The History of Public Health and the Environment
Emory University Rollins School of Public Health (BSHE 579)
Fall, 2004: Weds 12 to 2

NOTE: I have infiltrated environmental issues into each week’s readings and discussion. See Changes below in syllabus to include environmental issues in red or where issues already are reflected in the readings: NOTE: this course could easily be revised as an undergraduate offering

Please check the course blackboard website frequently for any updates to the syllabus.

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Course Description:
The goal of this class is to explore the history of American public health in comparative perspective, with an emphasis on environmental issues. We will examine the role of infection, nutrition, genetics, immunity, environment and behavior and the scientific and philosophical systems that underlie our understanding of them as "causes" of disease. Second, the course will examine the social and environmental factors in that have influenced population health including an examination of the categories of race, class, gender, and sex.

As we will discover there are many ways to define public health and thus there are multiple histories of public health. If a history is to be a useful tool for public health practitioners, it must attempt, so far as possible, to avoid framing the questions we ask about the past in terms how we define public health in the present. By examining the history of public health through the lens of those issues that framed population health concerns, we will gain insight into the assumptions that frame current public health responses.

Objectives:
By the end of the semester, students should be able to:
1. Define the difference between public health and medical health in historical and environmental perspective. Students should be able to articulate the way biological, environmental, and social/cultural factors interact in “disease” production and how an understanding of these influences can influence prevention strategies.

2. Explain the difference between disease, syndrome, and illness. Students should be able to explain how signs and symptoms contribute to the broader understanding of diseases, syndromes, and illnesses as they relate to the population health.

3. List historical examples of the changing definitions of public health in a variety of cultures and times.

4. Explain how population health is framed and how public health responds, using tools such as epidemiology, biostatistics, environmental health, health education, and qualitative/quantitative research methods.

5. Provide examples of how race, class, gender, and sex have influenced modern responses to public health crises.

6. Compare and contrast the response to public health issues in different times and different cultures.

**Relationship to the Mission of Rollins School of Public Health:**
The school's mission is to acquire, disseminate, and apply knowledge to promote health and prevent disease in human populations. Rollins School of Public Health comprises of six academic departments and three interdisciplinary centers: behavioral sciences and health education, biostatistics, environmental and occupational health, epidemiology, health policy and management, international health, the Center for Injury Control, the Center for Public Health Practice, and the Women's and Children's Center. At the Rollins School of Public Health (RSPH), students learn to identify, analyze, and intervene in today's most pressing public health issues. By participating in this foundation course students garner insight to the history of public health in the United States and other countries, while gaining and understanding of the rules for determining causation in public health and how those rules have developed over the years. By applying clinical, behavioral, pathological, and laboratory evidence students will apply critical thinking skills to past, present, and future public health crises.

**Class Organization:**
Although there are a number of ways to organize the history of public health, this course will take a modified chronological approach in which issues affecting population health will also be examined comparatively. For instance, we will examine an initial epidemic of a particular disease and then compare it to later reoccurrences and to outbreaks in different geographic areas. In this way we should reach a more complex understanding of how particular population health issues have been understand in different times and places and what those responses may illuminate for current and future outbreaks.

Our historical examination will call on the tools and disciplines of public health— including epidemiology & biostatistics, environmental health, health policy, health education, and qualitative/quantitative methods—recognizing, at the same time, the extent to which these tools and disciplines have been constructed and shaped by the categories of public health concerns. What constitutes public health concerns, like so much else in medicine, have been greatly
influenced by economics, politics, culture, and society. Nevertheless, the role of organic mechanisms cannot be ignored in any history of public health. Thus, we will also become familiar with the biological mechanisms of disease to the extent that they influence and inform political, social and cultural experience of public health.

A related goal of this seminar is to examine the rules for determining causation in public health and how those rules have developed and mutated. Thus we will explore the historical development of biomedical and epidemiological criteria for determining causality and definition of disease based on clinical evidence, pathology, laboratory data, and exposure. The seminar will examine these criteria in the context of the contribution of cultural, environmental, and political factors. Having done this, we expect that seminar participants will be able to critically evaluate more general claims of disease causality.

**Assignments:**
Using a problem-based approach, seminar members, working in teams, will explore an issue in the history of public health not explicitly examined in the course readings and syllabus and offer tentative explanations for determining its risks to health in an historical and comparative framework. Each topic must include an environment component. Topics will be selected in consultation with the instructor. Teams will begin their collaborations in January. Each team will examine the cultural, historical, environmental, and epistemological assumptions that have framed the understanding of what constitutes necessity and (in)sufficiency in the etiology and of a selected disease or condition associated with the history of public health. In addition, teams will then relate their final projects, in a cumulative manner, to major issues discussed in the class (e.g. issues of stigma and TB/Typhoid outbreaks; pollution and cholera). Teams will make presentations for the seminar meeting at the end of April. Details of the final assignments will be posted on the blackboard homepage early in the semester.

**Student Involvement:**
As a seminar, this course is designed to be interactive. In order to facilitate a high level of discussion, students are required to:

1. Read the assigned reading prior to the class meeting and to participate in discussions. The quality of participation in seminar discussions will influence the final grade.

2. Come to all class meetings on time. If you are unable to attend a meeting, or will be late, please inform me in advance. Unexcused absences and lateness will be reflected in your final grade.

3. Each week students a question or issued will be posed on Blackboard and students will be required to prepare a 1-2 sentence exposition to answer the question or to respond to the issues raised. These responses will be based on the main claim(s) of each reading. Students will then provide 2-3 discussion questions based on these responses. The questions should reflect underlying themes or issues arising from the specific readings for the week as they are informed by the issues that have emerged during the semester. These paraphrased theses and questions must be posted on the course homepage by 5:00 p.m. on the Monday prior to the class meeting.
To post your weekly summary paper, go to the "Discussion Board" area and locate the current unit for the week. Please "respond" to the unit's thread, which has been designated.

**Writing Assignments and Grades:**
A detailed description of the oral and written assignments is found in section three. Briefly, teams will have two reports due: (1) March 2: abstract and bibliography of team project (2) Presentations for a class conference on April 20 and April 27, 2004.

**Course grades will be determined as follows:**
Seminar participation, 30%;
Weekly Postings, 20%
Abstract and Literature Review, 10%;
Final Project (Presentation, Poster, and Paper) 40%
  - 15% presentation – most of this will be focused on content but some attention will be given to method of delivery, and ability to address questions.
  - 5% poster – again content, presentation, and ability to handle questions during poster presentations
  - 20% paper – content, logic of position, and quality of coverage on chosen issue.

**REQUIRED and SUGGESTED TEXTS**
The following are *required* texts for the course (available at the Emory bookstore):


**Recommended:**


**Useful Reference Tools:**


**COURSE ASSIGNMENTS**

1 September: Introduction: What is/was Public Health? What Constitutes etiology in Public Health?

*Sources for Discussion:*


Recommended:

?? Sept: Last Day for Drop/Add

8 September: Black Death: Bubonic Plague or Was it?: *What understanding the Environment of people and rats may Reveal*

Reading:


Recommended:

15 September: Smallpox
Reading:


Recommended:


22 September: Cholera: population growth and water-borne illness
Reading:


Arnold, David. “Cholera and Colonialism in British India.” Past and Present, no. 113, 1986, 118-151 (looks at cultural assumptions and their impact on environment resulting in exacerbation
of pollution and disease).

Recommended:


29 September: *Tuberculosis & Typhoid Fever: Public Health Interventions that “Worked”?*  
*TB: Pathogen or Environment?*

Readings:


Recommended:


*Typhoid Fever: Quarantine or Prejudice:*

Readings:


6 October: *Malaria: The World’s Greatest Killer* (NEW Topic ADDITION)  
Reading: *ALL readings below examine persistence and spread of malaria in environmental context*


6 October: ABSTRACTS DUE ABSTRACTS DUE

13 October : The Decline of Infant Mortality: Public Health, or Medical Science
Reading:


For Further reading:


20 October: Sickle Cell Anemia: *How a Molecular Disease is influence by environmental change*
Readings:

Wailoo, Keith, “Race Pathologies, Apparent and Unseen,” in *Dying in the City of Blues: Sickle Cell Anemia and the Politics of Race and Health*. Chapel Hill, Univ. of North Carolina Press, 2001, pp. 55-83 (will use as a vehicle to examine why SCA appeared to be a new disease; will discuss how environmental improvements, especially in the water supply, made it possible for children with SCA to survive infancy and thus enable researchers to both identify the disease and develop interventions that prolonged life of the afflicted).


For Further Reading:


27 October: Tuskegee Syphilis Study:
Reading:


Wills, Christopher. Chapter 9: "Syphilis and the Faustian Bargain" in *Yellow Fever, Black Goddess: The Coevolution of People and Plagues*. Reading, MA: Addison Wesley, 1996, pp. 186-211. (Shows how the rise of syphilis and persistence reflected environmental pressures, including climate and human cultural practices and esp how the bacteria itself was the result of changing environmental forces.)

Suggested reading:


3 November: Addiction, Mental Health and Public Health: A Problem of Classification

Read:


Colin Talley, Howard I. Kushner, & Claire E. Sterk, “Lung Cancer, Chronic Disease Epidemiology, and Medicine, 1948-1964,” Journal of the History of Medicine. 2004, 59:329-373. (examines scientific evidence and claims about smoking—will use to explore the extent to which focus on cigarettes may have resulted in de-emphasis on other environmental pollutants and lung cancer).

10 November: HIV/AIDS and the Environment (Public Health students learn a great deal about HIV/AIDS, but little about how environmental changes led to increased spread of AIDS—thus this section will focus on that aspect)

Readings: (All these readings examine environmental change and spread of HIV/AIDS)


17 November: Chronic Disease Epidemiology, the Environment, and the future of Public Health: (new emphasis).
Read:


24 November: No Class—Thanksgiving break

1 December: Team Presentations

8 December: Team Presentations

Possible topics and readings that could form the basis for a team collaboration (Also suggestions for further reading in the History of Public Health—All topics must consider environmental impact.)