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REPORT ON OBESITY

SUNY DOWNSTATE MEDICAL CENTER

SUNY Downstate Medical Center would like to thank the following individuals for their help in preparing the **Report on Obesity**.

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LETTER FROM THE PRESIDENT

Dear residents and friends of Brooklyn:

Obesity is one of the most noticeable health problems and, often, the most overlooked. Two-thirds of Americans are overweight or obese. It is not surprising that the U.S. Surgeon General has labeled obesity a national epidemic. A new study by the Centers for Disease Control and Prevention helps explain why: In the last 30 years, women have increased their caloric intake by 22 percent, and men by 7 percent.

Overweight and obesity are not problems limited to those who can afford to eat well. In many of the poorest nations, as well as in our own communities, obesity and poor nutrition often go hand in hand. A recent report by the World Health Organization links obesity due to unhealthy diet and lack of physical activity to the increase in cardiovascular disease, various forms of cancer, diabetes, osteoporosis, and other chronic diseases worldwide.

This **Report on Obesity** presents data on the prevalence of overweight and obese children, adolescents, and adults in New York City. Only limited data are available for Brooklyn because, unlike asthma, measles, and certain other diseases, obesity is not classified as a reportable condition by the Department of Health. That is only part of the problem. We need more local information and research to guide policymakers and healthcare providers in developing effective ways to combat this growing epidemic.

The cost of obesity is also growing. In 2003, close to \$75 billion was spent on medical care for obesity-related health problems. Medicare, Medicaid, and other government programs absorbed more than half this cost. In New York State alone, Medicaid spending on obesity-related illnesses totaled \$3.5 billion. When indirect economic costs are included—such as days of work lost to illness and reduced productivity—the nationwide cost of obesity in 2003 was more than \$130 billion.

Since nutrition and physical activity are essential to good health throughout life, **Report on Obesity** emphasizes the importance of teaching good eating and exercise habits beginning in childhood. We must bring this message to the school, the workplace, and the community. Through such weight-reduction campaigns as "Lighten Up Brooklyn," sponsored by the Brooklyn Borough President's Office, and this campus's own "A Healthy Downstate" program, we can begin to make more Brooklynites aware that better health is within their control.

John C. LaRosa, M.D. President

Obesity is both one of the most noticeable health problems and the most overlooked.

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HEALTH CONSEQUENCES OF BEING OVERWEIGHT OR OBESE

Over the last 40 years, the number of Americans who are overweight or obese has increased dramatically. While many people are conscious of their weight as it affects their appearance, the real problem is how it will affect their health.

Being overweight or obese increases the risk of many health conditions and diseases. People who are obese or overweight have more hospitalizations or visits to doctors. Weight problems can make some conditions, such as asthma and joint pain, more severe or difficult to tolerate. The more weight you carry, the greater the risk to your health-being obese is more dangerous than being overweight.

If you are overweight or obese, you increase your chances of having the following:

- · heart disease and stroke
- high blood pressure and high cholesterol
- type 2 diabetes
- certain cancers-prostate, colon, kidney, gall bladder, uterus, and breast (post menopause)
- breathing problems-asthma, sleep apnea (interrupted breathing during sleep)
- arthritis
- bladder problems

For adults over 20 years old

 pregnancy complications-high blood pressure, gestational diabetes, difficult labor and delivery, increased need for cesarean deliveries, risk of birth defects, and diseases in infants

Children who are overweight are likely to be obese as adults. They tend to have higher cholesterol levels and blood pressure than other children and may develop health problems, such as diabetes and heart disease, at an earlier age. They are also more likely to have low self-esteem than other children.

Knowing if you are overweight or obese is the first step to changing your condition. Ask your doctor or health professional to determine if you are overweight or find out by using the equation below to determine your Body Mass Index (BMI).

вмі	Weight Status	Weight in Pounds $x 703 = BMI$
elow 18.5	Underweight	(Height in inches) x (Height in inches)
8.5 – 24.9	Normal	For example, a person who weighs 220 pounds
5.0 – 29.9	Overweight	
).0 and abov	ve Obese	$\frac{220 \text{ lbs}}{(75 \text{ inches}) \text{ x } (75 \text{ inches})} \text{ x } 703 = 27.5$

What is BMI?

Body Mass Index (BMI) helps measure whether a person's weight is in the healthy range for his or her height. BMI is used differently for adults and for children.

THE PROBLEM OF OBESITY IN ADULTS

Within the past decade, adult obesity has nearly doubled in the United States. According to recent surveys, 1 in every 6 adults in New York City is obese. The data that follow highlight some important findings about which groups of adult New Yorkers have a greater chance of being overweight or obese. Although New Yorkers have a lower obesity rate than the rest of the nation, we still have a long way to go to achieve a healthier lifestyle.

Obesity in Brooklyn Neighborhoods

While the obesity epidemic affects communities throughout the United States, Brooklyn residents have special reason to be concerned. In 7 of 11 Brooklyn neighborhoods (as defined by the United Hospital Fund) the obesity rate is higher than it is for New York City as a whole. In Williamsburg and Bushwick, 1 out of every 4 adults is obese, and in Bedford-Stuyvesant, Crown Heights, and East New York, 3 out of 10 adults are obese.



Percent of persons reported being obese

OBESITY IN ADULTS

New York City Adults Who Are Overweight or Obese by Race/Ethnicity, 2002

The percentage of adults who are **overweight** is similar for White, Black, and Hispanic New Yorkers—generally ranging between 30 and 40 percent. The percentage of Asian-American New Yorkers who are overweight is much lower—roughly 25 percent, or 1 out of 4.

The burden of **obesity** is higher for Blacks and Hispanics. Black New Yorkers have an obesity rate that is more than double that of Whites, and five times the rate of Asian-American residents. Although Asians and Pacific Islanders may have lower levels of overweight and obesity than other groups, a recent finding shows that at lower levels of BMI they are at risk for many of the same diseases.*



OBESITY IN ADULTS

New York City Adults Who Report Being Overweight or Obese by Sex, 2002

Being overweight is more common among New York City men than among women. But with obesity, the reverse is true-the obesity rate among New York City women is higher than the rate for men.

While not shown here, New York City men are less likely to be overweight or obese than their counterparts at the national level. Among New York City women, however, the incidence of these problems is just about the same as it is for women nationwide.



New York City Adults Who Are Overweight or Obese by Age Group, 2002

For adult New Yorkers, the risk of being **overweight** rises gradually as they get older. The chance of becoming **obese**, in contrast, rises sharply with age. Fewer than 1 in 10 New Yorkers between the ages of 18 and 29 is obese, but more than 1 in 4 of those between 50 and 64 years of age suffers from obesity.

After age 65, the obesity rate declines. This doesn't necessarily mean that older New Yorkers are losing weight, although some do. It may reflect the fact that obese people are more likely to die before they reach old age.



LACK OF PHYSICAL ACTIVITY IN ADULTS

Americans consume more processed carbohydrates (breads, starches, etc), saturated fats (butter), fried foods, and fewer vegetables and fruits than people from Europe and other developed countries. Not only are our food choices less than ideal, but food portions (serving size) have greatly increased over the past 20 years.

More exercise is needed to burn off these added calories. Yet while the amount of food Americans eat has increased, levels of physical activity may actually have declined.

New York City Adults Reporting No Physical Activity in Past Month by Race/Ethnicity, 2002

The percentage of adult New Yorkers who reported having no physical activity in the previous month varied by ethnic group. Whereas 20 percent of White residents reported that they had not had any physical activity, more than 25 percent of adult Black residents, nearly 35 percent of Hispanic New Yorkers, and 30 percent of Asian-American residents said they had not engaged in any recent physical activity.



PHYSICAL ACTIVITY IN ADULTS

Adults Reporting No Physical Activity by Sex, 2002

Although the results are slightly better for the City than the State, roughly 1 in 4 men and 3 in 10 women reported that they had not engaged in any physical activity during the previous month.



New York City Adults Reporting No Physical Activity by Income Level, 2002

Lack of physical activity is also related to income. New Yorkers with yearly incomes below \$25,000 were more than twice as likely to have had no physical activity within the previous month than those with incomes over \$50,000.

Thorpe, L.E., et al., One in 6 New York City Adults Is Obese, in *NYC Vital Signs*, 2003:2(7)1-4

Source:



OBESITY BEGINS IN CHILDHOOD

As it has for adults, obesity in children has increased dramatically in the United States since the 1960s. In New York City, the rate of obesity in children is even higher than it is for adults.

A recent survey of children in the New York City public school system found that only slightly more than half have a healthy weight. Compared to these children, youngsters who are overweight or obese have a far greater chance of developing long-term health problems, such as asthma, diabetes, heart disease, and depression—beginning in childhood and becoming more serious later in life.

Distribution of Elementary School Children (Ages 6 - 11) in New York City by Weight, 2003

In New York City, 43 percent of all elementary school children are overweight or obese.

Source: List, D., et al., Obesity Starts Early, in NYC Vital Signs 2003: 2(5) 1-2 Obese 24% Overweight 19% Normal Weight 53%

OBESITY IN CHILDHOOD

Distribution of Obese Elementary School Children (Ages 6 -11) in New York City by Race/Ethnicity, 2003

More than half of obese children in New York City elementary schools are Black or Hispanic. This probably reflects both the fact that the majority of children in the City's schools are Black or Hispanic and that obesity rates are higher in these groups.



Source:

List, D., et al., Obesity Starts Early, in *NYC Vital Signs* 2003: 2(5) 1-2

OBESITY IN CHILDHOOD

Elementary School Children (Ages 6-11) Who Are Overweight or Obese by Sex, 2003

Close to 20 percent of elementary school boys are **overweight**, and more than 25 percent are **obese**. In this age group, boys are slightly more likely to be overweight or obese than girls.



Filling up on junk foods instead of healthy fruits and vegetables, alternating between binge eating and starvation diets, preferring TV to physical activity—these are some of the hallmarks of teenage behavior that pose serious health risks. The habits we pick up during the high school years can last a lifetime. Having a negative body image during adolescence can also be harmful, leading to low self-esteem, poor grades, loneliness, and even depression. As the following data show, the way teenagers see themselves can be very different from the way they really are.

High School Students Who Are Overweight, 2001

At the high school level, the percentage of students who are overweight is slightly higher in New York City than it is nationwide.



Youth Risk Behavior Survey, 2001, Centers for Disease Control and Prevention



High School Students Who Think They Are Overweight by Sex, 2001

Among high school students-both in New York and nationwide-perceptions about being overweight differ sharply from reality. While only about 1 out of every 10 students is overweight, nearly 3 in 10 view themselves as overweight. This difference between perception and reality is especially strong among high school girls. While being overweight is more common among high school boys than girls, girls are much more likely to see themselves as being overweight.

The gap between the way students view themselves and the way they are suggests a serious lack of understanding about healthy weight and proper nutrition, especially among female students.



High School Students Who Think They Are Overweight by Race/Ethnicity, 2001

While the percentage of New York City high school students who are overweight is roughly the same for White, Black, and Hispanic students, Black students are the least likely to see themselves as overweight. The perception-reality gap is greatest among Asian-American (included under "Other") students, who are far less likely to be overweight but more often see themselves that way.



High School Students Who Vigorously Exercised at Least 3 Times Per Week, 2001

Getting enough exercise is important for maintaining a healthy weight. In 2001, only 33 percent of all New York City high school students said that they had engaged in at least 20 minutes of physical activity vigorous enough to make them breathe hard or sweat, on at least three of the previous seven days. The percentage of students who said they got this much exercise was higher for girls than boys (40 versus 25 percent) and higher for Black, Hispanic and "Other" students than for Whites.



Source:

Source:

Youth Risk Behavior Survey, 2001, Centers for Disease **Control and Prevention**

Note: New York State is not shown here because not enough students from certain racial and ethnic groups were surveyed to provide reliable results.



High School Students Who Watched 3 or More Hours of TV per Day, 2001

Passive forms of recreation-those that don't involve any real physical activity-are an important factor contributing to weight problems among children and adolescents. Nearly 60 percent of New York City high school students say they watch three or more hours of television on an average school day. The percentage of Black students who watch this much TV is especially high.



Control and Prevention

High School Students Who Ate 5 or More Servings of Fruits and Vegetables per Day, 2001

Fewer than 25 percent of all New York City high school students eat five or more servings of fruit and vegetables per day. Nationwide, the percentage is even lower. More high school boys than girls and more White students than Black, Hispanic or "Other" students eat five or more servings of fruit and vegetables each day.





Source:

Prevention

Youth Risk Behavior Survey, 2001, Centers for Disease Control and Prevention

Note: New York State is not shown here because not enough students from certain racial and ethnic groups were surveyed to provide reliable results.



WHERE DO WE GO FROM HERE?

Obesity takes a terrible toll on the health of individuals and the communities they live in. It can lead to heart disease, stroke, diabetes, asthma, and many other diseases. The Surgeon General and the National Governor's Association have issued an alarm, calling for programs to combat this growing epidemic. And what we can do on the local level is just as important.

Because obesity starts early, we need to do more to educate parents, children, and adolescents about the importance of eating healthy foods and getting physical exercise. Our schools need more funding for physical education and after-school programs that provide alternatives to TV, video games, and other passive forms of entertainment. We need to develop better school lunch programs. By offering more fruits and vegetables and making 100 percent juices and nonfat/low-fat milk available instead of sodas, schools can help foster better eating habits.

Community residents, local leaders, and government organizations need to develop plans to bring healthier foods to our neighborhoods as well. We must also advocate for safe parks and other open spaces where community members can enjoy healthful exercise and sports.

Most of us spend an important part of our lives at work or school. By encouraging others at our places of work, study, and worship to develop healthy eating and exercise habits, we can help halt the spread of obesity.

CALORIES BURNED DURING EXERCISE

Regular exercise and other physical activities are very important in helping you stay healthy and fit. Below are some activities-from gardening to weight lifting-that can help improve your overall health and control weight. Keep in mind that the number of calories you burn depends on your weight and how long you do the activity. Talk to a health professional to select the activities that are best for you.

	125 16.	150 16.	175 Ibs	200 16.	225 Ibe	250 160	125 165	150 Ib.	175 165	200 16	225 Ibe	250 16-
A	105	100	071	264	207	770	770	700	4.62	500	504	
Aerobics: Low Impact	210	198	231	264	297	330 420	330	396 504	462	528	594 756	660 840
Aerobics: Step, Low Impact	210	252	294	336	378	420	420	504	588	672	756	840
Bicycling: Stationary (moderate)	210	252	294	336	378	420	420	504	588	672	756	840
Bicycling: Stationary (vigorous)	315	378	441	504	567	630	630	756	882	1008	1134	1260
Circuit Training	240	288	336	384	432	480	480	576	672	768	864	960
Rowing: Stationary (moderate)	210	252	294	336	378	420	420	504	588	672	756	840
SKI Machine Stair Machine	285	342 216	399	456	513	570	570	684	798	912 576	648	720
Weight Lifting - General	90	108	126	144	162	180	180	216	252	288	324	360
Weightlifting - Vigorous	180	216	252	288	324	360	360	432	504	576	648	720
0 0 0												
Baseball	146	176	205	234	263	293	293	351	410	468	527	585
Basketball (half court)	169	203	236	270	304	338	338	405	473	540	608	675
Bicycling (12 - 13.9 mph)	240	288	336	384	432	480	480	5/6	6/2	768	864	960
Calisthenics	125	150	175	200	225	250	250	300	350	400	450	500
Football: Touch, Flag, General	240	288	336	384	432	480	480	576	672	768	864	960
Frisbee	90	108	126	144	162	180	180	216	252	288	324	360
Golfing (carrying clubs)	165	198	231	264	297	330	330	396	462	528	594	660
Gymnastics	120	144	168	192	216	240	240	288	336	384	432	480
Handball	360	432	504	5/6	648	720	720	864	1008	F76	1296	1440
logging	281	338	394	450	506	563	563	675	788	900	1013	1125
Kicking a Ball Around	195	234	273	312	351	390	390	468	546	624	702	780
Lacrosse	195	234	273	312	351	390	390	468	546	624	702	780
Martial Arts: General	300	300	420	480	540	600	600	720	840	960	1080	1200
Racquetball: Noncompetitive	210	252	294	336	378	420	420	504	588	672	756	840
Rollerblading Bone lumping	210	252	294	336	5/8	420	420	504	588	6/2	/56	1200
Soccer	195	234	273	312	351	390	390	468	546	624	702	780
Softball: General Play	150	180	210	240	270	300	300	360	420	480	540	600
Spinning	199	239	277	316	355	394	398	477	557	636	716	795
Swimming	251	302	352	402	453	503	503	603	703	804	905	1005
Tennis: Singles	229	275	320	366	412	458	458	549	641	732	824	915
Surfing (not the web)	86	104	121	138	155	1/3	1/3	207	242	2/6	311	345
Volleyball: Non-Competitive	90	108	126	144	162	180	180	216	252	288	324	360
Volleyball: Beach	240	288	336	384	432	480	480	576	672	768	864	960
Water Polo	300	360	420	480	540	600	600	720	840	960	1080	1200
Working Out at Gym	158	189	221	252	284	315	315	378	441	504	567	630
Ballroom Dancing	128	153	179	204	230	255	255	306	357	408	459	510
Dancing (really kicking heels)	143	171	200	228	257	285	285	342	399	456	513	570
Ping Pong	113	135	158	180	203	225	225	270	315	360	405	450
Swing Dancing	113	135	158	180	203	225	225	270	315	360	405	450
Yoga	113	135	158	180	203	225	225	270	315	360	405	450
Brisk Walking, with Dog	124	150	173	198	223	248	248	297	347	396	446	495
Brushing Teeth (3 minutes)	7	9	10	11	13	14	14	17	20	23	26	29
Gardening: Digging	215	258	301	344	387	430	430	516	602	688	774	860
Gardening	135	162	190	216	243	270	270	324	378	432	486	540
Grocery Shopping	101	122	142	162	182	203	203	243	284	324	365	405
Ironing	64	210	252	102	115	128	128	153	170	204	230	420
Kissing	30	36	42	48	54	60	60	72	84	96	108	120
Mopping (after guests)	128	153	179	204	230	255	255	306	357	408	459	510
Playing Cards	49	59	68	78	88	98	98	117	137	156	176	195
Playing Piano	79	95	111	126	142	158	158	189	221	252	284	315
Raking	143	171	200	228	257	285	240	288	336	384	432	480
Sex: Moderate Effort	188	225	203	298	333	90	90	450	126	144	162	180
Shoveling Snow	169	203	236	270	304	338	360	432	504	576	648	720
Climbing Stairs	255	306	357	408	459	510	510	612	714	816	918	1020
Strolling (w/o dog or baby)	86	104	121	138	155	173	173	207	242	276	311	345
Washing the Car	128	153	179	204	230	255	255	306	357	408	459	510
Wasning Dishes	64	17	89	102	115	128	128	153	1/9	204	230	255
watching IV	50	30	42	48	54	60	00	12	84	90	108	120

For 30 Minutes

For 60 Minutes

FOOD HABITS

One of the reasons why obesity is on the rise is that Americans are eating bigger portions today than 20 years ago.



Pasta

30 Calories 2 Cups 560 Calories 4 Cups Increase in Calories: 280 Calories

GLOSSARY

Body Mass Index (BMI)	A calculated number used to measure whether a person's weight is in the healthy range for his or her height. BMI for adults is calculated differently than for children (see next definition).Underweight (Adult)= BMI below 18.5Normal Weight (Adult)= BMI from 18.5 to 24.9Overweight (Adult)= BMI from 25.0 to 29.9Obese (Adult)= BMI over 30.0					
Body Mass Index-for-Age	A calculated number used to measure whether a child's weight is in the healthy range for his or her height and age. This number changes with age and is also different for boys and girls.					
Vigorous Exercise	Exercise or physical activity performed for at least 20 minutes, three or more days a week, in which a person breathes hard or sweats.					
	RESOURCES					
	The following websites provide additional information on overweight and obesity, physical activities, and eating guidelines.					
Weight Control	http://www.cdc.gov/nccdphp/dnpa/obesity/index.htm					
Physical Activity/Exercise	http://www.walkny.org http://www.nysphysicalactivity.org http://www.cdc.gov/nccdphp/dnpa/physical/index.htm					
Healthy Diet	http://www.health.gov/dietaryguidelines					
	http://www.niddk.nih.gov/health/nutri/pubs/choose.htm					
Surgeon General's Report	http://www.cdc.gov/nccdphp/dnpa/pdf/CalltoAction.pdf					

TECHNICAL NOTES

Specific data on overweight and obesity-related conditions are not readily available or are insufficient on the borough and neighborhood level. Some 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 conditions and vital statistics. The only recent source of childhood data was gathered from the New York City Department of Health and Mental Hygiene (NYCDOHMH) report, *Obesity Begins Early*. High school data on the national, state, and city level was derived from the National Youth Risk Behavior Survey conducted by local departments of health in conjunction with the Centers for Disease Control and Prevention (CDC). Adult data were derived from the Behavioral Risk Factor Surveillance System from CDC and the NYCDOHMH report, *One in 6 New York City Adults Is Obese*. These surveys are conducted on a regular basis and form the only source of data relating to weight control, physical activity, and diet for our local area. While the National Health Interview Survey (NHIS) and National Health and Nutrition Examination Survey (NHANES) are conducted regularly by the federal government, these surveys provide little or no data on local trends in nutrition, diet, and weight control. For this report, we have provided the most recent and reliable data available for the city and borough .