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## BACKGROUND

### A Briefing on Pre-Diabetes:

57 Million Americans are on the Brink of Diabetes.

We Need to Pull Them Back.

Roughly one-quarter of the US population already suffers from, or is facing, one of the most damaging diseases of our time — diabetes. Along with its crushing physical toll on lives, functioning, and employment, the size of this problem places the US in serious health and economic peril.

While 17.9 million Americans have been diagnosed with diabetes — and another 5.7 million live with the disease but have not been diagnosed<sup>1</sup> — the true challenge is the additional 57 million people in the US who have what is known as *pre-diabetes*.

The elevated blood glucose levels of individuals with pre-diabetes put them on a crash course for diabetes — though they have not yet officially crossed the line.

#### **Here's why we need to pull these 57 million people back from the brink of disease:**

- As many as 40 percent of people with pre-diabetes will become fully diabetic in 3 - 8 years.<sup>2</sup> In addition, individuals with pre-diabetes face a 50 percent greater chance of heart disease or stroke, as well as increased complications associated with kidney disease, hypertension, and other conditions.
- Pre-diabetes adds an additional \$25 billion annually to overall health care spending.<sup>3</sup>
- The risk for death among individuals with diabetes is roughly twice that of those people of similar age who do not have the disease.<sup>4</sup> Adults with diabetes face heart disease death rates and risks for strokes that are about two to four times higher than those who do not have diabetes. In addition, diabetes is the chief cause of new cases of kidney failure, blindness, and non-traumatic lower-limb amputations.

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<sup>1</sup> American Diabetes Association at [www.diabetes.org](http://www.diabetes.org)

<sup>2</sup> Rhee, MK, et al, "Many Americans Have Pre-Diabetes and Should be Considered for Metformin Therapy," *Diabetes Care*, Vol 33, Num 1, January 2010

<sup>3</sup> Dall, TM, et al, "The Economic Burden of Diabetes," *Health Affairs*, Vol 29, Num 2, February 2010

<sup>4</sup> CDC National Diabetes Fact Sheet, 2007 at [http://www.cdc.gov/diabetes/pubs/pdf/ndfs\\_2007.pdf](http://www.cdc.gov/diabetes/pubs/pdf/ndfs_2007.pdf)

- Diabetes exacts an economic toll every year of \$174 billion—\$116 billion in direct medical costs and some \$58 billion in the cost of absenteeism from the job, reduced performance at work, unemployment disability, and premature death. At the employer level, this drives down output as much as it drives up costs. For individuals, it can be devastating. The average annual medical expenditures for individuals with diabetes are twice that of others, at \$11,744.<sup>5</sup>

**We have the means and knowledge to DO something about the problem:**

Recently released, peer-reviewed research shows that taking action against pre-diabetes can delay or stop the disease:

- *Evidence shows long-lasting impact from changes in diet and exercise:* A multi-center randomized clinical trial called the Diabetes Prevention Program found that in adults at high risk due to raised glucose levels, changes in lifestyle and diet alone reduced the risk of diabetes onset by 58 percent.<sup>6</sup> The study also found that drug therapy (use of metformin, a common oral drug for diabetes) can reduce the risk by 31 percent. A recent update on the Diabetes Prevention Program study found that—over 10 years—the risk of onset through lifestyle/exercise was reduced 34%; through drug therapy, it was reduced by 18%—and it appears that the lifestyle changes had the most lasting effect.<sup>7</sup>
- *Evidence shows that accuracy and convenience of HbA1c test can help consumers:* The American Diabetes Association recently added the HbA1c laboratory test—which identifies a patient’s average glucose levels over the preceding two to three months—to its list of tests recommended for identifying diabetes and high glucose levels. This test offers a better indicator of overall glycemic exposure and risk for complications over the long-term, including the risk of cardiovascular disease.<sup>8</sup> The HbA1c test is also more convenient and consumer-friendly because it does not require the patient to fast ahead of time. The American Diabetes Association says this added convenience could improve consumer willingness to get tested.<sup>9</sup>

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<sup>5</sup> “Preventing and Treating Diabetes: Health Insurance Reform and Diabetes in America,” Healthreform.GOV, at <http://healthreform.gov/reports/diabetes/>

<sup>6</sup> Diabetes Prevention Program Research Group, “Reduction in the Incidence of Type 2 Diabetes with Lifestyle Intervention or Metformin,” *The New England Journal of Medicine*, Vol 346, Num 6, February 7, 2002

<sup>7</sup> Diabetes Prevention Program Research Group, “10-Year Follow-up of Diabetes Incidence and Weight Loss in the Diabetes Prevention Program Outcomes Study,” *The Lancet*, Vol 374, November 14, 2009

<sup>8</sup> International Expert Committee, “International Expert Committee Report on the Role of the A1C Assay in the Diagnosis of Diabetes,” *Diabetes Care*, Vol 32, Num 7, July 2009

<sup>9</sup> “American Diabetes Association’s New Clinical Practice Recommendations Promote A1C as diagnostic Test for Diabetes: Faster, Easier Test could Help Reduce Number of Undiagnosed,” ADA press release, December 29, 2009, at <http://www.diabetes.org/for-media/2009/cpr-2010-a1c-diagnostic-tool.html>

**Conclusion**

The U.S. must address pre-diabetes as a central element in the overall battle against diabetes. The only way to forestall the costs is to recognize the problem and to take action now.

- The danger from diabetes is more serious than ever—affecting 57 million of people who are on a crash-course for the condition.
- Sound, well-researched, and low-cost interventions are available that consumers should know about and use.
- Unless we recognize and control pre-diabetes, the human and economic toll from diabetes and its complications will provide vastly worse that we now recognize.