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Health Problems and Use of Services at Two Urban American Indian Clinics

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Synopsis

The use of primary health care services by urban American Indians and their health problems were compared with national and regional data compiled by the Indian Health Service, Bureau of the Census, Office of Technology Assessment, and the National Center for Health Statistics. A survey of medical records was conducted at urban Indian health clinics, one located in Oklahoma City, OK, and the other in Wichita, KS. Health records of 500 patients from each clinic were reviewed. Information was gathered concerning reasons for visit, diagnoses, and number of physician visits. In addition, predisposing variables and enabling vari-

ables from each patient's registration form were reviewed.

According to the data collected in the survey, the clientele of these urban Indian clinics have annual incomes well below the average income of the general population and the overall American Indian population in these cities. Their lack of health insurance and low education levels were also evident. Use of primary health services was below that of the general population, and lower, but relatively close, to use levels of American Indians residing in rural Oklahoma and Kansas. Information on health problems indicated high levels of diabetes mellitus and hypertension among the middle-age groups, and high levels of use by young women for prenatal care and contraception.

The absence of systematically collected and comprehensive health and health care use information about urban American Indians, who now comprise more than half the U.S. American Indian population, and the limitations in the available information leave important questions unanswered. There are indications that large segments of urban Indian populations have difficulty obtaining primary and preventive health care services due to their general socioeconomic condition and the absence of the Indian Health Service in many urban areas.

THERE ARE MORE AMERICAN Indians residing in urban areas of the United States than in all other locations combined. According to the 1980 census, 54 percent of the total American Indian population in the United States, estimated to be 1.4 million,

resides in cities. Less than 24 percent of the American Indian population lives on reservations. The remainder of the Indian population is located in a variety of settings that are predominately rural, including Alaska Native villages (2.8 per-

cent), tribal trust land (2.1 percent), and the historic areas of Oklahoma, excluding urban areas (8.2 percent) (1).

Major reasons for migration to cities have been economic, that is, a search for jobs or better jobs. In fact, the Federal Government assisted the migration with a program of "relocation," implemented during the late 1950s and throughout the 1960s. This program, administered by the Bureau of Indian Affairs, provided transportation, financial assistance, job training, and counseling for young American Indian families so that members might find jobs in cities such as Los Angeles, CA, and Chicago, IL.

Once located in a city, most American Indians are cut off from their usual source of health care, the Indian Health Service (IHS), a program of the Public Health Service. Yet, it has been reported that many urban Indians return to the reservation or rural area from which they migrated to receive health care services (2,3). These reports verify the current distribution of Indian health resources; IHS facilities and manpower are located on reservations or in rural areas, where most Indian people formerly lived, rather than in the urban areas, where most Indians now reside. Notable exceptions are major IHS hospitals located in Phoenix, AZ, Albuquerque, NM, and Anchorage, AK.

Since 1977, the IHS has assisted urban Indian organizations to implement health projects intended to assist urban Indians in their efforts to gain access to primary health care services. Funding for these projects was provided by title V of Public Law 94-437, the Indian Health Care Improvement Act of 1976. Thirty-seven of these projects are currently in operation; 30 have developed into health clinics, while the remaining 7 operate outreach and referral programs. Some clinics, such as those in Seattle, WA, Minneapolis, MN, Milwaukee, WI, and Tulsa, OK, have evolved into comprehensive ambulatory health centers, with close political and financial relationships with their respective municipal governments. They have diversified their funding sources, and they have become permanent health institutions. However, many of the remaining clinics are much more dependent on IHS funding, provided through Public Law 94-437 and its subsequent amendments.

Little is known, and less has been written about, the health problems and the use of health care services by urban American Indians. In an April 1986 study by the Office of Technology Assess-

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ment (OTA) entitled "Indian Health Care," it is stated (4):

There is very little information of the health status of urban Indians, despite the fact that they are estimated to constitute about 50 percent of the total Indian population. IHS does not collect diagnostic patient care information from urban programs, and does not analyze or publish vital statistics or population characteristics for urban Indians except when these data are included with national level data on the reservation States.

In 1983-84, a survey of medical records was conducted at two urban Indian health clinics located in Oklahoma City, OK, and Wichita, KS, and funded under Public Law 94-437. Both cities are within the administrative jurisdiction of the IHS' Oklahoma City Area. Data were collected from 1,000 medical records—500 from each clinic. The major objective of the survey was to develop a reliable description of the health problems and levels of service use of urban Indian patients for both clinics. A subobjective was to develop, to the extent possible, a socioeconomic portrait of the people who use the health services offered at both clinics.

Methodology

Permission to survey the medical records was provided by the Board of Directors of each clinic, and administrators and medical records clerks of each clinic gave generous assistance. Throughout the study, strict adherence to mutually agreed-upon measures to ensure confidentiality were maintained.

A cross-sectional design was selected for this survey of data from calendar year 1982. The

Table 1. Distribution of study group members by frequency of patient care visits

Frequency of visits	Study group members	
	Number	Percent
1	368	36.8
2	195	19.5
3	112	11.2
4	100	10.0
5	58	5.8
6	36	3.6
7	37	3.7
8	23	2.3
9	21	2.1
More than 9 visits	50	5.0
Total	1,000	100.0

Table 2. Distribution of study group members and patient care visits by number of diagnoses

Number of diagnoses	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
Women				
1	377	55.36	937	38.51
2	165	24.23	601	24.70
3	84	12.33	423	17.39
4	28	4.11	229	9.41
5	20	2.94	166	6.82
6	5	0.73	60	2.47
7	1	0.15	7	0.29
8	1	0.15	10	0.41
Total ..	681	100.00	2,433	100.00
Men				
1	235	73.67	550	63.00
2	57	17.87	173	19.82
3	19	5.96	82	9.40
4	2	0.63	18	2.06
5	1	0.31	7	0.80
6	4	1.25	31	3.55
7	1	0.31	12	1.37
Total ..	319	100.00	873	100.00

sampling frame was composed of the medical records of every patient at both clinics who had a patient care visit in 1982 and who was 18 years of age or older. A patient care visit was defined as a face-to-face encounter between a patient and a physician. The sampling frame for the Oklahoma City clinic numbered 3,626; for the Wichita clinic the sampling frame numbered 2,720. From each sampling frame 500 records were randomly selected. Each patient whose medical record was selected became, in effect, a study group member.

Data were gathered from each medical record in

three areas: health needs and use of services and sociodemographic and economic information. The health need and use data included (a) number of patient care visits (physician visits) per patient and per health need or condition in 1982 and (b) each health need or condition per study group member in 1982. The sociodemographic data, sometimes referred to as predisposing variables, included age, sex, tribe, marital status, and education. The economic data, sometimes referred to as enabling variables, consisted of annual income and type of health insurance.

Each item of information, except patient care visits and health need or condition, was derived from the patient registration form of the study group member. Patient care visit and health need information was collected by reviewing the medical record notes of study group members.

Since the medical records survey only included urban American Indians who used the urban Indian clinics in 1982, the findings of the survey may be generalized only to those who visited the clinics that year. Furthermore, the degree to which these clinics were the sole source of primary health care for the patients whose medical records were surveyed is unknown. However, given the low socioeconomic status of most study group members, as indicated by the survey, the clinics for urban Indians were most likely the sole source of primary health care for the people who used them. In addition, the accuracy of the patient-supplied information about annual income, education, health insurance, and other personal information must be regarded with appropriate caution.

Findings

Patient care visits. In 1982, study group members generated 3,306 patient care visits. The mean number of visits per person was 3.30. Of the persons in the sample, 632 (63.2 percent) had more than one patient care visit; 325 (32.5 percent) had four or more patient care visits. The full distribution of study group members by frequency of patient care visits is presented in table 1.

The mean number of outpatient visits by American Indians at IHS hospitals and clinics in the Oklahoma City Area of the Indian Health Service, which includes the entire State of Oklahoma and parts of Kansas, was 3.6 in 1982 according to Anthony D'Angelo, Director of IHS Program Statistics (personal communication, October 21, 1986).

Health problems or health needs. A diagnosis or reason for visit was identified for each study group member, and 100 diagnoses were identified for the entire sample. Many study group members (38.8 percent) had more than one diagnosis or reason for visit. Almost 45 percent of women and 26 percent of the men in the study groups had more than one diagnosis or reason for visit (table 2).

The five leading diagnoses or reasons for visit for the study sample were diabetes, hypertension, physical examination, contraception, and prenatal care. Table 3 presents the leading health problems of the sample by sex and indicates the large number of diagnoses or reasons for visit represented in the sample by the category "Other." More than 30 percent of the sample and more than 40 percent of all patient care visits are contained in this category. The wide variety of health problems is typical of a general primary health care clinic.

Age. The median age of the patients was 30.5 years, with the Oklahoma City study group having a slightly higher median, 31 years, than the Wichita group, 29 years. According to the 1980 census, the median age for all American Indians was 23.4, compared with 30.0 for the U.S. all races population, and the median age of American Indians in Oklahoma City was 21.3 and in Wichita, 23.7. Because the survey excluded pediatric patients, the sample does not reflect age data that are consistent with those of the overall American Indian population or the overall Indian population of Oklahoma City and Wichita. The largest proportion of the sample, 455 people, were in the age group 25-44 years; only 81 were 65 years of age or older.

Sex. Women outnumbered men in the sample 681 to 319. The majority of women in the sample (77.3 percent) were 44 years or younger, as were most of the men (68.3 percent).

Tribe. Study group members were placed in one of four geographic groups—Eastern Tribes, Plains Tribes, Northwest Tribes and Southwest Tribes—because of the general cultural similarities of Indian tribes who originated or now live in these geographic regions of the United States. For example, the Eastern Tribes included the so-called five civilized tribes—Cherokee, Choctaw, Chickasaw, Creek, and Seminole. The Plains Tribes included the Kiowa, Comanche, and Sioux. There were very few representatives of the other two geographic groups in the sample. Information

Table 3. Distribution of study group members and patient care visits by sex and health needs and problems

Health need or problem	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
<i>Women</i>				
Diabetes.....	67	9.84	413	16.97
Hypertension	78	11.45	366	15.04
Contraception.....	118	17.33	262	10.77
Prenatal care	72	10.57	251	10.32
Physical examina- tion	186	27.31	233	9.58
Other	160	23.50	908	37.32
Total	681	100.00	2,433	100.00
<i>Men</i>				
Diabetes.....	38	11.91	181	20.73
Hypertension	48	15.05	140	16.04
Physical examina- tion	80	25.08	88	10.08
URI (common cold) ..	29	9.09	35	4.01
Otitis media.....	17	5.33	21	2.40
Other	107	33.54	408	46.74
Total	319	100.00	873	100.00

Table 4. Distribution of study group members and patient care visits by American Indian tribal groups

Tribal groups	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
Eastern....	518	51.8	1,777	53.7
Plains.....	429	42.9	1,402	42.4
Northwest .	5	0.5	12	0.4
Southwest .	48	4.8	115	3.5
Total ..	1,000	100.0	3,306	100.0

about tribal distribution may indicate the likelihood of certain tribes to use modern health care services more readily and more easily than others. Cultural similarities among groups of tribes also manifest different levels of social assimilation. The Eastern Tribes, for example, have had a much longer and sustained relationship with European and American culture and society than the Plains Tribes (table 4).

Marital status. Three marital status categories were identified for the sample members: married, single, and single head-of-household. Of the sample members, 512 were married, 361 were single, and the remaining 127, all women, were single heads-of-household. The 1980 census for the U.S. all races population (5) estimates were that 14 percent of all

Table 5. Distribution of study group members and patient care visits by marital status

Marital status	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
Married.....	512	51.2	1,784	54.0
Single.....	361	36.1	1,035	31.3
Single, head of household.....	127	12.7	487	14.7
Total.....	1,000.0	100.0	3,306	100.0

Table 6. Distribution of study group members and patient care visits by education level

Education level	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
Less than high school.....	375	37.5	1,311	39.7
High school.....	432	43.2	1,385	41.9
More than high school.....	193	19.3	610	18.4
Total.....	1,000	100.0	3,306	100.0

Table 7. Distribution of study group members and patient care visits by type of health insurance

Health insurance	Study group frequencies		Patient care visit frequencies	
	Number	Percent	Number	Percent
None.....	642	64.2	1,904	57.6
Private....	275	27.5	969	29.3
Public.....	83	8.3	433	13.1
Total	1,000	100.0	3,306	100.0

families were maintained by women, whereas 22.7 percent of American Indian families were maintained by women (table 5).

Education. Among the sample, 432 (43.2 percent) indicated they had completed high school; 193 (19.3 percent) indicated they had gone to college or were college graduates. The remaining 375 (37.5 percent) had less than a high school education (table 6). According to the 1980 census, 62 percent of the Oklahoma City Indian population and almost 69 percent of the Wichita Indian population were high school graduates (6a,7a).

Income. The median income for the study group sample was \$5,417 compared with the median income of all American Indian families in 1979 of \$13,678 and the \$19,917 median for U.S. families of all races. The median annual income was \$13,780 for Indian households in Oklahoma City and \$13,889 for those in Wichita. Of the study group, 766 (76.6 percent) had annual incomes of \$10,000 or less. According to the 1980 census, 38.1 percent of Oklahoma City American Indian households had annual incomes less than \$10,000, and in Wichita, 30.5 percent of Indian households had annual incomes of less than \$10,000 (6a,7a).

Health insurance. Nearly two-thirds of the sample had no health insurance, and only 83 persons (8.3 percent) had public insurance, that is, Medicare or Medicaid. The remainder, 275 persons, had private health insurance (table 7).

Comparison with National Data

The study group's use of clinic services in 1982 was compared with similar data gathered by the National Health Interview Survey (NHIS) for 1982. The NHIS collects information about the frequency of health service use by Americans along with other information. The data are based on household interviews of the civilian noninstitutionalized population in the United States. In terms of primary outpatient or ambulatory health care, the NHIS for 1982 provided information about the number of physician contacts per person per year by place of contact and by certain sociodemographic characteristics of the U.S. population. Contacts included telephone calls and office, hospital, and other site visits, including unknown or unreported sites. Tables 8, 9, and 10 summarize use data by the study group sample according to age and sex, age and income, and age. Similar data from the NHIS are included for comparison at two sites of physician contact, "all places" and "office."

For all ages, both sexes, and all income levels, the urban Indian study group showed significantly lower use of ambulatory health services when compared with NHIS data for all places of physician contact. However, as noted earlier, the degree to which study group members used the ambulatory health services of other clinics or hospital emergency rooms is unknown. Yet, it is the considered opinion of both medical and administrative staff of the Oklahoma City and the Wichita urban Indian clinics, based on 8 to 10

Table 8. Physician contacts per year of patients at two urban American Indian clinics compared with those of 1982 National Health Interview Survey (NHIS) respondents, by age

Age	Oklahoma City and Wichita clinics			Physician contacts (NHIS) ¹	
	Study group members	Annual visits	Visits per person	All places	Office
18-24 years	290	819	2.8	4.4	2.3
25-44 years	455	1,321	2.9	4.8	2.8
45-64 years	174	765	4.4	6.1	3.6
65-74 years	52	254	4.9	7.4	4.5
75 years and over	29	147	5.1	8.4	5.1
Total	1,000	3,306	3.3	5.2	3.0

¹ SOURCE: National Center for Health Statistics: Current estimates from the National Health Interview Survey, United States, 1982. Vital Health Stat [10] No.

150. DHHS Publication No. (PHS) 85-1578, U.S. Government Printing Office, Washington, DC, 1985.

Table 9. Physician contacts per year of patients at two urban American Indian clinics compared with those of 1982 National Health Interview Survey (NHIS) respondents, by sex and age

Sex and age	Oklahoma City and Wichita clinics			Physician contacts (NHIS) ¹	
	Study group members	Annual visits	Visits per person	All places	Office
<i>Men</i>					
18-44 years	218	439	2.0	3.5	1.8
45-64 years	69	304	4.4	5.7	3.2
65 years and older	32	133	4.2	7.2	4.2
Total	319	876	2.7	4.5	2.5
<i>Women</i>					
18-44 years	527	1,701	3.2	4.1	2.2
45-64 years	105	461	4.4	6.5	3.9
65 years and older	49	268	5.5	8.1	5.1
Total	681	2,430	3.6	5.8	3.4

¹ SOURCE: National Center for Health Statistics: Current estimates from the National Health Interview Survey, United States, 1982. Vital Health Stat [10] No.

150. DHHS Publication No. (PHS) 85-1578, U.S. Government Printing Office, Washington, DC, 1985.

years of experience, that the urban Indian clinics are by far the principal site for health care delivery to the people who use them. This is especially true for the 75 percent of the study group sample with annual incomes of less than \$10,000.

Urban Indians' use of services (visits per person) and that of the NHIS sample for physician contacts at the office site were quite similar. Slightly higher use by urban Indians in some age and sex groups can be observed.

Use of primary health services by urban Indians (3.3 visits per person) was well below that of the total population served by IHS, which was 4.9 visits per person per year in 1982 and somewhat below that of the Oklahoma City Area IHS—about 3.6 visits per person per year in 1982 (Anthony D'Angelo, Director of IHS Program Statistics, personal communication, October 21,

1986). However, the IHS definition of a primary health care visit differs from the definition used in this urban Indian medical record survey. In the IHS system, there are a variety of primary health care providers including physicians, pharmacists, physician assistants, and nurse practitioners. Therefore, total primary health care visits (outpatient visits) in the IHS include many nonphysician visits. Approximately 44 percent of IHS primary care is provided by health professionals other than physicians (8).

Health problems. Both the Oklahoma City and the Wichita urban Indian health clinics are within the Oklahoma City Area Indian Health Service region of operations. The medical record survey of these two clinics provides a unique opportunity to compare health problems and ambulatory health

Table 10. Physician contacts per year of patients at two urban American Indian clinics compared with those of 1982 National Health Interview Survey (NHIS) respondents, by annual income and age

Annual income and age	Oklahoma City and Wichita clinics			Physician contacts (NHIS) ¹	
	Study group members	Annual visits	Visits per person	All places	Office
<i>Under \$10,000</i>					
18-44 years	557	1,588	2.85	6.1	2.8
45-64 years	119	570	4.8	7.6	3.8
65 years and older	73	363	5.0	7.9	5.0
Total	749	2,521	3.4	6.2	3.2
<i>\$10,000-\$19,999</i>					
18-44 years	167	496	3.0	4.3	2.3
45-64 years	47	172	3.7	6.7	3.8
65 years and older	8	21	2.6	7.6	4.6
Total	222	689	3.1	4.9	2.7
<i>\$20,000-\$34,999</i>					
18-44 years	21	70	3.3	4.8	2.9
45-64 years	8	26	3.25	5.7	3.4
65 years and older	0	0	0	7.7	4.3
Total	29	96	3.3	5.0	3.0

¹ SOURCE: National Center for Health Statistics: Current estimates from the National Health Interview Survey, United States, 1982. Vital Health Stat [10] No.

150. DHHS Publication No. (PHS) 85-1578, U.S. Government Printing Office, Washington, DC, 1985.

Table 11. Comparison of most frequent diagnoses and needs of patients of two urban American Indian clinics with diagnoses reported in national and Oklahoma City Area Indian Health Service data

Oklahoma City and Wichita clinics, 1982	IHS national, 1984	IHS Oklahoma City Area, 1984
<i>Women</i>		
Diabetes	Prenatal care	Prenatal care
Hypertension	URI (common cold)	Other preventive health services
Contraception	Diabetes	Hypertension
Prenatal care	Hypertension	Diabetes
Physical examination	Otitis media	Refractive error
<i>Men</i>		
Diabetes	URI (common cold)	Hypertension
Hypertension	Otitis media	URI (common cold)
Physical examination	Hypertension	Other preventive health services
URI (common cold)	Diabetes	Diabetes
Otitis media	Well-child care	Refractive error

SOURCE: Reference 4.

care use data with that of other Indian patients who use IHS health care services.

The health problems and needs of the urban Indian clinic patients were quite similar to those of all IHS patients and Oklahoma City Area IHS patients. For example, the five most frequent outpatient diagnoses for Oklahoma City Area IHS female patients in 1984 were prenatal care, other preventive health services, hypertensive disease, diabetes mellitus, and refractive error. Three diagnoses—prenatal care, hypertension, and diabetes—

are among the five leading diagnoses for female patients of the urban Indian clinics in 1982. Male study group members shared four of five leading diagnoses in common with IHS male patients nationally. Table 11 compares the leading diagnoses. Their similarity was predicted by both IHS and urban Indian health clinic personnel because most Indians residing in Oklahoma City and Wichita have migrated from rural Oklahoma. It is further supported by the very small representation in the study group sample of patients with tribal

affiliations from outside Oklahoma. (There are more than 30 federally recognized American Indian Tribes represented in Oklahoma.)

Summary Findings and Conclusion

Perhaps the most startling condition of the patient population of the urban Indian clinics was the low level of health insurance coverage. The impoverished condition of the study group was not unexpected; however, it was surprising that so few had public health insurance. Only 8.3 percent of the study group reported on their patient registration forms that they had (Medicare or Medicaid) coverage, and only 27.5 percent reported some form of private insurance. The remainder, 64.2 percent, reported no health insurance of any kind. The relatively low levels of educational attainment by many of these urban Indians may offer some explanation because of the well-established link between education, employment, and health insurance coverage.

In general, the findings of this medical record survey indicate that the people using the primary health services of urban Indian clinics are among the most impoverished of the urban Indian population. They further suggest that if these Indians are using other health care providers, they probably are limited to providers in public health departments and hospital emergency rooms, which offer limited services, and the Indian Health Service. Visits to IHS facilities entail at least 2 hours of round-trip travel for Oklahoma City Indian residents and almost 3 hours of round-trip travel for Wichita Indian residents.

In conclusion, the survey of medical records of the two urban Indian health clinics has provided preliminary evidence that primary health problems and needs of urban Indians are quite similar to those of the general Indian population residing in the surrounding rural areas of the region. The survey results also indicate that there is less use of primary health care services by urban Indians compared with Indian Health Service patients and the general U.S. population. However, the reasons for lower use remain unclear. Although the use profile of urban American Indians as described provides some baseline data, more work needs to be done. Answers to the following questions would be of interest: To what extent are urban Indians using other primary health service clinics, such as health departments and hospital emergency rooms? How often do they use IHS health care services? To what extent do urban Indians delay treatment

or ignore primary health problems and needs?

These important questions go unanswered because of missing information and the limitations of the available information. It would be highly desirable to conduct a health interview survey of urban American Indian households to remedy this condition.

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