

## The Alarming Increase of Diabetes in Bermuda

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The prevalence of diabetes is increasing rapidly in industrialized countries such as Bermuda and attention has been mainly focussed on the increase in Type 2 diabetes, but there has been an increase in the prevalence of Type 1 (insulin dependent) diabetes also. Bermuda is listed by the World Bank as number three in the world based on gross national income. Most of its money comes from being an international business centre or an offshore jurisdiction. We recently conducted a review of diabetes in Bermuda which yielded some interesting results. We wish to share this important information with professionals to encourage them to speak to their patients who are at risk for diabetes and to help educate them prior to them being affected with this condition (1, 2).

In addition, the number of Bermudians who have had limbs amputated because of diabetes is alarmingly high. In a study of 30 affluent countries affected by high rates of diabetes, Bermuda was found to have the highest amputation rate among women, 46 per 100 000 and the second highest for men, 43 per 100 000, compared to the average rate of 15 per 100 000, respectively. The chief executive officer of the Bermuda Health Council stated that the figures are incredibly high and that gaps in the level of care for sufferers are at least partially to be blamed (3).

These statistics came from a joint report produced by the Department of Health in Bermuda and the Bermuda Health Council. The report showed a comparison of Bermuda's health system with other high-income countries such as the United States of America, the United Kingdom and Japan. The report also included 30 countries in the Organization for Economic Cooperation and Development (OECD). The report showed that Bermuda is the fourth worst in terms of obesity; 24% of adults in Bermuda are obese compared to 18% obesity average in other OECD countries (3).

The incidence of diabetes in Bermuda is also high in comparison to OECD countries. The average incidence for countries in the OECD is 15 per 100 000. In Bermuda, 13% of the population of 65 000 people have diabetes and this rate

is higher than other OECD countries. Diabetes prevalence in Bermuda is so high that it is more than twice the level of the OECD average and is exceeding the prevalence in all OECD countries (1).

We hypothesize that the increasing incidence of diabetes can be linked to family genotype, lifestyle, lack of exercise, obesity and other environmental factors. It has been estimated that approximately 8000 Bermudians (13%) have diabetes and another 8000 (13%) are considered to be at risk for developing diabetes. The 2006 Health Survey revealed that twice the number of Black Bermudians (16%) reported that they had been diagnosed with diabetes as compared to White Bermudians [8%] (4).

Of the Bermudians that were surveyed, 23% over the age of 65 years disclosed that they had been diagnosed with diabetes, compared to 8% of Bermudians in the 35–54-year age group. Education was also a primary factor; 17% of those with a secondary education or less reported having diabetes, compared to 9% of those with a higher education. Diabetes also accounted for 5% of all deaths in Bermuda [3% of all male deaths and 7% of all female deaths] (4).

The diabetes statistics in Bermuda warrant further investigative research to identify major contributing factors. After ethical approval and informed consent have been obtained, a list of persons which can include newly diagnosed diabetic patients and direct descendants of those who have diabetes might be studied. A self-administered questionnaire could be designed to ask persons about their eating habits, exercise regimen and environmental factors. The data collected might assist in finding out why diabetes is so prevalent in Bermudians. The non-random collection sampling of these data should be quite easy to collect and the questions could be collected by anyone once they receive training.

The impact of the high prevalence of diabetes on the Bermudian economy also needs to be explored. We see this intervention as being crucial to reduce the socio-economic impact of diabetes and its complications on Bermuda and other countries in the region.

**Keywords:** Amputation, Bermuda, diabetes

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### REFERENCES

1. Pan American Health Organization. Health in the Americas: Bermuda. Washington, DC: Pan American Health Organization; 2012. Available from: [http://www.paho.org/saludenlasamericas/index.php?option=com\\_docman&task=doc\\_view&gid=116&Itemid=](http://www.paho.org/saludenlasamericas/index.php?option=com_docman&task=doc_view&gid=116&Itemid=)
2. Forbes KA. Bermuda's economy. 2015 [cited 2015 Jan 19]. Available from: <http://www.bermuda-online.org/economy.htm>

3. Lagan S. Diabetes rate tops world list – study exposes alarming amputation levels. BDA Sun. 2011 Jan 21: News [cited 2014 Dec 15]. Available from: <http://bermudasun.bm/Content/NEWS/News/Article/Diabetes-rate-tops-world-list/24/270/50185>
4. Kibirige M, Metcalf B, Renuka R, Wilkin T. Testing the accelerator hypothesis: the relationship between body mass and age at diagnosis of type 1 diabetes. *Diabetes Care* 2003; **26**: 2865–70. doi: 10.2337/diacare.26.10.2865. Available from: <http://care.diabetesjournals.org/content/26/10/2865.full>