



JAGRUTI PANDYA, USA. Jagruti has type 2 diabetes.

## In This Issue:

- Baby Boomers: Are they really healthier than their parents?
- Survey shows that Americans lack diabetes knowledge and control
- Higher mortality rate among patients with diabetes and prediabetes

## Cost of diagnosed diabetes increases 41% in five years

According to research recently released by the American Diabetes Association (ADA), diagnosed diabetes cost the nation \$245 billion in 2012, up from \$174 billion in 2007—a 41% increase in five years.<sup>1</sup> The study, *The Economic Costs of Diabetes in the US in 2012*, also looked at how costs break down by gender, race and ethnicity, and geography.

According to the study, the total cost of diagnosed diabetes includes \$176 billion in direct medical costs, which reflects costs for hospital and emergency care, office visits and medications, and \$69 billion in indirect medical costs, which includes absenteeism, reduced productivity, unemployment caused by diabetes-related disability, and lost productivity due to early mortality.<sup>1</sup>

**“As the number of people with diabetes grows, so does the economic burden it places on this country. The cost of diabetes is rising at a rate higher than overall medical costs, with more than one in 10 health care dollars in the country being spent directly on diabetes and its complications, and more than one in five health care dollars in the US going to the care of people with diagnosed diabetes.”<sup>2</sup>**

– Robert Ratner, MD, Chief Scientific and Medical Officer, American Diabetes Association

Additional highlights from the study include the following:

- The primary driver of increased costs is the increasing prevalence of diabetes in the US population.<sup>1</sup>
- Medical expenditures for people with diabetes are 2.3 times higher than expenditures for those without diabetes.<sup>1</sup>
- Diabetes medications and diabetes supplies accounted for 12% of medical expenditures in 2012, which was the same percentage in 2007.<sup>1</sup>
- More than 62% of the cost for diabetes care in the United States is borne by the federal government through the Medicare and Medicaid programs and the military.<sup>2</sup>
- Total per capita diabetes health expenditures are higher among women than men (\$8,331 vs \$7,458). 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).<sup>2</sup>
- Although Florida has the fourth highest total population among states, it is second highest in diabetes costs at \$18.9 billion.<sup>2</sup>

Access to the study, published in *Diabetes Care*, can be found [here](#).

# new & news in diabetes policy

## Baby Boomers: Are they really healthier than their parents?

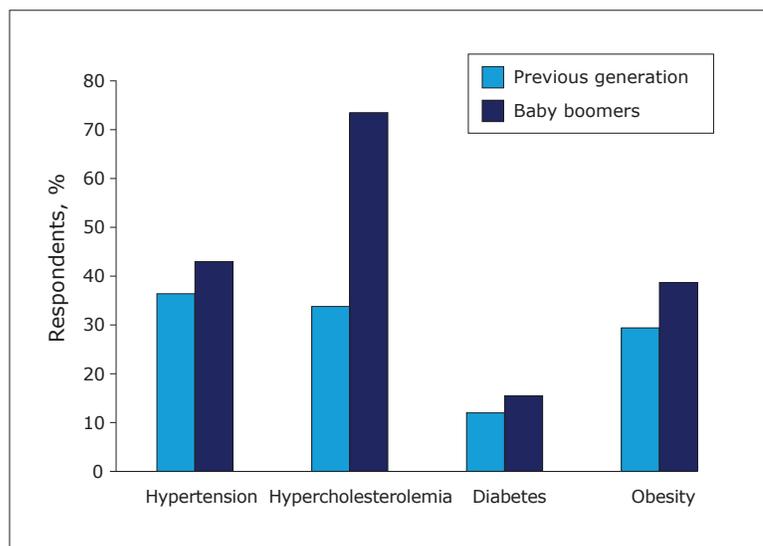


Figure.<sup>3</sup> Proportion of each cohort (baby boomers and previous generation at age 46-64 years) with hypertension, hypercholesterolemia, diabetes, or obesity in the 1988-1994 and 2007-2010 National Health and Nutrition Examination Surveys (NHANES). The difference between cohorts was statistically significant for prevalence of hypertension ( $P < .001$ ), hypercholesterolemia ( $P < .001$ ), diabetes ( $P = .003$ ), and obesity ( $P < .001$ ). Obesity is defined as the proportion of individuals who exceeded a body mass index of 30 (calculated as weight in kilograms divided by height in meters squared).

Baby Boomers than among the preceding generation (see accompanying graphic).<sup>3</sup> In addition, Baby Boomers get significantly less exercise than their parents did. In fact, more than half of this population reported getting no regular exercise at all (52.2%), compared to 17.4% of the preceding generation.<sup>3</sup>

The "Baby Boomers," the 78 million individuals born between 1946 and 1964, represented more than 26% of the population in the United States in 2010.<sup>3</sup> Despite significant medical advances and increasing longevity over their lifetimes, a recent study suggests that this population cohort may not be as healthy as preceding generations.

The research team analyzed data on health status, functional and work disability, healthy lifestyle characteristics, and the presence of chronic disease from the National Health and Nutrition Examination Survey (NHANES) for the years 1988-1994 (for the previous generation) and 2007-2010 (for the Baby Boomer generation). They found that overall health was significantly lower among the Baby Boomers, with just 13.2% reporting "excellent" health compared with 32% of individuals in the previous generation.<sup>3</sup> Hypertension, high cholesterol, diabetes, and obesity were all more prevalent among

**The authors conclude that "the present study demonstrates a clear need for policies that expand efforts at prevention and healthy lifestyle promotion in the Baby Boomer generation."<sup>3</sup>**

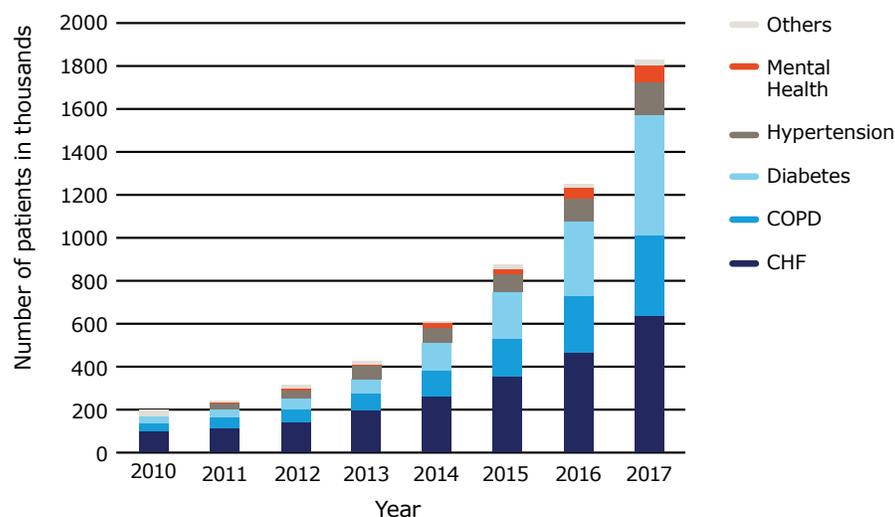
# new & news in diabetes policy

## Telehealth reach expected to increase over next five years

A recent study by InMedica, a leading provider of global market and economic information, predicts that the use of telehealth services will reach 1.8 million patients worldwide by 2017.<sup>4</sup>

Telehealth allows physicians and other health care providers to remotely monitor patients, keeping track of vital signs and overall changes in health for patients with a wide variety of conditions, including diabetes, hypertension, chronic obstructive pulmonary disease, and congestive heart failure.

### World Telehealth Patients (thousands) By Disease<sup>4</sup>



According to the report, the anticipated growth in telehealth will be driven by demand from the federal government to rein in Medicare costs, from providers to increase the quality of care they provide, and from payers to reduce inpatient costs; it will be driven somewhat less by patients who live in rural areas where the physicians caring for them may be many miles away.<sup>4</sup>

To date, telehealth has been used most widely to monitor patients with chronic conditions following a hospital stay. In 2012, 140,000 patients in the United States received telehealth services after a hospital stay,

compared to 80,000 patients in the ambulatory care setting.<sup>4</sup> The most common condition monitored through telehealth is congestive heart failure. By 2017, diabetes is expected to rank second (see accompanying graphic).<sup>4</sup>

The study authors suggest that a challenge for telehealth will be to extend the technology to patients in ambulatory settings.

## Survey shows that Americans lack diabetes knowledge and control

Although more than one-third of respondents in a recent Harris Interactive/Healthday poll of 2,090 Americans aged 18 and older said that they have a parent, spouse, sibling, or child with diabetes, 79% said that they are "not at all knowledgeable" or "somewhat knowledgeable" about the disease.<sup>5</sup>

In addition, among respondents with diabetes, 35% said that their diabetes was only "somewhat well controlled," and 5% said that it was "not at all controlled."<sup>5</sup>

One-fifth of those diagnosed with diabetes said that having diabetes is a "significant burden." On a more positive note, 37% of those with diabetes and 41% of those who have a family member with diabetes report that diabetes is "not a burden at all."<sup>5</sup>

You can access a PDF of the study [here](#).

# new & news in diabetes policy

## American Academy of Pediatrics releases first-ever guidelines for management of type 2 diabetes in children

In the United States, up to one in three cases of newly diagnosed diabetes in children aged 18 and younger is type 2 diabetes.<sup>6</sup> With the increase in type 2 diabetes among young people, the American Academy of Pediatrics published its first guidelines for health care providers on managing type 2 diabetes in children aged 10 to 18 years. The guidelines were written in consultation with the American Diabetes Association, the Pediatric Endocrine Society, the American Academy of Family Physicians, and the Academy of Nutrition and

Dietetics, and were published in the February 2013 issue of *Pediatrics*.<sup>6</sup>

Access the guidelines [here](#).

**“The rapid emergence of childhood type 2 diabetes mellitus poses challenges to many physicians who find themselves generally ill-equipped to treat adult diseases encountered in children.”<sup>6</sup>**

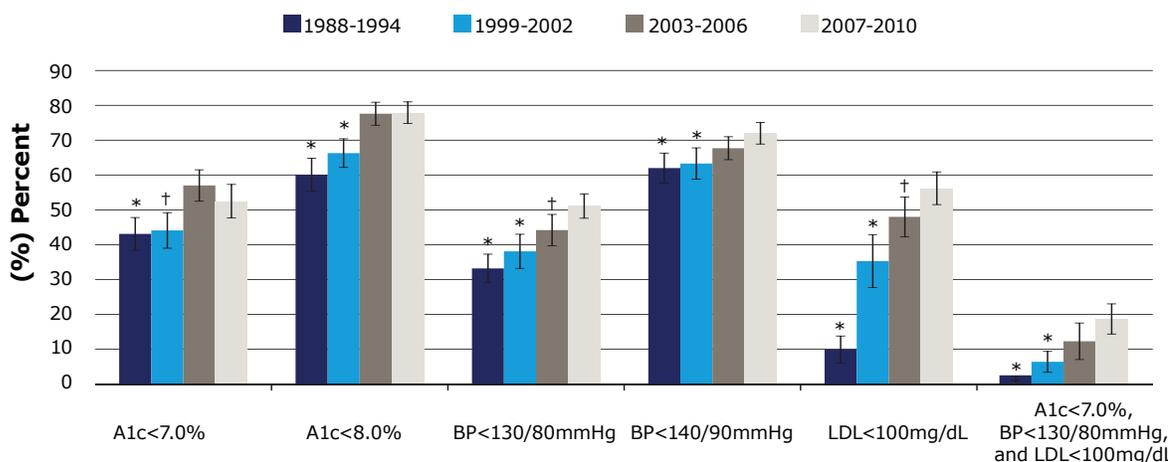
## New data show that more people with diabetes are reaching their treatment goals

New data from the NHANES indicate that more people with diabetes are meeting recommended goals for three key markers of diabetes: A1C, blood pressure, and cholesterol. The study, conducted and funded by the National Institutes of Health (NIH) and Centers for Disease Control and Prevention (CDC), was published online in *Diabetes Care* on February 15, 2013, and

showed that from 1988 to 1994 and 2007 to 2010, the number of people with diabetes able to meet or exceed goals for all three of these measures—which demonstrates good diabetes management—rose from about 2% to about 19%.<sup>7</sup>

*Continued on next page.*

### Prevalence of meeting A1C, blood pressure, and LDL goals<sup>7</sup>



Prevalence of meeting ABC goals among adults aged  $\geq 20$  years with diagnosed diabetes, NHANES 1988–2010. Estimates are age- and sex-standardized to the 2007–2010 diabetic NHANES population. \*P, 0.01, estimates are compared with those of 2007–2010. †P, 0.05, estimates are compared with those of 2007–2010.

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The researchers analyzed data from NHANES from 1988-1994, 1999-2002, 2003-2006, and 2007-2010 and found that among Americans with diabetes<sup>7</sup>:

- 53% met A1C goals in 2007-2010 compared to 43% in 1988-1994
- 51% met blood pressure goals in 2007-2010 compared to 33% in 1988-1994
- 56% met cholesterol goals in 2007-2010 compared to 10% in 1988-1994

However, the study also revealed that diabetes control is not as good among younger people with diabetes and some minority groups. Approximately 30% of younger adults and Hispanics had an A1C $\geq$ 8.<sup>7</sup>

**“The most impressive finding was the significant improvement in diabetes management over time across all groups. However, we see a lot of room for improvement, for everyone, but particularly for younger people and some minority groups.”<sup>8</sup>**

– Catherine Cowie, PhD, the study’s senior author and director of the Diabetes Epidemiology Program at the National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK)

## Survey reveals differences in practice patterns and knowledge gaps among providers caring for people with diabetes

A survey of 974 health care providers examined health care provider practice patterns and knowledge gaps around managing their patients with type 2 diabetes. The survey included endocrinologists, family medicine physicians/primary care physicians (PCPs), internists, nurse practitioners, physician assistants, certified diabetes educators, and retail- and hospital-based pharmacists. The survey was tailored to each provider type; however, the versions were as similar as possible so that results could be compared across providers.

Familiarity with ADA guidelines was higher among endocrinologists and certified diabetes educators (approximately 70% said that they were very familiar with them) than among PCPs (less than 40% were very familiar with ADA guidelines).<sup>9</sup> The barriers to communicating with patients about their type 2 diabetes that were mentioned most often by all health care providers included language differences, time constraints, and patients’ understanding of the disease.<sup>9</sup>



NANCY JOHNSON, USA. Nancy has type 2 diabetes.

Access the study abstract [here](#).

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## Survey Responder Demographics

	ENDOs (n = 150)	FPs (n = 150)	IMs (n = 151)	PAs (n = 126)	NPs (n = 125)	R-PHs (n = 100)	H-PHs (n = 51)	CDEs (n = 121)
Years in practice (mean [SD])	24 (10)	23 (10)	24 (10)	12 (8)	12 (6)	20 (11)	16 (10)	15 (7)
Patients seen/week (mean [SD])	103 (53)	112 (42)	112 (44)	99 (50)	79 (37)	—	—	28 (24)
Patients with type 2 diabetes seen/week (mean [SD])	59 (16)	30 (17)	39 (20)	31 (18)	26 (15)	—	—	—
Practice location (%)								
Urban	44.7	20.7	39.7	31.7	28.8	30.0	51.0	44.6
Suburban	50.0	54.7	53.0	42.1	32.8	44.0	27.5	39.7
Rural	5.3	24.7	7.3	26.2	38.4	26.0	21.6	15.7
Present employment (%)								
Solo practice	28.7	29.0	31.1	29.4	14.4	—	—	—
Group practice	59.3	61.3	56.3	52.4	59.2	—	—	—
Medical school	4.7	2.0	2.0	0.8	1.6	—	—	—
HMO	1.3	2.0	1.3	1.6	—	—	—	—
Nongovernment hospital	2.0	3.3	6.0	3.2	4.8	—	—	—
Government	2.7	1.3	3.3	6.3	7.2	—	—	—
Other	1.3	0.7	—	6.3	12.8	—	—	—
Response rate (%)	36.3	30.0	30.0	41.9	36.2	33.3	17.0	67.5

ENDO=endocrinologist; FP=family practitioner; IM=internal medicine physician; PA=physician assistant; NP=nurse practitioner; R-PH=retail-based pharmacist; H-PH=hospital-based pharmacist; CDE=certified diabetes educator.

## Addressing diabetes requires commitment from multiple stakeholders

A recent commentary in the *American Journal of Preventive Medicine* provides an overview of the diabetes epidemic and efforts to address it, including primary prevention such as the National Diabetes Prevention Program to prevent diabetes in people with prediabetes, and secondary prevention to prevent complications in those who already have the disease. The authors point out that screening is the entry point to prevention and is critical to identifying individuals with prediabetes, as well as the undiagnosed. They conclude that “all stakeholders (including government, industry, professional, and patient groups) must partner” to drive real change.<sup>10</sup>

Access the abstract [here](#).

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