

CARDIOVASCULAR DISEASE EPIDEMIOLOGY – EPID 735
Department of Epidemiology, School of Public Health, UNC at Chapel Hill

FALL 2006

The purpose of the course is to provide an introductory overview of the field of cardiovascular disease epidemiology, its main topical issues, and methodology. Students and faculty will review the population burden of the main categories of cardiovascular disease, the factors that influence their distribution and clinical outcomes, and the methods used in public health-oriented, epidemiologic research of subclinical and clinical cardiovascular disease.

Objectives

Provide a comprehensive overview of the field of cardiovascular disease epidemiology, its main topical issues, and methodology

Knowledge and Skills

[*The student will*] have an understanding of the historical evolution of cardiovascular diseases in human societies, their current, and predicted impact on public health

Be aware of the basic pathophysiologic mechanisms underlying cardiovascular diseases

Be familiar with the main categories of cardiovascular disease, indexed by the commonly used classifications

Be knowledgeable about the principal mechanisms, personal, and group attributes that influence the distributional patterns of cardiovascular disease in populations

Be familiar with the epidemiologic methods commonly used in the study of cardiovascular diseases, their clinical manifestations, and their epidemiology

Be exposed to the main quantitative analytic techniques employed in studying the epidemiology of cardiovascular diseases

Be familiar with the literature and resources in the field of cardiovascular disease epidemiology, and be able to review them critically

Understand the main paradigms underlying epidemiologic and public health-oriented research in cardiovascular disease epidemiology, for the most prominent morbid conditions, in specific historical and societal contexts

The Honor Code: What is encouraged and permissible in this course ?

Our goal is to engage all course participants in an active exchange of information and ideas. Students are encouraged to collaborate with, assist, and critique each other always giving credit to the ideas received from classmates. The Class Project (see below) requires the identification of a research question deemed to be informative and timely. This research question need not be original, with proper attribution to the source(s).

Please feel free to consult with the course instructors to clarify any aspect pertaining to the Honor Code. To clarify the appropriate scope of summarization, review, and quotation of the work by others, please refer to the guidelines available from Epidemiology Student Services. A copy of The Instrument of Student Judicial Governance can be obtained from the office of the Dean of students (966-4041).

Grading

There will be no in-class final examination. The grade will be determined as follows:

- a. Participation in class – 15 percent
- b. Class Project – 85 percent:
 - Command of the pertinent literature, choice of study question and rationale: 60 percent
 - Effective communication skills (Presentation + Abstract): 25 percent

Two tests will be given during the course for diagnostic feed-back for the student. The answers to the test questions will be reviewed in class.

The Class Project

The main evaluation activity for this course is the preparation of a project in which the student proposes a focused research question intended to advance knowledge in a specific area of cardiovascular disease epidemiology. The study question or hypothesis is selected by the student based on a focused review of the literature to identify gaps in the extant knowledge. The elements included in this project are (1) a synthesis of the pertinent knowledge from the published literature, (2) the proposed study question or hypothesis, (3) a justification or rationale for the study question or hypothesis based on its scientific informativeness and/or public health relevance. It is not expected that the class project be developed into a research proposal. Criteria to define the scope of this project will be provided by the instructors.

The student project is presented to class, in the format of a presentation to a scientific or professional meeting. Each student prepares an individual project based on his/her interest and review of the relevant literature, but consultation with faculty and peers is permissible and encouraged. Ideas contributed by peers need to be acknowledged.

Exceptionally and with permission by the instructor, the class project can be delivered as a term paper (in lieu of a presentation to class) on an agreed upon deadline. If the student is unable to meet a deadline the course instructor must be notified in advance.

**EPIDEMIOLOGY 735
CARDIOVASCULAR DISEASE EPIDEMIOLOGY**

**Fall, 2006
Mondays 9:00 – 11: 50 a.m.
McGavran-Greenberg (MC) Room 2301**

<u>DATE/TIME</u>	<u>TOPIC</u>	<u>LECTURER</u>
August 28		
9:00-10:15	Introduction	G. Heiss
10:30-11:45	Overview	G. Heiss
September 4	<i>University Holiday</i>	
September 11		
9:00-10:15	Burden of Cardiovascular Diseases	G. Heiss
10:30-11:45	Ischemic Heart Disease	G. Heiss
September 18		
9:00-10:15	Heart Failure	G. Heiss
10:30-11:45	Surveillance of CVD Events	G. Heiss
September 25		
9:00-10:15	Cerebrovascular Disease	G. Heiss
10:30-11:45	Subclinical disease	G. Heiss
October 2		
9:00-10:15	Elevated Blood Pressure	G. Heiss
10:30-11:45	CVD Risk Factors	G. Heiss
October 9		
9:00-10:15	Quiz & Group Discussion	G. Heiss
10:30-11:45	Psychosocial Factors and CVD	R. Williams
October 16		
9:00-10:15	Lipids and CHD	G. Heiss
10:30-11:45	SES and CVD	K. Rose
October 23		
9:00-10:15	Atherosclerosis: Pathology & Anatomy	S. V. Smith
10:30-11:45	Obesity, the “metabolic syndrome” and CVD	G. Heiss
October 30		
9:00-10:15	Genetic Epidemiology in CVD	K. North
10:30-11:45	CVD in Women	G. Heiss

<u>DATE/TIME</u>	<u>TOPIC</u>	<u>LECTURER</u>
November 6 9:00-10:15 10:30-11:45	Diet and CVD Quiz & Group Discussion	T. Keyserling G. Heiss
November 13 9:00-10:15 10:30-11:45 Morey	Environmental agents and CVD Physical Activity	E. Whitsel K. Evenson/M.
November 20 9:00-10:15 10:30-11:45	Inflammation and CVD Student presentations	G. Heiss G. Heiss
November 27 9:00-10:15 10:30-11:45	Student Presentations Student Presentations	
December 4 9:00-10:15 10:30-11:45	Student Presentations Student Presentations	

(Classes end Wednesday, December 6)

RECOMMENDED TEXTBOOKS (One copy on reserve in HSL)

Primer in Preventive Cardiology, Thomas A. Pearson, Editor. American Heart Association, 1994.

(Out of print. Limited number of copies available from the instructor)

Coronary Heart Disease Epidemiology. From Aetiology to Public Health. Michael Marmot and Paul Elliott (Eds.). Oxford University Press, 2005 (2nd edition)

Epidemiology and Prevention of Cardiovascular Diseases: A Global Challenge, Darwin R. Labarthe, Aspen Publishers, Inc., 1998

REFERENCE MATERIALS

The American Heart Association provides a yearly updated statistical supplement available on its website. The reference for the 2004 version is: American Heart Association. 2004 Heart and Stroke Statistical Update. Dallas, Texas: American Heart Association. (www.amheart.org)