

One third of diagnoses of asthma in Canada are wrong, study finds

David Spurgeon

¹ Quebec

Almost a third of people diagnosed as having asthma in Canada did not have the condition when retested using clinical guidelines, a study has found (*CMAJ* 2008;179:1121-31, doi:[10.1503/cmaj.081665](https://doi.org/10.1503/cmaj.081665)).

The study shows "a major problem in our system of asthma care: rather than just being overdiagnosed, asthma is misdiagnosed," said Matthew Stanbrook, deputy editor of *CMAJ*, the journal of the Canadian Medical Association, and Alan Kaplan, chairman of the Family Physician Airways Group of Canada, in an accompanying editorial (*CMAJ* 2008;179:1099-100, doi: [10.1503/cmaj.081665](https://doi.org/10.1503/cmaj.081665)).

Such misdiagnosis "has important and potentially serious consequences to both patients and the healthcare system," which may extend over many years, they say. Yet spirometry can accurately diagnose most cases of asthma.

"Physicians who do not use spirometry for their asthma patients should not be managing asthma, yet primary care physicians cannot avoid managing this very common disease," they say.

The authors conducted the study to determine the proportion of Canadian adults who have an incorrect diagnosis of asthma and to investigate whether asthma was more likely to be overdiagnosed among people who were obese. They also wanted to establish what proportion of obese and non-obese patients could safely discontinue their asthma drugs once a diagnosis of asthma was excluded.

They found that of 540 participants, 496 (242 obese and 254 non-obese) diagnosed as having asthma by a doctor could be conclusively assessed for a diagnosis of asthma. Asthma was ultimately excluded in 31.8% (95% confidence interval 26.3% to 37.9%) in the obese group and in 28.7% (95% confidence interval 23.5% to 34.6%) in the non-obese group. Of patients in whom asthma was excluded, 65.5% did not need to take asthma drugs or seek healthcare services because of asthma symptoms in six months of follow-up. Data show that 300 million people worldwide have asthma, and the global burden is projected to increase by another 100 million cases by 2025.

"Between 1980 and 1994, the age adjusted prevalence of asthma increased by 75% in Canada and the United States," say the authors of the study.

"In recent decades, awareness of asthma has increased significantly among patients and their physicians. Part of this awareness has been stimulated by the medical community and part by the pharmaceutical industry, which has developed new medications for asthma and has directly or indirectly advertised these medications to patients and health care providers."

They conclude that "a substantial proportion of people may be overdiagnosed with asthma and may be prescribed asthma medications unnecessarily" and that "overdiagnosis and changes in diagnostic labelling may be contributing to increases in the prevalence of asthma reported in developed countries."