

**UNIVERSITY of SASKATCHEWAN**

**PUBH 898.3 and PUBP 898.3  
Population Health**

**Term:** Fall 2009

**Class:** Thursday September 10 to Thursday December 3

**Room:**

9:00 am – 12:00 pm

**Instructor:**

Mark Lemstra BSc, MSc, MSc, MPH, DrSc, DrPH, PhD, PhD

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**Calendar Description:**

This course will provide students with the tools to: a) analyze population health, b) understand the main determinants of health, c) prepare for intervention and d) evaluate outcomes.

Students will examine issues related to the planned promotion of population health.

**Course Objective or Description:**

The primary objective of the course will be to discuss the main determinants of health. The second objective, however, will be to discuss the difficulties in implementing population based health strategies into actual action due to the dominance of individual based health care treatment. The third objective will be to discuss how to promote evidence based population health strategies into action; both within and outside the formal health care sector.

**Main Course Material:**

Lemstra M, Neudorf C. Health disparity in Saskatoon: analysis to intervention. Saskatoon:

Saskatoon Health Region; 2008. Available at the Saskatoon Health Region website:

[http://www.saskatoonhealthregion.ca/your\\_health/ps\\_public\\_health\\_pho\\_reports\\_publications\\_and\\_presentations.htm](http://www.saskatoonhealthregion.ca/your_health/ps_public_health_pho_reports_publications_and_presentations.htm)

**Evaluation:**

Student evaluation will be based on the following:

- |  |     |
|--|-----|
| A. Group exercise with powerpoint presentation | 25% |
| B. Final exam                                  | 75% |

## **COURSE SCHEDULE**

### **September 10**

#### A. Introduction (9 am to 9:30 am)

- Individual backgrounds
- Why are you in JS GSPP or the SPH?
- What do you hope to learn from this course?
- The importance of an open mind to new concepts

#### B. Determinants of Health (9:30 am to 12 pm)

- Overall determinants of health
  - Biomedical view
  - Lifestyle approach
  - Broad socioeconomic approach
  - Population health

Main determinants of health

Reading 1, 2  
 Reading 3  
 (1, 2.1, 2.3, 2.4, 2.5, 2.8)  
 Reading 4, 5  
 Reading 3  
 (1, 2.2, 2.6, 2.7, 2.9)

Main determinants of behaviours

### **September 17**

#### A. Social theory (9 am to 10 am)

- Macro and micro social theory

Reading 6

#### B. Limited impact of healthcare on population health (10 am to 12 pm)

- Limited role of health care on disease prevalence/ mortality
  - Infectious disease
  - Depression
  - Knee surgery

Reading 7  
 Reading 8, 9  
 Reading 10, 11

Implications

### **September 24**

#### A. Planned Promotion of Population Health (9 am to 10 am)

- Analysis of population health
- Analysis of behavioural and environmental risk factors
- Analysis of determinants of population health and risk factors
- Data dissemination, knowledge transfer and community consultation
- Analysis of literature
- Intervention implementation
- Evaluation

Reading 3 (p.3-5, 97)

#### B. Analysis of population health, behaviours and determinants (10 am to 12 pm)

- Community diagnosis vs. individual diagnosis
- How to analyze population health and population behaviours

Reading 12 (2, 4)

**October 1**

- A. Burden of disease/disorders on society (9 am to 11 am)  
Group discussion on handout

Reading 13

- B. How to analyze determinants of population health (11 am to 12 pm)  
Why it is essential to analyze determinants of health-  
not just extent of problem

**October 8**

- A. Discussion of group exercise (9 am to 12 pm)  
Your group will design a population based strategy to reduce the  
prevalence of a disease or a risk factor in Saskatchewan  
You will be assigned to one of four groups:  
Population based behavioural modification  
Smoking or physical inactivity  
Population based disease modification  
Cancer or mental health  
Handouts will be provided to assist in your preparation  
Your group will present to the class on October 29

Caution for assignment:

You will be evaluated on an evidence based proposal  
Do not simply modify an existing plan that might not be evidence based  
Your proposal will need to address the main determinants of health or behaviour  
You need to devise strategies that will lead to actual action and improved health

**October 15**

- A. Measuring the population impact of disease on society (9 am to 11 am)  
Group discussion with instructor  
Implications to policy

Handout

- B. Population based intervention (11 am to 12 pm)  
Considerations - whole population or sub-populations (targeted intervention)  
How to evaluate

**October 22**

- A. Evidence on how to improve the determinants of health (1 pm to 4:45 pm)
- |                      |                             |
|----------------------|-----------------------------|
| Income               | Reading 3<br>(Section 3.1b) |
| Education            | (Section 3.1c)              |
| Housing              | (Section 3.1d)              |
| Employment           | (Section 3.1e)              |
| Access to healthcare | (Section 3.1f)              |

**October 29**

- Group presentations (9 am to 11 am)  
Discussion of group presentations (11 am to 12 pm)

**November 5**

- A. Achievements of population health interventions (9 am to 12 pm)
- Family planning and birth spacing Reading 5, 7
  - Infectious disease control and immunizations Reading 7
  - Work injuries Reading 14, 15
  - Motor vehicle injuries Reading 16, 17
  - Tobacco control Reading 18
  - Cardiovascular disease control
  - Confusing achievements (ie. screening)

**November 12**

- A. How the health system actually works (9 am to 11 am)
- Federal budget
    - Federal health and social transfer
  - Provincial budget (ie. Health, Education, Social Services) Reading 19
    - Provincial health budget
  - Regional health authorities Reading 20
    - Emphasis on primary and ambulatory care
    - Other healthcare organizations (ie. tribal councils and community clinics)
    - Independent primary care providers (ie. family physicians)
    - Alternate providers (ie. schools)
- B. Lack of health outcomes goals or behaviour goals

**November 19**

- A. The difficulty of implementing a population health approach (9 am to 11 am)
- Ministerial silos
    - Lack of inter-agency communication
  - Multiple jurisdictions, priority setting and decision making
    - Lack of coordinated or integrated effort
  - Lack of knowledge transfer on main determinants of health Reading 21
    - Lack of knowledge on impact of healthcare
    - Population needs versus individual client demand
  - Political will and vision
  - Lack of community consultation
  - Embedded philosophy, beliefs and values
  - Advocacy, professional organizations, unions and self interest
  - Resource allocation
- B. How to use the Planned Promotion of Population Health to influence action (11 am to 12 pm)
- Examples of success from Saskatoon Reading 3 (3.2)

**November 26**

- External presentations (9 am to 11:30 am)
- Group discussion and course evaluation (11:30 am to 12 pm)

## December 3

### Final exam

You have recently graduated from the JS GSPP

You have just been hired as a policy analyst with the Saskatchewan government

You have been asked to draft a proposal that would make Saskatchewan residents the healthiest people in Canada

Use the Planned Promotion of Population Health to devise your proposal

Discuss the main determinants of health and how you plan to influence them

Discuss if you plan to allocate new funding or re-distribute existing funding

If new funding is required, discuss how you plan to raise this money

If funding is from re-prioritization of existing funds, which programs

or services will you reduce or cut

### Readings:

1. Beaglehole R. Oxford textbook of public health (fourth edition). In: Holland WW, Detels R, Knox G. Oxford: Oxford University Press, 2002.
2. Canadian Institute for Health information. Improving the health of Canadians. Canadian population health initiative. Ottawa: Canadian Institute for Health Information; 2005.
3. Lemstra M, Neudorf C. Health disparity in Saskatoon: analysis to intervention. Saskatoon Health Region [online] 2009 [cited August 31, 2009]. Available from URL: [http://www.saskatoonhealthregion.ca/your\\_health/ps\\_public\\_health\\_pho\\_reports\\_publications\\_and\\_presentations.htm](http://www.saskatoonhealthregion.ca/your_health/ps_public_health_pho_reports_publications_and_presentations.htm)
4. Marmot M. The status syndrome. How social standing affects our health and longevity. New York: Times Books, Henry Holt and Company; 2004.
5. Evans RG, Barer ML, Marmor TR, editors. Why are some people healthy and others not? The determinants of health of populations. New York: Aldine De Gruyter; 1994.
6. Eaton WW, Muntaner C. Socioeconomic stratification and mental disorder. In: Horwitz AV, Scheid TL, editors. A handbook for the study of mental health: social contexts, theories and systems. New York: Cambridge University Press; 1999.
7. McKeown T. The medical contribution. In: N Black N et al editors. Health and disease: a reader. Keynes: Open University Press, 1984.
8. Moncrieff J, Wessely S, Hardy R. Active placebos versus antidepressants for depression. Cochrane Database Syst Rev, Issue 1 2003. Oxford:Update software.
9. Moncrieff J. Are antidepressants as effective as claimed? No, they are not effective at all. Can J Psychiatry. 2007;52:96-7.
10. Mosely BM, O'Malley K, Peterson NJ, Menke TJ, Brody BA, Kuykendall DH et al. A controlled trial of arthroscopic surgery for osteoarthritis of the knee. NEJM 2002;347:81-88.
11. Kirkley A, Birmingham TB, Litchfield RB, Giffin R, Willits KR, Wong CJ et al. A randomized trial of arthroscopic surgery for osteoarthritis of the knee. NEJM 2008;359:1097-1107.
12. Hennekens CH, Buring JE. Epidemiology in Medicine. Boston: little, Brown and Company, 1987.
13. Murray CJL, Lopez AD. Mortality by cause for eight regions of world: Global burden of disease study. The Lancet 1997;349:1269-75.
14. Lemstra M, Olszynski WP. The effectiveness of standard care, early intervention and occupational management in workers compensation claims. Spine 2003;28:299-304.
15. Lemstra M, Olszynski WP. The effectiveness of standard care, early intervention and

- occupational management in workers compensation claims: Part 2. *Spine* 2004; 29:1573-9.
16. Cassidy JD, Carroll LJ, Cote P, Lemstra M, Berglund A, Nygren A. Effect of eliminating compensation for pain and suffering on the outcome of insurance claims for whiplash injury. *New England Journal of Medicine* 2000;342:1179-1186.
17. Lemstra M, Olszynski WP. The influence of motor vehicle legislation on injury claim incidence. *Canadian Journal of Public Health* 2005;96:65-8.
18. Lemstra M, Neudrof C, Opondo J. Implications of a public smoking ban. *Canadian Journal of Public Health* 2008;99:62-5.
19. Government of Saskatchewan. Saskatchewan provincial budget 09-10 [online] 2009 [cited August 31, 2009]. Available from URL: <http://www.finance.gov.sk.ca/budget2009-10/Budget200910Estimates.pdf>
20. Saskatoon Regional Health Authority. Saskatoon Regional Health Authority 2008-2009 Annual Report [online] 2009 [cited August 31, 2009]. Available from URL: [http://www.saskatoonhealthregion.ca/about\\_us/documents/shr\\_annual\\_report\\_2008\\_09.pdf](http://www.saskatoonhealthregion.ca/about_us/documents/shr_annual_report_2008_09.pdf)
21. Lemstra M, Neudorf C, Beaudin G. Health disparity knowledge and support for intervention in Saskatoon. *Canadian Journal of Public Health* 2007;98:484-8.

#### IMPORTANT NOTE

This course conforms to the academic requirements and standards of regular graduate courses, including the rules of Student Appeals in Academic Matters (See [http://www.usask.ca/university\\_secretary/council/reports\\_forms/reports/12-06-99.php](http://www.usask.ca/university_secretary/council/reports_forms/reports/12-06-99.php)) and Academic Honesty (see [http://www.usask.ca/university\\_secretary/honesty/index.php](http://www.usask.ca/university_secretary/honesty/index.php)). Each student registered in this class is expected to have read and understood the guidelines regarding student academic honesty posted at the following address: [http://www.usask.ca/university\\_secretary/pdf/dishonesty\\_info\\_sheet.pdf](http://www.usask.ca/university_secretary/pdf/dishonesty_info_sheet.pdf)