

**Project Proposal for
SUNY SPH Intern
Spring 2007**

A. Project Title

An Assessment of Perceptions Associated with an NYSDOH Biomonitoring Program

B. Public Health and MCH Significance of the Project

The release of hazardous substances into the environment can have broad social and psychological impacts on the members of affected communities. These individuals confront a variety of threats including potential health concerns, declining property values, disruptions in social roles, relocation, the loss of community cohesion and future economic uncertainties. These threats have measurable psychological consequences. Several theoretical perspectives suggest successful adaptation to negative life events is characterized by efforts to regain a sense of mastery and control. One way individuals achieve control in the context of an environmental threat like a chemical release is through involvement in a community coalition or symbolic action against a perceived perpetrator. A second way is by obtaining information about the potential health consequences of an exposure and techniques to prevent potential negative health outcomes. A biomonitoring program can provide information about an individual's level of exposure and thus contribute to one's perceptions about potential health consequences. However, in many instances biomonitoring alone cannot provide a basis on which to draw conclusions about future health effects. Therefore, this project is being undertaken to assess participant's perceptions of a biomonitoring program, to better understand whether the program can assist in gaining control and coping with a chemical release.

C. Project Background and Goals

In November 2001, a chemical facility in New York State began production of 2-chloro-6-fluorophenol (CFP). Several batches had been produced and were being stored in a heated vessel prior to purification. On January 5, 2002, at approximately 10:45 PM, a pressure build-up in the storage vessel at the facility caused a pressure disc to rupture. Droplets of CFP deposited on cars, houses, and other surfaces. As a result, five rounds of urine sampling were conducted in the months following January 5, 2002 to test for CFP.

The goal of this project is to measure the psychological impacts of the biomonitoring program. This goal will be reached by surveying a sample of people who participated in the biomonitoring program following the chemical release. The specific aims of the study are to:

1. Assess people's reaction to the biomonitoring program.
 - a. Examine if there is a relationship between individuals' reactions to the biomonitoring program and their general perceptions of stress and psychological reactions to the Diaz event.
 - b. Examine potential socio-demographic variables and assess whether these variables, including gender, are associated with individuals' reactions to the biomonitoring program.
2. Pilot test a survey tool which can be administered in the future to people participating in biomonitoring programs.

D. Student's Role in the Project

Initially, there will be an opportunity for this student to provide input in the development of the questionnaire survey. Subsequently, we would like to student to assist in data collection (i.e. coordinate the mailing of a survey and assist interviewers with phone follow-up) and data management (i.e. develop data management system and coordinate data entry). We would like the student to assist in the analysis of data collected from the survey and to participate in the generation of reports, where appropriate. Throughout the project, the student should keep abreast of the most up-to-date literature/journal articles related to the topic. Finally, we would like the student to be a part of any pertinent meetings.

E. Project Duration and Scheduling Considerations

There will be sufficient work for the student during spring 2007. Within reason we will be able to accommodate the student's class schedule.

F. Expected Project Outcomes and Student Deliverables

We expect that this project will result in a report and potentially a presentation to CEH staff. We would like the student to gain practical experience associated with implementation of the project and take part in the writing of the report, as appropriate. Along the way, we would like the student to participate in successfully guiding the project through data collection and, at least, the initial stages of data analysis.

G. College Course and/or Other Prerequisites

- Student should be enrolled in either Epidemiology or Environmental Health and Toxicology programs and have taken basic coursework in those fields
- Preferred coursework:
 - Environmental Epidemiology
 - Statistical experience beyond introductory coursework (knowledge of factor analysis a plus)
- Interest in health psychology or related field a plus