



The EpiCenter currently provides epidemiological services to the Tribes in the Bemidji Area (Michigan, Wisconsin, and Minnesota). Funded in part by the Indian Health Service, the EpiCenter strives to be responsive to the health information and epidemiological needs of the Tribes in the region by providing training and technical assistance in many areas of public health, data management, program planning, and program evaluation.

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Deaths Due to Lung Cancer Increase for American Indians

The Centers for Disease Control and Prevention (CDC) recently examined trends in mortality rates for the four leading sites for cancer-related deaths: lung/bronchus, colon/rectum, prostate, and breast. These four sites are associated with 53% of all cancer-related deaths in the United States. Using the National Vital Statistics System, the CDC calculated the trends in mortality rates among whites, blacks, American Indians and Alaska Natives (AI/AN), Asians and Pacific Islands (API), and Hispanics. They found that AI/AN rates for lung, colorectal, and breast cancers have increased. These same rates, with the exception of lung cancer in women, have decreased over the other racial/ethnic groups.

Lung and bronchus cancer was responsible for over a quarter of all cancer deaths in the 1990s. Approximately 90% of all lung/bronchus cancer deaths are attributable to smoking. Whereas smoking rates have decreased in other groups, smoking rates have increased in AI/ANs.

Colorectal cancer has decreased for all groups except for AI/ANs, who statistically remained the same. Investigators believe that the decrease may be due in part to increases in the percentage of people fifty and older receiving sigmoidoscopies/proctoscopies and fecal blood testing within a

2-year period. Whether these increases hold true in the AI/AN population was not reported.

All groups except for AI/ANs showed a decrease in prostate cancer, though the change among AI/AN was not statistically significant due to small numbers.

Breast cancer decreased for whites and Hispanics, while staying the same for all others. The increase in breast cancer incidence without a concomitant increase in mortality is probably due to the greater use of

screening and early detection.

Please note that due to racial/ethnic misclassification on death certificates, rates for AI/ANs may be underreported by up to 21%.

Reference

Centers for Disease Control and Prevention. Recent trends in mortality rates for four major cancers, by sex and race/ethnicity — United States, 1990-1998. MMWR 2002;51:1-5

Type of Cancer	1990 Rate	1998 Rate	% Change 1990-1998
Lung/Bronchus			
AI/AN Men	37.5	45.3	+1.7
All Men	75.2	65.4	-1.8
AI/AN Women	16.5	22.5	+2.9
All Women	31.6	34.6	+1.1
Colon/Rectum			
AI/AN Men	9.6	12.7	+4.5*
All Men	23.4	19.6	-2.1
AI/AN Women	8.3	9.2	+1.2*
All Women	15.6	13.7	-1.7
Prostate			
AI/AN Men	12.4	11.3	-1.5*
All Men	26.4	21.5	-2.6
Breast (Women Only)			
AI/AN Women	11.5	12.0	1.4*
All Women	27.4	22.7	-2.3

* Not statistically significant from zero (p=0.05)

Bemidji Area Master Plan Assessment, Part 2

by Victor Mosser, Bemidji Area BioMedical Officer

This is the second installment on the explanation of sections of the Area Master Plan Assessment, for the Great Lakes EpiCenter Newsletter. In the first article, I explained the purpose of the Master Plan and the space and staffing portions of the document. In this installment I will address the narrative portions and describe how the information is organized. I will then focus on the Leadership Perspective and the Description sections of the document.

The information is organized into seven sections:

- Leadership Perspective
- Description
- Health Assessment
- Market Assessment
- Resource Allocation
- Physical Assets
- Additional Services
 - Behavioral Health
 - Cancer Care
 - Cardiovascular Care
 - Elder Care
 - Emergency Medical Services

The data for the different sections was collected through questionnaires sent to each Tribe and Health Facility. The accuracy and thoroughness was dependent on the data returned in the questionnaires. The Leadership perspective was completed by the Health Director with input from the Tribe and was meant to provide the leadership of the health systems for the Tribe. Leadership was asked to identify the factors they felt were critical to the overall health status of the population they served. They were asked to identify the key barriers to care, the most important health care issues, availability of staff by disciplines, the types of preventive tests offered and patient compliance rates with testing requirements. They identified the most important challenges facing the facility and they were also asked to assess availability of twenty-nine programs. The purpose of this section was to assess the administrative needs and the scope of the health care delivery system. The

remaining sections assessed the program from the practitioner's perspective and the magnitude of contracted services.

The study looks at the Area as a whole and at your facility as it compares to the rest of the state. Some of the major obstacles to care identified in the Leadership Perspective were transportation, space and financial stability. Staffing availability was a problem as well as the ever increasing utilization and growth of the programs.

The Description section is one of the most important sections of the document. This section identifies the Native American population centers within the Service Delivery Area (SDA), the road systems within the SDA, the locations of identified IHS and Tribal Health facilities within the SDA, the services available in the Area, and the access to primary, dental, and emergency care. The key points identified in the analysis of the data are summarized in the Description section of the document. It points out the major access problems faced within the SDA such as what percent of the population has access to Emergency care within 60 minutes. This information is extremely useful when the Tribe is preparing grant applications.

I would encourage you to take a look at these two documents and assess the quality and how it compares to other facilities. If you have any questions, you can be reached at (218) 444-0505 or email me at victor.mosser@mail.his.gov.



Crossroads Injury Prevention Project

by Diana Kuklinski, Bemidji Area IHS

Native American Youth ages 15-24 die in motor vehicle crashes at a rate almost twice that of the general population in the U.S. To address this problem the *Crossroads* project was initiated with youth from the Red Lake Reservation. Crossroads consists of a video and accompanying learning materials developed for classroom use. The video was produced in the summer of 2000 consisting of interviews of victims and relatives of victims of crashes to show



the impact upon people's lives. The video focuses on drunk driving and seatbelt use. The main sections of the learning materials are motor vehicle crashes, seatbelt use, and drinking and driving. Activities are included with the materials to make the experience interesting as well as educational.

The Crossroads video, discussion guide and activities are currently undergoing pilot testing and are yielding promising results. The Indian Health Service's Environmental Health Services Section will distribute the program to reservation schools throughout the three-state Area. For more information, contact Bruce Etchison at 218-444-0501.

This Newsletter is published by the Great Lakes EpiCenter. For copies, or to be added to the mailing list, contact Dawn McCusker or Stephen Everett at 800-472-7207.

UIC-SPH Preparedness Center Offers Online Courses for Public Health Workers

by Vikki Wiebel, University of Illinois, Chicago

The Centers for Disease Control and Prevention (CDC) declared that the “health of America’s communities hinges on the expertise of the national public health workforce.” Now more than ever, various sectors of our public health workforce are reexamining their preparation to respond to disasters; protect the public against exposures to life-threatening biological and chemical substances and environmental hazards; deal with epidemics; and, promote healthy behaviors and assure access to quality health services.

In the last decade, public health improvement initiatives in Illinois and other states established roadmaps toward public health preparedness. Important components for building a stronger public health infrastructure were the availability of training programs and resources for the frontline public health workers. A network of “Centers” was established in October, 2000 to ensure that public health workers have skills and competencies required to effectively respond to current and emerging public health threats. The network was developed with cooperative funding from CDC and the Association of Schools of Public Health to the School of Public Health at the University of Illinois at Chicago, and to six other schools of public health (Columbia, Iowa, North Carolina, St. Louis University, South Florida, and Washington).

Under the direction of Bernard J. Turnock, MD, MPH, the Illinois Public Health Preparedness Center (IPHPC) was established to measure, understand and improve public health workforce preparedness in Illinois through initiatives that assess and promote competency in basic public health practice, public health administration, community health improvement strategies, infectious disease prevention and control, public health nursing, environmental health, and emergency and bioterrorism preparedness.

IPHPC is offering a unique online training program in instructor-led and self-directed study formats that address the needs of two groups of public health workers. For public health workers who lack formal education and training in

public health, the basic “Public Health 101” course serves as an introduction to public health and how it works and addresses basic competencies related to what public health is, measuring health, population-based prevention and governmental public health. IPHPC also recently added “Public Health 111” which is a basic bioterrorism preparedness course that examines public health emergency preparedness and response activities with a special emphasis on bioterrorism-related threats and events. These courses are offered continuously and the learner is able to take the course at his/her own pace with regular instructor feedback.

For mid- and senior level public health professionals who require more extensive training that emphasizes cross-cutting public health skills, more comprehensive courses will be offered. These courses are composed of 42 modules that learners can take at any time, in any order they choose and at their own pace. Target groups for this training include managers and administrators, community health improvement specialists, environmental health practitioners and nurses working in public health settings. The courses will address the areas of public health practice, community health assessment, advocacy and policy development, program planning and evaluation, public health management, and public health preparedness and response. Additional discipline-specific courses will also be offered.

For more information about the courses being offered by IPHPC and to register for the basic Public Health 101, Public Health 111 or any of the advanced course modules, please visit our website at www.uic.edu/sph/ prepare We encourage you to take a look at our sections on frequently asked question “FAQs” and “Announcements” for updates on registration for the advanced courses. If you have questions that are not answered on the website, contact Program Manager Vikki Wiebel at vikki@uic.edu or at (312) 996-6531.

Upcoming Meetings & Training

March 5-6 - Cancer Prevention in Indian Country, with Dr. Judith Kaur, Madison, WI

March 19-20 - Eleventh Annual Information Integration Conference, Lansing, MI

May 7-10 - Bemidji Area Injury Prevention Conference

May 21-23 - Bemidji Area Women’s Wellness Conference, Green Bay, WI

June 18-20 - Bemidji Area Nursing Conference, Onamia, MN

June 25-26 - Bemidji Area Diabetes Coordinators Meeting, *Location to be Announced*

For more information on any of these meetings, call the EpiCenter at 715-588-3324

Judith Kaur Visits Madison

by Rick Strickland, North Central Spirit of EAGLES

Dr. Judith Salmon Kaur (Choctaw/Cherokee) will be visiting the UW-Madison campus on Tuesday March 5th and Wednesday, March 6th, 2002. Dr. Kaur is Associate Professor of Medical Oncology at the Mayo Clinic and Chairperson of the National Cancer Control Researchers among AI/AN Populations. Dr. Kaur is also the Principal Investigator for the Spirit of EAGLES—the AI/AN Leadership Initiative on Cancer.

During her visit, Dr. Kaur will be making two presentations — *Walking the Talk: Cancer Prevention in Indian Country* and *New Molecular Approaches to Treating Cancer* — as well as participating in a discussion, *Building Effective Tribal-University Health Partnerships*. A reception, dinner, and award ceremony will be held in her honor on Tuesday evening.

For more information, please contact Rick Strickland, North Central Spirit of EAGLES, at 608-262-2425.

Tracking Youth for Risk of Diabetes

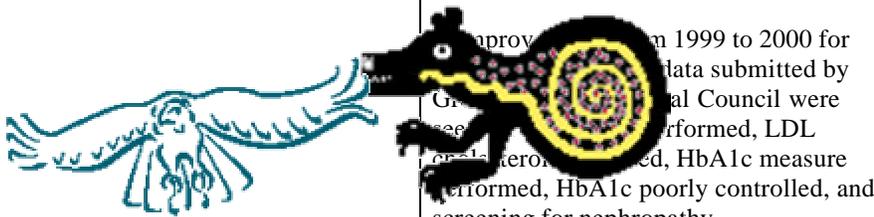
by Carol Mott, RN

The Lac Courte Oreilles Health Center is conducting a study of students attending our reservation school to see who is at high risk for developing diabetes and to measure the effectiveness of prevention efforts. We have been working with the Great Lakes EpiCenter to process, analyze, and report on the data collected.

We are finding that many students exhibit poor eating choices, have high Body Mass Index (BMI), and have cases of acanthosis nigricans (benign growths and hyperpigmentation occurring in the skin that is associated with obesity). Cigarette use is also common in the seventh grade and above, with many students reporting that they live with at least one smoker.

Based on these findings, we offering educational sessions on lifestyle changes, nutrition, and the positive effects of being a nonsmoker to each class, the teachers, and any interested parent or guardian.

With the Great Lakes EpiCenter's help, we are able to assess trends leading to diabetes development among young people and then plan our interventions, along with educating teachers and parents about the all-important PREVENTION steps.



Do You Have Any RPMS Training Needs?

Dina George, MIS Analyst at the Great Lakes EpiCenter may be able to help. She is able to do one-on-one on-site and group training on various RPMS packages. Please feel free to contact Dina at 1-800-472-7207.

The Wisconsin Collaborative Diabetes Quality Improvement Project

Great Lakes Inter-Tribal Council has participated in the Wisconsin Collaborative Diabetes Quality Improvement Project since its inception three years ago. "The project was established to collect comparative population data to assess the current status of diabetes care in Wisconsin. The goal of the project is to improve, through collaboration and sharing, the level of preventive diabetes care measures statewide."¹ GLITC, along with 1 health care provider and 17 licensed health maintenance organizations participated in the project in 2001. HEDIS diabetes indicators were submitted to the project by participating organizations. The indicators for 2001 included the following data:

- Hemoglobin A1c test performed
- Hemoglobin A1c poorly controlled (greater than 9.5%)
- LDL Cholesterol screening performed
- LDL Cholesterol controlled (less than 130mg/dl)
- Eye exam performed
- Kidney disease monitored (nephropathy)
- Annual Influenza Vaccine received
- Pneumococcal Vaccine received
- Foot exam completed

Participation in the Wisconsin Collaborative Diabetes Quality Improvement Project allows Tribal health facilities a means to compare the status of their diabetic services (through HEDIS measures) to other organizations providing health care to the diabetic populations. Although, the information submitted to the Project by GLITC is aggregate and not representative of any one particular Tribe in Wisconsin, the data gives Tribes a rough estimate of

diabetes indicator measures for the American Indian population in Wisconsin who receive some level of care. Tribal diabetes programs can use these data from this project and the diabetes essential standards of care to better assess the needs and achievements of their diabetic programs. In addition to data on quality indicators, the project also offers a means for participating organizations to share innovative ideas for improving the quality of care to diabetic patients.

References

¹Dawson K, Stone-Newsom R, Remington P., *The Wisconsin Collaborative Diabetes Quality Improvement Project Year 2: A report to the Division of Public Health Diabetes Control Program*. Wisconsin Public Health and Health Policy Institute, June 2001.

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Additional Resources:

Centers for Disease Control and Prevention, National Center for Infectious Diseases <http://www.cdc.gov/drugresistance/>

Centers for Disease Control and Prevention, Division of Healthcare Quality Promotion <http://www.cdc.gov/ncidod/hip>

Alliance for the Prudent Use of Antibiotics: <http://www.healthsci.tufts.edu/apua/apua.html>

References

¹ Groom AV, Wolsey DH, Naimi TS, Smith K, Johnson S, Boxrud D, Moore K, Cheek J. Community-acquired methicillin-resistant *Staphylococcus aureus* in a rural American Indian community. *JAMA* 2001; 286:1201-5

² Centers for Disease Control and Prevention, Division of Bacterial and Mycotic Diseases at: <http://www.cdc.gov/antibioticresistance>

Antibiotic Resistance

by Amy Groom, MPH, Cheryl Mason, MPH, and Evan Shukan, Indian Health Service

In 1940, a team of researchers at Oxford University in England led by Australian Howard Florey performed the first experiment using an antibiotic to cure a bacterial infection.

Previously, a simple wound infection might have meant amputation or even death but, by the end of World War II, widespread use of this new drug, penicillin, provided a cure. By the late 1940's, however, scientists had already begun to see bacteria develop resistance to these early antibiotics.

Today, researchers continue to develop new and stronger antibiotics, but with the spread of resistant infections here in the United States, including among the American Indian and Alaska Native populations, it has become clear that we are losing the battle of antibiotic resistance.

Causes of antibiotic resistance

Improper use of antibiotics is the main reason for increasing antibiotic resistance. Antibiotics only kill bacteria. They do not kill viruses. People may take antibiotics for viral infections, such as colds or a cough. The antibiotic however, may not treat the infection. Instead, the antibiotic kills other sensitive bacteria the person may be carrying, and the surviving bacteria learn how to protect themselves from the antibiotic.

Antibiotic resistance may also occur when people stop taking an antibiotic because they feel better and want to save the antibiotic for the next time they are sick. When individuals take only some of the prescribed antibiotic, only some of the bacteria will die. The bacteria that survive can then become resistant to the antibiotic. These resistant bacteria grow and multiply, and can cause a more serious infection that can be difficult to treat. Resistant bacteria can also spread and cause infections in other people in your family and community.

Common antibiotic-resistant bacteria

- *Streptococcus pneumoniae* (a.k.a.

pneumococcus), is a bacterium commonly found on skin around the nose and mouth and often involved in skin infections

- Methicillin resistant *Staphylococcus aureus* (MRSA), is another bacterium that can cause skin infections as well as food poisoning, pneumonia and blood infections (septicemia).
- Vancomycin resistant enterococcus (VRE), is a bacterium that can cause wound infections.

In the last few decades, these antibiotic-resistant bacteria have emerged throughout the United States and the world. Until recently, these antibiotic-resistant infections were considered to be nosocomial, meaning they were acquired in the hospital. The combination of many sick people, numerous bacteria, and exposure to high levels of antibiotics make people who have been hospitalized, undergone surgery, or lived in a long-term care facility (such as a nursing home) particularly at risk for an antibiotic-resistant infection.

Bemidji Area MRSA study

In 1997, a hospital in the Bemidji IHS Area found that the number of *Staphylococcus aureus* infections that were resistant to methicillin (MRSA) had increased from 4% in 1989 to 57% in 1997. Health care providers at the facility reported that these MRSA infections appeared to be occurring among young, healthy people, many of them children. Because MRSA was traditionally considered a nosocomial infection, found in elderly and very sick people who had been in the hospitals or received extensive antibiotics, the IHS National Epidemiology Program worked with the Bemidji IHS Area, the Minnesota Department of Health, and the local hospital to examine the problem. The study revealed that most of the patients with an MRSA infection had no exposures to nosocomial settings, suggesting that these infections were

being acquired outside of the hospital. We called these infections community-acquired MRSA.¹ Because this study was limited to information documented in the medical chart, we were unable to look at other possible risk factors for community-acquired MRSA infection, such as occupation, day care attendance, crowding, and exposure to animals. To address this, and to identify steps that can be taken to limit the spread of these infections, the IHS National Epidemiology Program is currently working with the Aberdeen IHS Area and the South Dakota Department of Health on another study designed to look at community and household risk factors that may contribute to community-acquired MRSA infections. For more information, contact Cheryl Mason or Amy Groom at (505) 248 – 4226.

Resources

Brochures, posters, and additional information, such as that included below, are available from the Centers for Disease Control and Prevention, Division of Bacterial and Mycotic Diseases at: <http://www.cdc.gov/antibioticresistance>

How can you prevent the spread of antibiotic resistant infections?²

- Talk with your health care provider about antibiotic resistance.
 - Is an antibiotic the right choice for my illness?
- Do not take an antibiotic for a viral infection like a cold or flu.
- Do not save some of your antibiotic for the next time you get sick.
- Take an antibiotic exactly as your doctor tells you to.
 - Don't take less than the prescribed amount.
 - Don't stop taking the antibiotic early, even if you feel better.
- Do not take an antibiotic that is prescribed for someone else.

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