REPORT ON INFANT AND MATERNAL HEALTH

SUNY DOWNSTATE MEDICAL CENTER

SUNY DOWNSTATE Medical Center

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LETTER FROM THE PRESIDENT

Dear residents and friends of Brooklyn:

The health of mothers and babies is central to the success of any community. While Brooklyn has the highest pregnancy rate in New York City, it also has the greatest percentage of mothers-to-be who receive little or no prenatal care. Clearly, something urgently needs to be done.

The health of mothers and babies is central to the success of any community.

The ***Report on Infant and Maternal Health*** is the eighth in a series that examines the major health concerns facing Brooklyn. It focuses on infant and maternal health as key indicators of the health of Brooklyn's communities. It also emphasizes the importance of early and continuous prenatal care to prevent problems that can affect the health of mothers and babies, during pregnancy and after. The key, as always, is prevention.

In its Healthy People 2010 program, the government has outlined a set of national goals aimed at improving the health of mothers and infants by the year 2010. One goal is for 90 percent of all pregnant women to receive continuous prenatal care, beginning in their first three months of pregnancy. Another is to reduce the number of low-birthweight babies—that is, infants who weigh less than 5.5 pounds at birth.

We can meet these goals by providing the information and care women need to have healthy babies. But to accomplish this, we must also remove the social and economic barriers that can prevent women from seeking proper prenatal and post-delivery care. This is especially true in Brooklyn's immigrant neighborhoods, where cultural and language barriers, as well as poverty, can be major obstacles on the path to better health. As medical providers and community leaders, we have an obligation to see that even the youngest among us has a healthy start in life.

John C. LaRosa, M.D.
President

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INFANT AND MATERNAL HEALTH: ITS IMPORTANCE FOR BROOKLYN

Brooklyn has the highest percentage of women in their childbearing years, compared to the rest of New York City, New York State, and the country as a whole. Childbirth is a life-defining experience for many women and their families, and having healthy babies is vitally important, not only for them but for the welfare of the entire community. The care that newborns and infants receive can affect their health and development throughout childhood and into adult life.

Brooklyn's high percentage of women of childbearing age and its high fertility rates help to explain another of New York City's demographic realities: More than a third of all New York City children under the age of five live in Brooklyn. These children represent the Borough's and City's future. A healthy start is vital for these children.

Percent of Women of Childbearing Age (15–44) for the Nation, New York State, New York City, and Brooklyn, 2000

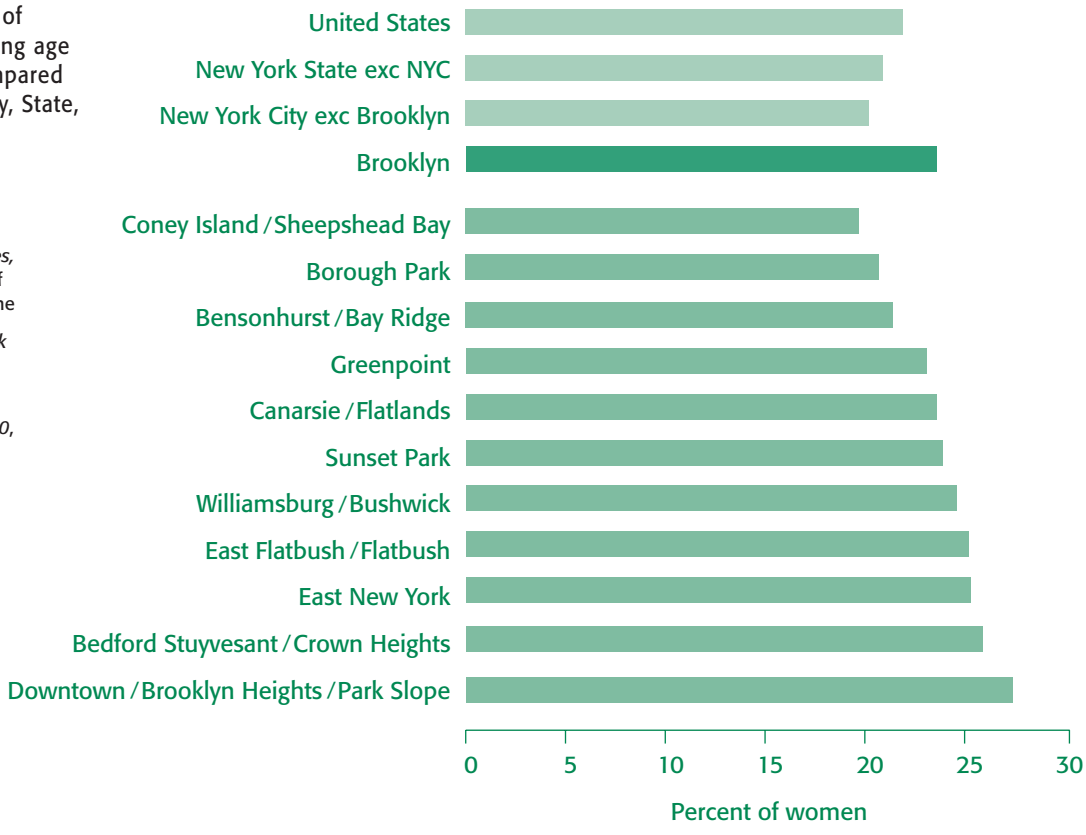
A higher percentage of women of childbearing age live in Brooklyn, compared to the rest of the City, State, and nation.

Sources:

Community Health Profiles, 2000, NYC Department of Health and Mental Hygiene

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



FERTILITY

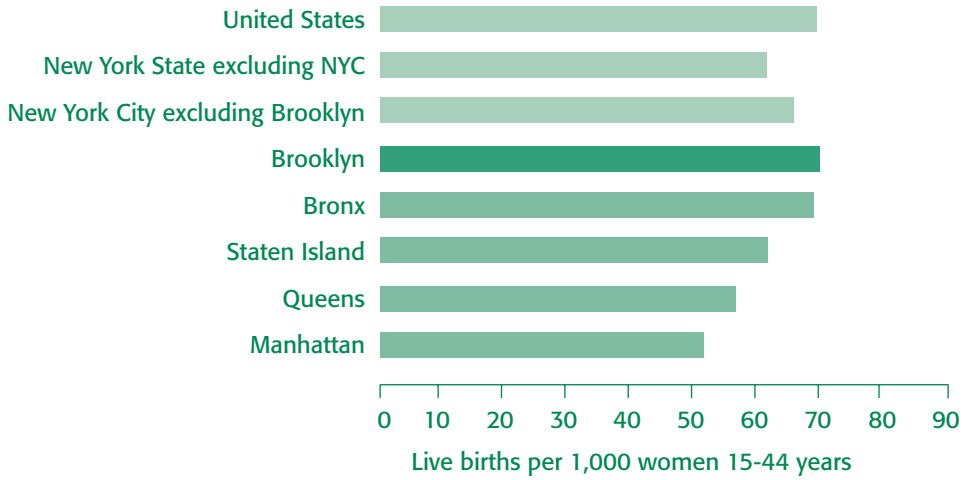
Fertility Rates in New York City and the Five Boroughs, 2000

Brooklyn has a higher fertility rate than the rest of the City and State—that is, it has a higher number of births for every thousand women of childbearing age.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



Fertility Rates in Brooklyn by United Hospital Fund Neighborhood, 2000

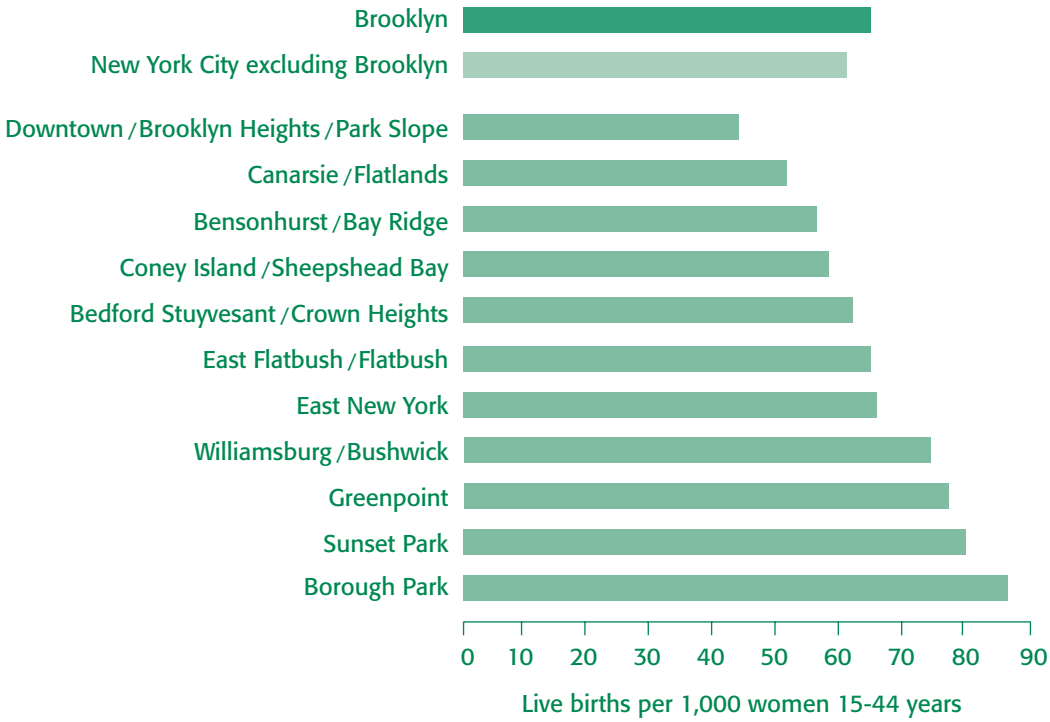
Fertility rates are especially high in several neighborhoods, including Borough Park, Sunset Park, and Greenpoint.

Sources:

Community Health Profiles, 2000, NYC Department of Health and Mental Hygiene

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



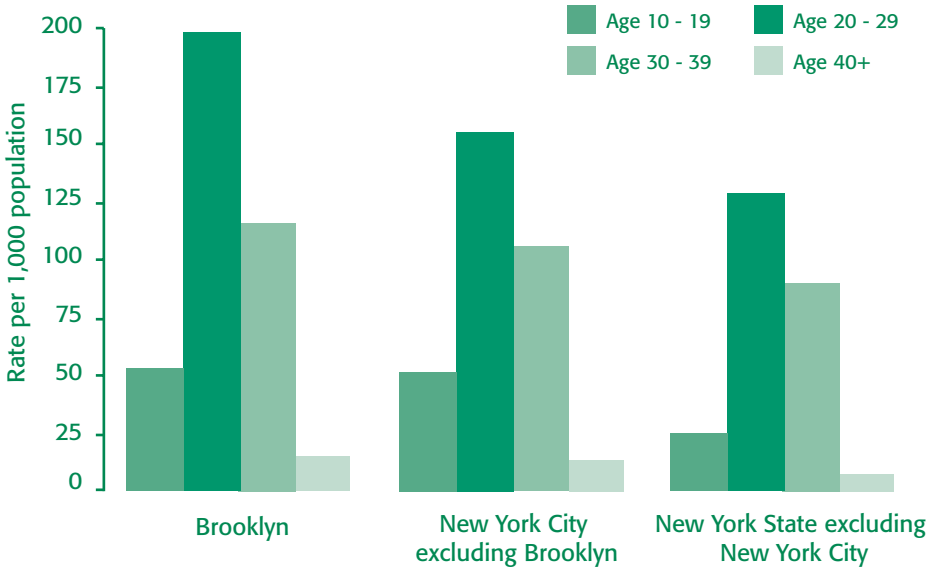
Pregnancy Rates in Brooklyn, New York City, and New York State by Age Group, 2000

Brooklyn's pregnancy rate is higher than in the rest of New York City and New York State. The difference is especially notable among women between the ages of 20 and 29.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

U.S. Census, 2000



Pregnancy Rates for Brooklyn, New York City, and New York State by Race/Ethnicity, 2000

Black women in Brooklyn had slightly higher pregnancy rates in 2000 than either White or Hispanic women.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

U.S. Census, 2000

POVERTY: AN OBSTACLE AT BIRTH

The economic circumstances into which children are born can greatly affect their chances of getting off to a healthy start. In 2000, 36 percent of all Brooklyn children under the age of 5 years lived in households with incomes below the poverty level: $13,423 a year for a family of three.

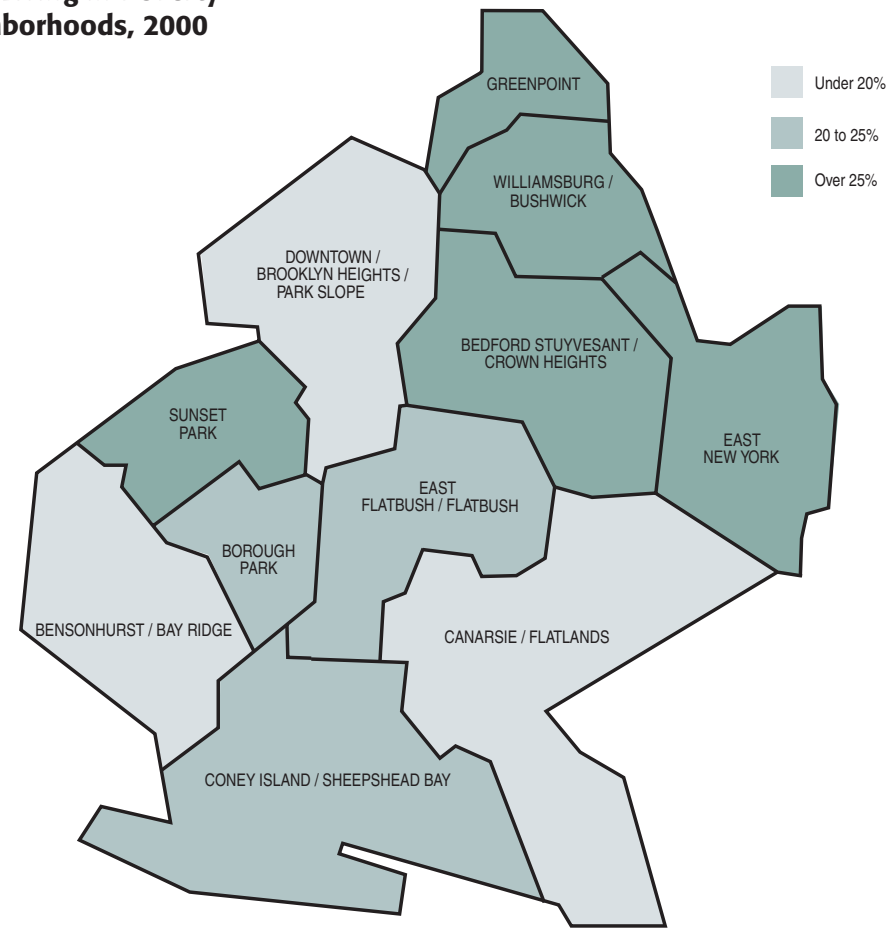
The problem is especially serious among families headed by single mothers. In 2000, 45 percent of all Brooklyn families headed by single women had incomes below the poverty level. Being a single parent is difficult enough, but the added burden of poverty can interfere with a mother's ability to get proper care for herself and her children.

In 2000, six Brooklyn neighborhoods—Canarsie/Flatlands, East Flatbush/Flatbush, Downtown/Brooklyn Heights/Park Slope, East New York, Williamsburg/Bushwick, and Bedford-Stuyvesant/Crown Heights—had the highest rates of poverty among families headed by single mothers. Even in neighborhoods with relatively low overall poverty rates, many families headed by single mothers lived in poverty.

Percent of People Living in Poverty by Brooklyn Neighborhoods, 2000

Source:

U.S. Census, 2000



Poverty in Brooklyn by United Hospital Fund Neighborhoods, 2000

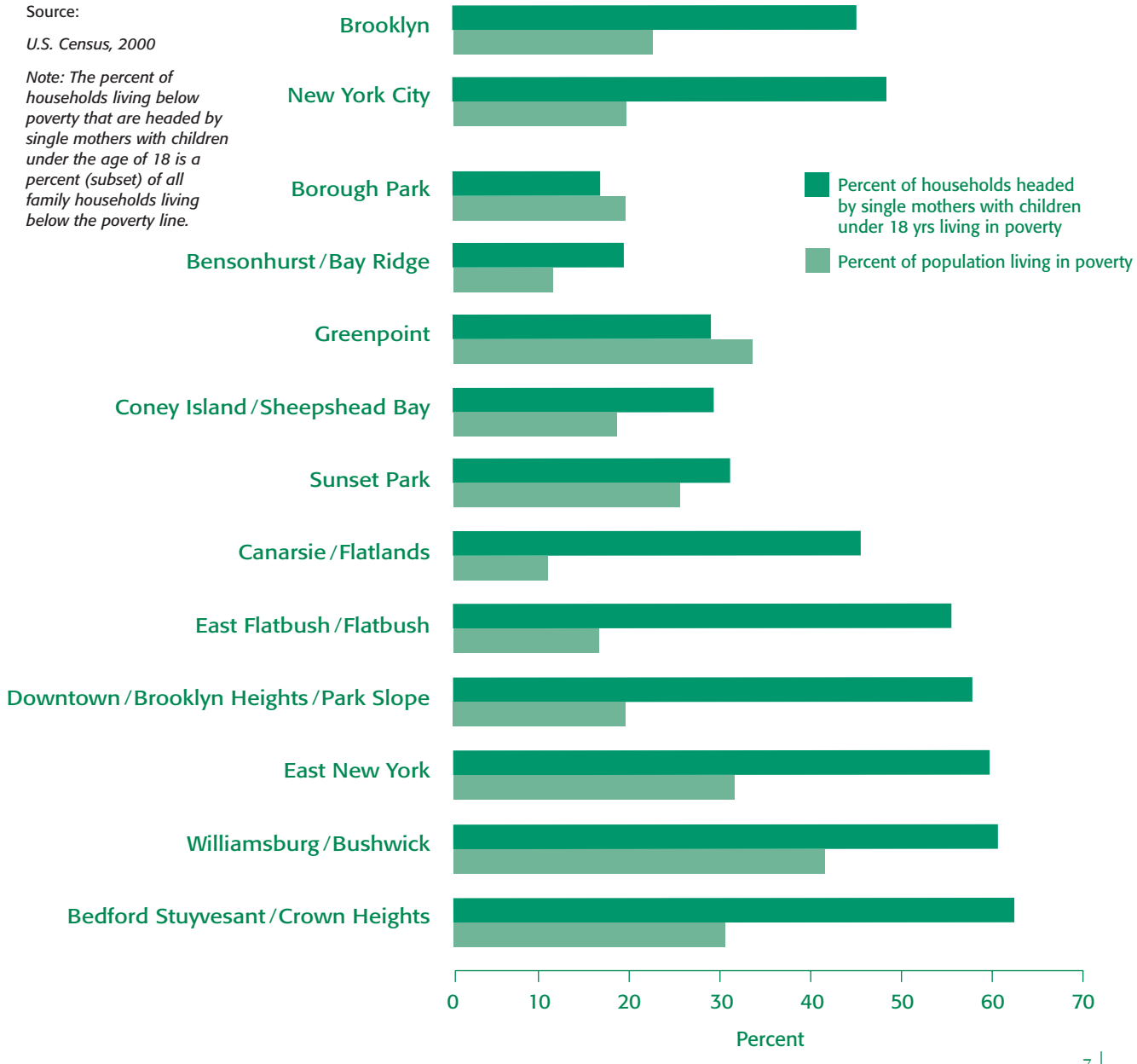
Almost half of all households in Brooklyn headed by single mothers with children under 18 had incomes below the poverty level. In 9 Brooklyn neighborhoods, a greater percentage of single mothers with children lived in poverty that the population as a whole.

Even in neighborhoods with low poverty overall, pockets of poverty exist, espically among single mothers. For example, Canarsie-Flatlands has only 10.4 percent of families living below the poverty level, but nearly half of them are headed by single women with children under 18. Similarly, while Bedford Stuyvesant/Crown Heights has a greater overall level of poverty than Downtown/Brooklyn Heights/Park Slope, both have high rates of families headed by single mothers living in poverty.

Source:

U.S. Census, 2000

Note: The percent of households living below poverty that are headed by single mothers with children under the age of 18 is a percent (subset) of all family households living below the poverty line.



WHO PAYS FOR HOSPITAL CARE

The method of payment used to settle the hospital bill following labor and delivery—whether by the patient herself or by Medicaid, an HMO, or other insurance carrier—tells us something about the mother's financial resources. More than 50 percent of deliveries performed in Brooklyn and New York City in 2000 were covered by Medicaid. In the rest of the state, Medicaid paid for only half as many.

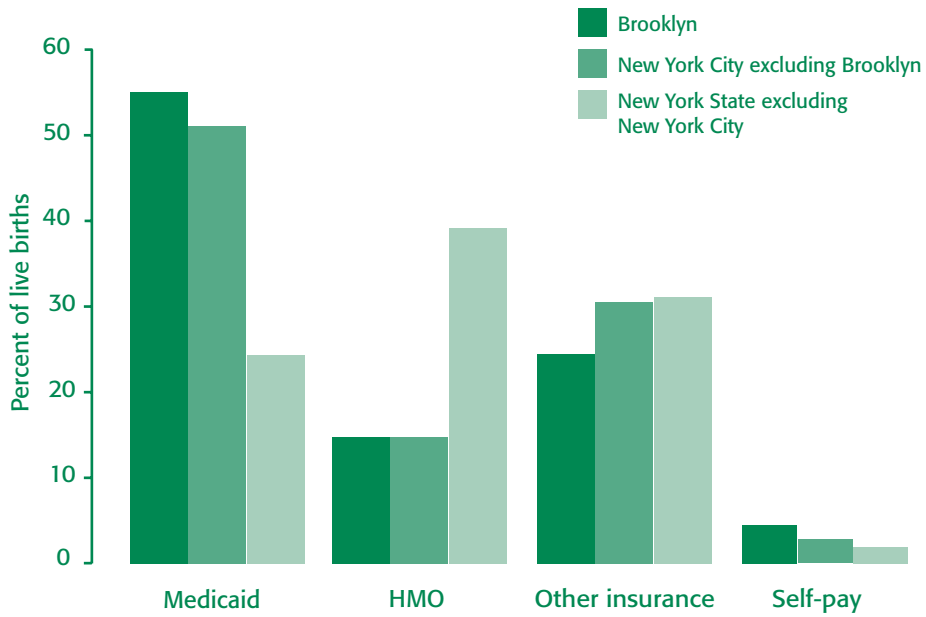
Compared to the rest of the City and State, Brooklyn had the highest percentage of hospital deliveries paid out-of-pocket and the lowest covered by HMOs or other types of insurance. Since out-of-pocket payments are usually made by patients who are uninsured or underinsured, the higher proportion of self-payers in Brooklyn suggests that many mothers may not be able to afford adequate prenatal care.

Method of Payment for All Deliveries, 2000

In 2000, more than 50 percent of deliveries performed in Brooklyn were covered by Medicaid. Brooklyn also had the highest percentage of deliveries paid out-of-pocket.

Source:

Vital Statistics of New York State, 2000, NYS Department of Health



EARLY PRENATAL CARE

The best way for a mother to protect her health and that of her unborn child is to visit a doctor or other health professional early and regularly during pregnancy. Prenatal care should begin before conception and continue until after the baby is born. This is especially important for women who are overweight, or who have a history of diabetes (high blood sugar), heart problems, or other health conditions that might increase the risk of problems during pregnancy and delivery.

The U.S. government's Healthy People 2010 program wants to make certain that by 2010, at least 90 percent of all pregnant women receive good prenatal care. Starting prenatal care as early as possible can help prevent serious health problems. But in 2000, only a little more than half of all pregnant women in Brooklyn received prenatal care during the first three months of their pregnancies.

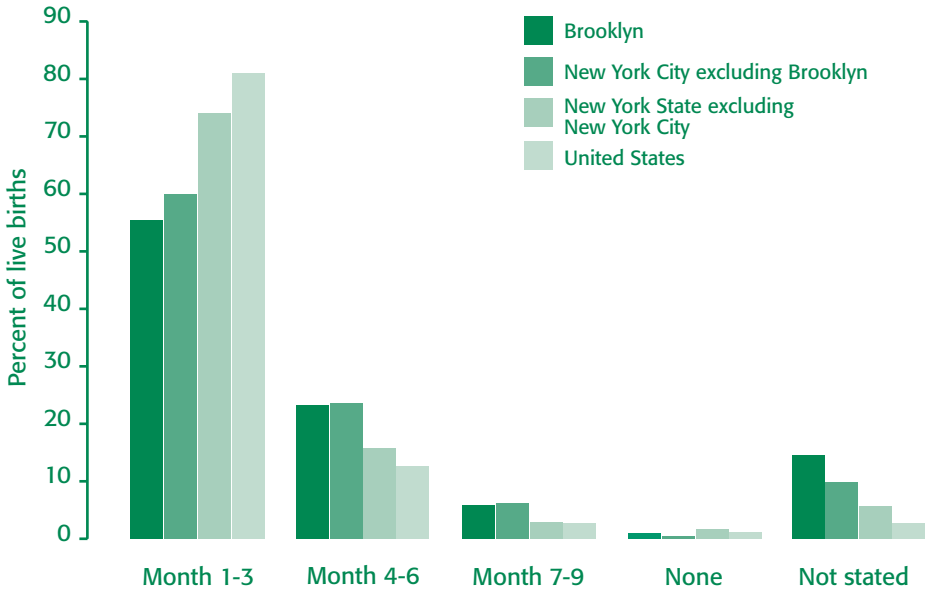
Percent of Women Who Received Prenatal Care by Month of Pregnancy, 2000

The percentage of women getting prenatal care in the first three months was lower in Brooklyn than elsewhere in New York City–and much lower than elsewhere in the United States.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



Percent of Women Who Received Prenatal Care in First Three Months of Pregnancy, by United Hospital Fund Neighborhood, 2000

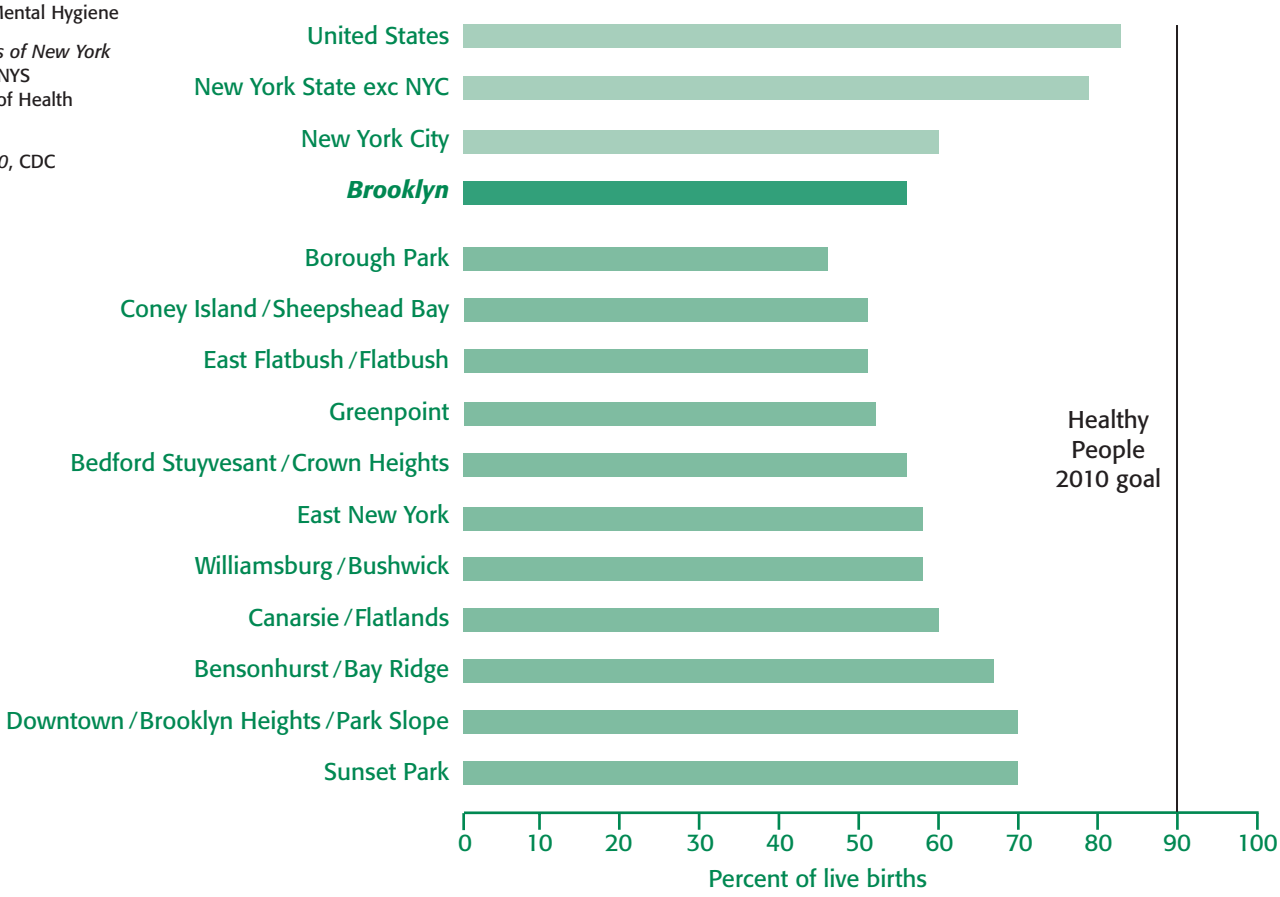
Expectant mothers in Brooklyn had lower rates of prenatal care during the first three months of pregnancy than those in New York State; eight Brooklyn neighborhoods had lower rates than the rest of New York City.

Sources:

Community Health Profiles, 2000, NYC Department of Health and Mental Hygiene

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



Percent of Women Who Received Late or No Prenatal Care by Race/Ethnicity, 2000

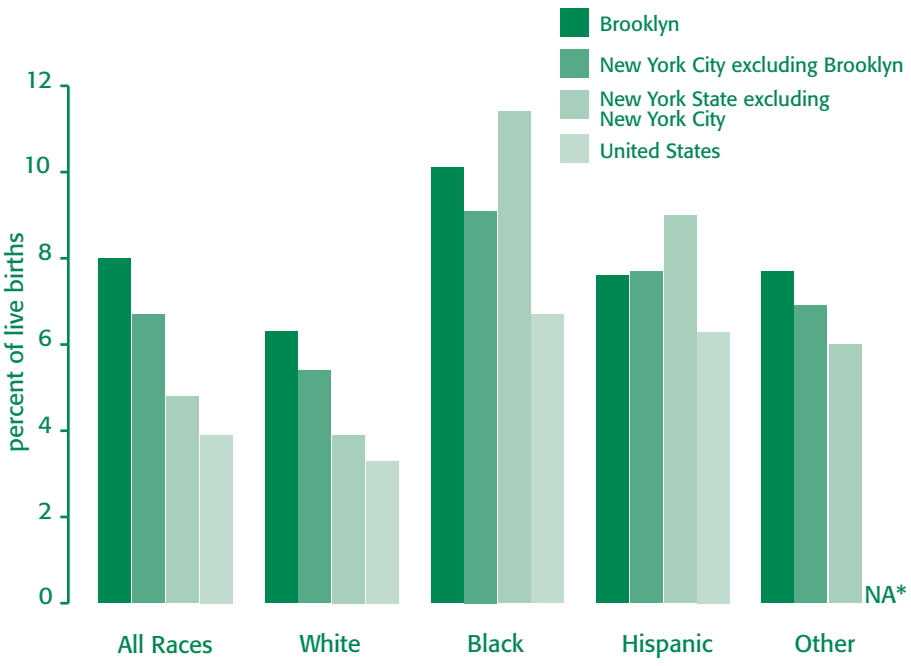
The percentage of pregnant women who get prenatal care only late in their pregnancies—or get none at all—is higher in Brooklyn than it is elsewhere in the City, the State, or the United States. However, disparities among ethnic and racial groups in terms of who gets timely prenatal care are actually less severe in Brooklyn than they are elsewhere. The disparity between White and Black women, for example, is much greater in upstate New York than it is in Brooklyn.

Sources:

Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene

Births: Final Data for 2000, CDC

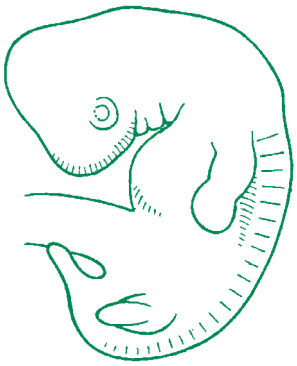
* Data not available for United States



MILESTONES OF FETAL DEVELOPMENT

First Trimester of Pregnancy—Months 1–3

The fetus grows inside a sac filled with amniotic fluid that provides nourishment and protection. The nervous system—brain, nerves, and spinal cord—begin to develop, as do the internal organs—liver, heart, and lungs. The limbs, eyes, ears, nose, and teeth are also forming.



2nd Trimester—Months 4 to 6

The fetus continues to develop. It has thin, transparent skin and sweat glands. Downy hair covers its body, and nails are growing on fingers and toes. The heartbeat can be heard with a stethoscope.

3rd Trimester—Last 3 months before Birth

The fetus is growing rapidly. In the months before birth, it will gain about 1/2 pound each week. Important immunities (protection against disease) are passing from the mother's blood to the fetus. However, harmful substances, such as chemicals and viruses, can also pass from mother to child.

BIRTHS TO TEEN MOTHERS: DECLINING, BUT STILL A PROBLEM

Over the past decade, the birth rate in New York City and its boroughs, that is, the rate of live births, has declined. The rate of births to teenage mothers has also fallen (see insert in chart below). Despite this trend, the rate of births to teenagers in Brooklyn remained slightly higher than in the rest of New York City and New York State, although lower than in the nation as a whole. Brooklyn's Hispanic teenagers had a higher birth rate in 2000 than teenagers of other racial and ethnic groups in the rest of the City or nation.

While the decline in births to teenagers is good news, there is still much progress to be made. Teenage mothers are less likely to finish high school or go to college, and they and their children are more likely to be poor.

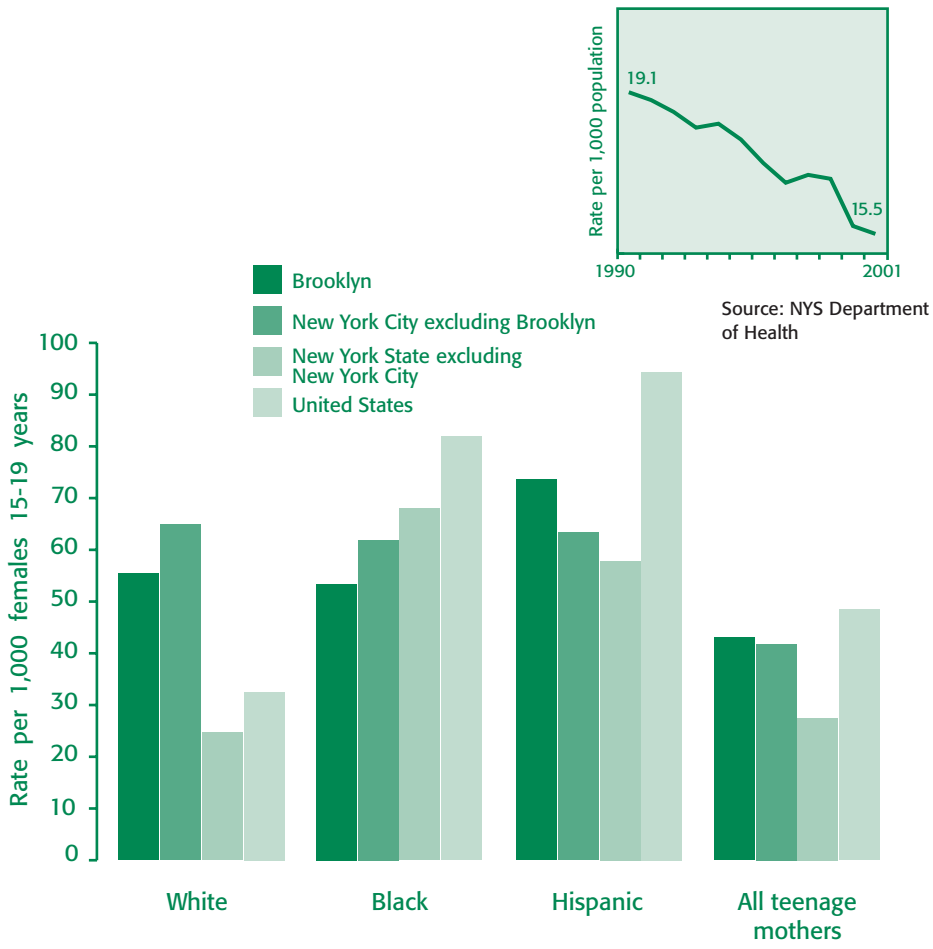
Rate of Live Births to Teenage Mothers by Race/Ethnicity, 2000

In 2000, Hispanic teenagers in Brooklyn had the highest birth rate in the borough, while Black teens had the lowest. Overall, teenagers in Brooklyn experienced a lower birth rate than those in the nation as a whole.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC



Source: NYS Department of Health

INFANT MORTALITY

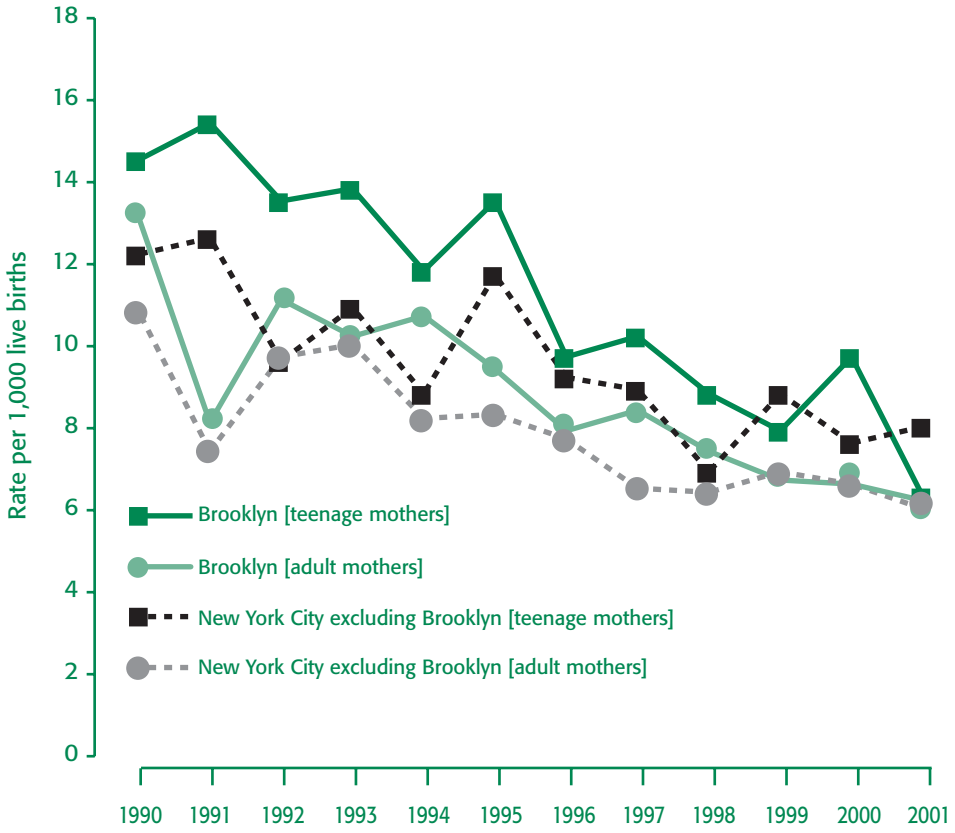
Infant mortality refers to the death of a baby before its first birthday. Even though the infant mortality rate has been declining steadily nationwide, the United States still lags behind 23 other industrialized nations of the world. Infant mortality rates vary widely among women of different ages and racial, ethnic, and economic backgrounds. The best way to reduce the rate of infant deaths is to prevent some of its root causes: lack of good prenatal care, poor nutrition, medical problems, and harmful behaviors.

Infant Death Rates for Adult and Teenage Mothers in New York City and Brooklyn, 1990–2001

While the infant mortality rate may rise or fall from year to year, there has been a downward trend in the past decade. However, the infant mortality rate among teenage mothers has generally been higher in Brooklyn than in the rest of New York City.

Source:

Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene

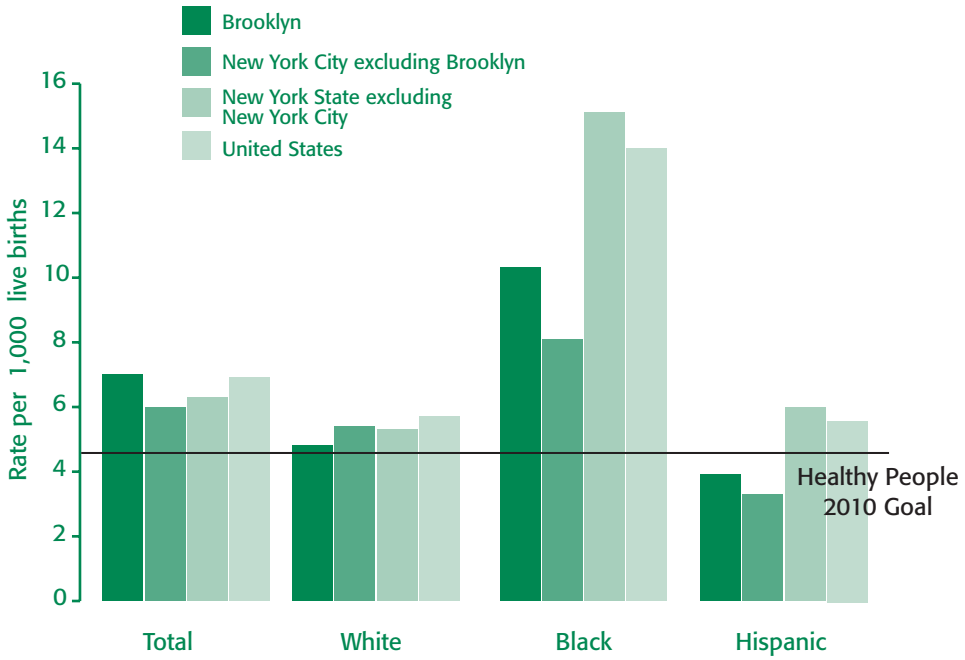


Infant Mortality by Race/Ethnicity, 2000

Despite the high rates of poverty and teenage motherhood in Brooklyn's Hispanic communities, Hispanic babies had lower death rates in Brooklyn and New York City than did White or Black babies.

Source:

Vital Statistics of New York State, 2000, NYS Department of Health

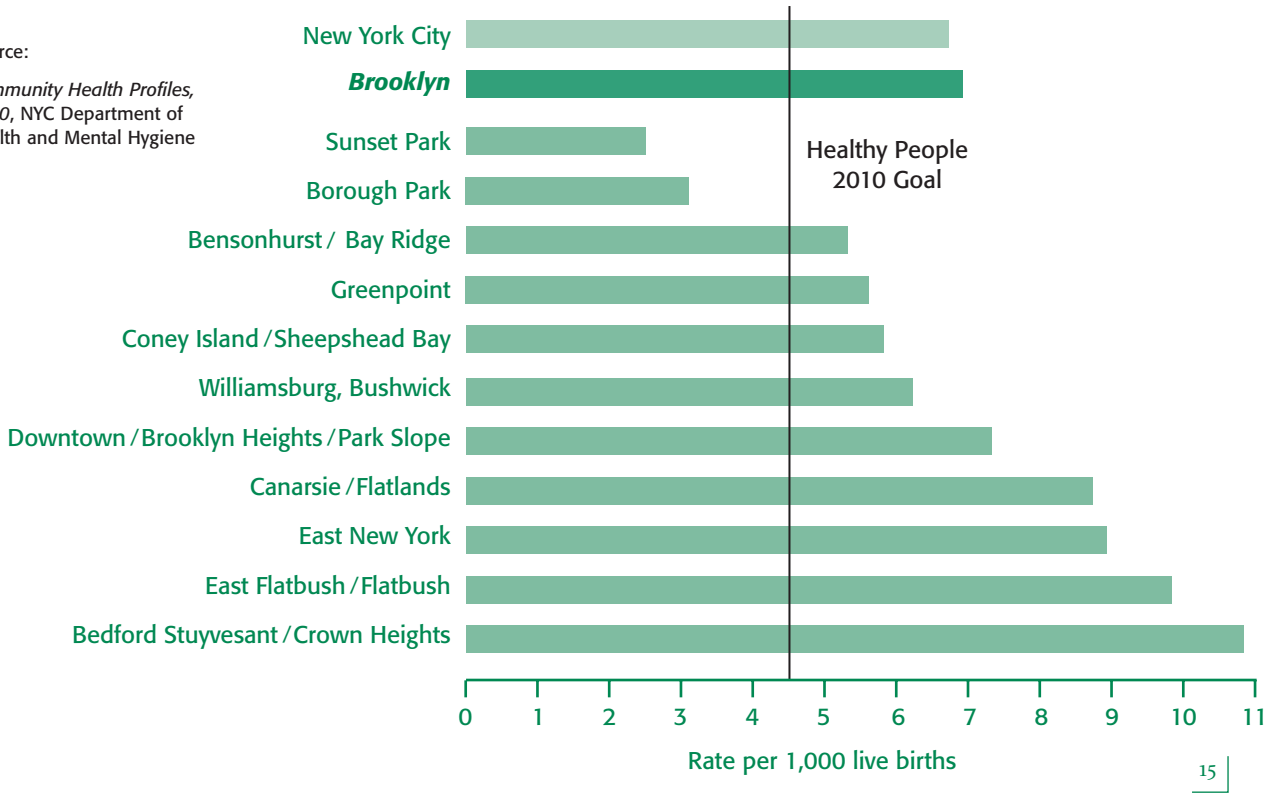


Infant Mortality Rates by United Hospital Fund Neighborhood, 2000

In 2000, five Brooklyn neighborhoods—Bedford Stuyvesant/Crown Heights, Flatbush/East Flatbush, East New York, Canarsie/Flatlands, and Downtown Brooklyn, including Brooklyn Heights and Park Slope—had the highest infant death rates in the Borough. Sunset Park had the lowest rate—less than 3 deaths for every 1,000 babies born. Borough Park, which had the highest fertility rate in Brooklyn, also had a low rate of infant death.

Source:

Community Health Profiles, 2000, NYC Department of Health and Mental Hygiene



INFANT MORTALITY

Most infant deaths occur within the first month after birth. In 2001, the leading cause of infant deaths in New York City was birth defects (congenital malformations and deformations). Of the 178 infants who died that year from birth defects, 115—nearly two-thirds—died within the first month.

Healthy People 2010 seeks to reduce the number of infant deaths due to birth defects to 1.5 out of every 1,000 live births. It also aims to reduce the factors associated with low birthweight and short gestation (preterm births).

One area in which New Yorkers have done well is in reducing the number of infant deaths due to Sudden Infant Death Syndrome (SIDS). Putting babies to sleep on their backs can help prevent SIDS. The national goal set by Healthy People 2010 is to reduce the deaths due to SIDS to 0.25 for every 1,000 live births. New York City has far surpassed that goal with a rate of 0.16.

In addition to helping prevent SIDS, highly successful efforts have been made to protect the infants of HIV-positive mothers against infection. We now need to focus the same energy on identifying and preventing other causes of infant death.

Leading Causes of Infant Deaths in New York City, 2001

Source:

Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene

Cause of Death	Infant Deaths Less Than 28 Days	Infants Deaths After 28 Days	Total Infant Deaths in the First Year	Percent of Infant Deaths	Death Rate per 1,000 Live Births
Congenital Malformations, Deformations	115	63	178	23%	1.44
Congenital Malformations of the Heart	40	28	68	9%	0.55
CV Disorders Originating in the Perinatal Period	109	2	111	15%	0.89
Short Gestation and Low Birthweight	94	4	98	13%	0.79
All Other Diseases	10	57	67	9%	0.54
External Causes	10	36	46	6%	0.37
Respiratory Distress of Newborn	38	0	38	5%	0.31
Other Respiratory Problems	17	12	29	4%	0.23
Infections Specific to the Perinatal Period	24	4	28	4%	0.23
SIDS	19	1	20	3%	0.16
Pulmonary Hemorrhage Originating in Perinatal Period	0	20	20	3%	0.16
Remaining Conditions Originating in Perinatal Period	15	4	19	3%	0.15
Necrotizing Enterocolitis of Newborn	13	4	17	2%	0.14
New Born Affected by Maternal Complications	2	14	16	2%	0.13
Diseases of the Circulatory System	16	0	16	2%	0.13
Neonatal Hemorrhage	14	1	15	2%	0.12
Complications of Placenta, Cord, and Membrane	12	1	13	2%	0.10
Atelectatsis	11	1	12	2%	0.10
Influenza and Pneumonia	0	10	10	1%	0.08
Intrauterine Hypoxia & Birth Asphyxia	4	2	6	1%	0.05
HIV	1	0	1	< 1%	0.01
Total Infant Deaths	524	236	760	100%	
	69%	31%			

PERINATAL MORTALITY

The perinatal mortality rate—that is, the number of fetuses that die after the fifth month of pregnancy, plus the number of infants who die within the first month after birth, for every thousand pregnancies—provides another indication of whether pregnant women and newborns are getting adequate care. Such deaths are sometimes the result of untreated medical problems during pregnancy that affect the health of mother and child.

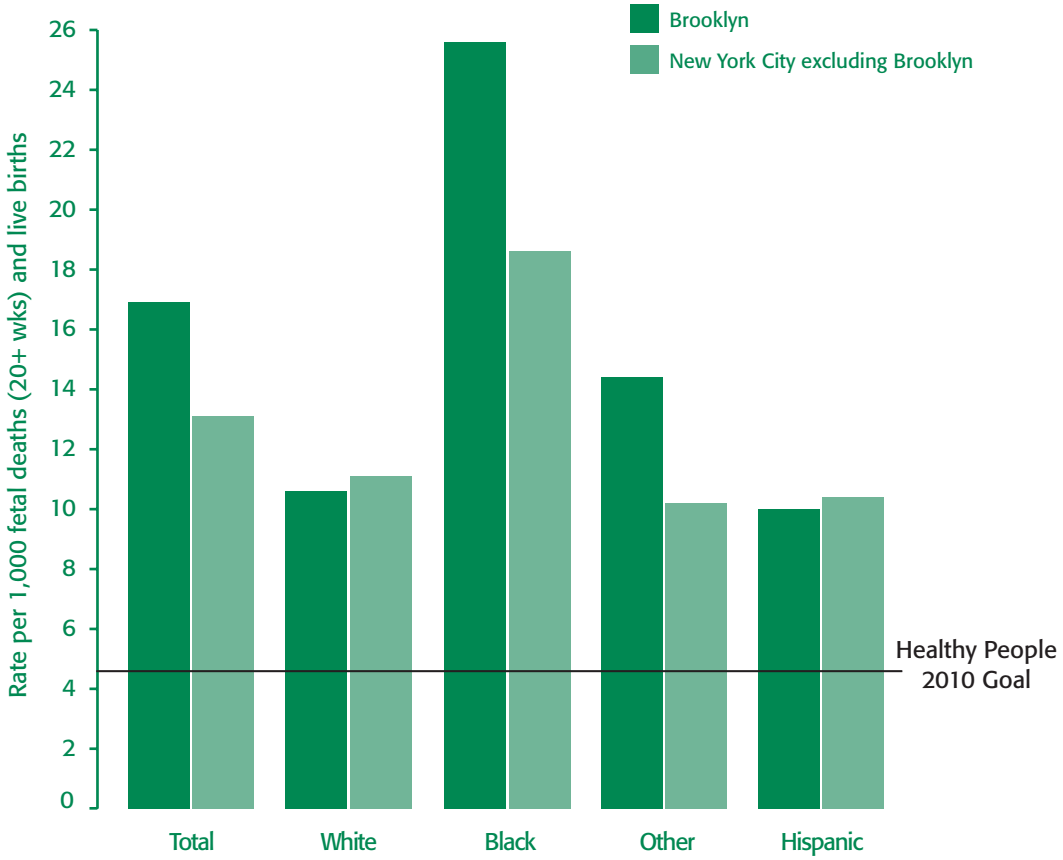
Brooklyn had a perinatal mortality rate in 2000 that was higher that the rest of New York City and four times greater that the goal set by Healthy People 2010–that is, not more than 4.5 fetal and newborn deaths for every 1,000 pregnancies. The rate is highest among Blacks, both in the Borough and elsewhere in the City.

Perinatal Mortality Rate by Race/Ethnicity, 2000

In 2000, both in Brooklyn and in the rest of the City, Blacks had a higher perinatal mortality rate.

Source:

Vital Statistics of New York State, 2000, NYS Department of Health



LOW BIRTHWEIGHT

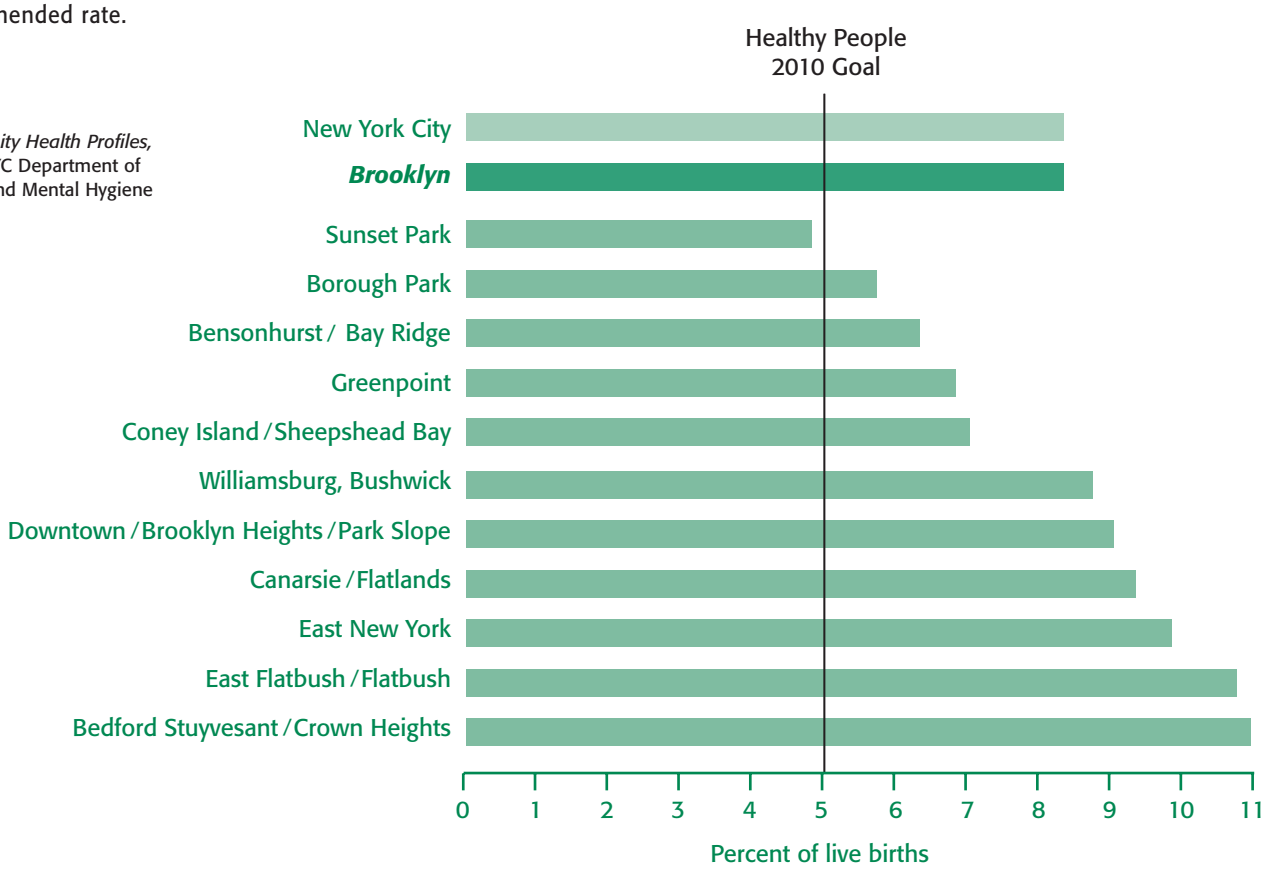
Many factors that affect the health of a mother-to-be can also influence the growth and development of her unborn child. A mother's age, weight, diet, and behavior—including drug and alcohol use and smoking—can cause her baby to be smaller than normal at birth. Medical problems during pregnancy, such as hypertension (high blood pressure), anemia (low red blood cells), and diabetes (high blood sugar), can also contribute to low birthweight. That is why healthcare professionals stress the importance of early and regular prenatal care to identify and treat problems that could lead to poor fetal growth.

Percentage of Low-Birthweight Infants by United Hospital Fund Neighborhood, 2000

Six Brooklyn neighborhoods had a greater percentage of low-birthweight infants in 2000 than the rest of New York City. Only Greenpoint succeeded in reaching the Healthy People 2010 goal of not more than 5 low-weight newborns out of every 100 live births. East Flatbush/Flatbush and Bedford-Stuyvesant/Crown Heights had more than double the recommended rate.

Source:

Community Health Profiles, 2000, NYC Department of Health and Mental Hygiene

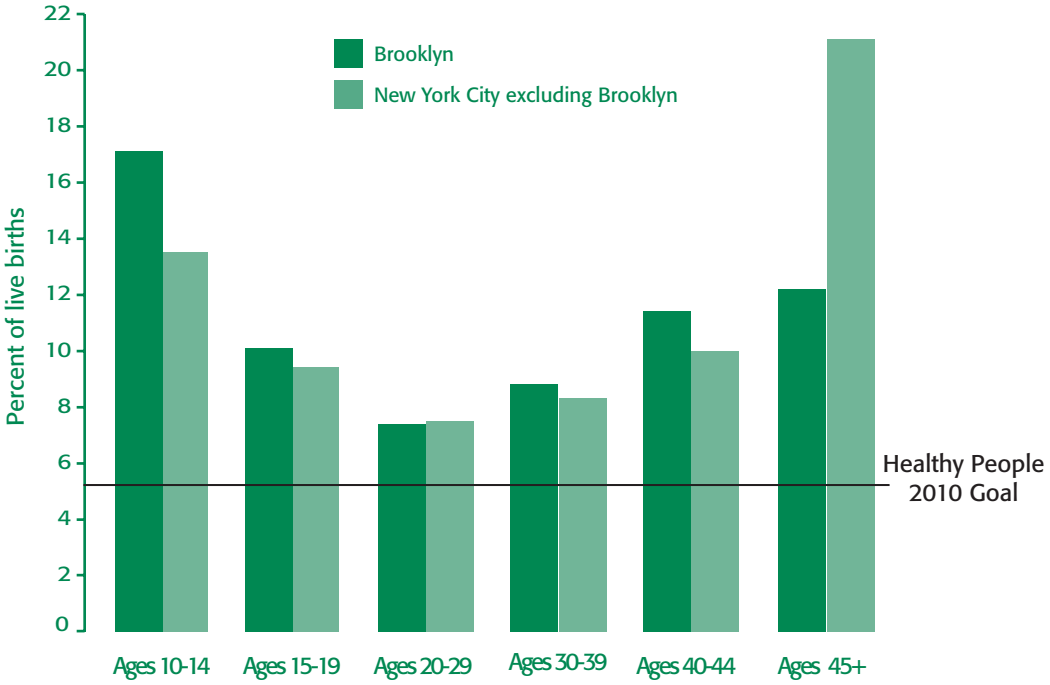


Percent of Infants with Low-Birthweight by Mother's Age, 2000

Young, teenage mothers and those over 45 had the highest percentage of low birthweight babies.

Source:

Vital Statistics of New York State, 2000, NYS Department of Health

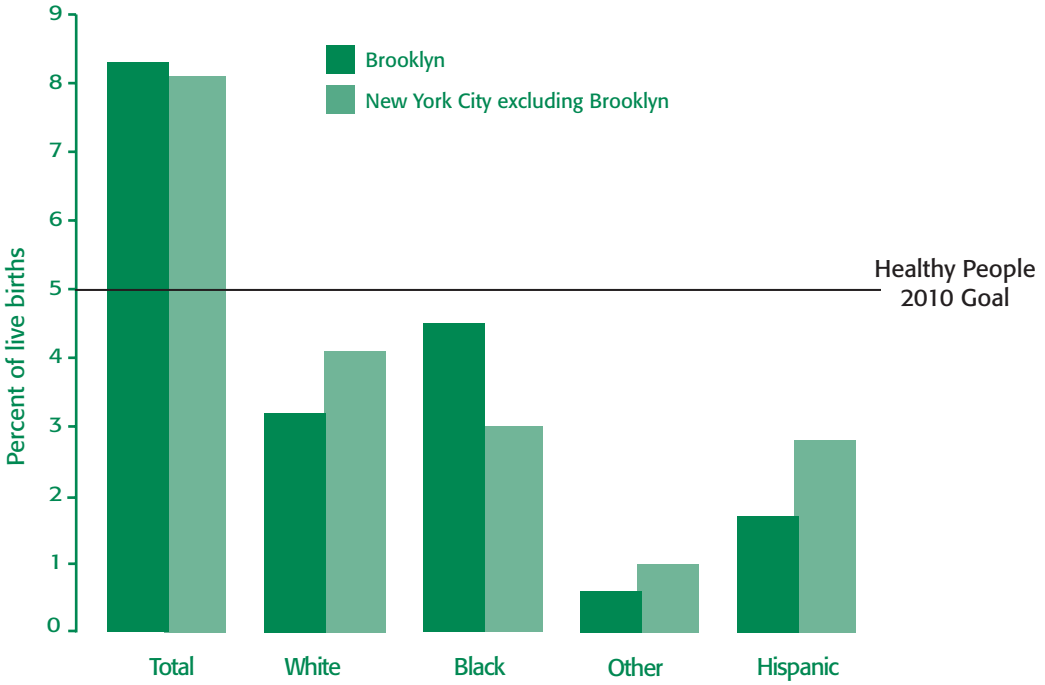


Distribution of Low-Birthweight Infants by Mother's Race/Ethnicity, 2000

Black women in Brooklyn had the highest percentage of low-birthweight babies.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

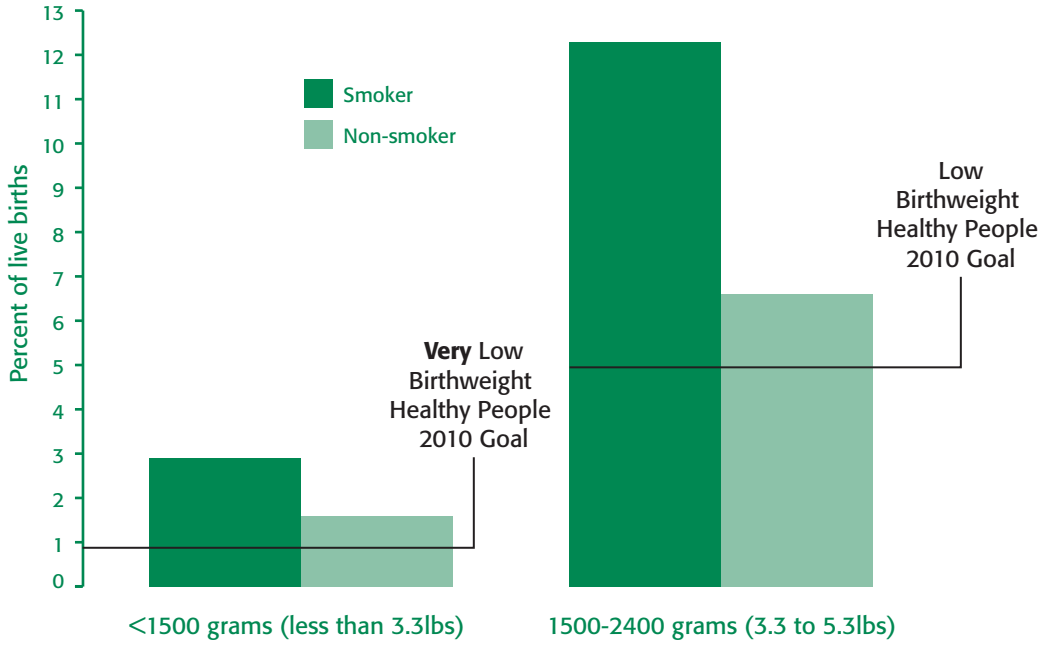


LOW BIRTHWEIGHT

Percentage of Infants with Low Birthweight Born to Mothers in NYC Who Smoke, 1999

Women who smoke are more likely to have babies who weigh less than average at birth. Anywhere from 5.3 to 3.3 pounds is considered low. Less than that is extremely low. In New York City in 1999, about twice as many babies with low birthweight were born to mothers who smoked during pregnancy as to non-smokers. Healthy People 2010 seeks to reduce the number of women who smoke during pregnancy to 1 percent. Currently the number in New York City is 4 percent.

Source:
Prenatal Smoking Databook,
CDC, 1999



PRETERM BIRTHS

Infants who are born prematurely—that is, before the full nine months of development—have a much higher risk of having health problems at birth. The rate of preterm births for residents of Brooklyn and the City will need to be improved if we are to reach the Healthy People 2010 goal of fewer than 8 preterm deliveries for every 100 live births.

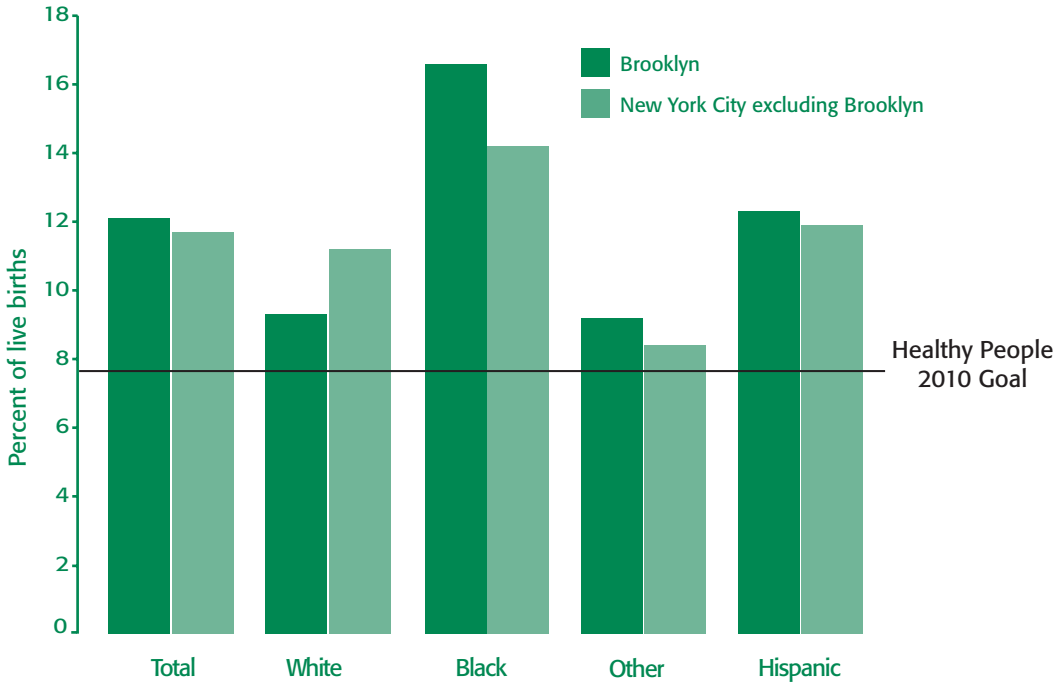
While genetic factors can play a role in determining whether babies are born prematurely, good nutrition and proper medical care during pregnancy, along with avoiding cigarettes, alcohol, and harmful drugs, cleaning up pollutants in the environment, and reducing stress can help lessen the risk of preterm delivery.

Preterm Births by Race/Ethnicity, 2000

In 2000, Brooklyn had a higher rate of preterm births than the rest of New York City for all racial and ethnic groups, except Whites; White women in Brooklyn have a lower rate of premature births than White women in the other boroughs. As is true elsewhere in New York City, Black women in Brooklyn had premature babies more frequently than women of other racial and ethnic groups.

Source:

Vital Statistics of New York State, 2000, NYS Department of Health



CESAREAN BIRTHS

In the United States during the 1980s and much of the 1990s, the number of newborns delivered by cesarean section (also known as c-section) steadily increased. More recently, greater efforts have been made to restrict the use of c-sections to high-risk pregnancies.

Percent of Live Births Delivered by Cesarean, 2000

In 2000, the percentage of cesareans performed in Brooklyn, New York City, and New York State—both for women who were having first-time c-sections and those who had previous cesarean deliveries—was at or near the goal set by Healthy People 2010.

Sources:

Vital Statistics of New York State, 2000, NYS Department of Health

Births: Final Data for 2000, CDC

BIRTHS TO IMMIGRANT MOTHERS

People who live in New York City can see around them evidence of how a steady flow of immigrants has gradually been transforming the face of New York City, reversing years of decline in the City's population and revitalizing older neighborhoods in all five boroughs. But fewer New Yorkers may be familiar with one of the most dramatic impacts that these newest New Yorkers have had on the City: during the past few years, more than half of all babies born in New York City have been born to immigrant mothers.

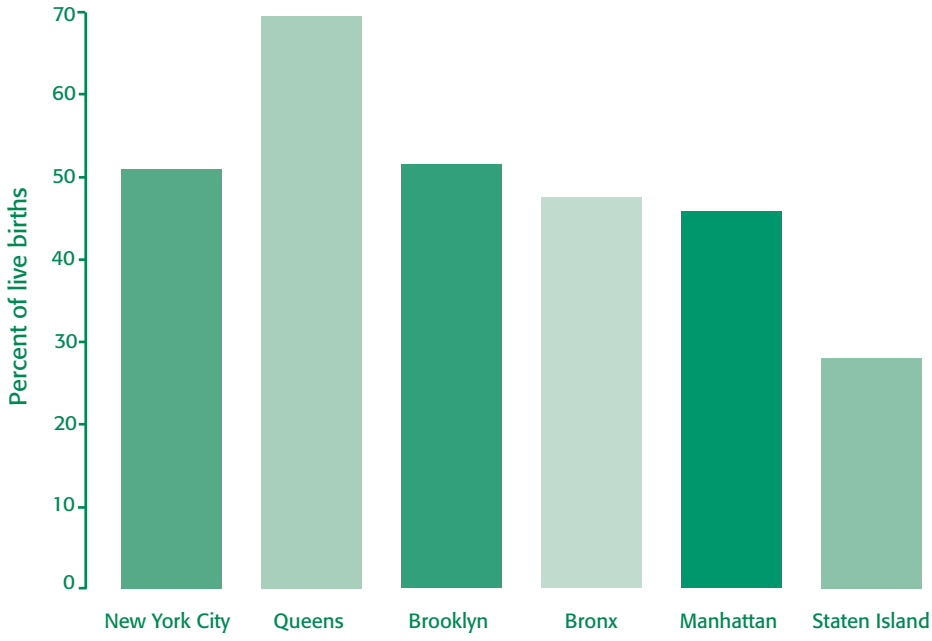
This has important implications for the delivery of health services to women and infants in Brooklyn. Immigrants are more likely than native-born New Yorkers to be uninsured. Many, despite their low incomes, are ineligible for Medicaid. They may not know how to get access to health services in the City; and for some, limited knowledge of English may present an additional barrier.

Percent of Live Births Born to Foreign-Born Mothers in NYC, 2001

Among the City's five boroughs, Brooklyn ranks second to Queens in terms of the percentage of babies who are born to immigrant mothers.

Source:

Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene



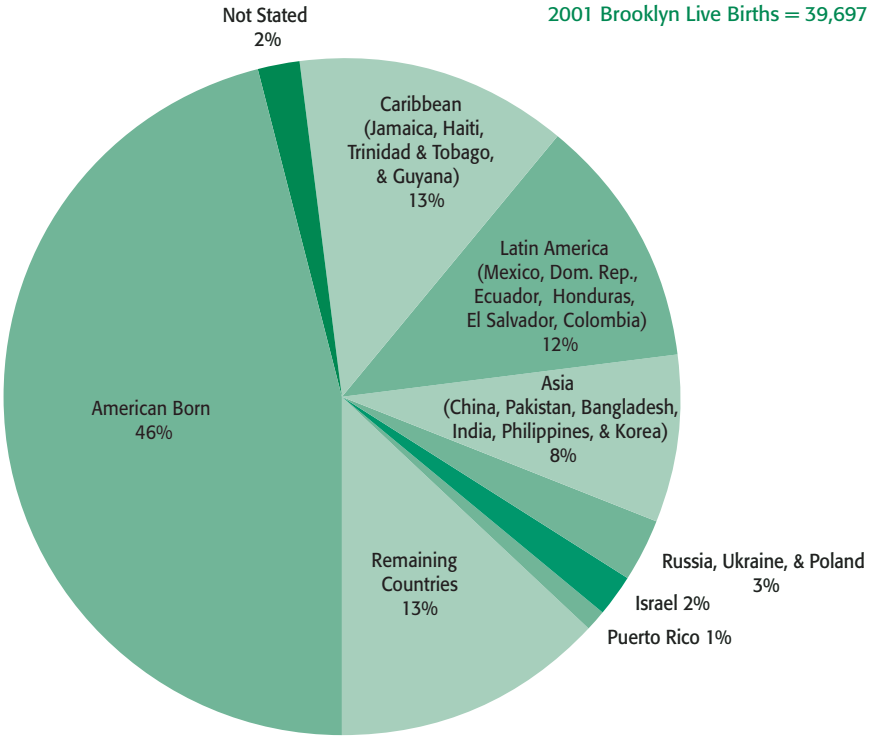
BIRTHS TO IMMIGRANT MOTHERS

While the birth rate in New York City has declined within the past 10 years, the percentage of live births to foreign-born mothers has increased, from nearly 42 percent in 1990 to over 51 percent in 2001. This is helping to change the face of both the City and Brooklyn. Nearly half of Brooklyn's foreign-born new mothers are originally from the Caribbean or Latin America. Fifteen percent are from China, Pakistan, Bangladesh, India, the Philippines, and Korea.

While more than three-quarters of the babies of mothers from Latin America were born in boroughs outside of Brooklyn, nearly half those born to Caribbean women were delivered in Brooklyn. Nearly 60 percent of live births to New York City's foreign-born mothers from Russia, Ukraine, Poland, and Israel took place in Brooklyn.

Distribution of Brooklyn Live Births by Mother's Birthplace, 2001

In 2001, babies born to mothers who originally came here from the Caribbean accounted for 13 percent of all live births in Brooklyn. Those born to mothers from six countries in Latin America accounted for 12 percent of all live births in Brooklyn. Births to foreign-born mothers from six Asian countries accounted for 8 percent of Brooklyn births, and those to mothers from Russia, the Ukraine, and Poland accounted for 3 percent of Brooklyn births.



Source:

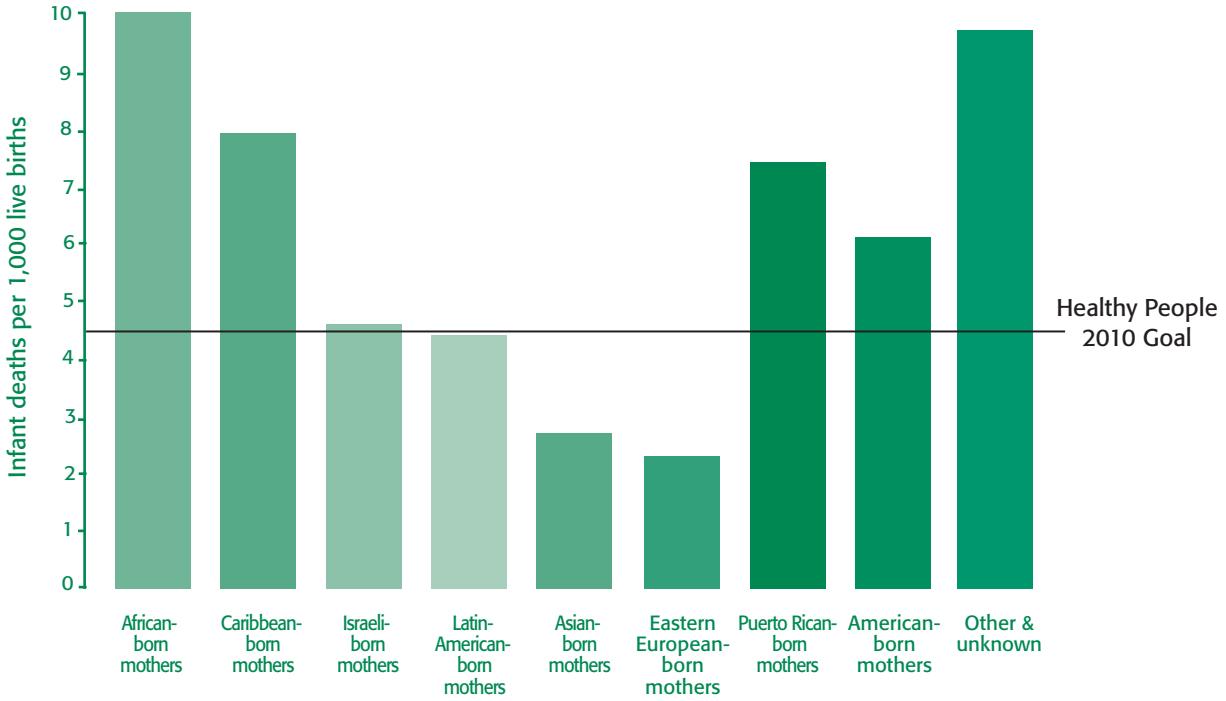
Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene

Indicators of maternal and infant health vary greatly across the City's immigrant communities. The death rate for infants of African-born mothers, for example, was the highest in the City in 2001. The actual number of deaths in this group (17 out of 1,708 live births) represented only 1 percent of all infant deaths. Among mothers whose birthplace is known, those from Africa and the Caribbean had infant death rates higher than American-born mothers. Mothers born in Israel, Latin America, Asia, and Eastern Europe all had rates at or below the level recommended by Healthy People 2010–4.5 infant deaths per 1,000 live births.

Infant Death Rates by Mother's Birthplace, 2001

Source:

Summary of Vital Statistics of the City of New York, 2001, NYC Department of Health and Mental Hygiene



Note: 25 foreign countries of origin are grouped together within the following regions: Africa includes Egypt, Ghana, and Nigeria. The Caribbean includes Guyana, Haiti, Jamaica, and Trinidad and Tobago. Latin America includes Colombia, the Dominican Republic, Ecuador, El Salvador, Honduras, Mexico, and Peru. Asia includes Bangladesh, China, India, Korea, Pakistan, and the Philippines. Eastern Europe includes Poland, Russia, and the Ukraine. These are the birthplaces of foreign-born mothers in New York City who had the greatest number of infant deaths in 2001. In many cases, mothers who immigrated to the United States from the United Kingdom were born in Commonwealth countries in the Caribbean, Africa, and South Asia. Infant death rates for Puerto Rican-born mothers are collected separately from other Latin American-born mothers.

WHERE DO WE GO FROM HERE?

As this brief survey of maternal and infant health issues suggests, many factors determine whether women have healthy pregnancies and healthy babies. These include seeing a doctor or midwife early and regularly during pregnancy, eating well, not smoking, and staying away from alcohol or harmful drugs. This highlights the importance of providing women in communities throughout Brooklyn with the information and understanding they need to make informed choices about things that affect their health and that of their children.

Just as important, we must do more to remove the social, economic, and cultural barriers that prevent women—especially those in poor and immigrant neighborhoods—from obtaining good prenatal care. Providers should be trained to deliver culturally appropriate services and communicate effectively with families who have a limited knowledge of English and the American health care system. In a place as diverse as Brooklyn, it is especially important that our major institutions are prepared to fulfill this responsibility in ways that reflect and respect the cultures and values of all of our communities.

Finally, we must recognize that the information and understanding that women need to make healthy choices is of limited value if they do not also have the resources they need to make those choices. More resources need to be directed to communities with large percentages of single mothers with children under the age of 18 who are living below the poverty level. For all of Brooklyn, a commitment to improve the health of mothers and infants must also be a commitment to overcome poverty and the lack of economic opportunity.

GLOSSARY

Numerical Calculations

Rate: A calculated number that is used to express the number of events (deaths or cases) within a group of individuals in a given period of time. For example, 150 events per 100,000 people per year.

Infant Mortality Rate: The number of infant deaths per 1,000 live births during a period of one year.

Perinatal Mortality Rate: This rate includes all fetal deaths after 28 weeks of gestation and all infant deaths in the first week after birth.

Medical and Other Important terms

Birth Rate: Number of births in a year per 1,000 people.

Cesarean / C Section: Instead of being born vaginally, the infant is surgically delivered through the mother's abdominal wall.

Congenital Malformation: A physical defect that is present at birth.

Fertility: The ability to conceive children.

Fertility Rate: Number of live births divided by the number of women of childbearing (between 15 and 44 years) age.

Fetus: A human or animal that is developing in the mother before birth.

Gestation: The growth of the fetus during the months of pregnancy.

Healthy People 2010: A national health agenda developed by the U.S. Department of Health and Human Services that identifies major diseases and health conditions and sets targets to prevent or reduce these threats by the year 2010.

Mortality: Death

Pregnancy Rate: Number of women who are pregnant divided by the number of women who are of childbearing age.

Perinatal: The period shortly before, during, and shortly after birth.

Prenatal Care: The health care and education given to a mother just before and during pregnancy to identify and treat medical problems that may arise.

Preterm / Premature Birth: The birth of a fetus before it has time to fully develop.

SIDS / Sudden Infant Death Syndrome: The sudden, unexplained death of an infant less than a year old. Sometimes called crib death because the infants are often found to have died in their sleep.

Resources

The following web sites can provide additional information concerning pregnancy care and services, and statistics related to infant and maternal health.

Centers for Disease Control & Prevention: www.cdc.gov/health/nfantsmenu.htm

New York City Department of Health & Mental Hygiene: www.nyc.gov/html/doh

New York State Department of Health: www.health.state.ny.us

The March of Dimes: www.modimes.org

Planned Parenthood of New York City: www.ppnyc.org

Technical Notes

Infant and maternal birth and death data for the state and, in some cases, city and borough come from *Vital Statistics of New York State, 2000*, a compendium of mortality and health-related conditions reported by cities and counties to the Bureau of Biometrics, NYSDOH. City and borough data come from *Summary of Vital Statistics of the City of New York*, Office of Vital Statistics, NYCDOH. Neighborhood data for Brooklyn was made available from the *Community Health Profiles of New York City, 2000*, a report from a city-wide survey of neighborhoods on various health and vital statistics. National data for infants and women come from *Births: Final Data for 2000*, published by the National Center for Health Statistics, Centers for Disease Control and Prevention. *Prenatal Smoking Databook*, 1999 provides smoking-related information related to infant and maternal health outcomes.

Certain types of data for infant births and deaths to foreign-born mothers were grouped according to the geographic region appropriate to the mother's country of origin in order to make the charts less complex and easier to read. For example, data reported by the NYCDOH for mothers from Jamaica, Haiti, Trinidad & Tobago, Guyana were grouped into a Caribbean category. The same was done for data on women for the regions of Latin America, Africa, Eastern Europe, and Asia. Data for Israel and Puerto Rico were shown separately because the uniqueness of the data did not fit into a regional category (Israel) or the geopolitical status to the U.S. warranted a separation from the Latin America region (Puerto Rico).

Efforts to analyze local data for particular conditions, such as infant deaths to mothers of foreign birth, can present the researcher with considerable difficulties. For example, death certificates filled out at the time of death may leave information out that reports the place of birth of the mother. Also, the number of infant deaths in an area may be too small to allow the researcher to generalize the results to the general population. However, whenever possible, every effort was made to provide as much local data as possible.