

# Economic Costs of Diabetes in the U.S. in 2007

## Executive Summary

The prevalence of diabetes continues to grow, with the number of people in the U.S. with diagnosed-diabetes now reaching 17.5 million. The objectives of this study are to quantify the economic burden of diabetes caused by increased health resource use and lost productivity, and to provide a detailed breakdown of the costs attributed to diabetes.

**STUDY DESIGN**— This study uses a prevalence-based approach that combines the demographics of the population in 2007 with diabetes prevalence rates and other epidemiological data, health care costs, and economic data into a Cost of Diabetes Model. Health resource use and associated medical costs are analyzed by age, sex, type of medical condition, and health resource category. Data sources include national surveys and claims databases, as well as a proprietary database that contains annual medical claims for 16.3 million people in 2006.

**RESULTS**— The total estimated cost of diabetes in 2007 is \$174 billion, including \$116 billion in excess medical expenditures and \$58 billion in reduced national productivity. Medical costs attributed to diabetes include \$27 billion for care to directly treat diabetes, \$58 billion to treat the portion of diabetes-related chronic complications that are attributed to diabetes, and \$31 billion in excess general medical costs. The largest components of medical expenditures attributed to diabetes are hospital inpatient care (50% of total cost), diabetes medication and supplies (12%), retail prescriptions to treat complications of diabetes (11%), and physician office visits (9%). People with diagnosed diabetes incur average expenditures of \$11,744 per year, of which \$6,649 is attributed to diabetes. People with diagnosed diabetes, on average, have medical expenditures that are 2.3 times higher than what expenditures would be in the absence of diabetes. For the cost categories analyzed, \$1 in \$5 health care dollars in the U.S. is spent caring for someone with diagnosed diabetes, while \$1 in \$10 health care dollars is attributed to diabetes. Indirect costs include increased absenteeism (\$2.6 billion) and reduced productivity while at work (\$20.0 billion) for the employed population, reduced productivity for those not in the labor force (\$0.8 billion), unemployment from disease-related disability (\$7.9 billion), and lost productive capacity due to early mortality (\$26.9 billion).

**CONCLUSIONS**— The actual national burden of diabetes is likely to exceed the \$174 billion estimate because it omits the social cost of intangibles such as pain and suffering, care provided by non-paid caregivers, excess medical costs associated with undiagnosed diabetes, and diabetes-attributed costs for health care expenditures categories omitted from this study. Omitted from this analysis are expenditure categories such as health care system administrative costs, over-the-counter medications, clinician training programs, and research and infrastructure development. The burden of diabetes is imposed on all sectors of society—higher insurance premiums paid by employees and employers, reduced earnings through productivity loss, and reduced overall quality of life for people with diabetes and their families and friends.