

Barbara Clow, Ann Pederson, Margaret Haworth-Brockman, and Jennifer Bernier



Rising to the Challenge:

Sex- and gender-based analysis for health
planning, policy and research in Canada

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The Production Team

Editorial Team: Barbara Clow, Ann Pederson, Margaret Haworth-Brockman and Jennifer Bernier

Research and Editorial Assistance: Jean Steinberg and Janet Allen

Graphic Design and Layout: FLAME Designs

Translation Specialists: Lou Lamontagne and Margo Lacroix of INTERSIGNE

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PRAIRIE WOMEN'S HEALTH

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Gender-based Analysis and Health Planning, Policy and Research in Canada

Preface

This book was inspired by the response to a guide on gender and health planning prepared by the Prairie Women's Health Centre of Excellence in 2003. This original guide, intended for health planners in Manitoba's regional health authorities, became a "best seller" among a variety of health care planners and managers interested in understanding how to apply sex- and gender-based analysis (SGBA) in their work. The guide was well received because it offered background material explaining sex- and gender-based analysis as well as practical case studies using population health surveillance data. The cases demonstrated that SGBA is possible when data are collected and reported by sex and that gender-based analysis is essential for understanding the health status or care outcomes of both women and men and important sub-populations among them. The current guide builds on the success of the Manitoba guide, expanding the range of evidence and topics dealt with in case studies and modeling changes in the conceptualization and application of SGBA that have taken place in the intervening years.

This project is the result of collaboration among numerous people, many of whom are linked through a Canadian program in women's health research and knowledge translation. Indeed, this guide is a showcase of the extent to which members of the Women's Health Contribution Program of Health Canada have developed expertise and technical skills in the use of sex- and gender-based analysis. The overall project leader was Barbara Clow, Executive Director of the Atlantic Centre of Excellence for Women's Health (ACEWH). She was supported by an Advisory Committee comprised of Margaret Haworth-Brockman, Executive Director of Prairie Women's Health Centre of Excellence and Ann Pederson, Director of the British Columbia Centre of Excellence for Women's Health. The Advisory Committee oversaw the conceptualization and development of the guide, including co-writing the introductory and concluding chapters as well as contributing to the writing and editing of the case studies. Jennifer Bernier, Gender-based Analysis Coordinator at the ACEWH, supported the team in a multitude of ways, writing and revising case studies, liaising with contributors and the advisory committee and ensuring that all materials were written and edited to a common style. Other staff at the ACEWH, notably Jean Steinberg, Janet Allen and Mary Ann Martell, also contributed to the development of case studies and the production of the guide.

This book is divided into eight chapters. The first three chapters provide background material on sex- and gender-based analysis, including a discussion of core concepts in sex- and gender-based analysis as well as an explanation of the approach to SGBA embodied in this guide. Chapters 4 through 7 comprise a series of case studies and commentaries illustrating the application of SGBA to surveillance data, literature reviews and systematic reviews, health surveys, health policy making, health protection and health program development. These two sections together demonstrate that sex- and gender-based analysis is a process that involves asking critical questions of all kinds of evidence and that can be applied to many different dimensions of health research, healthy planning and policy-making and communication. Chapter 8 includes our concluding remarks as well as a look at emerging directions in sex- and gender-based analysis. A list of resources is included at the end of the guide to support readers wanting additional information.

We would like to acknowledge the many sources of support that have helped to make this volume a reality. First and foremost among these is the Bureau of Women's Health and Gender Analysis at Health Canada, which has funded the Centres of Excellence for Women's Health through the Women's Health Contribution Program (WHCP) for many years and, more recently, has provided funding for the development of specific case studies as well as the guide as a whole. Other government departments and agencies have also contributed to the research that informs some of the case studies, including the Canadian International Development Agency, the National Crime Prevention Centre, Manitoba Health and Healthy Living and the Nova Scotia Advisory Council on the Status of Women. International agencies, including the World Health Organization and the Pan-American Health Organization, have likewise supported specific projects that inform some of the case studies. We are also grateful for peer-reviewed research funding from the Canadian Institutes of Health Research and the Social Sciences Research Council of Canada.

The case study on transport accidents is included with the kind permission of the Pan-American Health Organization.

The views expressed herein do not necessarily represent the views of Health Canada.

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Chapter One:

The Challenge

Introduction


Sex- and gender-based analysis (SGBA) rests on the understanding that both biology (sex) and the social experience of being a man or a woman (gender) affect people's lives and their health. Research shows that the female human body is different from the male in more ways than one. We know that male and female bodies have different functions in reproduction, but sex differences in the size of the coronary arteries, for instance, may also explain women's and men's different experiences of heart diseases while differences in hormonal make-up may contribute to differences in how women and men experience and respond to stress. At the same time, the roles and expectations attached to being male or female also affect one's chances of completing school, providing care for others, having an adequate income, experiencing violence and living a long, healthy life. Hence, being a man or a woman affects how we use our bodies in the work we do or the ways we play as well as how our bodies respond to life's experiences and the environments we live in. Taking into consideration these biological and social differences between women and men, and analyzing how they relate to a particular health problem, is the crux of sex- and gender-based analysis.

Rather than assuming that "one size fits all," SGBA reminds us to ask questions about similarities and differences between and among women and men, such as: Do women and men have the same susceptibility to lung disease from smoking? Are women at the same risk as men of contracting HIV/AIDS through heterosexual intercourse? Are the symptoms of heart disease the same in women and men? Are x-rays equally useful for reflecting the level of disability and pain experienced by women and men living with osteoarthritis? Do boys and girls have similar experiences of being overweight or obese? Do international tobacco control policies work the same way for men and women? By introducing such questions, sex- and gender-based analysis can help lead to positive changes in how programs are offered or how resources are allocated. SGBA can help reduce the likelihood of assuming that women's and men's health situations and risks are the same when they are not or, conversely, of presuming differences between women and men where there are similarities.^[2] Actions that follow from either assumption may be detrimental to men's health, women's health, or both.

SGBA also recognizes that there is a great deal of variation among women and among men – as well as between them – and analysts must therefore be careful to avoid making generalizations about *all* women or *all* men. Individual women and men as well as groups of women and men may be at greater risk of illness, have better access to health care, or respond differently to medication because of differences in income, class, race, language, sexual orientation, gender identity, education, geographic setting, age and/or life stage. First Nations women, for example, may share experiences of colonization and life on reserves with First Nations men that are distinct from the experiences of women of European descent living in Canada's major cities. In such cases, common culture and history may be more important than shared gender identity for understanding specific health conditions or access or health services. Emerging theory and practice in SGBA emphasize this intersection of multiple aspects of individual identity and experience when it comes to explaining their health, illness and opportunities for change.

"In the course of their everyday lives, women and men often face similar challenges to their health. However, there are also significant differences between the two groups. The most important starting point for explaining these differences is to be found in the realm of biology. A woman's capacity for reproduction makes her vulnerable to a wide range of health problems if she is not able to control her own fertility and to go through pregnancy and child-birth safely. This gives women "special needs" which must be met if they are to realise their potential for health.

However, social differences are also important in shaping male and female patterns of health and illness. All cultures assign specific characteristics to women and to men. These include a range of responsibilities and duties as well as varying entitlements to social and economic resources. As a result, men and women in the same communities or households often lead quite different lives, exposing them to different risks and offering them differential access to health and health care..."^[1,p238]



The SGBA process is critical in planning health programs, developing health policies and conducting research; by requiring us to think broadly as well as specifically about who we are trying to serve and whose needs we are trying to meet, it promotes inclusive policies, appropriate and cost-effective services and good science. SGBA supports the analyses of health inequities arising from gender relations and the interaction of gender with other social factors such as income, race and ethnicity and can contribute to designing health system responses.

This guide introduces the basic concepts behind sex- and gender-based analysis and illustrates SGBA with numerous case studies from the health field. Based on more than a decade of work in Canada, this book demonstrates that SGBA is both necessary and possible in all areas of health research, planning and policy making. Whether studying a disease, developing a health promotion program or evaluating policy options, sex- and gender-based analysis is an essential process for improving the health of Canadians.

Organization of the Guide

The book is divided into a series of chapters. The following chapter, Chapter Two, provides background on the origins of sex- and gender-based analysis and the major concepts of sex, gender, diversity and equity as well as how they relate to health. Chapter Three provides guidance on how to conduct sex- and gender- based analysis. This section focuses on SGBA as a process that involves asking new questions about existing evidence and identifying gaps in evidence. Thus, while we acknowledge that SGBA requires adequate sex-disaggregated data (breaking data down into “male” and “female”), we also stress the importance of assessing the impact of other variables, such as age, ethnicity, race and socio-economic status on health. Introducing more complex analyses is key to moving beyond simple assessments of differences between women and men toward an understanding of why these differences exist and how best to respond to them.

The following chapters, Four through Seven, are comprised of over one dozen case studies that illustrate the power of SGBA for understanding different types of health, health care and health policy issues. The case studies were developed by a group of gender experts in Canada who have worked together for many years through a women’s health research and knowledge exchange program funded by the Bureau of Women’s Health and Gender Analysis in Health Canada. The cases reflect our expertise in women’s health research across a wide range of topics and with policy making and programming in health care and social services. Although SGBA can and should be applied to situations to better understand men’s and boys’ health, our mandate is women’s health and our work reflects the traditions and insights of applying SGBA primarily to better understand women’s health.

We have organized these chapters to unpack the process of SGBA in relation to different challenges and issues. Chapter Four introduces readers to the importance of gathering and using data that has sex as a variable. Rather than reporting on how many people have diabetes, we need to know how many women and men, girls and boys are living with diabetes. Chapter Five introduces gender considerations to the analysis. In other words, once we know how many women and men may be affected by a particular health

condition or life circumstance, we can then begin to ask questions about how gender roles and expectations may affect their health and care. The case studies in Chapter Six illustrate the scope and value of SGBA that goes beyond the traditional health sector by introducing discussions of the determinants of health. How does access to housing, for instance, or Indian status affect the health of women and men, girls and boys? In some of these case studies, SGBA also serves as a bridge to new ways of thinking about issues and identities. For example, by looking at overweight and obesity through the lens of gender, we begin to see that this new health “epidemic” is also a matter of personal and social safety. Chapter Seven demonstrates the application of SGBA to policy through case studies of important national and international health issues.

Together, the case studies illustrate that sex- and gender-based analysis is not a single technique, but a process of engagement with theory, data and people’s complex identities and experiences. It is a way of thinking about health and care that acknowledges sex and gender operate across lives, communities and systems.

We have collected our reflections on sex- and gender-based analysis in a Conclusion, paying particular attention to new directions such as men’s health, determinants of health, Aboriginal-specific sex- and gender-based analysis and intersectionality. A list of additional resources and contributors can be found at the end of the book.

Conclusion

While there are many resources available on SGBA, we believe that this volume is an important contribution to the field for a number of reasons. First, this book represents a timely response to a growing demand and appetite for sex- and gender-based analysis in government, civil society and among researchers.^[3] Second, it complements introductory guides and checklists – which comprise the majority of SGBA materials – by inviting readers to engage in a deeper, extended discussion about the changing meanings of “sex” and “gender” and their current and potential roles in health and society. Third, it treats SGBA as a process, rather than a tool or template, thereby emphasizing its flexibility and transferability across sectors, disciplines and regions. Finally, the case studies offer concrete examples of SGBA and are based, in large measure, on Canadian data that will be familiar to and relevant for decision makers, program managers, practitioners, researchers and others.

We chose the title of the volume, “Rising to the Challenge: Sex- and Gender-based Analysis for Health Planning, Policy and Research in Canada,” first, because it acknowledges that we face many difficulties when trying to promote understanding and implementing SGBA across sectors and disciplines and, second, because it equally emphasizes the real possibility of overcoming such obstacles and deterrents. The title also refers to the Auditor General of Canada’s observations that the federal government has a responsibility to champion SGBA by expecting – or challenging – every department to take gender considerations into account when developing policies and programs or offering advice.^[3,p24-28] We hope, then, that this book will both challenge you to think more deeply about sex and gender and that it will help you rise to the challenge of understanding sex- and gender-based analysis and integrating it into your work.

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Chapter Two:

Context and Concepts

Sex- and gender-based analysis has been discussed for two decades, but it has yet to be widely integrated into the health field among program planners and evaluators, researchers, policy makers or administrators in Canada. Recent international developments, such as the World Health Organization’s Commission on the Social Determinants of Health, and growing attention to discussions of equity and health, however, have increased the need and obligation to understand the fundamentals of sex- and gender-based analysis in order to respond to gender-related health inequities.

This chapter summarizes the key developments and commitments in SGBA and defines the core concepts of “sex,” “gender,” “diversity” and “equity.” Through describing the foundations and development of SGBA, we can see the continuing evolution of the policy and scientific contexts – from their roots in women’s health to current concerns with gender and health and health equity.

The Roots of Sex- and Gender-based Analysis in Canada

Canada’s federal government supports SGBA and, since the late 1990s, has had formal commitments to conduct sex- and gender-based analysis. Other federal institutions, both in and out of the health field, also support SGBA. For example, federal departments such as Human Resources and Skills Development Canada and Status of Women Canada developed gender equality statements and guidelines in the 1990s while the Canadian International Development Agency (CIDA) released its *Policy on Gender Equality* in 1999.^[1] In the health portfolio, the Canadian Institutes of Health Research (CIHR) included an Institute of Gender and Health among its 13 Institutes when they were established in 2001. More recently, CIHR has provided explicit support for introducing sex- and gender-based analysis into research by commissioning the creation of a guide to SGBA in research,^[2] calls for research proposals to integrate sex- and gender-based analysis into their designs and support for projects examining sex and gender in health research. Each of these initiatives – and others at the provincial and regional health authority level – has increased the expectation that SGBA will be conducted and have fostered a climate of support for the practice of sex- and gender-based analysis.

The federal policy context for sex- and gender-based analysis spans nearly 40 years, beginning with the *Lalonde Report* of 1974,^[3] which introduced the concept of four elements in the health field: human biology, environment, lifestyle and health care organization. Just over a decade later, Canada released *Achieving Health for All: A Framework for Health Promotion*^[4] and, in partnership with the World Health Organization, the *Ottawa Charter for Health Promotion*.^[5] These documents ushered in discussions of equity and health and drew particular attention to differences in health outcomes related to income, for both women

Canadian Charter of Rights and Freedoms

Equality Rights

15. (1) Every individual is equal before and under the law and has the right to the equal protection and equal benefit of the law without discrimination and, in particular, without discrimination based on race, national or ethnic origin, colour, religion, sex, age or mental or physical disability.

28. Notwithstanding anything in this Charter, the rights and freedoms referred to in it are guaranteed equally to male and female persons.

and men. During the same period, Canada signed a United Nations international agreement called the *Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)*^[6] and introduced the new *Canadian Charter of Rights and Freedoms* (the first part of the *Constitution Act, 1982*),^[7] which prohibited discrimination on the basis of sex (in Section 15 – 1) and guaranteed equality to “male and female persons” (Section 28).

In 1995, Canada participated in the Fourth World Conference on Women, held in Beijing, China, and signed the *Beijing Declaration and Platform for Action*^[8] that was developed at the conference. The *Platform* enshrined a broad definition of women’s health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.

Women’s health involves their emotional, social and physical well-being and is determined by the social, political and economic context of their lives, as well as by biology.”^[8,para 89] This definition confirmed the dual influences of biology and social context on women’s health and informed the development in Canada of a federal women’s health program supported by the Women’s Health Bureau in Health Canada as well as a *Women’s Health Strategy*^[9] committed to understanding how both “sex” and “gender” are determinants of women’s health. These formal policy developments reflected the impact of the women’s health movement in Canada and around the world. In the 1950s and 1960s, a grassroots movement took shape to challenge medical authority and the social and legal constraints on women’s reproduction and reproductive health. Through landmark publications such as *Our Bodies, Ourselves*^[10] in the United States and *Healthsharing*^[11, 12] in Canada, the women’s health movement disputed the view that the only distinctive features of women’s health arose from their reproductive functions. Women’s health advocates argued that there was significant “medicalization” of women’s lives in which normal life processes such as puberty, menstruation, pregnancy, menopause and aging were identified as “medical” problems that required treatment, particularly the use of hormones. They further argued that important aspects of women’s lives such as caring work, economic security and women’s differential treatment by the health care system and in health research were neglected areas of women’s health. The women’s health movement remains an important source of ongoing support for women’s health research and education and has inspired improvements in care, access to services and recognition of diversity among “women” in Canada.

The work begun by the women’s movement in the 1950s and 1960s was supported and supplemented in the 1970s and afterwards by important developments in academia, particularly the fields of sociology and women’s studies. According to Sultanen and Doucet, “Ann Oakley was the first to bring a sustained analysis of the differentiation between sex and gender to the attention of the sociological community.”^[13,p8] Similarly, sociologist Margrit Eichler coined the phrase “androcentric” research to refer to theories, methods and practices based upon the assumption that research conducted on men was applicable to women.^[14]


In the intervening three decades, there has been growing discussion about the extent to which health research and health practices are marked by deliberate or inadvertent gender bias.

Federal policy developments also reflected evolving international discussions. In parallel with the development of women's rights and gender equality discussions in Canada, those working in international development had similar aims to promote women, women's rights and women's health in developing countries. Initially, the approach to "Women in Development" tended to focus on creating opportunities specifically for women's economic and social development, including health.^[15,16] Given high rates of infant and maternal mortality, there was a strong emphasis on reproductive and maternal health as well as on access to food, shelter and income to support women's and children's health. Important gains were made in this period, including the creation in 1981 of CEDAW.

But progress to improve the status and health of women globally remained slow. In the mid-1990s, "Women in Development" was reframed as "Gender and Development," an approach that recognized women's health was rooted in gender relations as well as in social and economic conditions.^[15,16] This stance was affirmed at the United Nations Fourth World Conference on Women. As noted, the conference also affirmed the importance of health as a domain for action to improve the lives of girls and women around the world. "Gender and Development" further signalled a shift away from an exclusive focus on women to a broader focus on women *and* men, a move that was designed to broaden support for action as well as to recognize the challenges confronting both women and men in developing countries.^[15] The term "gender analysis" arose in this international development context to describe the process of analyzing economic, social and health situations from the perspective of gender and gender relations. Because much early gender analysis produced information demonstrating that women had been neglected in health research and their concerns not considered

Summary of Milestones in Canadian Federal Policy Context for Sex- and Gender-based Analysis

- 1974 – *A New Perspective on the Health of Canadians* (The Lalonde Report)
- 1981 – Canada ratified the United Nations Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)
- 1982 – *Constitution Act and Canadian Charter of Rights and Freedoms*
- 1984 – *Ottawa Charter for Health Promotion, Achieving Health for All: A Framework for Health Promotion*
- 1995 – Canada adopted *Beijing Declaration Platform for Action*, United Nations Fourth World Conference on Women
- 1995 – *Federal Plan for Gender Equality* (1995-2000)
- 1996 – Canada-USA Forum on Women's Health
- 1996 – Women's Health Contribution Program funds Centres of Excellence for Women's Health and Canadian Women's Health Network (CWHN)
- 1994-1997 – National Forum on Health
- 1999 – Health Canada's *Women's Health Strategy*
- 2000 – Health Canada's *Gender-based Analysis Policy*
- 2000 – *Agenda for Gender Equality* (2000-2005)
- 2001 – Canadian Institutes of Health Research, Institute of Gender and Health
- 2003 – *Exploring Concepts of Gender and Health* (Health Canada)
- 2009 – *Gender Matters*, Institute of Gender and Health Strategic Plan 2009 - 2012



in program or policy development, there has been a tendency to equate “gender analysis” with the analysis of the situations of women and, in the case of health, to an assumption that the phrase “gender and health” really means “women’s health.” One danger of this assumption is that it can lead researchers, decision makers, planners and program managers to assume that they need to attend to gender only when considering the needs of women. But many researchers have pointed out that gender pertains to both women and men and the relations between them and so is a feature of all societies and populations.^[17,18] We agree. While our focus in the Women’s Health Contribution Program has been on women’s health, SGBA involves understanding the health needs and realities of both females and males, and indeed, the health implications of interactions between and among women and men, girls and boys.

Increasingly, we understand that gender inequality contributes to important health challenges for women, girls, men and boys around the world. As the international Women and Gender Equity Knowledge Network report, submitted in September 2007 to the World Health Organization (WHO) Commission on the Social Determinants of Health, argued,

Gender inequality damages the physical and mental health of millions of girls and women across the globe, and also of boys and men, despite the many tangible benefits it gives men through resources, power, authority and control. Because of the numbers of people involved and the magnitude of the problems, taking action to improve gender equity in health and to address women’s rights to health is one of the most direct and potent ways to reduce health inequities and ensure effective use of health resources...^[19,p8]

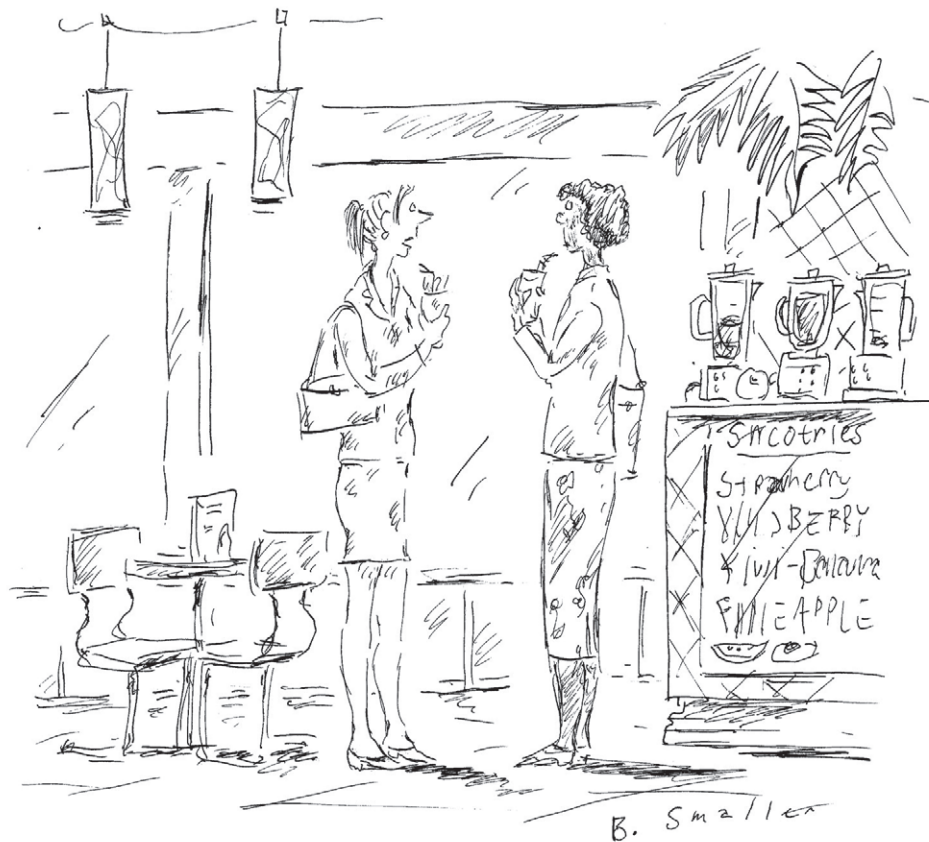
Apparently the members of the WHO Commission on the Social Determinants of Health agreed, because their final report, released in 2008, concluded that differences in power, privilege and opportunity affect health, and that men and women frequently have different degrees of access to these resources for health.^[20] “Gender inequality” is thus a determinant of health and actions to reduce gender inequality will improve health for both women and men.

In practical terms, efforts to improve women’s health or to identify the links between sex, gender and health inequalities have faced resistance and competition for resources. The “Gender and Development” approach advocated “gender mainstreaming” as a mechanism for encouraging action on gender issues. A gender mainstreaming approach positions gender concerns as part of every activity within research, program development and policy making, rather than segregating it as the responsibility only of “gender specialists” or those concerned with improving the status of women. By integrating gender concerns horizontally across organizations, disciplines and topic areas, it was hoped that there would be more people working on gender issues, sharing responsibility for raising awareness about and developing appropriate responses to gender concerns. Health Canada’s gender equality policy – and the related training manual *Exploring Concepts of Sex and Gender* – was introduced in 2003 to mainstream gender across every unit in the federal department.^[21]

Of course, in making gender everyone’s responsibility we run the risk that it will become lost in the machineries of government, health systems, research and in civil society. Keleher^[22] further reminds us that a gender mainstreaming approach needs to stay focused on the social and economic conditions that produce gendered health outcomes in the first place. Otherwise, gender mainstreaming can lead to a watering down of commitments to change the underlying causes of gender-related inequities, if it is not supported by strategic action on the practices, policies and conditions that generate gender-based inequalities in a given society. Ideally, an approach that recognizes both sex-specific concerns for women and men *and* the integration of SGBA throughout government, research and programming would seem to be optimal. This was the approach recommended by women’s health researchers during the design of CIHR.^[23] With the creation of the Institute of Gender and Health within CIHR in 2001, Canada deliberately sought to sustain support for research and knowledge exchange on women’s health while nurturing the development of comparative research on women and men as well as the distinct field of men’s health.


Clarifying Concepts

In this iconic *The New Yorker* magazine cartoon, two women outside a café are discussing the end of a relationship: “Sex brought us together but gender drove us apart.” The cartoon not only identifies two of the core concepts of SGBA – “sex” and “gender” – but it likewise demonstrates the multiple meanings attached to these terms with the potential for confusion as well as humour. The word “sex” can, as it does in the cartoon, refer to the physical allure of another person and the pleasures of sexual activity, but it is also used to describe an individual as male or female. Additionally, it is a term that can be used to portray relationships between women and men, as in “the opposite sex.” Similarly, the word “gender” has multiple meanings. It is increasingly being used on official



“Sex brought us together, but gender drove us apart.”

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documents of all kinds, replacing the term “sex,” to identify an individual as male or female. But in this cartoon, the term “gender” refers to the different roles and responsibilities assigned to women and men, and the challenges they pose to negotiating relationships. While sex and gender are intimately connected in people’s lived experiences and in our understanding of other people, it is critical to distinguish the concepts of “sex” and “gender” as well as how they are, or should be, used in health research, program planning and policy making.

Sex

“Sex” refers to the biological characteristics that distinguish males and females in any species. In humans, sex differences begin with the chromosomal patterns that distinguish males and females—with males usually having one X and one Y chromosome and females having two X chromosomes. From these fundamental genetic differences, other sex differences in humans arise, including variations in body size and shape, the proportion of fat to muscle, which hormones are circulating in the body or at what levels and different reproductive organs. Subtle differences in biochemical pathways, hormones, metabolism and the size of body tissues between females and males may explain some of the known differences in susceptibility to specific diseases or health conditions, such as lung diseases and arthritis. Physical and physiological differences between women and men may also account for divergent reactions to treatments or secondary prevention strategies, such as daily dosing with Aspirin™ for cardiovascular health.

Although we generally think of sex as comprised of only two categories, male and female, “maleness or femaleness exist and are expressed along a continuum.”^[24,p4] Body hair, a secondary sex characteristic, is a case in point. While we generally think of women as having less body hair than men, many women and men do not fit this stereotype. Similarly, muscular development in both women and men is affected by exercise and diet, but some women are able to develop their musculature to a greater extent than some men due to differences in genetics.

Even at the cellular level, the distinction between female and male may not be clear or fixed. For example, some individuals may have an extra X or Y chromosome (XXX, XXY, XYY), yet appear to be either typically male or female with respect to their external genitals and overall appearance. Similarly, there are individuals who have sex chromosomes, genitalia and/or secondary sex characteristics that are “non-standard,” neither exclusively female nor male. These variations in chromosomal make-up and secondary sex characteristics challenge the use of only two categories of analysis when we talk about sex. As the Intersex Society of North America observes, “nature doesn’t decide where the category of “male” ends and the category of “intersex” begins, or where the category of “intersex” ends and the category of “female” begins. Humans decide.”^[25,para6] The value of a fluid and flexible understanding of “sex” is that it more accurately represents human experience, but especially the needs and challenges facing individuals who do not identify with the categories of female and male. Moreover, it encourages us to learn more about just how sex matters when it comes to health and other aspects of human existence.

While sex is obviously important in reproductive health, research is increasingly demonstrating that sex is also pertinent to health for other reasons. From the cellular level up, sex affects human biology. As Johnson, Greaves and Repta

note, male and female bodies may respond differently to substances such as alcohol and tobacco as well as over-the-counter, prescription or illicit drugs due to differences in metabolism, blood chemistry and body fat composition.^[24] For instance, women may be at higher risk from exposure to environmental contaminants because these chemicals tend to concentrate in body fat and women, statistically, have a higher ratio of fat to muscle than do men. There are also sex-specific differences in some diseases that arise from the effects of hormones. Prior to menopause women typically experience lower rates of heart disease than men because women's higher levels of estrogen provide protective effects.

Males and females may also differ in their susceptibility to disease. For example, a growing body of research suggests that women's bodies may be more vulnerable than men's bodies to the effects of tobacco and other forms of smoke. For example, studies suggest that female smokers may have increased susceptibility to chronic obstructive pulmonary disease.^[26,27] While the biological mechanisms to explain these observations are far from certain, Sin and colleagues suggest it is plausible that women may suffer earlier and more severe effects from cigarette smoke because toxic substances accumulate and persist in the lungs and/or because their bodies respond strongly to the toxins.^[27] Other researchers are investigating how differences in occupational and environmental exposures may also differ for women and men and in part reflect biological differences in susceptibility to the effects of inhaled pollutants.^[28]

While it is not clear whether some of the observed differences in susceptibility are related to body size -do small men and large women face different rates of lung disease than average-sized males and females?- or whether they are genuinely sex-linked differences, findings such as these raise interesting questions about the potential for sex-specific variations in disease and illness that must be addressed in future research.

Gender

“Gender” consists of the socially constructed roles and relationships, personality traits, attitudes, behaviours, values, relative power and influence that society ascribes to the two sexes.^[29] In other words, gender both describes and prescribes what it means to be female or male at a given time, in a given society. While we tend to think of sex as determined exclusively by nature or biology, gender undoubtedly has a “profoundly social character ... [It is] a complex, and powerfully effective, domain of social practice.”^[30,p18] Understanding and analyzing the impact of gender on health – and life in general – can consequently pose serious challenges because social processes are both complex and changeable. Today's views on femininity or masculinity, for example, are not the same as they were a generation ago, nor do these terms mean the same thing in Western culture as they do elsewhere in the world. Nonetheless, we cannot avoid grappling with this concept because, as mentioned earlier, gender is a reality in every society, for every population and individual.

Like sex, gender has been typically treated as having two distinct categories – maleness (or masculinity) and femaleness (or femininity) – but, again like sex, this binary division does not adequately capture the range of human experience or the expressions of self and identity that gender encompasses. For one thing, few – if any – individuals fulfill the ideals of masculinity or femininity

and most of us do not aspire to or achieve one ideal to the exclusion of the other. As Connell observed, “we must acknowledge that sometimes masculine conduct or masculine identity goes together with a female body. It is actually very common for a (biological) man to have elements of “feminine” identity, desire and patterns of conduct.”^[30,p16] In other words, most of us experience or exemplify gender as a continuum of characteristics and behaviours rather than as mutually exclusive categories.

At the same time, some people reject the categories of female and male altogether or refuse to identify as one or the other and some individuals identify as both female and male. In some cases, people refer to themselves as “transgender,” a term that denotes their identity as male or female is – wholly or in part – different from their biological sex. Further, in some indigenous cultures, there is a concept of the “two-spirited” person, which has been used to identify people with a same-sex orientation as well those who are transgendered.^[31] It is important to

note that this concept is usually quite distinct from the notion of a gender continuum in that it implies the coexistence of coherent but distinct female and male identities within the same individual.

Something to Think About

Identify a characteristic or behaviour that is commonly associated with your sex. Are you a woman who likes to cook or works with children? Are you a man who loves sports or is employed in the financial world?

Now identify a characteristic or behaviour that is usually linked with a sex that is not your own. Are you a stay-at-home father or a man whose favourite colour is pink? Are you a woman who speaks her mind or repairs cars for a living?

How do people around you react to you when your activities, behaviours or personality fit and do not fit with gender roles prescribed for your sex?

According to Sultanen and Doucet, “Much of the history of Canada in the twentieth century, as elsewhere, has been about experimenting with and testing new paths of male and female experience.”^[13,p2] Johnson and colleagues suggest that it is useful to distinguish among different facets of female and male experience, specifically gender identity, gender roles, gender relations, and institutionalized gender.^[24] By exploring these different aspects of gender and their interactions, we can more easily track the “experiment” and gain insight into the ways in which gender contributes to important differences between and among women and men in financial security, reproductive and sexual health, mental health, experiences of violence and paid and unpaid caring work.^[22]


First, let us consider the meaning of “gender identity.” “Our gender identity describes how we see ourselves as female or male (or as a “third gender” or “two-spirited”), and affects our feelings and behaviours.”^[24,p6] Gender identity is not the same as sexual orientation – one can identify as female and be sexually attracted to women, men, neither or both. Rather, gender identity encompasses one’s sense of being a “woman” or “man” and most people develop a gender identity within the context of societal prescriptions about the appropriate expression of gender for their biological sex (as female or male). In other words, as we learn to think of ourselves as female or male, we also learn what behaviours, emotions, relationships, opportunities and work are considered appropriate for women and men.

This brings us to the second aspect of gender, “gender roles.” Gender roles are the means by which we express or enact our gender identity, they are “the behavioural norms applied to males and females in societies, which influence individuals’ everyday actions, expectations, and experiences. ... from how

we dress or talk, to what we may aspire to do, to what we feel are valuable contributions to make as a woman or a man.”^[24,p5] Sometimes gender roles are thought of as complementary, with male or masculine individuals contributing one set of skills and characteristics to society and female or feminine individuals supplying another. Often women and men are seen as entirely distinct kinds of people, with characteristics that are not only different, but competing or even irreconcilable. Whether we think of female and male as complementary or competing, however, they are inevitably linked to one another. As Connell and Messerschmidt remind us, “Gender is always relational, and patterns of masculinity are socially defined in contradistinction from some model (whether real or imaginary) of femininity.”^[32,p848]

Because gender is relational, it is critical to understand the meaning and workings of “gender relations,” the third facet identified by Johnson and her colleagues. The phrase, “gender relations,” refers to “how we interact with or are treated by people in the world around us, based on our ascribed gender.”^[24,p7] If, for example, we believe that males should be active and outgoing while females should be quiet, gentle and accommodating, we are likely to react negatively to a shy little boy and a boisterous little girl. Similarly, an assertive woman might be called “aggressive” while a man who enjoys knitting might be labelled a “wimp.” Although these aspects of gender roles might seem relatively insignificant, gender relations can and do translate them into discrimination and disadvantage. For instance, historically women have been excluded from high paying and high prestige jobs on the grounds that they are “too emotional” or “have no head for business.” Indeed, gender relations often seem to work to the advantage of men while disadvantaging women. In most societies, women are less likely than men to have access to benefits and resources, such as wealth and power, and they are more likely than men to suffer hardships, such as violence and discrimination. But women are not alone in suffering the negative effects of gender stereotypes. Gay men, for example, have long experienced violence and prejudice at the hands of straight men and women because the dominant masculinity in Western society is “emphatically heterosexual.”^[33,p102] Because gender is relational, we need to consider both the variety and hierarchy of gender roles and identities when we explore the links between gender and health.^[31]

We might ask ourselves why it is that a relatively small group of people – white, heterosexual, affluent, urban men – seem able to accumulate wealth, power and privilege while the majority do not enjoy all the benefits of society, or at least not to the same degree. This brings us to the fourth dimension of gender, “institutionalized gender.” Institutionalized gender refers to the ways in which key social institutions, such as the media, our education and health care systems, the courts and the religious and political establishments, frame gender experiences, roles and relationships. “These powerful institutions shape the social norms that define, reproduce, and often justify different expectations and opportunities for women and men and girls and boys, such as social and family roles, job segregation, job limitations, dress codes, health practices, and differential access to resources such as money, food, or political power.”^[24,p7] Because most cultures value aspects of maleness more highly than those of femaleness, women are more likely to experience structural inequalities in opportunities and access to resources, including the basic necessities of food, shelter and security. Advocates for women’s rights have, especially in the past, tended to hold men solely responsible for this subordination of women, but



“women are central in many of the processes constructing masculinities – as mothers; as schoolmates; as girlfriends, sexual partners, and wives; as workers ... and so forth.”^[32,p848] In other words, women and men together construct and perpetuate dominant gender roles and gender relations. Change thus requires an understanding of the perspectives and realities of both women and men and SGBA is an important process for contributing to positive and informed action for change.

Diversity

At its most basic, “diversity” refers to variations or dissimilarities between and among people. It is often used to denote observable differences, such as visible ethnic variations in a population and distinctions in age or location of residence. But diversity also includes differences that are not always evident, such as sexual orientation, education and religious or spiritual persuasion. In the context of SGBA, diversity involves understanding that while every individual develops gender identity, enacts gender roles and experiences both gender relations and institutionalized gender, the nature of that experience is specific, “particular to a certain time and place, and social, cultural, economic and political situation. ... [and] because gender differences and inequalities in a particular place combine with the effects of other forms of social division such as class and ethnicity, not all women or all men experience gender-related health problems or issues in the same way.”^[35,p3] For example, while it is no longer unusual for women in Canada to be involved in paid employment, some cultural traditions within Canadian society make it impossible for women to work outside the home without risking their safety and the respect of their communities. Similarly, while most men in Western societies continue to fulfill an economic role in their households, the creation of paternity leave provisions in public policy reflects changes in the social role of men as fathers and the increasing acceptance of them as nurturers and carers.

Given the variety and specificity of human experience, it is critical that we refrain from generalizing about *all* women or *all* men when we discuss sex and gender as determinants of health. Sex and gender are only two of numerous determinants of health – including socio-economic status, age, sexual orientation, race, ethnicity, geographic location, education, physical and mental ability – all of which act and interact to affect health and care for an individual.^[18] Understanding all of the social dimensions that comprise the life of a person or group of people – what social scientists sometimes refer to as “social location” – thus requires examining the complexity of lives and the intersecting aspects of identity, location and experience that shape health. When we are studying the health of First Nations, Inuit or Métis people in Canada, for example, we need to be aware of the impact that colonization, segregation on reserves, displacement off the land, residential schooling, loss of language and racism may have had on individuals and communities. We may also need to understand the ways that gender relations function in a particular First Nation community as well as how the members of the community understand their identities. This information will further need to be considered within an overall understanding of the complex legal position of First Nations people in Canada and of the implications of jurisdictional arrangements on access to services, financial support and care.

Our health research begins with the variables of sex and gender because we recognize that “women and men face different health risks, experience different responses from health systems, and their health-seeking behaviour, and health outcomes differ.”^[36,p2] Moreover, differences in health may arise from structural differences between women and men in access to the basic resources for health like food, safety and shelter as well as in gendered practices that limit girls and women around the world or put the health of boys and men at risk through violence, injury and risk-taking. But sex- and gender-based analysis involves more than simply understanding the differences or similarities *between* women and men; its purpose is also to illuminate the differences *among* groups of women and men. As a result, SGBA moves from initial questions about women’s and men’s health to consider how other variables or determinants of health affect different groups of women and men.


Equity

Through the exploration of differences and similarities among and between women and men, girls and boys, SGBA helps to identify and offer solutions for health inequities. “Health inequities” are defined as differences in health outcomes that are deemed to be unfair, avoidable and changeable.^[37] In other words, when an individual or group suffers more illness or more severe illness as a result of poverty or discrimination, for example, they are experiencing health inequities. It is well documented that social hierarchies affect who gets ill and the consequences of illness,^[38,39] including who is able to access formal health care, who gives and receives care at home, and who experiences the long-term personal, social and economic impacts of illness. Gender, social class, age, ethnicity and religion – among other things – play a significant role in determining who is most likely to become ill and who is least likely to have resources to cope with illness:

Gender intersects with economic inequality, racial or ethnic hierarchy, caste domination, differences based on sexual orientation and a number of other social markers. Focusing just on economic inequalities across households can seriously distort our understanding of how inequality works and who actually bears its burdens. Studies tell us the poor are worse off in terms of both health access and health outcomes than those who are economically better off. But they don’t tell us whether the burden of this inequity is borne equally by different caste or racial groups among the poor. Nor do they tell us how the burden of health inequity is shared among different members of poor households. This poses a challenge for policy to ensure equity both across and within households.^[19,p2]

Achieving gender health equity requires that women and men, girls and boys have equal opportunity and access to the conditions and services that enable them to achieve good health.

In Canada, as previously noted, gender equality is guaranteed through the Constitution, under Sections 15(1) and 28 of the *Canadian Charter of Rights and Freedoms* and by the many international human rights agreements that Canada



has signed. But we also distinguish between formal and substantive equality. The legal concept of “formal equality” requires that people in the same or similar circumstances be treated the same. Historically, treating people “equally” in this sense was understood to mean giving women and men the same opportunities, services and programs. The movement to achieve “equal pay for equal work” is an example of formal equality. But sometimes different treatment may be required to achieve fairness and justice when differences between people cause disadvantages and inequality. This brings us to the legal concept of “substantive equality,” which focuses on the importance of insuring not only equality of opportunity, but also equality of outcome. “Affirmative action,” a policy designed to address historic and systematic exclusion of women and other groups from high income and high status employment, is an example of an approach aimed at substantive equality.

By recognizing that many differences in health among and between women and men may arise from modifiable factors, SGBA is a resource for developing and assessing tailored responses to gendered health inequities: “Taking action to improve gender equity in health is one of the most direct ways to reduce health inequities and ensure effective use of health resources.”^[19,p2] These actions will need to address the underlying factors that generate gender inequity, both within and outside of the health sector, particularly gender power relations and the ways they influence social norms, practices and institutions.

Conclusion

In recent decades, Canada has moved steadily towards a deeper appreciation of the role of sex and gender in health and in health inequities. We now have policies that not only enable, but *require* the use of sex- and gender-based analysis in the development of health programs and strategies, in the use of public monies and in the funding of health research. The four core concepts of SGBA – sex, gender, diversity and equity – are critical to further advances in this area: together they create a framework for exploring and understanding people’s experiences of health and illness, and evaluating the extent to which our responses are equal, fair, effective and efficient.

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Chapter Three:

Sex- and Gender-based Analysis
as Process

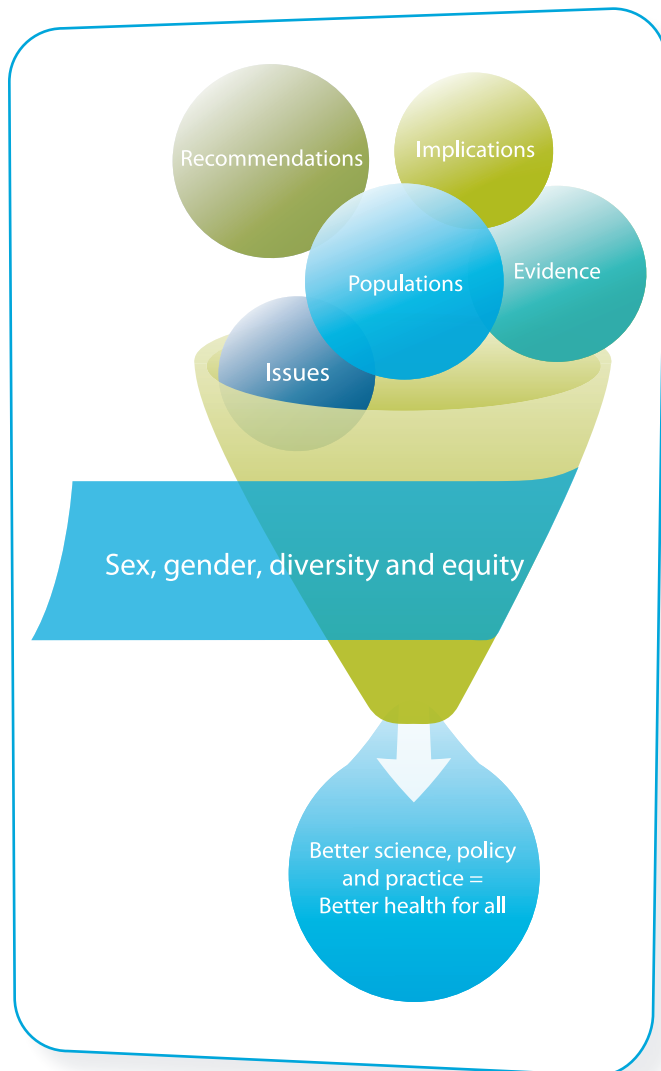
Understanding the basic concepts of sex, gender, diversity and equity, as discussed in Chapter Two, is crucial to conducting SGBA. The next challenge is to learn how to use these concepts. In this chapter, we provide an overview of sex- and gender-based analysis as a process, to help you apply the concepts and learn how to conduct a SGBA.


Many guides and tools provide guidance about how to undertake SGBA by codifying the work into checklists of questions or steps. While checklists can be very helpful as validation tools – a means of ensuring that sex, gender, diversity and equity considerations have been addressed throughout the planning, policy development or research process – they can also create the impression that sex- and gender-based analysis consists of a single formula or template applied to every situation, issue or population. Our approach to SGBA, and to the development of this guide, avoids formulas and templates in favour of thinking of SGBA as a *process* of integrating sex and gender considerations into health research, policy and practice. While the principles and concepts underpinning sex- and gender-based analysis remain constant, the application may vary depending on a variety of factors, such as the issue under consideration, what is known or assumed about a specific population and the extent to which sex and gender perspectives already inform knowledge and action. Further, the process of SGBA is *iterative*, which means regularly reflecting on content and process and adjusting to address gaps, inconsistencies and oversights as well as to accommodate new knowledge or insights. Iteration can therefore re-direct an analysis to include other or additional populations, to consider an issue from a novel perspective, or to tailor recommendations or interventions for specific policy and practice contexts.

In approaching sex- and gender-based analysis as a process rather than a template, we are recognizing both that the theories and practice of SGBA are continuing to evolve and that treating SGBA as a formula limits its explanatory power. Nevertheless, there are common components to every SGBA, as evidenced by the case studies found in this book. This chapter is devoted to describing these elements in detail.

Framing the Process

From start to finish, the process of SGBA is framed by a recognition that sex, gender, diversity and equity matter at every stage of health research, policy development, planning and practice. These four concepts together act as a lens or filter for evaluating descriptions, evidence, analyses and the management of





health concerns. Use of the filter enables us to anticipate and/or identify biases that contribute to health disparities and, in doing so, to create the possibility of both avoiding discrimination and redressing inequity.

Margrit Eichler and Mary Anne Burke have identified three major forms of bias that shape health research: maintaining a hierarchy; failing to examine differences and; using double standards.^[1] While Eichler and Burke were writing only about research, these kinds of biases can be found in every discipline and sector (i.e., government, research, NGO and private). For instance, historically, studies have excluded particular groups, such as women or people of colour, on the theory that the results of research on or with white males can be generalized to others.^[2,3] Such an approach involves a double standard that privileges one group – white males – over all others. We might also encounter policies, such as those classifying Indian status in Canada, that uphold existing hierarchies of power or position. In this case, the dominance of non-Aboriginal peoples in Canada, represented by the federal government, is maintained by denying to First Nations, Inuit and Métis peoples the right to define themselves. Another type of bias described by Eichler and Burke – failing to examine differences – occurs when we regard dominant and non-dominant groups of people as having the same life chances and experiences. In most societies, for example, homosexuals face far greater prejudice and discrimination than do heterosexuals and inequities are bound to arise when policies, research or practice ignore this profound difference. At the same time, we cannot treat any group, dominant or otherwise, as if everyone in it shared exactly the same outlook and experience: each of us belongs to a variety of groups and our experiences are shaped by the intersections of and interactions among these various identities or social locations. As the celebrated author and teacher, bell hooks, observed, “If I were really asked to define myself, I wouldn’t start with race; I wouldn’t start with blackness; I wouldn’t start with gender; I wouldn’t start with feminism. I would start with stripping down to what fundamentally informs my life, which is that I’m a seeker on the path.”^[4,p287]

According to Eichler and Burke, “Research must ... always ask enough of the right questions in order to expose all three major forms of biases. Otherwise, there is the illusion that a problem has been fixed.”^[1,p66] We would argue that the same is true for planning and policy development as well as for service delivery. Applying the concepts of sex, gender, diversity and equity enables us to expose biases and can therefore go a long way towards ensuring better science, policy and planning, and – ultimately – better health for all.

Sex- and gender-based analysis is neither linear nor unidirectional, but for the purposes of this guide, we have deliberately divided it into five components: issues, populations, evidence, implications and recommendations. While describing the process in this way may not capture all of its nuances and complexities, identifying and describing the five components in this manner does allow us to provide clear, insightful directions and rationale to assist in the undertaking of SGBA. Illustrations, examples, and references to specific case studies found in subsequent chapters of this guide will round out the description of sex- and gender-based analysis as process.

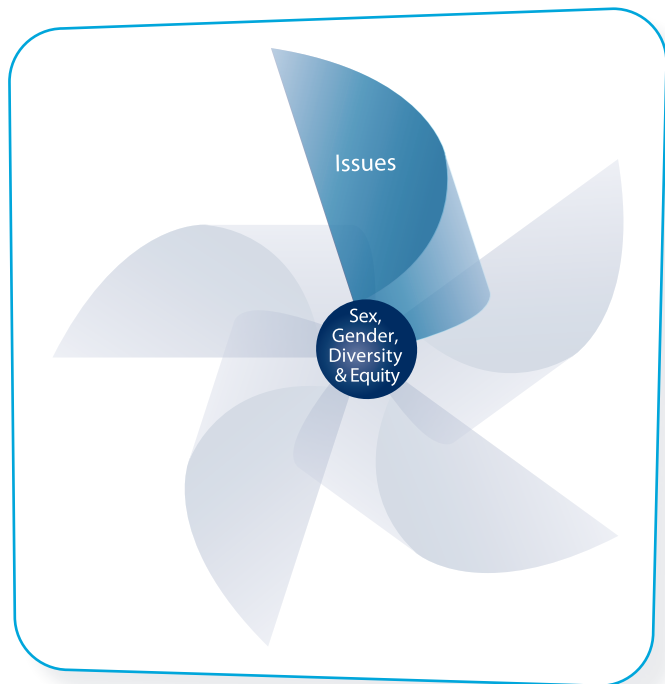
Defining the Issue(s)

Research, policy and planning often derive from observations or perceptions that there is a “problem” to be addressed, an issue about which we know little, or a population that is facing particular challenges. For instance, media coverage and policy initiatives of recent years have tended to focus on managing youth crime through harsher sentencing, on the assumption that youth crime is on the rise – both in volume and severity – and that imprisonment will act as an effective deterrent. Yet researchers do not all agree that youth crime is increasing nor is there much evidence to support the position that incarceration either prevents crime or rehabilitates criminalized youth.^[5-7] In other words, before launching into research, planning or policy development, we need to sort out why an issue has been identified as a problem and by whom: Is obesity really reaching epidemic proportions? Are we adequately prepared for emergencies? Are wait times as long as media coverage suggests? Are the foods we eat and the water we drink safe? Are we facing a crisis of care as the population ages?

To understand why and how an issue is transformed into a problem we must evaluate the source of an interpretation as well as the conclusion itself. Who says that youth delinquency is on the rise or that there is a shortage of housing? What evidence have proponents marshalled to support their positions? What other evidence exists that might suggest a different way of looking at this issue? In the same way, we need to assess the recommendations and interventions that flow from existing interpretations. If we perceive youth delinquency or obesity as a particular type of crisis, how does that shape our response? Are there alternative explanations and interventions that are not being considered and, if so, why? Finding answers to these kinds of questions, including the sources of our information or assumptions, is critical to understanding the issue at hand.

SGBA involves asking just these kinds of questions while keeping in mind the concepts outlined in Chapter Two – sex, gender, diversity and equity. What evidence do we have that wait times are excessive, and, if they are, who is most likely to wait and why? Who says that obesity is becoming epidemic, and, if they are correct, is the condition equally distributed across the population or are some groups experiencing higher rates? To what extent do our disaster management plans recognize the different strengths and needs of women and men? Does current knowledge about food or water quality include an analysis of the comparative risks for females and males, for those living in urban, rural and remote settings?

Asking more and more complex questions – as SGBA persistently prompts us to do – can provide new perspectives on long-standing health challenges. For example, the case study on diabetes in (see page 34) demonstrates the power of an analysis that takes sex, age and ethnicity into consideration. Rates of diabetes might be comparable for women and men in Manitoba, but men are more likely



Something to Think About

Sex- and gender-based analysis extends throughout the research process, culminating in communication and knowledge exchange. Gender-inclusive, non-sexist writing remains controversial because there is no consensus around all aspects of this approach, but it has tremendous potential for giving voice to women and for providing direction for the evolution of language. Canada is leading the way in this field.

The way we think about femininity and masculinity, the power or prominence we ascribe to women and men in society, is often reflected in our language. Not so long ago the human race was almost invariably referred to as “mankind,” while many services and policies were identified with men or males: “manpower,” “workman’s compensation,” “ombudsman.” Words not only reflect our ideas and social values, they also reinforce them. For example, when women began to move into the medical profession, they were often referred to as “lady doctors,” thereby identifying them as unusual – a departure from the male norm.

Feminists have long recognized the power of words and have worked hard to develop and promote gender-inclusive, non-sexist language. As a result, it is now much more common to refer to the human race as “humanity,” while “he and/or she” is beginning to replace the standard “he” in sentences. But even when writers use gender-inclusive, non-sexist language to begin with, it may or may not survive the process of translation, an important consideration in countries such as Canada, which has two official languages. Similarly, in any situation where people are trying to communicate across languages and cultures, gender-inclusive, non-sexist language can be lost in translation.

The complexities involved in translation cannot be underestimated: they may undermine the essence of the text, not only reproducing assumptions regarding sex and gender, but also creating a situation where the reader has to transcend the words to appreciate fully the author’s ideas. Let’s look at an example. Women and Health Care Reform, a working group funded through the Women’s Health Contribution Program of Health Canada, was putting the final touches to the French translation of a new plain-language English publication on women and wait times. The group asked a francophone with knowledge in sex- and gender-based analysis and non-sexist writing to review the publication. While the quality of the translation was excellent, respecting the women-centered approach of

the original document, some aspects of the text were not gender-inclusive and had to be changed. For instance, the translator had elected to translate the phrase “health care professionals” as “les professionnels de la santé,” a masculine phrase for a profession overwhelmingly occupied by women, but still perceived as male-led. A better choice might have been an inclusive, neutral phrase such as “le personnel soignant,” because this term invites the reader to think of a wider range of professions and both female and male providers.

For many native French speakers, gender-inclusive and non-sexist writing is unappealing because it is often done poorly. Awkward repetitions of “he and she,” “men and women,” the masculine and feminine representation of professions, detract from the text and make for laborious reading. Even for gender-sensitive writers and translators, working in French with gender-inclusive language can prove to be a challenge. For example, when a text refers to both males and females, it is common practice to use the masculine noun form followed by the feminine noun in brackets, or following a forward slash: “patients(es)” or “patients/es.” While this approach is sensitive to the need to recognize that both females and males are involved, the practice itself reinforces the sense of female as “other,” because these notations are used in grammar to signify the dominant form of a word as well as variations – male and female.

According to French rules of grammar, adjectives are always masculinized when both sexes are represented, as in “les formateurs sont contents.” One way to avoid this would be to write “l’équipe de formation est contente.” A proximity agreement rule can also be used to circumvent this dilemma, and, with both feminine and masculine nomenclature present and the feminine noun closer to the verb, the sentence becomes “les formateurs et les formatrices sont contentes.”

Sex- and gender-based analysis raises important issues for translators as well as writers, editors and others involved in the translation of research. This discussion reminds us that the very language we use conveys important information that we sometimes take for granted based on the relationship between the rules and customs of language and the expression of sex and gender.

By Marie Dussault, British Columbia Centre of Excellence for Women’s Health

than women to experience serious complications and consequences from the disease. Moreover, rates of diabetes among First Nations people in Canada far exceed the national average. Similarly, the author of a case study on measuring mental health (see page 96) discovered that because there are many ways to define “mental health” it is not easy to identify a single set of measures.

Posing more complex questions also tends to produce more complicated answers. For example, a case study, entitled “Gender and Generations: A Day at the Spa” (see page 116), begins with a discussion of access to health care services in a First Nations community and ends up grappling with formidable issues, such as the legacy of colonization, legal definitions of identity and eligibility and social relations. What starts out looking like an analysis of access to health care for First Nations people, then, is not simply a matter of health resources – human and otherwise – it is also a function of historical and political interactions. And the issue is not just how access is defined and paid for, but rather how legal definitions of identity have created differences in access to care for diverse groups of people for a variety of reasons – certainly a more complex framing of the “issue.”

As an iterative process, sex- and gender-based analysis can further lead us in new or unexpected directions as we seek to understand the initial issue. For example, while trying to account for differences in wait times for hip and knee replacement surgery among women and men, the authors of the case study (see page 68) found themselves investigating arthritis rates, perceptions of pain, diagnostic imaging and doctor-patient relationships. In this instance, the authors paused regularly to assess their research question and the evidence available to them – iteration – and in so doing pushed the boundaries of their investigation and analysis.

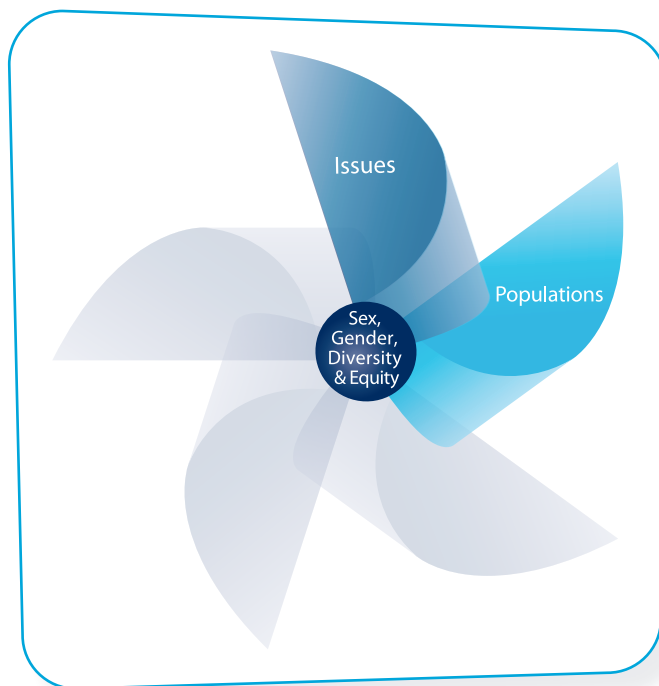
Describing the Population(s)

Addressing a research, policy or planning issue also involves an appreciation of who is affected and/or in need as well as what we know – or don’t know – about diverse populations and communities. The research commentary on the mental health of rural women (see page 140), for instance, underscores the influence of geography on access to health services. Similarly, a case study on care-giving (see page 80) demonstrates both that women provide the bulk of unpaid care-giving and that they experience more and different constraints on their time than do men involved in care-giving. Both these case studies, like others in this volume, remind us that issues play out differently in different places, at different times and for different groups of people. Interventions or policies that ignore the contexts of peoples’ lives are liable to be costly or ineffective, at best. The Compassionate Care Benefit, described in the case study on unpaid care-giving, is an excellent example of a policy that has proved disappointing because it was designed with a limited understanding of the main population needing support – women.

Because SGBA encourages us to ask questions about who is involved and who is affected, it is especially powerful for exposing gaps in data, literature, research, policy and planning. Are we talking about both females and males or a single sex? Does our data set include information about transgendered individuals or groups? Do we have evidence about females and males of all ages or for adults

or children only? Do we have information about females and males from diverse ethnic and socio-economic backgrounds? The answers to these kinds of questions define the parameters of our analyses and conclusions. For instance, the case study on housing (see page 104) examines the core housing need of specific groups of women and men in Manitoba: those on low income, renting or owning their homes, women living with disabilities as well as Aboriginal, non-Aboriginal and immigrant women. Because the study includes a variety of clearly-defined groups of people, it leads to more robust conclusions about who is adversely affected by housing shortages. If the authors had instead used data that are aggregated – combined across race, class, gender and other social locations – they would not have learned about these sub-population differences with the result that their conclusions and recommendations would not necessarily be valid or able to address inequities. In other words, by explicating the populations affected

by an issue, we can avoid the biases described by Eichler and Burke.



Unfortunately, much information on sub-populations in Canada is simply not available, making it difficult to understand, let alone address differences or similarities based on sex and gender, race and ethnicity, sexual orientation and gender identity, age, class and other determinants of health. Nonetheless, undertaking a gap analysis of affected and engaged populations is important even when data are lacking because it triggers iteration – a review of the original research question or policy intervention – and validation or adjustment of the process. For example, the contribution on systematic reviews (see page 44) points out the ways in which a highly-respected approach to analyzing and synthesizing health data can lead to erroneous or incomplete conclusions if it does not involve a routine assessment of sex and gender in clinical trials and other health research.

Assembling the Evidence

Part of defining issues and describing populations for study or action involves finding out what data are available. And as with understanding issues and populations, we need to approach evidence thoughtfully, assessing its strengths and limitations and asking if it utilizes or speaks to the core concepts of sex, gender, diversity and equity.

The process of SGBA can and should involve many different kinds and sources of evidence and information, from case studies and interviews, to surveys and statistical analyses, to media coverage and local consultations. Often quantitative data – numbers – are the type of evidence preferred by policy makers and health care professionals and they can contribute significantly to our understanding of the impact of sex, gender and other determinants of health.^[8] Many case studies in this volume demonstrate the explanatory power of data that identify differences between and among females and males. A case study on transport accidents (see page 50), for instance, reveals that males in Belize are much more likely than females to be involved in transport accidents while another case study in

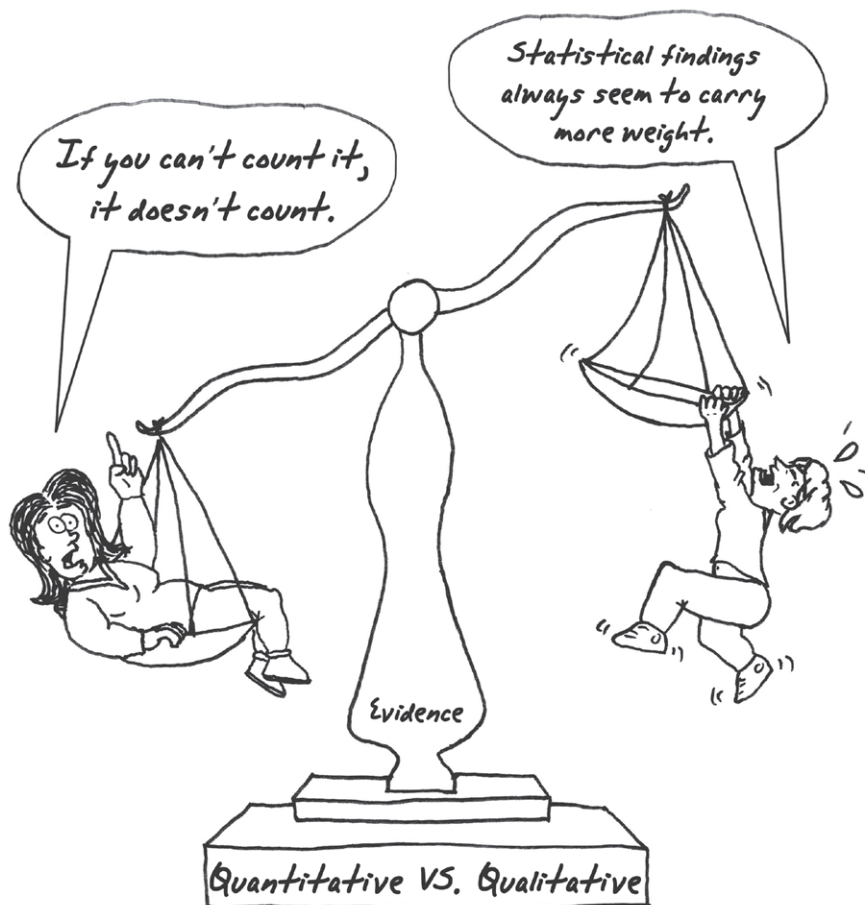
the same chapter reveals that women face greater health risks than men from exposure to methyl mercury (see page 60). Quantitative data can also help us to distinguish among the experiences of diverse groups of women and men. The case study on HIV/AIDS (see page 136) demonstrates that among women and men in Canada, First Nations peoples face the greatest risk of infection in Canada while injection drug use and heterosexual intercourse have become the most common modes of transmission. Awareness of population differences, which are often captured well by quantitative data, is critical for avoiding biases and for developing effective interventions, appropriate policies and rigorous research.

As mentioned earlier, it can be challenging to find evidence that is gathered or reported for females and males as well as across a diversity of social locations. Canadian health surveillance and survey tools, for instance, routinely collect information that distinguishes between females and males, but that information may be combined or “aggregated” for reporting purposes. Moreover, administrative datasets – those that track hospital and physician services in each province – do not routinely include information about race, ethnicity, socio-economic status and many other determinants of health. New tools for locating sex-disaggregated data have begun to emerge in recent years, including The Source, a data portal housed at the British Columbia Centre of Excellence for Women’s Health.^[see 9] Nonetheless, considerable effort and resources may still be required to get access to existing data that are disaggregated by various social locations and when these data do not exist, new research may be needed.

At the same time, quantitative data cannot address every research question or policy issue. The explanatory power of statistical evidence may be limited by the tools used for data collection. The case study on mental health indicators (see page 96), is a perfect example of the challenges associated with using existing survey data; while the statistics illuminate some basic patterns in mental health disorders among females and males, they do not necessarily tell us why these patterns exist or how these disorders are experienced by women and men as well as for different groups of men and women. As the author of the case study, Cara Tannenbaum, notes, “distress” is recognized as a significant predictor of mental illness, yet “very few surveys measure distress *per se*.” It may be possible to compensate for these kinds of limitations by taking a creative approach to the data. For example, in this case study, the researchers identified other measures of mental health – including self-reported symptoms and diagnoses, physician visits and prescription medications – as “proxies” or substitutes for distress. While this method gives us more information about patterns of depression and anxiety, it does not help us understand the ways in which women and men identify mental health issues, make sense of them or decide to treat them. Nor does this information illuminate differences in the medical management of and community response to mental health disorders among women and men. Tannenbaum concludes that we need to refine and expand existing databases to facilitate a thorough sex- and gender-based analysis.



While we agree that new survey tools and reporting protocols would go a long way toward enabling researchers, planners, policy makers and health care providers to both understand and address the core concepts of sex, gender, diversity and equity, we also realize that such changes will not happen quickly or easily. In the meantime, we have other types of evidence at our disposal that can assist us in undertaking a robust sex- and gender-based analysis. Qualitative data – records and experiences captured in words and pictures rather than in numbers – are especially useful for explaining why a particular health issue has arisen and how it is affecting different groups of people. The case study on disaster and emergency planning (see page 86), for example, includes an array of quotations from women who have lived through emergencies of various kinds, and their words help to illustrate the ways in which disasters are experienced differently by women and men. Similarly, in the case study on care-giving (see page 80), we learn from a series of interviews and focus groups with diverse groups of women that though they share certain experiences, they also face particular challenges based on their ethnicity, socio-economic status, sexual orientation and age. Specifically, older women reported that they have less energy and stamina for care-giving while immigrant women found it difficult to navigate the health care system.



Qualitative evidence comes from many different sources, such as individual interviews, group discussions, observation, documents and media coverage. It can also come in a variety of forms, including stories, personal testimony, letters, internet blogs, images, etc. The case study on prescription drug advertising to consumers (see page 152), for instance, includes an analysis of advertising content and placement: not only do drug advertisements appear more frequently in “women’s” than “men’s” magazines, but the advertisements themselves build on and reinforce gender stereotypes about specific health conditions, such as depression. People’s accounts of their experiences as patients,

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providers and decision makers in health care are important resources for policy makers, planners and providers as they work to develop interventions that meet the needs of the population.

As with quantitative evidence, it is important to appraise the merits and limitations of qualitative evidence. Is the research trustworthy? How well does it speak to the core concepts of sex, gender, diversity and equity? We also need to appreciate that while words and images provide a different perspective on health and illness, they do not necessarily tell the whole story any more than numbers do. As with quantitative data, we need to consider who is asking the questions as well as who is answering them. If we interview doctors and not patients – or vice versa – we have only found some of the answers to our questions. As the commentary on mental health demonstrates (see page 140), if we ignore rural perspectives in our analysis of mental health and addiction services, we have only a partial portrait of the needs of people in Canada. Moreover, though qualitative data typically provide rich detail on a subject, the words and experiences of a few people cannot be generalized to larger groups.^[8] The project reported on in the care-giving case study, for instance, serves as an important corrective to broad generalizations about unpaid care-giving based on survey data, but we cannot assume that the evidence provided by fourteen female caregivers in Nova Scotia adequately captures the experiences of all caregivers in Canada.

Ideally, an analysis will draw on both qualitative and quantitative evidence. The iterative quality of SGBA is especially useful for incorporating various types and sources of evidence because it helps us to see which aspects of an issue are addressed and which are overlooked as well as which populations are included and which are missing. As gaps in knowledge are identified, we are prompted to look for further or different evidence and to re-evaluate the original research question or policy inquiry. The case study on obesity and safety (see page 124) as well as the case study on wait times for hip and knee replacement surgery (see page 68) are especially useful for demonstrating the ways in which sex- and gender-based analysis moves back and forth between questions and evidence.

Analyzing the Implications

With the issues and populations clearly defined and the best available evidence in hand, we are now prepared to consider the ways in which sex, gender, diversity and equity influence – or should influence – health status, health policy and planning, health care delivery and health research. The case studies and commentaries to follow illustrate this component of the SGBA process through the analysis of various issues. But two case studies in particular – one on tobacco (see page 146) and the other on HIV/AIDS (see page 136) – validate our view that SGBA is a process rather than a formula because the same analytical approach applied to different issues and populations expose different implications for future program delivery and policy directions. On the one hand, the SGBA of smoking epidemics and international tobacco control policies indicates the importance of prevention efforts tailored to women’s needs and realities, because the dominant approach to tobacco control has been a “one size fits all” approach that has not served women well. On the other hand, the SGBA of HIV/AIDS suggests the need for policies and programs that recognize women’s diversity and the fact that females are found in almost every “at-risk” group identified and targeted by governments and other agencies. By treating HIV/AIDS as a danger only to

particular groups of people and by ignoring the role of sex and gender, existing policies and programs effectively segregate HIV prevention and treatment from society as a whole and do not address the differential risks of exposure for diverse groups of females and males. The SGBA case study on HIV/AIDS consequently recommends mainstreamed rather than targeted policies and programs. These conclusions diverge because they are specific to the issue and the context: they reflect the different histories of the tobacco and HIV/AIDS epidemics, the politics of intervention, the biology of addiction, infection and disease and the ways that gender, diversity and power shape both sexual behaviour and tobacco use.

At the same time, analyzing the implications of sex, gender, diversity and equity may take you in unexpected directions. For example, the case study on obesity in children, mentioned earlier, revealed a surprising relationship between obesity, bullying and gender. As a result, the SGBA process moved our thinking about interventions from a focus on physical activity and nutrition alone to one that includes violence prevention and the creation of safe places and spaces.



As with the other components of the SGBA process, analysis has to be approached thoughtfully. Although many of the biases described by Eichler and Burke can be reduced or eliminated by appropriately defining issues, identifying and engaging populations and assembling evidence, we cannot assume that these measures alone will produce balanced, inclusive and equitable conclusions or recommendations. Analyses also have to be undertaken with the core concepts of sex, gender, diversity and equity in mind as well as with an awareness of potential blind spots.

Let's consider for a moment how we might approach the relationship between race and health. In many of the case studies and commentaries, reliable evidence

identifies higher rates of illness among ethnic-minority populations, such as Aboriginal peoples and people of colour, than in the general population or as compared with the Caucasian majority in Canada. If we assume that such differences can be attributed to the strengths or limitations of individuals in these populations, we would be guilty of bias – victim blaming and pathologizing to use the language of Eichler and Burke. Similarly, if we assume that only some people within these populations are capable of responding to or rectifying these differences, we would also be guilty of bias – denying agency. Even with the best evidence and the best intentions, it is still possible to fall prey to stereotyping, overgeneralization, using double standards, exaggerating differences, ignoring similarities and a host of other biases.

According to Eichler and Burke, it is imperative to “always ask enough of the right questions in order to expose all three major forms of biases.”^[1,p66] They have developed a list of 20 “right questions,” but many other lists exist as well and some of these are referenced in the resource list at the end of the volume. As mentioned at the beginning of this chapter, these sorts of checklists can be very helpful as validation tools, enabling us to verify that we have avoided biases

and addressed the core concepts of sex, gender, diversity and equity. We would suggest that iteration is also integral to steering clear of biases because it helps us to assess our own assumptions – how we are framing the issues, viewing the populations and assembling the evidence – and to adjust our analysis accordingly.


Structuring the Recommendations

Having come to some interpretation and conclusions about sex, gender, diversity and equity, it is time to develop recommendations. While it might seem like a simple task to make recommendations based on new findings, we need to bear in mind that research, program and policy development and service delivery all exist in specific contexts – social, political, economic, historic, geographic and so on. When developing recommendations from an SGBA, it is important to recognize the obstacles and threats as well as the strengths and opportunities afforded by these contexts. Similarly, conclusions are presented to specific audiences and the ability of policy makers, planners, practitioners and others both to absorb and respond to recommendations is determined by the environments in which they work. Policy makers, for example, tend to be constrained by relatively short timeframes – usually tied to election cycles – budgetary limitations and the directions of political leadership. Consequently, multiple, long-term and costly recommendations – as well as those that involve fundamental changes in social policy or attitudes – may not be feasible or attractive for policy makers. Health care providers, in contrast, may be reluctant to act upon analyses that are new or innovative rather than established and may not, therefore, respond positively to recommendations for novel directions in treatment or innovative models of care.



Let's consider briefly the contexts of the case study on obesity in children (see page 124). This piece of work began as a project for the annual Atlantic Summer Institute (ASI) on Healthy and Safe Communities that aims to promote community capacity and community development by exploring the linkages between the social determinants of health and the root causes of crime and victimization. The Institute leaders were looking for an issue that would help to demonstrate concretely the overlap between health and safety and decided upon childhood obesity. When this case study was presented to participants at the ASI – most of whom came from diverse government departments and community organizations – the response was very positive. The case study helped them to rethink the ways in which issues were typically framed as health or safety issues, but not both. It also helped them to appreciate that if an intervention did not address both health and safety dimensions of obesity in children, it could unintentionally cause harm.

A few months later, we presented the same case study to a more homogeneous group of public health practitioners and health promotion policy makers and their response was quite different. They recognized the connections between health, safety and obesity, but felt that their work contexts would not allow them



to respond to safety or other determinants of health because policy and practice were focused on promoting active living and healthy eating. The recommendations that obesity initiatives need to include an understanding of safety and other determinants of health were, consequently, not as well-received.

Similarly, the case study on transport accidents in Belize (see page 50) illustrates the importance of knowledge exchange between researchers and their audiences in the development of recommendations. The case study was originally developed for the Pan-American Health Organization and presented in a workshop involving biostatisticians, epidemiologists and policy makers from Belize and neighbouring Caribbean countries. While the authors had thought to discuss hazardous employment for men and the possible need for better health and safety education to reduce men's transport deaths and injuries, they learned from the policy and program staff in attendance that more pressing issues involved the need for improved roads, better traffic regulation enforcement and tighter regulation of driving qualifications.

We are not suggesting here that the context should drive the SGBA process. Regardless of the final destination of the analysis, we must pay attention to the core concepts of sex, gender, diversity and equity if we hope to conduct better science, develop better policies and practices and ensure better health for everyone. Instead, we are pointing out the importance of identifying the best audience for recommendations and understanding what kinds of information they need to act as champions for change. Awareness of the context for a specific SGBA is important, because it can establish a timeframe for the analysis, suggest parameters for the inquiry, locate appropriate audiences for the recommendations and determine the best method for presenting recommendations aimed at addressing and reducing health inequities.

Conclusion

In this chapter and the previous one, we have described the ideas and approaches involved in undertaking an SGBA in the areas of health research, policy and planning. We have examined the core concepts that serve as the foundation for sex- and gender-based analysis as well as the ways in which these concepts are integrated into the process of SGBA. While a comprehensive understanding of concepts and methods is crucial for undertaking a rigorous SGBA, concrete examples are invaluable for moving from theory to practice. In the chapters that follow, we have assembled nearly two dozen case studies and commentaries that illustrate the richness and diversity of the SGBA process. These examples are drawn largely from member organizations of the Women's Health Contribution Program – a funding program managed by the Bureau of Women's Health and Gender-based Analysis, Health Canada – and they represent more than a decade of experience in policy-relevant women's health research and knowledge exchange.

The case studies are organized into four chapters that are designed both to appeal to readers with different levels of experience and expertise with SGBA and for readers working in different sectors and/or agencies. Chapter Four, *Considering Sex*, explores the importance of recognizing similarities and differences between and among sexes through the use of both quantitative and qualitative data. Chapter Five, *Emphasizing Gender*, focuses on the ways in which gender roles and stereotypes as well as sex differences contribute to health and illness.

Chapter Six, Regarding the Determinants of Health, highlights the intersections of sex and gender with other determinants of health, such as race and age, and pushes past medical definitions of health to consider the health implications of environments of many kinds – physical, economic, historic, social, etc. Chapter Seven, Addressing Policy, examines the relationship between policy and health, underscoring the importance of SGBA for the development and implementation of inclusive, equitable and effective policy.

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Chapter Four:

Considering Sex

In this first set of case studies, we see that the process of sex- and gender-based analysis can begin by using information that is separated for the categories of male and female – referred to as “sex-disaggregated” data. Health surveillance and health administrative data are usually collected by sex – and other determinants of health – and held in provincial or national databases. But getting access to these data through reports or public websites can be difficult as well as costly and may take some persistence. The case study on systematic reviews reveals the extent to which health research does not include sex as a significant variable. Ensuring that data are not only *recorded*, but also *reported* by sex will improve the potential for undertaking SGBA across sectors and disciplines.

Once we have sex-disaggregated data in hand, we can begin to ask questions about how the issue or condition affects males and females. For example, the case study on transport accidents uses sex-disaggregated data to uncover differences in risk between women and men, and then, because transport accidents are much more common among men, it shifts to a consideration of the particular risks facing males. Similarly, the case study on diabetes indicates that rates of diabetes are comparable for women and men, but the health outcomes are worse for men than for women living with diabetes.

At the same time, two case studies – on diabetes and methyl mercury exposure – underscore the importance of attending to which females and males are under consideration in a given analysis. These case studies demonstrate the greater vulnerability of Aboriginal women and men, both to illness and exposure to environmental contaminants.

Further sex- and gender-based analysis need not be limited to comparisons between females and males. Because sex and gender operate in everyone’s lives, SGBA prompts us to ask questions about how gender roles, identities and relations operate even when only one sex is the focus of inquiry. The case study on methyl mercury exposure and the commentary on statin use both focus on women, but in doing so they expose significant biases in our approaches to regulatory policy and health education.

Finally, this chapter illuminates the ways in which SGBA contributes to a more rigorous assessment of the evidence used to make decisions about treatment, prevention and policy. When research does not include or report upon sex as a variable, we cannot be certain that interventions and treatments will be appropriate for women and men, boys and girls.



From the Beginning: Understanding Diabetes Using Dis-aggregated Data

Introduction

This case study on diabetes was originally included in Prairie Women’s Health Centre of Excellence’s guide on gender and health planning to demonstrate how sex, age and belonging to a particular sub-population interact.^[1] It proved valuable for health planners in Manitoba – and elsewhere – because it provided step-by-step instructions for a simple sex- and gender-based analysis using data that were both familiar and readily available. While the figures reproduced here are accurate, they are by no means intended to give a complete picture of diabetes in Manitoba.^a Instead, the figures and statistics are used to take readers through the process of conducting a sex- and gender-based analysis using dis-aggregated data. This case study demonstrates how understanding populations “at risk” can change depending on how data are examined.

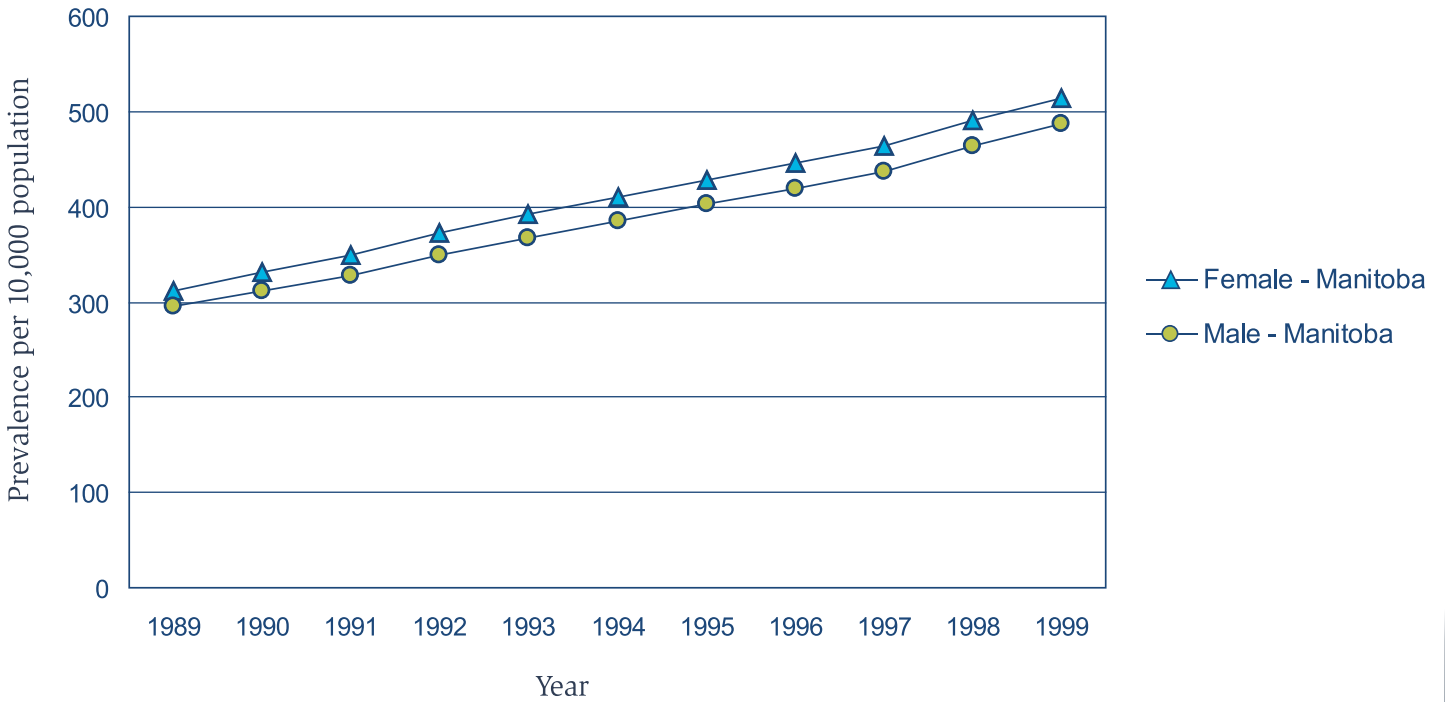
Considering Diabetes by Sex

Diabetes is a major health concern in Manitoba. According to Manitoba Health, in 1999, 57,391 Manitobans were living with diabetes, representing 5.0 percent of the total population or 7.4 percent of adults aged 25 years and over. Of those who had been diagnosed with diabetes, 29,850 were women and 27,541 were men.^[2] In Canada overall, 4.4 percent of males and 3.9 percent of females had diabetes,^[3] however, the reverse was true in Manitoba, where more women than men live with the disease. In 1999, the prevalence of diabetes (that is, the total number of cases) among female Manitobans (children and adults) was 515 per 10,000 (5.2 percent) and 487 per 10,000 (4.9 percent) for male Manitobans. Irrespective of sex, the number of cases of diabetes continues to rise in the province, with more and more women and men living with the disease every year (see Figure 1).

Not only has there been a consistent increase in the prevalence of the disease, but the incidence (the number of new cases diagnosed in a specified year) has also been on the rise for both Manitoba women and men. Until 1994, more women than men were being diagnosed with diabetes each year. However, starting in 1996, although the disease still increased for both sexes, more new cases were being reported annually among men. For example, Figure 2 shows that the annual incidence of diabetes for Manitoba men in 1990 was 33.2 per 10,000 and by 1999 the number rose to 51.9 per 10,000 – an increase of 56 percent. For women, the annual incidence of diabetes rose from 35.2 per 10,000 in 1990 to 49 per 10,000 in 1999 – an increase of 39 percent (see Figure 2). Given that the number of new cases among men was increasing faster than the rate for women, we expect that, over time, the prevalence of diabetes among men will also increase.

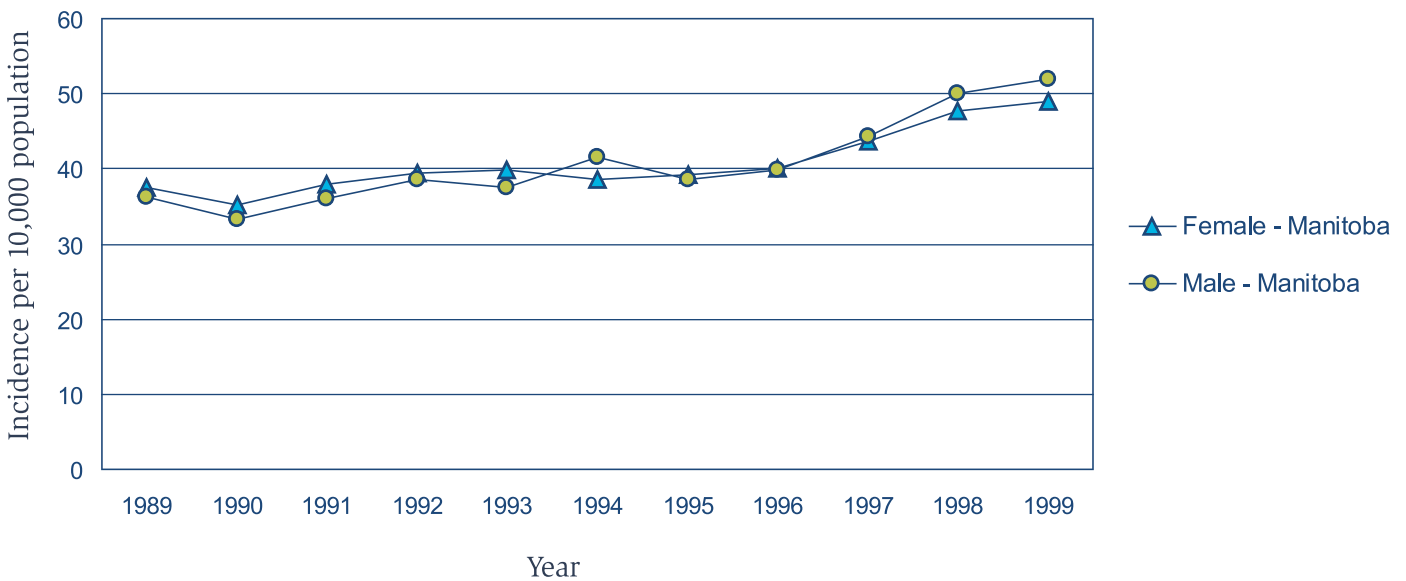
a For a more complete and current gender-based analysis of diabetes in Manitoba, please see Donner L, Isfeld H, Haworth-Brockman M, Forsey C. A profile of women’s health in Manitoba. Winnipeg: Prairie Women’s Health Centre of Excellence; 2008.^[4]

Figure 1. Prevalence of Diabetes by Year and Sex, Manitoba, 1989 - 1999



Source: Diabetes and Chronic Disease Unit, Manitoba Health. 2002.

Figure 2. Annual Incidence of Diabetes by Year and Sex, Manitoba, 1989 - 1999



Source: Diabetes and Chronic Disease Unit, Manitoba Health. 2002.

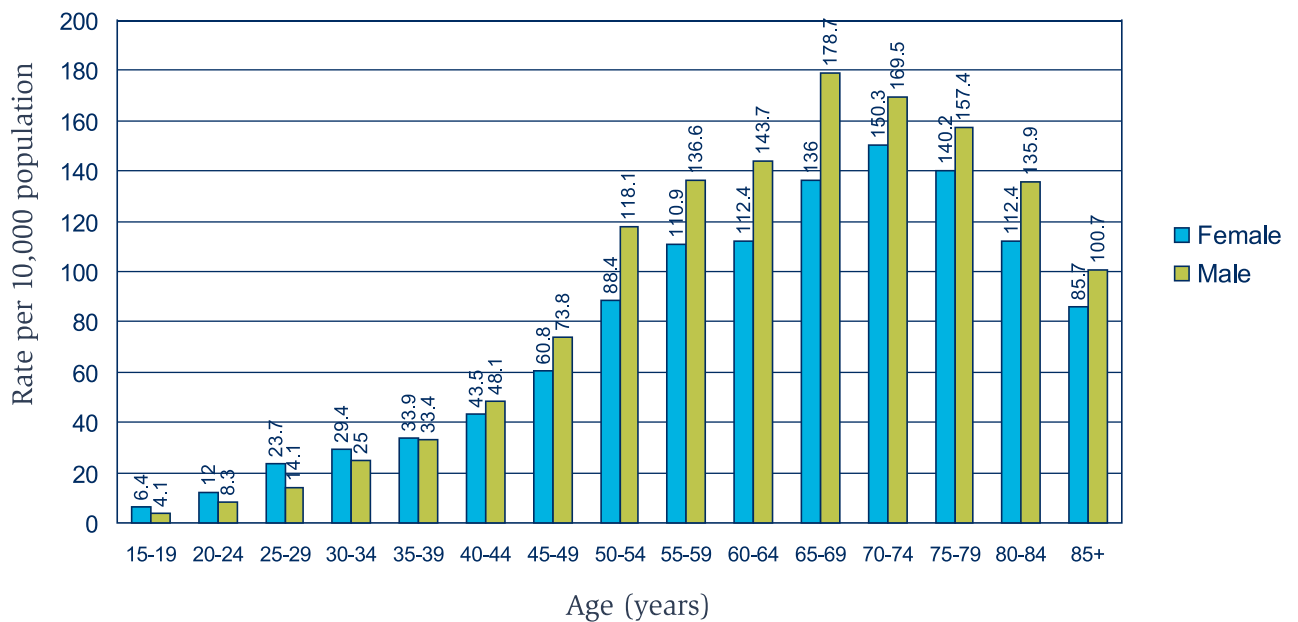
Data published by Manitoba Health, in co-operation with the Manitoba Métis Federation, showed that in 1997, the age-standardized prevalence of diabetes among Métis 15 years of age and older was 9.8 percent for males and 11.3 percent for females. This was substantially higher than the prevalence among the total Manitoba population (Males 6.1 percent, Females 5.7 percent).^[5]

Examining incidence and prevalence rates by sex can tell us a lot about diabetes among Manitoban women and men. However, if we fail to take other factors into account, we can miss out on important information.

Sex and Age

If we look at the same information, but take both sex and age into consideration, we see that in Manitoba, women are more likely than men to be diagnosed with diabetes from ages 15 to 39 (see Figure 3).^b However, the reverse is true when we look at the data for people 40 years and older, with more men than women being diagnosed with the disease in this age range. What this tells us is that diabetes prevention, detection and treatment programs will be more effective if they are both sex and age sensitive in their approach.

Figure 3. Incidence of Diabetes by Age and Sex, Manitoba, 1999



Source: Diabetes and Chronic Disease Unit, Manitoba Health. 2002.

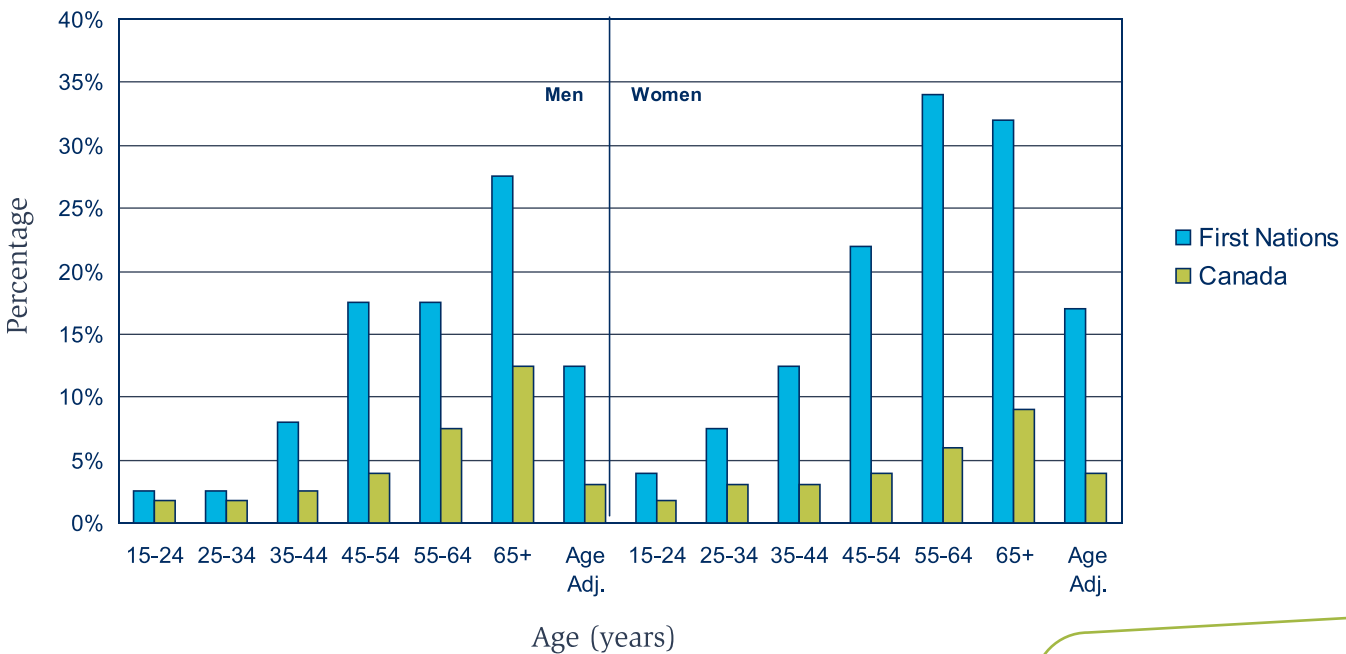
^b Note that the data do not separate out gestational diabetes from other diabetes. Those women who develop gestational diabetes during pregnancy are more likely than other women to later develop overt diabetes. This is important because earlier onset of diabetes means an increased likelihood of developing complications later in life.

Sex, Age and First Nations: Prevalence and Incidence

If we look at a sub-population along with sex and age, we get an even more accurate picture of who in Manitoba is at a greater risk of developing diabetes. In general, Aboriginal^c women and men bear a greater burden of illness than other Canadians, suffering from higher rates of heart problems, hypertension, rheumatoid arthritis and diabetes.^[3]

In comparison to Canadians as a whole, there is a greater burden of diabetes borne by First Nations people living on-reserve in general, and among on-reserve First Nations women in particular (see Figure 4). In fact, when we look at every age group, we see that First Nations women have the highest rates of diabetes, compared to both First Nations men and other Canadian women and men.

Figure 4. Prevalence of Self-reported Diabetes by Age and First Nations on Reserve and Canada



Source: *First Nations and Inuit Regional Health Survey. National Report 1999* (Reprinted from Health Canada, *Diabetes Among Aboriginal People in Canada: The Evidence*, 2000)

Similarly, when we examine diabetes at the provincial level we see that First Nations people living in Manitoba are at much greater risk of developing the disease than other Manitobans. For example, in 1999, the incidence of new cases of diabetes among First Nations people living in Manitoba was 74 cases per

^c Aboriginal is an umbrella term that includes First Nations (Indian), Métis and Inuit peoples of Canada. Data sets vary in how Aboriginal people are included.

Recent research about diabetes among on-reserve First Nations people living in Manitoba found that diabetes prevalence was significantly associated with both income and geography. Northern First Nations communities had lower rates of diabetes than southern First Nations communities. As well, the higher the income of the tribal council area, the lower the diabetes prevalence. Interestingly, access to specialists was not associated with diabetes prevalence.^[4,p5-6]

10,000 compared with 49 per 10,000 for other Manitobans.^d Among Manitoba First Nations people 50 years and older, 36 to 44 percent of the population in each age group had already been diagnosed with diabetes.^[2]

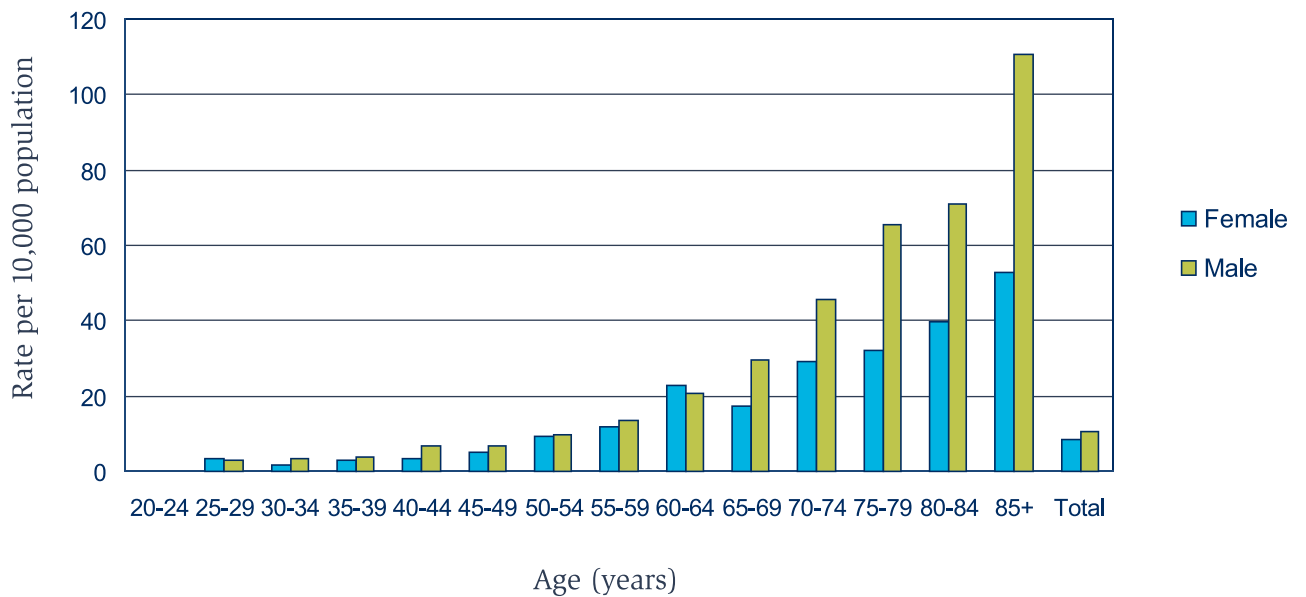
Therefore, in addition to being sensitive to age and sex, programs developed specifically to prevent, detect and/or treat diabetes will be more effective if they are responsive to the particular needs of First Nations and other Aboriginal women and men.

Complications of Diabetes

Living with diabetes puts people at risk for long-term complications of the disease, including heart disease, stroke, permanent vision loss, lower limb amputation, and renal (kidney) failure. Figure 5 shows that both women and men are at-risk of developing renal failure, one of the most serious complications of diabetes. While the risks become greater for both sexes as they age, the risks for men increase sharply after age 65. In addition, Figure 6 illustrates higher rates of lower limb amputation among men than among women.

Since men are at much greater risk of developing complications of diabetes, a gender sensitive approach is needed to prevent complications.

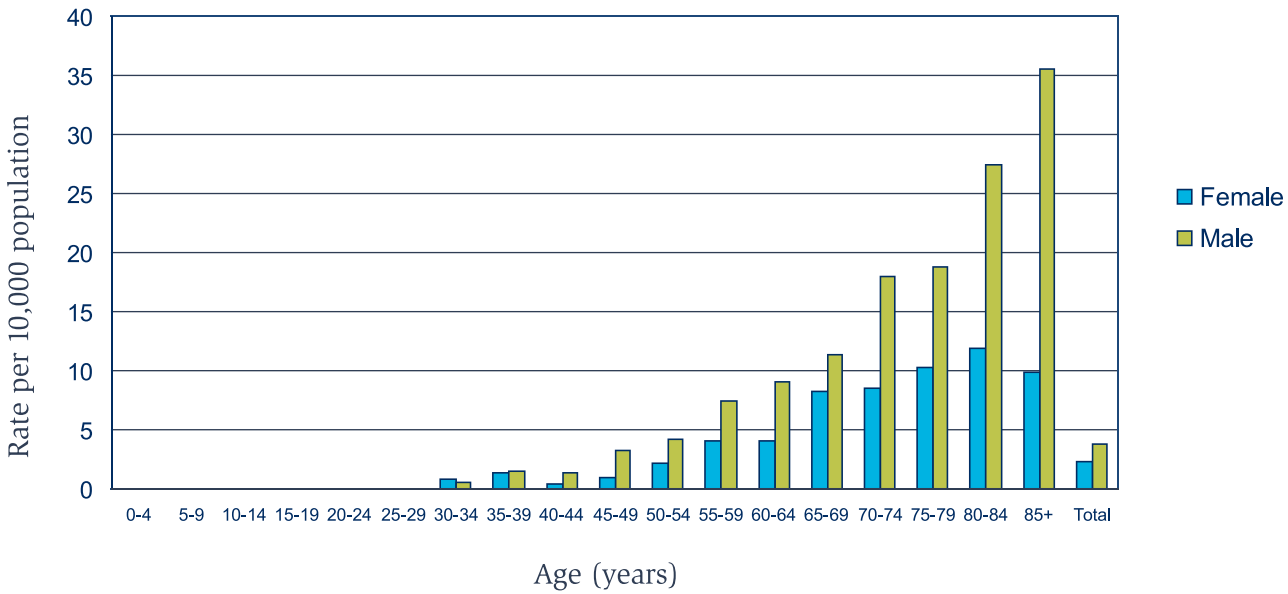
Figure 5. Rate of Renal Failure by Age and Sex, Manitoba, 1999



Source: Diabetes and Chronic Disease Unit, Manitoba Health. 2002.

^d More data are available about diabetes among First Nations people living in Manitoba than for other Aboriginal people. First Nations people living in Manitoba in this data set are those identified to Manitoba Health as having treaty status.

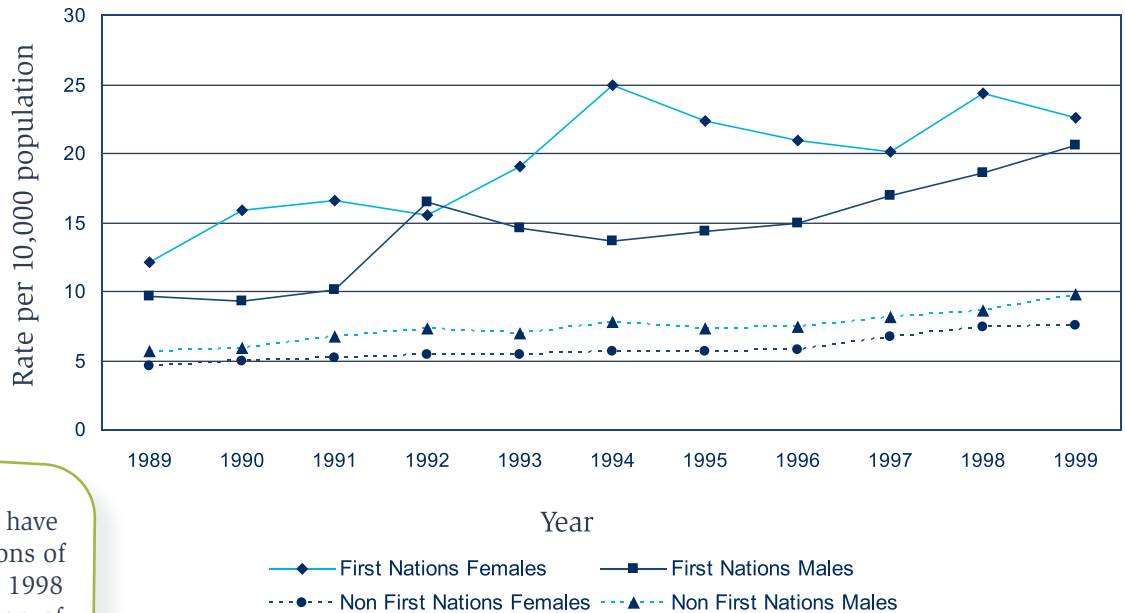
Figure 6. Lower Limb Amputations by Age and Sex, Manitoba, 1999



Source: *Diabetes and Chronic Disease Unit, Manitoba Health. 2002.*

Not only is it important to look at complication rates among women and men, but other factors, such as ancestry, need to be considered as well. When we look at differences among First Nations and non-First Nations women and men in Manitoba, we see that First Nations people living in Manitoba were much more likely to develop complications of this disease. But here too, gender differences are significant. Figure 7 shows that First Nations women were more likely to experience renal failure than either First Nations men or other Manitoba women or men. However, looking only at the data by age and sex obscured this important fact.

Figure 7. Renal Failure for First Nations and Non-First Nations Populations by Year, Manitoba, 1989 - 1999



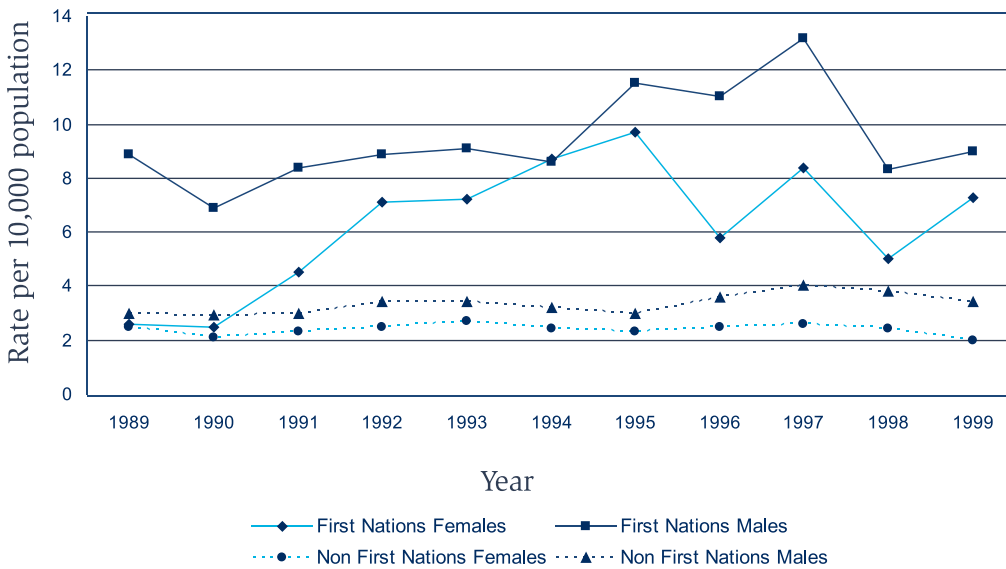
Aboriginal people with diabetes have very high rates of complications of the disease. For example, in 1998 in the First Nations population of Manitoba, persons with diabetes account for:^[6]

- 91 percent of limb amputations
- 60 percent of hospitalizations for heart disease
- 50 percent of hospitalizations for stroke
- 30 percent of hospitalizations

Source: Diabetes and Chronic Disease Unit, Manitoba Health. 2002.

Data for lower limb amputations also show the greater risk faced by First Nations people living in Manitoba. However, in this case it was First Nations men, not women, who were at greatest risk of lower limb amputations (see Figure 8).

Figure 8. Lower Limb Amputations for First Nations and Non-First Nations Populations by Year, Manitoba, 1989 - 1999



Source: *Diabetes and Chronic Disease Unit, Manitoba Health. 2002.*

With diabetes, prevention is critical to reducing the number of new cases and to lessening the burden of complications on those who live with diabetes, and on the health care system. Knowing who is at greater risk helps to improve health planning. Taking sex, age and First Nations sub-populations into consideration will enable health planners to design more successful prevention programs.

Incorporating Sex and Gender in Planning for Diabetes Prevention, Detection and Treatment

In the past, planning for diabetes treatment, detection and prevention did not take sex and gender into consideration. Many documents did not include gender as a determinant of health, nor women and men as populations requiring special consideration. The trends are beginning to change. For example, Health Canada’s 1999 *Diabetes in Canada*^[7] recognized Aboriginal women as a population requiring special consideration because of their higher prevalence of diabetes, the risks of complications of pregnancy and the future risk for their children. In addition, in 2001, Manitoba Health and the Manitoba Women’s Directorate jointly published Manitoba’s *Women’s Health Strategy*.^[8] The strategy acknowledged the role of gender as a determinant of population health.

Regional health planners can be leaders in developing diabetes programming which incorporates the broader knowledge gained by using a sex- and gender-based analysis. Here are some points for health planners to consider for diabetes programs for their regions.

Primary Prevention of Type 2 Diabetes Focuses on Modifiable Risk Factors

These are: obesity, physical inactivity and income adequacy.^{e[9]}

- What do we know about obesity and physical inactivity in our region?
- What factors contribute to physical inactivity and obesity among women and men? How are they different?
- How can we promote physical activity and healthy body weight among women in a way that supports and encourages healthy body images for women of all ages and sizes?
- How can we design programs to promote healthy body weight and physical activity which are accessible to, and appropriate for, Aboriginal women and men? With which Aboriginal organizations, federal and provincial departments should we consult?
- In Canada and in Manitoba, women are more likely to be poor than men. Aboriginal women and senior women are among those most likely to be poor. What do we know about the income levels of the women and men in our region?

Secondary Prevention of Diabetes Focuses on Early Detection Through Screening

- How can we promote the appropriate use of screening for diabetes for women and men? Do we need different strategies to reach them? What would these be?
- What kinds of strategies are needed to reach Aboriginal women and men in our region? What Aboriginal organizations and resources could assist us?

Tertiary Prevention of Diabetes Focuses on Preventing or Delaying the Complications of Diabetes

Tight glycemic control (keeping blood glucose levels in the desired range) reduces the rate of complications from diabetes. This in turn requires that those living with diabetes have the information necessary to manage their own condition.

- Do women and men need different types of diabetes education in order to successfully control their blood glucose levels? What would these be? How can we find out?
- How can we make our diabetes education programs most useful to Aboriginal women and men? With which Aboriginal organizations and resources can we consult and work?

^e Health Canada considered income a modifiable risk factor. We understand this to mean that it is humanly constructed and can be changed at the societal level. Genetic endowment, for instance, is not modifiable.

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Sex and Gender in Systematic Reviews

Introduction

Accurate and comprehensive evidence is critical to sound decision making, whether in the public or private sector. Systematic reviews represent one method for identifying, evaluating and synthesizing available evidence relating to a single issue. In this process, research that fits particular criteria is compiled, reviewed and assessed for quality and then synthesized in an attempt to provide a comprehensive picture of existing knowledge. In health, systematic reviews are an important means to transfer research findings into the development of policy, programs, regulatory initiatives and clinical practice. Reviews are used to appraise evidence about health care interventions, such as drugs, devices, and surgical techniques, as well as exercise, diet and other programs designed to improve, alleviate or cure particular health conditions.^[3]

What is a systematic review?

Systematic reviews provide a summary of the journal literature on a particular topic. By definition, systematic reviews summarize, appraise and communicate the results and implications of otherwise unmanageable quantities of research.^[1] Systematic reviews bring together separately conducted studies (sometimes with conflicting findings), evaluate them against specific criteria and then synthesize the results.^[2] In this way, they can contribute to the evaluation of both existing and new technologies and practices.^[2]

Increasingly, systematic reviews are regarded as one of the best tools to grapple with large amounts of evidence and are considered as particularly important for evidence-based medicine. Implicit in the label “systematic review,” is the idea that this approach to analyzing and assessing evidence is methodical, consistent, thorough and therefore reliable.^[4] In particular, systematic reviews should help to answer the question: “To whom does this evidence apply?” Yet, despite guidelines that encourage researchers to include demographic and other population characteristics,^[5] various studies of systematic reviews have revealed a lack of adequate attention to health equity factors, including sex and gender.^[6-8] Without sex- and gender-based analysis, the policies, programs and clinical interventions that are based on systematic reviews may not be equitable and may have unintended or even harmful consequences for some people.

This case study describes the development of a *Sex and Gender Appraisal Tool* for systematic reviews and reports on its application with systematic reviews of cardiovascular diseases. As with other analyses, this case study reinforces the conclusion that current systematic review models are not sufficiently sensitive to sex and gender and suggests opportunities to address this situation.

How Might We Use a Sex and Gender Lens to Evaluate Systematic Reviews?

Our research team, comprised of individuals with expertise in women’s health issues, sex- and gender-based analysis and who were familiar with systematic reviews, examined whether sex and gender were addressed in a sample of systematic reviews of cardiovascular disease. If gaps were found, we were also interested in addressing how sex- and gender-based analysis could best be integrated into the systematic review process to enhance the quality of reviews.

Because systematic reviews typically address a single issue or health condition, it was necessary to choose a topic for investigation. We chose to focus on systematic reviews of cardiovascular diseases because sex and gender differences have been well documented in relation to risk factors, age of onset, symptoms, disease progression, treatment-seeking behaviours, the efficacy of diagnostic tests and drugs and hospitalization and mortality rates.^[9] For example, recent studies have

shown that sex and gender are independent risk factors for complications after both coronary artery bypass graft surgery and angioplasty, technically known as percutaneous coronary intervention. Women experience more complications and higher rates of mortality after coronary artery bypass graft surgery,^[10] and are more often admitted to intensive care units following both bypass surgery and angioplasty.^[11] Given that the different experiences and health outcomes for women and men with heart diseases are well-known, we expected that systematic reviews would capture or reflect these – perhaps more so than systematic reviews of some other conditions or diseases.

We chose to focus our research on systematic reviews developed by the Cochrane Collaboration, an international network of more than 20,000 specialists who regularly review and analyze clinical trials and other types of health research. Cochrane reviews are based on a standardized method and are widely considered to meet very high standards.^[12]

Drawing from the research literature on sex- and gender-based analysis,^[13-15] we developed a *Sex and Gender Appraisal Tool for Systematic Reviews* (SGAT-SR) to determine whether sex and gender were being addressed in systematic reviews and, if so, how. The tool is composed of 35 questions that are aligned with the nine standard sections of a Cochrane review (see textbox). We designed the tool to facilitate ease of use by systematic reviewers who might not be familiar with sex- and gender-based analysis, using plain language to ensure accurate responses about whether sex and gender were addressed or not throughout the review process. For example, in the section on Discussion and Conclusions, the tool asks: “Does the review report that primary studies analyzed or failed to analyze results by sex?” The draft tool was then reviewed both by subject experts to ensure consistency with standard sex and gender definitions and concepts, and by an individual familiar with Cochrane reviews to ensure compatibility with the Cochrane review process.

Once the design, review and revisions were complete, the tool was applied by an independent reviewer to a random sample of Cochrane Systematic Reviews on interventions for high blood pressure, heart and other vascular diseases. Thirty-eight separate reviews were included, spanning eight broad topic areas, with the largest number of reviews focusing on drug therapies. Together these reviews analyzed a total of 668 research trials, which in turn represented investigations with 473,666 participants.

Do Cochrane Reviews of Research on Cardiovascular Diseases Consistently Address Sex and Gender?

Our study found that while a majority of the topics addressed in the reviews had sex and/or gender implications – such as differences in symptoms or treatment – the data presented in the research reviewed were rarely broken down by sex. In other words, it was frequently impossible to learn from these trials whether or not women and men reacted differently to treatments or had different outcomes.

In the past, the exclusion of women from health research was usually responsible for our lack of knowledge about women’s health. However, this was not necessarily the case for the Cochrane reviews we examined: close to 75 percent


What Does a Systematic Review Include?

The Cochrane Collaboration has developed a handbook for systematic reviewers, which outlines the steps involved and the issues to be addressed. According to the *Cochrane Handbook*,^[5] a systematic review consists of seven steps:

1. Formulating a problem
2. Locating and selecting studies
3. Critical appraisal of studies
4. Collecting data
5. Analyzing and presenting results
6. Interpreting results
7. Improving and updating reviews

The final systematic review should generally contain nine main sections:

1. Background
2. Objectives
3. Criteria for inclusion/exclusion of research
4. Search strategy
5. Methods of the review
6. Analysis
7. Discussion and conclusions
8. Quality assessment
9. Table of included studies



of the reviews – 28 out of 38 – were based on research studies that included both females and males.^a Despite this fact, 20 of the 38 reviews reported on adverse outcomes of treatment, but none of these reported adverse outcomes by sex. Furthermore, only two of the 38 reviews commented on research gaps related to sex or gender and only 25 percent of the reviews included a rationale as to why they had not analyzed results for any “subgroup” of participants, including males and females. Only one review reported sex and/or gender implications for clinical practice and not one of the reviews discussed the sex and/or gender implications of research for health policy or regulation. In summary, the *Sex and Gender Appraisal Tool* revealed that none of the 38 reviews systematically addressed sex and gender in health research.

Conclusions and Implications

Despite the accumulation of significant evidence for the relevance of sex and gender in the management of cardiovascular health, this pilot project demonstrated that sex and gender were not adequately taken into account in the systematic reviews sampled. There are likely a variety of reasons for this, including the possibility that the primary studies included in the systematic reviews did not identify the participants by sex, and/or did not report their findings by sex and gender. Thus, the limitations of these original studies would be reflected in the systematic reviews. But systematic reviews – by definition and design – are meant to help researchers, clinicians and policy makers assess the quality of evidence and identify significant gaps in our knowledge: they should not replicate or perpetuate flaws in health research, including a lack of attention to the influence of sex and gender. It seems, then, that some authors of systematic reviews may be unaware of established or potential sex and gender differences in health research and that the systematic review tools currently used for quality assurance are not sufficiently sensitive to sex- and gender-related variables.

The results provide a cautionary tale: if we are going to rely on systematic reviews as the basis for decisions about patient care, health policy and regulation, systematic reviews must routinely include information on sex and gender, including positive and negative results and they must clearly address when and why such information is not available. Without this kind of evidence, we risk creating policies or practices that may not be effective, safe or equitable for women and men, girls and boys in Canada.

These findings also underscore the need to address the methodological challenges of understanding the health status of different populations – or sub-groups – and how differences among people may affect symptoms, access to care, treatment outcomes and mortality. As Bailey and others point out, even slight variations in the design of research studies can affect the interpretation provided in a systematic review^[16] and it is important to recognize that analyses of subgroups within the entire participant sample may not necessarily be more accurate than overall results.^[17] We support Blauwet and colleagues who recommend universal sex-specific reporting of trial results, since such reporting “may reveal unexpected sex differences worthy of further study and, at the least, provide data for subsequent meta-analyses.”^[19,p169]

^a Each Cochrane Systematic Review includes a section entitled, “Table of included studies,” which allowed the researchers to discern whether or not males and females were represented in the research under review.

Next Steps

To build a robust base for future work, we propose that the methodologies of systematic review and of sex- and gender-based analysis be refined and brought together to enhance the collection, synthesis and analysis of evidence for decision-making. Specifically, this study recommends:

- Developing appraisal tools for SGBA in systematic reviews;
- Establishing quality indicators for SGBA in primary research and in systematic reviews;
- Addressing the methodological challenges involved in analyzing potential sex and gender differences in health status, outcomes and experiences within and between sub-groups;
- Fostering collaboration and knowledge sharing about systematic reviews and SGBA among researchers, systematic reviewers, peer review committees, health care providers, sex/gender experts as well as patients and the public.

Our research team is addressing the recommendations in a number of ways. We are working to refine and validate the SGAT-SR appraisal tool and are collaborating with the relevant Cochrane Review Groups and with the Cochrane Health Equity Field. We are also involved in constructive discussions with biostatisticians, health researchers, systematic reviewers and health care providers about the development of quality indicators for the application of sex- and gender-based analysis to all stages of the collection and analysis of evidence – from protocol development to knowledge translation of systematic reviews.

Rigorous and appropriate application of sex- and gender-based analysis to the evidence synthesized by systematic reviews can best be advanced through creative collaboration across disciplines. A wide range of stakeholders generate, analyze and use research results for health policy, regulation and clinical practice to improve individual and population health. Increasingly, governments and research agencies are learning about SGBA and requiring that it be applied in health research to improve outcomes and reduce harm.^b These goals can be achieved by carefully refining an understanding of the interrelationships between sex and gender as well as other health determinants, developing robust indicators for quality assurance of evidence^c and demonstrating how sex- and gender-based analysis is integral to sound science, policy and clinical practice.

^b In Canada, the application of sex- and gender-based analysis to policies, programs and research was mandated through the Federal Plan for Gender Equality (1995) and is required by the Treasury Board of Canada Secretariat in the preparation of Treasury Board submissions (www.tbs-sct.gc.ca/pubs_pol/opepubs/TBM_162/gptbs-gppct03-eng.asp#Toc171392121). Health Canada's Gender-based Analysis Policy (2000) has been updated and revised to a Health Portfolio Sex- and Gender-Based Analysis Policy (2009). For other examples internationally see: Caron J. Report on Governmental health research policies promoting gender or sex differences sensitivity. Ottawa: Institute of Gender and Health, Canadian Institute for Health Research; 2003. Available from www.cihr-irsc.gc.ca/e/pdf_25502.htm

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c For a discussion of the lack of consistency in standards of reporting in systematic reviews and the need for critical evaluation of results see Moher D, Tetzlaff J, Tricco AC, Sampson M, Altman DG. Epidemiology and reporting characteristics of systematic reviews. *PLoS Med*. 2007;4(3): e78. doi:10.1371/journal.pmed.0040078

Transport Accidents in Belize:^a An International Case Study

Introduction

In 2008, Prairie Women's Health Centre of Excellence was commissioned by the Pan-American Health Organization (PAHO) to write two guides that explain how sex- and gender-based analysis can be applied in health planning, with examples to be developed using health data from Belize. This case study is adapted from one of the guides and used with permission from PAHO.

Urban growth, throughout the Americas, has increased the need for transport and, in turn, led to greater risks for injuries.^[1]

Belize is a small Central American country, 274 km long and 109 km wide (22,700 km²). The 2005 mid-year population estimate was 291,800 (144,400 females and 147,400 males). Transport accidents in Belize claim many lives each year, resulting in serious injuries with large personal costs to individuals and their families as well as economic impacts and associated costs for medical and social service resources that support treatment and rehabilitation.^{[2]b} The example of transport accidents was chosen to illustrate how a sex- and gender-based analysis of health surveillance data can reveal important information about men.

Analyzing Transport Accidents Without Sex and Gender

If we began a standard analysis of transport accident deaths and injury for the population of Belize we might say:

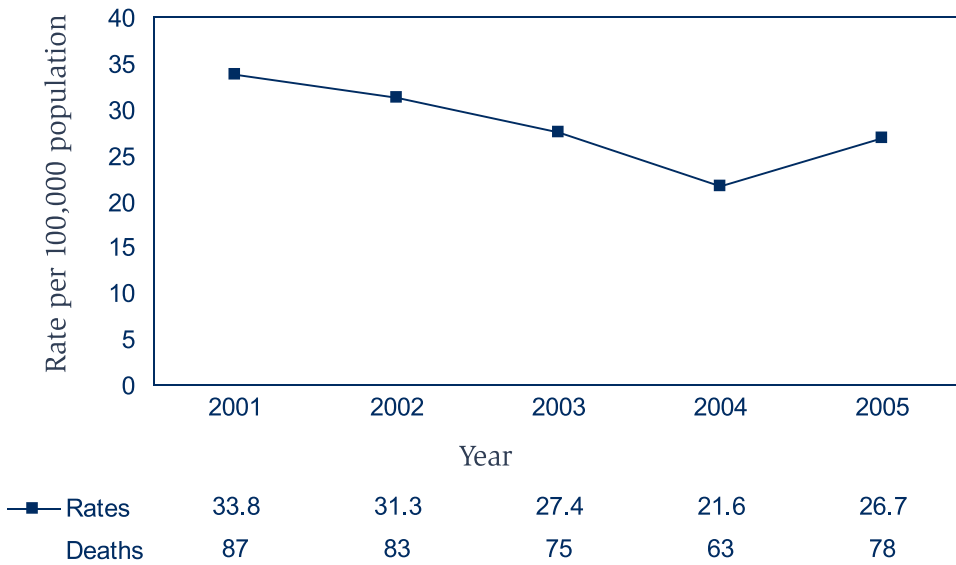
In 2005, 78 people in Belize died in transport accidents. This represents 5.7 percent of all deaths that year, making transport accidents the 4th leading cause of death in the country. Nevertheless, fewer transport fatalities occur than in the past. As Figure 1 shows, in recent years, the rate of death from transport accidents declined from approximately 34 to 27 deaths per 100,000 of the population, an overall decline of 20 percent.

This standard analysis would give us a general impression of the incidence of transportation accidents and would lead us to ask why the rates fell in 2004 and why they began to rise again in 2005.

a Unless otherwise noted, all data in this case study are from Health Statistics for Belize. Belize: Epidemiology Unit, Ministry of Health; 2006. These data are provided to illustrate SGBA and are not intended as a comprehensive analysis of transport accidents in Belize.

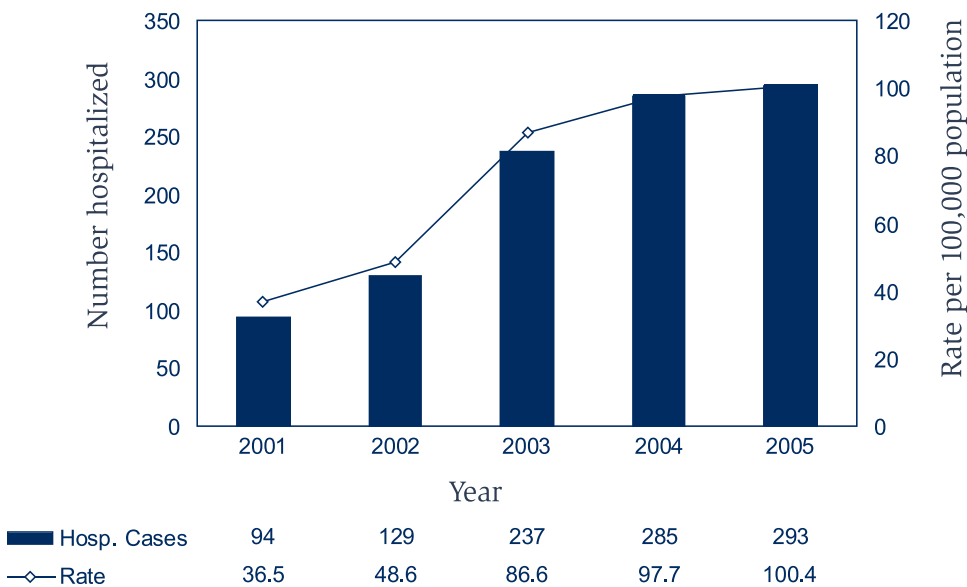
b Transport injury hospitalizations and deaths are defined according to the criteria set by the ICD-10 for transport accidents (Chapter XX, V01-V99), which identify a victim's mode of transport (e.g., pedestrian, occupant of car, bus or boat), and distinguish transport accidents from other external causes of accidental injury. These reflect events where the main cause of injury is a transport accident, identified in admission and discharge records, or for deaths, where the underlying cause of death is a transport accident, as identified on medical certificates of death. See World Health Organization. International statistical classification of diseases and related health problems. c2007 [cited 2008 Dec 19]. Available from www.who.int/classifications/apps/icd/icd10online/

Figure 1. Death Rates from Transport Accidents by Year, Belize, 2001-2005



While the rates of transport-related deaths are relatively small, Figure 2 shows that many more transport accidents are leading to hospitalization. Hospital records indicate that 293 individuals were treated in hospital for transport accident-related injuries in 2005 alone, three times the number treated in 2001.

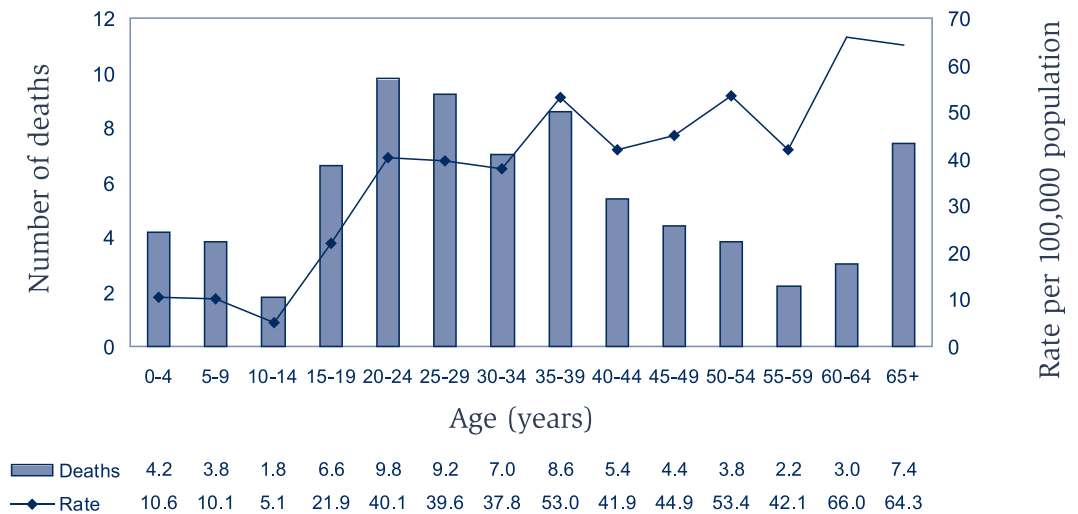
Figure 2. Rate of Hospitalization for Transport Accident Injury by Year, Belize, 2001-2005



In other words, Belizeans were hospitalized for such injuries at a rate of 100 in 100,000 of the population in 2005—an equivalent of one in every thousand individuals. While improvements have been seen in the number of transport *fatalities*, more people have been *treated* in hospital for transport accidents. We cannot determine from the data whether these trends are a result of fewer serious transport incidents, which are less likely to be fatal, but result in more treatable injuries, or whether the trends observed are a result of more individuals accessing care at hospitals for injuries than in the past.

As accidental death and injury are understood to be closely associated with age, a typical analysis would next involve a break-down of deaths and hospitalizations for various age categories in the population. Mortality data averaged over the 2001-2005 period (see Figure 3) showed that 54 percent of transport accident fatalities occur among individuals aged 15 to 39 years. As well, seniors (age 65 +) account for a disproportionate number of deaths from transport accidents, relative to their proportion of the population. Consequently, we actually see the highest rates of death occurring among seniors (64.3 per 100,000 of the population).

Figure 3. Deaths and Death Rates from Transport Accidents by Age, Belize, Average for 2001-2005



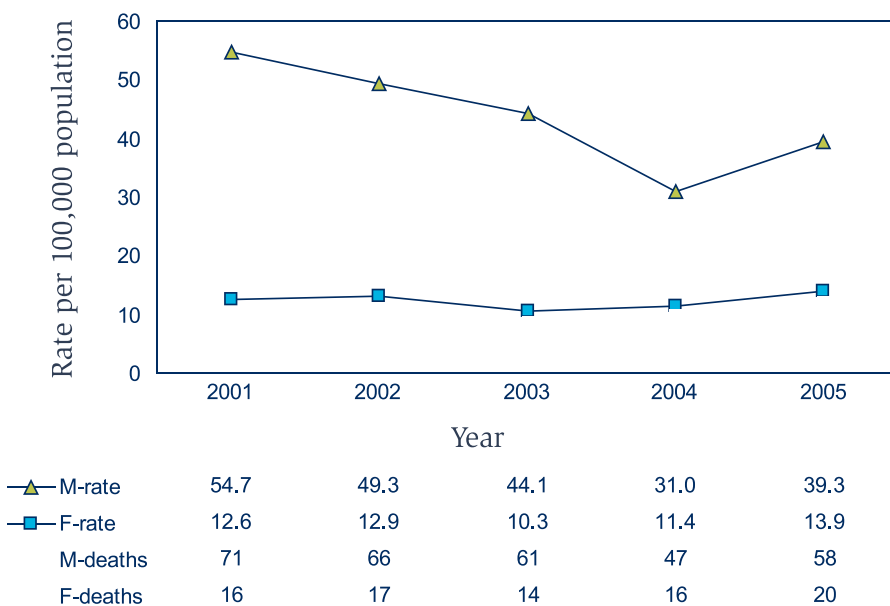
From this analysis, planners might conclude that directing research, policies and programs at young adults and seniors would represent the best use of limited resources. However, some information that could help them deliver the most effective programs would be missed.

Adding Sex and Gender

When the dimensions of sex and gender are added to the analysis, the most striking evidence is the large difference in transport accident fatalities and hospitalized injuries between males and females:

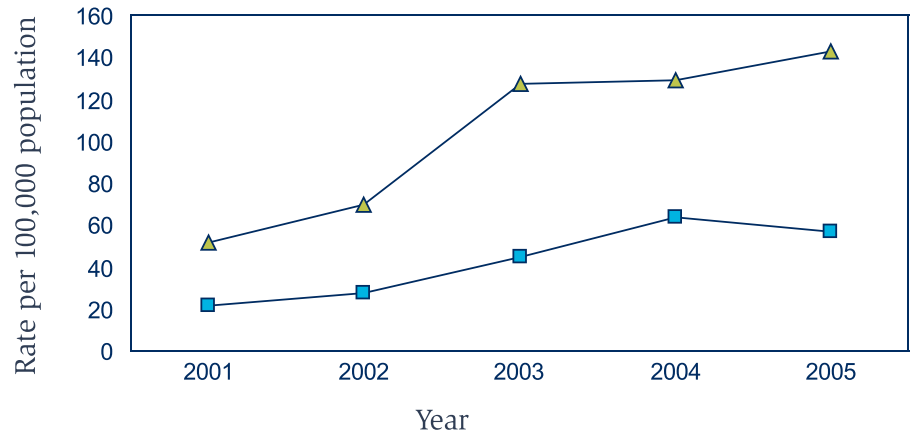
In 2005, 58 of the 78 transport fatalities were males, while the remaining 20 were females. Similarly, males accounted for 211 of 293 hospitalizations for transport accident related injuries. Thus, males had nearly three times the rate of transport fatalities and 2.5 times the rate of hospitalization for transport accident related injuries compared to females (39.3 versus 13.9 per 100,000 and 143.1 versus 56.8 per 100,000 respectively). Separating and reporting the data by sex shows that males are apparently at much greater risk than females of death and injury requiring hospitalization as a result of transport accidents (see Figure 4).

Figure 4. Death Rates from Transport Accidents by Year and Sex, Belize, 2001-2005



Although fatalities among men have generally declined over the last five years, there has been little change in the relatively low rate of deaths among women. But hospitalization of males and females for transport-related injuries has escalated with rates for both sexes nearly tripling between 2001 and 2005 (see Figure 5).

Figure 5. Rate of Hospitalization for Transport Accident Injury by Year and Sex, Belize, 2001-2005



—▲— M-rate	51.6	69.5	127.3	129.2	143.1
—■— F-rate	21.2	27.4	45.1	63.6	56.8
M-cases	67	93	176	196	211
F-cases	27	36	61	89	82

Men’s higher rates of transport accident fatalities are seen in nearly every country within the Americas, as evidenced by the selected examples in Table 1 for 2000-2005. While the data show that the ratio of female to male deaths from transport fatalities in Belize (0.2:1) is consistent with that for many other nations (16 of 39 countries had a ratio of 0.2:1), they also demonstrate that Belizean men had the highest rate of death from transport accidents (56.0 per 100,000 of the population) and women had the second highest death rate (12.9 per 100,000) among 39 American nations.

Table 1. Death Rates* for Transport Accidents, Selected Nations in the Americas, 2000-2005

	Females	Males	Ratio F:M
Belize	12.9	56.0	0.2
Guatemala	1.2	5.3	0.2
Mexico	7.1	28.5	0.2
Turks and Caicos Islands	6.4	39.4	0.2
Brazil	8.5	37.6	0.2
El Salvador	11.0	42.3	0.3
Bahamas	10.4	39.6	0.3
Canada	5.6	14.0	0.4
United States	9.7	22.5	0.4
St. Lucia	13.9	28.7	0.5
Haiti	6.6	6.2	1.1
<p><i>Source: Adapted from Gender, Health and Development in the Americas, Basic Indicators 2007, PAHO. ^[2]</i></p> <p><i>*Notes: Rates per 100,000 population. Latest data available, 2000-2005</i></p>			

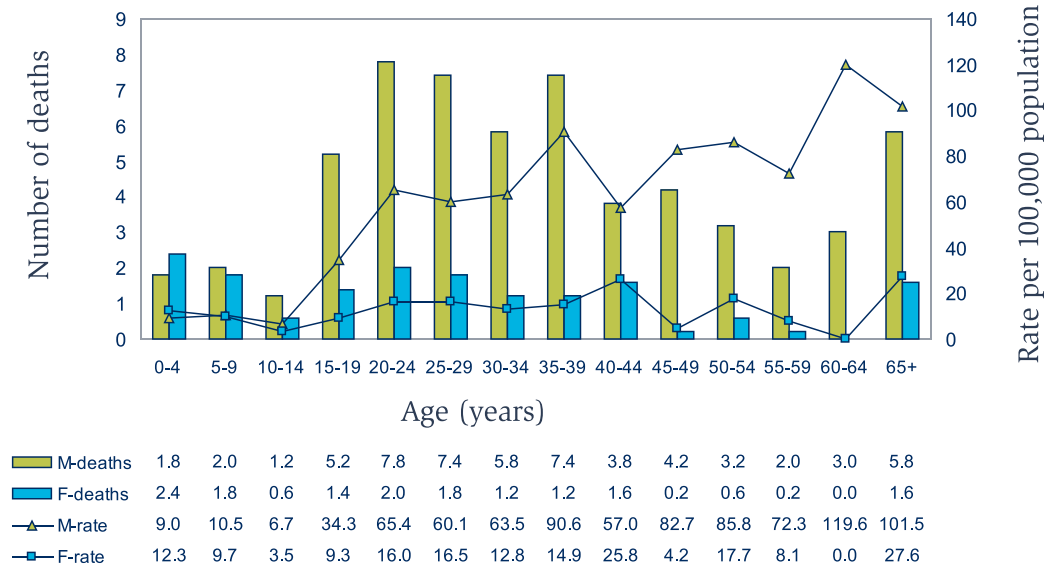
If we break down the male and female death rates further – by age – some interesting patterns emerge for Belizeans.

Young men aged 15 to 39 had death rates ranging from 35 to 90 deaths per 100,000, representing an average of 5 to 8 deaths per year. In contrast, boys had a low risk of death (10 deaths per 100,000 or less). Middle-aged and older men had a level of risk disproportionate to their numbers, with average death rates ranging from 80 to 120 deaths per 100,000. However, the death rate among women and girls differed very little across the lifespan; even young women’s rates of death remained under 15 deaths per 100,000 (2 or fewer deaths per year).

Young men are also much more likely to be hospitalized for injuries as compared with males of other ages and all women (see Figure 6). For example, during the 2001-2005 period the rate of hospitalization for transport accidents for men aged 20 to 24 was 218 per 100,000, representing approximately 130 men per year. In contrast, the rate for women in this age range was 62.5 per 100,000, representing 39 women treated in hospitals for their injuries. Once again, while the ratios remained relatively constant, men and women of this age both showed the greatest increases in hospitalization, that is, four times the number treated in 2005 compared to 2001.

Thus, men aged 15 to 39 stand out as suffering serious consequences in transport accidents with over four times the rate of death and nearly three times the rate of injury treated in hospital compared to women. As well, young women are increasingly requiring treatment for such injuries.

Figure 6. Death Rates from Transport Accidents by Age and Sex, Belize, Averaged for 2001-2005

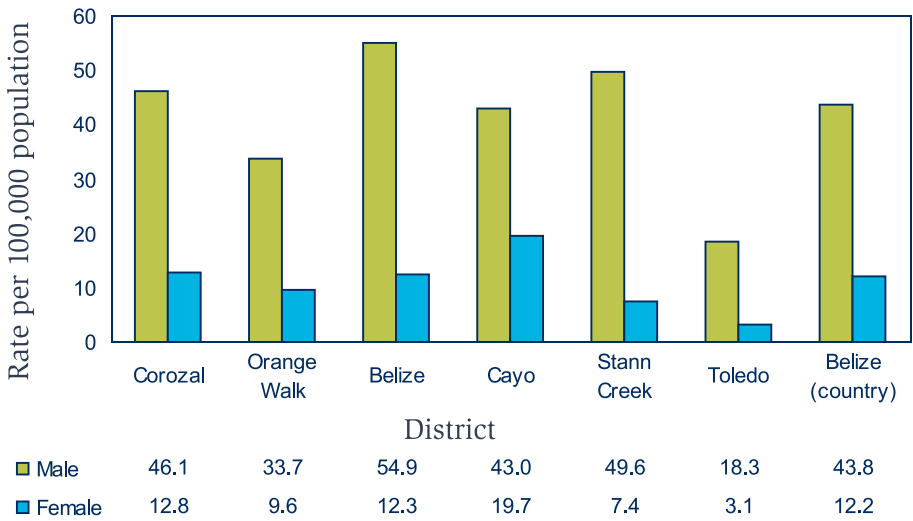


Expanding the Analysis: What Can Be Learned from Looking at Local Data?

More can be learned by examining the data on transport accidents and deaths by geographical district.

Males living in the Belize District faced the highest risk of death from transport accidents (see Figure 7). Data averaged for 2001-2005 showed that the death rate from transport accidents for males in this district was approximately 55 per 100,000 of the population, three times the rate for males in the Toledo District. The higher number of fatalities in the district may be related to the addition of more fishing and shipping industry-related transport accidents, urban transport conditions in Belize City, or other factors that need to be further explored. As the difference between males and females is greater in this district than in others, the factors involved are likely to also be associated with gender differences, that is, the roles, responsibilities and occupations men and women have in Belize.


Figure 7. Death Rates from Transports Accident by District and Sex, Belize, Averaged for 2001-2005



Questions Health Planners Should Ask

The analysis does not stop with the health surveillance data. Sex- and gender-based analysis seeks more information by prompting us to ask more questions such as these:

- What local gender roles, responsibilities, and transport access, mobility, and needs are prevalent, which can account for differences in men’s and women’s experience of transport fatalities and injuries?
- A variety of road users (e.g., pedestrian, cyclists, motorcycle, car, public transit) with varying levels of vulnerability and levels of training and safety education may affect rates of accident and injury. How do gender and age differences in road use influence rates of injury and death from transport accidents?
- What do we know about the lives and circumstances of young men in Belize? How do their roles, responsibilities and employment conditions affect their risks for death and injury? What strategies could address social pathways that place men at risk for transport accidents? For example, can other safe recreational opportunities, more traffic signs, different licensing procedures, or improved workplace policies reduce risks for men?
- What factors have contributed to the decrease in transport accident mortality among men in recent years? What about women? What do we know about the lives and transport of women that have exposed them to fewer deaths, but increasing rates of hospitalization? Have changes in women’s roles (e.g., more women in the labour force, greater acceptance of women drinking alcohol) influenced these rates?

- 
- Are the differences in transport accidents and their consequences among women and men distinguished by rural and urban residence, income group, or employment?
 - When considering current and future transport projects, how can we assess their potential impact on men, women, young and senior men? How can risks be averted?

What Additional Information Is Needed for SGBA?

- What does the literature say about differences in driving behaviour by gender, and association with accident rates?
- What do we know about the types of transport accidents that occur? How many are land, water, air transport incidents? Who is most vulnerable in ground transport accidents: motorists, passengers, pedestrians or cyclists? Are they public vehicle accidents or owner operated vehicle accidents?
- What further information might insurance claims, police data and other statistics collected by industry provide on transport fatalities and injuries?
- What are the rates of accidents in various local industries? What workplace safety standards apply in local industries?
- What local attitudes and behaviours affect the availability and use of safety features or measures that could reduce transport accidents and their consequences?

How Can SGBA Inform Program and Policy Needs?

- Do men and women need different types of education on road and driving safety?
- Do youth or the elderly have different needs?
- What changes to traffic and roadways might enhance the safety of pedestrians, addressing the needs, circumstances, life situation of men, women, youth or elderly?

Who Do You Need to Involve in Order to Develop a Gender-sensitive Strategy?

Reducing transport-related fatalities and injuries among men and women requires coordinated planning to prevent accidents, address workplace and community hazards and enhance safeguards that can minimize risks and harm to individuals. Understanding sex differences and gender influences in outcomes as well as attitudinal, behavioural and situational risks can help public health planners and their community partners prepare programs, policies and infrastructures that enhance the effectiveness of prevention and treatment.

- Who should be involved in planning programs, policies and initiatives that can prevent transport accidents and better protect young men from serious consequences (e.g., what local industries may be involved, which community organizations and government officials?).
- How can women’s and men’s views about the best transport and non-transport options be taken into account to meet local needs?

Gathering a body of current literature, community reports and including local knowledge of the situation broadens the evidence that can be used in sex- and gender-based analysis. Limited resources can therefore be allocated with greater efficiency and effectiveness in health and related areas to improve health outcomes.

Postscript

This international case study is included in the guide for PAHO as planned. However, it is interesting that when the case study was tested in a workshop with bio-statisticians and epidemiologists from Belize and other Central American and Caribbean countries, the arising discussion led to gender-based explanations for the transport deaths that are not strictly in the silo of “health.” While the high rate of deaths for men is a public health problem, the solutions may be found, the workshop participants suggested, in public infrastructure and road works, policing needs and public administration of licensing, among other sectors.

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Methyl Mercury Exposure and Women's Bodies

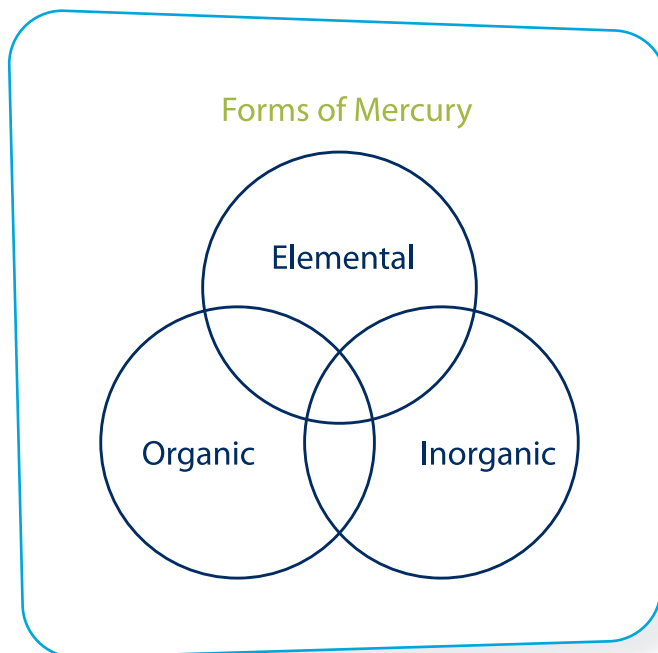
Introduction

This case study arose in the context of growing public and political concern about the environment and its impact on human health. More and more we appreciate the ways in which natural disasters, such as earthquakes, forest fires and floods, are related to global changes in the environment. At the same time, researchers are learning more about the threats to health posed by exposure to chemical contaminants: radon gas, air pollutants and chemicals in foodstuffs. Yet, only a small number of researchers and activists – and fewer decision makers – are paying attention to the ways in which environmental hazards affect women and men differently. This case study consequently focuses on mercury contamination as a way to understand the critical need for recognizing female and male vulnerabilities in environmental planning and policy.

How Does Mercury Exposure Occur?

Mercury exists in three different forms – elemental, inorganic and organic – and exposures can occur through breathing, eating or swallowing and skin contact.^[1] The type of mercury most toxic to humans is methyl mercury. It is in this form that mercury accumulates in fresh and salt water fish and shellfish, making the consumption of these animals – especially larger fish that have lived longer and have had more time to build up mercury in their bodies – the primary source of human exposure. In addition, the consumption of marine mammals, such as seal, who feed on sources of food with concentrations of mercury also pose health risks for humans.

Although mercury occurs naturally in the environment, it is also produced through industrial processes, such as combustion, metal mining and smelting. When it makes its way into water, this mercury converts to the toxic methyl mercury, which is then absorbed by fish through the aquatic environment.^[2,3] Human activities also redistribute and concentrate mercury by incorporating it into certain consumer items such as dental fillings and some cosmetics.^[1] Moreover, the effects of mercury can be compounded by exposure through a variety of avenues including industrial, energy, commercial, residential, agricultural and transportation-related sources.



How Much of a Health Threat Does Mercury Pose?

While we might expect researchers to have established with certainty the dangers associated with mercury – and policy makers to have created adequate regulations – in fact a great deal of debate and uncertainty exists about how much mercury is “too much.” Methods of estimating levels of exposure vary and experts continue to debate the existence of minimum “thresholds” of contaminants for health effects. Moreover, the extent of damage caused by mercury can fluctuate, depending on whether exposures are seasonal or chronic, acute or indirect. But we are certain about one thing: mercury poisoning causes a host of harmful effects.^[4]

Mercury is particularly dangerous to human health for three reasons: it is toxic, it does not break down in the environment, and it can build up, or “bioaccumulate,” in living systems over time.^[4] The range of damage associated with mercury exposure can involve the brain, spinal cord, heart, kidney and liver. Specifically, mercury has been associated with developmental delays, various forms of cancer, infertility, impaired vision and speech, muscle weakness and incoordination and cardiovascular disease.^[5-7] Although more studies are needed, existing research suggests that mercury also has the potential to influence the development of neurological symptoms, such as altered sleep cycles, tremors and difficulties with hand-eye coordination later in life.^[7]

Why Is Mercury Pollution an Issue for Women, Specifically?

Mercury exposure represents health risks for everyone, but we know – without question – that it affects women disproportionately.^[5] Sex differences between women and men heighten the risks associated with mercury exposure. Women’s bodies tend to have more fat than men’s. Given that mercury adheres to fat and accumulates over time, the average woman stands to absorb a much larger amount of mercury in her lifetime and suffer a greater impact from even a single mercury exposure than the average man.^[6] Mercury pollution not only affects women themselves, but bioaccumulated mercury can also be passed on to children, both to a fetus in utero and to an infant through breastfeeding.^[1,8]

Does Mercury Pose the Same Risks for All Women?

While all women exposed to mercury face similar risks, research shows that the type and frequency of exposure vary between different groups of women. Women living in First Nations and coastal communities, for example, are more likely to be exposed to mercury because they consume fish, shellfish and marine mammals in greater amounts and more frequently than other women in the country. Studies confirm that First Nations women have elevated blood mercury levels and experience related health risks, as do women living in coastal communities, especially those along the Atlantic Ocean.^[9] Researchers suspect that women in these areas not only consume more fish, which registers as increased methyl mercury in blood, but that the bioaccumulation of such contaminants also compounds their risk over time and across generations.^[9]

COMMENTARY

Evidence for Caution: Women and Statin Use

Statins – cholesterol-lowering drugs – are the most widely prescribed drugs in the world and about half of all individuals taking them are women. Women are commonly prescribed statins to protect against cardiovascular diseases, but for women without previous heart problems, there is little evidence to suggest that lowering cholesterol actually reduces a woman’s risk of experiencing cardiovascular events, such as heart attack, stroke or even death.^[1-4] In fact, there has never been a clinical trial showing the benefits of statin use among women who have not previously experienced cardiovascular health issues,^[5] yet 75 percent of women taking statins fall into this category. For women who already have heart problems, statins do reduce the risk of heart attacks, the need for angioplasty, bypass surgery and coronary heart disease-related deaths, but do not reduce overall mortality.^[1,6] At the same time, there is growing evidence linking statins to breast cancer,^[7,8] miscarriage,^[9] and birth defects.^[9-11] Thus, statin therapy seems to have no effect on preventing overall deaths among women with or without previous heart disease,^[1,3,12,13] raising concern that we may be trading off heart disease deaths for other causes of death, such as cancer. As well, statin use has been related to depression^[14-15] and muscle impairments^[16] in both women and men. It is difficult for women and their doctors to make informed choices about statins or understand normal life course increases in cholesterol levels during pregnancy or menopause because of a lack of sex- and gender-based analysis in this area. To increase knowledge about the effects of statin use, public funding should be made available for randomized clinical trials exclusively for women. Additionally, information detailing crucial adverse events for both women and men must be gathered and fully disclosed. Further research is also needed on the gender dimensions of diagnosis and treatment for cardiovascular diseases, including prescription of statins.

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What Policies Currently Exist to Address Mercury Pollution? Are These Policies Effective?

To date, the standard governmental response – both federally and provincially – to the issue of mercury contamination has been to issue retail and sport fish consumption advisories, which distinguish between dangerous and non-dangerous levels of fish consumption.^[1] Given the established risks associated with mercury exposure, this action is wholly inadequate. It neglects to consider the danger of compounding effects as well as the regularity with which some populations consume fish high in mercury.^[10] In the case of First Nations and coastal communities, for example, there are important socio-cultural, economic and nutritional benefits associated with fish, shellfish and marine mammal consumption that must be weighed against the health risks associated with the consumption of mercury. At the same time, fish and shellfish consumption advisories neglect the role of industry and the obligations of governments to regulate industries in order to prevent mercury pollution.^[3]

Although less mercury is being released into the environment by individuals and industries^[2] (as established and measured through federal standards on industrial emissions and mercury containing lamps and dental amalgams^a) and there is growing recognition of the need for risk management tools and pollution prevention planning, we still need emissions control standards and protocols that are binding.^[2] Tighter controls on emissions are the most direct way to diminish mercury contamination and to reduce the dangers of fish and shellfish consumption, which many people living in Canada currently have to weigh against the health benefits of eating such animals.

Alongside efforts to reduce mercury contamination, it is also important that policy initiatives include a gendered approach and an awareness that mercury does not have a uniform impact across communities. For example, pregnant women currently receive mixed messages about fish and shellfish consumption, with health educators

^a The Canada-wide Standards (CWSs) for mercury emissions refer specifically to smelters and waste incinerators as well as emissions from lamps and waste.

simultaneously praising their benefits (e.g., protein, unsaturated fatty acids, omega-3 fatty acids) while warning against their dangers (e.g., contaminants, methyl mercury).^[11] For many women living in coastal communities, food that comes from the sea is a primary source of diet, making mixed messages and the threat of mercury contamination increasingly stressful for pregnant women in those communities. In addition, better tools are needed to measure mercury contamination as well as data that are disaggregated by sex, age, ethnicity, geography and other determinants of health. Ultimately, a thorough and effective approach to the issue of mercury contamination requires involvement at all levels of government as well as collaboration from Native leaders and public health units.

Conclusion

Sex- and gender-based analysis helps us to better understand the ways in which environmental contaminants pose different biological risks for women and men. It also encourages us to consider the health impacts of pollution for different populations of women and men. This study of mercury demonstrates the importance of sex-disaggregated data in ascertaining cause and effect. In this case, the acknowledgement that mercury contamination presents unique risks for women, particularly in First Nations and coastal communities, is an important platform from which to assess and anticipate future policy on mercury and highlights the issues of bioaccumulation, chronic low-level exposure and in-utero contamination.

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Chapter Five:

Emphasizing Gender

In Chapter 4, the case studies and commentaries were grouped together to illuminate the importance of understanding sex as a determinant of health, including its relationship to other determinants. The material in Chapter 5 has been organized to illustrate the differences between *sex* and *gender*, and to highlight the ways in which analyzing gender is critical to better science, better policy, better planning and better health for all.

The case study on wait times for hip and knee replacement explores the biological factors that create a greater need for intervention among women than men as well as the social factors that lead to longer wait times for women and men. Similarly, the case study on heart health describes the ways in which sex and gender interact to heighten the risk of cardiovascular diseases among females. The commentary on meat consumption and production also poses important questions about the intersections of sex and gender.

Other case studies and commentaries in this chapter focus more on the role of gender in health status, access to health care, and in health service delivery. Whether care providers are paid or unpaid, whether they are working in the home, in health care facilities, or on the front lines during disasters and emergencies, they are affected by gender roles, expectations and stereotypes. The case study on unpaid care-giving, for instance, examines the ways in which gender stereotypes press women into care-giving roles, frequently at the expense of their own health and economic security. The commentary on private health insurance provides additional insight into the workings of gender on the provision of and access to care. The case study on emergency preparedness and disaster management illuminates the workings of gender stereotypes at every step, from planning and preparation mitigation and recovery, pointing out that these biases can prevent men and women from giving and receiving optimal assistance when disaster strikes.

Finally, the case study on hip and knee replacement surgery is also an excellent example of the iterative nature of SGBA. As the authors delved into the analysis of wait times for total joint arthroplasty, they found themselves branching out in new and unexpected directions that ultimately led to a rich and robust analysis of the workings and impact of sex and gender.

Sex and Gender, Hips and Knees: A Sex- and Gender-based Analysis of Total Joint Arthroplasty

Introduction

During the past two decades, demands on the health care system and the costs of providing care have escalated. Canada, like many other nations in the world, has gone through a series of health care reforms, ranging from administrative restructuring to removing services from the publicly funded health care system. Despite these changes, however, the growing number and duration of lengthy delays in getting care and services – known as “wait times” – have continued to plague the health care system. In 2004, Federal, Provincial and Territorial First Ministers in Canada devised a strategy to reduce wait times as part of a *10-Year Plan to Strengthen Health Care*.^[1] The strategy included a Wait Time Reduction Fund and the appointment of a Federal Advisor on Wait Times, Brian Postl.

In the fall of 2005, Women and Health Care Reform – a working group of representatives from the four Centres of Excellence for Women’s Health and the Canadian Women’s Health Network – was invited by the Federal Wait Times Advisor to contribute a sex- and gender-based analysis of wait times for the report he was preparing. The group chose to focus on total joint arthroplasty (TJA) – hip and knee replacement surgery – as it was one of the action priorities identified by the First Ministers. The aim was to illustrate the value of SGBA to the wait times issue and to health policy making more broadly. In June 2006, Dr. Postl released his Final Report^[2] and included the SGBA on wait times as an appendix.

The purpose of this case study is to illustrate sex- and gender-based analysis as a process, which entails asking questions that illuminate the assumptions, evidence base and interpretations of an issue and often leads to a different way of understanding a problem and the potential solutions.

Making an Issue of Wait Times

In Canada today, the issue of wait times is framed by a deepening concern for the state of the health care system. There is also growing concern that long waits for health care have serious individual, social and economic costs, implications for fairness and contribute to declining confidence in the health care system. Many users of health care, as well as practitioners and managers, believe that wait times are increasing. The media often reinforces this perception by reporting extreme cases of waiting. However, while wait times for some procedures have increased, evidence from Statistics Canada and provincial databases suggest that overall, wait times for non-emergency surgery and major diagnostic services, such as MRI scans, have been stable in recent years.^[3]

Something to Think About

Sex- and gender-based analysis is accomplished by asking “new questions” that take into consideration the potential for differences between and among women and men.

These are some of the sensitizing questions we can bring to the issue of wait times, informed by SGBA:

- How is the problem of wait times framed?
- How are wait times defined and measured?
- How do we assess the health condition in question?
- Are measurement tools valid for women and men across a range of social locations?
- Are data disaggregated by sex and other social locations?

Defining the Issue and Defining the Terms

Discussions of wait times are complicated by the fact that researchers and policy makers across jurisdictions have used a variety of definitions and measurements of “wait times,” that is, when “the clock starts and stops.” Some argue that waiting begins when a patient gets a referral from her or his general practitioner. Others contend that the clock starts when a specialist makes the decision to prescribe a certain treatment. In addition, others believe that waiting commences when a patient is placed on a hospital waiting list.

By December 2005, it was clear that in the absence of a consensus about the meaning of wait times, a single definition would have to be adopted for the purposes of evaluating and trying to influence wait times. As a result, the Federal, Provincial and Territorial Ministers made the decision that wait times would begin when a doctor or specialist booked a service (such as a test or surgical procedure) and end when the patient began to receive the service. In the case of TJA, an orthopaedic specialist books the surgery so the clock starts with the booking and stops when the patient receives the surgery.

While this decision may have been necessary, the definition of wait time – like so many other past and present definitions – excludes significant and meaningful portions of the “patient journey” through the health care system. In the process, the definition also excludes significant elements of waiting that are important from the patient’s perspective as well as that of the health care system. When we take sex and gender into account and examine the entire patient journey more closely, we find that women spend a lot of time “waiting to wait.” In other words, they begin looking for care long before the official clock starts, but it is difficult to find women on wait lists because of the way they are treated by health care providers and because wait time data are usually not reported by sex. Consequently, our SGBA process took us back to the research literature to understand the need for TJA, the experiences of both sexes and the effects of waiting on women and men, including the relationship between waiting and gendered social roles, such as care-giving.

Wait Time and TJA

Hip and knee replacement surgeries have received a lot of attention in wait times debates, in part because there is growing demand for these operations in Canada. Between 1995 and 2002 there was a 19 percent increase in hip replacements and a 62 percent increase in knee replacements.^[4] Getting treatment early is important because the costs of surgery are lower when there is less damage in a joint. Delaying hip and knee replacement can also lead to poorer health. We also know that there are differences between women and men in the level of need for hip and knee replacement as well as how they are diagnosed and referred for treatment. Discrepancies also exist in terms of the types of supports women and men have before and after surgery. There are also gender disparities in responsibilities as wage earners and/or caregivers for family members, which affect one’s likelihood of being on a wait list as well as one’s experiences of waiting. Furthermore, factors other than gender – such as income, education and race – also have an impact on waiting for care and it was important to be mindful of them in the analysis.



Sex- and Gender-based Analysis of TJA

Conducting a sex- and gender-based analysis of hip and knee replacement surgery will determine what the available evidence tells us about wait times. In order to do an analysis of differences between men's and women's wait times for hip and knee replacement, one might be tempted to simply look at the wait list data, break it down by sex and see if there are any differences in the length of time men and women wait. But that would leave out important information about how men and women get to the wait list as well as what the impact of waiting might be for each of them. Therefore, this SGBA starts at the very beginning by looking at the underlying condition that generates the “demand” for TJA.

Who Gets Arthritis?

Arthritis is one of the most prevalent chronic conditions in Canada and a leading cause of long-term disability, pain and increased health care utilization. It is also the underlying condition that prompts most hip and knee replacements. Osteoarthritis affects about twice as many women as men.^[5] Its causes may differ by sex and gender, insofar as women and men have different rates of correlated conditions and undertake different activities that are predictors of osteoarthritis (e.g., previous knee injury, occupational kneeling and squatting).^[6] Because women have a greater incidence of osteoarthritis, we might expect research on the impact of physical activity and mechanical occupational exposure to attend to women's experiences. Instead, the research has concentrated primarily on men, focusing on former athletes and “masculine” occupational categories such as agriculture, forestry, fishing and transportation.^[6,7] This is one important evidence gap.

There are also differences in arthritis prevalence related to class, race, relationship status and labour force participation. For example, higher rates of arthritis are found among people with lower income and less education.^[5] Arthritis is also the most prevalent chronic condition in Canada's Aboriginal population and is 10 percent more prevalent than in non-Aboriginal Canadians.^[8] Aboriginal people in Canada have reported that arthritis is one of the five most important health problems in their communities.^[8] In the United States, African-American women have been found to have higher rates of knee osteoarthritis than Caucasian women.^[9]

Does the Need for TJA Differ Between Women and Men?

A Canadian population-based study found that the estimated potential need for TJA was more than twice as great among women as men because of the higher prevalence of severe hip and knee arthritis in women.^[10] In comparison with men, women have more arthritis pain, are more likely to be disabled from the condition and are more likely to need assistance with daily activities, but they are less likely to report unpaid help (mostly because they are more likely to live alone).^[10,11] The same study found that TJA was underused in both men and women, but that the degree of underuse was more than 3 times greater in women.^[10] The authors concluded that because earlier intervention in the course of hip or knee osteoarthritis results in better postoperative outcomes, “underuse

of arthroplasty may have substantial direct costs to the health care system and indirect costs to society, and that more of these costs are due to underuse in women than in men.”^[10,p1020]

Why Don't More Women Get Hip and Knee Replacements?


How can we account for women's greater underuse of TJA? In our analysis we looked at three main areas: (1) how women and men are diagnosed; (2) how women and men report symptoms AND how clinicians make treatment decisions; and (3) how patients make decisions about treatment. Each of these factors can be thought of as having an “upstream effect” on wait lists. That is, they determine who does or does not get on a wait list.

Sex- and gender-based analysis can reveal important limitations of so-called “objective” measurement tools and can point to the need for more robust and equitable measures. For example, damage to hip and knee joints is often assessed by radiographic images such as x-rays. These images are understood to be objective, leading us to believe that they measure the severity of damage or disease accurately, regardless of the sex of the person being assessed (a joint is always thought to be the “same” regardless of the sex of the body it is in). However, x-rays may not be able to show how arthritis disease manifests differently in women and men. One study that examined patients waiting for knee replacement revealed that women had more impairment and disability than men, even though they had similar joint damage as determined by radiographic images.^[12]

The results of such studies suggest that referrals for TJA and management of wait lists guided by the “objective” tool of radiographic imaging may *create* gender inequity, because this tool underestimates the severity of disease and the urgency for surgery in women. Women whose disease is underestimated will not be referred to a surgical wait list. Some researchers have suggested that patient symptoms, perceptions of impairment, and pain tolerance should



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drive the decision to refer for surgery rather than radiographic assessments of joint damage.^[11] This recommendation expands the parameters of what counts as evidence in health care decision-making and this evidence may be more sensitive to sex and gender differences.

At the same time, there is substantial research evidence to suggest that doctors make more errors in diagnosis and choose less aggressive treatment options with women than men. Hawker and colleagues found that women were more likely than men to seek treatment for arthritis, but women with a potential need for TJA were not as likely as men to say they would discuss the procedure with a doctor.^[10] Physicians may also hold beliefs about the risks of, indications for, and expected outcomes of TJA that make them consider women less appropriate candidates than men.^[10] For example, physicians may conclude that surgery is not as urgent for women because they believe that women are less likely than men to be in the paid workforce. Without the need for urgency, women are less likely than men to be referred to a specialist, or are referred to a surgeon only after a longer period of pain and debility.

Finally, patients' concerns about lack of support after surgery may increase their unwillingness to undergo TJA in the first place and thus patient decision-making may affect use of TJA among women and men.^[13] Given that elderly women are more likely than elderly men to live alone, they may find it harder to get support.^[14] As well, elderly women are more likely than elderly men to be living on limited resources and may not be able to afford care. In addition, because women are more likely than men to be caregivers for others, women may already be *providing* support, rather than receiving it.^[14]

Implications

The policy goals of reducing wait times are praiseworthy and include: reducing suffering, improving quality of life, limiting costs to the health care system by treating people earlier in the course of illness, and ensuring the system operates fairly, “such that access to ... health care is ... prioritized on the basis of need and potential benefit.”^[15,p171] But these goals cannot be met if the people with the greatest need – women – are not recognized and do not make it to the list in the first place.

The Health Council of Canada acknowledges: “One of the most difficult tasks that face health services managers is the accurate estimate of true need and demand” and the Council “supports continuing attempts to better define true need.” However, the Council recommends that “historical utilization patterns should be accepted as the best estimate of current need.”^[16,p7] This approach is clearly flawed. In the case of TJA, this perpetuates the masking of women's greater need and underuse of joint replacement surgery. This recommendation is a clear example of how developing wait times policy *without* applying a sex- and gender-based analysis will not only thwart the goals of better wait time management, it may actually *increase* health inequities. The measurement of wait times must take into account men's and women's different journeys through the health care system. Clinicians need to better understand the contexts of men's and women's lives so they can more equitably assess men's and women's symptoms and needs (both pre- and post-intervention). Gender-sensitive diagnostic and referral tools must also be developed and implemented to ensure that the men

and women who need medical intervention will get it. The outcomes of these efforts may increase the number of women on surgical wait lists, but also reduce costs to the system and the social costs in the long run.

Women “Waiting to Wait”

This sex- and gender-based analysis indicates that women have twice the rate of osteoarthritis as men, they have more arthritis pain, are more likely to be disabled from the condition, and are more likely to require personal assistance with daily activities. Women are less likely than men to report having unpaid help. Despite the greater prevalence and disability experienced by women, they are less likely than men are to report having discussed TJA with a physician. As a result, women are less likely than men to be referred, or receive a referral after a longer interval to an orthopedic surgeon. Hence, women with knee and hip osteoarthritis spend substantial time “waiting to wait.”

At the same time, SGBA contributes to a deeper understanding of wait times by inviting us to expand our thinking beyond wait lists. It exposes important elements of waiting that are not included in official wait time data and helps us to understand the limitations of existing policies and approaches. Because wait time is defined as the time between booking and receiving a procedure, the extra time that women wait is effectively erased.

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Sex and Gender in Women's Heart Health

Introduction

A recent research study conducted by Raymond Fang^[1] revealed that women's life expectancy in British Columbia (BC) is decreasing relative to men's life expectancy in the province as well as in relation to women and men in other high income countries. Furthermore, women's death rates in BC from circulatory system diseases (CSD) and ischemic heart diseases (IHD) are not reducing as fast as men's. While BC women's death rates from CSD are lower than those of Canadian women in general, the prevalence of CSD among BC women is decreasing at a slower rate than for other women in Canada. Given the burden of cardiovascular disease (CVD) among women in BC – and the intent to reduce this burden – this case study focuses on what is known about sex and gender as factors in cardiovascular disease for women and what policy actions can be taken to improve women's heart health.

Reviewing the Evidence

To help inform the development of a response to high rates of CVD among women in BC, an evidence review was conducted of the prevention, treatment, and policy-related issues that affect women in relation to CVD.^[2]

The Research Team at the BC Centre of Excellence for Women's Health carried out a thorough literature search focusing on literature published primarily between 2000 and 2007 from Canada, the United States (US), the United Kingdom (UK) and Australia of the following databases: Embase, PubMed, Academic Search Premier, Cochrane Reviews, Elsevier, Ovid and Contemporary Women's Issues. During the search, we utilized a variety of keywords, including: heart health, heart disease, CVD (all kinds, separately, including: coronary, cerebral, vascular), sex, women, gender, ethnicity, obesity, hypertension, diabetes, smoking, ethnicity, age, race, SES, psychosocial and stress. Our literature search returned 350 relevant articles, of which 149 were related to health promotion and prevention, 133 related to diagnosis and treatment (this literature is not covered here) and 53 related to policy issues. The remaining 15 articles (including overview and commentary articles) were collected for background information on women's heart health. These articles were then reviewed and analyzed for information on sex, gender and diversity issues associated with women's heart health.

The majority of the evidence reviewed focused on women's heart health and heart disease data from the US, with limited evidence from Canada. Therefore, while some of the findings, such as physiological risk factors are applicable to Canadian contexts, other findings, such as policy-related issues may be less relevant due to different demographic, social and political contexts.

Defining the Terms

Cardiovascular Disease (CVD): A range of diseases that affect the heart itself and/or the blood vessel system leading to and from the heart.

Circulatory System Diseases (CSD): Diseases of the system that transports blood throughout the body.

Coronary Artery Disease (CAD) or Coronary Heart Disease (CHD): Accumulation of plaques within the artery walls that supply the heart, resulting in complete or partial blockages.

Angina: Chest pain.

Myocardial Infarction (MI): Heart attack.

Ischaemic Heart Disease (IHD): Heart disease characterized by reduced blood supply to the organs.

Hypertension: High blood pressure.

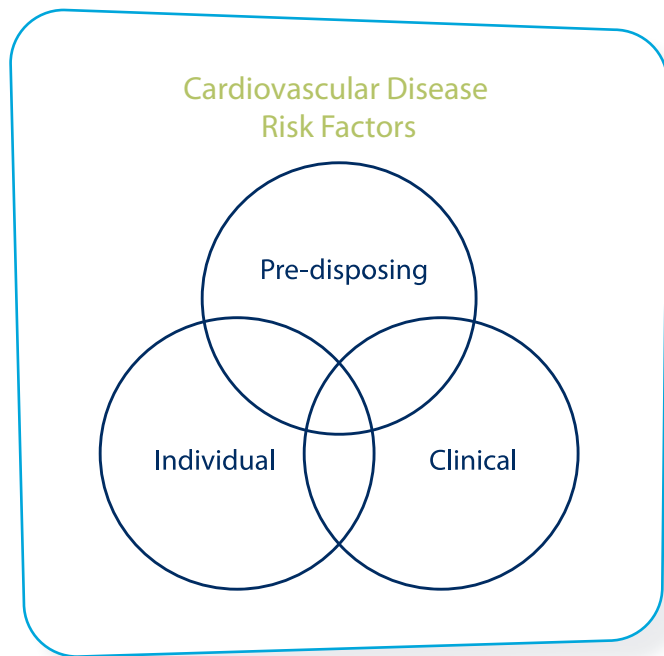
Congestive Heart Failure (CHF): Result of any disorder that prevents the heart from filling with or pumping blood through the body.

Life Expectancy: Number of years one can expect to live, based on average life spans for a population.

Life Span: Average age reached by members of a population.

What Do We Know about the Causes of Cardiovascular Disease?

Risk factors for cardiovascular disease can be grouped into three major categories: pre-disposing factors, clinical factors, and individual level risk factors. Pre-disposing risk factors are those programmed into the body during development, such as a genetic predisposition, or hormonal influences. Clinical risk factors describe physiological conditions that, at certain levels, are associated with an increased risk of illness or death due to CVD and can be clinically assessed or measured. High blood pressure is a good example of a clinical risk factor for cardiovascular disease. Individual risk factors are those that can be modified through behavioural or structural change, such as tobacco smoking or levels of physical activity. These three types of risk factors often overlap in women's lives and are influenced further by social, economic and environmental factors that can enhance or undermine their heart health.



Are Women and Men Similarly at Risk of Developing Heart Disease?

No risk factors – with the exception of hormonal status due to changes in female sex hormones during menopause – affect *only* women or *only* men, but certain risk factors have a greater impact on women.^[3, 4] These include, greater impact of lipid levels, depression, diabetes, smoking, family history and inflammation.^[4, 5] Women also face particular heart health risks related to sex-specific conditions or life stages, including changes in lipid profiles during pregnancy and menopause, and the use of exogenous hormones, increasing women's risk of heart disease.^[6]

Risk factors may be influenced by sex or gender as well as by both sex and gender. Smoking offers an excellent example of the operation of sex and gender on the heart health of women as compared with that of men. For example, as smoking interferes with estrogen production and utilization, it may strip women smokers of a natural defense against CVD, putting them at even greater risk than men. Smoking has also been identified as a stronger risk factor for heart attacks – myocardial infarction (MI) – in women than in men; relative risk is approximately 50 percent higher in female smokers compared with male smokers.^[7]

At the same time, the gender dimensions of women's smoking behaviour also place them at greater risk. For example, women are more likely to use smoking as a mechanism to cope with stress,^[8] and they have a harder time quitting smoking, requiring more social support than men.^[7] Women's smoking rates are also more likely to equal or even surpass men's, in contrast to historical patterns,^[8] thereby further increasing women's risk of heart disease.

COMMENTARY

Why Private Health Insurance Is a Gender Issue

Canadians are justifiably proud of our publicly-funded health insurance system, which was developed to be available to all Canadians. Admittedly, however, this system faces a number of challenges. In addition to shortages of health care providers and controversies surrounding wait times for referrals and treatment, services such as oral and eye care, drugs and rehabilitative programs are simply not covered by public health insurance. Those who need these services must therefore pay for them out-of-pocket. As uninsured medical care can be expensive, many insurance companies offer supplementary private health insurance plans. In most provinces, these private plans are only permitted to cover services that are not publicly insured. Private health insurance is most often available through group plans offered by employers through third-party insurers, such as Blue Cross. In 2000, an estimated 65 percent of the Canadian population was covered by this type of private health insurance.^[1]

The appropriate role of private health insurance has become the subject of intense political, legal and economic debate. Unfortunately, the gendered implications of private health insurance have not often been examined. Because women are the majority of health care users and providers, paid and unpaid, they stand to be particularly affected by decisions made about the roles of public and private health insurance.

Although some argue that expanding private plans to include parallel coverage for publicly insured services can reduce pressure on the public health care system by creating alternatives, international evidence suggests otherwise. In countries that allow citizens to “opt-out” of the public health insurance system, the impact of private health insurance is most obvious: resources are lost, services disappear and more care is left to unpaid providers – most of whom are women. But even in countries such as Canada, where public health care is financed through taxation, private health insurance can create additional strains on the public health care system by fostering competition, driving up prices, and siphoning scarce resources out of the public sector.^[2] Cross-national comparisons within the Organization for Economic Co-operation and Development (OECD) suggest that wait times in the public health care system lengthen when health care providers can earn more in the private sector and leave the public system for higher salaries.^[3] In the absence of timely access to services and providers, the work of caring falls to women.

Are Different Groups of Women Similarly At Risk of Developing Heart Disease?

There are differences in heart disease risk among diverse groups of women. Subpopulations of women encounter different health risks based on biological, social, historical and economic differences. In particular, non-white ethnic minority and low-income women are among those who have greater risk of heart disease and encounter more barriers to preventive health care. In Canada, for example, Aboriginal women have, on average, lower education, employment levels and annual household incomes, as well as higher rates of risk factors (such as tobacco use and obesity) and CVD compared with Canadians of European ancestry.^[9] Historical changes in food consumption and activity levels have likely influenced Aboriginal people’s higher rates of obesity, particularly abdominal obesity, which is a known risk factor for cardiovascular disease.^[9] Similarly, studies conducted in the US reveal that Black and Native American women are most likely to be living with multiple risk factors for cardiovascular disease, while Asian women are the least likely.^[10,11] Other studies have found that Black women in the US report more risk factors, and have the highest rates of coronary heart disease morbidity and mortality followed by Hispanic and White women.^[6, 12-14] More research, however, is needed to clarify the reasons for these patterns.

Research has shown that women who have lower levels of educational attainment, low incomes, and higher levels of unemployment are more likely to experience more than one risk factor as they age.^[10] For example, both smoking and obesity are more common among individuals facing greater social disadvantages.^[15-17] For instance, women living on a low income are typically more likely to be unemployed, under-educated, and to have fewer social networks, which may in turn limit their ability to engage in healthy behaviours,^[18] and have been associated with higher rates of CAD^[19] and CHD.^[20] Some evidence also suggests that women living on a low income are more likely to live in environments that do not support healthy living and therefore are at greater risk for CHD.^[21,22] Poorer neighbourhoods generally have more fast food outlets, fewer full-sized grocery stores, fewer fitness facilities and public green

spaces, which may restrict physical activity. Social and environmental factors that produce chronic stress, including poverty and insecure environments, may also contribute to unhealthy behaviours or prevent women from attending to their health.^[23] Lack of access to health care, healthy food options, exercise facilities and social support networks are significant social, economic and environmental impediments to good heart health among women.

How Can We Design Programs and Policies to Promote Heart Health and Prevent Heart Disease among Diverse Women?

Address Economic and Social Inequalities

If women are to adopt heart healthy behaviours, policies and programs need to address social and financial barriers to health. In areas where the status of women is low and where income inequality is high, the health of women and children is worse.^[24] Status and inequality are directly influenced by policy. For example, in a study of the effect of state level policies on women's health in the US, researchers found that low socio-economic status is the primary indicator of heart disease mortality in women, and a larger risk factor for women than men.^[24]

Cultural and environmental issues are also relevant to women's heart health. Focus groups with high risk women revealed a number of factors that prevented them from being physically active, including cultural barriers (e.g., cultural values of physical activity, body image, etc), social support, family care giving demands, physical barriers and policy issues such as cost, lack of child care or personal safety.^[25] Various environmental issues present barriers to women's ability to reduce their risk of heart disease, including inclement weather, limited daylight, lack of sidewalks, traffic and distance.^[25] Similarly, research has revealed environmental barriers, such as a lack of available healthy food choices or safe and affordable places to exercise affect women's ability to eat well and engage in physical activity.^[26] Policies and programs are therefore required that address

At the same time, private health insurance tends to be less accessible to women than it is to men. With lower incomes, women as a group have fewer resources with which to pay for care.^[4] Private health insurance is offered mainly through large employers, but women are more likely to be employed in small companies, and in non-unionized or low-status sectors where benefits are limited or non-existent. For example, workers in female-dominated industries, such as the service sector, have the lowest rates of private health insurance coverage in Canada.^[5,p9]

Similarly, women are more likely than men to work part-time or on a casual basis due to care-giving responsibilities, making them ineligible for a variety of benefits, including private health insurance. Women also move in and out of the labour force more frequently than men because of child-bearing and higher rates of chronic diseases. In such cases, they not only lose private health insurance coverage during their absence, but may be denied coverage upon returning to work because of medical conditions that have developed while they were out of the workforce.^[6] Changes in personal circumstances also render women vulnerable when they are covered as dependents; death of a spouse or divorce can result in the loss of private health insurance coverage.

More research is needed to evaluate the full implications of private health insurance for women, particularly research that addresses the needs of different groups of women and the strengths and weaknesses of various forms of private health insurance. But the broad conclusion that emerges from an analysis of the existing research is that this form of health care financing is detrimental to gender equity.^[5]

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the economic (e.g., lack of affordable healthy food and recreation), environmental (e.g., lack of safe spaces for physical activity) and social (e.g., lack of social support) barriers to women's health.

Address Women's Needs and the Multi-factoral Nature of Heart Disease

There is a need for women-specific and multi-component programs. Strategies that have been successful in some segments of the population are not necessarily appropriate for women, or all groups of women, particularly those with few social

and economic resources. Suggested recommendations include: examining the root causes of tobacco use and dependence, finding better and more gender-sensitive opportunities for physical activity, developing diet interventions focusing on women's needs, integrating social support and stress reduction in programs, and utilizing multi-component risk reduction interventions.

^[30] These recommendations are supported by other research that found that women prefer programs that address multiple risk factors, emphasize staying healthy for themselves, teach specific skills about how to adopt healthy behaviours, and offer them choices in making personal changes.^[31]

The WISEWOMAN Program

A key example of an evaluated multi-level intervention is the Well-Integrated Screening and Evaluation for Women Across the Nation (WISEWOMAN) program in the US. WISEWOMAN addresses heart health promotion and heart disease prevention among mid-life underserved women.^[26-28] The program combined risk factor screening with a multi-component intervention focused on improving women's diet and physical activity and smoking cessation. It addresses both environmental and individual level factors in the context of a clinic based setting. It is aimed at multiple behavioural changes and involved linking individuals to community resources, community guides and supportive environments. It also encouraged women to become involved in advocacy efforts to make environmental and policy changes. Although the program has helped women increase their physical activity, quit smoking and improve their nutrition, some challenges of the women in the program include: social isolation, unsafe neighbourhoods and a lack of access to healthy foods. These findings suggest that while multi-factorial programs may be effective, environmental and societal approaches are also needed in order to effectively reduce women's risk for heart disease.^[29]

Conclusion

Women have different risk factors for heart disease than men, and there are also differences in predisposing, clinical and individual risk factors between sub-populations of women. This case study illustrates some of the sex and gender differences associated with risk for heart disease, both between women and men and among women.

Women's heart disease is a multi-factorial problem and heart health promotion for women is a challenge on individual, clinical and policy levels. Evidence in all aspects of sex, gender and women's heart health is still emerging and continuously evolving. It is clear that sex, gender and diversity all play a role in determining the rates of women's heart disease,

women's ability to prevent heart disease, and the effectiveness of programs and policies. Policy and program level change can be made to improve women's heart health, however, such as initiatives in heart health promotion and prevention of cardiovascular disease if specific attention is paid to reducing risk factors for heart disease among sub-populations of women at risk and, in some cases, attention can be paid to tailoring programs and practices to the needs of particular groups of women, and reducing inequalities in health among women. Overall, it is important to pursue multifactoral programs and policies, reflecting the complex nature of women's heart health and disease.

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Women, Gender and Unpaid Care-giving

Demographic Shifts in Nova Scotia and Their Repercussions on Care-giving

Over the past 50 years, the number of seniors aged 65 or older who live in Nova Scotia has more than doubled. In addition to having one of the highest populations of seniors in the country, the average age of Nova Scotians (41.8 years) is higher than that of any other province. Low fertility rates and out-migration of younger people of child-bearing age have contributed to the increasing age of the province. Nova Scotia faces an urgent need for action to support caregivers given the aging population will likely increase the demand for care-giving while, at the same time, the number of potential caregivers will decline.^[2]

Introduction

Care-giving – and the health and well-being of those who provide care – has gained increased attention in recent years. Various factors are credited with playing a role in bringing both paid and unpaid care issues to the forefront, including the demographic shift towards an aging population,^[1,2] the increased number of people living in the community with long-term health problems^[1] as well as changes in family structure, which have left fewer people available within a household to provide care.^[3,4] In this case study, we examine the gendered dimensions of unpaid care-giving, demonstrating that gender stereotypes, roles, and expectations play a large part in who provides care, the type of care that is provided as well as the economic and health implications of providing care.

What Does Care-giving Entail?

There are many different perspectives on what care-giving encompasses. Although care-giving is often equated with eldercare, it also includes caring for children and youth (with or without disabilities) and dependent adults. Similarly, care-giving is typically understood to involve caring for individuals with short- or long-term physical, cognitive or mental health problems or limitations, but care-giving also includes raising children and the everyday tasks associated with this responsibility.

Care-giving comprises a wide range of activities, including tasks carried out within the home, such as meal preparation, cleaning and laundry as well as work outside the home, such as exterior house repairs, yard maintenance and snow removal. Many caregivers also provide transportation to help care recipients with errands, grocery shopping, getting to appointments as well as navigating, negotiating and accessing services. Caregivers responsibilities may include assistance with daily personal care tasks, such as eating, bathing and toileting as well as essential everyday jobs, such as the management of medications and finances.

Who Cares?

By conducting a sex- and gender-based analysis, we see that there are significant differences between women and men when it comes to care provision. The most visible difference is that women are consistently more likely than men to be caregivers – both paid and unpaid.^[1,5-8] The fact that women are primarily responsible for care-giving duties has a lot to do with gender stereotypes, which portray women as “natural nurturers” and, thus, care-giving as women’s work.^[1] A great deal of pressure is placed on women to assume caregiver roles, even when they hold paid jobs in the labour market or lack the necessary skills to provide the complicated care work that is now being carried out within the home.^[4] When asked, female care providers frequently say they entered into care-giving feeling as though they had little or no choice, nor an accurate sense of what the role would entail.^[9]

Who Does What Kind of Care-related Activities?

Gender differences are also visible when it comes to the types of activities women and men perform; these also tend to align with traditional gender roles. Men take care of outdoor work (e.g., mowing the lawn) or household maintenance (e.g., painting), while women perform the majority of daily personal care-related tasks (e.g., dressing, eating, brushing teeth and grooming) as well as the bulk of household chores (e.g., making beds, preparing meals, cleaning and vacuuming).

^[1] In addition, women typically undertake the most personal and emotionally intense types of care, such as bathing, changing incontinence garments or colostomy bags and providing emotional support. They are also involved in many demanding and time-consuming activities, including administering medications, making daily decisions on behalf of the recipient, lifting individuals with physical limitations and taking care recipients to and from appointments. In addition, women caregivers provide the vast majority of care in acute situations, following a crisis or hospitalization and for individuals with on-going high care needs, such as children and adults living with severe disabilities.^[1,10,11] In other words, it is women who are expected to provide care on a daily and on-going basis, which leaves them with little flexibility to manage paid work or engage in social and leisure activities, while men are more likely to engage in care-giving activities that are less frequent, more simple to plan, and easier to organize around other commitments.^[4]

What Are the Economic Implications Associated with Care Provision?

The high frequency and intensity of care-giving activities women engage in results in gender-specific economic consequences.^[1] For example, women experience more employment interruptions due to care-giving responsibilities and are twice as likely as men to change their work patterns to fulfill those duties.^[3] Working women often find themselves having to take time off from paid employment to attend to unpaid care-giving responsibilities. Many female caregivers are forced to use sick leave to attend to others,^[9,10] leaving them without time when they themselves are sick. Moreover, women often scale down to part-time hours or give up their paid employment altogether to

Who's Caring in Nova Scotia?

While national statistics show that 11 percent of Canadians provide unpaid care, the percentage is much higher in Nova Scotia. It is estimated that over one third (36 percent) of Nova Scotians provide care to someone who is experiencing an illness, disability or health-related limitation.

^[1] Care recipients are primarily seniors suffering from long-term health issues. Caregivers in Nova Scotia provide unpaid care most often to family members, including parents, spouses, in-laws, children and grandchildren.^[1] Additionally, 25 percent of individuals in the province provide care to friends, neighbours and/or co-workers.^[1]



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make room for their role as caregiver, while men typically remain in the workforce.^[9] As a result, many women lose employee benefits, such as healthcare insurance and pensions.

Reduced hours of work, low rates of employment and lower wages also make it more challenging for women who provide care to support themselves. Consequently, many female caregivers find themselves having to rely on other sources of support in order to survive (e.g., disability pension of the care recipient or social services). Furthermore, caregivers commonly find themselves in situations where they are paying out-of-pocket for assistive devices and transportation costs as well as home and health care services.^[3,6] Consequently, it is not uncommon for caregivers – most of whom are women – to experience money-related worries, financial insecurity, substantial debt and even poverty.^[1,2,6]

Diversity and Care-giving: The Nova Scotian Landscape

Sex- and gender-based analysis gives us the tools to uncover similarities and differences among diverse groups by recognizing that not all women and men are the same. When examining care-giving, it is important to consider that not all experiences are alike.

One recent study^[6] examined the experiences of 14 Nova Scotian female caregivers from diverse socio-cultural backgrounds and locations: First Nation, immigrant, African Nova Scotian, lesbian, senior, and rural. The findings from this qualitative study demonstrated that care-giving experiences are not universal. In fact, diverse personal backgrounds lead to unique joys and challenges.

For example, First Nations women reported a lack of support services, especially culturally relevant services, in many of their communities. Immigrant women from diverse backgrounds found it difficult to navigate the care system, as it was often dissimilar to their healthcare systems back home. Like First Nations women, they also reported that services were rarely offered in their language and often culturally inappropriate. African Nova Scotian women talked about the linkages between cultural norms and gender roles, as eldest daughters were generally expected to care for aging parents, especially mothers. Lesbian women said they were mistakenly perceived by their family as natural choices to fulfill care-giving roles, because they were seen as unattached and having fewer family obligations.^[13] Elderly women reported lower levels of energy and stamina despite having the same responsibilities, which often resulted in added physical and emotional health consequences. Finally, rural women frequently had to travel greater distances to care recipient's homes as well as to access services.

What Are the Health Impacts of Care-giving?

Care-giving is often a rewarding and positive experience, but it is also work. The emotional and physical demands of care-giving can negatively affect the health of caregivers. One study has shown that during a period of informal care, almost half of care providers experienced a substantial decrease in their overall health.^[12] Physical health problems are common, in part because caregivers are not given adequate training for the work they perform. Care-giving tasks – such as lifting and bathing without proper technique or adequate assistive devices – lead to various types of physical injuries^[1,6,9] Furthermore, given the stress of the job, caregivers have an increased vulnerability to illness and chronic disease.^[4] Headaches, chronic back problems, arthritis, high blood pressure and gastric ulcers are all common physical ailments reported by caregivers.^[9]

In addition to physical health implications, care-giving also takes its toll on the mental well-being of care providers, especially those who are on call 24 hours a day, 7 days a week. For many, the demands of care provision result in significant lifestyle changes. For example, caregivers often endure a lack of spontaneity and privacy in their lives, experience unwanted transformations in their relationships, become socially isolated and no longer have the time to do activities they enjoy.^[9] These changes, as well as other challenges caregivers face, have significant psychological and emotional implications, including feelings of frustration, anger, helplessness, loneliness, worry, guilt, etc. In addition, many care providers become overwhelmed, exhausted and/or burnt-out by the magnitude of responsibilities placed on them.^[9] It is also not uncommon for caregivers to experience sleep deprivation^[1,6] and depression.^[9]

We know that women are more likely than men to experience the impacts of care-giving for several reasons: women are more likely to provide care; they are more often involved in intense types of care-related activities^[1, 8, 11] and they experience “role overload” as caregivers, mothers, family members, partners and paid workers.^[14] Statistics show that female caregivers over the age of 45 are three times more likely than males to report health problems.^[3] Gender studies have also consistently shown that more women than men experience higher levels of stress and burden,^[7, 10, 15] even when doing comparable tasks. Moreover, a recent study revealed that mothers who care for a child with a disability or chronic condition have the same low health status as daily smokers, while the health of fathers is unaffected.^[17]

How Are We Addressing the Needs of Caregivers and the Individuals for Whom They Provide Care?

The federal government has recognized the importance of addressing issues around care-giving. In 2004, the Government of Canada introduced the *Compassionate Care Benefit*, a program of the Employment Insurance Plan that would provide up to six weeks of financial assistance for people in paid employment who need to take time off work to provide care or support to a gravely ill family member at risk of dying. While this employment insurance benefit was an important step in the right direction, it has not been used by caregivers to the extent expected.^[18]

One reason for the underutilization of the program is its tie to employment insurance, which leaves many care providers ineligible. For example, caregivers who are unemployed, self-employed, work part-time, or who are seasonal/temporary/contract employees do not qualify, with women comprising the largest proportion of these groups.^[18] Therefore, the majority of caregivers – women – are not able to benefit from this governmental response.

A sex- and gender-based analysis of care-giving shows that in order for care policies, programs and services to be useful, they must reflect the needs of both women and men who have different experiences of care-giving. Failure to take sex and gender into account can leave large numbers of care providers without vital supports and services, which happened in the case of the *Compassionate Care Benefit*. While

Nova Scotia’s Continuing Care Strategy

The Nova Scotia provincial government made a commitment to addressing the needs of care providers as well as those in need of care and assistance by introducing a *10-year Continuing Care Strategy*.^[16]

Their vision is to have every Nova Scotian live well in a place they can call home. The government hopes to achieve this goal by implementing a high-quality, client-centred, accessible, and affordable continuing care system that would:

- Acknowledge the role of individuals and families have in achieving maximum health and independence
- Celebrate and support local initiatives that help people stay in their homes and communities as long as possible
- Ensure that caregivers and healthcare providers are adequately supported
- Offer a range of services to children, youth, adults and seniors

A main focus of the strategy is to put forward a comprehensive caregiver strategy, which will include a wider range of supports to meet the social, economic and health needs of caregivers. In addition, the strategy outlines a plan to improve system navigation to increase access to services as well as increased public awareness to get care providers and recipients the information they need.

Another objective of the strategy is to support community initiatives by increasing the number of in-home and community services to allow for the highest level of independence and quality of life for both care providers and recipients. The strategy includes commitments to expand home care and respite options, improve transportation to increase mobility, provide care within the educational system, develop a palliative care program and work towards an integrated healthcare system.

These are all important steps in addressing the needs of care providers in the province. However, one major shortcoming of the *Continuing Care Strategy* is that it does not address sex and gender. Without a sex- and gender-based analysis, it is likely that the diverse needs of female and male caregivers will not be met, regardless of the programs and services implemented.

changes to the federal care program would result in greater numbers with access to the service, there are also other supports that could be implemented to alleviate some of the financial stress that caregivers experience as well as improve their overall health and well-being.

In order to provide unpaid (and paid) caregivers with sufficient financial support, direct and indirect compensation programs need to be introduced.^[2] Indirect compensation practices could include such items as refundable tax credits that do not compromise other benefits or pensions. Another example would be healthy workplace programs that accommodate employees who are also care providers. Direct compensation could include such things as subsidies or full payments to cover the costs of out-of-pocket expenses. As well, paid time away from work to fulfill care-giving roles would be an immediate way to help lessen the financial and other pressures confronting caregivers.

Policies, programs, services and supports also need to be put in place to address the health and well-being of caregivers. One way to address health implications would be to increase the number of hours and level of service of respite and home care in order to give caregivers the relief they need. Allowing caregivers more respite would give them the opportunity to participate in activities that would have a positive impact on their physical, emotional and mental well-being. Furthermore, health promotion strategies that address the health consequences of care-giving

and provide the necessary resources to support both care providers and their recipients would be valuable.^[6]



Conclusion

Care-giving is still very much seen as women's work and it has not received the attention it deserves. While care-giving can be a rewarding experience that brings pleasure to both care providers and recipients, it can also be a strenuous responsibility for caregivers. It is, after all, work. This case study illustrates many of the gender differences associated with care-giving, demonstrating the importance of sex- and gender-based analysis for the health and well-being of caregivers, recipients,

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and their families. It is especially important for policy makers, service providers, and healthcare professionals to conduct a sex- and gender-based analysis when examining issues around care-giving, otherwise policies, programs, and services will not be effective and will fail to meet the needs of those they are intended to help.

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“Hidden in Plain Sight:” A Sex- and Gender-based Analysis of Disasters and Emergency Planning

After about 1½ hours of sleep Friday night, I turned the radio back on and they were saying that the whole town should evacuate-our area was specifically named. I woke [my husband and grown son] about 5 am. Both said they would not go . . . It took me until the afternoon on Saturday to convince [them] that we should leave. All medical services were down, and I didn’t want to have to worry about getting him [my husband] to medical help if he should need it in an area where none was available. [My son] refused to go. [Rural female resident recalling the 1997 Red River flood in Manitoba]

He lost weight, he wasn’t shaving. I at least could take some down time and take the kids out in the wagon. He would gobble down some food at noon and then go back to [flood] work. . . . He started crying. You wouldn’t know unless you’re from a small town. [Rural female resident recalling the Red River flood in Manitoba]

Introduction

This case study introduces readers to issues facing women and men, boys and girls when disasters occur – whether these are triggered by environmental emergencies, biological hazards or technological risks, or are deliberately induced. The study addresses planners directly, offering practical advice for ensuring that health care professionals, service managers and providers, policy makers and volunteers have available to them the necessary information and tools to undertake disaster risk management with sex and gender in mind.^a

Why Do We Need Sex- and Gender-based Analysis of Emergencies? Isn’t a Disaster the Same for Women and Men?

The short answer to the second question is “no.” Women and men, girls and boys may be experiencing the same disaster, but they are likely to experience it differently. Sex-specific health risks may be an important difference between women and men. Men are statistically more likely than women to suffer heart disease⁽¹⁾ and the risks of heart attack may be heightened by the stress associated with an emergency. Men in heat-stressed occupations (e.g., construction work, agricultural labour and steel manufacturing) and heavily pregnant women may be more vulnerable to the effects of extreme heat and hence need specialized support in the midst of an emergency, such as special forms of transportation.⁽²⁾ Gender roles and stereotypes likewise affect the experiences of women and men during disasters. Men are expected to be physically stronger than women and therefore will often engage in hard labour during emergencies, while women are frequently assigned to tend the ill and injured because they are expected to be natural nurturers.

Gender touches down at every point in the disaster cycle – before and after as well as during emergencies. For example, men’s priorities in preparing for and responding to emergencies often predominate in family debates. Men are usually the ones to decide whether or not to buy insurance or put up hurricane shutters as well as when to evacuate, where to go, what to take, how to live and when to return.^b At the same time, households headed by women are often seen as vulnerable and in need of financial or other forms of assistance because it is assumed that single mothers or grandmothers either will not or cannot prepare their homes and families for a disaster.

^a Readers are also directed to the gender and disaster sourcebook for additional tools, checklists and policy guidelines. See: Gender and Disaster Network. The gender and disaster sourcebook. [Internet]. c2008 [cited 2008 March 30]. Available from <http://gdnonline.org/sourcebook/>

^b For a summary of these and other points and supporting references, see Fothergill A. The neglect of gender in disaster work: an overview of the literature. In: Enarson E, Morrow BH, editors. The gendered terrain of disaster: through women’s eyes. Westport: Praeger Publishers. 1998; p. 11-26. There is a great need for more context-specific and contemporary research from Canada in this area.

In the wake of disasters, women's experiences are also quite different from those of men. For example, post-disaster economic relief and recovery packages often do not reflect women's dominance in informal, part-time and home-based labour where they generate modest but essential income through such occupations as home child care or food catering. The economic impacts on women can be severe when the loss of a home also means the loss of working supplies, work spaces, equipment, inventory, markets and credit lines.

Nurses are praised for what we do, but shunned because we do it. I live in the paradox of being a hero and a pariah at the same time. [Female nurse recalling the reaction of colleagues and family following the SARS outbreak]

Women also suffer the aftermath of disasters when social networks are frayed, when family and kin are displaced and when they feel the cumulative effects of caring for others, especially for men and boys not well served by existing mental health care approaches to disaster. Women also face an increased risk of domestic violence: studies have found that the number of calls to women's shelters can increase as much as a year after the conclusion of an emergency.^[3] Not only are women differently affected than men by disasters, but also different groups of women and men will have different needs and will respond differently in the midst of emergencies. For example, the needs of seniors in off-reserve Métis families are likely to be very different from the needs of affluent same-sex couples in Toronto. Similarly, professional caregivers may experience distinctive challenges during crises, when they may be feared and shunned even as they are expected to care for others.

According to the Canadian Red Cross,^[4] women represent one of ten populations at high-risk during emergencies, but within this rather large category, extra attention is warranted for particular groups of women, such as those who are pregnant, have many dependents, have experienced or are experiencing abuse, and those who are socially isolated and liable to "fall through the cracks." At the same time, a sex- and gender-based analysis highlights the needs of specific groups of men, such as those who are unlikely to seek assistance or are isolated, such as widowers and men in first responder roles.

Do Those Planning for and Responding to Emergencies Understand the Different Needs and Realities of Women and Men, Girls and Boys?

During the past 15 years, our understanding of the role of gender in disasters has advanced markedly.^c Multidisciplinary case studies, emerging mainly from the United States and South Asian countries, along with population surveys and experimental studies on such topics as evacuation and risk perception, have yielded significant information about predictable sex and gender differences and about the gender-based inequalities that undermine people's resilience in the

^c For an overview of the field, see Fothergill A, Peek L, Enarson E. Gender and disaster: foundations and possibilities. In: Rodriguez H, Quarantelli EL, Dynes R, editors. Handbook of disaster research. New York: Springer. 2006; p. 130-59. Also see Enarson E. Gender. In: Phillips B, Thomas D, Fothergill A, Blinn-Pike L, editors. Social vulnerability to disasters. Boca Raton: Taylor and Francis, CRC Press. 2009; p. 123-54. Also see Enarson E, Meyreles L. International perspectives on gender and disaster: differences and possibilities. Int J Sociol Soc Policy. 2004;24(10/11):49-93.

face of disasters.^d In 2005, the global Gender and Disaster Network produced a short guide, entitled *Six Principles for Gender-Fair Relief and Reconstruction*, which has been widely circulated and translated.^e

I really can't over-emphasize the need for child care workers. I worked 18 hour days seven days a week for several months on end and my children just got left to fend for themselves. My community had promised they would look after my kids while I worked but that promise soon went by the board. [Female volunteer recovery coordinator recalling her work after the 1997 Red River flood in Manitoba]

Despite these advances in our knowledge, sex- and gender-based analysis seems to take place mainly in the wake of disasters. Following the Indian Ocean tsunami, for example, it became apparent that girls and women were three or more times as likely as men to die.^f Conversely, in the aftermath of hurricane Katrina in the US, it became clear that women's social networks saved lives.^g Moreover, governments and agencies often realize they need help with gender issues only after disaster has struck. Following the 2008 earthquake in China and cyclone in Burma, urgent appeals were made about how to respond to women's specific needs: women need clean underwear, girls are raped in emergency shelters, grieving grandmothers must cope with orphaned children, pregnant women do not have the food or vitamins they need – the list is long.

During periods of peace, calm or safety between disasters, when sex- and gender-based planning might be pursued, it is used sparingly, if at all; it does not guide policy in or out of government; it fails to reach those in the field as well as those in need; and when it is undertaken, it is often too general to be useful – or all of the above. In Canada, as in most developed nations, gender issues are rarely considered in emergency planning or response efforts, either in public information or more formal training programs.^h Indeed, a perusal of preparedness materials posted on governmental and non-governmental websites yields more information about pets, by far, than about specific issues women and men should consider in preparing for the unexpected.

The absence of SGBA and limited uptake of existing knowledge about women, men and gender in disaster undermine the capacity of national and local emergency planners to develop plans that are inclusive, appropriate and cost effective. In other words, a sex- and gender-based analysis provides critical information for planning on key issues, such as evacuation behaviour, long-term economic recovery, gender-specific psychosocial strains and violence prevention. SGBA is also necessary because human rights can be endangered in crises when gender equity norms are not part of the working culture of emergency practitioners and gender knowledge is not reflected in their practical tool kits.^h

^d The Gender and Disaster Network provides case studies and other good sources (see www.gdnonline.org/index.php). Also see Fothergill A. Women's roles in a disaster. *Appl Behav Sci Rev.* 1999;7(2):125-43.

^e For more information, see Gender and Disaster Network. Gender equality in disasters: six principles for engendered relief and reconstruction. [Internet]. c2005 [cited 2008 March 30]. Available from www.gdnonline.org/resources/genderbroadsheet.doc. See also UN InterAgency Standing Committee. Gender handbook in humanitarian action women, girls, boys and men: different needs, equal opportunities. [Internet]. c2006 [cited 2008 March 30]. Available from www.humanitarianinfo.org/iasec/pageloader.aspx?page=content-subsidi-tf_gender-genderH. For an excellent guide produced for international humanitarian relief workers, see the Canadian International Development Agency. Gender equality and humanitarian assistance: a guide to the issues. [Internet]. c2003 [cited 2008 March 30]. Available from [www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/\\$file/Guide-Gender.pdf](http://www.acdi-cida.gc.ca/INET/IMAGES.NSF/vLUIImages/Africa/$file/Guide-Gender.pdf)

^f Reported in Oxfam. The tsunami's impact on women [briefing note on Internet]. c2005 [cited 2008 March 30]. Available from www.preventionweb.net/files/1502_bn050326tsunamiwomen.pdf.

^g The IFRC World disaster report on neglected emergencies; 2006, Available from www.ifrc.org/publicat/wdr2006/summaries.asp includes a chapter on gender in which women's networks before Katrina are credited with preventing more harm. Also see Enarson E. Women and girls last? averting the second post-Katrina disaster. [Internet]. c2006 [cited 2008 March 30]. Available from <http://understandingkatrina.ssrc.org/Enarson/>. Also see Enarson E. Sociologists for women in society factsheet: women and disaster. [Internet]. c2006 [cited 2008 March 30]. Available from www.socwomen.org/socactivism/factdisaster.pdf

^h See, among others, Enarson E, Fordham M. From women's needs to women's rights in disasters. *Environmental Hazards.* 2001;3:133-6.

Why Are the Women Missing From Disaster Planning?

Why, we might well ask, is sex and gender so conspicuously absent, when ethnicity, age, income, literacy, physical/mental ability and other factors are acknowledged as significant influences on vulnerability in the context of disasters?

Part of the answer lies in emergency management's long roots in male-dominated and military occupations and work cultures. Moreover, the lack of interest in emergency planning by most gender specialists and women at the community level serves to reinforce the status quo of male leadership in this area. Male dominance is further bolstered by media images of disasters, which tend to focus on hard-working male youth and men sandbagging, clearing rubble or cutting fire lines. The extensive and exhausting labour of women working with friends, family and extended kin is, by comparison, less visible and valorized, even though their efforts to arrange alternative housing and child care, provide uninterrupted care for persons in fragile health or move important cultural materials or resources needed by women's groups to safety are also essential. Overly generic language – such as “parents,” “caregivers,” “responders” – also tends to mask significant gender differences in the roles and work undertaken by women and men. In other words, women's work during disasters is “hidden in plain sight.”

Another reason for the lack of attention to sex, gender and disasters in Canada lies in the happy fact that we have experienced relatively few destructive events or catastrophes. In the absence of dramatic events that capture the public imagination and tax community or government resources, researchers and policy makers are less motivated to undertake new disaster research or reconsider emergency planning strategies. As a result, we not only have insufficient data on sex and gender differences to inform disaster planning, but also by focusing on “the big one,” we neglect more common emergencies, such as flooding, heat waves and localized water pollution, which also have significant gender components.

How Do We Mainstream Gender Into Disaster Management?

Planning “with a gender lens” does not mean “add women and stir,” but involves a new way of approaching emergency management that sees women and men as full and equal partners in the management of risk. The key is learning to ask the right questions, and then seeking data, information, knowledge and insight from community members to find answers.

At every stage of the disaster cycle, decision makers and practitioners need sound evidence collected with attention to: 1) sex and gender differences through the life course; 2) differences across diverse populations of women; 3) shifts in relevant national patterns and trends; and 4) applications throughout the disaster life course of preparedness, mitigation/adaptation, response and recovery.

Existing databases can provide important information for planning, such as the percentage of women and men in different age groups known to be at risk (e.g., the young and the old) or the percentage of women and men with functional language or literacy limitations. Sex-specific employment data can further indicate women's and men's relative exposure to hazardous materials or working conditions and hence to increased risk in the event of a hazardous

In 1976 I was in Gaspé when hurricane Blanche hit... We had not received any weather warnings, and it was only after the sky changed colours that I phoned a neighbour to tell her that her TV antenna and garbage cans had been blown away by the wind... I had two young children aged 1 and 3. I thought that by pushing a table against the fridge and huddling over my children, we would be safe. I thought of hiding in the basement, but was too afraid that we would not be found if, heaven forbid, trees fell on the house and a fire started... I later created my safety plan and emergency kit, because I now knew that this did not just happen to others. This came in handy because I was hit by the 1998 ice storm in Montreal. I was staying at a hotel... When the blackout hit Montreal, I became the point of reference at the hotel, as I was autonomous and had information via the radio. This enabled the hotel to keep its clients informed because people were in a panic and to take people in because they understood the scope of the problem. Today, I am ready. My kids and grandson know how to make their own kit, because they know the unexpected can happen to them. [Credited to “Louise” and posted on the website of Public Safety Canada: http://getprepared.gc.ca/stry/stry_e.asp]

“How Can I Include Sex and Gender in Risk Analysis: Where are the Data?”

- Request sex-specific data from provincial, regional or national planning authorities
- Collaborate with researchers, including gender studies students
- Network with local women’s groups to learn what sex-specific data they collect or can access
- Consult foundation reports and case studies conducted with women or on gender relations in your area
- Estimate local conditions by examining higher-order Statistics Canada data (e.g., on the proportion of women who rent or grandfathers who are primary caregivers for young children)
- Partner with women’s groups active in such areas as sustainable development, environmental, safe cities, immigrant rights, or disability in order to fund local research and background reports
- Ask municipal authorities, health operations, or housing specialists to track relevant trends by sex for use by emergency planners
- Post queries on specific topics to the Gender and Disaster Network of Canada
- Form a community advisory committee that includes organizations working with high-risk women and their families, and help them conduct participatory action research strategies to meet your knowledge needs as local planners for community safety

materials spill or pandemic. For example, women were disproportionately affected by the SARS epidemic in Toronto because they constituted the vast majority of health care professionals. Likewise, health conditions related to sex and gender can be tracked and factored in as local risk factors by emergency medical planners and sex-specific data on health status can be used by planners to pre-position supplies or target populations in risk communication or train emergency responders.

Where evidence, such as estimates of the numbers of women likely to be pregnant in a given population or locale, is not currently available, it may be wise to encourage local planners to gather this kind of information.ⁱ Other types of evidence relate to employment and earning strategies and the dependence of women and men, respectively, on natural resources; where homelessness takes women and men; what community agencies, if any, are lifelines for sexual minorities; the availability in different populations of extended kin networks of support; the relative safety of boys and girls, women and men in public and private spaces; and the groups and organizations that ground and support women and men in their communities.

While sex-specific data are critical for health planners, they are hardly a “magic bullet.” In addition to collecting statistics, planners need know how the everyday lives of women and men are shaped by sex and gender differences and inequalities at every stage of the disaster planning cycle. The first step in understanding the role of gender in disasters is to “see” and appreciate the challenges of everyday life equally for women and men, girls and boys. Planners also need to adopt a human rights approach to disaster management because without this commitment they are unlikely to understand or respond to inequalities based on gender power.

Finally, planners need to look beyond vulnerabilities to consider what capacities, resources and skills women and men in different life circumstances bring to emergency preparedness, response and recovery. The social networks, skills and resources, and life experiences of women and men can all be brought to bear on emergency preparedness, response and recovery.

ⁱ See, for example, Callaghan W, Rasmussen S, Jamieson D, Ventura S, Farr SL, Sutton PD, et al. Health concerns of women and infants in times of natural disasters: lessons learned from Hurricane Katrina. *J Mat Child Health*. 2007;11:307-11.

Conclusion

Using a sex- and gender-based analysis contributes directly to increasing the readiness of Canadian families, businesses and communities for any eventuality and can be extremely useful for anticipating and taking steps to reduce the impacts of disaster known to affect women and men differently and disproportionately. Disaster research and planning are moving in this direction internationally with support from leading UN authorities and growing recognition of the importance of gender as a “cross-cutting principle” in efforts to reduce and manage risk. At the community level, building partnerships for gender-sensitive participatory action research is an excellent foundation for community-based disaster risk management and a promising path for reducing the nation’s vulnerability to the hazards and disasters of our future.

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COMMENTARY

The Gendered Health and Environmental Impacts of a Meat Culture

The global shift to intensive livestock farming has forced many small Canadian farming operations to close, as well as increased the industry's reliance on technology. Intensive livestock farming is characterized by large-scale housing of livestock relative to land area and the use of high-efficiency mechanized methods, as well as regular use of antibiotics, hormones, and other synthetic drugs that increase productivity.^[1] Many intensive practices not only compromise animal well-being,^[2-4] but are also damaging to the environment and have health implications for humans – particularly women and girls.

The livestock industry has been identified as a major contributor to the most serious environmental problems, including land degradation, loss of biodiversity, water shortage, water and air pollution, and climate change.^[5] The adverse effects of these ecological shifts are likely to be gendered given the connection between poverty and vulnerability to environmental changes – with women as a group being poorer and having less formalized power than men.^[6,7] For example, women in developing countries are more likely to be affected by environmental degradation, as it is their livelihoods that revolve around using and managing natural resources such as firewood, forest products, and water for food preparation and production.^[6,7]

In addition to environmental hazards, intensive meat production has also been linked to serious health problems and safety risks for humans.^[2] New approaches to meat production rely heavily on unskilled workers who generally work part-time for low wages, and have few health benefits.^[8] These positions are most often held by women, immigrants, racialized groups, and workers with low levels of education – who, because of their social and economic positions in society, experience barriers to accessing health care services and hold very little power within the meat production industry to increase health and safety on the job.

Women and girls face heightened health and safety risks from changes in both the scale and method of meat production. Within the meat industry, women are typically relegated to cutting and wrapping. The physical acts associated with these jobs require small repetitive movements, which can result in strain injuries such as carpal tunnel syndrome. Although serious and debilitating, these chronic conditions are more frequently minimized or disregarded by employers than injuries related to more physically intensive labour, typically performed by men.^[9] Consequently, many women working in the meat production industry fail to receive proper medical attention for job-related injuries. Furthermore, the prevalence of women in jobs that require the handling of meat also makes them more susceptible to coming in contact with toxic chemicals, which have been linked to increased risks of breast cancer.^[10]

In addition to meat production practices, the consumption of meat and its products appear to affect women and men differently. Research has shown that women and girls are susceptible to health problems associated with hormones and drugs used to artificially accelerate livestock growth and production. For example, eating meat that contains high levels of estrogen has been linked to endometriosis and early menarche, as well as increased risk of breast, cervical, and uterine cancers in women.^[11] While we know very little about the effects of the consumption of chemically enhanced meat on the health and well-being of boys and men, there is some evidence to suggest that environmental estrogens decrease sperm count and may cause infertility in men.^[12]

In addition to synthetic drugs and hormones, the consumption of contaminated meat is also harmful. In particular, pregnant women, the very young, the elderly (the largest percent being women) and those with weakened immune systems are at a heightened risk of contracting food-borne infections caused by tainted meat products – such as in the case of the 2008 listeriosis outbreak at an Ontario meat processing plant.^[13] Processed meats – such as those infected at Maple Leaf with listeria bacteria – are at an increased risk of contamination because they combine meat sources, which requires more handling than, for example, a cut of meat from a single animal.^[14] During the outbreak, women were at a greater risk of listeria infection because they were more likely to live in places, such as retirement and nursing homes, which received the processed meat.^[15] In fact, many of the women who died as a result of the listeriosis contamination were elderly women.

The health effects of consuming contaminated or chemically enhanced meat and women's roles in the meat industry are often overlooked in meat production policies and practices. Without explicit research attention to sex and gender in the relationship between health and meat production and consumption, we may be underestimating the impact that dietary patterns and food production have on the health and well-being of girls and women, as well as boys and men.

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Chapter Six:

Regarding the Determinants of Health



While some of the material in previous chapters addressed determinants of health other than sex and gender – such as age and ethnicity – the case studies and commentaries in this chapter have been collected specifically to illustrate the ways in which SGBA pushes us to think beyond traditional definitions of health and care.

The case study on mental health indicators, for example, examines the relationship among the determinants of health as they affect women and men. Rather than relying on standard measures of mental health disorders, the case explores an alternative approach for assessing mental health that takes into consideration sex and gender as well as other determinants of health. In the process, the case study not only underscores the importance of understanding which women and men are being considered, but also reveals the limitations of existing tools for collecting and analyzing data on mental health.

The case study on housing demonstrates the significant relationship between sex, gender and the other determinants of health as well as the importance of taking a broader view of health. While health care budgets and service delivery do not typically extend to housing, adequate shelter is undoubtedly critical to good health. At the same time, sex and gender (related to lone-parenting, living alone when elderly, or relative income) and diversity are fundamental factors determining who gets good or poor housing. The commentary on criminalized women further illustrates the ways in which specific groups in society may be disadvantaged by gender biases and institutionalized gender.

Similarly, the case study on access to care among First Nations peoples illustrates how sex (being male) and gender (marrying “out” of the reserve) within the Canadian legal context has significant implications for individuals, families and communities. Like the commentary on women and potable water, the case study on access to health care also demonstrates how the health determinants of place and public policy intersect with cultural and social patterns to influence how well a community is and how a wellness program can be used.

Finally, the process of SGBA allows for the development of new perspectives and innovative analyses. The case study on mental health, for instance, offers a new way of thinking about mental health and data collection while the case study on overweight and obesity among children and youth, provides insight into the safety dimensions of an issue that has traditionally been seen as the responsibility of health care and health promotion specialists.

Sex, Gender and Measures of Mental Health

Introduction

In 2003, the Bureau of Women’s Health and Gender Analysis sent out a call to Canadian researchers to respond to a Health Canada Health Policy Research Program aimed at informing policy on the use of new gender-sensitive health indicators in future gender equality health planning initiatives. At the same time, Senator Michael Kirby was leading a Canadian Senate Committee on the re-examination of Canada’s approach to mental health and illness.^[1,2] Our research team, a 12 member national advisory board for the Health Canada Health Policy Research Program on Gender Sensitive Health Indicators, appraised the agendas of these two programmes and asked the following questions:

How can we hope to develop a national mental health strategy without valid and reliable indicators of the population’s mental health status and a clearer understanding of whether women and men have different mental health needs? More importantly, how will we be able to evaluate the effectiveness of the new mental health programs put in place without indicators that can adequately monitor and track women and men’s responses to these programs and policies?

We subsequently applied for the project and received funding to assess different evidence from existing survey and administrative databases as potentially useful gender-sensitive mental health indicators. Our goal was to illustrate that data that had already been collected could be used as a rich source of gendered information, both at present, for developing and implementing programs according to gender and in the future for monitoring and tracking their outcomes. This case study highlights the potential as well as the pitfalls of studying gender using quantitative data from large national datasets.

“Dis-ease” includes the experiencing of any constellation of symptoms of distress (e.g., sadness) that do not meet formal criteria for a mental health disorder as defined by the DSM IV manual.

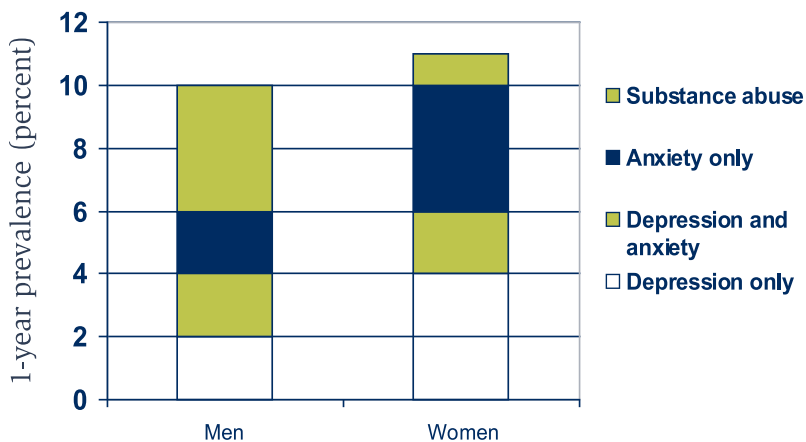
Dis-ease or Disease?

A major challenge in this project was deciding whether to evaluate existing indicators that measure full-blown mental health disorders or to adopt a preventive framework whereby indicators measure determinants of mental health, thereby allowing the health system to respond to persons with “dis-ease” before disease is triggered. Using sex-disaggregated data from 15,889 men and 19,347 women aged 18 years and older who participated in the 2002 Canadian Community Health Survey on Mental Health and Well-being (CCHS cycle 1.2), we observed similar rates of mental health disorders for women and men, with 11 percent of women compared to 10 percent of men experiencing at least one mental health disorder during a 1-year period (see Figure 1).^[3]

In absolute terms, this finding is a relatively small difference. However, if we look more closely, we see that the spectrum of mental health problems differs according to sex (see Figure 1). For example, women report more anxiety and

depressive disorders (10 percent) in comparison to men (6 percent). However, women report much lower rates of substance abuse than men (1 percent vs. 4 percent). This distinction in mental health disorders is extremely important as diagnosis and treatment as well as resources and health education messages, may need to be adjusted to meet the differing needs and responses of women and men.

Figure 1. Percentage of Men and Women Reporting a Mental Health Disorder Within the Previous 12 months.

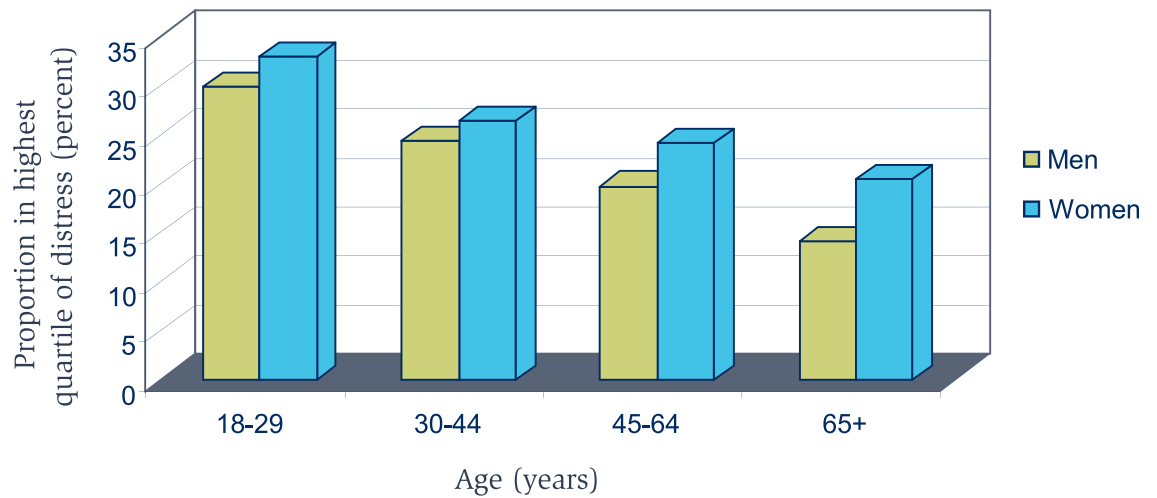


Source: CCHS cycle 1.2 (2002)

Looking at distress as a precursor of mental illness, we used the same dataset to plot distress scores^a and then calculated scores for women and men according to age. The distress scale consisted of 10 questions on non-specific psychological distress that a person may experience in the most recent four-week period. The higher the score the greater the distress (min score = 0, max score = 40).^[4] We used the highest quartile of distress scores to define high levels of distress (see Figure 2).

^a The distress scale was based on Kessler's Distress Scale. See Tannenbaum C. Towards a better understanding of women's mental health and its indicators [final report]. Montreal: Centre de Recherche de l'Institut universitaire de Gériatrie de Montreal; 2006. Proj. No. 6795-15-2003/63800006.

Figure 2. Comparison of Proportions of Men and Women Showing High Distress by Age

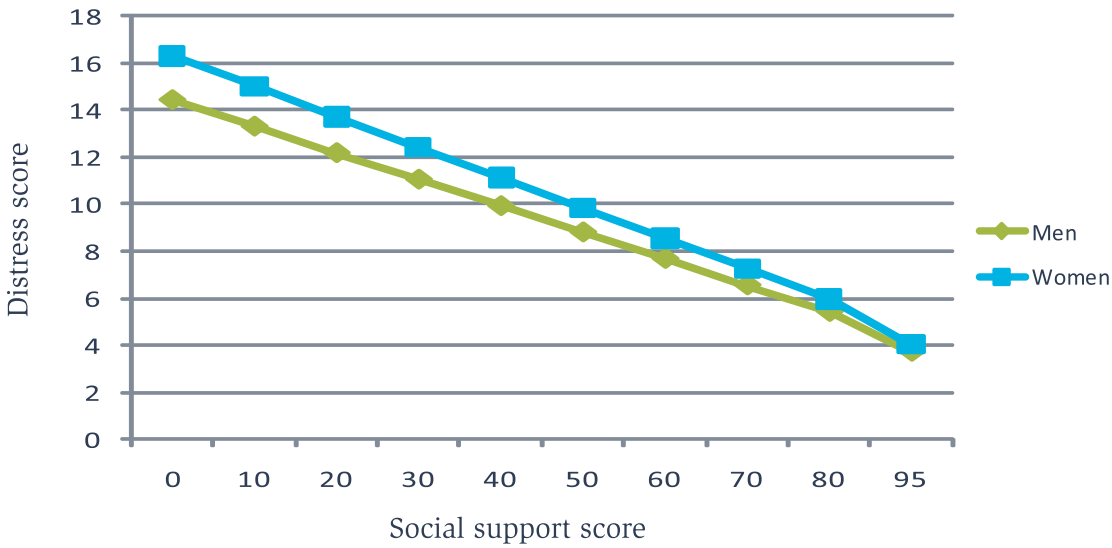


At all ages, women reported higher levels of distress than men. The mean distress scores were overall higher for women than men, and in each age group, the proportion of women in the highest quartile of distress was higher than for men. The highest levels of distress were noted in the younger age groups, but the gender gap was most significant in older adults. We would have liked to have investigated the reasons behind this large discrepancy in distress for older adults, but were limited by the availability of data collected in the survey. For instance, it would have been interesting to look at issues of widowhood, housing and higher rates of disability among older women as correlates and possible root causes of distress.

Determinants of Distress

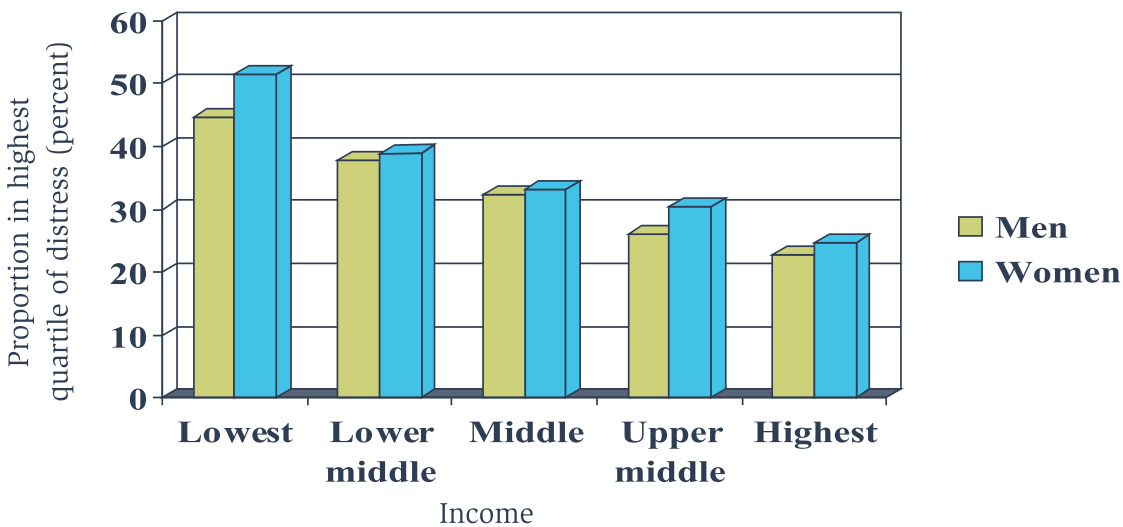
Fortunately, some data addressing possible root causes of distress were available from the CCHS dataset and allowed us to investigate the relationships between distress and social support, income, employment status and education for women and men. We found that lower levels of social support were associated with higher levels of distress, and that at every level of social support, distress levels were more pronounced for women (see Figure 3).

Figure 3. Association of Distress in Men and Women by Social Support



We also found that women were more likely to live within the lowest or lower middle income level (12 percent vs. 8 percent of men). Lower income levels were also associated with higher levels of distress; with women experiencing higher levels of distress than men for any given income level (see Figure 4).

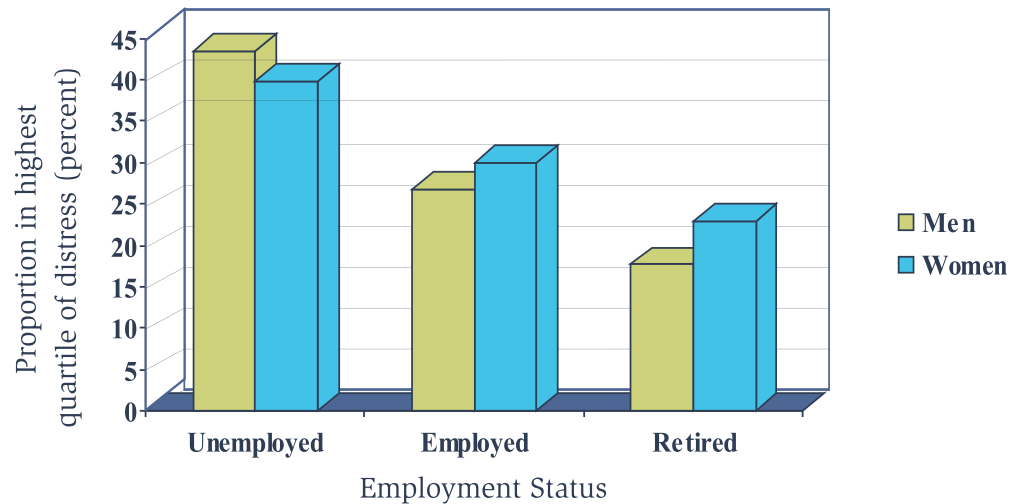
Figure 4. Association of Distress in Men and Women by Income



Employment status was defined in the CCHS as having worked in the last week and distinguished those who were permanently unable to work. The highest rates of distress were observed among the unemployed, with men experiencing higher levels of distress than women in this category. These differences may be associated with gendered expectations that place considerable pressure on men

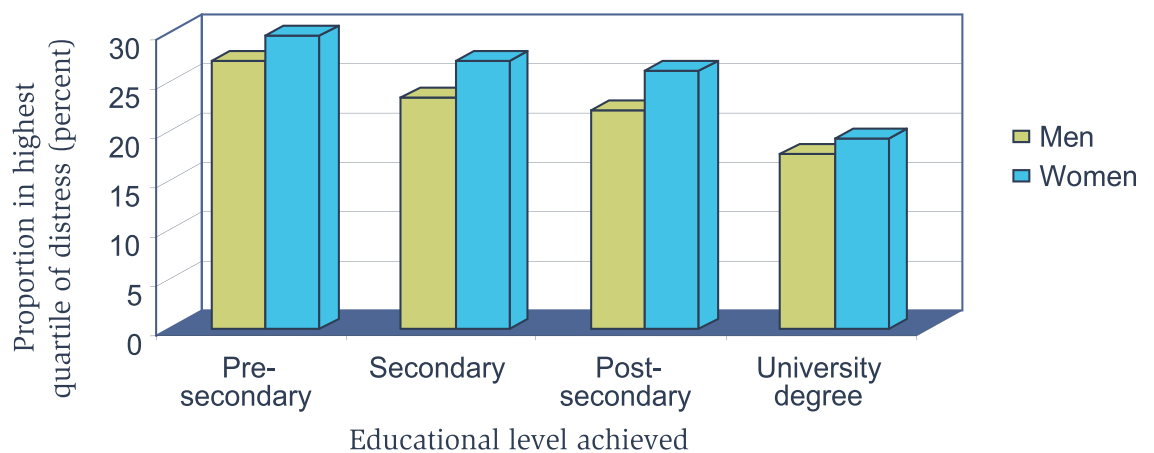
to earn a livelihood and support their families. Among those who were employed or retired, a greater proportion of women compared to men were distressed and this gap was especially pronounced among retired persons (see Figure 5).

Figure 5. Association of Highest Distress by Employment Status



Lower educational attainment was likewise associated with higher levels of distress, especially for women (see Figure 6). The gender gap decreased among those who attained a university degree.

Figure 6. Association of Highest Level of Distress by Educational Level Achieved



In these analyses of distress, we begin to see the factors that contribute to greater distress and, in turn, mental health concerns among women. This is important information when it comes to understanding mental health needs and planning services. Distress indicators thus provide complementary information that helps to explain basic sex differences in population statistics.

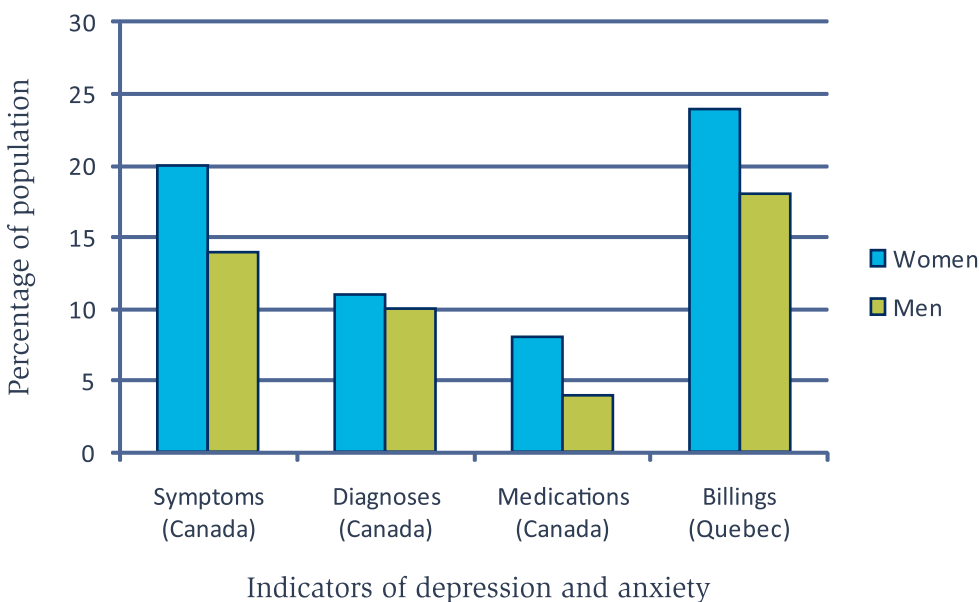
Four Different Mental Health Indicators

Given the large scope of mental illness, and the importance of distress as a precursor, we initially decided to measure the prevalence of depression and anxiety only in adults, rather than lump the entire gamut of mental illness together. Given that very few surveys measure distress per se, it is not possible to use distress as an indicator on a large scale. A more common measure is mental health symptoms, as defined by the Diagnostic and Statistical Manual (DSM) IV criteria for depressive and anxiety disorders, so we used data from existing databases to test the usefulness of this measure.

We chose to measure mental health symptom prevalence in four methodologically different ways: (1) by looking at self-reported sub-threshold mental health symptoms, (2) self-reported full diagnostic disorders, (3) self-reported use of psychotropic medications for treatment of these disorders and (4) physicians' billings for mental health visits. The prevalence of sub-threshold mental health symptoms, namely the occurrence of some but not all criteria for a mental health disorder, was used as a "proxy" or substitute indicator for distress.^[5]

The CCHS database for Canada as a whole, as well as the medical services claims database recording patient visits to physicians in the province of Quebec only (RAMQ), was used for these analyses (see Figure 7). Because medical claims fall under provincial legislation, for convenience we selected only one province for the physician billings analysis. It will be important to validate these findings in other provinces in the future.

Figure 7. Four Indicators of Depression and Anxiety in Men and Women Aged 18 Years and Older, in Canada and in Quebec (Billing Data Only)

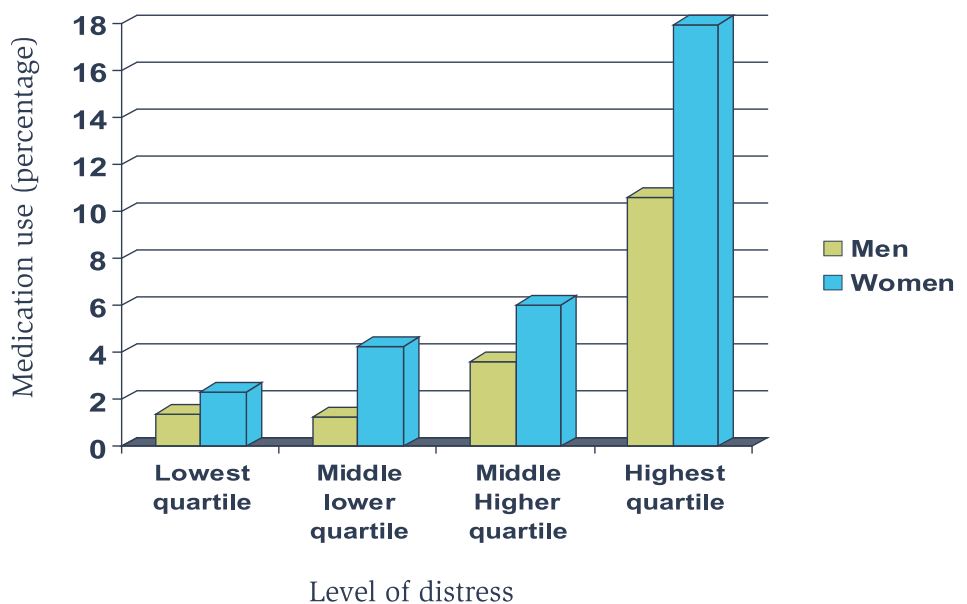


The lowest estimate of depression and anxiety, 8 percent of women and 4 percent of men, comes from self-reported use of medications for depression and anxiety. Intermediate estimates are based on the proportion of the population who reported symptoms that fulfilled the DSM IV diagnostic criteria for depression or anxiety. The highest estimates are based on the percent of the population with a sub-threshold diagnosis.

Gender Bias in Interpreting the Indicators

Rather than leading us to conclusions, the analysis raised many questions: What is the BEST way to estimate mental health? Which is the REAL estimate? On which indicator should we base our policies and programs? Before answering these questions, however, we need to consider the ways in which women and men identify mental health issues, make sense of and decide to treat depressive and anxiety symptoms. We know, for instance, that given the same prevalence of symptoms, women are more open than men to seeking help from a health care professional and to accept – or be prescribed – pharmacological treatment. For example, according to CCHS data, only 6 percent of men compared to 12 percent of women in the entire population reported going to see a physician for their mental health complaints. Furthermore, if we look at Figure 8, we can see that regardless of symptoms that meet DSM IV criteria, women experiencing any given level of distress are more inclined than men to take medications. We know that women are more likely than men to be prescribed medication to treat mental health issues.^[6,7] Whether women ask for more medications, or physicians prescribe medications more for women with depression and anxiety, is not entirely clear.^[8,9]

Figure 8. Medication Use in Women and Men by level of Distress



It is also well-recognized that men, and possibly their physicians, are more reluctant to report mental health diagnoses than women because of the stigma attached to mental illness.^[10,11] Without taking this into account, we do not know whether women are over-reporting symptoms or men are under-reporting them or if there is a real difference. Depending on the interpretation chosen, planning for services could mean that there are too many directed to women or too few directed to men.

Conclusion

Our results disclose a complicated tale of differential symptom reporting, service utilization and drug prescribing for mental health according to sex and gender. Designing and appropriately implementing improved mental health policies and programs will require careful consideration of these differences as well as a thorough understanding of how measurement decisions affect symptom prevalence across the spectrum of care. In terms of choosing the best gender-sensitive health indicator for mental health, it all depends on the questions being asked. That is, do we measure only self-reported mental illness or depression? Do we measure only who is prescribed medications for mental illnesses? Can we take into account how women and men report and cope with mental distress at different stages of their lives? The answers also need to take into account the socio-economic determinants of health that affect women and men differently. For instance, besides the associations we have shown here between high distress and income, employment, education level, social supports, other recent work has shown that women and men report different levels of time stress, related to the amount of unpaid and domestic work they do.^[8,9,12] Further research is also needed to understand the factors underlying presentations of depression and anxiety among women and men. One approach to achieving that understanding is through refining and expanding existing databases to capture a wider and more nuanced range of information that can then be compared and contrasted in a thorough sex- and gender-based analysis.

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Housing and Health: A Sex- and Gender-based Analysis from Manitoba^a

Introduction

Community organizations and policy makers alike recognize that Canada has a housing crisis. And we know both intuitively and directly from women and men that housing is a fundamental concern to people's health. Asked to describe what factors contribute to good or poor health, women with low incomes repeatedly mention bad housing, including having to cope with lack of heat, mould, mice, rats, lice, dangerous neighbourhoods, harassment from landlords and the threat of violence.^[1-3] Women also consistently describe how the stress and physical deprivation caused by struggling to afford a good place to live contributes to their weakened mental and physical health.^[1-5] Reduced or poor health has been associated with shelter that is compromised by physical, chemical, biological and structural hazards. For example, poor housing contributes to asthma and other respiratory diseases. Furthermore, housing that is not suitable for seniors may increase the likelihood of injury.^[6] Homelessness – having no housing at all – is certainly bad for health and homeless women and men are at much greater risk of respiratory diseases (e.g., pneumonia, colds, tuberculosis and asthma), arthritis, rheumatism, high blood pressure, diabetes, lice and scabies.^[7, 8]

This case study is a sex- and gender-based analysis of the current information available on housing and health, using the case of Manitoba for illustration. The case study demonstrates how a blend of quantitative and qualitative data can enrich a gendered understanding of the determinants of health.

Housing Availability and Affordability

A sex- and gender-based analysis of housing in Manitoba begins with looking at two factors: housing availability and affordability. The Canadian Mortgage and Housing Corporation (CMHC) analyzes and reports housing-related data gathered by Census Canada and Statistics Canada. These data are typically only publicly reported by household (not by the sex of the household residents) and provide a general understanding of the state of housing need in Manitoba. It is possible, though, to request additional data from the CMHC that help illuminate the relationship between housing need, sex and other determinants of health. Both general and specific data inform this case study.

^a This article is based on a case study first reported in Donner L, Isfeld H, Haworth-Brockman M, Forsey C. A profile of women's health in Manitoba. Manitoba: Prairie Women's Health Centre of Excellence; 2008.

Availability

How Difficult is it For Someone to Find A Place to Live in Manitoba?

A December 2006 report from CMHC^[9] records a decline over the previous year in apartment vacancies in two of Manitoba's four urban centres, Winnipeg and Thompson. Winnipeg experienced the sharpest decline, from 1.7 to 1.3 percent, while Portage la Prairie experienced a sharp rise overall in the apartment vacancy rate. Winnipeg continues to have one of the lowest vacancy rates among all census metropolitan areas in Canada and Brandon had the lowest apartment vacancy rate of all Manitoba cities (see Table 1).

Defining the Terms

Housing Stock: Refers to all of the residential units, including houses, apartments, condominiums, mobile homes, etc. in a given area.

Rental Housing Stock: Refers to residential units that are inhabited by someone other than the owner and who pays rent to live in the unit.

Low Vacancy Rates: Typically signal an absolute housing shortage: people find it harder to secure residential space. Competition for limited spaces tends to drive up the cost of housing, but vacancy rates do not speak to the quality or affordability of available residential units.

Table 1. Private Apartment Vacancy Rates (percent) by Bedroom Type, Manitoba.^[9]

Centre	Bachelor		1 Bedroom		2 Bedroom		3 Bedroom +		Total											
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006										
Winnipeg CMA	3.1	a	2.2	a	1.8	a	1.4	a	1.1	a	1.1	a	0.7	a	1.7	a	1.3	a		
Brandon CA	0	b	0	b	1.1	a	1.4	a	0.9	a	0.6	a	0	b	0.9	a	0.9	a		
Portage la Prairie CA	12.8	a	11.8	a	4.5	a	8.7	a	4.1	b	4.8	a	4.7	a	4.8	a	4.7	a	6.8	a
Thompson CA	9.7	a	13.3	a	17.8	a	17.3	a	0.6	a	1.1	a	3.4	a	0	a	8.3	a	8.2	a
Manitoba 10,000 +	3.2	a	2.4	a	2.1	a	1.8	a	1.3	a	1.1	a	1.3	a	0.8	a	1.9	a	1.6	a

The following codes are used to indicate the reliability of the estimates: a - excellent, b - very good

Source: 2006

In 2008 the total private rental housing stock for Winnipeg was 52,430 units, with only 775 vacant or available for rent.^[10] This reflects a substantial loss in units available in the past 15 years, in part because of a boom in conversions to privately-owned condominiums, but also because some units were demolished or condemned.^[10]

While the housing shortage in Manitoba and Winnipeg is well known and rates are reported by women, men, agencies, government and media, it is difficult to know how many applicants are waiting for publicly subsidized housing at any one time. Recent reports have quoted figures ranging from 2,300 to 3,037

households listed as waiting for public housing alone. It is even more difficult to measure who is *without* reliable shelter. The Manitoba Housing Authority operates subsidized housing and keeps a waiting list for applicants. These lists very likely underestimate the number of women, men and families who do not have a residence of their own.^[8,11]

Affordability

How Difficult Is it for Someone to Afford a Place to Live in Manitoba?

An established guideline is that housing in Canada should not cost residents more than 33 percent of household income in order to be affordable. Housing that is too expensive prevents people from having enough money for other necessities.

CMHC reports that in Winnipeg, the average rent for a two-bedroom apartment (in existing structures) increased by 3.4 percent, compared to the year before, which is above the rent control guideline of 2.5 percent.^[9] Brandon's rents also went up in the year preceding October 2006, increasing by about 4 percent overall (see Table 2). In other words, there are not only fewer places to live, but the cost of housing is rising.

Table 2. Private Apartment Average Rent (\$) by Bedroom Type, Manitoba.^[9]

Centre	Bachelor		1 Bedroom		2 Bedroom		3 Bedroom +		Total											
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006										
Winnipeg CMA	405	a	420	a	539	a	557	a	683	a	709	a	795	a	839	a	589	a	608	a
Brandon CA	365	a	374	a	469	a	475	a	590	a	600	a	691	a	703	a	544	a	553	a
Portage la Prairie CA	301	a	305	a	445	a	446	a	559	a	564	a	468	b	536	a	494	a	501	a
Thompson CA	424	a	438	a	494	a	502	a	557	a	566	a	638	a	648	a	526	a	536	a
Manitoba 10,000 +	404	a	418	a	534	a	552	a	669	a	692	a	784	a	823	a	584	a	602	a

The following codes are used to indicate the reliability of the estimates (cv = coefficient of variation):
a - excellent ($0 \leq cv \leq 2.5$), b - very good ($2.5 < cv \leq 5$)

Source: CMHC 2006

Notes: Utilities not included in average rents

Manitoba has also seen an increase in real estate market prices, particularly in the 24 months between January 2006 and December 2007.^[12] Higher market prices make it more difficult to buy a first house and harder for people to move their families into larger or better houses. The increased prices make buying a house less affordable for everyone.

Unaffordable housing directly affects the health of Manitobans who must perpetually “borrow” from food money and incidentals to pay rent. Because women have lower wages on average than their male counterparts, we can expect that women will be disproportionately represented among those who must scramble to find money to pay rent. Moreover, some women live in profound poverty, especially Aboriginal women, women with disabilities and elderly women living on their own; these women face the greatest challenges in meeting their basic needs. As McCracken and Watson^[1, see also 2] report from focus groups with women, “When rent is above what social assistance [provides] they told us they are regularly forced to use their food and clothing money to pay rent.”^[p.14]

It is not just women on social assistance who struggle to pay rent. In a study comparing rents across Canada with provincial minimum wages, Winnipeg ranked 18th out of 28 cities where minimum wages were insufficient to meet housing costs. According to the analysis, a minimum wage of \$8.08/hour would make a bachelor apartment in Winnipeg affordable^b in October 2006; however, the minimum wage in Manitoba at that time was only \$7.60/hour.^{c[13]}

With winter temperatures regularly below -20°C, the cost of heating is a critical expense and one that can be very high for dwellings in poor repair.^[3] Women report drawing on their food budgets to cover utility bills;^[1] some women said they went without heat during Winnipeg winters, because they could not pay the bill. At the same time, when women and families on social assistance have to move, they may not get additional funds to cover the cost of utility hook-ups.

Core Housing Need

Who Is Most Likely to Be in Core Housing Need?

Housing shortages in Canada are typically measured overall as core housing need. Any housing that is unsuitable (overcrowded), inadequate (in need of major repairs to meet health and safety codes) or unaffordable (costs more than 30 percent of the household income) is said to represent core housing need. That is, *any* housing that meets *one or more* of these three criteria is measured as core housing need for residents.^[14]

Figure 1 shows that women are consistently more likely than men to be in core housing need. Furthermore, in Manitoba in 2001 there was a 20 percent incidence of core housing need for senior women living alone (aged 65 and older), a 36.1 percent incidence for households led by lone mothers and a 20.2 percent incidence for non-senior women living alone (see Figure 2). The

People are considered to be in “core housing need” when they live in dwellings that:

- Are overcrowded
- Are in need of major repairs
- Cost more than 30 percent of household income

b Calculated based on working 40 hours per week, 52 weeks per year.

c Since the 2007 study was released, Manitoba Labour has raised the minimum wage in the province to \$9.25/hour (at press time), but rents have also increased.

results for Winnipeg sharpen the picture: 17.9 percent of senior women living alone, 35.2 percent of women-led lone parent households and 18.2 percent of non-senior women living alone were found to have core housing need in 2001. That is, 1/5 to 1/3 of all Manitoba women live in homes that are not affordable, adequate or suitable. Not surprisingly, the greatest need is among women who are renters (see Figure 2). Rentals include houses and apartments and sometimes rooming houses.

Figure 1. Incidence of Core Housing Need Males and Females, 2001

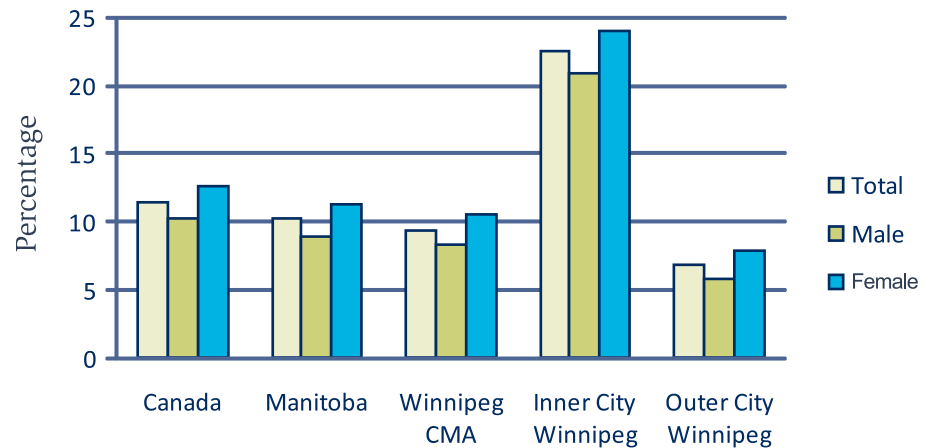
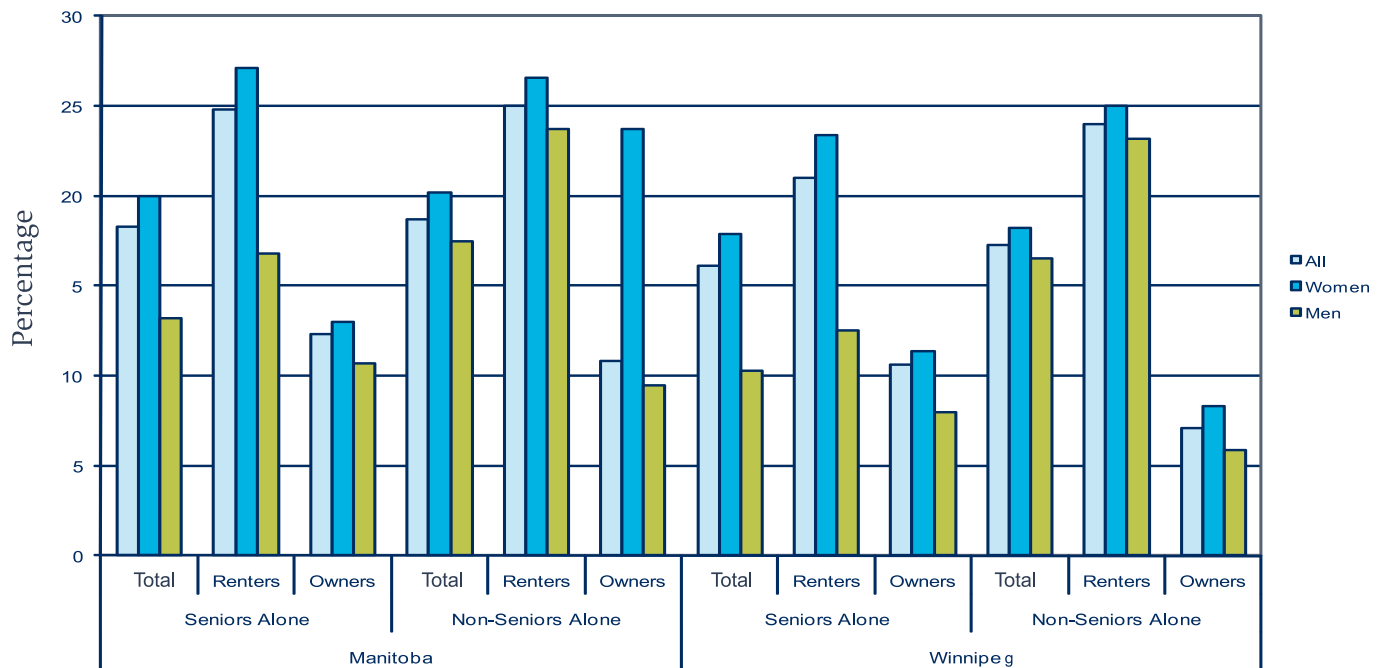
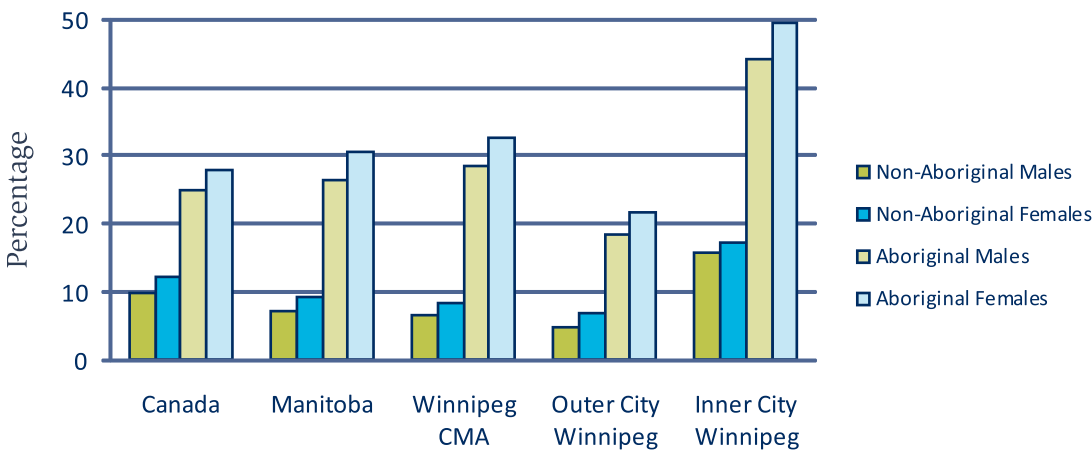


Figure 2. Core Housing Need for Individuals Living Alone in Manitoba and Winnipeg, 2001



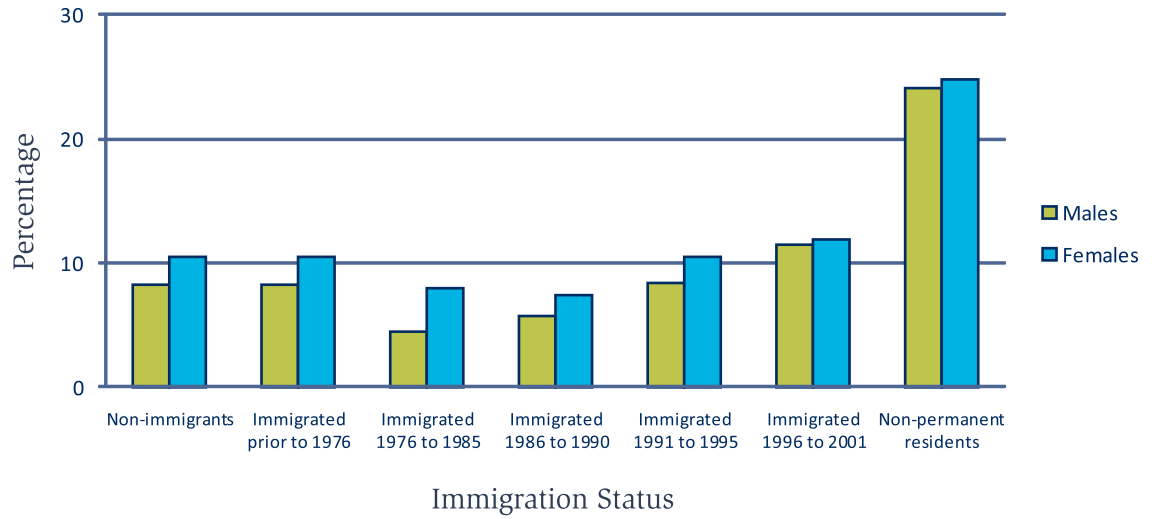
A closer look at who is in core housing need reveals that Aboriginal women and men are particularly vulnerable (see Figure 3). A shocking 50 percent of Aboriginal women in inner city Winnipeg are in core housing need, which is 2.85 times the number for non-Aboriginal women. Aboriginal men are nearly equally affected, at 44.2 percent in core housing need. The overall core housing need for Aboriginal women in the province is 30.7 percent. Note that this does not include data from reserves that did not participate in the census; however, the Census Metropolitan Area of Winnipeg *does* include Brokenhead First Nation.

Figure 3. Incidence of Core Housing Need Among Aboriginal and Non-Aboriginal Residents, Manitoba, 2001



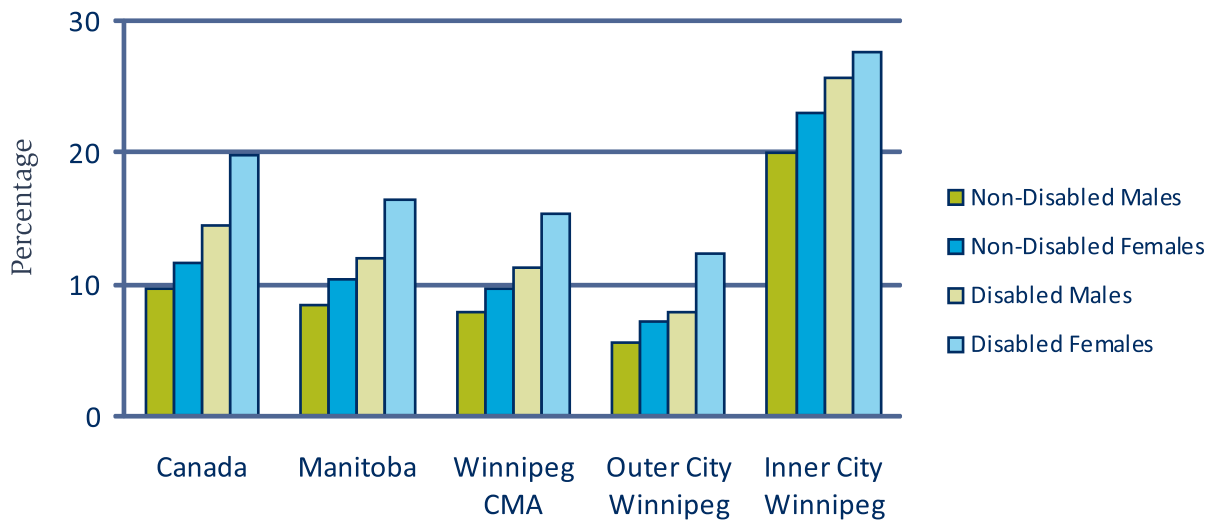
Some immigrant women appear to fare somewhat better: those who have arrived most recently, between 1996 and 2001, have an 11.9 percent core housing need, compared to 10.5 percent for non-immigrant women in the City of Winnipeg (see Figure 4). Women who have lived in Canada for 20 years or more show the lowest core housing need overall, suggesting that the majority of long-time residents have become financially secure and have a stable, safe and adequate place to live.

Figure 4. Incidence of Core Housing Need by Sex and Immigration Status, Winnipeg CMA



Women with disabilities are among the poorest of Manitoba’s poor. Figure 5 illustrates how critical the housing need is for this group of women, particularly when they live in inner-city Winnipeg. Given that housing stock in the inner city was, for the most part, built before accessibility became a public concern, it is not surprising that women with disabilities living in the inner city are the most likely to be in core housing need, reaching nearly 28 percent.

Figure 5. Incidence of Core Housing Need by Sex and Immigration Status, Winnipeg CMA



Discussion

What Else Does Sex- and Gender-based Analysis Reveal?

Residents of poor neighbourhoods suffer poorer health for a number of reasons;^[15] it remains unclear to what degree poor health is caused by bad housing and to what degree poor health influences remaining in or moving from poor housing. Two factors, however are clear: (1) low income has been independently shown to cause increased morbidity and mortality related directly to poor health; and (2) women with low income in Manitoba are the most likely to live in housing that is unsafe, unsuitable, inadequate and unhealthy.

A 2004 study found that safety, affordability and suitability were the most important concerns for low-income women.^[1] The women who participated in the study sought housing that had smoke alarms, working door and window locks, apartments that were not on the ground or basement level and that were free of harassment from landlords and superintendents. Women also noted that the ability to afford a telephone in their home was essential to feeling safe.

Neighbourhood conditions and personal safety are also critical to physical and mental well-being.^[6, 7] In addition to secure doors and windows, women have reported concerns about unsafe and/or poorly lit corridors and sidewalks, neighbourhood gangs, the presence of drug dealing and dealers and the lack of familiar and trusted neighbours.^[1] Women in Winnipeg reported anxiety about their children's exposure to neighbourhood violence,^[2] sexual harassment and the common occurrence of finding used syringes and condoms on sidewalks, streets and in back lanes and yards. Women also commented on the need for fences to prevent strangers from coming right up to their buildings.^[1]

The threat of violence is not just outside women's home doors. Many women must flee physical and sexual abuse in their own homes, seeking temporary shelter and then having to find their own housing and ultimately somewhere to call home. Brownridge investigated the relationship between housing tenure (owning or renting) and violence against women.^[20] Canadian women living in rental housing were twice as likely to experience violence as women who owned their residences.

A study of immigrant women's experiences of violence and homelessness examines how gender and culture intersect.^[11] Many of the women in this pan-Canadian study (which included Winnipeg) had never lived alone before leaving an abusive

Something to Think About

First Nations women living on reserve have, for years, been demanding changes to rectify jurisdictional disputes that prevent women from their share and entitlement to marital shared property. The federal Indian Act governs Status (Registered) people and the Reserve lands, but there is no provision made for equitable and equal distribution of shared property in marital breakdown, as there have been in provincial family law reforms.^[16] Thus a woman is denied any right to claim ownership of a house and property, if the home is in her husband's name.^[17, 18]

... To date, the [federal] government has sought to frustrate NWAC's [Native Women's Association of Canada] ability to assert Aboriginal rights, by challenging NWAC's standing to bring a case challenging the Constitution, and by arguing that there is no Aboriginal right to remain secure in the community after marriage breakdown.^[19,p12]

FAFIA, the Feminist Alliance for International Action, goes on to point out that the federal government is failing to uphold its constitutional and international obligations to ensure equality for Aboriginal women.^[19]

Native Women's Association of Canada has published a series of recommendations to move to rectifying this critical inequity, starting with appropriate and adequate community consultation and involvement.^[17]

COMMENTARY

Women, Gender and Potable Water

The availability of potable water – water of sufficient quality for drinking – is a critical factor for the health of all people. In Canada, there is no standard measure of household access to potable water.^[1] While numerous laws are in place to protect the public and to safeguard groundwater supplies,^[2] geography, weather, politics and other factors affect how and whether guidelines are followed, and how quickly water sources are restored after contamination. Rural, remote and northern communities are more likely to be adversely affected by water supplies that are contaminated by flooding and these regions are also less likely to have adequate water treatment facilities.^[1]

As of March 31, 2008 there were 1766 provincial boil-water advisories in place across Canada, not including those in First Nations communities.^[3] The poor quality of the drinking water for First Nations, Inuit, and Métis populations is especially critical, particularly on-reserve. Of the close to 100 boil water advisories in effect for First Nations communities across Canada in January 2008, 85 of these were deemed high risk.^[4,5] Often contaminations are not dealt with promptly,^[6,7] with some First Nations communities having to deal with long-standing advisories that have lasted over a decade.^[5,7] It is difficult to gain an accurate picture of how many Aboriginal communities are affected by poor water quality, because most of the recent data focuses mainly on First Nations communities.

Considering that an advisory requires water to be boiled before it is used for infant formulas, cooking, ice, washing produce and brushing teeth, the availability of potable water is clearly a gender-based issue, as women continue to be primarily responsible for these household tasks. Women are also the main care providers for those populations considered most at risk should they be exposed to contaminated water; namely infants, children under two years of age, pregnant women, the elderly and individuals with already compromised immune systems.^[1,4] The added time and energy it takes to ensure contaminated water is fit for consumption adds considerable work and stress to women's already busy lives. Furthermore, it is important to consider the severe socio-economic consequences of long-term water advisories as, in some cases, residents in already impoverished communities may have to buy bottled water to ensure a reliable supply of clean, safe water. While the health of all community members living without access to potable water is compromised, the responsibility of managing the daily implications of unsafe water falls primarily on women.

situation. They had never before had to search for housing or contend with the many aspects of running the household finances. The study's authors found that there were both systemic and individual factors at play in how women came to be homeless (after fleeing violence) and then found new housing. Uncertainty about their future housing was in fact more critical for these women than absolute homelessness.

Recent studies of the particular housing needs of Aboriginal populations in prairie cities confirm that getting and retaining good housing is especially difficult for Aboriginal populations.^[21, 22] CMHC noted that Aboriginal people (the information is not disaggregated by sex) in Winnipeg are typically younger than the general population and have lower incomes and less education and thus experience higher rates of poverty.^[21] Survey respondents and key informants pointed to the compounding effects of unstable employment (due to lack of skills) and low wages making it very difficult to afford decent housing. This lack of stable income for some households, in turn, contributes to a lack of established histories with banks and with landlords.

The CMHC study also notes that many Aboriginal families' homes are overcrowded. There are few housing units with 3 or more bedrooms available, which is problematic for large and extended families.^[23] In particular, Aboriginal women have reported that they regularly are asked to accommodate visitors from remote and rural communities. These realities leave some Aboriginal households vulnerable to homelessness. CMHC further notes that as the urban Aboriginal population grows, there will be a much greater need for affordable housing.

Aboriginal renters were most likely to live in older, unsafe (due to crime) neighbourhoods. Aboriginal homeowners, in contrast, had adequate space, felt safe in their neighbourhoods and were generally satisfied with their housing. Rent-subsidized units were, on average, more recently built than either private market rentals or houses owned by Aboriginal respondents.^[20]

Policy Implications

So What Does This Sex- and Gender-based Analysis Mean and How Can the Information Be Used?

The housing situation in Manitoba has been “critical” for more than 20 years. This case study illustrates not only “what” (that there is a crisis in housing) and “who” (women and others with low income), but also “how” it affects their lives. The sex- and gender-based analysis illuminates where in the population attention might be most needed. Given that housing has been researched in Winnipeg and at the broader provincial level for some time, policy makers and planners can turn to the research and the communities behind the research across the province for solutions that address localized needs and concerns.

For example, early in 2008, the provincial government announced initiatives to reduce crime in public housing neighbourhoods by evicting anyone convicted of a criminal offence.^[24] The Manitoba plan does not include a proposal to study whether or not women will be inequitably affected by this security measure. It seems likely that the plan will affect those women in public housing who turn to survival sex trade work or other illegal acts, or women who live with other adults or minors who are in trouble with the law. More research – and a sex- and gender-based analysis – is clearly called for before the government proceeds with its plan.

Similarly, a tri-level agreement between Canada, Manitoba and Winnipeg, signed in 2002, has brought some improvement through new programs to encourage semi-public and private groups to invest in repairing or building new houses for low-income families. The Feminist Alliance for International Action has noted that the federal government’s 2001 framework for federal-provincial affordable housing initiatives and agreements does not stipulate a requirement of funds to reduce core housing need; nor are there provisions to ensure that women do not face discrimination in applying for housing they need.^[19]

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The Manitoba government is making important first steps toward improving the scarcity of affordable housing in the province. Further investment in this basic necessity will go a long way to improving women's lives and to enhancing life in Manitoba for all.

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Sex, Gender and Generations: A Day at the Spa

Welcome All to the First Annual Community Spa Day

The First Nation will be sponsoring a full day of fun and care for your enjoyment. We hope to see you all at the Community Spa to take part in the wellness services being provided.

Please call the health care office to sign up. Some of the activities for the day include:

- Hair care
- Reiki treatments
- Massage by a trained professional
- Foot clinic
- Facial and skin care treatments
- Pedicures and manicures
- Traditional wellness teachings

Beverages and healthy treats will be served throughout the day while we take care of ourselves, relax and get pampered.

Introducing the Robertsons

As is typical of many of the families in the First Nation community, there is much discussion over getting signed up for community events. In one family, the Robertson's, the discussion takes place during a family get-together.

The eldest in the family, Vanessa, lives in the community with her non-native husband, Paul. Vanessa would like to attend the whole day of spa-related activities and would like her husband to attend the foot clinic and massage therapy sessions. However, Paul says he "Isn't going to that girly crap." The second sibling, Colleen, resides in the nearby city with her non-native husband. Colleen has serious back muscle problems from a recent car accident and would like to attend the massage therapy session. She also thinks it would be great fun to go to some of the other activities with her sisters. One of the brothers, Joe, lives in the community part-time due to his work. He has both land and a residence on-reserve that he stays at approximately six months of the year. Joe thinks there are a few things being offered at the spa day that might be okay, but feels uncertain about going if he is the only guy there. Albert, another brother, lives on the reserve and wants to come to the foot care clinic as he has recently been diagnosed with diabetes. He has also recently suffered a heart attack and

thinks he could use the stress relief teachings. In addition, he would like to bring his daughter, Katie, who is away at university, but should be home during the week of the spa. The middle brother, Steven, has two daughters, Lily and Mary, who live with their Auntie on-reserve and participate in many cultural activities. The girls are non-status and are not sure if they will be allowed to participate in the spa day. The fourth brother, Michael, does not live on the reserve. He is, however, visiting with the family when the discussion about the spa takes place. Michael says he has no interest in community events of this kind and will not attend any of the spa activities. His three children (Mark, Isabella and Emma) will not be participating either, as they are not eligible. Moira is the youngest sibling in the Robertson family. She and her husband John, an Elder from another First Nation, are very interested in the services, but it would mean taking time off work. Plus, there has been a lot of discussion in the community about John coming to everything when he has his own community to go to.

The Robertson family's dilemma about partaking in the community spa day is not unique. In addition, the uncertainty around who is and is not able to participate in a spa day offered on a reserve would be similar for many other families on First Nation reserves across the country.

This case study examines the complex and gendered aspects of identity and health for Aboriginal peoples in Canada. As this case study shows, even a day at the spa can be a complicated affair.

More than Just a Label

Aboriginal peoples in Canada are defined not by themselves, but by the government of Canada. They are divided into three distinct groups; First Nations, Métis and Inuit. Each group has varying levels of fiduciary responsibility and significant issues of inclusion and exclusion exacted to them by government. This case study looks only at First Nations people residing in Canada. While focusing on one "group" may appear to have simplified or narrowed the field of study, it does in fact open up a whole new set of complexities. The details of this complexity also bring up historical and contemporary issues of gender and sex discrimination.

First Nations people in Canada, as a group, are divided into categories under Canadian law, which create jurisdictional issues for access to health services among many other rights. The *Indian Act* defines "Indians under the Act,"^a assigning "status" according to certain criteria. Within the *Act*, there are two categories, 6(1) and 6(2), that speak to your degree of "Indian-ness" or blood quantum. Essentially, 6(1) refers to first generation and 6(2) means second generation. This eligibility determines the ability to pass on the distinction of "status" to offspring or not.

What throws this eligibility off entirely is the historical factor of non-Indian women marrying Indian men. Upon the marriage of these two persons, the non-Indian woman would in fact have lost her rights under the law as a regular Canadian citizen. The woman would take on the legal distinction or identity of her husband and therefore, be classified and legally defined, as an "Indian

Bill C-31, a federal law passed in 1985, redefined eligibility for Indian Status.

6(1) and 6(2) are often used as shorthand to refer to the two subsections of Bill C-31 that define where and how a person falls under the category of status Indian under the law.

^a Note that "Indian" is a legal term. First Nations is a term more commonly used now, but it does not have any legal standing as a term or definition of a people.



under the Act.” That meant that until 1985, when this practice was discontinued through the passing of Bill C-31, there were many non-blood women who were, in fact, card-carrying status Indians.

Consider now Indian women as defined by blood quantum and under the *Indian Act*, who married outside of their race, meaning non-Indian men. This population of women was stripped of their identity as Indians and denied any rights provided for under the *Indian Act*. Indian women who married non-Indian men were denied their right to reside on a reserve, to have their children be eligible for Indian status under the Act, and even the right to be buried on “lands set aside for the express use and purpose of Indians,” namely, the reserve. So women were then stripped of any officially recognized role in their own community – including the social roles that would have been part of their gender identity. For many, the forced movement of women from their communities upon marriage is believed to have initiated the mass exodus of Indian people from reserves, to living in villages, town and cities and creating the term “off-reserve.”

Bill C-31 was passed as a law to end the sex discrimination of the *Indian Act* and allow women and their children the chance to legally reclaim their Indian identity. Bill C-31 did not reverse the status non-Indian women had acquired by marrying an Indian man, but did allow women whose status had been removed to apply for registration. Women who have already registered or who are currently registering under Bill C-31 do not necessarily have rights on a particular reserve. Given that some First Nations reserves control their Band Membership (according to federal law), some women and their children still do not qualify for services and support from a Band or on-reserve following registration under Bill C-31. This perpetuates the sex and gender discrimination some women face.

Return to the Robertson Family

So, by now you might be asking yourself, what does this all have to do with access to services and taking a much-needed break for a day at the spa?

Well, you have to have an idea of who funds the spa, which people the activities are designed for, who wants to participate and who is actually eligible to enjoy the treatments.

For the purpose of answering the “who,” we will go back to the gathering of the Robertson family. We will see how the notion of “identity” that is ascribed (by government) and assumed (by individuals) is based on the particulars of status, non-status, on- and off-reserve. As well, the case study illustrates how family history and jurisdiction affect the family members’ access to spending a day at the community spa. So, here begins the saga:

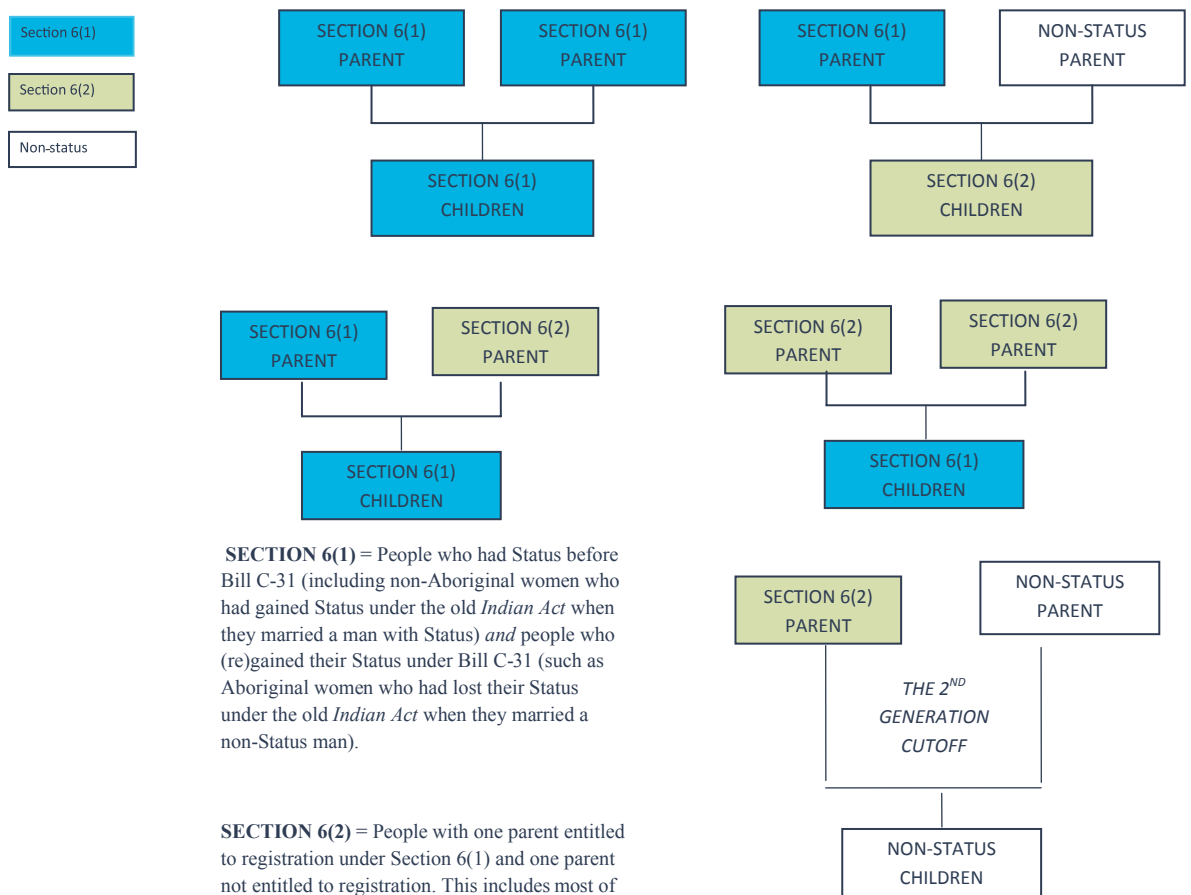
In 1921, on an Indian reserve in Ontario, a little boy was born to Ida and James Robertson, two Ojibwe Indians. They named him Charles. When Charles grew up and became a man he met a wonderful young non-Indian woman named Nora, from the nearby city. They married just after World War II and so began the changes in their lives. As Charles’ wife and as a woman, Nora was no longer considered to be a Canadian citizen, she was now, through her marriage, deemed to be an Indian.

So, Charles and Nora lived on the reserve and proceeded to have the first three of seven children. These first three children were full status under the *Indian Act*, as they were born to two “Indians.” Life took a turn when Charles and Nora decided to move into the city. The Indian agent told them that in order to do this they must enfranchise sell their identity as status Indians and essentially “join” Canadian society, which they did. So, the Robertson’s sold their home and gave possession of their land to Ida (Granny) Robertson and moved off the reserve. Like many families in the day, Charles and Nora expanded their family and had their remaining four children while living off-reserve. The four younger children are “different” than the first three. The first three were born to two “Indians” and since Charles and Nora’s enfranchisement the following four children were born to two “white” people. Gets complicated, doesn’t it?

Life continued in this mixed family until 1985 when the government of Canada passed new legislation through Bill C-31 which allows for Indian women to maintain their legal identity as “Indian under the Act” regardless of whom they marry; and for those people who were “enfranchised by the head of the household” to be eligible for Indian status and thus to regain their identity. So, the Robertson children applied for and regained their entitlement, the right to be identified as status Indians. The first three children born to Charles and Nora when they were both “Indians under the Act,” were given 6(1) status and the four remaining children who were born to two “white” people, were given 6(2) status.

The first three siblings can pass on their entitlement to Indian status to their children, regardless of whether or not they have their own children with a status Indian or non-Indian. The final three children *must* have children with another status Indian in order to pass their entitlement on to their off-spring. Should the children born to 6(2) parents choose to have their own children (the grandchildren of two 6(2) grandparents) with a person outside of their legal identification, legal identification as status Indians ends, along with rights to land, housing and services. Figure 1 offers an illustration for this complicated story:

Figure 1. Entitlement to Indian Status Under Section 6 of the Bill C-31 Amendments to the *Indian Act*, for Children Born of Various Parenting Combinations



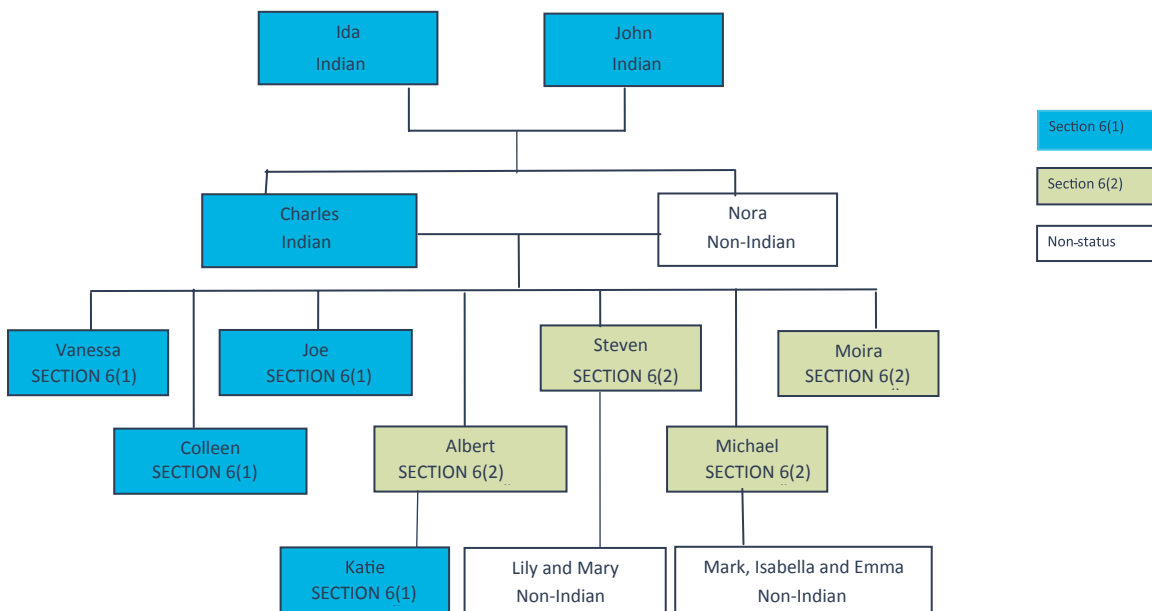
SECTION 6(1) = People who had Status before Bill C-31 (including non-Aboriginal women who had gained Status under the old *Indian Act* when they married a man with Status) and people who (re)gained their Status under Bill C-31 (such as Aboriginal women who had lost their Status under the old *Indian Act* when they married a non-Status man).

SECTION 6(2) = People with one parent entitled to registration under Section 6(1) and one parent not entitled to registration. This includes most of the children of women who had lost their Status for marrying out under the old *Indian Act* (notably, it does not include the children of women who gained Status by marrying in under the old *Indian Act*).

Only the children of Section 6(2) parents can be denied Status, on the basis of the 2nd generation cutoff.

Used with permission from MORN 2005^[1]

Figure 2. Registered Status in the Robertson Family




So, speeding this family drama up to the present, the Robertson children did as their parents did for the most part; they left home, married (or not) and had children (or not). Thus, the family is comprised of a variety of “Indians” and “non-Indians” in the mix and like many of the Aboriginal peoples in Canada, their individual history and choices affect whether or not they are entitled to attend a day at the spa:

Vanessa, the eldest, is now called a 6(1). She has full rights to attend the spa day event and full entitlement to federal assistance for health care costs. Paul, her non-Indian husband, may or may not be entitled to the day at the spa, depending on if it is offered to all reserve residents (including Paul), or only to people with status.

Colleen is also a 6(1), but lives off-reserve with her non-Indian husband. She is entitled to receive the spa services that are allowed to status Indians who do not live on the reserve.

Eldest brother Joe is also 6(1). Because he lives on the reserve part time, he is fully entitled to all the activities and special attention the spa day has to offer – if he wants to participate.

Albert, the next brother, was the first to be born after his parents moved from the reserve. With his mother now recognized, at the time of the move, as non-Indian, he is registered as 6(2). He can still receive the foot care he would like to get at the spa day. His daughter Katie (a 6(1)) also qualifies, because Albert married a woman with status (6(2)).



Steven is registered as 6(2) under the *Indian Act*, but his two daughters, Lily and Mary, do not have status and even though they live on the reserve with their Auntie and take part in many cultural and community activities, they may not qualify for the spa day.

Michael is registered as 6(2), but has never identified himself as “Indian.” Instead he identifies with his mother Nora’s side of the family and refers to himself as Irish. He does come to family events, but otherwise he does not involve himself with the community. His three children (Mark, Isabella and Emma) are non-status and do not identify as “Indian” either.

Moira, the youngest, is 6(2) and is entitled to the spa day. Her husband, John, is also eligible as he is registered as 6(1). The complication for John is that he is not from this community and reserve, and thus may not be able to join in the activities at all.

Entitlement and Gender


This story is important to a sex- and gender-based analysis of health for a number of reasons:

1. “Indians” are the only people of Canada whose legal identity as a people is defined under federal law. This fact affects both eligibility and delivery of health services for individuals. It is essential to understand the definitions and entitlements under the law for any gender-based analysis of a related health issue.
2. Historically, women were stripped of their rights as Indians if they married a non-Indian *or* stripped of their rights as “Canadians” if they were non-Indian and married an Indian man. This means that the Canadian responsibilities and women’s entitlements to health services and other features were taken from Indian women, but not from Indian men, if they married outside of their own. Women continue to face additional discrimination on- and off-reserve on the basis of their sex.
3. Bill C-31, which was introduced to correct this sexist inequity, and to allow women to reclaim their Indian status, continues to perpetuate divisions. Depending on the matrilineal line, families lose their status within two generations unless they marry other status Indians.
4. The federal government maintains fiduciary responsibility, including over health, for those persons defined as Indians under federal law. Health care, however, is a provincial jurisdiction. While the federal government provides some additional health benefits to status Indians, over and above provincial health services, the system is complicated and explicitly tied to the *Indian Act*. To add to the complications, some federally-funded services are only available to the residents of First Nations reserves – that is, they must live on a reserve to qualify. For First Nations people, status and non-status, there can be extremely complicated wrangling about who pays for ambulance service, provincially-financed medications, dental care and other health services. Many people get caught up in the red tape and are often not clear what their own rights are, or those of their children.

A simple invitation to come and enjoy a day of rest and relaxation at the spa, we can see, is not really so simple. Even within families, issues of identity, sex and gender, are truly complicated. As such, it is important that any sex- and gender-based analysis of health care or health systems take into account the complicated intersections of sex, gender, legal and personal identity.

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Walking a Thin Line: Addressing the Safety of Overweight and Obese Children and Youth in Canada

Introduction

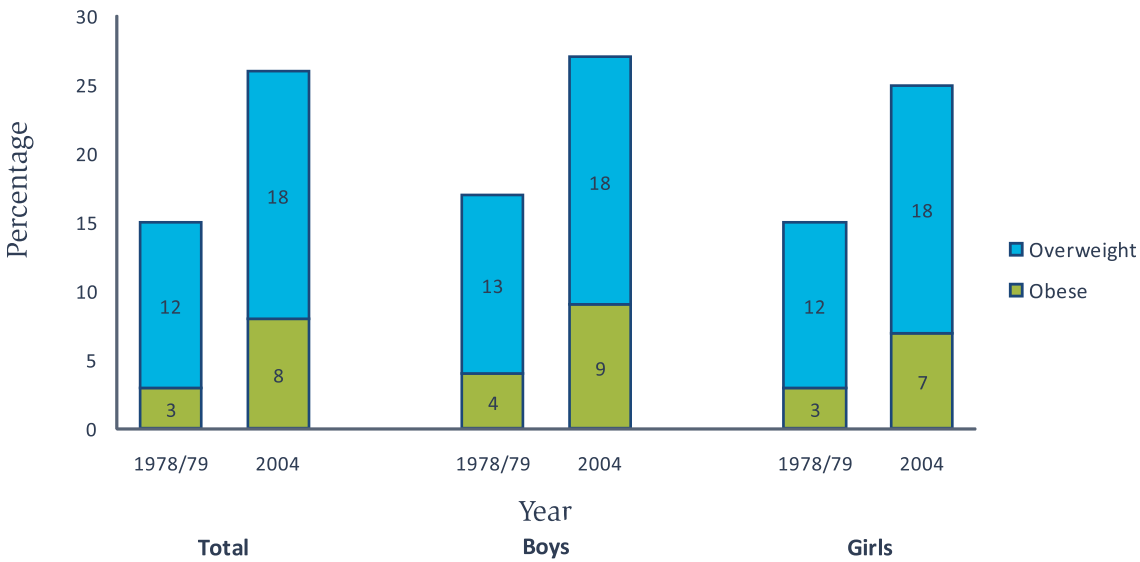
This case study grew out of an interest in understanding the relationship between the determinants of health and the root causes of crime, victimization and safety. As we looked for an issue that would be familiar to many audiences and that would help planners, policy makers and researchers to understand the links between health and safety, we came upon the subject of overweight and obesity in children and youth. It was a great topic to use as an example because almost everyone would know and accept that body weight affects health, but they might not consider the safety implications associated with obesity. Moreover, limited attention has been paid to the sex and gender dimensions of overweight and obesity in children and youth, particularly with respect to policies and programs that address healthy weights. This case study consequently examines the ways in which our understanding of overweight and obesity as a health issue has effectively obscured the threat these conditions pose to the safety of girls and boys, male and female youth. The case study also analyzes the emphasis on “healthy living” – physical activity and healthy eating – in policy and program responses to overweight and obesity, arguing that our best efforts to reduce the incidence of obesity and overweight in children and youth may be increasing behaviours that threaten their social, emotional, and physical safety.

How Do Girls and Boys Measure Up?

The prevalence of overweight and obesity in children and youth has been increasing substantially during the past two decades. For example, in the United States (US) and Brazil, the number of overweight children and youth is escalating at a rate of 0.5 percent annually and at 1 percent annually in countries such as the United Kingdom (UK), Australia and Canada.^[1] As a result, as many as one in 10 children in the world are now considered to be overweight. The International Obesity Task Force (IOTF) estimates that nearly 155 million school-aged children and youth (5 to 17 years old) are overweight and 30 to 40 million of those individuals are obese.^[2]

Sex-disaggregated data from Canada suggest that girls and boys face similar risks of becoming overweight or obese and these kinds of data have tended to produce a rather generic approach to dealing with overweight and obesity, one that focuses on healthy eating and active living with scant regard for gender or the other determinants of health (see Figure 1). Policies and programs that address overweight and obesity are also grounded in a relatively narrow definition of health. If we hope to address the epidemic of overweight and obesity in children and youth, we need to adopt a more holistic understanding of overweight and obesity and incorporate a sex- and gender-based analysis into the design and delivery of policies, programs and public health messages.

Figure 1. Rates of Overweight and Obesity in Boys and Girls, Ages 2-17, Canada, 1978/9 and 2004



What's Safety Got to Do With It?

While the health risks associated with overweight and obesity are well-known, little attention has been paid to safety. Yet something as fundamental as a child car seat demonstrates the serious safety issues associated with childhood overweight and obesity. One US study found that nearly 300,000 American children, aged 1 to 6 years, would not easily fit into a standard car seat because of their size. Moreover, there are only four car seats on the US market that will accommodate a 3-year-old weighing more than 40 pounds and these range in price from \$240 to \$270 each.^[3]

But there are other, more subtle, ways that overweight and obesity can pose safety hazards for young people, such as predisposing them to victimization, criminal activity, and engaging in risky behaviours. A heightened appreciation of these issues provides new perspective for designing interventions. For the purposes of this case study, we will be looking at two issues: bullying and school engagement.

Bullying

Over the past decade, bullying has attracted an increasing amount of attention from researchers, parents, kids, educators, media and policy makers. The pervasiveness of bullying among children and youth, especially in schools, is alarming. In Canada, reported rates of bullying among school-aged children and youth vary from 15 percent to 25 percent.^[4,5] However, in various parts of the country rates may be higher. For example, a study examining the prevalence of bullying among junior high school students in six schools located in Western Canada found that 86 percent of the 440 participants surveyed reported that they had been bullied.^[6] A substantial body of research has shown that individuals who are bullied are more likely to experience long-term difficulties than children

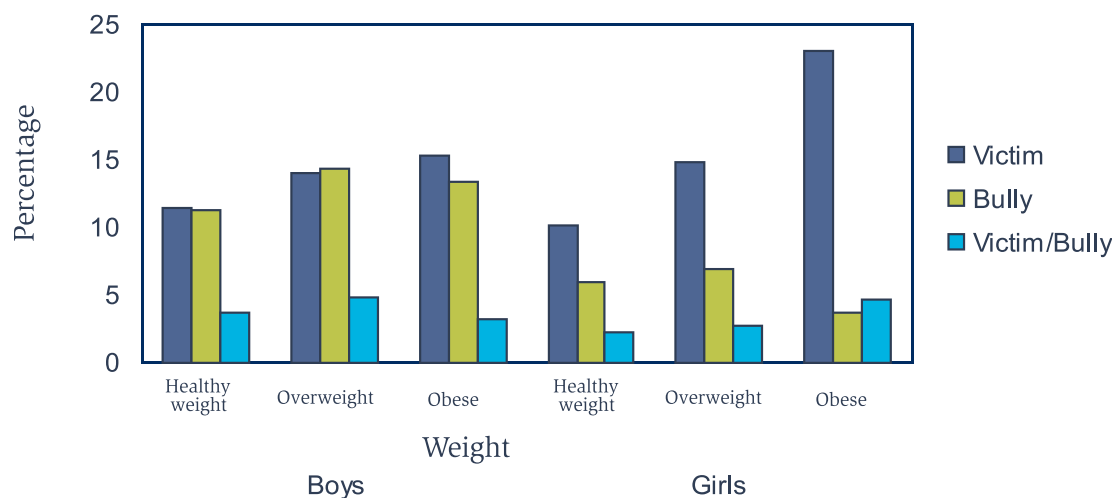
and youth who escape peer victimization. For instance, victims of bullying experience a range of problems including depression, anxiety and suicide.^[7] Furthermore, individuals who are victimized in their early years are more likely to be victimized in the future.

Like children and youth who are victims of bullying, individuals who bully also experience challenges in their lives. Bullies are at increased risk of engaging in aggressive behaviours, sexual harassment and dating violence as adolescents.^[7] Furthermore, young people who engage in bullying are more likely to be involved in illegal activities, such as substance abuse and delinquency.^[7]

A growing body of research is drawing attention to the relationship between bullying (both victims and perpetrators) and overweight and obesity. Studies have shown that both overweight and obese girls and boys are at a greater risk of being targets of bullying.^[8] Furthermore, in comparison to their healthy-weight peers, overweight and obese children and youth are also more likely to be perpetrators of bullying.^[8] One reason why those who are bullied may grow to be bullies themselves is because they often become so angry by the continuous abuse they experience at the hands of their peers that they in turn become aggressive towards others.^[7]

Gender differences in patterns of bullying and victimization among overweight and obese girls and boys have been found, but the findings are somewhat mixed. A study in the UK found that preadolescent obese boys were more likely to be *both* overt bullies and victims than their healthy-weight peers, while obese girls were more likely only to be victims of bullying and not perpetrators.^[9] Another study highlighting gender differences in bullying behaviours in unhealthy-weight youth found that overweight and obese girls were much more likely to engage in and be victims of bullying than both their healthy-weight peers as well as boys who were overweight and obese (see Figure 2). Similarly, Fitzgerald found that the tendency to bully increased with body weight among teenage girls.^[10]

Figure 2. Prevalence of Bully-Victims and Bully-Perpetrators among Boys and Girls, Ages 11-16, by Weight



Given the fact that overweight and obese children and youth are more likely to be both victims and perpetrators of bullying, the argument can be made that they are perhaps at a greater risk of having safety issues than their healthy-weight peers.

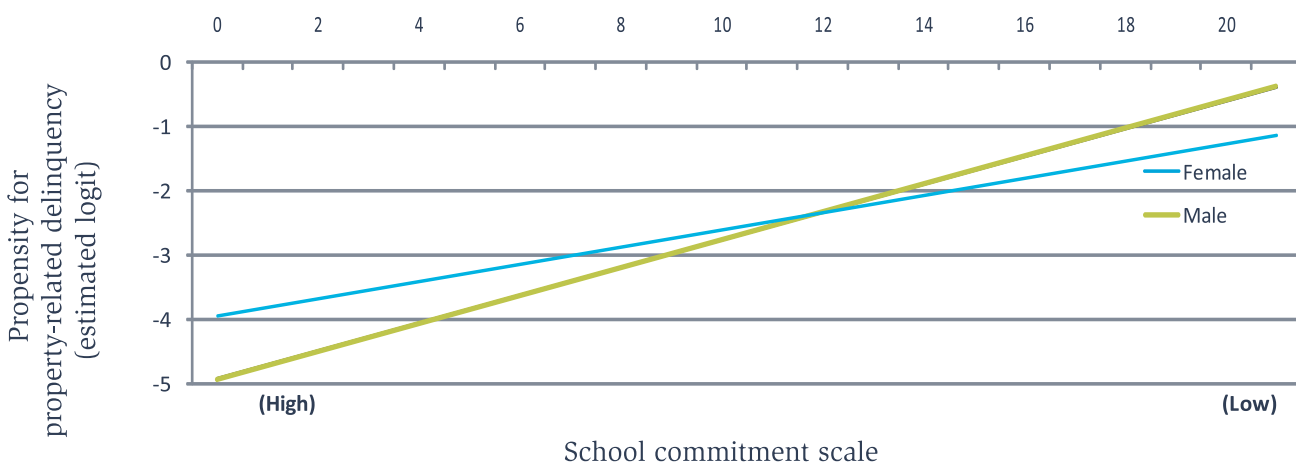
School Engagement

Another dimension of childhood and adolescence experience that demonstrates safety issues for overweight and obese youth is school engagement. School engagement means, simply, the degree to which a child or youth is oriented towards school. For example, children are engaged if they want to do well in school, look forward to making friends there and show up for class on time as well as participate in the classroom and extracurricular activities.^[10] Poor school engagement has been linked to bullying. For example, Kochenderfer and Ladd found that feelings of loneliness and school avoidance were more pronounced among young children who had been victimized by their peers.^[11]

Unfortunately, there is no specific data available on school engagement among overweight and obese children and youth. However, given that school provides ample opportunities for bullying^[12] and that overweight and obese youth are frequently the targets of bullying behaviours, it is reasonable to suggest that they may have a weaker connection and even a greater aversion to school.

Poor school engagement has been linked to unsafe behaviours. Research has shown that adolescents who are less connected to school are more likely to participate in delinquent and/or criminal behaviour. For example, children and youth who are less engaged in school commit a higher number of property-related offences (see Figure 3). According to Canadian statistics, girls who are not as engaged at school are more likely than boys to commit such property crimes as stealing, breaking and entering, selling stolen goods, vandalism, auto theft and arson.

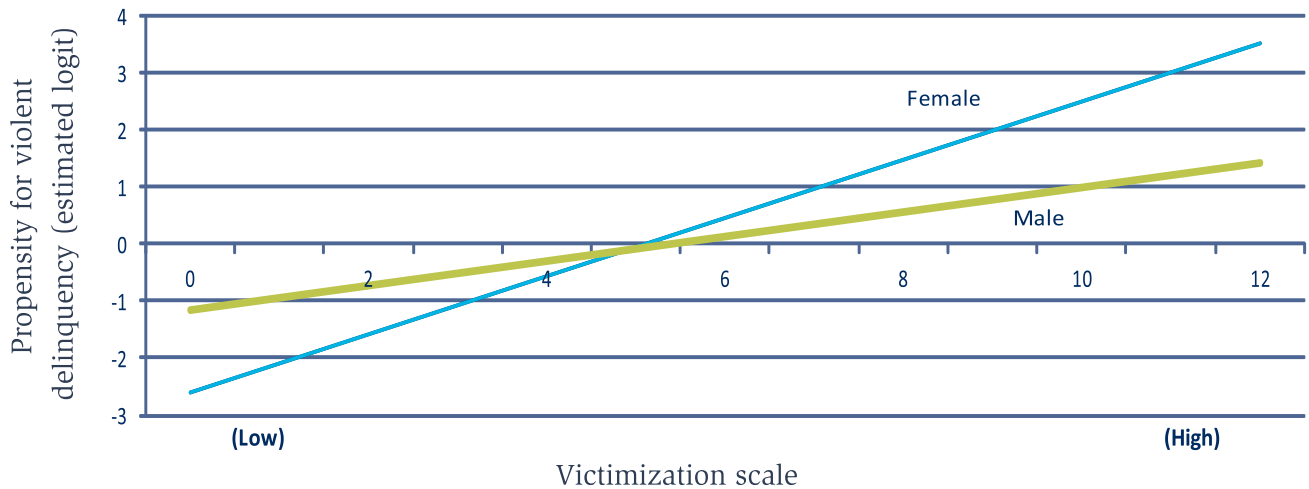
Figure 3. Relationship Between Sex and School Commitment for Property-related Delinquency, Canada, 1998/99



In addition to property offences, youth who express a low commitment to school are more likely to be associated with serious forms of delinquency than their counterparts who enjoy school, including gang involvement and violent crimes.^[10] While overweight and obesity does

not necessarily lead to delinquency, the victimization and bullying that this group of children and youth experience may predispose them to behaviours that are neither healthy nor safe (see Figure 4).

Figure 4. Relationship between Sex, Self-reported Victimization and Violent Delinquency, Canada, 1998/99



What is Being Done to Address Overweight and Obesity among Children and Youth?

In order to address the rise in overweight and obesity rates among young people, healthy living programs and strategies have been designed to encourage nutritious eating and physical activity. For example, the federal government has established tax credits for children enrolled in eligible physical activities and invested \$5 million dollars to resurrect the ParticipACTION program developed in the 1970s. Similarly, provincial governments have started to invest in various initiatives, including tax incentives, to encourage sports participation.

Encouraging children and youth to make healthier food choices and engage in physical activities seems sensible to counteract negative health consequences associated with overweight and obesity. However, while youth participation in physical activities often leads to advantageous health outcomes such as healthier body weights and enhanced fitness levels, it does not necessarily result in improved safety. In fact, in some cases, increased or intensified sports participation may deepen health and safety risks for children and youth.

Sports and Safety

While some children and youth experience multiple benefits associated with physical activity, others may find that some activities, such as sports participation, contribute to unhealthy and unsafe behaviours. Furthermore, the effects of physical activity and/or sports participation among overweight and obese children and

youth may not necessarily be the same for girls and boys. Sports participation must be understood in the context of powerful and pervasive gender roles in society.

Even in the sports arena, girls are expected to be “sugar and spice and everything nice,” while boys are encouraged to be more aggressive and resilient, both physically and emotionally. For adolescent boys, participation in sports and athletic prowess provide a direct and acceptable avenue to praise and popularity. In contrast, for girls, the relationship between gender roles and sport is more complex. Adolescent girls may struggle to reconcile their athletic abilities with standards of feminine beauty and behaviour. For example, young girls who engage in elite and competitive sports may become more prone to disordered eating and unhealthy approaches to weight management. Problems more frequently arise in sports where girls are expected to be lean or thin for reasons associated with performance or appearance, such as diving, figure skating or gymnastics. In such contexts, adult authority figures often encourage young girls to engage in unhealthy weight loss behaviours “for the sport.” As one research study uncovered, 75 percent of female gymnasts participated in unhealthy weight loss strategies (e.g., crash or fad diets) because their coaches told them they were too heavy.^[13,14]

Sports participation produces many benefits for girls, including reducing their likelihood of taking up smoking^[15] or engaging in risky sexual encounters.^[16] Despite such positive behavioural outcomes, we need to be alert to the limitations of sports participation, as well as the possibility of negative repercussions. For example, while studies have shown that fewer girls involved in sports smoke, little or no effect has been found in relation to sports and reduced alcohol consumption.^[15] Furthermore when gender is examined, positive outcomes and the protective influences of sports participation for adolescent girls do not appear to extend to boys. For example, male athletes appear more likely than girls and at least as likely as non-athlete boys to abuse alcohol and other illegal substances, engage in risky sexual behaviours, carry a weapon and get into fights.^[15-18] Evidence also suggests that boys involved in athletic programs show elevated levels of aggression outside of sports settings.^[16] Furthermore, research has found that boys who view themselves as “jocks,” as opposed to simply “athletes,” are far more likely to engage in acts of violence against peers and family as well as strangers.^[16] Therefore, in some cases, sports participation may have limited benefits for male adolescents while deepening their health and safety risks.

Conclusions

A sex- and gender-based analysis of overweight and obesity in children and youth not only enables us to compare and contrast the realities of girls’ and boys’ lives – and the lives of different groups of boys and girls – it also leads us to take a new view of our policy and program responses. While we undoubtedly need to address the increasing prevalence of overweight and obesity among children and youth today, our solutions can not be simple because the issue is not simple. Policies and programmes that focus only on “healthy living,” especially sports participation and physical activity, may contribute to healthier body weights among children and youth, but they also have the potential to exacerbate risky behaviours, such as disordered eating and unsafe sex. Moreover, interventions designed around the principle of healthy living may not be equally beneficial for

girls and boys, female and male youth. In other words, policies and programs must walk a thin line between health and safety. Without a sex- and gender-based analysis of the issue and our solutions, we may not only fail to stem the rising tide of obesity and overweight, we may actively contribute to behaviours among children and youth that are at least as dangerous and debilitating as unhealthy weight.

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COMMENTARY

Gender Inequalities in the Health of Criminalized Women^a

When we look at the history of imprisonment in Canada, we see that the prison system was primarily built for, inhabited and governed by men. Not much has changed over the years. Men still constitute the majority of those who run the prison system and who are sentenced to live within its walls. What has changed, however, is that more and more women are being criminalized and a greater number of women and girls are being imprisoned. Racialized women^b around the world, including Aboriginal women in Canada, are now imprisoned at a faster rate than any other group.^[3,4] Women are being incarcerated in correctional facilities that were never designed or modified to house them – leading to women’s needs and experiences being largely hidden and ignored.

When we consider the experiences and needs of female and male prisoners, we find that gender inequalities in society are magnified among these populations – particularly for incarcerated women. From a determinants-of-health perspective, a number of social, political, economic and physical environment factors undermine the health and well-being of criminalized women. For example, women who are incarcerated frequently come from low income situations,^[6,7] in which they receive some form of social assistance.^[8] Poverty among women is related to the types of crimes they commit – with the majority of women being imprisoned for non-violent, property or drug-related offences, as opposed to men who are more likely to be incarcerated for violent crimes.^[9] In addition, women enter the prison system with lower levels of educational attainment and higher rates of unemployment than their male counterparts.^[10] Most women in prison have children and are lone mothers. As such, they are more likely than men to have their children living with them prior to incarceration^[11,12] and are less likely to be able to rely on the child’s other parent to assume guardianship while they are in prison^[7,13,14] – making the emotional hardships of imprisonment more severe for women and their families.

The physical, mental and emotional health of female and male prisoners also differ. Incarcerated women suffer more frequent and serious diseases, illnesses and injuries than both their male counterparts and women in the general population.^[15] For example, women in jail/prison report more visual impairments,^[15] intravenous drug use^[16] and higher rates of HIV.^[14-16] Female prisoners also have distinct medical needs related to their reproductive system – such as gynaecological disease, Hepatitis C as well as pregnancy – which is considered high-risk both medically and psychologically for incarcerated mothers and their babies.^[19] Criminalized women also have considerably higher rates of mental illness^[19] – outnumbering male prisoners in all major psychiatric diagnoses except for anti-social personality disorder.^[20] They have also experienced more trauma, violence and abuse both as children and adults.^[21,22] In fact, it is estimated that upwards of 80% of all women in prison have experienced some form of abuse in their lives.^[23] Women also engage more frequently in self-harming behaviours – often as a means of coping with their histories of victimization. They also

a Feminist researchers and advocates have begun to use the term ‘criminalized women’ to call attention to the social, political, economic, psychological, and cultural processes in which crime is constructed and that underpin the labelling of women as ‘criminals’ and ‘offenders.’^[1,2]

b The term ‘racialized women’ is used to represent women who experience racism or are made to feel different because of their race, ethnicity, cultural or religious backgrounds, or skin colour.^[3]

report higher rates of chronic substance abuse than men^[19] – typically for the same reason. Despite the fact that criminalized women experience more health problems compared to their male counterparts, they have less access to and receive inferior healthcare.^[19]

Gender inequalities in health and well-being among criminalized women are directly related to the injustices women experience in our society as well as the fact that women are incarcerated in a system originally designed by and for men. As the number of criminalized women increases, “health issues will continue to grow in importance and will eclipse many other correctional concerns.”^[19,p. 49] Sex- and gender-based analysis points to the need for gender-specific services and perspectives within the prison system that better supports women.

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Chapter Seven:

Addressing Policy

The case studies and commentaries included in this chapter illustrate the ways in which SGBA can contribute to strengthening and improving public policy. While SGBA can be challenging within the planning and policy arenas, it is crucial for identifying and redressing gender inequities that create health disparities.

Like the commentary on Canada's mental health strategy, each of the case studies points to the need for SGBA in planning and policy development. The case study on HIV/AIDS, for example, identifies the ways in which sex and gender create different degrees of risk for males and underscores the importance of creating policies that address the needs of all women and men, but especially the growing vulnerability of young and Aboriginal females in Canada. The case study on international tobacco control policies deepens our understanding of tobacco epidemics globally and demonstrates the need for policies that take sex, gender and diversity into account. Because the tobacco epidemic is increasingly affecting the health of females, strategies tailored for diverse groups of women and girls are urgently needed. The case study on prescription drug advertising also explores the role of sex, gender and diversity in marketing strategies and points to the gaps in research as well as the limitations of regulatory frameworks and policies.

One of the most interesting aspects of the material in this chapter is the diversity of conclusions and recommendations. Not only does this validate our contention that sex- and gender-based analysis is a process rather than a formula, it also demonstrates that SGBA can - and should - be adapted to every research, planning and policy context.

Engendering HIV/AIDS Policy

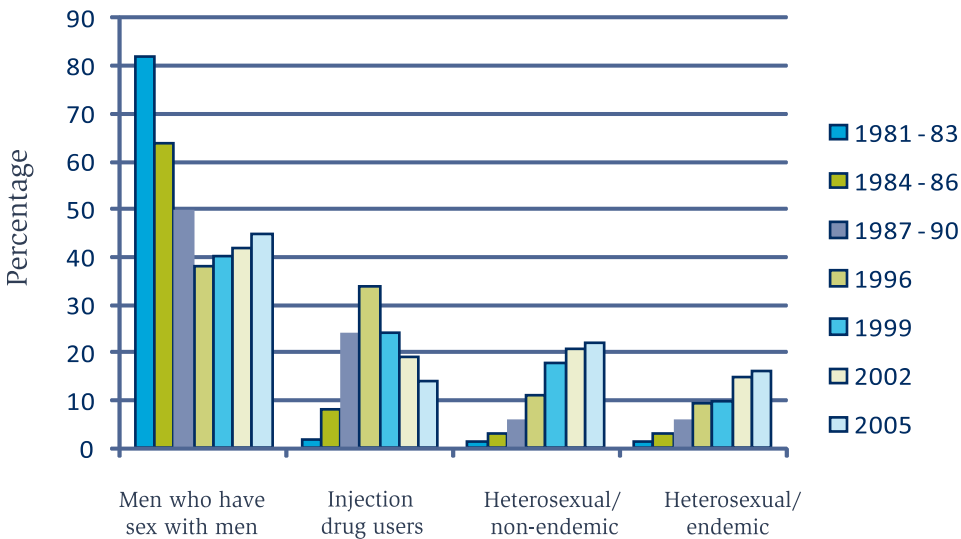
Introduction

Although the first case of HIV/AIDS in Canada was identified in 1982, a national strategic response did not emerge for nearly a decade. Through the 1990s, investments in HIV prevention, care, treatment and support remained fairly modest and were focused mainly on gay men and those infected through contaminated blood products. By 1998, there was a growing realization that while rates of infection had dropped for some people in Canada, the risks of infection and exposure were increasing for young people and many vulnerable groups, such as Aboriginal people, prisoners and women living in poverty.^[1] The Canadian Strategy on HIV/AIDS consequently increased its investment and gradually began to adopt a “targeted” approach to the pandemic. By 2005, with the launch of the new Federal Initiative on HIV/AIDS, the government declared its intention to concentrate efforts on the needs of eight populations deemed at high risk: people living with HIV/AIDS, gay men, people who inject drugs, Aboriginal people, prisoners, vulnerable youth, women and people from HIV-endemic countries. While this approach may seem appropriate, in that it focuses limited resources on those most in need, it misses the mark by ignoring the gendered realities of those infected and affected by HIV and AIDS. Women’s needs, for instance, cannot be addressed as if they constitute a specific sub-population, because they represent more than half of the population and are found in all but one of the other target groups. At the same time, a targeted response to the pandemic has, in other countries, contributed to the spread of HIV. It is, therefore, the purpose of this case study to consider Canada’s current policy response for HIV/AIDS using a sex- and gender-based analysis.

Sex, Gender and HIV/AIDS in Canada

Canada has been, and continues to be, defined as a country with a low incidence of HIV/AIDS, with only a small percentage of the Canadian population infected or affected: approximately 60,000 Canadians, or 0.3 percent of the population, are living with HIV.^[2] Moreover, the epidemic in Canada seems to be “confined” to specific populations. Men who have sex with men (MSM) – previously referred to as “gay men” – and people who are injection drug users (IDU) accounted for close to 70 percent of those living with HIV at the end of 2005.^[3] Dramatic drops in rates of new infections among MSM and IDUs, particularly from the early days of the epidemic, are routinely cited as good news, a sign of the successful management of HIV in Canada (see Figure 1).

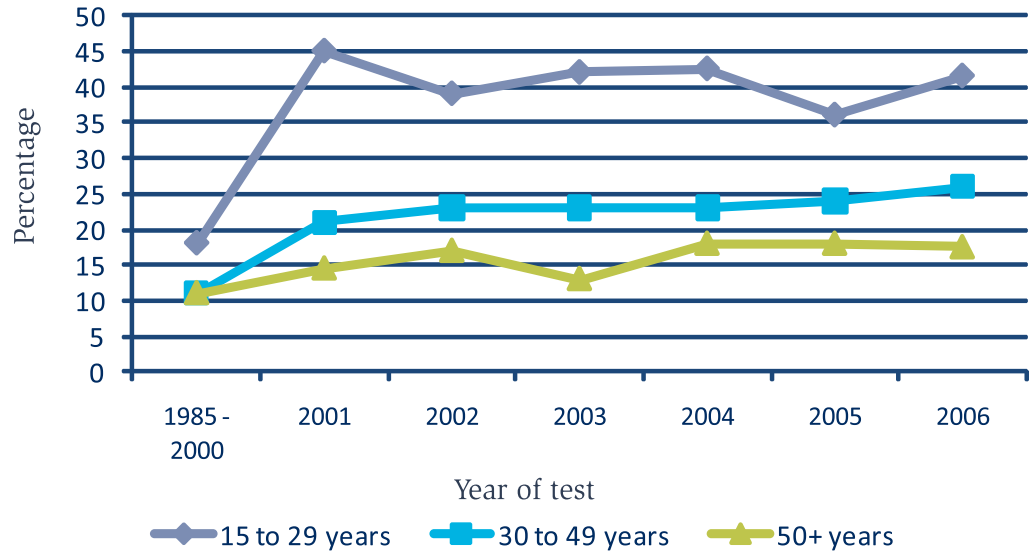
Figure 1. Estimate Exposure Category Distributions (%) of New HIV Infections in Canada, by Time Period.



Source: Public Health Agency of Canada. HIV/AIDS Epi Updates. Ottawa: Public Health Agency of Canada; 2007.

But there are other significant changes in patterns of HIV infection that demand our attention. Between 1995 and 2006, HIV infections attributable to heterosexual contact – alone or in combination with other factors – have increased alarmingly, from 7.5 percent to 37 percent.^[3,4] AIDS diagnoses attributable to heterosexual contact in the same period have also risen from 7 percent to approximately 26 percent.^[3-5] This means that while people living with HIV and AIDS in Canada are still most likely to be MSM and/or IDU, those newly infected with HIV are increasingly likely to be heterosexual women. The biggest change has been for young women, between the ages of 15 and 29 years, who accounted for 12 percent of all new infections in the early 1990s, but the proportion increased in this age group almost fourfold by 2006 (see Figure 2).^[3-5]

Figure 2. Percent of All Positive HIV Test Reports Accounted for by Women, by Age Group and Year of Test, 1985-2006.



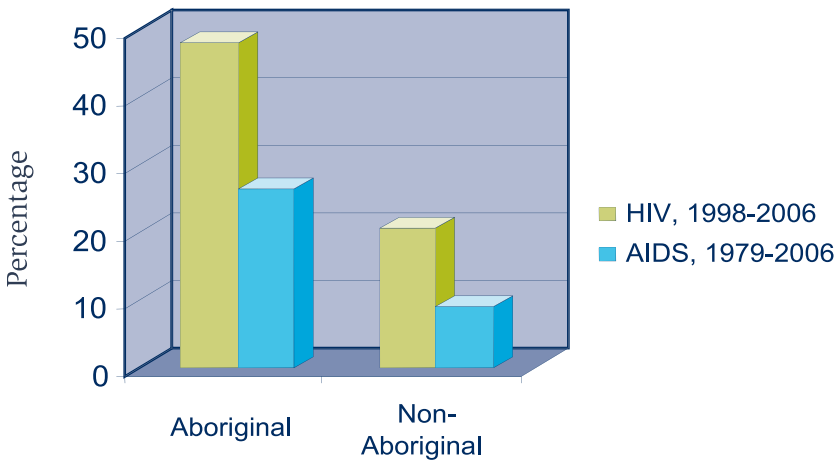
Source: Public Health Agency of Canada. HIV/AIDS Epi Updates. Ottawa: Public Health Agency of Canada; 2007.

Not only are women and girls in Canada experiencing greater risk of HIV infection, but when they are infected with HIV they are more likely to have poorer health outcomes than men and boys. Women tend to have a lower survival rate than men diagnosed with AIDS, because of late diagnosis and delay of treatment due to misdiagnosis of early symptoms; exclusion from drug trials and lack of access to antiretroviral treatment; lack of research into the natural history of HIV in women; higher rates of poverty among women; lack of access to adequate health care; and the tendency of many women to make self-care a lower priority than the care of children and family.^[6]

Some groups of women and girls are much more vulnerable to infection than others. Black Canadians and Aboriginal peoples have had disproportionate increases while the rates of infection among white Canadians have been dropping steadily in recent years. Aboriginal persons, for example, represent approximately 3 percent of the total population of Canada, but in 2006, 23 percent of all new HIV infections were found among Aboriginal people (see Figure 3).^[3] Aboriginal females are generally diagnosed at a much younger age than non-Aboriginal females and are more likely to be infected through IDU rather than through heterosexual contact (see Figure 4). There is also significant variation in age of diagnosis and exposure among Aboriginal women and girls in Canada. First Nations and Inuit women are much more likely to be diagnosed with AIDS in their twenties and thirties, as compared with Métis women and women of unspecified Aboriginal descent, who are diagnosed later, in their thirties and forties. Injecting drug

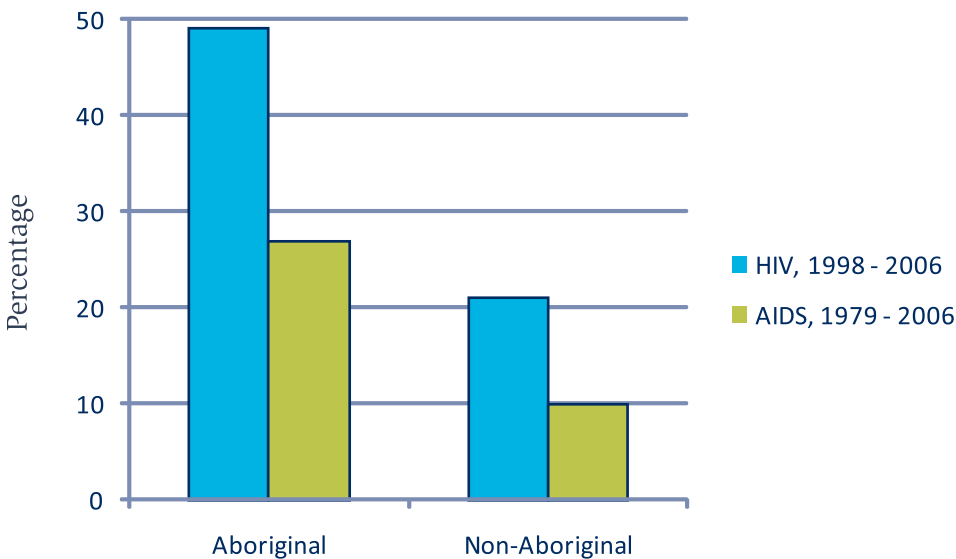
use is the most common method of exposure for First Nations peoples, while heterosexual transmission accounts for the largest proportion of HIV infections among Inuit peoples.^[3]

Figure 3. Comparison of Reported AIDS Cases and Positive HIV Reports among Aboriginal and Non-Aboriginal Females.



Source: Public Health Agency of Canada. HIV/AIDS Epi Updates. Ottawa: Public Health Agency of Canada; 2007.

Figure 4. Distribution of Exposure Categories among Positive HIV Test Reports of Aboriginal Females, January 1998-December 2006.



Source: Public Health Agency of Canada. HIV/AIDS Epi Updates. Ottawa: Public Health Agency of Canada; 2007.

Something to Think About

Stigma and discrimination can affect anyone diagnosed with HIV in Canada, but the experiences of women and girls are generally worse. For example, both women and men who are HIV positive have been charged with aggravated assault for failing to disclose their HIV status to a sexual partner. But a woman charged in 2005 was “portrayed in the press as a sexual predator and wantonly promiscuous.”^[8,p23] Moreover, as the charges involved a member of the Canadian Armed Forces, officials in the military chose to disclose the woman’s identity and HIV status across Canada and to the world, “though it is unclear that they did anything to emphasize to soldiers their own responsibility for safer sex.”^[8,p23] Similarly, pregnant women who test positive for HIV are regularly condemned for exposing an unborn child to the risk of infection and an HIV-positive woman who breastfeeds an infant in Canada could face prosecution.

COMMENTARY

Gender, Place and Mental Health

In 2006, the Standing Senate Committee on Social Affairs, Science and Technology, – led by Senators Michael Kirby and Joseph Keon – issued a report, *Out of the Shadows at Last: Transforming Mental Health, Mental Illness and Addiction Services in Canada*,^[1] which extensively documented the imperative and potential directions for meaningful change in Canada’s mental health services. While the report is undoubtedly important for focusing attention on mental health, there has been criticism of its lack of attention to gender.^a For example, while the report contains stories by women and some discussion of specific issues, such as criminalized women^b and Fetal Alcohol Syndrome/Effect, there is no systematic analysis of the different needs and experiences of women and men with regard to mental health issues.

On behalf of Prairie Women’s Health Centre of Excellence, Jayne Melville Whyte, with assistance from Joanne Havelock, reviewed the Senate Report.^c Their analysis from the perspective of rural Saskatchewan demonstrates how gender and place – the location of residence – are crucial components of understanding and responding to the mental health issues of women.

Distance and transportation difficulties in accessing mental health services can prevent rural women from receiving the care they seek. Melville Whyte agrees with the Senate Report recommendations for an increased number of integrated community-based services and she points out the importance of ensuring that services are provided locally in rural areas. Yet, she notes that the limited privacy in small communities may prevent women and men from using local support services. The Senate report does recognize the need to eliminate the stigma associated with mental illness. Melville Whyte recommends that tele-health and phone support lines can be an effective complement to local services. She notes that more attention should have been paid in the Senate Report to the role of

a See Ad Hoc Working Group on Women, Mental Health, Mental Illness and Addictions. Women, mental health, mental illness and addiction in Canada: an overview [Internet]. 2006 [cited 2009 Jan 14]. Available from www.cwhn.ca/PDF/womenMentalHealth.pdf

b The term “criminalized women” is now used by many feminists to “emphasize the social, economic, political, ‘psy-entific,’ and cultural processes which underpin the labelling of women as ‘offenders.’” See Maidment MR. “We’re not all that criminal:” getting beyond the pathologizing and individualizing of women’s crime. *Women Ther.* 2006; 29(3/4)z; 35-56, p. 40.

c This discussion is summarized from Melville Whyte J, Havelock J. Rural and remote women and the Kirby-Keon report on mental health: a preliminary gender-place analysis. Winnipeg: Prairie Women’s Health Centre of Excellence; 2007.

In part, the differences can be attributed to the fact that Aboriginal people are over-represented in high risk groups, such as injecting drug users, sex trade workers and prisoners. Aboriginal women are more than twice as likely to be living in poverty as their non-Aboriginal counterparts and they are more likely to be exposed to substance use and frequent domestic violence. Aboriginal women also experience discrimination, both within their own communities and in dealing with non-Aboriginal health services.^[7]

In many ways, the experiences of women and girls in Canada, particularly those from marginalized populations, mirror those of women and girls around the world, in developing and developed countries:

... while women in Canada may not suffer the extremes of subordination faced by many of their counterparts in other parts of the world, inequality and violations of women’s human rights still contribute to their vulnerability and to the challenges they face in seeking treatment for HIV/AIDS. As in other parts of world, women living in poverty, women who inject drugs, Aboriginal women, women in the sex trade, and many women who come from countries where HIV is endemic are particularly vulnerable to HIV/AIDS...^[8,pi]

Engendering the Response to HIV/AIDS

Given all these facts, it might seem reasonable to expect that the Canadian government and international agencies would already have devised gender-appropriate strategies and interventions for prevention, care, treatment and support. Indeed, there is increasing high-level acknowledgement of the role of sex and gender in the pandemic. Many efforts have been and are being made to develop prevention methods for women and girls, including the female condom and microbicides. Educational and informational programs for women and men, girls and boys are also common in many countries around the world, including Canada. Nevertheless, the numbers of people

– especially women and girls – living with and dying from HIV continue to rise. The time has come to revisit and re-evaluate national policies and international guidelines using a gender lens.

In recent years, both UNAIDS and World Health Organization, seen as leaders on HIV/AIDS, have developed publications and recommendations that now include attention to gender as well as to women and girls. A significant exception, in our opinion, is the advice for effective HIV prevention in *low-incidence* countries. UNAIDS and WHO differentiate between the responses needed in low-incidence countries and those needed in high-incidence countries (referred to as “generalized epidemic states”). A recent UNAIDS report on HIV prevention reads that:

An understanding of the nature, dynamics and characteristics of local epidemics is needed to ensure that HIV prevention strategies can be reviewed and adapted to fit local conditions. **In low and concentrated HIV prevalence settings where the epidemic is nascent, attention needs to be given to prioritizing HIV prevention among those at highest risk, identified after epidemiological and social mapping.** In generalized HIV epidemics, strategies for such populations combined with broader strategies to reach all segments of society at sufficient scale.^[9,p19] [emphasis added]

While targeted responses are excellent in theory, the history of HIV suggests that focused efforts have not only failed to stem the tide of the pandemic, but have actually contributed to the spread of HIV among those already at greatest risk – women and girls. A comparison of the history of the epidemic in Canada and South Africa underscores the hazards of adopting a targeted approach to HIV/AIDS.

family violence as well as sexual and other abuse, as a cause of mental health issues for girls and women. Better training for rural police forces in understanding and handling mental health crises would also be beneficial. Overall, Melville Whyte emphasizes that we must address the underlying causes of stress and poor health for rural and remote women: the farm economy, poverty, Aboriginal issues, family violence, balancing work-family-community responsibilities and the need for inter-generational connections and cross-cultural understanding. She also highlights the value of involving rural and remote women in planning processes.

In the final analysis, place and gender play critical roles in mental health. Our response to the mental health needs of women and men living in Canada must include these factors if we hope to create effective and appropriate policies and programs.

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Canada and South Africa: The Importance of Gender

In many respects, Canada's experience with HIV has been dramatically different than that of South Africa. Canada, with an HIV prevalence rate below 1 percent, has always been defined as a low-incidence country, while South Africa, with a prevalence rate of 20 percent or more, has long been among the countries with the highest incidence rate in the world. Yet, what is often missed in analyses of the pandemic – and in international guidelines for prevention – is an appreciation that the early trajectory in South Africa is very similar to that of the trajectory in Canada. The first case of HIV in South Africa was diagnosed in 1982 – the same year as in Canada. And for the first years of the epidemic in South Africa, HIV was found predominantly in gay white men – the same as in Canada.

Through the 1990s in South Africa, the prevalence of HIV rose steadily, from 1.4 percent of the adult population in 1992 to 24.5 percent in 2000. But equally significant was the shift in modes of transmission: by 1991 in South Africa the number of HIV infections attributable to heterosexual contact was on par with the number attributable to MSM. Canada's prevalence rate also rose through the 1990s, though not as much or as quickly as in South Africa, and at the same time, HIV infections attributable to heterosexual contact – alone or in combination with other factors – increased in Canada, from 7.5 percent to 37 percent.^[3,4] By 2004, the Canadian government did note significant increases in HIV infection, in specific populations, including individuals who are often socially and economically vulnerable. For example, injections drug users, women living in poverty, Aboriginal peoples, young gay men and prisoners are increasingly threatened by the disease.^[1]

The HIV epidemic raged in South Africa during the 1990s, in part because of political and social upheaval associated with the end of apartheid. While the country focused on eliminating racially-based oppression and establishing democracy, “the spread of the virus was not given the attention it deserved, and the impact of the epidemic was not acknowledged.”^[10, no page] The challenges of fighting HIV in a resource-limited setting contributed to the escalation of the pandemic in South Africa. Canada, by comparison, has enjoyed both wealth and little major social and political change in the last two decades, resulting in the epidemic developing much more slowly here.

Nonetheless, the national responses to HIV/AIDS in Canada and South Africa, particularly in the early years of the epidemic, were similar. Both countries followed the guidelines established by UNAIDS and WHO, targeting specific “high-risk” groups – and this was the wrong strategy (Shisana O 2004, personal communication, Sept 17). Focusing on the high-risk groups, rather than alerting everyone to the threat of HIV/AIDS, led to the epidemic becoming firmly established in a group that no one thought was especially vulnerable – women and girls. By 1993, it was clear that HIV in South Africa had been transformed from a low level to a generalized epidemic, as seen in a prevalence rate of more than 1 percent in pregnant women. In the post-apartheid era, the South African government developed and adopted intervention strategies on HIV/AIDS in all

of society, including women and girls. New recommendations focused on the need to address gender inequity across the social, political and economic factors driving the epidemic

According to the Canadian government, a “populations-specific approach results in evidence-based, culturally appropriate responses that are better able to address the realities that contribute to infection and poor health outcomes for the target groups.”^[11] However, this well-meant approach has failed to halt the pandemic because it ignores the role of gender. Women and girls are not merely a sub-population of Canadian society; at 51 percent they are the majority of people living in Canada. Furthermore, women and girls are found in 7 of the 8 other priority populations: among people living with HIV, people from HIV endemic countries, youth, injecting drug users, Aboriginal peoples and prisoners. The seventh population, men who have sex with men, may not identify themselves as gay or confine their sexual activity to male partners, with the result that women and girls are also associated with this “target group.” Despite the fact that women and girls appear in or connected to every priority population, “the range of government-supported programs meant to address HIV prevention among women in Canada appears not to be the result of a coherent national strategy for addressing HIV/AIDS among women.”^[8,p.19]

Canada’s *Federal Initiative to Address HIV/AIDS*^a is ostensibly “grounded in” the concepts of social justice and the determinants of health, but there is no mention of gender or sex- and gender-based analysis.^[11] For example, programs that help women prisoners to avoid contracting HIV are incomplete if they focus only on the period of incarceration, because women’s vulnerability does not stop at the prison gates. Similarly, policies to address the alarming increase of HIV among young people in Canada must move beyond encouraging safe sex practices to deal with the social, economic and political disadvantages that women and girls face. Focusing on target populations encourages neglect of broader social forces driving the epidemic, including gender. “HIV/AIDS programs that explicitly address the subordination that puts all women at risk of HIV appear to be rare in Canada.”^[8,p.19]

Although attitudes towards people living with HIV/AIDS have been improving in Canada, there is still considerable stigma and discrimination. As recently as 2006, close to 30 percent of Canadians said they would not be comfortable working in an office with someone with HIV and 43 percent of parents reported that they would not be comfortable having their child attend school with an HIV-positive student.^[12] Approximately one in 10 Canadians surveyed felt that those who contracted HIV got what they deserved.^[12,13] In other words, targeted approaches to HIV prevention allows many people to distance themselves from “others” in high risk groups, to believe that bad behaviour rather than systemic factors are responsible for the spread of HIV. This discrimination creates barriers to testing and treatment and deepens the suffering of people living with HIV or assumed to be at risk of exposure.

a See Public Health Agency of Canada. Federal initiative to address HIV/AIDS in Canada. [Internet]. c2007 [cited 2009 Sep 18]. Available from www.phac-aspc.gc.ca/aids-sida/fi-if/index-eng.php

Conclusion

An analysis of HIV/AIDS in Canada, including a comparison with the epidemic in South Africa, leads to three main conclusions. First, one of the principal drivers of the epidemic, in Canada and around the world, is gender. Women and girls are rendered vulnerable to infection as a result of widespread and diverse forms of gender inequity. Second, high-incidence countries have become sensitive to the role of gender in the pandemic, but in low-incidence countries such as Canada, policies and programs often remain gender-blind.^[2,14] Third, HIV/AIDS strategies should be generalized rather than targeted – because the epidemic is everyone’s problem and because gender affects everyone.

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International Tobacco Control Policy: The Implications of SGBA

Introduction

Approximately 250 million women and 1 billion men smoke tobacco cigarettes daily.^[1] While the smoking rate for men around the world has peaked and is slowly beginning to decline, smoking rates for women continue to climb. Moreover, the rate of smoking among the world's female population is predicted to rise from the current 12 percent to 20 percent by 2025.^[2] However, these smoking statistics do not account for other types of tobacco use, such as chewing tobacco by women and men in South Asia, which may push tobacco use rates even higher in the coming years.^[1]

In the 1990s, Lopez and colleagues developed a descriptive model of tobacco epidemics based on smoking prevalence rates, cigarette consumption and smoking-related mortality rates.^[3] The four stages are useful because they describe the differences between women's and men's smoking rates and consumption, and illustrate that in most societies women take up smoking after men and smoke less, which in turn is reflected in delayed and lower morbidity and mortality rates from illnesses associated with tobacco use. Most high-income countries have reached stage 3 or 4, in which male smoking rates have peaked and are declining while female smoking

rates have just peaked or are about to peak.^[1] Low and middle-income countries tend to be in the earlier stages of the tobacco epidemic, with the result that the full impact of smoking-related illness and death has yet to become apparent and tobacco control efforts are still relatively new. Some countries, such as China and India, are of particular concern because of their large populations and early stage of the cigarette smoking epidemic.^[4,5] Due to the gender differences in tobacco use identified in each stage of the

A Descriptive 4-Stage Model of Tobacco Epidemics^[3]

- **Stage 1:** The beginning of a smoking epidemic in a population. Smoking rates are low for women and men, but cigarettes are growing increasingly popular with men. There is little evidence of any adverse health effects and smoking becomes socially acceptable.
- **Stage 2:** Smoking rates rise dramatically for men and reach a peak in the range of 50-80 percent, while prevalence rates among women are much lower but increasing rapidly. During this stage, smoking rates are often similar across socio-economic status or may be slightly higher among the upper classes. Negative health effects are becoming more noticeable among male smokers, causing about 10 percent of male deaths by the end of this phase.
- **Stage 3:** Smoking rates among women peak in this period with prevalence as high as 40-50 percent among young women. Smoking rates among men decline gradually, from 60 percent to 40 percent, but there is a dramatic increase in smoking-related mortality, particularly among men. The health effects of smoking are well-known by the general public with systematic prevention strategies in place.
- **Stage 4:** Smoking prevalence for women and men continue to decline slowly but more or less in parallel. Smoking-related mortality peaks early in this period for men, being as high as 40-45 percent of deaths among those in middle age. Female deaths due to smoking rise sharply due to the delayed effects of previous smoking patterns, peaking at around 20-25 percent of all deaths. Thereafter, prevalence and mortality rates steadily decline for both sexes. Policies and legislation are created for smoke free areas.

tobacco epidemic, there is a critical need for a sex- and gender-based analysis of tobacco use as well as the development of gender-sensitive international tobacco control policies.

The World Health Organization Framework Convention on Tobacco Control (FCTC), which was adopted in 2003 and came into effect in 2005, is the first international public health treaty.^[6] To date, 168 countries have signed the FCTC, which is aimed at setting global standards in tobacco control. Key articles of the FCTC—as well as widespread international support—provide opportunities for recognizing and developing gendered responses. For example, Article 4 of the FCTC acknowledges the alarming increase in girl’s and women’s tobacco use and encourages the development of gendered tobacco control strategies and policies.


This case study is adapted from work by the British Columbia Centre of Excellence for Women’s Health, in partnership with the International Network of Women Against Tobacco (INWAT), an international non-governmental organization which conducts education, research and advocacy aimed at reducing the impact of tobacco on girls and women and focuses on improving countries’ inclusion of gender in their national tobacco control policies.

Sex, Gender and Tobacco

Sex and gender affect the use and effects of tobacco for women and men. For example, differences in lung anatomy, genetics and physiology between women and men potentially increase the harm associated with women’s exposure to smoke.^[7] Smaller airways in women may serve to concentrate the toxic chemicals in tobacco smoke while research suggests that women metabolize smoke differently than men and therefore may be more susceptible to respiratory diseases such as chronic obstructive pulmonary disease and lung cancer.^[8] Further, women are at increased risk of breast cancer due to either active smoking or exposures to others’ smoke, particularly if these exposures occur during adolescence.^[9]

Likewise, gender affects when, how and where girls and women smoke and/or are exposed to smoke. For example, unequal power dynamics between women and men may reduce women’s ability to control exposure to second-hand smoke.^[10] Women may also smoke for different reasons than men, such as to organize social relationships, create an image, control emotions and as a form of social support and control.^[11] Culture, class and other determinants likewise influence trends in women’s smoking and differences among women. For instance, women with limited education or vocational opportunities may have to work in settings, such as restaurants, where they are more likely to be exposed to second-hand smoke. Furthermore, these biological and social factors interact and overlap. When women are exposed to second-hand smoke as a result of power inequities, their narrower airways also increase their risks of morbidity and mortality.

Other forms of tobacco use, such as chewing tobacco and bidis, also have health implications, including more oral cancers and poorer reproductive health outcomes.^[15,16] As well, there are specific health risks associated with tobacco manufacturing. For example, those who work in tobacco production – most of whom are women – absorb nicotine through the skin and may develop a condition called “green sickness,” which results in nausea, fatigue, headache, weakness, breathing problems and changes in blood pressure and heart rate.^[17]



In many countries, although cigarette smoking rates among women may be low, second-hand smoke exposure among women is high where male smoking rates are high. In addition, due to gendered roles of care-giving and family health management, high rates of morbidity and mortality in men increase domestic demands on women and negatively influence family health and nutrition.^[18] The health and economic effects of tobacco use are thus sex, gender and stage-specific. For instance, if male smoking is high, as in Stage 1-2 countries, the exposures to second-hand smoke and the nutrition- and economic-related health consequences may be greater issues for women and children, while the direct health consequences may be greater for men.

Globally, What Are the Policy Contexts for Women and Tobacco Control?

While we can see specific patterns of tobacco use in different countries – allowing us to “stage” the epidemic – it is also the case that countries find themselves in a particular stage of tobacco use because of local, historical and cultural contexts. For example, in countries in the early stages of the epidemic, such as Thailand and China, women have low smoking rates but are recognized as a potential market and are increasingly targeted by the tobacco industry.^[15] In Iran, cigarette use by women has also historically been low, but women are increasingly using tobacco. In Turkey and India, there is a long cultural history of male tobacco use, but patterns of use are changing with urban, educated women increasingly taking up cigarette smoking. In Lebanon, the tobacco epidemic is at its peak with high rates of use for both women and men. South Africa and Brazil are entering the last stage of the tobacco epidemic, with tobacco restrictions being put in place and women’s tobacco use having peaked. Canada and Australia are in Stage 4 of the epidemic, with smoking rates low overall, but higher among specific sub-populations of women, such as Aboriginal women. In Sweden, women actually have higher smoking rates than men, suggesting that this country is an exception to the four-stage model of tobacco epidemics or that the model itself may require adjustment. These variances demonstrate the range in stages of the tobacco epidemic and the need for contextually relevant responses.

How Should Policies be Tailored According to the Gender, Sex and Diversity Specific Contexts within Every Country?

Depending on the stage of the tobacco epidemic (see Figure 1), countries will need to enact different tobacco control initiatives. For example, in countries at earlier stages where women have not yet reached high rates of smoking, the focus should be on the prevention of tobacco use for women, the reduction of exposure and cessation for men. For countries at later stages in the epidemic, such as Canada, the United States (US) and the United Kingdom (UK), the focus should be on reducing the demand for tobacco among vulnerable sub-populations of girls and women, such as low income, pregnant, teenage and minority girls and women.^[19] Tobacco control policies must also recognize the specific gender relations, cultural practices and household/relationship dynamics that exist, so that tobacco control initiatives effectively respond to the real-life conditions of tobacco use that women encounter. For example, efforts to help pregnant and post partum women reduce or stop smoking could be enhanced with greater attention to household and/or relationship dynamics and their impact on smoking exposure and reduction.^[20,21]

Figure 1. A Descriptive Model of the Cigarette Epidemic in Developed Countries.^[3]



Used with permission.

What is Being Done at the International Level to Protect and Prevent Women from Adverse Tobacco-related Health Effects?

Women's health is increasingly being identified as a human right. Calls for sex and gender analyses and approaches are increasingly common. This is an important step towards improving tobacco protection, prevention and cessation for women and girls. Examples of particular instruments that can be used to advance women and tobacco issues are the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW), The Kobe Declaration and the Framework Convention on Tobacco Control (FCTC).

CEDAW, adopted in 1979 by the United Nations General Assembly, requires that measures be taken to eliminate discrimination against women in health care and that a gender perspective be included in programs and policies affecting women's health.^[22] In addition, the Kobe Declaration, adopted in 1999, states that tobacco control initiatives integrate the promotion of gender equality in society and that in doing so, women must be included as leaders.^[22] The FCTC, mentioned earlier, recognizes the importance of a gendered approach to tobacco control initiatives.^[22] As well, the International Network of Women Against Tobacco is a global organization that works with the WHO to achieve these goals and suggest strategies for advancing tobacco control.

Conclusion

Different countries are in different stages of the tobacco epidemic. In fact, when analyzed using sex and gender and diversity lenses, there are multiple tobacco epidemics underway, reflecting, among other things, biology and physiology, historical gender relations, government policies, socioeconomic conditions and the impact of the trans-national tobacco industry. Both national and global strategies are required to respond to specific contexts, while organizing and promoting tobacco control for men and women, boys and girls that includes prevention, protection and cessation. Overall, there is a need for further sex, gender and diversity analyses within research, program and policy development processes as they relate to tobacco control. As well, there is a need to widen policy approaches to include social justice and human rights approaches, which can empower women and reduce inequalities.^[15] In countries where tobacco growing and processing occur, protective labour legislation is required for women working within the tobacco industry as well as viable alternative economic options. While the FCTC officially recognizes women's vulnerability to tobacco and promotes a gendered approach, it remains to be seen how these features of the FCTC will be implemented internationally.

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More than Meets the Eye: Women and Direct-to-Consumer Advertising

“The average American television viewers see as many as 16 hours of prescription drug advertisements (ads) per year, far exceeding the average times spent with a primary care physician.”^[1]

Canadian legislation prohibits direct-to-consumer advertising. However, many advertisers do not comply with current regulations and policies are not strictly enforced. Furthermore, much of our television and print media originates in the US where DTCA is legal. As a result, Canadian audiences are being exposed to more and more prescription drug advertisements that market products ranging from minor to serious health issues as well as ads that have more to do with social or personal conditions rather than for medical reasons, such as hair loss or bad breath.^[See 6]

Each day, everywhere we look, we are bombarded with advertisements for products that promise to change our lives for the better, make us happier, more attractive or healthier. Often these advertisements market goods that are relatively harmless, such as shampoo or deodorant. Yet, many commercials and print ads promote products that are potentially detrimental to health. For example, we often see or hear ads for weight loss products and over-the-counter or non-prescription medications, such as cold and allergy remedies. In addition, more and more pharmaceutical companies are marketing prescription drugs to the public, a practice known as “direct-to-consumer advertising (DTCA).” While DTCA is technically illegal in Canada, people in this country are still being exposed to such advertisements because regulation is lax and certain types of prescription drug advertising have been allowed to slip through the cracks. In addition, we regularly view television and publications originating in the United States (US) – where DTCA is legal.

While research on DTCA is relatively new and few sex- and gender-based analyses have been carried out in the area, preliminary studies have shown that women are more likely than men to be targeted as consumers of this type of advertising.^[2,3] In fact, some researchers, including Mastin and her colleagues have argued that direct-to-consumer advertisements are specifically designed to attract the attention of women because their gendered roles as “caregivers” and “health care gatekeepers” often render them responsible for managing the health of their families as well as their own health care.^[2] In other words, women are more likely than men to seek health information, make decisions about health issues, consult health care providers, purchase medications and provide care.^[2-4] Women also use the health care system and visit physicians more frequently than men because of biological differences^[3,5] such as reproductive functions related to birth control, pregnancy and menopause.

Growing evidence suggests that direct-to-consumer advertisements in print media are increasingly being directed at women – particularly in magazines.^[2,3,5] For example, the number of advertisements in “women’s magazines” skyrocketed after the US Food and Drug Administration relaxed restrictions on DTCA in 1997, but remained relatively stable in other types of magazines, such as news and entertainment publications.^[2] Currently, there are far more advertisements for prescription drugs in “women’s magazines” than in “men’s magazines” or those intended for a general audience.^[3] Pharmaceutical companies and their advertisers have seemingly determined that advertisements intended for women are far more effective in terms of sales than those that are not - even in cases where products are intended for either sex or specifically for men.

Ads for medications used to treat erectile dysfunction are one example of how pharmaceutical companies target female audiences for prescription drugs that treat male conditions. Although intended for use by men, these drug advertisements are commonly found in “women’s magazines.” As mentioned earlier, this placement of ads builds on gendered stereotypes of the woman as caretaker of

her male partner – presuming that they will be the ones to consult a physician and fill the prescription. But the content of ads also builds on and reinforces gendered stereotypes. For instance, the way women are depicted in print and television ads implies that the sexual experiences of both women and men can be enhanced by medications for erectile dysfunction. While this may be the case, there is scant research to support the claim and some evidence to dispute it. According to sociologist Meika Loe, many women whose male partners use Viagra™ complain about feeling pressured for sex, a development which did not help their sex lives or their relationships.^[7] Some also worried that their partners were having affairs and some experienced painful physiological effects with revived or increased sexual activity.^[7]

Moreover, this approach to marketing is profoundly influenced by assumptions and biases about gender roles, sexual norms and heterosexuality. Such ads define “sex” narrowly, as consisting only or primarily of intercourse between a man and woman. In the process, they discount other forms of sexual intimacy that may be equally satisfying and they also marginalize same-sex sexuality. Ads for medications for erectile dysfunction feature heterosexual couples, at least in mainstream publications and television. At the same time, these ads bolster dominant notions of masculinity that are linked to the ability to achieve an erection and perform sexually, a gender stereotype that has the potential to damage the mental health of males and their relationships. Drug companies seem to deliberately deploy gender stereotypes in order to sell more of their products, regardless of the dangers of this practice.

Direct-to-consumer advertising further plays on gender stereotypes by targeting conditions that are believed by some to be associated with being “female” or that are identified as “female diseases.”^[8] For example, women are far more likely than men to be diagnosed with certain mental health conditions – specifically, anxiety and depression – and prescription drug ads for anti-depressants are typically directed towards female audiences.^[8,9] Advertisements that stereotype women as “biologically depressive obscures the psycho-social factors that significantly affect females’ lives – from poverty to abuse to discrimination.”^[8,p179] Perpetuating such stereotypes may well contribute to the continued over-diagnosis of depression in women as well as to neglect of depression and anxiety among men and boys.^[8]

Despite the fact that many ads are intended for a general female audience, not all women are targeted in the same way by direct-to-consumer advertising. For example, in the late 1990s, pharmaceutical companies began to focus intently on Black populations as prescription drug consumers. Indeed, according to some researchers, Black women have “become one of the fastest growing audiences intended for DTCA.”^[2,p56] After conducting a content analysis of 132 “Black” (*Ebony and Essence*), “women’s” (*Good Housekeeping and Ladies’ Home Journal*), news (*Newsweek and Time*) and entertainment (*Entertainment Weekly and People*) magazines between 1992 to 2002, Mastin and her colleagues^[2] found that the types of products showcased differed for Black and White female audiences. DTCA in magazines aimed at primarily Black readers, which also have a high readership among males, mainly revolved around drug treatments for women’s health issues – and in particular reproduction, including birth control pills, menopause and vaginal yeast infections. As well, almost all advertisements dealing with the prevention and treatment of sexually transmitted infections, including HIV and herpes, appeared in such magazines. In contrast, general

“women’s magazines,” which Mastin and colleagues found to be largely read by White women, had relatively few advertisements specifically targeting women’s health issues. Instead, these magazines featured ads for a wide range of drugs –again taking advantage of gender stereotypes of women as “caretakers” and “health care gatekeepers.”

Intentional targeting of women as consumers of DTCA should be a cause for concern for several reasons. First, current research suggests that women are more likely than men to respond to DTCA, asking their doctors for specific medications that may or may not be needed or appropriate.^[3,4] Doctors, in turn, are influenced by patient requests for particular drugs, adjusting both the volume and types of medications they prescribe.^[3,10, 11] Studies have shown that individuals exposed to DTCA are more likely to ask for an advertised drug^[3,10] and to receive a prescription for that drug^[5,11] than patients who consult a practitioner about general health issues. Given that women are the focus of such advertisements, we might infer that women are more likely than men to both request and receive drug prescriptions – or at least that drug companies assume this to be true. Clearly, more research – including that which involves a sex- and gender-based analysis – is needed to determine the true effects of direct-to-consumer advertising.

A further gendered implication of DTCA is that the high cost of such advertising increases the price of prescription drugs, making many of them inaccessible to people without drug benefits plans or adequate and dependent income. Because women are more likely than men to be in precarious employment and have few or no benefits, they are more likely to have to pay for prescription drugs out-of-pocket and less likely to be able to afford them.^[3] Another cautionary flag raised by direct-to-consumer advertising targeted at women is that while advancements have been made to include both females and males in clinical trials, many prescription drugs are tested on males only, with researchers ignoring questions of safety and effectiveness among females.^[3]

In the last few years, there has been an upsurge of interest in the study of “health literacy” – the extent to which the public understands health information. Often researchers are interested in whether or not patients understand the diagnoses and treatment instructions given to them by health care providers, but this is only one source of such information. We need to look more closely at the impact of direct-to-consumer advertising as, for better or worse, a growing source of health information. In light of the information presented in this case study, there is a clear need for more sex- and gender-based analyses to understand the full impact of direct-to-consumer advertising and the resulting use of the products it promotes – for both women and men.

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Something to Think About

“Guidelines and recommendations about the inclusion of women in clinical trials of drugs have been developed in response to concerns that women may have been taking drugs that had only been tested in males and might, therefore, not work, or work differently, in them. However, while including women in clinical trials may begin to provide data that address biological differences between males and females with regard to drug metabolism, kinetics, etc., the dictum “to include” glosses too quickly over gender differences that may play a substantial role in how women use and respond to drugs. As well, wider questions about whether drugs are the best way to deal with a problem are left unexamined by a singular focus on the “inclusion of women.” These questions may actually be more relevant to women’s health protection and health promotion.”^[12,p5]

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Chapter Eight:

Rising to the Challenge


State of the Art

In this volume, we have introduced our treatment of sex- and gender-based analysis as a process – rather than a checklist or formula – and described the core concepts that drive that process: sex, gender, diversity and equity. Our approach is further illustrated in a rich collection of case studies and commentaries, drawn from a decade of experience in policy-relevant women’s health research and knowledge exchange. We have argued – and demonstrated – that SGBA is essential for understanding and responding to health concerns of all kinds and can be applied across disciplines and sectors, programs and policies and in every type of research. Sex- and gender-based analysis encourages deeper reflection about issues, populations, sources and types of evidence and enables the development of more appropriate, efficient and cost-effective responses.

Because the process of SGBA is iterative, it raises new questions as the analysis proceeds, potentially leading to new evidence and new options for action. Indeed, the process of SGBA is fundamentally about asking questions: about data, relationships, health impact and the intersections among determinants of health – recognizing that sex and gender are fundamental influences on the identities and experiences of both women and men. It also includes asking questions about which women and men are affected by specific health conditions, the broader determinants of health, social institutions and power relationships as well as policies and practices. In this way, SGBA forces us to consider diversity among women and men, girls and boys, including differences arising from sexual orientation, gender identity, socioeconomic status, age, language, place of residence, education, historical circumstances and a host of other factors that relate to and affect experiences of health and illness, access to health care and provision of care.

Among the observations emerging from the development of this guide is the critical importance of having access to and using sex-disaggregated data. Information must be collected using the categories of male and female (at a minimum) and these data must be reported to make more comprehensive sex- and gender-based analysis possible for researchers and analysts. As we have seen, finding and getting access to sex-disaggregated data can be a challenge as well as an obstacle to undertaking an SGBA. We therefore urge data-collecting agencies, organizations that maintain datasets, governments and partners to routinely collect and report information by sex. We also hope that they will begin to explore ways to challenge the binary of male and female by developing measures of sex that are more nuanced and inclusive.

At the same time, the introductory chapters and the case studies illuminate the distinctions between the concepts of sex and gender as well as the many ways in which they overlap and interact. While sex-disaggregated data are often lacking, an additional complication for SGBA is the absence of reliable measures of “gender.” Indeed many survey tools treat sex and gender as if they are interchangeable categories and consequently report on gender differences and similarities when what is really being measured are health trends and patterns among females and males. In other words, sex-disaggregated data alone do not allow us to undertake a comprehensive SGBA. Whether or not it is possible to develop innovative methods for measuring gender remains to be seen, but in any



case we can and should use qualitative data to deepen our understanding of the differences between sex and gender as well as the subtle – and not so subtle – interplay between the biological and the social in the lives of women and men, girls and boys. Because gender, like sex, is a continuum rather than a binary, a robust sex- and gender-based analysis includes the work of conceptualizing, recognizing and analyzing multiple expressions of gender and the relationships among them.

Throughout the guide, we have emphasized the importance of moving beyond a basic understanding of differences and similarities *between* women and men to an appreciation of differences and similarities *among* groups of women and men. In other words, SGBA embraces diversity in the lives of women and men, girls and boys. As we have seen, data collection poses considerable challenges to diversity analysis. For example, many survey tools do not elicit information on “visible” characteristics, such as race and ethnicity, let alone on “invisible” characteristics, such as sexual orientation or spirituality. Even when these types of data are collected, the linkages among them may not be analyzed – referred to as cross-tabulation – or reported, making it difficult to connect the dots between diversity and health. Qualitative research can contribute to our understanding of the health of diverse populations, but more work is needed in this area, particularly for sub-populations that are conspicuously under-represented, such as indigenous Blacks in Canada. Ultimately, as with sex and gender, diversity needs to be understood as a continuum rather than as a binary of “dominant” and “non-dominant” groups.

Equity is the ultimate driver of sex- and gender-based analysis. Health inequities – like other forms of inequity – are often rooted in differences of power and privilege distributed along the fault lines of sex, gender and diversity. As many of the case studies and commentaries demonstrate, research, policies and programs that ignore these core concepts are unlikely to redress health inequities and may, in fact, deepen existing disparities or even create new ones.

At the same time, the case studies and commentaries confirm that SGBA is crucial in all aspects of health-related work. We are not suggesting that any one piece of research or any single policy must address all forms of diversity or solve every instance of inequity. Rather, we are arguing that articulation of and attention to the core concepts of sex, gender, diversity and equity is imperative to establish why and how specific issues and populations are under consideration as well as what evidence exists and is being employed to make decisions that affect health and care. The process of sex- and gender-based analysis takes time, but it is time well spent.

Emerging Directions

While this guide represents the accumulated and collective knowledge and experiences of a cohort of women’s health researchers, it is also a testament to the ongoing evolution of SGBA. From its roots as a white, middle-class, urban women’s movement, based largely in North America and Europe, sex- and gender-based analysis has become more inclusive and expansive, embracing both the analysis of diversity and an understanding of global perspectives on the health and well-being of women and girls as well as for men and boys. From its initial focus on gender, SGBA has also evolved to include an analysis

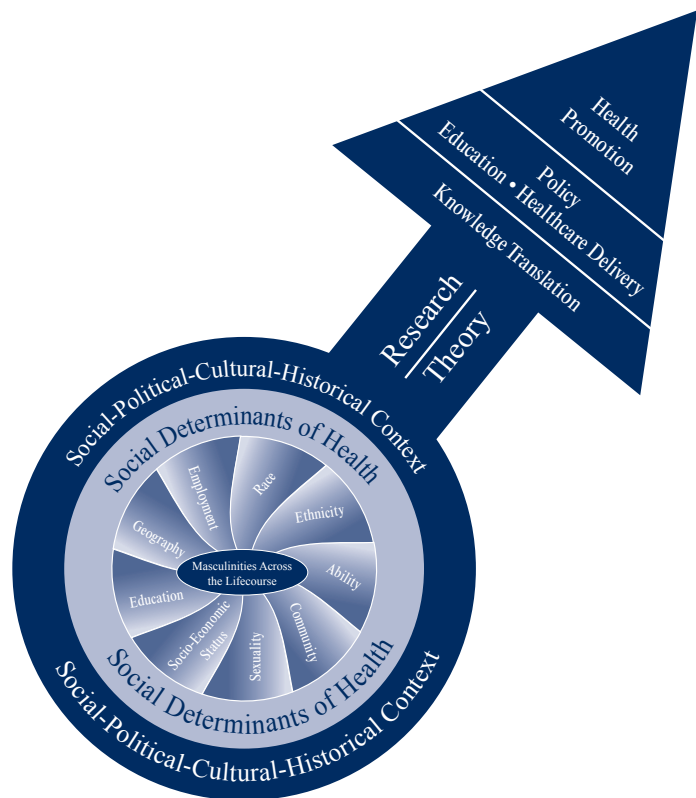
of sex that transcends reproduction alone and that addresses the complex interactions of sex and gender. The emergence of new ideas and innovative methods for understanding and analyzing health – both now and in the future – create exciting opportunities to reflect upon the theory and practice of SGBA as well as to deepen its sophistication and expand its use. Currently, four areas have enormous potential to shape the future of sex- and gender-based analysis: developments in men’s health and masculinities research; expanded research and practice related to the social determinants of health; the adaptation of SGBA to the context of First Nations, Métis and Inuit communities and populations; and the application of intersectionality theory to health research.

Men’s Health and Masculinities Research


The field of men’s health emerged as a separate area of interest, study and practice in the 1980s.^[1] Like women’s health researchers and advocates in the early days, the first generation of men’s health researchers focused on conditions that are unique to, more serious in, more prevalent among men, or that require different diagnosis, treatment or prevention than those affecting women. They also attended to conditions overlooked in mainstream literature, such as prostate and testicular cancers and mental health.^[2] As with the women’s health movement, men’s health researchers and advocates responded to an absence of gender analysis. As Courtenay^[3] observed, “The consistent, underlying presumption in medical literature is that what it means to be a man ... has no bearing on how men work, drink, drive, fight, or take risks. Even in studies that address health risks more common to men than women, the discussion of men’s gender is often conspicuously absent.”^[p1387] Complex and illuminating theories about masculinities took shape and a body of research has been developing that demonstrates the influence of gender on men’s health.^[3-5] As Oliffe and Galdas^[6] recently concluded, “There is growing evidence that the socialization of men and boys and their resulting enactment of gender (masculinities) can have a deleterious impact on their health and health behaviours. Masculinities research, which is based on this perspective, is increasingly showing that men operate using gender-specific health behaviours and experience illness that requires targeted interventions.”^[p1] New frameworks that reconceptualize men’s health in light of the determinants of health, such as that of Frank and colleagues,^[7] have also begun to take shape (see Figure 1).

Men’s health, like women’s health, has strengths and limitations. On the one hand, theories of masculinity expressly address power differentials and are helping to challenge the binaries of male-female and masculine-feminine as the frameworks for modeling and understanding human sexual

Figure 1. Health, Illness, Men and Masculinities (HIMM) Diagram^[7]



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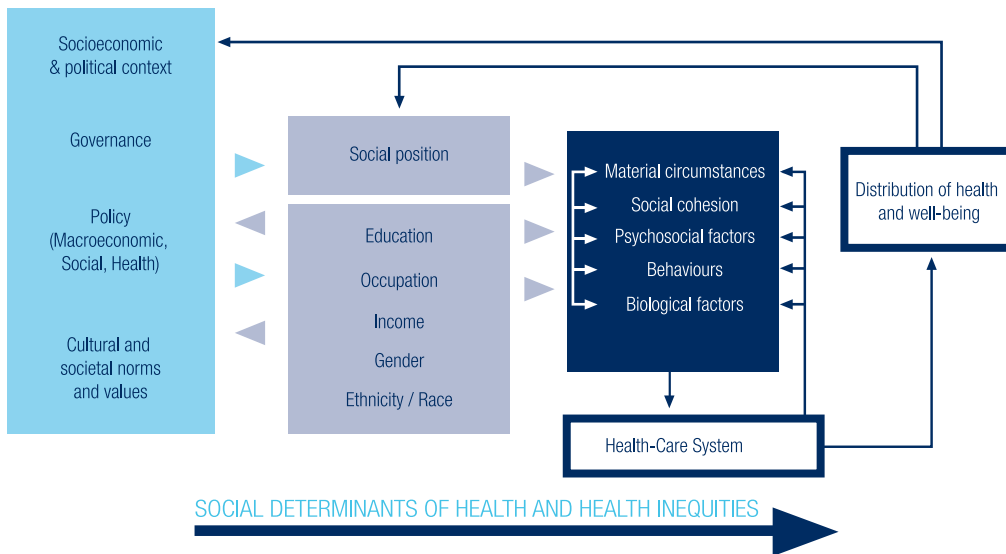


experience, identities and behaviours. On the other hand, while the women's health movement has long incorporated an understanding of how women's status relative to men influences their health, men's health researchers have tended to shy away from engaging in an analysis of men's health relative to women. As Connell and Messerschmidt^[8] contend, "there is a tendency in the men's studies field to presume "separate spheres," to proceed as if women were not a relevant part of the analysis, and therefore to analyze masculinities by looking only at men and relations among men."^[p837] It would appear, then, that there is much to be gained from collaboration across the fields of women's and men's health. SGBA could serve as a bridge between the fields while itself being enriched by the processes of interaction and engagement.

Gender and the Determinants of Health

While some countries, governments and organizations recognize gender as a determinant of health – as Canada does – it is often merely included in a list without being described or linked to the other determinants of health. Recently, however, the WHO Commission on the Social Determinants of Health presented a conceptual framework that organizes the determinants of health and locates gender in relation to other determinants (see Figure 2).^[9] The WHO model suggests that social and individual factors, including material circumstances, social cohesion, psychosocial factors, personal behaviours and biological factors, interact with the health care system to produce the distribution of health and well-being in any given society. These factors are, in turn, influenced by a person's social position, which is a function of his or her education, occupation, income, sex and gender, ethnicity and/or race. The framework also recognizes that there is a feedback loop between health and well-being and social position because health is also a resource for being able to engage in social life, including education and occupation, and also because some health conditions, such as mental illness, carry stigma that can affect an individual's social position. Finally, the model proposes that the socioeconomic and political contexts in which we live – specifically the nature of governance and policy as well as the cultural and societal norms and values that characterize communities and countries – influence social position and are, in turn, affected by the distribution of health and well-being. This model is a significant advance on a simple list of determinants of health that ignores the significance of interplay and intersection among the determinants. But it is also noteworthy that sex is absent from the model, raising questions about whether there is an understanding or due attention to the distinctions between the biological and the social. Moreover, gender is located in the framework as an aspect of social position, rather than an overarching or pervasive influence on health, comparable to policies and economic contexts. In other words, in the WHO model, gender appears to be central without actually being pivotal.

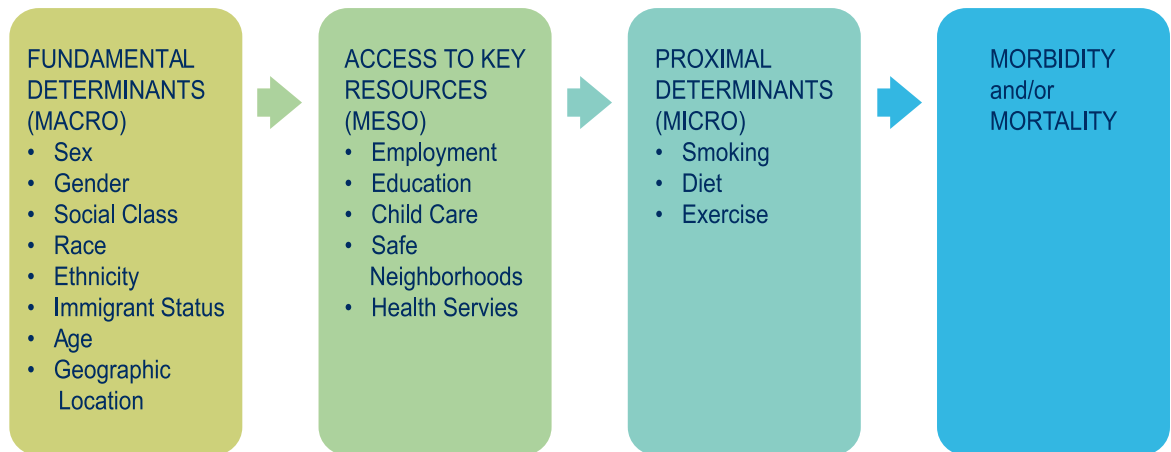
Figure 2. Commission on Social Determinants of Health Conceptual Framework.



Source: Amended from Solar & Irwin, 2007
Used with permission

A new publication by the Women’s Health Research Network in British Columbia proposes an alternative conceptual model (see Figure 3).^[10] Benoit and Shumka^[10] describe sex and gender as “fundamental determinants of health” on the grounds that they influence other determinants of health. Sex and gender – along with class, race, ethnicity, immigrant status, age and geographic location – determine a person’s access to key resources, such as employment, education, childcare, safe neighbourhoods and health services as well as individual behaviours, choices and opportunities, such as smoking, nutrition or diet and exercise patterns – all of which affect morbidity and mortality. In this model – as opposed to the WHO framework – both sex and gender are named and they are understood as foundational to health and well-being rather than as only significant. While the diagram itself suggests that the influence of various macro, meso and micro determinants flows only in one direction, the framework does capture the interplay of influences on health. As Benoit and Shumka^[10] maintain, “Our model is dynamic in that it can be amended over time and according to location to include emerging fundamental determinants of interest to researchers, such as sexual orientation or access to clean water for those living in less-privileged areas of the globe.”^[p11]

Figure 3. A Dynamic Gender-inspired Health Determinants Model ^[10]



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The point of this discussion is not to spark a debate over which model is better. What is exciting and important from the perspective of the development of SGBA is that alternative models can generate innovative empirical research and practical interventions. Moreover, the test of either of these – or other – frameworks will be how well they are able to account for sex- and gender-based differences in health outcomes and health-related behaviours. This emerging work reflects the vibrancy of current discussions of sex, gender and health underway in Canada and around the world as well as promising theoretical and empirical research directions.

Aboriginal-specific GBA^a

Another development we are seeing in Canada concerns the relevance and/or adaptation of sex- and gender-based analysis for Inuit, First Nations and Métis communities. Women in Métis, First Nations and Inuit groups have been exploring the potential for SGBA to respond to the particular social contexts, traditions and histories of Aboriginal communities. For example, Native Women’s Association of Canada (NWAC)^[11] and Pauktuuit, Inuit Women of Canada^[see 12,13] have initiated discussions about the need for culturally relevant SGBA, building upon the support for substantive equality outlined in Canada’s Charter of Rights and Freedoms (see Chapter 2). Both organizations have emphasized the need for explicit attention to the historical and contemporary experiences of First Nations, Métis and Inuit women in research, policy development and program planning. In particular, NWAC has called for attention to the impact of colonization, western-style capitalism, globalization, nationalism and paternalistic approaches to development that characterize current policies and programs. Both organizations in turn suggest that SGBA needs to be modified to embrace the

^a “Aboriginal” is an umbrella term which can be used to refer to First Nations, Inuit and Métis peoples collectively, as described in the Constitution of Canada. However, the authors recognize and acknowledge that the experiences and SGBA-related work are distinct for Métis, Inuit and First Nations populations and organizations.

cultural, historical, linguistic and other unique features of Inuit, First Nations and Métis women if it is to redress the particular forms of inequalities and inequities they experience.


The Assembly of First Nations (AFN) has also been among the organizations to explore the application of sex- and gender-based analysis. In a recently developed series of documents, AFN proposes a *Gender-balanced* framework.^[see 14] The Framework introduction explains that the gender-balanced approach “integrates the First Nations historical and cultural context and perspective to provide for more responsive and effective policy and legislative development where First Nations are concerned. The First Nations worldview requires a balanced approach to all aspects of life between men and women, boys and girls as well as the recognition and consideration of those who engender both male and female, to ensure that everyone is included in the sacred circle of our Nations.”^[14,p4]

From the perspective of the evolution of SGBA, these various adaptations are evidence of the continuing need to look seriously at culture, colonization, ethnicity and race and their links to – and implications for – gender, gender identity, gender relations and institutional gender. They expose the historical and cultural specificity of any one view of sex and gender and enlarge the conversation from a consideration of sex and gender to one that links them to other important aspects of social life. Work on SGBA in the context of Latin America is raising similar questions about adapting an analytic method that was developed primarily in Europe and North America to parts of the world with very different histories of gender relations and terminology. Intersectionality theory, described below, extends this thread further again.

Intersectionality

According to Siltanen and Doucet,^[1] diversity is “a key analytical challenge facing those interested in the analysis of gender today ... how to find a way to address the specificity of experiences of gender while at the same time attending to broader commonalities and configurations that have social and political significance.”^[p187] In other words, we need to ask how we get at the ways in which sex and gender intersect and interact with other significant dimensions of identity and difference, such as visible minority and immigrant status, heterosexuality and ability. Intersectional theory developed in response to these pressing questions, gaining prominence in the 1990s when sociologist Patricia Hill Collins utilized the concept in her work on Black feminism.^[1,15] Since its emergence from United States (US) Black feminism, intersectional theory has been further influenced by “Indigenous feminism, third world feminism, and queer and postcolonial theory.”^[16,p3]

While there is no single agreed-upon definition of intersectionality, the theory posits that people’s experiences are simultaneously the product of how they identify themselves, how they are seen by others, and how they interact with others. Because intersectional theory seeks to understand how these aspects of self and society interact, it challenges theories and practices that privilege single categories, such as race or gender, in explanations of human experience, including health.^[1] As Hankivsky and Cormier^[16] observe, “this perspective moves beyond single or typically favoured categories of analysis (e.g., sex, gender, race



and class) to consider simultaneous interactions between different aspects of social identity ... as well as the impact of systems and processes of oppression and domination ...”^[p3]

On the one hand, intersectionality has been described as a successful theory because it offers feminist theorists a framework for addressing thorny intellectual and political debates about privilege and disadvantage, both past and present.^[see 17] It also prompts researchers to think beyond the categories of race, class, sex and gender to look at broader social forces, such as globalization, colonization and oppression. On the other hand, intersectional analysis has been critiqued because it sometimes waters down attention to politically, historically and culturally significant social divisions, as it tries to focus attention on the complexity of social experience. Sultanen and Doucet quoted Stasiulis who also pointed out the difficulties of determining “which social relations in the seemingly dizzying array of differences should be accorded particular salience or significance ...”^[1,p.179] Moreover, though some progress has been made in the development of guidelines and techniques for applying intersectional analysis, such as the work of the Canadian Research Institute for the Advancement of Women (CRIAOW), this work is still in the very earliest stages of development.^[1,18]

Intersectional analysis represents an important opportunity to deepen the sophistication of SGBA by introducing a new order of complexity. It brings social theory to the forefront of discussions about health and encourages us to reassess health research methods and, models as well as health policies and practices in light of those theories. For example, intersectional analysis prompts us to think about the workings and impact of social processes, such as marginalization and racialization, rather than focusing on static social states or locations, such as Black and White. In the process it reminds us forcibly that the determinants of health are dynamic and changeable and that specific facets of human experience or individual identity may be more or less significant from one illness, issue or context to the next.

The Challenge of Achieving Equity and Health

In recent years, we have witnessed an unprecedented shift in discussions about health disparities, from a focus on biological or behavioural vulnerabilities and access to health services to an emphasis on power and privilege, including access to a broader array of resources, such as education and wealth as well as political and social opportunities. While this shift began with a focus on the effects of socioeconomic status on health, it has evolved to include new approaches to social epidemiology and health research. For example, the final report of the WHO Commission on the Social Determinants of Health^[8] identifies gender inequity as a key driver of health and other disparities and urges action to redress imbalances of power and privilege between and among women and men. Our position throughout this guide is that sex- and gender-based analysis as an iterative process is essential to uncovering and reducing disparity and inequity. We need to rise to this new challenge of integrating gender concerns within broader discussions of equity and health such that sex, gender and diversity, which shape all societies, are fully integrated into research and policy making.

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Additional Resources

Resource List

In this resource list, we have included a selected group of documents and websites for further reading and information-gathering. There is also a wealth of additional resources listed in the reference section of each of the case studies and commentaries.

Documents

Culturally Relevant Gender based Analysis (2008)

Native Women's Association of Canada

www.nwac-hq.org/en/documents/CulturallyRelevantGenderBasedAnalysis.pdf

Guidelines for Gender-based Analysis of Health

Data for Decision Making (2008)

Margaret Haworth-Brockman and Harpa Isfeld

Pan American Health Organization

new.paho.org/hq/index.php?option=com_content&task=view&id=1629&Itemid=962&lang=en

Guidelines for Developing a Population-based Gender and Health Profile (2008)

Harpa Isfeld and Margaret Haworth-Brockman

Pan American Health Organization

new.paho.org/hq/index.php?option=com_content&task=view&id=1628&Itemid=962&lang=en

Draft Framework: Gender Balancing: Restoring Our Sacred Circle (2007)

Assembly of First Nations

www.afn.ca/cmslib/general/AFN's%20Gender%20Re-Balancing%20Framework_EN.pdf

Better Science with Sex and Gender: A Primer for Health Research (2007)

Joy Johnson, Lorraine Greaves and Robin Repta

Women's Health Research Network

www.whrn.ca/

Finding Data on Women:

A Guide to the Major Sources at Statistics Canada (2007)

Marcia Almey

Statistics Canada

dsp-psd.pwgsc.gc.ca/Collection/SW21-22-2007E.pdf

Including Gender in Health Planning:

A Guide for Regional Health Authorities (2005)

Lissa Donner

Prairie Women's Health Centre of Excellence

www.pwhce.ca/pdf/gba.pdf

Applying a Gender Lens: A Practical Guide to Gender Analysis for NSW Government Agencies (2003)

New South Wales Office for Women

www.women.nsw.gov.au/PDF/Archived/Applying_a_gender_lens.pdf

Exploring Concepts of Gender and Health (2002)

Health Canada

www.hc-sc.gc.ca/hl-vs/alt_formats/hpb-dgps/pdf/exploring_concepts.pdf

Gender Analysis in Health: A Review of Selected Tools (2002)

World Health Organization

www.who.int/gender/documents/en/Gender.analysis.pdf

Gender-based Analysis (GBA) in Public Health Research, Policy and Practice (2001)

Berlin Centre of Public Health, the European Women's Health Network and the German Society for Social Medicine and Prevention

www.ghi.org.uk/EWHN/Documentations/GBA%20Dokumentation.PDF

Exploring the Biological Contributions to Human Health: Does Sex Matter? (2001)

Institute of Medicine of the National Academies

www.iom.edu/CMS/3740/5437.aspx

Gender-based Analysis Policy (2000)

Health Canada

www.hc-sc.gc.ca/hl-vs/women-femmes/gender-sexe/policy-politique-eng.php

Gender-based Analysis: A Guide for Policy-making (1998)

Status of Women Canada

www.pacificwater.org/userfiles/file/IWRM/Toolboxes/gender/gender_based_analysis.pdf

Gender- and Sex-Based Analysis in Health Research: A Guide for CIHR Researchers and Reviewers (no date)

Canadian Institutes for Health Research

www.cihr-irsc.gc.ca/e/32019.html

Guidelines for the Analysis of Gender and Health (no date)

Liverpool School of Tropical Medicine Gender and Health Group

www.liv.ac.uk/lstm/groups/documents/

LSTM-GuidelinesfortheAnalysisofGenderandHealth.pdf

The BIAS FREE Framework: A Practical Tool for Identifying and Eliminating Social Biases in Health Research (no date)

Mary Anne Burke and Margrit Eichler

tspace.library.utoronto.ca/bitstream/1807/9581/1/BIASFree_interieur.pdf

Websites

Gender, Women and Health

World Health Organization
www.who.int/gender/en/

Gender, Ethnicity and Health

Pan American Health Organization
www.paho.org/english/ad/ge/home.htm

The Bureau of Women's Health and Gender Analysis

Health Canada
www.hc-sc.gc.ca/hl-vs/pubs/women-femmes/gender-sexes-eng.php

Institute of Gender and Health

Canadian Institutes for Health Research
www.cihr-irsc.gc.ca/e/8673.html

Canadian International Development Agency

www.acdi-cida.gc.ca/CIDAWEB/acdicida.nsf/En/JUD-31194519-KBD

Canadian Women's Health Network

www.cwhn.ca/indexeng.html

Women and Health Care Reform

www.womenandhealthcarereform.ca/

Atlantic Centre of Excellence for Women's Health

www.acewh.dal.ca/

British Columbia Centre of Excellence for Women's Health

www.bccewh.bc.ca/

Prairie Women's Health Centre of Excellence

www.pwhce.ca/

Government of Newfoundland and Labrador

Women's Policy Office
www.exec.gov.nl.ca/exec/wpo/gender.htm

Women's Health Information Data Directory: The Source, the Survey and the Synthesis

www.bccewh.bc.ca/bccewh-initiatives/womens-health-information-data-directory.htm

WikiGender

www.wikigender.org/index.php/New_Home



List of Contributors

List of Contributors

Danielle Allard

Faculty of Information, University of Toronto

Claire Askew

Doctoral Student, Policy Studies, Ryerson University

Jennifer Bernier

Gender-Based Analysis Coordinator, Atlantic Centre of Excellence for Women's Health

Madeline Boscoe

Executive Director, Canadian Women's Health Network

Barbara Clow

Executive Director, Atlantic Centre of Excellence for Women's Health

Lissa Donner

Consultant, Winnipeg, MB

Marion Doull

Research Assistant, Institute of Women's Studies, University of Ottawa

Marie Dussault

Knowledge Exchange Coordinator, British Columbia Centre of Excellence for Women

Elaine Enarson

Independent Researcher and Consulting Sociologist, Lyons, Colorado

Lorraine Greaves

Investigator, British Columbia Centre of Excellence for Women's Health

Margaret Haworth-Brockman

Executive Director, Prairie Women's Health Centre of Excellence

Natalie Hemsing

Tobacco Research Coordinator, British Columbia Centre of Excellence for Women's Health

Harpa Isfeld

Researcher, Prairie Women's Health Centre of Excellence

Beth Jackson

Manager, Research and Knowledge Development, Strategic Initiatives and Innovations Directorate, Public Health Agency of Canada

Alison Jenkins

Graduate Student, York University

Dayna Nadine Scott

Co-Director, National Network on Environments and Women's Health

Ann Pederson

Director, British Columbia Centre of Excellence for Women's Health

Kaitlin Pelletier

Co-Director, Check Your Head



Anne Rochon Ford

Coordinator, Women and Health Protection and Co-Director, National Network on Environments and Women's Health

Harriet G. Rosenberg

Associate Professor Health and Society Program, Department of Social Science, Faculty of Liberal Arts and Professional Studies, York University and Research Associate, Women and Health Protection

Vivien E. Runnels

Researcher, Institute of Population Health, University of Ottawa

Jean Steinberg

Research Assistant, Atlantic Centre of Excellence for Women's Health

Alexandra Stiver

Research Associate, National Network on Environments and Women's Health

Cara Tannenbaum

The Michel Saucier Endowed Chair in Geriatric Pharmacology, Health and Aging Associate Professor of Medicine, University of Montreal Centre de Recherche, Institut Universitaire de Gériatrie de Montréal

Jayne Melville Whyte

Independent Consultant, Fort Qu'Appelle, SK



“A valuable and instructive resource for anyone in the health field. Rising to the challenge: Sex- and gender-based analysis and health planning, policy and research in Canada is a comprehensive manual that provides valuable and practical guidance. The manual will be of interest to all knowledge users in the field of health including policy makers, researchers, practitioners and students. There is a strong demand for sex- and gender-based analysis in all sectors and this volume will fill a much needed gap. The ideas are presented in an accessible style that both challenges and stretches our thinking about the ways to integrate sex and gender considerations in our work. Anyone who wants to understand sex- and gender-based analysis should read this manual.”

- Joy Johnson, Scientific Director, CIHR Institute of Gender and Health

“This guide to understanding the importance of, and applying, sex- and gender-based analysis is long overdue. ... Rising to the Challenge is a unique and useful book, which should find itself on every policy maker's desk, in every program development or evaluation discussion and supporting researchers across many disciplines in their quest for new questions and new knowledge. ... Applying the principles, methods and approaches outlined here will no doubt improve evidence, policy and programming, not only in Canada, but around the world.”

- Lorraine Greaves, Executive Director, Health System Strategy Division,
Ministry of Health and Long-Term Care, Ontario, Canada



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