



# Research Context: Differences in Life Expectancy Improvements Between BC Women and BC Men Driven by Three Diseases

**B**C women's life expectancy is not improving as rapidly as men's life expectancy, nor is it improving as quickly as women's life expectancy in other countries. That's the "big-picture" news that emerged from a report on life expectancy in the province<sup>1</sup>. While health researchers have long known that the rates of heart disease, lung cancer, and type-2 diabetes in women have been on the rise, the report on life expectancy has confirmed that these diseases have particularly serious effects in women. Assessing the ranking of people's health in BC compared to fourteen of the world's healthiest countries, the report found that men in BC were the healthiest in 2003 and expected to retain their global leadership for health and longevity at least until 2010. Unfortunately, women in the province don't fare as well: in 2007 they ranked third against the other healthiest countries. With a relatively slower annual rate of improvement in their life expectancy at birth, they will likely be in seventh place in the world by 2010<sup>2</sup>.

Both men and women in BC had higher mortality rates from respiratory system and ischemic heart diseases than people in the world's other healthiest countries (pneumonia and influenza account for just under half of BC's respiratory-system-based deaths). However, compared to men worldwide, BC men had the lowest mortality rate for cancer, a result that safeguarded their number-one position. By contrast, compared to the world's healthiest countries, women in BC have higher rates of mortality from cancer, especially lung cancer. Compared to men in the province, women are also experiencing a much faster increase in their rates of obesity and diabetes related to being overweight. The most alarming trend is that, overall, men's life

expectancy in the province is increasing at almost double the rate for BC women.

Because the life expectancy study so clearly points to a discrepancy between men's and women's health, an exploration into the roots of this discrepancy was undertaken. In more detailed research into the health issues identified—namely respiratory diseases, type-2 diabetes, and heart disease in women—three evidence reviews aimed to deepen our understanding of these urgent concerns by employing sex- and gender-based analysis<sup>3</sup>.

Research that looks through the lens of *sex* typically starts with women's particular physiology to see if or how metabolism, genes, hormonal activity, etc. might specifically affect women (i.e., sex-based investigations). By looking at women's health through the lens of *gender*, one also finds out how women's gender identities might affect the way women think of their own bodies or circumstances, and how women are perceived or treated by others—that is, gender relations at work, home, or in social circles. When we understand gender relations, we can gain insight into why women aren't always getting the care and support the need. For example, gender-based analysis of cardiovascular disease might ask questions such as: Does gender influence the timely treatment of cardiovascular disease (CVD) and if so, how? Do gendered relations affect women's treatment-seeking behaviour? Asking these types of questions through a gender-based analysis offers opportunities to tailor policy and practices so that women in general, and at-risk groups of women in particular, can receive the most effective care and prevention support possible.

<sup>1</sup> Provincial Health Services Authority. (2007). *Life Expectancy as a Measure of Population Health: Comparing British Columbia with Other Olympic and Paralympic Winter Games Host Jurisdictions*. <[www.phsa.ca/PopulationHealth](http://www.phsa.ca/PopulationHealth)>

<sup>2</sup> While the PHSA 2007 study acknowledges that British Columbia is not a nation, its population of over 4 million supports the comparison to other Olympic hosts.

<sup>3</sup> See <[www.phsa.ca/PopulationHealth](http://www.phsa.ca/PopulationHealth)> for copies of the evidence reviews as well as summaries of each document.

# The Top Three Conditions and BC Women at Risk

**Type-2 diabetes** is emerging as a women's health crisis: diabetes has increased by 105% in BC women compared to 45% in BC men in the past decade<sup>4</sup>. Cardiovascular disease, a common complication of diabetes, poses significantly higher risks of both mortality and morbidity in women. Aboriginal women are five times more likely to develop type-2 diabetes, and once diagnosed, five times more likely to die prematurely compared to national incidence and mortality rates<sup>5</sup>. In 60% of cases, type-2 diabetes can be delayed or prevented with clinical and/or social interventions<sup>6</sup>.

When it comes to **respiratory diseases**, not only do women experience a greater decline in lung function than men who have been exposed to the same amount of cigarette smoke exposure—women have also been particularly, and aggressively, targeted by tobacco company advertising. There are also gender issues in diagnosis with underutilization of screening tests and less recognition of early symptoms of chronic obstructive pulmonary disease and lung cancer in women. Of note, there is little data on gender-specific responses to therapy.

Gender analysis also sheds light on **heart disease** in women in BC. Risk factors in women including behavioural issues such as sleep, clinical conditions (e.g., migraines), and biological factors (e.g., lipid levels) intersect with social and economic forces that can enhance or hinder women's cardiovascular health. The historical framing of heart disease as a man's disease has contributed to the lack of general awareness regarding the disease in women. For example, in both women and men, chest pain is the most common presentation, but women are more likely than men to have atypical symptoms. There is also some evidence that many women tend to value others' health over their own (i.e., an "otherness orientation") which shapes women's health literacy and access to preventive care.

## Policy Options for Consideration

The top three diseases leading to death among BC women have a number of similar or overlapping causes and they often coexist and exacerbate each other. While all women are at risk for these diseases, it's clear that women who smoke and women who don't

have access to healthy food and exercise are more likely to suffer from one or more of these serious conditions. Because many women experience "trajectories of disadvantage<sup>7</sup>," prevention messages that only target women's individual behaviour are often inadequate at addressing their specific health challenges. Although specific policy considerations to address particular disadvantages or inequities were not in the mandate of the evidence reviews, other work conducted in BC has concluded that the health of BC women could be improved by addressing women's fundamental living and working conditions. Improving access to preventative and curative health services, and access to safe, affordable housing are being considered as ways to improve health, as are improvements to food and income security.

There are high costs involved with the top three causes of women's illness and death in the province—both financial and human costs. In meeting women's unique health needs through prevention and health-promotion programs as well as treatment, BC has a unique opportunity to curtail those costs and improve the quality of women's lives.

## Purpose of these Summaries

All three evidence reviews draw a similar conclusion: sex and gender matter when it comes to the etiology of health conditions, diagnosis, interaction with health care providers, and responses to treatment and life expectancy. These three health conditions also systematically cluster in some populations—especially poorer women. To be effective, responses to these problems will need to pay attention to the underlying factors such as poverty and structural disadvantage that increase the likelihood that vulnerable women will develop these health problems at higher rates than average. The three evidence reviews are a starting point from which further research and discussion will evolve about how to further advance practice and policy change that is more responsive to the unique health needs of women.

4 Statistics Canada. (2007). *Persons with Diabetes by Sex, Province, and Territory*. Retrieved February 12, 2008, from: <http://www40.statcan.ca/01/cst01/health54a.htm>

5 Mao, Y., B. W. Moloughney, R. M. Semenciw and H. I. Morrison. (1992). Indian Reserve and Registered Indian Mortality in Canada. *Canadian Journal of Public Health-Revue Canadienne De Sante Publique* 83(5): 350-353.

6 Tuomilehto, J., J. Lindstrom, J. G. Eriksson, T. T. Valle, H. Hamalainen, M. Laakso, A. Louheranta, M. Rastas, V. Salminen, M. Uusitupa, S. Aunola, Z. Cepaitis, V. Moltchanov, M. Hakumaki, M. Mannelin, V. Martikkala and J. Sundvall. (2001). Prevention of type 2 diabetes mellitus by changes in lifestyle among subjects with impaired glucose tolerance. *New England Journal of Medicine* 344(18): 1343-1350.

7 Hilary Graham qtd. in Provincial Health Services Authority (2007) *Women's Heart Health: An Evidence Review*, p. 44.