

Uncovering inequities in access to health care: self-reported use of family physician, chiropractor, and physiotherapy services among adult Canadians with chronic back disorders

Brenna Bath*, Dennis Ma, Josh Lawson, Catherine Trask

*School of Physical Therapy & Canadian Centre for Health and Safety in Agriculture,
University of Saskatchewan

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Chronic Back Disorders

- Chronic back disorders (CBD) are common and costly:
 - 22% of Canadian adults (Bath, 2014)
 - \$6-12 billion annual health care costs in Canada (Bone & Joint Canada)
 - Indirect costs are 2-3 times health care costs
- High rates of primary physician care visits, specialist consultations, diagnostic procedures, prescriptions etc...
- Limited access to appropriate care is thought to be a contributing factor to this “medical disaster” (Waddell, 2004)

Health Care Use & CBD

- Family physicians may not be most appropriate care provider to manage CBD:
 - relatively little MSK training (Pinney, 2001; Freedman, 2002)
 - low measured and self-perceived competence (Freedman, 2002 & Day, 2007)

- Chiropractors and physiotherapists have specialized training re. management of CBD:
 - Manual therapy & exercise prescription- cost effective (Lin, 2011)
 - Access may be limited due to current funding models

Gaps and Research Rationale

- Little is known regarding the comparative use of family physician, chiropractic and physiotherapy services in Canada
- Exploring these differences may help to identify potential gaps in access to care and may assist in the development of strategies to optimize equitable access

Objectives

- 1) Explore patterns of use of community-based family physician, chiropractor and physiotherapy services among adults with CBD
- 2) Profile the sociodemographic, lifestyle, and health factors associated with use of different health care providers among adults with CBD

Methods: Data Source & Sample

- 2010 & 2011 Canadian Community Health Surveys
 - Statistics Canada's Research Data Centre
- Sample: Adults (18+) who self-report having: “...back problems, excluding fibromyalgia and arthritis” for 6 months or more (i.e. CBD) with no hospitalization in past year (N=22,106)

Methods: Variables of Interest

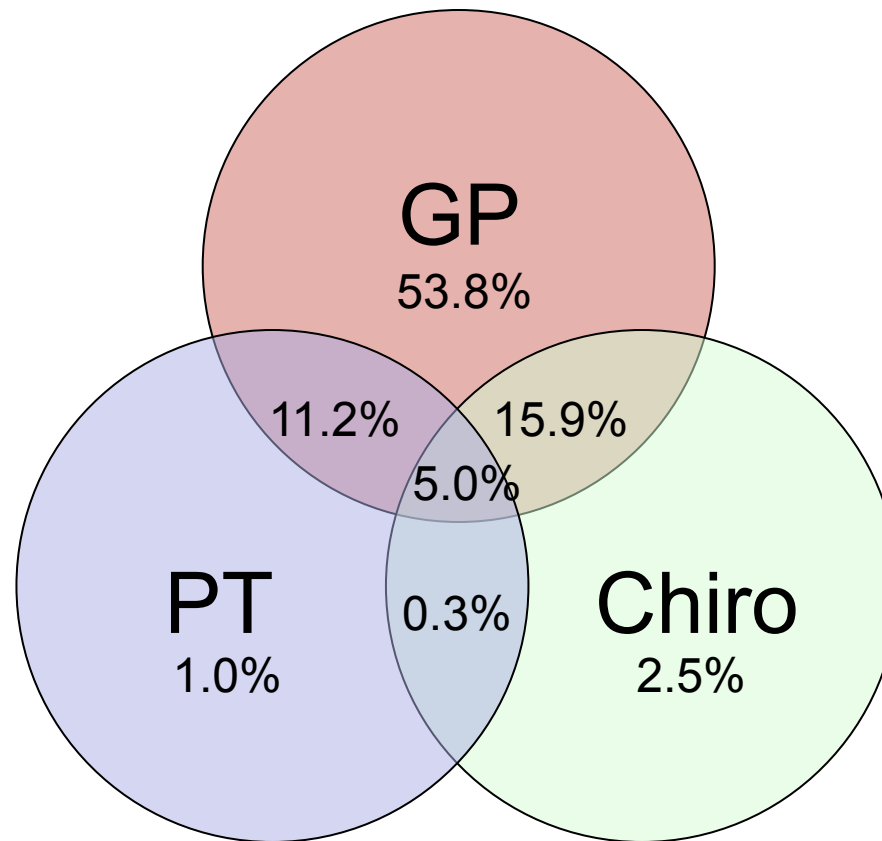
- Dependent Variables:
 - Self-reported use of: family physician/ GP; chiropractor; physiotherapist in the past 12 months

- Independent Variables:
 - Socio-demographic: Age, sex, education, income, education, residence, ethnicity, marital status, immigration status
 - Lifestyle: BMI, smoking status, physical activity
 - General Health: No. of co-morbidities, pain & physical function, depression, stress, mental health, overall health

Methods: Analysis

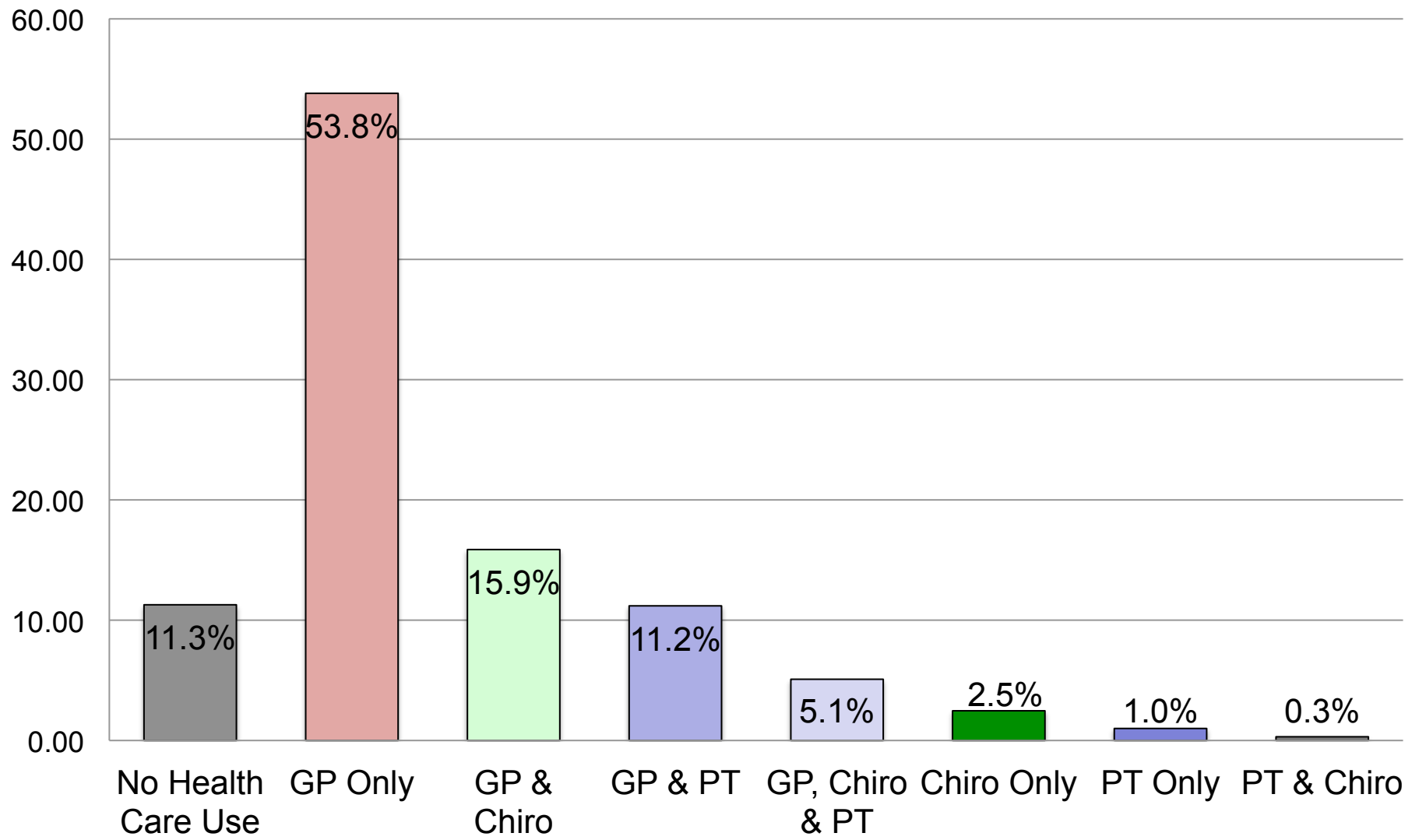
- Proportions of use for different provider groups
- Crude associations between each independent variable and health care provider group (logistic regression)
- Multivariate logistic regression was used to control for possible confounding (backwards stepwise selection)
 - Province of residence included in all final models
- Probability weights and bootstrap methods for robust variance estimation were employed using provided bootstrap weights to accurately estimate standard errors.

Patterns of Health Care Use Among Adult Canadians with CBD*



*11.3% had no self-reported health care use

Patterns of Health Care Use



Select factors associated with self-reported health care use

Variable	Family Physician (only)	Chiropractor (any)	Physiotherapist (any)
Age: 18-34 (ref)	-	-	-
35-49	↑1.22	-	0.84
50-64	↑1.42	-	↓0.76
65+	↑2.18	-	↓0.59
Sex: Female	↑1.19	-	↑1.28
Income: 1-lowest (ref)	-	-	-
2	↓0.72	↑1.64	↑1.50
3	↓0.67	↑1.99	↑1.57
4	↓0.68	↑2.10	↑1.91
5 (highest)	↓0.59	↑1.97	↑2.40

Select factors associated with self-reported health care use (cont'd)

Variable	Family Physician (only)	Chiropractor (any)	Physiotherapist (any)
Education	-	-	-
- less than secondary (ref)			
- secondary graduation	0.87	↑1.48	1.14
- some post-secondary	0.93	↑1.40	1.03
- post-secondary graduation	↓0.82	↑1.41	↑1.49
Residence	-	-	-
- CMA or CA (urban)(ref)			
- strongly influenced MIZ	-	-	↓0.62
- moderately influenced MIZ	-	-	↓0.71
- weak, uninfluenced MIZ & territories	-	-	↓0.72

Select factors associated with self-reported health care use (cont'd)

Variable	Family Physician (only)	Chiropractor (any)	Physiotherapist (any)
No. of co-morbidities - none (ref)	-	-	-
- 1-2	↑1.27	0.87	-
- 3+	↑1.89	0.51	-
Pain / Function - no pain (ref)	-	-	-
- pain prevents no activities	↓0.77	↑1.29	↑1.46
- pain prevents a few activities	↓0.71	↑1.64	↑2.15
- pain prevents some activities	↓0.73	1.18	↑2.57
- pain prevents most activities	↓0.73	1.10	↑3.56

Factors associated with use of each health care provider group

Family Physician

- Older
- Women
- Lower education
- Lower income
- Immigrant
- Current smoker
- More co-morbidities
- Less pain limited function
- Lower stress
- Lower overall health

Chiropractor

- Higher education
- Higher income
- Caucasian
- Non-smoker
- No co-morbidities
- More active
- Moderate pain limited function
- Higher stress
- Higher overall health

Physiotherapist

- Younger
- Women
- Higher education
- Higher income
- Urban
- Other ethnicity
- Non-smoker
- Lower BMI
- More active
- More pain limited function

Discussion points

- Potential need \neq health care use
- People with high potential needs (e.g. older age, lower income, rural) may not be able to access chiropractic or physiotherapy services
- Lack of publically funded physiotherapy and chiropractic services

Considerations

- Unable to determine reason for health care use
- Number and pattern of visits not captured
- Survey does not include Indigenous people living on reserves
- Sample limited to people who were not hospitalized in past year
- Unable to explore “only” use of chiro or PT due to sample size restrictions

Conclusions

- Differential patterns of **self-reported use** among those with CBD are evident between provider groups
 - with respect to age, gender, SES, residence, functional limitations and other co-morbidities.
- Differences highlight potential inequities in access

Next steps...

- Submission of manuscript to medical/ health services journal
- Exploration of self-reported use of PT services across Canada (not just among people with CBD)
 - Modeling factors associated with use
 - Mapping use distribution

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Questions/ Discussion/ Comments

