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More Hantavirus Possible in the Southwest due to El Niño

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Hantavirus was first recognized in 1993 during an outbreak in the southwestern United States in which a number of previously healthy young adults developed a fatal respiratory disease. The illness, Hantavirus Pulmonary Syndrome (HPS) was found to be caused by a previously unrecognized Hantavirus (Bunyaviridae), Sin Nombre virus (SNV), which is carried by deer mice (*Peromyscus maniculatus*).

Risk for infection with SNV frequently appears to be associated with the abundance of deer mice present in and around the home. Environmental events resulting from the El Niño Southern Oscillation of 1992-93 may have contributed to the 1993 outbreak. Weather patterns characterized by above-average precipitation during the summer of 1992 followed by a moist, mild winter most likely led to unusually high population levels of deer mice. Of the 178 cases currently reported by the Centers for Disease Control and Prevention, 80 (45%) occurred in 1993-94 following El Niño. Twenty-six (33%) of the 80 cases occurred in American Indians, primarily in the Southwest. Since the 1992 El Niño, few cases of HPS have been seen in the Southwest, with most cases appearing scattered throughout the United States. To date, HPS has been recognized in 29 states, from as far north as Washington and New York, to as far south as California and Florida.

Risk of hantavirus may be higher in the Southwest during 1998 as a result of the current El Niño cycle, which started last summer. Longitudinal small mammal studies begun after the 1993 outbreak by IHS and CDC in collaboration with a number of groups (University of New Mexico, Colorado State University, University of Arizona, Yavapai College, and state health departments in Arizona, Utah, Colorado, and New Mexico) have shown dramatic increases in deer mice populations. During the drought years of 1995-96, deer mice populations dwindled to near-extinction, only to increase by 300% from August to November 1997. With deer mice populations high at the start of the spring breeding cycle, and with ample moisture and food, the risk of hantavirus could be much higher this spring as compared to the past three years.

Diagnosis of HPS

Since the 1993 outbreak, in which mortality rates approached 65%, survival has improved, with mortality rates dropping to 34%, possibly due to the more frequent use of early supportive intervention and rapid transfer to tertiary care referral centers. Early recognition of HPS is key to improving patient outcomes. Unfortunately, at the onset, symptoms are non-specific, consisting of fever and aches in large muscle

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groups and/or the back. Other symptoms including headache or stomach pain may be present. HPS rarely is associated with typical upper respiratory symptoms such as pharyngitis or rhinorrhea, although concurrent infections are possible. Early laboratory findings include thrombocytopenia (<150,000), "left-shift" leukocytosis, and an elevated hematocrit secondary to fluid movement into the third space. Chest x-rays may be clear initially. Within 24-72 hours after onset, however, the patient may rapidly develop severe respiratory compromise due to non-cardiogenic pulmonary edema. Diffuse bilateral infiltrates are found on chest x-ray during this stage. Hantavirus may be confirmed by testing a serum specimen for IgM antibody to SNV. Serologic testing is available at many state health departments on an emergency basis (contact your state epidemiologist's office for arrangements).

Care of HPS patient

Patients should be transported to a critical care unit early in the course of their illness. Complications associated with capillary leak syndrome create complex fluid management issues that often require invasive monitoring (e.g., Swan-Ganz catheterization and arterial lines for monitoring cardiac output and arterial pressure). Although a patient may appear to be in septic shock, blood pressure should be supported with inotropic agents, and fluid infusions should be carefully monitored to avoid overhydration and acute exacerbation of pulmonary edema.

Prevention of Hantavirus

In anticipation of a potential outbreak of HPS in the Southwest this spring as a result of El Niño and an attendant increase in the deer mouse population, efforts should be made to remind people to avoid contact with rodents. Homes should be sealed to prevent entry of rodents, and continuous trapping should be instituted to remove any rodents from the house. Care should be taken when opening abandoned vehicles or sheds, cabins, barns, and other buildings in which rodents may have stayed over the winter. When cleaning potentially infected areas, all surfaces should be moistened with a disinfectant such as a dilute bleach solution to prevent dust. Risk of hantavirus may be reduced significantly by decreasing the number of rodents found in and around the home.

For additional information, please contact the Epidemiology Program at IHS Headquarters West at (505) 248-4226.

Editor's note

An excellent resource for additional information can be found at the CDC website. A number of pages devoted to "All About Hantavirus" can be reviewed and printed from www.cdc.gov/ncidid/diseases/hanta/hps/. *Topics presented include: Public Information, Technical Information, State Contacts and Telephone Numbers, Case Information, Glossary, Treatment, Prevention, Submitting Specimens, and many others. Similar information can also be received via the CDC fax retrieval service at (888) 232-3228.* □

The Annual Elders Issue

May is National Elders Month. In recognition of this, for the past two years *The Provider* has dedicated its May issue to articles related to the health and health care of Indian elders. We would like to invite our readers to submit articles for this issue as soon as possible. In addition to clinical or descriptive articles, we would welcome submissions from elders themselves who are willing to share their viewpoints about the status of health care for Indian elders and their perceptions of future needs. If you would like to submit an article, please send it to:

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Indian Health Service Statistical Note #10:
Guidelines for Tracking the IHS FY 1999 Performance Plan Indicators

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Introduction

The Indian Health Service (IHS) submitted its revised FY 1999 Performance Plan to the Department of Health and Human Services (HHS) in January 1998. This plan is in compliance with the Government Performance and Results Act (GPRA). It includes 25 performance indicators/objectives that were developed by IHS in partnership with tribes and urban projects (I/T/U).

The purpose of this statistical note is to provide guidance on the data sources and measurement techniques to use in tracking the 25 performance indicators/objectives, thereby promoting consistency throughout the I/T/U system. Such consistency will greatly improve the I/T/U's ability to manage and monitor the performance indicators process and produce reports summarizing efforts and achievements.

For the purposes of this statistical note, an **indicator** is defined as *an index that is calculated to determine the value of a particular state or condition*. For example, the "infant mortality rate" is calculated to determine the severity of the problem of infants dying in a specific geographic area. An **objective** is defined as *a target that is set for a group or a geographic area to achieve within a given time period.* For example, an objective could read, "Reduce the 1995 infant mortality rate for the IHS service population by 10 percent by the year 2000." Indicators and objectives are closely linked since an objective needs to specify an indicator for calculating the baseline, calculating changes, and determining whether the target is met.

Achieving the Objectives

The focus of this article is data and measurement issues. This does not minimize the importance of programs designed to accomplish the objectives. The main purpose of adopting health objectives is to implement interventions/activities to achieve the objectives and thereby improve the health status of the population. Other IHS documents address program issues.

It is necessary to have good baseline data and measurement techniques to determine when an intervention is warranted and how well the intervention is working. A community that is considering an objective should first assess whether they have the problem that is reflected in the objective by calculating the baseline for the community. If the data indicate a relatively serious problem for the community that it is interested in addressing, then it needs to be determined whether there are feasible interventions that could be implemented to improve the situation.

After implementation, the effectiveness of an intervention should be evaluated by measuring changes in the objective indicator. If the new value of the indicator is not better than the baseline indicator, then perhaps the intervention needs to be replaced or modified. The objective indicator should be recalculated (i.e., the objective should be tracked) periodically to not only determine what, if any, program changes need to be made, but to keep the community and leadership informed on the progress being made.

Tracking the Objectives

The I/T/Us do not have complete data to readily track all of the 25 objectives precisely. I/T/Us can track, down to the county level, the objectives that have indicators which utilize basic mortality or natality data. IHS has a complete county-specific database of Indian birth and death records. However, since there are no tribal identifiers on these birth and death records, tribe-specific rates cannot be calculated unless the tribal boundaries consist of one or more whole counties. I/T/Us cannot readily track morbidity objectives that require the calculation of a population-based indicator, in particular, prevalence and incidence rates. Population-based surveys are required to track such objectives precisely. The IHS patient care information systems only reflect the health problems of individuals that access the I/T health care system and are brought to the attention of the providers. Behavioral data are also incomplete. Some types of behavioral indicators can be entered into the Patient Care Component (PCC) of the Resource and Patient Management System (RPMS), but not all facilities collect and enter such data, and most behavioral type data are not transmitted to the IHS central database.

I/T/Us do not have the resources nor is it feasible to

conduct population-based surveys to precisely calculate all population-based indicators for the IHS and each subunit (i.e., Area, service unit, tribe, and Urban Project). It is possible to utilize existing I/T/U and non-I/T/U data sources to calculate reasonable proxy measures in those cases where precise indicators cannot be calculated. Provided that the same data sources and measurement techniques are used in all phases of tracking an objective, these albeit imprecise proxy measures should serve their purpose.

In calculating population-based rates, it is important to use the proper population figure in the denominator, i.e., service population versus user population. IHS service population estimates and projections are based on census enumerations adjusted by Indian births and deaths. There is no indication whether the people included in the count use or have used IHS services. IHS service population estimates and projections are used in calculating vital event rates since birth and death certificates, likewise, do not provide information on use of IHS services. IHS user population estimates are based on data from the IHS Patient Registration System. Those registered Indian patients residing in a specific area that had at least one encounter (direct or contract inpatient, ambulatory medical, or dental) during the last three years are defined as users. IHS user population estimates are used for calculating IHS patient care rates. This statistical note specifies the appropriate population figure to use for each objective, where applicable.

Indicators that are not age-specific should be age adjusted to compensate for age differences between populations. The National Center for Health Statistics (NCHS) age adjusts mortality rates to the U.S. population enumerated during the 1940 census. For morbidity-based indicators, NCHS normally uses the 1970 civilian noninstitutionalized population. Therefore, these are the preferred methods for age adjusting GPRA indicators. These methods are described in IHS Statistical Note No. 6, "Comparing Health Status of Populations with Different Age Distributions" (*The IHS Provider*, Volume 19, No. 5, May 1994, pp 91-94).

The same indicators (direct or proxy) may not work for all population sizes. As the number of events being measured becomes small, the reliability of the rates calculated decreases. Therefore, for small populations, different data sources and/or measurement techniques may be required to track some objectives. The IHS typically combines three years of data in calculating IHS aggregate vital event rates to reduce variability. For smaller populations, it is often necessary to use more than three years of data. The events associated with some objectives are expected to occur in a small population very rarely, e.g., the incidence of amputation and blindness associated with diabetic neuropathy and retinopathy. These could be treated as sentinel events; i.e., a single occurrence would signal a problem that should be investigated. Some objectives may not be measurable or meaningful to track for small populations.

Data Sources and Measurement Techniques

The data sources and measurement techniques for each of the IHS GPRA objectives have been established. A representative sample of these follows. A complete listing of all of the indicators is available by contacting the office mentioned at the end of this article. For some of the objectives, there are no expected problems in data availability and calculation routines. In cases where there are problems, alternative data sources and/or proxy measures are recommended. This information reflects the collaborative work of IHS and tribal statisticians, epidemiologists, and program staff.

A point of contact is listed for each objective. This office/person is the IHS authority on the objective and should be contacted with questions regarding the objective (e.g., concerning the meaning of the objective, definition of terms, measurement techniques, data sources, small population applicability). Guidance that they may provide for their objectives supersedes the contents of this statistical note.

IHS GPRA Objectives (Examples)

A. Treatment Indicators/Objectives

1. To establish Area-specific diabetes prevalence rates for the American Indian and Alaska Native population by the end of FY 1999.

Definitions:

The Area diabetes prevalence rate is the number of IHS eligible Indians residing within the official boundaries of the Area (i.e., the contract health service delivery areas (CHSDAs) that comprise the Area) who have the diabetes condition (ICD-9-CM 250.) per 1,000 population.

Baseline:

The IHS Diabetes Program estimates diabetes prevalence in American Indians and Alaska Natives by using diagnostic data (diabetes and related hypertension) from the IHS central database for those seeking care in IHS and tribal facilities. Crude rates are calculated using service population in the denominator, but it is planned to switch to user population since it is more appropriate for patient care rates. The crude rates are then age adjusted to the 1990 U.S. census population. To be consistent with NCHS, it is recommended that the Diabetes Program use the 1970 civilian noninstitutionalized population. The latest rates calculated by the Diabetes Program (using service population and age adjusted to the 1990 U.S. census population) are as follows:

Area	FY 1996 Prevalence Rate Per 1,000 Service Pop* (Age Adjusted - 1990 U.S.)
Aberdeen	66.00
Alaska	15.38
Albuquerque	65.12
Bemidji	66.44
Billings	65.32
California	30.84
Nashville	80.75
Navajo	49.60
Oklahoma City	54.16
Phoenix	64.19
Portland	36.87
Tucson	79.78
All Areas	52.23

* Certain service units are excluded since they have no direct health care services.

Longitudinal studies of diabetes conducted in Pima Indians since 1965 have provided extensive information on the prevalence and incidence of diabetes in this tribal community. There are several other tribe-specific diabetes epidemiological studies, but none to the depth of the Pima studies.

Measurement Technique:

In order to calculate prevalence rates precisely, population-based surveys are required. For prevalence, a diabetes screening would need to be conducted on a sample of the population to determine what proportion of the total population had a diabetes diagnoses, regardless of when they incurred the condition. A less precise survey technique involves questioning persons on whether they have been diagnosed with diabetes (it would be best to request documentation).

Surveys are expensive and difficult to conduct. A proxy measure can be obtained utilizing ambulatory medical data in the IHS central database and/or in the facility PCC database. Several years (e.g., 5 years) of medical visit data would need to be analyzed for a defined geographic area (e.g., residents of an IHS Area) to determine how many unique patients had a diagnosis of diabetes. The total number of patients with a diabetes diagnosis would be divided by the Area user population and then multiplied by 1,000 to calculate the prevalence rate per 1,000 population.

A more direct way of calculating the proxy measures is to utilize PCC or other diabetes registries to obtain the total number of diabetes cases. If the registries are well maintained, this technique should produce more accurate measures than relying on PCC encounter data. Care must be taken to ensure that the population represented in the numerator is the same as the user population coverage in the denominator.

The crude rates should be age adjusted to the 1970 civilian noninstitutionalized population. See IHS Statistical Note No. 6, "Comparing Health Status of Populations with Different Age Distributions" (*The IHS Provider*, Volume 19, No. 5, May 1994, pp 91-94).

Data Sources:

Diabetes Surveys, PCC, Diabetes Registries.

Small Population Limitation:

In order for a rate to be reliable, at least 20 events are required in the numerator.

Point of Contact:

Kelly J. Acton, Acting Director, Diabetes Program, (505) 248-4182.

4. By the end of FY 1999, assure that the proportion of the American Indian and Alaska Native female population over 40 years of age who have had screening mammography is no lower than the FY 1996 level.

Definitions:

The Area proportion of the female population over 40 years of age who have had screening mammography is the number of IHS eligible Indian women over 40 years of age residing within the official boundaries of the Area (i.e., the contract health service delivery areas (CHSDAs) that comprise the Area) who have had a mammogram (ICD-9-CM 87.37) during the current year divided by the total number of IHS eligible Indian women over 40 years of age residing within the official boundaries of the Area multiplied by 100.

Baseline:

Based on the FY 1996 Assessment of IHS Diabetes Care, 26 percent of the female diabetic IHS user population met the American Cancer Society's (ACS) recommendation for mammography (Areas ranged from 13 to 57 percent). Also, fifty percent of the female diabetic population had ever had a mammogram (Areas ranged from 34 to 80 percent), and 25,590 mammograms were performed by IHS in FY 1995 (per the IHS Medical Imaging Program).

Measurement Technique:

In order to calculate population proportions precisely, population-based surveys are required. A sample of the female population over 40 years of age would need to be questioned to determine what proportion of them had a mammogram (it would be best to request documentation) during the latest complete year.

Surveys are expensive and difficult to conduct. A proxy measure can be obtained utilizing ambulatory medical data in the IHS central database and/or in the facility PCC database. Medical visit data for the latest complete year would need to

be analyzed for a defined geographic area (e.g., residents of an IHS Area) to determine how many unique female patients over 40 years of age had had a mammogram. The number of female patients over 40 years of age who had had a mammogram in the latest complete year would be divided by the Area female user population over 40 years of age and then multiplied by 100.

It may be necessary to supplement PCC data with chart reviews, IHS Medical Imaging Program information, the Centers for Disease Control and Prevention (CDC) program mammograms (National Breast and Cervical Cancer Early Detection Program), and Urban Project data. As the Women's Health Software (WHS) component of the PCC is implemented, adequate data should be available from that source. Care must be taken to ensure that the population represented in the numerator is the same as the user population coverage in the denominator.

Data Sources:

Mammogram Surveys, PCC-WHS, Chart Reviews, IHS Medical Imaging Program, CDC, Urban Projects.

Small Population Limitation:

In order for a rate to be reliable, at least 20 events are required in the numerator.

Point of Contact:

Nathaniel Cobb, Principal Consultant for Epidemiology/ Cancer, (505) 248-4132.

5. By the end of FY 1999, assure that the proportion of children, 5 years and under, with a well child visit is no lower than the FY 1995 level.

Definitions:

The Area proportion of the youth population, 5 years and under, who have had a well child visit is the number of IHS eligible Indian children, 5 years and under, residing within the official boundaries of the Area (i.e., the contract health service delivery areas (CHSDAs) that comprise the Area) who have had a well child visit (ICD-9-CM V20) during the current year divided by the total number of IHS eligible Indian children, 5 years and under, residing within the official boundaries of the Area multiplied by 100.

Baseline:

In FY 1995, it is estimated that 61 percent of Indian children (0-5 years) residing in the IHS service area had a well child visit.

Measurement Technique:

In order to calculate population proportions precisely, population-based surveys are required. A sample of the families with a child (0-5 years) would need to be questioned to determine what proportion of this age group had a well child visit (it would be best to request documentation) during the latest complete year.

Surveys are expensive and difficult to conduct. A proxy measure can be obtained utilizing ambulatory medical data in the IHS central database and/or in the facility PCC database. Medical visit data for the latest complete year would need to be analyzed for a defined geographic area (e.g., residents of an IHS Area) to determine how many children (0-5 years) had a well child visit. The number of children, 5 years and under, who had a well child visit in the latest complete year would be divided by the Area user population under 6 years of age and then multiplied by 100. Care must be taken to ensure that the population represented in the numerator is the same as the user population coverage in the denominator.

Data Sources:

Well Child Visit Surveys, PCC.

Small Population Limitation:

In order for a rate to be reliable, at least 20 events are required in the numerator.

Point of Contact:

Phillip Smith, Principal Maternal and Child Health Consultant, (301) 443-4297.

B. Prevention Indicators

15. Assure overall childhood immunization rates of 80 percent complete and on time for children ages two and three, by the end of FY 1999.

Definitions:

The Area proportion of children, 2 and 3 years of age, who have received complete and on time immunizations is the number of IHS eligible Indian children, 2 and 3 years of age, residing within the official boundaries of the Area (i.e., the contract health service delivery areas (CHSDAs) that comprise the Area) who have received immunizations according to the schedule listed below during the current year divided by the total number of IHS eligible Indian children, 2 and 3 years of age, residing within the official boundaries of the Area multiplied by 100. Timeliness of each vaccination will vary according to the schedule recommended by the Immunization Practices Advisory Committee (ACIP) of the U.S. Public Health Service. No standard definition of "late immunization" exists. For the purpose of GPRA, late immunization may be defined as receiving a vaccination more than 30 days past the date upon which the child is first eligible to receive the vaccination.

Schedule of Immunizations for Ages 2 and 3

- Three polio vaccinations (IPV or OPV or a combination) by the second birthday
- Four DTP or DTaP vaccinations (or an initial DTP or DTaP followed by at least three DTP, DTaP, and/or

DT) by the second birthday
- One MMR between the first and second birthdays
- At least one hemophilus influenza type b (HIB) vaccination between the first and second birthdays
- Three hepatitis B vaccinations by the second birthday
- Two or three hepatitis A vaccinations (depending on the formulation) by the third birthday

Baseline:

The estimates vary by location between 55 and 95 percent. There is no reliable national estimate.

Measurement Technique:

In order to calculate population proportions precisely, population-based surveys are required. A sample of all families within a CHSDA with a child (2 and 3 years of age) would need to be evaluated to determine what proportion of this age group had received complete and on time immunizations (documentation is required to confirm receipt of any given vaccine) during the latest complete year. Developing an adequate sample of the population, however, is difficult, if not impossible, without accurate information on all individuals living within a defined geographic area. In addition, surveys are expensive and difficult to conduct.

The approach currently recommended by the CDC National Immunization Program is a retrospective survey of an age cohort. The CDC provides a free computer package, the Clinic Assessment Software Application (CASA), currently used by many health departments and clinics to calculate vaccination coverage and timeliness. The CASA program will assist users in selecting an appropriate sample, then provide a database in which to enter data. A complete list of all children residing within the CHSDA must be used in drawing the random sample. Users must input data on the sample of children from medical records. Data may be imported from the upcoming version of the PCC Immunization Package. The program will provide statistical estimates of vaccination coverage and timeliness.

The trend is changing toward complete ascertainment using Immunization Registries, however, in which data are collected prospectively and analyzed periodically. Unfortunately, at this time and in most locations, the PCC Immunization Package often does not have complete data. The best data set is a combination of PCC, patient medical record, and Public Health Nursing card file data. Given this limitation of the IHS "Immunization Registry," the former retrospective method using the CASA may be the best, except for locations with complete and accurate PCC data.

Data Sources:

Immunization Surveys, IHS Patient Care Records, Public Health Nursing Records, and PCC Immunization Package.

Small Population Limitation:

In order for a rate to be reliable, at least 20 events are required in the numerator.

Point of Contact:

Joan Takehara, National Immunization Coordinator, (505) 248-4226.

Editor's note

The Indian Health Service FY 1999 Performance Plan, *including all of the performance indicators, is accessible on the Internet via the IHS homepage (www.ihs.gov) under the Publications section of Public Information.* ☐

MEETINGS OF INTEREST ☐

Fetal Alcohol Syndrome
Two identical sessions: May 27-29, 1998,
and June 10-12, 1998 Seattle, Washington.

This conference is cosponsored by the University of Washington Fetal Alcohol and Drug Unit, the University of Washington FAS Diagnostic and Prevention Network, and the Indian Health Service. Native Americans or those working with Native Americans are eligible, including professionals (physicians, psychiatrists, psychologists, social workers, nurses, teachers, CHNs, chemical dependency counselors, lawyers, judges, etc.) as well as advocates and parent activists. Six trainees will be selected for each session by the IHS Alcohol and Substance Abuse Program, HQW. Costs for lodging and most meals will be paid for by the UW Fetal Alcohol and Drug Unit. Costs for travel to and from Seattle, airport transfers, and some meals are the responsibility of the attendees or their organizations.

The curriculum includes 1) preventing and overcoming secondary disabilities in people with FAS and FAE across the lifespan (1 day); 2) preventing FAS with the Birth to Three Advocacy Model for working with very high-risk mothers and their families (1 day); and 3) demonstration of a multidisciplinary FAS Diagnostic Clinic and its relevance for community interventions, parent advocacy, and prevention (1 day).

The faculty includes Ann Streissguth, PhD; Sterling Clarren, MD; Robin LaDue, PhD; Therese Grant, PhC; and others from the Fetal Alcohol and Drug Unit and the FAS

Diagnostic and Prevention Network. To apply, provide a description of past experience related to FAS and plans for the utilization of this training in Indian communities. Send your application to Timothy Taylor, PhD, Health Researcher, Alcoholism and Substance Abuse Program, IHS Headquarters West, 5300 Homestead Road, NE, Albuquerque, NM 87110. For more information, please contact Timothy Taylor at (505) 248-4125; fax (505) 248-4129; or e-mail *tltaylor@smtp.ihs.gov*.

Advances in Indian Primary Health Care
April 15-17, 1998 Albuquerque, New Mexico

The first annual continuing medical education course entitled Advances in Indian Primary Health Care will be offered for primary care physicians who work in Indian health at Federal, tribal, or urban sites. Medical students and residents who are interested in serving Indian populations are also welcome. The course will be presented by the IHS Senior Clinicians in Family Practice, Internal Medicine, Pediatrics, and Obstetrics and Gynecology, in cooperation with the University of New Mexico Health Sciences Center School of Medicine Area Health Education Center; the IHS Clinical Support Center is the accredited sponsor. It is designed for new and experienced primary care physicians to learn about advances in clinical care specifically relevant to Indian populations, with an emphasis on southwestern tribes. An opportunity to learn from clinicians experienced in the care of Native Americans will be featured. Clinical disease control program directors and Senior Clinicians will be available for program development and consultation.

The course will begin in the afternoon on Wednesday, April 15 and end at noon on Friday, April 17. A registration fee will be charged. For more information contact Chuck North, MD, Senior Clinician for Family Practice, PHS Indian Hospital, 801 Vassar Drive, NE, Albuquerque, New Mexico 87106; phone (505) 256-4065; fax (505) 256-4093; or e-mail *north.chuck@ihs.gov*.

IHS Research Conference
April 27-29, 1998 Albuquerque, New Mexico

The Tenth Annual Indian Health Service (IHS) Research Conference, sponsored by the IHS Research Program and the IHS Clinical Support Center (the accredited sponsor) will be held April 27-29, 1998 in Albuquerque, New Mexico. Papers have been invited for oral or poster presentation in the following categories: Aging, AIDS, Alcohol and Substance Abuse, Cancer, Cardiovascular Disease, Diabetes, Environmental Health, Epidemiology, Health Care Administration, Health Promotion and Disease Prevention, Health Services Research, Injury Prevention, Mental Health, Nutrition, Oral Health, and Women's Health. Research measuring the effectiveness of innovative health care delivery interventions or research that demonstrates partnerships between researchers and tribes is especially welcome. Please note that this conference will take place immediately preceding the *Issues in Human Research Conference*, and will be held in the same location. Those attending the *IHS Research Conference* may want to obtain information about the *Issues in Human Research Conference*, also described in this section.

For abstract consultation or registration information, contact Ms. Linda Arviso-Miller at (505) 248-4142; fax (505) 248-4384; or e-mail *larvisom@smtp.ihs.gov*.

Issues in Human Research:
A Focus on Southwest Diversity
April 29- May 1, 1998 Albuquerque, NM

Participants attending this two and one-half day conference will 1) learn how regulations and community participation can protect human subjects in research, 2) become familiar with the issues involved with research in diverse populations in the Southwest, and 3) be able to make appropriate recommendations for changes to the Indian Health Service, the Office for Protection from Research Risks, and the Food and Drug Administration. Physicians and other health professionals involved in research with human subjects will benefit from attending this conference. Sponsors are the Navajo Nation, Diné Community College, the Office for Protection from Research Risks, the National Institutes of Health, the Indian Health Service, the American Indian Law Center, the Food and Drug Administration, the Department of Energy, and the University of New Mexico Health Sciences Center School of Medicine Office of Research and Office of Continuing Medical Education. Please note that this conference will take place immediately following the *IHS Research Conference*, and will be held in the same location. Those attending the *Issues in Human Research Conference* may want to obtain information about the *IHS Research Conference*, also described in this section. Both of these conferences will be held in Albuquerque, New Mexico at the Sheraton Old Town Hotel. For more information about this conference, contact the Office of Continuing Medical Education at the University of New Mexico Health Sciences Center School of Medicine at (505) 272-3942.

Mid-Level Primary Care Providers
June 2-5, 1998 Phoenix, Arizona

This conference for mid-level providers (physician assistants, nurse practitioners, certified nurse midwives, and pharmacist practitioners) employed by the Indian Health Service or Indian health programs will offer 20 hours of continuing education designed to meet the needs of those providing primary care to American Indians and Alaska Natives. An agenda will be available in spring. There will be a registration fee of $150 of those employed by compacting tribes or those in the private sector. For additional information, contact the IHS Clinical Support Center, 1616 East Indian School Road, Suite 375, Phoenix, Arizona 85016; phone (602) 640-2140.

Diabetes in Native Americans:
Management and Prevention
June 3-5, 1998 Oklahoma City, Oklahoma

Diabetes has become a major cause of mortality and morbidity in the Native American population. The purpose of the conference, entitled *Diabetes In Native Americans, Management and Prevention*, to be held June 3-5, 1998 in Oklahoma City, Oklahoma at the Clarion Hotel and Conference Center (Phone (800) 741-2741, Booking No. 7615), is to provide a forum for Native American tribal members, health educators, health care providers, policy makers, and scientists to discuss, exchange, and disseminate current information about tribal perspectives, intervention, and prevention of the disease and its complications.

The conference will cover: (1) tribal perspectives of diabetes including perceptions, beliefs, needs, and expectations; (2) epidemiology of diabetes and its complications in Native Americans; (3) management of diabetes and its complications; (4) prevention of diabetes and its complications; and (5) recommendations from tribal representatives and other participants for future activities.

The conference is being planned by representatives from the Indian Health Service (IHS); the Colleges of Medicine and Public Health, University of Oklahoma Health Sciences Center; the National Institute of Diabetes and Digestive and Kidney Diseases; the Centers for Disease Control and Prevention Diabetes Translation Division; the American Diabetes Association, Oklahoma Affiliate; and several American Indian tribes. The accredited sponsor of the conference for continuing education is the IHS Clinical Support Center. The Clinical Support Center is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing education for physicians. The CSC designates this activity for up to 18½ hour of Category 1 credit toward the Physician's Recognition Award of the American Medical Association. Each physician should claim only those hours of credit he or she actually spends in the educational activity. The Indian Health Service is accredited as a provider of continuing education in nursing by the American Nurses Credentialing Center Commission on Accreditation, and designates this activity for 21.3 contact hours (including 0 hours of pharmacology) for nurses.

For more information about conference or hotel registration, contact Ms. Rosetta Fisher, University of Oklahoma Health Sciences Center, College of Public Health, Office of the Dean, P.O. Box 26901, Oklahoma City, OK 73190; phone (405) 271-2232; fax (405) 271-3039; e-mail *Rosetta-Fisher@ouhsc.edu*. Registration forms will be available soon. The deadline for both conference pre-registration and hotel reservations is May 12. If you have other questions about the conference, contact Carl Schaefer at (405) 271-3090; fax (405) 271-4390; e-mail *Carl-Schaefer@ouhsc.edu*.

Southwest Regional Pharmacy Seminar
June 12-14, 1998 Phoenix, Arizona

This annual continuing education seminar is held for IHS- and tribally-employed pharmacists working in the Phoenix, Navajo, Albuquerque, Tucson, California, and Portland Areas. Fifteen hours of ACPE credit will be available to those who attend. The meeting will be held at the Phoenix Airport Hilton, 2435 South 47th Street, Phoenix, Arizona; phone (602) 894-1600. For more information, contact Chris Watson at (602) 364-5194; e-mail *cwatson@smtp.ihs.gov*. A certificate program for pharmacists entitled *Diabetes Patient Care* will be offered in conjunction with this meeting; for more information about this, contact Dr. Eugene Smith at (520) 871-1398; e-mail *esmith@navaa.navajo.ihs.gov*.

Pharmacy Practice Training Program:
A Certificate Program in Patient Oriented Practice
July 13-16, 1998 and August 3-6, 1998 Phoenix, Arizona

The IHS Pharmacy Practice Training Program will offer two open sessions this year. The target audience is IHS, tribal, and Urban Program pharmacists practicing in an ambulatory care setting.

The objectives of the program are to improve the Indian health program pharmacist's ability to deliver direct patient care. This program encompasses the management of patient care functions in the areas of consultation, communication, interviewing techniques, laboratory test interpretation, conflict resolution, and physical assessment. These techniques are taught utilizing case-study methods, which includes role-playing and discussion.

The dates for the 1998 programs are July 13-16 (Session 1) and August 3-6 (Session 2). It is anticipated that out-of-town attendees will arrive Sunday and depart Friday, depending on airline schedules. The hotel offers complimentary airport transportation.

Both sessions will be held at the Wyndham Garden Hotel-Phoenix Airport, 427 North 44th Street, Phoenix, AZ 85008. The hotel room rate will be $71 (tax inclusive). Individuals are responsible for making their own hotel arrangements. The hotel can be reached at (602) 220-4400 or (800) WYNDHAM. Callers are to ask for the "IHS Pharmacy Training" rate.

In order to assure that we have enough space for those interested in attending, a registration deadline has been set for May 1 for Session 1 and June 1 for Session 2. Individuals assigned to facilities operated by tribes/corporations that have taken their share of the CSC budget will be charged tuition.

For further information or pre-registration, contact Tom Ambrose at the Clinical Support Center; phone (602) 640-2140 ext. 101; e-mail *tambrose@smtp.ihs.gov*.

The IHS Clinical Support Center is approved by the American Council on Pharmaceutical Education as a provider of continuing pharmaceutical education. This activitiy has been awarded 27.5 contact hours (2.75 CEUs) under Universal Program Number 600-000-024-C04. □

POSITION VACANCIES ☐

Editor's note: As a service to our readers, The Provider *will now publish, on a space available basis, notices of clinical positions available. Indian health program employers should send brief announcements on an organizational letterhead to: Editor,* The IHS Provider, *The IHS Clinical Support Center, 1616 East Indian School Road, Suite 375, Phoenix, Arizona 85016. Submissions will be run for two months, but may be renewed as many times as necessary. Tribal organizations that have taken their tribal "shares" of the CSC budget will need to reimburse CSC for the expense of this service. At this time we do not plan to run ads for "positions wanted." The Indian Health Service assumes no responsibility for the accuracy of the information in such announcements.*

Physicians and Mid-levels
Hoopa Health Association, Hoopa California

Immediate positions available for physicians and mid-levels offering paid vacation, holiday and sick leave, health and life insurance, and pension program. Competitive salary; malpractice insurance provided. For more information and or an application, call the Hoopa Health Association at (916) 625-4559 extension 226.

Obstetrics Nurses
Phoenix Indian Medical Center, Phoenix, Arizona

Positions available immediately for registered nurses experienced in obstetrics (labor and delivery, ante- and postpartum, newborn nursery, and triage). Employment benefits include paid vacation, holiday and sick leave, health and life insurance, and pension program. Salary based on grade, which is determined by prior OB experience. These positions are rated at GS 9/10. For more information, call the Phoenix Indian Medical Center at (602) 263-1575 (Hank Numkena, Staffing Specialist) or (602) 263-1520 (Chuck Culver, Acting Associate Director, Nursing Programs).

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