

Funding Policy Considerations reflecting on Projected Patterns of Illness in Ontario.

Authors: Imtiaz Daniel (a), Laura Rosella (b), Adalsteinn Brown (b), Emmalin Buajitti (b), Monica Alexandra (b)

Introduction

Ontario's publicly funded hospital system provides care to all residents with minor acute illnesses to complex chronic diseases. An important challenge facing hospitals is financial stability when facing exponential growth in demand for care as the population has grown by 3.2% annually post pandemic and projected over 1 in 5 residents will be over 65 years with growing rates of multimorbidity. Understanding hospital service demand is a critical determinant for current and future funding methodologies which presently is a combination of global, activity-based and bundled care approaches. With a desire to accelerate to more values-based healthcare funding, policy makers need to understand the current and projected burden of chronic diseases and the implications for investment decisions and policies on health care transformation, the labour market, digital and capital infrastructure.

Methods

The approach had three phases:

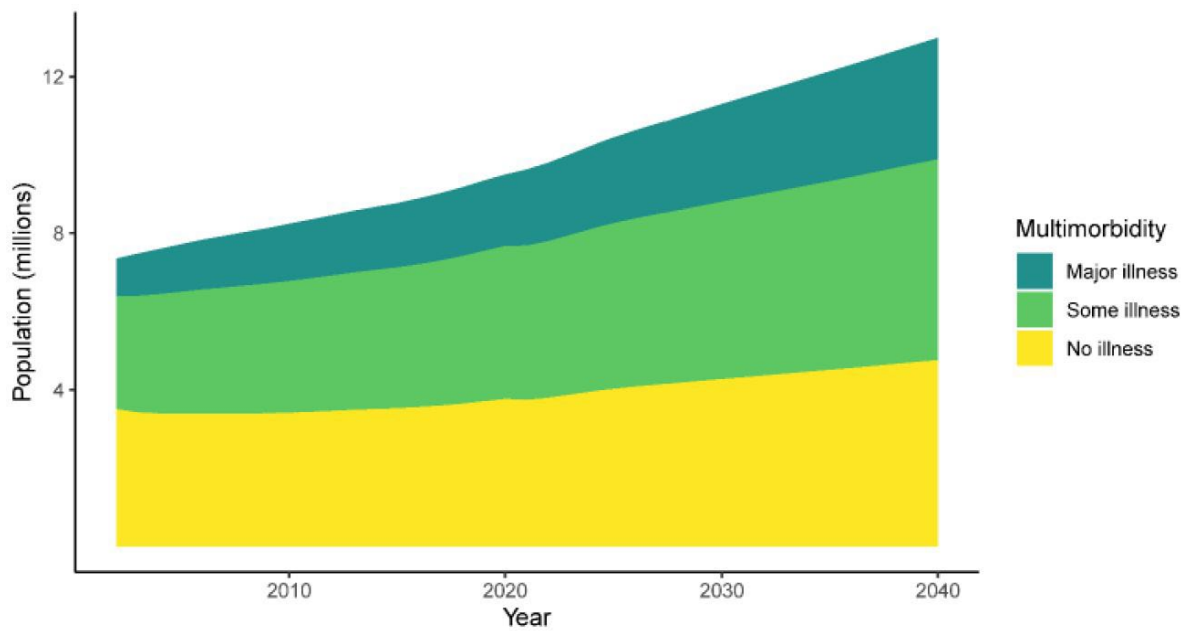
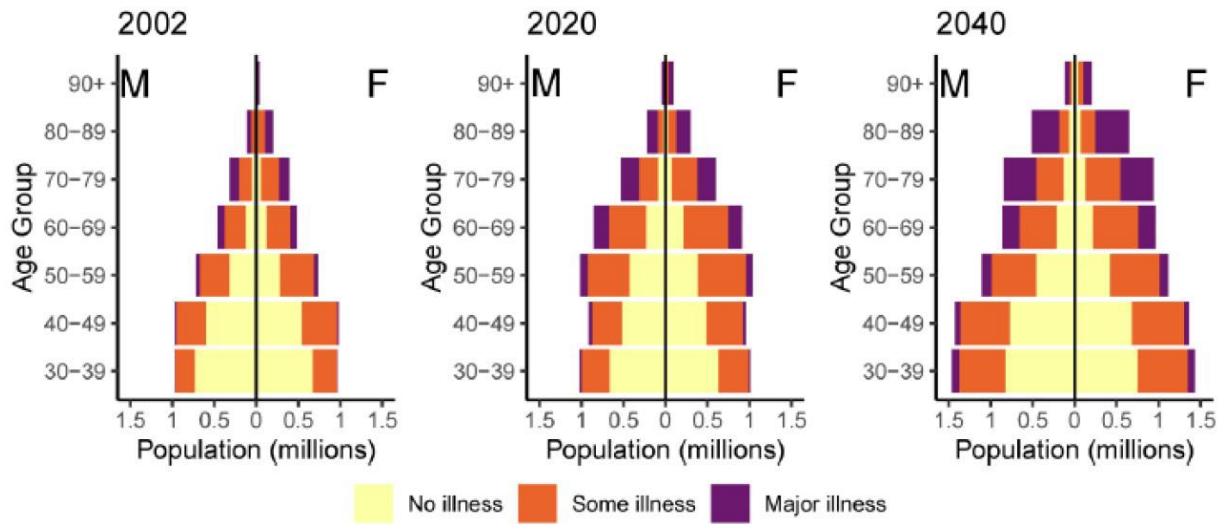
1. Estimating the current burden of illness in Ontario by analyzing historical trends in 18 conditions from 2002 to 2020. We categorized the population into three morbidity groups: no illness, some illness, and major illness.
2. Projecting Ontario's demographic structure up to 2040 using data from the Ontario Ministry of Finance, considering trends in aging, mortality, and migration.
3. Combining demographic projections with historical chronic disease trends to model the future burden of illness. We provided estimates for overall and annual disease burden, including the number of cases and prevalence of each condition and the number of people in each multimorbidity group.

Results

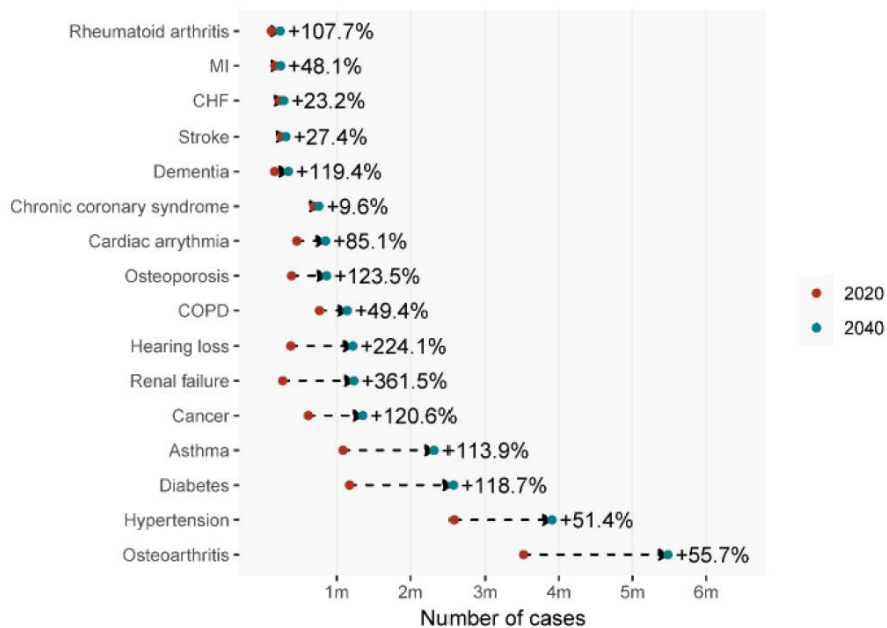
Our analysis predicts that the number of people in Ontario with major illnesses will rise from 1.8 million (192 per 1,000) in 2020 to an estimated 3.1 million (239 per 1,000) by 2040. By then, approximately 1 in 4 adults over the age of 30 will have a major illness, compared to 1 in 8 in 2002. The number of chronic conditions individuals live with is also expected to increase significantly.

We project that an additional 2 million individuals will have at least one chronic condition by 2040, with conditions like osteoarthritis, diabetes, and cancer seeing the highest increases. The aging population is a key factor in these increases, along with structural and social determinants of health and a rise in chronic disease risk factors.





Specific conditions



Discussion/Conclusions

With more people living with multiple illnesses, there's an urgent need for comprehensive chronic disease prevention and management. Proper support can enable many chronic diseases to be managed outside hospitals. Investments in prevention, early detection, and continuous treatment can alleviate the hospital system's strain.

We stress the necessity of robust chronic disease prevention strategies, including both population-level approaches and personalized support. Given existing health inequities, the impact of chronic diseases will differ across populations, requiring a focus beyond hospital funding to encompass the entire health system, community care, and the social and structural determinants of health.

No single funding policy will suffice; a combination of short- and long-term strategies is essential to ensure the publicly funded health system can continue to effectively care for its citizens.

a: Ontario Hospital Association, University of Toronto, Canada

b: University of Toronto, Canada