

Heart Disease:
One of Three Leading Causes of Death Among BC Women

While heart disease and stroke kill one in three (33%) women in Canada, only one in eight women know that it is the most serious threat to their health[1]. Health researchers have long known that the rates of heart disease, lung cancer, and type-2 diabetes in women have been on the rise, but a 2007 report on life expectancy in British Columbia has confirmed that these diseases have particularly serious effects in women (men's life expectancy in the province is increasing at almost double the rate for BC women)[2]. Women's rates of heart disease and stroke have been climbing steadily, even as men's rates have fallen. Because the top three causes of death and illness in BC women have interrelated causes and respond to most of the same interventions, a concentrated effort in health promotion and disease prevention related to type-2 diabetes, respiratory and heart diseases can go a long way towards improving women's health in the province.

For the first time in thirty years, women have caught up to men when it comes to the number of deaths from cardiovascular disease. Cardiovascular disease (CVD) is actually a complex constellation of conditions rather than a singular disease. Its many manifestations include myocardial infarction (heart attack), ischemic heart disease, valvular disease, peripheral vascular disease, and arrhythmia which together are the number-one cause of mortality in both women and men. CVD, however, is not as well understood in women as it is in men[3]. Because the risk factors, diagnosis, effects, treatment, and rehabilitation in cardiovascular diseases differ for women, it's crucial that researchers and policymakers use a sex and gender-based lens through which to examine women's unique needs. Through a gender-based analysis of women's heart disease in BC, a recent report called *Women's Heart Health: An Evidence Review* identified sex and gender-based risks, and some of women's unique experiences with the condition's presentation, diagnosis, management, and outcomes.

Sex and Gender in Heart Diseases

Many risk factors for coronary heart disease affect both men and women but have different consequences for women. To name just a few of the **sex-based risks:** The relative risk of myocardial infarction (MI) and mortality from all causes is approximately 50% higher for female smokers than for male smokers[4]. Diabetes appears to be a stronger risk factor for CVD in women than in men. A woman's risk of heart disease increases four times after menopause and hypertension increases the risk for heart disease more for women than for men with age. Treatments also have sex-based differences. For example, acetylsalicylic Acid (ASA) reduces the risk of MI in men but not in women. However, ASA reduces women's risk of stroke but not men's[5].

When it comes to **gender-based risks,** researchers have found that care providers often underestimate women's risk of CVD. In fact, in many clinical trials for heart disease treatments, women and the elderly are still underrepresented. Women's symptoms are often incorrectly ascribed to psychological rather than organic causes. Gender-based risks are many and varied: Women tend to be caregivers more often than men and often indicate that their family members' health is more important than their own which can adversely affect their health (e.g., women are more likely to increase their child's physical activity level than their own). These tendencies can often lead women to rationalize symptoms away and defer

1 Canadian Heart and Stroke Foundation. (2004). 2004 Statistics. <http://www.heartandstroke.com>

2 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>

3 Heart and Stroke Foundation of Canada. (2004). Cited in *Advancing the Health of Girls and Women: A Women's Health Strategy for British Columbia,* p. 38. <http://www.bccewh.bc.ca/publications-resources/documents/AdvancingtheHealthofGirlsandWomen-2004.pdf>

4 Prescott, E., et al. (2002). Importance of light smoking and inhalation habits on risk of myocardial infarction and all cause mortality. A 22-year follow up of 12,149 men and women in *The Copenhagen City Heart Study,* p. 702-706.

5 Provincial Health Services Authority. (2009). *Women's Heart Health: An Evidence Review* <www.phsa.ca/Population Health>. The evidence reviews on type-2 diabetes and women's respiratory health are also available as this location.

seeking treatment when they have health issues themselves. Low socioeconomic status is the primary indicator of heart disease and mortality in women, and a larger risk for women than for men. Women are also less likely to enroll in cardiac rehabilitation, have lower adherence, and higher drop-out rates even though they experience similar or greater benefits than men who participate in such programs. Women also have poorer functional recovery and more depression than men after coronary bypass surgery.

Preventing Disease, Promoting Heart Health

The greatest health benefits and most cost-effective solutions come from prevention. Smoking, physical activity, healthy diet, and weight management are the most important factors in heart health that need to be addressed but these are not only individual "lifestyle" issues. Various cultural and environmental barriers prevent women from engaging in physical activity. Many minority women indicate that there is little encouragement for physical activity among girls and women in their ethnocultural group, that acceptable eating patterns and body size are different for them (e.g., Aboriginal women), and that family responsibilities weigh more heavily on them than on non-minority women.

Given that the incidence of CVD is affected by poverty, prevention messages and policies have to acknowledge socioeconomic status. Income differentials account for an excess of 23.7% of premature deaths for lowest-income Canadians[6]. At the national level, Canada has physical activity guidelines that are sensitive to women's particular needs and are culturally sensitive but BC has yet to seize the opportunity to address its own population.

Considerations for Action

Because women's heart disease is a multifactorial problem and heart disease and heart health promotion for women is a challenge on individual, clinical, and policy levels, the following policy and program-related actions also need to be multilayered and pursued on many levels.

1. **Heart health promotion and prevention of disease:** While smoking, physical activity, healthy diet, and weight management are the most important factors needing to be addressed, such change at the individual level requires change at the policy level to address gender- and diversity-based differences in risk and access to health promotion, prevention and care.
2. **Sub-populations at risk:** In Canada as a whole and BC as well, older women, low-income women, Aboriginal women, South-Asian women, and women with mental illness or addiction face increased risks for heart disease. The lower a woman's socioeconomic status, the higher her risk of cardiovascular disease. This "inverse gradient" is pertinent for particular groups of women who are more likely to live in poverty. Such sub-populations of women stand to benefit the most from research, programs, and policies that address their particular barriers and seek to improve their health.
3. **Tailoring programs and practices:** No universal intervention can be applied to all women. When tailoring a program to a sub-population of women, factors to consider include: a) changes in women's health across the life course; b) addressing health literacy; c) improving social support and addressing psychosocial factors; and d) developing women-centred approaches to diet, physical activity, and smoking interventions. In secondary prevention, eliminating gender biases in diagnosis, testing, and care would make significant progress towards improving women's heart health. Improved clinical practices that integrate sex, gender, and a variety of diversity issues into diagnosis and treatment are important.
4. **Comprehensive programs:** Prevention/promotion literature has focused mostly on individual change while the treatment literature focuses on the effectiveness of interventions. Instead, we need multifactorial programs and policies that address broad social, economic, and environmental barriers, research policies and practices, health care systems and organizations, as well as health behaviours at the individual level.

Because so many issues in heart health are also issues in diabetes prevention and respiratory health, health promotion and disease prevention have the potential to contribute to the greatest improvement in women's health, and deliver a high rate of return on any investment.

6 Raphael, D. (2003). When Social Policy is Health Policy: Why Increasing Poverty and Low Income Threatens Canadians' Health and Health Care System. *Canadian Review of Social Policy* 51: 9-28.

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