



NYC Vital Signs

New York City Department of Health and Mental Hygiene

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Diabetes among New York City Adults

Diabetes is a growing epidemic in New York City. In 2007 the prevalence of reported diabetes was higher in NYC than in the U.S. overall (9.1% vs. 7.5%). Half a million New York City adults had diagnosed diabetes in 2004, and an additional 200,000 had undiagnosed diabetes, so were unaware of their condition.

People with uncontrolled diabetes are at high risk of heart attack, stroke, kidney failure, blindness, nerve damage, amputations and death. Diabetes is the fourth leading cause of death in New York City and it disproportionately affects black, Hispanic, and low-income communities.

People with diabetes are more likely to have a history of depression. Even mild depressive symptoms can make it difficult to follow treatment regimens,

which can increase the risk of developing serious complications.

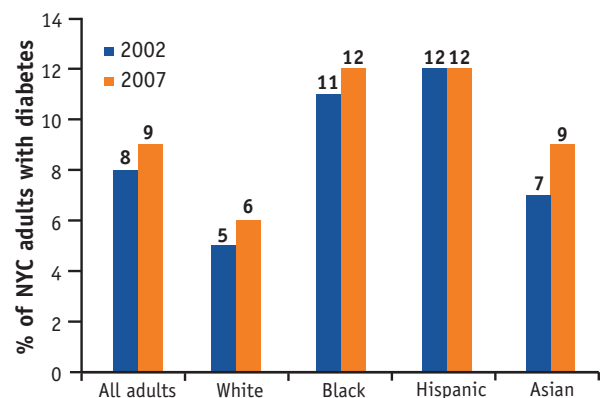
Many New Yorkers have pre-diabetes, or impaired fasting glucose, which means that they have blood sugar levels that are higher than normal but below the threshold for a diabetes diagnosis. Pre-diabetes puts them at risk for developing diabetes. People with pre-diabetes can delay or prevent diabetes by eating a healthy diet, getting regular physical activity, and maintaining a healthy weight.

This report provides new data on diabetes among NYC adults. It identifies New Yorkers at high risk for diabetes, and examines the relationship between diabetes and depression. Prevention and management recommendations are on page four.

Diabetes has increased 13% in New York City since 2002

- Recognized diabetes in NYC increased from 8% in 2002 to 9% in 2007, resulting in 68,000 more adults with the disease.
- Data suggest that diabetes is increasing most rapidly among Asians. A comparison of years 2002–04 and 2006–07 shows the biggest jump to be among Asians with college degrees (a 68% increase).
- Diabetes also increased among white and black New Yorkers, with no change among Hispanics. Diabetes remains highest among blacks and Hispanics.
- In 2007, diabetes was higher among NYC men than women (10% vs. 8%) and among those without a high school degree compared with those with a diploma (14% vs. 6%).

Reported diabetes in NYC, overall and by race/ethnicity in 2002 and 2007



Source: Community Health Survey (CHS) 2007

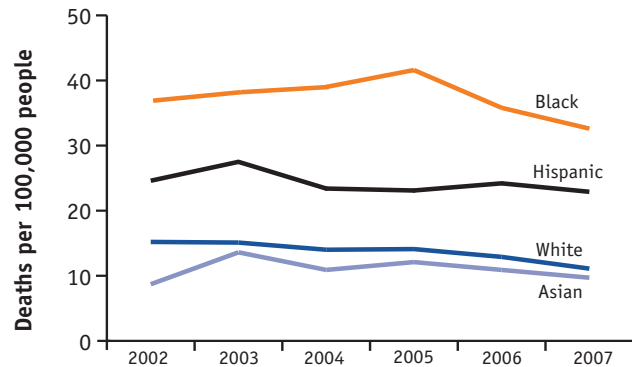
Most of the data in this report are from the New York City Community Health Survey (NYC CHS), conducted by the NYC Department of Health and Mental Hygiene (DOHMH), Bureau of Epidemiology Services. Data presented are from 2002, 2006, and 2007 and are age-adjusted to the year 2000 U.S. Standard Population, unless otherwise specified. CHS is an annual telephone health survey of approximately 10,000 adults ages 18 years and older. For full survey details, visit nyc.gov/health/survey. NYC Health and Nutrition Survey (NYC HANES) data from 2004 were used to calculate undiagnosed diabetes and pre-diabetes rates. NYC HANES included a laboratory component, allowing for measurement of participants' blood glucose levels. For full survey details, visit nyc.gov/health/nychanes. Mortality data from 2002–2007 are from the Health Department's Office of Vital Statistics and citywide denominators are from NYCDOHMH neighborhood population estimates, modified from US Census Bureau vintage population estimates, 2002–2007. National diabetes prevalence is from the Centers for Disease Control's 2007 Behavioral Risk Factor Surveillance System.

For more New York City health data and publications, visit [My Community's Health](http://MyCommunity'sHealth) at nyc.gov/health/mycommunityhealth.

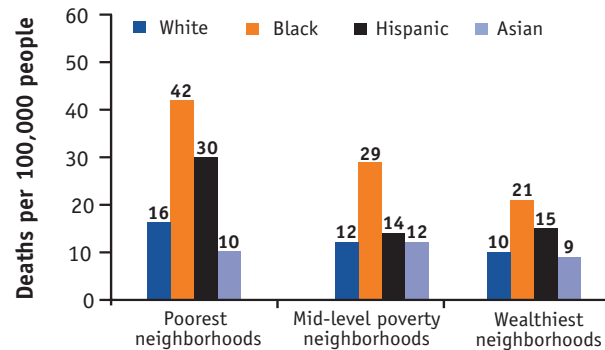
Diabetes death rates are highest among black and Hispanic New Yorkers and in lowest-income neighborhoods

- Diabetes death rates in NYC have been stable since 2002. In 2007, 18 of every 100,000 New Yorkers died from diabetes. This is likely to be an underestimate, as diabetes is underreported as an underlying or contributing cause of death.
- Between 2002 and 2007, black and Hispanic New Yorkers had consistently higher diabetes death rates than white and Asian New Yorkers. In 2007, 33 blacks and 23 Hispanics per 100,000 residents died from diabetes, compared with 11 whites and 10 Asians per 100,000.
- Residents of the poorest neighborhoods are more than twice as likely as those in the wealthiest neighborhoods to die from diabetes (27/100,000 vs. 11/100,000).
- Death rates among black New Yorkers are higher than among whites, regardless of neighborhood income. Black New Yorkers are almost three times more likely to die of diabetes as whites in the poorest neighborhoods and more than twice as likely in the wealthiest neighborhoods.
- Unlike patterns among blacks, Hispanics and whites, there is no significant difference in Asian diabetes death rates between residents of poor, mid-level and wealthy neighborhoods.

Diabetes death rates by race/ethnicity



Diabetes death rates by race/ethnicity and neighborhood income

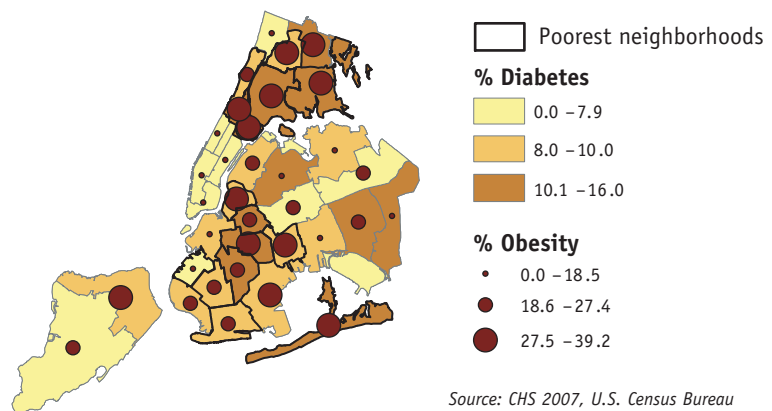


Sources: NYCDOHMH population estimates 2002-2007

Diabetes and obesity disproportionately affect certain NYC communities

- Neighborhoods with high prevalence of diabetes also have high levels of diabetes risk factors, such as obesity and lack of physical exercise.
- New Yorkers who live in the poorest neighborhoods are more likely to have diabetes (11% vs. 6%), be obese (27% vs. 14%), and report no exercise in the past month (17% vs. 12%) than those in the wealthiest neighborhoods.

Diabetes, obesity and neighborhood income in NYC



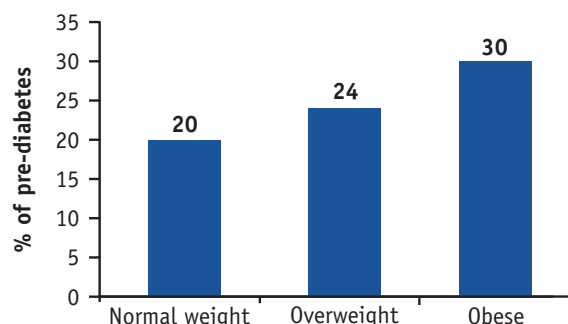
Source: CHS 2007, U.S. Census Bureau

Neighborhood income. NYC neighborhoods were categorized based on the percent of households with incomes below the federal poverty level (FPL), according to the 2000 U.S. Census: poorest — 20% or more below the FPL; mid-level poverty — 10–19.9% below the FPL; wealthiest — 10% or less below the FPL.

Nearly one quarter of all New Yorkers and one third of obese adults have pre-diabetes

- More than one in five NYC adults (23%) have fasting blood sugar levels that are elevated, but still below the threshold for diabetes (pre-diabetes or impaired fasting glucose), and are at risk for developing diabetes.
- The connection between obesity and diabetes is well established, and the appearance of pre-diabetes is often the first warning of its onset. Similar to diabetes, pre-diabetes risk increases with weight (30% among obese New Yorkers vs 20% among those with normal weight), and is itself a diabetes risk factor. The risk of both is lessened through a healthy diet and regular physical activity.
- Asian New Yorkers are more likely to have pre-diabetes than adults of other race/ethnicities (34% vs. 22%).
- As with diabetes, pre-diabetes in NYC is more common among men than women (30% vs. 18%).

Rate of pre-diabetes by weight category



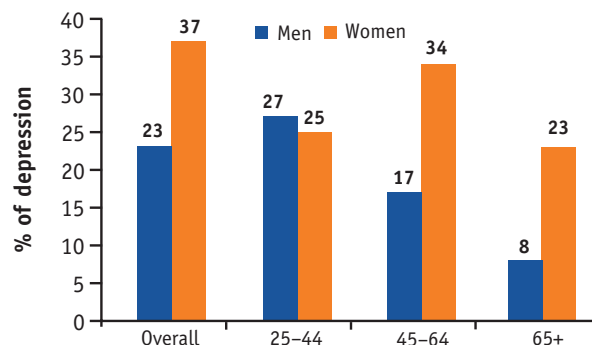
Source: NYC HANES 2004

Body mass index (BMI — calculated based on individual's weight and height) was used to classify subjects as normal weight (BMI 18.5 to 24.9), overweight (BMI 25.0 to 29.9) or obese (BMI of 30.0 or higher).

Diabetes and a history of depression often co-exist, particularly among middle-aged and older women

- NYC adults with diabetes are twice as likely to report ever having had depression as those without diabetes (29% vs. 14%).
- A history of depression is more common among women with diabetes than among men with diabetes (37% vs. 23%).
- Among adults ages 65 and older, women with diabetes are nearly three times more likely to ever have suffered from depression than men with diabetes (23% vs. 8%).
- NYC adults with diabetes are more than two times as likely as adults without diabetes to have been diagnosed for the first time with depression or treated for depression within the past year.

Rate of depression history among NYC adults with diabetes by sex and age



Source: CHS 2007

Diabetes and depression. People with both diabetes and depression may find it particularly hard to follow a diabetes treatment plan, which can lead to poor health outcomes and quality of life.

Recommendations

All adults should eat a healthy diet, exercise, and maintain a healthy weight.

- Eat more fruits and vegetables: at least five servings a day decreases the risk of diabetes.
- Drink water or seltzer instead of sugar-sweetened soda or juice.
- Drink low-fat or skim milk instead of whole milk.
- Get at least 30 minutes of moderate-intensity physical activity on most or preferably all days (at least two and a half hours per week). Spread activity out over the course of the day — ten minutes at a time is fine.

Adults living with diabetes should know and control their ABCs.

- **A1c** (three-month blood sugar level): Should be below 7%.
- **Blood pressure**: Should be less than 130/80.
- **Cholesterol**: LDL (“bad” cholesterol) should be under 100.
- **Smoking**: If you smoke, quit.

Health care providers play a critical role in diabetes prevention and care.

- Encourage all patients to maintain a routine of healthy eating and regular physical activity.
- Screen all patients for obesity and offer weight loss counseling.
- Discuss the “ABCs” of diabetes management with patients with diabetes.
- Screen adults with blood pressure higher than 135/80 for diabetes.
- Screen all adults regularly for depression, especially middle-aged and older women with diabetes. Offer treatment or refer these patients to a specialist, if needed. National data indicate that adults with severe mental illness are at increased risk for diabetes.

City government and community leaders can work together to provide an environment that encourages healthy lifestyle choices.

- Improve access to affordable, healthy foods in all communities throughout NYC, while reducing availability and promotion of calorie-dense snack foods and beverages.
- Provide more convenient, safe access to city parks and other places to exercise in NYC.
- Make NYC more walkable and bikeable through engineering and educational initiatives that support increased physical activity in everyday life.

Call 311 for Health Bulletins and other publications about diabetes in multiple languages.

The NYC Health and Hospitals Corporation offers blood glucose tests at little or no cost. For locations, please visit <http://www.nyc.gov/html/hhc/html/services/diabetes.shtml> or call 311.

For information and help with mental health problems or suicidal thoughts, call 1-800-LifeNet (1-800-543-3638) or 1-212-982-5284 (TTY) for the hearing impaired, or call 311 and ask for LifeNet.

For online help, visit www.800lifenet.org. Help is available 24 hours a day in multiple languages.

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Health

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