

Obesity and Diabetes

By Emmanuel Aguilar

Two of the biggest epidemics in the United States are obesity and diabetes. Unsurprisingly, these epidemics aren't occurring in isolation from one another, but parallel to one another. Per the U.S. Centers for Disease Control and Prevention, 1/3 of Americans are now overweight and another 1/3 are obese. That means that normal-weight people are now the minority in this country. America was not always this fat; in 1990 the rate of obesity was just under 15%. Since then, the rates of obesity have risen steadily to the rates we see now. At the same time rates of diabetes have also increased steadily in the last few decades and currently over 11% of people 20 years and older have diabetes. That number is expected to increase to 21% by 2050.

About 30% of overweight people have diabetes and an astounding 85% of people with diabetes are overweight. Several studies have shown that obesity and being overweight is a major risk factor in the development of type 2 diabetes. In one study by the Harvard School of Public Health, it was shown that even being slightly overweight increased diabetes risk five times and serious obesity increased risk by 60 times.

Confounding the issue is that many Americans have become so accustomed to obesity as the norm that they may not know what a normal weight for them is. An average male is 5'9"; that means that at ≥ 170 lbs they are in the overweight category and at ≥ 205 lbs they are obese. For the average female at 5'3" the overweight category begins at ≥ 141 lbs and obese at ≥ 170 lbs. There has been a lot of criticism of BMI recently, but studies have shown that when comparing BMI to body fat percentage 95% of men and 99% of women who were identified as obese by BMI were also obese via body fat. In fact, in another study it was found that BMI *underestimates* obesity, especially in women.

While the management of Diabetes has come a long way from injecting insulin from cows and pigs, it remains the 7th leading cause of death and the primary cause of kidney failure and long term effects can

lead to blindness, amputations, heart disease, and stroke. With such debilitating consequences, it is important to prevent or manage diabetes at its early stages. While obesity and diabetes is and can be prevented and managed at the individual level, it is also vital to enact change at the community level.

The Bronx is the least healthy county in the state of New York and has high rates of diabetes (14%) along with other chronic diseases. The Bronx also leads the state in percentage of premature deaths in people less than 65 years old. In fact, the Bronx Community Needs Assessment Report has identified diabetes as one of the main health issues that should be addressed.

One way to combat the higher than average rate of diabetes and obesity are through education and improving access to healthy foods. Only 6% of adults report eating 5+ fruits or vegetables per day compared to 9% in the rest of NYC. Cultural preferences for high caloric and often fried foods are also acknowledged as a challenge. Programs such as cooking demonstrations, farmer's markets participation in food subsidy programs are current methods, but expansion is needed. The New York City Obesity Task Force Plan to Prevent and Control Obesity recognizes obesity as an environmental disease with our food and physical activity environments contributing to the disease. Efforts to reduce obesity include posting calorie counts on menus; establishing nutritional standards in schools, hospitals, jails, etc; [Green Cart permits](#) , and [Move-to Improve](#) an initiative to promote physical activity.

The numbers may paint a grim picture, but here is good news. While the rates of obesity are astoundingly high, they have settled in the last few years to their current rates and hopefully we will see them being to decrease soon. Furthermore, soda consumption has been steadily decreasing and is now at a 30-year low. This shows that education and programs like NYC's "Pouring on the Pounds" work. With the adoption and expansion of these and other health conscious programs we can alter the percentage of overweight and people with diabetes in the Bronx and the United States.

References

- The New York City Obesity Task Force . (2012). *Reversing the Epidemic: The New York City Obesity Task Force Plan* . New York.
- Kell, J. (2016, March 29). *Soda Consumption Falls to 30-Year Low In The U.S.* Retrieved from Fortune: <http://fortune.com/2016/03/29/soda-sales-drop-11th-year/>
- King L, H. K. (2015). *Community Health Profiles 2015, Bronx Community District 8: Riverdale and Fieldston*. New York: The New York City Department of Health and Mental Hygiene.
- New York Academy of Medicine. (2014). *New York City Health Provider Partnership*. New York.
- Powell, A. (2012, March 7). *Obesity? Diabetes? We've been set up.* Retrieved from Harvard gazette: 2012
- Robert H. Eckel, M. S. (2011). Obesity and Type 2 Diabetes: What Can Be Unified and What Needs to Be Individualized? *Diabetes Care*, 1424-1430.
- Shah, N. R., & Braverman, E. R. (2012). Measuring Adiposity in Patients: The Utility of Body Mass Index (BMI), Percent Body Fat, and Leptin. *PLoS ONE*.