

PHOENIX AREA

The Phoenix Area manages a national congressionally funded diabetic retinopathy program at the Phoenix Indian Medical Center Eye Clinic. The Arizona Telemedicine Network operated by the University of Arizona provides telemedicine / telehealth services to the Whiteriver PHS Indian Hospital. Similar services are planned for the new Hopi Health Care Center and the Phoenix Indian Medical Center. A teleradiology project connecting the Phoenix Indian Medical Center with an IHS facility at Parker is in the planning stages.

1. Hopi Health Care Center

Area Office	Phoenix Area
Indian Facility	Hopi Health Care Center
Primary Use	Telemedicine
Use Status	New Project
Facility Contact	Lisa Sumner, Clinical Director Hopi Health Care Center PO Box 4000, Polacca, AZ 86042 Phone: 520-737-6002
Grantee	University of Arizona
Funding	RUS - FY 99 - \$121,175 Hopi Health Care Center \$52,000
Grant Contact	Kevin McNeal, Ph.D. Arizona Telemedicine Program, University of Arizona, Health Sciences Center, PO Box 245105, Tucson, AZ 85724-5105, Phone 520-626-2493
Summary	The new Hopi Health Care Center will become a new member of Arizona Telemedicine Network operated by the University of Arizona.

The new \$40 million Hopi Health Care Center opened on June 21, 2000, and replaced the smaller Keams Canyon and Second Mesa Clinics. Although, the hospital operates under a family practice model, it offers specialty clinics such as ophthalmology, surgery, and podiatry. Telemedicine will be used to reduce patient travel because pre and post-operation can be done at Hopi. The Center will contribute \$52,000 towards equipment costs. A Tandberg videoconferencing system is planned. An application will be filed for

a universal service discount to cover a portion of the T-1 reoccurring costs estimated at \$2,000 per month.

2. Fort Duchesne PHS Indian Health Center, Child Abuse Program

Area Office	Phoenix Area
Indian Facility	Fort Duchesne PHS Indian Health Center
Primary Use	Telemedicine (child sexual abuse)
Use Level	Growing
Facility Contact	Commander P. Jane Powers, FNP, Director, Child Abuse Project, Fort Duchesne Indian Health Center, PO Box 160, Fort Duchesne, UT 84026, Phone 801-722-5122, Fax 801-722-9137
Grantee	Fort Duchesne PHS Indian Health Center (administering unit)
Funding	Interagency Agreement DOJ/IHS, FY 99-00, \$265,241 estimate
Grant Contact	See Facility Contact
Summary	The Fort Duchesne child sexual abuse program will be replicated in 14 IHS/tribal units with funding provided under an interagency agreement between HIS and the Department of Justice.

Fort Duchesne has a child sexual abuse program managed by P. Jane Powers, a family nurse practitioner. IHS gave the service unit a colposcope with an attached 35mm camera and trained the family nurse practitioner on equipment use through two agency colposcope courses. She then completed three "mini-residencies" in the evaluation of physical/sexual abuse of children with Dr. Astrid Heger at the Center for the Vulnerable Child at Los Angeles/University of Southern California, Dr. Helen Britton of the Child Protection Team at Primary Children's Medical Center in Salt Lake City, and Dr. Leah Lamb at Cooks Medical Center, Fort Worth, Texas.

Formal didactic certification was obtained from Cabrillo College in Santa Cruz, California, under the SART/SANE (Sexual Assault Response Team/Sexual Assault Nurse Examiner) program. The Phoenix Area Office, the service unit and Jane Powers contributed to training costs. Since 1995, the program has been able to save the service unit \$100,000 by eliminating a 300-mile round trip to Salt Lake City for photo reviews. The unit now scans 35mm colposcopic photographs into a personal computer through a color scanner, and the images are sent by modem over a regular phone line to an outside expert who also uses Second Opinion Software. The photos can be reviewed

interactively, either immediately or at a later date.

The Fort Duchess program is recognized nationally. The response to a June 1998 article in the *IHS Peds Notes* by Dr. Bill Green, Albuquerque Area, prompted IHS to arrange an interagency agreement with the Department of Justice Office of Crime Victims to fund similar programs at other sites. Dr. Al Hiat coordinates this effort for the IHS national office with Jane Powers. DOJ funds will be used to purchase \$119,910 in equipment (colposcopes, cameras and accessories) for 18 doctors in fourteen service units. Didactic classroom and computer training and travel funds for training and follow-on preceptorships at the University of Southern California is also funded. The Fort Duchense program will conduct Grand Rounds with the participants using field cases.

The American Indian Information Network through company donations will provide participants Second Opinion and Leisegang ImageQuest software packages. If successful, this project may be funded again through the IHS/DOJ interagency agreement. Project total is estimated at \$265,241, including the software donation. Participating services units include:

- Alaska Area - Bethel, Dillingham, Juneau, and Kotzebue
- Albuquerque Area - San Fidel Hospital serving Acoma and Laguna Pueblos and Cannoncito
- Billings Area - Crow Agency PHS Indian Hospital, Harlem PHS Indian Hospital, Lame Deer PHS Indian Health Center, Poplar PHS Indian Health Center, and Fort Washakie PHS Indian Health Center
- Navajo Nation - Tuba City
- Phoenix Area - Gila River Healthcare Corporation, San Carlos Unit, and Whiteriver PHS Indian Hospital

3. Phoenix Indian Medical Center (PIMC), National Diabetic Retinopathy Project

Area Office	Phoenix Area
Indian Facility	Phoenix Indian Medical Center, Eye Clinic
Primary Use	Telemedicine (Ophthalmology)
Use Level	Growing
Facility Contact	Mark Horton OD, MD, Phoenix Medical Center, Eye Department, 4212 North 16 th Street, Phoenix, AZ 86016, Phone 602-263-1504, Fax 602-263-1635, E-mail Mark.Horton@mail.ihs.gov
Grantee	Phoenix Indian Medical Center, Eye Clinic
Funding	Congressional Line Item - FY 99-01 - \$2,150,000
Facility Contact	See Facility Contact

Summary

The Phoenix Indian Medical Center Eye Clinic manages a congressional project for diabetic retinopathy in association with the Joslin Vision Network. In November 2000, the Sells PHS Indian Hospital will be added as project site. A third site outside of the U.S. Southwest Region will be added later.

The Phoenix Indian Medical Center (PIMC)'s operates a collaborative project with the Joslin Vision Network which is managed by Dr. Mark Horton. Congress directly funds the project over 3-years from FY 1999-2001 for \$2,150,000. These funds are separate from the \$30 million Center for Disease Control Diabetes Project. Congress asked PIMC to participate because of the high rate of diabetes among native people and IHS sites vary in size to test the scalability of equipment. Project funds support the PIMC and Sells PHS Indian Hospital sites. A third site outside of the U.S. Southwest Region will be selected when Joslin provides a third technology update.

The PIMC operation has been very successful because a workstation is co-located in the center's waiting room. By asking a few questions they are able to determine their last ophthalmological exam or if they have ever had one before. As the wait time averages approximately twenty minutes, the technician is able to finish a digital retinopathy scan and send the images across the street while the patient returns the waiting room without missing the scheduled appointment. The reading is completed during the time the patient has their scheduled medical visit. If immediate care is required, the patient is notified before leaving the facility. If not, the patient is asked to schedule a regular follow-up visit in the future.

Using this approach, PIMC has been able to increase the amount of Native Americans seen for eye examinations more than threefold the normal, with this simple and effective program the examined patient rate attained is fifty-six percent of the Native American community visiting PIMC annually. Dr. Horton attributes program success to the fact patients do not have their eyes dilated, it is painless, and it does not compete with other appointments. A technician operates the waiting room workstation with the actual retina reading done by the Eye Clinic staff housed in an adjoining building behind PIMC.

This project is beneficial to native people who experience a high rate of diabetes. If regularly screened, only two percent of diabetic cases will result in blindness. In the future, Dr. Horton and Joslin are investigating a web-based solution to distribute services to rural clinics and support them via the Internet.

4. Whiteriver PHS Indian Hospital

Area Office Phoenix Area

Indian Facility Whiteriver PHS Indian Hospital

Primary Use	Telemedicine (cardiology, dermatology) Telehealth
Use Status	Sustainable
Facility Contact	Cathy Griggs, Procedures Nurse, Whiteriver PHS Indian Hospital, PO Box 860, Whiteriver, AZ 86942 Phone 520-338-4911 x402, Fax 520-338-1122 E-mail <Cathy.Griggs@mail.ihs.gov>
Grantee	University of Arizona
Funding	RUS - FY 98 - \$142,075
Grant Contact	Sally Beinar, Arizona Telemedicine Program, University of Arizona, Health Sciences Center, PO Box 245105, Tucson, AZ 85724-5105
Summary	The Whiteriver PHS Indian Hospital receives medical consultation service from the Arizona Telemedicine Network operated by the University of Arizona.

Whiteriver is an acute care inpatient hospital located approximately a 4-hour drive to Phoenix Arizona. Whiteriver is connected to the University of Arizona's virtual private network via a dedicated T1 a dial-up bandwidth network, configured to accommodate a single large data demand such as radiology and CT scans to several small data demands such as a live dermatology consult while transferring digital photographs.

Whiteriver is able to connect into several university sites within the Medical Center to obtain the necessary specialty needs. With every telemedicine specialty they do here, they have worked around and make it work with a Tandberg Videoconferencing system integrated with AMD peripherals. In addition, they have been able to integrate Cardiology with treadmill and halter monitor. Other functional uses include dermatology and occasional neurology and rheumatology.

The first University of Arizona consult occurred on March 4, 1999, and Whiteriver has logged 89 cases through September 27, 2000. Seventy-eight dermatology consults were recorded — 48 adults and do pediatric cases. Other uses include cardiology (1), neurology (5), pediatric cardiology (1), plastic surgery (1), rheumatology (1) and surgery (2). In addition, twelve treadmill and halter consults have been recorded with a Florida-based expert.

The service unit has a \$120,000 contract with a radiologist from nearby Springerville for daytime reads and once a week on-site visit. The University connection is used mainly after hours and on weekends. In exchange for Whiteriver's annual recurring telecom costs of \$21,600. The typical consult can be completed within one hour. Data transmission is split between store and forward and real time video. The program is well accepted by the

hospital administration, staff and patients. The biggest lesson learned by staff was that telemedicine programs require more time than anticipated to install, use and maintain skills. Applications such as cardiology, for example, require a high skill set. The staff recommends the use of an exclusive area for telemedicine that does not require adjustments of equipment placement and lighting, etc.