenage mothers ( $< 20$  years) were least often obese (13.4%), while mothers aged 40 years or older were most often obese (18.7%).

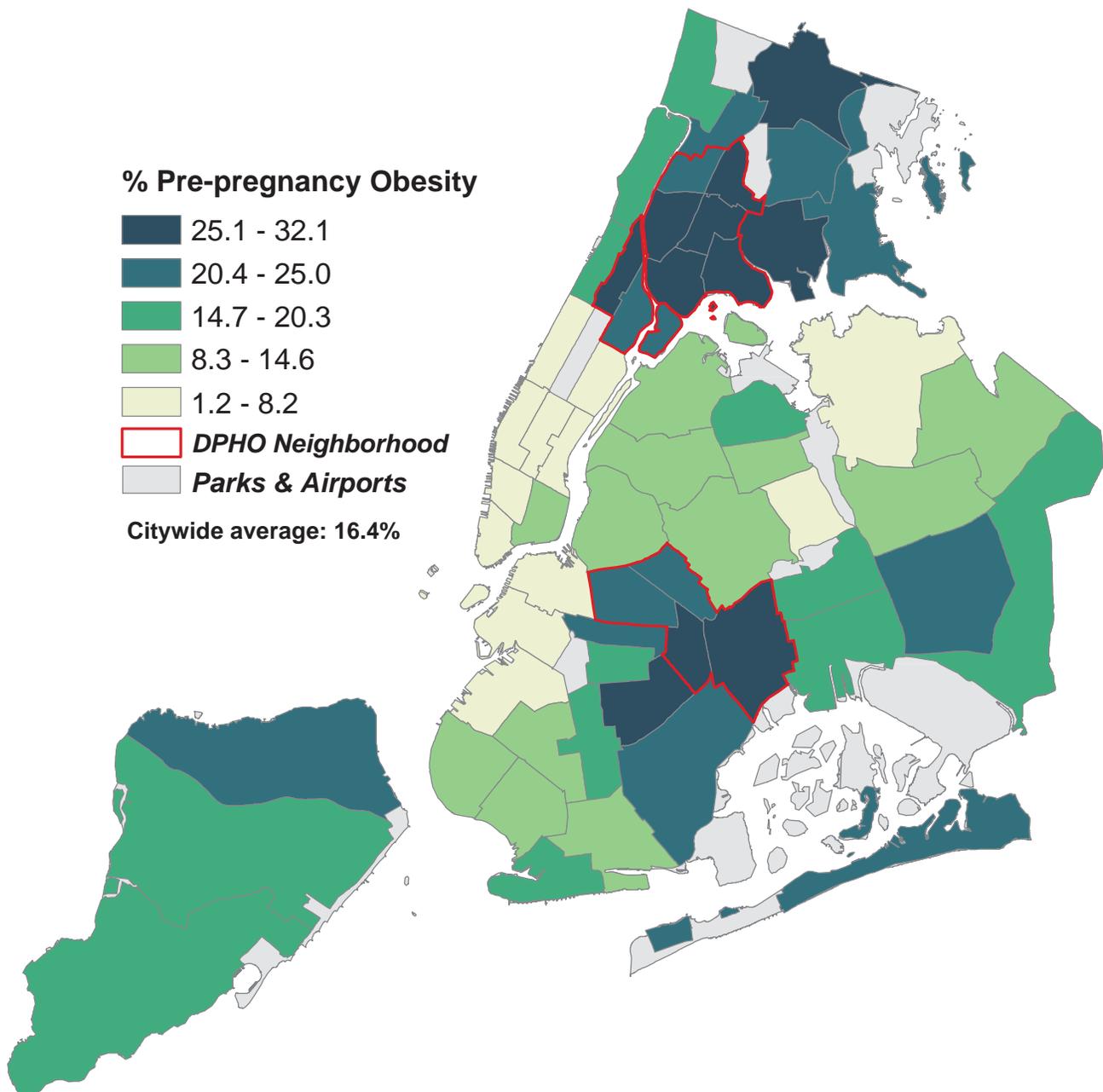
**Figure 18. Pre-pregnancy BMI\* by Mother's Age Group, New York City, 2013**



\*Body Mass Index (BMI): Overweight: ( $25 \leq \text{BMI} < 30$ ), Obese: ( $\text{BMI} \geq 30$ ).

# MOTHER'S BODY MASS INDEX (BMI)

Figure 19. Percent of Infants Born to Mothers with Pre-pregnancy Obesity by Community District of Residence, New York City, 2013

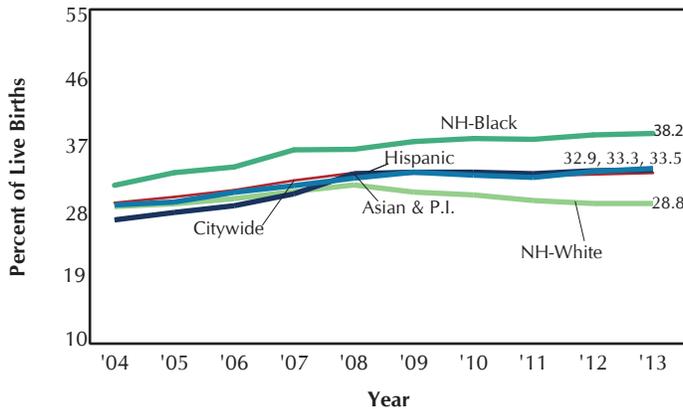


Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of pre-pregnancy obesity was Brownsville at 32.1%, followed by 29.9% in Mott Haven, 28.4% in Morrisania, 28.2% in Williamsbridge and 27.0% in Hunts Point.
- In 2013, the community district with the lowest percentage of mothers with pre-pregnancy obesity was Battery Park/Tribeca at 1.2%, followed by 2.3% in Greenwich Village/SoHo, 3.8% in the Upper East Side, 4.1% in Murray Hill, and 4.5% in the Midtown Business District.
- In 2013, a higher proportion of obese mothers lived in DPHO neighborhoods.

# CESAREAN SECTION (C-SECTION) BIRTHS

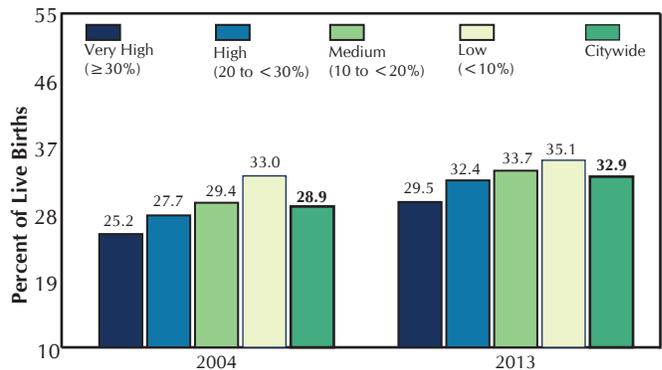
**Figure 20. Percent of Live Births Delivered by C-section by Mother's Racial/Ethnic Group, New York City, 2004–2013**



- C-section deliveries increased 13.8% since 2004 and 2013 accounted for 32.9% of deliveries citywide.
- Increases since 2004 were the greatest among Asian and Pacific Islanders (25.2%), followed by non-Hispanic blacks (22.4%), Hispanics (17.1%), and non-Hispanic whites (1.4%).
- In 2013, non-Hispanic blacks were 1.3 times more likely to have a C-section than non-Hispanic whites, up from 1.1 in 2004.

- In 2013, fewer births were delivered by C-section in very high poverty neighborhoods (29.5%) than in high (32.4%), medium (33.7%), and low (35.1%) poverty neighborhoods, respectively.
- Mothers from low poverty neighborhoods were 1.2 times more likely to have a C-section delivery than mothers from very high poverty neighborhoods (35.1% vs. 29.5%), down from 1.3 in 2004 (33.0% vs. 25.2%).

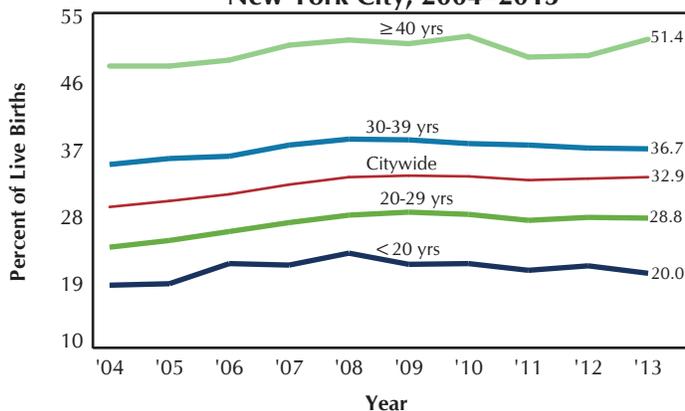
**Figure 21. Percent of Live Births Delivered by C-section by Neighborhood Poverty\*, New York City Residents, 2004, 2013**



**Neighborhood Poverty\***

\*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.

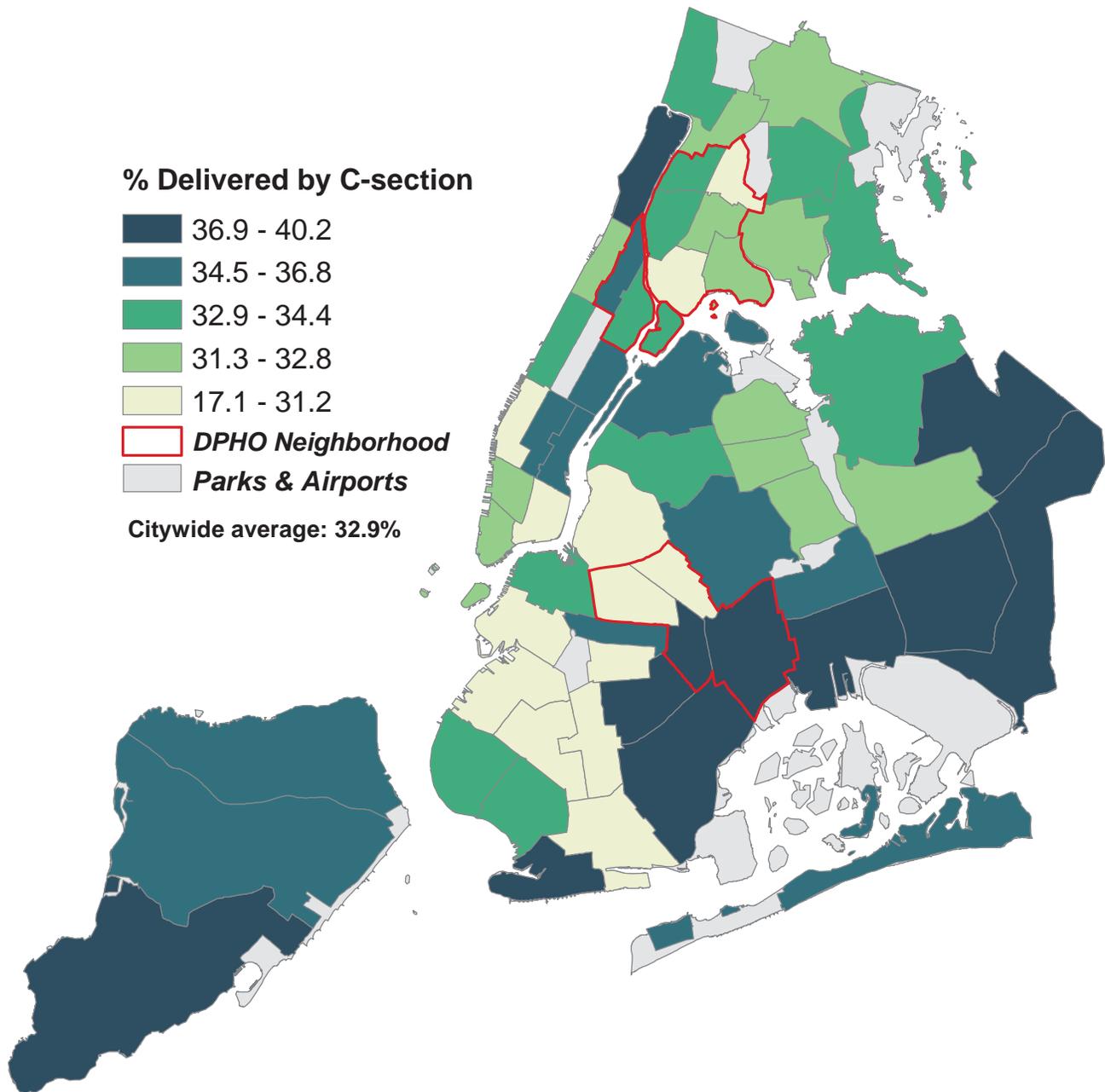
**Figure 22. Percent of Live Births Delivered by C-section by Mother's Age Group, New York City, 2004–2013**



- Since 2004, C-section deliveries increased more among 20 to 29 year old mothers (16.6%) than among mothers in other age groups (range: 6.1% to 8.7%).
- Among mothers 40 years of age or older, 51.4% of births were delivered by C-section in 2013.

# CESAREAN SECTION (C-SECTION) BIRTHS

Figure 23. Percent of Live Births Delivered by C-section by Community District of Residence, New York City, 2013



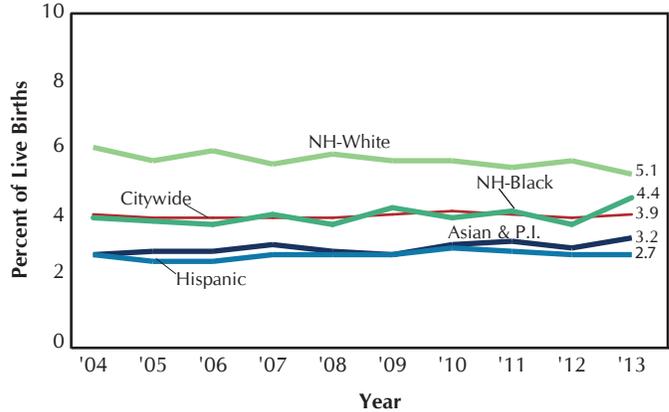
Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of live births delivered by C-section was Tottenville at 40.2%, followed by 38.9% in Brownsville, 38.7% in East Flatbush, Coney Island and Howard Beach, 38.2% in Jamaica/St. Albans and 37.9% in Queens Village, Washington Heights, and Bayside.
- In 2013, the community district with the lowest percentage of C-section deliveries was Borough Park at 17.1%, followed by 17.4% in Williamsburg/Greenpoint, 26.8% in Crown Heights South, 29.2% in East Tremont, and 29.8% in Flatbush/Midwood.

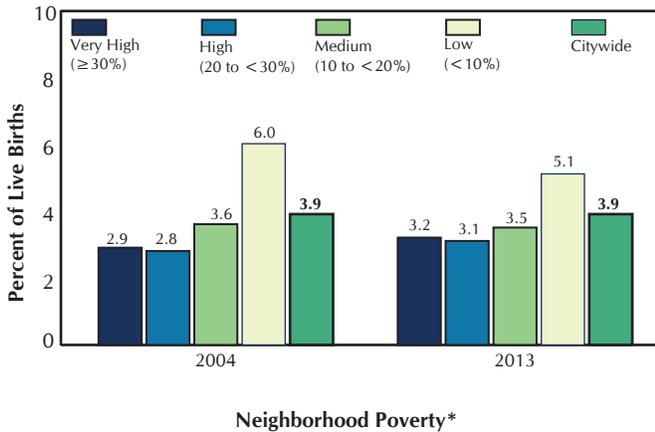
# MULTIPLE LIVE BIRTHS

- The percentage of multiple live births in New York City remained constant, hovering at or near 3.9% of all live births since 2004.
- Since 2004, multiple live births increased 18.5% among Asian and Pacific Islanders and 15.8% among non-Hispanic black, and decreased 13.6% among non-Hispanic whites and remained virtually flat among Hispanics.

**Figure 24. Percent Multiple Live Births (Twins or Higher) by Mother’s Racial/Ethnic Group, New York City, 2004–2013**



**Figure 25. Percent Multiple Live Births (Twins or Higher) by Neighborhood Poverty\*, New York City Residents, 2004, 2013**

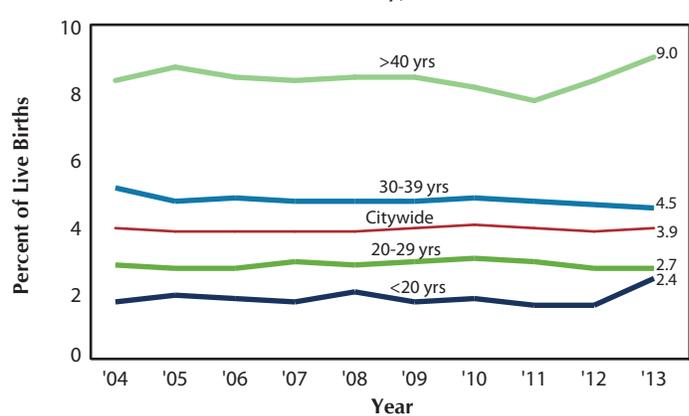


\*Neighborhood poverty (based on mother’s NYC resident census tract) defined as percent of residents with incomes below 100% of the Federal Poverty Level, per Census 2000 for 2004 data and per American Community Survey 2008-2012 for 2013 data.

- In 2013, the percent of multiple live births occurring to mothers from low poverty neighborhoods was higher (5.1%) than that from medium, high, and very high poverty neighborhoods (range: 3.1 to 3.5).
- Since 2004, a 15% and 2.8% decrease in the percent of multiple live births occurred among low and medium poverty neighborhoods, respectively, compared to a 10.7% and 10.3% increase among high and very high poverty neighborhoods, respectively.

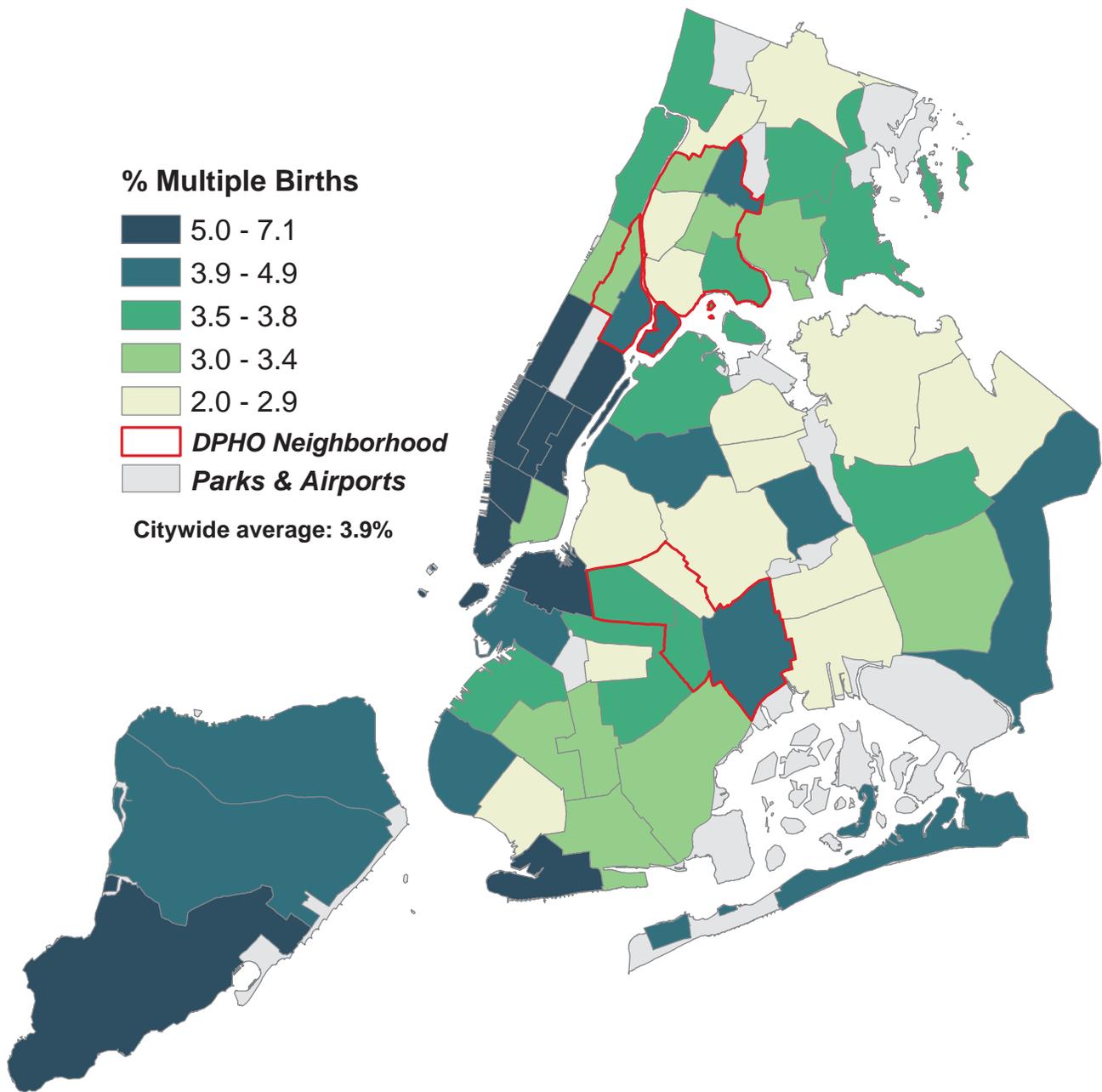
- In 2013, women 40 years of age or older had disproportionately more multiple live births (9.0%) than younger age women (range: 2.4% to 4.5%). This is likely attributable to more frequent use of assisted reproductive technology compared to other age groups.
- Since 2004, the percentage of multiple live births increased 41.2% and 8.4% among mothers less than 20 years of age and mothers 40 years or older, respectively. The large fluctuations of multiple live births are most likely due to small numbers of births in these two age groups. The percentage of multiple live births decreased 11.8% and 3.6% among mothers aged 30 to 39 and 20 to 29 respectively.

**Figure 26. Percent Multiple Live Births (Twins or Higher) by Mother’s Age Group, New York City, 2004–2013**



# MULTIPLE LIVE BIRTHS

Figure 27. Percent Multiple Live Births (Twins or Higher) by Community District of Residence, New York City, 2013

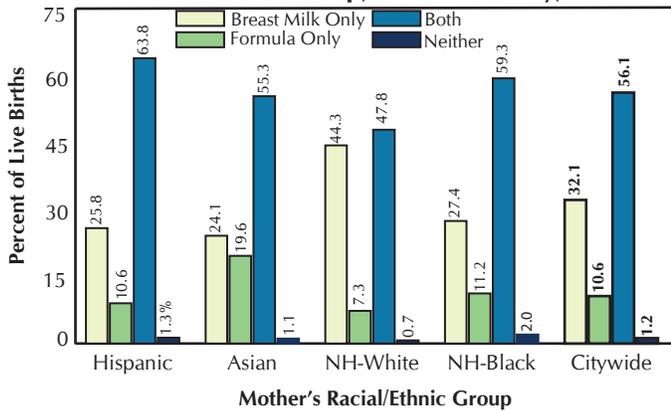


Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of multiple live births was Upper East Side at 7.1%, followed by 6.8% in Fort Greene/Brooklyn Heights, 6.1% in Murray Hill, 5.9% in Tottenville, Upper West Side, and Greenwich Village/SOHO, and 5.8% in Battery Park/Tribeca.
- In 2013, the community district with the lowest percentage of multiple live births was Jackson Heights at 2.0%, followed by 2.1% in Bushwick, 2.2% in both Crown Heights South and Woodhaven, 2.3% in Elmhurst/Corona and 2.5% in Williamsburg/Greenpoint.

# BREASTFEEDING

**Figure 28. Percent of Infants Fed Breastmilk or Formula within 5 Days of Birth\*\* by Mother's Racial/Ethnic Group, New York City, 2013**



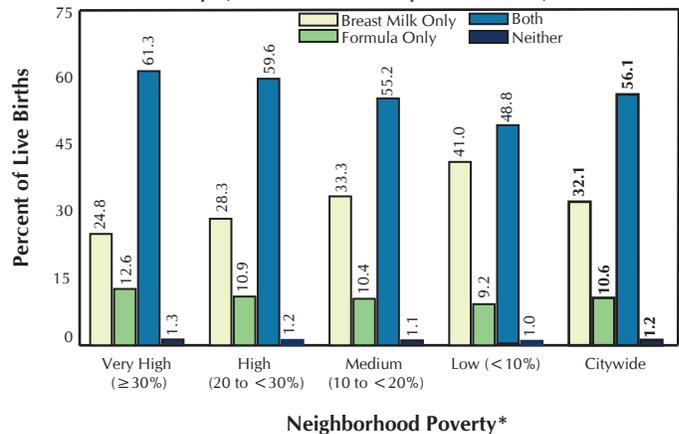
\*Data unavailable prior to 2008.

†See Technical Notes: Breast Feeding, Breast feeding reported on the birth certificate only includes information through the first 5 days of life. New York City births must be filed with the Department within five business days of the event.

- In 2013, infants born to mothers from low poverty neighborhoods were 1.6 times more likely to be fed breastmilk only within 5 days of birth compared to infants born to mothers from very high poverty neighborhoods (41.0% vs. 24.8%).

- Citywide, the majority of infants born in 2013 (88.2%) were fed some breastmilk within the first 5 days of life; 32.1% were exclusively fed breastmilk.
- Non-Hispanic whites were 1.6 times more likely to feed their infants breastmilk exclusively than non-Hispanic blacks (44.3% vs. 27.4%).
- Since 2008 (the first year infant feeding data were collected), the percentage of exclusive breastmilk fed infants remained virtually unchanged. However, formula-only fed infants declined 31.2%, at 10.6% of infants citywide in 2013 (Figure 30).

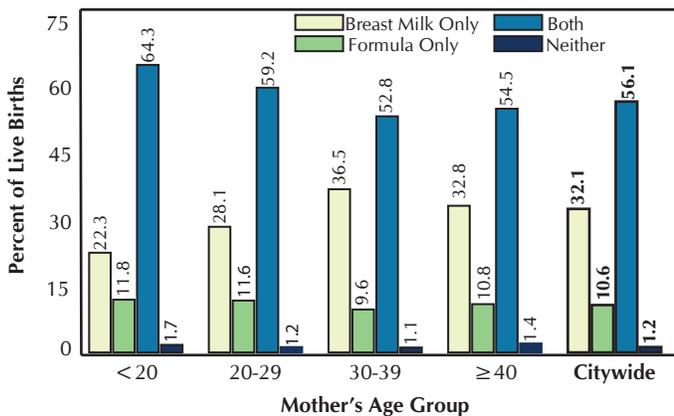
**Figure 29. Percent of Infants Fed Breastmilk or Formula within 5 Days of Birth\* by Neighborhood Poverty†, New York City Residents, 2013**



\*See Technical Notes: Breast feeding.

†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 30. Percent of Infants Fed Breastmilk or Formula within 5 Days of Birth by Mother's Age Group, New York City, 2013**

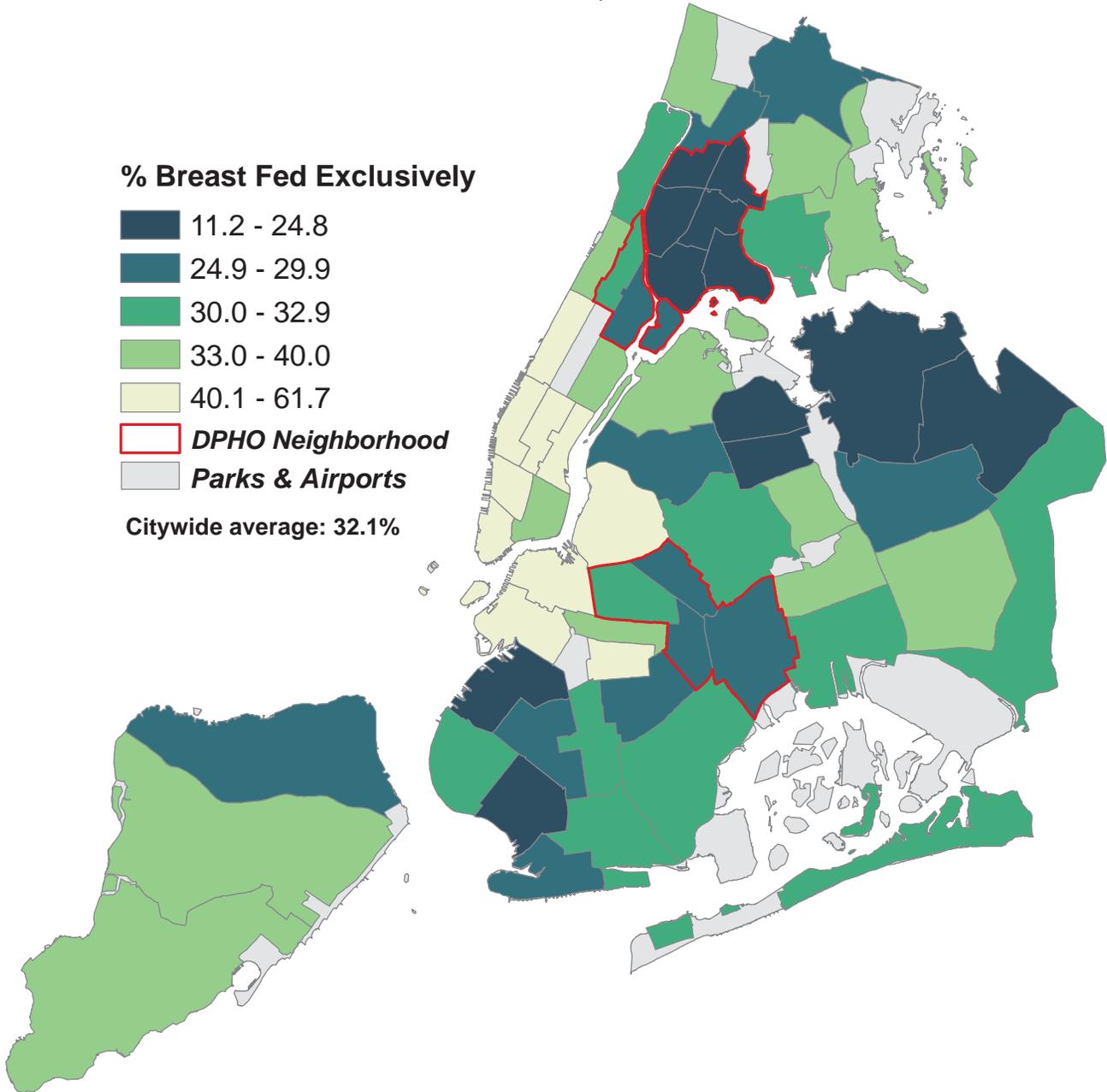


\*See Technical Notes: Breast feeding.

- Teenage mothers (<20 years) were least likely to exclusively breastfeed (22.3%) and most likely to feed formula only (11.8%) during the infant's first 5 days of life in comparison to all other maternal age groups.

# BREASTFEEDING

Figure 31. Percent of Infants Fed Breastmilk within 5 Days of Birth by Community District of Residence, New York City, 2013



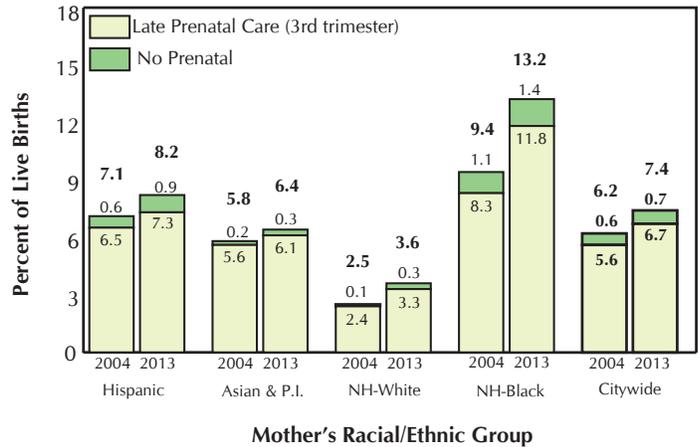
Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the smallest percentage of infants fed exclusively breast milk during the first 5 days of life was Flushing at 11.2%, followed by 12.3% in Elmhurst/Corona, 16.2% in Jackson Heights, 19.2% in Sunset Park, and 19.7% in Concourse/Highbridge.
- In 2013, the community district with the largest percentage of infants fed exclusively breast milk during the first 5 days of life was Park Slope at 61.7%, followed by 55.0% in Fort Greene, 54.6% in both Greenwich Village/SOHO and Murray Hill, 53.6% in Battery Park/Tribeca, and 52.1% in the Midtown Business District.

# PRENATAL CARE

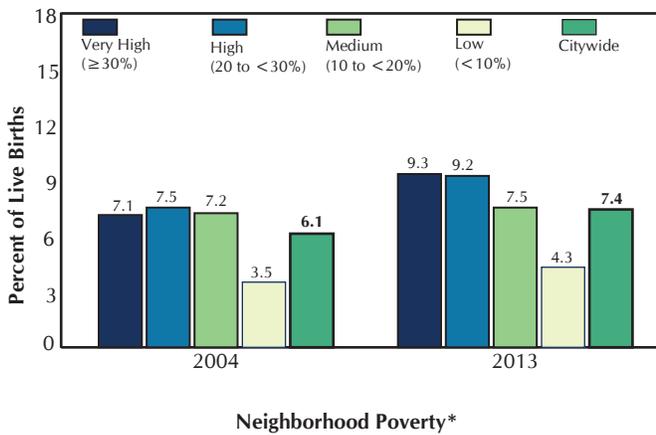
- Citywide, 7.4% of mothers received either late (3rd trimester) or no prenatal care in 2013, up from 6.2% in 2004.
- In 2013 non-Hispanic black mothers were more likely to initiate prenatal care late or not at all (13.2%) compared to other racial/ethnic groups (range: 8.2% to 3.5%) and 3.6 times more likely than non-Hispanic white mothers (13.2% vs. 3.6%), down from 3.8 in 2004 (9.4% vs. 2.5%).

**Figure 32. Percent of Mothers Who Received Late or No Prenatal Care\* by Mother's Racial/Ethnic Group, New York City, 2004, 2013**



\*See Technical notes: Gestational Age: 2004 categories for trimester of 1st prenatal care were adjusted to reflect 2007 revised gestational age definition making 2004 and 2013 rates comparable.

**Figure 33. Percent of Mothers Who Received Late or No Prenatal Care\* by Neighborhood Poverty†, New York City Residents, 2004, 2013**



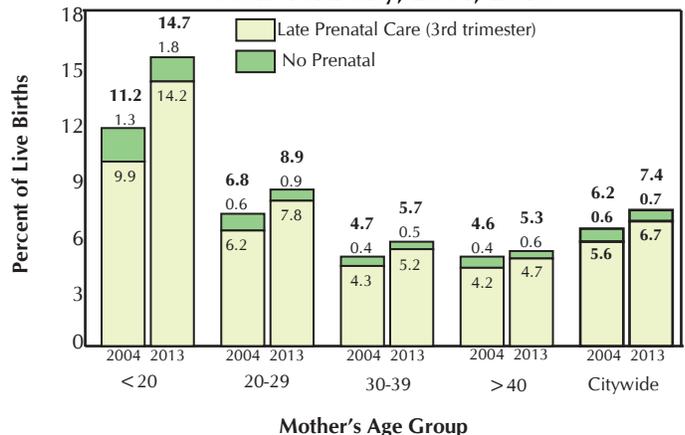
\*See Technical notes: Gestational Age: 2004 .

†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.

- In 2013, teen mothers (<20 years of age) were more likely to receive late (14.2%) or no prenatal care (1.8%) than mothers in all other age groups, up from 9.9% and 1.3% in 2004, respectively.

- In 2013, infants born to mothers from very high poverty neighborhoods were 2.2 times more likely to receive late or no prenatal care compared to infants born to mothers from low neighborhoods (9.3% vs. 4.3%), up from 2.0 in 2004 (7.1% vs. 3.5%).

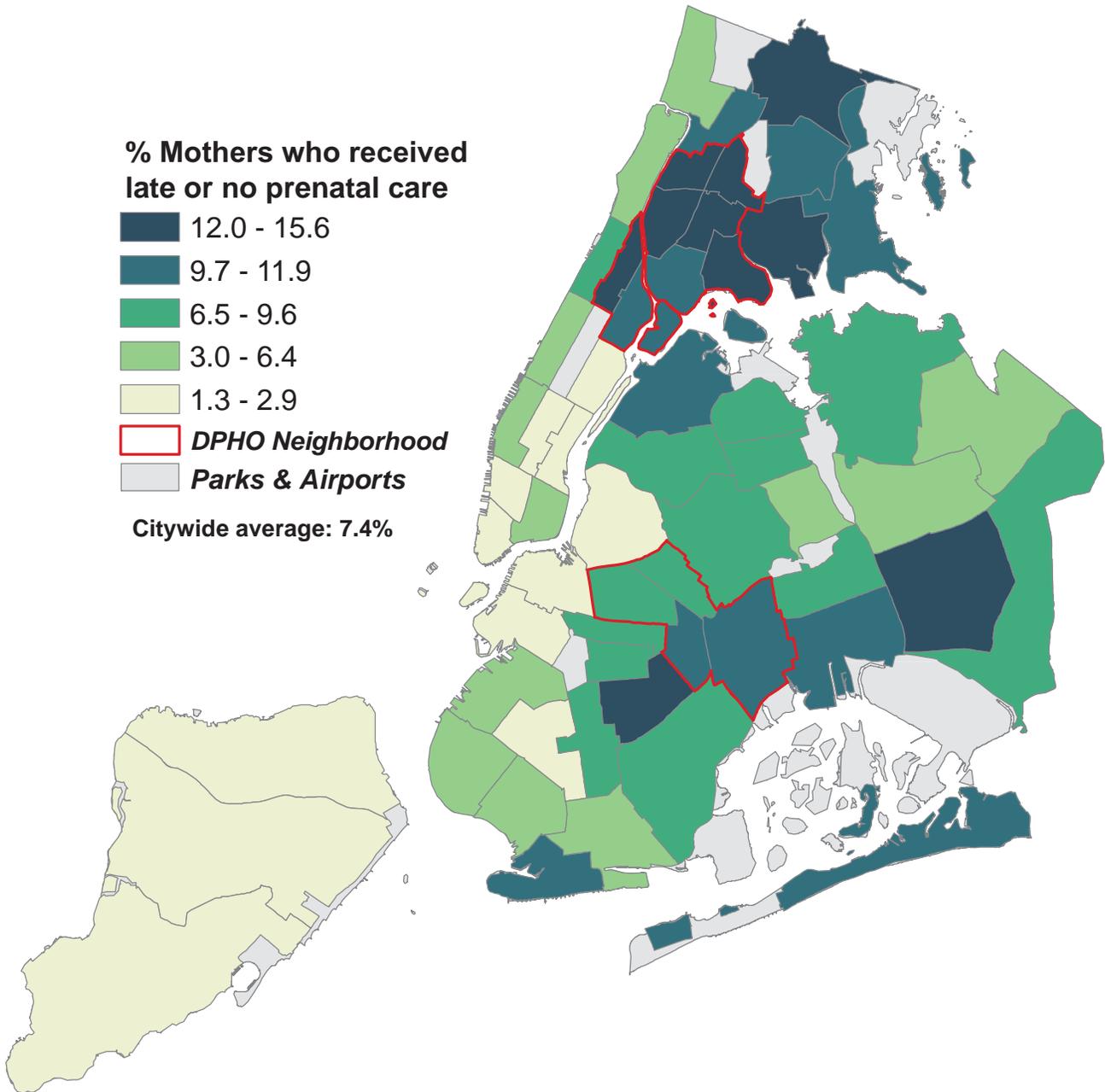
**Figure 34. Percent of Mothers Who Received Late or No Prenatal Care\* by Mother's Age Group, New York City, 2004, 2013**



\*See Technical notes: Gestational Age: 2004 .

# PRENATAL CARE

Figure 35. Percent of Mothers Who Received Late or No Prenatal Care by Community District of Residence, New York City, 2013

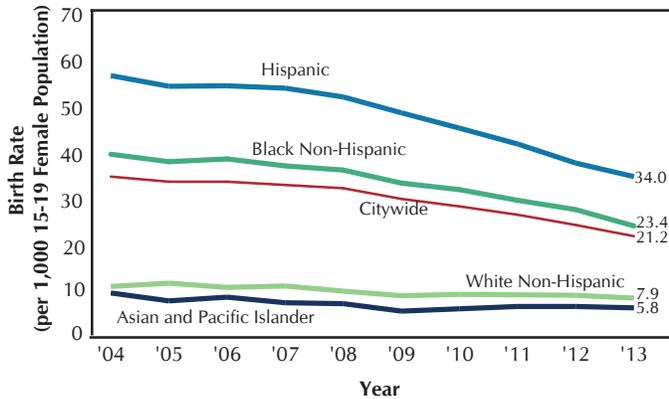


Source: Bureau of Vital Statistics, based on events occurring in 2013.

- In 2013, the community district with the highest percentage of late or no prenatal care was Morrisania at 15.6%, followed by 14.9% in East Flatbush, 14.2% in Hunts Point, 13.9% in Williamsbridge, and 13.6% in Concourse/Highbridge.
- The community district with the lowest percentage of mothers who received late or no prenatal care was Tottenville at 1.3%, followed by 1.5% in Battery Park/Tribeca, 1.6% in Park Slope, 2.2% in Greenwich Village/SoHo, Fort Greene/Brooklyn Heights, and the Upper East Side, and 2.5% in Willowbrook.

# TEEN PREGNANCY

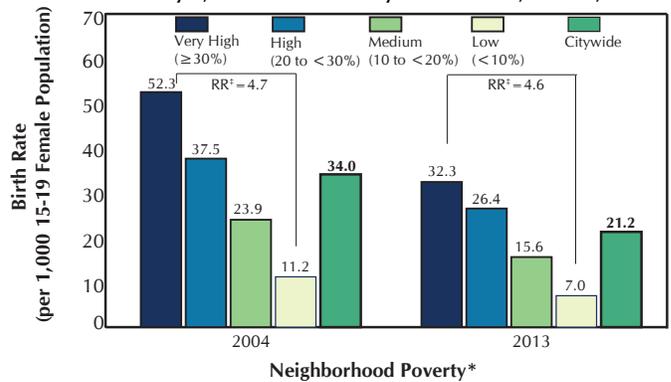
**Figure 36. Teen Birth Rate by Mother's Racial/Ethnic Group, New York City, 2004-2013**



- Teen birth rates were the highest in the city's poorest neighborhoods. In 2004 and 2013, teen birth rates were 4.7 and 4.6 times greater in the city's very high poverty neighborhoods compared to the low poverty neighborhoods, respectively.
- Between 2004 and 2013, teen birth rates declined across all poverty levels: 38.2% in the city's very high poverty neighborhoods, 29.6% in high poverty neighborhoods, 34.7% in medium poverty neighborhoods, and 37.5% in low poverty neighborhoods.

- From 2004 to 2013, teen birth rates declined 37.8% overall and among all racial/ethnic groups: 39.1% among Hispanics, 39.7% among non-Hispanic blacks, 24.8% among non-Hispanic whites and 36.1% among Asian Pacific Islanders.
- The non-Hispanic black rate was 3.7 and 3.0 times greater than the non-Hispanic white rate in 2004 and 2013, respectively, indicative of a narrowing disparity.

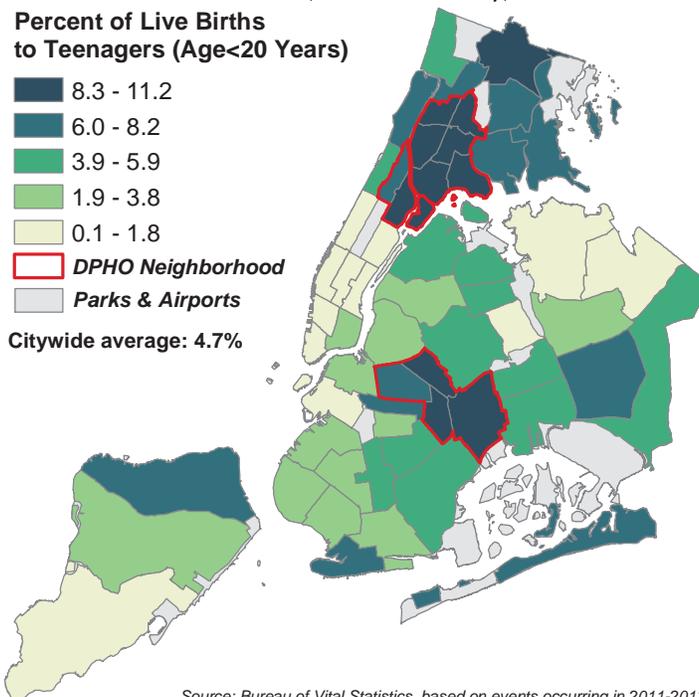
**Figure 37. Teen Birth Rate by Neighborhood Poverty\*, New York City Residents, 2004, 2013**



\*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.

†Rate Ratio.

**Figure 38. Percent of Live Births to Teenagers by Community District of Residence, New York City, 2011-2013**

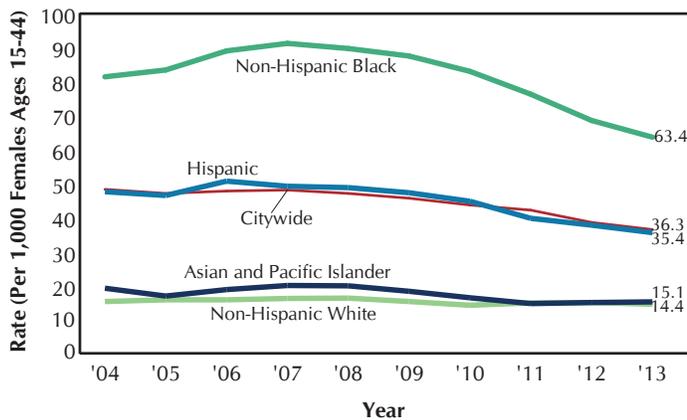


Source: Bureau of Vital Statistics, based on events occurring in 2011-2013.

- In 2013, the community district with the highest percentage of teen births was East Tremont at 11.2% followed by 10.6% in Mott Haven. 10.5% in Morrisania, 10.4% in Hunts Point, and 10.1% in Brownsville.
- The community district with the lowest percentage of teen births was Battery Park/Tribeca at 0.1%, followed by 0.4% in Murray Hill, Upper East Side and Greenwich Village, each, 0.8% in Rego Park/Forest Hills, 1.1% in Midtown Business District and 1.2% in the Upper West Side.
- In 2013, the percent of teen births in the community districts that comprise the three DPHOs were all higher than the city average of 4.7%.

# INDUCED TERMINATION OF PREGNANCY

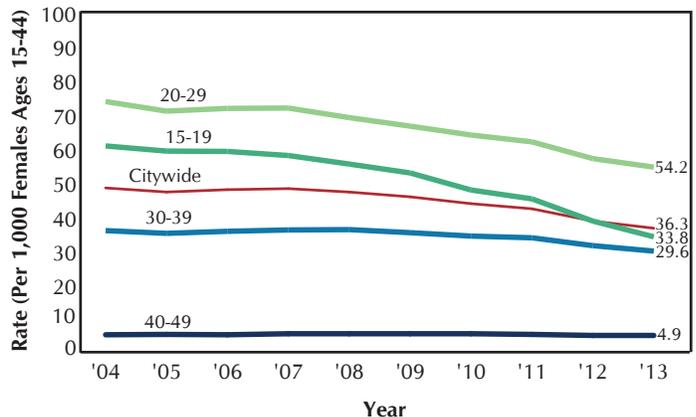
**Figure 39. Age-adjusted Induced Termination of Pregnancy Rate by Mother's Racial/Ethnic Group, New York City, 2004-2013**



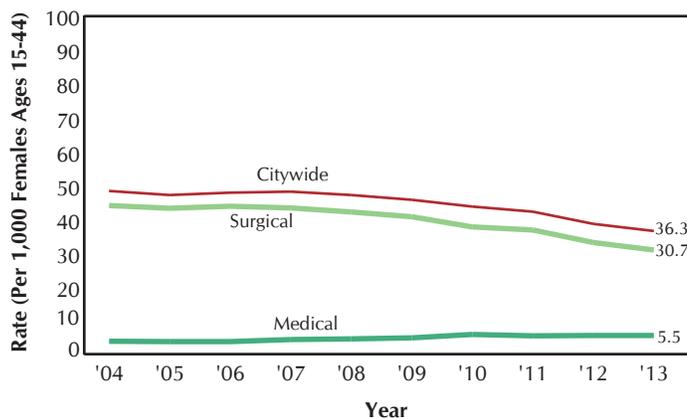
- The 2013 citywide crude rate of induced terminations of pregnancy, at 36.3 terminations per 1,000 female aged 15 to 44 years, declined 24.5% since 2004 (Figure 3). Similarly, age-adjusted rates among each racial/ethnic group declined: 25.3% among Hispanics, 21.8% among non-Hispanic blacks, 20.9% among Asian and Pacific Islanders and 5.3% among non-Hispanic whites.
- The non-Hispanic black: non-Hispanic white age-adjusted rate disparity for induced termination of pregnancy narrowed since 2004; the rate was 4.4 times greater among non-Hispanic blacks than non-Hispanic whites (63.4 per 1,000 females age 15-44 vs. 14.4) in 2013, compared to 5.3 in 2004.

- Since 2004, the crude rate of induced termination of pregnancy has declined most among teens (44.0%) from 60.4 terminations per 1,000 female 15 to 19 years of age in 2004 to 33.8 in 2013, followed by a 26.2% decline women 20 to 29 years of age, 16.9% among women 30 to 39 years of age and 3.9% among women 40 and older.
- Rates remain the highest among women 20 to 29 years of age, followed by teens, then women 30 to 39 years of age and women 40 and over.

**Figure 40. Age-specific Induced Termination of Pregnancy Rate by Mother's Age, New York City, 2004-2013**



**Figure 41. Crude Induced Termination of Pregnancy Rate by Medical vs. Surgical Procedure, 2004-2013**



- Medication-induced abortion, using mifepristone in combination with misoprostol is termed a “medical abortion” and may be performed up to nine weeks gestation, rather than a surgical procedure to terminate a pregnancy. Medical abortion is not to be confused with the morning-after pill, also known as emergency contraception, used to prevent pregnancy.
- Since 2004, the crude rate of medical abortion in New York City has increased 46.2%, to 5.5 terminations per 1,000 females age 15-44, while the rate of surgical abortion has decreased 30.0% to 30.7.