

Dr. Heather Foulds

Indigenous Early Career Women's Heart and Brain Health Chair

Institution: *University of Saskatchewan*

Project title: *Social and cultural impacts on cardiovascular health determinants for indigenous women*

The Health Problem/Issue

Heart disease and stroke are increasing in women, especially Indigenous women. An alarming 20% of women experience signs of future heart disease and stroke by age 40 years. Among Indigenous populations, heart disease and stroke are a growing health crisis, with as much as 2.5 times greater mortality and morbidity. Recognition and progression of heart disease and stroke among women continues to be poor and development among Indigenous populations may be unique. Physical risk factors for heart disease and stroke, such as cholesterol, blood sugar and obesity, and changes in hormones, muscle and inflammation account for part of the increased risks among Indigenous populations; however, more attention to social and cultural factors is sorely needed. Understanding heart disease and stroke development among women has been limited to women 40 years and older, with very limited focus on Indigenous women or the contributions of social and cultural factors. Studying the importance of social and cultural factors on heart disease risk factors among Indigenous women will contribute to greater recognition and prevention of heart disease and stroke for Indigenous women.

The Objectives

This project focuses on the importance of social and cultural factors on heart disease and stroke risk factors for Indigenous women. This series of five studies incorporates Indigenous and western methodologies. The first objective is to explore and identify social and cultural factors potentially influencing health among Indigenous peoples. The second objective is to evaluate associations of social and cultural factors on heart disease and stroke risk factors among Indigenous women. The third objective compares the associations of social and cultural factors on heart disease and stroke risk factors between Indigenous sexes and genders. The fourth objective is to explore and identify potential detection, prevention and treatment strategies to incorporate identified social and cultural factors important for Indigenous women's heart health. The fifth objective is to initiate an intervention addressing these important factors to improve heart disease and stroke risk factors for Indigenous women. This program of study will determine social and cultural risk factors which are vital to addressing the gap in heart disease and stroke experiences between Indigenous and non-Indigenous women.

The Approach

Building on my current work, this project will be undertaken in collaboration with my current Indigenous community advisory committee at the University of Saskatchewan and will include Indigenous students and research assistants throughout. Study one (yr 1) will utilize photo voice and sharing circles with four groups of 20 Indigenous adults to explore and identify social and cultural factors recognized as important to health. Study two (yrs 1-3) will assess social and cultural factors identified in study 1 and heart disease and stroke risk factors among 200 Indigenous women. Study three (yrs 2-4) will include complementary assessments of social and cultural factors and heart disease and stroke risk factors among 200 Indigenous men, matched for age and Indigenous identity. Sharing circles will be used to design interventions to improve heart disease and stroke risks among Indigenous women (yr 5). Knowledge translation activities will include sharing circles and feasts to present results and gather culturally appropriate context to improve heart disease and stroke risks among Indigenous women.

Unique Factors

This project evaluates the importance of social and cultural factors to heart disease and stroke risks, and incorporates Indigenous methodologies to identify culturally appropriate factors recognized as important to the Indigenous community. The mixed methodology and culturally appropriate approach to this project

strengthen the outcomes and meaningfulness of findings. This project evaluates newer risk factors for heart disease and stroke that are inconclusive and have not received attention among women. By collaborating with this underserved community of Indigenous women, and including Indigenous research assistants and students throughout all four projects, this program of research will address a significant gap in heart disease and stroke experiences and outcomes. This project will also include younger women than previously investigated, increasing our understanding of earlier stages of heart disease and stroke development. This program of research will help design more targeted and effective prevention strategies for Indigenous women, and enhance our understanding of heart disease and stroke for women and Indigenous populations in general.

How the Project is relevant to the Objectives of the initiative

This project will identify important risk factors for heart disease and stroke that are appropriate and important to measure among Indigenous women, to be able to predict and identify women at risk of future heart disease and stroke. My program of research will measure both social and cultural factors as well as more traditional physical risk factors of heart disease and stroke and evaluate the importance of these different factors specific to Indigenous women and Indigenous females. The proposed research identifies and compares various risk factors for heart disease and stroke and examines the differences across sexes and genders. This program of research will inform factors important to heart disease and stroke development specific to Indigenous women and bolster needed evidence about the unique influence of social and cultural factors within their risk profile for CVD. Understanding heart disease and stroke risk profiles and the importance of social and cultural factors specific to Indigenous women will enable effective detection, prevention and treatment strategies.