The national lung health framework: an opportunity for gender analysis

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Abstract

Smoking related respiratory diseases in Canada represent a huge social and economic burden for both women and men. This article addresses the potential impact of the National Lung Health Framework for reducing disparities between women and men in respiratory health and between sub-populations of women and men. A preliminary analysis of the existing framework documents indicates that sex and gender factors, differences and influences have not yet been clearly or sufficiently identified. Yet, there are sex and gender issues related to tobacco prevention and cessation, lung health and lung disease. In particular, we consider the specific respiratory health needs and experiences of women to demonstrate the need for sex and gender-based analysis within the framework. For example, while there is inconsistent evidence regarding quit rates, women and men have different cessation patterns and reasons for smoking. Although creating a Canada-specific approach to lung health is an important initiative, the sex and gender issues associated with respiratory disease and health need to be explicitly addressed in the planning and development stages of the framework in order to have a beneficial and lasting impact on both women and men.

Key words: *smoking, respiratory diseases, National Lung Health Framework, NLHF, chronic obstructive pulmonary disease, COPD, sex, gender, women*

Introduction

Respiratory diseases in Canada represent a huge social and economic burden. Lung cancer, chronic obstructive pulmonary disease (COPD) and pneumonia, the three leading respiratory causes of death in Canada, were responsible for 15.6% of deaths in men and 13.5% of deaths in women in 2004.[1] The current planning and development of a National Lung Health Framework (NLHF) is an integral step to improving the respiratory health of Canadians. This framework emerged in March 2006 from a workshop entitled "Breathing Matters," which united stakeholders in the mandate to develop a national action plan to improve respiratory health in Canada. Under the auspices of the Canadian Lung Association, the process is being led by an interim steering committee that has coordinated subsequent workshops to guide the framework-development process.[2] Released in August 2008, the NLHF document will be used to form an action plan and guide decision makers and stakeholders in strategic planning.[3]

The creation of a comprehensive framework has the potential to improve the respiratory health of Canadian women and men from prevention to diagnosis, management and treatment. The framework also seeks to address some of the health challenges facing diverse sub-populations of Canadians. For example, the documents produced during the framework development process specify the need to "[address] the needs of vulnerable populations," and consistently identify First Nations persons, youth and immigrants as important sub-populations for respiratory health initiatives.[4] The four key strategies in the framework document,[i] which deal with everything from health promotion and disease detection to policy and research, indicate that actions must aim to not only improve overall health, but also the disparities between Aboriginal and non-Aboriginal populations.[3] The steering committee has identified many research- and practice-based issues, such as the importance of examining relationships between respiratory health, vulnerable populations and environmental factors, and the need to improve provider-patient support and increase the use of spirometry as a diagnostic tool.[3,4]

Developing a national framework is a significant challenge, given the wide range of acute and chronic respiratory conditions affecting Canadians. These include diseases as varied as asthma, tuberculosis, sleep apnea, pneumonia, influenza, COPD and lung cancer, each of which have

i (1) health promotion, awareness and disease prevention; 2) disease detection and management; 3) policy, partnerships and community/systems support; 4) research, surveillance and knowledge translation

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unique causal, diagnostic, management and treatment issues. Furthermore, these four issues vary between women and men, and among sub-populations of women and men. Hence, the sex and gender issues associated with respiratory disease and health need to be explicitly addressed in the framework in order to have a beneficial and equitable impact for *both* women and men. However, a preliminary analysis of the existing framework documents[2-5] indicates that sex and gender factors, and diversity related differences and influences have not been sufficiently identified, and that sex and gender analysis is not identified as a key analytical tool for strategic planning. In response to this lack, this article examines some of the respiratory health needs of women to highlight how these omissions within the current framework may fail to capture sex- and gender-based differences between women and men.

Why integrate a sex and gender lens?

If significant improvements in lung health are to be made, sex and gender analysis must be an integral part of planning and program initiatives. Sex- and gender-based analysis (SGBA) is a tool that promotes consideration of a range of issues related to both the research process and the application of knowledge in program or policy development activities such as the NLHF. An SGBA is recommended by Health Canada's Women's Health Strategy,[6] and is also integrated into the work of the World Health Organization (WHO).[7] Using such an approach helps to improve our understanding of how the influences of sex (i.e. biological) and gender (i.e. social and cultural aspects) determine health and disease. The effectiveness of how we design and implement sex- and gender-sensitive policies and programs is partially determined by such analyses.[8] Utilizing SGBA would allow the national strategy to address the unequal distribution of disease among women and men and among sub-populations of women and men, including Aboriginal groups and those with low incomes.

The reviewed documents underpinning the NLHF[2,4,5] fail to clearly or consistently articulate a sex- or gender-based approach; nor do they indicate whether sex or gender has informed the development or implementation processes. Occasionally, the differences between women's and men's respiratory health needs and issues are discussed. Importantly, the increasing smoking rates in women are identified as a timely issue,[3,5] as is the growing prevalence among women of COPD and lung cancer, in part due to the relative lag in women's smoking compared to men.[3] In addition, pregnant women are cited as an important population when creating cessation programs.[5] Yet the mention of women in the NLHF documents is additive and sporadic in comparison to other populations such as youth, First Nations people and immigrants,[3,4] and the need to examine the specific health needs of women and men and sub-populations of women and men is not consistently identified. Overlooked in the NHLF is the fact that all populations are *gendered*, and their health concerns need to be addressed accordingly.

Sex and gender influences on lung health

Numerous sex- and gender-based influences and factors must be considered to develop a framework that addresses respiratory health needs. To illustrate this point, we consider some of these needs, focussing on the context of women's respiratory disease prevention, diagnosis and treatment issues. For example, many respiratory diseases affect women and men disproportionately. Women have higher rates of asthma, COPD is increasingly becoming a woman's disease, and mortality rates for lung cancer have been increasing among women in Canada since 1987, yet decreasing among men.[1] There are also more lung cancers among women who have never smoked, compared to men who have never smoked.[9,10] Furthermore, certain sub-populations of girls and women, including low socio-economic groups and non-white minorities, have disproportionately higher rates of respiratory disease. Non-white and low-income women tend to have less access to health care resources and suffer more often from disease and disabilities.[11,12]

Tobacco use is a key factor in the development of respiratory disease. Gendered patterns of smoking and exposure to smoke, and biological, hormonal and genetic factors overlap and influence women's susceptibility to respiratory diseases.[13] Estrogen may influence the metabolism of cigarette smoke, resulting in increased damaging effects.[10,12,14-16] Evidence shows that women who smoke less than men show similar levels of impaired lung function, and smoking decreases women's lung function more than men's.[12,17,18] Meanwhile, tobacco marketing has been gendered, effectively and increasingly targeting women, portraying smoking as glamorous and as a method to stay thin.[19,20] The industry has also developed gender-specific tobacco products. Many women have been marketed "light" cigarettes with higher yields of N-nitrosamines, which may be partially responsible for the increased lung cancer rates in women.[12] Second hand smoke also impacts women differently than men, given the lag in overall smoking trends between men and women is resulting in more non-smoking women living with men who smoke.[19,21]

There are also sex and gender issues associated with diagnosis. Women and men report different symptoms and women develop COPD at a younger age.[12] Women are also less likely to report sputum production than men, due to gendered norms and ideals.[22] In addition, women are often under-diagnosed or misdiagnosed for certain diseases, due to these differences in presentation as well as gender bias in the health system. For example, women with COPD are more often diagnosed with asthma than men.[13,23] Moreover, even when women and men present the same symptoms, providers may not interpret symptoms in the same way.[24]

In general, compared to men, women with respiratory diseases tend to report more hospitalizations, more limitations in activity and higher rates of anxiety and depression associated with respiratory diseases.[1,23,25-29] Changes in physical appearance associated with COPD and lung cancer may be especially troubling for women, who are encouraged to meet gendered social standards of beauty.[28] Finally, pulmonary

rehabilitation has been shown to be more effective for men over time.[22] All of these factors shape women's and men's lung health from prevention to treatment and need to be addressed and included within the planning stages to produce a framework that will significantly improve women's and men's respiratory health.

Conclusion

The NLHF can significantly improve the dissemination and uptake of knowledge related to respiratory health by drawing links between sex- and gender-specific research in both tobacco use and exposure, as well as respiratory health and disease. There is a clear need for the integration of spheres of knowledge on tobacco, gender, and respiratory disease.[12] The highest rates of mortality are associated with diseases that are primarily associated with smoking or smoke exposure, such as COPD and lung cancer. There is inconsistent evidence regarding gender differences in cessation.[ii] Regardless, women and men do smoke for different reasons and have different cessation patterns.[20] One potential strategy for addressing some of these issues is the formation of a NLHF working group on sex, gender and diversity issues, which could include researchers and decision makers in lung health, women's health, men's health and tobacco use and prevention. Connections must be strengthened between research, programs and policy so that emerging sex- and gender-specific findings are effectively translated to health care settings and decision makers.[40] By addressing these and other sex- and gender-related factors, the NLHF could lead the way in effectively responding to *all* "vulnerable" groups.

The identification of sex- and gender-based analysis as a key analytic tool would encourage researchers, decision makers and other stakeholders to account for these differences. In sum, there are different reasons why women smoke, as well as varying experiences of care and treatment for respiratory disease, both compared to men and among sub-populations of women. We have discussed some of the unique respiratory health concerns of women in particular to make a case for a more detailed, consistent and mainstreamed need for a sex and gender lens to guide the NLHF and action plan. The full and comprehensive implementation of a sex and gender analysis would also necessitate an exploration of the unique respiratory health needs of men, and contribute to a systematic assessment of gendered responses aimed at men. The NLHF can seek to improve the respiratory health of all groups, through the creation of initiatives to support and encourage further sex and gender-based research and interventions. Although very little research has examined specific respiratory health issues for sub-populations, such as people on low incomes or of particular ethnic groups, the NLHF can address and respond to these issues by utilizing an SGBA to encourage thought on women in Canada and steer Canada toward future sex-, gender- and diversity-based research, programming, policy and analysis.

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ii Although evidence from CTUMS (2006) shows that in Canada, women (60.1%) have slightly higher quit rates than men (57.9%), studies examining gender differences in quit rates often reveal that women have lower quit rates, more difficulty quitting smoking and greater relapse rates than men.[30-36] Yet, other evidence suggests that gender differences are minimal or non-existent,[37, 38] or that it is, in fact, men who have lower quit rates and greater difficulty quitting smoking.[39]

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