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# **Access to Specialty Health Care for Rural American Indians:**

## **Provider Perceptions in Two States**

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by

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#### **ABOUT THE CENTER**

The WWAMI Rural Health Research Center (RHRC) is one of eight centers supported by the Federal Office of Rural Health Policy (FORHP), a component of the Health Resources and Services Administration (HRSA) of the Public Health Service. The major focus of the WWAMI RHRC is to perform policy-oriented research on issues related to rural health care and the rural health professional workforce. Specific interests of the Center include the training and supply of rural health care providers and the content and outcomes of the care they provide; the availability and quality of care for rural women and children, including obstetric and perinatal care; and access to high-quality care for vulnerable and minority rural populations.

The WWAMI Rural Health Research Center is based in the Department of Family Medicine at the University of Washington School of Medicine, and has close working relationships with the WWAMI Center for Health Workforce Studies, state offices of rural health, and the other health science schools at the University, as well as with other major universities in the five WWAMI states: Washington, Wyoming, Alaska, Montana, and Idaho. The University of Washington has over 30 years of experience as part of a decentralized educational research and service consortium involving the WWAMI states, and the activities of the Rural Health Research Center are particularly focused on the needs and challenges in

these states. The WWAMI RHRC also works closely with the associated Area Health Education Centers.

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# Access to Specialty Health Care for Rural American Indians: Provider Perceptions in Two States

#### **ABSTRACT**

#### CONTEXT

The Indian Health Service (IHS) per capita expenditure for American Indian and Alaska Native (AI/AN) health services is less than half that spent per year on the U.S. civilian population. Many AI/ANs, especially in rural areas, depend on the IHS as their only source of funding for health care. Concerns have been raised that specialty services, which are largely funded through contracts with outside practitioners, may be limited by this low level of contract funding.

#### **OBJECTIVE**

To examine access to specialty services among rural Indian populations in two states.

#### **METHODS**

A 31-item mail survey addressing access to specialty physicians, perceived barriers to access, and access to nonphysician clinical services was sent to 115 primary care providers working in rural Indian health clinics in Montana and New Mexico and 96 primary care providers working in rural non-Indian clinics within 25 miles of the Indian clinics.

#### **RESULTS**

Substantial proportions of rural Indian clinic providers in both Montana and New Mexico (17%-75%) reported fair or poor access to nonemergent specialty services for their patients. Montana's rural Indian clinic providers reported poorer patient access to specialty care than rural non-Indian clinic providers, while New Mexico's rural Indian and non-Indian providers reported comparable access. Indian clinic providers in both states most frequently cited financial barriers to specialty care. Indian clinic providers in both states reported better access to several nonphysician services than non-Indian clinic providers.

#### CONCLUSIONS

Access to specialty care for rural Indian patients is limited, and appears to be influenced by the organization of care systems as well as financial constraints.

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#### INTRODUCTION

The Indian Health Service (IHS) has reported steady improvement in the health status of American Indians and Alaska Natives (AI/ANs) in the United States over the past six decades.<sup>1</sup> Infant mortality rates and deaths from injuries and infectious diseases such as tuberculosis and gastrointestinal diseases have decreased precipitously since the 1970s, yet marked disparities persist between AI/ANs and whites. AI/ ANs have an age-adjusted death rate one and a half times that of whites, with the most striking rate differences (AI/ANs over three times the rate of whites) in liver disease, infectious diseases, injuries, and diabetes. AI/ANs are significantly more likely to have a health condition that limits work or their usual activities, and to rate their health as fair or poor compared to whites.<sup>2</sup> These higher rates of morbid conditions require significant medical resources from both primary and specialty care physicians.

Rural AI/ANs in particular face significant health challenges. Rural AI/ANs are less likely to have health insurance coverage beyond the IHS (e.g., Medicare, Medicaid) and less likely to use health services of all types compared to their urban counterparts.<sup>3-5</sup> Travel times to a usual source of care are also significantly longer for AI/ANs living in rural compared to urban areas.<sup>3</sup>

This high need for medical services among AI/ANs is set in the context of shrinking dollars for medical services and a complex and varied set of organizational structures for medical service provision within the IHS. While initially the primary source of medical services to reservation-based AI/ANs was a network of hospitals and clinics centrally organized by

the IHS, a dramatic shift in the organization of AI/AN health services has taken place over the past decade to a mix of IHS and tribally administered services. In some areas, tribes or the IHS maintain outpatient, primary care clinics only, with all other health care contracted or referred out to other practitioners and health systems. Other areas maintain a more complete system of inpatient, outpatient, primary care, and specialty care services.

For all of these settings, the IHS budget has not kept pace with inflation in the cost of medical services, leading to a relative decrease in the average per capita dollars available to provide medical care to the AI/AN population.<sup>7,8</sup> While data from the National Survey of American Families suggest that AI/ANs with the IHS as their only source of health care coverage are equally likely to have a doctor or health professional visit as insured non-Hispanic whites,<sup>2</sup> anecdotal reports from medical providers in tribal and IHS clinics suggest that insufficient contract funding results in the inability of many patients, especially those without alternate forms of medical insurance, to receive needed specialty consultation services. We found few published studies examining AI/AN access to specialty services. 9,10 These studies documented restrictions in obtaining needed specialty services for children with special needs and adults with end-stage renal disease.

This study explores the level of access to specialty services among rural Indian populations in two states. We compare the perceptions of primary care providers working in rural tribal and IHS sites with those working in nearby rural non-Indian care sites regarding their patients' access to nonemergent medical and surgical specialty services and the barriers to receipt of these services.

#### **METHODS**

#### STUDY POPULATION

Working closely with the Chief Medical Officers of the Billings and Albuquerque IHS Areas at the time of this study, we identified all family physicians, pediatricians, internists, nurse practitioners, and physician assistants actively working in rural IHS and tribally administered clinics for reservation-based Indians. A total of 116 providers actively practicing and meeting these criteria were identified in the two states—62 in Montana practicing in 11 clinics and 54 in New Mexico practicing in 12 clinics.

These providers were classified as practicing in rural communities based on their ZIP codes using the Rural-Urban Commuting Areas (RUCAs) classification. 11 RUCAs use Census Bureau information on urbanized areas and urban places in combination with work commuting information to differentiate places based

on their city/town size and functional relationships to larger cities and towns. The 30 RUCA designations were aggregated into two categories to represent providers practicing in or strongly associated with urban or rural locations. Helena, Montana, a large town of over 25,000 people, was classified as rural using its RUCA, but clearly acted as a referral center in its state, and thus was reclassified as urban.

All rural populations, regardless of race or ethnicity, may have difficulty accessing specialty care due to distance to referral centers. To account for this, we created a comparison group for the rural Indian health providers comprised of rural primary care providers for non-Indians working within 25 road miles of an Indian health site. We first identified the rural towns within 25 road miles of each rural Indian health clinic, then used a variety of sources (i.e., NM Board of Examiners, MT Area Health Education Center, Web MD, Yahoo! Find a Doctor, Verizon Yellow Pages) to identify family physicians, internists, pediatricians, nurse practitioners, and physician assistants practicing in these towns. A total of 96 community-based, rural primary care providers were identified in the two states—50 in Montana practicing in 14 towns and 46 in New Mexico practicing in 8 towns.

#### **SURVEY INSTRUMENT**

We reviewed a variety of surveys addressing physician referral patterns<sup>12-14</sup> in developing our own 31-item questionnaire that asked about provider demographics and practice type, the type of clinical practice site, the most frequent types of physician specialists to whom patients were referred and their location, the availability of on-site pediatric and adult physician specialists, patient access to different physician specialists for nonemergent and emergent care, physician access to off-site, informal advice (e.g., telephone consultation), perceived barriers to patient access to specialty services, and patient access to nonphysician clinical services (e.g., dentistry, mental health, podiatry). Two versions of the questionnaire were created—one for physicians working at rural Indian health sites, the other for the community-based physicians caring primarily for non-Indians. We estimated distances in miles between the physicians' practices and the most frequent specialists to whom they referred their patients using an Internet-based geographic distance calculator.

The questionnaire was pilot tested with seven University of Washington clinical faculty physicians working in American Indian or Alaska Native health clinics. Their comments were used to revise the survey instrument. This project received approval from the University of Washington Human Subjects Division, as well as the Institutional Review Boards of the Billings Area Indian Health Service and the Albuquerque Area Indian Health Service.

#### **SURVEY ADMINISTRATION**

Up to three mailings of the questionnaire were sent to the different study populations approximately one month apart in a staggered fashion between May 2001 and February 2002. Response rates were 60.3 percent for Indian clinic providers (67.7% in Montana, 51.9% in New Mexico), and 58.3 percent for the rural non-Indian clinic providers (62.0% in Montana, 54.3% in New Mexico). A comparison of responders and nonresponders found roughly comparable types of training (i.e., DO/MD, physician assistant, nurse practitioner), specialty types, and length of employment at their current clinic in most comparisons (data not shown).

#### **ANALYSIS**

We compared practice characteristics, most common specialty referrals, provider perception of patient access to medical and surgical specialists, provider-identified barriers to specialist access, and provider perception of patient access to nonphysician services between physicians working in rural Indian clinics and non-Indian clinics using chi-square or Fisher's exact statistical tests for categorical variables (depending on the tables' cell counts) and student t-tests for continuous variables. Our primary analysis was stratified by state because of differences in the types of Indian health service facilities and referral centers in the two states. We also compared Indian clinics and non-Indian clinics between states using the same statistical tests.

#### **RESULTS**

The majority of respondents in the study groups in both states were physicians practicing family medicine (Table 1). In New Mexico, provider specialty was more heavily weighted towards family physicians than general internists and pediatricians at the Indian clinics compared to the non-Indian clinics. Higher proportions of providers working in Indian clinics compared to non-Indian clinics were Native American themselves. In both states, most rural Indian clinics were IHS-administered, although New Mexico had a larger proportion of clinics administered by the tribes. The majority of the rural non-Indian clinic providers in both Montana and New Mexico worked in singlespecialty groups. In New Mexico, nearly 40 percent of the rural non-Indian clinic providers worked in community and migrant clinics, while Montana had just over 40 percent of its rural non-Indian clinic providers working in hospital-owned clinics.

There was a great deal of consistency among the provider groups regarding the most frequently used specialists (Table 2). All provider groups reported that the most common referrals were to orthopedists and cardiologists. General surgeons were listed among the

top five consultants by providers in Indian and non-Indian clinics in both states. Providers in Indian clinics in both states listed obstetrician-gynecologists among their top consultants, whereas providers in non-Indian clinics did not. The average road distances to these specialists tended to be farther for patients from Indian clinics than for patients from non-Indian clinics, but varied by state, and generally were not statistically significant. In Montana, the average distance traveled by patients from Indian clinics to the five top specialists ranged from 41 to 122 miles and for patients from non-Indian clinics ranged from 45 to 91 miles. In New Mexico, distances were shorter, ranging from 56 to 76 miles and 10 to 62 miles, respectively, for the patients from Indian and non-Indian clinics.

Substantial and comparable proportions of rural Indian clinic providers in both Montana and New Mexico reported fair or poor access to nonemergent specialty services for their patients (Table 3). Montana's rural Indian clinic providers reported nearly uniform poorer access to specialty care for their patients than rural non-Indian clinic providers. In contrast, rural Indian clinic providers in New Mexico reported access to specialty care for Indians that was comparable to that reported by rural non-Indian clinic providers.

Providers' perceived barriers to patient access to specialty care were similar between states (Table 4). For providers in rural Indian clinics, financial barriers were at the top of the list in both states. The amount of money available to pay outside consultants for patient care (contract care) was a significant concern in those settings where such budgets were available. The rules governing eligibility for contract services also served as a barrier. Lack of insurance coverage was another important perceived barrier for Indian patients. These findings matched the results from a separate but related question that asked providers about the level of restriction in obtaining specialty care by their patients' insurance status. In both Montana and New Mexico, providers in rural Indian clinics reported that between 18 and 30 percent of patients with some form of insurance (private, Medicare, or Medicaid) had moderate to extreme restrictions in obtaining specialty care. Uninsured patients had much more significant restrictions—these same providers reported that 92 percent of uninsured Indian patients in Montana and 69 percent in New Mexico had this moderate to extreme restriction in obtaining specialty care. Eligibility for contract services mitigated this restriction somewhat, but not to the level of insured patients.

The most important perceived barrier to specialty access next to finances was patient lack of follow-through on referrals (Table 4). Cumbersome referral processes, excessive travel time to specialists, and lack

**Table 1: Demographic, Training, Practice, and Clinic Characteristics** of Survey Respondents by State and Clinic Type†

	Montana‡		New Mexico‡	
	Indian Clinics (n = 42)	Non- Indian Clinics (n = 31)	Indian Clinics (n = 27)	Non- Indian Clinics (n = 25)
Demographic characteristics				
Age				
% < 45	40	45	33	30
% 45-64	58	45	59	65
% 65+	3	10	7	4
% Male	63	57	44	56
Race				
% Native American	15*	0	11	4
% White	65*	90	82	83
% African-American	13	0	0	
		7	4	0
% Asian	5		•	•
% Other	3	3	4	13
Ethnicity	_	_		
% Hispanic	3	7	4	18
Medical training characteristics				
Provider type				
% DO/MD	62	58	67	76
% Nurse practitioner	24	29	15	12
% Physician assistant	14	13	19	12
Specialty				
% Family physician/general	74	84	89*	60
practitioner		•	•	
% General internal medicine	12	3	4	28
% Pediatrics	12	10	7	12
% Other	2	3		- 12
	_	3		
Practice characteristics				
% Working at current clinic				
< 5 years	56	58	54	37
5-14 years	33	26	39	42
≥ 15 years	10	16	8	21
Mean number direct patient care	37	42	35**	45
hours/week				
Type of clinic				
IHS-administered facility	90.5*	NA	70.4	NA
Tribal compacted or contracted	9.5	NA	29.6	NA
Type of practice	0.0		20.0	
Solo	NA	20.0	NA	20.8
Multi-specialty	NA NA	16.7	NA NA	16.7
	NA NA	63.3	NA NA	62.5
Single-specialty	INA	03.3	INA	02.5
Type of employer	A.1.A	40.0*	<b>N</b> 1.0	00.0
Self	NA	10.0*	NA	33.3
Hospital	NA	43.3**	NA	4.2
Private clinic	NA	16.7	NA	25.0
Local government	NA	6.7	NA	0
Community/migrant clinic	NA	10.0*	NA	37.5
Other	NA	13.3	NA	0

Range of n: Montana Indian clinics: 39-42.

Montana non-Indian clinics: 29-31. New Mexico Indian clinics: 26-27. New Mexico non-Indian clinics: 22-25.

The chi-square test was used for all statistical tests except for the variables Race, Type of Clinic, and Type of Employer, in which individual pairs were tested using the Fisher's exact test, and the variable Mean Number of Direct Patient Care Hours per Week, which used the Student's t-test.

Asterisks indicate statistically significant differences in responses between physicians in Indian and non-Indian clinics within each state.

<sup>†</sup> Column percentages may not total 100 percent because of rounding error.

<sup>\*</sup> p ≤ 0.05. \*\* p ≤ 0.01

<sup>\*\*\*</sup> p ≤ 0.001.

<sup>‡</sup> There is a statistically significant difference between the non-Indian clinics in Montana and New Mexico in specialty type (84% vs. 60%, p ≤ 0.05). There are no statistically significant differences between the Indian clinics in Montana and New Mexico.

Table 2: Top Five Consulting Specialties and Mean Distance Traveled by State and Clinic Type

Montana				
Indian Clinics (n = 42)		Non-Indian Cli	inics (n = 31)	
Specialty Type	Mean Number of Miles	Specialty Type	Mean Number of Miles	
Orthopedics	80	Cardiology	91	
Cardiology	122	Orthopedics	71	
Surgery	65	Ear-nose-throat	57	
Obstetrics-gynecology	41	Surgery	45	
Neurology	107	Dermatology	80	

New Mexico			
Indian Clinics (	n Clinics (n = 27) Non-Indian Clinics (n =		nics (n = 25)
Specialty Type	Mean Number of Miles	Specialty Type	Mean Number of Miles
Cardiology	65	Cardiology	59
Orthopedics	57	Orthopedics	39
Obstetrics-gynecology	56	Gastroenterology	54
Gastroenterology	76	Neurology	62
Surgery	59**	Surgery	10

Range of n for calculating the mean number of miles: Montana Indian clinics: 41-42.

Montana non-Indian clinics: 30-31.

New Mexico Indian clinics: 26-27.

New Mexico non-Indian clinics: 23-25.

Student t-tests were used for all comparisons.

Asterisks indicate statistically significant differences in the mean distance to consulting specialists reported by providers in Indian and non-Indian clinics within each state. Comparisons were conducted only for those specialty types listed in the top five by both Indian and non-Indian clinic providers.

of transportation were other frequently mentioned barriers to specialty care.

We also asked providers about their patients' access to nonphysician services (Table 5). Interestingly, perceived access to several nonphysician services was better for rural Indians compared to the rural non-Indian patients. Providers in rural Indian clinics in both New Mexico and Montana reported significantly less restricted access for their patients to chemical dependency and mental health counselors than providers in rural non-Indian clinics. In New Mexico, providers in Indian clinics reported less restricted access for their patients to dentistry and dental hygiene than providers in non-Indian clinics.

#### DISCUSSION

This study has confirmed the anecdotal concerns that providers caring for Indian patients have expressed regarding their access to specialty care services. In addition to clearly articulated financial constraints, the types of specialty care systems (e.g., relationships with referral centers) available to the Indian patients and the baseline availability of specialists in that geographic region may also affect specialty service access.

In New Mexico, providers reported comparable access to specialty care for rural Indian and non-Indian patients, whereas Montana reported poorer access for Indian patients compared to their non-Indian

<sup>\*</sup>  $p \le 0.05$ .

<sup>\*\*</sup>  $p \le 0.01$ .

<sup>\*\*\*</sup>  $p \le 0.001$ .

Table 3: Access to Nonemergent Specialty Care by State and Clinic Type†

% providers reporting fair or poor access to:	Mon	Montana‡		New Mexico‡	
	Indian Clinics (n = 42)	Non- Indian Clinics (n = 31)	Indian Clinics (n = 27)	Non- Indian Clinics (n = 25)	
Medical specialties					
Cardiology	20	10	20	21	
Gastroenterology	27	16	24	48	
Neurology	42	32	52	60	
Dermatology	75**	36	67	80	
Rheumatology	63*	36	52	72	
Surgical specialties					
Orthopedics	28	10	24	24	
Obstetrics-gynecology	30*	7	17	17	
General surgery	32**	0	17	12	
Otolaryngology	43**	7	40	52	
Ophthalmology	43*	17	28	33	
Urology	38*	13	40	38	
Other specialties					
Psychiatry	56	53	43*	79	

Range of n: Montana Indian clinics: 38-41 except psychiatry (n = 36).

Montana non-Indian clinics: 30-31.

New Mexico Indian clinics: 23-25 except psychiatry (n = 21).

New Mexico non-Indian clinics: 23-25.

Chi-square tests were used for all comparisons.

Asterisks indicate statistically significant differences in responses between physicians in Indian and non-Indian clinics within each state.

‡ There are statistically significant differences between the non-Indian clinics in Montana and New Mexico in access to nonemergent specialty care for the following specialties: gastroenterology (16% vs. 48%, p  $\leq$  0.05), neurology (32% vs. 60%, p  $\leq$  0.05), dermatology (36% vs. 80%, p  $\leq$  0.01), rheumatology (36% vs. 72%, p  $\leq$  0.05), otolaryngology (7% vs. 52%, p  $\leq$  0.001), urology (13% vs. 38%, p  $\leq$  0.05). There are no statistically significant differences between the Indian clinics in Montana and New Mexico.

counterparts. New Mexico has multiple specialty care resources for Indian patients, including an IHS hospital with specialist physicians in Gallup, as well as the University of New Mexico and several private hospitals in Albuquerque contracted with the Indian Health Service. These well-developed resources may help to minimize differences between Indian and non-Indian patients in rural New Mexico. Montana, on the other hand, has two IHS hospitals with limited specialty services and limited contract relationships for outpatient specialty services at non-IHS facilities.

Montana's Indian clinic providers are dependent on referral to community-based specialists, which may be responsible for their reports of poorer patient access to specialty care compared to non-Indian clinic providers. Montana's providers must address not only financial barriers to care, but also develop a specialist referral base.

Non-Indian clinic providers in New Mexico reported poorer access for their patients compared to those in Montana. This may reflect the larger rural Hispanic population in New Mexico compared to Montana,

<sup>†</sup> Providers answered this question for the specialists to whom they referred (i.e., pediatric providers would likely respond for pediatric specialists, while adult medicine providers would likely respond for adult specialists).

<sup>\*</sup>  $p \le 0.05$ .

<sup>\*\*</sup> p ≤ 0.01.

<sup>\*\*\*</sup> p ≤ 0.001.

Table 4: Barriers to Patient Access to Care by State and Clinic Type

	Mon	Montana†		New Mexico†	
% providers reporting moderate to big problem with:	Indian Clinics (n = 42)	Non- Indian Clinics (n = 31)	Indian Clinics (n = 27)	Non- Indian Clinics (n = 25)	
Financial barriers					
Lack of insurance	73	68	56*	84	
Insufficient contract budget	97	NA	83	NA	
Patient ineligibility for contract services	71	NA	32	NA	
Lag in payment of specialty provider by primary care clinic	44	NA	43	NA	
Transportation barriers					
Excessive travel time/distance	60	71	68	84	
Lack of transportation	60	63	52	76	
Health care system barriers					
Cumbersome referral process	31	24	44	71	
Excessive appointment wait times	51	71	63*	92	
Specialist unwillingness to take Al patients	5	NA	4	NA	
Cultural barriers					
Specialist's lack of cultural training/sensitivity	29	13	28	25	
Patient speaks only tribal language	2	3	28	21	
Patient personal barriers					
Difficulty taking time off work	19	32	28	52	
Patient lack of knowledge regarding how to use system	55	39	56	72	
Patient lack of follow-through	86*	65	76	68	
Patient sense of futility about health	43*	13	60*	26	

Range of n: Montana Indian clinics: 38-42 except lag in payment variable (n = 32).

Montana non-Indian clinics: 29-31.

New Mexico Indian clinics: 24-25 except lag in payment variable (n = 21).

New Mexico non-Indian clinics: 23-25.

Chi-square tests were used for all comparisons.

Asterisks indicate statistically significant differences in responses between physicians in Indian and non-Indian clinics within each state.

† There are statistically significant differences between the Indian clinics in Montana and New Mexico in the following barriers to patient access to care: patient ineligibility for contract services (71% vs. 32%, p  $\leq$  0.01), patient speaks only tribal language (2% vs. 28%, p  $\leq$  0.01). There are statistically significant differences between the non-Indian clinics in Montana and New Mexico in the following barriers to patient access to care: cumbersome referral process (24% vs. 71%, p  $\leq$  0.01), patient lack of knowledge regarding how to use the system (39% vs. 72%, p  $\leq$  0.05).

where the rural population is predominantly white. Hispanics are known to have poorer access to care compared to whites.<sup>15</sup> This finding may also reflect a poorer supply of specialist physicians in New Mexico compared to Montana. Data from the Area Resource File demonstrate lower specialist-to-population ratios among a number of specialties in New Mexico

compared to Montana, although the association between specialty supply and reported access is not always consistent.<sup>16</sup>

Over 80 percent of providers in rural Indian clinics in both states reported insufficient contract budgets as a substantial barrier to their patients' access to specialty

<sup>\*</sup>  $p \le 0.05$ .

<sup>\*\*</sup>  $p \le 0.01$ .

<sup>\*\*\*</sup>  $p \le 0.001$ .

**Table 5: Access to Nonphysician Services** by State and Clinic Type

	Mont	Montana†		New Mexico†	
% providers reporting moderate or extreme restriction in access to:	Indian Clinics (n = 42)	Non- Indian Clinics (n = 31)	Indian Clinics (n = 27)	Non- Indian Clinics (n = 25)	
Podiatrists	12	21	38	17	
Dentists	39	60	4***	71	
Dental hygienists	37	59	8***	75	
Chemical dependency counselor	18***	58	12***	67	
Mental health counselor	10***	58	8***	70	
Native American traditional healer*	54	NA	26	NA	

Range of n: Montana Indian clinics: 39-41 except traditional healer category (n = 28).

Montana non-Indian clinics: 29-31.

New Mexico Indian clinics: 24-25 except traditional healer category (n = 19).

New Mexico non-Indian clinics: 23-24.

Chi-square tests were used for all comparisons

Asterisks indicate statistically significant differences in responses between physicians in Indian and non-Indian clinics within each state.

services. Providers reported that uninsured rural Indian patients eligible for contract services had much more restricted access to specialty services than Medicaid-insured patients, highlighting the inadequacy of contract services as a mechanism for ensuring access to needed services for Indian patients. Providers anecdotally have reported that, depending on the time of year and the funding remaining in their contract service budgets, only patients with the most emergent problems can receive specialty care. Thus, for many patients in these settings, their access is severely limited by lack of insurance and funding constraints. At the same time, we were surprised that for insured patients in Indian clinics, the physicians reported relatively little difference in specialty care access based on the type of insurance (i.e., private versus Medicaid versus Medicare).

Next to funding, providers of Indian patients reported patient lack of follow through for specialty care appointments to be a substantial barrier to receipt of these services. This "lack of follow through" could represent a lack of understanding of the importance of the specialty care; fears regarding the information or treatment plan they may receive from the specialist; competing life priorities; transportation barriers, especially in the harsh climates found in Montana and parts of New Mexico during the winter; or financial concerns, among other issues. Alternatively, it could represent patients' difficulties in negotiating both the

IHS contract care system as well as outside health care systems.

Barriers to access that were reported as common to rural residents, whether Indian or non-Indian, included lack of insurance, transportation issues, and excessive wait times for appointments. Both lack of insurance and travel distance are barriers consistent with those reported for rural populations in other studies.17-20

The relative availability of nonphysician

services reported for rural Indian patients in both states compared to rural non-Indians is consistent with the multidisciplinary care approach taken by the IHS and many tribal-administered clinics.<sup>21,22</sup> Given the vacancy rate of 23 percent for dentists in the IHS nationally in 2001 and the dentist to AI/AN beneficiary ratio of 1:2,793 compared to 1:1,743 for the overall U.S. population,<sup>23</sup> we suspect that the responding providers may have overestimated access to dental care, however. It is also important to note that while providers for Indian patients reported relatively good access for their patients to mental health counselors, they reported much less access for their patients to psychiatrists. There was variation in availability of these services from state to state, as might be expected, however. The high level of restriction in access to dental and mental health care for rural non-Indian patients is concerning, and reflects the maldistribution of these health professionals across rural and urban areas.24-33

We specifically asked Indian health clinic providers for their perceptions about their patients' access to traditional healers. While there was a good deal of variation between the two states, providers in the rural Indian clinics reported high rates of restriction in access to these healers. Since studies have shown that a substantial proportion of Indians use traditional Indian medicine,34-37 this reported restriction most likely represents providers' lack of knowledge of, and relationship with, these healers. Over 80 percent of

<sup>\*</sup> p ≤ 0.05. \*\* p ≤ 0.01. \*\*\* p ≤ 0.001.

<sup>†</sup> There are statistically significant differences between the Indian clinics in Montana and New Mexico in access to the following nonphysician services: podiatrists (12% vs. 38%, p ≤ 0.05), dentists (39% vs. 4%, p ≤ 0.01), dental hygienists (37% vs. 8%, p ≤ 0.05). There are no statistically significant differences between non-Indian clinics in Montana and New Mexico.

the Indian health clinic providers were non-Indian, and a significant proportion had been working in the Indian Health Service or for tribal clinics less than five years. In addition, numerous congressional and government acts have prohibited Native American religious freedom since the early 19th century. Traditional Indian medicine could only be practiced secretly until 1978 when the American Indian Religious Freedom Act was passed.<sup>38</sup>

The findings of this two-state study cannot necessarily be generalized, as rural Indians in Montana and New Mexico only account for about 12 percent of rural American Indians and Alaska Natives nationally. The reported barriers to specialty care access are likely to be common to other states, however, since IHS funding levels do not vary dramatically across the country. This survey is also limited by its reporting of the subjective views of the responding providers and could be affected by recall bias.

This study highlights a number of perceived barriers to rural American Indians' access to important specialty services. Financial constraints top the list of these barriers. This is not surprising, since in 1995, the estimated \$1,153 spent on health care per capita for the Native American population through the IHS was \$1,759 less than the per capita health care expenditure for the U.S. civilian population.<sup>7</sup> A stakeholder group charged by the IHS to determine what it would cost to provide an equitable level of health care services to all eligible Indian people found that the IHS appropriation for fiscal year 1999 provided only 59 percent of the necessary federal funding for the Indian health system.<sup>39</sup> While the 1976 Indian Health Care Improvement Act authorizes appropriations for the IHS, these appropriations have not been at levels that allow tribes and the IHS to uphold their responsibility for providing high-quality health care for AI/ANs. 6,40 The current system of contract budgeting can result in a total depletion of consultation funds by the end of the fiscal year, leaving uninsured Indian patients without any resources for specialty care. This places health care practitioners as well as the tribes and IHS personnel administering these services in an extremely awkward position. Under these conditions, health care providers assume care roles beyond their level of training. Committees responsible for the allocation of contract funds are put in the position of making difficult decisions regarding who should and should not receive specialty consultation services. As tribes take advantage of increasing autonomy in the way that Indian health services are organized, there are opportunities to make improvements in the way funds are allocated and authorized. Without funding comparable to that of other Americans, the potential benefits of these organizational changes will be more limited.

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