READINGS IN EPIDEMIOLOGIC MODELING

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Time and Place:

Wednesday 12:00-12:50 PM in HC 0001 (Blue Cross Blue Shield Auditorium)

Note: No class on October 15th (Fall Break)
No class on November 26 (Thanksgiving)

Co-Requisite:

All students enrolled in Epid 719 should be currently enrolled in Epid 718

This seminar is a 1-credit hour course designed to facilitate an active discussion of theoretical or conceptual readings related to epidemiologic modeling. There are no teaching assistants or co-instructors. There is no final examination at the end of the term. Because of the seminar format, preparation (reading the assigned articles) and class participation (participating in the discussion) are particularly important.

Required Texts:

None. But you may wish to refer to ME3 2008 as a general reference.

Readings:

Readings are assigned each week. Adobe Acrobat files of the assigned readings will be available for downloading from the course website. Additional readings are also listed for the interested and intrepid student, most of which are available electronically as well.
Required readings are shown in **bold**, and recommended auxiliary readings are shown in *italics*.

**Schedule of Topics and Readings:**

**Session 1:** Wednesday August 20, 2008 12:00-12:50 PM  
**Topic:** Statistical reasoning and modeling in epidemiology

Assigned Readings:


**Session 2:** Wednesday August 27, 2008 12:00-12:50 PM  
**Topic:** Defining Causal Effects

Assigned Readings:


Session 3: Wednesday September 3, 2008 12:00-12:50 PM
Topic: Data, design, and background knowledge in etiologic inference.

Assigned Readings:


Session 4: Wednesday September 10, 2008 12:00-12:50 PM
Topic: Confounding and Collapsibility

Assigned Readings:


Session 5: Wednesday September 17, 2008 12:00-12:50 PM
Topic: Interaction and Synergism

Assigned Readings:


Session 6: Wednesday September 24, 2008 12:00-12:50 PM
Topic: p-values and statistical inference

Assigned Readings:


Poole C. Low P-values or narrow confidence intervals: which are more durable? Epidemiology. 2001;12(3):291-4.


Session 7: Wednesday October 1, 2008 12:00-12:50 PM
Topic: Measurement Error [David Richardson]

Assigned Readings:


Greenland S, Gustafson P. Accounting for independent nondifferential misclassification does not increase certainty that an observed association is in the correct direction. *Am J Epidemiol.* 2006 Jul 1;164(1):63-8.

Session 8: Wednesday October 8, 2008 12:00-12:50 PM  
Topic: Sensitivity Analysis [Brian Pence]


Lash TL, Silliman RA. A sensitivity analysis to separate bias due to confounding from bias due to predicting misclassification by a variable that does both. *Epidemiology* 2000; 11(5): 544-9.


Session 9: Wednesday October 22, 2008 12:00-12:50 PM  
Topic: Causal Inference in Infectious Disease [Daniel Westreich]

Assigned Reading:


Session 10: Wednesday October 29, 2008  12:00-12:50 PM
Topic: Population Attributable Risk [Beverly Rockhill Levine]


Session 11: Wednesday November 5, 2008  12:00-12:50 PM
Topic: Effect Decomposition

Assigned Readings:


Petersen ML, Sinisi SE, van der Laan MJ. Estimation of direct causal effects. Epidemiology. 2006 May;17(3):276-84.

Session 12: Wednesday November 12, 2008 12:00-12:50 PM
Topic: Propensity Scoring

Assigned Reading:


Session 13: Wednesday November 19, 2008 12:00-12:50 PM
Topic: Marginal Structural Models

Assigned Reading:


Session 14:  Wednesday December 3, 2008  12:00-12:50 PM  
Topic:  Selection Bias

Assigned Reading:


A Few Recommended Articles that Put All the Pieces Together for Post-Semester Reading:
