

METHODS IN REPRODUCTIVE EPIDEMIOLOGY- EPI 232

Prof. Pamina M. Gorbach

(Total 20 hours lecture)

CONTENT:

This course will introduce epidemiology students to a range of different methodologies used to collect data and conduct analysis on reproductive epidemiology topics. These will include methods that produce quantitative data (i.e. special surveys, clinic and hospital based data, computer-assisted survey interviewing) and methods that produce qualitative data (e.g. ethnographic interviews, focus groups, systematic observations). Software used in the analysis of qualitative data will be introduced. The emphasis will be to instruct students on the use of methods appropriate for challenging and sensitive research topics such as sexual behavior, abortion use, drug use, and sexual abuse.

METHODS OF INSTRUCTION

Most of the instruction will be lectures given by Dr. Pamina Gorbach, Assistant Professor in Residence in the Department of Epidemiology. There will be a few guest lecturers who are experts in different methodologies. A portion of each class will be reserved for discussion of the lectures.

ASSESSMENT

- Review of article – Students will be asked to sign up on the first day of class to choose one of the assigned readings to review. The review will include a summary of the article, methods used, and strengths and weaknesses with the approach or study presented. Should be one page in length.
- Proposal for study of reproductive epi - students will be asked to pick a reproductive epidemiology topic and develop a study applying the methodologies taught in the class. This 3- 5 page proposal will include a brief description of the problem based on a literature review, a study design including sampling approach, sample size, theoretical approach, methodology, and analytic approach.
- Grading will distributed as follows: 30% for review of an assigned article, 60% for proposal.

PREREQUISITE

Epidemiology 100, 200

COURSE OUTLINE: March 31-Friday June 6 – exams end 13th

Topic	Assignment
<p>Week 1: 4/6 Class Introduction Review of standard methods in reproductive epidemiology and traditional sources of data</p> <p>Choose review article</p>	INTRODUCTION
<p>Week 2: - 4/16 Surveys in special populations (sex workers, IVDUs, transgender, youth): finding your population.</p> <p>Adaptive sampling, random walk, respondent driven sampling</p>	
<p>Week 3: 4/20 Sampling special populations: Los Angeles venue based sampling Trista Bingham from LAC HIV Epi – studies of MSM in bathhouses and other sex venues</p>	
<p>Week 4: 4/27 Clinic populations: STD, HIV, and family planning clinics: Working in clinical settings, selecting control groups, data quality, biases, clinical records. Lisa Manhart – University of Washington, Seattle</p>	
<p>Week 5: 5/4 Interviewing special populations on special topics: Asking sensitive questions – use of ACASI, web interviewing.</p>	
<p>Week 6: 5/11 Qualitative data: When, why and with who collect ethnographic interviews, focus groups, peer interviews, or structured observations</p> <p>Using theory</p>	
<p>Week 7: 5/18 Qualitative data: Analysis – coding, using the software to do searches, making matrixes, theme analysis</p> <p>Using both qualitative and quantitative data: triangulation</p>	
<p>Week 8: 5/25 Ecological and contextual studies: Using data from maps and other community sources</p>	
<p>Week 9: 6/1 Sevgi Aral – Centers for Disease Control: A innovative method of qualitative data collection: structured observations of sex workers in Russia</p>	
<p>Week 10: 6/8 Issues in analysis of survey data using alternative sampling strategies. Integrated surveys: collecting specimens in the field Revisiting the standard approaches – how can they be improved?</p>	
<p>FINAL – proposal due. week 11: 6/ 15</p>	

Class 2

1. Watters JK, Biernacki P. Targeted Sampling: Options for the study of hidden populations. *Social Problems*, 1989, Vol 36(4) : 416-430
2. Thompson SK, Collins LM. Adaptive sampling in research on risk-related behaviors. *Drug Alcohol Depend* 2002 Nov;68 Suppl 1:S57-67
3. McGrady G, Marrow V, Myers G, Daniels M, Vera M, Mueller C, Liebow E, Klovdahl A, Lovely R. A note on implementation of a random-walk design to study adolescents social networks. *Social Networks*.1995, (17) :251-255
4. Liebow E, McGrady G, Branch K, Vera M, Klovdahl A, Lovely R, Mueller C and Mann E. Eliciting social network data and ecological model-building: Focus on choice of name generators and administration of random-walk study procedures. *Social Networks*.1995, (17): 257-272
5. Heckathorn D.D; Semaan S; Broadhead R.S.; Hughes J.J.. Extensions of Respondent-Driven Sampling: A New Approach to the Study of Injection Drug Users Aged 18–25. *AIDS and Behavior*. March 2002, Volume 6, Issue 1: 55-67.

Class 3

6. Muhib FB, Lin LS, Stueve A, Miller RL, Ford WL, Johnson WD, Smith PJ; Community Intervention Trial for Youth Study Team. A venue-based method for sampling hard-to-reach populations. *Public Health Rep* 2001;116 Suppl 1:216-22
7. Semaan S; Lauby J; Liebman J. Street and Network Sampling in Evaluation Studies of HIV Risk-Reduction Interventions. *AIDS Rev* 2002; 4:213-223.
8. Behavioral Surveillance Surveys (BSS): Guidelines for Repeated Behavioral Surveys in Populations at Risk for HIV. Chapter 4: Sampling Approaches.

Class 4

9. Howards PP; Thomas JC; Earp JA. Do clinic-based STD data reflect community patterns? *International Journal of STD & AIDS* 2002; 13:775-780.
10. Saphonn V, Hor LB, Ly SP, Chhuon S, Saidel T, Detels R. How well do antenatal clinic (ANC) attendees represent the general population? A comparison of HIV prevalence from ANC sentinel surveillance sites with a population-based survey of women aged 15-49 in Cambodia. *Int J Epidemiol* 2002 Apr;31(2):449-55.

Class 5

11. Turner CF, Ku L, Rogers SM, Lindberg LD, Pleck JH, Sonenstein FL,. Adolescent sexual behavior, drug use, and violence: increased reporting with computer survey technology. *Science* 1998;280:867-873.
12. Des Jarlais PD, Milliken J, Turner CF, Miller H, Gribble J, Shi Q, Hagan H, Friedman SR. Audio-computer interviewing to measure risk behaviour for HIV among injecting drug users: a quasi-randomised trial. *Lancet* 1999;353:1657-1661.
13. Johnson AM, Copas AJ, Erens B, Mandalia S, Fenton K, Korovessis C, Wellings K, Field J, Effect of computer-assisted self-interviews on reporting of sexual HIV risk behaviours in a general population sample: a methodological experiment. *AIDS* 2001;15:111-115.

14. Rhodes KV, Lauderdale DS, He T, Howes DS, Levinson W. "Between me and the computer": Increased detection of intimate partner violence using a computer questionnaire. *ANNALS OF EMERGENCY MEDICINE*. 40 (5): 476-484 NOV 2002
15. Baer A, Saroiu S, Koutsky LA. Obtaining sensitive data through the Web: An example of design and methods. *EPIDEMIOLOGY*. 13 (6): 640-645 NOV 2002
16. Gregson S, Zhuwau T, Ndlovu J, Nyamukapa CA. Methods to reduce social desirability bias in sex surveys in low-development settings - Experience in Zimbabwe. *SEXUALLY TRANSMITTED DISEASES*. 29 (10): 568-575 OCT 2002
17. Newman JC, Jarlais D, Turner CF, Gribble J, Cooley P, Paone D. The differential effects of face-to-face and computer interview modes. *AMERICAN JOURNAL OF PUBLIC HEALTH*. 92 (2): 294-297 FEB 2002.

Class 6

18. Malterud K. Qualitative research: standards, challenges, and guidelines. *Lancet* 2001 Aug 11;358(9280):483-8.
19. Rhodes T; Cusick L. Accounting for unprotected sex: stories of agency and acceptability. *Social Science & Medicine*. 2002, 55:211-226.
20. Price, N and Hawkins K. Researching sexual and reproductive behaviour: a peer ethnographic approach, *Science and Medicine* 55 (8): 1325-1336.
21. Adimora AA, Schoenbach VJ, Martinson FE, Donaldson KH, Fullilove RE, Aral SO. Social context of sexual relationships among rural African Americans. *Sex Transm Dis* 2001 Feb;28(2):69-76.
22. Crossley ML. 'Could you please pass one of those health leaflets along?': exploring health, morality and resistance through focus groups. *Soc Sci Med* 2002 Oct;55(8):1471-83.

Class 7

23. Miles MB and Huberman AM. *Qualitative Data Analysis: An Expanded Sourcebook*. Second ed. Thousand Oaks, CA: Sage Publications; 1994. Chapter 4, 9.
24. Helitzer-Allen DL, Makhambera M., Wangler AM. Obtaining sensitive information: The need for more than focus groups. *Reproductive Health Matters*, 1994 (3):75- 82.
25. Jewkes, Rachel and Abrahams, Naema. The epidemiology of rape and sexual coercion in South Africa: an overview. *Social Science & Medicine*. 2002. Volume 55, Issue 7, October: 1231-1244.
26. Gorbach PM, Stoner BP, Aral SO, Coronado N, Connor S, Holmes KK. It Takes a Village: Understanding Concurrent Partnerships In Seattle, WA. *Sex Transm Dis*, 2002; 29(8).
27. MacQueen, K. M., McLellan, E., Kay, K., and Milstein, B. (1998). Codebook development for team-based qualitative analysis. *Cultural Anthropology Methods*, 10, 31_36.

28. Carey, J.W., Morgan, M., and Oxtoby, M. (1996). Intercoder agreement in analysis of responses to open-ended interview questions: Examples from tuberculosis research. *Cultural Anthropology Methods*, 9, 1_5.

Class 8

29. Aral SO, St Lawrence JS, Tikhonova L, Safarova E, Parker KA, Shakarishvili A, Ryan CA. The social organization of commercial sex work in Moscow, Russia. *Sex Transm Dis* 2003 Jan;30(1):39-45.
30. Seal, David Wyatt; Bloom, Fredrick R.; Somlai, Anton M. 2000. "Dilemmas in Conducting Qualitative Sex Research in Applied Field Settings." *Health Education and Behavior* 27(1): 10-23 (February).

Class 9

31. Cohen D, Spear S, Scribner R, Kissinger P, Mason K, Wildgen J. "Broken windows" and the risk of gonorrhea. *Am J Public Health* 2000 Feb;90(2):230-6.
32. Fullilove MT, Fullilove RE 3rd. What's housing got to do with it? *Am J Public Health* 2000 Feb;90(2):183-4.
33. Buckeridge DL, Mason R, Robertson A, Frank J, Glazier R, Purdon L, Amrhein CG, Chaudhuri N, Fuller-Thomson E, Gozdyra P et al. Making health data maps: a case study of a community/university research collaboration. *Science and Medicine* 2002, 55(7):1189-1206.
34. Vlahov D, Galea S. Urbanization, urbanicity, and health. 2002. *Journal of Urban Health*. 79(4) Suppl 1:S1-12.
35. Steckler A; McLeroy KR; Goodman RM; Bird ST; McCormick L. 1992. "Toward Integrating Qualitative and Quantitative Methods: An Introduction." *Health Education Quarterly* 19(1) Spring: 1-8.
36. Diehr P, Martin DC, Koepsell T, Cheadle A, Psaty BM, Wagner EH. Optimal survey design for community intervention evaluations: cohort or cross-sectional? *J Clin Epidemiol* 1995 Dec;48(12):1461-72.
37. Laumann EO Laumann EO; Gagnon, JH; Michael RT; and Michaels S. 1994. The Social Organization of Sexuality. Chicago: University of Chicago Press. Chapter 2: 35-77.

Class 10

38. Shain RN; Perdue ST; Piper JM; Holden AEC; Champion JD; Newton ER; Korte JE. Behaviors Changed by Intervention Are Associated With Reduced STD Recurrence: The Importance of Context in Measurement. September 2002, Volume 29, Issue 9: 520-529.
39. Behavioral Surveillance Surveys (BSS): Guidelines for Repeated Behavioral Surveys in Populations at Risk for HIV. Chapter 5: Weighting in Multi-Stage Sampling.
40. Aral, Sevgi O. Peterman, Thomas A. Editorial: A Stratified Approach to Untangling the Behavioral/Biomedical Outcomes Conundrum. *STD* September 2002, Volume 29, Issue 9: 530.

41. Slymen DJ, Hovell MF. Cluster versus individual randomization in adolescent tobacco and alcohol studies: illustrations for design decisions. *Int J Epidemiol* 1997 Aug;26(4):765-71
42. Feldblum PJ, Chen-Mok M, Bwayo JJ, Omari M, Kuyoh M, Ryan KA. Intracluster correlation of STD prevalence in a community intervention trial in Kenya. *Lancet* 1999 Oct 16;354(9187):1356-7
43. Donner A, Klar N. Design and Analysis of Cluster Randomization Trials in Health Research. In : _____
44. Baganizi E, MacLachlan E, Maiga O, Bougoudogo F, Castle S, Gorbach P, Parker K, Ryan C. The feasibility of integrated STI prevalence and behavioral surveys in developing countries. *Sex Transm Infect* 2002; 78: 187-189.