

# How prediabetes exacts a \$43 billion toll on U.S. economy

NOV 13, 2019

**Sara Berg, MS**

Senior News Writer

---

We know the numbers: About 84 million U.S. adults have prediabetes, yet 90% are unaware of their condition. But what toll does the burden of prediabetes have on the U.S. economy?

According to a study published in the American Diabetes Association (ADA) journal *Diabetes Care*, the economic burden associated with diagnosed diabetes, undiagnosed diabetes and prediabetes, and gestational diabetes mellitus reached nearly \$404 billion in 2017. Of that cost, \$43.4 billion was associated with prediabetes. In total, this costs \$1,240 per person. And for U.S. adults with prediabetes, the annual economic burden is \$500 per person, says the study, “The Economic Burden of Elevated Blood Glucose Levels in 2017: Diagnosed and Undiagnosed Diabetes, Gestational Diabetes, and Prediabetes,” written by:

- Timothy M. Dall, April P. Semilla and William Lacobucci of HIS Markit in Washington D.C.
- Wenya Yang, Inna Cintina, PhD, Kaleigh Beronja and Paul F. Hogan of Lewin Group in Falls Church, Virginia.
- Karin Gillespie, Michelle Mocarski and Erin Byrne of Novo Nordisk in Plainsboro, New Jersey.

The AMA’s Diabetes Prevention Guide supports physicians and health care organizations in defining and implementing evidence-based diabetes prevention strategies. This comprehensive and customized approach helps clinical practices and health care organizations identify patients with prediabetes and manage the risk of developing type 2 diabetes, including referring patients at risk to a National Diabetes Prevention Program (National DPP) lifestyle change program based on their individual needs.

“These findings underscore the urgency to adopt more comprehensive screening approaches as well as better prevention and treatment strategies, including continued scaling of the National Diabetes Prevention Program and greater uptake of diabetes self-management education and support,” says

the study.

Several data sources were analyzed to determine the economic burden for prediabetes. On average, prediabetes costs \$500 annually per person in medical costs only. For every \$4 in total economic burden associated with diabetes and prediabetes, \$3 was associated with medical costs and \$1 was associated with nonmedical costs, which includes absenteeism, presenteeism, inability to work and reduced productivity.

The five states with the highest prevalence of prediabetes are:

- | Hawaii: 37.1%.
- | Nebraska: 36.2%.
- | New Mexico: 36.1%.
- | Florida: 35.7%.
- | Mississippi: 35.6%.

Knowing the extent of the economic burden of prediabetes, authors of an accompanying commentary, “Understanding the Economic Costs of Diabetes and Prediabetes and What We May Learn About Reducing the Health and Economic Burden of These Conditions,” published in *Diabetes Care* shared further insight.

## Assess value of programs

Information from the study about the economic burden of prediabetes and type 2 diabetes can be used to evaluate the value of programs and policies implemented to prevent and treat these conditions.

“State policymakers may consider ADA estimates of a state’s diabetes-related medical costs to assess the value of Medicaid reimbursement for DPP services,” says the commentary, co-authored by Joan O’Connell PhD, a health economist at the Centers for American Indian and Alaska Native Health at the Colorado School of Public Health, University of Colorado Denver, and Spero Manson, PhD, a distinguished professor and director of the Centers for American Indian and Alaska Native Health.

“An employer faced with a similar decision may wish to consider ADA estimates of medical costs and costs associated with lost productivity,” O’Connell and Manson add.

It is important to state, though, that the economic burden only be “considered” in these evaluations because not all cases of—or complications from—diabetes and prediabetes are preventable, notes the commentary.

## **Increase early detection, management**

There is a growing need to increase early detection and management of prediabetes in patients to improve health outcomes. The ADA recommends that adults 45 and older, as well as high-risk younger adults, are screened for type 2 diabetes every three years. Unfortunately, though, data shows that less than half of these individuals were screened.

Failure to screen for prediabetes or type 2 diabetes was largely associated with social determinants of health. Addressing these barriers is important because early diagnosis and treatment of diabetes can significantly improve health outcomes. This can also help prevent costly complications such as cardiovascular disease.

Self-management and diabetes prevention programs are also affected by social determinants of health but can be cost effective and cost-saving. Encouraging patients to participate in a National DPP lifestyle-change program is beneficial.

## **Reaching high-risk populations**

Diabetes prevention and treatment services have been found to encounter difficulty in reaching high-risk populations. The commentary recommends broadening the models referenced in the study to estimate the economic burden introduced by social determinants of health.

“Evaluations of programs and policies designed to reduce the burden in high-risk populations may then better describe the economic burden of diabetes and prediabetes as well as the direct costs, effectiveness and cost-effectiveness of the programs and policies that target high-risk populations,” say O’Connell and Manson.

Early identification and management of patients with prediabetes is critical to prevent or delay progression to type 2 diabetes. A healthy way for patients to lose weight, treat prediabetes and prevent type 2 diabetes is through participation in a National Diabetes Prevention Program lifestyle change program.

With early diagnosis, prediabetes can often be reversed. Encourage your patients to take the risk test and know where they stand. Join the AMA and the Centers for Disease Control and Prevention in



raising awareness about prediabetes and the fight against type 2 diabetes for your patients using the resources found in the prediabetes awareness campaign toolkit.