

## **Summary: Burden of Diabetes in Maryland**

### **Prevalence of Diabetes in Maryland<sup>1</sup>**

The prevalence of diabetic adults in Maryland has grown from 6.8% in 1999 to 8.7% in 2008, which continues to be above the national level. From 1995 to 2008, the prevalence of diabetic Marylanders increased in 21 out of 24 jurisdictions. From 2008, the average prevalence of diagnosed diabetes among white Marylanders was 7.5% and 12.3% among black Marylanders. Black females (12.5%) had almost double the diabetic rates of white females (6.8%). Although diabetes is widely associated with older age, the older working age population (50-64) represents the fastest growing diabetic group in Maryland. Additionally, 15.4% of diabetic Marylanders have less than a high school education and 17.1% of diabetic Marylanders earn less than \$15,000 annually.

### **Risk Factors of Developing Diabetes<sup>1</sup>**

Poor management of controllable conditions and preventable risk factors significantly increase the chances of developing diabetes. Among Maryland adults (2004-2008): 40.9% currently or previously smoked, 36.0% are overweight, 25.2% are obese, 71.8% have low daily consumption of fruits and vegetables (<5 serving per day), 35.1% have high cholesterol, 27.9% have high blood pressure and 22.9% are physically inactive. Compared to those without these risk factors, it is estimated that Maryland adults, who have been diagnosed with hypertension, obesity or high cholesterol, are 2.7-5.9 times more likely to also have had diabetes.

### **Primary Preventive Care Practice among Diabetics<sup>1</sup>**

People diagnosed with diabetes should know how to monitor their blood glucose level and manage their illness. They should also receive annual eye exams, annual foot exams, frequent Hemoglobin A1c (HbA1c) testing, and annual influenza and pneumonia vaccinations. Between 2004 to 2008, 9.3% of diabetics did not visit their doctor, 4.3% did not have dilated eye examinations, 8.8% did not receive Hb A1c testing, 2.3% did not have foot examinations, 43.6-46.9% did not receive an influenza/pneumonia shot, and 44.4% never attended a self-management course.

### **Co-morbidity and Co-occurring Chronic Conditions of Diabetes<sup>1</sup>**

Among the Maryland diabetic population, co-morbidities such as high blood pressure, high cholesterol, obesity and smoking increase mortality, complications, hospitalization, and cost, of treatment. From 2004-2008, 73.8% of diabetic residents aged 50-64 had high blood pressure, 65.6% had high cholesterol, 62.1% were obese, and 19.4% were current smokers (56.8% were former smokers).

### **Hospitalization of Diabetes in Maryland**

Annual age-adjusted hospital discharge rates for diabetics are continuously increasing in Maryland from 222 per 10,000 in 2004 to 268.3 in 2008.<sup>2</sup> In 2008, the highest hospital discharge rates were among diabetics co-occurring with coronary heart disease (17.4%). Cost was highest among those with co-existing coronary disease (\$165 million) and diabetic nephropathy (\$130 million) (2008). The annual total hospital charges for

diabetic Marylanders from 2004 to 2008 increased by \$485 million (diabetes listed as any diagnosis).<sup>2</sup> In 2008, the amount of hospital expenses on patients with diabetes as a co-morbidity was \$1.7 billion, which represents almost a quarter of the total hospital charges (\$7.9 billion). The total cost of diabetes in Maryland was estimated to be \$378 million in 2006 (medical and indirect).<sup>3</sup>

### **Mortality of Diabetes in Maryland**

Maryland's diabetic mortality rates continue to exceed national rates. In 2006, 81 per 100,000 Marylanders died with diabetes listed as *any* diagnosis compared to the national rate of 74.4 per 100,000.<sup>4</sup> In 2008, 21.2 per 100,000 diabetic Marylander died from heart disease and 3.3 per 100,000 diabetic Marylanders died from a stroke.<sup>5</sup> Mortality from diabetes is underreported nationwide since only 35% to 40% of adults with diabetes had the diagnosis listed on their death certificate (2006).<sup>6</sup>

1. *Maryland Behavioral Risk Factor Surveillance System*, <http://www.marylandbrfss.org>.

2. MATCH, Health Service Cost Review Commission (HSCRC), *Maryland Hospital Discharges and Ambulatory Care Data, 2004-2008*

3. American Diabetes Association: *Estimated prevalence and cost of diabetes in Maryland*, <http://www.diabetesarchive.net/advocacy-and-legalresources/cost-of-diabetes-results.jsp?state=Maryland&district=2406&DistName=Congressional+District+6>.

4. CDC Wonder

5. *Maryland Vital Statistics Administration*

6. *Economic Cost of Diabetes, 2007*, American Diabetes Association: *Diabetes Care* 31:596-615, 2008