

# THE IHS PRIMARY CARE PROVIDER



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## JCAHO's Measurement Mandate

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The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) has announced an initiative called ORYX that requires all hospitals that seek JCAHO accreditation to use a performance measurement system to provide data about patient outcomes and other indicators of patient care. Healthcare organizations have three choices. They may select the Joint Commission's Indicator Measurement System (IMSystem), a system from a list of 60 other approved measurement systems, or a system they develop themselves. This new initiative will require each hospital to select a performance measurement system by December 31, 1997. Data collection on two clinical performance indicators that relate to at least 20% of the hospital's inpatient and outpatient population must begin on January 1, 1998, with the first data submitted to the JCAHO by the first quarter of calendar year 1999. In subsequent years, more indicators that affect more of the patient population will be required.

Listed below are questions and answers published by the Joint Commission about *ORYX: The Next Evolution in Accreditation* and its planned integration of performance measures into the accreditation process.

**What is ORYX?** ORYX is the name of the Joint Commission's initiative to integrate performance measures into the accreditation process. It is a term different from any other currently used in health care, reflecting the magnitude of the anticipated changes in the Joint Commission's accreditation process in the years ahead. For trivia buffs, oryx is defined in the dictionary as a kind of gazelle.

**What are the staffing and cost implications of the ORYX requirements for accredited organizations?** A field survey conducted by the Joint Commission in August 1996

indicated that nearly 70% of hospitals are already participating in a performance measurement system. Most respondents indicated that they spend less than \$11,000 annually to maintain their system participation and utilize an additional 1.5 full-time equivalents (FTE) or fewer to operate the system. A survey of long-term care organizations indicated approximately one-third of the facilities currently participate in a measurement system. Respondents indicated that they pay less than \$11,000 annually in related fees and expenses. On average, long-term care facilities reported that 2.5 FTEs are required to operate the system. While there is no specific basis for challenging these data, the JCAHO believe these expense estimates may be somewhat understated.

**How did the Joint Commission determine the requirement for selecting at least two clinical performance measures which relate to at least 20% of the organization's patient or resident population?** Results of the August 1996 field survey indicated that the majority of hospitals and long-term care organizations are using between 10 and 24 measures. The decision to require only two clinical measures, as long as they address at least 20% of the organization's patients or residents, is intended to be a minimal burden, in order to reduce or eliminate any real or perceived barriers for

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organizations in meeting the new requirements. For many hospitals, a single, broad surgical measure, an obstetrical measure, or a cardiovascular measure would probably address more than 20% of patients. An infection control or medication usage measure might also meet this rather modest requirement.

**Can a health care organization send its measurement data directly to the Joint Commission?** No. The performance measurement system(s) in which the organization has enrolled is expected to submit the performance measurement data to the Joint Commission. The principal reason for this is that the submission requires both the individual organization's data for a given measure and comparative data on the performance of other organizations that are utilizing the same measure.

**What happens if an organization chooses not to enroll in a performance measurement system and provide performance data to the Joint Commission?** Failure to meet the new performance measurement requirements will lead to a special Type I recommendation. The organization will have one month to provide a written progress report explaining its plan of correction. Extended failure to meet the new accreditation participation requirements could lead to loss of accreditation.

**What can an organization do if its measurement system is not on the current list of contracted measurement systems?** The organization should urge its measurement system to contact the Joint Commission's Department of Research and Evaluation to obtain an application for consideration by the Council on Performance Measurement for inclusion on the list of acceptable measurement systems. The Council will consider new applicant systems twice a year.

**How will the Joint Commission use disparate measures from disparate systems to make comparable judgments about organization performance?** The health care organization's performance data will be compared only to its own data over time and to the data from other health care organizations that have selected the same measures in the same system. As with the use of data in all other situations, the data will be used to raise questions about, not judge, organization performance.

**How will the data affect an organization's accreditation status?** The accreditation decision will continue to be standards-based. However, patterns or trends in the submitted data may signal noncompliance with certain Joint Commission standards. If noncompliance with standards is confirmed by a survey, the scoring of the relevant standards may affect the organization's accreditation status, just as is currently true.

**How will the Joint Commission use the data submitted by the health care organizations?** The Joint Commission will monitor the data for significant patterns and trends. When significant variances in the data are identified, a staff member will contact the accredited organization to either alert the organization to the variance or determine what action the organization has taken to respond to the variance. The Joint Commission's primary interest is in how the organization uses the data to improve and, ultimately, in the results of the improvement activity. If the data suggest standards compliance problems in specific functional areas, a written progress report or on-site survey may be required.

**Will performance measurement data be made public?**

Given the large number of participating measurement systems and the degree of variation expected in the measures selected, public disclosure of the data reported would not be helpful to the public. Therefore, there are no plans to disclose these data. However, as common measures are identified across participating systems, this potential will be reconsidered.

**Can an organization choose to release its own data to interested parties?** Yes, but the JCAHO recommends that the organization discuss this with its measurement system. This is primarily because the data will not be meaningful unless provided in a comparative context.

**Will the Joint Commission receive all of the performance data that an organization submits to a performance measurement system?** No. The Joint Commission will receive data only on the measures that the organization has identified to the Joint Commission as the measures it is using to meet the ORYX requirements. The data received by the Joint Commission will be in summary form, in a specified format, rather than the raw data provided by the organization to its measurement system(s).

**How frequently will data be collected and transmitted to the Joint Commission?** The expectation is that data will be collected at least monthly and be transmitted to the Joint Commission quarterly.

**How will the costs of monitoring the measurement systems and submitting data to the Joint Commission be covered?** The performance measurement system will be assessed an annual participation fee of \$5,000 per hospital and will also pay periodic transmission fees to the JCAHO. The transmission fee will be \$10 per measure per hospital/organization per quarter. It is likely, the authors believe, that some of these costs will be passed back to organizations enrolled in the system.

**What is the earliest time that organization performance data can be submitted to the Joint Commission?** The ORYX database will be ready to receive data from performance measurement systems by July 1998.

**Will the initial expectations and requirements increase over time?** Yes. The number of measures will increase by two per year over the next four years, and the proportion of the patient or resident population addressed by the measures will increase by 20% per year over the same period of time. It is also likely that functional status and/or satisfaction measures will be introduced into the mix of measures that should be selected by organizations.

**How easy or difficult will it be for an organization to collect the required data?** The data collection effort will vary by system and by the extent of automation within the accredited organization. These are important considerations in the selection of a performance measurement system that fits the needs and capabilities of the specific, individual accredited organization.

**Who should I call if I have questions or problems?** The Joint Commission has established a special ORYX information line to assist organizations and answer performance measurement related questions. You may access the information line by dialing 630-792-5085, and a Joint Commission staff

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member will assist you.

**What does this mean for the Indian Health Service?**

This means additional costs for each of the approximately 50 hospitals in the Indian health system. Based on the above questions and answers, it will cost each facility approximately \$5,000 to \$10,000 more per year and 1.5 FTEs for each facility to meet the ORYX initiative.

The Phoenix Area Office is developing its own Performance Indicator Measurement System as a pilot project. The application for acceptance of the system will be forwarded by June 15, 1997 to the JCAHO for approval. Testing of the system will begin June 1, 1997 at two Phoenix Area service units (Whiteriver PHS Indian Hospital and Fort Yuma PHS

Indian Hospital).

Initially, the system will include ten hospital and ten hospital sponsored ambulatory care indicators. The hospital indicators will be comprised of five measurements for small and rural hospitals and five for the larger hospitals. Hospitals may select one indicator from the hospital set and one from the ambulatory set or two indicators from the hospital set. Hospitals *may not* select two ambulatory indicators. Following JCAHO approval, the system may become available throughout the Indian Health Service at a minimal cost to each participating Area. The projected date for inclusion of free-standing ambulatory care facilities has not been announced but may occur within the next year. [n](#)

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## Breast Cancer and Mammography at One Service Unit

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### Introduction

Breast cancer has been the focus of substantial attention due to the considerable morbidity (183,400 new cases in the United States estimated in 1995) and mortality (18% of all female cancer deaths; 46,200 estimated deaths in the U.S., 1995) it causes.<sup>1</sup> The overall lifetime risk of developing breast cancer is estimated to be one out of eight for U.S. females. Cancer of the breast is probably the only cancer for which randomized clinical trials have demonstrated a reduction in mortality attributable to a screening procedure (mammography) in an asymptomatic population.<sup>2</sup>

Concern has been expressed in the lay press that decisions regarding screening recommendations could be unduly influenced by fiscal considerations, and about the sometimes conflicting screening recommendations of numerous professional organizations. The possibility that the incidence of breast cancer is increasing in the U.S. population (as opposed to an *apparent* increase due to earlier detection) has added to public apprehension.

The Indian Health Service has been attentive to all of these issues for many years and has generally formulated policy and clinical standards on a local basis. A July 1995 policy advisory

from the Associate Director, Indian Health Service (IHS) Office of Health Programs, regarding IHS mammography units, however, recommended direct mammography services be provided only at those service units with "full-service" obstetrics and gynecology (OB/GYN) and general surgery programs. Briefly, this policy was written in response to the passage of the Mammography Quality Standards Act of 1992 and the subsequent publication of the FDA interim ruling outlining national quality standards for mammography. The law and regulations arose out of a concern that many mammography services were substandard, resulting in frequent false readings. The standards were designed to assure the safety and accuracy of the diagnostic imaging and interpretation. In addition, the IHS workgroup that developed this policy was concerned about costs, determining that the rates for mammography at most service units would be twice the cost of purchased services.

However, a policy such as this might limit the accessibility of mammographic screening for American Indian women in communities lacking on-site OB/GYN and surgery services and, like most general policy statements, should be assessed against clinical circumstances at any specific location.

### Purpose

A case review was done to obtain a nearly 20-year, historical perspective of breast cancer at one service unit that has never had OB/GYN or surgery departments. In addition, the cost experience of the service unit in providing direct mam-

mography services was explored and compared to the costs estimated in the IHS policy advisory. While representing an informal review of this time period, the results offer some information to consider when formulating policy regarding breast cancer screening.

## Methods

This review began as a Quality Assurance monitor in 1988. Cases of carcinoma of the breast were identified by a systematic search of inpatient records, mortality logs, surgery logs, contract referral facility records, tumor registries at referral facilities, and the Resource and Patient Management System (RPMS, the primary clinical database for the Indian Health Service). The maximum dimensions of all lesions were taken from the pathology reports. Any lymph nodes found to contain metastatic cells were counted as positive; if no axillary dissection was done (six instances), then lymph nodes were considered "negative."

The service population (9,481)<sup>3</sup> for this service unit relies upon three referral facilities within a radius of 200 miles, but the University of Minnesota (500 miles away) was also queried for breast cancer cases from this community. Information about new breast cancer cases was added annually, and data were updated through August 1995. Any breast cancer cases that were ever seen at the service unit for care were included, even if the diagnosis was made at another facility. Data were entered into an Epi Info database and statistical analysis was done using this same software. The cases were divided, arbitrarily, into two groups of equal size, by date of diagnosis (the first half of the cases were diagnosed from 1974 to 1989, and the second half from 1989 through 1995). A brief chronology of the efforts to detect and treat breast cancer at the service unit will help the reader understand the findings (see Table 1).

**Table 1. Brief chronology of breast cancer detection and treatment efforts at one service unit.**

1980-present	<ul style="list-style-type: none"> <li>• QA efforts to increase patient education</li> <li>• QA efforts to increase clinical screening/detection</li> </ul>
1980	<ul style="list-style-type: none"> <li>• Mammography first done on non-dedicated X-ray equipment with special screens</li> </ul>
1983	<ul style="list-style-type: none"> <li>• General Surgery available "in-house," during alternate months</li> </ul>
1987	<ul style="list-style-type: none"> <li>• Dedicated mammography unit purchased</li> </ul>
1989	<ul style="list-style-type: none"> <li>• QA effort to increase oncology consultation for breast cancer patients</li> <li>• QA efforts regarding appropriate use of hormone receptor testing</li> </ul>
1993	<ul style="list-style-type: none"> <li>• Evening Women's Wellness clinic established</li> </ul>
1995	<ul style="list-style-type: none"> <li>• New dedicated mammography unit purchased</li> <li>• ACR accreditation for mammography program obtained</li> </ul>

## Results

We identified 42 patients diagnosed with breast carcinoma during the period December 1, 1974 to May 30, 1995 (Table 2). The incidence rate of breast cancer was considerably higher in the second time period (1989-1995). During this second time period, the proportion of cases detected by mammogram increased, whereas the proportion of self-detected cases decreased.

Pathology and treatment modalities used during these two time periods are shown in Table 3. The average size of the breast cancers at the time of diagnosis was smaller during the second, as compared with the first, time period.

The proportion of patients treated with modified radical mastectomy decreased and the proportion treated with chemotherapy increased from the first to the second time period.

The outcomes of all cases are presented in Table 4. Five-year survival calculations obviously necessitated truncating the second cohort at those diagnosed before August 1990. Of the

**Table 2. Presenting characteristics of breast cancer cases at one service unit during two time periods, N=42.**

	1974-1989 (n=21)	1989-1995 (n=21)
Age at diagnosis	50.5	59.5
Months in time period	174	72
Average cases per month	0.12	0.29
Diagnosis by screening examination	14%	14%
Diagnosis by screening mammogram	14%	24%
Diagnosis by "self-detection"	72%	62%

\* "Self-detection" indicates that the patient had presented to the provider with a concern regarding the breast.

**Table 3. Pathology findings and treatment of breast cancer cases, N=42.**

	1974-1989 (n=21)	1989-1995 (n=21)
Average maximum dimension	4.1 cm	2.6 cm
Lymph nodes positive	40%	30%
Receptor status tested	52%	60%
Modified radical mastectomy	100%	65%
Simple mastectomy	0%	35%
Chemotherapy	38%	65%
Radiation	24%	16%
Oncology referral	71%	70%

six cases in that cohort, three had died, including one patient who refused treatment in spite of having a lesion initially measuring 2.5 cm, and another patient who died of a second primary neoplasm (transitional cell carcinoma of the ureter).

The actual costs over the past 9 years to this service unit for mammography are compared to the estimated costs anticipated in the previously mentioned policy advisory in Table 5.

### Discussion

The policy statement presented cost estimates for a service unit to provide mammography, based on a minimum of 600 mammograms per year (Table 5). Since our service unit has averaged 550 mammograms per year, we believe it is reasonable to compare our costs to those estimated in the policy advisory. The service unit figures presented in Table 5

**Table 4. Five- and ten-year survival statistics for breast cancer at one service unit, compared to data for U.S. whites and blacks.**

Cohort	5-Year Survival	10-Year Survival
Service unit, 1974-1989	95% (N=21)	70% (N=10)
Service unit, 1989-1995	50% (N=6)	—
Service unit, Total, 1974-1995	85% (N=27)	—
U.S. whites, 1983-1990 <sup>1</sup>	82%	—
U.S. blacks, 1983-1990 <sup>1</sup>	66%	—

**Table 5. Estimated 5-year costs of mammography programs.**

Cost	Service Unit	Policy Advisory
Mammography unit cost, annualized (5-year warranty)	\$13,860	\$32,400
Processor cost, annualized	\$1,995	\$3,000
Radiologist, pro-rated (0.1)	\$19,830	\$15,000
X-ray tech, pro-rated (0.14)	\$4,575	\$24,000
Film cost	\$1,100	\$1,950
Chemicals, water, electricity	\$1,400	\$14,750
Certification, inspection	\$1,500	\$700
Cost per exam (at 550/year)	\$80	\$153
Cost per exam at CHS facility	\$75	\$50-\$75

may be exaggerated. A dedicated mammography unit was acquired in 1995 and its cost was annualized over the next 5 years. Our costs for mammography services were compared to those estimated in the policy advisory and to the *current* cost of contract mammography for this service unit (Table 5).

Our service unit performs approximately 7000 radiographic procedures a year. To determine our estimated annual costs for interpretation of mammograms, we used the current cost\* of the radiology contract, prorated the cost for mammograms (550/7000, or 0.079), and rounded this off to 0.1.

The Mammography Quality Standards Act sets stringent standards for equipment and quality of films, and requires certification that the equipment renders a film with a minimum of artifacts that would cause a false reading. The fee for certification, assessed by the Food and Drug Administration, may be waived for government facilities. In addition, certification is valid for at least 3 years (this was counted as an annual expense, partly to allow for "in-house" cost of annual inspections by IHS biomedical services).

Some service unit costs may be underestimated. The radiology technologist's salary is currently GS-7, step 5 (or \$32,689, including 20% benefits). This position is classified as a GS-9 in many areas, and, if also step 5, would require \$39,991 (with benefits), as estimated by the policy advisory. The number of mammography exams done over the past years has obviously increased significantly; thus these estimates of costs per exam would technically apply only to the past year.

The service unit used approximately \$20,000 to remodel an inpatient room for our initial mammography unit. If our service unit had not had the space for a mammography unit, the cost of new facilities would have been approximately \$25,500 (170 square feet, at an estimated \$150 per square foot for new construction). Neither of these costs were included in the analysis since they would usually be spread over many years and can vary so greatly from service unit to service unit.

Mammography was not available at the service unit for a 6 month period from October 1, 1994 to April 4, 1995 while we upgraded our system and gained accreditation. There was an explicit decision made by the medical staff and administration to continue our usual screening mammography during this time on a contract basis with a referral hospital 90 miles to the west. Utilization of mammography during the 6 month periods before, during, and after this time is seen in Table 6.

**Table 6. Utilization of mammography for each of three 6-month periods.**

	Mammograms done per month
3/1/94 to 9/30/94	50.5
10/1/94 to 3/31/95	13.2
4/1/95 to 9/30/95	57.3

\* The current cost of the radiology contract has remained the same since October 1994, at which time the cost increased by 17% after having remained level for 5 years. The cost of the contract is not directly related to workload, and includes a 13% indirect cost for tribal 638 contracts.

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Although the nominal cost of mammography at the referral center was \$75, including interpretation, the amount billed averaged \$84.26 due to some additional films required, etc. Adjusting for insurance deductibles paid, the average amount paid by IHS was \$75.06 per exam.

The service unit is also able to bill for most mammographic procedures. Seventeen percent of the patients screened were eligible for Medicare, another 18% received Medicaid benefits, and 29% had private insurance. We are reimbursed \$147 for those procedures covered by Medicare that are scheduled outside of a regular clinic visit. In the most recent fiscal year, we billed private insurance for 132 procedures totalling \$9,199 (\$70 per procedure). Merely including the income from private insurance (not considering Medicare or Medicaid income, the data for which were not readily available) in the cost calculations, brings the cost per service unit mammogram to \$64 versus the \$80 as noted in Table 5. Of course, this would be lower yet if we were to include the reimbursements from Medicare and Medicaid.

There have been many developments and changes in the detection and care of breast cancer patients at the service unit over the 21 year span of this study. It is unwarranted to draw any firm conclusions about the level of care over time or in comparisons with national groups, but one should be reasonably reassured by some of the data.

Comparing the size of lesions at diagnosis and percent of positive nodes between the two groups seems to show a definite favorable trend. The large difference in cases identified per month (Table 2) in the two groups is likely the result of several factors: (1) the number of older patients in the population is increasing, (2) more cases were detected by mammography at an earlier stage than would have been possible in the first time frame, and (3) we may not have been able to identify all cases in the earlier group. The tumor registries were not operational until around the mid 1980s. Since this initial retrospective study was undertaken in 1989, it seems likely that a number of cases in the earlier time period may not have been counted. This would probably influence the statistics favorably for the early group, as it seems likely that the cases that survived longer would be overrepresented (for example, those who died prior to 1989 would not be found in the tumor registry) resulting in an apparent, rather than real, higher survival rate in the earlier group.

Hormonal testing for estrogen and progesterone receptors was first available in the 1970s when it became a widely recommended tool for planning future chemotherapy. Receptor status testing at the time of definitive surgery was felt to be indicated in all patients (except those with lesions less than 1 cm in diameter) at our facility starting in the mid 1980s, and testing was followed thereafter as a quality assurance monitor.

Although possible differences in ascertainment between the two periods make statistical analysis problematic, there was an increase in the percentage of cases diagnosed by mammography. As might be expected, the group diagnosed by mammography (average lesion size 2.0 cm vs 2.8 cm among those diagnosed without mammography in the later group) had an excellent prognosis. Of the eight diagnosed by mammography, only one has died, and that was related to a second

primary (renal) carcinoma. Survival rates in the second group are difficult to interpret. Five years has passed since diagnosis for only six women in this group, making it a very small cohort. In addition, as mentioned earlier, one of the three women in this group who died had refused treatment, and another woman died of a second primary renal tumor. The changes in treatment over this time period are evident in the increased use of prophylactic chemotherapy and increased use of less aggressive surgical procedures (e.g., simple mastectomy). Although no formal policy was instituted by the medical staff, it was generally accepted by the late 1980s that oncology consultation was desirable for all women with breast cancer. This goal has remained elusive.

Comparison of service unit costs of mammography versus those in the policy advisory are noteworthy. Significantly higher costs estimated in the policy advisory include the cost of equipment (\$160,000 vs \$69,300); X-ray technician salary (\$40,000 per year held constant for the range of 1000 to 3000 exams per year, but apparently prorated to \$24,000 for 600 exams per year); and "chemicals, water, and electricity" (\$14,750 vs \$1400). Higher costs associated with the service unit experience are primarily the radiologist interpretations at about \$36.00 per exam versus \$25.00 estimated by the policy advisory. The assumption of the policy advisory that the effective life of this equipment is only 5 years is also quite conservative. The original dedicated unit at this service unit was functional for 8 years. If the second unit remained in service for 8 years, the cost per mammogram would be reduced to \$71.00.

As mentioned earlier, the conclusion of the policy advisory was that, for reasons of cost-effectiveness, IHS mammography units should not be developed at any service units that do not have "full-service OB/GYN and general surgery" capabilities, and that contract services for mammography should be utilized. If service units and Areas will make a serious commitment to providing screening mammography utilizing Contract Health Services (CHS) funding, that is certainly a reasonable approach. The concern is that service units and Areas will find the demands of acute/emergent care on the CHS budget (as well as the administrative complexities of prioritizing CHS funding) overwhelming and, thus, screening mammography services will not be available, when they could be provided "in-house" in many facilities at a comparable cost.

While the added burden of considerable travel distance to the CHS mammography unit may have contributed to the precipitous drop in mammography utilization during our short reliance on CHS sources, the inherent institutional bias against CHS referrals is probably at least partly to blame. This is all the more remarkable since both the medical staff and administration agreed that this was a service that should be continued without restriction; consider the probable outcome if this support had not been available. Additionally, our data demonstrate that the "advertised" fee or cost of a procedure is not always the same as the final cost to the facility.

Future reviews of mammography services should address the matter of accuracy of image and interpretation (including the financial and human cost of pursuing false positive inter-

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pretations) and the possible impact of not having surgeons available on site to evaluate breast masses when mammogram results are negative.

### Conclusion

The addition of a dedicated mammography unit at an IHS facility without OB/GYN and general surgery departments resulted in increased mammographic screening and probably earlier detection of breast cancer. The actual costs were less than those estimated in a 1995 IHS policy advisory. On the basis of this experience, IHS service units or Area Offices may wish to consider providing dedicated mammography services

at some service units that lack OB/GYN and general surgery departments, especially if contract services are not easily accessible.

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# Native American Health On the Internet

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### Introduction

These are tumultuous times for Indian health care programs. Among the challenges facing tribes (and agencies and organizations serving tribes) are compacting, reductions in federal funding, reorganization of Federal agencies such as the Indian Health Service, Medicaid managed care, and welfare reform. Ensuring that Native American people receive high-quality, accessible medical care becomes more difficult every day.

Obtaining reliable and up-to-date information through use of personal computers can help. Sites on the Internet can help identify health care resources; plan medical programs in hospitals, clinics, and the community; and provide advice and information for individuals with medical needs.

### Internet and the World Wide Web

The Internet, established in the 1960s for government purposes, is a large network of computer systems that are connected by cables, phone lines, and wireless devices. The Internet, beyond the hardware connections, is a vast array of information. It is a means of communication for millions of people worldwide. Users of the Internet "get online" with accounts provided by government agencies, educational institutions, or commercial vendors. Internet services include electronic mail ("e-mail"), programs to transfer files from one computer to another (FTP or File Transfer Protocol), and mechanisms to carry on conversations with other computer

users around the world.

The World Wide Web is one of the Internet's most recent and most powerful information services. It allows Internet users to access information using "hypertext documents." A hypertext document allows you to "surf the Net" (to jump from one information resource to another with just a click of the mouse). A software program called a "browser" helps you locate sites of interest and explore or "navigate" among sites. It's no surprise, therefore, that the two most popular browsers are called "Netscape Navigator" and "Internet Explorer." There are three ways to access Web sites: performing a search with your browser; clicking with your mouse on a site highlighted in a hypertext document; or typing in a specific "Web address" (also called a URL, Uniform Record Locator). For example, entering the address <http://www.unm.edu> gives you the University of New Mexico "home page." It's called a home page because it is the primary document or menu from which you can link to other related sites, such as educational resources, campus information, faculty profiles, etc.

### What do you need to get started?

You can access the Web with either a Macintosh or PC computer. Your exact needs may vary, depending on your location and whether you will use a modem to dial in to a server or have a direct connection to the Internet through an organization such as your workplace. For those who will have remote access (dial-in), the following are some guidelines for minimum system requirements:

- *A computer.* PC owners need a computer that is 486 MHz or faster with a mouse; Windows 3.1, 3.11, or Windows 95 operating system; 8 MB RAM; and 15 MB of hard disk space. Macintosh owners should have a Macintosh,

Powerbook, or PowerPC Macintosh with System 7 or higher (8 MB RAM or 16 MB RAM for Power PC). Computers with less speed and RAM can support access to the Web, but your browsing will be much slower.

- A 256-color monitor.
- A modem. 14.4 BPS or (preferably) faster.
- A telephone line.
- An Internet account, through a government agency, educational institution, or commercial vendor.

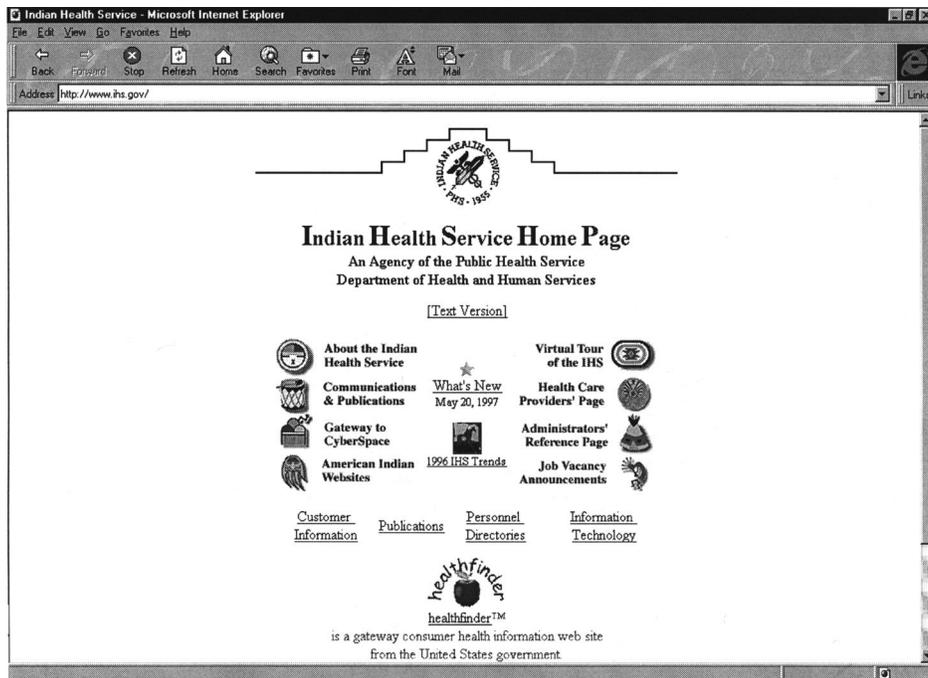
### A Sample of Sites to Surf

The following Internet sites are good places to begin a search for information on Native American health and related issues.

- **Indian Health Service Home Page.** <http://www.ihs.gov>  
The IHS home page (see box) is a virtual treasure trove of useful information. There are links to the "Health Care Providers' Page" that offers details about the IHS Clinical Support Center, back issues of The *IHS Primary Care Provider*, Commissioned Corps practices, health-related websites, clinical guidelines, and IHS computer systems references; "American Indian Resources," which provides over 50 hypertext linkages to sites ranging from the List of Federally Recognized Tribes to American Indian recipes; "Administrators' Reference Page"; "IHS Job Vacancy Announcements"; and more.
- **Bureau of Indian Affairs.** <http://www.doi.gov/bureau-indian-affairs.html>  
The Bureau of Indian Affairs (BIA) is the principal bureau, within the federal government, responsible for the administration of federal programs (except health programs) for federally-recognized Indian tribes, and for promoting Indian self-determination. In addition, the Bureau has a trust responsibility emanating from treaties and other agreements

with Native American groups. The mission of the Bureau is to enhance the quality of life, to promote economic opportunity, and to carry out the responsibility to protect and improve the trust assets of Indian tribes and Alaska Natives. The BIA provides the kinds of services one expects from the local, city, county, state, or federal government. This includes, but is not limited to, law enforcement, social services, education, housing improvements, loan opportunities for Indian businesses, and leasing of land.

- **NativeWeb Home Page.** <http://www.maxwell.syr.edu/nativeweb/>  
NativeWeb's stated purpose is "to provide a cyber-place for Earth's indigenous peoples." Topics on this page include: Subject categories; Geographic Regions; Nations/Peoples; Languages; Education; Law and Legal Issues; Literature; Newsletters and Journals; Organizations; Bibliographies; Historical Material; Information Sites; Personal Home Pages; and Mailing Lists. There is also a discussion forum, "electronic store," and Native events calendar.
- **American Indians/Native Americans.** <http://www.louisville.edu/groups/library-www/ekstrom/govpubs/subjects/indians/indian.html>  
This site provides information links to the American Indian Institute, BIA, Census information, health, education, housing, and government.
- **NativeNet.** <http://www.fdl.cc.mn.us/natnet/>  
"NativeNet is designed to promote dialogue and understanding regarding indigenous peoples of all parts of the world." It provides a set of electronic mailing lists and archives and maintains a list of references to relevant information on the Web.
- **Links to Other Sites.** <http://itcn.org/cool.html>  
This site will lead you to facts on tribal government and resources, educational resources, Native American business, government listings, and grant resources.



### Further Reading

There are now many publications to help you get the most from the Internet. Ferguson's *Health Online* (Addison-Wesley, 1996) and Hancock's *Physicians' Guide to the Internet* (Lippincott-Raven, 1996) are superb references specific to medical information resources. There are several Internet "yellow pages." These are directories that, like their telephone namesake, are hefty, soft-covered books providing Internet addresses and descriptions of web sites organized by subject.<sup>1-3</sup>

We have prepared a guide entitled, *Native American Health On the Internet*. Forty-four sites are featured, listed in alphabetical order, with the URL address and a brief description of the contents. For 19 sites, we have included copies of the home pages. There is also informa-

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tion on library resources, CD-ROMs, and databases. To request a copy, please contact the authors at The Lovelace Respiratory Research Institute, 2425 Ridgcrest Drive SE, Albuquerque, NM 87108 (phone: 505-262-3467).

#### References

1. Hahn H. *The Internet and Web Yellow Pages*. Berkeley, CA: Osbourne McGraw-Hill; 1997.
2. Maxwell, C. *McKinley Internet Directory 1996 Edition*. Indianapolis, IN: New Rider's Publishing; 1995.

3. *New Rider's Official World Wide Web Yellow Pages*. Indianapolis, IN: New Rider's Publishing; 1997.

#### Acknowledgments

The authors are grateful to Dr. Timothy Taylor, Alcohol Division, Indian Health Service, Headquarters West, and Janet Williams, Lovelace Medical Library, for their assistance in preparing this manuscript. This work was supported, in part, by the Robert Wood Johnson Foundation and the Indian Health Service. [n](#)

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# Family Violence in Four Native American Communities

## Introduction

Family violence on Indian reservations is devastating for individuals, families, and reservation communities. Many families in American Indian communities have experienced violent behaviors, have coped with violent behaviors positively, and/or wish to learn more about violent behaviors and their prevention. A study to produce the information and data needed to guide program planning and development was commissioned by the Indian Health Service Office of Planning, Evaluation, and Legislation. The following is adapted from the executive summary of the full report, *Final Report: A Case Study of Family Violence in Four Native American Communities*. This summary will briefly discuss the goals and objectives of the study, list its strengths and limitations, and review the study methodology. Based on a qualitative analysis of the data collected, a model of eight family violence interventions was developed and each intervention is discussed briefly. In addition, nine recommendations are offered.

For the purposes of this study, family violence is defined as any of the following: (1) spouse abuse, including the beating, battering, or sexual abuse of one spouse by the other; (2) child abuse, including physical injury and/or maltreatment of a child under 18 years of age; (3) child neglect; (4) child sexual abuse, including persuasion or coercion of a child to engage in sexual activity; and (5) elder abuse, including physical or emotional abuse that hinders the quality of life of an elderly person.

## Goals and Objectives of the Study

This study examined family violence on four American Indian reservations, and identified factors related to family

violence. A case study approach was used to collect primary and secondary data about (1) the nature and prevalence of family violence, and (2) the intervention and prevention measures planned or in place on each reservation.

## Strengths/Limitations of Study

The strengths of this study derive from the in-depth nature of the investigation. This included the following:

1. *Broad range of informants*. Unstructured interviews were conducted with a total of 123 key informants across the four case study sites; in depth interviews were conducted with:
  - tribal officials (e.g., tribal chairmen and directors of tribal health, social service, judicial services, and other programs).
  - program staff working with family violence problems (e.g., tribal police, social service staff, medical staff, shelter and safe house staff).
  - officials and staff of state and county programs (e.g., social workers, child protection team members).
  - IHS and BIA staff (e.g., mental health program staff, public health nurses, social service staff, members of child protection teams).
2. *Wide variation in characteristics of case study sites*. The four case study sites have great variation in history, culture, economy, location, size, and government. This variation makes the study findings robust.

3. *Objective orientation of contractor.* The informants include a broad range of individuals and groups that have some "stake" in the outcomes of this study. The orientations of different stakeholders were sometimes in apparent harmony and sometimes in apparent conflict with each other. The contractor performing the study had no vested interest in any particular outcome or in any of the case study sites and, therefore, had an objective approach to the data collection and analysis.

The limitations of this study derive from the case study design:

1. *Representativeness of the case study data.* As with all case studies, the data and the findings reported are qualitative in nature. The statistics reported do not have the reliability associated with large, representative samples in survey research. For this reason, no probability values or confidence intervals were computed for the statistics presented in this study. Likewise, the results of the case study cannot be said to be representative of all American Indian reservations or communities.
2. *Pressures to not disclose unfavorable information.* In most evaluation research, there are pressures for informants to "look good" — to avoid association with failure or unfavorable circumstances. These pressures are pronounced in studies of family violence, which include issues such as the prevalence of child sexual abuse, spouse abuse, and elder abuse. Respondents in each study site acknowledged the difficulty of facing the problem of family violence. These respondents indicated that the pressures against recognizing family violence are so great as to cause American Indian tribes and communities to overlook the problem and, thus, to fail to develop interventions to prevent and reduce family violence. Because of the nature of their jobs, many of the key informants felt that they were exceptions to the tendency to deny family violence in their communities.

## Methods

**Study design.** The design for the study was an embedded multiple case design. It involved multiple sites (four) and multiple units of analysis. The basic unit of analysis was a tribe.

The following criteria were used in selecting the four case study sites: (1) geographic and cultural diversity, (2) willingness of the tribe to participate in the study, and (3) availability of secondary data and relevant resources. Once the tribes were identified, a point of contact was established. Through a joint effort, a site visit protocol and itinerary were developed for on-site data collection.

**Data collection procedures.** Data were collected (1) through unstructured interviews with key informants (at each study site) from the tribe, IHS service units, BIA agencies, and other resources on or near the reservation (e.g., health care providers, law enforcement, judicial services, shelters, group homes, children's homes, etc.) and (2) through review of secondary data sources (e.g., demographic and statistical data,

court records, emergency room records, social service records). A Data Collection Guide was developed to assist in the collection of information from informants.

The site visits were conducted over a 3- to 5-day period by four contractor staff (working in teams of two) with extensive experience in conducting interviews and data collection on Indian reservations. Unstructured interviews with key informants were usually 30 minutes to an hour in duration. A total of 123 informants were interviewed in the studies, as shown in Table 1.

**Table 1. Informants by case study site.**

Site	Number of Informants
#1	37
#2	31
#3	33
#4	22
Total	123

## Data Analysis

The data for each case study site were analyzed independently. In addition, comparisons among and trends across the four sites were made.

The bulk of the data analysis involved evaluation and synthesis of the information presented by informants in the unstructured interviews. Both consensus and disagreements among informants were noted; more often, however, informants provided information from a perspective different from, yet complementary to, that provided by other informants.

In addition to observations, judgments, and opinions solicited by the interviewers, the informants were asked to rate the severity of different forms of general violence (e.g., assault, homicide, suicide) and of family violence (e.g., spouse, child, and elder abuse) on their reservation.

Tribes and Federal, state, and county components provided statistical and other data that were compiled, analyzed, or reanalyzed. In general, the case studies revealed a paucity of statistics on family violence. Furthermore, the data that exist tended to have a different format, context, and definitions across the four study sites. This general lack of statistics on family violence across the four reservations represents an important study finding.

## Findings

The "Findings" section of the full report presents detailed information from the four case study sites, individually, as well as comparatively. As mentioned earlier, family violence interventions available at the four sites were qualitatively analyzed. From this analysis, eight categories of intervention were identified; each category (or component) is discussed, in turn, below.

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1. *Adoption of Family Violence Code.* The code should state the tribe's commitment to protect the victims and, most importantly, to specify penalties and procedures that will ensure the protection of victims from abusers. The code should include:
    - *Mandatory Arrest for Probable Cause.* Mandatory arrest is a critical feature of the needed shift in policies and procedures. It is simply unrealistic to expect a victim of abuse or neglect to "press charges" against the abuser.
    - *Mandatory Treatment or Incarceration for Abuser.* Before the alleged abuser is released from detention, there must be a formal hearing that includes testimony of the arresting officers and the introduction of evidence such as a report of a medical examination and testimony of a victim assistance worker who has interviewed the victim. If the outcome of the hearing is that the alleged abuser is found to have violated the family violence code, he or she should be required to participate in a treatment program (e.g., batterer treatment). Either refusal or failure to participate in the treatment program should, in accordance with the tribal code, result in incarceration of the abuser.
    - *Anti-Stalking Law.* Such a law makes it a crime to engage in a pattern of spying, following, calling, or otherwise harassing a victim.
    - *Banishment of Repeat Offenders from the Reservation.* Victims of family violence should not have to leave the reservation to escape from an abuser; rather an abuser who refuses to stop abusing members of his family should be forced to leave the reservation.
  2. *Establish Victim Support System.* The mission of this support system is the guarantee of reasonable safety and security of victims of family violence. The support system should include:
    - Shelters on and off the reservation,
    - A 24-hour telephone hotline,
    - Emergency transportation to shelter or medical facility,
    - Victim support groups,
    - Long-term housing and subsistence,
    - Family counseling, and
    - An interagency protocol.
  3. *Police Procedures and Training: Victim Assistance Protocol.* The case studies generally revealed that major changes are needed in the training, roles, goals, procedures, and mission of the police with respect to family violence. The victim assistance protocol should include:
    - Responsibility for victim protection,
    - Incident reporting and documentation,
    - Testimony and case follow-up,
    - Sensitivity training, and
    - Utilization of women officers.
  4. *Community Education and Involvement.* There was a consensus among the informants that without support throughout the tribal leadership and community members, family violence prevention initiatives were unlikely to succeed.
  5. *Coordination of Resources and Programs.* Because family violence tends to be a taboo subject, individuals and groups avoid discussion of family violence and fail to directly and explicitly address the problem. The chances of success of an intervention program will be greatly enhanced if every relevant program explicitly focuses on the problem. This focus should include a reexamination of the mission, goals, and objectives of each program with respect to preventing and reducing family violence. Each program should develop protocols to guide program staff in dealing with victims, abusers, and other programs and agencies. Each program should examine its role and responsibilities with respect to each of the eight family violence intervention components discussed in this study.
  6. *Information Tracking System.* Some data relevant to family violence exist in many different information systems; however, the data in these information systems are generally difficult to access, even for the personnel of the agency controlling the system. It is almost impossible for staff of other organizations to access an agency's data. This lack of information sharing can lead to catastrophic consequences for victims of family violence.
    - *Uniform Interagency Information System.* Such a system would be greatly facilitated if the many relevant agencies had a shared capability such as electronic mail (E-mail); however, it is not necessary to design and implement such a system to support the needed interagency information system. Such a system can be developed using specially designed paper forms, faxes, telephones, and explicit protocols. A core set of data, such as the name, addresses, and telephone numbers of the victim(s) and alleged abuser(s), date of the incident(s), description of the injuries, and the names of agency staff assigned to the case, will greatly facilitate implementing family violence initiatives.
    - *Assign Responsibility for Maintenance.* For the information tracking system to work, some agency should assume responsibility for the maintenance of the data. Given their critical role in preventing family violence (the police officer is often the first person on the scene), the police department is a good candidate for this responsibility.
    - *Regular Reporting Requirements by Agency.* Reporting requirements become meaningful once each relevant agency establishes goals and objectives regarding the prevention and reduction of family violence, and has developed corresponding protocols.
    - *Resource List.* The availability of resources should be

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published periodically, and lists of resources should be maintained and updated by all relevant agencies.

7. *Special Training Initiatives.* The staff of most agencies do not know how to deal effectively with either victims or abusers. The need for training in the area of family violence in many ways parallels the need for training in the area of alcoholism and substance abuse. The training needs of three groups were clear in the case studies: the police, IHS medical staff, and "allies."

- *Police training.* The actions of untrained police can easily and greatly exacerbate the problem. As the first authority often to respond to an incident of family violence, the police need special training in conjunction with a new protocol for dealing with family violence.
- *Medical staff (IHS or tribal).* While medical staff often do a good job of treating the injuries of a victim of family violence, they often do a poor job in (1) identifying family violence as a cause of injuries, (2) making the appropriate referrals for victims, (3) providing the appropriate follow-up care, (4) obtaining the type of evidence needed by courts in the prosecution of abusers, and (5) providing the expert testimony needed by the court. Medical staff need training by experienced experts in all these areas.

The medical staff training should incorporate the recognition, crisis intervention, and referral requirements of the Joint Commission for Accreditation of Health Organizations (JCAHO) as well as the Diagnostic and Treatment Guidelines on Domestic Violence developed by the American Medical Association.

Each Service Unit should have a physician trained in conducting special examinations needed for victims of rape and child sexual abuse. In addition, medical staff should receive special training on providing emotional support designed to minimize the psychological trauma associated with such assaults.

- The IHS needs to work with the police and an interagency family violence prevention task force to develop a core data set and a reporting system so that issues of confidentiality do not prevent the flow of information needed to protect the victim(s) and to prosecute the persons who commit violence against the members of their family.
- Development and training of allies. As with organizations like Alcoholics Anonymous that have developed "sponsors" to help recovering alcoholics any time of day or night, "allies" (possibly lay persons) should be recruited and trained to help victims of abuse.

8. *Abuser Treatment Protocol.* Surprisingly, abusers often

receive little or no treatment. Generally, abusers deny committing family violence, police often fail to arrest the abuser and, if arrested, the courts often fail to successfully prosecute the abuser. Even if arrested, convicted, and sentenced to participate in therapy, abusers often terminate treatment without sanction or any follow-up by the authorities.

## Recommendations

While communities are making efforts (the eight categories/components mentioned above) to deal with issues of violence, to be successful more must be done. Based on the study results, six recommendations are proposed.

1. *Redirection of Priorities and Resources.* Most studies seem to conclude that additional resources are needed to achieve the desired end. This study is no exception; it is clear that additional resources are needed to enhance efforts to prevent family violence. As important as more resources is the need for a recognition of the scope of the problem and of the damage created by family violence. All parties involved, the tribes, IHS, BIA, states, and counties, must focus on the problem, and make the prevention of family violence a priority.
2. *Education and Training.*
  - *In-Service training.* Special training for "front-line" agencies and programs (e.g., police officers, IHS medical staff, judicial services, social services, mental health, counseling, etc.) is needed. This should include interdisciplinary training and focus on the roles and responsibilities of all agencies and parties involved. The need for cooperation among all agencies and personnel should be stressed. Specialized training for physicians is needed in conducting medical examinations of abuse victims, as well as legal protocol in testifying as an expert witness in abuse cases.
  - *School-based programs.* Early intervention programs designed for the kindergarten through 12th grade school system should be implemented. The program should focus on issues related to family violence (e.g., identification, behaviors, prevention, and resources for dealing with the problem).
3. *Community-based Programs.*
  - *Alcohol and substance abuse treatment programs.* Programs focusing on treatment for alcohol and substance abuse should include, as a key component, initiatives to prevent family violence. Alcohol was cited as a factor in cases of family violence in each study site.
  - *Parenting programs.* Parenting skills are needed by teen parents, as well as by older parents. Parenting programs can be offered in the schools as well as through other supporting organizations and shelters. The programs can offer support groups, provide a

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valuable referral service to other resources, and address other forms of family violence in addition to child abuse and neglect.

- *Family services.* Often programs focus treatment efforts toward one family member in a specific age group. Working within this framework, the program only treats this one individual who subsequently returns or is returned (in the case of a minor) to a dysfunctional environment. By working with the family, dynamics within the family can be altered and the cycles of violent behavior can be broken. Follow-up procedures are a critical part of this process.
4. *Coordination of Programs/Services.* Reservations often have a diverse mix of tribal, Federal, state, and county programs, each with their own guidelines, procedures, protocols, and jurisdiction. Multiple and conflicting protocols and procedures cause confusion for victims of family violence. Often this confusion will result in the victims not seeking or obtaining needed help. In addition, victims often become second priority while the conflicts involving jurisdiction and responsibility are resolved.

There is a need to develop (1) an agreement on the division of labor, roles, and responsibility, (2) a coordination plan that is reflected in a reporting system, and (3) reporting and evaluation procedures.

5. *Reporting systems.* The various agencies (tribal, Federal, state, and county) with programs addressing family violence each maintain some level of reporting. Often these systems are agency- or division-specific, and do not include a tracking system for follow-up activities. There is a need for an accurate reporting system that integrates the various records maintained by each agency or program.

Reporting procedures should be comprehensive and clearly presented in written form to all employees who are likely to encounter family violence. Often the procedures are vaguely understood, or understood but not written.

Staff should be familiar with issues of confidentiality, maintaining patient records, and reporting.

6. *Law enforcement.* In-service training is needed for law enforcement staff. Across all study sites, informants reported that law enforcement was the "weak link" in the network of agencies addressing family violence. Appropriate modification of the tribal code, development of family violence prevention procedures, and in-service training for the police should enable police officers to assume active leadership in the protection of victims.

### Conclusion

Every day on some reservation, a batterer known to the community continues to commit acts of violence without being arrested or even detained and questioned. It is as if the abusers were invisible, as if battering a family member were an activity acceptable to the community.

To paraphrase one of the informants, a growing number of voices are saying that family violence cannot be allowed to continue. These voices demand that every person of decency join the chorus, and work to eliminate family violence from our communities. Tribal communities must be willing to undergo self-examination, investigating which behaviors perpetuate the violence against women and children. This social change process is critical to the survival of tribal cultures throughout Indian country.

**Editor's note:** *A Model for the Prevention of Family Violence in Native American Communities* (developed as a result of the study described in this article) is available. This model was designed for use by an individual, family, group, or tribe in developing a program to prevent or reduce family violence in Native American communities. The model calls for a culturally-relevant, community-based approach that can be adapted to meet the needs of individual tribes or communities. The model uses the sacred circle as a framework to develop a prevention program.

To obtain a copy, contact Beverly Wilkins, Family Violence Prevention Coordinator, 5300 Homestead Road N.E., Albuquerque, NM 87110 (phone: 505-248-4245).

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## NATIVE AMERICAN LITERATURE

*The following is an updated MEDLINE search on Native American medical literature. This computer search is published regularly as a service to our readers, so that you can be aware of what is being published about the health and health care of American Indians and Alaska Natives.*

*The Clinical Support Center cannot furnish the articles listed in this section of The Provider. For those of you who may wish to obtain a copy of a specific article, this can be*

*facilitated by giving the librarian nearest you the unique identifying number (UI number), found at the end of each cited article.*

*If your facility lacks a library or librarian, try calling your nearest university library, the nearest state medical association, or the National Library of Medicine (1-800-272-4787) to obtain information on how to access journal literature within your region. Bear in mind that most local*

library networks function on the basis of reciprocity and, if you do not have a library at your facility, you may be charged for services provided.

Fujimoto WY. Overview of non-insulin-dependent diabetes mellitus (NIDDM) in different population groups. REVIEW ARTICLE: 17 REFS. *Diabet Med.* 1996 Sep;13(9 Suppl 6):S7-10. 97049744

Lillioja S. Impaired glucose tolerance in Pima Indians. REVIEW ARTICLE: 15 REFS. *Diabet Med.* 1996 Sep;13(9 Suppl 6):S127-32. 97049768

Kosaka K, Kuzuya T, Yoshinaga H, Hagura R. A prospective study of health check examinees for the development of non-insulin-dependent diabetes mellitus: relationship of the incidence of diabetes with the initial insulinogenic index and degree of obesity. *Diabet Med.* 1996 Sep;13(9 Suppl 6):S120-6. 97049767

Murphy JE, Severnak T. Gentamicin pharmacokinetics in Native Americans of Apache ancestry. *Am J Health Syst Pharm.* 1996 Sep 15;53(18):2189-91. 97033669

Kauffeld K. Exploring health care in the southwest: the Navajo perspective. *Beginnings.* 1996 Oct;16(9):5.

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Narva A, Stiles S, Karp S, Turak A. Access of Native Americans to renal transplantation in Arizona and New Mexico. *Blood Purif.* 1996;14(4):293-304. 97027868

Menegoni L. Conceptions of tuberculosis and therapeutic choices in Highland Chiapas, Mexico. *Med Anthropol Q.* 1996 Sep;10(3):381-401. 97026847

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Brassard P, Smeja C, Valverde C. Needs assessment for an urban native HIV and AIDS prevention program. *AIDS Educ Prev.* 1996 Aug;8(4):343-51. 97028638

Mehl-Madrone, Lewis. *Coyote Medicine.* New York, NY: Scribner; 1997. ISBN 0-684-80271-6 (hc).

## ACOG/IHS Postgraduate Course New Registration Procedure

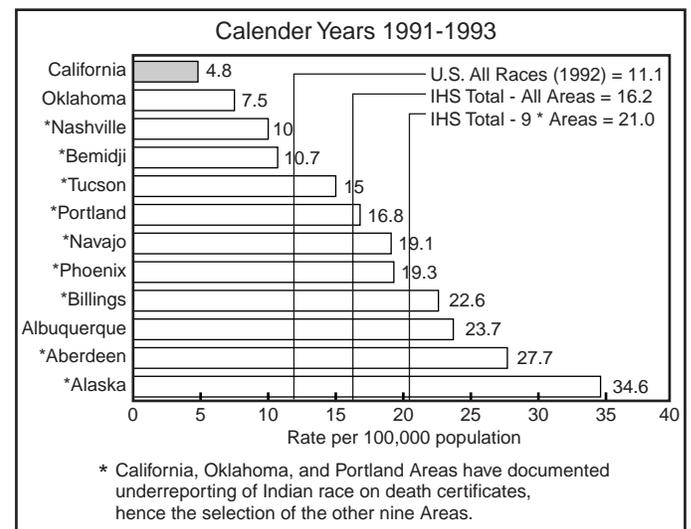
Each year since 1981, primary care providers and clinical nurses caring for women and children in Indian country have had the opportunity to attend a postgraduate course in obstetrics, neonatal, and gynecologic care (see page 107). This course has been put on jointly by the American College of Obstetricians and Gynecologists (ACOG) and the Indian Health Service (IHS). Approximately 1600 IHS and tribal providers have attended this program held each fall in Denver, Colorado.

Until last year, expenses for attendees were funded by IHS, including tuition, travel, and per diem. With funding cutbacks and tribal shares removed from the general IHS budget, this is no longer possible. This year, for the first time, a modest registration fee will be charged all attendees to help cover the costs of producing the course. Travel and per diem expenses will have to be paid by the attendee as well. It is hoped that some attendees will be able to find funding from monies set aside at the service unit or Area level for continuing education activities.

## Erratum

Figure 4, in the article entitled "Violence and Violence Prevention" in the April 1997 issue of *The IHS Primary Care Provider* (page 59) was incorrect. The correct figure follows:

Figure 4. Age-adjusted suicide mortality rates, by IHS Area.<sup>2</sup>





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