

Status of Cardiovascular Disease and Diabetes in Nunavik

Initial observational studies presented the Inuit as a population particularly protected against cardiovascular diseases (CVD), the plague of developed countries. However, because of the abandonment of traditional lifestyles, and the high prevalence of some risk factors (such as smoking 73% and obesity 19%), conclusions from the 1992 Santé Québec health survey of the Inuit population from Nunavik anticipated an increase in CVD. Twelve years later, the Nunavik Inuit Health Survey 2004 produced a new portrait of the health of this Inuit population in order to determine, among other health conditions, the prevalence of CVD and diabetes as well as their corresponding risk factors, and to assess the evolution of these health outcomes since 1992.

In this major health study, 1056 Inuit (men and women) in the 14 Nunavik communities were recruited and accepted to participate. The ensuing results are from 925 participants (aged 18 and over) who answered the clinical questionnaire, provided anthropometric measurements and underwent clinical tests including carotid ultrasound examinations or Oral Glucose Tolerance Tests (OGTT). The participants also provided blood samples allowing an analysis of blood lipid profiles, fasting glucose and insulin levels.

Compared to the 1992 health survey results, we observed an increase in the prevalence of hypertension. The proportion of individuals with a blood pressure level of at least 140/90 mmHg increased from 6.0% in 1992 to 11.9% in 2004. However, as observed in the 1992 health survey, current results show that blood lipid profiles are still satisfactory. Similarly, the atherosclerosis evaluation reassures us that the Nunavik Inuit are relatively well-protected against atherosclerosis. Self-reported CVD frequencies obtained from this population appear similar to those observed in other Canadian Aboriginal populations (i.e. strokes, 5%).

Despite these encouraging observations, the diabetes portrait is less positive. With a global prevalence around 5%, the diabetes level matches that of the general Canadian population. However, since 1992, the prevalence of diabetes risk factors has substantially increased in Inuit women. This was particularly observed in the case of abdominal obesity, which was found in approximately 71% of the women in this population. Hyperinsulinemia affected 15% of them.

In summary, despite a satisfactory blood lipid profile and a low prevalence of atherosclerotic problems, the alarming increase in cardiovascular risks factors such as the rates of smoking, glucose intolerance, general and abdominal obesity in particular, suggests a probable increase in cardiovascular problems in the near future. We therefore encourage maintaining and expanding prevention programs to reduce these risks.

AUTHORS

- > Éric Dewailly
Unité de recherche en santé publique
Centre Hospitalier Universitaire de Québec;
Direction Risques biologiques, environnementaux
et occupationnels
Institut national de santé publique du Québec
- > Ludivine Chateau-Degat
Unité de recherche en santé publique
Centre Hospitalier Universitaire de Québec
- > Jean-Marie Ékoé
Centre Hospitalier de l'Université de Montréal
Hôtel-Dieu de Montréal
- > Robert Ladouceur
Direction régionale de santé publique du Nunavik

STATISTICAL ANALYSES

- > Louis Rochette
Unité Connaissance-surveillance
Direction Planification, recherche et innovation
Institut national de santé publique du Québec

The complete text of this document is available on the INSPQ's Web site at www.inspq.gc.ca