

## **Use of Acute Care Services by Adults with Diabetes and the Effect of Self-Management Practices**

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Diabetes mellitus is a chronic disease in which blood glucose levels are abnormally elevated due to a deficiency in insulin secretion and/or a reduced effectiveness of insulin. Chronically elevated levels of blood glucose lead to vascular changes that can negatively affect a variety of the body systems including the heart, kidneys, eyes, and nervous system.<sup>1</sup> Currently, it is estimated that more than two million Canadians are living with this chronic condition.<sup>2,3</sup> It is also estimated that the Canadian healthcare system directs approximately 13.2 billion dollars each year to the treatment of diabetes and its complications.<sup>3,4</sup> The true cost of diabetes may actually be much higher as people with diabetes are frequently admitted to hospital or other healthcare services because of vascular, systemic, or neurological complications of diabetes, but the diagnosis of diabetes itself may be omitted from the discharge record.<sup>5</sup> Although it has been suggested that the complications of diabetes and subsequent use of acute care services can be reduced by the adoption of practices designed to maintain blood glucose levels within the acceptable range, few investigations have examined the impact of management practices on health outcomes.<sup>6</sup>

**Purpose:** The purpose of the proposed research project is to examine the effect of self-management practices on the use of acute care services (hospital admissions and emergency department visits) by people living with diabetes. Analysis will also be conducted to determine if these practices differ based on demographic characteristics (such as age and sex) or place of residence (rural versus urban). Data will be collected from approximately 200 patients with diabetes who are admitted to the Region 2 Extra Mural Program. A telephone interview will be conducted to obtain information about participants' knowledge of diabetes and its management, current self-management practices, and use of acute care services during the past 12 months. In addition, information about the dates and results of all A1C tests (a blood test to measure blood glucose levels) in the past 12 years will be obtained from the patient's electronic health record.

Study findings will provide baseline information on the current self-management practices and healthcare utilization patterns of people with diabetes in Health Region 2. This information will help inform future initiatives aimed at improving the self-management practices of the more than 35,000 New Brunswickers currently living with diabetes. Such initiatives are important not only to reduce the use of costly acute care services but also to help people with diabetes live well.

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