DIABETES
and
OBESITY

New York City Community Health Survey, 2007

New York City Department of Health and Mental Hygiene
Bureau of Epidemiology Services

NYC Health

COMMUNITY HEALTH SURVEY 2007

This report summarizes data from the 2007 New York City Community Health Survey (NYC CHS), conducted by the NYC Department of Health and Mental Hygiene, Bureau of Epidemiology Services. The CHS is an annual telephone health survey of approximately 10,000 adults ages 18 years and older. Topics covered include health care access (i.e., health insurance), health behaviors (i.e., physical activity), and health outcomes (i.e., diabetes). In addition, a number of demographic variables are included to facilitate weighting and to allow for comparisons among groups of New Yorkers.

SURVEY METHODOLOGY
The CHS uses a stratified random sample of non-institutionalized adults in order to produce representative citywide, as well as borough- and neighborhood-level, estimates. It is important to note that the survey does not capture individuals without any telephone service and those who have only a cellular phone. For more information on the CHS sampling design and methodology, questionnaires, and public datasets, visit "Community Health Survey" at nyc.gov/health/survey.

UNDERSTANDING THE DATA
Prevalence estimates and 95% confidence intervals are presented for all health indicators in this report. Prevalence is defined as the percent of persons with the disease or outcome within a population. All prevalence estimates are age adjusted to the Year 2000 Standard Population, except for estimates for specific age groups. Confidence Intervals (CIs) are a measure of estimate precision: the wider the CI, the more imprecise the estimate. Confidence intervals tend to be larger when the sample size is small, and narrower when the sample size is large.

A number followed by an asterisk (*) should be interpreted with caution, and indicates that the estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable. The symbol † in place of a number indicates that data are suppressed due to imprecise and unreliable estimates.

Bar graphs are used to compare the prevalence of various health topics among different groups of NYC adults. The vertical (y) axis represents the prevalence (or percent), and the horizontal (x) axis has data on the independent variable or demographic.

MORE DATA
- For other New York City Health data and publications, visit My Community's Health at nyc.gov/health/mycommunityshealth.
- For an interactive, online system to access CHS and other data by geographic and demographic characteristics, visit Epiquery at nyc.gov/health/EpiQuery.

Suggested citation: Raufman J, Farley SM, Olson C, Kerker B. Diabetes and Obesity, Summary of Community Health Survey 2007, NYC DOHMH.
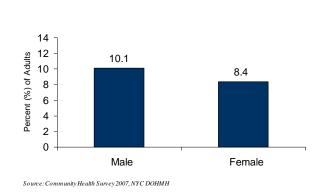
DIABETES

- Diabetes prevalence in NYC adults
  - Obesity and Physical Activity
  - Hemoglobin A1c tests
  - Hemoglobin A1c levels
  - Taking insulin
  - Taking diabetic pills
- Obesity prevalence in NYC adults

Survey Question: Have you ever been told by a doctor that you have diabetes?

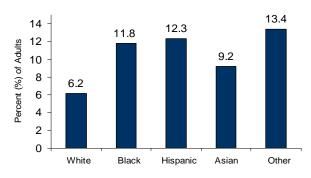In 2007, 9.1% of adults in NYC reported they had ever been told they had diabetes.

Diabetes among NYC adults in 2007 by:

SEX

Source: Community Health Survey 2007, NYC DOHMH

RACE/ETHNICITY

Source: Community Health Survey 2007, NYC DOHMH

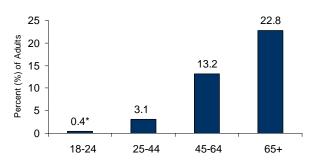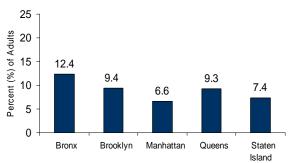| DIABETES PREVALENCE IN NYC ADULTS:			
	%	**95% CI**	**Population Estimate**
Overall	9.1	(8.5, 9.8)	522,000
Sex:			
Male	10.1	(9.1, 11.2)	248,000
Female	8.4	(7.7, 9.2)	274,000
Race/ethnicity:			
White	6.2	(5.5, 7.1)	167,000
Black	11.8	(10.5, 13.2)	149,000
Hispanic	12.3	(10.9, 14.0)	138,000
Asian	9.2	(6.9, 12.2)	46,000
Other	13.4	(9.5, 18.7)	21,000

DIABETES: Prevalence

Diabetes among NYC adults in 2007 by:
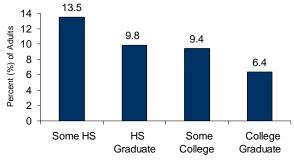
AGE

Source: Community Health Survey 2007, NYC DOHMH

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

EDUCATION

Source: Community Health Survey 2007, NYC DOHMH

HOUSEHOLD INCOME

Source: Community Health Survey 2007, NYC DOHMH

DIABETES PREVALENCE IN NYC ADULTS			
	%	95% CI	Population Estimate
Age group			
18-24	0.4*	(.1, 1.2)	3,000
25-44	3.1	(2.4, 3.8)	82,000
45-64	13.2	(12.0, 14.6)	224,000
65+	22.8	(20.6, 25.2)	213,000
Borough			
Bronx	12.4	(10.6, 14.4)	103,000
Brooklyn	9.4	(8.4, 10.6)	160,000
Manhattan	6.6	(5.6, 7.9)	78,000
Queens	9.3	(8.1, 10.6)	156,000
Staten Island	7.4	(5.6, 9.6)	24,000
Education			
Some HS	13.5	(11.8, 15.5)	138,000
HS Graduate	9.8	(8.6, 11.1)	140,000
Some College	9.4	(8.0, 11.1)	103,000
College Graduate	6.4	(5.5, 7.3)	132,000
Household Income:			
<200% of FPL**	11.8	(10.7, 13.0)	242,000
200-400% of FPL	8.8	(7.4, 10.5)	75,000
>400% of FPL	6.4	(5.5, 7.5)	118,000

***Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.**
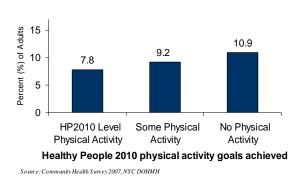**** Federal Poverty Level**

DIABETES AND OBESITY

DIABETES PREVALENCE BY WEIGHT CATEGORY*

Source: Community Health Survey 2007, NYC DOHMH

DIABETES PREVALENCE IN NYC ADULTS			
	%	95% CI	Population Estimate
Weight Category			
Under/normal	5.1	(4.3, 5.9)	107,000
Overweight	8.3	(7.4, 9.4)	171,000
Obese	16.9	(15.3, 18.7)	221,000

*Obesity is calculated based on respondents' self-reported weight and height. A BMI of 30 or greater is classified as obese. A BMI between 25.0 and 29.9 is classified as overweight.

DIABETES AND PHYSICAL ACTIVITY

DIABETES PREVALENCE BY PHYSICAL ACTIVITY*

Source: Community Health Survey 2007, NYC DOHMH

DIABETES PREVALENCE IN NYC ADULTS			
	%	95% CI	Population Estimate
Physical Activity			
HP2010 Level Physical Activity	7.8	(6.9, 8.8)	145,000
Some Physical Activity	9.2	(8.2, 10.2)	207,000
No Physical Activity	10.9	(9.2, 12.9)	118,000

*Physical activity categories are based on respondents' self-reported time spent doing moderate and vigorous exercise, compared to Healthy People 2010 recommended level (5 or more moderate physical activity sessions lasting at least 30 minutes each, or 3 or more vigorous physical activity sessions lasting at least 20 minutes each).
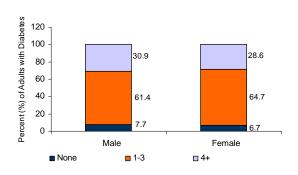
HEMOGLOBIN A1c:
Number of times tested among NYC adults with diabetes
Survey Question: A test for hemoglobin A1c measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for hemoglobin A1c?

Among NYC adults with diabetes in 2007, 63.4% have been checked by a doctor, nurse or other health professional for hemoglobin A1c 1-3 times within the past 12 months.
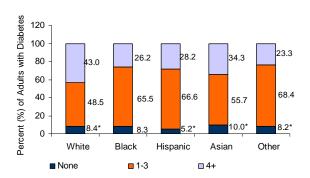
Number of times A1c test given to NYC adults with diabetes by:

SEX

Source: Community Health Survey 2007, NYC DOHMH

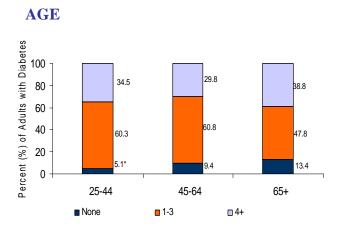**RACE/ETHNICITY**

Source: Community Health Survey 2007, NYC DOHMH
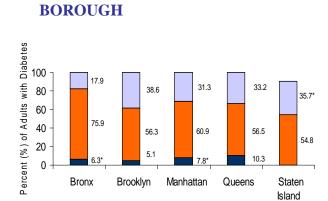
NUMBER OF A1c TESTS GIVEN TO NYC ADULTS WITH DIABETES

	None			1-3			4+		
	%	95% CI	Population Estimate	%	95% CI	Population Estimate	%	95% CI	Population Estimate
Overall	7.1	(5.3, 9.6)	42,000	63.4	(58.2, 68.4)	230,000	29.4	(24.7, 34.7)	140,000
Sex:									
Male	7.7	(4.7, 12.3)	21,000	61.4	(53.2, 69.0)	112,000	30.9	(23.7, 39.2)	64,000
Female	6.7	(4.6, 9.5)	21,000	64.7	(57.9, 71.0)	118,000	28.6	(22.6, 35.5)	75,000
Race:									
White	8.4*	(3.9, 17.2)	13,000	48.5	(36.2, 61.1)	74,000	43.0	(30.8, 56.1)	56,000
Black	8.3	(5.5, 12.3)	17,000	65.5	(56.2, 73.7)	66,000	26.2	(18.6, 35.7)	35,000
Hispanic	5.2*	(2.8, 9.6)	6,000	66.6	(57.6, 74.5)	61,000	28.2	(20.7, 37.2)	32,000
Asian	10.0*	(5.0, 18.9)	5,000	55.7	(37.0, 73.0)	16,000	34.3	(18.8, 54.0)	11,000
Other	8.2*	(2.0, 28.2)	2,000	68.4	(49.2, 82.9)	13,000	23.3	(12.8, 38.6)	5,000

*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.

Number of times A1c test given to NYC adults with diabetes by:

AGE

Source: Community Health Survey 2007, NYC DOHMH

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

	NUMBER OF A1c TESTS GIVEN TO NYC ADULTS WITH DIABETES								
	None			**1-3**			**4+**		
	%	**95% CI**	**Population estimate**	**%**	**95% CI**	**Population estimate**	**%**	**95% CI**	**Population estimate**
Age group									
18-24	†			†			†		
25-44	5.1*	(2.2, 11.4)	4,000	60.3	(48.2, 71.3)	42,000	34.5	(24.1, 46.8)	24,000
45-64	9.4	(6.6, 13.2)	17,000	60.8	(55.0, 66.4)	110,000	29.8	(24.8, 35.3)	54,000
65+	13.4	(9.2, 19.0)	21,000	47.8	(41.5, 54.2)	76,000	38.8	(32.8, 45.2)	62,000
Borough									
Bronx	6.3*	(3.0, 12.7)	8,000	75.9	(68.2, 82.2)	45,000	17.9	(12.8, 24.5)	22,000
Brooklyn	5.1	(3.1, 8.4)	10,000	56.3	(46.1, 66.0)	63,000	38.6	(29.1, 48.9)	47,000
Manhattan	7.8*	(3.7, 15.5)	6,000	60.9	(45.3, 74.6)	37,000	31.3	(18.7, 47.5)	21,000
Queens	10.3	(6.2, 16.6)	16,000	56.5	(46.1, 66.5)	71,000	33.2	(24.0, 43.8)	42,000
Staten Island	†			54.8	(33.0, 74.8)	13,000	35.7*	(17.1, 59.8)	7,000

Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.
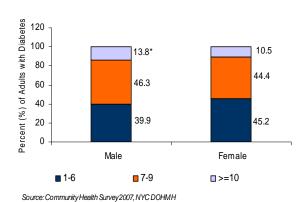*†Data are suppressed due to imprecise and unreliable estimates.*

A1c levels among NYC adults with diabetes

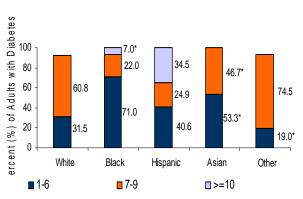*Survey Question: The last time you had your hemoglobin A1c checked, what was your level?*

At their last check of hemoglobin A1c, 58.2 % of NYC adults with diabetes had a level of 7 or greater.
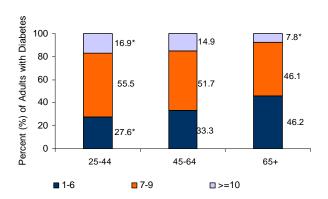
A1c levels among NYC adults with diabetes by:

SEX

Source: Community Health Survey 2007, NYC DOHMH

RACE/ETHNICITY

Source: Community Health Survey 2007, NYC DOHMH

A1c LEVELS AMONG NYC ADULTS WITH DIABETES								
1-6			**7-9**			**>=10**		
%	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**
Overall 41.8	(33.5, 50.6)	41,000	45.6	(36.7, 54.8)	55,000	12.6	(7.8, 19.6)	14,000
Sex:								
Male 39.9	(29.9, 50.8)	20,000	46.3	(34.4, 58.5)	28,000	13.8*	(7.0, 25.4)	7,000
Female 45.2	(32.2, 58.9)	21,000	44.4	(31.5, 58.0)	27,000	10.5	(5.9, 17.8)	7,000
Race:								
White 31.5	(18.3, 48.7)	20,000	60.8	(44.0, 75.4)	29,000	†		
Black 71.0	(63.1, 77.8)	8,000	22.0	(15.4, 30.3)	7,000	7.0*	(2.9, 15.9)	2,000
Hispanic 40.6	(25.9, 57.2)	7,000	24.9	(13.8, 40.7)	7,000	34.5	(21.4, 50.5)	8,000
Asian 53.3*	(31.3, 74.1)	4,000	46.7*	(25.9, 68.7)	6,000	†		
Other 19.0*	(7.5, 40.3)	1,000	74.5	(62.2, 83.8)	6,000	†		

*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.
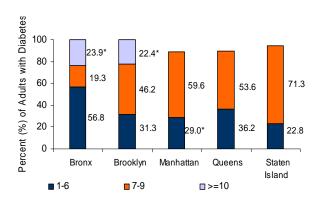†Data are suppressed due to imprecise and unreliable estimates.

A1c levels among NYC adults with diabetes by:

AGE

Source: Community Health Survey 2007, NYC DOHMH

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

A1c LEVELS AMONG NYC ADULTS WITH DIABETES									
	1-6			**7-9**			**>=10**		
	%	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**
Age group									
18-24	†			†			†		
25-44	27.6*	(12.5, 50.4)	7,000	55.5	(34.9, 74.4)	14,000	16.9*	(7.5, 33.7)	4,000
45-64	33.3	(24.6, 43.3)	16,000	51.7	(41.5, 61.8)	5,000	14.9	(8.5, 24.9)	7,000
65+	46.2	(34.3, 58.5)	16,000	46.1	(34.4, 58.2)	16,000	7.8*	(3.8, 15.3)	3,000
Borough									
Bronx	56.8	(39.2, 72.8)	7,000	19.3	(12.2, 29.2)	6,000	23.9*	(11.0, 44.4)	4,000
Brooklyn	31.3	(21.5, 43.1)	9,000	46.2	(24.8, 69.2)	13,000	22.4*	(7.7, 50.1)	3,000
Manhattan	29.0*	(12.3, 54.3)	6,000	59.6	(36.5, 79.1)	11,000	†		
Queens	36.2	(22.5, 52.6)	16,000	53.6	(37.4, 69.0)	21,000	†		
Staten Island	22.8	(12.3, 38.4)	3,000	71.3	(55.6, 83.1)	4,000	†		

*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.
†Data are suppressed due to imprecise and unreliable estimates.
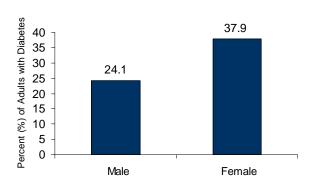
INSULIN
NYC Adults with Diabetes Taking Insulin

Survey Question: Are you now taking insulin?

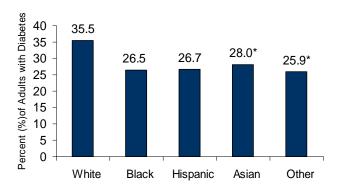Among NYC adults with diabetes, 28.6% are currently taking insulin.

NYC Adults with diabetes currently taking insulin by:

SEX

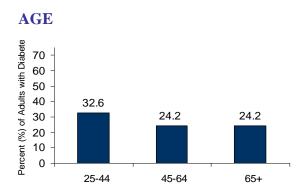*Source: Community Health Survey 2007, NYC DOHMHY*

RACE/ETHNICITY

Source: Community Health Survey 2007, NYC DOHMH

NYC ADULTS WITH DIABETES TAKING INSULIN

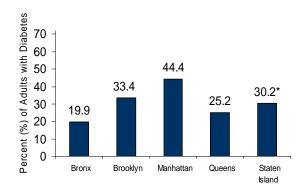|	%	95% CI	Population Estimate
Overall	28.6	(21.1, 37.4)	133,000
Sex:			
Male	24.1	(17.9, 31.6)	61,000
Female	37.9	(31.7, 44.6)	72,000
Race:			
White	35.5	(24.3, 48.5)	41,000
Black	26.5	(16.6, 39.5)	36,000
Hispanic	26.7	(19.7, 35.1)	44,000
Asian	28.0*	(13.7, 48.9)	9,000
Other	25.9*	(8.2, 57.6)	4,000

*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.

NYC Adults with diabetes currently taking insulin by:

AGE

Source: Community Health Survey 2007, NYC DOHMHY

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

NYC ADULTS WITH DIABETES TAKING IN SULIN

	%	95% CI	Population Estimate
Age group			
18-24	†		
25-44	32.6	(22.6, 44.4)	27,000
45-64	24.2	(20.1, 29.0)	54,000
65+	24.2	(19.9, 29.2)	51,000
Borough			
Bronx	19.9	(12.1, 31.1)	27,000
Brooklyn	33.4	(26.4, 41.3)	40,000
Manhattan	44.4	(32.3, 57.2)	26,000
Queens	25.2	(17.2, 35.5)	33,000
Staten Island	30.2*	(13.4, 54.7)	7,000

*Estimate should be interpreted with caution. Estimate's Relative Standard Error (a measure of estimate precision) is greater than 30% or the sample size is less than 50, making the estimate potentially unreliable.
†Data are suppressed due to imprecise and unreliable estimates.
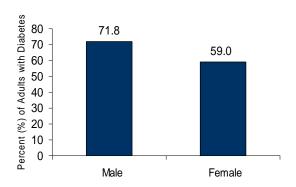
DIABETIC PILLS
NYC Adults with Diabetes Taking Diabetic Pills

Survey Question: Are you now taking diabetic pills to lower your blood sugar?

67.8% of NYC adults with diabetes are taking diabetic pills to lower their blood sugar.

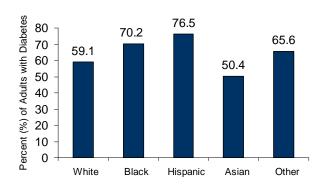## NYC Adults with diabetes currently taking diabetic pills by:

SEX

Source: Community Health Survey 2007, NYC DOHMHY
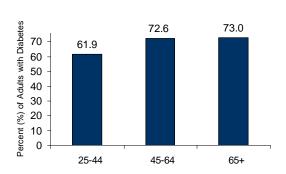
NYC ADULTS WITH DIABETES TAKING DIABETIC PILLS

	%	95% CI	Population Estimate
Overall	67.8	(59.1, 75.4)	367,000
Sex:			
Male	71.8	(64.4, 78.1)	172,000
Female	59.0	(52.5, 65.2)	195,000
Race:			
White	59.1	(46.4, 70.7)	113,000
Black	70.2	(57.3, 80.5)	111,000
Hispanic	76.5	(69.1, 82.6)	100,000
Asian	50.4	(33.8, 66.9)	28,000
Other	65.6	(36.4, 86.4)	15,000

RACE/ETHNICITY

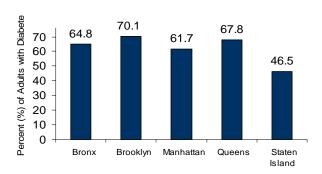*Source: Community Health Survey 2007, NYC DOHMH*

NYC Adults with diabetes currently taking diabetic pills by:

AGE

Source: Community Health Survey 2007, NYC DOHMH

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

NYC ADULTS WITH DIABETES TAKING DIABETIC PILLS

	%	95% CI	Population Estimate
Age group			
18-24	†		
25-44	61.9	(50.5, 72.0)	51,000
45-64	72.6	(67.5, 77.1)	162,000
65+	73.0	(66.9, 78.3)	153,000
Borough			
Bronx	64.8	(53.3, 74.8)	63,000
Brooklyn	70.1	(63.3, 76.1)	130,000
Manhattan	61.7	(46.2, 75.2)	51,000
Queens	67.8	(57.8, 76.4)	107,000
Staten Island	46.5	(36.0, 57.3)	16,000

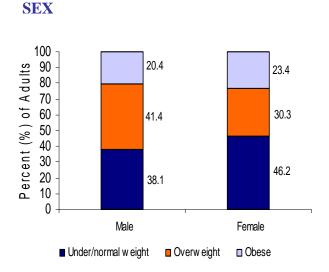*†Data are suppressed due to imprecise and unreliable estimates.*

OBESITY

Survey Question: About how tall are you without shoes? You can answer in either feet and inches OR centimeters. About how much do you weigh without shoes? You can answer in either pounds OR kilograms. (Follow-up questions were asked of respondents who did not provide height or weight information in order to determine their weight category.)

In 2007, 22.1% of adults in NYC reported their weight category as obese.

Weight categories among NYC adults in 2007 by:

SEX

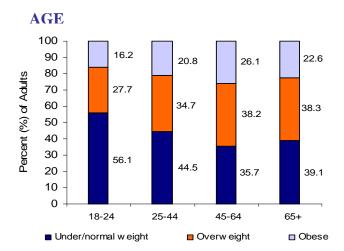

Source: Community Health Survey 2007, NYC DOHMH

RACE/ETHNICITY

Source: Community Health Survey 2007, NYC DOHMH

	WEIGHT CATEGORY PREVALENCE IN NYC ADULTS								
	Under/normal weight			Overweight			Obese		
	%	95% CI	Population Estimate	%	95% CI	Population Estimate	%	95% CI	Population Estimate
Overall	42.4	(41.1, 43.8)	2,472,000	35.5	(34.2, 36.8)	2,052,000	22.1	(21.0, 23.2)	1,275,000
Sex:									
Male	38.1	(36.1, 40.2)	1,039,000	41.4	(39.4, 43.4)	1,111,000	20.4	(18.9, 22.1)	550,000
Female	46.2	(44.5, 48.0)	1,434,000	30.3	(28.7, 32.0)	941,000	23.4	(22.0, 24.9)	725,000
Race/ethnicity:									
White	49.0	(46.7, 51.3)	1,107,000	33.3	(31.2, 35.4)	785,000	17.7	(16.1, 19.5)	414,000
Black	30.7	(28.5, 33.1)	420,000	39.0	(36.5, 41.5)	521,000	30.3	(28.0, 32.6)	404,000
Hispanic	34.3	(31.8, 37.0)	501,000	38.4	(35.8, 41.1)	548,000	27.2	(24.9, 29.6)	375,000
Asian	65.9	(60.9, 70.5)	382,000	26.9	(22.6, 31.7)	147,000	7.2	(5.2, 10.0)	40,000
Other	39.4	(31.8, 47.6)	61,000	32.7	(25.3, 41.0)	51,000	27.9	(21.3, 35.6)	42,000

Weight categories among NYC adults in 2007 by:

AGE

BOROUGH

Source: Community Health Survey 2007, NYC DOHMH

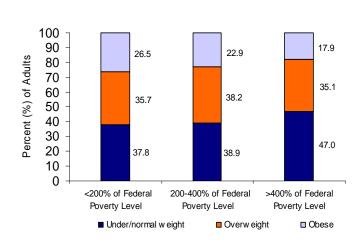|									
WEIGHT CATEGORY PREVALENCE IN NYC ADULTS									
	Under/normal weight			**Overweight**			**Obese**		
	%	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**
Age group									
18-24	56.1	(50.8, 61.2)	396,000	27.7	(23.2, 32.7)	196,000	16.2	(12.8, 20.4)	115,000
25-44	44.5	(42.3, 46.7)	1,142,000	34.7	(32.6, 36.9)	892,000	20.8	(19.0, 22.6)	533,000
45-64	35.7	(33.7, 37.7)	580,000	38.2	(36.2, 40.2)	621,000	26.1	(24.4, 27.9)	425,000
65+	39.1	(36.6, 41.7)	349,000	38.3	(35.7, 41.0)	341,000	22.6	(20.5, 24.9)	202,000
Borough									
Bronx	34.5	(31.2, 37.9)	313,000	34.9	(31.6, 38.3)	313,000	30.6	(27.5, 33.9)	273,000
Brooklyn	38.8	(36.7, 41.0)	676,000	37.0	(34.9, 39.1)	635,000	24.2	(22.4, 26.1)	414,000
Manhattan	52.4	(49.2, 55.6)	641,000	32.6	(29.7, 35.8)	396,000	15.0	(13.0, 17.1)	177,000
Queens	43.6	(41.0, 46.3)	718,000	36.1	(33.5, 38.7)	593,000	20.3	(18.3, 22.5)	330,000
Staten Island	39.9	(35.2, 44.7)	124,000	35.6	(31.1, 40.3)	115,000	24.5	(20.7, 28.9)	80,000

OBESITY: *Prevalence*

Weight categories among NYC adults in 2007 by:

EDUCATION

Source: Community Health Survey 2007, NYC DOHMH

Source: Community Health Survey 2007, NYC DOHMH

	Under/normal weight			**Overweight**			**Obese**		
	%	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**	**%**	**95% CI**	**Population Estimate**
Education									
Some HS	34.7	(31.3, 38.3)	297,000	35.8	(32.5, 39.4)	311,000	29.5	(26.4, 32.7)	257,000
HS Graduate	36.8	(34.3, 39.3)	564,000	37.0	(34.5, 39.6)	541,000	26.2	(24.0, 28.6)	380,000
Some College	38.5	(35.8, 41.4)	479,000	37.1	(34.4, 39.9)	441,000	24.3	(22.1, 26.8)	282,000
College Graduate	49.9	(47.4, 52.4)	1,116,000	33.8	(31.6, 36.2)	747,000	16.2	(14.5, 18.2)	349,000
Household Income									
<200% of FPL*	37.8	(35.6, 40.1)	774,000	35.7	(33.5, 38.0)	727,000	26.5	(24.6, 28.5)	537,000
200-400% of FPL	38.9	(35.7, 42.2)	369,000	38.2	(35.0, 41.6)	357,000	22.9	(20.2, 25.7)	216,000
>400% of FPL	47.0	(44.5, 49.4)	928,000	35.1	(32.9, 37.3)	727,000	17.9	(16.1, 19.9)	354,000

WEIGHT CATEGORY PREVALENCE IN NYC ADULTS

*Federal Poverty Level