

**THE NATIONAL LIBRARY OF MEDICINE**

**ENVIRONMENTAL HEALTH  
INFORMATION OUTREACH PROGRAM**

**PROCEEDINGS**

Oglala Lakota College, Host  
Rapid City, South Dakota  
June 11-12, 2007

*Advances in Science: Indian Health and Health Disparities*

Prepared for  
Specialized Information Services Division  
National Library of Medicine

Prepared by  
Medical Education and Outreach Group  
Oak Ridge Institute for Science and Education

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## OGLALA LAKOTA COLLEGE

Oglala Lakota College (OLC) was established on March 4, 1971, when the Oglala Sioux Tribal Council chartered the Lakota Higher Education Center. In those early years, classes were taught on the reservation by faculty chosen by the college, but approved by the state institutions. Through agreements with Black Hills State College, the University of South Dakota, and South Dakota State University, the Lakota Higher Education Center was able to offer associated degree programs; the first were awarded in 1974. In 1983,



the college became a four-year degree-granting institution and was re-named Oglala Lakota College. The first degrees offered were a bachelor's degree in elementary education and associate degrees in education, human services, general studies, nursing, and Lakota studies.

Oglala Lakota College is located on the Pine Ridge Indian Reservation, the largest reservation in South Dakota and the second largest reservation within the United States. In order to serve everyone on the reservation, the college formed a dispersed, decentralized campus system, which features college centers in each of the nine districts across the reservation. The administrative center, or Piya Wiconi, is centrally located on the reservation approximately eight miles from Kyle, SD. "Piya Wiconi" means "new beginning" in Lakota, signifying the hopes and dreams of creating new beginnings for the Lakota people and the school's mission of providing educational opportunities that enhance Lakota life. This campus consists of the administrative offices, the bookstore, the math and science department, the library, and the powwow grounds where graduation ceremonies are held.

Degree offerings have been expanded over the years to include bachelor's degrees in Lakota studies, human services, and applied sciences, and a master's degree in tribal leadership. The most recent additions are the master's degree in Lakota leadership/management and a master's degree emphasis in educational administration. OLC is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools. Education graduates are certified by the South Dakota Division of Education and nursing graduates are certified by the South Dakota State Board of Nursing and are permitted to sit for the Registered Nurse examination.

Oglala Lakota College provides a comprehensive learning experience for its students by offering distance learning and online content management tools for all courses, which affords a blend of face-to-face, laboratory and online work experiences. The school is now considering creating a Center for Online/Distance Learning to coordinate and deliver online courses and degrees.



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**NATIONAL LIBRARY OF MEDICINE  
ENVIRONMENTAL HEALTH INFORMATION OUTREACH PROGRAM MEETING  
Oglala Lakota College, Host  
June 11-12, 2007  
Henry Lewis III, Pharm.D., Presiding**

**AGENDA**

**Monday—June 11, 2007**

**Crazy Horse Memorial, Avenue of the Chiefs, Crazy Horse, South Dakota  
Mountain View Room**

- |                      |  |
|----------------------|--|
| 8:30 a.m.–8:45 a.m.  | <b>Registration and Continental Breakfast</b>  |
| 8:45 a.m.–9:00 a.m.  | <b>Welcome and Greetings</b><br>Henry Lewis III, Pharm.D.<br>Dean, College of Pharmacy and Pharmaceutical Sciences,<br>Florida A&M University  |
| 9:00 a.m.–9:15 a.m.  | <b>Opening Remarks</b><br>Martha Szczur<br>Acting Associate Director, Specialized Information Services<br>Division, National Library of Medicine (NLM)<br><br>Sarah Coulter Danner<br>Chairperson, Nursing Department<br>Oglala Lakota College<br>Pine Ridge, SD |
| 9:15 a.m.–9:30 a.m.  | <b>Introductions</b><br>Henry Lewis III, Pharm.D.<br>Chairman, EnHIOP  |
| 9:30 a.m.–10:30 a.m. | <b>GIS-Health Equity Atlas</b><br>John Scott, NLM Consultant<br>Kurt Menke, GIS Expert, Bird's Eye View GIS Services   |

10:30 a.m.–10:45 a.m.	<b>BREAK</b>
10:45 a.m.–11:30 a.m.	<b>Virtual Technology Transfer</b> Tanaga A. Boozer, J.D., M.B.A., President Intellectual Property Solutions, Inc. Tallahassee, Florida
11:30 a.m.–12:00 Noon	<b>EnHIOP—Past, Present and Future</b> Henry Lewis III, Pharm.D. Chairman, EnHIOP Melvin Spann, Ph.D. NLM, Consultant
12:00 Noon–12:45 p.m.	<b>Working Lunch</b> <b>Overview: Crazy Horse Museum</b> Donovin Sprague, Educational Director, Crazy Horse Memorial Professor, Black Hills State University Spearfish, South Dakota
12:45 p.m.–1:15 p.m.	<b>View Crazy Horse DVD</b> Crazy Horse Theater
1:15 p.m.–2:00 p.m.	<b>Tour of Crazy Horse Museum</b> Anne Van Dis, Group Sales Director, Crazy Horse Memorial
2:00 p.m.–2:15 p.m.	<b>Group Picture</b>
2:15 a.m.–3:00 a.m.	<b>NLM Long Range Plan and Disaster Preparedness Information Research Center</b> Martha Szczur Acting Associate Director, SIS, NLM
3:00 p.m.–3:15 p.m.	<b>BREAK</b>
2:30 p.m.–3:40 p.m.	<b>EnHIOP Strategic Planning</b> Henry Lewis III, Pharm.D.
4:30 p.m.–5:00 p.m.	<b>Wrap-up and Day 2 Overview</b> Henry Lewis III, Pharm.D.

**Tuesday—June 12, 2007**

**Oglala Lakota College: Piya Wiconi and Pine Ridge Campuses**

8:30 a.m. Arrive at Piya Wiconi Campus of Oglala Lakota College

8:45 a.m.–10:30 a.m.

**Opening Prayer**

Bryan Charging Cloud  
Director, Lakota Language Institute

**Welcome and Greetings**

Tom Short Bull  
President, Oglala Lakota College  
Administration Building Conference Room

BREAK

**Plant Extraction Research on the Bitter Gourd Melon**

Deig Sandoval, Ph.D., EnHIOP Alternate  
Model Institutions for Excellence Building

**Tour**

10:30 a.m.

**The Morning Blessing**

Ferlin Clark, President, Diné College  
Location to be arranged

12:00 p.m.–1:00 p.m.

**Lunch (on your own)**

Lakota Prairie Ranch Motel (short walk)

1:00 pm.

Board bus for Pine Ridge

**Visit Wounded Knee** (en route to Pine Ridge)

2:30 p.m.

Arrive at Pine Ridge Campus of Oglala Lakota College

2:40 p.m.

**Welcome and Greetings**

Sarah Coulter Danner, Nursing Department Chairperson  
Mary Tobacco, Tribal Health Educator  
Lisa Dillon, Health Administrator

**Tour of Oglala Lakota College Nursing School**

2:45 p.m.–4:00 p.m.

**Traditional Plants and Healing Songs**

Wilmer Mesteth  
Instructor, Lakota Studies Department

4:00 p.m.

**Return to Rapid City, SD through the Badlands**



**DEPARTMENT OF HEALTH AND HUMAN SERVICES**

**NATIONAL INSTITUTES OF HEALTH  
NATIONAL LIBRARY OF MEDICINE**

**PROCEEDINGS OF THE ENVIRONMENTAL HEALTH  
INFORMATION OUTREACH PROGRAM (EnHIOP) MEETING  
June 11-12, 2007**

**EXECUTIVE SUMMARY**

The first day of the Environmental Health Information Outreach Program (EnHIOP) meeting convened on June 11, 2007, at 8:45 a.m. in the conference room at the Crazy Horse Memorial, Avenue of the Chiefs, Crazy Horse, South Dakota. The theme of the meeting was *Advances in Science: Indian Health and Health Disparities*. Oglala Lakota College (OLC), located on the Pine Ridge Indian Reservation, hosted the two-day meeting. The second day of the meeting, June 12, 2007, was held first at the Piya Wiconi campus of the Oglala Lakota College and the afternoon included a visit and tour of the Oglala Lakota College Nursing School, Pine Ridge Campus. This is the first time that a tribal college has hosted an EnHIOP meeting.

Distinguished administrators and professors representing 16 of the nation's Historically Black Colleges and Universities (HBCUs), Hispanic-Serving Institutions (HSIs), and Tribal Colleges and Universities attended the meeting to discuss issues and outreach activities in environmental health with staff from the National Library of Medicine's (NLM) Division of Specialized Information Services (SIS). Dr. Henry Lewis III, Florida A&M University, chaired the meeting. Benedict College, California State University at Northridge, Haskell Indian Nations University, and Southern University at Baton Rouge were not represented at this meeting.

After welcomes and introductions, the meeting began with a presentation on the Health Equity GIS Atlas by John Scott, NLM Consultant, and Kurt Menke, GIS Expert, Albuquerque, New Mexico. The goal of the initiative is to develop a database that will incorporate minority health data into an easy-to-use geographic information system.

This presentation was followed by a presentation on Virtual Technology Transfer by Tanaga Boozer, (President, Intellectual Property Solutions, Inc.). One of the goals of virtual technology transfer is to increase patent activity at minority institutions by reducing the cost of filing a patent. This tool provides proven access and affordability to the schools. As a follow-up to Ms. Boozer's presentation, Ferlin Clark, President, Diné College, EnHIOP member, invited her to his college to give a similar presentation to his staff.

To provide background for the planned discussion of an EnHIOP strategic plan, Drs. Henry Lewis and Melvin Spann repeated the presentation they gave at the NLM Board of Regents meeting on EnHIOP-Past, Present and Future.

An overview of the Crazy Horse Museum was given by Donovan Sprague, Education Director, Crazy Horse Memorial. The Crazy Horse Memorial, the world's largest sculpture, is a work in progress and is located in the Black Hills of South Dakota.

In the afternoon of the first day of the meeting, Marti Szczur, Acting Associate Director, Division of Specialized Information Services provided an update of the NLM Long Range Plan and a brief discussion on the plan for a new Disaster Preparedness Information Research Center. The EnHIOP representatives then divided into four working groups for discussions on the EnHIOP strategic plan. EnHIOP is developing a plan that aligns with the National Library of Medicine's new strategic goals. This was an informative discussion, and afterwards each chairperson reported their group's findings to the full panel. Dr. Lewis then gave the group an overview of the following day's events

On Tuesday, June 12, 2007, the EnHIOP meeting was held at Oglala Lakota College: Piya Wiconi and Pine Ridge Campuses. The morning started with an opening prayer by Bryan Charging Cloud. Tom Short Bull, President, Oglala Lakota College greeted and welcomed the group. Later in the morning, Ferlin Clark, President, Diné College and Jack Jackson, Navajo Medicine Man, gave the morning blessing. This two-hour ceremony was held in a teepee borrowed from one of the Oglala grandmothers. Following the blessing, the EnHIOP assembled for a presentation on the plant extraction research on the bitter gourd melon by Deig Sandoval. His research is testing the extract from the bitter gourd melon for potential effectiveness in treating diabetes. The EnHIOP also toured the library and campus. On the way to Pine Ridge campus, where the Nursing Program is located, the group visited Wounded Knee massacre site. At Pine Ridge, the group was welcomed by the Nursing School staff. Wilmer Mesteth, Instructor, Lakota Studies Department, and a direct descendent of Chief Red Shirt, gave a presentation on traditional plants and healing songs. The final presentation was given by Joan Nelson about a grant which they received from the National Institutes of Health. The bus returned from the college to Rapid City through the Badlands.

## **ATTENDEES**

### **Representatives from Participating Institutions**

Dr. Bruce Allen, Jr., Charles R. Drew University of Medicine and Science

Dr. Ann Barbre, Xavier University of Louisiana

Mr. Ferlin Clark, Diné College

Dr. PonJola Coney, Meharry Medical College

Dr. Robert Copeland, Jr., Howard University College of Medicine

Mrs. Sarah Coulter Danner, Oglala Lakota College  
Ms. Cynthia Henderson, Morehouse School of Medicine  
Dr. Constance Hendricks, Hampton University  
Dr. Diógenes Herreño-Sáenz, University of Puerto Rico Medical Sciences Campus  
Dr. Doris Holeman, Tuskegee University (Alternate)  
Dr. Henry Lewis III, Florida A&M University (EnHIOP Chairman)  
Dr. Richard Ochillo, Morgan State University  
Dr. Letitia Paez, University of Texas at El Paso  
Dr. Kimberly Pounds, Texas Southern University  
Dr. Paul Tchounwou, Jackson State University  
Dr. Doris Withers, Medgar Evers College

**Consultants to the EnHIOP**

Mr. John Scott, Center for Public Service Communications  
Dr. Melvin Spann, NLM, retired (EnHIOP Executive Secretary)

**Speakers**

Ms. Tanaga A. Boozer, J.D., M.B.A., Intellectual Property Solutions, Inc.  
Mr. Jack Jackson, Navajo Medicine Man, Diné College  
Mr. Kurt Menke, M.A., G.I.S.P., Bird's Eye View GIS Services  
Mr. Wilmer Mesteth, Oglala Lakota College  
Dr. Deig Sandoval, Oglala Lakota College  
Mr. Tom Short Bull, Oglala Lakota College  
Mr. Donovan Sprague, Crazy Horse Memorial  
Ms. Anne Van Dis, Crazy Horse Memorial

**Guests**

Mr. Anthony V. Brave, Oglala Lakota College (Photographer and Video Recorder)

**NLM Staff**

Ms. Marti Szczur, Division of Specialized Information Services  
Ms. Gale Dutcher, Division of Specialized Information Services  
Ms. Cynthia Gaines, Division of Specialized Information Services (EnHIOP Project Officer)  
Mr. George W. Franklin, Jr., Office of Computer and Communications Systems

**NLM/SIS Contractor Employees:**

Ms. Rose Foster, Oak Ridge Institute for Science and Education (EnHIOP Project Advisor)  
Ms. Diane De Binder, Oak Ridge Institute for Science and Education

**I. WELCOME AND OPENING REMARKS**

Dr. Henry Lewis III, Dean, College of Pharmacy and Pharmaceutical Sciences, Florida A&M University, EnHIOP chairman, opened the meeting and welcomed everyone to South Dakota. He

then introduced Martha Szczur, Acting Associate Director, Specialized Information Services Division (SIS), National Library of Medicine (NLM).

Ms. Szczur welcomed the group on behalf of NLM/SIS, and noted the importance of meeting at the various institutions represented in the program because it serves to broaden the perspectives of everyone in the group. She reinforced NLM's commitment to address health disparities issues in all minority populations and reminded the EnHIOP that each person in the group is a key player in this mission.

Mrs. Sarah Coulter Danner, Chairperson, Nursing Department, Oglala Lakota College (OLC), welcomed the group to South Dakota on behalf of OLC, which is about 100 miles from Crazy Horse on the Pine Ridge Indian Reservation. She explained that the reservation, which is about the size of the state of Connecticut, and the adjacent Rosebud Sioux Reservation make up a significant portion of the state of South Dakota. Mrs. Coulter Danner also described the varied topography of South Dakota, encompassing hills, plains, and the Badlands National Park, known for its stark beauty due to weathering and erosion.

## **II. GIS HEALTH EQUITY ATLAS**

Mr. John Scott, NLM Consultant, and President, Center for Public Service Communications in Arlington, Virginia, and Mr. Kurt Menke, Owner, Bird's Eye View GIS Services, Albuquerque, New Mexico, presented an overview and presentation on their Health Equity Mapping Initiative, which began in 2004 with funding and guidance from the National Library of Medicine's Division of Specialized Information Services. The goal of the Initiative is to develop a publicly available database with an easy-to-use geographic information system (GIS).

Mr. Menke described a geographical information system as "an organized collection of computer hardware, software, geographic data, personnel, and procedures designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced information." GIS computer technology has been in existence for about 30 years, but is more accessible now because it is a tool that is being used by almost every discipline today. The biggest advantage to GIS technology is that it allows multiple datasets to be compared visually, in layers. Mr. Menke showed several examples of early geographic analysis and modern GIS technology.

With the tools that will be provided by the Health Equity Mapping Initiative, public health advocates will be able to portray the health status of their communities and improve decision-making in the allocation of community health services. They may also contribute data to the central database for further sharing. Training in management and use of the system will be provided.

Hawaii was chosen as the location for the pilot utilization of this resource. A Native Hawaiian Health Atlas was developed in conjunction with Papa Ola Lokahi, the Native Hawaiian Health Board. The Department of Native Hawaiian Health at the University of Hawaii's John A. Burns School of Medicine also used the mapping tools to help develop base community maps for use in its PILI 'Ohana obesity study.

Interest in this tool has been expressed in New Orleans by Dillard University's Division of Natural Sciences and Public Health for use in identifying and comparing health infrastructure in the Ninth Ward pre- and post-Katrina (the "Dillard Neighborhood: Pre-Post Katrina Community Assessment" project). Shortly after Katrina, respiratory illnesses increased. It was pointed out that one reason for this could be that because most of the trees were destroyed, less oxygen was being processed, exacerbating respiratory conditions. This is an example of how the Health Atlas tool can assist in connecting environmental conditions to health conditions.

A computer demonstration of the software was given by Mr. Menke using the Native Hawaiian Health Atlas. An Internet site that will replicate all functions of the software will be available at <http://www.ihera.net>. Some of the interactive functions include:

- Changing the transparency and order of layers to customize the map,
- Clicking the map to identify attributes of features on the map,
- Clicking to display ethnicity data, including specific tribes,
- Querying NCHS mortality data and viewing the result on the map.

### **III. VIRTUAL TECHNOLOGY TRANSFER**

Ms. Tanaga Boozer, President, Intellectual Property Solutions, Inc., Tallahassee, Florida, gave an overview of virtual technology transfer. She also presented on her experience in intellectual property rights and technology transfer, and described her current project, which is to create an online tool, the "Virtual Technology Transfer Office." The goal of the project is to increase patent activity at minority institutions by reducing the cost of filing a patent.

Ms. Boozer defined technology transfer as "the process of moving valuable goods or services from the lab to the market" for all to benefit from the discoveries. For example, research comes out of the lab as data, and technology transfer "moves" that data into a product that can be marketed.

As background information, Ms. Boozer reviewed the 1980 Bayh-Dole Act, which made it possible for non-profits and universities to own federally funded inventions and profit from them for non-government purposes. The government retains a royalty-free license allowing free use of the invention for government-only purposes. Since then, there has been a significant increase in patent filing at majority schools, but little to no impact has been seen in minority institutions. Many of these schools do not even have an intellectual property or patent policy, or a technology

transfer office. These functions are critical to the process. An office of technology transfer assists faculty with obtaining intellectual property protection, including drafting license agreements, developing a prototype with computer-aided design, and drafting policy.

The Virtual Technology Transfer Office project is funded by a Small Business Innovation Research (SBIR) grant from the National Science Foundation and a small local grant from the Leon County (Florida) Development Authority. During the pilot phase, Ms. Boozer is working with the minority institutions of the Association of Minority Health Professions Foundation, whose member schools are considered the nation's primary educators of minority health professionals; the TechLink Partnership Network, a National Science Foundation funded activity to stimulate innovation in under-represented institutions (Florida A&M University, Tallahassee, Florida, is the lead partner); and the EnHIOP. Two of the present EnHIOP institutions are already fully engaged in this process: Florida A&M University and Jackson State University in Jackson, Mississippi. Ms. Boozer is pursuing additional funding for the next phase of the project, which includes building the tool, training, implementation, and assessment. The ultimate goal is to expedite technology commercialization.

Ms. Boozer gave a brief demonstration of the Virtual Technology Transfer Office. When it is completed, the Web-based system will provide easy and affordable access for completing the many steps and forms required to file a patent, which normally costs about \$10,000. This tool will allow the researcher and university administrators alike to work from a desktop without the expense of setting up and staffing an actual office as well as to provide access to expertise the school may not have. The system will prompt the user for the information needed, and almost everything will be submitted electronically.

Patents can generate millions of dollars in revenue for minority institutions, and anything that has commercial value is entitled to protection. Patents will last for 20 years from the date of filing. The Bayh-Dole Act requires that institutions share the proceeds of the invention with the inventor. As an example, at FAMU, 60 percent goes to the university and 40 percent to the inventor. Ms. Boozer also stressed the importance of patenting research findings before publishing the research in order to protect the information.

Native American people have an abundance of intellectual property that could be patented, and traditional Native American medicine is one example. First, however, the information must be documented in some tangible way. Even trade secrets, which are not shared with the public, must be documented. This is an issue of concern in Native American cultures because traditionally information is passed down orally through generations rather than written down.

As a follow-up to Ms. Boozer's presentation, Mr. Ferlin Clark, President, Diné College, EnHIOP representative, invited her to his school to give a similar presentation to his staff.

#### **IV. EnHIOP—PAST, PRESENT, AND FUTURE**

To provide background for the planned discussion of an EnHIOP strategic plan, Dr. Henry Lewis III, EnHIOP Chairman, Florida A&M University, Tallahassee, Florida, and Dr. Melvin Spann, former Associate Director of NLM's Specialized Information Services Division (SIS), now a consultant for NLM, repeated the presentation they gave at the NLM Board of Regents meeting: EnHIOP—Past, Present, and Future.

Dr. Melvin Spann gave a brief history of the EnHIOP, beginning with its inception in 1991 as the Toxicology Information Outreach Panel (TIOP). At that time, Dr. Spann was Chief, Biomedical Information Services Branch, SIS/NLM. His awareness of publications on the impact of environmental contamination in minority communities and a report by Dr. Henry Lewis III, Florida A&M University, on the strength of Historically Black Colleges and Universities (HBCUs) in providing a conduit for health information in minority communities, led him to formulate a concept for how NLM could assist in finding a solution. On May 9, 1991, he presented a proposal to the NLM Board of Regents and the first meeting of the resulting TIOP was held at the National Library of Medicine as an advisory panel on August 15, 1991. The eight HBCUs of the Association of Minority Health Professions Schools were selected to participate because they educated most of the minority health professionals in the country. The ninth original TIOP school, the University of Arkansas at Pine Bluff, was included because of the nursing school there. Other government agencies, including the Agency for Toxic Substances and Disease Registry, the Occupational Safety and Health Agency, and the National Science Foundation, were invited to participate and provide assistance to get the project going.

The focus of TIOP was to provide NLM's valuable information resources free of charge to these minority schools, a computer workstation and the necessary software to access that information, and training provided by the Oak Ridge Institute for Science and Education. The schools were charged with implementing the project at their institutions. The TIOP continued to meet annually and training was extended to other HBCUs, particularly those in the Mississippi Delta.

Dr. Lewis continued the discussion beginning with the changes instituted in 2000, when the project was extended with the addition of one tribal college and one Hispanic-serving institution. In 2003, the focus of the group's activities was expanded. A new name, "Environmental Health Information Outreach Program," was selected to reflect the new direction, and a new mission statement was written.

#### **EnHIOP Mission**

**The mission of the Environmental Health Information Outreach Program is to enhance the capacity of minority-serving academic institutions to reduce health disparities through the access, use and delivery of environmental health information on their campuses and in their communities.**

In November and December 2003, nine additional schools, including two tribal colleges and two Hispanic-serving institutions, were added to the program, bringing the total to 20 schools. Dr. Lewis described the expanded role of the EnHIOP and the objectives of the program as follows:

- Institutionalize the NLM resources through curriculum incorporation, seminars, and special events at each institution, ensuring high-level administrative/academic involvement (this has largely been accomplished);
- Strengthen institutional partnerships with libraries and other entities such as environmental justice centers, poison control centers, drug information centers, and centers of excellence;
- Develop/strengthen relations with community-based and faith-based organizations to extend health-related outreach to communities surrounding the participating institutions;
- Increase participation in professional meetings and public forums through presentations of papers, posters, and panel discussions as well as to seek opportunities for publications in major journals; and
- Serve NLM as local/regional resources for training, exhibiting, and community outreach to promote the awareness and use of NLM resources.

Outcomes of the EnHIOP have been exceptionally positive, including technology enhancement within the participating institutions, facilitation of health information curricula, training of students and faculty to access health information, and the acceleration of new degree programs offered at the participating institutions. In addition, faculty at 98 HBCUs, tribal colleges, and Hispanic-serving institutions have received training through this program, and a network of institutions has been created to exchange information and resources.

Dr. Lewis cited that the next steps for the EnHIOP include discussing meeting topics within the institutions, reaching out to other minority institutions, considering ways to incorporate disaster preparedness in their activities, and exploring the role of climate change, particularly in tribal communities.

Another major activity of the group is developing a strategic plan for 2008-2013 consistent with the goals of the NLM Long Range Plan, 2006-2016. (See VII. EnHIOP Strategic Planning.)

## **V. OVERVIEW: CRAZY HORSE MEMORIAL AND THE INDIAN MUSEUM OF NORTH AMERICA**

Mr. Donovin Sprague, Educational Director, Crazy Horse Memorial, Professor, Black Hills State University (BHSU), and local historian, gave an overview of the educational plans at the Memorial site. The Crazy Horse Memorial, the world's largest sculpture, is a work in progress and is located in the Black Hills of South Dakota. Included on the site is the Indian Museum of



North America, which was established to tell present and future generations the story of Native Americans through outstanding examples of Native American culture and heritage.



EnHIOP meeting attendees standing in front of the replica of the sculpture.

Mr. Sprague is a family descendant of Crazy Horse, so his work at the Memorial has a special significance to him. He has been offering classes each semester at Crazy Horse for university credit through BHSU since 1996 when he first came to the Memorial. In 2001, the school at Crazy Horse was officially named Indian University of North America, although credits are still offered through BHSU. Recently, Mr. Sprague completed a class in tribal law, treaties, and government. In his graduate-level “Mountains of History” class, students learn American history,

first at Mt. Rushmore, including studying the policies of those presidents toward the American Indian people, and then at Crazy Horse to learn the Native American perspective.

Educational opportunities continue to grow at Crazy Horse Memorial toward the eventual construction of the Indian University of North America and Medical Training Center. The picture to the right is of a painting depicting how the completed project will look.



Following Mr. Sprague’s presentation, the group watched a 20-minute video about the carving of Crazy Horse Mountain and the sculptor, Korczak Ziolkowski, who made it his life’s work. Mr. Ziolkowski died in 1982, but his wife, Ruth, continues his work as President and CEO of Crazy Horse Memorial. The group then received a guided tour of the site’s Indian Museum of North America with Mrs. Anne Van Dis, Crazy Horse Group Sales Director. The museum fulfills another vision of Mr. Ziolkowski, who determined from the beginning that Crazy Horse Memorial would be more than a mountain carving—it would pay tribute to all Native Americans. The museum contains outstanding examples of past and present Indian culture and heritage.

## **VI. NLM LONG RANGE PLAN AND DISASTER PREPAREDNESS INFORMATION RESEARCH CENTER**

Ms. Martha Szczur, Acting Associate Director, Specialized Information Services Division (SIS), National Library of Medicine (NLM), provided an update of the NLM Long Range Plan and a brief discussion on the plan for a new Disaster Preparedness Information Research Center.

NLM's latest initiative is the Disaster Health Information Management Research Center (DHIMRC), a new strategic direction included in the current Long Range Plan. Recognizing that the libraries became a focal point for information following Hurricane Katrina led to consideration of the role that medical libraries could play.

**NLM Long Range Plan 2006-20016  
Goal I**

**Seamless, uninterrupted access to expanding collections of biomedical data, medical knowledge, and health information**

**Recommendation 1.5.** Ensure continuous access to health information and effective use of libraries and librarians when disasters occur.

**Recommendation 1.6.** Establish a Disaster Health Information Management Research Center at NLM to make a strong commitment to disaster remediation and to provide a platform for demonstrating how libraries and librarians can be a part of the solution to this national problem.

The scope of the center is broad, and includes providing operational decision-making, research, education, and training; supporting continuity of program operations during a disaster; and supporting a broad geographic area extending from local to international. Similarly, DHIMRC resources could address a broad range of health applications for a broad range of users and include resources for all phases of disasters, from prevention to recovery. Dr. Stephen Phillips, former Acting Associate Director, SIS, has returned to NLM as a consultant to organize the center. John Scott, of the Center for Public Service Communications and NLM consultant to EnHIOP is also working on this project.

Ms. Szczur described the challenge for the DHIMRC as “how to deliver the right medical information in the right format to the right person at the right time.” This challenge will be met through an NLM-wide effort. Components include an emergency preparedness plan, which is being developed by the National Network of Libraries of Medicine, and disaster research contracts being written by Lister Hill Center. NLM's Office of Computer Communications Systems is responsible for connectivity and interoperability of the system, which is a critical component.

Projects in this area already organized and managed by NLM/SIS include the Hazardous Substances Data Bank, the Central American Network for Disaster and Health Information, the Wireless Information System for Emergency Responders, and the new Radiation Event Medical Management tool.

EnHIOP is developing a plan that aligns with the new NLM strategic goals. Ms. Szczur encouraged the group to include disaster preparedness in their strategic planning discussions.

## VII. EnHIOP STRATEGIC PLANNING

Dr. Henry Lewis III, EnHIOP Chairman, reviewed the four goals of the NLM Long Range Plan 2006-2016 and showed a draft timeline for completion of the EnHIOP Strategic Plan 2008-2013, which is to be aligned with the NLM's new strategic goals. Dr. Lewis assigned group leaders for the subcommittees, which were selected at the January 26, 2007 EnHIOP meeting. The EnHIOP representatives then divided into four working groups for discussions on the EnHIOP Strategic Plan. Dr. Lewis asked everyone to keep the EnHIOP mission statement and the NLM Long Range Plan goals in mind during their discussions.

The group discussions were productive, and afterward each chairperson reported their group's outcomes to the full panel. Those outcomes, with the Long Range Plan Goal groups and members follow. The assigned leaders are shown in bold text.

### 1. **Seamless, Uninterrupted Access to Expanding Collections of Biomedical Data, Medical Knowledge, and Health Information**

Subcommittee members: **Dr. PonJola Coney (Meharry Medical College)**, Cynthia Henderson, Dr. Milton Morris (absent), Dr. Tom Hatfield (absent), and Dr. Constance Hendricks

Outcomes: Reviewed the six recommendations contained in Goal 1 of the NLM Long Range Plan and made assignments to discuss further. Discussed finding ways for minority communities to get NLM traveling exhibits. They will post further recommendations on the EnHIOP listserv.

### 2. **Trusted Information Services that Promote Health Literacy and the Reduction of Health Disparities**

Subcommittee members: **Dr. Robert Copeland (Howard University School of Medicine)**, Dr. Robert Anders (Dr. Letty Paez attended), Dr. Kimberly Pounds, Dr. Paul Tchounwou, John Scott, and David Hurley (Ferlin Clark attended)

Outcomes: The message has to be one that can be trusted, but the messenger even more so; it also needs to be geographically and culturally specific. This is particularly important in Native American communities. It is important to go to the "real" people who live in the communities, such as the single mom, the people on the street, the firemen, etc. Use existing community infrastructure to convey messages, such as the barber shop, the grocery store, the movie theater—go to where the people are.

- 3. Integrated Biomedical, Clinical, and Public Health Information Systems that Promote Scientific Discovery and Speed the Translation of Research into Practice**  
Subcommittee members: Sarah Coulter Danner (Oglala Lakota College), Dr. Daniel Wildcat (absent), Dr. Joseph McQuirter (Dr. Bruce Allen attended), Dr. Ann Barbre, and Dr. Cheryl Taylor (absent)  
Outcomes: Discussed the difficulties involved with integrating personal biomedical and public health information. Information must be gathered by people who are trusted. Information gathering techniques should be culturally relevant.
- 4. A Strong and Diverse Workforce for Biomedical Informatics Research, Systems Development, and Innovative Service Delivery**  
Subcommittee members: Dr. Doris Withers (Medgar Evers College), Dr. Diógenes Herreño-Sáenz, Dr. Melvin Spann, Dr. James Webster (Dr. Doris Holeman attended), and Dr. Richard Ochillo  
Outcomes: Provide information and education; assist in finding people to participate in NLM programs; support development of NLM programs in EnHIOP institutions that can increase the field of bioinformatics.

Following the groups' presentations, NLM/SIS staff offered to assist the subcommittees in setting up conference calls and other logistics to facilitate their discussions and interaction prior to the next EnHIOP meeting and Dr. Lewis gave an overview of the next day's activities.

## VIII. WELCOME AND GREETINGS—PIYA WICONI, OGLALA LAKOTA COLLEGE

On Tuesday, June 12, 2007, the EnHIOP meeting was held at Oglala Lakota College (OLC), the Piya Wiconi and Pine Ridge campuses. Mr. Tom Short Bull, President, OLC, welcomed the National Library of Medicine and the EnHIOP to Piya Wiconi. He discussed the background of the Lakota people and the objectives of the college in serving their needs. Mr. Short Bull explained that the Lakota people belong to one of three major divisions of the Sioux Nation that also include the Dakota and the Nakota, and each tribe speaks a different dialect. The Lakota tribe is the largest of the three, and comprises seven tribal bands. He also explained that the name "Sioux" was derived from a Chippeway word, "Nadowessieux," meaning "snake" or "enemy," but the name "Sioux" persisted. The meaning of Lakota, which is the name they use, is "friendly."

One of OLC's primary objectives is the preservation of the Lakota language, which has suffered a decline since the occupation of Wounded Knee. The preferred approach to bringing the language back is through immersion courses. The school's curriculum is also designed to encourage young people to stay on the reservation. Because of the high poverty rate, they often leave. The high unemployment rate is another major problem on the reservation, and one which the college continues to address.

Following Mr. Short Bull's remarks, Cynthia Gaines, NLM, presented him with a token of appreciation for inviting the EnHIOP to Oglala Lakota College.

## **IX. PLANT EXTRACTION RESEARCH ON THE BITTER GOURD MELON**

Dr. Deig Sandoval, Professor of Chemistry, Math and Science Department, Oglala Lakota College, presented on research that he is conducting on the bitter gourd melon, a plant indigenous to South America and Asia with hypoglycemic properties. The research is testing the extract of the bitter gourd melon for its potential effectiveness in treating diabetes. Dr. Sandoval is collaborating with staff from the Sanford School of Medicine at the University of South Dakota.

Diabetes is a health disparity in Native Americans. Recent statistics have shown that 16.3 percent of the population on the Pine Ridge Reservation has diabetes, compared to the national average of 7.5 percent. This affects life expectancy on the reservation, which is currently 52 years for males and 48 years for females.

Dr. Sandoval explained that the next step for this research is to conduct a clinical trial to assess the potential use of plant extracts to lower blood sugar, cholesterol, and triglycerides. Fifty-four adult volunteers will be selected for the study, in three groups of nine males and nine females each. Data will show the effect of the treatment on healthy volunteers, and on volunteers with type 2 diabetes at different levels of fasting versus untreated volunteers diagnosed with type 2 diabetes. Other expected results include the effect of the treatment on volunteers with diagnosed type 2 diabetes in three different age groups (18–30, 31–45 and 46–90), and whether there is a statistical difference between males and females.

Following Dr. Sandoval's presentation, Mr. Ferlin Clark, President, Diné College and Jack Jackson, Navajo Medicine Man, gave a morning blessing. This two-hour ceremony was held in a ceremonial teepee borrowed from one of the Oglala grandmothers for this special occasion.

## **X. TRADITIONAL PLANTS AND HEALING SONGS—PINE RIDGE, OLC**

Upon arrival at the OLC Nursing School, Pine Ridge, the EnHIOP was welcomed by nursing school staff.

Mr. Wilmer Mesteth, a Lakota Medicine Man and instructor, Lakota Studies Department, gave a presentation on traditional plants and healing songs. He explained that some traditional plants are cultivated and some are gathered from the wild. They may travel 1,000 miles to collect the medicinal plants from various parts of their traditional homeland. These plants are sacred to the Lakota people, so they do not just take them from the land. They carefully prepare the soil around the plant, and with traditional ceremony and song gently lift the plant from its place. These rituals are an important part of the healing traditions. There are many different healing societies within the Lakota culture—Mr. Mesteth is a "Bear" healer. He is also a spiritual healer.

Following his discussion on healing plants, Mr. Mesteth demonstrated several healing songs, using the drum and the flute. The drum represents the music of the earth and the flute the music of the sky and the birds. These instruments are considered to be sacred and play an important role in the healing traditions.

Prior to ending the meeting, Joan Nelson, OLC Nursing Staff, briefly discussed the Rural Health Grant the Nursing Department had received from the Office of Rural Health for a diabetes prevention project. Approximately 300 people on the reservation who were at risk for diabetes and had a family history of diabetes participated in the project. Through exercise, diet, and self-esteem counseling, blood pressures decreased, weight was lost, and at the end of the project, no one had diabetes.

Following a tour of the nursing department, the meeting adjourned at 5 p.m. The group returned to Rapid City through the Badlands National Park.



Badlands National Park

Photo Credit: Vincent Hevern; Syracuse, N.Y.  
Used with permission.

APPENDIX A

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DIRECTORY OF GUEST SPEAKERS

JUNE 11-12, 2007

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## APPENDIX B

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### ENVIRONMENTAL HEALTH INFORMATION OUTREACH PROGRAM

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**APPENDIX B**  
**Environmental Health Information Outreach Program 2006–2007**

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**APPENDIX B**  
**Environmental Health Information Outreach Program 2006–2007**

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## APPENDIX C

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### ENVIRONMENTAL HEALTH INFORMATION OUTREACH PROGRAM

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## APPENDIX C

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**ENVIRONMENTAL HEALTH INFORMATION OUTREACH PROGRAM  
EnHIOP PROJECTS 2006**

**Diné College, Division of Math, Science and Technology—Shiprock, New Mexico**

*Gas and Oil Well Drilling Impacts on Human Health in Ante, Red Mesa, and Montezuma Creek, Utah*

This project will compare the current self-reporting of health symptoms to a previous study conducted by the Navajo Division of Health in 1998 and determine if self-reported health symptoms change in relationship with distance from oil and gas production facilities. This project is being conducted through Diné College, Shiprock Campus, in collaboration with the University of New Mexico. In prior support, 125 initial surveys were collected and will be used to correlate, using GIS (geographic information systems) technology, the levels of VOCs (volatile organic compounds) and H<sub>2</sub>S with surveyed home locations. Activities will include the development of community education and outreach on the dangers of oil/gas exposure and ways to decrease risks and promote community empowerment, and will provide input for a remedial program.

**Diné College, Center for Diné Studies—Shiprock, New Mexico**

*Navajo Ethno-Medical Encyclopedia (NEME) Project*

This project ensures the efforts are continued to complete the *Navajo Ethno-Medical Encyclopedia* (NEME), envisioned as a 10-volume compendium and repository of traditional Navajo Indian medical and healing knowledge. Ten volumes have already been sketched in outline form. Diné students who can read and type the Navajo language will retype the old typewritten transcriptions into electronic files for permanent, accessible, and transferable storage, using the modern Navajo Microsoft Word font. Their efforts will make it more readily and immediately available for incorporation into the ongoing work of the NEME, as other efforts will continue on researching new material and on codifying and incorporating the material from the early years of the project into modern computer word processing programs.

**Charles R. Drew University of Medicine & Science, Dept. of Oral and Maxillofacial Surgery—Los Angeles, California**

*Environmental and Toxicological Information Outreach*

This project is designed to increase the awareness of NLM online resources related to the use of toxicological, environmental, occupational, and hazardous materials/waste at Drew University. Approximately 300 individuals will be trained on how to retrieve scientific literature searches, toxicological profiles on hazardous chemicals that cause health and environmental effects, specific information about the possible effects of exposure to chemicals and biological agents, and information on common toxic substances encountered in everyday life. This project is built on the success of and inroads paved by the 2005 Small Grant Award and will be evaluated based on the number of participants and the proportional increase in interest in the use of NLM Web-

based resources. This information will be obtained through personal interviews and questionnaires completed by workshop participants.

**Florida A&M University, College of Pharmacy—Tallahassee, Florida**

*Using NLM Online Resources to Develop a Model Health Literacy Program for Minority and Disadvantaged Communities*

This project will show how the access to and the use of NLM's online resources can contribute significantly to the improvement of the health status of individuals and the entire community in which they reside. We will work with the Community Outreach and Service Learning (COSL) program of the College of Pharmacy and utilize pharmacy students to conduct workshops on providing health information and information access training at two sites in Tallahassee, Florida. Phase One of the project involved designing a workshop on health literacy, developing the formal agreements with the two targeted sites, acquisition of the hardware and agreement, and conducting training sessions on utilization. The project will now focus on Phase Two (2006–2007), which will involve selecting random patients/patrons to follow relative to their utilization of the resources provided to them and the utility thereof. Since the COSL program requires pharmacy students to conduct a volunteer service project, this program has received tentative approval for inclusion to meet the academic requirement. Approval by the university's Institutional Review Board is required and will be secured as part of Phase Two. This phase will require approximately 12 months.

**Howard University, College of Medicine, Department of Pharmacology—Washington, D.C.**

*Healthy Homes/Healthy Bodies*

This project will focus on using NLM's consumer health databases (MedlinePlus®, Tox Town®, Household Products Database, etc.) to provide the much needed educational information resources to parents to maintain a healthy and safe environment for their children. Once parents are aware of the potential dangers presented within and out of the home, environmental steps can be taken to prevent or reduce exposure to toxicants. In addition, this project will supplement the information provided by schools, parents, and communities by creating a series of day-long interactive workshops for parents and young children to jointly learn about the importance of a healthy diet and healthy eating options. Parent participation is key, so that the lessons learned will continue to be reinforced in the home. The target audience includes children ages 5–8 years old and their parents. These free workshops will include 14 children and their parents with experts from the medical community, including nonprofit organizations with a mission to educate about healthy living.

**Jackson State University—Jackson, Mississippi**

*A Pre-Symposium Workshop on the Use of NLM Web-Based Resources for Biomedical and Environmental Health Research*

The goal of this project is to organize a pre-symposium workshop on the use of the National Library of Medicine's Web-based resources for environmental health and biomedical sciences research and education. This workshop will be implemented as part of the Fourth International Symposium on Recent Advances in Environmental Health Research that Jackson State University (JSU) will host in 2007. The target audience will include the symposium's participants (professional scientists, faculty, and students) from JSU as well as other institutions of higher learning at the local, national, and/or international levels. It is anticipated that the implementation of this project will provide an excellent opportunity to participants to strengthen their environmental health and biomedical research capabilities, based on the new knowledge on critical health-related information gained from the workshop.

**Medgar Evers College, CUNY, School of Science, Health & Technology—Brooklyn, New York**

*Using NLM Online Resources to Promote Genetics and Human Genomics Education and Knowledge of Minority Urban High School Students*

The goal of this project is to develop instructional materials to be used by high school students to promote knowledge about the emerging findings in genetic and DNA sciences and to promote knowledge of the issues and impact of the Human Genome Project, incorporating the Web-based resources of the National Library of Medicine. This project is designed to augment the educational community outreach objective of the Medgar Evers College Genome Education and Outreach Program in the School of Science, Health and Technology. The target audience will be the teachers and students at the Middle College High School at Medgar Evers College located in Brooklyn, NY. An important outcome of this project is to educate and disseminate information about 21<sup>st</sup> century genetics and about human genomics and related issues that affect and are relevant to the African American community—the community of the college, its public school partners, and the lay public. Genetics and genomics education of high school students are important for promoting student interest to pursue related science careers and promoting scientific literacy (genetic citizenship) among the population in general.

**Meharry Medical College/School of Medicine—Nashville, Tennessee**

*Building Health Literacy Network Capacity Among Local Community Churches in Nashville/Davidson County, Tennessee*

This project will implement a faith-based network in health literacy for Nashville/Davidson County that will reach a total of 400 members within this network. This project proposes to develop a faith-based health literacy network by expanding the use of computerized health information technology and opportunities to two additional churches during this project year. Ten sessions using a computer to access health information will be provided. Members of the selected churches are experiencing health problems associated with health disparities in

## APPENDIX D

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incidences of hypertension, cardiovascular diseases, diabetes, cancer, and intentional and unintentional injury. In addition to working with the adults of these churches, special attention will be given to empower teens and adolescents with access to health information and health technology. Built on the foundation from the 2005 EnHIOP award, this proposed activity will link four faith-based churches together in developing a faith-based health literacy network around health education and patient safety, as well as creating a collaboration consisting of public libraries located in South Nashville/Davidson County, with Meharry Medical College Science Library working with faith-based organizations.

### **Oglala Lakota College, Department of Nursing—Pine Ridge, South Dakota**

#### *Taking Charge—Living Wisely: Iksabeya a'unpi, Phase III*

The goal of this project is to continue to build on the activities of the first two phases enabling the Oglala Lakota people to identify healthy lifestyles and behavior changes through exercise, eating a balanced diet, and understanding toxic chemicals and hazards in their environment. Additional activities in this phase include emphasizing the importance of oral hygiene at the Head Start Centers through developing DVDs and computer games for teaching children about oral hygiene and the importance of diet and fitness. Age-appropriate DVDs will also be made for adult students. Records will be kept on dental caries in the children at the Head Start Centers and on weight and use of fitness equipment for the college students.

### **Southern University A&M College, School of Nursing, Office of Research—Baton Rouge, Louisiana**

#### *Addressing the Environmental Health Needs of Displaced Katrina Evacuees Living in a Trailer Park Using the NLM Environmental Health Information Outreach Program*

The overall purpose of this project is to empower the Katrina evacuees living in Renaissance Village (trailer park) with environmental health information by using NLM's environmental health information databases and resources. The School of Nursing at Southern University Agricultural and Mechanical College has adopted the Renaissance Village by using its Family Health Care Center's Mobile Health Unit (Jag Mobile) to provide health screenings, primary health care services, and referral services. Activities for this project will include determining the most critical environmental health issues for residents of Renaissance Village by reviewing data that has been collected by the Jag Mobile, developing tutorials for the trainers and those living in Renaissance Village to be administered on site at the Village, and conducting an environmental health fair. The health fair will be the culminating event of the project and will be the result of a collaborative effort between Southern University A&M College and community businesses, political leaders, churches, public service organizations, and the citizens of East Baton Rouge Parish.



**University of Puerto Rico, Department of Pharmacology and Toxicology, School of Medicine—San Juan, Puerto Rico**

*UPR-Medical Sciences Campus: Outreach Project in Environmental Health Information—2006*

The goal of this project is to help to reduce environmental health disparities through information access to groups and communities of Puerto Rico. Project activities will include training students in the biology and premedical programs how to effectively use NLM resources. Graduate students admitted to the programs in pharmacy, nursing, and basic sciences (microbiology, anatomy, pharmacology and toxicology, biochemistry); faculty of the Medical Sciences Campus will also be trained. Efforts will be made to train middle and high school teachers, middle and high school students, and school librarians in using NLM's resources and other environmental databases. Plans are to design and provide conferences and workshops to the target groups. Opportunities will be made to provide training and practice in searching each of the NLM's databases that are pertinent for the target groups (i.e., PubMed®, MedlinePlus®, PubMed Central®, TOXLINE®, ChemIDplus®, Haz-Map, Household Products Database, Hazardous Substances Data Bank®, Toxics Release Inventory, LactMed, Tox Town®, and ClinicalTrials.gov). The conferences and workshops will be offered in Spanish and the handouts edited in Spanish.