Introduction to Public Health: Local to Global Perspectives

PHS 370: 3-Credits

University of Wisconsin - Madison
Spring 2013
LECTURES
Tuesday/Thursday 9:30-10:45 am
1361 Chemistry

DISCUSSION SESSIONS (50 minutes/week)
Various times/locations

Course Director
Patrick L Remington, MD, MPH

Course Co-Director
Lori DiPrete Brown, MSPH

Teaching Assistants (TAs)
Deb Chatterjee, MA
Jackson Musuuza, MBChB, MPH

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I. OVERVIEW AND LEARNING OBJECTIVES

This 3-credit course is intended to give students an overview of the principles and practice of public health in a global context. The prerequisite for this Intermediate Level course is a college-level science or biology course. As an introductory public health course, it is intended for students with no previous course work in public health or epidemiology. This is one of three core courses for the Undergraduate Certificate in Global Health.

Course goal: To learn the principles and practice of public health as applied to leading global health problems.

Course objectives:
- Define public health and learn the difference between individual- and population-based strategies for improving health (how it works)
- Understand the goals of public health—to improve health and eliminate health disparities.
- Understand the methods used to measure health of populations, find causes, and develop programs that work.
- Describe the leading global health problems, including their causes and methods for prevention.
- Understand the challenges and opportunities for closing the gap between science and practice.
- Understand the advantages and limitations of the various types of population-based approaches to improve public health (education, marketing, engineering, policy, and law).
- Know the core functions of public health (assessment, policy development, and assurance) and how public health is organized at the local, state, and national level.
- Learn about the importance of interdisciplinary approaches to public health.

II. COURSE ORGANIZATION

A. Focus on the leading global public health problems

Students examine the principles of public health through case-based learning. The course will be organized into seven modules, with six modules addressing the leading global public health problems. Except for Module 1, each Module lasts for 2 weeks and includes 4 lectures and 2 discussion sessions:

Module #1: Introduction to global public health (3 weeks)
Module #2: AIDS/HIV and unsafe sex
Module #3: Cardiovascular disease and obesity
Module #4: Injury prevention and control
Module #5: Infant mortality and poverty
Module #6: Environmental health
Module #7: Future challenges in global public health
B. Lectures

The course will have 2, 75-minute sessions on Tuesdays and Thursdays, each week (30 sessions during the entire semester). Each session will include a 50-minute lecture, with 25 minutes for plenary discussion. The first module (6 sessions) will provide an introduction to public health and the foundation for the course. The rest of the modules will use a 4-lecture series using the following “public health process” to examine leading health problems, using local to global examples.

Lecture #1: Define the problem
- What is nature and extent of the problem (i.e., descriptive epidemiology)?
- What groups are at highest risk?
- Consider the “face” of a patient with this problem.

Lecture #2: Describe the causes
- What are the causes of this problem (i.e., analytic epidemiology)?
- What study design has been used to learn about the causes (e.g., cohort, case-control)?
- What gaps exist in our knowledge about the causes?

Lecture #3: Describe public health and prevention strategies
- What programs/policies are effective in preventing this problem?
- What types of intervention studies have been done to learn about what works?
- What gaps exist in what we know about prevention and control strategies?

Lecture #4: Discuss challenges and opportunities for closing the gap between science and practice
- What are the barriers in translating our knowledge about prevention into practice?
- What ethical, social, or political issues exist?
- What can be done to overcome these barriers?

Each Module is led by a distinguished UW faculty member, and includes lectures by experts across the UW campus and beyond.

Students are expected to read the background papers prior to lecture and come prepared to ask questions during the 25 minute discussion period at the end of each Lecture.

C. Discussion Groups (DiPrete Brown-Faculty Leader)

Students will be assigned to one of 16 discussion groups with about 15 students in each group. Experienced faculty members and public health practitioners will lead discussion groups. The goal of these discussion groups is to engage students in the public health discourse so that they can develop their understanding of the challenges, their position on issues, and their skills as a public health communicator.
II. COURSE SCHEDULE

Module 1: Introduction to Public Health (Remington & DiPrete Brown / Chatterjee)
Jan 22 1.1—Introduction to public health (Remington)
Jan 24 1.2—Global health (DiPrete Brown)
Jan 29 1.3—Defining the burden: Local to global (Remington)
Jan 31 1.4—Finding causes: Overview of epidemiology (Remington)
Feb 5 1.5—Finding solutions: Evidence based public health (Remington)
Feb 7 1.6—Closing the gap: Challenges and opportunities (DiPrete-Brown)

Module 2: HIV/AIDS and Unsafe Sex (Sethi / Musuuza)
Feb 12 2.1—Infectious diseases: Global burden, costs, and trends (Sethi)
Feb 14 2.2—Using outbreak investigations to learn about the causes of AIDS (Sethi)
Feb 19 2.3—Programs to prevent HIV/AIDS (Martinez-Donate)
Feb 21 2.4—Morality and sex education (Kendall)

Module 3: Cardiovascular Disease (CVD) and Obesity (Bautista / Chatterjee)
Feb 26 3.1—CVD: Global burden, costs, and trends (Bautista)
Feb 28 3.2—Using cohort and case-control studies to find the causes of CVD (Nieto)
Mar 5 3.4—Paternalism versus individual rights (Kelleher)
Mar 7 3.3—Community-based programs and policies (Adams)

Module 4: Injury Prevention and Control (Durkin / Musuuza)
Mar 12 4.1—Injuries: Global burden, costs, and trends (Durkin)
Mar 14 4.2—Health policy advocacy approaches to injury prevention (Corden)
Mar 19 4.3—Using epidemiology to find the causes of injuries (Durkin)
Mar 21 4.4—The politics of firearm injury control (Hargarten)

SPRING BREAK (MARCH 25-29)

Module 5: Infant Mortality and Poverty (Witt / Chatterjee)
Apr 2 5.1—Infant mortality: Global burden, costs, and trends (Witt)
Apr 4 5.2—Programs and policies to reduce poverty (Wolf)
Apr 9 5.3—What works: The Lifecourse Approach (Lathen)
Apr 11 5.4—Closing the Gap: The Life Course Lens (Cotton and Smith)

Module 6: Environmental Health (Patz / Musuuza)
Apr 16 6.1—Global Environmental Health and Other Emerging Threats (Patz)
Apr 18 6.2—Environmental epidemiology and risk assessment (Patz)
Apr 23 6.3—Geographies of Vulnerability: The 2003 Heat Wave in Paris (Keller)
Apr 25 6.4—Environmental Lead: Prevention of Low Level Health Effects (Kanarek)

Module 7: Future Public Health Challenges (Remington- & DiPrete Brown / Chatterjee)
Apr 30 7.1—The Organization and Performance of Health Care Systems (Remington)
May 2 7.2—The Future of the Public’s Health in the 21st Century (Remington)
May 7 7.3—Global Public Health: Challenges and Opportunities (DiPrete Brown)
May 9 7.4—Review of the Public Health Process (Remington/DiPrete Brown)
III. FACULTY

Course Director: Patrick Remington, MD, MPH

Professor, Department of Population Health Sciences
Associate Dean for Public Health, UW School of Medicine and Public Health
Office: 4263 Health Science Learning Center (HSLC)
Phone: (608) 263-1745 Fax: (608) 262-2327
Email: plreming@wisc.edu
Office hours: By appointment
Homepage: http://www.pophealth.wisc.edu/faculty/premingto.html

Course Co-Director: Lori DiPrete Brown, MS, MTS

Associate Director for Education and Engagement, UW-Madison Global Health Institute.
Program Faculty, Public Health Program, School of Medicine and Public Health
Office: 4256a Health Science Learning Center
Phone: 262-4801 Email: dipretebrown@wisc.edu
Office hours: Tuesday and Thursday 8:30am to 9:25am, Java Den (near class)
Homepage: http://ghi.wisc.edu/lori-diprete-brown-mph-mts/

Teaching Assistants:

Debanjana Chatterjee, MA  Jackson Musuuza, MBChB, MPH
Candidate, PhD Pop Health Sciences  Candidate, PhD in Pop Health Sciences
Email: dchatterjee@wisc.edu  Email: musuuza@wisc.edu
Tuesdays 8:15-9:15 (1361 Chemistry)  Wednesdays 3:00-5:00 (Wisconsin Institutes
Wed. 4:30-5:30 PM (College Library) of Discovery-public area)

Responsible for students in sections: 302  Responsible for students in sections: 301,
305, 307, 309, 310, 312, 313, and 315  303, 304, 306, 308, 311, 314, and 316

The teaching assistant can help you by:

- Facilitating your understanding of course content/expectations during discussion
  and group work activities
- Discussing your questions and concerns related to in-class activities, out-of-class
  activities, and reading assignments
- Helping you find and access course resources
- Serving as a source of further information on course content
Module Coordinators/Guest Lecturers

Module 1: Introduction to Public Health

Patrick Remington, MD, MPH (see above)

Lori DiPrete Brown, MS, MTS (see above)

Module 2: HIV/AIDS and Unsafe Sex

Ajay K. Sethi, PhD, MHS (Module Coordinator)
Assistant Professor, Department of Population Health Science
Interests: Global Health, Clinical research, Epidemiology, Social and behavioral health sciences
http://www.pophealth.wisc.edu/faculty/sethi

Nancy Kendall, PhD
Associate professor of educational policy studies
Email: nkendall@education.wisc.edu
http://eps.education.wisc.edu/eps/people/faculty-and-staff/nancy-kendall

Ana Martinez-Donate, PhD
Assistant Professor, Department of Population Health Sciences
Interests: Epidemiology, Social and behavioral health sciences Homepage:
http://www.pophealth.wisc.edu/faculty/martinez-donate

Module 3: Cardiovascular Disease (CVD) and Obesity

Leonelo Bautista, MD, MPH, DrPH (Module Coordinator)
Associate Professor, Department of Population Health Science
Interests: Global Health, Clinical research, Epidemiology
http://www.pophealth.wisc.edu/faculty/bautista

Alex Adams, MD, PhD
Professor, Department of Family Medicine
Director, Center for Collaborative Health Equity (CCHE)
Interests: Nutrition, community-based research, health disparities
http://www.fammed.wisc.edu/directory/325

Paul Kelleher, PhD
Assistant Professor
Department of Medical History & Bioethics, School of Medicine and Public Health
Interests: Social and political philosophy and public health ethics. Homepage:
http://medhist.wisc.edu/faculty/Kelleher/indexkelleher.shtml
Javier Nieto, MD, PhD, MPH
Chair of Population Health Sciences
Helfaer Professor of Public Health
Professor of Population Health Sciences and of Family Medicine
Email: fjnieto@wisc.edu
http://www.pophealth.wisc.edu/faculty/nieto

Module 4: Injury Prevention and Control

Maureen Durkin, PhD, DrPH (Module Coordinator)
Professor of Population Health Sciences and Pediatrics,
Waisman Center Investigator
Interests: Global Health, Epidemiology, Social and behavioral health sciences
www.pophealth.wisc.edu/faculty/durkin

Tim Corden, MD
Adjunct Associate Professor, Population Health Sciences
Interests: Injury Prevention, Advocacy, Injury Policy Homepage:
http://www.mcw.edu/display/router.aspx?docid=86123&physicianid=88070&

Steve Hargarten, MD, MPH
Professor and Chair
Department of Emergency Medicine
Director, Injury Research Center
Associate Dean, Global Health
Email: hargart@mcw.edu
http://www.mcw.edu/phdpch/FacultyStaff/StephenW.HargartenMDMPH.htm

Module 5: Infant Mortality and Poverty

Whitney P. Witt, PhD, MPH (Module Coordinator)
Assistant Professor and Co-Director, BioPop: Integrative Biopsychosocial Research in Population Health
Interests: Epid, Health services research, Social and behavioral health sciences
www.pophealth.wisc.edu/faculty/wwitt.html

Lorraine Lathen, MS
President, Jump at the Sun Consultants, LLC
Mequon, Wisconsin
http://hstrial-jumpatthesunc.homestead.com/about.html

Quinton Cotton, MS
Program Officer
Lifecourse Initiative for Healthy Families
http://www.med.wisc.edu/news-events/quinton-cotton-named-lifecourse-initiative-for-healthy-families-program-officer/31438
Pamela Smith, MS  
Lifecourse Initiative for Healthy Families (LIHF)  
Kenosha County Division of Health  
Pamela Smith Consulting  
http://www.linkedin.com/pub/pamela-f-smith/58/186/43

Bobbi Wolfe, PhD  
Professor of Public Affairs, Economics and Population Health Sciences;  
Faculty Affiliate, Institute for Research on Poverty  
Interests: Health economics, poverty and health.  
http://www.lafollette.wisc.edu/facultystaff/wolfe-barbara.html

Module 6: Environmental Health

Jonathan Patz, MD, MPH (Module Coordinator)  
Professor, Department of Population Health Science, Director, Global Health Institute  
Interests: Global health, environmental health, climate change  
www.pophealth.wisc.edu/faculty/patz

Marty Kanarek, PhD  
Professor, Population Health Sciences  
Research Interest: Environmental health, Epidemiology  
mkanarek@wisc.edu  
http://www.pophealth.wisc.edu/faculty/kanarek

Rick Keller, PhD  
Associate Professor, Medical History and Bioethics  
Interests: History of European and colonial medicine and public health, history of psychiatry and psychoanalysis, history of the human sciences, science and race  
Email: rckeller@wisc.edu  
http://medhist.wisc.edu/faculty/keller/index.shtml

Module 7: Future Public Health Challenges

Patrick Remington, MD, MPH (see above)

Lori DiPrete Brown, MS, MTS (see above)
IV. COURSE MATERIALS AND INSTRUCTIONAL TECHNOLOGY


Information about the Schneider textbook, such as the location of reserve copies, is available on Learn@UW under the “Materials” tab.

Optional Textbooks:
- Introduction to Global Health. Jones and Bartlett (NOTE: This textbook is required for the Introduction to Global Health course (CALS course).

Readings:
Students will be assigned 1-3 key articles per module as required reading for this course. The readings are available online under “Content” in Learn@UW. Students are expected to keep current with weekly readings to effectively participate in class discussion and adequately prepare for bi-weekly quizzes.

Instructional Technology & Other Course Resources

This course will use Learn@UW for class communication, Web-based readings and resources, online lectures, submitting assignments, quizzes, and posting grades. Therefore, students are expected to regularly access Learn@UW throughout this course.

You will need a current version of Adobe Acrobat Reader and Adobe Flash Player to access course materials. Both plug-ins can be downloaded from Adobe’s website: http://www.adobe.com
V. COURSE POLICIES

Attendance Policy:
Attendance is expected in the lecture and required for small group discussions. Students are responsible for all information presented in the readings, course book and during lectures. Students who request to be excused from a discussion session must contact their TA in advance and provide the reason (i.e., illness, religious observances, and academic or professional commitments).

Class Meeting Cancellation Notices:
Occasionally, severe weather, illness, or other circumstances may require cancellation of a class meeting. If this is so, students will be informed via an email notice sent to the class email list. It will be the responsibility of each class member to ensure that they check the email that they used for their course registration for such a message.

Non-Discrimination Policy:
The UW-Madison is committed to creating a dynamic, diverse and welcoming learning environment for all students and has a non-discrimination policy that reflects this philosophy. Disrespectful behaviors or comments addressed towards any group or individual, regardless of race/ethnicity, sexuality, gender, religion, ability, or any other difference is deemed unacceptable in this class, and will be addressed publicly by the professor.

Disability Reasonable Accommodation Policy:
If you qualify for accommodations because of a disability, please submit a letter to the course director that outlines your request in a manner that is timely and consistent with established university policies for making such request so that your needs may be addressed. Policies for accommodating disabilities are available through the McBurney Disability Resource Center, 903 University Ave., 608-263-2741 (phone), 263-6393 (TTY), 265-2998 (Fax), mcburney@uwmadmail.services.wisc.edu. For additional information, please see http://www.mcburney.wisc.edu/

Religious Reasonable Accommodation Policy:
Every effort shall be made to reasonably and fairly accommodate all students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance, provided advance notification of the conflict is given. Whenever possible, students should give at least one week advance notice to request special accommodation.

Student Honesty and Rules of Conduct:
Academic honesty requires that the course work (e.g., quizzes, papers, exams) a student presents to an instructor honestly and accurately indicates the student's own academic efforts. These policies are available at http://www.studentaffairs.wisc.edu/

UWS 14 is the chapter of the University of Wisconsin System Administrative code that regulates academic misconduct. UW-Madison implements the rules defined in UWS 14
through our own "Student Academic Misconduct Campus Procedures." UWS 14.03 defines academic misconduct as follows:

"Academic misconduct is an act in which a student:
(a) seeks to claim credit for the work or efforts of another without authorization or citation;
(b) uses unauthorized materials or fabricated data in any academic exercise;
(c) forges or falsifies academic documents or records;
(d) intentionally impedes or damages the academic work of others;
(e) engages in conduct aimed at making false representation of a student's academic performance;
(f) assists other students in any of these acts."

If you are accused of misconduct, you may have questions and concerns about the process. If so, you should feel free to call Student Advocacy & Judicial Affairs (SAJA) in the Offices of the Dean of Students at (608) 263-5700 or send an email to dos@bascom.wisc.edu.

VI. ASSESSMENT OF STUDENT PERFORMANCE

Students will be assessed on results of 1) bi-weekly quizzes (20%), 2) discussion group participation (20%), 3) a mid-term paper (30%), and 4) a final exam (30%).

1. Bi-Weekly Quizzes (20%)

A 10-question multiple-choice quiz will be posted online at the end of each of the first six modules. Quizzes will be posted and available on Learn@UW at 5:00 PM on Thursday of the last day of the Module, and will be open until 10:00 PM Sunday night.

Students will have one (1) hour to complete the quiz once they begin it. Once started, a quiz must be completed in that one-hour session. The quiz will be “open book,” but students are expected to complete the quiz on their own. The questions will be taken from the previous lectures in the Module, including the required readings.

2. Discussion Group Participation (20%)

Students will be assigned to the weekly small group discussions (12-15 students). A series of “case studies” will be discussed that pertain to the Module during that week. Students will be graded by the small group leaders on:

- actively participate in a discussion about the public health “case study.”
- bring their own disciplinary knowledge and life experience into the discussion, and
- question their own position on issues and show respect for other points of view.

Unexcused absence will result in a loss of 2 percentage points.
3. **Midterm Exam (Take-Home) (30%)**

The midterm exam will be open book and will ask students about to apply the lessons learned about the “public health approach” to contemporary global and local public health issues. Students will be given the question and expected to complete the assignment in several days (i.e., exam posted on Thursday March 14th, due on Sunday March 17th). More details about the question(s) will be provided later in the semester.

More information about the mid-term exam will be provided in a separate document.

4. **Final Exam (30%)**

The final exam will be given on the date specified by the UW Registrar (see online Timetable). The final exam will be a written, in-person exam, will include multiple choice and short-answer questions, and cover material from the entire course. The exam will assess the learning objectives that are included in each Module.

5. **Course Grading Scheme**

Each assessment described above will be graded based on a 100-point scale:
- A (outstanding): 93-100%
- AB (excellent): 88-92%
- B (very good): 83-87%
- BC (good): 78-82%
- C (fair): 70-77%
- D (poor): 60-69%
- F (fail): <60%

Final grades will be based on the weighted averages described above. NOTE: Final grades will be rounded to the nearest whole number.