

**Community-Based Environmental Health Methods for Research Intervention and Evaluation; Doug Brugge, Tufts University, Spring 2002.**

**Catalog Description**

There is growing interest in community-based research and in particular in forming partnerships with the communities affected by public health studies. More and more, these studies also engage the community in a participatory fashion in the actual research. This course will explore the various methods that are used in such studies, the benefits and challenges to such an approach and the possibility that new ethical considerations arise in such circumstances. Particular emphasis will be placed on the relationship of service, education and research, the use of focus groups, interviews and surveys and the relationship to conventional research methods. The course will include case examples and guest speakers from communities engaged in collaborative studies.

**Rationale/need for the course**

There is a growing interest in communities to participate in various ways in research that is intended to address their concerns as well as a growing respect among researchers for community-based methods of research. In response researchers are being drawn into collaborations with community partners, often called community-university collaborations or community-based research. Unfortunately there are many mistakes that researchers have made repeatedly from lack of training in the lessons that others have learned before them. This course would train future researchers at the graduate stage in order to help prepare them to engage more effectively with communities in their later career. The course director also hopes to use the course to write/edit a book that compiles case studies and that can be used in courses like this one.

**Learning Objectives**

- To be able to list and explain the basic principles that constitute community-based research.
- To understand why community-based research is important, how it fits into the scientific process and literature, and how it is different from yet incorporates classic methods of research.
- To be able to identify several ethical issues that differ in form or content between community-based and traditional research.
- To be able to discuss several community-based project case studies critically and identify strengths and weaknesses of each, both in methods and ethics.
- To understand that there is not a single model for community based work that applies to all communities or all types of projects and to be able to explain why a particular model might be chosen in a specific situation.
- To be able to form a cooperative relationship with a community partner.
- To be able to synthesize the knowledge they have gained into a concrete, written grant proposal.

## **Course Structure**

The course will run in the month of April.  
It will run 8 sessions, on Tuesday and Thursday mornings from 9 AM to noon  
from March 26 - April 18.  
Classes will be held in the DFM&CH conference room.

## **Student Evaluation**

Students will be expected to work in a team over the course period to design a community-based study and write a research proposal (in response to an r.f.a.). Possible topics could include a child injury prevention program for public housing, a study of asthma at a local elementary school, or an evaluation of a health and housing survey and intervention program. The proposal would need to include research, intervention and evaluation components. Students would work with actual community preceptors and will be evaluated in part on their ability to construct relevant solutions to the concerns of the community preceptors. Grades would be based primarily on the written research proposal (40%) and final presentation (20%) by the students. Class attendance (20%) and participation (20%) will also be graded.

## **Course Outline**

### **Session One, March 26, 2002**

- (1) An introduction to the course.
- (2) Research and community based research.
- (3) Basics of research ethics.

#### READING:

Peavy JV. Surveys and sampling. in Gregg MB ed., *Field Epidemiology*. Oxford University Press, 1996:152-163.

Baker EA, Homan S, Schonhoff R, Kreuter M. Principles of Practice for Academic/Practice/Community Research Partnerships. *American Journal of Preventive Medicine*. 1999 April;16(3 Suppl):86-93.

Israel BA, Schulz AJ, Parker EA. Review of Community-Based Research: Assessing Partnership Approaches to Improve Public Health. *Annual Review of Public Health*. 1998;19:173-202.

Schensul JJ. Organizing Community Research Partnerships in the struggle Against AIDS. *Health Education and Behavior*. 1999;26(2):266-283.

Weijer C, Emanuel EJ. Protecting communities in biomedical research. *Science*. 2000;

289:1142-1144.

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Scocca T. Hopkins arm sued over lead-paint study. *Baltimore City Paper*. August 8-14, 2001.

### **Session Two, March 28, 2002**

Case study: Public Health in Public Housing. The history and development of this collaboration and early data will be described. The focus will be on the challenge of forming a collaboration that includes city agencies, university faculty, technical consultants, community activists and residents of public housing.

(1) Slide show presentation reviewing the project and recent data

(2) Guests: A panel of members of the Healthy Public Housing Initiative

(3) Ethics discussion

#### **READING:**

Hynes P, D Brugge, J Watts, J Lally. Public health and the physical environment in Boston public housing. *J. Planning, Practice, and Research* 2000;15:31-49.

Brugge D, Vallarino J, Ascolillo L, Osgood N, Steinbach S, Spengler J. Comparison of multiple environmental factors for asthmatic children in public housing. (in press, *Indoor Air*).

Kole A, Brugge D. Exploring community-based research ethics. Case study: Healthy Public Housing Initiative (Draft manuscript).

### **Session Three, April 2, 2002**

***Teams must report the community partner that they have chosen.***

#### **Case Study: Community-based Evaluation**

2) Guest: Bart Laws of the Latino Health Institute

#### **READING:**

Allston-Brighton Healthy Boston Coalition. *The Neighborhood in Transition, A Time for Mobilization: The Allston-Brighton Community Assessment Report*, March 1993.

Minkler M. Using participatory action research to build healthy communities. *Public Health Reports* 2000; 115:191-197.

Sharp PA, Greaney ML, Lee PR, Royce SW. Assets-oriented community assessment. *Public Health Reports* 2000; 115:205-211.

Case Study: Urban gardening.

1) Guest: H. Patricia Hynes, Professor, Boston University School of Medicine.

READING:

Blair D, Giesecke C, Sherman S, A dietary, social and economic evaluation of the Philadelphia Urban Gardening Project. *Journal of Nutrition Education* 1991; 23:161-167.

Hynes HP, Maxfield R., Carroll P., Hillger R. Dorchester Lead-Safe Yard Project: A Pilot Program to Demonstrate On-site Techniques to Reduce Exposure to Lead-Contaminated Soil. *Journal of Urban Health: Bulletin of the New York Academy of Medicine*, January 2001.

**Session Four, April 4, 2002**

Case Study: Boston Chinatown. Presentation of the development of community based research methods for Boston Chinatown and approaches to being responsive to and involving the community in research addressing the impact of development on this community (air pollution and safety problems from traffic, lack of open space and other concerns).

1) Guest: Andrew Leong, Associate Professor, University of Massachusetts Boston

2) Presentation of data and discussion of its use

3) Walking tour of Chinatown

READING:

Lai Z, Leong A, Wu CC. (2000) The Lessons of the Parcel C Struggle: Reflections on Community Lawyering. *UCLA Asian Pacific American Law Journal*, 6:1-43.

Brugge D, Lai Z, Hill C, Rand W. The effect of traffic on injuries in Boston Chinatown: Lessons from three years of data. *Journal of Urban Health*. 2002; 79:87-103.

Brugge D, A Leong, A Averbach, F Cheung. An environmental health survey of residents of Boston Chinatown. *Journal of Immigrant Health*. 2000; 2:97-111.

**Session Five, April 9, 2002**

Grant writing tutorial

READING:

Cummings SR, Washington AE, Ireland C, Hulley SB. Writing and funding a research proposal. In Hulley SB and Cummings SR eds. *Designing clinical research*. Williams & Wilkins Baltimore, MD, 1988.

Healthy Public Housing Initiative proposal.

Chinatown environmental education proposal.

### **Session Six. April 11, 2002**

#### Ethics Case Studies:

1) Discussion

2) Activity

#### READING:

Wing S. Social responsibility and research ethics in community driven studies of industrialized hog production (Draft manuscript).

Silka L. Rituals and research ethics: Using one community's experience to reconsider the ways that communities and researchers build sustainable partnerships (Draft manuscript).

### **Session Seven. April 16, 2002**

Case Study: Radiation and Native Americans

1) Slide show of history and impact of uranium mining on Navajos

2) Presentation of Sequoyah Fuels Corporation hazardous waste site

3) Ethics discussion

#### READING:

Brugge D and Goble R. The history of uranium mining and the Navajo Indians. (in press *American Journal of Public Health*).

Brugge D, Benally T, Harrison P, Austin-Garrison M, Stilwell C, Elsner M, Bomboy K, Johnson H, Fasthorse-Begay L. Using oral histories and photographs to document the experience of the Navajo People with uranium mining. (submitted).

Quigley D, Handy D, Goble R, Sanchez V, George P. Participatory research strategies in nuclear risk management for native communities. *Journal of Health Communication*. 2000; 5:305-31.

Frohmborg E. Goble R. Sanchez V. Quigley D. The assessment of radiation exposures in Native American communities from nuclear weapons testing in Nevada. *Risk Analysis*. 2000; 20:101-11.

Brugge D and Missaghian M. Protecting the Navajo People through tribal regulation of research (Draft Manuscript).

**Session Eight, April 18, 2002**

Students will present their final projects.