

# NBCH action brief

## Complications of Diabetes: **HYPOGLYCEMIA—LOW BLOOD SUGAR**

In the U.S., 29.1 million people (9.3% of the population) have diabetes and 86 million (37% of the population) have prediabetes. Furthermore, diabetes accounted for \$245 billion in direct and indirect costs.<sup>1</sup> As a result, strategies for managing low blood sugar (hypoglycemia) and other complications from diabetes will be increasingly important. This Action Brief outlines: 1) the scope of hypoglycemia in people with diabetes and 2) how health plans are addressing the issue, based on data from eValue8™, a resource used by purchasers to track health plan performance. Lastly, the brief highlights actions employers can take to educate employees about low blood sugar and to improve quality of life while reducing treatment costs for those with diabetes.

### WHAT'S THE ISSUE?

**MEDICAL COSTS FOR PEOPLE WITH DIABETES ARE ABOUT TWICE AS HIGH AS FOR PEOPLE WITHOUT DIABETES<sup>2</sup>**

#### FACTS AND RISK FACTORS FOR HYPOGLYCEMIA

- ▶ Low blood sugar can be a side effect of certain (insulin and oral) diabetes medications that increase insulin production<sup>6</sup>
- ▶ Taking certain combinations of diabetes medications may also increase the risk<sup>7</sup>
- ▶ The risk may be increased for people taking insulin producing diabetes medications when:
  - meals or snacks are too small, delayed, or skipped
  - physical activity is higher than normal
  - alcoholic beverages are ingested<sup>8</sup>
- ▶ Intensive blood sugar management, or keeping blood sugar levels as close to normal as possible in order to prevent long-term complications, can also increase the risk<sup>9</sup>

#### WHY EMPLOYERS SHOULD CARE

Hypoglycemia affects your bottom line:

- ▶ Costs for treating an episode of low blood sugar can range from \$176 to \$16,478, depending on type of treatment<sup>10</sup>
- ▶ Employees with a short term disability claim with a diagnosis code for hypoglycemia incur longer duration short-term disability absences from work (32 days) than claims with a diagnosis for type 1 or type 2 diabetes alone (27 and 26.5 days, respectively)<sup>11</sup>
- ▶ In 2011, approximately 282,000 emergency department visits had hypoglycemia listed as the first diagnosis, and had diabetes as another listed diagnosis<sup>12</sup>
- ▶ Diabetes (and its complications) accounts for \$176 million

#### WHAT IS HYPOGLYCEMIA (LOW BLOOD SUGAR) IN PEOPLE WITH DIABETES?<sup>3, 4, 5</sup>

- ▶ Diabetic hypoglycemia, or low blood sugar, happens when a person's blood sugar levels go below normal levels (<70 mg/dL)
- ▶ Symptoms vary for each person, but may include hunger, shakiness, nervousness, sweating, dizziness, sleepiness, confusion, difficulty speaking, fast heartbeat, weaknesses. It can also happen at night, with symptoms such as having nightmares; finding sheets or pajamas damp from perspiration; or feeling tired, irritable, or confused after waking up
- ▶ If left untreated, hypoglycemia can cause seizures or unconsciousness, and may even be life threatening. Repeated episodes of hypoglycemia can also change how the body reacts to low blood sugar, so that a person no longer has symptoms nor knows when hypoglycemia occurs

in indirect costs, such as disability, work loss, and premature deaths<sup>13</sup>

Employees need more education to improve management of diabetes and prevent low blood sugar:

- ▶ A recent survey of 1,000 U.S. adults with type 1 or type 2 diabetes demonstrated a lack of awareness about causes, symptoms, prevention, and/or management of hypoglycemia. Almost half of those who had not experienced hypoglycemia (42 percent) were not able to define it correctly. Further, almost half of the respondents (49 percent) were not aware that glucose tablets could help with a hypoglycemic episode and only 30 percent of respondents stated that avoiding alcohol could help prevent hypoglycemia.<sup>14</sup>

## MEASURING UP<sup>15</sup>

### PLANS ARE HELPING MANAGE DIABETES AND CLOSE GAPS IN QUALITY OF DIABETES CARE, BUT THERE IS STILL OPPORTUNITY TO REDUCE COMPLICATIONS

- ▶ Seventy five percent of the plans reported implementing a policy to address poor glycemic control (Leapfrog Never Event or nonpayment policy). Plans have implemented these with almost all (97%) of their contracted hospitals.
- ▶ All plans reported providing education and information support to practitioners for diabetes management, though just over half of responding plans (58%) provide care managers and/or behavioral health practitioners who can work with members on behalf of the practice.
- ▶ All plans reported offering diabetes management (DM) programs for their adult members with diabetes, with the DM program available plan-wide to all commercial members identified with the condition. All plans reported that their DM programs were available to fully insured members as part of the standard premium, with 85% of the plans offering an employer option to purchase DM programs at an additional fee for self-insured members.
- ▶ 73% of plans reported providing support to members with diabetes and their caregivers through phone management programs. The most common forms of support to members offered through the phone management programs were support for diabetes self-management skills (97%), checking goal attainment status (91%), care plan development/tracking/follow-up (73%), supporting patient knowledge (67%), supporting care givers (67%), assessing patient readiness to change (55%), and steering patients to providers (48%).
- ▶ The majority of plans provided financial incentives for management of diabetes (91%) or for success with specific target goals for diabetes management (82%).

## TAKE ACTION

### Action Item #1: Support and engage your workforce

- ▶ Use resources such as the Centers for Disease Control and Management's Diabetes at Work program. It is a free, online resource specifically designed to address the management of diabetes in the workplace.
- ▶ Encourage employees to be screened for diabetes (i.e., get their blood glucose tested) by their health plan provider
- ▶ Steer employees to self-management programs, such as the National Diabetes Education Program's Diabetes HealthSense; and lifestyle management programs, such as the Centers for Disease Control and Prevention's National Diabetes Prevention Program lifestyle change program
- ▶ Encourage employees to seek care from high-performing providers such as those identified by the National Committee for Quality Assurance's Diabetes Recognition Program.
- ▶ Foster a healthy work environment by providing nutritious food and drink in cafeterias and vending machines; by offering space, time, and discounts for fitness; and by organizing support groups for employees with diabetes and pre-diabetes
- ▶ While maintaining confidentiality of medical information, provide employees with diabetes accommodations, if and as needed, to help them best manage their diabetes (and avoid complications like hypoglycemic events). Examples of possible reasonable accommodations may include: allowing for storage of medications, providing an area to test blood sugar levels and administer medications, and making available an area to rest after a hypoglycemic episodes.<sup>16</sup> Resources and assistance is available for employers from the Job Accommodation Network and the Equal Employment Opportunity Commission.

### Action Item #2: Talk to your health plan and vendors

Engage your health plan and vendors, leverage their resources,

and set expectations. Access to high-quality care and closing gaps in care can support successful management and treatment of diabetes, and reduce the occurrence of complications, like hypoglycemia, among others.

- ▶ Provide incentives for beneficiaries to maintain and improve their health by establishing a plan with a lower cost premium share and lower out of pocket costs for tests, treatments, and prescriptions in exchange for adhering to guidelines (taking tests and medication as indicated, controlling weight, etc.)
- ▶ Leverage the plan's knowledge about gaps in care by insisting that they use that information to alert beneficiaries and the doctors that treat them.
- ▶ Set expectations and goals for the support services that the plan already has, including their ability to locate and interact with beneficiaries who can benefit from coaching or self-management tools. Plans should be constantly improving these services through adoption and testing of strategies like social media communication that improve the uptake and effectiveness of these programs.
- ▶ Support providers by establishing plan expectations and contractual terms that motivate the plan to 1) connect or embed their support services within physician practices (where they are far more effective) and 2) reward providers financially for delivering better outcomes.

### Action Item #3: Become a leader in your community

Employer-based health coalitions serve as vehicles for improving workforce and community health at the local level and achieving the most value for health care expenditures. These collaborations leverage the voice and power of their employer purchaser members, often through public-private partnerships, in improving health and health care.

## ENDNOTES

- 1 Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US Department of Health and Human Services; 2014
- 2 Ibid.
- 3 National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Information Clearinghouse: Hypoglycemia
- 4 American Diabetes Association. Hypoglycemia (Low Blood Glucose)
- 5 Mayo Clinic. Diseases and Conditions: Diabetic Hypoglycemia.
- 6 National Institute of Diabetes and Digestive and Kidney Diseases. National Diabetes Information Clearinghouse: Hypoglycemia
- 7 Ibid.
- 8 Ibid.
- 9 Ibid.
- 10 Integrated Benefits Institute. Unmanaged Diabetes in the Workplace: Higher Worker Absence, Lower Performance.
- 11 Ibid.
- 12 Centers for Disease Control and Prevention. National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States, 2014. Atlanta, GA: US Department of Health and Human Services; 2014
- 13 Ibid.
- 14 Survey shows many people living with diabetes are uncertain about how to properly manage hypoglycemia [news release]. Chicago, IL: American Association of Diabetes Educators; January 20, 2015.
- 15 Results from eValue8 2014
- 16 U.S. Equal Employment Opportunity Commission. Questions and Answers about Diabetes in the Workplace and the Americans with Disabilities Act (ADA).