



THE COST OF DIABETES IN AMERICA

Direct Costs of Diabetes¹

- The 2007 per capita annual costs of healthcare for people with diabetes is \$11,744 a year, of which \$6,649 (57 percent) is directly attributed to diabetes.
- One out of every five healthcare dollars is spent caring for someone with diagnosed diabetes.
- One in ten health care dollars is directly attributed to diabetes.
- In 2007, the average cost of medical expenditures for people with diabetes was approximately 2.3 times higher than for those without diabetes.
- In 2007, patients diagnosed with diabetes accounted for 5.8 percent (17,448,000 people) of the total U.S. population.
- Inpatient hospital care costs totaled \$58.3 billion in 2007.
- In 2007, costs associated with physician office visits directly attributed to diabetes totaled \$9.9 billion.
- Diabetes-related hospitalizations totaled 24.3 million days in 2007, an increase of 7.4 million from the 16.9 million days in 2002.
- The average cost for a hospital inpatient stay directly due to diabetes is \$1,853.
- The average cost for a hospital inpatient stay due to diabetes related complications was \$2,281.
- In 2008, Americans with diabetes paid \$2.5 billion on drugs they needed to treat their diabetes, which is nearly double what diabetes patients spend six years ago.²

Indirect Costs of Diabetes³

- In 2007, the indirect cost associated with diabetes (increased absenteeism, reduced productivity, disease-related unemployment disability, and loss of productivity) was approximately \$58 billion.
- In 2007, diabetes accounted for:
 - 15 million absent work days
 - 120 million work days with reduced performance
 - 6 million reduced productivity days for those not in the workforce
 - 107 million work days lost due to unemployment disability attributed to diabetes
- The value of lost productivity due to premature death is \$26.9 billion.
- In 2007, 284,000 deaths that were attributed directly to diabetes.

¹ American Diabetes Association, "Direct and Indirect Costs of Diabetes in the United States," <http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp#>

² Diabetes Forecast, "Paving the Way to a Healthier America," <http://forecast.diabetes.org/magazine/your-ada/paving-way-healthier-america>

³ American Diabetes Association, "Direct and Indirect Costs of Diabetes in the United States," <http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp#>

Cost Burden of Diabetes

Diabetes is the sixth leading cause of death in the U.S. behind heart disease, cancer, stroke, chronic lower respiratory diseases, and accidents (unintentional injuries).⁴ In the 1980s, the economic cost associated with diabetes in the U.S. was between \$14-\$20 billion dollars. This included: \$7.4-\$11.6 billion for direct medical care expenditures and an additional \$6.3-\$10.8 billion in lost productivity.⁵

As the prevalence of diabetes in the U.S. continues to grow, healthcare costs associated with diabetes have dramatically increased. In 2007, the total annual economic cost of diabetes was estimated to be \$174 billion. Medical expenditures totaled \$116 billion and were comprised of \$27 billion for diabetes care, \$58 billion for chronic diabetes-related complications, and \$31 billion for excess general medical costs. Indirect costs resulting from increased absenteeism, reduced productivity, disease-related unemployment disability, and loss of productive capacity due to early mortality totaled \$58 billion. This is an increase of \$42 billion since 2002.⁶

Figure 1 below shows a breakdown of the percent of expenditures on the chronic complications associated with diabetes. The chronic complication with the highest percent of expenditures was the “peripheral vascular,” which included conditions such as embolisms and thrombosis, disorders of the circulatory system, and gangrene and amputations, among others. The second highest percent of expenditures were listed under “other” at 30 percent and included bacterial infections, skin and nail conditions, foot conditions, and degenerative skin disorders, among others.⁷

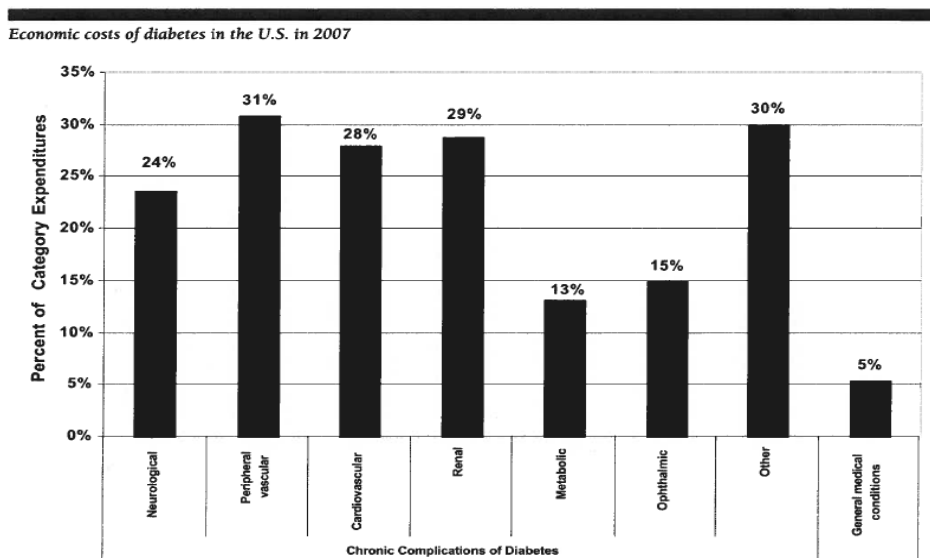


Figure 1 Percent of category expenditures associated with diabetes.⁸

⁴ Centers for Disease Control and Prevention, “Deaths and Mortality;” <http://www.cdc.gov/nchs/FASTATS/deaths.htm>

⁵ Javitt, Jonathan C. and Yen-Pin Chiang, “Economic Impact of Diabetes,” Accessed from <http://diabetes.niddk.nih.gov/dm/pubs/america/pdf/chapter30.pdf>

⁶ American Diabetes Association, “Direct and Indirect Costs of Diabetes,” <http://www.diabetes.org/diabetes-statistics/cost-of-diabetes-in-us.jsp#>

⁷ Dall, Tim et al., “Economic Costs of Diabetes in the U.S. in 2007,” *Diabetes Care*, 2008: 596-615

⁸ Ibid

Centers for Disease Control and Prevention State Grants for Diabetes

The Centers for Disease Control and Prevention (CDC) provides financial assistance and support to states to improve healthcare services for preventing, detecting, and treating diabetes and any potential complications from the disease. Grants are given to State Diabetes Prevention and Control Programs (DPCPs) and states must apply for these grants annually. Several states, including Kentucky, Michigan, New Mexico, New York, and Texas provide significant financial resources to supplement DPCP grants; however, state assistance to these programs is less certain due to the current budget crises.⁹

In 2009, \$27,444,988 was appropriated by Congress to the CDC to distribute to all DPCPs in the U.S. and Puerto Rico. CDC finalized a plan to use five-year cooperative agreements with all 50 states, the District of Columbia, Puerto Rico, and the territories for DPCPs. These agreements will establish a new funding formula that should allow more efficient distribution of the money to states and territories with higher percentages of diabetes patients. The grants that were available to states and territories in 2009 ranged from \$202,000 and \$1,043,000. State governments are required to supplement these grants by contributing \$1 for every \$4 provided.¹⁰

Below you will find table 1 on comparing the differences in the grant amount funded to each of the 50 states, the District of Columbia, Puerto Rico, and the other territories between 2008 and 2009.

Table 1 CDC Grants to State Diabetes Prevention and Control Programs (DPCPs)

State/ Jurisdiction	Amount Funded FY 2009	Amount Funded FY 2008	Change 2008–2009
Alabama	\$291,564	\$304,833	-\$13,269
Alaska	\$424,661	\$477,405	-\$52,744
Arizona	\$250,017	\$256,270	-\$6,253
Arkansas	\$464,177	\$500,311	-\$36,134
California	\$1,043,922	\$1,020,030	\$23,892
Colorado	\$507,359	\$530,450	-\$23,091
Connecticut	\$252,782	\$272,460	-\$19,678
Delaware	\$386,912	\$434,968	-\$48,056
District of Columbia	\$261,917	\$273,837	-\$11,920
Florida	\$701,337	\$666,596	\$34,741
Georgia	\$369,150	\$364,105	\$5,045
Hawaii	\$328,887	\$369,737	-\$40,850
Idaho	\$330,291	\$371,315	-\$41,024
Illinois	\$850,153	\$888,845	-\$38,692
Indiana	\$312,007	\$316,705	-\$4,698
Iowa	\$229,862	\$252,971	-\$23,109
Kansas	\$716,078	\$748,667	-\$32,589
Kentucky	\$681,698	\$678,785	\$2,913
Louisiana	\$202,000	\$170,271	\$31,729
Maine	\$340,473	\$370,800	-\$30,327
Maryland	\$301,588	\$306,130	-\$4,542
Massachusetts	\$854,983	\$893,894	-\$38,911
Michigan	\$947,905	\$917,635	\$30,270
Minnesota	\$913,246	\$954,809	-\$41,563
Mississippi	\$292,533	\$305,847	-\$13,314
Missouri	\$470,322	\$477,404	-\$7,082
Montana	\$599,533	\$652,936	-\$53,403
Nebraska	\$271,399	\$315,279	-\$43,880
Nevada	\$344,405	\$371,215	-\$26,810
New Hampshire	\$294,478	\$324,083	-\$29,605
New Jersey	\$478,533	\$500,312	-\$21,779
New Mexico	\$433,792	\$477,404	-\$43,612
New York	\$986,305	\$954,809	\$31,496
North Carolina	\$887,207	\$866,902	\$20,305
North Dakota	\$244,261	\$277,585	-\$33,324
Ohio	\$734,631	\$717,817	\$16,814
Oklahoma	\$244,892	\$256,037	-\$11,145
Oregon	\$797,756	\$834,062	-\$36,306
Pennsylvania	\$522,169	\$545,933	-\$23,764
Puerto Rico	\$238,953	\$249,828	-\$10,875
Rhode Island	\$758,986	\$835,292	-\$76,306
South Carolina	\$666,163	\$689,585	-\$23,422
South Dakota	\$257,525	\$299,162	-\$41,637
Tennessee	\$268,653	\$280,880	-\$12,227
Texas	\$976,813	\$945,620	\$31,193
Utah	\$888,327	\$928,756	-\$40,429
Vermont	\$242,247	\$272,336	-\$30,089
Virgin Islands	\$202,000	\$212,180	-\$10,180
Virginia	\$372,906	\$371,312	\$1,594
Washington	\$974,690	\$970,524	\$4,166
West Virginia	\$916,152	\$912,235	\$3,917
Wisconsin	\$852,883	\$891,699	-\$38,816
Wyoming	\$259,503	\$291,735	-\$32,232
	\$27,440,988	\$28,370,598	-\$929,612

Source: Centers for Disease Control and Prevention, July 2009.

⁹ Cauchi, Richard, With Yeasol Chung and Andrew Thangasamy, National Conference of State Legislators, “Diabetes Health Coverage: State Laws and Programs,” <http://www.ncsl.org/>

¹⁰ Ibid

Diabetes Disease Management Cost Savings – A Pennsylvania Case Study

Disease management, an emerging system of healthcare, is defined as “an approach to patient care that emphasizes coordination and comprehensive care along the continuum of the disease and across healthcare delivery systems.”¹¹ Disease management is usually coordinated in population-based clinical programs that are committed to improving outcomes, avoiding unnecessary complications, and reducing healthcare costs. In Pennsylvania, the Geisinger Health Plan (GHP) offers several disease management programs to their enrollees across the state, and includes a diabetes management program.¹²

Researchers studied the GHP diabetes management program which promotes educating patients about the proper use of a glucose meter, the role of diet and exercise, the proper use of medications, and the management of hyperglycemia and hypoglycemia. Nurses see patients one-on-one or in small groups under the direction of a patient’s primary care physician.¹³ After patients enrolled in this diabetes management program, their diabetes claims slightly increased; however, their overall healthcare claims decreased.¹⁴

Patients who participated in this study experienced an average increase of \$3.36 in diabetes-specific claims, but a significant decrease of \$126.14 in overall healthcare claims. This study found that for every \$1 spent on the management of diabetes, there was an estimated decrease of \$3.69 in total healthcare claims. Further studies are necessary to truly understand the value of disease management; however, this specific study suggests that diabetes management should be considered as a way to help reduce the healthcare costs of diabetes patients in the U.S.¹⁵

Conclusion

State legislators can play a critical role in reducing the prevalence and healthcare costs of diabetes. By providing funding to chronic disease management programs, studies have shown the costs associated with chronic diseases, such as diabetes are greatly reduced. As the cost of healthcare increases each year, steps must be taken to help increase chronic disease prevention efforts.

¹¹ Sidorov, Jaan et al. “What is the Return on Investment Associated with Diabetes Disease Management?” Disease Management and Health Outcomes 2003:565-570

¹² Ibid

¹³ Ibid

¹⁴ Ibid

¹⁵ Ibid