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Community health survey and community health representatives & alcohol/substance abuse problems evaluation results.

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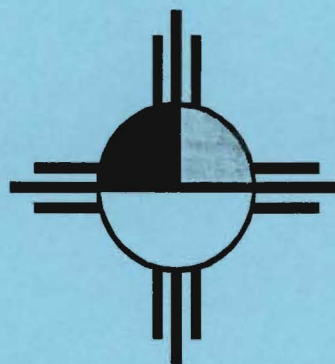
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Conference Abstracts

10th Annual Indian Health Service Research Conference



April 27-29, 1998
Albuquerque, New Mexico

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001

Individual Expectations Associated With Sugar Ingestion and Affective State Change (1996). *David J. McIntyre, A. David Wall, Ric Brown, and Charlie Bresler, California School of Professional Psychology- Fresno, California.

Background: This is a follow-up study to one that provided initial normative data, reliability, and validity on the Hypoglycemia Expectancy Scale (HES); an instrument designed to measure a person's expectancy (individual Beliefs) regarding the ingestion of a large amount of sugar. **Methods:** A wide range of scores on the HES was obtained in order to accurately identify the effects of expectations about sugar ingestion and blood glucose level on mood following glucose ingestion. To examine this question, individuals referred to undergo a 3 hour Oral Glucose Tolerance Test (OGTT) first completed the HES. Then they completed the Profile of Mood States Bipolar (POMS-BI) and had a fasting blood sugar level taken to provide baseline data. During the test, blood samples were taken hourly and the subjects completed the POMS-BI scale at each sampling. **Results:** Mood change scores were compared to three variables: blood glucose level values at low point, HES scores, and blood glucose changes. Multiple regressions was significant at the .05 level. Next, mood scores at blood glucose level low point were compared to two variable: blood glucose level at low point and HES scores. Multiple regression was significant at the .05 level for both blood glucose levels at low point and expectancy, as measured by the HES, both contributed to changes in mood at low point. **Conclusions:** The role of personal beliefs and affective state provide valuable markers which could enhance diabetic treatment protocols at the service unit level. Such variables could enhance current outcome measures among the diabetic American Indian community.

For further information: David J. McIntyre, Ph.D., Southern Bands Health Center, Director, Community Health Program, 515 Shoshone Circle, Elko, Nevada 89801. Phone: 702-738-2252; Fax: 702-738-5859; E-mail: admcinty@sierra.net.

keywords: behavior; diabetes; psychological

002

Radiophosphorus-32 Intervention in Viral Disease States such as HIV (AIDS): where the single stranded nucleotide retroviral structure allows selective viral killing during radiophosphorus atomic transmutation to sulfur by the recoiling sulfur-daughter atom recoil effect exclusive of beta radiation ionizations. *Christopher B. Rand

Background: HIV is a single-strand RNA virus whose 8000-9000 nucleoside units are held together by phosphorus chemical bonds on the order of 200 KeV. The recoiling sulfur-daughter atom of the phosphorus-32 atomic transmutation exceeds this bonding strength and breaks the strand. Targeting the phosphodiester bond, where a single phosphorus atom maintains the genetics of the virus, can destroy the virus at all stages thereby reducing the viral load and providing the immune system with dead/attenuated virus from which effective antibodies against viral variants can be produced in a timely way. **Method:** the author performed a search in the literature for radiophosphorus/viral interactions and found relevant material published by the International Atomic Energy Agency in 1967, and by the National Council on Radiation Protection and Measurements, March 30, 1979. L.E. Feinendegen, one of the principle authors of the IAEA material, was contacted for a modern confirmation, which was given. The author devised a treatment protocol for HIV/radiophosphorus-32 adapting techniques described in standard texts. **Results:** In the treatment protocol radiophosphorylated white blood cells are returned to the patient by injection. These cells migrate to sites of retroviral infection such as the syncytium of lymphadenopathy, and by the normal mechanisms of elution and salvage, radiophosphates are transferred to the infected cells of the host. Within these infected cells replicating retroviruses incorporate radiophosphorus-32 nucleotides presented by the treatment protocol. One phosphorus bond strand-break from P-32 decay inactivates the infectivity of the virus. Substituting radiophosphorus-32 for normal phosphorus at this juncture sidesteps the usual problem of rapidly developing viral resistance to nucleoside analogues and may be accomplished with minimal radiation exposure using 0.5 millicuries of P-32. **Conclusion:** Since the safety of the dose of P-32 in the treatment protocol is well established for other medical conditions, trials of the use of P-32 in treating HIV infection should be conducted. **For further information:** Christopher B. Rand, R.Ph., Chief Pharmacist, Forest County Potawatomi Health and Wellness Center Pharmacy, P.O. Box 396, Crandon, WI 54520, (715) 478-7347, Fax (715) 478-7316.

keywords: HIV/AIDS

003 "Orofacial Sports Injuries", a descriptive study at the Pawnee Service Unit, Indian Health Service, Fiscal Year 1992 -1996. Wehnona St.Cyr

Background: This study was undertaken to determine the number and type of all orofacial sport injuries which occurred from FY 1992 - FY 1996 at the Pawnee Service Unit. The author believes many orofacial injuries are preventable with the proper protective equipment. **Methods:** Outpatient medical records from the Pawnee Service Unit's three health centers (Pawnee HC, Pawhuska HC, and White Eagle HC) were reviewed according to pre-determined audit criteria which included: all ages, all clinic visits, all providers. **Results:** Out of 303 total orofacial injuries found documented in the medial records, 97 were found to be sports related. Basketball orofacial injuries for Indian youth ages 10-19/males and females were highest with 52 cases. Basketball injuries were also the most severe noted. Orofacial injuries related to bicycling were second. Protective equipment (mouth guards, sports glasses, bike helmets, etc.) were not noted as being in use for any of the 97 cases reviewed. **Conclusions:** Dental and Optometry departments need to increase target marketing of available IHS protective equipment to parents of these high risk children. For organized sports through the local public schools efforts need to be made to establish partnerships between the school administration/coaches and IHS health centers to promote injury prevention programs.

For further information: Wehnona St. Cyr, M.P.H., Health Systems Specialist, White Eagle Indian Health Center, P.O. Box 2071, Ponca City, OK 74602. Phone: (918) 762-2517 or (580) 765-2501, FAX: (580) 765-6348.

keywords: community-based; community collaborations; environmental-injury; epidemiology-environmental

004

DENTAL WATER AND AIR LINE QUALITY ASSURANCE. Raymond F. Lala*.

Background: The American Dental Association (ADA) Committee on Scientific Affairs' "Statement on Dental Unit Water Lines" provides guidance for dental water quality. The Indian Health Service accepts the National Fire Protection Code's NFPA 99 standards for facility dental compressed air systems. Potential contamination of dental water lines is well documented, but contamination of compressed air lines is rare in the literature. The first (1) segment will address dental water quality, while the second (2) will discuss dental air. **Methods 1:** All dental units studied were Adec units. Water samples taken from units with separate water reservoir systems and a strict disinfection protocol, were compared with samples from units with a municipal water supply and no disinfection. Millipore HPC samplers were incubated for 72 hours at room temperature. **Results 1:** Disinfection with separate water systems produced dental treatment water within the ADA proposed standard of 200 colony forming units per cc (CFU). The combination of no disinfection with municipal water supply yielded water which exceeded the 200 CFU standard, even when tap water samples did not. **Conclusions:** These results indicate the effectiveness on one easily adopted method for an IHS dental clinic to implement monitoring and control of the quality of treatment water. **Method 2:** IHS Area Sanitarians recommended closure of a facility following a compressed air line repair and flushing dry of all lines. A representative of Ohmeda, Inc. conducted a "Medical Gas Pipeline Inspection" according to NFPA 99 rules. Air samples at the compressor, and at the end of the stream were submitted for a medical gases concentration test and a piping purge test by Medaes through the Liberty Mutual Analytical Lab. Each dental unit outlet was tested for particulate matter by running a two minute air stream through white filter paper. **Results 2:** While no biological or particulate contamination was found, air samples revealed Carbon Dioxide levels exceeding NFPA standards, but well below "sick building" levels. The IHS Area Sanitarian recommended continued closure until corrective action yielded acceptable air. Consultation with the CDC and OSHA, the ADA, and IHS Headquarters and Area personnel allowed the clinic to open while a new oil-free compressor and outside air source was obtained. **Conclusion 2:** Line failures can produce extended closure and require cooperation among several groups to satisfy requirements. Many older dental facilities will have difficulty satisfying the certification process with its low limit (<500 ppm) for Carbon Dioxide without the addition of an outside air source.

For further information: Raymond Lala, DDS. Dental Services Director, Ne Mee Poo Health Program, PO Drawer 367, Lapwai, ID 83540. Phone (208)843-2271; Fax (208)843-2102; E-mail rlala@nid.portland.ihs.gov

keywords: dental; environmental-health facilities

020

Phase III - Final Report - Child Abuse and Neglect in American Indian and Alaska Native Communities and the Role of the Indian Health Service

Background: The purpose of this project was to: (1) determine whether the IHS has adequate policies, procedures, and protocols in place to address child protection/abuse/neglect (CP/A/N) in Indian communities, (2) determine whether the IHS staff receive adequate/appropriate training to implement the policies, procedures, and protocols, (3) determine what type and to what extent IHS mental health treatment is available, (4) determine whether the present reporting system accurately reflects the scope of the problem and if not how it can be improved to do so, (5) develop a model intervention program to address CP/A/N, and (6) provide recommendations for improvements in HIS policies, procedures, protocols, and coordination efforts.

For further information: Sara Crazy Thunder, Senior Policy Analyst, Staff Office of Planning Evaluation and Research, Office of Public Health, Indian Health Service, Twinbrook Metro Plaza- Suite 450, 12300 Twinbrook Parkway, Rockville, MD 20852. Phone: 301-443-4702; Fax: 301-443-1522; E-mail: scrazyth@hqe.ihs.gov

keywords: funding; general; IHS; research; Staff Office of Planning, Evaluation, and Research (SOPER)

021 Abstract withdrawn

022

MAXIMIZING RESOURCES IN OUR COMMUNITIES" 1998.

***Roberto Dansie**

Background: For over a year, I conducted a study to identify the most effective Prevention Programs in the United States, I studied effective groups in the areas of Health, Education, Labor and Politics. To my surprise, I found that all of these programs had numerous common characteristics (including Native American Indian Programs). Effective Preventionists and Community Organizers had numerous characteristics in common as well. I will share these findings during my presentation. **Methods:** Attendance to preventative activities, impact on systems, change in negative social behaviors, increase in community participation, beautification of community, proactive approaches to health, increase in community development activities, decrease in community mortality and mobility, comparative analysis, formal questionnaires and interviews, usage of cultural specific approaches to prevention and health education. **Results:** Programs with a wide variety of preventative programs reduced the rate of mortality and mobility in their community, groups that were task oriented were more effective in community development, resilience factors at administration levels reduce the level of stress for health providers, cultural specific approaches had a significant impact on the areas of substance abuse and mental health. **Conclusion:** Three out of five of the leading causes of death in Indian Country (Substance Abuse, Violence and Accidents) are not effectively addressed under the medical model IHS should investigate and promote the common characteristics of effective preventative programs in Indian Country.

keywords: community-based; culture; health promotion/disease prevention; health service; resiliency

023

Traditional and Contemporary Lakota Death, Dying, Grief, and Bereavement Beliefs and Practices: A Blended Research Methodology using Surveys and Interviews. Joseph B. Stone, David M. Stein

Background: Bereavement beliefs and practices in modern American culture have been well-documented. The mental health literature in the dominant U.S. culture is replete with practices designed to facilitate adaptive grieving and intervene with complicated bereavement. However, less research has been conducted on traditional and contemporary death, dying, grief, and bereavement beliefs and practices among American Indians. One key issue is the lack of basic documentation about how Native American people have traditionally viewed and managed death, dying, grief, and bereavement. More importantly, uninitiated clinicians serving bereaved indigenous clients may error in their attempt to help, perhaps causing cultural conflicts or exacerbating the problem. **Methods:** The present author surveyed 29 mental health-substance abuse professionals, who work with Lakota clients, and interviewed 6 traditional Lakota elders about their knowledge of traditional and contemporary Lakota death, dying, grief, and bereavement beliefs and practices. **Results:** The results of these surveys and interviews were summarized, compared, and clarified through reference to extensive qualitative comments and responses. **Conclusions:** Two theoretical findings were reported: a) the Lakota elders are deeply invested in the use of group or "tribal" bereavement practices and b) current ritualistic bereavement practices seem to be derived from historical bereavement ceremonies, which have become fragmented over time. The relative value of various Lakota family, community, and social bereavement practices and modern "western" bereavement treatment methods were assessed and discussed. Rank ordering of Lakota ceremonies for bereavement was provided and these were described in detail.

For further information: Joseph B. Stone, Ph.D., CAC Level III, Director: Lower Elwha S'Klallam Tribal Behavioral Health Program & *Kinuk Sisakta Consulting and Research*, 2851 Lower Elwha Road, Port Angeles, WA 98363, (360) 452-8471 ext. 156 or Fax (360) 457-3542.

keywords: culture; grief bereavement; qualitative research; traditional healers/healing

024

Perceptions of Risk of Alcohol Use During Pregnancy Among An American Indian Population. *Connally M. Mesteth.

Purpose: The purpose of this study was to explore perceptions of risk of alcohol use during pregnancy among members of the Oglala Sioux Tribe of the Pine Ridge Indian Reservation. Two components of the Health Belief Model, perceived susceptibility (risk) and modifying factors of education and age, were the variables under investigation. **Methods:** Ninety women between the ages of 18-35 completed a survey titled the National Health Interview Survey. This survey consisted of four questions of the degree of risk for four alcohol related pregnancy outcomes: miscarriage, mental retardation, low birth weight, birth defects; and awareness of fetal alcohol syndrome. A non-random convenience sample was utilized to obtain participants. Subjects were interviewed in the home to insure that both drinkers and non-drinkers were represented. Although levels of alcohol use were not measured, home atmosphere was a reliable indication of use or non-use of alcohol. **Results:** Ninety-three percent of the respondents reported that alcohol use during pregnancy increased the risk of all adverse pregnancy outcomes. The findings associated with the demographic factors of education and age were remarkably consistent for the questions pertaining to FAS. An average of 82% identified FAS as a set of birth defects. Awareness of the risk of drinking increased consistency with increasing education for the question regarding mental retardation. Responses noting an increased risk of birth defects tended to increase simultaneously with age when age was used as a continuous variable. **Conclusion:** This study produced many implications for further research. As with any study of an exploratory nature, it is necessary to replicate the study and to consider other population groups. Identification of pregnant women who do not indicate an increased risk can be targeted for a comprehensive intervention plan.

For further information: Connally Mesteth, RNC, CNS, MSN, MCH Coordinator, CRST Health Department, PO Box 590, Eagle Butte, SD 57625. Phone: 605-964-8917; Fax: 605-964-8905.

keywords: behavior; fetal alcohol syndrome (FAS); health beliefs; maternal & child health; substance abuse-alcohol

025

The "Founder Effect" as the cause of the high incidence of metachromatic leukodystrophy on the western Navajo Nation.

Steve Holve*, Diana Hu

Background: Heritable disorders have been reported to occur more commonly in isolated populations. In this phenomenon, known as the "founder effect", a gene which is normally rare in the general population occurs in a small, rapidly expanding population, which leads to increased gene frequency and increased frequency of disease. **Methods:** All Navajo area facilities were queried for patients with metachromatic leukodystrophy (MLD). Family pedigrees were established by interviewing family members and included location of birth. **Results:** MLD is not found across the Navajo Nation but only in the western portion. Patients were found to share a unique genotype. All ancestors of MLD patients were from a small area of the western Navajo Nation. The incidence of MLD on the western Navajo Nation is 1/2,520 live births compared to the usual incidence of 1/40,000 live births. The estimated carrier of MLD on the western Navajo Nation is 1/25. **Conclusions:** The high incidence of MLD in the western Navajo Nation likely represents a founder effect as a result of population reduction and isolation at the time of the Long Walk in 1864. This may also explain the high incidence of a number of other heritable illnesses among the western Navajo including Severe Combined Immunodeficiency (SCID), Navajo Neuropathy, and Brainstem Dysgenesis. MLD and SCID are treatable by bone marrow transplantation if done in infancy. A DNA based newborn screening program may be appropriate for early identification of affected patients.

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keywords: epidemiology-genetic; genetics; metachromatic leukodystrophy

026

The development and charge of the Northwest Tribal Epidemiology Center (*The EpiCenter*). Dee Robertson, Doni Wilder, Tim J. Gilbert, and Kelly L. Gonzales.

Background: Until recently, monitoring and surveillance of disease and disease risk factors among American Indian and Alaska Native people have been a function of the Indian Health Service. In the Portland Area, which includes WA, OR and ID, downsizing diminished the capabilities of IHS to adequately perform basic epidemiologic functions such as monitoring the health status of AI/AN communities. **Methods:** In 1997, the Northwest Portland Area Indian Health Board received funding for the development of the Northwest Tribal Epidemiology Center (*The EpiCenter*), and sought to establish priorities for the coming year based on health status, epidemiologic need, and Tribal input. **Results:** *The EpiCenter's* priorities for 1998 include, but are not limited to, assisting NW Tribes achieve 5 recommended health status objectives; collaborate and establish agreements with state and county governments to obtain health status data relevant to NW AI/AN people; characterize recent trends in infant mortality and Sudden Infant Death Syndrome (SIDS); facilitate the implementation of Behavior Risk Factor Surveillance System surveys; and develop an annual "Health Report Card" as a means of reporting health trends to Tribes. **Conclusions:** The process of setting health status monitoring and surveillance priorities in Indian Country will be of interest to others charged with similar tasks. The implications of Tribes assuming the responsibility of epidemiologic and research-related activities will be discussed.

For further information: Dee Robertson, MD, MPH, Director, *The EpiCenter*, Northwest Portland Area Indian Health Board, 520 SW Harrison Street, Suite 335, Portland, OR 97201. Phone: 503-228-4185 ext. 31; Fax: 503-228-8182; E-mail: dee@npaihb.org

keywords: data systems; epidemiology; self-governance/self-determination

**A Critical Review of Factors in the Underutilization
of Mental Health Services by Minorities, with a Focus
on Native-Americans**

by

Wayne C. Boucher

Aberdeen Area I.H.S., Crow Creek Sioux Service Unit,
Ft Thompson SD.

Purpose/Background: Since a body of knowledge in the area utilization of mental health services by Native Americans is sorely lacking, it was hypothesized that a critical examination of the existing research on minority utilization might provide some valuable insights. **Methods:** A critical review of the literature on minority underutilization of mental health services was performed, with a special emphasis on Native-Americans utilization patterns. **Results:** Three main factors in underutilization of mental health services by minorities emerged. These factors were: a) psychotherapist bias, b) cultural variables, and c) the under-representation of various minority groups in the field of psychology. **Conclusions:** Evidence was found for social class and linguistic bias among providers but the evidence for ethnic bias was equivocal. A number of cultural variables were also found to play an important part in the utilization patterns of Native Americans. Research implications and recommendations were presented

keywords: barriers to care; culture; health services; mental health services; utilization

**"Native Women and Cancer - Control Research for Cross-Cultural Comparisons" ,
M. A. Jaimes (*Guerrero,) at San Francisco State University**

Comparative research among Native women nationwide is made with mainstream cancer data trends from research review. Among these, * There is substantial evidence that cancer and related diseases are on the rise among Native women throughout the U. S. * Poor economic factors as well as environmental conditions are often cited for correlation with "cluster patterns" of cancer and related diseases in a particular locale or habitat (NACRP w/ IHS, Denver, 1993-94). There is particular interest in the link with the early onset of puberty among younger Native women and what is being called "environmental estrogen" due to chemical pollutants and other toxins in the atmosphere; for cross-cultural comparative analysis with data on other female populations (*Time*, 4/21/97, p. 36).

This paper, titled: "Native Women and Cancer - Control Research for Cross-Cultural Comparisons," will emphasize data about Native women, and is particularly focused on Native women in the Southwest states. It will look at studies that link this disease with environmental connections to overall health (i.e., water toxins, air pollutants, hazardous land wastes, etc.), as well as issues over prolonged use of birth control and related concerns regarding the younger generations. In addition, attention is given to community-based women for environmental research studies that is comparative; as in the case of cultural enclaves such as tribal reservations and other rural communities. There is also an interest to extend this research further for cross-cultural comparative studies with mainstream populations. In this investigative field, it is in the context of a community-based people among Native communities that more research needs to be conducted. Meanwhile, this paper focuses on a research review of the available data and field studies which have so far been conducted in this medical and cultural arena.

A critical issue regarding the concerns about "genetic screening" for the diagnosis and early intervention in cancer-control research will also be addressed, as a result of interviews from Native Southwestern women.

keywords: cancer; epidemiology-cancer

029

PHOENIX INDIAN MEDICAL CENTER PROJECT "PUT PREVENTION INTO PRACTICE".

Authors: *Linda Murphy, Anna Albert, Constance James, Margaret Brady.

PURPOSE: The purpose of this project is to prevent retinopathy in those patients currently diagnosed as diabetic but are not yet experiencing any symptoms.

METHOD: The method of achieving this goal is by implementing a training curriculum for the primary care providers, nursing staff, health educators, and support staff. One aspect of PPIP involved the staff who are providing dilated eye exams to diabetic patients. Prior to implementation of this program, only 39% of the diabetic patients had documentation of having a dilated eye exam. Approximately 2,000 patients were involved in this program over the past one year. The methods used to accomplish this program included development of therapeutic alliance, patient counseling, assessing barriers to behavior change, gaining commitment from patients to change, designing a behavior modification plan, monitoring progress through follow-up contact, and involving the office staff to track the patient's follow-up needs.

RESULTS: This program has just ended and anecdotal results are quite favorable. Because the patients committed to the program, the final results are expected to be much greater than the baseline of 39%. This is the first time PIMC has partnered with a state agency in providing patient services. Financial, technical and educational support was provided by ADHS to enhance the interdisciplinary approach to following their Native American clientele. This program has been refined and adjusted to best meet the needs of the clients.

CONCLUSION: This program has proved to be so successful at achieving its goals of patient and provider education to obtain early intervention, detection and prevention of diabetic retinopathy that it will be incorporated into the future educational curriculum of this institution.

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keywords: diabetes; health promotion/disease prevention; health service; retinopathy

030

American Indian and Alaska Native health behaviors: Regional estimates from the Behavioral Risk Factor Surveillance System, 1993-1996. *Clark Denny.

Purpose: This study estimates and compares the prevalence of twelve health behaviors for American Indians and Alaska Natives by region and by sex using data from the Behavioral Risk Factor Surveillance System, a state-specific population-based, random telephone survey that collects data monthly from adults, ≥ 18 years of age. Exercise, overweight, alcohol and tobacco use, injury control, and cholesterol, diabetes, and hypertension awareness were examined. **Methods:** The sample consisted of 5,965 self-identified American Indians or Alaska Natives residing in counties that comprise the 12 Indian Health Service (IHS) Areas. Prevalence estimates and confidence intervals were calculated across relevant years for five regions (Alaska, Eastern, Northern Plains, Pacific, and Southwest) and weighted according to IHS Area population estimates. **Results:** Comparison across regions showed high rates for current smoking for both males and females in Alaska and the Northern Plains (40.8% and 44.5% for males and 40.8% and 51.4% for females), respectively, while the Southwest had relatively low rates (23.0% for males and 14.4% for females). Women in Alaska reported use of smokeless tobacco at a rate (6.9%) that was over three times the rate for women in other regions. Alaska Native women also had the highest rate of binge drinking (5 or more drinks on at least one occasion in the last month), (16.4%). The rate of diabetes awareness among males was 15.2% in the Southwest, almost twice that of the next highest region, Eastern with 8.1%. **Conclusions:** These findings suggest the importance of targeting specific regions in efforts to improve health behaviors among American Indians and Alaska Natives.

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keywords: behavioral risk factors survey; data systems; epidemiology—risk factors

031

Understanding healthcare decision making patterns to assess the adequacy of rural health care: Study of the Siberian Yupik villagers from the St. Lawrence Island, near Nome, Alaska (1992-1997). *Dorothy E. Pinkney.

Background: In a time of health reform, there is a growing interest among health providers for expanding services into rural Alaska (1993). Since 1995 rural hospitals have expanded therapy services into regional facilities at Bethel and Nome. Major needs for assessing care have included assessing primary care with public health and inpatient hospitalization indicators. Currently little research has been conducted which describes the Native Alaskan's perceived needs for care. **Methods:** A qualitative ethnographic analysis was undertaken on the St. Lawrence Island, during summer 1994. Using audiotapes with culturally related therapeutic vignettes, 18 villagers were interviewed on how and when they make decisions to use health care. Volunteer participants by convenience included two families and four individuals with rehabilitative services interests. All interviews were recorded prior to initiating an ongoing regional therapy service. Descriptive analysis of data used linkages and comparisons of common categories. Identified categories in common included knee pain, cardiac rehabilitation, and arthritis. Vignettes described cases with developmental delays, muscle tears, trauma (fractures and amputations), back pain, frostbite, and cardiovascular accidents. **Results:** Resulting themes emphasized Alaskan's independent activity needs and have identified therapeutic teaching and treatment interests with age, cultural orientation, and workstyle differences for seeking health care. **Conclusions:** This study suggests the use of the ethnographic interview and its related therapeutic vignette are useful as a tool which may provide clarity for future rehabilitative program developments. Using similar tools now may provide for the development of an appropriate rehabilitative teaching program that will include the differences identified as indicators of sensitivity.

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keywords: culture; needs assessment; physical/occupation therapy; qualitative research; rehabilitation

032 - ABSTRACT WITHDRAWN

ASTHMA TRENDS IN A NATIVE AMERICAN TRIBE: 1969 TO 1994. Thomas M. Ball*, William B. Mason, Lois Steele (The University of Arizona and Indian Health Service Research Unit, Tucson AZ 85724, USA).

PURPOSE: To describe the trends in the diagnosis of asthma and other lower respiratory tract illnesses in an American Indian tribe. **METHODS:** All patient encounters made by members of one tribe which occurred at local Indian Health Service facilities since the initiation of a computerized database in 1969 through the end of calendar year 1994 were included. The computer searched for ICD-9 diagnoses pertaining to asthma or "Other Respiratory Disease"(ORD) which included chronic bronchitis, chronic obstructive pulmonary disease, emphysema, pneumonia, bronchiolitis, RSV bronchiolitis, and laryngotracheobronchitis. **RESULTS:** The annual incidence (per 1000 tribal members) of asthma increased from 1.1 in 1975 to 8.0 in 1994 ($P < .0001$), with sex-specific incidence rates increasing for both males (1.2 to 6.5, $P < .0001$) and females (0.9 to 9.4, $P < .0001$). Age-specific annual incidence rates increased from 2.0 to 29.3 ($P < .0001$) in patients less than 10 years old, and 0.8 to 4.3 ($P < .0001$) in patients 10 years old or older. The proportion of the population seen, cumulative prevalence, with an asthma diagnosis during successive 5-year time periods from 1970 to 1994 increased from 1.0% to 7.1% ($P < .0001$), while the proportion seen with ORD but no asthma increased from 12.0% to 14.2% ($P < .0001$). The percentage of the population which had a documented medical encounter decreased slightly from 54% in 1975 to 49% in 1994. **CONCLUSIONS:** The diagnosis of asthma increased in all age groups of the study population during the past 25 years. This does not appear to be fully explained by diagnostic shift or increased access to health services. The prevalence of asthma in this primarily rural tribe now appears to be quite comparable to non-native populations.

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keywords: asthma; data systems; epidemiology--respiratory diseases

CHILDHOOD ASTHMA TRENDS IN A NATIVE AMERICAN TRIBE: 1969 TO 1994. Thomas M. Ball*, William B. Mason, Lois Steele (The University of Arizona and Indian Health Service Research Unit, Tucson AZ 85724, USA).

PURPOSE: To describe the trends in the diagnosis of asthma and other lower respiratory tract illnesses in children less than 20 years of age in an American Indian tribe. **METHODS:** All patient encounters made by children and adolescents of one tribe which occurred at local Indian Health Service facilities since the initiation of a computerized database in 1969 through the end of calendar year 1994 were included. The computer searched for ICD-9 diagnoses pertaining to asthma or "Other Respiratory Disease"(ORD) which included chronic bronchitis, chronic obstructive pulmonary disease, emphysema, pneumonia, bronchiolitis, RSV bronchiolitis, and laryngotracheobronchitis.

RESULTS: The annual incidence (per 1000 tribal members < 20 years old) of asthma in children increased from 1.1 in 1975 to 16.6 in 1994 ($P < .0001$), with sex-specific incidence rates increasing for both males (1.1 to 19.9, $P < .0001$) and females (1.2 to 13.5, $P < .0001$). Age-specific annual incidence rates increased from 3.8 to 73.3 ($P < .0001$) in children less than 3 years old, 1.2 to 9.2 ($P < .001$) in children 3 to 9 years old, and 0.3 to 7.2 ($P < .0001$) in children 10 to 19 years of age. The proportion of the population seen, cumulative prevalence, with an asthma diagnosis during successive 5-year time periods from 1970 to 1994 increased from 0.9% to 9.0% ($P < .0001$), while the proportion seen with ORD but no asthma increased from 14.8% to 17.3% ($P < .0001$). The percentage of the population which had a documented medical encounter increased from 73.5% in 1975 to 85.5% in 1994.

CONCLUSIONS: The diagnosis of asthma increased in all pediatric age groups of the study population during the past 25 years. This does not appear to be fully explained by diagnostic shift, but might be partly explained by increased use of health services. The prevalence of childhood asthma in this primarily rural tribe now appears to be quite comparable to non-native populations.

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keywords: asthma; data systems; epidemiology--respiratory diseases

035

Efficacy of troglitazone in a Diabetic Native American population. Gary Szymanski, John Noble, Eileen Decorah, Sue Christopherson.

Purpose To assess the effectiveness of the new diabetes drug, troglitazone (Rezulin). **Method:** Beginning in March 1997, all patients started on troglitazone were followed. HA1C, ALT, medication histories and Rx refill data was collected. Successful therapy was defined as a drop in HA1C of over 1 after at least 2 months of therapy or a decrease in use of other diabetic medications. **Results:** 69 patients were started on troglitazone during this period. 15 were not evaluated for various reasons (moved, non-compliance, stopped medication for unknown reason). 10 patients did not have enough data yet available to evaluate. Of the remaining 44, 28 (63.6%) had a favorable response with an average HA1C drop of 2.4 (range 0.5 to 5.3). 17 (38.5%) had their HA1C drop to below 7. 6 (13.6%) were able to stop all other diabetic medications. 14 (31.8%) failed therapy. All but 2 of these had their HA1C go up after 2 to 8 months of therapy. 2 (4.5%) had to stop therapy due to ALT elevations. **Conclusions:** Troglitazone can be a very beneficial medication in many patients. A number of patients may be able to stop other medications or reduce doses. A significant number of patients derive no benefit from the medication and should stop the medication after a trial of 2 to 3 months. It is important to monitor liver function tests (ALT) as toxicity does occur requiring the stopping of the drug.

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keywords: diabetes; treatment effects

036

Tribal Perspectives on Indian Self-Determination and Self-Governance in Health Care Management. Mim Dixon. *Brett Lee Shelton. *Yvette Roubideaux, Dave Mather, Cynthia Smith Mala.

Background: Since passage of P.L.93-638, many Indian tribes have opted to manage part or all of their health care programs, through contracts and compacts with the federal government. However, there have been no comprehensive studies of the impact of this trend on the Indian health system. This report evaluates the impact of tribal management of Indian health care systems from the tribal perspective. **Methods:** We surveyed 210 tribal leaders and tribal health directors on recent changes in their health care systems relating to the following issues: changes in services and facilities, management changes and challenges, barriers to contracting and compacting, and the impact on the quality of care. In addition, financial data from the Indian Health Service were analyzed. **Results:** Despite declining per capita funding for Indian health, tribally managed health programs have increased the numbers of programs and facilities available to their communities to a greater extent than IHS direct health programs. In addition, tribes are more likely to use income from tribal economic enterprises to improve their health programs when they manage their own health systems. Tribal leaders from tribes managing their own health care systems were more likely to rate the quality of care as better over the last few years. **Conclusions:** Tribal management of Indian health care programs has led to improvements in the health care services, management, and quality of care provided to Indian communities over the last three to four years, and more efforts are needed to support tribal management of Indian health programs.

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keywords: evaluation of programs; self-governance/self-determination

037

Quality Measurement in Indian Health Facilities: A Pilot Study for the National Indian Health Board.

*Yvette Roubideaux, Mim Dixon, Brett Shelton, Jim Roberts.

Background: In order to determine the feasibility of conducting a national survey on the quality of care in Indian health programs, a pilot study was conducted for the National Indian Health Board to assess the capacity of Indian health facilities to measure quality, and to pilot test some common quality indicators. **Methods:** A Telephone survey of Quality Assurance Coordinators was conducted in Indian health facilities stratified by health care management type (IHS, Tribal compact, Tribal contract) and size. Respondents were surveyed on their capacity to measure quality (QA structure, data sources, accuracy), and whether they measured certain common quality indicators (patient satisfaction, waiting times, diabetes care, prevention, cultural competence). **Results:** Surveys were completed on eight facilities which represented both IHS and Tribally managed facilities, and both hospitals and clinics of varying sizes. The overall capacity to measure quality was good in this small sample of facilities, with all but the two smallest facilities achieving accreditation. Although most of the facilities did measure each of the specific quality indicators, less than half were able to provide actual data for the survey, and the data that was provided was not always comparable with data from other sites. **Conclusions:** Although a national survey on the quality of care in Indian health programs may encounter problems with data accuracy, availability, and comparability, the capacity to measure quality is present, and most facilities in this survey were trying to measure common quality indicators as a part of their overall quality assurance activities.

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keywords: data systems; evaluation of programs; health services; quality of care

038

Diabetes Education Materials: Recommendations from Tribal Leaders, Indian Health Professionals, and American Indian Community Members. *Yvette Roubideaux, Kelly Moore, Charlene Avery, Ben Muneta, Walt Hollow, Robert Taylor, Laura Williams, Margaret Knight.

Background: The Association of American Indian Physicians (AAIP) entered into an Interagency Agreement with the Centers for Disease Control and Prevention and the Office of Minority Health to develop appropriate strategies to engage Tribal leaders, Indian health professionals, and American Indian community members in planning activities for the National Diabetes Education Program. **Methods:** The AAIP conducted a series of focus groups during the fall of 1997 at three major Indian health meetings and in two Indian communities to gather input on current diabetes education materials and recommendations for developing future materials that are culturally and linguistically appropriate for American Indian communities. **Results:** The 95 participants in these focus groups represented 42 Tribes from 21 states, and while only 20 percent of the sample indicated a current diagnosis of diabetes, 81 percent of the participants have at least one family member with diabetes. Overall, 95 percent of the participants want diabetes educational materials to be available with information that relates to their Tribe or culture. The participants commented on specific types of diabetes education materials, and recommended a number of specific ways to improve future materials. **Conclusions:** Gathering input from Tribal leaders, Indian health professionals, and American Indian community members at national meetings and in community settings is an effective strategy to gather input on diabetes education materials. The results of these focus groups will be used by the American Indian Subcommittee of the National Diabetes Education Program to help develop new educational materials for American Indian communities.

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keywords: culture; diabetes; health education; qualitative research

039

The uses of a medical anthropological approach in mental health services research among American Indian populations. Cathleen E. Willging.

Purpose: I draw upon 18 months of ethnographic research conducted among the staff at an IHS mental health and social service clinic in the Southwest US to illustrate the utility of qualitative approaches in studies of service delivery. **Methods:** The research combines participant observation with structured and unstructured interviews to examine the way in which Native and non-Native mental health care and social work practitioners incorporate ideas about "ethnicity," "gender," and "culture" into clinical practice. This anthropological approach also offers insight into how practitioners tailor a Euro-American nosological system that traditionally ignores American Indian understandings of illness and distress to a Native clientele. **Results:** On-going analysis highlights how a flexible, qualitative research protocol can be effectively employed within a highly bureaucratized clinical setting. Particular emphasis is placed on: (1) the development of collaborative relationships with project participants; and (2) the way in which research, as presented in the initial project design, articulates itself in actual fieldwork. **Conclusion:** Application of ethnographic perspectives in clinical practice as well as in training programs that orient providers to cross-cultural medical settings can improve the IHS mental health and social service delivery system.

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keywords: culture; health beliefs; health services; mental disorders; qualitative research

040

Differences in Substance Abuse Treatment Utilization and Outcome Among American Indians from three Southwestern tribes and non-reservation Arizonans. Jenny Chong, Mindy Stahl, Steven Chang, & Christy Dye.

Substance abuse treatment needs vary across populations and among individuals within a population. To date, we still do not have a handle on what kinds of services are best suited for any particular person who needs such treatment. In this paper, we describe the substance abuse treatment utilization and outcome similarities and differences across four populations which share some but not all characteristics among themselves. We also describe the differences and similarities between treatment services that were sought and those that were desired. A total of 725 reservation-based American Indians and 8,666 non-reservation-based Arizonans were surveyed to determine the need for substance abuse treatment services. All individuals diagnosed as having an active substance (alcohol or drug) abuse or dependence problem using the DSM-III-R criteria were considered to need substance abuse treatment services. Those with a substance abuse/dependence problem were queried regarding their treatment history and also the kinds of treatment services they felt they needed in the past 12 months that they did not receive. Barriers to obtaining these services were also determined. Results showed that females had different service utilization patterns to males, and younger individuals were more likely to seek treatment services than older individuals. Although proportionately more individuals from the reservation sought treatment services than those who do not live on reservations in the past 12 months, a larger proportion also report having used alcohol or drugs within the past 30 days of the survey.

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keywords: barriers to care; health services; substance abuse-services; utilization

041

Respiratory Syncytial Virus (RSV) Infections requiring hospitalization in Southwestern Alaska Native Children. Rosalyn Singleton, Ruth Karron, *Irma DeSmet, Carol Indorf, Lisa Bulkow, Debra Hurlburt, Kenneth Petersen, Donn Kruse, Alan Parkinson, Lee Harrison.

Background: RSV is the leading cause of hospitalization for respiratory infection in infants. Retrospective analyses suggest that Alaska Native infants living in the Yukon Kuskokwim (YK) Delta region of Alaska have a high hospitalization rate for RSV illness. **Methods:** We conducted a 3 year, prospective, hospital-based surveillance study to determine the rate and severity of RSV infections requiring hospitalization in this population. We collected cord blood from newborns in the YK Delta to determine the relationship between cord blood RSV neutralizing antibody titers and disease severity. **Results:** The annual rate of hospitalization for RSV infection for YK Delta infants < 1 year of age ranged from 53 to 250 per 1000 (mean, 155 per 1000). RSV infection was the single most frequent cause of hospitalization for these infants. On average, 1 in 125 infants born in the YK Delta required mechanical ventilation for RSV infection. During the 1994-95 season RSV hospitalization costs averaged \$1,034 for every child < 3 years of age living in the YK Delta. For YK Delta infants < 6 months of age, RSV neutralizing antibody titers ≥ 1200 were strongly associated with less severe disease (OR=0.16, p=.029). Nine percent of children hospitalized and 21% of children requiring mechanical ventilation for RSV infection were infants < 1 month of age. **Conclusions:** RSV infection is associated with extremely high rates of hospitalization in YK Delta infants. Maternally-derived RSV neutralizing antibody appears to afford some protection against severe disease. Neonates may be at greater risk for severe RSV illness than previously appreciated.

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keywords: epidemiology--infections; maternal & child health; respiratory syncytial virus

042

Carriage of *haemophilus influenzae* type b persists despite widespread vaccination in remote Alaska, Karin Galil, Orin Levine, Rosalyn Singleton, Irma DeSmet, Lisa Bulkow, Alan Parkinson, *Debby Hurlburt.

Background: Before 1991, Alaska Native children experienced high rates of Hib disease with >400 cases/100,000 children < 5 years old. Also, 5-7% of Alaska Native children < 5 years old were colonized with Hib. Vaccination with RPR-OMP beginning in 1991 resulted in a sharp decline in Hib cases. A switch to combined DTP-HbOC vaccine in 1996 was followed by a 4-fold increase in cases, suggesting continued Hib carriage despite widespread vaccination. This increase in cases led to a study to determine the prevalence of oropharyngeal (OP) Hib carriage in Alaska Native children. **Methods:** OP cultures were done on 496 children aged 12-71 months in 6 communities in the Yukon-Kuskokwim Delta. Immunization records were reviewed and a brief questionnaire was done to identify risk factors. **Results:** 46 (9.3%) of 496 children swabbed were colonized with Hib. Carriage rate varied by village from 2.2 % to 13.2 %, and by age from 6.1% in 1-year-olds to 14.7 % in 5-year-olds. 98% of carriers had received ≥ 3 doses of a Hib conjugate vaccine. Crowding and day care attendance were associated with increased Hib carriage. **Conclusions:** Vaccination with Hib conjugate vaccines has led to dramatic reductions in Hib disease and OP carriage in industrialized countries. However, widespread vaccination with PRP-OMP did not eliminate Hib carriage in this population. The impact of Hib vaccination on carriage may vary between populations and may depend upon the Hib vaccination regimen used. This has implications for use of Hib vaccines in developing countries.

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keywords: data systems; epidemiology--infections; hemophilus b; immunization; maternal & child health

043

Low calcium intake as a possible risk factor for pregnancy induced hypertension in Navajo women. Alan G. Waxman, B. Gay Crawford, Twila R. Kunde

Background: Pregnancy induced hypertension (PIH) is a major source of morbidity and mortality among pregnant Navajo women. Low calcium intake has been hypothesized to be a risk factor for this condition, and calcium supplementation has been shown to decrease the risk of PIH. Native American women are more likely to be lactose intolerant, and therefore unable to digest dairy products, a common source of calcium. The purpose of this study is to assess dietary calcium intake and its role as a risk factor for PIH in Navajo women. **Methods:** 407 Navajo women, a sample of convenience, enrolled in prenatal care before 24 weeks gestation at the Gallup Indian Medical Center participated in one to three 24 hour dietary recalls. The nutritional composition of their diets was delineated using Minnesota Nutritional Data System software. Those with 2 or 3 dietary recalls were the subject of final analysis. Known risk factors for PIH were evaluated as possible confounding variables. **Results:** 270 subjects were suitable for analysis. 28 developed PIH and were defined as the cases. Half of the cohort exhibited some symptoms of lactose intolerance; the median calcium intake was 2/3 of the RDA. Univariate and logistic regression analysis showed age less than 20 to be a significant risk factor for PIH. None of the other variables evaluated, including calcium intake was significantly associated with PIH. **Conclusions:** The diets of pregnant Navajo women in this study were significantly deficient in calcium. This does not appear to influence their risk of developing PIH.

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keywords: epidemiology--pregnancy; maternal & child health; pregnancy-induced hypertension

044

IHS Sponsored Alcohol/Substance Research

Walter Hillabrant, President, Support Services International, Inc.
Leo J. Nolan, Special Assistant to the Director, Indian Health Service

Purpose. This presentation describes approaches and findings of recent and on-going research funded by IHS pertaining to the treatment of alcohol/substance abuse (A/SA).

Background. The IHS has funded studies on the scope and costs associated with A/SA in the service population, an evaluation of the regional residential treatment centers (RTC) serving adolescents, and studies of IHS-funded A/SA treatment programs with a separate study for women participating in such programs. Related studies examined patterns of family violence, the status and welfare of Indian youth, and the "Teen Centers" in the Albuquerque Area. **Methods.** These studies employ a variety of methods including archival research, case studies, retrospective and prospective outcome studies.

Results. The scope and costs associated with A/SA have been estimated. The studies have indicated variables and conditions associated with A/SA and with effective treatment in Indian communities, innovative approaches, and special needs of adolescents and women clients.

Conclusions. While progress is being made, the abuse of alcohol and other drugs continue to be principal threats to the health and welfare of Indian people and their communities. The IHS and tribes must develop strategies informed by the research results.

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keywords: evaluation of programs; health services; substance abuse--services

045

7th Generation Fetal Alcohol Syndrome Prevention Project. Geneva Strech*, Janette Cline.

Background: Project aims to address FAS through a multimedia approach targeting 6th - 12th grade Native American students. Goal is to develop prevention communication strategies to prevent FAS/FAE. **Methods:** Project consists of six components: •Needs Assessment •Communication Channels •Multimedia Prevention Package •Dissemination •Project Evaluation •Field Testing and National Application. Needs assessment included anonymous questionnaires and focus groups of 6th - 12th grade Native American students. Quantitative and qualitative information was solicited; knowledge, attitudes, and behavior addressed. Communication channels were chosen and multimedia prevention packages of videos, curriculum, and web page, developed. Field testing, evaluation, dissemination, and national application have been ongoing. **Results:** Approximately 400 6th -12th grade Native American girls and boys of varying socioeconomic backgrounds, academic achievement, and tribal affiliations participated. Significant findings: •parents first and friends second most influence youths' attitudes and behaviors •peer pressure is most often the reason youth drink alcohol and use drugs •more than 80% of youth had used alcohol, of those almost 27% in the last week •more than 60% of youth had used illegal drugs, of those almost 45% in the last week •more than 28% of youth reported they would drink alcohol and use drugs even though they understand the risks •increase in knowledge of FAS •increase in knowledge of how to prevent FAS. **Conclusions:** A significant number of Native American youth are at high risk for alcohol and drug use. Prevention efforts should include sensitivity to and inclusion of cultural values and be vigilant, ongoing, and continuous.

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keywords: behavior; fetal alcohol syndrome (FAS); maternal & child health; qualitative research; substance abuse--alcohol

046

Innovative Readiness Training - A Civilian Military Partnership in Alaska. *Jeanine Tucker, Steven Morgan, William Seward.

Background: In the mid-1990s President Clinton signed Title 10 Section 2012 which authorized the Innovative Readiness Training (IRT) program. The IRT program allows reservists in the Armed Forces to partner with civilian organizations in the United States. Since 1995, the Alaska Area Native Health Service has hosted over ten medical/dental/engineering IRT missions. These military exercises have provided valuable mission readiness training in the arctic for over 1000 reservists and supplemental medical, dental and engineering services to over 20 bush communities in Alaska. A full range of services have been delivered to over 12,000 patients. **Services Provided:** Dental: examinations, radiographs, sealants, fillings, periodontal treatment, extractions, root canals and operating room treatment for pediatric patients. Medical: physicals, immunizations, colposcopy, mammograms, vision exams and corrective lenses, surgical procedures and routine medical care for illness. Engineering: Minor sewer and water line repairs, water quality evaluation, widening an airstrip, road construction, repair and/or construction of walkways, steps and handicap access ramps, Other: veterinary, CPR training, Drug Demand Reduction, physical therapy, audiology, pharmacy, infection control and hazardous waste training, and health education. **Conclusion:** This Civilian-Military partnership has been extremely successful for the Alaska Area Native Health Service, participating Tribal programs and the military. Its popularity and scope has grown significantly since the initial mission conducted in 1997.

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keywords: Health services; innovative readiness training (IRT); military

047

Reducing the negative impact of child sexual abuse: Forming and Innovative Collaboration. *Victorie Heart..

Background: Childhood sexual victimization appears to be linked to later alcohol abuse in women, contributing to a high rate of alcohol-related birth defects and FAS in Alaska Natives. IHS hypothesized that forming a partnership to establish a child advocacy center (CAC) would improve rates of identification, linkage to early intervention, and legal remedies. **Methods:** A specific congressional appropriation was approved to fund a multi-agency CAC. IHS funded and facilitated a collaboration between law enforcement, child protection, the District Attorney's office, and tribal health services to plan the CAC. Since August 1996, the CAC coordinates joint investigations, providing colposcopic examinations and case management. In FY 1997, 315 children were evaluated for sexual abuse at the CAC; half were Alaska Native. **Results:** Fifteen percent of children examined at the Center had no disclosures of abuse, but did have positive medical findings; their identification was solely owing to a CAC colposcopic exam. Improved evidence collection techniques at the CAC correlates with the Anchorage DA's office accepting twenty percent more sex crimes cases in 1997 than in 1996. A high percentage of families were linked to at least one follow up service. **Conclusions:** Preliminary data indicates that creating innovative tribal/public/private partnerships can improve community response to child sexual abuse.

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keywords: community collaborations; domestic violence; evaluation of programs; health services; sexual abuse

048

Tobacco Use Among Native Americans: A National Profile
Howard I. Goldberg, Centers for Disease Control and Prevention
Jay S Friedman, Centers for Disease Control and Prevention
Nat Cobb, Indian Health Service

Relatively little data on tobacco use and related topics among American Indians have been published, despite the tremendous impact of tobacco on health. In recent years, the Centers for Disease Control and Prevention has assisted the Indian Health Service and individual tribes in conducting Behavioral Risk Factor Surveys in about 20 Indian populations across the United States. These surveys consist of interviews with representative samples of adult tribal members on a wide range of health-related behaviors. Information on various aspects of tobacco are collected in these surveys, including, whether people smoke cigarettes, daily consumption of cigarettes, attempts to quit smoking, smoking during pregnancy, use of smokeless tobacco, age when smokeless tobacco use started, and whether health care providers have encouraged people to stop using tobacco. These data and similar data from other surveys of American Indians are analyzed for this presentation to create a profile of tobacco use among American Indians. Most AI surveys to date have indicated that the prevalence of both cigarette smoking and smokeless tobacco use are consistently far above national levels. On the other hand, in many of the populations, the intensity of smoking is low, i.e., the number of cigarettes smoked per day tends to be low. Prevalence of smoking tends to be just as high among women as men in most of the populations studied. Use of smokeless tobacco though variable in Indian populations, tends to be higher among American Indians than in the U.S. population and to start at an early age.

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keywords: behavioral risk factors; data systems; epidemiology--risk factors; smoking; substance abuse; tobacco

049

Messages about Commercial Tobacco Received by Rural American Indian Teens from Family Members

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Center for Health Promotion and Disease Prevention, University of New Mexico

The purpose of this qualitative study was to better understand influences youth experience around using or not using commercial tobacco for non-ceremonial purposes. A total of 127 rural female and male adolescents from four American Indian nations in New Mexico were asked to describe messages they hear and see about commercial tobacco in 20 focus group interviews in 1996 and 1997. In addition, twelve adults (parents and school staff) from one nation gave their perspectives during individual interviews on what parents tell their children about commercial tobacco. Both teens and adults spoke about a confusing array of anti-smoking, pro-smoking and mixed messages adolescents receive from parents, siblings and extended family. Teens said they respect the no-smoking messages from adult family members who do not smoke, but view such messages as hypocritical if the adults smoke. This study shows that the actions and words of family members influence these teens. Teens and adults also gave suggestions for how to talk with teens about commercial tobacco. This project is funded by the Office on Smoking and Health, Centers for Disease Control and Prevention, and the Robert Wood Johnson Foundation.

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keywords: adolescence; culture; family; qualitative research; smoking; substance abuse--tobacco

050

Acanthosis Nigricans: An epidemic Among at Risk Youth who Reside on the Cheyenne River Sioux Tribal Reservation.

Sophia R. West*. Cheyenne River Sioux. Tribal Health.

Purpose: The purpose of the Acanthosis Nigricans (AN) study is to detect whether or not Acanthosis Nigricans is present among the Cheyenne River Sioux. **Methods:** Parental Consent was obtained prior to screening for Acanthosis Nigricans. Height, weight, blood pressure, and waist and hip ratios were obtained. There were well over one thousand subject screened for AN. **Results:** Acanthosis Nigricans was found to be present in the Cheyenne River Sioux tribal youth who were screened. As many of one-third of the participants were detected with the Acanthosis Nigricans markings. **Conclusions:** Acanthosis Nigricans is a risk factor for diabetes later in life. Those children who were detected with AN should be closely monitored for diet and exercise patterns. The AN marking may significantly decrease with weight reduction and exercise.

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keywords: acanthosis nigricans; adolescence; diabetes; epidemiology--diabetes; maternal & child health

051

Procedural considerations in developing an asthma-specific quality of life questionnaire for Native American adults. *Joseph Hubbard,¹ Gireesh Gupchup,¹ Lisa Tonrey,² Kurt Riley,² Mary Ann Teel,¹ Puneet Singhal;
¹University of New Mexico College of Pharmacy, ²Albuquerque PHS Indian Hospital.

Background: Measurement of outcomes for asthmatics requires monitoring economic, utilization and humanistic outcomes in addition to clinical outcomes. Humanistic outcomes are measured by assessing a patient's health-related quality-of-life (HRQOL) and/or general well being. No asthma-specific HRQOL scale specifically constructed or validated with a Native American sample currently exists. As part of the mission of the Albuquerque PHS Indian Hospital (AIH) to provide the highest quality care possible to patients, AIH pharmacists will periodically measure asthma-specific HRQOL in a designed pharmaceutical care plan (PCP). Implementation of the asthma-specific PCP requires a HRQOL scale that is content valid for AIH patients. **Methods:** A HRQOL scale is being developed utilizing the focus group technique to identify an initial item set. The item set will be tested through administration to a larger sample of AIH adult asthma patients. A variety of community, legislative, administrative and human subjects approvals of this protocol were necessary through Indian Health Service (IHS) and. University of New Mexico Health Sciences Center (UNMHSC). **Results:** This collaborative project began in Fall, 1996 and UNMHSC Research Allocations Committee funding was obtained in January, 1997. Albuquerque IHS Service Unit (ASU) administration approval was subsequently obtained. IHS-Investigational Review Board (IRB) conditional approval was granted in April, 1997. Project site was substantially modified in May, 1997 due to expressed concerns regarding the "research burden" on the proposed site-community. IHS-IRB granted final approval in June, 1997. ASU Indian Health Board granted approval in August, 1997. UNMHSC-IRB Expedited Review was obtained in September, 1997. IHS-IRB and UNMHSC-IRB approved minor project modification in October, 1997 when a focus group moderator withdrew for personal reasons and a substitute was identified. Focus group moderators were orientated prior to convening of the focus group which was conducted on January 17, 1998. **Conclusions:** Development of a population-specific disease-specific HRQOL tool is extremely important and can lead to better overall healthcare delivery for AIH asthmatics. Appropriate protocol approvals for this collaborative investigation were intricate and required delicate negotiation with associated delays in project implementation. **For further information:** Gireesh Gupchup, Ph.D., UNM College of Pharmacy, Albuquerque, NM 87131. Phone: (505) 272-5294; Fax: (505) 272-6749; e-mail: gupchup@unm.edu
keywords: asthma; Institutional Review Board; practitioners non physicians; qualitative research; quality of life

052

Weight gain in Navajo women use the contraceptive Depo-Provera (DMPA). Jonathan Steinhart*, Eve Espey, David Espey, Pam Fulton, David Espey.

Background: Depo-Provera (DMPA) has been used for several decades as a contraceptive, although it did receive approval until 1992. It is administered as an intramuscular injection every three months. Because of its simplicity and rarity of contraindications, it is a popular contraceptive for many women, including women on the Navajo reservation. Since the beginning of its usage, some patients, providers, and family planning counselors have anecdotally reported large weight gains. Excessive weight is a concern of providers and patients on the reservation where the prevalence of obesity, Type 2 Diabetes, and gestational diabetes are well above the national average. **Methods:** This study was a retrospective chart review of patients and controls seen at three institutions on the reservation: Shiprock, Tuba, and Gallup. To be eligible for the study patients, must be between 15-40 years of age, received at least 5 injections (1 year), and had a weight recorded at each visit. Subjects and controls were divided between interval (at least 20 weeks from an antecedent pregnancy) and postpartum (6 weeks post delivery). **Results:** Preliminary results show that subjects gained on average 7.8 lb. The first year and 14.8 lbs. the second year. Controls gained 2.5 lbs the first year and 3.6 lbs the second year. **Conclusion:** Weight gain for subjects receiving DMPA is significantly higher than controls. Weight gain is also greater than noted by the manufacturer of DMPA, Upjohn, which noted a 4 lb. average weight gain for users. **For further information:** Jonathan Steinhart, MD, MPH, Chief Department of OB/GYN, Northern Navajo Medical Center, Box 160, Shiprock, NM 87420. Phone: 505-368-6001, Fax: 505- 368-7011, e-mail: jsteinh532@aol.com
keywords: contraception; Depo-Provera; maternal & child health; treatment effects

053

Improving Clinic Utilization among American Indian Teenagers

*Anne Whitworth, Judith Johnson, Jennifer Jenkins, Steve Rith-Najarian

Background: American Indian adolescents are at high-risk for many preventable diseases, but under-utilize available health services. Improving utilization of these services by teenagers is a high public health priority. **Methods:** In 1992, an afternoon Teen Clinic (TC) was established in a facility adjacent to the high school in a Minnesota rural reservation community. In 1994, the High School was relocated 3 miles from the TC. To address declining clinic participation, in 1997 the hours were changed to the evening and relocated to the IHS facility. The number of visits per year was obtained from the TC log. Services provided to all participants in 1997 were abstracted by medical record review. **Results:** During the period that the clinic was located adjacent to the school, the number of visits annually increased from 71 in 1992 to 143 in 1994. In the 3 years following the move, participation declined to 63 visits in 1996. In 1997, TC utilization increased to 207 visits. Utilization increased for both genders. Preventative services provided in 1997 included physical examinations (72%), family planning (47%), cervical cancer screening (30%), immunization updates (26%), cardiovascular risk screening (28%), and STD screening/counseling (25%). **Conclusions:** Increased participation in TC was associated with improved geographic and temporal access to care in this community. The preventative services provided in this clinic represent an opportunity to improve health in this high-risk population.

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keywords: adolescence; barriers to care; health services; maternal & child health; utilization

054

Adverse Effects of Diabetes on Multiple Cardiovascular Disease Risk Factors in Women: The Strong Heart Study. Barbara V. Howard, * Linda D. Cowan, Oscar Go, Thomas K Welty, David C. Robbins, Elisa T. Lee, for the Strong Heart Study Investigators

Many studies have shown that diabetes increases the risk of cardiovascular disease (CVD) in women to a greater extent than in men. One explanation could be that diabetes has more adverse effects on CVD risk factors in women than in men. We compared diabetes-associated differences in CVD risk factors in men and women in the Strong Heart Study, a population-based study of CVD and its risk factors in American Indians. A total of 1846 men and 2703 women between the ages of 45 and 74 years from 13 American Indian communities in three geographic areas underwent an examination that included a medical history; an electrocardiogram; anthropometric and blood pressure measurements; an oral glucose tolerance test; and measurements of fasting plasma lipoproteins, fibrinogen, insulin, hemoglobin A1c, and urinary albumin. Diabetes was associated with higher risk of CVD in woman than in men (prevalence ratio = 4.6 vs. 1.8). Statistically significantly greater adverse differences in those with diabetes vs. those without diabetes were observed in women than in men for waist/hip ratio, HDL cholesterol, apoB, apoA1, fibrinogen, and LDL size. In multiple linear regression models adjusting for age, center, gender, and diabetes, the diabetes by gender interaction terms were statistically significant for waist/hip ratio, LDL cholesterol, HDL cholesterol, apoB, apoA1, fibrinogen and LDL size. Compared to diabetes-associated differences in men, diabetes in women was related to greater adverse differences in levels of several CVD risk factors. Although the magnitude of the individual diabetes-related differences between men and women was not large, the combined effects of these risk factor differences in diabetic women may be substantial. The apparent greater negative impact of diabetes on CVD risk factors in women may explain, in part, the greater risk for CVD in diabetic women.

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keywords: cardiovascular disease; diabetes; epidemiology--cardiovascular; epidemiology--diabetes; Strong Heart Study

055

Risk Factor Clustering in the Insulin Resistance Syndrome: The Strong Heart Study. R. Stuart Gray, Richard R. Fabsitz, Linda D. Cowan, Elisa T. Lee, Barbara V. Howard, Peter J. Savage

The objective of this study was to examine how the major components of the insulin resistance syndrome relate to each other and to macrovascular disease in American Indians in The Strong Heart Study. The study cohort (4228 resident tribal members 45-74 years old) underwent a personal interview and a physical examination; blood samples were drawn and a 75-gram oral glucose tolerance test was performed. Factor analysis was used to assess the clustering and interdependence of groups of insulin resistance syndrome variables. Within both diabetic and nondiabetic groups, three factors emerged. In nondiabetic participants, a cluster of glucose, body mass index (BMI), and insulin accounted for 35% (male) and 32% (female) of the total variance in all variables considered, and a cluster of systolic blood pressure (SBP) and diastolic blood pressure (DBP) accounted for 25% and 22% in men and women, respectively. Both clusters were positively associated with coronary heart disease (CHD) but not peripheral vascular disease (PVD). In diabetic participants, the combination of SBP and DBP was the most important factor, but the cluster was not associated with CHD or PVD. A component containing HDL, triglycerides, and glucose had a positive association with CHD in diabetic women, and with PVD in both sexes. The association of clusters of risk factors and their relationships with CHD provide important clues that may be used in understanding the metabolic disorders associated with insulin resistance and diabetes.

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keywords: diabetes; epidemiology--cardiovascular; epidemiology--diabetes; insulin resistance syndrome; Strong Heart Study

056

Nutrition and health risk assessment in young adults of the Catawba Indian Nation. *Heidi L. Hannon, Sarah F. Stallings, Patricia G. Wolman, Judith McMillen.

Purpose: The study assessed nutritional status and lifestyle patterns of young adult members of the Catawba Indian Nation and determined nutrition and health education needs. **Methods:** Thirty-six female and 14 male members of the Catawba Indian Nation, age 18 to 39 years, participated in nutritional assessment including anthropometric and blood pressure measurement, biochemical analyses of fasting blood samples, and interviews related to food intake and lifestyle patterns. Anthropometric measurements included height, weight, skinfold thickness at three sites and waist to hip measurements. Nutrient intake was assessed from an extensive 24-hour dietary recall analyzed by The Food Processor for Windows (Version 6.0; esha Research, Salem, Oregon). **Results:** Fifty-eight percent of the subjects were classified as overweight or obese based on Body-Mass Index (BMI). Waist to hip ratio indicated that 58% of the females and 14% of the males had ratios associated with increased risk of stroke and heart disease. Sixty percent of the group reported consuming greater than 30% of total calories from fat. Thirty-four percent reported ingesting more than 300 mg cholesterol and 86% reported ingesting less than 20 g of dietary fiber a day. Mean reported fruit and vegetable intake was 1.0 +1.2 servings per day. Mean serum total cholesterol was under 200 mg/dL and mean HDL concentration was in the low risk range. Blood glucose concentrations were within normal limits for all participants except one. Forty percent of the participants reported drinking alcohol and 44% smoked cigarettes. Thirty-eight percent reported exercising three or more times a week. **Conclusions:** Participants would benefit from decreased fat and increased fruit and vegetable intakes. Weight management, exercise and smoking cessation programs would be beneficial to members of the Catawba Indian Nation.

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keywords: epidemiology--risk factors; health status; nutrition survey

057

Hope: The lived experience of Native Americans. Lois Snader Kelley.

Background: Many Native Americans have lost their connection to their own indigenous roots and have a profound sadness and longing for a return. There is hope among Native Americans as they seek to make a difference by continuing to carry the traditions and culture of their people to future generations. Hope is a universal lived experience that arises in the human-universe process. This study reports the Native Americans' meaning of hope from their perspective. **Method:** Parse's theory of human becoming method from the discipline of nursing includes four processes: participant selection, dialogical engagement, extraction-synthesis, and heuristic interpretation. Participants were Native Americans from the Sioux Nation who were among those featured in a book honoring Native Americans from South Dakota. Dialogical engagement was the researcher-participants discussion. This is an intersubjective "being with", a true presence, in which the researcher and participant move through an unstructured discussion about the lived experience of hope. The Extraction-Synthesis process moved the descriptions from the language of participants up the level of abstraction to the language of science. Through heuristic interpretation, the ideas of the structure of the experience of hope as lived were woven with the theory, thereby expanding it and positing ideas for further research and practice activities. **Results:** Hope from the qualitative research findings of 10 dialogical engagements with Native Americans is revealed as astonishing ethereal shifts that renew, with essential diverse-directional interminglings, while the encircling legendary affiliations fortify the treasured. While the complexity of this statement is acknowledged, stories will be shared to bring to light its meaning. **Conclusions:** The results will be discussed.

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keywords: hope; nursing; qualitative research; quality of life

058

Tolerated Illness in Native American Elders Proposed Research,
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Purpose/Background: Tolerated Illness is proposed as a theory for nursing with wide applicability. Nursing will be able to view Tolerated Illness from the perspective of the person, family, caregiver, community or culture. Tolerated Illness as a theory, can be applied across all of the holistic domains of the biopsychosociocultural phenomena, as well as the spiritual self. This emerging theory is easily applied across the life span. However, the theory of Tolerated Illness was initially formulated in answer to some of the problems specifically seen in the elderly population and will be discussed for clarity from that perspective.

Specifically, ethnic minority fall into a "Double Jeopardy" category for seeking and receiving health care (Jackson, 1980). The minority elderly person will often engage in a "conspiracy of silence", rather than face the stigma attached to the admission of another limitation or weakness, which again results in a delay in seeking services. With the projections for growing number of Native American elderly, aging research, particularly that which seeks to identify illness behavior and utilization patterns will be paramount to identifying and treating those who are suffering needlessly. In addition, programs targeted at the needs of this group in terms of reducing barriers and increasing tolerance for change will be key in the care of the Native elder with chronic illness or disability. **Definition:** For the concept of tolerated illness, the following definition is the most useful. A conscious or unconscious course of inaction or inattention towards a chronic, persisting or worsening illness, disability or limitation. Coping mechanisms such as, ignoring, normalizing, denying and not reporting problematic health status features are employed to allow the individual, family, caregiver, community or culture to delay acknowledgement, and seeking advice or care from either the lay or professional healthcare sectors. The impending or inevitable change needed to attend to the condition is viewed as less tolerable than the illness itself. The middle range theory of Tolerated Illness is derived from theories, hypotheses and knowledge that exist in nursing other disciplines. **Methods:** Research will be conducted on this topic in the form of a qualitative, descriptive study. It is proposed that elders will be interviewed using various measures of self-reported health status (ADL & IADL survey), life satisfaction tests (morale and gerontranscendence scales), the "Health of Seniors" Outcome Measures and utilization data. Also, included will be an open ended interview session regarding acculturation and barriers to health both traditional and cultural.
keywords: aging; nursing; qualitative research; quality of life; tolerated illness

059

A SURVEILLANCE-BASED STREETLIGHT INTERVENTION PROJECT TO REDUCE PEDESTRIAN INJURY AT AN INDIAN RESERVATION. Jon S. Peabody* and Richard J. Smith III, Indian Health Service.

Background: In the U.S., American Indians and Alaska Natives (AI/AN) have the highest death rates from unintentional injury compared to other racial groups. Within these AI/AN populations, priority has been given to establishing local injury surveillance systems to provide basic epidemiologic descriptions of specific injury problems, to design targeted prevention or intervention efforts, and for evaluation purposes. **Methods:** A severe injury surveillance system was established at an Indian Reservation in the southwestern U.S. Analysis of the first two years of the surveillance data revealed a problem with motor vehicle(mv)-pedestrian injury. In this community, 32 mv-pedestrian collisions occurred, resulting in 7 fatalities and 17 hospitalizations. This collision type accounted for 8% of all mv collisions, yet the pedestrian victims of these collisions comprised 41% of all mv crash fatalities. Also, the pedestrian death rate on this Reservation was almost 8 times higher than the U.S. rate. Of all the mv-pedestrian crashes, 72% occurred after dark, and 32% clustered along a 1.1 mile section of highway in a town. **Results:** The pedestrian injury data were used to justify the installation of 28 streetlights along the identified 1.1 mile section of highway. An evaluation of the intervention project was conducted, comparing 5 years of pre-installation data to 5 years of post-installation data. Along the 1.1 mile section of highway, 15 mv-pedestrian collisions occurred in the 5 years before the streetlight installation, compared to 3 such collisions for the 5 years afterward. Regression analysis indicated a significant reduction in pedestrian collisions related to the lighting. **Conclusions:** This project was successful in terms of the identification of community-specific data, support to community coalitions, and targeted intervention design. This project has prompted other American Indian Tribes to implement similar interventions with similar results.

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keywords: environmental--injury; injuries--motor vehicle

060

A Genomic Scan for Linkage to Traits Predicting Type 2 Diabetes in Pima Indians

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Background: Type 2 diabetes mellitus is thought to have a substantial genetic basis. Abnormalities in insulin secretion and insulin action predict the development of type 2 diabetes and are, themselves, highly heritable traits. Since fewer genes may contribute to these precursors of type 2 diabetes than to the overall syndrome, such genes may be easier to identify. We, therefore, undertook an autosomal genomic scan to identify loci linked to pre-diabetic traits in Pima Indians, a population with a high prevalence of type 2 diabetes.

Methods and Results: Three hundred sixty-three non-diabetic Pima Indians were genotyped at 516 polymorphic microsatellite markers on all 22 autosomes. Multipoint variance components linkage analyses provided evidence for genetic linkage (LOD score ≥ 2.0) at 3 loci: 9q21 linked to 2-hour insulin concentration during oral glucose tolerance testing (LOD = 2.2), 22pter linked to insulin action (LOD = 2.1) and 22q12-13 linked to fasting plasma glucose concentration (LOD = 2.4).

Conclusions: These results suggest loci that may harbor genes contributing to type 2 diabetes in Pima Indians. None of the linkages exceeded a LOD score of 3.6 (a 5% probability of occurring once in a genome-wide scan). These findings must, therefore, be considered tentative until extended in this population or replicated in others.

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keywords: diabetes; genetics

061

Prevalence of Diabetes in American Indians and Alaskan Natives, 1996.

Nilka Rios Burrows*, Kelly Acton, Linda Geiss, Centers for Disease Control and Prevention and Indian Health Service.

Background/Purpose: Diabetes has reached epidemic proportions in American Indians and Alaskan Natives (AI/AN). To determine the magnitude of the problem, we estimated prevalence of diabetes in the AI/AN population in 1996 and compared it to the prevalence in the U.S. **Methods:** Persons with diabetes were identified from the national outpatient database of the Indian Health Service (IHS). Population estimates for the IHS service areas were based on U.S. Census estimates. Prevalence was adjusted for age by the direct method using the 1980 U.S. population as the standard.

Results: The age-adjusted prevalence of diabetes in AI/AN (7.5%) was 2.5 times the age-adjusted prevalence in the U.S. (3.0%). Prevalence varied by IHS service area and ranged from 2.7% in Alaska to 11.2% in Tucson. The age-adjusted prevalence of diabetes in all IHS service areas, except Alaska, was 1.4-3.7 times the age-adjusted prevalence in the U.S.

Conclusions: The age-adjusted prevalence of diabetes in AI/AN was 2.5 times the age-adjusted prevalence in the U.S. With the exception of Alaska, prevalence was high across all IHS service areas and exceeded the age-adjusted prevalence in the U.S. Since diabetes in AI/AN is associated with modifiable risk factors, e.g., obesity and physical inactivity, the high prevalence of diabetes in this population underscores the need for effective intervention strategies to prevent diabetes and its complications.

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keywords: data systems; diabetes; epidemiology--diabetes

062

Lipid control through a cardiovascular clinic. *Randy W. Burden

Background: Prompted by the realization that high risk primary and secondary prevention coronary artery disease (CAD) patients were being undermanaged, a cardiovascular clinic was established. **Methods:** 17 patients were managed through the clinic over 2-9 months. They were evaluated for cardiovascular risk factors and aggressively treated with dietary and pharmacotherapeutic regimens. Patients were seen every 4-6 weeks for evaluation of diet, exercise, compliance, fasting lipid profile and titration of lipid lowering medication. **Results:** Total cholesterol and triglycerides were lowered in 4 (100%) primary prevention patients. LDL-C was lowered in 3 (75%) primary prevention patients in which it could be calculated (triglyceride less than 400 mg/dL). Over the evaluation period, 2 (50%) of primary prevention patients reached NCEPII goals for LDL-C. Of the 13 secondary prevention patients, total cholesterol was lowered in 10 (77%), triglycerides in 6 (46%), and LDL-C in 8 (60%). LDL-C could not be calculated in 3 (23%) of the patients because of elevated triglycerides. Of those with lowered LDL-C, 6/8 (75%) reached NCEPII goals for LDL-C over the evaluation time. **Conclusions:** This is a small study group evaluated over varying amounts of time. Triglyceride control played an important role in evaluating LDL-C goal attainment. Both groups showed at least a 34-51% CAD risk reduction through lowered total cholesterol. The results are promising and support the expansion of the cardiovascular clinic and ongoing evaluation project.

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keywords: cardiovascular disease; evaluation of programs; health education; lipids; practitioner--non physicians

063

Misoprostol for induction of labor at Tuba City Indian Medical Center from March 31, 1997 through February, 1998. * Laura A. Korman, * Sharon G. Meng

PURPOSE: Descriptive study to examine the experience of labor induction with misoprostol (prostaglandin E1). Our interest being a decrease in length of labor, cost effectiveness, ease of use, and patient acceptance and comfort.

METHODS Included were all patients meeting criteria for induction of labor with prostaglandin E2 gel. Excluded were patients with medical conditions precluding use of prostaglandin, malpresentation, worrisome fetal tracing, and prior uterine surgery other than low transverse cesarean section. A 25 microgram tablet of misoprostol was placed intravaginally every 3 hours until cervical exam ≥ 3 cm and/or uterine contractions ≥ 3 per 10 minutes.

RESULTS: 85 patients received misoprostol. Patients excluded from the study: 2 IUFD's and 10 who deviated from protocol. There were 66 (90%) vaginal births, 11% of which required vacuum or forceps assistance. Average length of labor (time from first dose to delivery) was 17 41/60 hours for multiparae, 96 hours for primiparae. 45 (62%,) required pitocin (for total 9 hours - or multiparae 10 hours for primiparae). 19 (16%) required epidurals, though all placed while on pitocin or for operative anesthesia. 7 (9%) required cesarean section for failure to progress, abruption or HELLP. **CONCLUSIONS:** Misoprostol has overall been well tolerated and liked. It is simple and inexpensive to use. Induction lengths appear to be shortened. No increase in cesarean or assisted vaginal births, fetal distress or uterine hyperstimulation has been observed. There may be an increased epidural rate. Research with randomized matched controls would need to be performed to corroborate these findings.

keywords: labor & delivery; maternal & child health; misoprostol (prostaglandin E); pregnancy; treatment effects

064

DUR of Selective Serotonin Reuptake Inhibitor (SSRI) use in an Ambulatory Care Clinic and Outline for Clinic Involvement in Improving Depression Treatment. Jenny Epstein *

Background: SSRI drugs on our formulary are fluoxetine and sertraline. Together these are the clinic's costliest drug expenditure. The purpose of this review was: 1) characterize usage by patients, 2) identify treatment patterns by prescribers, and 3) ascertain SSRI therapy efficacy in resolving depression. **Methods:** All patients prescribed either sertraline or fluoxetine were identified for the period 8/1/95 to 8/1/96. Patients were divided into two groups determined by prescription number; < 3 (short term) or > 5 (chronic). Utilization data was obtained from medical chart review and computerized pharmacy records. **Results:** Most patients had exogenous factors that could contribute to depression, had a history of being prescribed other anti-depressants and of stopping and restarting the same SSRI. Chronic users were older, were less likely to have symptoms of anxiety, terminal illness and recent medical events. Prescribers did not document DSMIV criteria when diagnosing depression. Intended treatment length was not documented and follow-up visit instructions dropped after the second visit, however some patients did continue treatment for years. Most patients reported an improvement in symptoms but prescribers discontinued treatment in only a few patients. **Conclusion:** Documentation did not show that SSRI use resolved depression. It is concluded that patients are inadvertently being given the crux of responsibility for treatment. Improving documentation, and involving patients in treatment goals and length are among some of the treatment changes that may improve outcomes.

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keywords: depression; mental disorders; quality of care; treatment effects; utilization review--drug

065

What are Ojibwa beliefs and perceptions about Diabetes and it's treatment? 1994. Denise Marth*

Purpose: The purpose of this study was to identify Ojibwa beliefs about diabetes and it's treatment. **Methods:** Kleinman's (1980) Explanatory model framework and descriptive interview methods were used. Twelve Ojibwa clients with diabetes were interviewed to elicit their culturally based perceptions and beliefs about diabetes. The method of data collection was that of interview by descriptive questions which were tape recorded. data analysis of the transcribed interviews were reviewed for individual and group themes. **Results:** The major themes were identified that to the diabetic Ojibwa people in this community, beliefs about diabetes predominately reflected the western medical explanatory model of diabetes. Another major theme indicated that Ojibwa people are prone if not doomed to acquire diabetes. **Conclusion:** Future diabetic education may be more effective taking Ojibwa perceptions into consideration for enhanced participatory learning between health care provider and Ojibwa diabetic client as well as primary prevention of diabetes. The client is the most important component in his/her health care plan.

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keywords: culture; diabetes; health beliefs; qualitative research

066

A Comparison of Native American and Caucasian responses to Culturally Sensitive Thematic Apperception Test (TAT). Michael Harris, Kirsten Lysne, *Peter Meyers.

Background: This study examined the role cultural identification plays in responses to Thematic Apperception Test (TAT) stimuli. **Methods:** The faces in five of Murray's original TAT cards were altered from characters of Northern European descent, to that of Native American descent, and the settings were altered to reflect Native American milieux. The study population was made up of Northern European Americans and Native Americans, with both groups receiving a randomized blend of Murray's TAT, and the new Native TAT. Each response was scored on four categories: (a) Use of Cultural Language; (b) Type of Culture Identified; (c) Affect of Response; (d) Response Quality. **Results:** T-Tests were then utilized in order to assess any significant differences between the Native American Group's responses and the responses of the Northern European Group. The majority of results indicate no significant difference. **Conclusions:** This result contradicts other studies that have used culturally sensitive TAT's with Native Americans. It is believed that this finding may relate to the difficulty both groups had in identifying contemporary Native Americans.

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keywords: culture; psychological testing

067

Racial misclassification of American Indians in Oklahoma State STD surveillance data *Douglas A. Thoroughman, James Cheek, Debra Frederickson

Background: Chlamydia, gonorrhea, and syphilis are prevalent sexually transmitted diseases (STDs) in the United States. The accuracy of prevalence rates among American Indians (AIs) is questionable due to racial misclassification in surveillance data. **Objectives:** Determine the amount of racial misclassification of American Indians in this surveillance data and how this affects reported rates; Examine differences in rates of misclassification based on blood quantum. **Methods:** The Indian Health Service (IHS) patient registry is limited to AIs registered with federally recognized tribes. This registry was matched to Oklahoma State STD surveillance data, to identify all who had accessed IHS health care. The Oklahoma data included only lab-confirmed cases of each STD, for calendar year 1995. Men were excluded from all analyses. **Results:** With each STD, substantial percentages of Indians classified as other races were observed. Misclassification accounted for significant changes in reported prevalence of chlamydia and gonorrhea rates per 100,000 (342 vs. 466 and 94 vs. 157, respectively). The majority of Indians with incorrect race were classified as "White," accounting for about 70% of misclassification. Those with a higher percentage of AI ancestry were more likely to have correct racial classification in state data (Chi-square for trend=7.319, $p<.01$). **Conclusions:** Racial misclassification of AIs resulted in underestimation of the rates STDs in AI women in Oklahoma. Similar misclassification is likely to occur on a national level. Matching procedures can increase accuracy of disease rates in this population and help target interventions appropriately.

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keywords: epidemiology--infections; sexually transmitted disease; women's health

068

Control of a hepatitis A outbreak in an American Indian population using hepatitis A vaccine *Douglas Thoroughman, James Cheek, Darcy Hunt, Susan Matt, Karen Darling

Background: Control of hepatitis A outbreaks in American Indian (AI) communities has shifted from reliance on immune globulin to hepatitis A vaccine. Limited data exists, regarding the appropriate target population and level of vaccination coverage needed to stop an outbreak. In a southwestern AI population, 50 cases of hepatitis A (rate: 518/100,000 in children aged ≤ 16 years) were reported from January through April 1997, at which time a vaccination campaign targeting preschool through eighth grade children was implemented. **Objectives:** Determine vaccination coverage rates among children and the relationship of coverage to cessation of the hepatitis A outbreak. **Methods:** Suspected hepatitis A cases were serologically confirmed. Pre-existing immunity was estimated serologically in children grades five through eight. Vaccination coverage population estimates were derived from 1990 US census data and school enrollment rosters. **Results:** Of an estimated 2,891 children aged 2 through 16 years living on the reservation and with no history of hepatitis A, 1,648 (57%) received the first dose of vaccine in April. Approximately 28% (168/604) of preschool children and 65% (1480/2287) of school-age children were vaccinated. Incidence decreased to one case in May and no cases in June. The serosurvey indicated that 60% (95% CI, 53% - 67%) of children aged 11 through 14 years were immune before vaccination. **Conclusions:** Despite low vaccine coverage of preschool-age children, the outbreak ended after mass vaccination of school children. Community-wide outbreak control may be possible in highly endemic communities by targeting the most accessible children, those in school, for vaccination.

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keywords: epidemic--control of; epidemiology--infections; hepatitis A; immunization

069

Childhood Vaccination Coverage in a Northern Plains Indian Community—Retrieving Reliable Information on Vaccination Status Douglas Thoroughman, James Cheek, Darcy Hunt, Timothy Doyle, Joan Takehara, *Robin Taylor Wilson

Background: Discovery of a diphtheria case and discrepant vaccine coverage estimates between South Dakota State (<70%) and Indian Health Service (80-95%) prompted an IHS vaccination coverage survey. **Objective:** Determine vaccination coverage for children; assess current immunization surveillance methods. **Methods:** The study population included all first grade students and a systematic random sample of two-year-old children. Information was collected on DTP, OPV/IPV, MMR, Hepatitis B, *Haemophilus influenzae* type B (HiB), and Hepatitis A vaccinations. Recording systems reviewed included a computerized patient database, medical charts, and a card file kept by public health nurses. For children found incomplete, further information was sought from satellite clinics, schools and families. CASA software was utilized for data entry and analysis. **Results:** Nearly all children living in the area were identifiable through IHS computerized records. Vaccination coverage rates improved between the first graders and two-year olds. Forty percent of first graders and 59% of two-year-olds had completed 4 DTP, 3 OPV and 1 MMR by 18 months of age. By 2 years of age, 85% of first graders and 80% of two-year-olds had completed MMR 1. None of the three primary vaccination recording systems used by IHS completely ascertained vaccination doses given. **Conclusions:** Coverage rates are less than initial IHS estimates. Though vaccination coverage suggests a temporal improvement, less than 60% of children overall had on-time DTP and OPV coverage. Adequate and timely IHS vaccination records will require ready user access to a centralized record system with quality control measures in place.

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keywords: data systems; epidemiology--infections; evaluation of programs; immunization; maternal & child health

070

Multi-jurisdictional Collaboration to Investigate an Apparent "Efficient Transmitter" of Tuberculosis.

*Michael F. Reidy, Northern Navajo Medical Center; Jeanne Smithpeter, New Mexico Department of Health; Gary Simpson,, New Mexico Department of Health; Bruce Tempest, Gallup Indian Medical Center; Sarah Yazzie, Navajo Nation Tuberculosis Program; Joann King, Northern Navajo Medical Center; Luisa Cullum, New Mexico Department of Health; Anita Rodriquez, New Mexico Department of Health.

Introduction: The contact investigation of a 26 year old Navajo female index patient with cavitary tuberculosis spanned multiple organizational and territorial jurisdictions as the patient lived on, but worked off the Navajo Reservation in Northwest New Mexico. Virulence was a concern when 90% of close contacts were found to be infected on initial screening. Thirteen close contacts developed active TB. Six cases were linked to the source case by molecular epidemiology. There were significant barriers in organizing a coordinated contact investigation over the vast geographical area with limited resources complicated by multi-jurisdictional issues. **Methods:** A working group was created involving federal, state, and sovereign nation agencies. Monthly conference calls served to coordinate the expanding contact investigation and to facilitate treatment of active cases and contacts. **Results:** A collaborative model was developed which stressed communication, education, and quality of care among the Indian Health Service, New Mexico Department of Health, and the Navajo Nation. This experience reinforced the importance of an annual regional conference involving the Tuberculosis Programs from four states and the Navajo Nation. **Conclusions:** Collaboration between the IHS, state health departments, and sovereign nations can yield effective and productive community-based tuberculosis management.

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keywords: community collaborations; public health; tuberculosis

Practice Implications of Demographic and Clinical Characteristics of American Indian Sex Offenders. *Lorre G. Lewis.

Background: Little is known about American Indian/Alaska Native (AI/AN) sex offenders and there is currently no literature addressing the cultural relevancy of current treatment models. **Methods:** In phase one of this two phase exploratory study, a secondary analysis was performed on data gathered by the Bureau of Justice Statistics. AI/AN sex offenders were compared to Blacks and Whites on characteristics deemed relevant to successful completion of treatment. In phase two, a convenience sample of 75 treatment providers was surveyed regarding their observations of AI/AN sex offenders. **Results:** Phase one findings include the over-representation of sex offenders among AI/AN inmates; AIs/ANs were more likely than Blacks or Whites to be under the influence of alcohol during their offense and had been drinking for a longer period of time; were less likely to report that their parents abused alcohol or drugs; were more likely to be married; and were less likely to be employed in the month before their arrest. Similar rates of AI/AN and White sex offenders reported having been sexually abused themselves. Phase two findings include observations that greater percentages of AI/AN sex offenders had child and familial victims, were under the influence of alcohol during the offense, and experienced a greater incidence of depressive disorders and substance abuse problems. AI/AN offenders tended to have fewer victims. **Conclusions:** More research regarding the over-representation of AIs/ANs in the sex offender prison population is required. Culturally relevant sex offender treatment concurrent with substance abuse treatment is required for this population. **For further information:** Lorre G. Lewis, MSW, Ph.D. (pending), Assistant Professor, State University of New York at Buffalo, School of Social Work, 359 Baldy Hall, PO Box 601050, Buffalo, NY 14260. Phone: 716-645-3381 x244; Fax: 716-645-3883; e-mail: lglewis@acsu.buffalo.edu
keywords: criminal justice system; epidemiology--crime; sexual abuse

Incidence of Diabetes and Its Risk Factors in Three American Indian Populations - the Strong Heart Study.
 Elisa T. Lee*, Barbara Howard, Jeunliang Yeh, Oscar Go, Richard Fabsitz, and Thomas Welty for the Strong Heart Study Investigators

Background: Diabetes mellitus (DM) is highly prevalent in the American Indian population. It is important to determine its incidence and important risk factors. **Methods:** The Strong Heart Study (SHS), a cohort study of cardiovascular disease (CVD) and its risk factors in American Indians, has been ongoing since 1988 in Arizona (AZ), Oklahoma (OK), and South and North Dakota (SD/ND). A total of 4549 participants, aged 45-74 years, was recruited in Phase I (baseline). A personal interview and a thorough physical examination were conducted to collect data on CVD and DM status and a large number of potential risk factors. DM status was defined by WHO criteria. In Phase II, after an average of 4 ± 0.7 years of follow-up, 3638 of the original 4549 participants were reexamined (413 died before examination, 499 refused to participate). Incidence rates of DM were determined from participants who were free of DM at baseline. Risk factors assessed in Phase I were studied for their predictive values. **Results:** Phase I data showed that the prevalence rates of diabetes in AZ, OK, and SD/ND were 70%, 40%, and 40%, respectively. The prevalence rates of IGT were, respectively 14%, 17%, and 17%. At Phase II, cumulative incidence rates of DM and IGT from participants with normal glucose tolerance (NGT) and IGT are given below:

	WOMEN			MEN		
	AZ	OK	SD/ND	AZ	OK	SD/ND
NGT to DM	16%	10%	16%	8%	8%	11%
IGT to DM	45%	33%	33%	53%	36%	27%

Stepwise logistic regression was used to determine the risk factors for the development of DM. In women with NGT at baseline, fasting plasma insulin level and degree of Indian blood were found to be significantly associated with the incidence of DM. Whereas in men, only body mass index was significant. In women with IGT at baseline, only fasting plasma insulin level was significantly associated with the development of DM. In men with IGT, age was the only significant risk factor. **Conclusion:** The data indicate that diabetes has reached epidemic proportion in American Indians. There is an urgent need to implement effective preventive programs and intervention strategies to reduce the burden of this devastating disease in this population.

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keywords: diabetes; epidemiology--diabetes; Strong Heart Study

073

Domestic Violence on the San Carlos Apache Indian Reservation: Rates, Associated Psychological Symptomatology, and Cultural Considerations.

Domestic violence is a major problem for American Indian/Alaskan Natives, but most Tribal Councils and communities are unwilling or uncertain how to address such complex and sensitive problems on the reservation. Victims of domestic violence experience many adverse health effects secondary to abuse. The purpose of this study was to investigate the extent (yearly incidence and relationship prevalence) of the domestic violence problem on the San Carlos Apache reservation, assess the association of depression and Posttraumatic Stress Disorder (PTSD) symptoms with domestic violence and include cultural considerations when describing the problem on the reservation.

For this volunteer sample of San Carlos Apache women (N=163), recruited by local flyers in the community, the yearly incidence rate and relationship prevalence rate of injury and physical assault abuse was determined. Bivariate and multivariate analyses were done to examine the risk factors for abuse, depression, and PTSD symptoms. The authors will report on the responses from the community about screening for domestic violence and services the women would like to see on the reservation.

The San Carlos Apache Tribal leadership was committed to conducting a study to address domestic violence and associated problems. This study is a model for Indian country. A multi-disciplinary approach was utilized to address domestic violence on the reservation. The San Carlos Apache Tribe was most effective in establishing new partnerships to address this top priority public health problem.

keywords: community--based; community collaborations; culture; depression; environmental--injury; epidemiology--PTSD; epidemiology--violence; posttraumatic stress disorder

074

American Indian and Alaska Native Trends in Behavioral Health, 1990-1996. *Timothy L. Taylor, Clark H. Denny and William L. Freeman

Purpose: The purpose of this study was to chart and compare American Indian and White American trends in behavioral risk for the period 1990 to 1996. **Methods:** Data were drawn from the 1990-1996 Behavioral Risk Factor Surveillance System, BRFSS, representing the 34 states covered by the Indian Health Service in 1994. Prevalence estimates, standard errors and 95% confidence intervals were calculated for American Indian and White respondents and utilized to prepare charts that present trends, and the differences in trends, by gender, between Indians and Whites. Logistic regression analyses calculated risks related to sex, race and time. **Results:** Overall, almost all annual prevalence estimates and all average prevalence estimates of Indians were greater than those of White Americans for tobacco smoking, overweight, diabetes, 'not always using' seatbelts and binge drinking. Over the period charted, the trend in tobacco smoking was up for Indians; it stayed about the same for Whites. The trend in overweight was up for both groups. The trend in diabetes was down slightly for Indian and White women and up for Indian men; it stayed about the same for White men. The trend in 'not always using' seatbelts was down for both groups. The trend in binge drinking was down for White men, while it stayed about the same for White women. Indian women were found to be at higher risk than White women for being overweight, for being a current smoker, for 'not always using' seatbelts and for being diagnosed as diabetic. American Indian men were found to be at higher risk than White men for being overweight, for binge drinking and for being a current smoker.

Conclusions: The BRFSS is an uncommon source of American Indian behavioral health risk information. BRFSS data support the widely held view that the health of Indian people is at greater risk than that of White Americans. Efforts should be made to improve the quality of Indian BRFSS information. Additional resources and appropriate methods for applying resources are required to reduce the gap in behavioral health risk between American Indians and White Americans.

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keywords: behavioral risk factor survey; data systems; epidemiology--risk factors

075

The effect of an education and support intervention on the initiation and duration of breast feeding among native American women. Kathy A. Holcroft, Indian Health Service

Background: The Surgeon General's Health Promotion Disease Prevention Objective states that by the year 2000, 75% of mothers will breast-feed when discharged from the hospital; 35% will continue for the first six months.

Purpose: The purpose of this study was to determine if structured education and support would have an effect on the number of women who initiated breast feeding and the duration of breast feeding. Forty-four women who were planning to breast-feed for the first time were randomly assigned to an experimental or control group. **Method:**

The conceptual framework was anticipatory guidance. Classroom education was provided for the experimental group. Support was provided by telephone or by personal contact during the breast feeding period. The control group received routine education and support the hospital provided. **Results:** A significant difference was found for the initiation of breast feeding; 100% of the experimental group initiated breast feeding while only 68% of the control group initiated breast feeding. A significant difference was found for the number of days for duration; experimental group breastfed an average of 75 days while the control group breastfed an average of 35 days.

Conclusion: These results justify use of an early education and support program which extends throughout the breast feeding period and could be beneficial in obtaining the Surgeon General's HPDP Goal for the year 2000.

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keywords: breast feeding; evaluation of programs; health education; health promotion/disease; prevention

076

"Native American Grandparents Raising Grandchildren", Joseph Y. Goodfellow,* graduate student at California State University, Fresno.

The purpose of this project was to gather information on the nutritional status of Native American grandparent-headed families and their present dietary conditions. Research indicates that Native American Elders who are responsible for rearing children have less money, less education, and more health problems than any other group of child care givers in the general U.S. population.

Among the Native American population, thirty percent of grandparents are raising their grandchildren as opposed to five percent of grandparents who are raising grandchildren in the general U.S. population. The target population of this project was Native American grandparents living in the Central Valley Indian Health, Inc. service area who are raising grandchildren.

The great number of Native American grandparents raising grandchildren, low education and income levels among this population, and nutritional inadequacies which contribute to five of the ten leading causes of death, led the author to undertake the design and implementation of the Native American Grandparent-Child Nutrition Education Program. The objective of the program was to assist limited resource Native American grandparent-headed families in acquiring the knowledge, skills, attitudes and changed behavior necessary for nutritionally sound diets and to contribute to the improvement of the total family diet and nutritional well being.

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keywords: culture; health promotion/disease prevention; maternal & child health; nutrition

077

Pharmacy Services and Diabetic Care: Ordering of HgA1c and PHS Profiles. Alison R. Dion

Purpose: The purpose of this review was to evaluate the use of HgA1c's in the management of patients with diabetes in the Santa Fe Service Unit. **Methods:** Chart that had orders for diabetic medications were reviewed for HgA1c and PHS status. HgA1c's are to be ordered every three months or biannually if the patient is stable. The PHS or chemistry profile is to be ordered annually or more frequently depending upon the medication used. If no laboratory values were recorded or the values were not current and no indication of intent to order these tests at the next scheduled visit was indicated, pharmacy ordered the tests. **Results:** For the time period of April - November 1997, pharmacy ordered HgA1c's and PHS laboratory tests 59% and 50% of the time respectively. **Conclusions:** Pharmacy provided an additional service by monitoring and ordering laboratory tests for patient with diabetes. This review revealed a need to coordinate patient care for patients with diabetes. A multidisciplinary diabetes clinic has since been reinstated at the Santa Fe Indian Hospital. This clinic utilizes the laboratory and RPMS system to provide a more efficient diabetes health summary for use in the clinic. Pharmacy and Dietary provide additional follow up counseling and patient education sessions. With improved documentation, the evaluation of patient care and glycemic control will be evaluated through the RPMS system and the next diabetes audit.

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keywords: diabetes; health service; practitioner--non physician; quality of care

078

Tribal Welfare Reform Initiatives : Implications for Health and Health Services

Patricia Commiskey*, Beth Boyd, Lynne Lackey

Background: Nine tribes responded to the 1996 Personal Responsibility and Work Opportunity Reconciliation Act option to accept direct funding and responsibility for administration of the Temporary Assistance for Needy Families (TANF) program. TANF replaces the Aid to Families with Dependent Children (AFDC), Job Opportunities and Basic Skills Training (JOBS) and Emergency Assistance (EA) programs. The Administration describes TANF as an initiative to "end welfare as we know it" and offers federally recognized tribes increased control over programs encouraging employment and support to needy families. TANF and health programs and their effects are closely related. This paper describes programs designed by each tribe and explores the interface of those programs with health services and needs in AI/AN communities. **Methods:** TANF plans submitted to the Office of Tribal Services are analyzed. Interviews with key tribal officers for 1) TANF and 2) health programs provide baseline information, impressions of program impact to date and anticipated impacts relative to health issues. (Programs were initiated between July and November 1997.) Interviews conducted with HHS officials in the Division of Tribal Services address patterns in tribal TANF initiatives and impressions of potential relationship to health services and needs. **Results:** Baseline information regarding "welfare reform" in tribal communities and potential relationships between this reform and health issues from perspectives of tribal, IHS, and federal Administration for Children and Families is provided. **Conclusions:** The study draws conclusions regarding issues informative to follow and monitor from health services and health needs perspectives as TANF plans are implemented.

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keywords: evaluation of programs; health service; self-governance/self-determination; welfare reform

079

Lipoprotein (a) and Coronary Artery Disease Among Native American Patients Evaluated by the Native American Cardiology Program From 1995-1997. Josh Fiora-Gormally*, Noah Meltzer, James Galloway, and staff at the Native American Cardiology Program.

Background: The incidence and prevalence of Coronary Artery Disease (CAD) has significantly increased in the Native American population in the last 40 years, making CAD the number one cause of mortality among Native Americans. Studies on other populations have found high Lipoprotein (a) (Lp(a)) levels to be a valuable predictor for CAD. The purpose of this clinical pilot study is to see if Lp(a) might play a role in predicting CAD among Native American patients. **Methods:** Using a list of patients who had Lp(a) values measured, 59 charts were reviewed for demographics, multiple CAD risk factors, and CAD evaluation. **Results:** Of the patients referred to the Native American Cardiology program for cardiac evaluation who had Lp(a) lab tests and were evaluated for CAD in the period ranging from 1995 to 1997, the mean Lp(a) for patients with CAD was 20 (s.d. = 10) compared to 16 (s.d. = 15) for those without CAD. Of the patients with high Lp(a) levels, 80% had CAD while 67% of patients with low Lp(a) levels had CAD. **Conclusions:** The results of this pilot study are consistent with the hypothesis that Lp(a) is associated with CAD in this Native American Population. Additional research with larger sample sizes is needed.

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keywords: cardiovascular disease; epidemiology--cardiovascular; lipids

080

Genomic Scan for Loci Linked to Diabetes and Obesity in Pima Indians.
Robert L. Hanson*, William C. Knowler and the Pima Diabetes Genes Group.

Purpose: A genome-wide scan was conducted to identify genetic loci linked to diabetes and body mass index (BMI) in Pima Indians.

Methods: The data came from 264 nuclear families who had participated in a longitudinal epidemiologic study. In 1082 individuals from these families, 517 genetic markers from all 22 autosomal chromosomes were typed. Linkage analysis was used to identify chromosomal regions that may contain genes that influence diabetes and BMI in the sibships of these families, which comprised 968 siblings and 1862 sibling pairs.

Results: A region on chromosome 11, near the marker D11S4464, showed strong evidence for linkage with body mass index ($p = 0.00001$) and with diabetes ($p = 0.003$). A bivariate analysis gave strong evidence for linkage with both BMI and diabetes ($p = 7.5 \times 10^{-7}$). Additional evidence for linkage with diabetes was also seen on chromosome 1, near the marker D1S1679, ($p = 0.0004$) and on chromosome 7, near D7S1799, ($p = 0.002$).

Conclusions: These results suggest that a gene which influences susceptibility to obesity and diabetes in Pima Indians is located at 11q23-25 and that additional diabetes-susceptibility genes may be located at 1q21-23 and at 7q21-23. Additional research is needed to identify the specific genes involved, to determine how they contribute to the etiology of diabetes and obesity and to determine the therapeutic and preventive implications of these findings for American Indian communities.

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keywords: diabetes; genetics

**Type II Diabetes Mellitus Among Lakota/Dakota:
Mental Health Risk Factors and Treatment Implications**

Mark C Daniels*, University of Toledo/Rapid City IHS Hospital; Frederick K. Ness,
Rapid City IHS Hospital, & Joni L. Mihura, University of Toledo.

The Sioux San IHS Hospital, located in Rapid City, South Dakota, services approximately 10,000 Native Americans (primarily Lakota and Dakota Sioux). Three of the major health-related problems facing Native persons in the Rapid City Service Unit area are chemical dependency (particularly alcohol abuse/dependency), mental illness, and diabetes. The leading categories of admissions to the Sioux San IHS Hospital are mental illness and alcohol related disorders. Further, at present, there are more than 600 Native persons on the Diabetes Registry who have been diagnosed with diabetes in this area

Consequently, diabetes, mental illness, and chemical dependency result, individually and collectively, in the loss of productivity and life of Native people. Research has identified several psychosocial variables related to diabetes, such as stress, depression, social support/family functioning, locus of control, and chemical dependency, and suggests that these variables may play a significant function in the development of diabetes, the advancement of its complications, and the course of its treatment. Knowing the comorbidity of these disorders and how they combine to affect self-management of diabetes can alert physicians to make adjustments in their treatment approach and the possible necessity of additional services such as mental health and chemical dependency services. Importantly, treating these situations in a holistic and integrated manner might optimize outcomes and improve the care of those involved.

This presentation will present a thorough literature review, done in preparation for a Ph.D. dissertation, that is part of an IHS evaluation program and has been approved by the University of Toledo.

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keywords: behavior--co-morbidity; diabetes; mental disorders; substance abuse

Behavioral risk factors among Native Americans in Oklahoma: 1994-1995. David W. Smith,
Charles W. Hays, Lisa Young, Neil E. Hann

Background A Behavioral Risk Factor Survey (BRFS) of adult Native Americans in Oklahoma was conducted during 1994 and 1995, extending our previous work. **Methods** Telephone interviews of 2000 respondents were completed. All reported rates and 95% confidence intervals (in parentheses) were age-sex standardized to the population of American Indians and were compared with Healthy People targets for the Year 2000. **Results** Smoking rates were: men, 31.0% (28.0%-33.9%); women 30.2% (28.0%-32.4%); Year 2000 goal, 15%. Smokeless tobacco rates were: men, 16.4% (12.4%-20.3%); women, virtually zero. Vaccinations among those aged 65 or over: influenza, 59.4% (56.2%-62.6%); pneumonia, 34.6% (31.4%-37.8%); Year 2000 goal, 60% for each. Among women at least 50 years old: pap smears within the last three years, 83.4% (80.8%-86.0%), Year 2000 goal, 95%; breast exams within the past two years, 77.1% (75.2%-79.0%); breast exams with mammograms, 62.4% (60.2%-64.6%), Year 2000 goal, 60%. The prevalence of overweight, 33.9% (32.1 %-35.7%), Year 2000 goal, 20%. Diabetes rates, among men and women aged 45 and over, were 8.7% (6.4%-11.0%) and 11.9% (9.7%-14.1%), respectively. Hypertension prevalence was 26.4% (24.8%-28.0%). Any alcohol use in the last month: men, 36.7% (33.7%-39.8%); women, 21.9% (19.8%-23.9%). The binge drinking, five or more drinks on one occasion in the last month: men, 16.4% (13.9%-18.9%); women, 5.9% (4.6%-7.1 %). **Conclusions** Comparison of prevalence rates of behavioral health risks with the goals for the Year 2000 are essential for planning public health programs among Native Americans. For example, reductions in the prevalence of overweight could ameliorate both diabetes and hypertension. Estimates could not have been made without a survey focused on Native Americans. Surveys targeted to Native Americans should be conducted on a scheduled basis.

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keywords: behavior risk factor survey; data systems; epidemiology--risk factors

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Homocysteine Levels Among Native American Patients Evaluated for Coronary Artery Disease by the Native American Cardiology Program from 1995 to 1998. Noah Meltzer*, Joshua Gormally, Eric Brody, James Galloway, and staff at the Native American Cardiology Program. The Center for Native American Health. Tucson, AZ.

Background: Coronary artery disease (CAD) incidence and prevalence has increased in Native American populations recently and this increase appears out of proportion to known risk factors, despite the increased incidence of diabetes. Currently heart disease is the number one cause of death in Native Americans. Previous studies have found homocysteine to be a risk factor for and may play a significant role in CAD in other populations. The purpose of this preliminary clinical study is to evaluate the potential role of homocysteine and its relationship to other risk factors in the development of CAD in Native Americans. **Methods:** Using a list of patients who had plasma homocysteine levels measured from 1995 to 1998, 80 charts were reviewed for demographics, multiple CAD risk factors, and CAD evaluation. CAD determination was confirmed by cardiac catheterization. **Results:** Of the patients with both CAD evaluation and homocysteine lab values ($n=74$), 84.2% with high homocysteine levels had CAD. The mean homocysteine value for patients with CAD was 14 ($sd=7$) and the mean homocysteine value of patients without CAD was 12 ($sd=4$). 29% of patients with CAD had elevated ($>16 \mu\text{mol/L}$) homocysteine levels as opposed to 16% of those without CAD ($p=0.26$). **Conclusions:** Although our small sample size reduced the ability to detect a statistically significant association, our findings suggest that plasma homocysteine, an easily modifiable risk factor, may be associated with CAD in Native Americans, as has been found in other populations. These findings warrant further studies with greater statistical power.

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keywords: cardiovascular disease; epidemiology--cardiovascular; homocysteine

084

Results from the Aberdeen Area Infant Mortality Study (AAIMS): How can these data be used? Leslie L. Randall, Thomas K. Welty, Solomon Iyasu, Marian Willinger, and the Steering Committee for the AAIMS.

PURPOSE: The SIDS rate for American Indians has consistently been the highest of all races and the rate in the Aberdeen Area has consistently been among the highest. **METHODS:** The Aberdeen Area IHS conducted a prospective case-control study of infants who died after discharge from the hospital. The controls were the previous and next infant born on the case mother's reservation. Infant care practices and socio-demographic, economic, medical, health care, and environmental factors were examined. Grief counseling was provided for each case family and health education materials were shared with all participants. **RESULTS:** Data were collected on 34 SIDS cases and 68 living controls. The mean age at death for SIDS cases was 34 days. Most of the deaths that occurred outside the hospital were due to SIDS (52%). The usual risk factors for SIDS did not differ substantially from the non-SIDS deaths for prone sleeping, maternal smoking, passive exposure to cigarette smoke and breastfeeding. Whereas, maternal alcohol use three months before or during pregnancy was 79.4% for SIDS case mothers and 57.4% for control mothers. Binge drinking three months before or during pregnancy was 73.5% for SIDS case mothers and 45.6% for the control mothers. **CONCLUSIONS:** This information can be used to develop community-based policies and programs to reduce the risk of infant mortality, and specifically deaths due to SIDS. Data can be utilized to improve current programs and provide background information for future programs. By addressing the issues of loss and grief for these families, a valuable resource was provided to the community.

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keywords: behavior; community-based; epidemiology--SIDS; grief/bereavement; sudden infant death syndrome (SIDS)

085

The New Mexico Geriatric Education Center: An Interdisciplinary Education Project Serving American Indian Elders. Alan Vince, M.Ed.

The New Mexico Geriatric Education Center (NMGEC), which is based at the University of New Mexico Health Sciences Center and the Center on Aging, is dedicated to improving the health care of American Indian elders being served within the Albuquerque Area of the Indian Health Service. Education and training programs are being developed which are designed to enhance the ability of health care providers and lay caregivers to deliver more effective care to the elderly, especially culturally sensitive care. The NMGEC is working cooperatively with the Indian Health Service and the National Indian Council on Aging in the development of its educational materials and programs.

The first phase of the project has been devoted to understanding elders' perceptions of their care as it exists at present and determining their concerns and needs. This was accomplished by conducting group interviews with elders, elderly caregivers, Community Health Representatives, and Title VI Directors. In addition, various provider groups were sampled that include IHS physicians, public health nurses, pharmacists, and directors of nursing. In February 1997, a needs assessment survey was administered to a group of service unit directors, clinical directors, and nursing directors.

Currently, the NMGEC is developing a curriculum composed of educational materials and programs based on the information gathered from the elders themselves, and from various provider groups. Close collaboration with members of the IHS Elder Care Initiative and the American Indian communities informs the process.

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keywords: ageing; health services; needs assessment

086

Predictive Factors in Psychological Testing of Post Traumatic Stress Disorder (PTSD) and Trauma History. Michelle Tangimana*, James Hagel, Gary Leonardson, Brett Koplin.

The specific aim of this retrospective study is twofold. The first phase is to examine the incidence of psychiatric and medical diagnosis, demographic factors, prior psychiatric treatment, psychiatric history, self-harm history, use of treatment modalities, assessment tools and possible gender differences in treatment modalities in psychiatric adult inpatients at Sioux San Hospital. The second phase will examine psychological testing results, demographics and psychiatric history of inpatients with a history of trauma or a diagnosis of Post Traumatic Stress Disorder. Using this data we intend to look at what tests and history are helpful in predicting a diagnosis of Post Traumatic Stress Disorder. Significance of phase one: We intend to look at basic incidence of diagnoses, comorbidity and demographics on the inpatient unit. We intend to use the data to see if the type of treatment offered such as types of psychotherapy and pharmacological treatment are consistent with diagnosis and reported symptomatology. Significance of phase two: PTSD is an important diagnosis as it may be related to other issues such as suicide and alcoholism, but PTSD alone may be quite disabling. Although the rates of PTSD in Native Americans in the Aberdeen area has not been ascertained, we suspect there are probably high rates of PTSD that go along with the very high rates of alcoholism and suicide. There is evidence in other Native American populations to indicate a correlation. There is little objective evidence that implies PTSD symptoms are a causal factor in alcoholism and suicide, but there is evidence to indicate concomitant treatment of PTSD treatment in those dually diagnosed with alcoholism or self-destructive behaviors

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keyword: behavior--co-morbidity; mental disorders; posttraumatic stress disorder (PTSD); quality of care

087

Determining the Epidemiology of Drinking in four native American Communities in Advance of Efforts to Prevent Fetal Alcohol Syndrome. Philip A. May

Background: The purpose of this NIAAA funded project is to carry out basic epidemiologic research to prepare for targeted comprehensive prevention of Fetal Alcohol Syndrome (FAS) in four American Indian communities.

Methods: In each community an extensive survey of 384 randomly selected individuals (16 years and over) is being conducted to determine the epidemiology of drinking. **Results:** Preliminary data from one of the sites reveals that the sample is 56% female and 44% male. Within this sample, the mean age at which females began drinking was 15.3; women began drinking regularly at a mean age of 17.9. While 31% of this sample report they have not consumed any alcoholic beverages within the last 12 months, many men and women report drinking large quantities. The data reveal a binge pattern for both women and men. Sixty-two percent of women report drinking an average of 3/2 drinks per drinking day (\pm S.D. of 4.8). Sixty percent of the women report bingeing (drinking five or more drinks in a single session in a month), and the mean is 1.1 days per month. Seventy-eight percent of the women drinkers report having been "high" or drunk in the past year, and on average they have done so 23 time in the last 12 months. While these data show that heavy alcohol use is pretty much the norm among those who drink. 81% of the overall sample agree or strongly agree that alcohol should not be sold to any women who is obviously pregnant. These data show members of a community who are candid about their use of alcohol, yet who see the need to intervene to prevent fetal damage from the use of alcohol during pregnancy. **Conclusions:** Both risk factors (negative traits) and strengths (positive traits) for use in preventing FAS are being identified. They also provide population norms from which to judge the extreme drinking behaviors that cause FAS. The total sample of 1536 will be the largest epidemiologic survey of adult drinking and substance abuse behavior ever completed among American Indians.

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keywords: epidemiology--substance abuse; fetal alcohol syndrome (FAS); resiliency; substance abuse--alcohol

088

Providing Traditional Healing Ceremonies as Modalities of Alcohol and Substance Abuse Treatment for Native Americans in a Correctional Setting. J. Philip Gossage, Carol Leonard, Louie Barton, and Philip A. May.

Background; In Navajo culture, the ideal state for an individual is to have harmony (*Ho'zho'na'hasdi'i'*) and be in "balance" within himself, his family, his community, and with "Mother Earth." The Navajo people believe that abuse of alcohol or use of drugs is a symptom of a loss of "balance." The focus of the CSAT-funded Dine Center for Substance Abuse Treatment (DCSAT) project is to help individuals return to a state of "balance" through the use of traditional healing ceremonies. Research has shown that western treatment modalities have been of limited success in changing the alcohol of substance abusing behaviors of Native Americans. Substance abuse counsellors face additional challenges when treating individuals who are incarcerated in jails, prisons or federal penitentiaries. **Methods:** The DCSAT project on the Navajo Nation has been addressing these concerns by employing sweat lodge ceremonies (SLCs) in its Window Rock Jail (WRJ). SLCs have been conducted in correctional institutions since the early 1980s and became available to inmates in the WRJ in June of 1994. Since then, about 1,00 different inmates have participated in SLCs in the WRJ. Four self-administered questionnaires have been developed to gather data from inmates during stages of the therapeutic cycle. **Results:** To date, 181 men have been enrolled in jail-based treatment. This poster presentation will summarize the results of experiential data collected from inmates/patients via the second questionnaire; the data were collected immediately following each SLC. **Conclusions:** There are few scientific demonstrations of the efficacy of using traditional American Indian culture, values, and medicine to treat substance abuse. This project poses a very unique opportunity in moving our (Navajo and mainstream) knowledge forward about traditional, culturally-based therapy which emphasizes the best of the modern world in combination with the strengths of a holistic, harmonious native world view.

For further information: J. Phillip Gossage, Ph.D., Senior Research Scientist and Evaluator with the Evaluation Team for the DCSAT project, UNM/CASAA, 2350 Alamo SE, Albuquerque, NM 87106-3202. Phone: 505/768-0104; Fax: 505/768-0113; E-mail: jgossage@unm.edu.

keywords: community-based; culture; Dine Center for Substance Abuse; substance abuse; traditional healing/healers

Assessing the Alcohol and Substance Abuse Treatment Needs of Native Americans with the Use of a Culturally-based Assessment Tool. J. Phillip Gossage, Philmer Bluehouse, Carol Leonard, and Philip A. May

Background; In Navajo culture, the ideal state for an individual is to have harmony (*Ho'zho'na'hasdi'i'*) and be in "balance" within himself, his family, his community, and with "Mother Earth." The Navajo people believe that abuse of alcohol or use of drugs is a symptom of a loss of "balance." The focus of the CSAT-funded Dine Center for Substance Abuse Treatment (DCSAT) project is to help individuals return to a state of "balance" through the use of traditional healing ceremonies. **Methods:** The DCSAT project of the Navajo Nation uses a battery of western and culturally-based assessment tools. One of the tools which was developed by DCSAT staff is called the "Traditional Background and Behavior (TBB)." This tool assists DCSAT Traditional counselors (TC) in determining where the patient is on his or her Sacred Journey (of life). The TBB specifically measures three areas of health which are profoundly important in Navajo culture, these are the Sacred, Psychological, and Biological. Answers to individual questions are totaled to provide a numerical score for each of these three areas. The TC compares these three scores with the qualitative data which the TC has learned from the patient via the entire assessment process. The TBB was initially developed as a hardcopy tool and has since been computerized. This poster presentation will include a computer demonstration of the TBB. **Conclusions:** There are few scientific demonstrations of the efficacy of using traditional American Indian culture, values, and medicine to treat substance abuse. This project poses a very unique opportunity in moving our (Navajo and mainstream) knowledge forward about traditional, culturally-based therapy which emphasizes the best of the modern world in combination with the strengths of a holistic, harmonious native world view.

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keywords: community-based; culture; Dine Center for Substance Abuse Treatment; substance abuse; traditional background and behavior assessment; traditional healing/healers

Posttraumatic Stress Disorder in Adult Females Survivors of Sexual Assault: Meta-analysis. Gloria Collins, Ph.D. Candidate

Background: Violent crime is a rapidly growing problem in the United States and particularly on reservations. Recent studies have estimated that approximately 25% American women experienced rape at some point in their lifetime. The psychological sequelae of rape has recently been conceptualized as posttraumatic stress disorder (PTSD). PTSD is an anxiety disorder characterized by symptoms of reexperiencing of the trauma, emotional numbing and avoidance and increased arousal. PTSD is a significant problem following sexual assault, with studies indicating that shortly after assault, over 90% of the victims meet symptomatic criteria for PTSD; while 3 months post-assault, up to 47% of rape victims suffer from chronic PTSD. It is therefore imperative that effective therapeutic procedures for PTSD following sexual assault be developed. **Methodology:** A meta-analysis was conducted in order to review and synthesize the literature base to determine what has been studied to date. The second reason for a meta-analysis is to compare outcome of effectiveness of psychological treatments. This meta-analysis computes study variables such as time elapsed since assault, previous history of psychiatric treatment, treatment modalities, etc., in order to refine the understanding of specific approaches and determine their efficacy. Effect sizes are computed for all of the variables in order to compare and analyze data. Because coding of data is completed utilizing coding sheets, coding dictionaries, and coding conventions, results are replicable and new studies can be added when they become available. **Conclusions:** The results of this study will be useful for mental health providers in their applications of effective treatments of victims of sexual assault with PTSD and can possibly be generalized to other patients with PTSD.

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keywords: behavior; mental disorders; posttraumatic stress disorder (PTSD); sexual abuse/assault; treatment effects; violence

Confirmed Previous Infection with *Chlamydia Pneumoniae* (TWAR) and its Presence in Early Coronary Atherosclerosis

Background: *Chlamydia pneumoniae* has been identified in coronary atheroma but concomitant serum antibody titers have been inconsistently positive and unavailable prior to the detection of early or advanced atherosclerotic lesions. **Methods:** This retrospective investigation was performed on premortem serum specimens and autopsy tissue from 60 indigenous Alaska Natives at low risk for coronary heart disease, selected by the potential availability of their stored specimens. Serum specimens were drawn a mean 8.8 years (range 0.7-26.2) prior to death that occurred at a mean age of 34.1 years (range 15-57), primarily from noncardiovascular causes (97%). Coronary artery tissues were independently examined histologically and for *C. pneumoniae* organism and DNA by immunocytochemistry (ICC) and polymerase chain reaction (PCR) with species-specific monoclonal antibody and primers. **Results:** Microimmunofluorescence detected species-specific IgG, IgA, and IgM antibody in stored serum. *C. pneumoniae*, frequently within macrophage foam cells, was identified in coronary fibrolipid atheroma (raised lesions, Stary Types II-V) in 15 (25%) subjects and early flat lesions in 7 (11%) either by PCR (14, 23%) or ICC (20, 33%). The odds ratio for *C. pneumoniae* in raised atheroma following a level of IgG antibody $\geq 1:256$ over 8 years earlier was 6.1 (95%CI, 1.1 to 36.6) and for all coronary tissues after adjustment for multiple potential confounding variables, including tobacco exposure, was 9.4 (CI, 2.6 to 33.8). **Conclusions:** Serologic evidence for *C. pneumoniae* infection frequently precedes both the earliest and more advanced lesions of coronary atherosclerosis that harbor this intracellular pathogen, suggesting a chronic infection and developmental role in coronary heart disease.

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keywords: cardiovascular disease; chlamydia

A CASE-CONTROL STUDY OF HLA-DQB1 ALLELES AND CERVICAL NEOPLASIA IN HIGH RISK ALASKA NATIVE WOMEN. M. Davidson, WD Lancaster, AM Beckmann, AM Sebbelov, CM Murphy, SJ Gange, BA Miller, B Norrild, I Hawkins, LR Bulkow, and L Gregoire

Background: There is conflicting evidence that genetic risk factors exist for cervical cancer along with the established viral determinant of Human Papillomavirus infection. Alaska Native (AN) women during 1980-89 experienced morbidity and mortality rates 3 to 4 times higher than U.S. Caucasians despite accessible cytological screening. During this period, the sensitivity of recent cervical cytology was only 51% for women with invasive cancer. Previously HPV genotypes HPV 16, 31, and 33 were demonstrated in as high risk for both dysplasia and invasive cancer in this population along with a family history of invasive cervical cancer (respective OR=7.2 and 2.4, $p \leq 0.03$). **Methods:** To further explore this possible host and viral association with disease, this study examined DNA from cervical tissue obtained from 255 Alaska Native women between 1980-89, for HLA class II DQB1*alleles. This study search for alleles *0201, *0301, *0302, *0303, *0304, *04group, *0501, *0502, *0503, *0504, *0601, *0602, *0603, *0604, and *0605 using single strand oligonucleotide probe hybridization and PCR. **Results:** There were technically evaluable results for 66 risk sets of 35 invasive cancer and 31 dysplasia cases and 1 to 2 ethnically matched controls, without prior dysplasia. Conditional logistic regression analysis produced elevated adjusted Odds Ratios in all cases for allele 0301, O.R.=5.8, P=0.105, and for invasive cases with a recent negative Pap smear and no prior dysplasia, O.R.=7.49, P=0.65. For invasive cases without a recent negative Pap smear screening history, the O.R. for this allele was 2.38, P=0.219. Allele 0301 and 0303 frequencies increase incrementally with progressive cytologic changes. We were unable to determine an association of any allele with established HPV genotypes. **Conclusions:** At least one HLA marker appears to be related to rapidly progressive invasive cervical cancer and deserves further evaluation in Alaska Native women as an additional screening test for cervical cancer.

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keywords: cancer; cervical cancer; genetics; HLA type; immune

093

Background: Domestic Violence is common in all populations of women, and affects all aspects of life, including health. The frequency with which domestic violence is recognized in women coming to the PHS Albuquerque Indian Hospital is assessed using both database searches and chart audits. The incidence and prevalence of domestic violence in this population is compared to that of other groups, using published and unpublished data.

Conclusion: Domestic violence is under-recognized and/or under-reported. As a result, PHS Albuquerque Indian Hospital staff started a program to increase recognition of domestic violence. Preliminary results of this program will be presented.

keywords: domestic violence; epidemiology--violence; evaluation of programs

094

HEALTH CONSEQUENCES OF HEPATITIS B AND C VIRAL INFECTION AMONG NORTHERN INDIGENOUS POPULATIONS. Karen Y. Wainwright, Alaska Area Native Health Service, Alaska Native Medical Center, Anchorage, Alaska

Purpose/Background: Hepatitis B (HBV) and Hepatitis C (HCV) viruses occur worldwide. They are the leading cause of chronic liver disease and liver cancer in the world today. High infection rates of HBV occur in circumpolar Eskimo populations while lower rates are found in non-Eskimo circumpolar populations. A serological assay for HBV became available in 1970. There are now multiple serological markers which allow classification of acute and chronic infection and protective immunity to HBV. An accurate single assay for HCV antibody became available in 1993. However, to date there are no additional markers to describe HCV viral status. Information to date shows both are blood borne pathogens, both cause chronic liver disease including liver cancer.

Methods: This presentation will review the literature and what is known about HBV/HCV in circumpolar countries to date. The MEDLINE database (1965-1998) and the INTERNET were searched for articles and abstracts on HBV and HCV and associated liver cancer. Specific HBV/HCV articles identified from Northern countries included twenty-one and three respectively. In addition, key medical providers from each of three northern populations, Canada, Greenland and Alaska were surveyed.

Results: Studies among indigenous population in Alaska and Greenland document a high rate of HBsAg positive prevalence (5-15%). Studies of select populations in Canada show an intermediate HBsAg positive prevalence (1-5%). Literature to date shows only Alaska has reported high liver cancer rates attributable to HBV. In Alaska, 500 Natives are chronically infected with HCV, although no statewide screening has been done. The patterns of HCV infection are less certain among other Northern populations.

Conclusions: For over a decade a safe, efficacious and cost effective HBV vaccine continues to reduce HBV related liver infection in Alaska. Universal infant HBV vaccination completed by the first year of life with catch-up HBV vaccine programs for unvaccinated children and youth are key to continued success. Eventually, we should see a reduction in liver cancer as well. Although there is limited data to date on the prevalence of HCV infection in the circumpolar region there is evidence of infection in Alaska. Like HBV, HCV is a blood borne pathogen. Given documentation of illicit drug use in the North, HCV may well become a health problem. HCV vaccine clinical trials are now underway, but only at Phase 1. Current treatment is limited to alpha-Interferon combination therapy or liver transplantation. Therefore, current emphasis must be on risk prevention; avoiding high risk sex and illicit drug behaviors, strict adherence to universal blood borne precautions and blood donor screening.

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keywords: cancer, liver; epidemiology--cancer; epidemiology--infections; hepatitis B; hepatitis C

095

Influence of preventive care on patient satisfaction

Stephanie L. McFall*, Teshia G. A. Solomon, David W. Smith, Marilyn Kelley

Background: We examine whether patients who receive preventive services are more satisfied with their health care. Patient ratings of the importance of preventive care are also presented.

Methods: This presentation is a collaborative project between the Oklahoma Prevention Research Center and Cherokee Nation Health Division. Data are from personal interviews with 296 patients in five Cherokee Nation ambulatory clinics. Outcomes examined are the importance of preventive services, satisfaction with logistics of care, and satisfaction with quality, including preventive care.

Results: Satisfaction with preventive care is higher among smokers advised by physicians to stop (48% vs. 21%), patients receiving dietary recommendations (51% vs. 39%), and patients receiving digital rectal exams for cancer screening (over age 40). High blood pressure was associated with greater satisfaction with preventive care, although patients with diabetes were not more satisfied. Receipt of other preventive services was not associated with satisfaction with preventive care including oral cancer screening, and fecal occult blood tests. Receipt of preventive services was consistently associated with higher ratings of the importance of preventive services.

Conclusions: Overall, patients rate preventive services as a very important part of their health care. Preventive services, particularly those that involve counseling and education from medical providers, are associated with greater satisfaction with quality of care.

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keywords: health promotion/disease prevention; health services; patient satisfaction

096

The Duke Health Profile as a measure of health status in urban Native Americans. Sara Boskovich, American Indian Health Service, Inc., Chicago, Rush University College of Nursing, Chicago

Purpose: The need for a short, valid and reliable measure of health status is clinically apparent. However, many instruments in use today were developed as research measures and are not appropriate for the primary health care setting, nor have they been validated on Native Americans. The DUKE Health Profile was developed for use in primary health settings. Six scales measure function; physical, mental, social, perceived health, and self-esteem. Five scales measure dysfunction; anxiety, depression, anxiety-depression, pain and disability. This study compares results on the 11 DUKE scales in a group of urban Native Americans with available reference groups. **Method:** The DUKE Health Profile was administered to a sample of consenting urban Native Americans during a health screening. Demographic information such as age, gender, tribe and diabetes history was also collected. SPSS PC was used for descriptive and comparative statistics. **Results:** Characteristics of the preliminary sample (n=18, age 15-64 years of age) (expressed in means and standard deviations) are as follows: age $38.2 \pm SD 15.95$; 79 % of the participants are female; and over 20 tribes are represented. The physical health scores ranged from 10 to 100 (100 as the possible maximum score), with a mean score 61.18 ± 28.04 S.D.; the mental health scores ranged from 40 to 100, with a mean score of 73.89 ± 20.90 S.D.; the mental health scores ranged from 40 to 100 with a mean score of 74.71 ± 20.35 S.D. When completed the final sample (n=60) will be compared with available reference studies.

Conclusions: Final results of this study will provide us with information regarding the usefulness of the DUKE Health Profile in the Native American population.

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keywords: DUKE Health Profile; health status

097

Weaving Research and Intervention in a Mohawk Community Diabetes Prevention Initiative, (1993-1998).

***Janine M. Rourke, Virginia Hood, Jean Harvey-Berino, Roger Secker-Walker, Anne Dorwaldt, Terrie Terrance and the Mohawk Coalition for Diabetes-Prevention**

Background: The Tsitewatakari:tat "Let's Get Healthy" program provides community and school health education. Evaluation assesses growth, diet and activity of 187 Mohawk children, ages 4-10. **Methods:** Evaluation occurs every two years with preliminary and final community reports from the University of Vermont research team. Measures include food preference and recall, anthropomorphic assessment, physical activity, parent surveys and school process measures. Staff use data in education sessions at workshops, health fairs, fitness events, radio talk shows and school activities. The Mohawk Coalition designs annual plans and health promotion strategies using data findings. **Results:** From 1993-1996, 5-9 community volunteers met at least 25 times and completed 3 annual plans with 107 objectives. Tribal council, school officials and health workers have attended 3 community data conferences, adding to the 88 program presentations by staff. Year Two to Three, showed 55% of teachers added nutrition-integrated lessons, 55% increased lesson time on exercise and 11 % added exercise-integrated lessons. Baseline and Year Three findings strengthened the Coalition's focus on obesity in children, including the direction to intervene at younger ages. Dietary intake results identified "empty" calorie sources such as soda, directing health promotion strategies at sporting sites and in school. Similarly, school menus have shown change in portion sizes and variety. Decreases in calorie consumption with a decrease in physical activity resulted in weights relatively unchanged, therefore prompting more physical activity strategies. **Conclusion:** The benefit of research partnerships in a community cannot be understated and has proven to be of long-term value for the Mohawks of Akwesasne. **For further information:** Janine M. Rourke, RN, BSN, Outreach Education Program Coordinator, Tsitewatakari:tat "Let's Get Healthy" Program, P.O. Box 900, Hogansburg, N.Y., 13655. Phone: 518-358-2755; Fax: 518-358-3207.

keywords: community-based; community collaborations; diabetes; health education; maternal & child health; self-governance/self-determination

098

ABSTRACT WITHDRAWN

100

"GENERATIONS": A Native American HIV/AIDS Preventive Marketing Approach

Violet O. Leslie*

Hopi/Apache

HIV/AIDS is transmitted from a public water fountain. And is not preventable. This was a response to a survey conducted with Native American youth in Phoenix, AZ. Canvassing the knowledge, attitudes and behaviors of the Native American youth gave rise to the "Generations" Project. Funded by the Arizona Department of Health Services and sponsored by the Native American Community Health Center, Inc. The project's primary goal is to reduce at-risk behaviors among Native American youth that may lead to the transmission of HIV/AIDS. By using Native American artists, dancers and musicians, the media materials convey a traditional yet contemporary message appropriate for Native youth living in two cultures regarding the truths and myths of contracting HIV/AIDS.

The "Generations" project recognizes the importance of culture and language in the development of HIV/AIDS educational prevention materials. The strategy for community/organization mobilization included targeted outreach within an established Native American institutional, social and tribal network. A survey instrument was developed and administered to Native youth to determine their existing knowledge, attitudes and behaviors. The "Generations" survey was evaluated and compared with the finding of a regional study conducted in 1994, entitled, **Central Arizona Region HIV Prevention Community Plan**, which reinforced the need and urgency for effective prevention strategies directed at youth in general, and for Native youth, in particular.

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keywords: adolescence; community collaborations; culture; health education; HIV/AIDS; knowledge-attitudes-beliefs-behaviors (KABB)