



# RESPIRATORY HEALTH

## QANUILIRPITAA? 2017

Nunavik Inuit Health Survey

Respiratory health is of interest to public health because good breathing allows people to get around and to perform physical activities that are important for them, such as working or going on the land. In addition, many respiratory diseases can be prevented and benefit from primary care. This report describes the respiratory health of Nunavimmiut, including their lung function, the frequency of their respiratory symptoms, and the impact on their quality of life. It also identifies determinants and measures for improving respiratory health that can be strengthened by public health action.

### BREATHING TESTS

Breathing tests conducted as part of the *Qanuilirpitaa?* 2017 Health Survey revealed that the vast majority of Nunavimmiut (83%) had good lung function. For a little less than one out of five people (17%), the tests indicated that air did not escape the lung as quickly as expected (meaning airway obstruction). This percentage seemed higher than the Canadian average (12% for adults aged 35 years and older). However, most of the people affected showed only mild changes in their breathing test. Severe abnormalities were rare. These mild changes were associated with more frequent respiratory symptoms, but, in most cases (around 80%), people were not limited by them (i.e., were not short of breath). Moreover, these mild changes

did not affect life satisfaction and the ability to get around, both of which were good for the majority of Nunavimmiut (around 80%). Otherwise, the breathing tests indicated that restrictive lung diseases are rare in Nunavik.

### RESPIRATORY SYMPTOMS

The majority of Nunavimmiut (80%) declared walking as fast as other people of the same age and did not have to stop to catch their breath. Most people did not have a cough that lasted for three months each year (79%); did not usually produce sputum during at least three months each year (77%); and had not experienced wheezing in the previous year (73%). Few people reported symptoms corresponding to chronic bronchitis (5%). Overall, two out of five Nunavimmiut (40%) did not experience respiratory symptoms, while three out of five (60%) usually coughed or produced sputum, or had experienced wheezing in the previous year. Even though symptoms may seem common, especially among youth, the majority of people had normal lung function. Moreover, most Nunavimmiut were not limited by respiratory symptoms: they were not short of breath, they got around easily, and they were satisfied with their life. This absence of limitations illustrates the strong resilience of Nunavimmiut.

## DIAGNOSED RESPIRATORY CONDITIONS

A minority of people had symptoms and lung abnormalities indicating chronic lung diseases. The good news is that among adults over the age of 35, the proportion of people with chronic obstructive lung disease (COPD) indicated by airway obstruction (17%) was similar to the proportion of people with a diagnosis of COPD (14%). In contrast, few young adults with abnormal lung function (17%) and respiratory symptoms (between 14% and 26% depending on the symptom) had received a diagnosis of COPD or asthma: the causes and consequences of this discrepancy among young people are not fully understood.

Diagnosed asthma was less frequent in Nunavik (4%) than in the rest of Canada (15%). The discrepancy between diagnosed asthma and wheezing (27%) in Nunavik suggests that some people have asthma but do not know it and do not receive treatment. Lung function tests are required for accurate diagnosis, but their access is very limited in Nunavik. Allergies to dust mites (5%), dog dander (3%) and some mould species (<1%) were rare. Hospitalization for respiratory infections during childhood (6%) and a history of active tuberculosis disease (5%) were relatively frequent and were associated with shortness of breath. Latent or probably latent tuberculosis infection (29%) was also relatively frequent.

## FACTORS THAT INFLUENCE RESPIRATORY HEALTH

Among studied factors, tobacco smoking was the one most strongly associated with abnormal lung function and respiratory symptoms, both of which were more common among people who smoked every day and among people exposed to second-hand smoke. The survey revealed that 72% of Nunavimmiut over the age of 16 reported smoking cigarettes daily, and one quarter (27%)

were exposed to second-hand smoke almost daily. Quitting smoking or abstaining from smoking protected against respiratory symptoms and abnormal lung function.

This portrait highlights the fact that many determinants of Inuit health (defined by Inuit Tapiriit Kanatami) have a protective effect on respiratory health, especially food security. People who were food secure had better respiratory health. Inuit culture and identity also seemed protective: people who often go on the land or who participate in harvesting and traditional activities, had better respiratory health. Completion of high school, higher income, employment and good quality housing (no need for major repairs) were also protective. Other studies have shown that socioeconomic determinants are closely linked with smoking among many populations, including the Inuit.

Several concrete actions can be taken by regional, provincial and federal governments to strengthen the respiratory health of Nunavimmiut. These actions include preventing smoking initiation among young Nunavimmiut, helping people to quit smoking and reducing exposure to second-hand smoke. Respiratory health can also be reinforced by enhancing socioeconomic conditions, ensuring food security, supporting the completion of education and improving housing conditions. Sufficient health care resources must be available to match the population's needs, which include fostering cultural safety in the health care system. Finally, supporting engagement in traditional activities could also make a significant contribution.



*Qanuillirpitaa? 2017 is a population healthy survey carried out in Nunavik from August to October 2017. A total of 1 326 Nunavimmiut aged 16 and over from all 14 villages participated to this survey.*

**Nakurmiik to all Nunavimmiut who contributed to this important health survey!**

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