

SCHOOL OF POPULATION AND PUBLIC HEALTH (SPPH)
SPPH 581I –Morbidity and Mortality in Low Income Countries
Syllabus - Fall 2015

1. Course Description

This course is intended to provide students with an understanding of the major causes of illness and death in low- and middle-income countries with an emphasis on the least developed. The course will cover the most significant communicable, non-communicable and chronic diseases in these nations, e.g. HIV/AIDS, malaria, tuberculosis, protein-energy malnutrition, motor vehicle accidents, alcohol use and tobacco control, neonatal and maternal conditions, environmental and occupational risks. For these conditions, students will gain a solid understanding of the basic science, epidemiology, clinical management and public health approach, as well as their political, ethical, economic and social dimensions. Knowledgeable global health practitioners will act as Instructors for topics within their range of experience and expertise.

- Elective
- Pre/co-requisites: SPPH 502 or permission of the instructor
- Maximum enrolment: none

2. Course operation

Class: Mondays 2-5 pm; Room – SPPH B112
September 14 – November 30 (no class October 12)

Coordinator: Michael Rekart, MD, DTM&H, FRCPC, Clinical Professor (604 312 6555)
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Office Hours: M. Rekart by appointment at SPPH, Room 147

Teaching Assistant: none

3. Learning Goals and Objectives

SPPH 581I provides an in-depth review of the most significant causes of illness and death globally with a focus on the world's least developed countries. All aspects of these conditions, including social determinants and societal impacts, will be taught by knowledgeable instructors. Special attention will be paid to public health control utilizing both proven and innovative strategies.

The goals of this course for students are to:

- a) Gain basic knowledge about the leading diseases and conditions responsible for morbidity and mortality in developing countries;
- b) Identify and understand both the potential and the limitations of proven and innovative strategies for the public health control of these and other tropical conditions;
- c) Learn how societies in less developed countries view and deal with these challenges;
- d) Become aware of the ethical, economic and political aspects of these diseases;
- e) Gain experience working with fellow students in reviewing and presenting global

health issues and putting forward innovative ideas; and
f) Help students decide how global health & tropical diseases might fit into their careers.

On completion of this course the student will be able to:

- a) Delineate the basic facts on the etiology, epidemiology, clinical aspects and public health control of important causes of morbidity & mortality in low-income countries;
- b) Identify key social, political, ethical and economic issues in the control and prevention of these conditions;
- c) Knowledgeably discuss the success and failure of public health control modalities;
- d) Understand potential, innovative strategies for prevention, containment and mitigation;
- e) Collaborate with fellow students to review and present of specific issues;
- f) Participate in a useful discussion among fellow students;
- g) Critically review and synthesize the scientific literature on global health topics;
- h) Write a comprehensive overview of a global health issue; and
- i) Decide more clearly the role of global health in their careers.

4. Course Structure

Lectures, combined with pre-assigned readings, will outline concepts, issues and examples. Small group discussions and class participation will provide a forum to apply these concepts and to pursue new ideas.

5. Textbook and Course Materials

The course syllabus can be downloaded from the SPPH website. There will be 1-2 readings for each session but there is no mandatory textbook for this course. A few copies of the following general global health resource textbooks will be ordered at the UBC bookstore and a copy of each will be held on reserve at the Woodward Library:

- Skolnik R. Essentials of Global Health. Sudbury, Massachusetts: Jones & Bartlett Publishers (2007).
- Markle WH, Fisher MA, Smego RA Jr (editors). Understanding Global Health. USA: The Mc-Graw Hill Companies, Inc. (2007).
- Lindstrand A, Bergstrom S, Rosling H. Global Health: An Introductory Textbook. Lund (Sweden): Studentlitteratur AB (2006).
- Seear M. An Introduction to International Health. Toronto (Canada): Canadian Scholars' Press Inc. (2007).
- Jacobsen KH. Introduction to Global Health. Sudbury, Massachusetts: Jones & Bartlett Publishers (2007).

Reports – The following World Bank reports will also be useful:

1. Jamison DT, Breman JG, Measham AR et al. Disease Control Priorities in Developing Countries. 2nd edition. Washington (DC): World Bank; 2006. Available: <http://go.worldbank.org/R27YXE46V0>
2. Dye C, Harries AD, Maher D et al. Disease and Mortality in Sub-Saharan Africa. 2nd edition. Washington (DC): World Bank; 2006. Available: <http://go.worldbank.org/6KSN0IWRN0>

3. Lopez AD, Mathers CD, Ezzati M et al. Global Burden of Disease and Risk Factors. Washington (DC): World Bank; 2006. Available: <http://go.worldbank.org/UUAVYVVEZ0>

Useful URLs include:

- World Health Organization: <http://www.who.int/topics>
- Global Health Council: <http://globalhealth.org>
- United States Agency for International Development: <http://www.usaid.gov/>
- Joint United Nations Programme on HIV/AIDS: <http://www.unaids.org/en/>
- The Global Fund to Fight AIDS, Tuberculosis and Malaria: <http://www.theglobalfund.org/>
- United Nations Development Programme (UNDP): <http://www.undp.org/>
- The World Bank: www.worldbank.org

6. Student Evaluation

The following methods will be used to accumulate marks to a potential total of 100:

Student paper	40 marks
Class attendance	20 marks
Final examination	40 marks

Student paper

Each student will submit a final paper on a Global Health topic agreed to by the instructor. The paper is due on December 4, 2015 at 4 pm (Vancouver time) and should be 10-15 pages (1.5 line spacing) with \leq 15 references. A grading rubric will be distributed.

Attendance

Students are expected to attend all classes having reviewed the assigned readings and ready to participate in discussion and activities. Each of the 11 classes is divided into 2 sessions; 1 mark is awarded for each session attended up to a maximum of 20 marks.

Final Examination

All students will be expected to write a final examination that will comprise 40% of the final grade. This will occur during the first 60 minutes of the final class session on November 30th and will consist entirely of multiple choice, true/false and matching columns questions. For students unable to sit the final exam at the scheduled time, arrangements will be made for an alternate time and venue to sit the exam.

IMPORTANT NOTE

Students are expected to know the following: (1) what constitutes plagiarism, (2) that plagiarism is a form of academic misconduct and (3) that such misconduct is subject to penalty. Please review the Student Discipline section of the UBC Calendar (available on-line at www.ubc.ca). Please also visit the UBC Plagiarism Resource Centre for Students (available on-line at www.library.ubc.ca/home/plagiarism/).

This course relates to several current courses at the UBC, especially within the MPH program at the School of Population and Public Health (SPPH):

A. SPPH 524/525 and SPPH 581J (Overview of Global Health) - This course will provide more detailed and in-depth information with regard to specific important diseases and conditions in developing countries as a supplement to SPPH 524 and 525 which address general biological concepts in public health and public health issues in the developed world. This course will complement SPPH 581J - Overview of Global Health.

B. SPPH 520/515 - This course will provide a global viewpoint and an international context to SPPH 520 (The Control of Communicable Diseases) and SPPH 515 (Surveillance and Monitoring in Public Health).

C. SPPH 581D/528/536 - This course will cover issues and solutions to delivery of health care to underserved populations in poor countries as a complement to 528 (Rural and Remote Health) and 536 (Aboriginal People and Public Health). This course will discuss health care priority setting in the Third World as a complement to 581D that introduces principles and methods related to health care priority setting.

D.SPPH 511/539/581F/580F/555 - This course will provide a global context to injury prevention, tobacco, addictions, chronic diseases and cancer.

E. SPPH 538 - The ethical issues in poor countries are often different from those in Canada. This course will discuss the specific ethical challenges involved in disease control where resources are limited.

F. SPPH 523/521/527 - This course will provide the basic knowledge of the key diseases and conditions in developing countries which is necessary to adequately discuss Socio-Economic Factors (521), Human Security (523) and Social Determinants of Health (527).

G. FNH 355/490 - The session on Protein-Energy Malnutrition in this course will cover the global nutritional perspective in relation to FNH 355/490 that covers the role of nutrition in the health of populations.

The tentative lecture schedule and reading assignments are outlined below.

Topic	Lecturer	Readings
<p>Introductions</p> <p>Global Burden of Disease</p> <p>Case Study: Swaziland</p>	<p>M Rekart</p> <p>M Rekart</p>	<p>WHO 2008. The Global Burden of Disease 2004 Update. Available: http://www.who.int/healthinfo/global_burden_disease/2004_report_update/en/</p>
<p>Neglected Tropical Diseases</p> <p>Viral Hepatitis</p>	<p>T Steiner</p> <p>M Rekart</p>	<p>Feasey N, Wansbrough-Jones M, Mabey DC, Solomon AW. Neglected Tropical Diseases. <i>Br Med Bull</i> 2010; 93:179-200.</p> <p>Baize S, Pannetier D et al. Emergence of Zaire Ebola Virus Disease in Guinea – Preliminary Report. <i>N Engl J Med</i>, April 6, 2014. DOI: 10.1056/NEJMoa 1404505</p> <p>Ashraf H, Alam NH et al. Prevalence and risk factors of hepatitis B and C infections in an impoverished urban community in Dhaka, Bangladesh. <i>BMC Infect Dis</i> 2010; 10: 208.</p> <p>Kmush B, Wierzba T et al. Epidemiology of Hepatitis E in Low- and Middle-Income Countries of Asia & Africa. <i>Semin Liver Dis</i> 2013; 33: 15-29.</p>
<p>HIV/AIDS</p> <p>Malaria</p>	<p>M Rekart</p> <p>L Sauve</p>	<p>Maartens G, Celum C, Lewin SR. HIV infection: epidemiology, pathogenesis, treatment, and prevention. <i>Lancet</i> 2014; 384: 258-71.</p> <p>Grubb IR, Beckham SW et al. Maximizing the benefits of antiretroviral therapy for key affected populations. <i>J Int AIDS Soc</i> 2014; 17: 19320.</p> <p>World Malaria Report 2013. http://www.who.int/malaria/publications/world_malaria_report_2013/report/en/</p> <p>White NJ, Pukrittayakamee S, et al. Malaria. <i>Lancet</i> 2014; 383(9918):723-35.</p>

Women's Health, Maternal Survival and Violence Against Women	S. Mitchell	Garcia-Moreno C, Jansen HA et al. Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence against women. <i>Lancet</i> 2006; 368: 1260-9. Ronsmans c, Graham WJ et al. Maternal Mortality: who, when, where and why. <i>Lancet</i> 2006; 368: 1189-1200.
Respiratory Tract Infections	M Rekart	Remington LT, Sligl WI. Community-acquired pneumonia. <i>Curr Opin Pulm Med</i> 2014;20: 215-24 Howie SRC, Morris GAJ et al. Etiology of Severe Childhood Pneumonia in the Gambia. <i>Clin Infect Dis</i> 2014. DOI: 10.1093/cid/ciu384
No Class		Potluck 6pm - Oct 17th Dr. Rekart's House 5838 Berton Avenue - Unit 103
Tuberculosis	J Johnston	The Economist. Ancient enemy, modern imperative: a time for greater action against Tuberculosis. <i>The Economist Intelligence Unit Limited</i> 2014. Available: http://www.economistinsights.com/sites/default/files/Ancient%20enemy%20modern%20imperative.pdf
Diarrhea	TBD	Lonroth K, Castro KG et al. Tuberculosis control and elimination 2010-50: cure, care, and social development. <i>Lancet</i> 2010; 375: 1814-29. Larson CP, Henning L et al. Infectious childhood diarrhoea in developing countries. In: <i>Modern Infectious Disease Epidemiology: Concepts, Methods, Mathematical Models, and Public Health</i> . Kramer A, Kretzschmar M, Krickberg K, editors. Springer Science Media, NY, NY 2009.

Environmental Health & Climate Change	S Struck	A Haines, R S Kovats, D Campbell-Lendrum, C Corvalan. Climate change and human health: impacts, vulnerability, and mitigation. <i>Lancet</i> 2006; 367: 2101-9.
Occupational & Industrial Risks	M Shum	Rosenstock L, Cullen M, Fingerhut M. Occupational Health. In: Jamison DT, Breman JG, Measham AR, Alleyne G, Claeson M, Evans DB, Jha P, Mills A, Musgrove P, editors. <i>Disease Control Priorities in Developing Countries</i> . 2nd edition. Washington (DC): World Bank; 2006. Chapter 60.
Protein Energy Malnutrition	TBD	
Perinatal Mortality	S Mitchell	Lawn JE, Kerber K, Enweronu-Laryea C, Cousens S. 3.6 million neonatal deaths--what is progressing and what is not? <i>Semin Perinatol</i> ; 2010; 34(6): 371-86.
Cardiovascular Disease (CVD)	K Ramanathan	
Global Immunization	M Naus	WHO, UNICEF. Global Immunization Vision and Strategy http://www.who.int/immunization/givs/en/ Reid M, Fleck F. The Immunization Program that saved millions of lives. <i>Bull World Health Organ</i> 2014;92:314–315. http://www.who.int/bulletin/volumes/en/
Alcohol & Tobacco	M Dawar	Yach D, Wipfli H, Hammond R, Glantz S. Globalization and tobacco. <i>Globalization and Health</i> 2007: 39-67. Casswell S, Thamarangsi T. Reducing harm from alcohol: call to action. <i>Lancet</i> 2009; 373: 2247-57.
Mental Health	S Ganneson	

Non-Communicable Diseases (NCDs)	M Rekart	<p>Miranda JJ, Kinra S, Casas JP et al. Non-communicable diseases in low- and middle-income countries: context, determinants and health policy. <i>Trop Med Int Health</i> 2008;13(10):1225-34.</p> <p>World Health Organization. Global status report on non-communicable diseases 2010. WHO 2011. Available www.who.int</p>
Motor Vehicle Accidents	M Rekart	Dahl R. Vehicular manslaughter: the global epidemic of traffic deaths. <i>Environ Health Perspect</i> 2004; 112(11): 628-31.
Final Exam Course Evaluation	Last Class	