# GLOBAL PUBLIC HEALTH (DWA & UEP 248), Fall 2019 Tuesday and Thursday 1:30 pm – 2:55 pm, WEIN 210

Instructor: Jane Schmitz, Ph.D.

Contact information: email <a href="mailto:schmitz@oxy.edu">schmitz@oxy.edu</a>

Office hours: Tuesdays & Thursday 12:00 am to 1:00 pm, UEP 103

#### **Course description**

The course will examine major global public health problems and the range of responses from international organizations, transnational networks, and domestic and community-based institutions. Despite improvements in the health status of low- and middle-income countries over the last half-century, the challenges to advance global public health remain daunting. What are the sorts of strategies these actors have used in addressing such health issues as HIV/AIDS, malaria, unsafe food and water, tobacco use, and others? Can a dedication to addressing inequity improve our response to ill health? The course will present basic concepts for understanding global public health, including indicators of population health and the political, social and economic determinants of health. We will utilize a case study method to examine successful and less successful efforts to improve global health and to debate enduring political, economic, social and cultural controversies in the arenas of global health. Students can expect to gain knowledge of the major issues and actors in global public health and an introduction to the analytic and quantitative skills needed to be effective.

Course website: Moodle site "UEP 248 1374"

### **Required textbooks**

Brown PJ, Closser S. Foundations of Global Health: An interdisciplinary reader.

# Grading

	% of overall	Date
	grade	
Class attendance & participation	10	
Together with your news group, you will find global health news items of interest and discuss		
them. At one session during the course, you and your group will present your news items to the		
full class. In addition to participation in day-to-day course time, your effort in the debate and		
Noname Activity will influence your grade.		
Quizzes	20	Q1 9/12
Quizzes will be administered at the beginning of class and will be composed of no more than 5		Q2 10/1
questions.		Q3 10/31
		Q4 11/19
Mid-term paper		
Present the health situation of a low- or middle-income country of your choice. Collect and	30	10/1 data
present relevant statistics and outline the country's position in the demographic and epidemiologic		
transition and describe the overall health profile.		10/10 final
Final paper		
This paper will build on the knowledge you gain while developing your mid-term paper. For the	20	11/26
country about which you chose to write your mid-term paper, you will assert and defend the top		
health priority.		
Final exam	20	
This will be a comprehensive, in-class exam in multiple choice, short answer and essay format.		
Letter grades will be assigned according to the following scale: ≥93 A; 90 to 92 A-; 87 to 89 B+; 83	to 86 B: 80 to 8	2 B <sub>-</sub> · 77 to 79

Letter grades will be assigned according to the following scale:  $\geq$ 93 A; 90 to 92 A-; 87 to 89 B+; 83 to 86 B; 80 to 82 B-; 77 to 79 C+; 73 to 76 C; 70 to 72 C-; 67 to 69 D+; 63 to 66 D; 50 to 62 D-;  $\leq$ 49 F

Day	Date	Topic	Deliverable		
		I. INTRODUCING GLOBAL HEALTH			
Tue	8/27	What is global health?			
Thu	8/29	Milestones in global health: 1918 Flu Outbreak & Smoking			
		& lung cancer			
Tue	9/3	Metrics and the Burden of Disease I			
Thu	9/5	Metrics and the Burden of Disease II			
Tue	9/10	Library workshop			
Thu	9/12	Epidemiology I	QUIZ #1		
Tue	9/17	Epidemiology II			
	II. ECOLOGICAL DETERMINANTS OF HEALTH: WATER, AIR AND FOOD				
Thu	9/19	Water: hygiene, sanitation and drinking water	GH News #1		
Tue	9/24	Air: air quality and health			
Thu	9/26	Food: child undernutrition			
Tue	10/1	Food: overweight in developing countries	QUIZ #2		
			Mid-term paper data		
III. SOCIAL DETERMINANTS OF HEALTH					
Thu	10/3	Social determinants of health			
Tue	10/8	Sex and reproduction	GH News #2		
IV. INTERVENTIONS TO IMPROVE HEALTH					
Thu	10/10	Introduction to interventions in global health: major	Mid-term paper		
		institutions and events			
Tue	10/15	FALL BREAK			
Thu	10/17	History of global health interventions: colonial & missionary medicine			
Tue	10/22	History of global health interventions: smallpox case study			
Thu	10/24	Health systems: cross-national comparisons	GH News #3		
Tue	10/29	Health systems: community health workers			
Thu	10/31	Large-scale interventions: vitamin A, I research to programs	QUIZ #3		
Tue	11/5	Large-scale interventions: vitamin A, II sustaining, evaluating and phasing-out programs	GH News #4		
Thu	11/7	The Art of Caring: Beyond the Ebola Crisis, Mary Beth Heffernan			
Tue	11/12	Health communication: behavior change programs to			
		improve sanitation and hygiene			
Thu	11/14	Global trade and health, Heather Wipflli			
Tue	11/19	Funding global health: foreign aid & philanthropy	QUIZ #4		
Thu	11/21	Debate			
Tue	11/26	Noname activity	Final paper		
Thu	11/28	THANKSGIVING			
Tue	12/3	Re-cap course & final exam review	[GH News #5]		
	TBA	Final exam			

#### I. INTRODUCING GLOBAL HEALTH

8/27, What is global health?

## Learning goals

- 1. Become comfortable with the definition of health, public health and global health; distinguish between population vs. individual health.
- 2. Appreciate the range of disciplines that connect with global health.
- Explore the work of health statistician Hans Rosling and GapMinder as way to approach evolutions in health and wealth over time.

## Brown & Closser

Part 1 Introducing Global Health p. 2-12

8/29, Milestones in global health: 1918 Flu Outbreak & Smoking & lung cancer

## Learning goals

- Appreciate how infectious disease has influenced world events and seek to identify lessons from the 1918 Flu Outbreak to
  prevent future pandemics.
- Introduce the model of "epidemiological transition" and grasp how important public health science and data are to advancing health
- 3. Recognize the role that tobacco companies played in delaying a strong response to tobacco-related disease

#### Brown & Closser

Section 1 Introduction p.13-15 & Flu Outbreak p. 23-29 & Smoking and lung cancer p.40-45

9/3, Metrics and burden of disease, I

### Learning goals

1. Introduce and work with examples of the demographic and epidemiologic transition models

## Brown & Closser

Section 3 p. 86-91

9/5, Metrics and burden of disease, II

# Learning goals

- 1. Understand the concept of "burden of disease" as a way to count morbidity and mortality and to classify ill health into major categories (infectious, chronic, injuries, mental health)
- 2. Introduce important metrics of the Burden of Disease: the DALY and YLL
- 3. Appreciate the process of evaluating "cost effectiveness" of certain health programs as one way to prioritize what we do (and don't do) in global health

Brown & Closser

Section 3 p.86-102

9/10, Library workshop

9/12, Epidemiology I

# Learning goals

- 1. Define epidemiology and appreciate its importance to public health
- 2. Explore surveillance as the cornerstone of effective public health infrastructure
- 3. Discern the difference between prevalence and incidence of disease
- 4. Epidemiological reasoning and the 2x2 table

## Brown & Closser

Section 2 pages 56-85

9/17 Epidemiology II: John Snow and outbreak investigations

## Learning goals

1. Apply epidemiological reasoning to the cholera outbreak examples of 19th London

Brown & Closser

Section 1, Chapter 2 Broad Street Pump p. 16-22

#### II. ECOLOGICAL DETERMINANTS OF HEALTH: WATER, AIR AND FOOD

9/19, Water: hygiene, sanitation and drinking water

## Learning goals

- 1. Introduce concepts of environmental health and environmental justice
- 2. Describe the fecal-oral transmission of disease, the four F's of transmission; examine the patterns of poor sanitation and open defection.
- 3. Appreciate that both water quality and water quantity are important to preventing disease.

#### Brown & Closser

Section 4, Introduction p.123-127; Chapter 14

9/24, Air: harmful air pollution from the megacity to the hearth

## Learning goals

1. Introduce the four major ways that air quality affects our health

#### Brown & Closser

Section 5: Air, Introduction p.153-158; Chapters 17, 18 and 19

9/26, Food: child undernutrition

## Learning goals

- 1. Define concepts such as food insecurity, hunger, undernutrition
- 2. Understand how poor child nutrition is measured and tracked
- 3. Examine the consequences of undernutrition in childhood; appreciate the dangerous synergy between infectious disease and undernutrition

#### Brown & Closser

Section 6 Introduction p.188-194; Chapter 21 Nature of Child Malnutrition

10/1, Food: overweight in developing countries

## Learning goals

- 1. Delve into the scope of the problem of overnutrition in developing countries
- 2. Appreciate the role of Big Food in driving this new epidemic

## Brown & Closser

Chapter 24 Nutrition Paradox p.221-224

## III. SOCIAL DETERMINANTS OF HEALTH

10/3, Social determinants of health

Learning goals

- 1. Explore how both absolute and relative poverty impact health
- 2. Gain comfort with the concept of "socioeconomic gradient in health"
- 3. Explore how racism negatively impacts health

#### Brown & Closser

Section 7 Introduction p.229-236; Chapter 25 Social Determinants of Health p.237-244; Chapter 26 Disease and Dying while Black p.245-251

10/8, Sex and reproduction

#### Learning goals

- 1. Introduce sex as playing a positive and negative role in health
- 2. Explore the reasons for increased female vulnerability to negative health effects of sex
- 3. Present a case study in reproductive health: fistula & maternal morbidity

Brown & Closser

Section 8 Introduction p.254-259

#### IV. INTERVENTIONS TO IMPROVE HEALTH

10/10, Introduction to interventions in global health

## Learning goals

- 1. Acknowledge the long history of programs funded and designed in high income countries and implemented in low income countries
- 2. Rely on history as a way to understand modern global health approaches and strategies
- 3. Become fluent in the major players in global health

### Brown & Closser

Section 10 History of Health Institutions and Programs p.337-343

10/17, History of global health interventions

### Learning goals

- 1. Explore the four root "cultures" of global health
- 2. Introduce major features of the colonial and missionary medicine eras in global health
- 3. Follow the beginnings of the major global health institutions

#### Brown & Closser

Ch 35 Four 19th Century Cultural Roots of International and Global Health p.344-354

10/22, History of global health interventions: smallpox case study

# Learning goals

- 1. Introduce the only successful disease eradication effort in history
- 2. Explore contrasting viewpoints in the ethics of some campaign tactics

### Brown & Closser

Ch 4 House on Fire: the fight to eradicate smallpox p.30-35; Ch 36 Coercion and consent in smallpox eradication p. 355-367

10/24, Health systems in under-resourced countries

### Learning goals

1. Introduce the six building blocks of a health system

- 2. Explore the challenge of maintaining a sufficient health workforce
- 3. Provide Malawi as a case study of a national health system

#### Brown & Closser

Ch 38 A Heart for the Work p. 385-396; Ch 41 Are NGOs undermining health systems in Mozambique? p.409-418

10/29, Health systems: community health workers

### Learning goals

- 1. Explore the examples from Pakistan, Nepal, Haiti and Rwanda of community health workers in action
- 2. Understand the promise and pitfalls of 'task shifting' as way to relieve pressure on under-resourced health systems

#### Brown & Closser

Ch 40 Pakistan's Female Frontline Health Workers p.401-408

10/31, Large-scale interventions: vitamin A, from research to program

## Learning goals

- 1. Appreciate how basic research and epidemiology provide the jumping board for well-designed community-based trials
- 2. Explore how the Nepal Nutrition Intervention Project-Sarlahi was designed and implemented

11/5, Large-scale interventions: vitamin A, sustaining, evaluating and phasing out programs

## Learning goals

- 1. Introduce the complexity of deciding when to phase out large-scale vitamin supplementation programs
- 2. Evaluate other policies and programs to fight vitamin A deficiency & consider how policy makers prioritize

11/7, The Art of Caring: Lessons from the Ebola Crisis, Mary Beth Heffernan

#### Brown & Closser

Ch 37 Looking Back in Time from Ebola: The History of Global Health

11/12, Health communication: the communication response to the Ebola outbreak

## Learning goals

- 1. Exposure to several forms of health communication & theories of health behavior change
- 2. Illustrate the challenges of effectively communicating about health by delving into the Ebola crisis response

# Brown & Closser

Ch 46 Managing rumors & limits of correcting misinformation p. 453-459

11/14, Global trade and health, Heather Wipfli

11/19, Funding global health: foreign aid and philanthropy

# Learning goals

- 1. Explore sources of funding for health in under-resourced countries; reveal the trends in funding for health
- 2. Describe the important role of the Bill and Melinda Gates Foundation in funding global health efforts

#### Brown & Closser

Section 11 Health systems and Aid p.379-384; Ch 39 Turning the World Upside Down p.397-400; Ch 42 The vital case for global health investments p.419-423

# 11/21 Debate

# Learning goals

- 1. Delve into a contentious current issue in global health
- 2. Work in teams to summarize information, craft arguments and respond to critiques

# 11/26, Noname Activity

# Learning goals

1. Through this simulation activity, approach the complexities of designing and implementing health programs in an underresourced setting

## 12/3, Re-cap course and final exam review

Aug 2019

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The Writing Center (located on the Ground Floor of the Academic Commons) offers students from all disciplines two types of support to work on their writing: peer-to-peer, drop-in consultations with knowledgeable Writing Advisers, Sunday through Thursday from 7:00-11:00 p.m., and appointments with Faculty Writing Specialists from the Writing and Rhetoric department. Information about the Writing Center and a link to the appointment system is on the WC website: <a href="https://www.oxy.edu/writing-center">https://www.oxy.edu/writing-center</a>.

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## From the Student Handbook, Occidental College

(<u>http://www.oxy.edu/student-handbook/academic-ethics/academic-ethics</u>)

### **Cheating Defined**

Cheating occurs when a student attempts to complete or take credit for work by any dishonest means or assists another in doing so. Some examples of cheating include lying; copying from another's exam or assignment or collaborating on an exam or assignment, unless specifically allowed by the instructor; submitting the same work in more than one course without instructor permission; falsifying data collected in research or laboratory courses; taking or receiving copies of an exam without the permission of the instructor; and using notes or other information devices inappropriate to the test conditions.

#### **Plagiarism Defined**

Plagiarism occurs when the ideas, organization, or language of another are incorporated into one's work without properly crediting the original source with a citation or other disclosure. It includes re-writing or re-formatting material without acknowledging the original source of the ideas. Even if the language and organization are in the student's own words, any ideas or information that is not common knowledge must be acknowledged in a reference.

Students are responsible for knowing and using the correct procedures for acknowledging and identifying sources of borrowed material. Failure to properly credit sources in all or part of work presented in draft or final form to anyone is plagiarism, regardless of whether it occurs as a result of dishonest intent or carelessness and regardless of the course credit attached to it. As a student scholar, if you:

- Quote directly from a source: you must enclose the quoted material, even if it is no more than a phrase or a single distinctive word (such as a neologism), within quotation marks, and provide a reference.
- Paraphrase, i.e., restate the material in your own words: (a) the paraphrasing must represent a substantial change from the original, not just the changing of occasional words and phrases, and (b) you must provide a reference.
- Present material that is common knowledge, but borrow someone else's organizational pattern: you must acknowledge that borrowing in a reference.