POPULATION HEALTH: AGING IN CANADA

DEMOGRAPHY AND EPIDEMIOLOGY OF AGING



Amanda Canfield MD, Thirumagal Yogaparan MD, FRCPC [Email address]

DEMOGRAPHY AND EPIDEMIOLOGY OF AGEING

PROPORTION OF SENIORS IN THE CANADIAN POPULATION

Seniors - individuals 65 years of age and older - make up the fastest growing population group in Canada. The proportion of seniors in the Canadian population has been steadily increasing since 2011 when the first baby boomers turned 65 years of age $^{(1)}$.





https://www150.statcan.gc.ca/n1/pub/71-607-x/71-607-x2020018-eng.htm

- Wumber of seniors became greater than the number of children aged 0-14 years in 2016
- In the year 2030, the youngest baby boomers will reach 65 years of age and it is projected that between 22 and 24 % of Canadians will be seniors ⁽¹⁾.

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= By 2063, this proportion is projected to increase to between 24 and 28 % $^{(2)}$.

- The number of older seniors, those 80 years of age and older, is also projected to increase.
- In 2013, there were 1.4 million older seniors in the population and this is estimated to reach almost 5 million by 2063 ^{(1).}
- The number of centenarians, those 100 years of age and older, will also increase from 7000 in 2013 to approximately 62 000 by 2063 ^{(1).}



Fig 2: Age pyramids (in number) of the Canadian population, 2009, 2036 and 2061

Statistics Canada, Demography Division. ww.statcan.gc.ca/pub/91-520-x/2010001/ct047-eng.htm

POPULATION GROWTH IN CANADA

📥 Since 1851, Canada's population growth has varied year to year.

Watural increase and **migratory increase** are the two factors that contribute to population growth ^{(3).}

• Natural increase is the difference between birth and death rates in a given population

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 Migratory increase is the difference between the number of immigrants entering a population and the number of emigrants leaving a population(3).

Natural increases are expected to continue to decline in the years to come. This is primarily due to two factors:

- A decline in fertility rates
- Increase in death rates due to an aging population and population 0 arowth (3).
- The aging population will continue to grow between 2011 and 2031 as the baby boomers reach and exceed 65 years of age.
- According to Statistics Canada's medium growth scenario, starting in 2031 migratory increase could account for more than 80 % of Canada's population arowth (3).
- ¥ Since the 1970s, Canada's total population growth has remained relatively stable at approximately 1 % per year and has kept Canada the fastest growing population of the G8 countries over the past decade ^{(3).}

Fig 3: Annual average growth rate, natural increase, and migratory increase in Canada between 1851 and 2061 (3)



Sources: Period 1851 to 1861: Keyfitz, Nathan. 1950. 'The growth of the Canadian population,' in Population Studies, volume IV, p. 47 to 63. Period 1861 to 1931: McInnis, Marvin. 2000. 'The Population of Canada in the Nineteenth Century,' in A Population History of North America, edited by Michael R. Haines and Richard H. Steckel, Cambridge University Press, pp. 371 to 432; McInnis, Marvin. 2000. 'Canada's Population in the Twentieth Century,' in A Population History of North America, edited by Michael R. Haines and Richard H. Steckel, Cambridge University Press, pp. 529 to 599; and Institut de la statistique du Québec. Period 1931 to 2011: Demography Division, Statistics Canada. Period 2011 to 2061: Statistics Canada. 2010. Population Projections for Canada, Provinces and Territories, 2009 to 2036. Catalogue no. 91-520 (medium growth scenario).

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PROPORTION OF SENIORS IN ONTARIO'S POPULATION

- In 2013, Ontario had a population of 13.8 million with seniors making up 15.2 % (2.1 million) Current projections estimate the percentage of seniors in 2041 to rise to 25.5 % (4.5 million)
- ➡ Further, those over 75 years of age are projected to increase from 923 000 in 2013 to 2.7 million in 2041 & > 90 years of age are projected to increase from 95 000 to 412 000 during this time ^{(6).}
- Once all of the baby boomers have reached 65 years of age in the early 2030s, the growth rate of seniors in both the Canadian and Ontario population will likely slow to a significant degree. Fig 3

Fig 4. Pace of growth of population age groups 0-14, 15-64, and 65+ in Ontario from 1971 to 2041 (6).



Pace of growth of population age groups 0-14, 15-64 and 65+ in Ontario, 1971 to 2041

Sources: Statistics Canada, 1971-2013 and Ontario Ministry of Pinance projections.

FACTORS AFFECTING ONTARIO'S POPULATION

- Demographic trends vary significantly amongst census divisions and six geographic regions in Ontario.
- **Migration is the most important factor in the population growth of Ontario** (1, 2, 6) and this is likely to continue as the population ages.
- International migration is the highest in the Greater Toronto Area (GTA) & it is the fastest growing region. Between 2013 and 2041 the GTA population is expected to increase from 6.5 million to 9.4 million ^{(6).}
- 4 Overall, all regions will see a shift towards a larger portion of older adults ⁽⁶⁾
- The GTA is expected to stay the region with the youngest age structure due to a high international migration as well as a positive natural increase ^{(6).}

NUMBER OF DEATHS AND LIFE EXPECTANCY IN CANADA

- Over the past four decades, the number of births has fluctuated, while the number of deaths has seen a relatively steady increase ^{(4).}
- The number of deaths is projected to continue to accelerate in the coming years (4).
- Population aging results in a higher proportion of older adults who have higher mortality rates and a larger population due to population growth generates a higher number of deaths.
- The life expectancy of males in Canada has increased at a higher average than female life expectancy, 3.6 months per year and 2.4 months per year respectively^{(5).}
 - The net result has been a closing of the gap between the life expectancy at birth of males and females ^{(5).}
- Between 2009 and 2011, life expectancy at birth was 79.1 years for males and 83.4 years for females ^{(4).}
- By 2063, life expectancy at birth for males and females is estimated to reach 84.0 and 87.3 years respectively ⁽⁴⁾
- Life expectancy at 65 years of age has also been increasing. Between 2009 and 2011, life expectancy at 65 years was 18.8 years for males and 21.7 years for

females, whereas in 1961 the life expectancy at 65 years was 13.5 years for males and 16.1 years for females

Fig 5: Life expectancy at birth by sex in Ontario between 1979 and 2041 (6).





Sources: Statistics Canada, 1979-2010, and Ontario Ministry of Pinance projections.

LEADING CAUSES OF DEATH IN CANADA

- In 2011 the leading cause of death in Canada was cancer, which accounted for approximately 30% of the 242 074 deaths ^{(5).} Heart disease was the second leading cause of death (20%) stroke the third (6%) ^{(5).}
- Overall, the three causes of death accounted for approximately 56 percent of total deaths in 2011, whereas in 2000 they accounted for 61 percent ^{(5).}
- The ten leading causes of death cancer, heart disease, stroke, chronic lower respiratory disease, unintentional injuries, diabetes, Alzheimer's Disease, influenza and pneumonia, suicide, and kidney disease - accounted for 75 percent of deaths in 2011 ^{(5).}

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Prepared by Amanda Canfield MD, Thirumagal Yogaparan MD, FRCPC

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