

# THE IHS PRIMARY CARE PROVIDER

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## The National Diabetes Education Program American Indian Campaign

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### The National Diabetes Education Program

The National Diabetes Education Program (NDEP) is a national effort to teach individuals with diabetes mellitus that they can control their disease and prevent complications. The NDEP is a collaborative activity supported by the Centers for Disease Control and Prevention (CDC), the National Institutes of Health (NIH) National Institute for Diabetes, Digestive, and Kidney Diseases (NIDDK), and over 200 public and private sector partners.

The goal of the NDEP is to reduce the morbidity and mortality related to diabetes and its complications, and the educational messages in all of the NDEP activities focus on the importance of controlling blood glucose and better self-care for diabetes. The five major components of the NDEP include: public awareness campaigns, community interventions, health systems interventions, special population activities, and a large partnership network.

### Developing Culturally Appropriate Diabetes Education Messages

The NDEP is committed to developing messages that are culturally appropriate for communities and populations that are disproportionately affected by diabetes. The NDEP formed four "Special Population Workgroups" (Hispanic, African American, Asian/Pacific Islanders, and American Indian) in 1997 to serve as advisors on the development of educational materials for these "special populations." The initial plans for these campaigns were to develop culturally appropriate TV, radio, and print public service announcements with educational messages about diabetes.

The educational messages and products for the "Special

Population" campaigns were developed using the principles of social marketing. Instead of a tangible product, social marketing identifies a non-tangible product such as a change in behavior or an idea or concept to be marketed. Marketing strategies are then developed, with active participation of members of the target population in all phases.

The process of developing the educational messages and activities for the NDEP began with efforts to understand the target population and its culture, development of potential concepts for the educational messages, and pre-testing these concepts with individuals with diabetes in the target audience, and culminated in dissemination of the final educational messages and products through culturally appropriate delivery channels. This strategy of encouraging significant input from stakeholders and individuals from the target population from the beginning has been very effective. The NDEP minority campaigns developed with this very participatory process have been very successful, and have won a number of awards.

### The NDEP American Indian Campaign

The NDEP American Indian Workgroup was formed in

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January 1998 and was charged with assisting in the development of culturally appropriate TV, radio, and print ads for American Indian communities. The workgroup members include representatives from the Association of American Indian Physicians, the Indian Health Service, the National Indian Health Board, and other health care providers and community members with a special interest in and experience with the area of diabetes. Members of the NDEP American Indian Workgroup are listed in Table 1.

**Table 1. The NDEP American Indian Workgroup**

Yvette Roubideaux, MD, MPH, Chair	University of Arizona
Kelly Acton, MD, MPH	IHS National Diabetes Program
Charlene Avery, MD	Gallup Indian Medical Center
Lorelei De Cora, RN, BSN	Diabetes Wellness: American Indian Talking Circles
Yvette Joseph-Fox, MSW	National Indian Health Board
Margaret Knight	Association of American Indian Physicians
Gale Marshall	Two Feathers Management
Kelly Moore, MD	Billings Area IHS
Ben Muneta, MD	IHS Epidemiology Program
Lorraine Valdez, BSN, MPA, CDE	IHS National Diabetes Program
Gwen Hosey, ARNP, MS, CDE	IHS National Diabetes Program
Joanne Pegler, PhD, MPH	Liaison, CDC
Dan Burich	Corporate Partner, Bayer Corporation

The initial activities of the workgroup involved educating the NIH, CDC, and NDEP contractors about the demographics and characteristics of the American Indian and Alaska Native population. This process included a review of relevant literature and previous efforts to develop diabetes education materials for American Indians and Alaska Natives. The Association of American Indian Physicians also completed a series of focus groups to gather information from tribal leaders, Indian health professionals, and American Indian community members on their experiences with current diabetes education materials, and their recommendations for how these materials could be improved in the future.<sup>1</sup>

The next step in the social marketing strategy included development of draft concepts and messages for pre-testing with members of the target audience. In the initial campaign, the target audience was chosen to be American Indians and Alaska Natives with diabetes, and the message was to be focused on the importance of controlling and taking care of diabetes. The overall NDEP public awareness campaign message is “Control your Diabetes for Life” and is based on recent research results that have shown that controlling blood glucose can prevent the complications of diabetes.<sup>2,3,4</sup> The NDEP special population campaigns were created to develop culturally appropriate messages for these communities related to the overall NDEP campaign messages.

Four basic messages were pre-tested in a series of focus

groups around the country that included American Indians with diabetes from a number of tribes. As a result of these focus groups, an overall campaign message was developed. Repeatedly during the focus groups, American Indians with diabetes expressed a preference for a campaign that carried a message of hope, that was specific to American Indians and Alaska Natives, and that focused on the importance of families, children, and preserving our future and culture. They also wanted the materials to contain pictures of American Indians representing a variety of tribes, both in modern and traditional

dress, to depict the diversity of American Indian people. Participants didn’t want materials that presented stereotypes of American Indians or that focused only on one region.

The final NDEP American Indian Campaign message was “Control your Diabetes for Future Generations.” With this message as the focus of the American Indian campaign, a

30-second TV public service announcement (PSA), several short radio scripts, and a number of print ads were developed. An example of one of the print ads is found on page 98 of this issue of THE PROVIDER.

### **Dissemination of the NDEP American Indian Campaign Materials**

The Association of American Indian Physicians (AAIP) was selected as one of the National Minority Organizations charged by CDC to help assist in the dissemination of the NDEP Special Population Campaign materials. The AAIP Diabetes Program has worked hard to disseminate the materials of the NDEP American Indian campaign over the past year, through the following activities: dissemination of materials at conferences and community events; development of diabetes education packets with additional educational materials; development of a web page for the AAIP Diabetes Program (<http://www.aaip.com/diabetes>); a toll free telephone number for information and access to the materials (1-877-943-4299); and a diabetes partnership network of over 200 individuals and organizations. Materials have been mailed to a number of individuals and organizations, including all 333 Special Grants for Diabetes Programs in the Indian health system. The AAIP is encouraging everyone to use these materials in their programs, health facilities, and communities to help teach American Indians and Alaska Natives the importance of controlling their diabetes “for future generations.”

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## Future Activities of the NDEP American Indian Campaign

The NDEP American Indian Workgroup recently met and developed a strategic plan for the next few years, which includes continued dissemination of current campaign materials, developing new partnerships with other organizations and groups, and the development of a new campaign focused on youth. The workgroup members recognize that the rates of diabetes are increasing, and that it is important to educate children and adolescents about diabetes and how they can reduce their risk factors for this condition. As before, focus groups will be conducted with American Indian youth to assist in the development of the concepts and activities for this new focus of the campaign. The materials for this new focus on youth should be ready for dissemination by fall 2000.

### For Further Information

If you are interested in obtaining these materials, learning more about the NDEP American Indian Campaign or in joining the AAIP Diabetes Program Partnership Network, please

contact Patricia Yarholar, AAIP Diabetes Program Coordinator, at (405) 943-1211; toll free at (877) 943-4299; or by e-mail at [diabetes@aaip.com](mailto:diabetes@aaip.com); or contact Yvette Roubideaux, MD, MPH, Chair, NDEP American Indian Campaign, at (520) 318-7280; or by e-mail at [yvetter@u.arizona.edu](mailto:yvetter@u.arizona.edu).

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# Podiatric and Orthotic Treatment Approaches for an American Indian with Diabetic Peripheral Neuropathy: A Case Study

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### Abstract

*This paper is a case report describing a 12 year course of podiatric and orthotic treatment and resultant outcomes for a 65-year-old American Indian female with type 2 diabetes mellitus and diabetic peripheral neuropathy. The patient's medical record was reviewed retrospectively from October 1986 to February 1998, and prospectively followed from March 1998 until the person's death in September 1998. The combination of podiatric and orthotic intervention for this patient prevented a lower extremity amputation, increased personal life satisfaction, and was cost-effective.*

### Introduction

There are estimated to be 14 million Americans living with diagnosed and undiagnosed diabetes mellitus.<sup>1</sup> The age-adjusted diabetes mortality rate is two and one half times higher in American Indian communities than the overall national rate.<sup>2</sup> In Nebraska, the diabetes-related death rate among American Indian communities is 136.1 individuals per 100,000 population. This rate is double the 1992 national rate for this group. The years of potential life lost (YPLL) rate related to diabetes is more than seven times the rate for white Nebraskans.<sup>3</sup>

Diabetic peripheral neuropathy is a common secondary condition affecting autonomic, sensory, and motor peripheral nerves. Deleterious changes include plantar ulceration, foot infection, loss of the bony architecture, muscle atrophy, painful paresthesias, gait problems, and lower extremity amputations.<sup>4</sup> Foot problems are among the most common complications of diabetes mellitus leading to hospitalization.

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Fifteen percent of all people with diabetes mellitus will develop a foot ulcer, and these lesions are susceptible to infection and may lead to eventual limb amputation.<sup>1</sup> This paper describes the effective management of the foot complications of diabetes mellitus in an American Indian female with diabetic peripheral neuropathy.

### **Patient Description and History**

We obtained informed consent from a 65-year-old American Indian widow to study the podiatric intervention provided for her over a twelve year period. She was diagnosed with type 2 diabetes mellitus in 1967 and had been taking insulin since 1977. Her medical history was complicated by atherosclerotic heart disease with a history of myocardial infarction in 1982, congestive heart failure, hypertension, anemia of chronic disease, glaucoma, a history of thrombophlebitis, and chronic obstructive pulmonary disease. She resided on the Omaha Indian Reservation in northeast Nebraska with her children and received her primary health care in the tribal clinic. Diabetes education had been addressed multiple times by the clinic staff. Her goals for overall health were simply to remain ambulatory and active in her community. Our first study interaction occurred with her in April 1998.

### **Prior Podiatric Health Status**

In the twelve-year period that we reviewed, this patient made 160 visits to Carl T. Curtis Health Education Center podiatry services for care. She made eight total visits and no more than three visits per year in the first five years of the study period. In the last three years of the study period, she made 86 clinic visits to podiatry, peaking in 1995 at 47 visits. We classified care into three broad categories: routine care, treatment for open wounds, and amputations. Routine care comprised 93 of the 160 visits and consisted of trimming of nails, calluses, and plantar hyperkeratoses; treatment of onychomycoses and other foot infections; and distribution of supplies. The patient made 64 visits to podiatry for wound care.



In January 1995, the patient was diagnosed with bilateral, three vessel arterial occlusive disease in the lower limbs. A vascular surgeon recommended a transtibial amputation because of developing renal failure, congestive heart failure, and atherosclerotic cardiovascular disease. In 1987, she had undergone a left femoral-popliteal bypass procedure for occlusive vascular disease. Subsequent to this operation, she developed a popliteal abscess, cellulitis, and thrombophlebitis of the left lower limb.

Instead of another surgical solution, she opted for conservative treatment. Three amputations occurred as outpatient procedures between 1995 and 1996. In 1995, the right third distal and middle phalanges were amputated secondary to osteomyelitis. In 1996, the right distal and middle phalanges of the second digit were surgically excised. During 1995, she made 31 podiatry visits for wound care, including dressing changes, debridement, and follow-up. Another 14 visits were for routine care, and two related to amputations.

### **1998 Podiatric Health Status**

During a routine foot care visit in April 1998, she was found to demonstrate multiple signs and symptoms of advanced diabetic peripheral neuropathy. Evaluation of protective sensation of the feet using IHS standards demonstrated absent bilateral protective sensation in ten of ten sites bilaterally.<sup>5</sup> Vibratory and proprioceptive sensation was reduced in both lower limbs. Pedal pulses were absent. The skin over the feet was dry, shiny, and atrophic, with thickened, yellow, and flaky nails indicative of autonomic changes. Range of motion of the foot and ankle joints was within normal limits, as were deep tendon reflexes of the tendon Achilles and patellar tendon. Muscle testing and gait examination were within normal limits.

### **Orthotic Intervention**

In June 1997, she was referred for an orthotic evaluation and fabrication of custom- molded shoes and inserts. The purposes of these devices are to provide support and equalize weight distribution, restrict undesirable motions, and prevent deformity and ulcerations. The patient did not visit the orthotist until March 1998 for reasons that possibly relate to transportation and lack of accessibility.

Fabrication of shoe orthoses begins with the use of a standard compression foam impression to form a plantar surface cast. This negative cast is sent to the manufacturer, where a positive mold is formed. The shoe orthotic inserts are formed using heat formable materials that are vacuumed onto the mold and shaped onto the contours of the positive cast. Layers of soft and hard density foam and plastic are added to the base to form the insert. A metatarsal bar and pad are fixed proximal to the heads of the metatarsal bones to redistribute the pressure to the shafts of the bones. "Toe fillers" are added to occupy the space vacated by previously amputated phalanges. The inserts were incorporated into a shoe with a "rocker bottom" sole, which redistributes body weight during the stance phase of the gait cycle.

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### Prospective Follow-Up

In 1998, she developed carcinoma of the breast resulting in a mastectomy and an episode of worsening congestive heart failure causing progressive shortness of breath. She remained independent, ambulatory, and living in the community until her death on September 27, 1998 following an episode of diabetic coma.

### Discussion and Cost Effectiveness

The maintenance of a community living and an independent, ambulatory status is a successful outcome for a person with diabetes mellitus and significant peripheral neuropathy and vascular disease. The course of comprehensive, conservative podiatry care provided at the tribal health center was successful in stabilizing her functional status and preventing limb amputation. We estimated the approximate cost of a transtibial amputation and rehabilitation in 1995 to be \$48,476, using 1992 hospital cost information supplied by Reiber, et al.<sup>1</sup> In 1995, rehabilitation services were extremely limited at the tribal health center and their absence would have placed her at increased risk for long term institutionalization, at greater expense. We estimated the podiatry and orthotic conservative intervention approach from 1995 to 1998 to cost \$23,616. This included a cost of \$12,789 for toe amputation, \$9,900 for podiatry intervention at \$100 per visit, and \$834 for two pair of orthotics and shoes.

In this case, comprehensive and conservative treatment was successful. Our patient was able to work at the local casino until 1997, live at home, and remain outside of institutional care, and she reported to us a high level of satisfaction with the services. During the 12 years of podiatric and orthotic intervention we

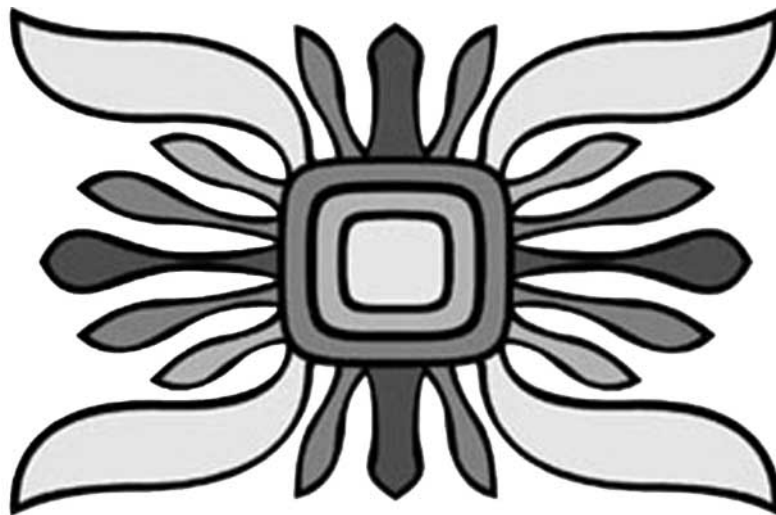
reviewed, the incidence of plantar ulceration fluctuated. During times of ulceration and increased risk for lower limb amputation, the patient demonstrated increased utilization of podiatry services. During other periods, adherence to the recommended interventions waned, (e.g., the orthotic intervention). An understanding of the cultural and psychosocial aspects of diabetes mellitus and its complications could possibly improve this situation.

### Acknowledgments

This study was supported by the Health Resources and Services Administration through grant D37-AH-00634-01, "Building Community: Collaborative Education among Occupational and Physical Therapists with Native Americans in Rural Nebraska" to the School of Pharmacy and Allied Health Professions, Creighton University, Omaha Nebraska. Completion of this project fulfilled Dr. Ingham's scholarly project requirement for graduation from the Doctor of Physical Therapy program at Creighton University

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# Genetics/Dysmorphology Services For Children

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## Introduction

Providing comprehensive and quality medical services to and improving the overall health and quality of life of the American Indian and Alaska Native population are major objectives of the Indian Health Service (IHS). In children, this goal can be addressed in multiple ways, one being the provision of genetic and dysmorphology evaluations to children and their families through specialized clinics. This report presents data derived from monitoring the contract of the special genetics/dysmorphology clinics held within Arizona service units of the Phoenix Area Indian Health Service.

## Development of a Genetic Services Network

Regularly scheduled, on-site pediatric genetics/dysmorphology services were first offered to the American Indian peoples of Arizona in 1987 when the University of Arizona, with the support of the Phoenix, Navajo, and Tucson IHS Areas, received a Department of Health and Human Services/Maternal and Child Health Special Project of Regional and National Significance (SPRANS) grant. The object of this grant was "to provide community-based, definitive diagnostic, medical evaluation and counseling services to children and their families with possible birth defects (including alcohol related birth defects), genetic defects, dysmorphic conditions and developmental delays." Prior to this time, these services were not available to children within Arizona. In Indian country, these services were provided erratically and infrequently by visiting consultants, or children were sent to tertiary care facilities in other states.

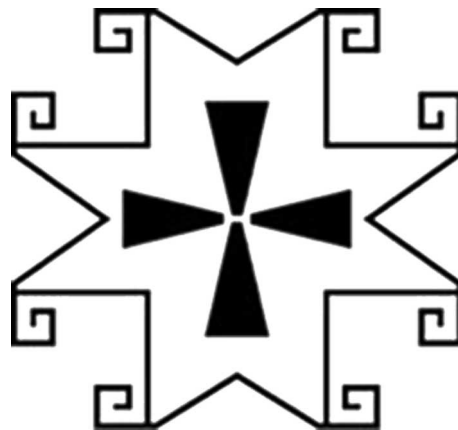
A Federal SPRANS grant provides initial "seed" funding to show and/or address a need. Most of these grants are limited in the amount of time for which they are funded. The original grant was approved for a five year period. However, in 1991, after three years, the grant was terminated by DHHS because the success of the program was documented, and the genetics program was told that other funding sources could and should be obtained. After a year of negotiations, the Arizona

Children's Rehabilitative Services (CRS) assumed responsibility for these clinical services. In 1992, with the University of Arizona Genetics Program becoming a part of the CRS Program, the coordination of genetic services returned to the University of Arizona Genetics/Dysmorphology Program and continues to reside there to the present date.

The original grant provided for 36 clinics at all service units within the Navajo, Phoenix, and Tucson Areas. In the Phoenix Area, the Clinical Directors at the Nevada and Utah service units declined services because it was felt that adequate services were being obtained from the Nevada and Utah systems. Therefore, clinic sites were held solely in Arizona. With the termination of the SPRANS grant funding, each IHS Area decided how to continue this service. In the Phoenix Area IHS, services continued to be provided at all Arizona service units under a contractual agreement with the University of Arizona. Presently, 25 clinics are scheduled yearly at ten sites served by the Phoenix Area. These services include definitive medical evaluation, diagnosis, treatment, and referral.

## Volume and Distribution of Genetic Services

The data for this paper were obtained from genetic clinic reports from the ten service sites within the Phoenix Area IHS. Clinic visits from 1992 to early 1999 are included in the analysis. At eight sites, patients are seen only through IHS staff referral. At the other two sites the clinics are open, with any referral, including self referral, accepted. During this time period, 617 patients were seen for at least one evaluation. From these patient encounters, 557 (90.3%) clinical summaries were available for review.



### Patient Characteristics

Of the 557 patients with clinical summaries, 320 (57.5%) were male, and 237 (42.5%) were female (Table 1). In the sample of visit summaries we looked at, 482 (86.5%), were for an initial visit, and the remaining 75 were for follow-up visits. Table 2 presents the age of patients at their first genetics/dysmorphology clinic visit, with an age range of less than one month to 53.5 years. Ninety percent of patients were 12 years old or younger at their first visit, with 56.6% being 5 years of age or younger at the first visit. One hundred and ninety (34.3%) of the 557 patients seen for at least one encounter were seen for follow up visitations.

A number of patients were seen who were 20 years of age and older. These patients were seen for genetic counseling for pregnancy (family history of a genetic condition, previous child with a genetic condition, or history of two or more spontaneous abortions), or for evaluation of an previously unidentified condition.

**Table 1. Genetic/Dysmorphology Services 1987–1999. Sex Distribution of Patients Seen**

Sex	Number	Percent
Male	320	57.5%
Female	237	42.5%
Total	557	100.0%

### Indications for Referral and Distribution of Diagnosis

There were many different diagnoses and reasons for genetics/dysmorphology evaluations (see Table 3). The chromosomal disorders detected are presented in Table 4, and the metabolic disorders in Table 5. Many conditions did not require specific genetic testing to determine the diagnosis. Genetic testing, either chromosome and/or DNA analysis, was indicated in evaluations of seventy-one (12.9%) of patients. In 36 (6.5%) patients the chromosome and/or DNA testing was completed, and in 35 (6.4%) additional patients, further special tests were ordered or results were pending.

**Table 2. Genetic/Dysmorphology Services 1987–1999. Age at Initial Evaluation**

Age at Initial Evaluation	Total	Percent
12 Months and younger	78	16.2%
1 - 3 Years	150	31.1%
4 - 6 Years	115	23.9%
7 - 9 Years	65	13.5%
10 - 12 Years	42	8.7%
13 - 15 Years	18	3.7%
16 - 18 Years	7	1.5%
20 Years and older	7	1.5%
Total	482	100.0%

**Table 3. Genetic/Dysmorphology Services 1987-1999. Genetic Diagnoses**

Diagnosis	Total
Aarskog-like phenotype .....	1
Adams-Oliver Syndrome .....	2
Albright Hereditary Osteodystrophy .....	1
Autosomal Recessive MR Syndrome .....	1
Chromosome Anomaly .....	1
Cleft lip .....	2
Cleft lip and palate .....	2
Complex chromosome rearrangement .....	1
Conradi-Hunerman Disease .....	1
Down Syndrome .....	6
Facio-Auriculo-Vertebral Spectrum .....	3
Fragile X carrier .....	1
Fragile X syndrome .....	1
Kartagener's syndrome .....	1
Klinefelter syndrome .....	1
Marfan syndrome .....	4
Mosaic Turner syndrome .....	1
Neurofibromatosis I .....	6
Oculo-Auriculo-Vertebral dysplasia .....	1
Oculocutaneous albinism .....	1
Osteogenesis imperfecta, type I .....	1
Prader-Willi .....	1
R/O Down Syndrome .....	2
R/O Dubowitz Syndrome .....	1
R/O Fragile X .....	2
R/O Klinefelter Syndrome .....	1
R/O Marfans syndrome .....	1
R/O Goldenhar syndrome .....	1
Robinow syndrome .....	1
Russell-Silver syndrome .....	1
Short-limbed skeletal Dysplasia .....	1
Williams syndrome .....	1
Poland syndrome .....	1
Congenital Ichthyosis, x-linked .....	1
Ichthyosis, ?x-linked .....	1
Kallman syndrome .....	1
Family history: SCID .....	1
Family history: oculocutaneous albinism .....	1
Family history: spinal muscular atrophy .....	1
Down Syndrome .....	1
Total .....	59

**Table 4. Genetic/Dysmorphology Services 1987–1999. Genetic Diagnoses**

Chromosome Disorders	
46, xy, inv (5) (p15.1q31) .....	1
46, xx, der 2, 14, 15 .....	1
46, xx/45, xo .....	1
46, xy, t (14;?) .....	1
46, xy, t (5;7) .....	1
46, y, fra xq27 .....	2
Trisomy 21 .....	6
Fragile x carrier .....	1
47, xxy .....	1
Prader-Willi .....	1
Total .....	16

As previously mentioned, patients were referred to genetic/dysmorphology clinics for a wide variety of reasons and diagnoses. Six categories were used to classify these encounters, as follows:

- Conditions related to substance exposure (60.0%)
- Medical/genetic conditions (22.3%)
- Developmental concerns (8.0%)
- Behavioral concerns (5.4%)
- Learning difficulties/problems (3.2%)
- Learning/behavioral problems (1.1%)

The majority of diagnoses (60%) were related to substance use/exposure during pregnancy, including fetal alcohol syndrome, prenatal or drug exposure, and fetal solvent syndrome. The evolution of diagnosis/classification of alcohol related birth defects was evident in the summaries. At the beginning, children with effects of *in utero* exposure to alcohol, but not classic fetal alcohol syndrome (FAS), were classified as “FAE” (fetal alcohol effects). Recently, these children are described as having “partial fetal alcohol syndrome with confirmed alcohol exposure.”

In the patient sample, 378 (68.0%) were noted to have had exposure to some substance *in utero*. The primary substance identified was alcohol. Other substances included toluene (solvents), tobacco, marijuana, cocaine, and heroin. Of the 247 patients with prenatal alcohol exposure, 63 (25.5%) were diagnosed as FAS. Other conditions of *in utero* exposure included four children diagnosed as Fetal Solvent Syndrome and five with Fetal Hydantoin Syndrome/Effect.

Not surprisingly, genetic/medical concerns accounted for almost one fourth (22.3%) of patients. The most common conditions were Down Syndrome (6), Neurofibromatosis I (6), and Marfan Syndrome (4). These children typically did not have

**Table 5. Genetic/Dysmorphology Services 1987–1999. Metabolic Diagnoses**

Metabolic Diagnoses	
Benign hyperphenylalaninemia .....	1
Congenital hypothyroidism .....	2
Congenital methemoglobinemia .....	1
Galactosemia-Duarte carrier .....	1
Glycogen storage disease type III .....	1
Hemoglobin C trait .....	1
Homocystinuria .....	2
Lipid myopathy .....	1
Total .....	10

substance use issues in additional to their primary diagnosis. Developmental concerns (e.g., developmental and/or growth delays) and behavioral issues (e.g., Attention Deficit/Hyperactivity Disorder (ADHD), aggression) were also common reasons for referral (13.4%). Learning problems and disabilities were the primary reason for referral in 3.2% of patients, whose parents, in many cases, also reported a history of learning problems and disabilities.

A focus of this review of clinical services was to determine further needs of children in this special population. Included with the clinic reports were referrals made by the geneticists for speciality evaluations or services. Prominent among the referrals were suggestions for audiology/hearing evaluation, speech evaluation/therapy, and psychiatric/psychological testing. Less commonly, referrals were made to cardiology, orthopedics, ophthalmology, and dental clinics.

### Discussion

Readily accessible pediatric genetic/dysmorphology clinics have been part of medical services to the American Indian population of Arizona since 1987. These clinics have provided specialized evaluation and services which otherwise might not have been available. With the assumption of genetic services by Arizona Children’s Rehabilitative Services, entry into this system of care has been facilitated for those children eligible for CRS services.

From the number of referrals for audiology/speech therapy and behavioral counseling, it was apparent that these are important and necessary services that should be available to the children and families served. In the Phoenix Area, audiology services are available. Nationally, there is presently one speech therapist on staff in IHS (in the Navajo Area). Often, speech



therapy is not available and may even be considered a luxury.

With almost 10% of reasons for referral involving developmental issues, the need for developmental clinics is another important consideration. In the Phoenix Area, there is one pediatric developmental clinic, and it has been viewed very favorably by patients and their families, and by other IHS sites that use this service. Since this clinic was initiated with grant funding, when the grant reaches the end of its cycle, this much needed clinic will be in jeopardy.

Alcohol and drug use certainly contribute to developmental and behavioral problems of some children in this population. Not only should psychosocial evaluations be a part of the development evaluation, but supportive therapy services for children should be available within mental health care services.

An important outcome of these clinic has been to remove the label of FAS/FAE from many of these children. Prior to the

initiation of these clinics, it was not uncommon for some children to be given the diagnosis (label) of FAS/FAE by medical, school, or tribal staffs. With an appropriate genetic/dysmorphology evaluation, a proper diagnosis can be made with referral to appropriate resources. Individual situations can be cited where families were relieved of guilt regarding their child's conditions with an accurate diagnosis.

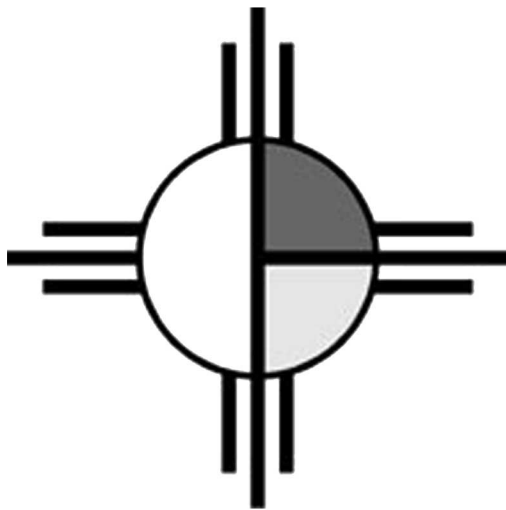
### Summary

As more is learned about the genetic basis of disease, and as more medical/genetic testing becomes available to aid in the diagnosis of certain conditions, the role of the geneticist will be expanded. Genetics and dysmorphology clinics have become a necessary adjunct to the general health care provided in primary medical care services.

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## POSITION VACANCIES □

*Editor's note: As a service to our readers, THE IHS PROVIDER will publish notices of clinical positions available. Indian health program employers should send brief announcements on an organizational letterhead to: Editor, THE IHS PROVIDER, The IHS Clinical Support Center, Two Renaissance Square, Suite 780, 40 North Central Avenue, Phoenix, Arizona 85004. Submissions will be run for two months, but may be renewed as many times as necessary. Tribal organizations that have taken their tribal "shares" of the CSC budget will need to reimburse CSC for the expense of this service. The Indian Health Service assumes no responsibility for the accuracy of the information in such announcements.*



### Registered Nurse

#### Duck Valley Indian Reservation, Owyhee, Nevada

The Owyhee Community Health Facility has an opening for an RN generalist in our small, rural facility. The 15 bed hospital provides acute care (although no obstetrical or surgical services are provided), ambulatory care, and emergency room services. Strong assessment, communication, and prioritization skills are needed. Experience the challenges and rewards of rural health care!

Enjoy, too, the relaxation of rural living on the beautiful Duck Valley Indian Reservation located in scenic northern Nevada. Four season outdoor activities – fishing, hiking, hunting, and skiing – are at your back door.

The salary range is \$20 to \$25 per hour, depending on experience. Relocation assistance is provided. Economical on-site housing is available. Three weeks paid vacation are offered the first year, and there are 12 paid holidays per year. There are no state income taxes in Nevada.

For more information, contact Dawn Kyser, RN, DON at telephone (775) 757-2415. For an application, contact the Shoshone-Paiute Tribal Personnel Office at (775) 757-3211; fax (775) 757-2219, or write to P. O. Box 130, Owyhee, Nevada, 89832.

### Obstetrical Nurses

#### Chinle Comprehensive Care Facility, Chinle, Arizona

The Chinle Comprehensive Care Facility has four openings for clinical nurses on the Obstetrical Care Unit. Our facility is a 60 bed hospital centrally located on the Navajo Reservation. The labor and delivery area consists of four beds, including a triage room; postpartum has 12 beds, and there is a two bed antenatal testing area. Our nursery is a Level 1 unit with a capacity of 14 cribs.

Competitive salary and career benefits as a Federal employee

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are offered. For more information, contact Linda K. Begaye, RN, Acting OB Manager at (520) 674-7333.

**Nurse Educator  
Whiteriver Service Unit, Whiteriver, Arizona**

The Whiteriver Service Unit in Whiteriver, Arizona has an opening for a nurse educator. Responsibilities include program management, staff development, and budget management for a multilevel professional and nonprofessional nursing staff. The Whiteriver Service Unit is located in the Phoenix Area and provides health care to the White Mountain Apache Tribe and other tribes located within the service area. Located in the White Mountains of Eastern Arizona on the Fort Apache Indian Reservation, there are many opportunities for outdoor activities including hunting, fishing, camping, hiking and skiing. This is an opportunity for a person who wants the challenge of rebuilding a multilevel nursing education program. The Nursing Education Program is funded by third party reimbursements. For more information, contact Donna Huber, RN, Nurse Executive, Whiteriver Hospital, P. O. Box 860, Whiteriver, Arizona 85941; telephone (520) 338-4911; or e-mail [donna.huber@mail.ihs.gov](mailto:donna.huber@mail.ihs.gov).

**Assistant Nurse Executive  
Whiteriver Service Unit, Whiteriver, Arizona**

The Whiteriver Service Unit in Whiteriver, Arizona is recruiting for an Assistant Nurse Executive. This position will actively participate in managing the overall functions of the Nursing Department. Whiteriver Service Unit is located in the Phoenix Area and provides health care to the White Mountain Apache Tribe and other tribes located within the service area. Located in the White Mountains of Eastern Arizona on the Fort Apache Indian Reservation, there are many opportunities for outdoor activities

including hunting, fishing, camping, hiking and skiing. This is an opportunity for a motivated individual to grow in their nursing career. For more information, contact Donna Huber, RN, Nurse Executive, Whiteriver Hospital, P. O. Box 860, Whiteriver, Arizona 85941; telephone (520) 338-4911; or e-mail [donna.huber@mail.ihs.gov](mailto:donna.huber@mail.ihs.gov).

**Family Practice Physician or  
Family Nurse Practitioner  
Jicarilla Apache Service Unit, Dulce, New Mexico**

A family practice position is available in Dulce, New Mexico at the Dulce Health Clinic. Dulce is located north of Chama, New Mexico, and south of Pagosa Springs, Colorado in the beautiful southern San Juan mountains. The recreational opportunities are endless in the surrounding national forests and wilderness areas.

Dulce Health Center provides for the medical needs of approximately 4,000 Jicarilla Apaches who live on the reservation. The clinic is open from Monday through Friday from 8 am to 4:30 pm. We provide the full spectrum of family practice services including urgent care, pediatrics, prenatal care, and adult medicine. There is no call, and no obstetrical deliveries are required. The clinic has complete laboratory, radiology, and pharmacy services, as well as an experienced nursing staff. There are two physicians and one family nurse practitioners currently on full time staff.

Dulce Health Center is a designated site for the IHS loan repayment program or for IHS scholars. IHS Federal employment offers a competitive salary, a physician compensation bonus, and a comprehensive benefits package.

If you are interested in learning more about this position, please contact Nancy Kitson, MD, at (505) 759-3291, or fax your CV to (505) 759-3532.



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# A Solution to the Problem of Lost Lab Reports

*Catherine Moore, RPMS User Support Specialist, Division of Information Resources, Indian Health Service, Tucson, Arizona*

*How many times have you asked yourself, "Did I ever get that result? Where did that lab report go?"*

It seems like lab reports can disappear into thin air, and too often you have to call or go to the lab and ask for another copy. The solution may be as simple as having your lab use the Resource and Patient Management System (RPMS) Laboratory Package, the Indian Health Service (IHS) laboratory information system.

The IHS has been using this laboratory package, which is based on the Veterans Administration (VA) hospital lab package, since the 1980s. Currently, there are approximately 70 labs in IHS hospitals, health stations, and field clinics using the package.

Like other RPMS packages, the laboratory package has an electronic link to the Patient Care Component (PCC) record of each ambulatory patient care visit. All laboratory test results that are entered into the RPMS are automatically linked to PCC

record. This "Lab/PCC link" allows the laboratory results to appear on the Health Summary, to be accessible by Q-man queries, and to be electronically available to the Third Party Billing Package.

Perhaps the most important feature, however, is the ease of access to the laboratory test results for the provider. By simply signing on to the RPMS, a provider may access all of the laboratory test results that he or she has ordered. It is no longer necessary to find the patient's medical record to access the test results.

If you are interested in finding out whether or not your facility might use the laboratory package, contact your laboratory manager or site manager directly. The IHS offers training for the lab manager for setting up the package. Once you're up and running, the IHS also provides technical support by telephone for users during standard business hours, Monday through Friday.

Need more information about the RPMS Laboratory Package? Call (520) 670-4829. Lab information can be at your fingertips!

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## MEETINGS OF INTEREST

### Summer 2000 Geriatric Institute June 29 - July 1; Albuquerque, New Mexico

The New Mexico Geriatric Education Center will offer a summer institute featuring cutting edge geriatrics presented in an interdisciplinary workshop format with emphasis on health care for American Indian Elders. Topics and presenters will reflect this emphasis on culturally appropriate geriatric care. Workshops on the following topics will be included: Geriatric Assessment, Case Management, Long Term Care, Oral Health, Rehabilitation, Disease Prevention, Health Promotion, Nutrition, Geriatric Syndromes, Palliative Care, and End-of-Life Issues. Four hands-on workshops will provide a clinical/applied learning opportunity on the following topics: Incontinence, Pressure Ulcers, Diabetic Foot Care, and Falls in the Elderly. To enhance cultural significance, an evening program at the Indian Pueblo Cultural Center with traditional food and music will feature Traditional Healers and Medicine People sharing their experience with keeping the balance of life for Indian people. Scholarships are available for IHS, tribal, and urban program health care providers.

For more information, contact Darlene A. Franklin, Program

Manager, NM Geriatric Education Center, University of New Mexico, 1836 Lomas Blvd NE, Albuquerque, NM 87131; telephone (505) 277-0911; fax: (505) 277-9897; or e-mail: [dfranklin@salud.unm.edu](mailto:dfranklin@salud.unm.edu).

### The Pharmacy Practice Training Program (PPTP): A Certificate Program in Patient-Oriented Practice July 17-20 or August 7-19, 2000; Phoenix, Arizona

The goal of this four-day training program for pharmacists employed by the Indian Health Service or Indian health programs is to improve the participant's ability to deliver direct patient care. This program encompasses the management of patient care functions in the areas of consultation, communication, interviewing techniques, laboratory test interpretation, conflict resolution, physical assessment, and disease state management. These techniques are taught utilizing case studies, which include role-playing and discussion. The same course is offered two times. For additional information, contact the IHS Clinical Support Center, Two Renaissance Square, Suite 780, 40 North Central Avenue, Phoenix, Arizona 85004; phone (602) 364-7777; or e-mail: [edward.stein@mail.ihs.gov](mailto:edward.stein@mail.ihs.gov).

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### THE IHS PRIMARY CARE PROVIDER



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**Publication of articles:** Manuscripts, comments, and letters to the editor are welcome. Items submitted for publication should be no longer than 3000 words in length, typed, double spaced, and conform to manuscript standards. PC-compatible word processor files are preferred. Manuscripts may be received via e-mail.

Authors should submit at least one hard copy with each electronic copy. References should be included. All manuscripts are subject to editorial and peer review. Responsibility for obtaining permission from appropriate tribal authorities and Area Publications Committees to publish manuscripts rests with the author. For those who would like more information, a packet entitled "Information for Authors" is available by contacting the CSC at the address below or on our website at [www.csc.ih.s.gov](http://www.csc.ih.s.gov)

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