



The Great Lakes EpiCenter News

Epidemiology Project of the Great Lakes Inter-Tribal Council, Inc.

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Epidemiology is the study of the distribution and determinants of health-related states or events in specified populations and the application of this study to the control of health problems.

The EpiCenter provides epidemiological services to the Tribes in the Bemidji Area (Michigan, Wisconsin, and Minnesota). The services include training and technical assistance in many areas of public health, data management, program planning, and program evaluation.

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PUBLIC HEALTH: PRACTICE OR RESEARCH?

Submitted by: Kristin Hill, EpiCenter Director

Regardless of where you may live or visit in this world, health care is basically provided in one of two ways and both are present at the same time. Obviously, differences are evident based on the national and community resources available or authorized by the governing body. Health care is delivered 1) to individuals as in the 'medical model', or one person at a time or, 2) to populations as in the 'public health model', or groups that may be defined by geographic area, race, nationality, minority, etc. Generally, the responsibility of 'public health' has been the domain of governmental units, federal, state or local to identify health threats and monitor wide spread surveillance and implement control measures. The responsibility of 'individual health' has been up to the individual or family unit to obtain and comply with treatment recommendations.

Considering both health care delivery systems, what about distinguishing between health care practice and, health care research? Given that both the medical model and public health model are concerned about quality of health care and finding ways to advance care modalities, *and* that both models are concerned about privacy, confidentiality and protection of human subjects, how do we know whether the data collected, analyzed and reported is an authorized practice or a research study?

The sensitivity of indigenous and minority populations to immoral and unethical research practices is not only warranted based on historical examples, but also critical to engaging individuals and communities in research activity. Governmental, academic and other forms of institutional IRB's (Internal Review Boards) have been established to provide oversight of research activity to protect participants. However, when a local public health department collects information from individuals about their episode of hepatitis, and reviews all the episodes of hepatitis occurring in the community in the past year and generates a report to be included in a statewide hepatitis report, is that 'practice' or research'?

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Well, if it isn't quite clear to you how to distinguish between the two, rest assured that professionals and agency officials struggle with defining each in a clear and consistent way. A report produced in 2004 by the Council of State and Territorial Epidemiologists, *Public Health Practice vs. Research*, offers criteria established by Federal agencies such as the Center for Disease Control (CDC), academic institutions and private health care organizations such as Johns Hopkins. The report features assumptions, questions and criteria commonly used to guide judgments about practice or research.

Authors of the report define public health practice as:

...the collection and analysis of identifiable health data by a public health authority for the purpose of protecting the health of a particular community, where the benefits and risks are primarily designed to accrue to the participating community.

Human subjects research is defined as:

...the collection and analysis of identifiable health data by a public health authority for the purpose of generating knowledge that will benefit those beyond the participating community who bear the risks of participation.

The categorization of activity to fit within either of the above definitions will fall along a continuum ranging from 'easy to establish the difference' to 'really cloudy and difficult'. Those interested in performing data collection, analysis and reporting will encounter serious questions and should exercise rigorous consultation and discussion to ensure that the methods proceed along an appropriate pathway to protect community members. Many practitioners err on the side of initiating an IRB approval. While this action may be viewed as 'safer', IRB's can become bogged down in unnecessary review of already authorized public health practice.

In conclusion, the key issue is being informed and recognizing when questioning public health practice vs. research is an appropriate and necessary exercise. Generate a list of resources that can review materials and offer recommenda-

tions for further scrutiny. Author and distribute policies and procedures that serve as guidelines to assess practice and research activity. Gather reference materials to be available as needed. Open discussion among your department/agency staff pertaining to practice and research to increase the awareness of potential risk factors that can damage community relations. Generate a review "team" in your organization that can convene easily when a practice vs. research question arises. You may discover that your own "internal review" process is worth the time and resource commitment to avoid costly community negativity in the future.

For more information about research or public health practices, contact Great Lakes EpiCenter at: 1-800-472-7207.

BEMIDJI AREA HEALTH PROMOTION/DISEASE PREVENTION... ONE VOICE; ONE VISION

Overview of Planning Results



At the invitation of Ivan MacDonald, the Bemidji Area's HP/DP Coordinator, an audience of fifty participants representing area Tribes from Wisconsin, Minnesota and Michigan convened on October 24th to engage in establishing priorities that will advance prevention activity in area Native American communities. Following Ivan's introductory remarks that described the HP/DP challenge to local Indian communities initiated by IHS Director Charles Grimm, Dr. Steve Rith-Najarian provided an overview of the "chronic care model". Dr. Steve emphasized the role of the community in complimenting medically managed clinical care in order to successfully reduce morbidity and mortality caused by the high rates of chronic disease in the Native American population.

Ivan, referring to his past experiences and success as a basketball coach, expressed his desire for the Tribal communities to unite their vision and voice to advance effective health promotion practices, and develop common and coordinated strategy and direction. The participants spent the remaining time during the afternoon in thoughtful interactions and exercises to analyze the current

community landscape and "map" the resources now available to promote prevention and illuminate the gaps.

The day concluded with a spirited attempt to identify and order the following priorities for 2007:

- *Assemble a Bemidji Area Health Promotion/Disease Prevention "Team" to design a comprehensive strategic plan*
- *Utilizing community based participatory research principles and practice, conduct a baseline assessment of data and surveillance capacity and, effective prevention programs already in place*
- *Develop a "collaboration framework" outlining a process to link resources and emerging best practices in health promotion to benefit local community activities*

For more information or involvement, contact Ivan MacDonald at **218-444-0492** or email Ivan at:

Ivan.MacDonald@ihs.gov





Terms of Epidemiology



Welcome to the first in a series of pages based on Epidemiology terminology. Terms used in the practice of epidemiology will be defined and an example of the term given. Future newsletter issues, will use these terms in puzzles or games.

Simple Cumulative Risk or Incidence Proportion:

The risk of disease for an individual is either zero or one (they either got the disease or did not get the disease). Among a larger group of people, one can describe the proportion who developed the disease as the average risk of disease in the population during that period (Rothman, 1998). The simple cumulative method of risk estimation requires that all of the people are followed for the entire time period during which the risk is being measured. Often the word *risk* is used in reference to a single person and *incidence proportion* is used in reference to a group of people. Because averages are taken from populations to estimate the risk experienced by individuals, we often use the two terms synonymously.

$$\text{Incidence Proportion (Risk)} = \frac{\text{Number of subjects developing disease during a time period}}{\text{Number of subjects **at risk** at the start of follow up}}$$

Example: In a very chilly region of Wisconsin there was a small one horse town with a total population of 500 people. We want to follow this population from January 2006 to January 2007 for the incidence proportion of the common cold. 50 of the 500 individuals already had the common cold at the start of the study. During the follow up period from January 2006 to January 2007, 50 more individuals develop a cold. What is the incidence proportion?

$$\text{Incidence Proportion or one year Risk} = 50 / (500 - 50) = 0.11 = 11\%$$

Note: The denominator is 450 (not 500) because 50 of the 500 individuals already had a common cold at the start of the study.

The only way to interpret a risk is to know the length of time period over which the risk applies. In this example one needs to define this as a one year risk.

Reference: Rothman K, Greenland S. *Modern Epidemiology*. Philadelphia: Lippincott, 1998: 10-11.



Native American Research Centers for Health (NARCH)



Dr. Leah M. Rouse Arndt

Ph.D. University of Wisconsin-Madison; Counseling Psychology-APA Accredited, Dissertation Title “*Soul Wound, Warrior Spirit: Exploring the Vocational Choice of Urban American Indian Peacekeepers*”

Current Research Projects

American Indian Issues in Mental Health as related to: Cross Cultural Psychology, Trauma Psychology, Emergency Services and Military Psychology, & Forensic Psychology

NARCH Student Intern Projects

Chasing the Whirlwind & SEOTS Program Evaluation Projects

The Chasing the Whirlwind Study is a unique partnership among UW-Milwaukee, the Medical College WI, Indian Community School, Spotted Eagle High School, Gerald Ignace Indian Health Center and Lutheran Social Services. The study aims to expand the knowledge base of depression and suicide exposure of urban American Indians. The gathered knowledge will serve as a basis for developing a preventative curriculum specific to the urban American Indian community, to address the challenges that depression and suicide exposure present to an urban Native population.

Southeastern Oneida Tribal Social Services has been working in conjunction with UWM in an effort to respond to their consumer base. A secondary analysis of their most recent survey was completed during the summer of 2006. The next stage of the evaluation involves conducting focus groups with the consumer population in an effort to help SEOTS identify service needs.

American Indian-centric Education—Correlations with improved school behavior

This study explores the correlation between an American Indian-centric education and improved school behaviors. The study aims to expand the knowledge base of the impact of culture-centric education on urban American Indian youth and is a continuation of a 2006 McNair study at the University of Wisconsin-Milwaukee. The gathered knowledge will serve as a basis for developing a fuller understanding of how education professionals utilize culture-centric education to improve student learning and school behavior in the urban American Indian community.

University of Minnesota Tobacco Project; students, mentor & P.I.

Isaiah Brokenleg (intern & research assistant & member of miracle force) ; **Andrew Ranallo** (intern & member of miracle force) ; **Kris Rhodes** (American Indian Community Tobacco Project Coordinator and Tribal Chair) ; **Jean Forster** (Principal Investigator and Indian Agent)



Great Lakes EpiCenter Mission: To support Tribal communities in their efforts to improve health by assisting with data needs through: Partnership Development, Community Based Research, Education, and Technical Assistance.

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