



On the move: Mobile diabetic retinopathy clinics in Nova Scotia

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Over one million Canadians have diagnosed diabetes with an additional one third of all cases estimated as undiagnosed. According to Diabetes in Canada published by Health Canada, "Diabetes is a chronic condition that results from the body's inability to sufficiently produce and/or properly use insulin. Insulin assists with the conversion of glucose to energy." Diabetes can seriously affect a person's vision – causing blindness in at least 850 Canadians every year.

The leading cause of visual impairment in people with diabetes is called diabetic retinopathy, a condition involving changes in the tiny blood vessels in the retina. Diabetic retinopathy is present in 90 percent of people who have had diabetes for more than 20 years and ranks as the third largest cause of blindness in Canada. Severe vision loss can be prevented or delayed, but only if the retinopathy is detected early enough. Thus, it is important for people with diabetes to have an annual eye examination by a trained eye care specialist to recognize the subtle early signs of diabetic retinopathy that are often undetected by the person with diabetes.

Dr. Vladimir Kozousek's research found that people with diabetes who have limited access to the services of an eye care specialist and are not obtaining adequate eye examinations can be helped by a mobile screening program. His research team developed a pilot program consisting of mobile photographic eye screening clinics held in six Nova Scotia communities – three on the Eastern Shore and three First Nations' communities in Cape Breton.

A total of 449 people with diabetes were screened. Despite the general acceptance that dilated eye examinations are important in preventing vision loss in people with diabetes, more than 57 percent said they had never had the required examination. In total, 7.3 percent were found to have potentially sight-threatening retinopathy requiring further assessment; another 4.3 percent had other eye problems, including glaucoma.

"It is our feeling," Dr. Kozousek says, "that this pilot project provided a valuable community service in under-serviced areas. Providing this service to the provincial population can be an effective way of reducing the burden of disease due to preventable vision loss in individuals with diabetes."

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Research Results