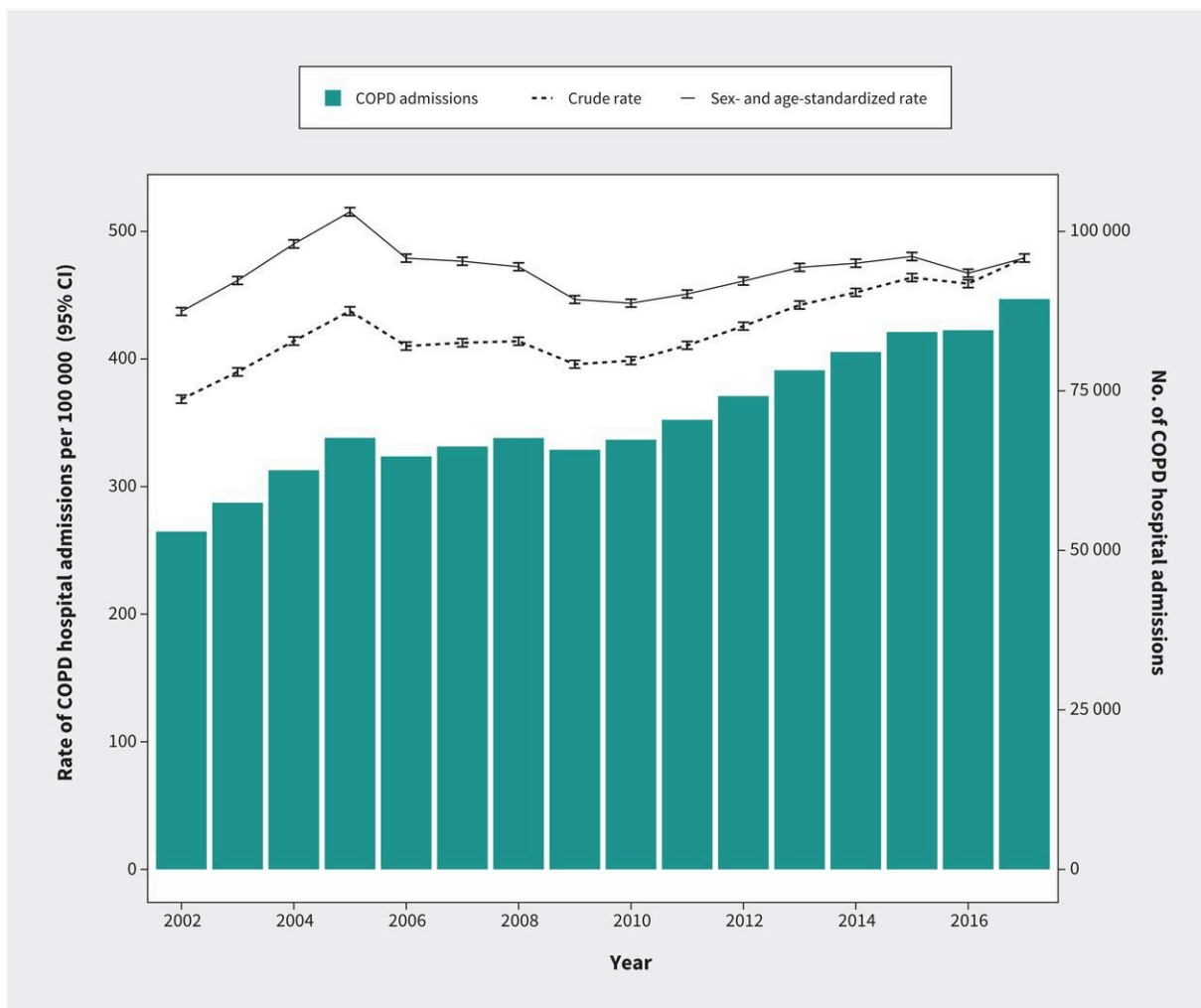


# Hospital admissions for COPD has increased substantially, especially in women and younger people

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Annual number and crude and sex- and age-standardized rates per 100 000 population of hospital admissions for chronic obstructive pulmonary disease

(COPD), by calendar year. Note: CI = confidence interval. Credit: *Canadian Medical Association Journal* (2023). DOI: 10.1503/cmaj.221051

Annual hospital admissions for chronic obstructive pulmonary disease (COPD) in Canada increased 69% since 2002, especially in females and people under age 65, according to [new research](#) in *CMAJ* (*Canadian Medical Association Journal*).

COPD affects the lungs and progresses, resulting in frequent hospitalization, burdening patients, families and health care systems. It has been viewed as a condition usually associated with male smokers.

"With increasing pressure on Canada's [health systems](#), it is crucial to identify gaps in care that lead to higher utilization," said Dr. Kate Johnson, assistant professor, Faculty of Medicine and Faculty of Pharmaceutical Sciences at the University of British Columbia (UBC). "Hospital admissions for COPD may represent one such area for improvement as, in many instances, they could be avoided with proper preventive or early therapeutic interventions."

The researchers from UBC, Providence Health Care Research Institute and St. Paul's Hospital, Vancouver, BC, looked at national data on hospital admissions in Canada to understand trends in admissions for COPD. They identified 1,134,359 admissions for COPD in patients aged 40 years and older between 2002 and 2017.

Of the total admissions, 240,611 (21.2%) were for younger adults aged 40–64 years and more than half of admissions (127,514, 53.0%) in this age group were for females. Over the 16-year study period, the number of annual hospital admissions for COPD increased by 68.8%, from 52,937 to 89,384.

After adjusting for [population growth](#), age and sex, the hospital admission rate for COPD increased almost 10% (from 437 to 479 per 100,000 people), even though admission rates for other [health concerns](#) decreased over the same period. The increase was most pronounced among younger females (12.2%), followed by younger males (24.4%) and older females (29.8%), while admissions among older males declined (9.0%).

"The number of hospital admissions for COPD has rapidly increased since 2010 in Canada. Even after adjusting for population growth and aging, COPD admission rates have risen since 2010 in all groups except among older males. This is in contrast to declining all-cause admission rates over this period. Our findings call into question whether progress is being made in improving COPD care and outcomes," conclude the authors.

The authors suggest that a number of factors could be driving the increase, including better treatments that are extending the lifespans of patients with COPD, changes in the rates of pneumonia and influenza, and changes to [hospital admissions](#) practices. Environmental factors, such as changes in exposure to air pollution, wildfire smoke or indoor toxic inhalants, may also be contributing to the increase.

To help hospitals and [policy-makers](#) understand the rates of COPD admissions, the researchers created a [Web app](#).

A related commentary

<https://www.cmaj.ca/lookup/doi/10.1503/cmaj.230998> emphasizes that the research paper's findings should sound alarm bells for health systems.

"As the prevalence of COPD in Canada's populations rises, so too will the burden on hospitals if a radical change in COPD care is not

implemented," write Drs. Alina Blazer and Matthew Stanbrook, respirologists at the University of Toronto.

"Solutions will require novel and multifactorial approaches to examining emerging [risk factors](#) for COPD, addressing disparities in gender and [socioeconomic status](#), facilitating access to specialist care and investing resources in prevention and rehabilitation. Without sustained and coordinated action, health systems will continue to fail patients with COPD in Canada."

**More information:** Trends in hospital admissions for chronic obstructive pulmonary disease over 16 years in Canada, *Canadian Medical Association Journal* (2023). [DOI: 10.1503/cmaj.221051](https://doi.org/10.1503/cmaj.221051)

Alina J. Blazer et al, How can Canada's health systems improve care for people with chronic obstructive pulmonary disease?, *Canadian Medical Association Journal* (2023). [DOI: 10.1503/cmaj.230998](https://doi.org/10.1503/cmaj.230998)

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