

Diabetes Costs and Implications for the Appalachian People, Communities, and States

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American Diabetes Association

ADA cost studies, 1987-2012

Reviews/Commentaries/Position Statements

REPORT FROM THE AMERICAN DIABETES ASSOCIATION

Economic Consequences of Diabetes Mellitus in the U.S. in 1997

AMERICAN DIABETES ASSOCIATION

OBJECTIVE — Diabetes is a significant public health problem. The objectives of this study were to estimate the direct and indirect costs attributable to diabetes and 2) people with and without diabetes.

RESEARCH DESIGN AND METHODS — Data for diabetes in 1997 were estimated from the National Health and Medical Expenditures Survey. Indirect costs were estimated for all in race, type of condition, and site of service. Prevalence of diabetes was also estimated for selected national health care survey data and published health service utilization and mortality statistics and general medical conditions.

RESULTS — Direct medical expenditures attributable to diabetes in 1997 were estimated at \$7.7 billion for diabetes and \$1.6 billion for diabetes-related complications. Excess prevalence of related chronic conditions of general medical conditions. The majority of care (62%), followed by outpatient care. Two-thirds of all medical costs for diabetes were for ambulatory care and comprised \$17.3 billion from disability. Total medical costs totaled \$77.7 billion or \$10,071 per capita.

Reviews/Commentaries/Position Statements

REPORT FROM THE AMERICAN DIABETES ASSOCIATION

Economic Costs of Diabetes in the U.S. in 2002

AMERICAN DIABETES ASSOCIATION

OBJECTIVE — Diabetes is the fifth leading cause of death and disability in the United States. It contributes to higher rates of morbidity, blindness, kidney failure, extremity amputation, and cardiovascular disease. The objectives of this study were 1) to estimate the economic burden of diabetes and 2) to calculate the economic burden of diabetes for people with and without diabetes.

RESEARCH DESIGN AND METHODS — Data for diabetes in 2002 were estimated from the National Health and Medical Expenditures Survey. Indirect costs were estimated for all in race, type of condition, and site of service. Prevalence of diabetes was also estimated for selected national health care survey data and published health service utilization and mortality statistics and general medical conditions.

RESULTS — Direct medical and indirect costs attributable to diabetes in 2002 were estimated at \$13.2 billion. Direct medical costs were \$2.3 billion for diabetes care, \$24.6 billion for excess prevalence of related chronic conditions, and \$44.1 billion for excess prevalence of related chronic conditions. Indirect costs were \$10.9 billion for lost productivity, \$15.1% of total costs, and office visits were \$1.5 billion. Indirect costs were \$13.2 billion for people with diabetes and \$10.9 billion for people without diabetes.

Reviews/Commentaries/ADA Statements

ADA STATEMENT

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

AMERICAN DIABETES ASSOCIATION

OBJECTIVE — The prevalence of diabetes in the U.S. with diagnosed diabetes now exceeds 20%. The objectives of this study were to quantify the economic burden of diabetes and to provide a detailed description of the economic burden of diabetes for people with and without diabetes.

RESEARCH DESIGN AND METHODS — This study uses a prevalence-based approach that combines the demographics and other epidemiological data, health care cost, and health resource use and associated condition, and health resource category databases, as well as a proprietary database of people in 2006.

RESULTS — The total estimated cost of diabetes in 2007 was \$245 billion, including \$176 billion in direct medical costs and \$69 billion in reduced productivity. The largest components of medical expenditures are hospital inpatient care (43% of the total medical cost), prescription medications to treat the complications of diabetes (18%), antidiabetic agents and diabetes supplies (12%), physician office visits (9%), and nursing/residential facility stays (8%). People with diagnosed diabetes incur average medical expenditures of about \$13,700 per year, of which about \$7,900 is attributed to diabetes. People with diagnosed diabetes, on average, have medical expenditures approximately 2.3 times higher than what expenditures would be in the absence of diabetes. For the cost categories analyzed, care for people with diagnosed diabetes accounts for more than 1 in 5 health care dollars in the U.S., and more than half of that expenditure is directly attributable to diabetes. Indirect costs include increased absenteeism (\$5 billion) and reduced productivity while at work (\$20.8 billion) for the employed population, reduced productivity for those not in the labor force (\$2.7 billion), and lost productive capacity due to early mortality (\$18.5 billion).

SCIENTIFIC STATEMENT

Economic Costs of Diabetes in the U.S. in 2012

AMERICAN DIABETES ASSOCIATION

OBJECTIVE — This study updates previous estimates of the economic burden of diagnosed diabetes and quantifies the increased health resource use and lost productivity associated with diabetes in 2012.

RESEARCH DESIGN AND METHODS — The study uses a prevalence-based approach that combines the demographics of the U.S. population in 2012 with diabetes prevalence, epidemiological data, health care cost, and economic data into a Cost of Diabetes Model. Health resource use and associated medical costs are analyzed by age, sex, race/ethnicity, insurance coverage, medical condition, and health service category. Data sources include national surveys, Medicare standard analytical files, and one of the largest claims databases for the commercially insured population in the U.S.

RESULTS — The total estimated cost of diagnosed diabetes in 2012 is \$245 billion, including \$176 billion in direct medical costs and \$69 billion in reduced productivity. The largest components of medical expenditures are hospital inpatient care (43% of the total medical cost), prescription medications to treat the complications of diabetes (18%), antidiabetic agents and diabetes supplies (12%), physician office visits (9%), and nursing/residential facility stays (8%). People with diagnosed diabetes incur average medical expenditures of about \$13,700 per year, of which about \$7,900 is attributed to diabetes. People with diagnosed diabetes, on average, have medical expenditures approximately 2.3 times higher than what expenditures would be in the absence of diabetes. For the cost categories analyzed, care for people with diagnosed diabetes accounts for more than 1 in 5 health care dollars in the U.S., and more than half of that expenditure is directly attributable to diabetes. Indirect costs include increased absenteeism (\$5 billion) and reduced productivity while at work (\$20.8 billion) for the employed population, reduced productivity for those not in the labor force (\$2.7 billion), and lost productive capacity due to early mortality (\$18.5 billion).

CONCLUSIONS — The estimated total economic cost of diagnosed diabetes in 2012 is \$245 billion.

Direct and Indirect Costs of Diabetes in the United States in 1987

Direct and Indirect

COSTS OF DIABETES

In the United States in 1992

costs on society in terms of reduced quality of life and pain and suffering of people with diabetes, their families, and friends.

Improved understanding of the economic cost of diabetes and its major determinants helps to inform policymakers and to motivate decisions to reduce diabetes prevalence and burden. The previous cost of diabetes study by the American Diabetes Association (ADA) estimated that there were nearly 17.5 million people living in the U.S. with diagnosed type 1 or type 2 diabetes in 2007, at an estimated cost of \$174 billion in higher medical costs and lost productivity (2).

The percentage of the population with diagnosed diabetes continues to rise, with one study projecting that as many as one in three U.S. adults could have diabetes by 2050 if current trends continue (3). In this updated cost of diabetes study, we estimate the total national economic burden of diagnosed diabetes in 2012 reflecting continued growth in prevalence of diabetes and its complications; changing health care practices, technology, and cost of treatment; and changing economic conditions.

Diabetes Cost Study 2012

- \$245 billion total economic cost of diagnosed diabetes
 - \$176 billion in direct medical costs
 - \$69 billion in reduced productivity
- Costs attributable to diabetes: 1 in 10 health care dollars
- Care for people with diabetes: 1 in 5 health care dollars
- Average person with diabetes has annual medical expenditures 2.3 times greater than age- and sex-matched people without diabetes

Diabetes Cost Study 2012

The largest components of the \$176 billion in direct medical costs are:

- Hospital inpatient care (43% of total medical cost)
- Prescription medications to treat complications of diabetes (18%)
- Antidiabetic agents and diabetes supplies (12%)
- Physician office visits (9%)
- Nursing/residential facility stays (8%)

Cost increases 2007 to 2012

	2007	2012	Change
Prevalence* (diagnosed)	17.5 million	22.3 million	+ 27%
Total costs*	\$174 billion	\$245 billion	+41%
Per capita direct diabetes costs*	\$6,649	\$7,900	+19%
Total U.S. National Health Expenditures †	\$2,283 billion	\$2,824 billion	+ 24%

*Economic Costs of Diabetes in the U.S. 2012: *Diabetes Care* 36: 2013

†National Health Expenditure Projections, www.cms.gov, accessed 3/1/2013

Medical costs of diabetes

Table 4—Health care expenditures in the U.S. by diabetes status and type of service, 2012 (in millions of dollars)

Cost component	Population with diabetes				Population without diabetes	Total*
	Attributed to diabetes		Total incurred by people with diabetes			
	Dollars	% of U.S. total	Dollars	% of U.S. total		
Institutional care						
Hospital inpatient	75,872	16%	123,726	26%	351,618	475,344
Nursing/residential facility	14,748	17%	28,622	32%	59,744	88,366
Hospice	32	0.3%	1,600	13%	10,889	12,489
Outpatient care						
Physician office	15,221	8%	31,443	17%	155,226	186,669
Emergency department	6,654	6%	14,119	12%	105,111	119,230
Ambulance services	218	11%	453	23%	1,534	1,987
Hospital outpatient	5,027	6%	11,354	13%	76,144	87,497
Home health	4,466	9%	11,269	23%	37,264	48,533
Podiatry	212	12%	458	25%	1,349	1,807
Outpatient medications and supplies						
Insulin	6,157	100%	6,157	100%	0	6,157
Diabetic supplies	2,296	100%	2,296	100%	0	2,296
Other antidiabetic agents†	12,137	100%	12,137	100%	0	12,137
Prescription medications	31,716	12%	59,067	22%	208,662	267,729
Other equipment and supplies‡	1,063	4%	3,593	15%	20,076	23,669
Total	175,819	13%	306,293	23%	1,027,617	1,333,910



Nature of cost increases 2007 to 2012

Prevalence of diagnosed diabetes has increased by 27% in the past 5 years, and total economic costs of diabetes have increased by 41%...

- But the per capita costs of treating people with diabetes have increased 19%, while the overall national expenditures for health care have increased 24%, outpacing the per capita costs of treating diabetes
- The driving force of increased diabetes care costs is increasing prevalence, not increasing medical care costs for diabetes

Breaking Down the \$68.6 Billion Indirect Costs

Component	Cost
Unemployment due to disability	\$21.6 billion
Reduced performance at work (presenteeism)	\$20.8 billion
Premature mortality	\$18.5 billion
Workdays absent (absenteeism)	\$5 billion
Reduced productivity days for those not in labor force	\$2.7 billion

Diabetes cost disparities

Supplementary Table 6—Health care expenditure attributed to diabetes by sex, race/ethnicity, and type of service, 2012 (in millions of dollars)

Type of service	Sex		Race/ethnicity				Total (N = 22.3 M)
	Male (n = 11.3 M)	Female (n = 11.0 M)	NHW (n = 14.1 M)	NHB (n = 3.4 M)	NHO (n = 1.4 M)	Hispanic (n = 3.4 M)	
Institutional care							
Hospital inpatient	37,010	38,862	47,042	16,028	4,387	8,416	75,872
Nursing home	4,595	10,153	11,147	2,502	344	755	14,748
Hospice	12	20	20	6	1	5	32
Outpatient care							
Physician office	7,927	7,294	10,549	1,995	778	1,898	15,221
Emergency department	3,055	3,600	3,732	1,786	250	886	6,654
Ambulance services	111	107	137	34	13	33	218
Hospital outpatient	2,372	2,655	2,637	1,416	212	762	5,027
Home health	2,269	2,197	2,815	688	277	686	4,466
Podiatry	108	104	134	33	13	33	212
Outpatient medication and supplies							
Insulin	3,166	2,991	3,819	1,186	270	882	6,157
Diabetic supplies	1,108	1,188	1,760	277	84	176	2,296
Other antidiabetic agents*	6,272	5,864	7,555	1,871	814	1,897	12,137
Prescription medications	15,917	15,799	21,812	4,786	1,413	3,705	31,716
Other equipment and supplies†	540	523	670	164	66	163	1,063
Total health care costs	84,462	91,357	113,829	32,771	8,922	20,298	175,819
Total per capita health care costs‡	7,458	8,331	8,101	9,540	6,459	5,930	7,888

Diabetes cost disparities

- Total per-capita health care expenditures are lower among Hispanics (\$5,930) and higher among non-Hispanic blacks (\$9,540) than among non-Hispanic whites (\$8,101).
- Non-Hispanic blacks have 75% more emergency department visits than the population with diabetes as a whole
- Compared to non-Hispanic whites, per capita hospital inpatient costs are 41.3% higher among non-Hispanic blacks and 25.8% lower among Hispanics
- Total per-capita health expenditures are higher among women than men (\$8,331 vs. \$7,458)
- Approximately 59% of all health care expenditures attributed to diabetes are for health resources used by people age 65 and older

Costs increase with age

Table 5—Health care expenditures attributed to diabetes in the U.S. by age-group and type of service, 2012 (in millions of dollars)

Cost component	Age (years)			Total* (N = 22.3 M)
	<45 (n = 3.3 M)	45–64 (n = 10.2 M)	≥65 (n = 8.8 M)	
Institutional care				
Hospital inpatient	4,924 (6%)	2,934 (30%)	48,015 (63%)	75,872
Nursing/residential facility	211 (1%)	2,781 (19%)	11,757 (80%)	14,748
Hospice	0 (0%)	3 (9%)	29 (91%)	32
Outpatient care				
Physician office	1,334 (9%)	4,882 (32%)	9,005 (59%)	15,221
Emergency department	1,435 (22%)	2,363 (36%)	2,856 (43%)	6,654
Ambulance services	20 (9%)	169 (77%)	29 (13%)	218
Hospital outpatient	679 (13%)	1,943 (39%)	2,405 (48%)	5,027
Home health	564 (13%)	1,806 (40%)	2,096 (47%)	4,466
Podiatry	43 (20%)	61 (29%)	108 (51%)	212
Outpatient medications and supplies				
Insulin	1,102 (18%)	2,817 (46%)	2,239 (36%)	6,157
Diabetic supplies	238 (10%)	1,003 (44%)	1,056 (46%)	2,296
Other antidiabetic agents†	1,297 (11%)	5,767 (48%)	5,073 (42%)	12,137
Prescription medications	2,443 (8%)	10,398 (33%)	18,875 (60%)	31,716
Other equipment and supplies‡	117 (11%)	309 (29%)	637 (60%)	1,063
Total	14,406 (8%)	57,235 (33%)	104,178 (59%)	175,819

Diabetes cost by payer

Most of the cost for diabetes care in the U.S. is provided through the government

- 62.4% (e.g., Medicare, Medicaid, CHIP, IHS, and military)
- 34.4% Private insurance
- 3.2% The uninsured

Diabetes burden disparities

Supplementary Table 9—Per capita health service use attributed to diabetes by insurance status and type of service, 2012 (in actual units)

Type of service	Insurance status			Total (N = 22.3 M)
	Private (n = 8.2 M)	Government (n = 12.4 M)	Uninsured (n = 1.7 M)	
Hospital inpatient days	0.70	1.61	0.44	1.18
Physician office visits	4.20	4.03	0.90	3.85
Emergency department visits	0.27	0.35	0.42	0.33
Hospital outpatient visits	0.27	0.41	0.35	0.35
Antidiabetic agents	5.77	4.60	2.27	4.85
Other prescription medications	15.41	18.38	4.58	16.22

Data sources: NIS (2010), NNHS (2004), NAMCS (2008–2010), NHAMCS (2007–2009), MEPS (2006–2010), NHHCS (2007), and the U.S. Census Bureau (2012).

Compared with those who have insurance, people with diabetes who do not have health insurance have:

- 79% fewer physician office visits
- 68% fewer prescribed medications
- 55% more emergency department visits

Diabetes cost by state

State	Prevalence	Population with diabetes	Costs (billions \$)		Total
			Medical	Indirect	
California	6.40%	2,435,600	19.32	8.23	27.55
Florida	8.90%	1,741,300	14.37	4.53	18.90
Texas	7.30%	1,919,500	13.35	4.89	18.24
New York	6.80%	1,321,800	11.38	5.06	16.43
Pennsylvania	7.40%	954,500	7.43	2.81	10.24
Ohio	7.60%	880,300	6.71	2.57	9.28
Illinois	6.40%	836,000	6.59	2.39	8.98
North Carolina	7.60%	748,300	6.10	2.20	8.30
Michigan	7.50%	750,900	5.76	2.24	8.00
New Jersey	7.00%	625,200	5.42	2.43	7.85
Georgia	7.20%	717,200	5.47	2.16	7.63
Virginia	6.80%	564,200	4.43	1.77	6.19
Massachusetts	6.80%	448,600	4.34	1.72	6.07
Indiana	7.30%	483,000	3.69	1.43	5.12
Washington	6.30%	437,500	3.75	1.36	5.11
Tennessee	7.80%	504,000	3.62	1.48	5.10
Maryland	7.00%	412,700	3.45	1.63	5.07
Arizona	7.00%	470,200	3.48	1.28	4.76
Missouri	6.90%	419,100	3.24	1.24	4.49
Wisconsin	6.40%	367,300	3.28	1.09	4.36
Alabama	8.80%	425,000	3.01	1.30	4.31
Louisiana	8.30%	379,800	3.02	1.18	4.19
South Carolina	7.80%	371,200	3.02	1.13	4.16
Kentucky	8.70%	382,100	2.66	1.19	3.85
Minnesota	5.10%	276,900	2.30	0.84	3.14
Oregon	6.30%	248,200	2.16	0.84	2.99
Connecticut	6.00%	216,600	2.09	0.83	2.92
Oklahoma	7.50%	284,900	2.07	0.77	2.84
Mississippi	8.80%	263,400	1.91	0.82	2.74

Diabetes cost by state (cont.)

Mississippi	8.80%	263,400	1.91	0.82	2.74
Colorado	4.60%	239,700	1.83	0.69	2.52
Arkansas	8.10%	241,000	1.67	0.72	2.39
West Virginia*	10.20%	190,700	1.44	0.57	2.01
Kansas	6.80%	197,900	1.42	0.56	1.98
Iowa	6.00%	185,100	1.39	0.53	1.92
Nevada	6.20%	177,800	1.36	0.47	1.82
New Mexico	7.70%	161,700	1.16	0.37	1.53
Maine	7.50%	100,700	0.88	0.36	1.24
Utah	4.40%	125,200	0.86	0.33	1.19
Hawaii	6.10%	85,100	0.77	0.34	1.11
Nebraska	6.00%	111,600	0.79	0.32	1.11
New Hampshire	6.00%	81,300	0.69	0.31	1.00
Idaho	6.10%	99,300	0.72	0.27	0.99
Delaware	8.10%	74,400	0.60	0.26	0.86
Rhode Island	6.20%	65,800	0.57	0.25	0.82
Montana	4.90%	49,700	0.42	0.14	0.56
South Dakota	6.30%	51,900	0.42	0.14	0.56
Alaska	4.20%	30,500	0.32	0.13	0.45
District of Columbia	5.30%	31,900	0.31	0.14	0.44
North Dakota	5.60%	38,000	0.29	0.12	0.41
Vermont	4.90%	31,100	0.26	0.11	0.37
Wyoming†	6.10%	34,900	0.26	0.10	0.36
U.S. total	7.00%	22,290,200	175.8	68.6	245

Total diabetes costs for Appalachian states

State	Prev.	Population with diabetes	Costs (billions \$)		
			Direct	Indirect	Total
New York	6.8%	1,321,800	11.38	5.06	16.43
Pennsylvania	7.4%	954,500	7.43	2.81	10.24
Ohio	7.6%	880,300	6.71	2.57	9.28
North Carolina	7.6%	748,300	6.1	2.2	8.3
George	7.2%	717,200	5.47	2.16	7.63
Virginia	6.8%	564,200	4.43	1.77	6.19
Tennessee	7.8%	504,000	3.62	1.48	5.1
Maryland	7.0%	412,700	3.45	1.63	5.07
Alabama	8.8%	425,000	3.01	1.30	4.31
South Carolina	7.8%	371,200	3.02	1.13	4.16
Kentucky	8.7%	382,100	2.66	1.19	3.85
Mississippi	8.8%	263,400	1.91	0.82	2.74
West Virginia	10.2%	190,700	1.44	0.57	2.01
Total		7,735,400	\$60.63	\$24.69	\$85.31

Diabetes cost extrapolation for Appalachian region, 2012

- Total population estimate 25.4 million
 - Diabetes prevalence 10.2%
 - Population with diabetes 2.6 million
-
- Direct cost of diabetes: \$19.7 billion
 - Indirect cost of diabetes: \$7.8 billion
 - **Total cost of diabetes: \$27.5 billion**

Estimates based on extrapolating estimated state health care costs and diabetes prevalence for West Virginia to entire Appalachian region

American Diabetes Association

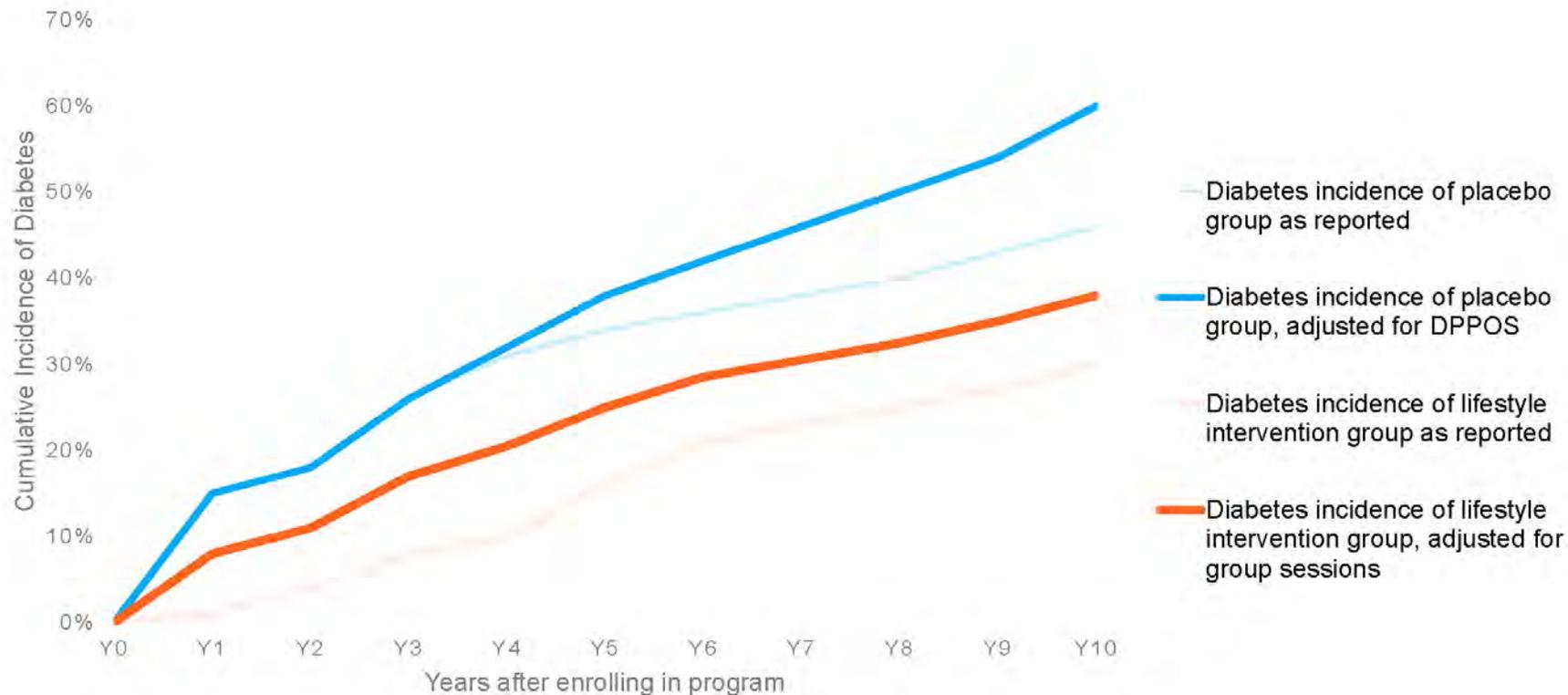
American Diabetes Association's
perspectives and priorities for diabetes
prevention and intervention...

Federal impact of Medicare Diabetes Prevention Act

- Study commissioned by ADA and YMCA, in association with AMA, conducted by Avalere Health
- Estimating federal cost or savings associated with the Medicare Diabetes Prevention Act over a 10 year period
- Estimates based on Diabetes Prevention Program Outcome Study
- Using conservative estimation methods at each step

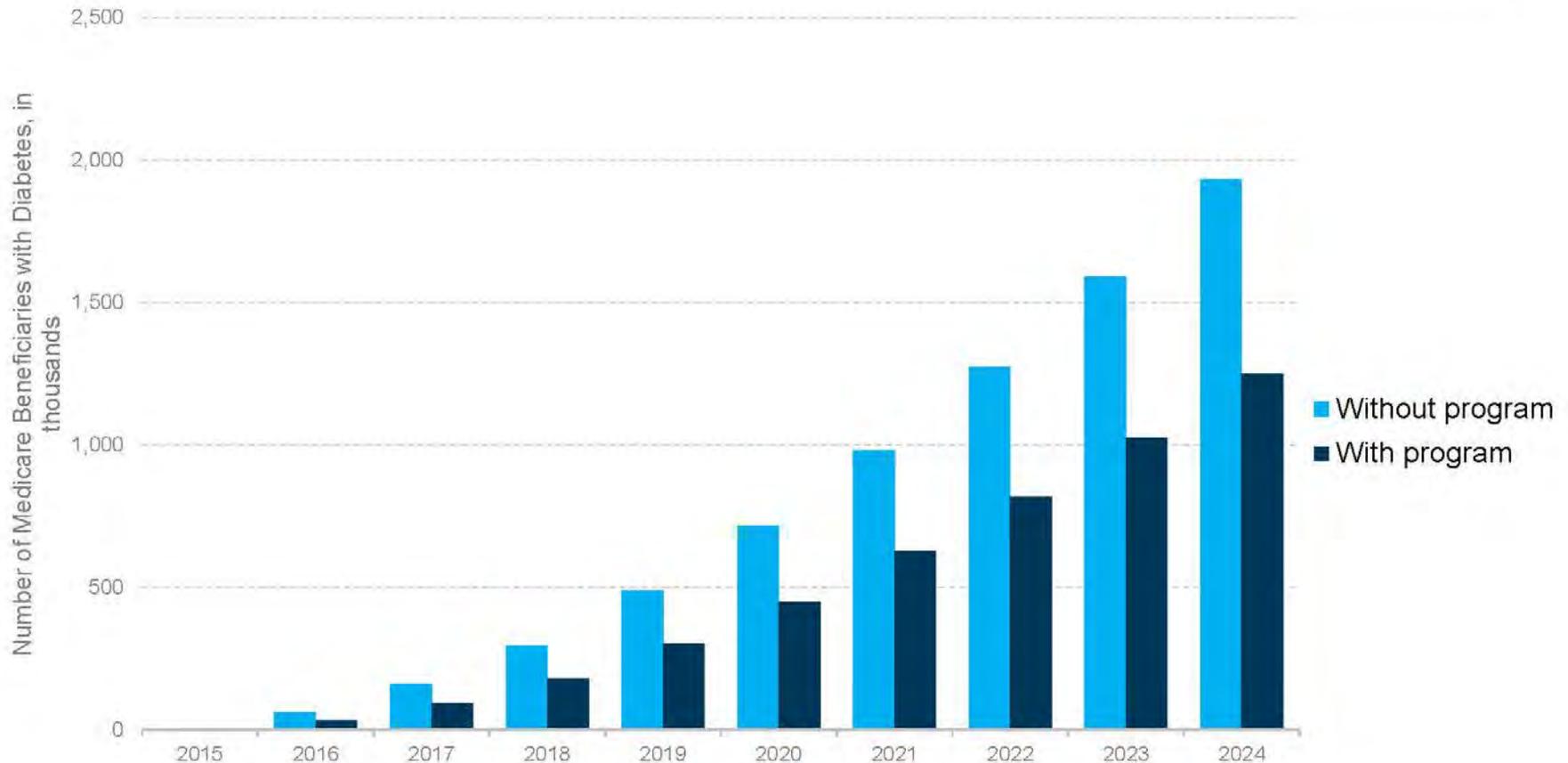


Reported and adjusted cumulative incidence of diabetes



After adjustments, Avalere estimates the cumulative rate of diabetes will be reduced by 37% after 10 years

Number of Medicare beneficiaries with diabetes



Nearly 700,000 fewer Medicare beneficiaries will develop diabetes due to the effect of the new diabetes prevention program

Federal impact of Medicare Diabetes Prevention Act

- Avalere conservatively estimates the Medicare Diabetes Prevention Act would reduce federal spending by \$1.3 billion over the 2015-2024 federal budget window (previous studies estimated much greater savings, \$61 billion and \$143 billion)
 - This amount reflects a combination of an estimated \$7.7 billion in new spending on the diabetes prevention program offset by an estimated \$9.1 billion in savings from fewer Medicare beneficiaries diagnosed with diabetes over the next 10 years
- Savings from preventing diabetes would likely continue to increase in years beyond 2024, suggesting even greater impact on longer-term federal spending

ADA and community engagement

Community Engagement is defined as “the process of working collaboratively with and through groups of people affiliated by geographic proximity, special interest, or similar situations to address issues affecting the well-being of those people” (CDC, 1997)

The American Diabetes Association engages in various “Community Engagement” activities that include:

- Providing educational tools, educational sessions and events, trainings and awareness events-**High Risk Programs and Health Disparities**
- Awarding of competitive community pilot grants-New Pilot Project
- Partnership and Coalition Building/Collaborations
- Providing resources via the **Center for Information and Community Support**
- Awareness, Website and Media
- Academic research grants with high risk population focus
- Diabetes Forecast, books and other materials
- Advocacy Support-State and Federal Policy support and direct support to consumers on discriminatory matters

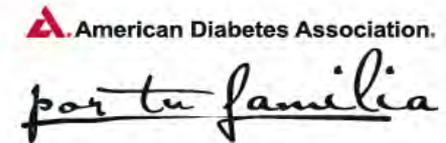
ADA programs targeting high risk



**Awareness and Education
for African Americans**



**Awareness and Education
for Native Americans**



**Awareness and Education
for Hispanic and Latinos.**



**Awareness and Education
for Women, as people with
diabetes and as caregivers
for their families**



**Awareness and Education
for Asian Americans, Native
Hawaiians and Pacific
Islanders**



**Awareness and Education
for Older Adults**

Workplace as intervention opportunity

- Employees with diabetes who improve their glucose control have significantly higher productivity and lower absenteeism.
- A three-month worksite diabetes education program reduced employees' mean A1C (a measure of diabetes control) from 9.0% to 8.3%.
- Pitney-Bowes found that overall healthcare costs for its employees with diabetes decreased by 6% when it reduced employee co-pays for diabetes drugs and devices; medication adherence improved significantly, and emergency department visits decreased by 26%.
- Employers in Ashville, North Carolina who provided 100% of their employees' prescription costs found that their total health care costs decreased significantly, by \$1,200-\$1,872 per patient per year, with increased prescription costs more than offset by decreased inpatient and outpatient costs; the employees' diabetes control and workplace productivity also increased significantly.

Testa et al., JAMA 280: 1490-1496, 1998

Burton et al., J Occupational Environmental Med 40:702-706,1998

Mahoney, J, Am J Managed Care 11:S170-S176, 2005

Cranor et al., J Am Pharm Assoc 43: 173-184, 2003

Targeting employers

- Stop Diabetes @ Work is the Association's healthy worksite initiative, which engages corporations and employees in our broader work (like our community programs).
- In 2013, **92 companies** had access to online employer tools. **74 companies** offered employee web pages with info to prevent type 2 diabetes and diabetes complications.
- An additional **289 employers** expressed interest in worksite wellness assistance (health fairs, brochures, lunch and learns, etc.).
- Employers receive tools to change the environment within the workplace: a healthy meetings guide, 5K and bike training plans, posters, and vending standards.

American Diabetes Association

Thank you!

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