

Economic Barometer: The Cost of Diabetes

Overview

Diabetes is an escalating health crisis in the United States. Nearly 24 million Americans suffer from the disease and an estimated 57 million Americans have prediabetes.¹ It is estimated that one in three boys and two in five girls born in 2000 will develop diabetes in their lifetime.² We must work together to change the trajectory of this disease.

Studying the direct and indirect economic impact of diabetes is challenging. When diabetes leaders, policymakers and others in the health care community discuss the economic impact of diabetes on the United States, the most often cited cost estimate is \$174 billion – which represents the direct and indirect costs of diagnosed diabetes annually.³ This figure comes from the important research conducted by the Lewin Group for the American Diabetes Association (ADA) in 2007.

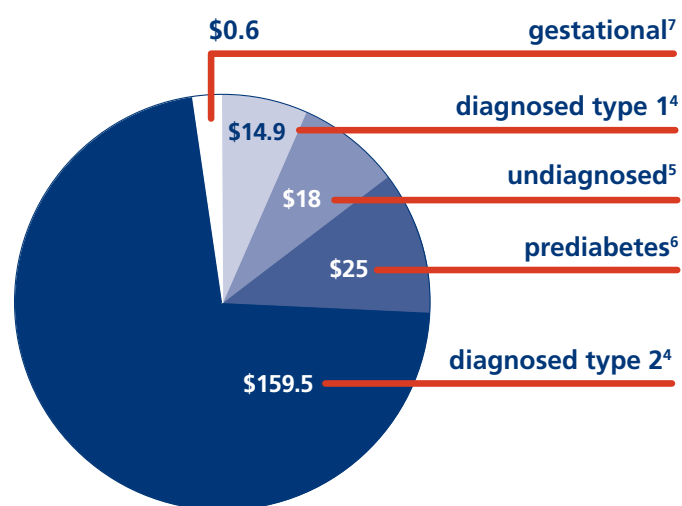
While prior research has been both commendable and informative, it was limited in scope since it did not represent all aspects of diabetes and prediabetes. In particular, there are several aspects of diabetes and the disease's economic effects that were either not estimated or not differentiated in ways that compel key audiences, such as policymakers and payers, to swift action. As a result, the economic impact of diabetes is likely significantly underestimated.

With encouragement from the ADA, Novo Nordisk recently engaged the Lewin Group to build upon its previous study and provide a more comprehensive assessment of the annual cost of diabetes by expanding their current economic research model to include undiagnosed, gestational and prediabetes.

Key Findings

Novo Nordisk's Economic Barometer research found that the U.S. **spent nearly \$218 billion on diabetes and prediabetes in 2007**. The report shows the following breakdown of estimated diabetes costs in 2007:

- **\$14.9 billion** for the 1 million people diagnosed with **Type 1**⁴
- **\$159.5 billion** for the 16.5 million people diagnosed with **Type 2**⁴
- **\$18 billion** for the 6.3 million people with **undiagnosed diabetes**⁵
- **\$25 billion** for the 57 million American adults with **prediabetes**⁶
- **\$636 million** for the 180,000 pregnancies where **gestational diabetes** is diagnosed⁷



The Economic Barometer consists of four manuscripts published in *Population Health Management* and one comprehensive article published in *Health Affairs*.

Benchmarking Change

The Economic Barometer is part of Novo Nordisk's United States Diabetes Barometer, an initiative designed to evaluate the current state of diabetes in three critical indicators: societal, economic and clinical. The United States Diabetes Barometer serves as a comprehensive, authoritative national benchmark against which we can measure behavior change, policy change and momentum for further strategic system improvements.

Research commissioned by Novo Nordisk through its Changing Diabetes® leadership initiative.

Novo Nordisk is dedicated to changing diabetes by acting as a partner and catalyst for change in its mission to improve the way diabetes is managed and, ultimately, defeated.

¹ Centers for Disease Control and Prevention. National Diabetes Fact Sheet, 2007.

² Narayan KMV, et al. Lifetime risks for Diabetes Mellitus in the United States. *JAMA*. 2003;290:1884-1890.

³ American Diabetes Association. Economic Costs of Diabetes in the U.S. in 2007. *Diabetes Care*. (2008) 31:596-615.

⁴ Dall TM, Mann SE, Zhang Y, et al. Distinguishing the Economic Costs Associated with Type 1 and Type 2 Diabetes. *Population Health Management*. (2009) 12, (2); 103-110.

⁵ Zhang Y, Dall TM, Mann SE, et al. The Economic Cost of Undiagnosed Diabetes. *Population Health Management*. (2009) 12, (2); 95-101.

⁶ Zhang Y, Dall TM, Chen Y, et al. Medical Cost Associated with Pre-diabetes. *Population Health Management*. (2009) 12(3);157-63.

⁷ Chen Y, Quick WW, Yang W, et al. Cost of Gestational Diabetes Mellitus in the United States in 2007. *Population Health Management*. (2009) 12(3);165-74