

Introduction: Type 2 Diabetes

Type 2 diabetes is a serious chronic disease characterized by the inability of the body to produce enough insulin or use insulin effectively to turn glucose into energy. Without insulin to convert glucose into energy, it builds up in the bloodstream, which can cause severe damage to various parts of your body such as the heart, blood vessels, nerves, eyes, kidneys, and feet (Kestel, 2004, p. 56). There are many signs and symptoms of diabetes, including frequent urination, excessive thirst, unexplained weight loss, extreme hunger, sudden vision changes, tingling or numbness in hands or feet, excessive tiredness, dry skin, sores that are slow to heal, and increased number of infections (CDC, 2012, para. 4). Characteristic of type 2 diabetes is its association with obesity and the onset usually occurs in adulthood (Centers for Disease Control and Prevention, 2011, para. 1, 3). Type 2 diabetes is usually controlled by diet, physical activity, and weight loss rather than by the administering of insulin as with type 1 diabetes, though insulin and other medications are sometimes necessary (CDC, 2011, para. 3). Due to the increasing rate of diabetes in the state, it is necessary to establish and implement new programs for prevention and control in Alabama. As those suffering from type 2 diabetes often have a hard time understanding how to manage their condition, it is necessary to provide continual guidance and support (Gower, 2011, p. 59). Because support is so important, it is not uncommon for patients to attend support groups where they can learn how to control their condition and prevent further health complications in a nonjudgmental environment (Kestel, 2004, p. 57). House Bill (HB) 123, if passed, will increase funding in the state of Alabama for programs geared toward the prevention and control of type 2 diabetes, thus providing the necessary education, support, and treatment to patients who so desperately need it.

Current Data: Prevalence/Incidence

In the United States, about 25 million people have been diagnosed with diabetes and, “it is estimated that approximately 434,800 Alabamians are aware that they have diabetes... [with] as many as 200,000 or more [who have it but are unaware,]” (Alabama Department of Public Health, 2010, p. 3). The percentage of adults in Alabama who have been diagnosed with type 2 diabetes is the second highest in the nation, falling only 0.02% behind Mississippi (CDC, 2012, p. 3). Type 2 diabetes is becoming an increasingly significant issue, especially in the Alabama, where 68.2% of the population is overweight or obese (ADPH, 2010, p. 7). In the U.S., 9095% of people with diabetes have type 2 (ADPH, 2010, p. 1). The high prevalence of diabetes in Alabama is spread throughout the state, rather than concentrated to specific areas. The state of Alabama is divided into 11 “Public Health Areas (PHAs)” and, “all 11 PHAs have diabetes prevalence greater than the national prevalence of 8.3%” (ADPH, 2010, p. 4). Race plays a significant factor in mortality rates among diabetics in Alabama. For example, in 2008, black women represented the highest mortality rate, with 43.4 out of every 100,000 persons, while white females represented the lowest mortality rate: 24.9 per 100,000. Likewise, black men with diabetes showed a higher mortality rate than diabetic white men (ADPH, 2010, p. 5). HB 123 could serve as a literal lifesaver for thousands of individuals in Alabama who suffer from type 2 diabetes or who are at risk of developing it by providing funding for education on type 2 diabetes prevention and management, screening/testing, and treatment.

Economic Burden

Further health complications are not the only cost of developing type 2 diabetes. The economic burden is quite significant. In the United States, the total cost of diabetes in 2007, including direct medical costs and indirect costs of disability, work loss, and premature death, amounted to \$174 billion and, “On average, medical expenses for a person with diagnosed diabetes are more than twice as much as the expenses of a

person without diabetes,” (CDC, 2011, para. 7). During 2006, in Alabama alone, direct and indirect costs of diabetes amounted to \$2.5 billion (ADPH, 2010, p. 12). These costs are largely unnecessary. “It is important... [to] enable patients with diabetes to manage their symptoms, empowering individuals to prevent longterm complications and helping reduce costs to the health service,” (Gower, 2011, p. 59). The economic burden of type 2 diabetes on the state can be significantly reduced through prevention and control programs, which can be established and implemented with funding from HB 123.

Risk and Protective Factors

Type 2 diabetes can lead to serious complications including cardiovascular disease, high blood pressure, blindness, kidney disease, amputations, and complications during pregnancy, to name a few (ADPH, 2010, p. 3). There are a number of factors which contribute to an increased risk for type 2 diabetes. Some of the risk factors, such as age, race/ethnicity, and genetics are uncontrollable, but others, such as obesity and physical inactivity, are dependent on choices and actions (CDC, 2012, para. 6). Race plays a significant role in increasing risk for developing type 2 diabetes. African Americans, American Indians, Hispanic/Latino Americans, and Asian Americans/Pacific Islanders all have an increased risk (CDC, 2012, para. 6). In Alabama, black men and women have shown higher mortality rates related to diabetes than their white diabetic male and female counterparts (ADPH, 2010, p. 5). Women who have had gestational diabetes, diabetes that occurs only during pregnancy, are also at an increased risk for developing type 2 diabetes (CDC, 2012, para. 6). Unfortunately, this also occurs more frequently among African Americans, Hispanic/Latino Americans, and American Indians, which adds yet another risk factor to women in these racial/ethnic groups (CDC, 2012, para. 8). Unlike type 1, type 2 diabetes is preventable in many cases. As obesity and physical inactivity are some of the most significant risk factors for developing type 2 diabetes, it follows that healthy diet, increased physical activity, and weight loss (if overweight or obese)/maintaining a healthy weight are significant protective factors for type 2 diabetes (CDC, 2011, para. 3).

Public Health Efforts in Alabama

The Alabama Diabetes Program is dedicated to the prevention of type 2 diabetes as well as the management and treatment of type 1 and type 2 diabetes (ADPH, n.d., para. 1). In order to prevent or delay the onset of type 2 diabetes, the program encourages “good nutrition, physical activity, weight loss and smoking cessation, recommended influenza and pneumococcal vaccines, foot exams, eye exams and HbA1c tests,” (ADPH, n.d., para. 2). The Alabama Diabetes Program works with the Alabama Diabetes Network, targeting high risk groups such as minorities, and “[developing] recommendations, policies and programs that address [diabetes] related issues,” (ADPH, n.d., para. 3, 4). Through HB 123, this program and others could expand, educating larger groups of people and helping them to prevent or manage/treat their type 2 diabetes.

Conclusion

As the rate of type 2 diabetes continues to increase in Alabama, not only will the economic burden continue to rise, but the overall health of the population will decline significantly. It is essential to work now to control type 2 diabetes and prevent its onset in the rest of the population. Through HB 123, current programs for control and prevention of type 2 diabetes can be improved and new programs can be established across Alabama, saving the lives of thousands of type 2 diabetics and preventing thousands more from developing type 2 diabetes in the future.

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