

Epidemiology and Prevention of Non-Communicable Diseases (SPPH 581X)
School of Population and Public Health, UBC
Term 2, January – April 2018

Objectives

This is a new course, offered for the first time in 2017/18. The course is intended to provide students with an understanding and substantive knowledge of the epidemiology and burden of non-communicable diseases (NCDs) and their determinants in Canada and globally, introduce students to population-based NCD models and teach the principles of developing and implementing policies and programs for the prevention of NCDs.

Audience

Students in all SPPH programs (PhD and Masters), graduate students in other UBC programs, potentially students from other universities interested in epidemiology, prevention, modeling, and policy development for NCDs. The course may also be useful to public health providers, future public health leaders, as well as population health scientists and government advisors. Non-SPPH students will need approval of the course coordinator.

Prerequisites

None

Format

The course is currently offered in a traditional, face-to-face format. The course aims to foster discussion and interaction as the basis for understanding the material. It is taught using a variety of methods, such as interactive lectures, discussion of assigned readings, home exercises, in-class exercises, and student presentations.

Instructors

Dr. Jacek Kopec (coordinator), Dr. Carolyn Gotay, Dr. Hans Krueger, Dr. Farshad Pourmalek, Dr. Drona Rasali, and Dr. Nizal Sarrafzadegan.

Time and Place

Second term (January – April), Tuesday, 9:00 am – 12 pm, SPPH Room B138.

Textbook

There is no textbook for this course. Readings will be assigned for each session. We will make extensive use of materials available on the Internet.

Evaluation

Class participation	20%
Mid-term quiz	25%
Presentation	20%
Final paper	35%

Grading rubric

Marks are based on the following guidelines:

90-100% - Outstanding work, exceeds expectations in every respect

85-89% - Very good to excellent work, exceeds expectations in most respects

80-84% - Good, solid performance, only minor errors

68-79% - Adequate performance but with significant or multiple errors or lacking in important areas

Final percentage grades are calculated using a distribution-based method. The weighted sum of marks is adjusted statistically to achieve a desired distribution of final grades while maintaining the ranking of students based on the weighted sum.

Note about plagiarism

From: <https://www.grad.ubc.ca/current-students/student-responsibilities/dealing-plagiarism>

*Plagiarism is intellectual theft. It occurs when an individual submits or presents the oral or written work of another person as his or her own. This applies to draft work and oral presentations as well as to final submissions. Failing to properly cite the work of another also constitutes plagiarism, even if it is accidental. Plagiarism by graduate students will be reported to the Faculty of Graduate Studies. Your department or Faculty may have additional information about plagiarism. **You are responsible for understanding what constitutes plagiarism, and for ensuring that you do not commit any act of plagiarism under any circumstances.***

Download the complete document "Dealing with Plagiarism by Graduate Students" at:

https://gradstudies.ok.ubc.ca/_shared/assets/Plag36763.pdf or go to:

<https://www.grad.ubc.ca/faculty-staff/policies-procedures/dealing-plagiarism-graduate-students>

Course Schedule for 2017/18

Date/Instructor	Topic
Session 1 January 9 Dr. Kopec	Course overview and introduction to NCDs Course overview; Student introductions; Historical perspective on NCDs; Epidemiological transition; NCD epidemics; Sources of data on NCDs;
Session 2 January 16 Dr. Kopec	Measuring NCD burden Mortality and morbidity; Global Burden of Disease (GBD) indicators: Years of Life Lost (YLLs), Years Lost to Disability (YLDs), Disability-Adjusted Life Years (DALYs); Attributable burden; GBD modelling;
Session 3 January 23 Dr. Pourmalek Dr. Kopec	Population health and NCD burden in Canada Trends in major health indicators in Canada by age and sex; Burden due to NCDs vs. other conditions; Compression vs. expansion of morbidity; Socio-economic gradient in health;
Session 4 January 30 Dr. Kopec Students	Mortality and morbidity for selected NCDs Ischemic heart disease; Stroke; Lung, colon, breast and prostate cancer; Asthma and COPD; Diabetes; Back and neck pain; Osteoarthritis; Alzheimer's disease; Depression; Other common conditions;
Session 5 February 6 Dr. Kopec Students	Prevalence and burden of selected risk factors Smoking; Nutrition (grains, salt, sugar, fat, meat, other); Alcohol and drugs; Physical inactivity; Obesity; Physiological risk factors (blood pressure, cholesterol, glucose); Occupational and environmental risks;
Session 6 February 13 Dr. Krueger	Economic burden of NCDs and their determinants Measures of economic burden; Cost-of-illness studies; Economic burden of major NCDs and their determinants in Canada;
February 20	Reading week - no classes
Session 7 February 27 Dr. Kopec	Introduction to simulation modelling of NCDs Purposes of modelling; Development and validation of population-based disease simulation models; Examples of model applications; User-friendly software for NCD microsimulation;
Session 8 March 6 Dr. Kopec	Personalized prevention Population-based vs. individualized prevention; Principles of risk prediction; Risk and life expectancy calculators; Model-based prevention;
Session 9 March 13 Dr. Sarrafzadegan	Principles of NCD prevention: A global perspective WHO NCD framework; Assessing national capacity for NCD prevention; Global action plan; NCD surveillance;
Session 10 March 20 Dr. Gotay	Strategies for NCD prevention in Canada Community-based approaches to NCDs; Integration into primary health care; Multi-sectoral policies; Private sector engagement; Examples of national NCD prevention programs;
Session 11 March 27 Dr. Rasali	NCD prevention and control at a provincial/local level Approaches to NCD prevention/control in BC; Examples of current policy issues in developing and implementing programs for NCDs in BC;
Session 12 April 3	Student presentations