1989

Regional differences in Indian health - 1997

Indian Health Service, Rockville, MD

American Indian Health Care Association
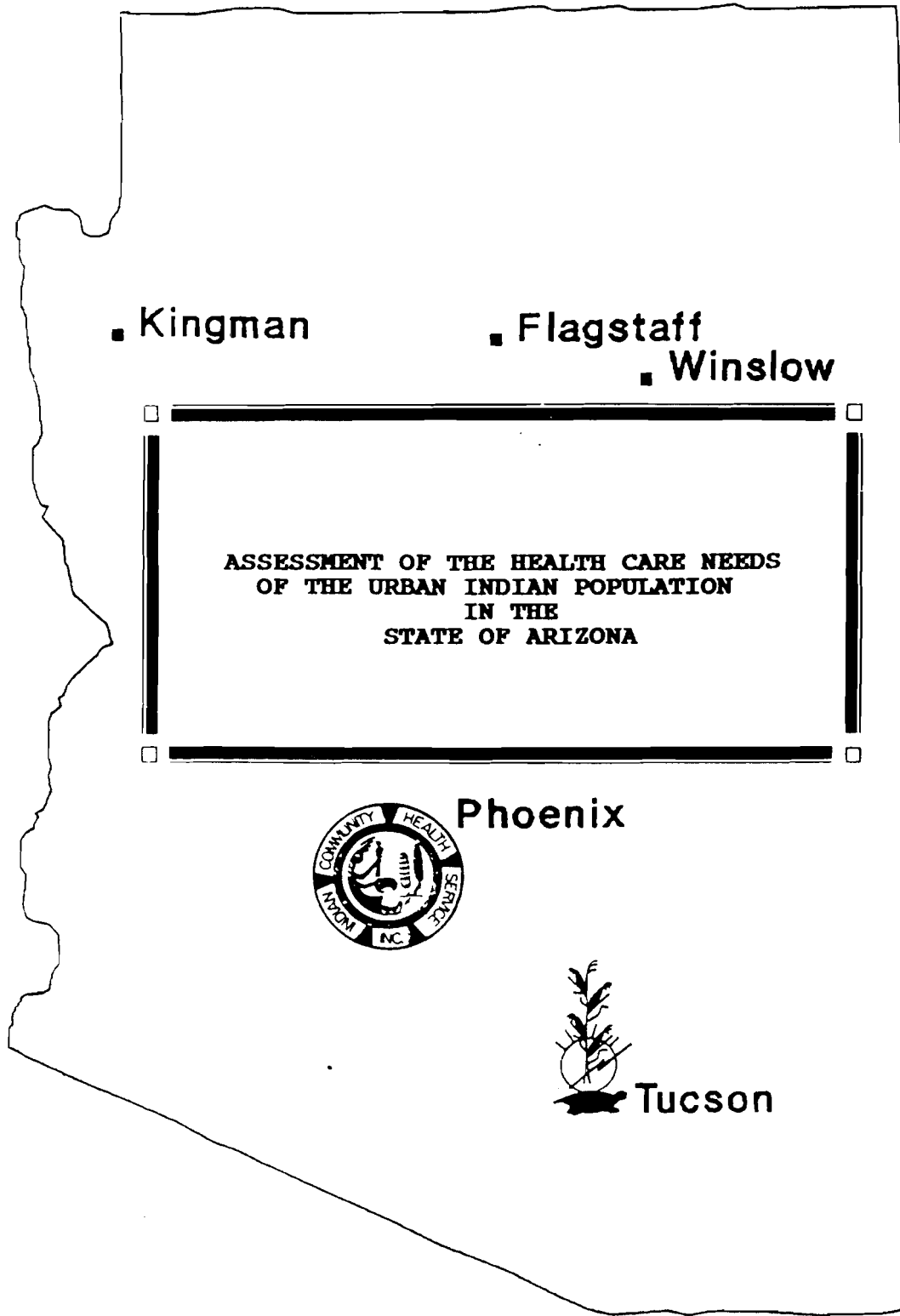
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ASSESSMENT OF THE HEALTH CARE NEEDS OF THE URBAN INDIAN POPULATION IN THE STATE OF ARIZONA

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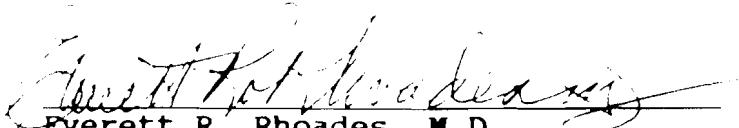A.I.H.C.A. HEALTH
CARE
ASSOCIATION

REPORT TO CONGRESS

ON

THE INDIAN HEALTH SERVICE

WITH REGARD TO

ASSESSMENT OF THE HEALTH CARE NEEDS
OF THE URBAN INDIAN POPULATION
IN THE
STATE OF ARIZONA

IN RESPONSE TO

SENATE REPORT 100-165

AND

CONFERENCE REPORT 100-498

OF FISCAL YEAR 1988

NOVEMBER 1989

Everett R. Rhoades, M.D.
Assistant Surgeon General
Director, Indian Health Service

AN ASSESSMENT OF THE HEALTH NEEDS OF THE URBAN INDIAN POPULATION IN THE STATE OF ARIZONA

EXECUTIVE SUMMARY

In Senate Report No. 100-165 and Conference Report No. 100-498 of Fiscal Year 1988, the Committee on Appropriations requested that the Indian Health Service (IHS) conduct an assessment of the health needs of urban Indians residing in the state of Arizona (p. 117). The following is submitted in response to that request.

HEALTH STATUS

The health status of urban Indians in Arizona is poor, and three of the five major causes of death- accidents, alcoholism, homicide- are complex problems over which medical technology has had little success. Heart disease, cancer and diabetes, the other leading causes of death, are chronic conditions requiring long-term health monitoring. These conditions are also responsible for morbidity problems such as eye diseases and physical handicaps. Urban Indians reported high prevalence of vision problems (40.5%), overweight (37.3%), dental (30.7%), and back problems (21.7%). In addition, mental health problems affected many in the Indian community- 14.5% reported anxiety and depression while 13.5% reported fatigue and exhaustion.

Infant mortality rates for urban Indians are well above the rate of the Arizona general population and the overall Arizona Indian population. The urban Indian infant mortality rate exceeds the 1990 U.S. Surgeon General's Objective for the Nation by 60%.

Health risk factor levels are high among the Arizona urban Indian community. In particular, high blood pressure readings in Indian males combined with the low numbers taking blood pressure medication point to the importance of screening and follow-up for heart health risks. Levels of obesity, binge drinking and diabetes are also elevated within the urban Indian community in Arizona. Other health risks of urban Indians include high driving speeds, driving while intoxicated, and sedentary life-styles.

HEALTH RESOURCES USED

The major source of health care for urban Indians is the IHS. Other sources such as county medical facilities, community health centers, and private providers are rarely used. Over 40% of the urban Indian community went to the emergency room for health care during 1988. However, many of these visits represent inappropriate use of emergency facilities. Between 45 and 75% of the emergency visits could have been taken care of through less costly primary care visits.

Social services in metropolitan areas are under-utilized by the Indian community. Indian-specific programs, with the exception of alcohol-related services and Women, Infants and Children (WIC) nutrition services, are not available. Both WIC and alcohol related programs are among the few used by the Indian community, indicating that services geared toward Indian people will have greater utilization than those not culturally specific. American Indians living in urban areas with limited access to phones and transportation are best reached by the "word-of-mouth" about services. American Indian staff in urban Indian health programs, particularly the community health representatives, provide an important link to the urban Indian community and are able to outreach through their work in both home and community health. In addition, these lay health workers can follow the movement of clients through their network of family and friends within the community. Most of the urban health programs also provide transportation services, which enable urban Indians to access services they would otherwise forego.

BARRIERS TO CARE

Socioeconomic

Urban Arizona Indians are very poor compared to the general population of both Arizona and the United States. Almost 60% lived at or below 200% of the poverty level in 1980. Median family incomes for Indians in Arizona are low: 50% live on incomes less than $10,000. In addition, the Indian community suffers from limited educational and occupational achievement. Many Indian people lived in overcrowded housing without phones or vehicles. Such limited personal and economic resources undermine the ability of urban Indians to improve their health status.

Health Coverage- Uninsured

Two out of three Indian people in Arizona cities are uninsured. Without health insurance, it is extremely difficult to receive high quality health care. Because most urban Indians are not "on or near reservation lands", they do not qualify for contract care services, only direct care services provided at the local IHS facility. Some cities have no IHS services, while in Phoenix, the growing urban Indian population is straining the Phoenix Indian Medical Center to its limits.

Health Coverage- Arizona's Medicaid Program

Many Indian people have to wade through a complex series of requirements in applying for no-cost health coverage under the state medicaid program (AHCCCS). A legal case between the state and the IHS over who is the payer of last resort (Arizona vs. the United States) is currently pending. The case places urban Indian people in a difficult position, not only because there is confusion over responsibility for payment, but also because resentments have flared against Indian people using state

services when "they already have the IHS". Lack of awareness
about the situation of urban Indians, (who do not necessarily
"have the IHS" but who do have a complete right to all state
services,, has made the urban Indian a pawn in a larger
struggle. The question of responsibility for payment is clearly
a long and difficult one. Many Indian people are in the "working
poor" category, do not qualify for medicaid, and are in jobs
where no benefits are provided. This situation leaves them open
for financial difficulties from out-of-pocket medical costs, and
exacerbated health problems because of failure to go for care.

Limited Availability/Affordability

Very few medical services are available for low-income Indians in
urban areas. Even basic primary care services sustain grave
overcrowding, resulting in waiting times which exceed national
standards by up to 400%. This, coupled with the limited hours of
IHS and county facilities, results in inappropriate use of
emergency rooms for medical care, and further taxes the ability
of health care providers to deliver quality services. Preventive
and comprehensive services are also unavailable to most
low-income Indian people. Comprehensive services for low-income
people ideally include not only quality, basic medical services,
but also psychosocial programs with an interdisciplinary focus.
These services are particularly crucial for communities suffering
from chronic poverty and its associated social problems.

Maternal and child health services are limited for urban Indians.
Over 7% of Indian mothers had not received medical care during
their last pregnancy. One in three pregnant women received late
prenatal care, putting them at high risk for maternal and infant
mortality and morbidity. Prenatal services for indigent women
offered through the county health departments are highly
overcrowded. Recent cutbacks have county health officials
concerned that services will continue to be eliminated and
financial screenings put into effect. In addition, service
providers at the Phoenix Indian Medical Center (the local IHS
referral hospital in downtown Phoenix) report severe levels of
overcrowding, long waiting times, no-shows for appointments, and
increasing numbers of women who come to the hospital at the time
of delivery after having received no prenatal care.

Limited Accessibility/Acceptability

Urban Indians have long waits between scheduling an appointment
and seeing a health professional, and also wait for exceedingly
long once they get into a clinic. These waiting times are well
above national standards. Indian in Arizona cities express
dissatisfaction with services, creating an "unacceptability"
barrier to health care services.

Other enabling factors, especially the lack of health coverage
and the difficulties urban Indians have in gaining access to
Arizona's medicaid program, show that urban Indians experience

great disadvantages just qualifying for any type of health coverage. Low-income Indians, the bulk of urban residents, have limited options for quality medical services.

HEALTH NEEDS

The combination of poor health status, under-utilization of services, and numerous barriers to care leaves the urban Indian community with service requirements for medical items, prescriptions, emergency care, pediatric care and overnight hospital stays. In addition, culturally sensitive mental health programs are needed based on the high prevalence of anxiety, depression and exhaustion within the community.

There exists a critical need for basic preventive, family-centered medical services, and for comprehensive perinatal care. The Arizona urban Indian community is very young, in fact, the Phoenix community is the youngest urban Indian community in the country (the median age in 1985 was 22). The Native American growth rate is twice the rate of the general population. The resulting Indian "baby boom" means that the population is expanding and the need for more services will only continue to escalate. Because of the high number of young children, well child clinics focusing on preventive medicine need to be incorporated into the health plan for the urban Indian community.

Arizona's urban Indians reported that more clinics, more and better staff, dental and eye services, health classes and programs and drug/alcohol services were needed for the community. Eye clinics are sorely needed due to the high rate of diabetic complications found in many Southwestern tribes. Exercise and diabetes education programs, as well as other health education programs, are currently unavailable to the urban Indian community.

SERVICE RECOMMENDATIONS

- **Comprehensive Perinatal Care Services** - high infant mortality rates for urban Indians and the dearth of accessible services for low-income urban Indian women, coupled with a birth rate twice that of the general population, result in a great need for prenatal and well child care for the urban Indian community. State maternal and child health administrators report that American Indians have the worst prenatal care statistics of all ethnic groups in Arizona, indicating that services are needed to bring the Indian community up to the level of the general population. Coverage for pregnant Native American women and children up to the age of five who are at or below 200% of the poverty level should be offered to insure access to quality prenatal care and to reduce the costs of maternal and infant morbidity and mortality. Culturally-specific services those offered by Indian agencies with Indian staff are the most appropriate for reaching this community

because of the significant cultural and historical barriers confronting Native American people. Services should include prenatal medical care and case management services which provide personal information and referral to housing, substance abuse, and food resources. Health education on parenting and breastfeeding would also be highly appropriate for this community. Because most Native Americans have several young children, daycare services while at the clinic would also greatly facilitate use of clinic services.

- **Low-cost ambulatory clinic facilities** with eye and dental care included should be offered to offset the high costs of emergency care used by urban Indians. County facilities are not accessible to Indian people due to the long waits for service and lack of cultural sensitivity of services. Many times county health providers refer urban Indians to the IHS facility, which is also greatly overcrowded. None of the county services in Arizona cities currently offer specialized outreach to the urban Indian community. In the Phoenix area, some special outreach is provided to the Hispanic and black communities whereas none of the other counties report any specialized outreach services. It could hardly be expected that already overcrowded facilities expecting fiscal cuts would try to increase their service population. With the current atmosphere of health care crisis in Arizona, services for low-income residents can only be expected to shrink. With both IHS and county services facing fiscal cuts, many low-income urban Indians are caught in a revolving door policy in which they are referred from one service to the other. As a result, Native Americans often forego health care until the need is great or they use the emergency room as a "primary care" provider. Emergency room care is very costly for all involved and quality of care (in terms of follow-up service and time with patients) may be compromised. Since the time of this study, Congress has appropriated funding for a clinic in Flagstaff to address such issues. Funding should also be appropriated at the state level to provide county facilities the adequate resources needed to serve their indigent populations;

- **Prevention programs**, targeting diabetes, alcohol and drug abuse, sexually-transmitted diseases, violence, and accidental injuries, should be established to assuage the high cost of such conditions among the Native American urban Indian community in Arizona. Successful models, such as the Zuni Diabetes program, could be incorporated into a health plan for urban Indians through the IHS or county services;

- **Transition services** for new residents in each urban area would help to bring Native Americans who are just moving from the reservation community to the urban setting into the service stream in an effort to avoid what several tribal representatives described as a downward spiral into

despairing poverty. This spiral, which may result from
something as simple as lack of information on basic
requirements of city life such as rental deposits or
documentation needs, often ends with a family moving back to
the reservation in desperate circumstances. The county
social services administration could provide liaison and
case management with the urban Indian centers and with
tribal agencies to assist Native Americans in the process of
transition from reservation to urban life. Transition
services would primarily consist of personal assistance in
obtaining needed services such as housing, transportation,
and medical care.

- **Indian-specific Women, Infant, and Children's (WIC) programs**
  are an example of an important transition service. WIC
  services are provided on the reservation so when Indian
  people move into the urban setting, they are familiar with
  the WIC program. In Phoenix, WIC services are provided
  through the urban Indian health program and they have been
  very successful at reaching the urban Indian community
  through community outreach, transportation services, and
  word-of-mouth. The program serves thousands of women and
  children each month and is generally recognized as being
  cost-effective. Expanding the program to serve the
  economically disadvantaged in the Tucson area would cost the
  Federal government an estimated $9,000.

- **Indian-specific mental health services** are needed to deal with
  the high rate of homicide and suicide among Indian youth,
  the high rates of alcohol and substance abuse, and the
  reported levels of anxiety, depression and exhaustion within
  the urban Indian community in Arizona. It is encouraging to
  note that the community reports a need for mental health
  services, indicating that the often significant barrier of
  denial of need for mental health care does not exist.

POLICY RECOMMENDATIONS

- **Establish a medicaid education program** targeted to Arizona's
  Indian population and AHCCCS providers. The education
  program for urban Indians could be part of the transition
  services to the urban Indian community. The AHCCCS system
  presents difficulties for Indian people for several reasons,
  e.g., 1) coming from the reservation, Indian people are not
  used to a competitive system of health care providers,
  (particularly in regard to the AHCCCS system which is
  actually an experimental waiver from traditional medicaid
  and is similar to a health maintenance organization) and
  often do not understand the necessity to pick and stay with
  one provider, and 2) the length of the form and the number
  of documents required can be problems for Indian people who
  do not have traditional forms of identification because they
  come from the reservation community and often don't have

driver's licenses or stable addresses. Health care
providers, on the other hand, could also use some education
in regard to issues of cultural sensitivity (health belief
systems and traditions of Native Americans as well as their
particular health problems), and policy issues in regard to
the rights of Native Americans living in urban areas to all
state and county sponsored services.

- **Promote coalition efforts between Tribal, IHS, State, County, and private agencies** to increase inter-agency communication and cooperation regarding Native American health issues;

- **Address Arizona as a contract care state** since legislation has been already been passed (similar to Oklahoma, any Indian person living in Arizona would be entitled to full IHS health benefits) yet no funding has been allocated to carry it out;

- **Clarify the role of the Phoenix Indian Medical Center** to determine whether it should function as a referral hospital (as originally intended) or as an outpatient clinic (as currently utilized but without adequate resources);

- **Explore the feasibility of shared service** in Arizona between urban health care delivery programs and local service units;

- **Establish full-time urban Indian positions at the state and federal levels** such as a full-time Urban Coordinator position in the IHS and a full-time Arizona State Health Services Indian liaison position.

The IHS is currently assessing the resource availability for
putting these service recommendations into place. Congressional
funding has been allocated for an ambulatory health facility in
Flagstaff and for perinatal services in Phoenix. IHS has
recently allocated funds for the collection of health risk
appraisal data from selected urban sites around the country. IHS
has also proposed a mental health plan which includes urban
Indian mental health care issues.

However, many of the service and policy implications of this
report will be studied by the IHS in more complete detail. The
IHS is currently developing future policy initiatives and program
changes in response to the issues surrounding the health care
needs of the urban Indian population in Arizona.

DEPARTMENT OF HEALTH AND HUMAN SERVICES
PUBLIC HEALTH SERVICE

INDIAN HEALTH SERVICE

An Assessment of the Health Care Needs of the Urban Indian
Population in the State of Arizona

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Introduction and Background

INTRODUCTION

In reports on the Fiscal Year 1988 budget for the Department of
the Interior and Related Agencies, the Committee of
Appropriations approved funding for the Indian Health Service
(IHS)

> "...to be used to conduct an assessment of the
> health care needs of the urban Indian population
> in the State of Arizona. The IHS is directed to
> provide a report of its findings to the Committee
> as soon as the needs assessment is completed..."
> (Senate Report No.100-165, p.117.)

and the Committee of Conference allocated funding for "an urban
health assessment in Arizona." (Conference Report No. 100-498,
p.917.)

The following report has been prepared by the Department of
Health and Human Services, Indian Health Service, in response to
these requests.

BACKGROUND

Purpose of the Study

Funding for the present study was provided by the Indian Health
Service through a congressional request for information regarding
the health status of the Arizona urban Indian population. The
IHS has outlined the following purposes for the study:

> (1) Determine the present health status of the urban Indian
> population in the State of Arizona, and determine the extent
> of use and availability of all health resources (Federal,
> State, County, City, and Tribal) for that population; (2)
> Identify the health needs of the population and the
> barriers that exist in addressing those needs; and (3)
> Provide accurate and timely information that will serve as
> an objective base for decision making in addressing the
> identified needs and problems.

Specific questions to be answered by this study were formulated
by the IHS, and include:

> -What are the demographic profiles of American Indians in
> selected urban sites in Arizona?

> -What is the present health status of urban Indians and how
> does it compare to the health status of urban non-Indians
> in Arizona, as well as to the general population of Indians
> and non-Indians in the U.S.?

-What, if any, health resources are available to Indian people in the urban setting?

-What are the health needs of the urban Indian population?

-What are recommendations for action and future research?

A Technical Advisory Committee (TAC) of IHS staff guided the study by establishing objectives and methodology. The TAC used a broad definition for "urban Indian", which includes all self-defined/IHS direct service eligible Indian persons located in a non-reservation, urban setting. Such a definition is one used currently by the Title V urban health programs and is based on the legislation affecting the urban Indian community. A more restrictive definition applies for IHS contract care services (any services not supplied directly by the IHS facilities in the area). Contract care services are provided only to Indian people who also meet the residency requirement of being "on or near" their tribal reservation.

Several criteria were developed to decide which urban sites would be included in this study. Phoenix and Tucson were chosen immediately because they are major urban centers, and because Maricopa County (including Phoenix) and Pima County (including Tucson) constitute the Standard Metropolitan Statistical Areas (SMSAs) of Arizona. Although no other cities in Arizona meet IHS Title V eligibility (population > 50,000 with a significant urban Indian community), several smaller cities have a significant number of Indian people. Those with a population base near 10,000 or greater were chosen for further consideration based upon the conditions and health care services available for urban Indians in each setting. Yuma, Winslow, Kingman and Flagstaff were the final selections based on the following considerations:

1) Yuma (1985 total census pop. 46,807) is located near reservation areas and has IHS facilities available which should provide for the health care needs of urban Indians in Yuma.

2) Winslow (total 1985 census pop. 8,500) is also located near reservation areas with IHS facilities available. Although the Winslow population is less than 10,000, the total number of American Indians is high. The 1980 census reported that 17.5% (n=1,389) of the population in Winslow was Indian.

3) Flagstaff (1985 total census pop. 38,247) has limited IHS services available for its urban Indian population. Some contract care is available for Navajo people. However, no primary care facility exists. Significant numbers of Indian people have located in Flagstaff. However, many of these Native Americans are not Navajo and so do not qualify for contract care services. The 1980

census reported that 6.4% of the population was American Indian. Thus, approximately 2,215 Indian people resided in Flagstaff in 1985.

4) Kingman (1985 total census pop. 10,428) has neither IHS facilities nor contract care available for urban Indians. Very little is known about the urban Indian population in Kingman, and even less is known about where they go for their health care needs. The 1980 census reported that 1.5% of the Kingman population was American Indian (n=143).

The present study does not attempt to compare Arizona's urban Indian population with other urban Indian communities in the United States. The report is primarily intended as an in-depth study of a particular population within Arizona. Comparative data on urban Indians in other areas of the country are not available at this time. IHS does have activities planned, in FY 1990, to examine the urban Indian programs in totality. IHS will look at the health needs and the health services provided to urban Native Americans, and assess their effectiveness and efficiency.

Constraints

The present study was hampered by:

1) A limited (7 month) timeline which made it difficult to establish the contacts necessary to obtain data or to allow enough time for other agencies to process data for our use;

2) Unavailable or inaccessible data on urban Indians;

3) Limited coordination between or planning about the urban Indian population by Federal, state, local and private agencies;

4) Contradictory basic information on demographics factors such as population counts, which makes calculating mortality rates or any type of per capita based cost needs assessment virtually impossible;

5) The legal case of Arizona vs. United States (in which the state of Arizona medicaid program contends that the IHS has the primary payer responsibility) which has created a litigious atmosphere where information and cooperation is not forthcoming. There is clearly an area of controversy over Federal versus state versus local responsibility for the health care needs of the urban Indian community.

It became clear during the course of this study that while each urban area has its own complexities, the overall situation regarding urban Indians is one of crisis management rather than future-oriented planning or coordination. Currently, no agency is advocating or taking responsibility for monitoring the health

status of the urban Indian, and this was reflected in the fact that public and private agencies had never had a request for data on urban Indians and many did not have the time or energy to process one. IHS facilities were not able to process data by residence, except for mental health data from Tucson, in the timeline requested. In addition, Federal, state and county officials expressed concern about their overall lack of knowledge regarding the urban Indian population.

Several government agencies at the state and county level also expressed concern over supplying information due to the recent legal case between the IHS and the state of Arizona. While many times this was not directly acknowledged, several contacted agencies did express the need for approval before any information could be released. The litigation reduced the ability to obtain data which was not already compiled. This was particularly true at the state level, although Maricopa County officials also expressed regret at their lack of cooperation. Such an atmosphere proved to be a constraint in getting quality data on urban Indians.

Local agencies provided data from their ongoing community assessments of urban areas. Some localities had difficulties getting a good sampling frame because other agencies were unwilling to release listings of their Indian clientele to contact for community assessment. Additionally, the IHS clinical patient listings were difficult to obtain or proved to be outdated. Problems specific to each area will be discussed in the methodology section.

METHODOLOGY

Needs Assessment Framework

The Arizona Urban Indian Health Needs Assessment Study used the overall framework represented by the following IHS Needs Assessment model:

HEALTH	**HEALTH RESOURCES**		**BARRIERS/HEALTH**		**HEALTH**
STATUS –	**USED**	+	**RESOURCES NOT USED** =		**NEEDS**

The study also incorporated several other public health models into an overall methodological design. The PRECEDE model developed by Lawrence Green of the University of Texas (Green, Kreuter, Deeds & Partridge, 1980) and the Needs Assessment for Prevention Planning (Publ #ADM81-1061, 1981) developed by the Alcohol, Drug Abuse and Mental Health Administration of the U.S. Public Health Service provided some initial guides for the formulation of the study's database workplan and needs assessment techniques.

Health status was defined as proportional mortality compiled from data statistics on the Phoenix Service Unit for Phoenix and the Pima County urban census tract mortality data for Tucson. Additionally, reported prevalence of certain health conditions was obtained through community data. **Health resources used** were measured by objective data from Information & Referral, Data Network reports, and subjective recall data on health care use. **Barriers and health care resources not used** were defined on several levels: 1) economic need from objective demographic data supplied by the Census bureau and subjective interview data, 2) institutional barriers supplied by availability information and health professional interviews, and 3) subjective data on perceived barriers and satisfaction with service measured in interview data. These indicators were used within the IHS model framework to measure overall **health needs**.

The total needs assessment process consisted of two distinct phases: 1) investigating already existing sources of data; and 2) assisting in obtaining and analyzing new information from local Indian organizations. During the first phase, demographic analysis, inferential indicators, and programmatic data were explored. The second phase consisted of health professional interviews and community assessment data analyses.

FIRST PHASE- EXISTING DATA SOURCES

Demographic Analysis- U.S. Census Bureau

The Census data provided the only readily accessible database on the urban Indian population in Arizona. Comparisons were made between American Indians and the general population on demographic factors such as education, employment, income, and housing conditions. However, Federal census data have been criticized for undercounting the urban Indian population. Additionally, the data from the census are now nine years old.

Inferential Indicators and Programmatic Data

Agencies were chosen to gather information based on library research and review of the 1987 Human Service Directory compiled by Tucson and Phoenix area Information and Referral Organizations. The Human Service Directories are published separately for Tucson and Phoenix areas, and provide descriptions of agency services and contact numbers. They list both governmental and private community agencies and are indexed by type of service.

REQUESTS FOR INFORMATION

Letters were sent out to 162 private and government organizations asking for data on American Indian service utilization. Only 71 agencies returned requests for information, and 26 were returned by the postal service as "address unknown." Thus, only 41 actual responses were received (representing a response rate of 25%). However, the overwhelming responses were the "I'm sorry, we have no health care data on American Indians" category (n=30). Only 15 agencies sent positive responses to the data request. Ten of these agencies proved to be either unresponsive to future requests for specific data, unable to process special requests due to limited staff, or unwilling to send information even after repeated attempts. The remaining five agencies were very helpful and provided specific data promptly upon request.

Government agencies such as state, local and county, provided some information but the overall response rate was poor. In particular, the AHCCCS (Arizona's Medicaid) program was very unresponsive. After being referred to the individual providers for information on Indian users (a large task in itself given the number of AHCCCS providers in the state), it became clear that no cooperation in getting data would be forthcoming. All of the private providers said they either kept no information on American Indian users or if they did, could not process the data in the time-frame requested.

Fig 1-1. Conceptual Illustration of the Phoenix
Indian Community Sample

Urban Users of Phoenix Indian
Medical Center
n = 30,191

Total # of
Urban Indians
n = ?

WIC/Home Health
n = 162
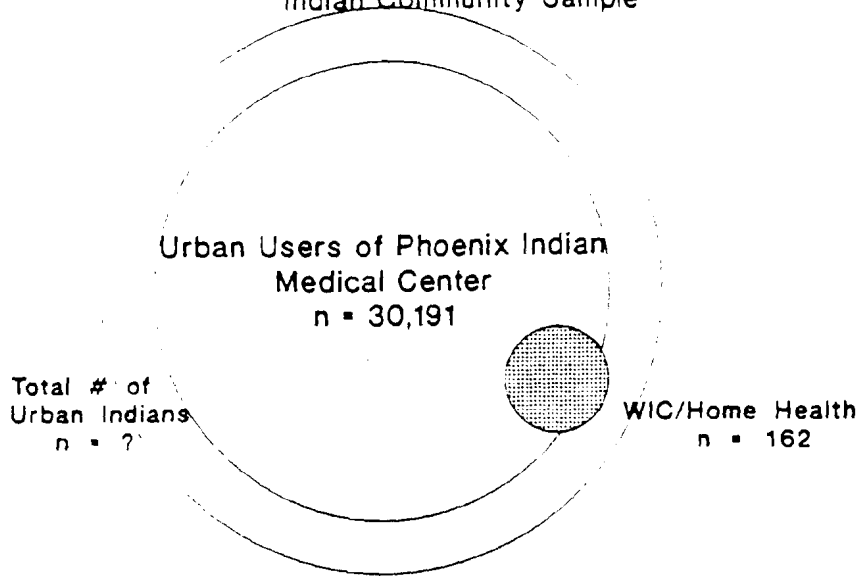
Given the large number of urban Phoenix Indians served by the
PIMC over the last two years (n=30,191), it is difficult to say
how large the total urban population NOT serviced by PIMC is,
especially given that estimates of the total urban population of
Indians residing in Phoenix have at their highest, reached
slightly over 20,000. The most recent IHS linear regression
methodology estimate of the Maricopa County Indian population for
1988 is 29,115. Based on the 1985 special census of Arizona, 70%
of the Indian population in Maricopa County lives in Phoenix and
surrounding cities, resulting in an estimated urban Indian
population of 20,380 for the Phoenix Metropolitan area for 1988.
Clearly, the population estimates are inaccurate if over 30,000
urban Indian people are being seen at PIMC. In terms of the
sample, however, it seems that either the population estimates
are grossly inaccurate or the PIMC user base represents the vast
majority of the urban Indian community. Another plausible
explanation might be the high mobility of the urban Indian
population. Family members may move back and forth between the
reservation and the city, and may list a temporary urban address
for PIMC health professionals.

One could conjecture that three characteristics of PIMC users
versus non-users would be lower income, lower education and lack
of insurance coverage. Actual assessment data revealed slightly
lower mean household income than that reported in the 1980 Census
data. The Phoenix sample mean income was $14,868 versus the
$15,404 Census figure. However, it should be noted that 35%
refused to answer the income question. The educational level of
the Phoenix sample was very close to the 1980 Census figures for
the Phoenix Metro area-- 65% of respondents were high school
graduates as compared to the 69.5% of the population in the
Census report. Additionally, it was not solely for lack of
insurance that urban Indian people used the PIMC facilities.
Both community assessment data and discussions with PIMC
personnel revealed that Indian people with insurance coverage

of their greater use of health facilities for child visits and because of the large number of single mothers in the school system.

The sample did, in fact, represent more females (65%) and more uninsured (59%). Additionally, only 49% of the sample were high school graduates as compared to the overall 1980 Census figure of 59.5% for Tucson city. Our sample may have selected slightly less educated urban Indians than the general population in Tucson. Urban Indians in our Tucson sample had an overall low mean income of $8,871, however, 53% did not respond to this question so comparisons with Census data would not be appropriate. Also, any census comparisons must be approached cautiously due to the nine year time difference between data collection. See Appendix 1 for more detailed analysis of sample demographics.

Phoenix

The Phoenix area had less success in getting a representative sample of the metro area urban Indian population. Local agencies were not cooperative in releasing lists of Indian clients, and urban clinic staff were unable to obtain information from schools, churches, colleges or social services. The sheer number of school districts and agencies in the metro area made the task a difficult one in the few months available. Again, additional time to establish relationships with agencies may have facilitated the exchange of information.

Another drawback in the Phoenix area was the Phoenix Indian Medical Center (PIMC) patient listing. (Direct care services at PIMC are provided to any person of Native American heritage and service provision is not means tested.) The client list consisted of all patients seen during the last two years at PIMC. However, the list had never before been generated and proved to be a difficult process because of outdated computer facilities at PIMC. This list did not include age or phone numbers and was not sorted by residence. Study staff had to manually sort through the 44,078 names and remove those with non-urban addresses. A total of 13,887 were pulled from the list, leaving 30,191 individuals (68.5% of the entire list) with urban residences. The urban clinic also added 162 unduplicated names from their home-health and WIC client lists. Thus, the systematic random sample of 1,023 urban Indians in Phoenix is representative of the Phoenix Indian Medical Center client base, but we have no knowledge as to the overlap that this group may have with the total urban Indian population. That is, non-users of PIMC services or the urban clinic had no chance to be represented in the community assessment. The sample population for Phoenix is conceptually illustrated in Figure 1-1.

PERSONAL CONTACT DATA GATHERING

Over 70 organizations in the Phoenix and Tucson areas were
contacted by telephone and followed up with personal visits if
appropriate. These agencies included:

    Health-oriented, Federal, State and Local;
    Health-oriented, Private;
    Indian specific;
    Social service, Federal, State and Local;
    Social service, Private;
    Health planning or statistics agencies.

Several of the contacted agencies provided useful data for the
needs assessment. However, very little data specific to urban
Indian people was available. All of the data received was in raw
form, that is, the data had not previously been analyzed or used
for planning purposes. This in itself represents a significant
finding. With a short timeline for a needs assessment process,
it is difficult to start from the very beginning because it is
often necessary to establish a trusting relationship with an
agency, or simply take the time to find the individual who has
access to the data, before information can be obtained. In many
instances, researchers felt that data was available but because
no one had asked for it previously, or because no system was in
place for getting the data on a regular basis, agency staff would
not cooperate or give the request a priority so that it could be
completed. Only one of the approximately 100 private hospitals
and medical centers contacted provided usable information on use
by urban Indians.

Most useful sources of data

During the initial data gathering phase, the sources which proved
most useful were county health departments and
information/referral services. Information and Referral
Services, generally funded by United Way, are found in almost all
major cities. They can provide a good source of information on
services in an urban community and many also function as social
service planning agencies. For example, the Information and
Referral Service in Tucson conducts yearly surveys of community
agencies which include estimates of client race. As previously
mentioned, however, no one had ever asked for the data so it had
to be manually extracted for use in this study.

The Data Network for Human Services, a central collection agency
for data on human service utilization in Maricopa County, was
also an excellent source of data. Again, they had never had
requests for data on American Indians, but because of their
computerized system were able to process requests in a short time
for a small fee. Additionally, the Pima County Health Department
provided excellent data from their computerized statistical
system. They provided data from 1983 on Indian births and deaths
by census tract and cause. Their computerized system made the

data readily accessible. Unfortunately, Maricopa County has no such similar database in place, or if they have one, did not provide similar data for this study. This is a discrepancy which affects the comparability of information between sites.

SECOND PHASE- COMPILING NEW DATA

Because the initial phase of data collection provided limited information on the health status/health needs of urban Indian people, the analysis of health interviews and Health Risk Appraisal (HRA) data proved to be an essential part of the needs assessment. Additionally, eight health professional interviews were conducted to provide insights into policy issues and service provider viewpoints on the health problems facing the urban Indian population.

Community Assessments

SAMPLING PROCEDURES

Within urban areas of Arizona, Indian people are scattered throughout the city. No census tracts have a great enough concentration of American Indian households for door-to-door sampling, local Tucson and Phoenix clinics compiled names and addresses of Indian people from schools, community agencies, day-care centers, churches and the IHS facilities. These "master" lists were checked for duplicates and then, systematic random samples were drawn for each community assessment. Random sampling is an important technique to avoid the bias associated with convenience sampling, where only certain types of people are interviewed. Random sampling allows generalizations to the larger population represented by the sampling frame. Thus, random samples taken from a representative sampling frame would be generalizable in a way that convenience sampling would not. Only those 18 and older were included in the assessments.

Tucson

In Tucson, the total sampling frame consisted of a good socioeconomic cross-section due to inclusion of individuals from Pima Community College (n=419), Tucson School Districts (n=1,190), urban users of San Xavier Indian Health facility (n=2,657), and various Indian-specific elderly and community organizations (n=56). Thus, the total number of unduplicated Indian individuals in the Tucson sampling frame was 4322. From this, a random sample of 550 Indians was chosen. The sampling frame included low-income Indians (from the San Xavier lists), Indian parents with children (from the school lists) and younger, childless Indians living in community college housing. Elderly Indian adults were included by using lists from social service agencies serving this age group. However, the sampling frame did not include the names of working, childless Indian families with health insurance coverage or parents of Indian children in private schools. There was also a bias towards females because

used PIMC facilities. Thirty one percent of the community
reported having some type of health coverage (ranging from
minimal to full), with 52% of the coverage coming from
employers. See Appendix 1 for more detailed sample demographics.

Overall, the PIMC client list does represent the majority of
Indian people in Phoenix, but those on the high end of the
socioeconomic scale and males were underrepresented.

Non-SMSA sites

The Flagstaff Indian Center sent flyers to members and used the
Center membership list to do a random systematic sample, calling
members to come in to the Center for a health interview. The
Winslow sample basically represented a convenience sample of the
Indian center clientele. In Winslow, flyers were put up at IHS
and Indian facilities, plus word was spread throughout the
community that health interviews were needed. The Kingman sample
used the Indian student school lists as its sampling frame, so it
may be more representative of the overall urban Indian
community. Total respondents from each site numbered: 86 in
Flagstaff, 64 in Winslow and 37 in Kingman.

In each urban setting, urban Indian community members were
initially asked to participate in the study. If they chose to
participate, they signed a consent form and were paid for their
time. The questionnaire part of the assessment study lasted
approximately 40 minutes, with an added 15 minutes if they
completed the Health Risk Appraisal. Confidentiality of
responses was assured to all participants, and ID numbers
unattached to names were used in the data entry process.

INSTRUMENTS

Questionnaire

The community agencies utilized questions from three needs
assessments previously conducted with American Indian
populations- the National Medical Care Expenditures Survey, the
San Francisco Urban Indian Needs Assessment Study (Hill,
unpublished), and an Assessment of Health Needs Among American
Indians in Wayne County, Michigan (Bashshur & Shannon, 1981)- to
insure that reliability and validity had been tested with the
target population. Urban clinics decided to combine several
instruments in an effort to cover all of the areas regarding use
and barriers to health care for urban Indian people.

The National Medical Care Expenditures Survey is a national,
probability sample health questionnaire which has recently been
modified for use in Indian communities. Several of the questions
in the Arizona community health assessments were used with the
assumption that comparative data from across the United States

will be available in the spring of 1989. The areas covered by
the questions are usual source of health care, need for care, and
barriers to receiving care.

The Health Needs Assessment study by Bashshur and Shannon in
Michigan provided basic questions on use of health services;
satisfaction with health care services; health knowledge,
attitudes, and behavior; insurance coverage and use of public
assistance. This survey was pretested with Indian families in
urban areas of Michigan, and then used for major studies in
Detroit and Sault Ste. Marie. Face and content validity were
improved through continued use by and with urban Indian people.

Demographic and health status questions were taken from the San
Francisco Urban Indian Health Needs Assessment survey. This
survey was used with the urban population in the San Francisco
Bay Area, and was pre-tested for validity before use.

The final instrument included almost 300 questions, with sections
on usual sources of care; reasons for not having a usual source
of care; use of medical care in the past year; satisfaction with
health care; use of emergency room care; use of pap smear and
prenatal care services for women; use of dental care; barriers to
care; health knowledge and behavior; source of payment for
medical care; use of medical assistance programs; needed health
services; and traditional Indian medicine. Demographic and
certain major health conditions were also assessed.

Health status was measured by reported prevalence of major health
problems. Use of health services was measured by direct
questions on use of care during the last year for medical, dental
and emergency services. Barriers to care were defined along
several dimensions. Spatial and temporal dimensions were
measured by questions on length of waiting time and traveling
distance to health care services. Economic barriers were
addressed by questions on cost, payment difficulties, and
insurance coverage. Perceived barriers were assessed by Likert
designed satisfaction questions (not satisfied, satisfied, very
satisfied) on availability and accessibility. Health knowledge
and behavior were measured by Likert scale questions on the
importance of certain health behaviors (e.g., not smoking--is it
very important, important or not important) and whether the
individual tried the behavior (e.g., how hard did you try not
smoking--not hard, hard, or very hard). Demographic factors were
assessed by direct questions on tribal affiliation, age,
educational level, employment status, occupation, income, number
of adults and children in the household, time spent on the
reservation, length of time in the city, homeowner status, and
marital status.

Health Risk Appraisals

The Health Risk Appraisal (HRA) is a 41-item instrument with questions on age; height; weight; history of diabetes and high blood pressure, smoking, drinking and other health behaviors. The HRA also includes physiological measures of blood pressure, total cholesterol and random glucose. The IHS has recently completed pilot-testing of the instrument for use in the Indian community, and this Indian-specific version was employed on a subset of the overall sample in each urban setting. Two hundred HRAs were completed in Phoenix, 200 in Tucson and an additional 200 in the non-SMSA sites of Flagstaff, Kingman and Winslow. The HRA is automatically computed and a printout made available for each individual completing the test. In each community, health education materials and trained staff were made available as part of the HRA data gathering process. Thus, 600 urban Indian people in Arizona received individualized health promotion/risk reduction information as part of the Arizona Urban Indian Health Needs Assessment.

FIELD EXPERIENCES

Training

All of the interviewers for the Arizona community health study received training through special seminars. The training sessions stressed the importance of consistency and reliability during the field experience, and included a discussion of bias and the importance of minimizing bias for an assessment to remain valid. Interviewers reviewed all questions and were trained in the proper method for asking them. Additionally, each interviewer had the opportunity to practice the assessment process before going out into the field. Almost all of the field staff were Indian, and several were bilingual as well.

Each interviewer was given a set number of names to contact for interviewing. Only in some cases was a phone number included as part of the client list, so the names were looked up in the phone book. If an appointment could not be made, the interviewers made a house-call to find the person to interview. If after three attempts the person remained unavailable, interviewers were instructed to move on to the next name on their list. Interviewers were paid by completed interview.

Tucson

One of the biggest difficulties for interviewers in Tucson was the wording of some of the interview questions. Even though the instrument had been validated with Indian people, the field staff found that some questions, especially those from the National Medical Care Expenditures Survey, used double negatives in their wording. This proved to be very confusing for Indian people who did not speak English as their native language. Therefore, these questions posed special difficulties for field personnel.

Unfortunately, the questions were originally chosen so that comparative data would be available on a national level. Thus, changes in the wording were not possible.

An additional problem found in Tucson was the outdated address listings from the local IHS facility. One of the field staff found an address over seven years old. Even the community and school listings were incorrect, illustrating that Indian people change addresses quite often in this urban setting. This made it difficult for interviewers to make on-the-spot visits.

Phoenix

The largest problem in Phoenix was the Phoenix Indian Medical Center client address listings. The high mobility of the Phoenix urban Indian community makes constant updating of the patient listing a long and arduous process. Additionally, only 2 out of 30 names drawn from the list were found to have an available telephone. Thus, contacting individuals took a great deal of time and effort on the part of the interviewers. To try to get more current address information, postcards were sent out to the selected persons and an address correction was requested. This technique was only partially successful. Most of the cards were never returned. When it became clear that it would not be possible to complete even a small portion of the assessment by the method used, the interviewers began to broaden their criteria for getting an interview. If they arrived at the interview site and the selected individual was not present, they would do one of two things: 1) interview another related adult household member, or 2) interview an unrelated adult who had moved into the residence and was American Indian.

Community assessments in both sites were completed during November and December of 1988. Work was completed in Flagstaff, Winslow and Yuma over a four-day period in early December.

Bias

Field experiences, particularly in Phoenix, introduced the bias of selecting more home-makers for interviews than if the list of names could have been strictly followed. The practice of interviewing persons in the household other than those selected compromises the random quality of the sample. However, due to the difficulty of completing the interview process within the given time frame, the changes in procedure were necessary and the sample is still more representative than if a convenience sampling technique had been employed. Additionally, the difficulty encountered in tracking down individuals illustrated the high mobility of the urban Indian population.

HEALTH PROFESSIONAL INTERVIEWS

Health professional interviews were conducted with administrators and service providers at the Federal, state and local levels. The interview included open-ended questions covering personal perceptions of the health needs of urban Indians, problems faced by urban Indians, services most effective for meeting the health needs of urban Indians, and policy recommendations or system changes to facilitate improvement in the health status of urban Indians. Health professionals were chosen on two levels: 1) as representatives of IHS, state, county and local agencies, and/or 2) as acknowledged experts on urban Indian health affairs. One non-Indian health professional chosen at the state level acknowledged his lack of information on urban Indian health, and referred researchers to an American Indian state employee for the interview. All but two of the health professionals interviewed were Indian.

DATA ANALYSIS

Coding and Data Entry

A comprehensive coding system was developed for the questionnaire portion of the interview (the HRA data was directly entered onto a floppy disk by an optical scanning device linked to the portable computer at the time of assessment). The bulk of data entry was accomplished by one administrative assistant (1,560 out of 1,764 data sets) although three other staff members participated in the data entry. All worked very closely together to insure reliability of data entry. Staff entered data into a dBase IV system which was then transferred into an SPSS file. Location, zip codes and ID numbers assured separate data files for each location. A random sample of 2% of the coding done by each data entry staff showed a very low error rate.

Analysis

Statistical analysis of data included basic frequencies, as well as mean and median scores for interval data. Non-parametric Spearman correlations were performed on ordinal and nominal based data. The SPSS system of statistical analysis was used for all statistical calculations.

FINDINGS

The findings of the Arizona Urban Indian Health Needs Assessment
are reported in a summary chapter for the ent..e state with an
emphasis on charts and graphs illustrating study results. For
those interested in specific locations, a more technical analysis
of findings are reported separately for Phoenix and Tucson
(Chapters 3 and 4, respectively). In addition, a summary of
community assessment data is compiled as Appendix 1 with the
Health Risk Appraisal information as Appendix 2.

In our experience, socioeconomic status interacts with culture,
and one factor cannot be addressed without the other. It is not
the purpose of this study to define the variance which the
cultural background of Native Americans plays in health matters.
We also do not have the database needed for such an in-depth
study. Therefore, we have chosen not to standardize
socioeconomic measures. When comparisons are made, they are made
with the data sets available and most of the time these do not
reflect a "low-income" population. However, comparisons made to
the general population are the most appropriate for this report,
in that its purpose is to assess the health needs of urban
Arizona Indians in an effort to provide information for
decision-making to bring Native American health status to the
"highest level possible".

It is also important to note that this report does not intend to
produce information generalizable to a broader population. We
have described our sample methodology clearly in an effort to
illustrate this. Comparative information should be used with
extreme caution, given the tremendous differences between the
American Indian and general population.

Chapter 2

Arizona Urban Indians

BACKGROUND

Urban Indians in Arizona

Arizona, the nation's sixth largest state, is the home of many
Indian peoples, from the Navajo and Hopi Nations in the
northeastern "Four Corners" area bordering Utah, Colorado and New
Mexico, to the Yuma (Quechan) Indians in the southwest corner
near California and Mexico. Other Indian Nations which reported
over 1,000 members in 1988 include the Mohave-Chemehuevi on the
Colorado River Reservation in central western Arizona, the Gila
River and Salt River Pima Indians near Phoenix in south central
Arizona, the Hualapai of the northeast, the Apaches living in San
Carlos and Fort Apache in central eastern Arizona, the Tohono
O'odham (formerly known as Papago) Nation in south central
Arizona bordering on Mexico, and the Pascua Yaqui, also in south
central Arizona, living in and around the metropolitan area of
Tucson.

Such a varied and ancient cultural heritage brings a special
feeling to the lands of Arizona. Indian people in Arizona have
maintained their cultural identities even throughout the federal
relocation programs begun in the 1950's which encouraged Indian
movement from reservation communities to nearby large cities.
The move to cities dominated by white Europeans, who do not value
or encourage cultural diversity, is not an easy one for American
Indians. Many have extreme problems adapting, others are able
to assimilate to the new, fast-paced society, while still others
manage to live in the new environment while keeping cultural
traditions and values intact. Return trips to the reservation
community for socializing and traditional, religious ceremonies
often help the urban Indian renew the spirit after constant
cultural conflicts encountered in the urban setting. In
addition, a younger group of urban American Indians were born and
raised in the city, without the context of the reservation
community. Such Indian people live with a distinct cultural
identity similar to, and yet also different from, Indian people
who are newly migrating to the urban life from the reservation.

For American Indians who have a difficult time adapting to the
city, the problems of alienation can seem insurmountable (Saslow
& Harrover, 1968 and Westermeyer, 1976). Indians in Arizona are
no exception, where the urban Indian has been described as a
person of "two worlds, yet unseen and ignored by both" (Weaver,
1978, p. 84). Many of the health care sources, social services
and traditional support networks available to Indian people on
the reservation are out of reach to urban Indians, and local
services are not geared to meet their special language and
cultural needs. However, despite the difficulties urban Indians

encounter, the community continues to grow rapidly due to the migration of people from reservations as well as the high birth rate.

Legislative Mandates Regarding Urban Indians

During the 1800's, Indian Nations entered into treaties with the federal government which included compensation for Indian lands in the form of money, land rights, and\or service obligations. Such treaties included an ongoing federal obligation to provide for the health care of indigenous Americans.

During the initial years of United States history, the Indian population lived primarily in rural areas of the country. The emergence of urban Indians is a relatively new phenomenon, which began during the period of general economic prosperity following World War II. In the early 1950's the Bureau of Indian Affairs (BIA) monitored a relocation program for American Indians. The intent of the program was to assist and encourage Indian people to seek employment and education in nearby cities. By the 1980 Census, over 50% of the Indian population in the United States lived in metropolitan areas.

As Indian people continued to move into the cities, they unknowingly forfeited access to federal health care services provided by the newly formed Indian Health Service (IHS) division of the Public Health Service, as well as social services provided by the BIA. Low economic standing, limited work experiences, unfamiliarity with the urban health care delivery systems, and cultural differences produced a low level of health care utilization.

Local Indian community leaders responded to this situation in the late 1960's by organizing small volunteer clinics which operated on a part-time basis. The first federal (IHS) funding for an urban Indian health program was provided in 1972, with more programs receiving support in the following years.

In 1976, Congress passed the Indian Health Care Improvement Act (P.L. 94-437) which is regarded as the landmark piece of Indian health legislation. This Act, along with subsequent amendments, addressed deficiencies in Indian health by providing for a high quality health system to be operated by the IHS, and established a firm program foundation to meet the expressed national goal of providing the highest possible health status to Indians.

Title V of this Act, entitled "Health Services for Urban Indians," specifically addresses the urban Indian population by giving IHS the authority to establish new programs to assess urban Indian health needs, plan services to address those needs, and most importantly, to provide direct health care services. In Arizona, two urban centers currently have Title V contracts, Phoenix (Indian Community Health Services, Inc.) and Tucson (Traditional Indian Alliance). While these programs provide outreach/referral, home health, and health education, neither of them currently provide primary health care services.

The Indian Health Care Improvement Act was reauthorized in 1988, and was the last bill to become a law under the Reagan Administration. The passage of this bill emphasizes the legislative mandate to extend quality health care services to all Indian people, including those living in urban areas.

DEMOGRAPHICS

Population Characteristics

POPULATION COUNTS

The exact number of Indian people living in urban centers in Arizona is unknown, and estimates vary widely. For example, the IHS estimates that 29,115 Indians lived in Maricopa County in 1988. According to the 1985 Arizona Special Census, approximately 70% of the Indian population in Maricopa County resides in the Phoenix Metropolitan area, resulting in an estimated urban Indian population of 20,380. However, the Phoenix Indian Medical Center patient listings for 1986-1988 showed 30,191 Indians with urban Phoenix addresses, suggesting that the actual number of urban Indian residents in Phoenix is much higher than IHS estimates. Thus, the Phoenix Indian population for 1988 was probably somewhere between 25,000 and 35,000, however, there is no way of knowing the most accurate count.

Estimates of the Indian population in Tucson in 1985 ranged from 4,250 (1985 Arizona Special Census) to over twice that amount at 9,070 (analysis of census undercounting, Evaneshko, 1988). Even within the IHS, estimates vary considerably. The IHS linear regression model estimate for 1988 puts the Indian population at 5,239 (Berry, private communication) while a special Tucson IHS Service Area analysis using currently enrolled Indian public school students estimated 7,682 urban Tucson Indians. Thus, the Tucson Indian population in 1988 probably ranged from 5,000 to somewhere around 10,000. Again, the actual figure can not be quoted with certainty.

For non-Standard Metropolitan Statistical Areas (SMSAs), estimates were based on the 1980 and 1985 censuses, and were not adjusted for undercounting. The estimated 1985 Indian population in Winslow was 1,389; in Flagstaff, 2,215; in Kingman, 143; and in Yuma, 375.

Figure 2-1. Maricopa County (Phoenix SMSA) Population Distribution

Age group

Legend:
- ■ All Races
- ▨ American Indian

Age groups (top to bottom): 80+, 75-79, 70-74, 65-69, 60-64, 55-59, 50-54, 45-49, 40-44, 35-39, 30-34, 25-29, 20-24, 15-19, 10-14, 5-9, <5

Axis: 14 12 10 8 6 4 2 0 2 4 6 8 10 12 14

Percentage   Percentage

1985 Arizona Special Census
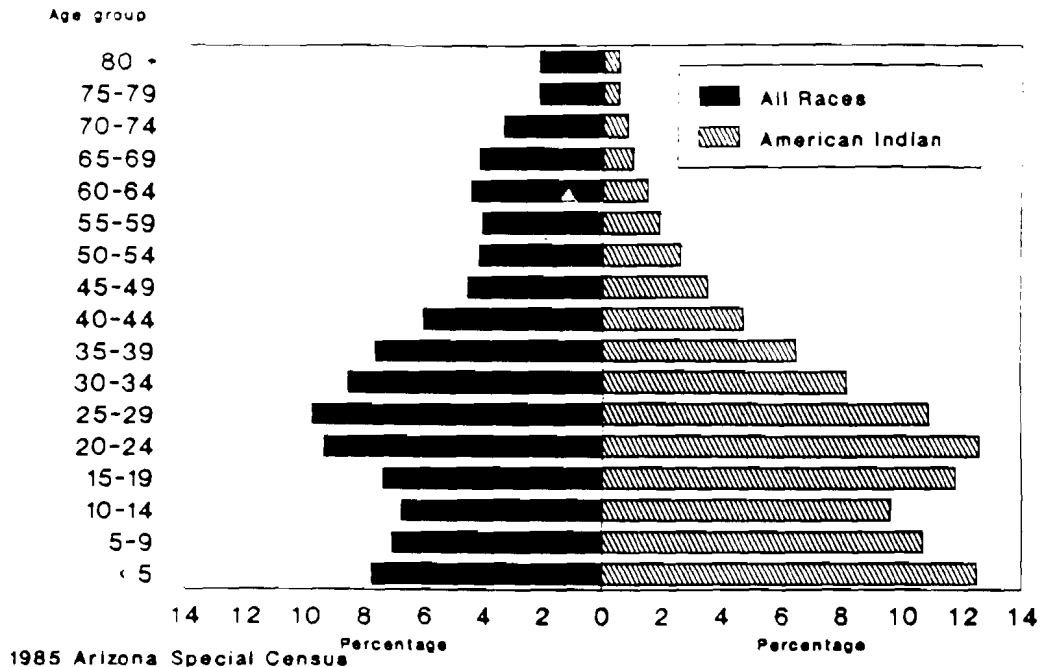
AGE DISTRIBUTION

High birth rates in urban Indian communities result in young populations, while high death rates reduce the number of Indian elders.

Throughout the country, the American Indian population is growing at a rate 83% greater than the general population, resulting in a younger Indian population in comparison to the rest of the population (IHS Chart Series, 1988). This high birth rate is found in urban areas of Arizona as well. In fact, the Indian population in Phoenix is the youngest of SMSAs across the country (Berry, 1988). The Phoenix Service Unit of the IHS estimates that the population growth in Phoenix is 200% higher than the general population rate (Meyer & Attico, 1986).

The shape of the Indian population distribution in the Phoenix SMSA (Maricopa County) in 1985 shows some dissimilarity with the general population, particularly in the percent of the young and the old (Figure 2-1). Fifty eight percent of the Indians in the Phoenix metropolitan area were under age 25, while only 38.5% of the general population were in the same age group. The median age of Phoenix Indians in 1985 was 22, while the median age for the general population was 31. In addition, less of the Indian population reached the ages of 60 and older than seen in All Races (Table 2-1), perhaps due to high death rates in the Indian community coupled with the large number of white "snowbirds", or elderly who move from the northern states to Phoenix for the

sunny climate. The Indian population in Pima County (which is at least 30% urban according to 1985 Arizona Special Census figures) is also very young, with a median age of 23.1 as compared to the general population median of 31.5.

Financial Characteristics

Figure 2-2. 75% and 150% Poverty Rates
All Races and American Indians
in Urbanized Areas of Arizona

Percentage

```
50 ┌─────────────────────────────────────────────
          ┌──────────────────────────┐       45
          │ ██  All Races            │      ┌────┐
40        │ ▨▨  American Indian       │      │▨▨▨▨│
          └──────────────────────────┘      │▨▨▨▨│
                                            │▨▨▨▨│
30                                          │▨▨▨▨│
                              23            │▨▨▨▨│
                            ┌────┐    20    │▨▨▨▨│
20                          │▨▨▨▨│   ┌───┐  │▨▨▨▨│
                            │▨▨▨▨│   │███│  │▨▨▨▨│
              7.5           │▨▨▨▨│   │███│  │▨▨▨▨│
10          ┌───┐           │▨▨▨▨│   │███│  │▨▨▨▨│
            │███│           │▨▨▨▨│   │███│  │▨▨▨▨│
            │███│           │▨▨▨▨│   │███│  │▨▨▨▨│
 0  └───────┴───┴───────────┴────┴───┴───┴──┴────┴──
              0 to 75% Poverty        0 to 150% Poverty
```
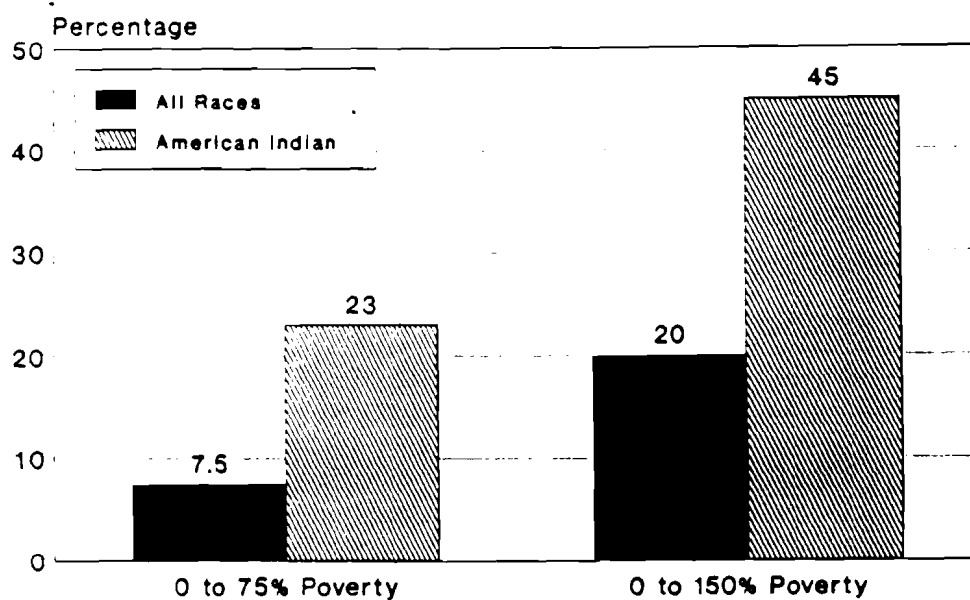
U.S. Census Bureau, 1980

POVERTY

Approximately one in four Indian people in Arizona cities live at or below 75% of the poverty line, while almost one-half live at an income level at or below 150% of poverty.

Poverty levels in urban Arizona were very high for American Indians. Twenty three percent of Indian people lived on incomes 75% less than the federally designated poverty level in 1980 (Figure 2-2). Over 300% more Indian people than All Races lived at 75% of the poverty line. In addition, almost one-half of the Indian population (45%) lived at an income level 1.5 times the poverty level, and again, the proportion of the Indian population at this level was much higher than the population at large living in urbanized Arizona.

Figure 2-3. Poverty At or Below 200%
All Races and American Indians
Urbanized Arizona and the U.S.

Percentage

```
70 ┬─────────────────────────────────────
   │                58.5
60 ┤               ┌────┐              55
   │               │////│            ┌────┐
50 ┤               │////│            │////│
   │               │////│            │////│
40 ┤               │////│            │////│
   │     30        │////│    32      │////│
30 ┤   ┌────┐      │////│  ┌────┐    │////│
   │   │████│      │////│  │████│    │////│
20 ┤   │████│      │////│  │████│    │////│
   │   │████│      │////│  │████│    │////│
10 ┤   │████│      │////│  │████│    │////│
   │   │████│      │////│  │████│    │////│
 0 ┴───┴────┴──────┴────┴──┴────┴────┴────┴──
          Arizona          United States
```

■ All Races   ▨ American Indian
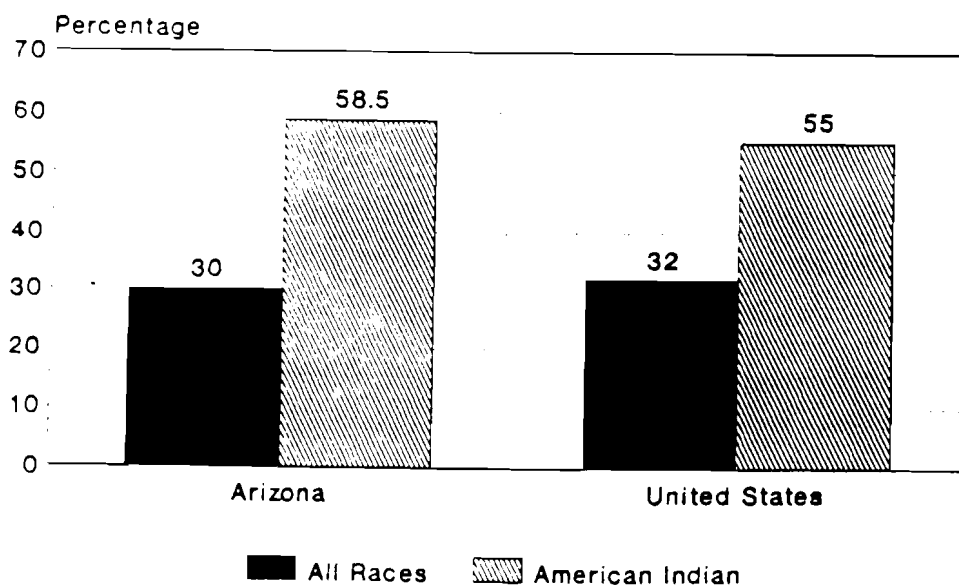
U.S. Census Bureau, 1980

WORKING POOR

Three out of every five urban Indians in Arizona live at low-income levels of 200% or below the poverty line.

The 200% poverty level (that is, an income of twice the designated federal poverty guideline) is an important indicator of the group known as the "working poor", those with service level or laborer positions who are most likely uninsured or under-insured because of lack of employee-sponsored benefits, or income levels too high to qualify for medicaid coupled with no financial means to buy private coverage.

Figure 2-3 illustrates the proportion of the U.S. general and Indian populations, and the proportion of the urbanized Arizona general and Indian populations living at the 200% poverty level. While Arizona as a whole is slightly better off than the United States as a whole (30% as compared to 32%), the Arizona Indian population is worse off than any of the population groups, with 58.5% living at the 200% poverty level.

In addition, the differential between Indians and All Races in Arizona is greater than in the nation as a whole.

Figure 2-4. Median Family Income
All Races and American Indians
Urbanized Arizona and the U.S.

(Thousands)

```
25 ┌─────────────────────────────────────────────────┐
   │                                                   │
   │    20.017                    19.917               │
20 │   ┌──────┐                  ┌──────┐              │
   │   │██████│                  │██████│              │
   │   │██████│     13.695       │██████│    13.724    │
15 │   │██████│    ┌──────┐      │██████│   ┌──────┐   │
   │   │██████│    │//////│      │██████│   │//////│   │
   │   │██████│    │//////│      │██████│   │//////│   │
10 │   │██████│    │//////│      │██████│   │//////│   │
   │   │██████│    │//////│      │██████│   │//////│   │
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          Urban Arizona              U.S. All Areas
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■ All Races   ▨ American Indian
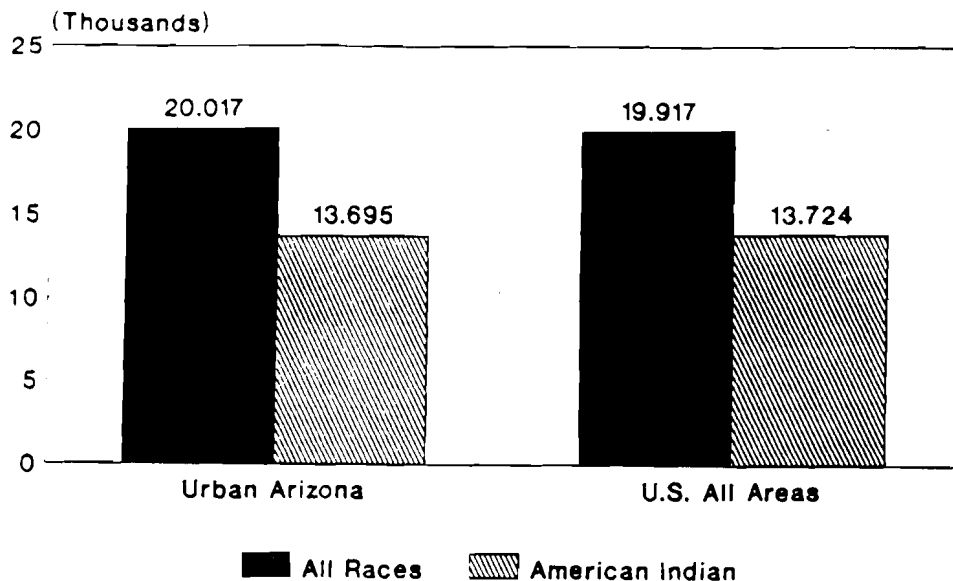
MEDIAN FAMILY INCOME

During 1988, one half of Arizona's urban Indians reported incomes of $4,500 or less, and 50% of urban Indian families reported incomes of $10,000 or less (AZ Community Health Study, 1988).

Median income levels are often reported rather than mean income levels because the median is the "middle point" under which 50% of the incomes fall. Such an indicator is more appropriate than the average for analysis of incomes, because a small number of very high incomes can artificially inflate the mean.

In 1980, Indian households in urbanized centers in Arizona had a similar median income to American Indians throughout the United States, while they had a much lower median income than the general population of the United States and Arizona (Figure 2-4). Again, the differential between the Indian and All Races was higher for urban Arizona than it was for the general population of the United States. In 1980, Indian families living in cities in Arizona lived on income levels 68% of the Arizona general population.

More recent community assessments in urban centers in Arizona-Phoenix, Tucson, Flagstaff, Winslow and Kingman-found very low median income levels for both individuals and households (Arizona Community Health Study, 1988). The median annual income reported was $4,500 while the median household income was $10,000. Tucson, in particular, showed low levels of financial resources,

with a median annual income of only $3,306 and a median household
income of only $5,080[1].

Labor Force Characteristics

Figure 2-5. Unemployment
All Races and American Indians
Urbanized Arizona and the U.S.

Percentage

13 — Urban Arizona American Indian
6 — Urban Arizona All Races
6.5 — U.S. All Areas All Races
13 — U.S. All Areas American Indian

■ All Races   ▨ American Indian
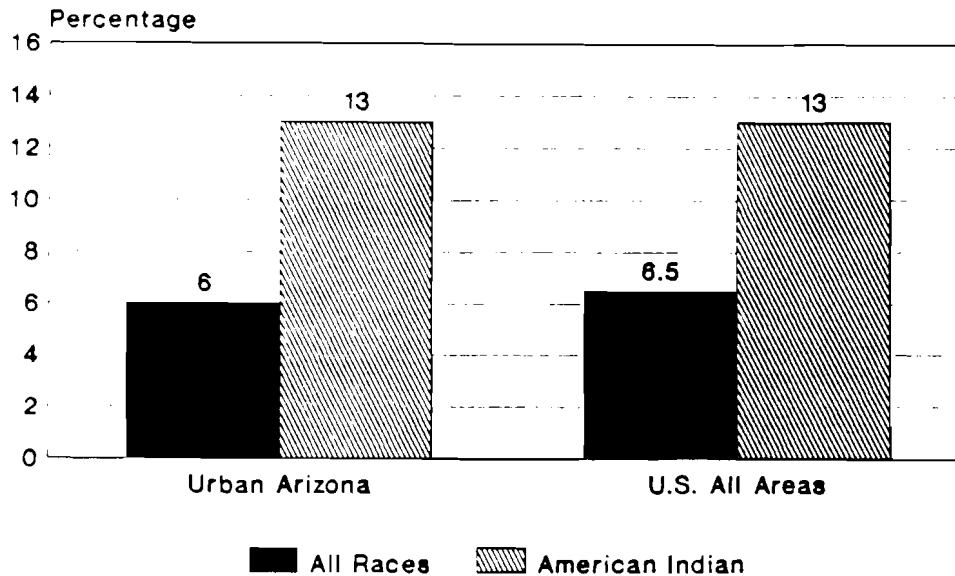
UNEMPLOYMENT

**Urban Indian unemployment is at least 200% greater than the level
reported in the general population, and the rate continues to
climb.**

In 1980, twice as many urban American Indians in Arizona reported
unemployment than the general population (Figure 2-5). Although
the Indian unemployment figure is high, the actual numbers of
unemployed may be even higher due to the lower number of Indian
people actively looking for work (that is, a smaller percentage

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[1]The Arizona Community Health Study sampling procedures are
described in depth in the methodology section. The total number
sampled was 1,764, with 1,023 in Phoenix, 553 in Tucson, 86 in
Flagstaff, 65 in Winslow and 37 in Kingman.

of the Indian population would be counted in the "active" labor force). Because of the chronic nature of unemployment in the Indian community, some Indian people "drop out" and stop looking for jobs. For example, in Flagstaff the percent of Indian persons 16 years and over in the labor force in 1980 was 45.2%, while the corresponding percentage of the white population in the labor force was 67.4%. This difference was not due to a dramatic difference in numbers of each group with work disabilities (5.2% in the white population versus 8.7% in the Indian population). Additional information from 1988 community assessments shows that the rate of unemployment has grown considerably.

OCCUPATION

The vast majority of urban Indians work in service and laborer level occupations, with few employed in professional positions.

More urban Indians hold service and laborer jobs, and fewer professional level positions, than the general urbanized population of Arizona. For example, in the Phoenix metropolitan area in 1980, 27% of the Indian community reported having service or laborer occupations as compared to 16% of the general population. The 1980 Census also found that in Tucson, 14% of the Indian community held professional positions while 25% of the general population worked in professional jobs.

In 1988[2], the number of Indians in service and laborer occupations was considerably larger. Fifty two percent of the urban Indian community in Arizona held service and laborer positions, with only 2% at professional occupational levels.

Service and laborer occupations pay less, are more seasonal or part-time, have non-regular working hours and are much less likely to provide health insurance as a benefit. These elements may make it difficult to access health care services because of a lack of insurance, less flexibility for time-off for health appointments, and reduced financial means to pay for health visits or daycare.

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[2]Based on the Arizona Community Health Study, number reporting = 1686.

Figure 2-6. High School Graduates
All Races and American Indians
Urbanized Arizona and the U.S.

Percentage

All Races   American Indian
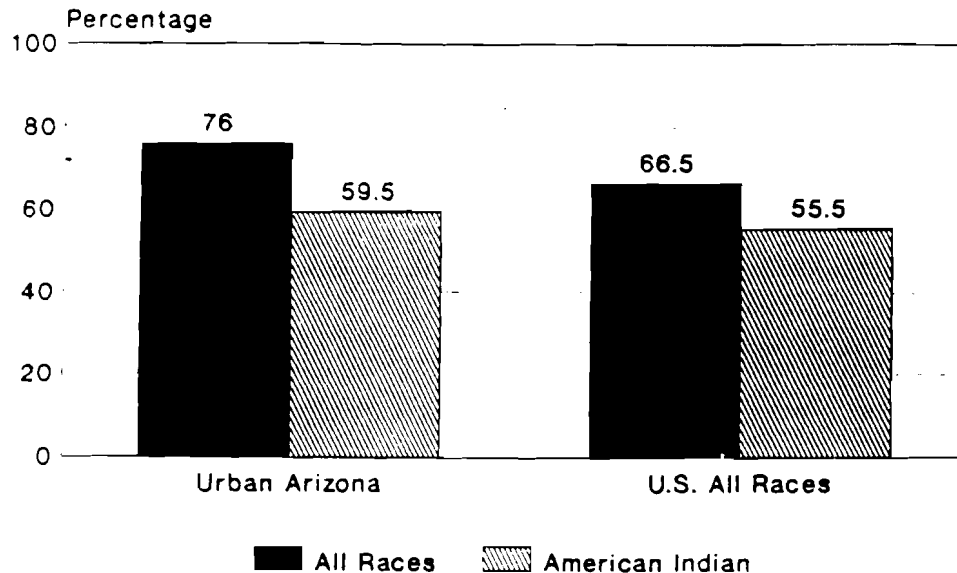
EDUCATION

American Indians in Arizona cities have made great strides in education since 1970, but still lag behind the general population.

Both American Indians and the general population of Arizona had achieved a higher educational level than their counterparts in the United States in 1980 (Figure 2-6). Additionally, American Indians have made great strides in education since the 1970 Census, when only 22% of the population had reached a high school graduate level of education.

However, urban Indians in Arizona still lagged behind the rest of the state in achieving high school graduate status in 1980 (59.5% versus 76%). Once again, the differential between the Indian and All Races rate was greater for Arizona than for the United States.
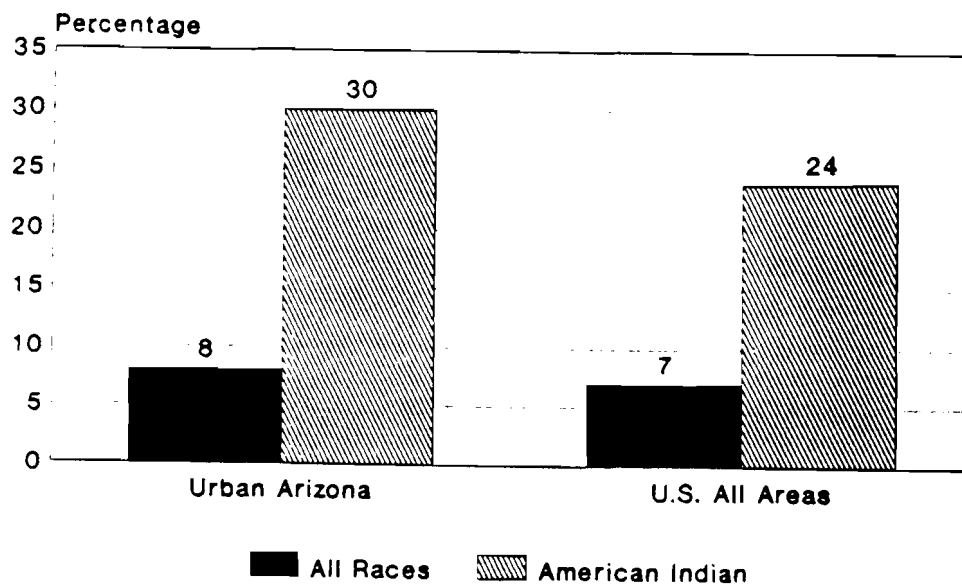
In 1988, the percent of the population reporting high school graduation was 61.1%[3] Flagstaff had the highest percent of high

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[3]Arizona Community Health Study, total sample n=1,764.

school graduates at 79%, while Tucson had the lowest at 49%.

Housing Characteristics

Figure 2-7. Households Without Phones
All Races and American Indians
Urbanized Arizona and the U.S.

U.S. Census Bureau, 1980

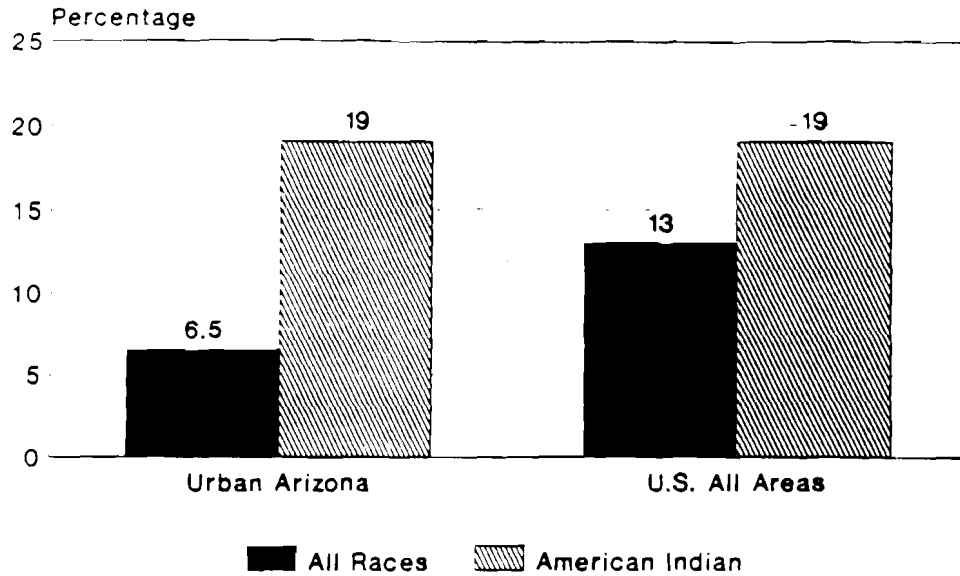## HOUSEHOLDS WITHOUT PHONES

One in three urban Indians in Arizona have no household access to telephone services.

Telephones provide an important link between outside resources and household members, for emergency situations as well as for making general appointments and getting health information. A telephone is also one of the only means available to health professionals for doing follow-up on special tests and diagnostic procedures.

Almost 400% more American Indian households than All Races in Arizona cities went without access to phones in 1980 (Figure 2-7). One in three Indian people lived without a phone in their household. This lack of telephones in the urban Indian community has contributed to the difficulty in establishing quality follow-up services by IHS or other health agencies.

Figure 2-8. Households Without Vehicles
All Races and American Indians
Urbanized Arizona and the U.S.

Percentage

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      Urban Arizona              U.S. All Areas
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■ All Races   ▨ American Indian

U.S. Census Bureau, 1980

HOUSEHOLDS WITHOUT VEHICLES

One in every five Indians in Arizona cities do not have access to a private vehicle for transportation.

Access to a vehicle is also an important link to health care resources, particularly in large urban areas where public transportation is minimal, or where health care resources are not in close proximity. Both of these conditions affect urban Indians in Arizona. Some examples are: Phoenix is a large, sprawling metropolitan area with increasingly serious pollution problems. The city has just begun debating whether to develop and fund a mass-transit system to augment the limited bus service now available to Phoenix residents. At the present time, however, the general public relies mainly on private vehicles, especially during the very hot months from May to October. In Tucson, IHS health services for Indian people are located several miles outside the city limits. However, transportation is limited due to the discontinuation of the metropolitan bus route to these IHS facilities. Finally, in places such as Flagstaff and Kingman, there are no IHS facilities available so many Indian people travel 60-70 miles to the nearest reservation to receive health care services.

Indian people are at a distinct disadvantage because of their limited access to personal transportation; three times more urban Indians go without a private vehicle than the general urban population (Figure 2-8). In addition, the gap between the All