

**Evidence for Equity:**  
Population Statistics,  
Narrative Accounts and  
Gender-sensitive Indicators

M Haworth-Brockman

A Pederson

B Jackson

May 21, 2010

# Background

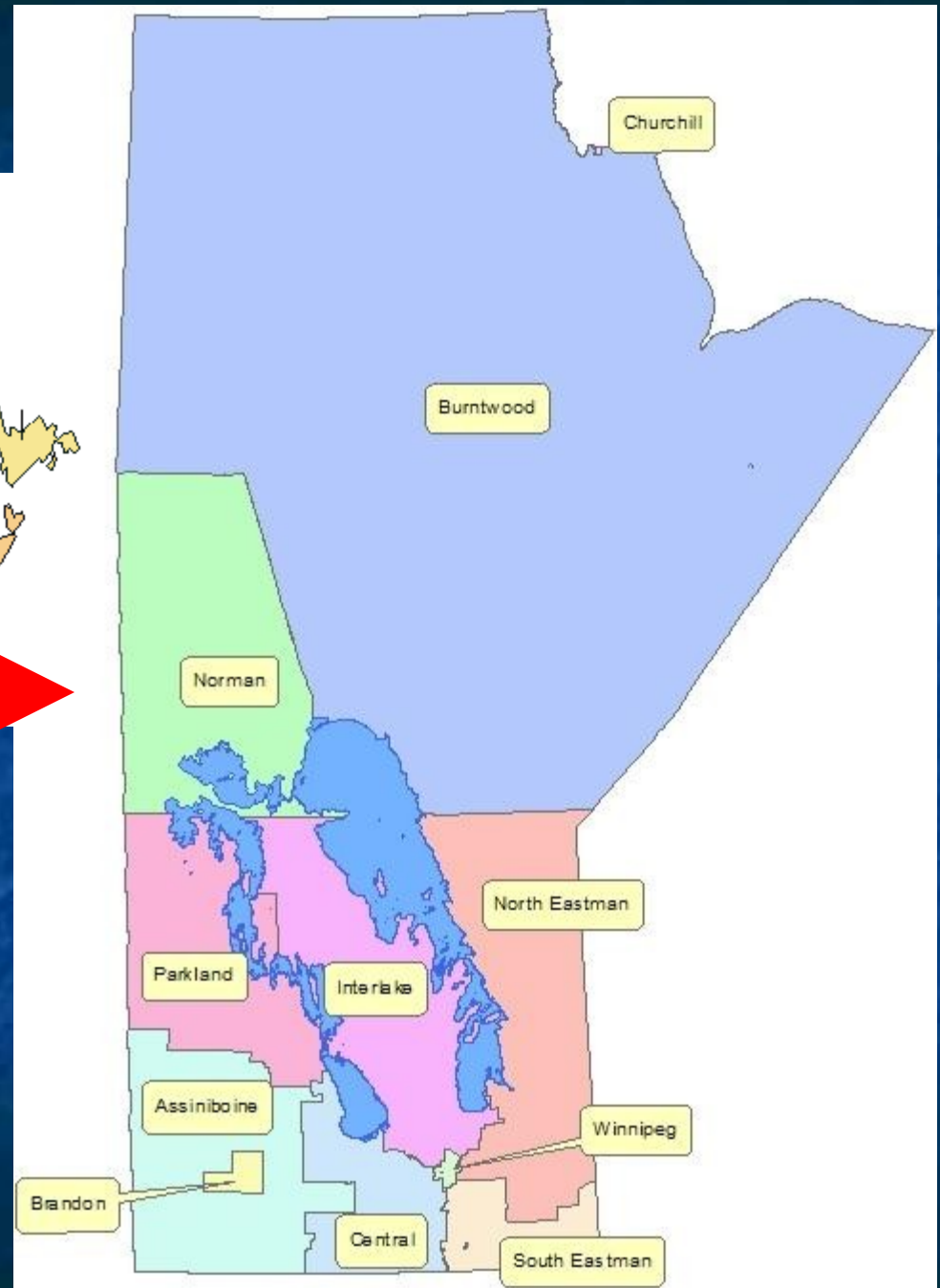
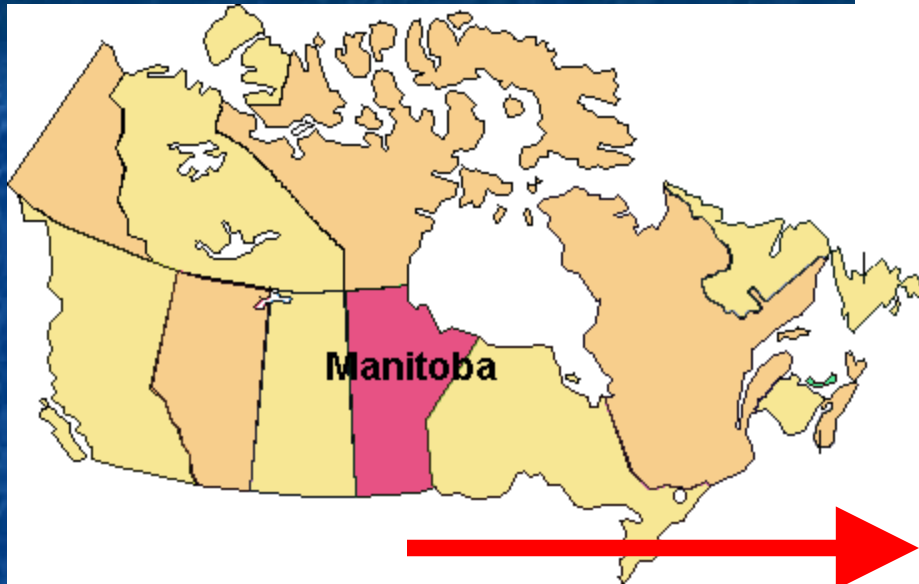
For more than 10 years we have been working towards policies and standards that will:

1. record and monitor women's health adequately and appropriately
2. integrate gender considerations in health surveillance, planning & policy

This presentation will describe our contributions to the international discourse.

# Three Parts

- Our experience with gender-sensitive (or not) indicators
- A case study of wait times
- Understanding the process to understanding indicators



Health authorities at all levels have been grappling with accountability frameworks in general, evidence-based decisions as a concept, and indicators of outcomes for both.



# Part of an on-going process ...

... to get gender *and* women's health on federal, provincial & regional agendas

Our role has included:

- ✓ back and forth of policy conversations,
- ✓ new research, and
- ✓ training



# For example ...



## A Profile of Women's Health in Manitoba

Lissa Donner  
Harpa Isfeld  
Margaret Haworth-Brockman  
Caitlin Forsey

Final  
November 2008

**PRAIRIE WOMEN'S HEALTH**  
CENTRE OF EXCELLENCE  
RESEARCH • POLICY • COMMUNITY



- developed with support, interest and funding from both the provincial & federal governments
- serves as
  - baseline reporting, also
  - an example of how to integrate different kinds of evidence in a “report card”, and of course,
  - how to do both of these with SGBA

# At the same time...

- We conducted one of three tests of WHO gender-sensitive core set of leading indicators
- Was to be a technical feasibility test
- To really test the gender-sensitivity, had to do an SGBA of each of the 37 indicators
  - in each case, need to interpret beyond the health surveillance numbers to understand not only *what* was going on but *why*
- As Lin and others found, regional and other differences abound

(Lin et al 2005, Abdool et al 2002)





# Templates for each indicator on technical feasibility

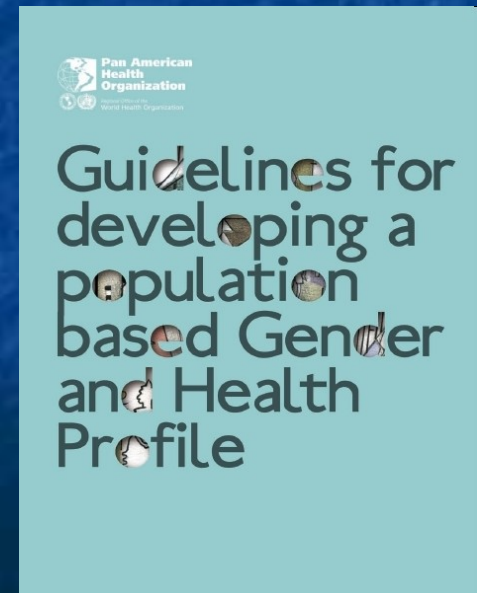
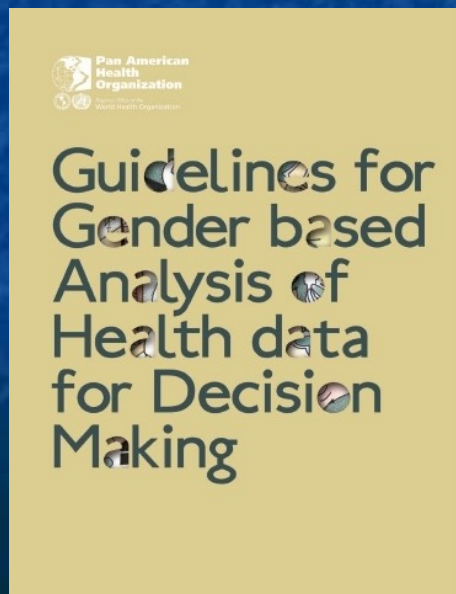
## Self-Rated Health

Indicator No.	1-007
Name/title	Self-Rated Health
Definition	Population aged 12 and over who rate their own health status as being either excellent, very good, good, fair or poor [3].
Objective	Measure of general health status of a population and sub-populations, this measure has been found to be associated with specific health problems, use of health services, changes in functional status, mortality and recovery from episodes of ill health [5]. Self-rated health can reflect aspects of health not captured in other measures, such as incipient disease, disease severity, aspects of positive health status, physiological and psychological reserves and social and mental function [3].
<b>Indicator elements</b>	
Numerator	Number of survey participants who rate their own health as being either excellent, very good, fair or poor.
Denominator	All survey participants aged 12 and older.
<b>Data collection</b>	
Statistical data	
Year	From: 1994/95 To: 2003
Source	Statistics Canada - Canadian Community Health Survey (CCHS)
Chart/graphic (option)	
<b>Nature of data reporting</b>	
Routine reporting	Standard question asked in each cycle of CCHS, every two years.
How	Telephone survey
When	As part of CCHS
How often	
By whom	Trained surveyors ask questions
To whom	Random sample of Canadian population, aged 12 and older. The following are excluded: Residents of First Nations Communities (Indian Reserves), full-time members of the Canadian Armed Forces, residents of health care institutions and some remote areas.
Form(s)	
Is the data collected by sex?	YES <input type="checkbox"/> NO <input type="checkbox"/>
Relevance to the country/culture/ region	Self-rated health is an important measure of health. It has been shown to be significantly and independently associated with specific health problems, use of health services, changes in functional status, recovery from episodes of ill health and mortality [5].  <i>See Applicability of this Indicator.</i>
Policy implications	Self-rated health provides policy makers, and those wishing to influence public policy with a reliable, sex and age specific measure of the general health of a population. It is particularly useful in measuring changes over time, and inequities between and among sub-populations.



After refining our methods in these analyses of gender indicators ...

Written guidelines on our methods in SGBA of health information & for health profiles



# Additional Case Studies

## Belize

- HIV/AIDS
- Transport Accidents
- Diabetes

## Brazil

- homicide

## Guatemala

- Body weight

## Manitoba

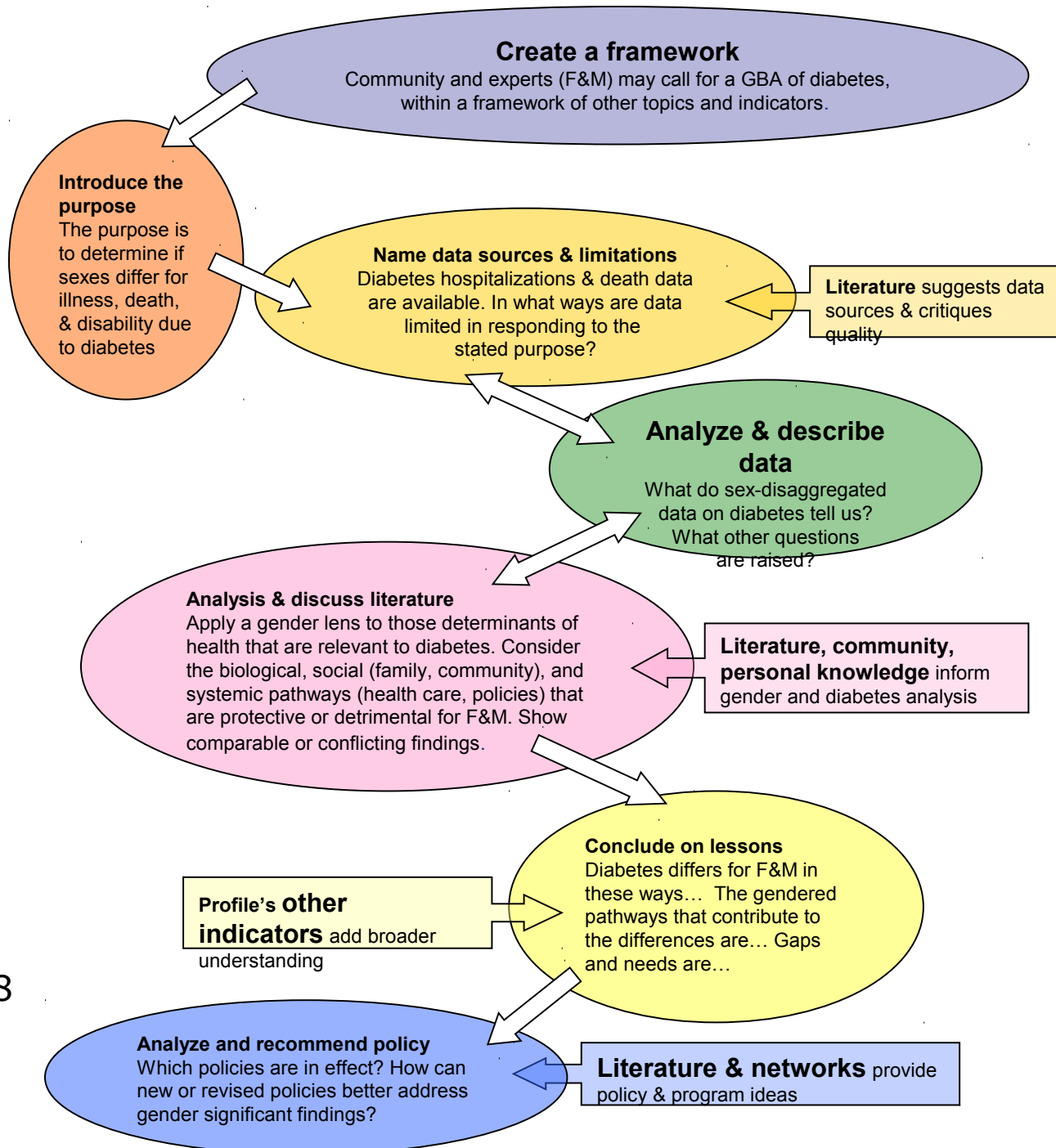
- Cancers

Focus on ethnicity and regional differences was **either explicit** because requested **or** because this is **the way we do SGBA** anyway



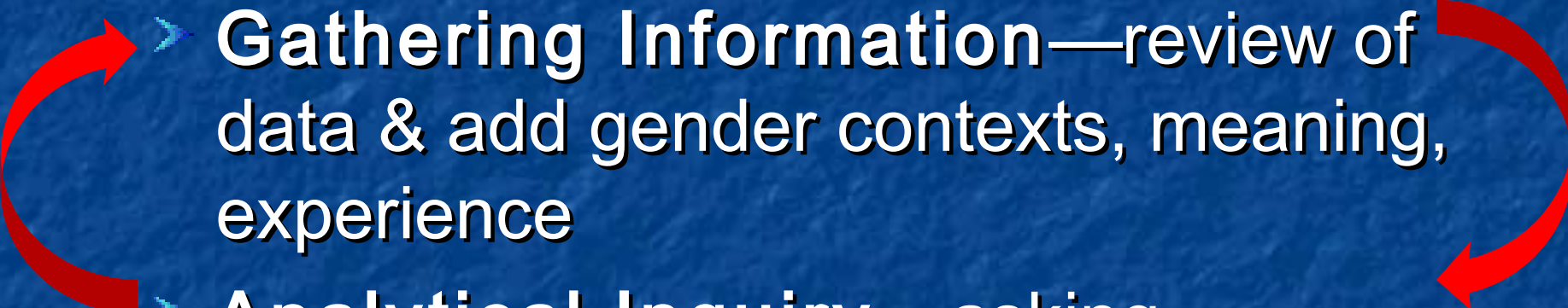
- Through repeated case studies it is clear that getting at the gendered aspects of health indicators is a complicated process, requiring different kinds of evidence.





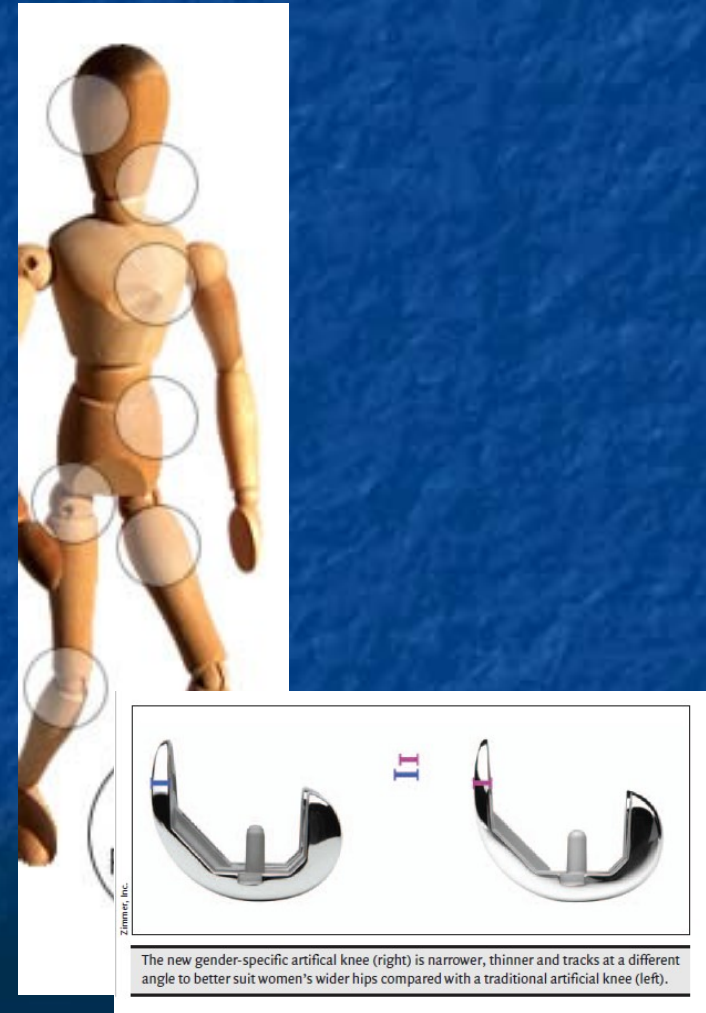
Isfeld 2008

# Analytical Process

- > **Definition** of issues & measures
  - > **Gathering Information**—review of data & add gender contexts, meaning, experience
  - > **Analytical Inquiry**—asking challenging questions
  - > **Implications & lessons** to build gender sensitive strategies
- 


# Gender and Wait Times for TJA

- Wait time is a health system performance indicator – usually measured in days and then reported by facility and/or physician
- Tells us nothing about who is waiting only how long nor what the meaning of waiting is for those who wait
- Insensitive to social processes that affect who is able to access care or who decides how care is allocated






# “New Questions, New Knowledge”


 Health Canada Santé Canada

Your health and safety... our priority. Votre santé et votre sécurité... notre priorité.

## Final Report of The Federal Advisor on Wait Times

June 2006





## RESEARCH

### The effect of patients' sex on physicians' recommendations for total knee arthroplasty

Cornelia M. Borkhoff PhD, Gillian A. Hawker MD MSc, Hans J. Kreder MD MPH, Richard H. Glazier MD MPH, Nizar N. Mahomed MD ScD, James G. Wright MD MPH

See related article page 723

#### ABSTRACT

**Background:** The underuse of total joint arthroplasty in appropriate candidates is more than 2 times greater among women than among men. When surveyed, physicians report that the patient's sex has no effect on their decision-making; however, what occurs in clinical practice may be different. The purpose of our study was to determine whether patients' sex affects physicians' decisions to refer a patient for, or to perform, total knee arthroplasty.

**Methods:** Seventy-one physicians (38 family physicians and 33 orthopedic surgeons) in Ontario performed blinded assessments of 2 standardized patients (1 man and 1 woman) with moderate knee osteoarthritis who differed only by sex. The standardized patients recorded the physicians' final recommendations about total knee arthroplasty. Four surgeons did not consent to the inclusion of their data. After detecting an overall main effect, we tested for an interaction with physician type (family physician v. orthopedic surgeon). We used a binary logistic regression analysis with a generalized estimating equation approach to assess the effect of patients' sex on physicians' recommendations for total knee arthroplasty.

**Results:** In total, 42% of physicians recommended total knee arthroplasty to the male but not the female standardized patient, and 8% of physicians recommended total knee arthroplasty to the female but not the male standardized patient (odds ratio [OR] 4.2, 95% confidence interval [CI] 2.4–7.3,  $p < 0.001$ ; risk ratio [RR] 2.1, 95% CI 1.5–2.8,  $p < 0.001$ ). The odds of an orthopedic surgeon recommending total knee arthroplasty to a male patient was 22 times (95% CI 6.4–76.0,  $p < 0.001$ ) that for a female patient. The odds of a family physician recommending total knee arthroplasty to a male patient was 2 times (95% CI 1.04–4.71,  $p = 0.04$ ) that for a female patient.

**Interpretation:** Physicians were more likely to recommend total knee arthroplasty to a male patient than to a female patient, suggesting that gender bias may contribute to the sex-based disparity in the rates of use of total knee arthroplasty.

Une version française de ce résumé est disponible à l'adresse [www.cmaj.ca/cgi/content/full/178/6/681/DC1](http://www.cmaj.ca/cgi/content/full/178/6/681/DC1).

CMAJ 2008;178(6):681–7

Disparity in the use of medical or surgical interventions based on patient characteristics, such as sex, ethnic background or socioeconomic status, is an important health care issue.<sup>1</sup> Women are less likely than men to receive lipid-lowering medication after a myocardial infarction,<sup>2</sup> receive kidney dialysis,<sup>3</sup> be admitted to an intensive care unit,<sup>4</sup> or undergo cardiac catheterization,<sup>5</sup> renal transplantation<sup>6</sup> or total joint arthroplasty.<sup>7</sup> Although women's preferences for surgery or the information needed to make an informed decision may differ from men and explain sex-based differences in care,<sup>8,9</sup> subtle or overt gender bias may inappropriately influence physicians' clinical decision-making.<sup>2,5,7</sup> A more pronounced gender bias might be expected when the clinical decision involves an elective surgical procedure such as total joint arthroplasty.

Total hip and knee arthroplasty is the definitive treatment for relieving pain and restoring function in people with moderate to severe osteoarthritis for whom medical therapy has failed.<sup>10</sup> Although age-adjusted rates of total joint arthroplasty are higher among women than among men,<sup>11</sup> based on a population-based epidemiologic survey, underuse of arthroplasty is 2 times greater in women.<sup>7</sup> In prior opinion surveys, more than 93% of referring physicians and orthopedic surgeons have reported that patients' sex has no effect on their decision to refer a patient for, or perform, total knee arthroplasty.<sup>12,13</sup> However, there may be a difference between what is reported in a survey and what occurs in clinical practice. The purpose of our study was to determine whether physicians would provide the same recommendation about total knee arthroplasty to a male and a female standardized patient presenting to their offices with identical clinical scenarios that differed only by sex.

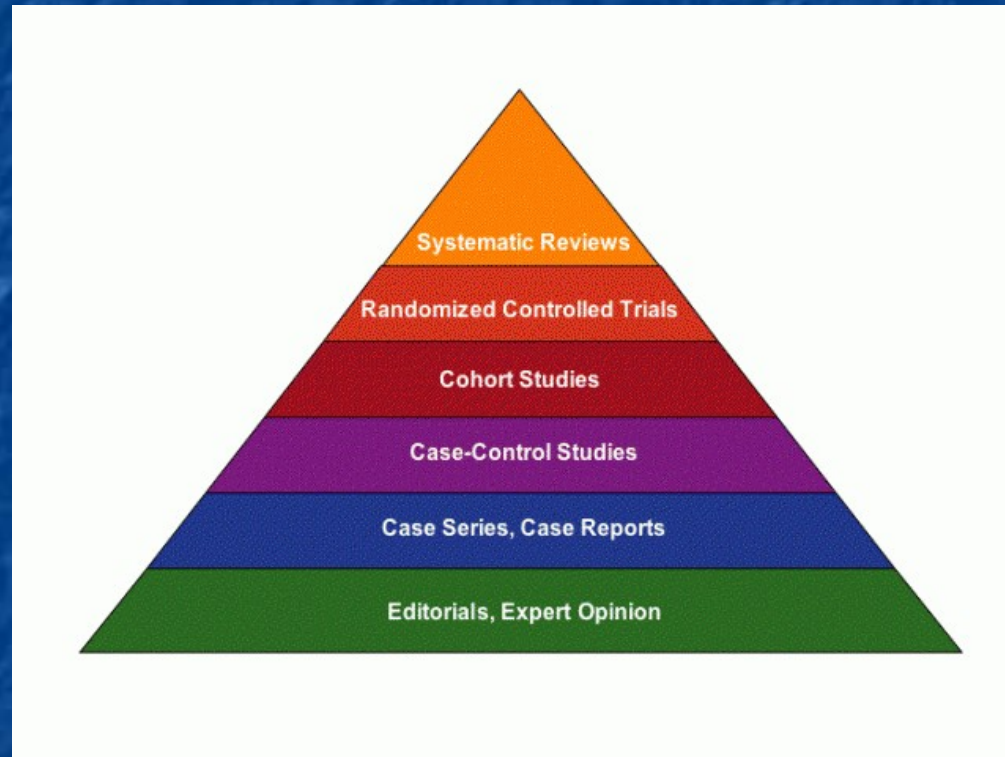
From the Child Health Evaluative Sciences Program, Research Institute (Borkhoff) and the Department of Surgery (Wright), The Hospital for Sick Children, Toronto; the Department of Medicine (Hawker), Women's College Hospital, Toronto; the Department of Orthopedic Surgery (Kreder), Sunnybrook Health Sciences Centre, Toronto; Center for Research on Inner-City Health (Glazier), St. Michael's Hospital, Toronto; the Department of Orthopedic Surgery (Mahomed), University Health Network, Toronto; and the Department of Health Policy, Management and Evaluation (Hawker, Kreder, Glazier, Mahomed, Wright), University of Toronto, Toronto, Ont.

# “Waiting to Wait”





# Systematic Review

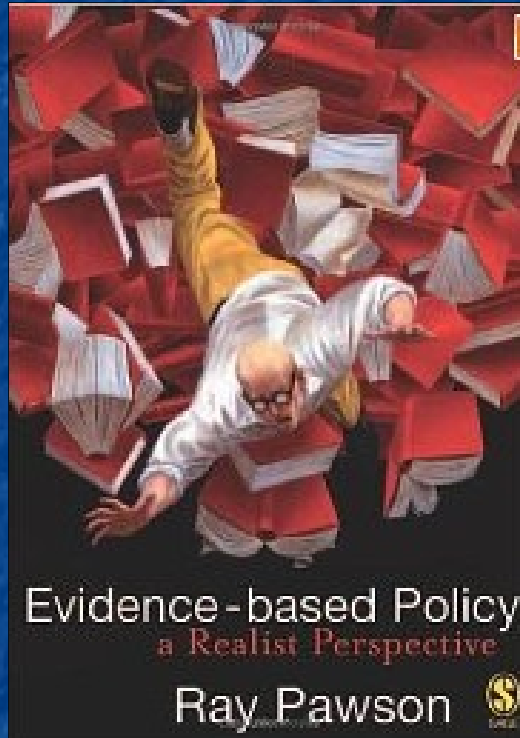


<http://ebp.lib.uic.edu/nursing/?q=node/12>

Library of the Health Sciences-Chicago, University of Illinois at Chicago



# Realist review?



“The results of the review combine theoretical understanding and empirical evidence, and focus on explaining the relationship between the context in which the intervention is applied, the mechanisms by which it works and the outcomes which are produced.”

# So this is what we know:

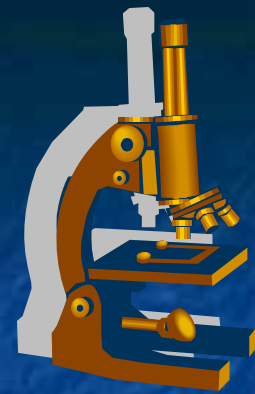
There is a demonstrated need for establishing both women's and gender-sensitive health indicators to monitor and improve women's health and equity.

In health policy circles there have been repeated calls to complement descriptive quantitative surveillance data with qualitative research and analysis. But...

Very rarely does this lead to the *systematic application* of qualitative research in evidence-based decision-making. In other words, there is 'buy-in' but little 'uptake'.



# From 'art' to evidence...



- Shift in medicine & public health from case study & interpretation (the 'art' of medicine grounded in tacit & practical knowledge) to clinical epidemiology & evidence-based decision making
- Demonstrates a hierarchy of evidentiary authority (interpretive practices & evidence are trumped by scientific fact)



Prioritization of positivist, evidence-based practice and policy making has led to the disavowal of the individual case, particular experience, and testimony as credible sources of evidence.

Moreover, standardization and population statistics erase the “Other”, the remainder, the excess.

And yet, particular experience, on its own, is not a sufficient foundation for knowledge -- when tacit knowledge is isolated, cut off from analysis of social contexts and relations of power, it too is vulnerable to error.



# What to Do?

- *Neither devalue nor valorize:*
  - a) the universalizing evidence of biomedical experimentation and population statistics *or*
  - b) individualized, experiential data.
- Take seriously, on its own terms, each type of evidence and the methods & analysis that produce it.
- Reinststate the authority of qualitative, case-based evidence (in the face of a persistent hierarchy of evidence).
- Foster sophisticated, 'ecological' analyses that engage diverse sources & types of evidence.



A. Recover, revive, reinstate the authority of the particular case and testimonial evidence

The 'urge to generalize' has a firm grip on researchers and policy makers – but qualitative evidence can sensitize us to inequities otherwise overlooked.



# Locate individual experience and testimony in relations of power



- Social locations (e.g. gender, race, class) are *not* simply attributes of individuals, they are the product of social relations.
- When we situate local knowledge clearly within social structures (e.g. diagnostic practices, gendered relations of care), our analysis of testimony has power beyond the individual case.

B. Develop sophisticated, 'ecological' analyses that move between different levels of analysis and diverse sources & types of evidence





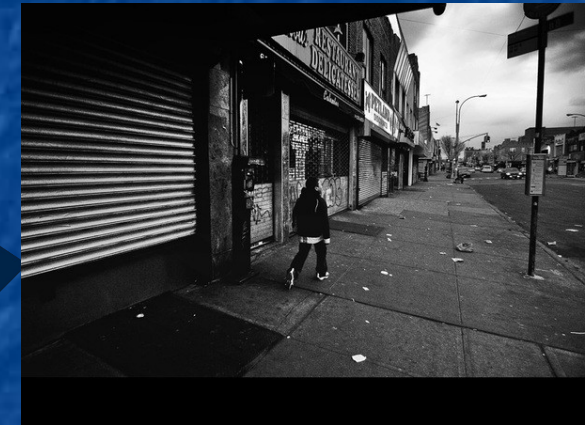
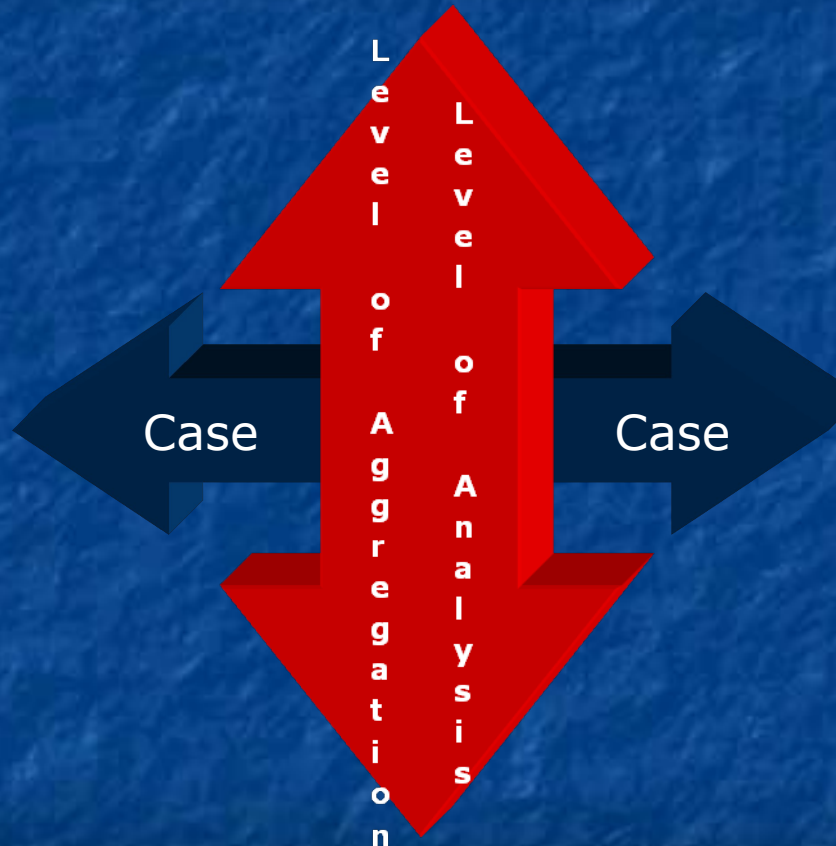
Generalized  
Evidence  
(Population)



Macro-level  
Structures



Case A



Case B

Particular  
Experience  
(Individuals)



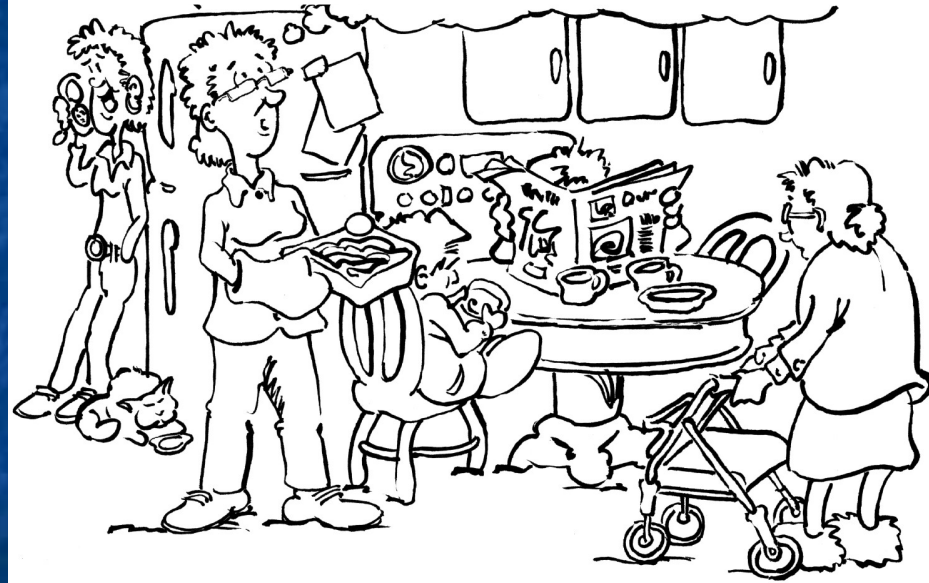
Micro-level  
Interactions



# Arthritis & TJA

This mode of thinking allows us to link the **incidence** of disease, to the **pain** women feel, to how it is diagnosed with **radiography**, to how women's pain and disease are **perceived by physicians**, and to why **women's responsibilities** may prevent them from taking advantage of their position on a **wait list** for surgery.

Who's going to do all this  
if I go for surgery?  
...and who will look after me?



# A Mode of Thinking



- supports gender-based and intersectional analysis
- demonstrates an ability to read different sources of evidence against one another
- learns from analogies and disanalogies across sites, across levels of analysis and across practices of research and policy making



**Thank you**

**M. Haworth-Brockman**  
**Prairie Women's Health Centre of Excellence**

**Ann Pederson**

**British Columbia Centre of Excellence  
for Women's Health**

**Beth Jackson**

**Women & Health Care Reform**

. With thanks to Harpa Isfeld