

MÉTIS WOMEN AND DISEASE: A PRELIMINARY EXAMINATION



*Prepared by the Métis Centre of the
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Introduction

Aboriginal Peoples (First Nations, Inuit and Métis) in Canada disproportionately suffer from many diseases and illnesses compared to non-Aboriginal Canadians.¹ Aboriginal women, who tend to be the most marginalized population in Canada,² have higher rates of chronic and infectious disease and higher rates of mental illness issues such as addictions and suicide.³ Métis women also experience higher rates of mortality from many diseases and external

causes and, consequently, have lower life expectancy than non-Aboriginal women.⁴

This fact sheet explores some of the diseases reported by Métis adult women (15+ years) in the 2006 Aboriginal Peoples Survey (APS). The 2006 APS asked off-reserve First Nations, Inuit and Métis adults if they had been diagnosed with diseases or conditions such as diabetes, arthritis, asthma, cancer and cardiovascular disease by a health care professional. The fact sheet also provides rates of diseases and mortality in the non-Aboriginal or total population, where available, for comparison.⁵

Who are the Métis?

The Métis are one of the three constitutionally recognized Aboriginal groups in Canada.⁶ In French, the word “Métis” translates as “mixed,” yet the Métis people do not simply have a “mix” of European and First Nations heritage; they have distinct languages, cultures, values and beliefs that vary between communities and geographic regions.⁷ The Métis National Council defines Métis as individuals who self-identify as Métis, are of historic Métis Nation ancestry, are distinct from other Aboriginal peoples, and are accepted by the Métis Nation.¹ The historic Métis Nation

¹ It is important to note that there is much debate regarding the definition of who is Métis in Canada and there are those who have adopted a broader definition than the one provided here.



refers to Métis or “Half-Breeds” who resided in the historic Métis Homeland, an area of land in west central North America.⁸ According to Canada’s 2006 Census, there are nearly 400,000 Métis in Canada, accounting for 33% of the total Aboriginal population. Significantly, of this Métis population, almost half (43%) are under the age of 25, while one quarter (25%) are aged 14 and under.⁹

Social Determinants of Métis Women’s Health

It is well known that the socio-economic conditions that impact peoples’ daily lives are directly related to their health outcomes.¹⁰ In terms of these forces, Aboriginal women have a lower socio-economic status (income, education and employment) when compared to non-Aboriginal Canadians.¹¹ For Métis women specifically, their median income for 2006 was approximately \$4,000 less than that of \$35,947 for non-Aboriginal women.¹² In 2006, their unemployment rate was 9.5% compared to 6.4% for non-Aboriginal women.¹³ Métis women report higher levels of education than Métis men (with approximately 68% of women receiving some level of certificate, diploma or degree compared with 63% of men), but lower

levels than non-Aboriginal women in general (approximately 77%).¹⁴

Mortality Among Métis Women

Métis women have a life expectancy that is greater than First Nations and Inuit women but approximately 4.5 years shorter than non-Aboriginal women. In 2001, Métis women could expect to live 77.7 years compared to non-Aboriginal women at 82.2 years.¹⁵ The three leading causes of death among Métis women were cancers, circulatory system diseases, and respiratory diseases. Mortality from cancers and circulatory diseases accounted for 49% of excess mortality among Métis women.¹⁶

Métis Women and Cancer

There are more than 200 types of cancer caused by genetic or environmental changes, or both.¹⁷ Cancer patterns among Aboriginal populations display significant differences from those observed in the general population. Cancer is emerging as a leading cause of death among Aboriginal people in Canada. The incidence of cancer is growing faster than the general Canadian population, and cancers among Aboriginal people are often diagnosed in the later stages, making effective treatment more difficult.¹⁸ Métis women reported elevated

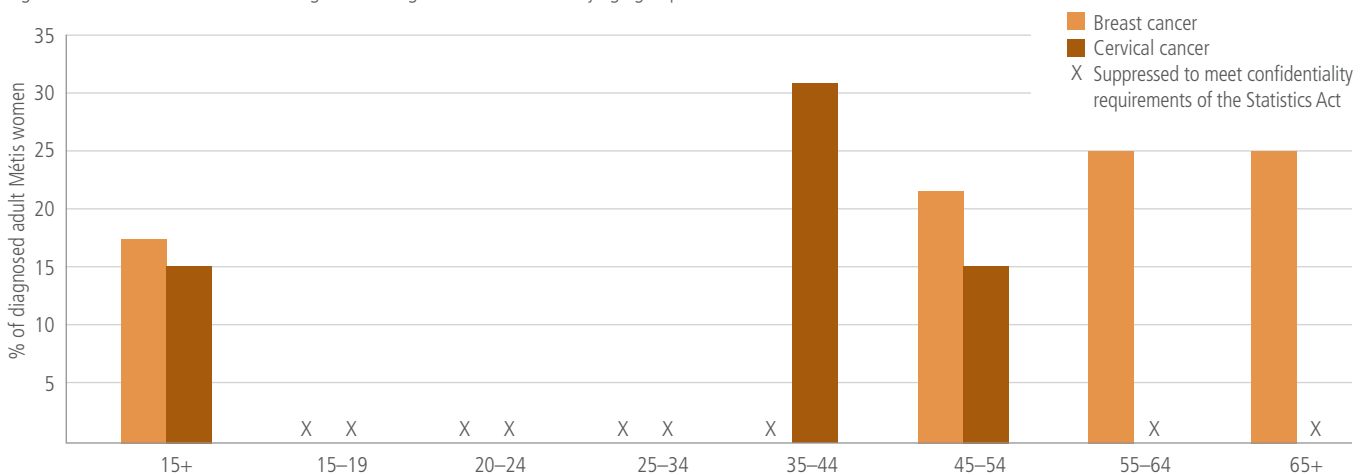
rates for all cancers with the exception of breast cancer when compared to non-Aboriginal women.¹⁹

According to the Aboriginal Peoples Survey (2006), 5% of Métis women reported being told by a health professional that they had cancer.²⁰ Of those women, 24% indicated they had breast cancer and 22% indicated they had cervical cancer.²¹ For Métis women who were diagnosed with breast cancer, 22% were aged 45-54, 26% were aged 55-64, and 26% were aged 65 and over (Figure 1). For those who were diagnosed with cervical cancer, 31% were aged 35-44 while 16% were aged 45-54 (Figure 1).²²

Preventative Measures

According to the Canadian Cancer Society, approximately half of all cancers are preventable through healthy living. Preventative measures include eating healthy, being active, knowing one’s family history, and reducing tobacco and alcohol use.²³ Preventive screening measures are also recommended, including mammograms, clinical breast exams, and PAP smear tests. It is important for women to get regular PAP smear tests as part of their yearly routine health examination.²⁴ Aboriginal women who are older or have lower socio-economic status are at

Figure 1: Breast and cervical cancer diagnosis among adult Métis women by age group



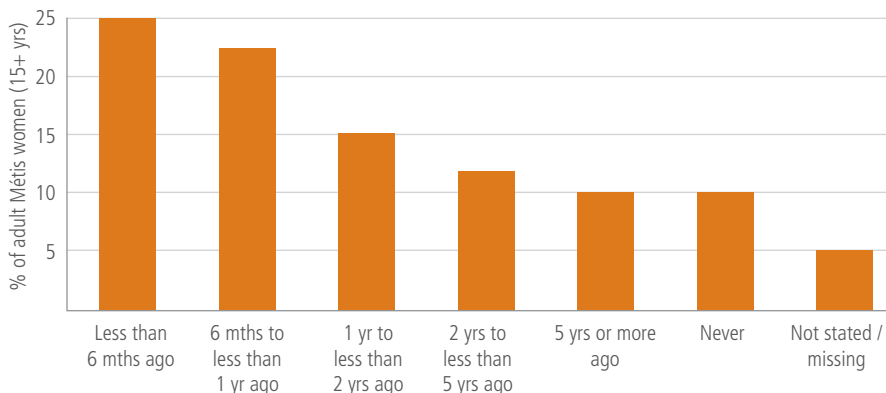
(Source: Statistics Canada, Aboriginal Peoples Survey, 2006)

higher risk for developing cervical cancer, primarily because they are never screened or are screened irregularly.²⁵ Health Canada recommends that women between the ages of 50 and 69 receive a mammogram at least once every two years.²⁶

In the 2006 APS, Métis women also reported on certain preventative measures associated with cancers, such as screening tests like PAP smears and mammograms. Eighty-four percent of Métis women responded that they had received a PAP smear test.²⁷ Twenty-five percent of Métis women said they had the test “less than six months ago,” 22% said “six months to less than a year ago,” 15% said “one to two years ago,” 11% said “two years to less than five years ago,” and 10% said “five years ago or longer.” Generally, one in 10 (10%) Métis women has never had a PAP smear test²⁸ (Figure 2).

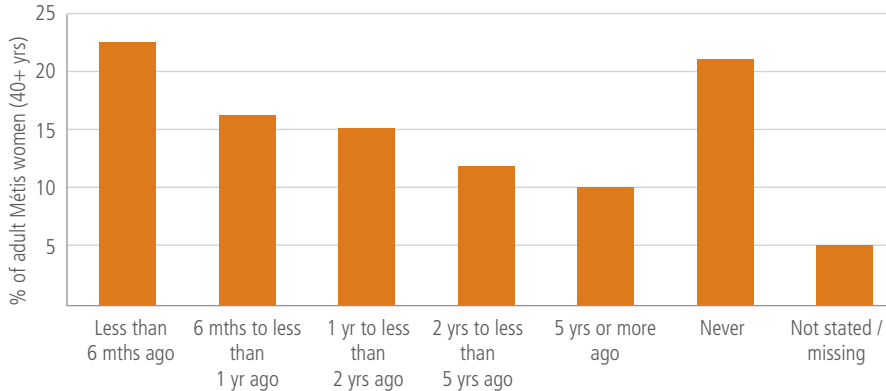
Nearly three-quarters of Métis women surveyed (74%) over the age of 40 had received a breast exam by a health care professional that did not include a mammogram.²⁹ Twenty-two percent received a breast exam “less than six months ago,” 16% “six months to less than a year ago,” 15% “one to two years ago,” 11% “two years to less than five years ago,” and 10%

Figure 2: Last PAP smear test as reported by adult Métis women (15+ years)



(Source: Statistics Canada, Aboriginal Peoples Survey, 2006)

Figure 3: Last clinical breast exam as reported by adult Métis women (40+ years), APS 2006



(Source: Statistics Canada, Aboriginal Peoples Survey, 2006)



“five years ago or more.” One in five (21%) Métis women over the age of 40 has never had a clinical breast exam³⁰ (Figure 3).

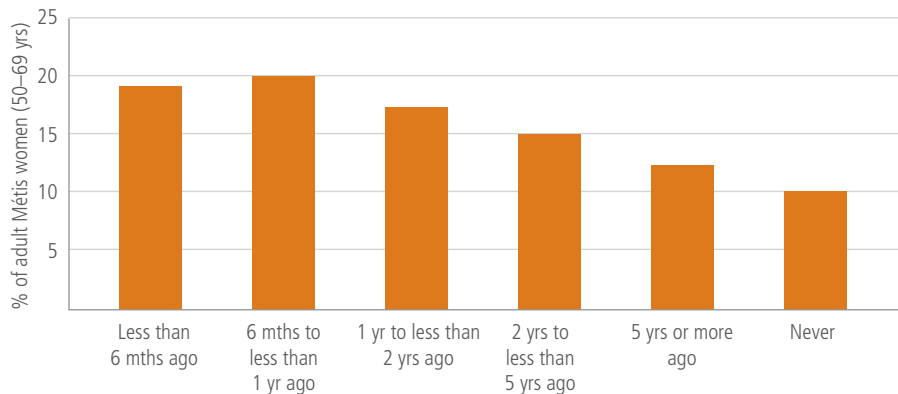
Most Métis women (86%) between the ages of 50 and 69 reported having had a mammogram.³¹ Nineteen percent of Métis women had received their last mammogram “less than six months ago,” 20% received one “six months to less than a year ago,” 18% “one to two years ago,” 16% “two years to less than five years ago,” and 12% received their last mammogram “five years ago or longer.” An additional 11% of 50-69 year old Métis women reported never having a mammogram³² (Figure 4). Thus, 57% of Métis women in this age category reported to have had a mammogram in the prior two years which falls within the guideline for mammograms. This is higher than what was seen among non-Aboriginal women (51%).³³

Métis Women and Cardiovascular Disease

Cardiovascular diseases are a group of several disorders affecting the heart and blood vessels, including, but not limited to, strokes, heart attacks, and heart disease.³⁴ Heart disease and strokes are considered the most common cardiovascular diseases (CVD) and affect certain populations more, including Aboriginal people and women.³⁵ CVD includes circulatory disease, also referred to as vascular disease, which includes any condition that affects the circulatory system.³⁶ There are several factors that can elevate the risk of developing CVD, including high blood pressure, obesity and physical inactivity.³⁷ The Public Health Agency of Canada recognizes that heart disease is a growing concern for women in particular, who are more likely to develop heart disease at an older age compared to men.³⁸

Fifteen percent of Métis women reported being told by a doctor, nurse or health care professional that they have high blood pressure.³⁹ This is similar to the rates seen among non-Aboriginal women (16%).⁴⁰ Seven percent of Métis women reported

Figure 4: Last mammogram as reported by adult Métis women (50 - 69 years)



(Source: Statistics Canada, Aboriginal Peoples Survey, 2006)

being told they had a heart problem,⁴¹ and 2% reported being told that they have effects from a stroke.⁴²

Preventative Measures

Health Canada endorses a healthy lifestyle, including a low sodium and low fat diet, increased physical activity, monitoring cholesterol, and reducing smoking and alcohol use. This minimizes the risks of developing heart disease and other cardiovascular diseases.⁴³

Treatment Measures

Aside from preventative measures, which can be effective following a CVD diagnosis, there are also ways of managing the effects of CVD with medications and medical treatments. Health Canada reports that women are more likely than men to have a second heart attack and are 16% more likely than men to die in hospital in the first month following a heart attack, making treatment essential.⁴⁴ Given these statistics, it is crucial to assess the use of treatments and medications among Métis women who are living with CVD.

The APS (2006) asked Métis women with CVD if they were currently taking any medications or treatments for the disease.⁴⁵ When asked if they took any medications or treatment for their high blood pressure,⁴⁶ 78% said yes. Fifty-six percent used medications or treatment for a heart

problem, while 48% used medications or treatments for the effects from stroke.⁴⁷

Other Diseases Among Métis Women

Métis women also experience high morbidity rates related to other chronic diseases. The 2006 APS found that 54% of Métis women aged 15 and over reported being diagnosed with a chronic condition. Of these, about 25% reported one condition, while 28% reported two or more chronic conditions. The most commonly reported chronic health conditions were arthritis or rheumatism (21%), high blood pressure (16%), asthma (14%), and stomach problems or intestinal ulcers (12%).⁴⁸

Métis women were also more likely than men to indicate having at least one chronic condition (57% compared to 50%), and to report two or more chronic conditions (31% compared to 24%).⁴⁹ In addition, compared to Métis men, Métis women had higher rates of arthritis or rheumatism (24% compared to 18%), asthma (17% compared to 11%), and bronchitis (8% compared to 5%). However, Métis women and men reported similar rates of high blood pressure, ulcers, diabetes and heart problems.⁵⁰

Métis Women and Diabetes

Diabetes is a chronic and lifelong condition where the body does not produce enough insulin (Type 1), or it makes insulin but cannot use it (Type 2). Type 2 diabetes is preventable. Aboriginal people are three to five times at greater risk of developing Type 2 diabetes than non-Aboriginal people.⁵¹ Diabetes more often affects women, the elderly, the obese and the less educated.⁵² In the 2006 APS, Métis women reported high rates of diabetes compared to non-Aboriginal women (7% compared to 5.5%), though the rates were the same for Métis men.⁵³ The rate of diabetes among non-Aboriginal people was 5.5% for women and 6.2% for men in 2006.⁵⁴ One percent of Métis women also indicated being told they were pre-diabetic or borderline diabetic.⁵⁵ Of the 7% of Métis women who had been told they had diabetes, 14% indicated being pregnant at first diagnosis.⁵⁶

Preventative Measures

Preventative measures to lessen the likelihood of developing diabetes include: eating a healthy balanced diet, being physically active, abstaining from smoking, and lowering cholesterol and blood pressure.⁵⁷

Sixty-nine percent of Métis women reported that being pre-diabetic or borderline diabetic prompted them to adopt a healthier lifestyle, including diet and exercise.⁵⁸

Conclusion and Next Steps

This fact sheet utilized data from the 2006 APS to provide a snapshot of disease and mortality among Métis women. While this is an important first step, more work is required to provide a complete picture of the health of Métis women. For example, the Statistics Canada report *Mortality of Métis and Registered Indian Adults in Canada: An 11-year follow-up study*⁵⁹ revealed that socio-economic indicators



such as income, education and occupation explain roughly two-thirds of the excess mortality for Métis men, and nearly 30% of that for Métis women.⁶⁰ This indicates a need for more research regarding the impact of the social determinants of health, including education, employment and income, on the health of Métis women.

In a paper entitled *Women of the Métis Nation: Health Policy Paper* developed by the Women of the Métis Nation,⁶¹ it was reported that Métis women often focus on the holistic nature of health, which encompasses family, physical, spiritual and environmental health. Some Métis women

focus on health issues that are related to the betterment of those around them; that is, sometimes Métis women prioritize the health of their family and community before themselves. The report noted that sometimes Métis women do not have the time or resources to address their own health needs. More research needs to be undertaken in order to understand if the issues contribute to Métis women's self-rated health. To summarize, while a majority of Métis women self-rate their health as "excellent or very good," other health data suggests that Métis women experience higher mortality and morbidity rates.



About the Aboriginal Peoples and the Canadian Community Health Survey

The 2006 Aboriginal Peoples Survey (APS) collected health and social determinants of health data about Métis, Inuit and off-reserve First Nations adults 15 years of age and over and children aged 6 to 14. The Aboriginal Peoples Survey was conducted between October 2006 and March 2007.

The Canadian Community Health Survey is a cross-sectional survey that collects information related to health status, health care utilization and health determinants for the population of Canada aged 12 or over in the provinces and territories. Since 2007, data have been collected annually. Prior to 2007, data collection occurred every two years. Data are available for 2001, 2003, 2005 and 2007.

References

¹ Loppie-Reading, C. & Wien, F. (2009). Health inequalities and social determinants of Aboriginal Peoples' health. Prince George, BC: National Collaborating Centre for Aboriginal Health.

Retrieved June 14, 2010 from: http://www.nccah-cnsa.ca/myfiles/NCCAH-Loppie-Wien_Report.pdf

² Bourassa, C., McKay-McNabb, K., & Hampton, M. (2009). Racism, sexism and colonialism: The impact on the health of Aboriginal women. *First Voices: An Aboriginal Women's Reader*. Toronto, ON: Inanna Publications.

³ Tjepkema, M., Wilkins, R., Senechal, S., Guimond, E., & Penney, C. (2009). Mortality of Métis and Registered Indian adults in Canada: An 11-year follow-up study. Ottawa, ON: Statistics Canada, Catalogue #82-003-X.

⁴ Ibid.

⁵ Statistics Canada (2008). *Aboriginal Peoples in Canada in 2006: Inuit, Métis and First Nations*, 2006 census. Ottawa, ON: Statistics Canada, 97-558-XIE.

⁶ Bartlett, J. G., Iwasaki, Y., Gottlieb, B., Hall, D., & Mannell, R. (2007). Framework for Aboriginal-guided decolonizing research involving Métis and First Nations persons with diabetes. *Social Science & Medicine*, 65(11), 2371-2382.

⁷ Ibid.; Canadian Institute for Health Information. (2004). *Improving the Health of Canadians*. Ottawa, ON: CIHR; Royal Commission on Aboriginal People. (1996). *Final Report of the Royal Commission on Aboriginal People*. Ottawa, ON: RCAP; and Tjepkema et al. (2009).

⁸ Métis National Council (2002). *Who are the Métis: National Definition of Métis*. Ottawa, ON: Métis National Council. Retrieved December 9, 2009, from <http://www.metisnation.ca/who/definition.html>

⁹ Statistics Canada (2008); Statistics Canada (2006). *2006 Census of Population – Topic-based*

Tabulations. Ottawa, ON: Statistics Canada catalogue no. 97-560-XCB2006028.

¹⁰ Wilkinson, R.G. & Marmot, M.G. (Eds.) (1998). *Social determinants of health: The solid facts*. Geneva: World Health Organization, Copenhagen; and Statistics Canada (2005). *Projections of the Aboriginal populations, Canada, provinces and territories – 2001 to 2017*. Ottawa, ON: Statistics Canada, Demography Division, Catalogue #91-547-XIE.

¹¹ Bourassa et al. (2009).

¹² Statistics Canada (2010a). *Census 2006*. Ottawa, ON: Statistics Canada. Retrieved November 11, 2010 from: <http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?TABID=1&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=97446&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=73&VID=0&VNAMEE=&VNAMEF=>

¹³ Statistics Canada (2010b). *Census 2006*. Ottawa, ON: Statistics Canada. Retrieved November 11, 2010 from: <http://www12.statcan.gc.ca/census-recensement/2006/dp-pd/tbt/Rp-eng.cfm?TABID=1&LANG=E&APATH=3&DETAIL=0&DIM=0&FL=A&FREE=0&GC=0&GK=0&GRP=1&PID=97446&PRID=0&PTYPE=88971,97154&S=0&SHOWALL=0&SUB=0&Temporal=2006&THEME=73&VID=0&VNAMEE=&VNAMEF=>

¹⁴ Statistics Canada (2006).

¹⁵ Statistics Canada (2005).

¹⁶ Ibid.

¹⁷ Cancer Care Ontario (2009). *Types of cancer*.

- Retrieved June 14, 2010 from: <http://www.cancercare.on.ca/pcs/cancertypes/>.
- ¹⁸ Cancer Care Ontario (2002). Aboriginal Cancer Care Unit. Retrieved February 17, 2011 from: <http://www.cancercare.on.ca/common/pages/UserFile.aspx?fileId=13686>
- ¹⁹ Tjepkema et al. (2009).
- ²⁰ Statistics Canada (2009a). Have you been told by a doctor, nurse or other health professional that you have cancer? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/Client_E18A_SEXtable&graph_files/sheet001_safe.htm
- ²¹ Statistics Canada (2009b). Type of cancer - 1st reported by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_E18CAN1b_SEXtable&graph_files/sheet001_safe.htm
- ²² Statistics Canada (2009c). Type of Cancer - 1st reported by age group for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_E18CAN1b_DAGEYRSgtable&graph_files/sheet001_safe.htm
- ²³ Canadian Cancer Society (2004). Eat well, be active: What you can do. Retrieved June 14, 2010 from: http://www.cancer.ca/Canada-wide/Publications/Alphabetical%20list%20of%20publications/~/_media/CCS/Canada%20wide/Files%20List/English%20files%20heading/Library%20PDFs%20-%20English/Eat%20well%20be%20active%20Eng_nov2010.ashx
- ²⁴ Health Canada (2004a). It's your health - screening for cervical cancer. Ottawa, ON: Health Canada. Retrieved June 14, 2010 from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/pacrb-dgapcr/pdf/iyh-vsv/diseases-maladies/cervical-eng.pdf
- ²⁵ Ibid.
- ²⁶ Health Canada (2004b). It's your health – breast cancer. Ottawa, ON: Health Canada. Retrieved on June 14, 2010 from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/pacrb-dgapcr/pdf/iyh-vsv/diseases-maladies/breast-scien-eng.pdf
- ²⁷ Statistics Canada (2009d). Have you ever had a PAP smear test? for the Female Metis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L13a_SEXtable&graph_files/sheet001_safe.htm
- ²⁸ Statistics Canada (2009e). When was the last time you had a PAP smear? for the Female Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L14a_SEXtable&graph_files/sheet001_safe.htm
- ²⁹ Statistics Canada (2009f). Other than a mammogram, have you ever had your breasts examined for lumps, tumors or cysts, by a medical doctor or other health professional? for the female Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L17c_SEXtable&graph_files/sheet001_safe.htm
- ³⁰ Statistics Canada (2009g). When was the last time you had a doctor or other examine your breasts? by age group for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L18a_DAGEYRSgtable&graph_files/sheet001_safe.htm
- ³¹ Statistics Canada (2009h). Have you ever had a mammogram, that is, a breast x-ray? for the Female Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L15b_SEXtable&graph_files/sheet001_safe.htm
- ³² Statistics Canada (2009i). When was the last time you had a mammogram? by age group for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/client_L16a_DAGEYRSgtable&graph_files/sheet001_safe.htm
- ³³ Statistics Canada (2009j). Canadian Community Health Survey (CCHS 3.1) indicator profile, by sex, Canada, provinces, territories, census metropolitan areas and influence zones, occasional. Received routine screening mammogram within the last 2 years (50 to 69 years). Canadian Community Health Survey (CCHS 3.1), 2005. Ottawa, ON: Statistics Canada. Retrieved November 11, 2010 from: <http://cansim2.statcan.gc.ca/cgi-win/cnsmcgi.pgm>
- ³⁴ World Health Organization (2010). Cardiovascular diseases (CVDs). Geneva: WHO. Retrieved June 14, 2010 from: <http://www.who.int/mediacentre/factsheets/fs317/en/index.html>
- ³⁵ Health Canada (2010). It's your health – heart disease, heart health. Ottawa, ON: Health Canada. Retrieved on June 14, 2010 from: http://www.hc-sc.gc.ca/hl-vs/alt_formats/pdf/iyh-vsv/diseases-maladies/heart-coeur-eng.pdf
- ³⁶ Ibid.
- ³⁷ Price, J.A.D. (2004). Management and prevention of cardiovascular disease in women. *Nurs. Clin. N. Am.*, 39, 873-884.
- ³⁸ Public Health Agency of Canada (2010). Women and heart disease: Living a good life. Ottawa, ON: PHAC. Retrieved June 14, 2010 from: www.phac-aspc.gc.ca/cd-mc/cvd-mcv/women-femmes_04-eng.php
- ³⁹ Statistics Canada (2009k). Have you been told by a doctor, nurse or other health professional that you have high blood pressure? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/Client_E20A_SEXtable&graph_files/sheet001_safe.htm
- ⁴⁰ Statistics Canada (2009l). Canadian Community Health Survey (CCHS 3.1) indicator profile, by sex, Canada, provinces, territories, census metropolitan areas and influence zones, occasional. With high blood pressure. Canadian Community Health Survey (CCHS 3.1), 2005. Ottawa, ON: Statistics Canada. Retrieved November 11, 2010 from: <http://cansim2.statcan.gc.ca/cgi-win/cnsmcgi.pgm>
- ⁴¹ Statistics Canada (2009m). Have you been told by a doctor, nurse, or other health professional that you have heart problems? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/Client_E21A_SEXtable&graph_files/sheet001_safe.htm
- ⁴² Statistics Canada (2009n). Have you been told by a doctor, nurse, or health professional that you have effects of a stroke? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentreresearch.ca/statistics/Client_E19A_SEXtable&graph_files/sheet001_safe.htm
- ⁴³ Health Canada (2010).
- ⁴⁴ Wenger, N. K. (2004). You've Come a Long Way, Baby: Cardiovascular Health and Disease in Women, Problems and Prospects. *Circulation*, 109, 558-560.
- ⁴⁵ Statistics Canada (2009o). Do you take any treatment or medication for this condition? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health

Organization: http://www.metiscentrereseach.ca/statistics/Client_E20C_SEXtable&graph_files/sheet001_safe.htm

⁴⁶ Statistics Canada (2009p). Do you take any treatment or medication for this condition? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/Client_E21C_SEXtable&graph_files/sheet001_safe.htm

⁴⁷ Statistics Canada (2009q). Do you take any treatment or medication for this condition? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/Client_E19C_SEXtable&graph_files/sheet001_safe.htm

⁴⁸ Janz, T., Seto, J., & Turner, A. (2009). Aboriginal Peoples' Survey 2006: An overview of the health of the Métis population. Ottawa, ON: Statistics Canada, Catalogue #89-637-X.

⁴⁹ Ibid.

⁵⁰ Ibid.

⁵¹ Health Canada (2005). It's your health – Type 2 diabetes. Ottawa, ON: Health Canada. Retrieved June 14, 2010 from: <http://www.hc-sc.gc.ca/hl-vs/>

alt_formats/pacrb-dgacpr/pdf/iyh-vsv/diseases-maladies/diabete-eng.pdf

⁵² Bruce, S.G., Kliever, E.V., Young, T.K., Mayer, T., & Wajda, A. (2003). Diabetes among the Métis of Canada: Defining the population, estimating the disease. *Canadian Journal of Diabetes*, 27, 442-448.

⁵³ Statistics Canada (2009r). Have you been told by a doctor, nurse or other health professional that you have diabetes. by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/Client_E06_SEXtable&graph_files/sheet001_safe.htm

⁵⁴ Public Health Agency of Canada (2006). The face of diabetes in Canada. Ottawa, ON: PHAC. Retrieved June 14, 2010 from: <http://www.phac-aspc.gc.ca/cd-mc/diabetes-diabete/face-eng.php>

⁵⁵ Statistics Canada (2009s). Which type(s) of diabetes have you been diagnosed with: pre-diabetic state/borderline diabetes? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/Client_E06BCa_SEXtable&graph_files/sheet001_safe.htm

⁵⁶ Statistics Canada (2009t). Were you pregnant

when you were first diagnosed with diabetes? by age group for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/client_E08B_DAGEYRSgtable&graph_files/sheet001_safe.htm

⁵⁷ Health Canada (2005).

⁵⁸ Statistics Canada (2009u). Has being pre-diabetic or borderline diabetic prompted you to adopt a healthier lifestyle which includes diet and exercise? by sex for the Métis identity population. Aboriginal Peoples Survey 2006. Ottawa, ON: Statistics Canada. Retrieved June 14, 2010 from the Métis Centre of the National Aboriginal Health Organization: http://www.metiscentrereseach.ca/statistics/Client_E07B_SEXtable&graph_files/sheet001_safe.htm

⁵⁹ Tjepkema et al. (2009).

⁶⁰ Ibid.

⁶¹ Métis National Council (2007). Women of the Métis Nation: Health Policy Paper. Ottawa, ON: Métis National Council. Retrieved June 14, 2010 from: <http://www.laa.gov.nl.ca/laa/naws/pdf/WMNHealthPaper.pdf>



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