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**Commissioner's Column****DIABETES:  
PREVALENCE AND PREVENTION**

*Joshua Lipsman, MD, JD, MPH, Commissioner of Health  
Cheryl Archbald, MD, MPH, Deputy Commissioner, Health*

In the United States, there are an estimated 20.8 million individuals with diabetes, representing 7 percent of the population. The health consequences associated with diabetes are extensive, as are the health expenditures for daily management of the disease, ambulatory care services and hospitalizations. In 2002, an estimated 11 percent of national health expenditures were devoted to diabetes care, with \$92 billion covering direct medical costs and \$40 billion covering indirect costs due to lost productivity.

Diabetes now represents a leading cause of new cases of blindness, end-stage renal disease and non-traumatic lower extremity amputations. In addition, the majority of individuals with diabetes have associated morbidity and mortality from cardiovascular disease, with heart disease and stroke accounting for the causes of death in 65 percent of individuals with diabetes.

In the United States, 90 to 95 percent of those with diabetes have Type 2 diabetes ("adult onset") and 5 to 10 percent have Type 1 diabetes ("juvenile"). In addition, 2 to 5 percent of pregnant women have gestational diabetes, which increases the risk of developing Type 2 diabetes later in life.

In New York State, an estimated 1.1 million adults or 7.5 percent of the adult population have diabetes, making it the fifth leading cause of death for individuals 45 to 64 years of age. The annual health impact in New York State due to diabetes is staggering, with the disease causing an estimated 2,500 new cases of blindness and 2,900 new cases of end-stage renal disease each year.

In Westchester County, diabetes is the sixth leading cause of death, with the majority of deaths occurring in individuals aged 65 years of age or older. In addition, diabetes is a related diagnosis in 15 percent of hospital discharges. Similar to national and state data, disparities exist in Westchester County with regard to health outcomes associated with diabetes, with Black residents more likely to be diagnosed with diabetes, to be hospitalized due to diabetes and to die from diabetes.

The increase in diabetes has occurred in conjunction with the increased prevalence of overweight and obesity among children, adolescents and adults during the past decade. According to the Centers for Disease Control and Prevention (CDC), an estimated two-thirds of adults are overweight or obese and an estimated 17 percent of U.S. children and adolescents aged 2 to 19 years are overweight. Self-reported data from Westchester County indicate that 38 percent of adults 18 years of age and older are overweight and 15 percent are obese. As self-reported data regarding weight are more likely to be underestimated, the actual proportion of overweight and obese adults in Westchester County is likely to be larger than the data suggest.

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As a result of the obesity epidemic, Type 2 diabetes and hypertension are now being diagnosed in younger individuals, including older children and adolescents. An article in the March 2005 edition of the *New England Journal of Medicine* reported that due to the childhood obesity epidemic, the life span of today's children could be shortened by 2 to 5 years, with the result that this generation of youth could be the first in modern history to have a shorter lifespan than that of its parents. This alarming trend can be reversed, as the majority of health consequences associated with diabetes, obesity and cardiovascular disease are preventable.

To raise community awareness regarding diabetes and obesity prevention, the Westchester County Department of Health has developed partnerships with county agencies, schools, day care centers and community and faith-based organizations to promote healthy lifestyle modifications and to distribute health promotion materials such as the "Know Your Numbers" brochure that provides a chart for individuals to maintain a record of the preventive health screenings they receive and information on the Be Fit Westchester and Fit Kids initiatives.

As a component of primary care, individuals with diabetes or who are at risk for developing diabetes should be educated regarding weight management and healthy lifestyle choices. Topics discussed should include nutritional counseling, physical activity and smoking cessation.

In addition to monitoring for glycemic control, individuals with diabetes should receive periodic screenings for cardiovascular disease, renal disease, vision deficits and lower extremity complications. Although considered standards of care, an analysis by the CDC of the preventive health screenings received by individuals with diabetes in the United States found that many diabetic patients do not receive all the recommended screenings. Of the 45,809 respondents with diabetes for which complete data were available, only 4 in 10 adults with diabetes self-reported receiving an annual dilated eye examination, an annual foot examination and a Hemoglobin A1c assessment at least twice during the prior year. With regard to New York State respondents, only 47.6 percent of individuals reported receiving all three of the necessary preventive health screenings during the prior year.

To ensure that preventive health screenings occur for individuals with diabetes, an effective provider-based strategy is the development of a computerized patient registry. In Westchester County, several neighborhood health centers have implemented such a registry and have demonstrated not only an increase in the proportion of diabetic patients receiving the necessary screenings, but also improved glycemic control and a reduction in the average Hemoglobin A1c level for the aggregate patient cohort.

Through collaborative health promotion, creative provider-based strategies and patient healthy lifestyle modifications, we will indeed see a reduction in the public health impact of diabetes and its associated health consequences.

For more information regarding the Health Department's initiatives, please contact the Health Department at (914) 813-5000 or access the Health Department's website at [www.westchestergov.com/health](http://www.westchestergov.com/health). ♦