

Type 2 Diabetes Nationwide Survey Summary

The American Association of Diabetes Educators, supported through a grant from Merck & Co., Inc., commissioned a nationwide online survey among type 2 diabetes patients and primary care physicians who see at least three type 2 diabetes patients per month with the objective of determining attitudes toward and understanding of existing approaches to diabetes treatment. This survey was conducted by Harris Interactive® and the key findings are below.

Overall, a majority of patients appear knowledgeable about managing their condition, but upon closer inspection the picture becomes less positive.

- 69 percent of patients feel very knowledgeable or knowledgeable about managing their condition, yet 59 percent of patients believe their diabetes is somewhat or not at all well-controlled
 - 76 percent of patients have reported experiencing one or more diabetes-related condition, such as fatigue (51 percent), weight gain (28 percent), blurred or impaired vision (27 percent), and hypoglycemia (26 percent)
- 55 percent of patients don't know their A1C level, or in the past six months have not had it checked or are unsure if they've had it tested

There is a disconnect between how well patients think they are self-managing diabetes versus how well physicians think their patients are self-managing the disease.

- 83 percent of patients who say they are on a healthy, balanced diet think they follow their healthcare providers' instructions well or very well. However, in comparison, only 29 percent of physicians believe this to be the case
- 77 percent of patients who engage in regular physical activity say they comply well or very well with healthcare providers' instructions for getting regular physical activity, while only 18 percent of physicians say that is the case

Physician understanding of the pathophysiology of type 2 diabetes seems to be inconsistent.

- The incretin system plays an important part in regulating blood sugar levels; yet 51 percent of physicians say the incretin system is somewhat important or not at all important in regulating blood sugar levels
- Beta cell dysfunction plays a large role in the progression of type 2 diabetes [National Institute of Diabetes, Digestive and Kidney Diseases, National Institutes of Health]; yet 78 percent of physicians say insulin resistance is the most important contributor to type 2 diabetes progression in the majority of their patient population, followed by beta cell dysfunction (20 percent)

Most patients on oral medications for type 2 diabetes highly rate their effectiveness; yet even among patients who tout their efficacy, many have reported having complications from diabetes or side effects from oral medication.

- 77 percent of patients on oral medications say their medications are very effective (32 percent) or effective (45 percent)

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- Among these patients, 74 percent experience one or more diabetes-related condition and 38 percent experience side effects from their oral medications
- Patients on oral medications are most concerned about weight gain (31 percent) as a side effect of oral medication, while physicians express more concern about hypoglycemia (71 percent)

Many patients have worked with diabetes educators and among most patients who haven't, there is interest to learn from them. Recommendations from a healthcare provider are a key trigger to working with diabetes educators.

- 59 percent of patients have worked with a diabetes educator
- Of those who have worked with a diabetes educator, 78 percent received a recommendation to do so from their healthcare provider; and of those who have not worked with a diabetes educator, 82 percent did not receive a recommendation from their healthcare provider
- Patients who see an endocrinologist (80 percent) for their type 2 diabetes care are more likely than patients who see primary care physicians (56 percent) to have worked with a diabetes educator. Of patients surveyed who see an endocrinologist, 71 percent received a recommendation to see a diabetes educator, versus 52 percent of respondents who see a primary care physician¹
- 78 percent of patients who have not worked with a diabetes educator would like to learn something from them, including how to reduce the risk of diabetes complications (39 percent), strategies for healthy eating (38 percent), and information on new type 2 diabetes medications (33 percent)

Patients with type 2 diabetes who have seen a diabetes educator are more positive about their knowledge of diabetes management and feel more confident about following a healthy, balanced diet than patients who have not worked with one.

- 76 percent of patients who have worked with a diabetes educator feel knowledgeable about managing their type 2 diabetes, compared to only 61 percent of patients who haven't worked with a diabetes educator
- 94 percent of patients with diabetes who have worked with a diabetes educator say they understand the importance of eating a healthy, balanced diet well or very well, compared to 83 percent of patients who haven't worked with a diabetes educator

¹ Note: Caution should be exercised when interpreting these results as data of patients who have seen endocrinologists (n=83) are based on small sample size.

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Survey Methodology

The surveys were conducted online by Harris Interactive® on behalf of The American Association of Diabetes Educators.

The patient survey was conducted between April 6 and 14, 2006, among 784 adults (aged 18 and over) diagnosed with type 2 diabetes within the United States. Figures for age, sex, race/ethnicity, education, region and household income were weighted where necessary to bring them into line with their actual proportions in the population. Propensity score weighting was also used to adjust for respondents' propensity to be online. Propensity score adjustment via weighting allows us to adjust for attitudinal and behavioral differences between those who are online versus offline, those who join online panels versus those who do not, and those who responded to this survey versus those who did not.

The primary care physicians (PCPs) survey was conducted between April 7 and 12, 2006, among 406 PCPs who see at least three type 2 diabetes patients per month. Figures for sex, years in practice, and region were weighted where necessary to bring them into line with their actual proportions in the population. These results were not propensity weighted.

With pure probability samples, with 100 percent response rates, it is possible to calculate the probability that the sampling error (but not other sources of error) is not greater than some number. With a pure probability sample of 784 patients one could say with a 95 percent probability that the overall results have a sampling error of +/- 5.3 percentage points, while the error rate for 406 physicians is +/- 6.6 percentage points. Sampling error for the sub samples for each group is higher and varies. Each of the online surveys is not based on probability samples and therefore no theoretical sampling error can be calculated.

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