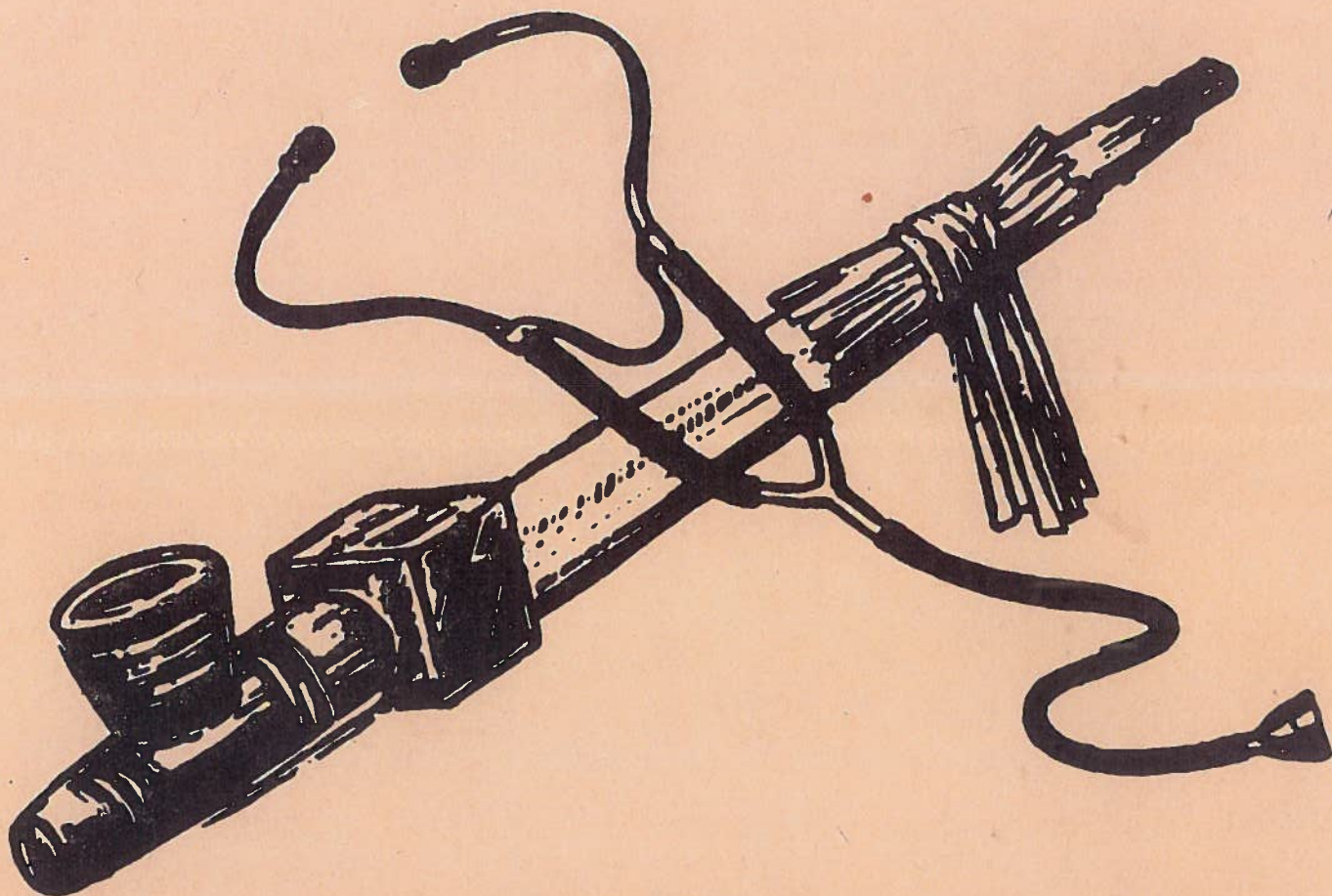


**NEED ASSESSMENT
FOR A
NORTHWEST INDIAN HOSPITAL**



**FELICIA S. HODGE, M.P.H.
EVALUATION COORDINATOR
JUNE 30, 1977**

NORTHWEST PORTLAND AREA INDIAN HEALTH BOARD

NEED ASSESSMENT
FOR A
NORTHWEST INDIAN HOSPITAL

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June 30, 1977

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Conducted Under Contract HSM 248-76-0195
for the
Portland Area Indian Health Service

FOREWORD

The Northwest Portland Area Indian Health Board was formulated by the Indian Tribes within the tri-state area of Washington, Oregon and Idaho to insure positive direction as it pertains to Indian health related needs. It is our contention that the Consumer must be involved in the health delivery system that directly affects their lives on a continuous basis. The areas of involvement are massive and continuously expanding in scope. The members of the Northwest Portland Area Indian Health Board elected to instigate a Hospital Feasibility Study via contract to determine the current feasibility of a referral hospital within the tri-state area. Several factors were instrumental supporting this concern, but basically it evolved around the accelerated rise and the cost of Contract Care.

We are in sincere hopes that the information contained within this Study will be viewed in a constructive manner. We are aware that it does not conform to the thoughts and opinions of all concerned but have completed the Study on the basis that the facts will justify the contents.

Respectfully submitted,



Melvin R. Sampson
Chairman
NORTHWEST PORTLAND AREA
INDIAN HEALTH BOARD

ACKNOWLEDGEMENTS

My sincere thanks go to the many health professionals from whom I have received valuable advice and technical assistance. Especially helpful was the advice received from: Ron Gilbert, Contract Project Officer, Assistant Area Director of Quality Assurance and from Jim Miller, Assistant to the Director, Portland Area Indian Health Service. Also, I am indebted to Michael Fuchs, Phd., Special Projects Officer, Indian Health Service, San Francisco, California, and to Charles Bailey, Chief, Program Analysis and Statistics, Oklahoma Area Indian Health Service for their technical assistance.

I also acknowledge with appreciation the support of the Northwest Portland Area Indian Health Board and of the thirty-three Northwest tribes they represent.

Melvin Sampson, *Chairman*
Violet Hillaire, *Vice Chairman*
Delbert Frank, *Secretary*
Lionel Boyer, *Sergeant at Arms*

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Melvin Sampson, <i>Delegate</i> Nelson Moses, <i>Alternate</i>	YAKIMA

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SUMMARY OF FINDINGS

In studying the inpatient needs of Northwest Indians and in determining the feasibility of an Indian hospital to meet the documented inpatient needs, this report finds:

- . The health status of Northwest Indians is well below national averages and has been for many years.
- . Due to underfunding, health care services currently provided by the Portland Area Indian Health Service inadequately meet the health needs of the Indian population.
- . Although the tri-state area is recognized as having sufficient number of hospitals in terms of quantity, for the American Indian such barriers as financial limitations, lack of Indian facilities, geographic restraints, and the IHS policy on hospitalization severely restricts access to inpatient services.
- . Whereas an average daily patient load of 66 inpatient beds were currently purchased through the IHS-CHS program*, an additional need of 89 inpatient beds has been identified for the IHS service population alone, plus 149 beds for those non-IHS health service recipients (i.e. Urban Indians).
- . Northwest Indian inpatient needs would be best met through the following mechanisms: (1) The Portland Area IHS be funded to it's fullest capacity based on actual population figures, (2) Staffing at IHS clinics be brought up to above the 65% level, (3) Vacant hospital beds be utilized wherever possible before new ones built via contracts or joint-use agreements, (4) Where new Indian hospitals must be built to provide needed beds, they should be small inpatient facilities placed in areas of demonstrated need designed specifically for the Indian population.

*See Appendix D, page D-2

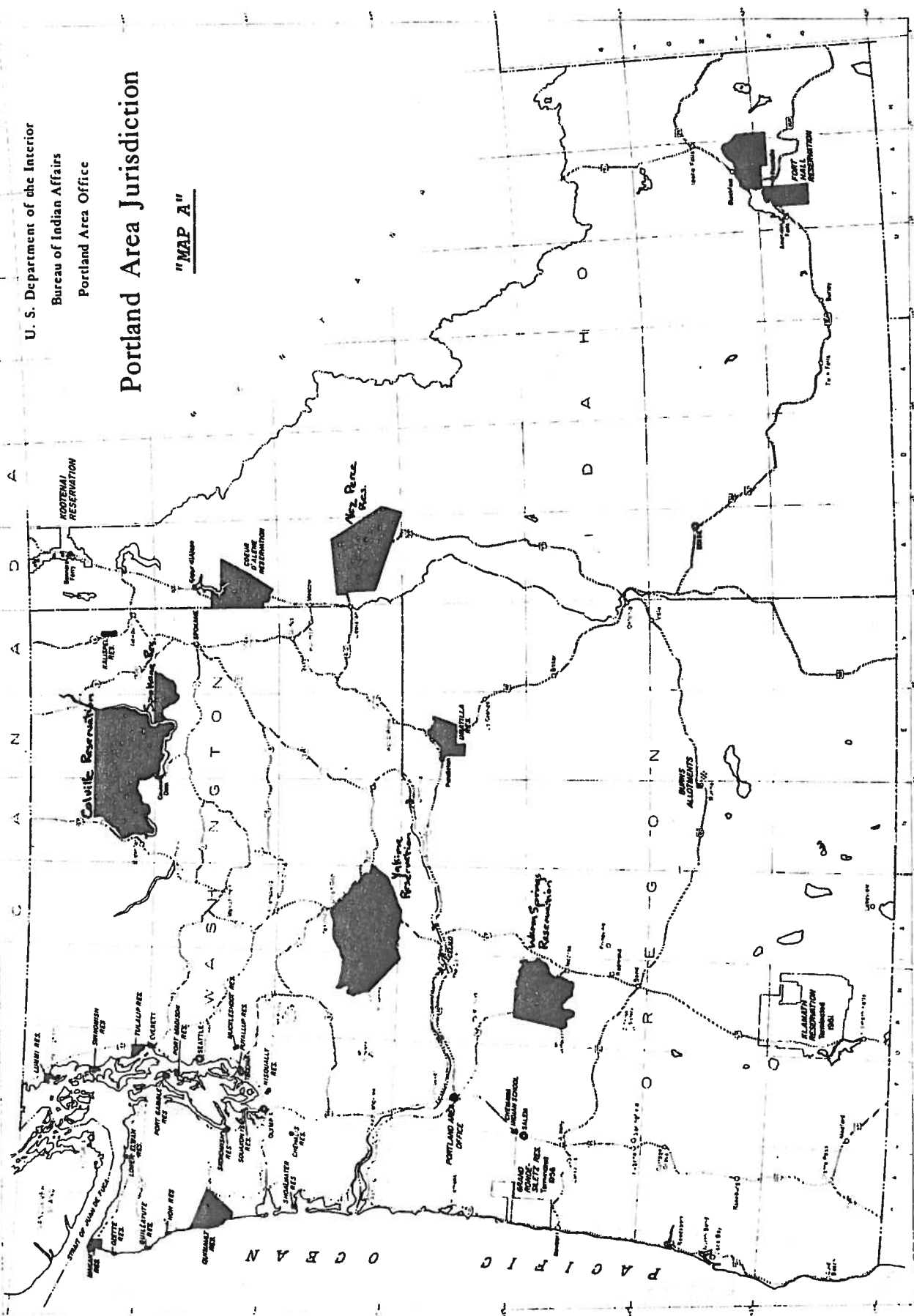


U. S. Department of the Interior
Bureau of Indian Affairs
Portland Area Office

Portland Area Jurisdiction

"MAP A"

Dep. No. 100-0000



GLOSSARY OF DEFINITIONS

This glossary defines those terms whose meanings may be unclear in the context in which they are used. Their definitions as stated in this glossary apply only to their use in this Hospital Feasibility Study.

AMBULATORY - Medical care provided on an outpatient basis (see outpatient).

AVERAGE DAILY PATIENT LOAD - (ADPL) The average number of inpatients maintained in a health facility each day for a given period of time. Usually calculated on an annual basis.

AVERAGE LENGTH OF STAY - (ALOS) The total inpatient days divided by either the admissions or discharges for that period. Usually calculated on an annual basis.

BIRTH RATES - The percent of births per 1,000 population.

CONTRACT HEALTH SERVICE (CHS) - Any medical or dental treatment which cannot be given directly by IHS facilities is provided by local physicians, dentists, hospitals, etc., through contract arrangement with the Indian Health Service.

CRUDE DEATH RATE - The percent of deaths per 1,000 population.

DEMAND - The volume of medical care services which are utilized. Demand is a function of factors such as income, education, source of payment for medical care services, and availability of health services. Often contrasted to need.

DIRECT CARE - Medical treatment provided directly at any IHS facility such as hospital, clinic, doctor's office or dispensary.

EVALUATION - Process of determining the effectiveness of a system in attaining and completing objectives, typically by measurement of the performance of elements of the system in relation to predetermined standards.

HEALTH STATUS - A measurement of the state of health of a given population usually reported in numbers per 1,000 population utilizing such indicators as morbidity, mortality and infant death rates.

INDIAN HEALTH SERVICE (IHS) - A federal agency (a component of the Health Service Administration (HSA) of the Department of Health, Education and Welfare) responsible for the health care of American Indians and Alaskan Natives. The Portland Area IHS is one of eight nationwide administrative offices responsible for operating the health program in the states of Washington, Oregon and Idaho.

INFANT DEATH RATE - A ratio of infant deaths within the first year of life to the total live births in a particular time period.

INPATIENT - A patient admitted to a bed in a hospital to have treatment, etc. and to stay overnight at least one night.

MAINSTREAM FACILITIES - Facilities generally available to the average citizen such as private or public hospitals, clinics or medical centers.

MORBIDITY - The relative incidence of disease.

MORTALITY - The proportion of deaths to population.

NEED - An estimate of the amount of medical care required to provide adequate services to a population in terms of the amount of disease present or preventable - often contrasted to demand.

NORTHWEST PORTLAND AREA INDIAN HEALTH BOARD (NPAIHB) - A health advisory board representing some thirty-three tribes in the tri-state area of Washington, Oregon and Idaho.

OCCUPANCY RATE - The average daily census divided by the total number of licensed beds. The occupancy rate is expressed as a percent, and indicates to what degree a facility is operating close to its maximum capacity.

OUTPATIENT - A patient who received diagnosis or treatment in a clinic or dispensary connected with a hospital but is not admitted as a bed patient. (Sometimes outpatient is used as a synonym for ambulatory).

PACIFIC NORTHWEST (or NORTHWEST) - The three state area of Washington, Oregon and Idaho.

RESIDUAL RESOURCE - The final or remaining course of action for patients seeking medical care from a provider (see page 12).

URBAN INDIAN - An Indian residing in urban, metropolitan areas or cities.

UTILIZATION - The number and type of services any group or individual uses.

I. INTRODUCTION

A. PURPOSE

This report provides the documentation of, and justification for increased inpatient health services for the Indian population of the Pacific Northwest.

Initiated and conducted by the Northwest Portland Area Indian Health Board, a health advisory Board representing some thirty-three Northwest Tribes, this report studies Indian inpatient needs and the feasibility of an Indian hospital.

It is hoped that this study will not only identify health problems, but will go further in describing the barriers to care and limitations placed on the availability and accessibility to inpatient health care among Indians. It is also hoped that this study will result in positive action by the Indian Health Service (IHS) and by responsive funding agencies to bring about needed inpatient service to all Indians in the Pacific Northwest.

GENERAL WORKING ASSUMPTIONS:

1. All Federally recognized Indians are to be provided quality and equal health care.
2. The population within the scope of the program will be based upon the latest U.S. Census or a more accurate count of the demand population if a service area can actually show that the count is more accurate than the latest census. Individual or tribal income is not considered in eligibility or priority for care.
3. Resources will be planned and organized commensurable with demonstrated need.
4. Indians are to be provided health services within a system which provides services in a timely, convenient, and acceptable manner.
5. That availability of service, distance to service and waiting time are determining factors in demand for service.
6. That manpower will be available to staff the facilities if funding resources are available.
7. The quality of services should be the best modern technology can provide to assure Indians they are receiving quality care.

B. OBJECTIVES

The following objectives were formulated to accomplish the stated goal of this study. Within nine months (April 1977) a planning process was initiated to:

- a) Assess and document health care needs of Indian residents in the states of Washington, Oregon and Idaho;
- b) Identify and document available health services in each service area;
- c) Determine gaps and barriers to the securing of health services by the Indian people;
- d) Determine the likelihood of developing an Indian hospital in light of above factors;
- e) Identify and research possible alternatives to meeting unmet health care needs.

C. METHODOLOGY

Introductory Statement:

The methodology in this study was derived after exhaustive efforts researching available data. The data proved to be both ambiguous and inconsistent in that there was no standard for defining what constitutes an Indian and thus estimates of Indian population varied according to definition and method of counting. Therefore, health statistics, such as morbidity and mortality, can vary depending on the population figure used. The health statistics used in this report are official Indian Health

Service figures.

The data collection problem is further complicated in that there is very little data, other than what the IHS has collected from their service population for Northwest Indians. Many Indians who are not within priority for Indian Health Service or are eligible for other community resources for health care are often not recorded as Indians thus resulting in a lack of data for the total Indian population. Thus, while there is a need for more reliable data collection systems, the data contained in this report is the best data available.

Methods:

The geographic area under study encompasses the three states of Oregon, Idaho and Washington. Within this area, the Indian population can be divided into two groups with respect to health care: 1) IHS health service recipients who are primarily reservation-based Indians residing in one of the twelve IHS Service Unit areas, and 2) those urban and suburban Indians receiving their health care primarily through other community resources.

The fiscal year 1976 population estimate used in this report was obtained from an accumulation of the following three sources: 46,989 from a non-duplicative three year count of IHS patient records; plus 38,100 as estimated from major Urban-Tribal Indian Centers; and an additional 12,944 from the U.S. Bureau of the Census (projected at a 12.5% increase since 1970) for those Indians in counties not accounted for in the first two figures. The accumulation of these figures totaling 98,033 is being used to show that there are more Indians in the Northwest demanding services than the official IHS (census) figure. And although the figure obtained from IHS non-duplicated count of

health service records could be questioned, it is the best data currently available and is considered a more reliable data source.

Other sources of Indian population estimates; i.e., the U.S. Bureau of the Census, Tribal, Bureau of Indian Affairs (BIA), and the Indian Health Service showed much discrepancy among their figures. Reasons for these discrepancies vary. For example, the 1970 Census has been found to under-report the Indian population.^{1/} The difficulty of identifying an Indian, either by self-identification or by census enumerators, plus the fact that many Indians are mobile and live in low density areas, can account for the errors in census reporting. Tribal population figures, first considered an excellent data source, have proven to be somewhat unreliable. Although several tribes have conducted their own independent census, most tribal groups report population figures which were derived from the U.S. Bureau of the Census. BIA figures were also found to be unreliable due to the restrictive definition of what constituted an Indian. Also their population estimates were often drawn from Tribal rolls, although many Indian enrollees reside off the reservation and in some instances out of the tri-state area.

Data relative to health status and inpatient utilization was derived from the Indian Health Service. This information is for comparison purposes only and not meant to be a linkage to justify the need for a hospital. I am however making some recommendations as to the need for preventative and educational services based on the identified health problems which are primarily for those common diseases readily treatable by modern medicine. Birth and death certificates were derived from the State Health Departments of Washington, Oregon and Idaho. Although this data is largely generated from the IHS service population, it is assumed this data is reflective of all Indians in the

three state area. The basis for this assumption is that there is very little data, other than what the Indian Health Service has collected from their service population for Northwest Indians. Many Indians who are not eligible or within priority for Indian Health Service turn to other community resources for health care and often are not recorded as Indian, resulting in a lack of data for the total Indian population. According to Dr. James H. Shore^{2/}, recognized for his many studies on Northwest Indians, many Urban Indians were at one time reservation and/or IHS health recipients, thus justifying the assumption.

An assessment of inpatient needs was determined by projections based on the above data and applied to the adjusted population (46,989 IHS service population and 51,044 non-IHS service population) explained on the previous page. Expected inpatient admissions was determined by multiplying the population by an estimated admission rate for each given area. Because most IHS reported admission rates were lower than the U.S. average, being controlled by restrictive CHS policies, and because no estimates were available on Indian admission rates given optimum access to care, the U.S. average admission rate of 161 per 1,000 population was used. Inpatient bed need was computed using the Poisson Probability Method. This statistical method is the formula used and recommended by the IHS Headquarters for determining Indian inpatient bed need.

The number, location, type and size of all hospitals in the tri-state area was obtained from the American Hospital Association "Guide to the Health Field, 1975 Edition" and from each state's Health Systems Agency's application for designation in 1974. Information regarding available Indian Health Service outpatient facilities was obtained from the Portland Area Indian

Health Service. The above information on inpatient and outpatient facilities is listed in Appendix E.

Evaluation of need for inpatient beds was developed using the six following criteria; acceptability (of the Indian consumer to the delivery of inpatient services), accessibility (eligibility, driving distance, location), availability (of services), adaptability (within the health care delivery system), effectiveness (to meeting unmet need), and cost (capital and operating).

Both subjective (consumer input) and objective data were gathered relative to these criteria. Consumer input regarding wants and desires was obtained from a series of meetings with Indian consumers and representatives from both tribal (primarily reservation-based) and urban groups.

The above mixture of subjective and objective data produced a cost-effectiveness analysis which formed the decision base for this study.

II. BACKGROUND

A. BACKGROUND

The Portland Area (Oregon, Washington and Idaho) while having a total estimated population of 98, 033 Indians, is the only Indian Health Service Area without an Indian hospital. Various inpatient facilities established under the Bureau of Indian Affairs years ago have been converted to outpatient care or taken out of the Indian Health Service altogether. Indian Health Service facilities at present include twelve outpatient clinics (one a school health center) and nine outpatient satellite health stations which occasionally hold specialty clinics, but usually have no permanent professional clinic staff. Thus the Portland Area Indian Health Service spends more money (over \$6 million in F.Y. 1976) purchasing health services from other vendors (over 75 hospitals) under its Contract Health Service program, than any other Indian Health Service area in the United States. Although the Contract Health Services budget for 1977 was increased by 14.8% over the previous year, the actual increase in service cost will exceed 14.8%, thus resulting in a real decrease of available services to Indians.

It would be easy to conclude from the above that the best way for Indian Health Service to control inflation of inpatient costs would be to operate their own hospital in the Northwest. However, it has not been conclusively demonstrated that Indian Health Service can provide inpatient services at a lower cost than private or public hospitals, or that the Indian consumer would choose to use an Indian hospital located 300 miles away rather than a local general hospital. It is these questions of accessibility, acceptability and cost that this report seeks to explore.

B. STATE OF HEALTH

The health status of the Northwest Indian is well below national averages and has been for many years. Identified health problems include a pattern of social problems, poverty, and disease that is unparalleled among ethnic and racial minorities in the United States. With a disease rate for most common diseases many times higher than the general population, the Northwest Indian continues to receive inadequate health care.

Statistics available from the Indian Health Service* and from the U.S. Bureau of the Census, which illustrate these claims, include the following:

- Of those individuals below poverty level, Northwest Indians represented almost 28% of all persons in the tri-state area in 1970. The highest percentage of Indians below poverty level reside in rural areas (31.4%) where the majority of Indian reservations are located.
- Median Income for rural and urban Indian families in the states of Washington and Oregon (Idaho figures unavailable) in 1970 was \$4,838.00, 3/ almost half that as compared to the national median income of \$9,586.00 for all races and for all families.
- Educational levels are below the national average. For Northwest Indians 10.9 years and older, the average educational attainment ranges from a low at the Yakima Reservation of 10 years of education to the high of 11.6 years in the metropolitan area of Portland, Oregon. 3/
- Infant death rates, a sensitive index of the socio-economic status, stage of development of a country, and availability and utilization of health services 4/ were as follows for 1975: 35.9/1000 for Northwest Indians 5/ versus the national average of 16.1/1000. 6/ In 1974, the Northwest Indian had the highest infant death rate among all Indian populations in the United States. 7/ (See Chart I and Appendix A Table AI)

*The data base for statistics used herein was obtained from the IHS and is based on a population figure of 28,403 Indians. These are the official statistics used by the IHS.

- Birth rates were almost triple the national average in 1974: 41.5 live births 5/ per 1,000 for Northwest Indians versus the national average of 14.9/1000, 6/ for the general population. (See Chart II)
- Crude death rates show Northwest Indians die at a higher rate than the general population: 11.1/1000 deaths 5/ versus the national average of 9.0/1000. 6/ (See Chart II)
- Life expectancy for Indians on Northwest reservations is 50.7 years for males and 62.3 years for females compared to 68.6 years for males and 76.5 years for females for the average U.S. citizen born in 1970. (See Appendix C)
- The five leading causes of death (disease of the circulatory system, accidents, violence, poisoning, disease of the digestive system, neoplasms, and diseases of the respiratory system) account for nearly 80% of the total Northwest Indian death in 1975 and has changed little in order of importance over the years. (See Appendix A Chart A).
- Health problems effectively controlled in the general population by modern medicine such as upper respiratory infection, diarrhea, acute otitis media, and influenza, are still major causes of illness contributing to outpatient visits, hospitalization and in some instances, death. (See Appendix A, Chart A)
- Accidents, poisoning and violence accounted for 22.5% of the deaths in 1975, almost three times the national figure. 6/ It also is a leading cause of inpatient and outpatient care.
- The prevalence of mental disorders and/or problems has been documented in several studies. 2/ In the Pacific Northwest, disorders as a result of mental problems is reported to be the fifth ranking cause of hospitalization.
- Alcoholism, considered by many to be the number one health problem, 8/, directly accounted for nearly 10% of Northwest Indian deaths in 1975 labeled as cirrhosis of the liver, 5/, and can be indirectly related to problems of family functions, suicide, mental illness, violent death and accidents.
- There is a shortage of Indian Health Service health resource manpower and facilities for Northwest Indians. The Portland Area Office (IHS) estimates the Northwest area to be understaffed at IHS clinics by as much as 50%. 9/ In F.Y. 1976, there was one IHS doctor for every 2,473 Indians and one IHS dentist for every 3,615 Indians, well below the 1970 national average of one physician for every 643 individuals and one dentist for every 2,108 persons. 10/ This ratio, however, improves if we consider the number of health professionals retained through the Contract Health Service. As an additional resource, the Contract Health Service contracted with approximately 116 physicians on a continuous basis over the past three years. Also,

many other practitioners not under contract are retained as the need arises.

---The Pacific Northwest is the only IHS service area without an Indian Hospital. Many Indians who would otherwise be eligible for care at an Indian hospital are denied payment for inpatient care under the current IHS Contract Health Service system.

CHART I

INFANT DEATH RATES
Rate Per 1,000 Live Births

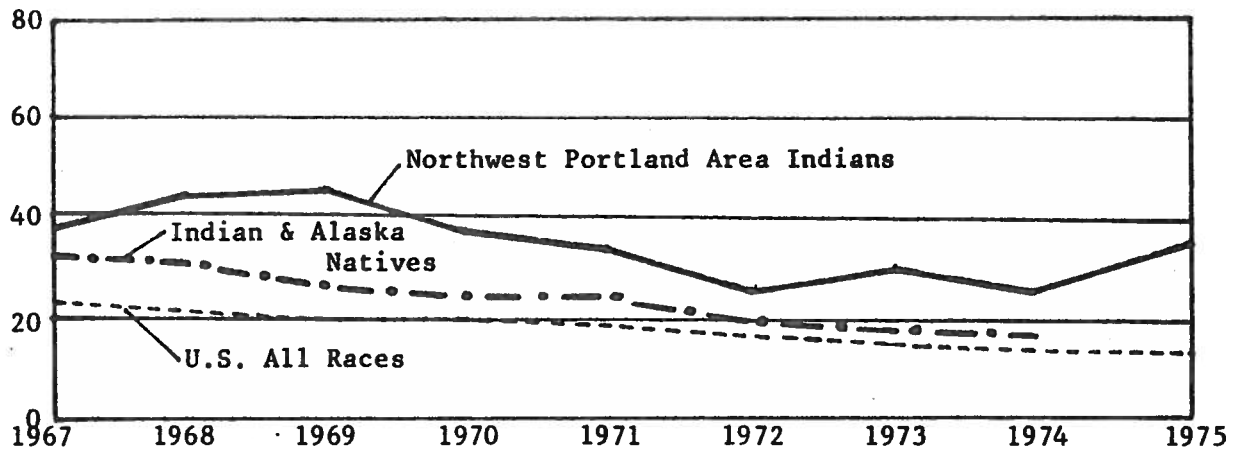
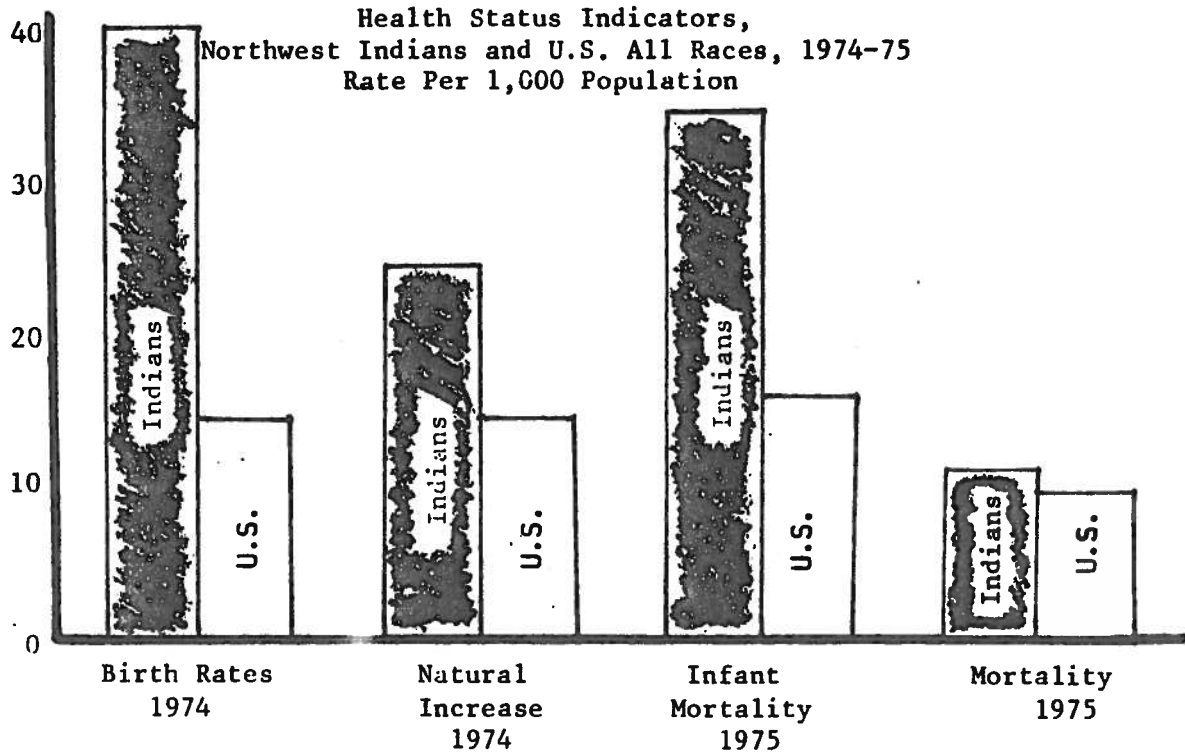


CHART II

Health Status Indicators,
Northwest Indians and U.S. All Races, 1974-75
Rate Per 1,000 Population



Source: Birth and Death Certificates from State Health Dept of Id. Or. Wa.
Vital Events Branch, OPS/DRC/IHS, Dec. 31, 1975
Monthly Vital Stats. Reports, National Center for Hlth Statistics,
Vol. 24, Nos. 11, 13, February 3, 1976 and June 30, 1976

C. DELIVERY OF HEALTH SERVICES - IHS

Responsibility for the delivery of health services to American Indians rests with the Indian Health Service, a part of the Health Services Administration (HSA) within HEW. Established July 1, 1955 when HEW assumed responsibility for the health care of American Indians and Alaskan Natives from the Department of the Interior, the Indian Health Service designated eight administrative Area Offices throughout the United States with the responsibility of providing health care to Indians residing in those areas.

The Portland Area Office, which includes the states of Oregon, Washington and Idaho is divided into eleven Service Unit Areas to form the basic operating mechanism through which health care is delivered to Indians. The services provided through these Service Units vary with population size and the budget allocation.

The IHS Service Unit provides health care through two methods of delivery--direct services and contract services. Direct services are those provided by the IHS staff in IHS outpatient facilities located on or near reservations. When need for services is beyond the capability of the IHS clinics (such as some dental, inpatient care, prostheses and eyeglasses) or in the event of the unavailability of an IHS clinic (and upon the availability of resources), care is provided through contracting with local providers which forms the Contract Health Services (CHS). Because the IHS considers itself a residual resource, potential patients seeking to utilize contract services must first exhaust other resources such as Medicare, Medicaid, State programs, and Insurance coverages before the IHS considers them within priority for contract services.

Due to a limited budget and inflation of the past few years, the IHS has established a policy of setting priorities on eligibility and care. In order to be considered eligible for contract services, an individual must be (a) of Indian descent, (b) a member of a Federally recognized Indian tribe, (c) not excluded from service by other provision of law, and (d) who meet the following conditions of eligibility:

- (1) Member of a Federally recognized Tribe who lives on an Indian reservation, in traditional Indian communities, on scattered allotments, or other trust land.
- (2) Residence within the boundaries of an established health service delivery area adjacent to a reservation and membership in the Tribe for which the reservation was established.
- (3) Non-Indian dependents of persons served under either condition (1) or (2). Dependents are defined as non-Indian wives of Indian men, minor dependents of an eligible Indian living in the same household as the eligible Indian, and non-Indian men who are dependent upon Indian women by reason of permanent physical or mental disability.
- (4) Indians who are enrolled as full-time students in an institution providing post-high school, vocational, technical, or academic training or education, if they met one of the foregoing conditions of eligibility immediately prior to entering school. Specifically exempted from this provision are students enrolled in Bureau of Indian Affairs sponsored programs of vocational training under the Bureau of Indian Affairs Branch of Employment Assistance. The Bureau of Indian Affairs has acknowledged responsibility for the health care of such students.

Priorities for providing care is further limited as follows--first priority going to emergent of life-threatening situations. This presents a circumstance where many Indians find themselves unable to secure inpatient care through the Indian Health Service, those being urban Indians, Indians who choose to leave the reservation for some length of time, and those individuals not in life-death situations.

Although it is recognized that there are other health resources available to Northwest Indians, the volume of health care delivered by these other resources has not yet been determined. Federal and State programs such as Medicare, Medicaid, supplemental social income programs (SSI), the State and Social Health Services, categorical programs such as continuing assistance (along with medical and hospital care) the acute emergent medical programs of the State, as well as the Crippled Childrens' programs, conservation of hearing, aid to the blind, etc. are all excellent resources, provided the Indian consumer is aware of such resources and can use them. However, the lack of data available on Indian utilization of other resources restricts any concrete conclusions on their effectiveness and use within the Indian communities.

In seeking needed medical attention, either through the Indian Health Service or through other sources, the Northwest Indian faces several barriers to care. These include financial, facilities, geographic location and the Indian Health Service policy on hospitalization. Although not necessarily mutually exclusive, these barriers limit the accessibility and availability to care.

1. FINANCIAL: Many Indians cannot afford to purchase health care independent of the IHS as a result of their low income and employment status.
2. FACILITIES: The Portland Area IHS is one of the few areas in the United States without an Indian hospital. Although there seems to be an abundance of facilities in the Northwest (see Appendix E for a listing of tri-state hospitals), this does not mean that Indian people have access to these facilities. Limitations placed on eligibility and priority for care by the IHS-CHS system restrict access to these facilities. Currently, the inability to purchase services (by both the patient and IHS due to budget limitations) is the biggest barrier in seeking health care at these mainstream facilities. The situation thus becomes a "Catch 22" in that the Indian has no access to secondary care unless they are in an emergent life-threatening situation and upon the availability of services. Thus an Indian who is sick must many times wait until he is critically ill before he can gain access to medical care.

3. GEOGRAPHIC: The three state area of Washington, Oregon and Idaho encompasses a large geographic area. The Indian population is widely distributed and as a rule has to travel considerable distances in order to receive health care. For example, Spokane Indians have to travel approximately 100 miles to the City of Spokane for inpatient care. The cost of such travel for Spokane Indians could average approximately \$30.00 per round trip. An additional example is the Indians residing within the Neah Bay Service Unit. Traveling over 75 miles to Port Angeles for hospitalization, these Indians face poor road conditions and a two (2) hour drive which inhibits accessibility to inpatient care. Realizing that many Indians do not own reliable automobiles (if any at all), such factors as distance, highway conditions, climate, transportation, and cost of travel become major barriers to care. Harsh climate conditions add to the difficulty. Heavy snows are not uncommon for the Eastern area, as is a higher annual precipitation for areas west of the Cascade Mountains making ground transportation for those seeking medical attention difficult and sometimes impossible, especially during the winter.

4. IHS POLICY ON HOSPITALIZATION: The IHS-CHS is a substitute for inpatient care that would be otherwise provided at an Indian hospital. However, the priorities and policy established by the CHS seriously limit accessibility so that services which would ordinarily be available to Indians at an Indian hospital are not available through the Contract Health Service program.

Many Indians are denied payment for inpatient care by the IHS-CHS system. From 1973 to 1975 there were 1,096 recorded denials for CHS*. This figure represents those Indians who requested payment for care and were subsequently denied payment. No figures are available on those Indians who needed care, but did not request the aide of the CHS. Nor is there data on the number of patients who needed services, but for lack of information never requested assistance, or who were discouraged from applying for aid. Investigation revealed very little ongoing mechanism for disseminating eligibility information directly to the Indian patient, yielding confusion over eligibility and lack of demonstrated need.

The fact that the CHS program is budgeted for only 60% of the IHS service population of 46,989, and at that only on a priority basis, adds to the claim that the IHS policy on hospitalization is a barrier to care for many Indians.

*Reason given for denials include: eligibility undetermined, late notification, low medical priority, not member of local Indian community, non-Indian, other resources, outside medical or dental priority, direct services available, not referred by IHS physician. No data given on numbers denied in each category.

Thus despite the presence of the Indian Health Service, such barriers as those illustrated above restrict access not only into the IHS health care delivery system, but also into "mainstream" health care delivery system generally available to most Americans.

Also, budget limitations, having been cited as a predominate reason for setting priorities for inpatient care thus limiting accessibility, are as a result of an underestimation of the actual IHS Service population. Because the Indian Health Service Headquarters, located in Rockville, Maryland, projects the Northwest service area population at 28,403 (based on the 1970 census, which has been shown to under report the Indian population) instead of an actual count of 46,989 based on a three year non-duplicative count of the Portland Area IHS patient records, insufficient funds are allocated to the Northwest area resulting in the inadequate delivery of services.

Health status is a function of a variety of factors such as environment (housing, clothing, sanitation and poverty), behavior (reckless driving, drinking and eating habits), heredity and health services. Of these, the availability of health services which protects, prevents, treats and controls illness and diseases is an essential factor contributing to good health. It is acknowledged that many of the identified health problems among Northwest Indians are as a result of behavior, environment and poverty, and that many of these health problems could and should be prevented. Many, however, are directly attributed to under-utilization of health services. Certain illnesses and diseases become serious, and may possibly lead to disability or death if left unattended.

For instance, if such illnesses as influenza, upper respiratory infection, diarrhea, and otitis media were treated before they became serious, and/or prevented when possible, disability such as hearing loss, and deaths due to diseases of the respiratory and digestive system could possibly be curtailed.

The unavailability of health services (including prevention and health education) contributes greatly to extent of illness, disease and death among a given population. The lack of access to health services, especially inpatient services, is a major cause of under utilization, which in turn, affects the health and well-being of Northwest Indians. The high infant death rate alone indicate the critical condition of the need for better access^{11/} and thus higher utilization.

If the health of Northwest Indians is to be effectively upgraded, and if the IHS is to fulfill its responsibility of providing health services for all Indians as mandated by the passage of the Snyder Act in 1921, and more recently by two important pieces of legislation which seek to upgrade Indian health, the Indian Self-Determination and Education Act (P.L. 93-638) and the Indian Health Care Improvement Act (P.L. 94-437), then the Indian Health Service must address these deficiencies which limit accessibility and availability of health services. Until a comprehensive health care delivery system is made available to all Indians, the health of our first Americans will suffer.

III. INPATIENT NEEDS



A. Geography and Population

The population under study in this report is the Indian of the Pacific Northwest. Encompassing the three states of Washington, Oregon and Idaho, this Northwest area extends from the Canadian border to the California-Oregon line and from the Pacific Ocean to the state of Montana. It is an area that includes the rain forest of the Olympic Peninsula in northern Washington and the semi-arid regions of eastern Oregon, eastern Washington, and southern Idaho. Mountains over 10,000 feet are adjacent to several reservations. Several mountain ranges, the Olympic mountains in Washington, the Wallowas in northern Oregon, the Cascade range from Canada to California and the Rockies in Idaho, offer beautiful scenery and wilderness areas, yet makes travel difficult, if not impossible, especially during the winter months. Harsh climate conditions and heavy snows are not uncommon as is a high annual precipitation.

In total there are thirty-three tribes and twenty-nine reservations in the tri-state area. As shown on Map B, the overall Indian population is widely distributed with relatively few high density areas except in the State of Washington where 62% of the total Indian population resides, mainly in the counties of Yakima, King and Pierce in the Puget Sound area. Twenty-five percent of the Indian population resides in the state of Oregon and the remaining 13% in Idaho.

In the initial attempt to determine population size, discrepancies were uncovered among several different data sources. The following serves not only to illustrate these discrepancies, but also to justify the use of the population figures used in this report.

1. The 1970 Census reported a total of 53,583 Indians living in the tri-state area. Although this is the only single survey of the total tri-state area, there is some doubt as to its accuracy because of survey technique and past undercounting of the Indian population.^{1/} Many Indians who are mobile or who live in low density areas are many times overlooked. Also, the difficulty of identifying an Indian, either by self-identification or by the census takers, can account for error in census reporting. Also non-federally recognized or terminated Indians were not identified in this census.

2. The IHS Headquarters (located at Rockville, Maryland) utilizes the 1970 Census in making estimations and projections for the Portland Area service population alone: those Indians residing on or near reservations and/or as designated by Service Unit boundary areas. Because this IHS estimation is based on the census count for those areas, and because the census under-reported the Indian population, the IHS service population of 28,403 (plus 205 Chemawa students) for F.Y. 1976 is herein considered a very low estimation. No projections have been made by the IHS for all other Indians residing outside the Service Unit boundaries.

3. The Portland Area IHS maintains individual health records on their service population through the direct and the contract health system. A non-duplicative count of these service numbers for fiscal years 1974, 1975, and 1976 produced a much higher service population (46,989) than was estimated by IHS under the above procedure, supporting the claim that the IHS Headquarters estimation of 28,403 is very low and incorrect. Although the IHS service identification number total may include Indians who have migrated into and out of the area and possibly some Indians who obtained more than one service number*, this total is more representative of an actual service population than #1 and #2 above and thus is used in this report. Again this estimation is restricted primarily to Service Unit location.

*APC Report 1G, F.Y. 1976 reports 2,563 outpatient visits made by Indian patients to Service Unit facilities other than their own. This is two percent (2%) of all direct care visits and nine percent (9%) of the IHS service population of 28,608. Based on this report, the Service Unit population as derived from the health records identification numbers, is considered more accurate than the IHS estimate given in #2 above.

4. Other Indian Health Center (3 urban and 1 tribal), located in major metropolitan areas serving predominately the non-IHS service population, maintain population estimates for purposes of planning and proposal submissions. These Indian Centers (Portland Urban Indian Program, Seattle Indian Health Board, Tacoma Indian Center and the Spokane Indian Center) together estimated a total of 38,100 Indians residing within their respective counties in 1976. Although these Indian Centers acknowledge that these figures are estimations only, they are their official population figures. For use in this study, allowances were made for those non-federally recognized and terminated Indians as identified. For instance, the Seattle Indian Health Board reported a total of 25,000 Indians residing in King county. But because the city of Seattle (and the County itself) is home for many Canadian Indians and other non-federally recognized or terminated Indians, the population herein given is estimated to be 19,000 Indians.

5. There are no recent projections for Indians residing in counties not accounted for in #2, #3, and #4 above. Estimates for these counties (largely rural) were derived at by increasing the 1970 census enumeration for those counties by 12.5% which was the total projected increase for Service Unit counties in #2 above. This figure is given to be 12,944 Indians, (minus those identified terminated and non-federally recognized Indians).

Thus while all the reported statistics (see Table I) demonstrate inaccuracies, the best available data on population figures was determined to be a combination of #3, #4, and #5 above because the health record count was controlled for non-duplication, thus represented individual patients who actually received IHS services, and because there is no other population estimate in urban areas other than those provided by the above Urban Health Centers.

TABLE I

Northwest Indian Population Estimations by Source F.Y. 1970 - 1976

COLUMN	"A"-C.Y. 1970 U.S. Census ^{1/}	"B"-F.Y. 1976 IHS Hdq. (12.5% proj.) ^{2/}	"C"-F.Y. 74-75-76 IHS-Patient Nos. ^{3/}
SERVICE UNIT			
Colville	2,612	2,527	6,046
Fort Hall	2,604	2,824	4,716
Northern Idaho	1,975	2,014	3,440
Warm Springs	1,931	2,111	3,640
Puget Sound	4,115*	6,016	4,926
Yakima	4,161	4,241	8,946
Umatilla	976	1,006	1,578
Taholah	1,810	2,130	3,226
Neah Bay	1,504	1,619	3,053
NW Washington	2,599	2,944	3,356
Wellpinit	956	971	2,278
Chemawa		205**	1,784**
Sub-Total	25,243	28,608	46,989
NON-SERVICE POPULATION (Counties with sizable Indian population)	1970 U.S. Census	12.5% increase- Census	Indian Centers Estimations ^{4/}
Multnomah, OR	2,673	3,007	8,000
King, WA	7,391	8,315	19,000
Pierce, WA	3,343	3,761	6,000
Spokane, WA	1,988	2,237	5,100
All Other Counties	12,945	12,944 ^{5/}	12,944 ^{6/}
Sub-Total	28,340	30,264	51,044
GRAND TOTAL	53,583	58,872	98,033

* The 1970 IHS Headquarters data only showed a small part of King and Pierce counties in the Puget Sound Service Unit, where, in reality, the Service Unit includes all of King, Pierce, plus Mason, Thurston, Snohomish and Kitsap counties. Because of this, the remaining population figures not accounted for in the Puget Sound column were shown in the King and Pierce county column below.

** The figure of 205 is included herein (although IHS does not include them in their baseline population of 28,403) to produce a baseline population of 28,608. This inclusion is reasonable because IHS provided inpatient services to Indians using CHS funds through the Chemawa Indian Health Center in sufficient numbers to justify this minimum figure. The figure of 1,784 includes all other non-service unit residents authorized by the IHS Portland Area Office.

* 1,439 Indians from Lincoln and Klamath Counties have been deleted from this figure (as originally derived from the 1970 Census) because they contain primarily the terminated tribes of Siletz and Klamath.

SOURCE:

Column "A": is the 1970 Census enumeration by Service Unit and non-service area counties.
SOURCE: ^{1/}1970 U.S. Bureau of the Census.

Column "B": is the IHS Headquarters F.Y. 1976 projection for Service Units based on the 1970 Census. Because no projections were made for non-service counties, I calculated these by increasing the 1970 census figure for those counties by 12.5% (which was the total projected increase for Service Unit counties).
SOURCE: ^{2/}Indian Health Service, Rockville, Maryland.

Column "C": is a non-duplicative count of IHS service numbers for F.Y. 1974, 1975 and 1976 by Service Unit plus estimations by four major Indian Centers by county for all other non-IHS Service population. All other counties not accounted for were estimated on a 12.5% census increase.

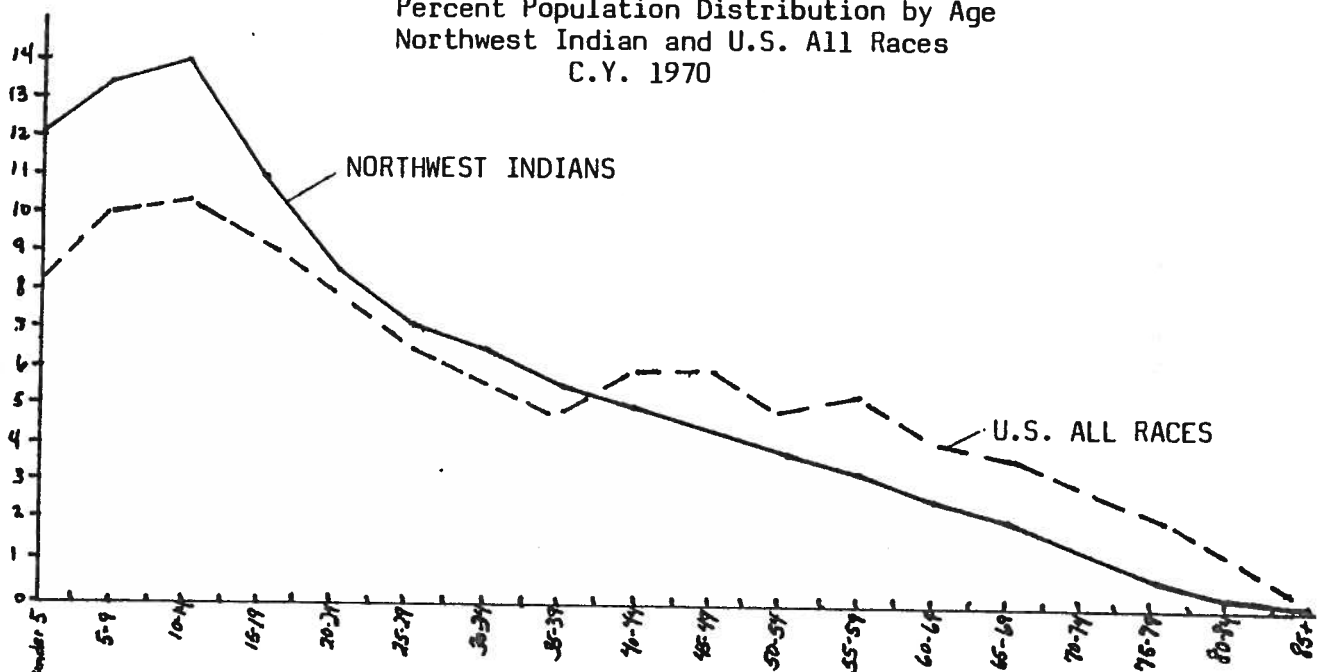
^{3/}Indian Health Service, Portland Area Office, CHS Report 31.

^{4/}Indian Health Centers: Urban Indian Program, (Sister Mary Frances Griggs, Director), reported 8,000 Portland Urban Indians; Seattle Indian Health Board, (Nancy Siebert, Planner), reported a service population of 19,000; Tacoma Indian Center, (Andrew Calloway, Director), reported 6,000 service population over and above the tribes already accounted for by IHS; Spokane Indian Center, (John Weatherly, Director), reported 5,100 Urban Indians in Spokane.

Analyzing Indian population characteristics, the Northwest has a larger Indian population in the 15-19 age group as compared to the general population as a whole. Table AII in Appendix A and Chart III below, shows the median age for Indians being in the 15-19 age group as compared with 28.1 years for the U.S. All Races. This demonstrates a much larger "dependent" population, who are in the need for special care and services. ^{4/}

CHART III

Percent Population Distribution by Age
Northwest Indian and U.S. All Races
C.Y. 1970

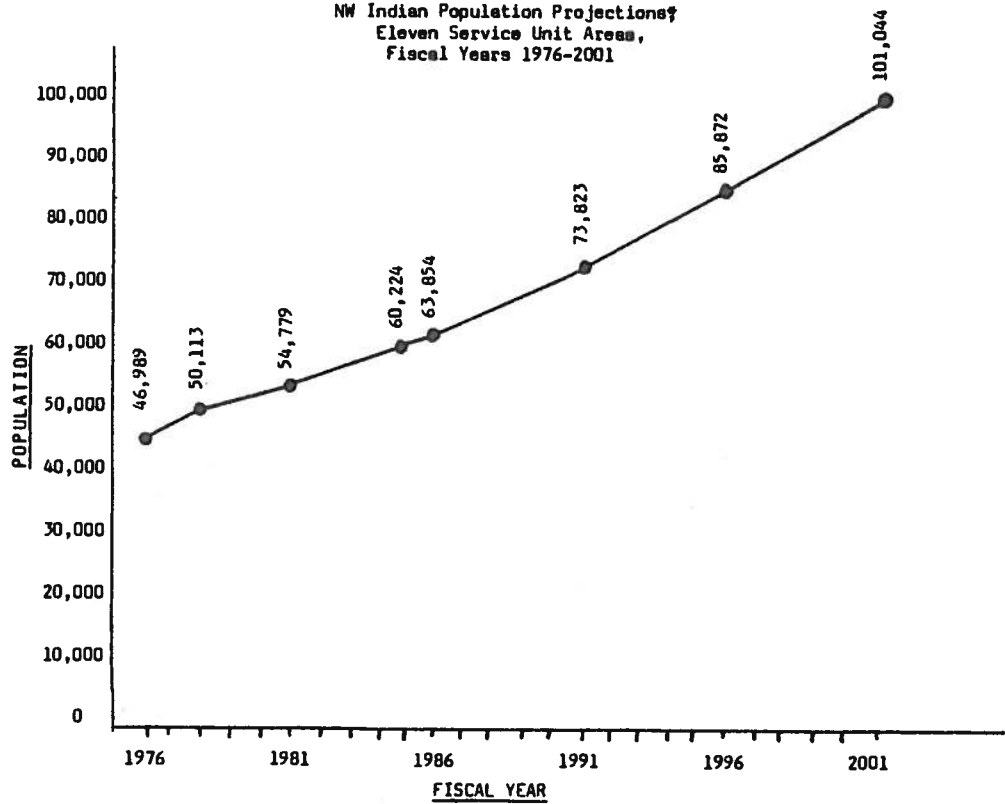


SOURCE: U.S. Bureau of the Census, 1970

If the Northwest Indian population continues to increase at the growth rate projected (see Appendix C) , by 1986 the IHS service population is projected to number 63,854 and for the total Indian population in the tri-state area (urban and reservation) the population is projected to number 132,707.

CHART IIA

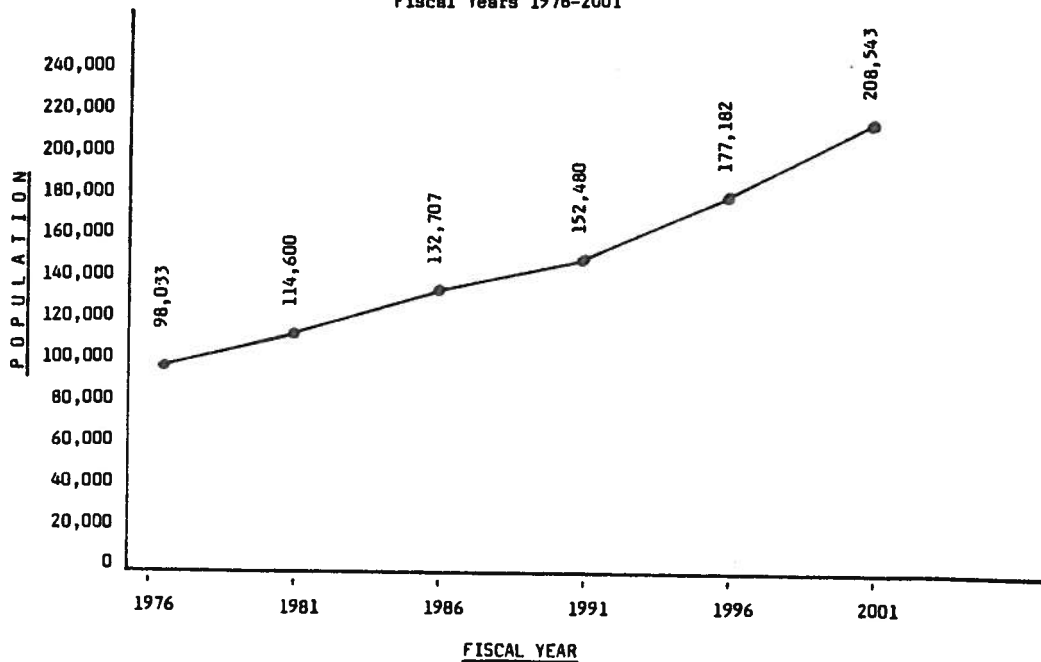
NW Indian Population Projections†
Eleven Service Unit Areas,
Fiscal Years 1976-2001



* F.Y. 1976 adjusted s.u. population figures derived from Table II, population projection based on growth from CHART IA, Appendix C

CHART IIB

NW Indian Population Projections†
Utilizing adjusted population Totals for Washington, Oregon and Idaho
Fiscal Years 1976-2001



* F.Y. 1976 adjusted population figures derived from Table II, population projection based on growth rate from Chart IB, Appendix C

B. Utilization Patterns

Of those Indians able to obtain inpatient care through the IHS Contract Health Service system in fiscal year 1976, 59% or 14,032 days were for adult medical procedures, 9% or 2,202 days for adult surgical, 11% or 2,584 for obstetrics, and 21% or 5,168 days were for pediatrics procedures. (See Table II).

TABLE II

Determination of Percent Hospital Days by Service
Utilizing Actual Experience of Contract Care, F.Y. 1976

Service Unit	Totals		Adult Medical		Adult Surgical		Obstetrics		Pediatrics	
	Days	%	Days	%	Days	%	Days	%	Days	%
TOTALS	23,986	100	14,032	59	2,202	9	2,584	11	5,168	21
Puget Sound	1,885	100	1,076	57	168	9	329	17	312	17
Yakima	4,049	100	2,108	52	290	7	476	12	1,175	29
Taholah	1,884	100	1,113	59	184	10	154	8	433	23
Neah Bay	1,397	100	655	47	174	12	99	7	469	34
NW Washington	1,216	100	815	67	89	7	112	9	200	17
Colville	1,581	100	847	54	209	13	239	15	286	18
Wellpinit	1,458	100	912	62	82	6	135	9	329	23
No. Idaho	2,976	100	1,847	62	252	8	267	9	610	21
Fort Hall	2,747	100	1,931	70	220	8	275	10	321	12
Umatilla	1,795	100	1,170	65	75	4	147	8	403	23
Warm Springs	2,557	100	1,366	54	284	11	314	12	593	23
Chemawa	271	100	68	25	161	59	19	7	23	9
Portland Area Off.	170	100	124	73	14	8	18	11	14	8

SOURCE: CHS Report 31

NOTE: Total inpatient days do not reflect total days given on CHS Report 3N. Reason for discrepancy unknown. Percent hospital days by service was determined by aggregating actual patient days by service type and then dividing each group of patient days by respective total for each service unit to obtain the percent (rounded to nearest percent).

There were 4,930 discharges from general medical and surgical (GM&S) hospitals and 111 discharges from nursing homes and rehabilitation centers in 1976. Indian patients in GM&S hospitals utilized a total of 23,836 days of care and their average length of stay (A.L.O.S.) was 4.8 days. The area average admission rate was 104.9 admissions per 1,000

population, which is not only lower than Indian admissions at all U.S. PHS hospital (admission rate of 149.7/1,000) but is significantly lower than the U.S. average admission rate of 161.0/1,000 (See Table III).

TABLE III

Number and rate per 1,000 population of discharges, days of care, and average length of stay in short-stay general hospitals: Northwest Contract Care, U.S. PHS Direct Care and United States, 1973-1976

	Discharges		Days of Care		A.L.O.S. in days
	Number	Rate	Number	Rate	
Northwest IHS-CHS ^{1/} (FY-76)	4,930	104.9	23,836	507.3	4.8
US PHS Hosp ^{2/} (FY-75) (Indian Admissions only)	74,594	149.7	N/A	N/A	7.3
US All Hospitals ^{3/} (1973)	33,781,300	161.0	278,588,600	1,327.4	8.2

SOURCE: ^{1/} CHS Report 31, F.Y. 76
^{2/} Ambulatory Care Branch, POS/DRC/IHS, December 1975
^{3/} The Nation's Use of Health Resources, U.S. DHEW Publication No. (HRA) 77-1240, 1976 Edition, pg. 47.

From the above data, it seems reasonable to conclude that the Northwest area demonstrated a low CHS inpatient admission rate because there is no Indian hospital in the tri-state area, thus many Indian admissions to local hospitals not covered by the CHS go unreported. However, there is no hard evidence to support this conclusion. Also, as stated earlier, (page 14) because such barriers to care as financial, facilities, geographic and the IHS policy on hospitalization severely limit access into these hospitals, it is questionable whether there are indeed substantial admissions to local hospitals. Indian health care needs, based on the poor health statistics as reported on pages 8 and 9 would lead one to conclude that although the need

does exist, hospital admissions and A.L.O.S. are being controlled by the CHS inability to purchase health service rather than the health needs of the Indian population.

Table IV shows that although there was an 18% increase in the IHS service population since 1973, there was a subsequent 82.7% increase in the number of CHS denials during this same period. Thus the number of admissions, days and A.L.O.S. has drastically decreased without a demonstrative improvement of the health among Northwest Indians.

TABLE IV

Comparative data on CHS utilization and denials, Northwest Indians, 73-76

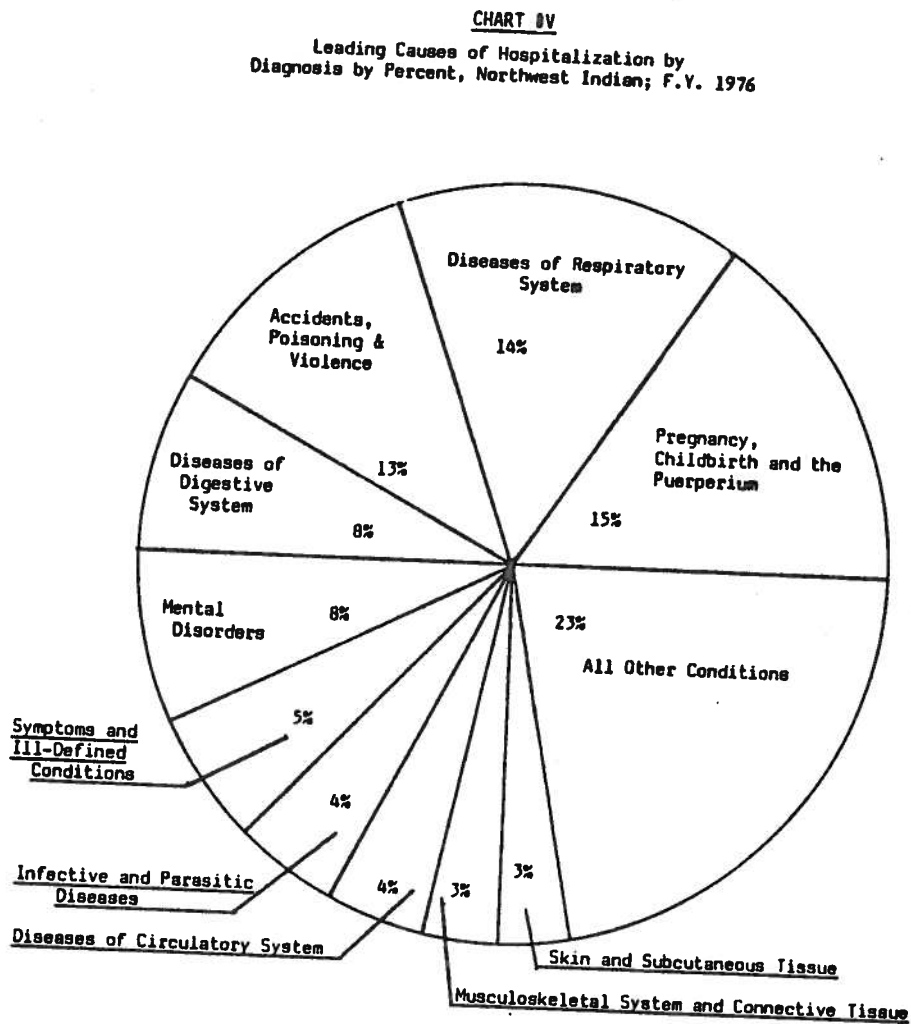
<i>IHS Service Pop.</i>	<i>FY-73</i>	<i>FY-74</i>	<i>FY-75</i>	<i>FY-76</i>	<i>% increase-decrease</i>
<i>Population*</i>	39,823	42,212	45,984	46,989	+18.00%
<i>Discharges</i>	6,041	5,198	5,346	4,930	-18.30%
<i>Days</i>	34,766	28,514	28,351	23,836	-31.40%
<i>A.L.O.S.</i>	5.8	5.5	5.3	4.8	-17.24%
<i>Admission Rate per 1,000</i>	151.7	123.1	116.3	104.9	-30.80%
<i>CHS Denials</i>	<u>CY-73</u> 388	<u>CY-74</u> 537	<u>CY-75</u> 709	<u>CY-76</u> N/A	+82.70%

*SOURCE: CHS Report 36, F.Y. 73; CHS Report 3N, F.Y. 74
CHS Report 3N, F.Y. 75; CHS Report 30, F.Y. 76*

**Population figures for FY 74-75-76 were derived from special on-request reports of non-duplicative counts of (IHS) health record identification numbers. Figure for FY-73 is an estimation only, based on above population figures.*

Utilization By Cause

The five leading causes of hospitalization, measured by frequency, were for pregnancy, childbirth and the puerperium (15%), diseases of the respiratory system (14%), accidents, poisoning and violence (13%), diseases of the digestive system (8%) and mental disorders (8%). (See Chart IV below)



SOURCE: CHS Report 31

These leading causes of hospitalization which represent 58% of the total admissions, are for emergent and life-threatening situations as can be expected under the CHS priority system. All other causes of hospitalization fall into the long-term and specialty care category. (See Table V).

Table V

*20 Leading Causes of Hospitalization (GM&S), Contract
Health Services, Northwest Indians, F.Y. 1976*

<i>DIAGNOSIS</i>	<i>RANK</i>	<i>DIS- CHARGES</i>	<i>DAYS</i>	<i>A.L.O.S.</i>
<i>Pregnancy, Childbirth and the Puerperium</i>	<i>1</i>	<i>729</i>	<i>2,035</i>	<i>2.8</i>
<i>Diseases of Respiratory System</i>	<i>2</i>	<i>681</i>	<i>2,856</i>	<i>4.2</i>
<i>Accidents, Poisoning and Violence</i>	<i>3</i>	<i>651</i>	<i>2,865</i>	<i>4.4</i>
<i>Diseases of Digestive System</i>	<i>4</i>	<i>418</i>	<i>2,968</i>	<i>7.1</i>
<i>Mental Disorders</i>	<i>5</i>	<i>398</i>	<i>1,922</i>	<i>4.8</i>
<i>Symptoms and Ill-Defined Conditions</i>	<i>6</i>	<i>258</i>	<i>1,092</i>	<i>4.2</i>
<i>Infective and Parasitic Diseases</i>	<i>7</i>	<i>216</i>	<i>1,169</i>	<i>5.4</i>
<i>Diseases of Circulatory System</i>	<i>8</i>	<i>190</i>	<i>1,446</i>	<i>7.6</i>
<i>Musculoskeletal System and Connective Tissue</i>	<i>9</i>	<i>137</i>	<i>1,205</i>	<i>8.8</i>
<i>Diseases of Skin and Subcutaneous Tissue</i>	<i>10</i>	<i>136</i>	<i>740</i>	<i>5.4</i>
<i>Female Genitalia and Breast</i>	<i>11</i>	<i>118</i>	<i>510</i>	<i>4.3</i>
<i>Diseases of Nervous System</i>	<i>12</i>	<i>108</i>	<i>554</i>	<i>5.1</i>
<i>Ear Diseases</i>	<i>13</i>	<i>105</i>	<i>279</i>	<i>2.7</i>
<i>Endocrine, Nutritional & Metabolic Disorder</i>	<i>14</i>	<i>102</i>	<i>665</i>	<i>6.5</i>
<i>Diseases of Urinary Tract</i>	<i>15</i>	<i>97</i>	<i>447</i>	<i>4.6</i>
<i>Neoplasms</i>	<i>16</i>	<i>72</i>	<i>617</i>	<i>8.6</i>
<i>Supplemental</i>	<i>17</i>	<i>61</i>	<i>326</i>	<i>5.3</i>
<i>Certain Causes of Perinatal Morbidity</i>	<i>18</i>	<i>47</i>	<i>338</i>	<i>7.2</i>
<i>Eye Diseases</i>	<i>19</i>	<i>39</i>	<i>200</i>	<i>5.1</i>
<i>Congenital Anomalies</i>	<i>20</i>	<i>28</i>	<i>192</i>	<i>6.9</i>
<i>All Others (includes Diseases of Blood, blood-forming Organs & Invalid Diagnosis)</i>		<i>339</i>	<i>1,410</i>	<i>4.6</i>

SOURCE: CHS Report 31, F.Y. 76

These leading causes of hospitalization have changed little in order of rank or number of occurrence over the past several years, which indicates these health problems are re-occurring problems, prevalent, and/or inadequately being dealt with.

Although the leading causes of hospitalization by Service Unit remained in the top five area category, these varied somewhat by rank in each Service Unit.

Pregnancy, childbirth, and the puerperium was reported to be the leading cause of hospitalization in the Yakima Service Unit representing 2.5% of all area admissions. This category also ranked first at the Puget Sound, Warm Springs, Fort Hall and the Colville Service Units at 2.1%, 1.8%, 1.6% and 1.5% respectively.

Diseases of the respiratory system was the leading cause of hospitalization at the Northern Idaho Service Unit at 2.0% followed by the Umatilla (1.5%), Taholah (1.3%), Northwest Washington (0.9%) and Wellpinit (0.83%) Service Units. Of all the Service Unit areas, the Neah Bay Service Unit had the highest percent of admission for mental disorders (1.4%) which ranked first for leading causes of hospitalization at that Service Unit.

Overall, pregnancy, childbirth and the puerperium was the leading cause of hospitalization at five of the eleven Service Units, and diseases of the respiratory system was the leading causes at five more Service Units.

The eleventh Service Unit, Neah Bay, reported mental disorders as the highest ranking cause of hospitalization. All other Service Units though reporting mental disorders among the top five causes, generally reported them fourth or fifth in rank. (See Table AIII in Appendix A.)

UTILIZATION BY SERVICE UNIT AREA

Variations were apparent in inpatient utilization by geographic Service Unit areas. Differences in number of discharges were due primarily to variation in population sizes. The number and rate of discharge and A.L.O.S. is presented by service area in Table VI below and Chart B in Appendix A.

TABLE VI: *Selected Inpatient Data by Service Area, CHS,
Northwest Indians, F.Y. 1976*

	<u>POPULATION</u>	<u>ADM. RATE</u>	<u>DISCHARGES</u>	<u>DAYS</u>	<u>A.L.O.S.</u>
TOTAL AREA	46,989	104.9	4,930	23,836	4.8
Puget Sound	4,926	84.5	416	1,897	4.6
Yakima	8,946	99.3	888	4,009	4.5
NW Washington	3,356	89.9	302	1,239	4.1
Fort Hall	4,416	93.7	442	2,682	6.1
Colville	6,046	68.3	413	1,540	3.7
Taholah	3,226	109.7	354	1,884	5.3
Warm Springs	3,640	145.1	528	2,557	4.8
Northern Idaho	3,440	139.5	480	2,967	6.2
Neah Bay	3,053	118.9	363	1,397	3.8
Umatilla	1,578	244.6	386	1,795	4.6
Wellpinit	2,278	128.6	293	1,428	4.9
Chemawa & P.A.O.	1,784	36.4	65	441	6.8

SOURCE: CHS Report 31

The rate of discharge per 1,000 population varied from 36.4 at Chemawa and from the Portland Area Office to 244.6 in the Umatilla Service Unit. The average length of stay ranged from 3.7 days in the Colville Service Unit to 6.8 at Chemawa and the P.A.O. The high users of inpatient services by both number of discharges and days was the Yakima Service Unit at 888 discharges and 4,009 days followed by the Warm Springs Service Unit at 528 discharges and 2,557 days and the Northern Idaho Service Unit at 480 discharges and 2,967 days.

UTILIZATION BY AGE

Patterns of hospital utilization by age is presented on Chart V below and Table AIV in Appendix A. A significant increase in utilization is seen in the 15-44 age group. There are two possible explanations for this: (1) the population distribution is greatest in this age group, (2) the leading cause of hospitalization is for pregnancy, childbirth, and the puerperium. Women of childbearing age fall in the 15-44 age group.

CHART V

Percent Distribution of Discharges
from GM&S Hospitals by age: Northwest
Indians, F. Y. 1976

Under 15 years

23.3%

15 - 44 years

54%

45 - 64 years

14.4%

65 years and over

8.3%

SOURCE: CHS Report 3I

C. BEDS: Current and Projected Need.

The methodology employed here to determine bed need was derived primarily from the application of the Poisson Probability Method. This statistical procedure is used by the Indian Health Service for determining inpatient bed need among various Indian population groups.

The formula is as follows:

Population X expected admission rate = Expected admissions

Expected admissions x A.L.O.S = Estimated Patient days

Patient days ÷ 365 = Average Daily patient Load (ADPL)

$ADPL + 1.28 \times \sqrt{ADPL} = \text{Bed Need}$

Because of the limited data available on Indian admissions given optimum access to health services, several assumptions were made in using the above formula:

1. That the Indian population in the study would use inpatient services at a rate (admissions per 1,000 population) comparable to that of the U.S. population on a whole.
2. That the population under study would generally reflect the inpatient utilization patterns as given in Section B, Chapter III.
3. That all eligible Indians would make use of Indian health care facilities and programs given reasonable access and availability of services.

Table VII shows the number of beds currently used by the IHS service population (purchased through the IHS system) and the additional and total current projected inpatient bed need for the total tri-state Indian population. The rationale and worksheets for determining inpatient bed need is presented in Appendix D .

Table VII

Bed Need by Service Unit Area and
Total Tri-State Area; 1976, 1986

	<u>Population</u>	<u>Bed Used^{1/} Currently</u>	<u>Additional^{2/} Bed Need</u>	<u>Total^{3/} Bed Need</u>	<u>Projected 1986^{4/} Bed Need</u>
TOTAL NW AREA	98,033	66	238	304	586
<u>Service Unit:</u>					
Puget Sound	4,926	5	11	16	20
Yakima	8,946	11	15	26	35
Taholah	3,226	5	6	11	14
Neah Bay	3,053	4	6	10	13
NW Washington	3,356	3	8	11	15
Colville	6,046	4	15	19	24
Wellpinit	2,278	4	4	8	11
No. Idaho	3,440	8	3	11	15
Fort Hall	4,716	8	7	15	19
Umatilla	1,578	5	4	9	8
Warm Springs	3,640	7	5	12	16
Chemawa	205	1	0	1	2
Portland Area Office	1,579	1	5	6	8
(Service Unit Total)	46,989	66	89	155	200
<u>Non-Service Unit counties</u>					
Multnomah, ORE	8,000	0	24	24	31
King, WA	19,000	0	53	53	69
Pierce, WA	6,000	0	19	19	24
Spokane, WA	5,100	0	16	16	21
All other counties	12,944	0	37	37	48
(non-S.U. Total)	51,044	0	149	149	193

^{1/} Determined by actual average daily patient load, CHS Report 3N.

^{2/} Determined by subtracting number of beds made available from total bed need by area.

^{3/} Determined on Worksheet #3 (Rounded to nearest percent).

^{4/} Determined on Worksheet #4 (Rounded to nearest percent).

SOURCE: Table I and CHS Report 3N.

Table VIII below shows the estimated need for inpatient beds in terms of expected hospital days by type of service. Based on past utilization patterns, the Northwest area is estimated to currently require 22,972 days or approximately 63 adult medical beds; 3,574 days or 10 adult surgical beds; 4,467 days or 12 obstetrical beds; and 8,446 days or 23 pediatric beds.

TABLE VIII
Expected Hospital Days by Service
by Percent; F.Y. 1976

Service Units	Totals		Adult Medical		Adult Surgical		Obstetrics		Pediatrics	
	Days	%	Days	%	Days	%	Days	%	Days	%
TOTALS	39,459	100	22,972	58	3,574	9	4,467	11	8,446	21
Puget Sound	4,124	100	2,351	57	371	9	701	17	701	17
Yakima	7,488	100	3,894	52	524	7	899	12	2,171	29
Taholah	2,699	100	1,592	59	270	10	216	8	621	23
Neah Bay	2,558	100	1,202	47	307	12	179	7	870	34
NW Washington	2,465	100	1,652	67	172	7	222	9	419	17
Colville	5,060	100	2,732	54	658	13	759	15	911	18
Wellpinit	1,908	100	1,183	62	114	6	172	9	439	23
No. Idaho	2,829	100	1,754	62	226	8	255	9	594	21
Fort Hall	3,947	100	2,763	70	316	8	394	10	474	12
Umatilla	1,841	100	1,197	65	74	4	147	8	423	23
Warm Springs	3,047	100	1,645	54	335	11	366	12	701	23
Chemawa	172	100	43	25	101	59	12	7	16	9
Portland Area Off.	1,321	100	964	73	106	8	145	11	106	8

SOURCE: From Table IV and Worksheet #3.

NOTE: Projected percent hospital days by service was obtained by first multiplying expected number of admissions for each Service Unit by 5.2 (A.L.O.S.) to determine expected patient days given optimum access to hospitalization, then determining expected days by service by utilizing given percent per service as indicated on Table IV. The assumption is that given optimum access to hospitalization, the population above would reflect its actual experience by service. Totals reflect the sum of the Service Units. Figures are rounded to nearest percent.

D. HEALTH CARE NEEDS ASSESSMENT SUMMARY

While a comprehensive study of the health needs of Indians in the tri-state area has never been undertaken, it has been demonstrated in previous chapters that the health of Northwest Indians is significantly poorer than that of the general population. That Indian health problems include a pattern of social, poverty and disease unparalleled among any ethnic minority group in the United States supports this study's contention that the need exists for a full range of services--prevention, outpatient, inpatient and speciality care--capable of meeting the health needs of the Indian population under study in this report.

The Indian Health Service, a comprehensive health care delivery system developed to meet the needs of the Indian population, has been shown to inadequately meet the health needs in the Pacific Northwest. First, the IHS reports its service population to be 28,403 Indians when in fact a non-duplicative count of IHS health records over the past three years showed that there were at least 46,989 individuals receiving health services through all systems in the IHS. This produces a situation where the IHS is grossly underfunded for the amount of service it provides to its actual service population. Second, the IHS reports that all their primary health care centers located on or near Northwest Indian reservations are understaffed overall by at least fifty (50%) percent. The ability to deliver the needed primary services at these centers therefore is highly questionable. Third, the Contract Health System, a program developed to purchase needed inpatient services for Indians is not only severely under funded, but being based on an eligibility and priority system (first priority for emergent and life-threatening situations) hinders the probability of ameliorating health problems.

And fourth, it has been demonstrated that there is an additional need of 89 inpatient beds (an average of 66 inpatient beds currently being purchased daily) for the IHS Service population alone which are not currently being funded or provided for through the CHS system. This alone shows a need for additional inpatient beds exists. The above factors which limit both access and availability of services provide for nothing more than a bandaid-type treatment program which will never effectively produce the goal of the Indian Health Service..."to upgrade the health status of American Indians and Alaskan Natives to the highest level possible".

In general, the tri-state area is recognized as having sufficient hospitals in terms of quantity (see chapter IV). Although there is virtually no data on Indian utilization at these hospitals independent of the CHS, it is the opinion of this author that Northwest Indians do not utilize these facilities to any great extent. The poor health status and the documented health problems, which are largely for those common illnesses and diseases readily treatable by modern medicine, leads me to the conclusion that these Indian patients are not obtaining the needed medical attention at these facilities. Also, the overall fragmentation of the health system and the complexities involved in seeking medical attention at these facilities makes it difficult for Indians to obtain health services. Although the IHS acts as an advocate and a referral source for many Indians to non-IHS facilities, within these non-IHS facilities there is as a rule no coordinated effort nor personal support guidance to make the transition easier or more accessible for the Indian patient. Many Indians who have lived their entire lives on rural reservations face enormous barriers to care which results in the continual cycle of poor health, inadequate health care, and the unavailability of health services from generation to generation.

The answer to solving the problem of poor health among Northwest Indians is to address their causes through the factors that influence health: behavior, genetics, environment, and health services. The important and essential factors, having a direct impact on improving a populations health status, is the availability and accessibility of health services that effectively prevents, treats and controls illness and disease.

Since it is not within the scope of this study to develop a system to meet all health needs of Northwest Indians, but rather to identify Indian inpatient needs and study the feasibility of an Indian hospital, the following sections will deal primarily with identifying available health resources and analyzing the cost effectiveness of options which will best meet the inpatient needs of the target population.

IV. AVAILABLE HEALTH CARE RESOURCES

A. INDIAN HEALTH CARE RESOURCES

There are four basic resources available to Northwest Indians seeking medical attention -- the Contract Health Service (CHS) program, the U. S. Public Health Service (PHS) hospital, IHS outpatient facilities, and other Indian non-IHS outpatient facilities.

CONTRACT HEALTH SERVICE

The Contract Health Service is a system by which the IHS contracts with hospitals and medical facilities purchasing both inpatient and outpatient services for eligible Indians. Eligible Indians are defined by IHS as "members of a Federally recognized tribe residing on a reservation located within a service area or residing in counties which include all, part, or having a common boundary with the reservation from which he is a member".

Availability of Contract Health Services depends on budgetary allocations and due to inadequate funding (see page 16) a priority system for purchasing services was implemented by IHS with first priority going to emergent and life-threatening situations. Those individuals not in a death or emergency situation may be placed on a waiting list and treatment deferred for as long as six months to one year or until funds become available.

Over the past three years the Indian Health Service has entered into contractual arrangements with approximately 75 different inpatient facilities in the tri-state area on a continual basis. Although these hospitals are located within 50 miles of most Indian reservations and communities, the IHS Resource Allocation Criteria document*, specifically states that inpatient emergency care must be available within 30 minutes (or approximately 27 miles) and non-emergent inpatient care within 90 minutes (or approximately 81 miles). Thus while the location of these contract hospitals meet non-emergent criteria for time and distance, in most instances, they do not meet emergency standards.

* see glossary of terms for definition

Size of the "contract" hospitals range from a low of 24 beds in Wenatchee, Washington to a high of 518 beds in Spokane, Washington. Occupancy rates at these hospitals run from a low of 34.5 at Grangeville, Idaho to a high of 88.4 at Idaho Falls, Idaho. Thus on any given day there will be an average of 2,892 empty inpatient in these "contract" hospitals from which the IHS might purchase inpatient care (see Table IX). Although these beds are "available", they are not presently being purchased by the Indian Health Service. See Map D for location of "contract" hospitals.

U.S. PUBLIC HEALTH SERVICE HOSPITAL

The U.S. Public Health Service hospital in Seattle, Washington is a referral hospital providing inpatient contract care for urban Indians through the Seattle Indian Health Board and for reservation Indians through the Indian Health Service.

Built in 1933, the PHS hospital had an original constructed capacity of 284 beds. However, due to low utilization and reconstruction, the number of available beds was reduced to 249 beds. Further redistribution of bed space has temporarily reduced the bed capacity of 214 beds. Average daily bed use for 1975 was reported to be at 49.6%^{12/}. Thus on any given day (if this occupancy is still the same) there is an average of 126 beds not in use and thus available for contract purchase by the Indian Health Service.

The Seattle Indian Health Board (SIHB), one of the most sophisticated and progressive urban Indian health programs, has established a positive working relationship with the PHS hospital and thus Seattle's urban Indians generally have better access to inpatient care than Indians in other urban areas.

TABLE IX
CHS - Inpatient Facility, Selected Utilization Data,
Northwest Indian: F.Y. 1976

Washington	City	Beds	%Occ	CHS Disch	CHS Days	Unused Beds
Central Memorial Hospital	Toppenish	63	69.8	530	2,266	19
St. Elizabeth Hospital	Yakima	214	75.7	57	273	52
Yakima Valley Hospital	Yakima	190	73.8	127	502	49
Klickitat Valley Hospital	Goldendale	45	35.6	76	300	28
Eye and Ear Hospital	Wenatchee	24	50.0	2	3	12
U.S.P.H.S Hospital	Seattle	249	49.6	75	1,976	125
Northwest Hospital	Seattle	194	56.1	5	15	85
University Hospital	Seattle	301	71.5	16	118	85
West Seattle General Hospital	Seattle	130	45.4	1	1	70
Children's Orthopedic Hospital	Seattle	166	61.6	6	21	63
Harbor View Medical Center	Seattle	245	76.6	7	60	57
Auburn General Hospital	Auburn	90	72.2	36	196	25
Good Samaritan Hospital	Puyallup	173	74.4	18	82	44
St. Joseph's Hospital	Tacoma	248	66.9	11	61	82
Tacoma General Hospital	Tacoma	259	82.6	19	61	45
St. Peter's Hospital	Olympia	180	78.3	54	161	39
Valley General Hospital	Renton	225	82.8	5	10	38
Skagit Valley Hospital	Mt. Vernon	129	65.9	15	57	43
St. Luke's General Hospital	Bellingham	109	60.6	89	318	42
St. Joseph's Hospital	Bellingham	103	68.0	106	370	32
Island Hospital	Anacortes	38	73.7	71	220	9
General Hospital of Everett	Everett	181	71.3	69	325	51
Providence Hospital	Everett	156	72.4	27	105	43
Harrison Memorial	Bremerton	184	80.4	45	146	36
Mason General Hospital	Shelton	65	60.0	49	206	26
Forks Community Hospital	Forks	30	---	133	435	N/A
Olympic Memorial Hospital	Port Angeles	86	75.6	233	918	28
St. Joseph's Hospital	Aberdeen	89	63.2	67	309	32
Gray's Harbor Community Hospital	Aberdeen	96	66.7	132	529	31
Willapa Harbor Hospital	South Bend	35	---	7	22	N/A
Mark E. Reed Memorial Hospital	McCleary	26	38.5	10	35	15
Centralia General Hospital	Centralia	47	74.5	12	54	11
Skyline Hospital	White Salmon	41	39.0	22	60	25
St. Joseph's Hospital	Chewelah	33	54.5	35	134	18
Okanogan, Dist. #1	Brewster	50	65.0	10	47	17
Mid Valley Hospital	Omak	27	81.5	104	383	4
Ferry County Hospital	Republic	25	72.2	31	145	6
Mt. Carmel Hospital	Colville	55	45.5	37	118	29
Newport Community Hospital	Newport	23	47.8	32	96	12
North Valley Hospital	Tonasket	79	79.7	9	13	18
Lincoln County Hospital, #3	Davenport	93	79.6	18	74	18
Holy Family Hospital	Spokane	228	64.9	26	102	80
Deaconess Hospital	Spokane	229	69.6	166	694	69
Sacred Heart Medical Center	Spokane	518	74.5	110	736	132
St. Luke's Memorial Hospital	Spokane	138	69.5	19	105	42
Spokane Valley General Hospital	Spokane	107	64.5	23	59	37
Tri-State Memorial Hospital	Clarkston	26	38.5	32	129	15

CHS - Inpatient Facility, Cont.

Miscellaneous Hospitals	Beds	%Occ	CHS Disch	CHS Days	Unused Beds
Various Locations	---	---	187	1,496	N/A

Oregon	City	Beds	%Occ	CHS Disch	CHS Days	Unused Beds
Mt. View Hospital	Madras	40	65.0	315	1,329	14
St. Charles Memorial Hospital	Bend	99	82.8	74	591	17
Central Oregon Dist. Hospital	Redmond	67	46.3	3	3	35
Pendleton Community Hospital	Pendleton	56	46.4	110	397	30
St. Anthony's Hospital	Pendleton	183	63.9	265	1,329	66
The Dalles General Hospital	The Dalles	125	58.4	24	126	52
Gresham General Hospital	Gresham	93	55.1	2	5	41
Providence Hospital	Portland	448	81.0	3	18	85
St. Vincent's Hospital	Portland	413	78.9	18	54	87
University of Oregon Med. School	Portland	528	71.2	8	47	152
Salem Hospital	Salem	384	77.6	23	167	86
Harney County Hospital	Burns	47	45.8	52	201	25

Idaho	City	Beds	%Occ	CHS Disch	CHS Days	Unused Beds
Bannock Memorial Hospital	Pocatello	17	35.3	158	959	10
St. Anthony Community Hospital	Pocatello	118	38.9	175	1,039	72
Bingham Memorial Hospital	Blackfoot	100	79.0	76	287	21
Sacred Heart Hospital	Idaho Falls	---	---	2	7	N/A
L.D.S. Hospital	Idaho Falls	258	88.4	3	35	29
Power City Hospital	American Falls	45	73.3	1	2	12
Steel Memorial Hospital	Salmon	40	59.0	4	31	16
St. Joseph's Hospital	Lewiston	103	78.6	143	795	22
St. Alphonsus Hospital	Boise	227	85.0	3	4	34
General Hospital	Grangeville	29	34.5	19	79	18
Gritman Memorial Hospital	Moscow	62	59.0	3	9	25
Kootenai Memorial Hospital	Coeur d'Alene	171	66.7	4	31	56
Clearwater Valley Hospital	Orofino	26	57.7	102	559	10
Benewah Community Hospital	St. Maries	37	48.6	40	291	19
Boundary County Community Hospital	Bonniers Ferry	61	55.2	16	93	27

In fiscal year 1976* the SIHB, with a service population of 19,000 utilized 3,217 bed days at the PHS hospital for an average of 8.8 beds per day, or one bed per 2,159 service population (See Table X). In contrast, the IHS, with a service population of 46,989 utilized 3,047 bed days at the PHS hospital for an average of 8.3 beds per day or one bed per 5,661 service population. Since 32% of the tri-state Indian population resides within 30 minutes of the PHS hospital, and since the cost of a bed at the USPHS hospital is significantly lower than at other public or private hospitals, it would appear to be cost effective to the IHS to increase the number of beds contracted for with the Seattle PHS hospital. One way to do this is to enter into a contractual or joint-use agreement with the Seattle PHS hospital and above all, maintaining an acceptable care with proper range of service available to meet the need.

Table X

Indian Utilization of the USPHS Hospital,
Seattle, Washington; F.Y 1976

	<u>Total Indian usage</u>	<u>Seattle Indian Health Board</u>	<u>Portland A.O. Authorized</u>	<u>Other Areas</u>
Outpatient Visits	15,484	13,935	N/A	N/A
Inpatient Admissions	885	322	N/A	N/A
Patient Days	12,179	3,217	3,047	5,915
ADPL	33.3	8.8	8.3	16.2

SOURCE: USPHS Hospital, Seattle Washington

*NOTE: Data shown reflect a twelve month fiscal year from July 1, 1976 to June 30, 1977.

IHS OUTPATIENT FACILITIES

Indian Health Service outpatient facilities are located within the IHS service area on or near reservations and are funded and managed by the IHS. These centers provide both direct and indirect outpatient services primarily to reservation Indians. When services are not available or accessible at these centers (such as optometry, prostheses, and some dental care), needed services are purchased from private providers through the Contract Health Care program according to priority and upon the availability of funds.

Currently, there are eleven IHS outpatient centers and one tribally managed center (on the Puyallup Reservation) in addition to nine satellite centers. These outpatient centers usually provide a full range of services on a regular basis, the satellite centers are partially staffed and maintained by the parent center with specific hours and days of operation.

Table XI lists these clinics and Satellite clinics by Service Unit and by number of patient visits. Table XII lists the number of outpatient visits to private providers purchased through Contract Health Service. Together, these total 184,270 outpatient visits or 3.92 visits per person per year.

Although the IHS Portland Area Office has estimated these health centers as being fifty percent understaffed according to the criteria established under the Resource Allocation Criteria (RAC) document, this is based on the low census population figure. According to actual service population figures, these health centers are at least 65% percent understaffed.

See Map C for location of IHS outpatient facilities.

TABLE XI

IHS OUTPATIENT CLINICS
Number of Outpatient Visits by Service Unit and Clinic
Northwest Indian: F.Y. 1976

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SERVICE UNIT	CLINIC*	Number Visits
Colville	Colville Indian Health Center	10,039
	Inchelium Station	1,352
	Omak Health Station	--
Wellpinit	Wellpinit Health Center	9,583
NW Washington	NW Washington-Lummi Center	11,830
Neah Bay	Neah Bay Health Center	9,623
	LaPush Health Center	991
	Lower Elwha Station	--
Taholah	Taholah Health Center	9,078
	Oakville Health Station	368
	Queets Health Station	1,016
Yakima	Yakima Health Center	31,431
	(CHS authorization Office only)	
Puget Sound	Puyallup Health Center**	1,777
Sub-Total		(87,088)

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SERVICE UNIT	CLINIC	Visits
Warm Springs	Warm Springs Health Center	17,038
	Burns Health Station	--
	Celilo Health Station	--
Umatilla	Umatilla Indian Health Center	709
Chemawa School	Chemawa School Health Center	6,386
Sub-Total		(24,133)

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SERVICE UNIT	CLINIC	Visits
No. Idaho	No. Idaho Indian Health Center	9,027
	Kamiah Health Station	--
Fort Hall	Fort Hall Indian Health Center	15,447
Sub-Total		(24,474)

GRAND AREA TOTAL

135,695

- * Fully staffed primary care centers unless designated as health station.
 ** The Puyallup Indian Health Center is the only Tribal run and operated Health Center.

SOURCE: APC Report 1A

TABLE XII
CHS OUTPATIENT FACILITY VISITS
(Paid through the Contract Health Service)
by State and Service Unit
Northwest Indians: F.Y. 1976,

WASHINGTON		OREGON		IDAHO	
Service Unit	Visits	Service Units	Visits	Service Unit	Visits
Colville	7,669	Warm Springs	1,585	Fort Hall	2,022
Puget Sound	9,134	Umatilla	4,868	No. Idaho	6,425
Yakima	4,886	Chemawa School	666		
Taholah	2,228	Portland Area Office	222		
Neah Bay	2,480				
N.W. Washington	4,328				
Wellpinit	2,062				
(Sub- Total)	32,787	(Sub-Total)	7,341	(Sub-Total)	8,447

GRAND TOTAL CHS VISITS: 48,575

URBAN CENTERS

Urban projects, such as the Seattle Indian Health Board and the Portland Urban Indian Project provide outpatient care to Indians residing in metropolitan areas. Many Indians who are unable to secure medical care at local facilities can obtain needed services at urban centers. Thus, urban health centers do represent a very necessary and important mechanism for the health care delivery system.

B. TOTAL HEALTH CARE RESOURCES IN TRI-STATE AREA

Resources generally available to all citizens in the tri-state area is summarized to tables XIII and XIV. In general, we find that while there are adequate numbers of inpatient beds and manpower, IHS budgetary limitations, due to an underestimation of population base and therefore underfunding, produced a situation where access to inpatient care is severely limited.

Although most Northwest hospitals are located within 50 miles of most Indian reservations and communities and thus meet the RAC criteria established for time/distance non-emergency care, they do not meet the criteria for emergent care (30 minutes or 27 miles)^{9/}.

Occupancy rates at these mainstream hospitals (numbering approximately 263) range from 34.5 to 88.4% and thus on any given day there are an average of 9,310 beds* unoccupied or "available" (See Appendix E). Further, the Seattle PHS hospital was shown to have an occupancy rate of 49.6% and because of the cost of care was at the lower end of the continuum, the PHS hospital becomes a viable option for more use via contracted inpatient service for Northwest Indians.

Health care could be greatly improved without the addition of new facilities by increasing the population base by which the IHS is funded from 28,403 to the actual service population of 46,989.

* Source for 1975 only. Several hospitals did not report occupancy rates, thus figures subject to change.

TABLE XIII

Hospitals and Nursing Homes in the Three-State Area,
Beds, Admissions, and Percent Occupancy, 1975

	Population ^{1/}	General Hospitals				Nursing Homes	
		Number	#Beds	#Adm.	%Occ.	Number	#Beds
Wash.	3,486,424	106	13,211	501,035*	62.7*	308	25,131
Ore.	1,448,050	77	9,138	311,708**	56.2**	193	13,264
Idaho	799,000	48	3,404	122,059	49.9	55	4,009

Federal and Special Purpose Hospitals				
	Number	#Beds	#Adm.	%Occ.
Wash.	21	3,245	66,371	62.7
Ore.	8	2,667	36,529	76.9
Idaho	4	295	4,677	67.5

^{1/} Population for 1974 and 1975

* Figure does not include Forks Community Hsp. (Clallam County) Quincy Valley Hsp. (Grant County) Willapa Harbor Hsp. (Pacific County) Sunnyside General Hsp. (Yakima County).

** Figure does not include Crater Gen. Hsp. (Jackson County) Santiam Memorial Hsp. (Marion County) New Lincoln Hsp. (Lincoln County) and Umatilla Hsp. (Umatilla County).

SOURCE: American Hospital Association Guide to the Health Care Field 1975 Ed.
HSA Applications for Designation: 1974, for states of Washington, Oregon and Idaho.

TABLE XIV

NUMBER OF HEALTH PRACTITIONERS BY TYPE -1970-74MANPOWER

<u>Idaho</u>	<u>Oregon</u>	<u>Washington</u>	
887	3,730	6,000	Physicians
*	*	(554)	(Federal Physicians)
*	*	(5,446)	(Non-Federal Physicians)
(283)	(1,845)	(2,140)	(Primary Care Specialists)
(604)	(1,885)	(1,809)	(Non-Primary Care Specialists)
4,104	9,106	22,878	Registered Nurses
2,745	**	10,743	Licensed Practical Nurses
*	*	110	Physician Assistant
*	*	62	Nurse Practitioners
336	1,560	2,364	Dentists
98	323	329	Optometrists in Patient Care
*	*	160	Dispensing Opticians
*	31	54	Podiatrists
73	134	229	Chiropractors
*	*	39	Naturopaths
*	*	452	Physical Therapists
596	902	2,700	Pharmacists
*	*	345	Dieticians and Nutritionists

* Information not available

** Number of LPN's included in RN total

SOURCE: HSA Application for Designation: 1974, for states of Washington, Oregon and Idaho.

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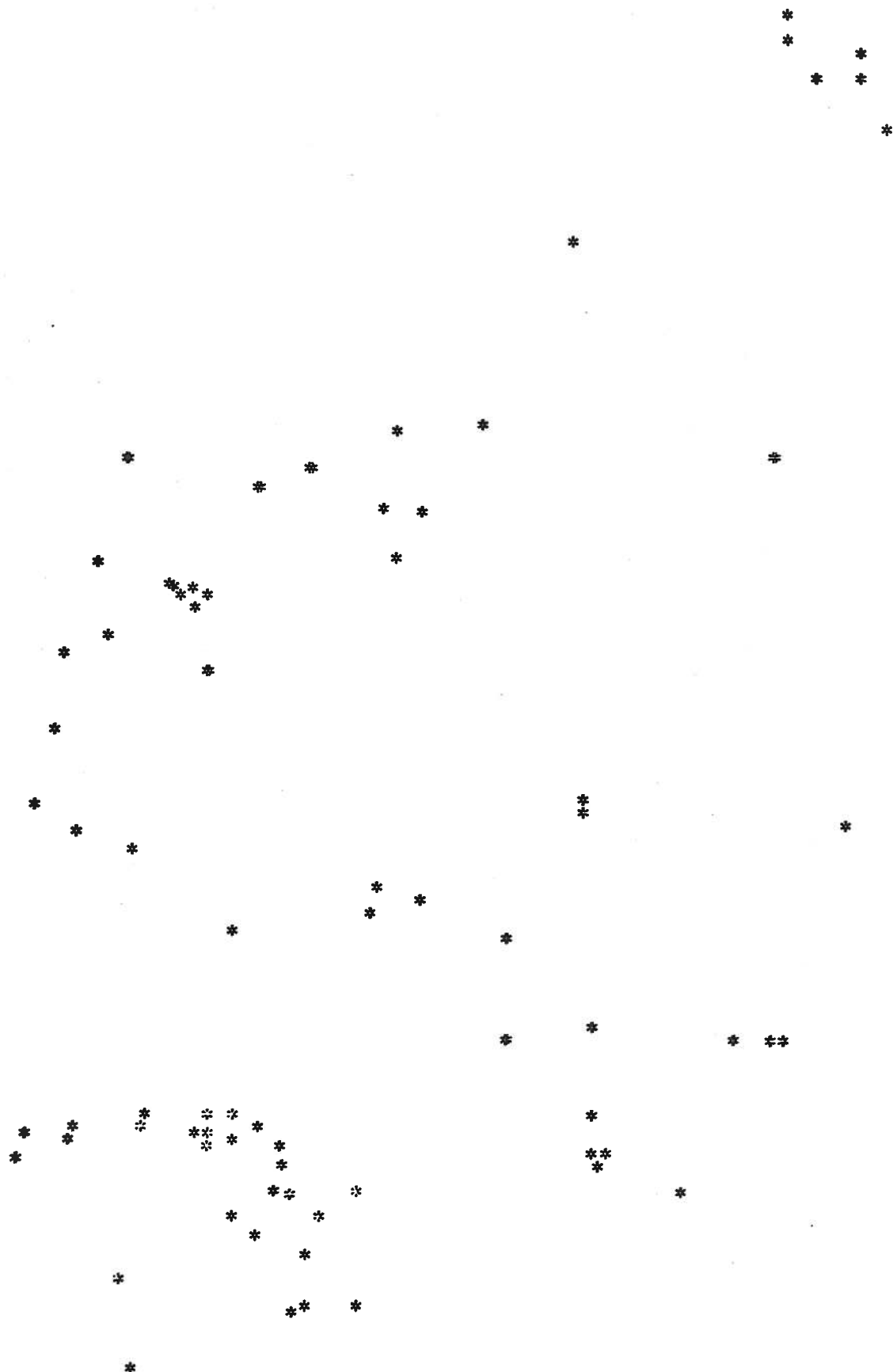
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● OVERLAY MAP C - IHS outpatient facilities

1-Neah Bay	5-Yakima	9-Fort Hall
2-Taholah	6-Colville	10-Umatilla
3-Lummi	7-Wellpinit	11-Warm Springs
4-Puyallup	8-No. Idaho	12-Chemawa



* OVERLAY MAP D - Hospitals under contract-CHS



V. ANALYSIS OF OPTIONS

A. FACTORS

This study has thus far found that the health of Northwest Indians is poorer than the general population and that while physical resources appear adequate, they are not readily accessible to Northwest Indians and thus inpatient needs are not appropriately met by existing resources.

Although the scope of this study addresses itself specifically to determining the feasibility of an Indian hospital, the data collected and analyzed suggests that there may be other options available to meeting the unmet inpatient needs. In considering the feasibility of an Indian hospital and other possible options to meeting these inpatient needs, certain factors are of extreme importance and must receive primary consideration. These criteria are:

Accessibility - Accessibility to inpatient services is the single most important factor because it tends to maximize the use to existing resources and because it has been demonstrated in previous chapters to be one of the biggest barriers Indians face in seeking medical care. Issues such as lack of transportation, distance to a facility, and eligibility requirements all tend to severely limit the use of existing resources. An inpatient facility is considered accessible if it is within 30 minutes driving distance in emergent situations or 90 minutes in non-emergent situations.

Availability - Availability of services seeks to equate the need with the provision of care. Are the needed services available to the target population in a form that is useable, i.e. types of care and hours of operation?

Acceptability - Consumer acceptability of the type and mode of the delivery of inpatient services was considered an important factor for several reasons: (a) so that the patient can trust the health care system to look after his best interests and the system can trust the patient to participate, (b) so the patient is made to feel welcome, thus encouraging his utilization of services, (c) so the patient can be understood and be able or assisted to understand, and (d) so the health care system is most suitable for the patient in a convenient, timely, social, functional and visual manner.

Adaptability - Adaptability seeks to evaluate how easily an option will fit into the existing health care delivery system - thus determining net effect of changes that may occur due to a particular intervention.

Effectiveness - A measure of effectiveness is the increase of the health status of the target population. The ability to prevent, treat and cure illness and disease is an essential factor to consider.

Cost - The cost of providing inpatient care can be broken down into direct and indirect cost. Direct cost being capital cost (i.e. construction, operating, etc.). Indirect cost include such things as loss as work-time due to length of care, commuting distance, transportation costs, lack of early detection of illness and disease and long-range effects of illness and disability.

B. OPTIONS

In order for an option to be accepted it must meet the above criteria. In the following analysis, each option will be assigned a score from 1 to 5 according to its value. The figures used in the analysis are rough preliminary estimates only and are subject to change during refinement. Hospital cost projections were obtained from the IHS Headquarters in Rockville, Maryland and are as follows:

- @ 2,000 square feet per bed
- \$130 per sq. ft. for construction
- 16% of construction costs for architectural & engineering
- Equipment costs - best estimate via other Indian hospitals
- Operating cost @ \$27,000 per staff as per RAC Criteria

Estimates for additional or a full budgeted Contract Health Service program were obtained from projections based on the Contract Health Service Office, Portland Area Office and Indian Health Service. Allowances were made for unmet need (both medical and dental) and for inflation.

For other supportive data, see Appendix F for summary of consumer input and Map E and Chart VI for estimated service population within 30-60-90 minutes driving distance to proposed site location of proposed inpatient facility.

Rating of Alternatives

OPTION #1 - CONSTRUCTION OF A CENTRAL HOSPITAL

Factor	Points	Comments
ACCESSIBILITY	3	Although all Federally recognized Indians would be eligible for care, the location of one central hospital limits accessibility, i.e time/distance. The accessibility factor would be moderate in that at the most only 32% of the total Indian population would be within 30 min./27 miles. (See Map E & Chart VI)
AVAILABILITY	4	General, medical and surgical services would be provided. Speciality care would be referred to a facility capable of providing such services via contract care. An Indian hospital should be accredited and be able to recruit and retain staff.
ACCEPTABILITY	2	Although 72% of Indian respondents stated they want a hosp., they expressed many fears about a central hosp. (see App. F). The inconvenience of traveling great distances hampers the desirability for such a central facility, as does the likelihood of transferring Indian patients from local hospitals into a central hospital once the patient is stabilized and able to travel.
ADAPTABILITY	2	A central Indian hospital would have the potential of "siphoning" Indian patients (and their dependents) from local hospitals thus jeopardizing their existence. Since the PHS hospital has an occupancy rate of only 46.9% and since the Seattle area is already overbedded, the adaptability factor would be low. General local hospitals heavily depend on "contract" patients from the IHS.
EFFECTIVENESS	4	As an inpatient facility designed specifically for Indians, this option has the potential of greatly improving Indian health. A hospital could integrate social, economic and health care services in such a way as to effectively combat poverty and disease.
COST	1	Construction costs (a 100 bed hospital) = \$34 million; operating = \$4.3 million or \$138 per patient per day; equipment = \$2 million; supportive CHS costs would be an additional cost. that could possibly be as high as the current allocation \$6 million. Thus direct costs are not only higher, but indirect costs such as patient travel(at 15¢ a mile for 50% of the pop. = \$5,000), and loss of work time would be greater than any other option.

Rating of Alternatives

OPTION # 2 - SEVERAL SMALL HOSPITALS

Factor	Points	Comments
ACCESSIBILITY	4	Several small hospitals located in strategic locations near Indian communities would increase accessibility, especially for Indians in areas where there is no hospital within 30-50 miles. Indians not eligible for CHS could obtain medical care at these facilities thus maximizing use at local hospitals though the CHS and at Indian hospitals.
AVAILABILITY	4	Services not available at these Indian hosp. would be referred to facilities capable of providing needed services. Because a 10-20 bed hosp. could not support most specialty services, available services would consist of general medical services. The need for general medical services has already been documented.
ACCEPTABILITY	3	This option was reported to be more acceptable to the Indian consumer (see App.F). Since the tri-state area is such a large geographic area, with the Indian pop. being widely distributed, small hosp. near Indian communities in need becomes more acceptable than one large central hosp. CHS would still be in existence for those patients residing more than 50 miles from the hospital and for specialty care.
ADAPTABILITY	4	Adaptability within the present health care delivery system is high. Small hospitals would be placed in areas of need and would not be a threat to local hospitals. Increased services would result without any major overhaul or changes in the present system.
EFFECTIVENESS	4	Effectiveness is rated high in that more health care could be provided to more Indians, accessibility is increased, with an acceptable manner of providing care thus encouraging Indian participants in seeking services and therefore better health is obtained.
COST	4	Construction costs (per 15 bed facility) = \$5.2 million; operating = \$800,000 per facility per year or \$136 per patient per day; equipment = \$600,000; supportive CHS would be approximately \$4-6 million per year. Thus direct costs would be held at a minimum, indirect costs would not be as great as local facilities tend to minimize travel, time and inconvenience costs.

Rating of Alternatives

OPTION # 3 - INCREASED CONTRACT HEALTH SERVICES

Factor	Points	Comments
ACCESSIBILITY	4	Increased CHS funds would allow for more services to be purchased thus more Indians would have better access to inpatient care. "Contract" hosp. would be local ones meeting time/distance criteria. However, CHS eligibility requirements and priorities would still exist thus creating some limitations (not as great as present).
AVAILABILITY	4	Potentially, all needed services would be purchased through contracts with private providers. However, budget limitation might still restrict some services as would the IHS policy of being the residual resource, i.e. all other sources of health care must be exhausted before the CHS purchases services.
ACCEPTABILITY	3	As with other options, the acceptability factor is moderate. Fears among Indian consumers prevail as to future funding, eligibility requirements and inflation in the medical care field which may result in further restrictions in health services. Since health services are so greatly needed, the CHS program would be an acceptable option given appropriate funding and equal access to health care.
ADAPTABILITY	4	Since the CHS program is already an integral part of the Indian health care delivery system, and since many inpatient beds have been identified as "available" for purchase, adaptability is rated high.
EFFECTIVENESS	4	Effectiveness is rated high because the potential to overcome health problems is great via contracting with local and speciality facilities capable of meeting the documented need - given the availability of funds.
COST	2	A fully budgeted CHS program would be approximately \$16 million. Since no capital costs are involved, this option seems the least expensive. However, with the rising cost of medical care, the cost of purchasing services would be higher (\$171.50 per patient day) than at an Indian hospital (\$138 per pt. day). Indirect costs would be moderate, much the same as described in Option #2.

Table XV

Quantitative Comparison of Factors and Options
for the Delivery of Inpatient Services to NW Indians

Factors	Rating of Options		
	Option #1	Option #2	Option #3
Accessibility	3	4	4
Availability	4	4	4
Acceptability	2	3	3
Adaptability	2	4	4
Effectiveness	4	4	4
Cost	1	4	2
Totals	16	23	21

CHART VI

Northwest Indian Service Population*
by Time and Distance, F.Y. 1976

	0	25 miles (30 min.)	50 miles (1 hr.)	75 miles (90 min.)
Seattle	33,000	+(2,500)	+(2,000)	
Yakima	8,000	+(300)	+(600)	
Spokane	5,500	+(500)	+(1,800)	
Coulee Dam	5,000	+(1,500)	+(1,500)	
Portland	8,000	+(2,000)	+(2,000)	
Tacoma	20,000	+(13,000)	+(1,000)	

Determination of Bed Need
Using the Poisson Probability Method

$33,000 + 2,225 = 35,225$ service population
 $35,250 \times .161 = 5,700 \times 5.2 = 29,640$ days
 $29,640 \div 365 = 81 + 1.28 \sqrt{81} = 92.5 = 95 \text{ BEDS}$

$8,000 + 450 = 8,450$ service population
 $8,450 \times .161 = 1,360 \times 5.2 = 7,074$ days
 $7,074 \div 365 = 19.4 + 1.28 \sqrt{19.4} = 25 \text{ BEDS}$

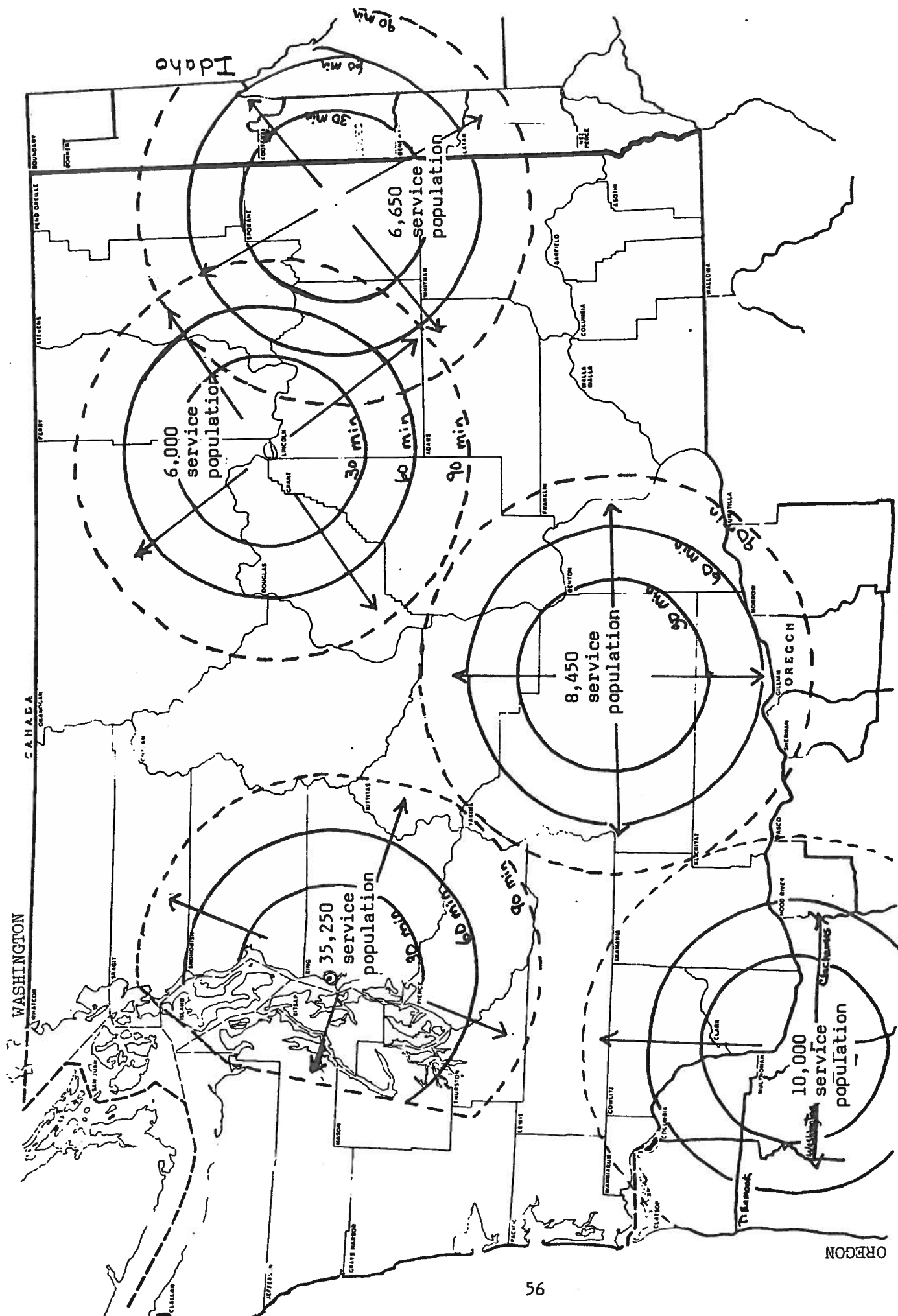
$5,500 + 1,150 = 6,650$ service population
 $6,650 \times .161 = 1,071 \times 5.2 = 5,567$ days
 $5,567 \div 365 = 15.3 + 1.28 \sqrt{15.3} = 20 \text{ BEDS}$

$5,000 + 1,000 = 6,000$ service population
 $6,000 \times .161 = 966 \times 5.2 = 5,023$ days
 $5,023 \div 365 = 13.8 + 1.28 \sqrt{13.8} = 19 \text{ BEDS}$

$8,000 + 2,000 = 10,000$ service population
 $10,000 \times .161 = 1,610 \times 5.2 = 8,372$ days
 $8,372 \div 365 = 22.9 + 1.28 \sqrt{22.9} = 29 \text{ BEDS}$

$20,000 + 7,000 = 27,000$ service population
 $27,000 \times .161 = 4,347 \times 5.2 = 22,604$ days
 $22,604 \div 365 = 61.9 + 1.28 \sqrt{61.9} = 72 \text{ BEDS}$

* Service population = population within 30 minutes of city plus 50% of additional hour.



MAP E: Service population within 90 minutes driving distance to proposed site location of inpatient facility.



C. SUMMARY OF COST-EFFECTIVENESS ANALYSIS

Cost-effectiveness is an analytical approach to solving problems of choice. A definition of factors to be considered is required as is alternative choices of achieving the goal. Sections A and B of this chapter contain such required definitions and alternatives.

The methods and techniques of a cost-effectiveness analysis are based on a quantitative comparison of the alternative routes to delivering needed health care. The total effectiveness score is a sum of the weighted ratings for each alternative. The rating of alternatives, weight factors and scores are shown on Table XV.

Results of this cost-effectiveness analysis indicate that while a centrally located 100 bed hospital is not desirable, several small inpatient facilities situated in areas of Indian population concentration, designed to meet the emergent and long-term medical needs of the target population is a desirable option worthy of further consideration.

The cost of constructing a small 10-20 bed hospital is estimated to be approximately \$5.2 million. Construction costs, however, could be eliminated by joint-use agreements with existing facilities demonstrating low occupancy rates thus in all probability operating in the red. A good example of this is the Coulee Community hospital located on the Colville Reservation. With an occupancy rate of below 18% for a reported 28 bed capacity (not including nursing home beds) it would seem cost-effect for both the hospital and the IHS to enter into such a joint-use agreement thus not only increasing the occupancy rate but developing a much needed Indian hospital (designated by a wing or section of the facility if desirable).

Sharing of the physical structure is not the only benefit in such an arrangement. Equipment, operating and professional staff could be shared thus saving costs. A common problem in IHS facilities is one of recruiting and retaining physicians. While it is desirable that hospital staff be educated and sensitive to Indian needs and cultural values, until a mechanism for recruiting and retaining staff is successfully developed, joint-use agreement which includes staffing could alleviate the problem to an extent.

Another external benefit of an Indian hospital would be in employing Indian personnel. This, along with the potential of training Indians in area of health careers , is a great benefit for the Indian population having long-lasting socioeconomic impact.

Thus a hospital threatened by closure because of low occupancy rates and the rising medical costs benefits from joint-use with IHS by maintaining their existence and thus continuing to deliver the much needed health services to the surrounding general population. Likewise, the IHS and the Indian population benefits not only by saving construction and operating costs, but by providing an accessible inpatient facility for the Indian population which can be designed to meet their health needs not only in a professional manner, but also in a culturally acceptable manner by providing liaison, Indian staffing and a facility recognized and accepted as an Indian inpatient facility.

Because of time restraints, this study has not analyzed in depth selected hospitals and location for joint-use arrangements. However, the hospitals listed in Appendix E gives a preliminary summary of necessary data for such a survey. From data analyzed thus far, possible location suggested is the Coulee Dam at the Colville Reservation, the U.S. Public Health Service

hospital in Seattle, at Spokane and at the Yakima Reservation.

While it has been demonstrated that inpatient needs do exist, and that the recommended mechanism for meeting these needs is through the development of small Indian inpatient facilities in the tri-state area, it remains axiomatic that the IHS Contract Health Service program be funded to its fullest capacity to successfully meet the preventative, ambulatory and supportative inpatient needs of the Indian population of the Pacific Northwest.

In the event that the development of small Indian inpatient facilities is delayed, it becomes imperative that the CHS is funded to meet all inpatient needs. The health of Northwest Indians cannot be appreciably upgraded without sufficient resources to ameliorate health problems.

V. RECOMMENDATIONS

RECOMMENDATIONS:

1. That sufficient inpatient services be provided in a timely, convenient, and usable manner for Northwest Indians. Inpatient services should be available and accessible within 30 minutes or 27 miles of potential patients.
2. To utilize existing facilities to the fullest extent possible through the following mechanisms:
 - A. In the Seattle, Washington area, the IHS should increase their usage of the U.S. Public Health Service hospital by way of contracts or joint-use agreements.
 - B. In remote areas where existing local hospitals are threatened by closure because of low utilization, joint-use agreements be negotiated where possible.
 - C. Where not possible, or in the event that inpatient facilities are further than 30 minutes away for emergency or 90 minutes for non-emergency admissions, that small inpatient facilities be built.
3. That the Contract Health Service funds allocated to the Portland Area Indian Health Service be increased to sufficiently meet all primary, secondary and tertiary care.
4. That further study be undertaken to identify possible sites for 2B and 2C.

Although this study focused on the need for inpatient services, it must be remembered that if adequate primary prevention and education are not developed, the need for secondary and tertiary services will never be reduced, and thus monies expended for inpatient services will in the long run not produce marked differences in Northwest Indian health status.

The need for inpatient care is a result of disease having already set in, and while we must deal with these problems, it is imperative that we begin to reduce the need for inpatient services via early detection, prevention, and consumer education. The responsibility for the health of

American Indians clearly lies with the Indian Health Service, therefore Portland Area Indian Health Service programs must not only be fully funded but the IHS itself must also develop a comprehensive health care program capable of dealing with such issues as quality of care, patient education and prevention of illness and disease.

NOTES

1. Passel, Jeffery S.: "Provisional Evaluation of the 1970 Census Count of American Indians"; Demography, Vol. 13, No. 3, August 1976; pp. 379-408.
2. Shore, James H.: "Psychiatric Epidemiology Among American Indians"; Psychiatric Annals, 4:9 November 1974.
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4. Wallace, Helen: "The Health of American Indian Children"; American Journal of Disabled Children; Vol. 125, March 1973; pp.449-454.
5. Birth and Death Certificates received from State Health Departments of Idaho, Oregon and Washington.
6. Monthly Vital Statistics Report, National Center for Health Statistics; Vol. 24, No. 11, Supplemental February 3, 1976.
7. Indian Health Trends and Services, U.S. Department of Health, Education, and Welfare, Public Health Service, 1974 Edition
8. 1969 Indian Health Service Task Force on Alcoholism.
9. Resource Allocation Criteria Document, IHS Portland Area Office, Indian Health Service, 1976.
10. The Supply of Health Manpower, U.S. DHEW, Publication No. (HRA) 75-38, December 31, 1970; pp. 28, 80.
11. Blum, Henrick L.: Planning for Health, Human Sciences Press, New York; pg. 166.
12. Guide to the Health Field, American Hospital Association, 1975 Edition.

APPENDIX A

SELECTED CHARTS AND TABLES

TABLE A I

Infant Deaths and Death Rates
Northwest Area Indian, Indian and Alaskan Natives
U.S. All Races, C.Y. 1967-1975
Rates Per 1,00 Live Births

<u>Year</u>	<u>Northwest Portland Area Indians^{1/}</u>		<u>Indian and Alaskan Natives^{2/}</u>		<u>U.S. All Races^{3/}</u>	
	<u>Number</u>	<u>Rate</u>	<u>Number</u>	<u>Rate</u>	<u>Number</u>	<u>Rate</u>
1975	37	35.9	N/A	N/A	N/A	161.1*
1974	29	26.0	455	18.7	52,400	16.7
1973	27	30.0	463	19.5	55,581	17.7
1972	26	25.3	497	20.9	60,182	18.5
1971	31	35.2	560	23.5	67,981	19.1
1970	34	37.7	537	23.6	74,667	20.1
1969	37	44.4	579	26.8	75,073	20.9
1968	36	43.2	668	30.9	76,263	21.8
1967	33	38.2	666	32.2	79,028	22.4

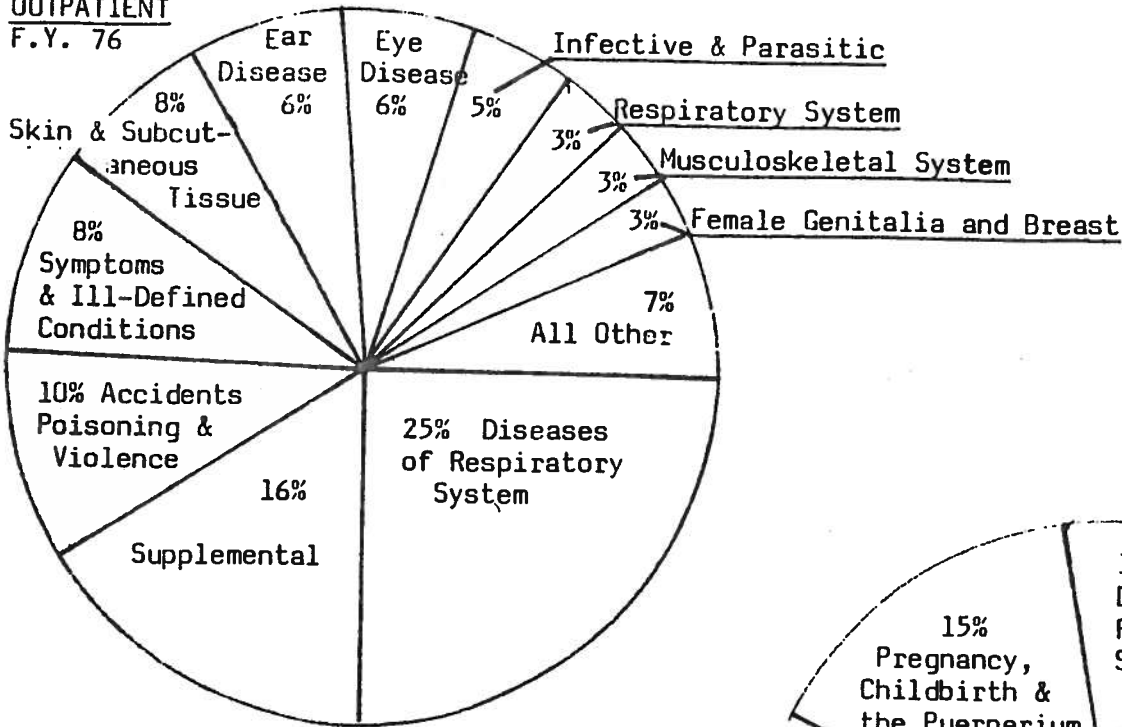
* Provisional-Estimated Monthly.
N/A: Not Available.

SOURCE: ^{1/} Birth and Death Certificates received from State Health Departments of Idaho, Oregon and Washington.
^{2/} Vital Events Branch, OPS/DRC/IHS, December 31, 1975.
^{3/} Monthly Vital Statistical Reports, National Center for Health Statistics, Vo. 24, No. 13, June 30, 1976.

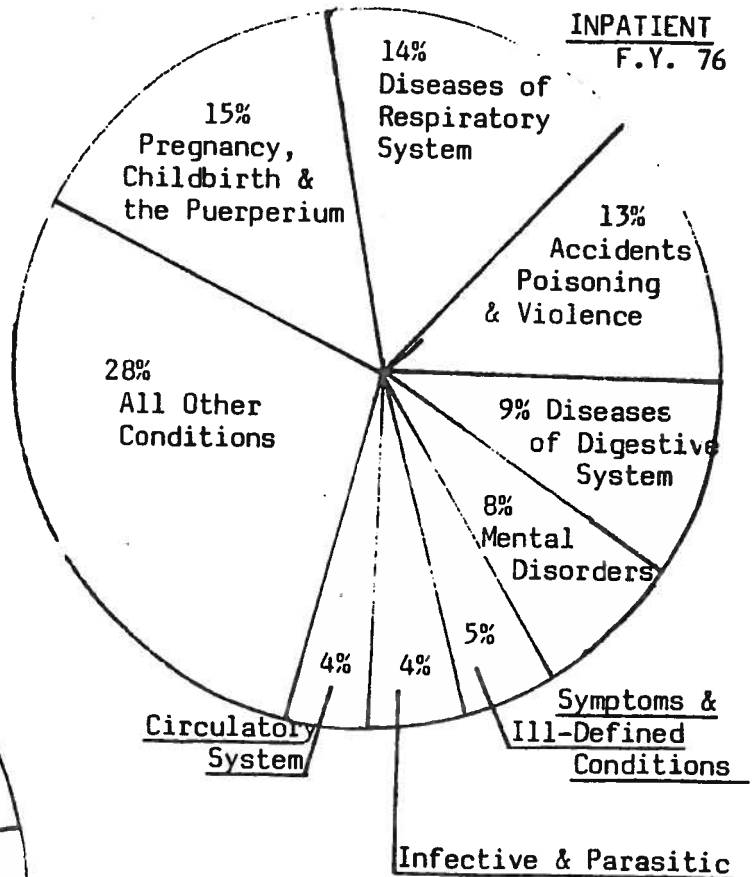
CHART A

Leading Causes of Outpatient Care, Inpatient Care and Death
by Health Classification by Percent*, C.Y. 1975 - F.Y. 1976

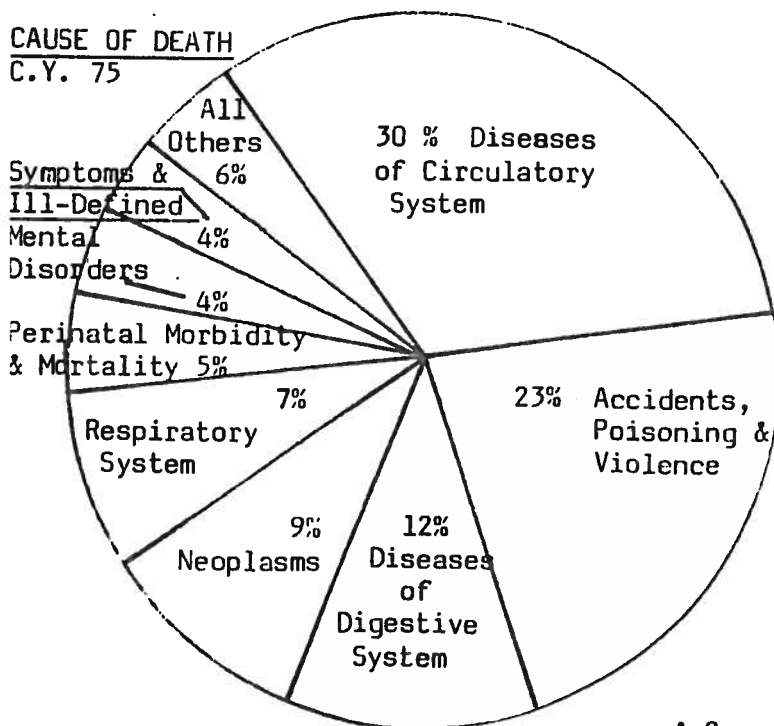
OUTPATIENT F.Y. 76



INPATIENT F.Y. 76



CAUSE OF DEATH C.Y. 75



SOURCES: APC Report IC
CHS Report 3A, 3I
Birth & Death Certificates

* Rounded to nearest percent

TABLE AII

PERCENT DISTRIBUTION OF POPULATION BY AGE AND SEX,
1970 NORTHWEST INDIAN POPULATION
(Oregon, Washington, Idaho)

	<u>NORTHWEST INDIANS</u>			<u>UNITED STATES</u>		
	<u>TOTAL</u>	<u>MALE</u>	<u>FEMALE</u>	<u>TOTAL</u>	<u>MALE</u>	<u>FEMALE</u>
ALL AGES	100.0	49.7	50.3	100.0	48.7	51.3
Under 5	12.18	6.06	6.12	8.4	4.3	4.1
5-9	13.36	6.65	6.71	9.8	5.0	4.8
10-14	13.71	6.86	6.85	10.2	5.2	5.0
15-19	11.03	5.57	5.46	9.4	4.7	4.7
20-24	8.59	4.28	4.31	8.1	3.9	4.2
25-29	6.95	3.41	3.54	6.6	3.3	3.3
30-34	6.25	3.17	3.08	5.6	2.8	2.8
35-39	5.35	2.73	2.72	5.5	2.7	2.8
40-44	4.58	2.26	2.32	5.9	2.9	3.0
45-49	4.32	2.11	2.21	6.0	2.9	3.1
50-54	3.50	1.73	1.77	5.5	2.6	2.9
55-59	3.13	1.53	1.60	4.9	2.3	2.6
60-64	2.20	1.05	1.15	4.2	2.0	2.2
65-69	1.93	0.96	0.97	3.4	1.5	1.9
70-74	1.17	0.55	0.62	2.7	1.1	1.6
75-79	0.83	0.38	0.45	1.9	0.8	1.1
80-84	0.46	0.21	0.25	1.2	0.4	0.8
85 +	0.34	0.14	0.20	0.7	0.3	0.4
Median Age	15-19	15-19	15-19	28.1	26.8	29.3

SOURCE: U. S. Bureau of the Census, 1970

TABLE AIII
CHS-Inpatient Admissions*
by Leading Diagnosis, by Service Unit
F.Y. 1976

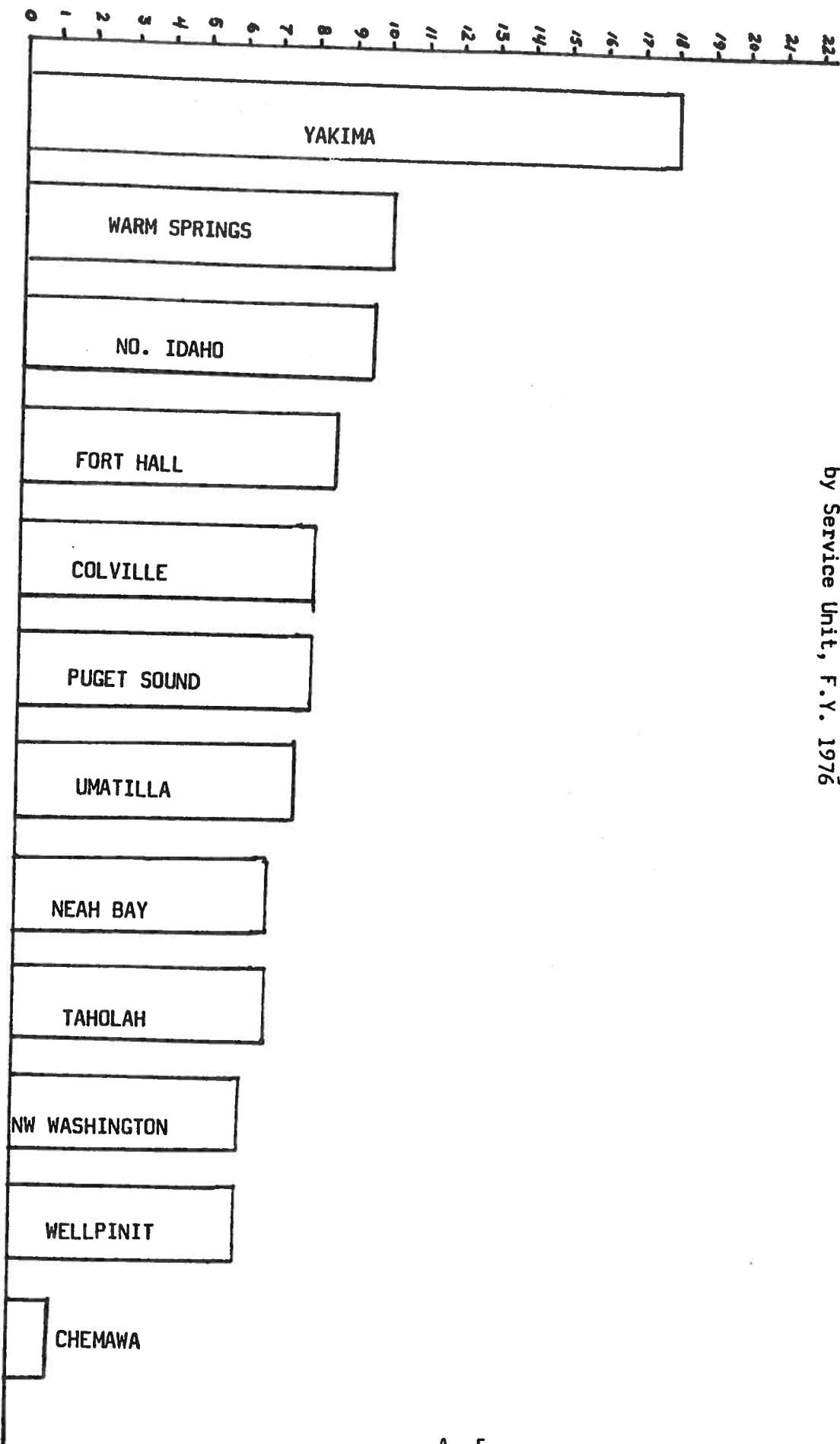
<u>SERVICE UNIT:</u>	<u>TOTAL</u>	<u>Pregnancy</u>	<u>Diseases of Respiratory System</u>	<u>Accidents, Poisoning & Violence</u>	<u>Diseases of Digestive System</u>	<u>Mental Disorders</u>	<u>All Others</u>
Yakima	888	122	106	122	71	51	416
Warm Springs	528	87	58	69	44	49	221
No. Idaho	480	59	97	61	48	36	179
Fort Hall	442	77	37	69	50	43	166
Colville	413	74	64	70	30	23	152
Puget Sound	416	104	54	63	36	30	129
Umatilla	386	38	76	29	30	37	176
Neah Bay	363	28	30	43	15	70	177
Taholah	354	47	65	44	35	24	139
N.W. Washington	302	36	46	38	23	15	144
Wellpinit	293	39	41	32	32	18	131
Chemawa	65	18	7	11	4	2	23
GRAND TOTAL	4,930	729	681	651	418	398	2,053

SOURCE: CHS Report 31

*CMS Hospitals

CHART. B

High Users of Inpatient Services
by Percent Inpatient Discharges*
by Service Unit, F.Y. 1976



SOURCE: CHS Report 3N

* GMS Hospitals

TABLE AIV

Total Inpatient Discharges by Age
Northwest Indian, F.Y. 1976

<u>Age</u>	<u>Total Discharges</u>	<u>GM&S Hospital Discharges</u>	<u>Nursing/ Rehabilitation Center Discharges</u>
All Ages	5,053	4,930	123
0-27 days	113	113	-
28 days - 11 mos.	327	327	-
1 - 4 years	417	417	-
4 - 9 Years	136	136	-
10 - 14 years	156	156	-
15 - 19 years	544	540	4
20 - 24 years	667	656	11
25 - 29 years	1,504	366	40
30 - 34 years	747	366	38
35 - 39 years	427	366	18
40 - 44 years	15	4	12

SOURCE: CHS Report 3I

APPENDIX B

IHS SERVICE BOUNDARY AREAS

WASHINGTON

1. Spokane Service Area

The Washington Counties of Stevens, Ferry and Lincoln and the City of Spokane in Spokane County.

2. Kalispel Service Area

The Washington County of Pend Oreille.

3. Colville Service Area

The Washington Counties of Ferry, Okanogan, Douglas, Grant, Lincoln and Stevens and trust land in Chelan County.

4. Yakima Service Area

The Washington Counties of Yakima, Klickitat and the Celilo Village site in Wasco County, Oregon.

5. Shoalwater Service Area

The Washington County of Pacific.

6. Chehalis Service Area

The Washington Counties of Grays Harbor and Thurston.

7. Quinalt Service Area

The Washington Counties of Grays Harbor and Jefferson.

8. Hoh Service Area

The Washington County of Jefferson.

9. Quileute Service Area

The Washington County of Clallam.

10. Makah Service Area

The Washington County of Clallam.

11. Lower Elwha Service Area

The Washington County of Clallam.

12. Jamestown Band of Clallam Service Area

The Washington County of Clallam.

13. Skokomish Service Area

The Washington County of Mason.

14. Squaxin Island Service Area

The Washington County of Mason

15. Nisqually Service Area

The Washington Counties of Thurston and Pierce.

16. Puyallup Service Area

The Washington Counties of Pierce and King.

17. Muckleshoot Service Area

The Washington Counties of King and Pierce.

18. Suquamish Service Area

The Washington County of Kitsap.

19. Port Madison Service Area

The Washington County of Kitsap

20. Tulalip Service Area

The Washington County of Snohomish.

21. Swinomish Service Area

The Washington County of Skagit.

22. Lummi Service Area

The Washington County of Whatcom.

23. Nooksack Service Area

The Washington County of Whatcom.

24. Port Gamble Band of Clallam Service Area

The Washington County of Kitsap.

25. Sauk-Suiattle Service Area

The Washington Counties of Whatcom, Skagit, Snohomish and King.



OREGON

1. Warm Springs Service Area

The Oregon Counties of Wasco and Jefferson; the community of Redmond in Deschutes County, the community of Prineville in Crook County and the communities of Hood River and Cascade Locks in Hood River County..

2. Umatilla Service Area

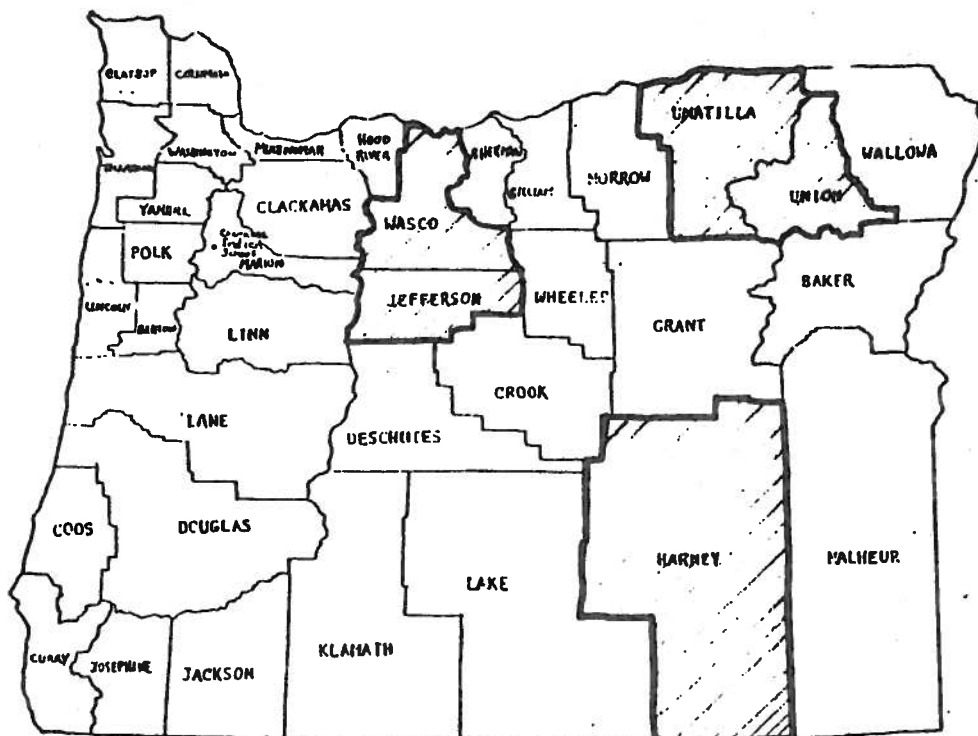
The Oregon Counties of Umatilla and Union and the Celilo Village site in Wasco County.

3. Chemawa Service Area

Enrolled students from Federally recognized tribes at the Chemawa Indian School.

4. Burns Paiute Service Area

The Oregon County of Harney.



OREGON

IDAHO

1. Shoshone-Annock Service Area

The Idaho Counties of Bingham, Bannock, Power and Caribou and the Indian community at Salmon in Lemhi County.

2. Nez Perce Service Area

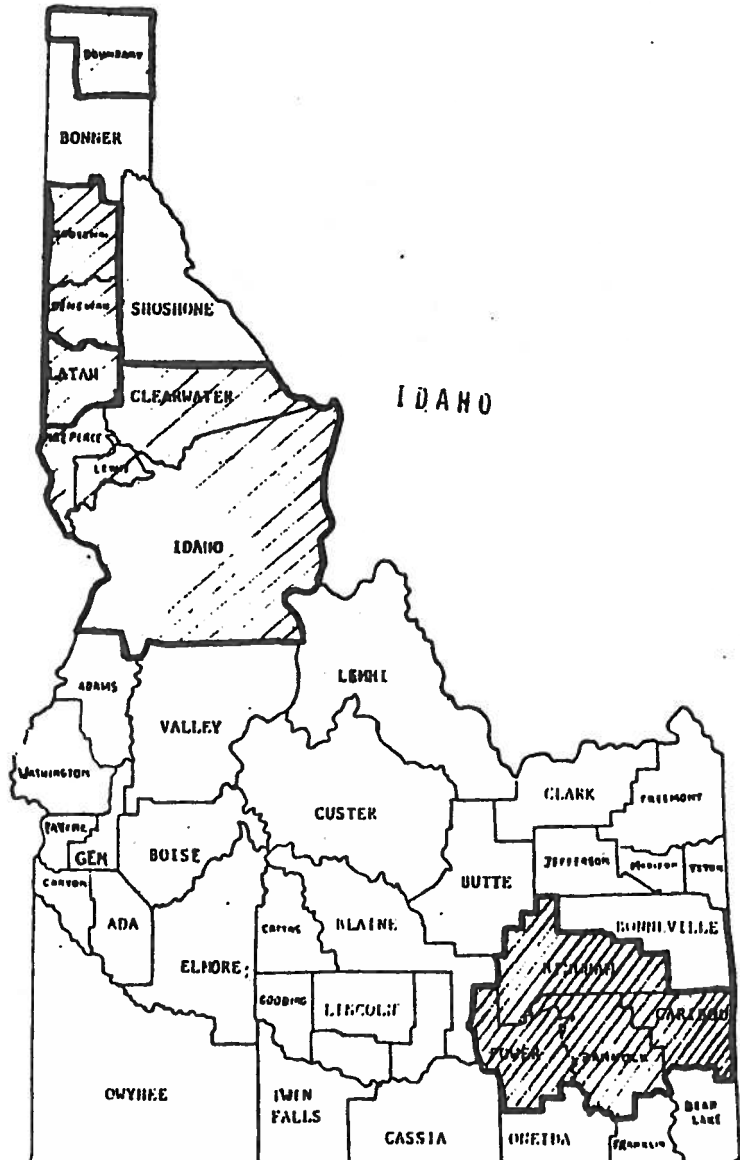
The Idaho Counties of Nez Perce, Lewis, Idaho, Clearwater and Latah and the City of Clarkston in Asotin County in Washington.

3. Coeur d' Alene Service Area

The Idaho Counties of Kootenai, Benewah and Latah and the Washington Counties of Whitman and Spokane.

4. Kootenai Service Area

The Idaho County of Boundary.



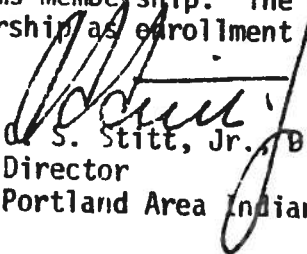
POLICY STATEMENT

PERSONS WHO MAY BE SERVED BY PORTLAND AREA INDIAN HEALTH SERVICE CONTRACT HEALTH SERVICE PROGRAM

Individuals of Indian descent who are members of Federally recognized Indian Tribes, and who are not excluded from service by other provision of law, may be served by the Contract Health Service program in the Portland Area, if they meet the following conditions of eligibility:

- (1) Member of a Federally recognized Tribe who lives on an Indian reservation, in traditional Indian communities, on scattered allotments, or other trust land.
- (2) Residence within the boundaries of an established health service delivery area adjacent to a reservation and membership in the Tribe for which the reservation was established.
- (3) Non-Indian dependents of persons served under either condition (1) or (2). Dependents are defined as non-Indian wives of Indian men, minor dependents of an eligible Indian living in the same household as the eligible Indian, and non-Indian men who are dependent upon Indian women by reason of permanent physical or mental disability.
- (4) Indians who are enrolled as full-time students in an institution providing post-high school, vocational, technical, or academic training or education, if they met one of the foregoing conditions of eligibility immediately prior to entering school. Specifically exempted from this provision are students enrolled in Bureau of Indian Affairs sponsored programs of vocational training under the Bureau of Indian Affairs Branch of Employment Assistance. The Bureau of Indian Affairs has acknowledged responsibility for the health care of such students.

NOTE: Membership in a Federally recognized Tribe is determined by the Tribe in which an individual claims membership. The majority of Tribes in the Portland Area define membership as enrollment in the Tribe.


O. S. Stitt, Jr., D.D.S.
Director
Portland Area Indian Health Service

NOTE: The above policy statement is subject to confirmation in the Federal Register.

APPENDIX C
POPULATION PROJECTIONS
AND LIFE TABLE

The following NW Indian population projections to year 2,000 for service unit areas and for the total three-state area was developed by Dr. James Weiss, Center for Population Control, Portland State University, Portland, Oregon. The 1970 Census enumeration formed the base-line population figure - birth and death certificates from the states of Oregon, Idaho and Washington produced growth rate figures.

CHART IA - is a Service Unit projection based on the 1970 Census enumeration and given growth rate for the eleven S.U.'s (excluding Chemawa). See Rate Below.

CHART IIA - is a Service Unit projection based on the adjusted S.U. population figure on Table II, Column "C". (derived from a non-duplication count of IHS health records from all systems for FY 74-75-76). Growth rates were projected at the same rate as above.

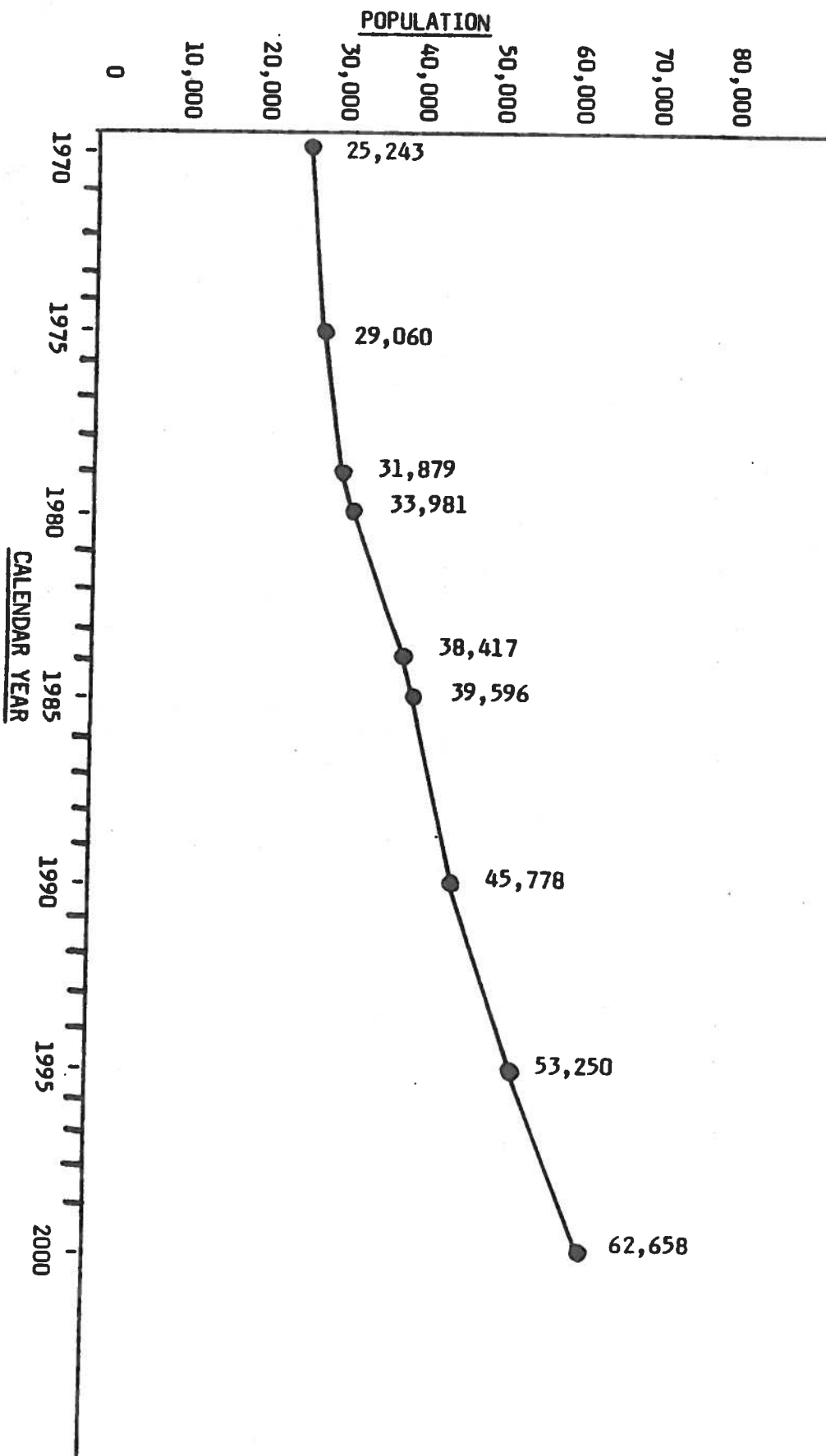
CHART IB - is a projection for the total three-state area based on the 1970 Census enumeration and given growth rate as shown below.

CHART IIB - is a three-state area projection based on the adjusted total area population on Table II Column "C". Growth rate from IB used.

The following growth rates were found:

<u>Service Units</u>			<u>Total three-state area</u>		
C.Y.	1970-1975:	15%	C.Y.	1970-1975:	16%
	1975-1980:	16.6%		1975-1980:	16.9%
	1980-1985:	16.5%		1980-1985:	15.8%
	1985-1990:	15.6%		1985-1990:	14.9%
	1990-1995:	16.3%		1990-1995:	16.2%
	1995-2000:	17.6%		1995-2000:	17.7%

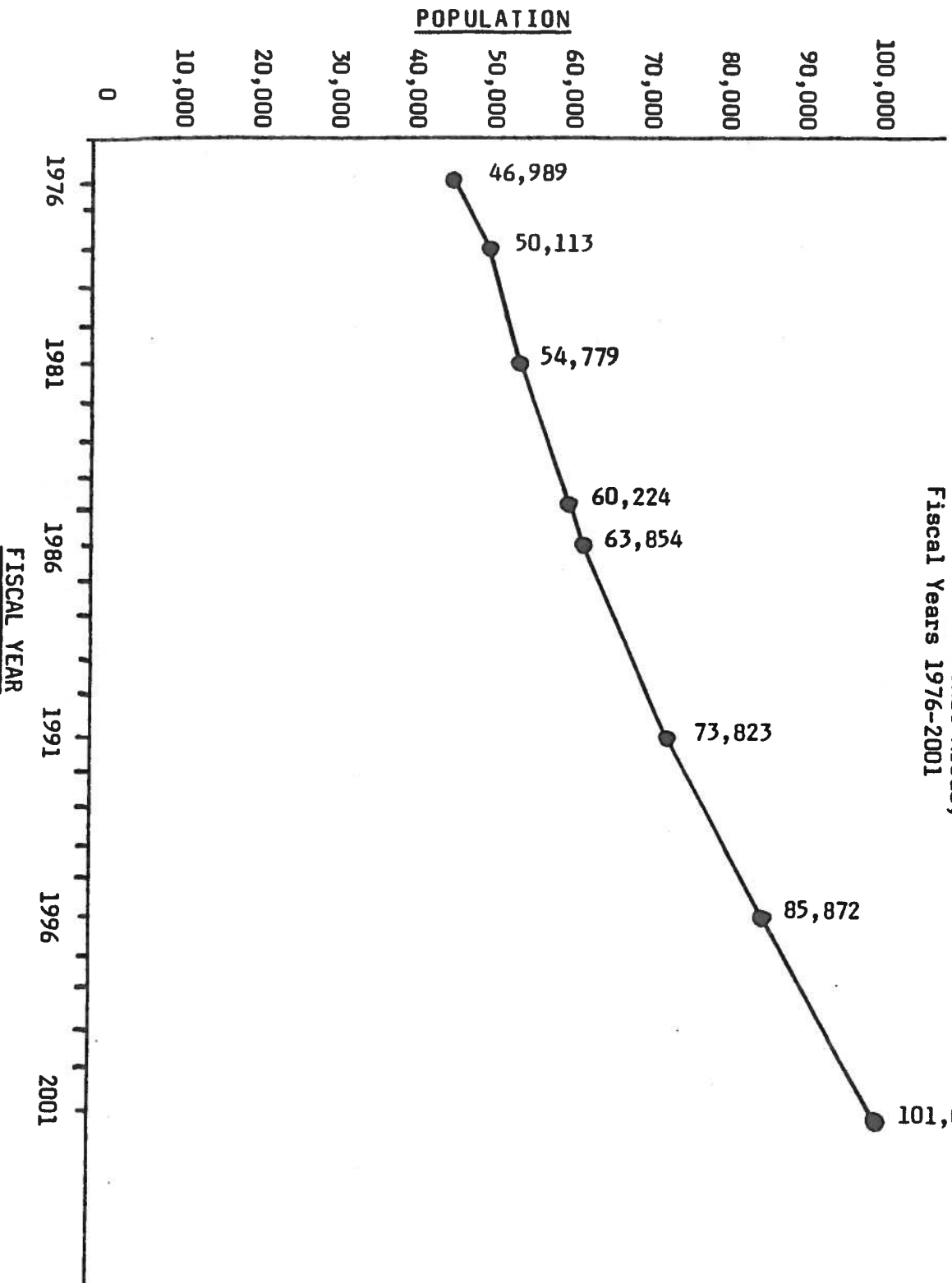
CHART 1A
 NW Indian Population Projections*
 Eleven Service Unit Areas,
 Calendar Years 1970-2000



* Based on 1970 U.S. Census and birth and death certificates obtained from the states of WA.. OR.. and ID.

CHART IIA

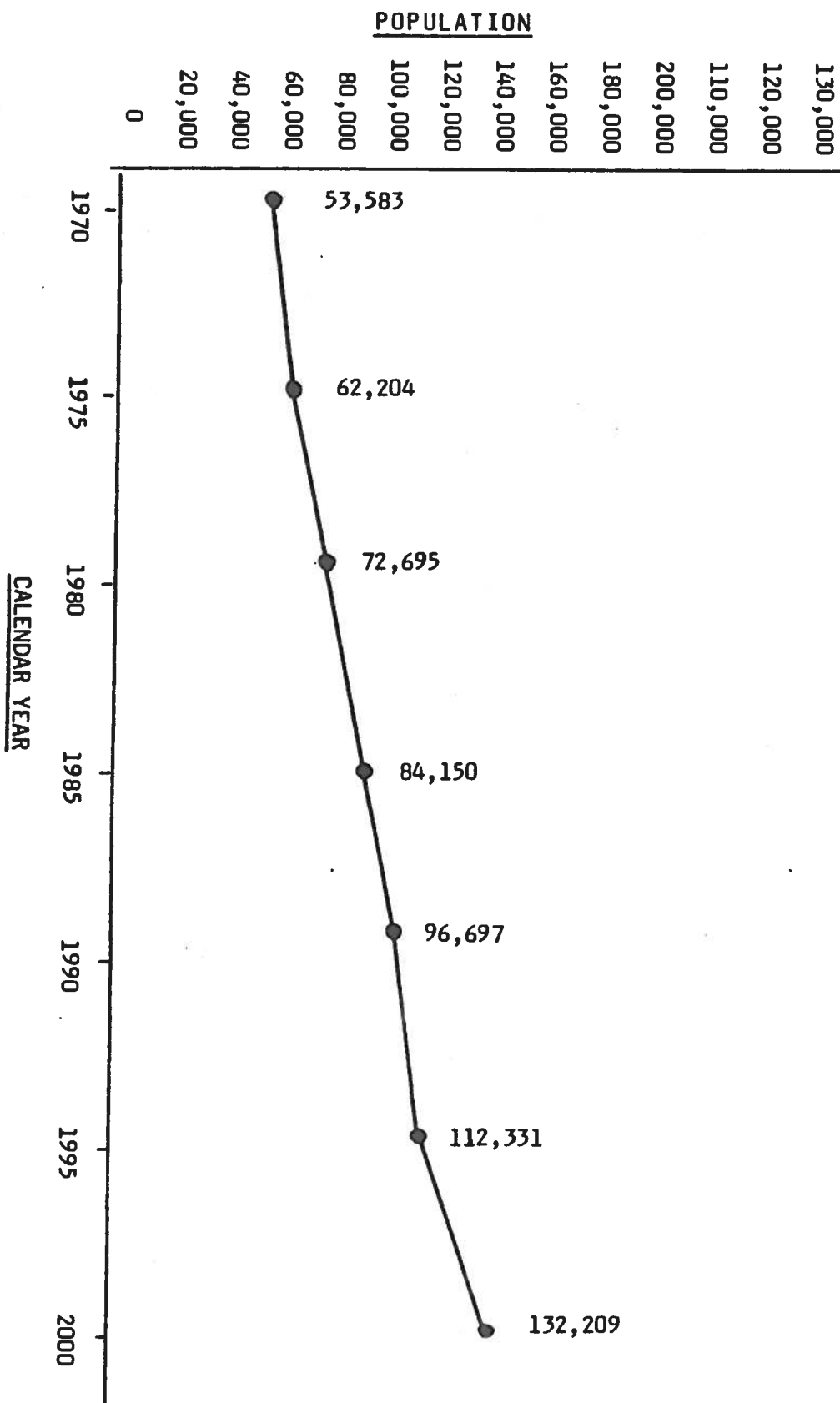
NW Indian Population Projections*
 Eleven Service Unit Areas,
 Fiscal Years 1976-2001



* F.Y. 1976 adjusted s.u. population figures derived from Table II, population projection based on growth from CHART IA.

CHART IB

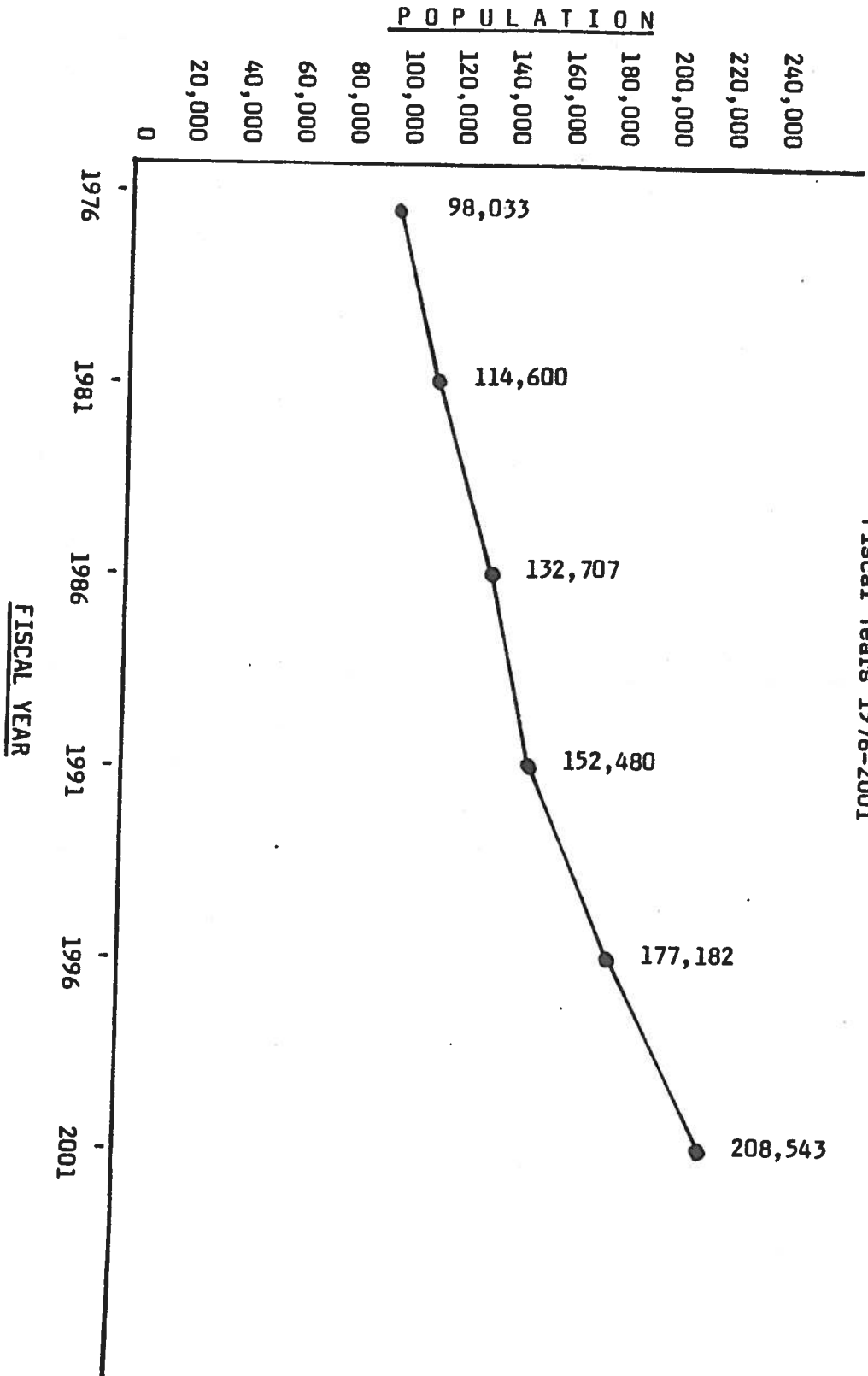
NW Indian Population Projections*
Totals for Washington, Oregon and Idaho,
Calendar Years 1970-2000



* Based on 1970 U.S. Census and birth and death certificates obtained from the states of WA., OR., and ID.

CHART 11B

NW Indian Population Projections*
Utilizing adjusted population Totals for Washington, Oregon and Idaho
Fiscal Years 1976-2001



* F.Y. 1976 adjusted population figures derived from Table II, population projection based on growth rate from Chart IB, Appendix C

	A-1		A-2	
	TOTAL	MALE	FEMALE	TOTAL
TOTAL	29060.	14304.	14756.	29060.
0-4	5246.	2664.	2582.	5246.
5-9	3204.	1567.	1637.	3204.
10-14	3624.	1807.	1817.	3624.
15-19	3535.	1760.	1775.	3535.
20-24	2692.	1335.	1358.	2692.
25-29	1729.	808.	921.	1729.
30-34	1436.	664.	772.	1436.
35-39	1399.	604.	711.	1399.
40-44	1211.	591.	621.	1211.
45-49	1048.	521.	526.	1048.
50-54	950.	491.	459.	950.
55-59	851.	441.	410.	851.
60-64	713.	324.	389.	713.
65-69	519.	240.	279.	519.
70-74	416.	198.	218.	416.
75-79	243.	110.	134.	243.
80-84	167.	64.	103.	167.
85+	77.	32.	44.	77.

[illegible]

PROJECTED POPULATION, 11 NW SERVICE AREAS, 1980

	A-1		A-2	
	MALE	FEMALE	MALE	FEMALE
TOTAL	33981.	17302.	33981.	17302.
0-4	6464.	3192.	6464.	3192.
5-9	5208.	2568.	5208.	2568.
10-14	3142.	1630.	3192.	1630.
15-19	3571.	1803.	3571.	1803.
20-24	3398.	1737.	3398.	1737.
25-29	2552.	1310.	2552.	1310.
30-34	1649.	688.	1649.	688.
35-39	1361.	735.	1361.	735.
40-44	1245.	668.	1245.	668.
45-49	1112.	583.	1112.	583.
50-54	956.	491.	956.	491.
55-59	914.	428.	914.	428.
60-64	735.	377.	735.	377.
65-69	593.	343.	593.	343.
70-74	407.	228.	407.	228.
75-79	300.	166.	300.	166.
80-84	159.	92.	159.	92.
85	96.	63.	96.	63.

AGE	PCT.		PCT.		AGE	PCT.		PCT.	
	MALE	FEMALE	MALE	FEMALE		MALE	FEMALE	MALE	FEMALE
85+	10	19	10	19	85+	10	19	10	19
80-84	20	27	20	27	80-84	20	27	20	27
75-79	39	49	39	49	75-79	39	49	39	49
70-74	53	67	53	67	70-74	53	67	53	67
65-69	74	101	74	101	65-69	74	101	74	101
60-64	105	111	105	111	60-64	105	111	105	111
55-59	137	144	137	144	55-59	137	144	137	144
50-54	156	172	156	172	50-54	156	172	156	172
45-49	184	197	184	197	45-49	184	197	184	197
40-44	216	216	216	216	40-44	216	216	216	216
35-39	224	261	224	261	35-39	224	261	224	261
30-34	360	386	360	386	30-34	360	386	360	386
25-29	489	511	489	511	25-29	489	511	489	511
20-24	520	531	520	531	20-24	520	531	520	531
15-19	440	480	440	480	15-19	440	480	440	480
10-14	777	150	777	150	10-14	777	150	777	150
5-9	969	939	969	939	5-9	969	939	969	939
0-4					0-4				

AND I DAHO.

TOTAL	A-1		A-2		TOTAL	A-1		A-2		TOTAL
	MALE	FEMALE	MALE	FEMALE		MALE	FEMALE	MALE	FEMALE	
30690.	30690.	31515.	30690.	31515.	62204.	30690.	31515.	30690.	31515.	62204.
5924.	5924.	5743.	5924.	5743.	11667.	5924.	5743.	5924.	5743.	11667.
3132.	3132.	3259.	3132.	3259.	6391.	3132.	3259.	3132.	3259.	6391.
3553.	3553.	3583.	3553.	3583.	7136.	3553.	3583.	3553.	3583.	7136.
3598.	3598.	3644.	3598.	3644.	7241.	3598.	3644.	3598.	3644.	7241.
2817.	2817.	2864.	2817.	2864.	5682.	2817.	2864.	2817.	2864.	5682.
2132.	2132.	2232.	2132.	2232.	4364.	2132.	2232.	2132.	2232.	4364.
1722.	1722.	1831.	1722.	1831.	3552.	1722.	1831.	1722.	1831.	3552.
1600.	1600.	1573.	1600.	1573.	3172.	1600.	1573.	1600.	1573.	3172.
1335.	1335.	1372.	1335.	1372.	2707.	1335.	1372.	1335.	1372.	2707.
1083.	1083.	1168.	1083.	1168.	2251.	1083.	1168.	1083.	1168.	2251.
1009.	1009.	1102.	1009.	1102.	2111.	1009.	1102.	1009.	1102.	2111.
919.	919.	883.	919.	883.	1802.	919.	883.	919.	883.	1802.
666.	666.	792.	666.	792.	1458.	666.	792.	666.	792.	1458.
436.	436.	543.	436.	543.	979.	436.	543.	436.	543.	979.
383.	383.	426.	383.	426.	808.	383.	426.	383.	426.	808.
202.	202.	252.	202.	252.	453.	202.	252.	202.	252.	453.
123.	123.	166.	123.	166.	289.	123.	166.	123.	166.	289.
58.	58.	82.	58.	82.	140.	58.	82.	58.	82.	140.

[illegible]

AND IDAHO.
A, 1975

	A-1	FEMALE	TOTAL	A-2	FEMALE	TOTAL	A-2	MALE	FEMALE
TOTAL	30690.	31515.	62204.	30690.	31515.	62204.	30690.	31515.	31515.
0-4	5924.	5743.	11667.	5924.	5743.	11667.	5924.	5743.	5743.
5-9	3132.	3259.	6391.	3132.	3259.	6391.	3132.	3259.	3259.
10-14	3553.	3583.	7136.	3553.	3583.	7136.	3553.	3583.	3583.
15-19	3598.	3644.	7241.	3598.	3644.	7241.	3598.	3644.	3644.
20-24	2817.	2864.	5682.	2817.	2864.	5682.	2817.	2864.	2864.
25-29	2132.	2232.	4364.	2132.	2232.	4364.	2132.	2232.	2232.
30-34	1722.	1831.	3552.	1722.	1831.	3552.	1722.	1831.	1831.
35-39	1600.	1573.	3172.	1600.	1573.	3172.	1600.	1573.	1573.
40-44	1335.	1372.	2707.	1335.	1372.	2707.	1335.	1372.	1372.
45-49	1083.	1168.	2251.	1083.	1168.	2251.	1083.	1168.	1168.
50-54	1009.	1102.	2111.	1009.	1102.	2111.	1009.	1102.	1102.
55-59	919.	883.	1802.	919.	883.	1802.	919.	883.	883.
60-64	666.	792.	1458.	666.	792.	1458.	666.	792.	792.
65-69	436.	543.	979.	436.	543.	979.	436.	543.	543.
70-74	383.	426.	808.	383.	426.	808.	383.	426.	426.
75-79	202.	252.	453.	202.	252.	453.	202.	252.	252.
80-84	123.	166.	289.	123.	166.	289.	123.	166.	166.
85+	58.	82.	140.	58.	82.	140.	58.	82.	82.

AGE	PCT.		PERCENT		SUM	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
858	.09	.13			10	10
80-84	.20	.27				
75-79	.32	.40				
70-74	.62	.68				
65-69	.70	.87				
60-64	1.07	1.27				
55-59	1.48	1.42				
50-54	1.62	1.77				
45-49	1.74	1.66				
40-44	2.15	2.21				
35-39	2.57	2.53				
30-34	2.77	2.94				
25-29	3.43	3.59				
20-24	4.53	4.60				
15-19	5.78	5.86				
10-14	5.71	5.76				
5-9	5.03	5.24				
0-4	9.52	9.23				
			5	5	10	10
			PERCENT	PERCENT	MALE	FEMALE
			49.34	50.66	49.34	50.66

AND IDAHO
PROJECTED POPULATION, OREGON, WASHINGTON A,1975

	TOTAL	A-1 MALE	FEMALE	TOTAL	A-2 MALE	FEMALE
TOTAL	62204.	30690.	31515.	62204.	30690.	31515.
0-4	11667.	5924.	5743.	11667.	5924.	5743.
5-9	6391.	3132.	3259.	6391.	3132.	3259.
10-14	7136.	3553.	3583.	7136.	3553.	3583.
15-19	7241.	3598.	3644.	7241.	3598.	3644.
20-24	5682.	2817.	2864.	5682.	2817.	2864.
25-29	4364.	2132.	2232.	4364.	2132.	2232.
30-34	3552.	1722.	1831.	3552.	1722.	1831.
35-39	3172.	1600.	1573.	3172.	1600.	1573.
40-44	2707.	1335.	1372.	2707.	1335.	1372.
45-49	2251.	1083.	1168.	2251.	1083.	1168.
50-54	2111.	1009.	1102.	2111.	1009.	1102.
55-59	1802.	919.	883.	1802.	919.	883.
60-64	1458.	666.	792.	1458.	666.	792.
65-69	979.	436.	543.	979.	436.	543.
70-74	808.	383.	426.	808.	383.	426.
75-79	453.	202.	252.	453.	202.	252.
80-84	289.	123.	166.	289.	123.	166.
85+	140.	58.	82.	140.	58.	82.

AGE	MALE	PERCENT	FEMALE	SUM	AGE	MALE	PERCENT	FEMALE	SUM
0-4	11667	18.9	11667	23334	0-4	11667	18.9	11667	23334
5-9	6391	10.3	6391	12782	5-9	6391	10.3	6391	12782
10-14	7136	11.5	7136	14272	10-14	7136	11.5	7136	14272
15-19	7241	11.7	7241	14482	15-19	7241	11.7	7241	14482
20-24	5682	9.1	5682	11364	20-24	5682	9.1	5682	11364
25-29	4364	7.0	4364	8728	25-29	4364	7.0	4364	8728
30-34	3552	5.7	3552	7104	30-34	3552	5.7	3552	7104
35-39	3172	5.1	3172	6344	35-39	3172	5.1	3172	6344
40-44	2707	4.3	2707	5414	40-44	2707	4.3	2707	5414
45-49	2251	3.6	2251	4502	45-49	2251	3.6	2251	4502
50-54	2111	3.4	2111	4222	50-54	2111	3.4	2111	4222
55-59	1802	2.9	1802	3604	55-59	1802	2.9	1802	3604
60-64	1458	2.3	1458	2916	60-64	1458	2.3	1458	2916
65-69	979	1.6	979	1958	65-69	979	1.6	979	1958
70-74	808	1.3	808	1616	70-74	808	1.3	808	1616
75-79	453	0.7	453	906	75-79	453	0.7	453	906
80-84	289	0.5	289	578	80-84	289	0.5	289	578
85+	140	0.2	140	280	85+	140	0.2	140	280
TOTAL	62204	100.0	62204	124408	TOTAL	62204	100.0	62204	124408

PROJECTED POPULATION, 11 NM SERVICE AREAS, 2000

	A-1			A-2	
	MALE	FEMALE	MALE	FEMALE	
TOTAL	62658.	30713.	31946.	30713.	
0-4	11847.	6015.	5831.	6015.	
5-9	9527.	4830.	4697.	4830.	
10-14	7980.	4048.	3932.	4048.	
15-19	7161.	3607.	3554.	3607.	
20-24	6072.	3003.	3069.	3003.	
25-29	4658.	2281.	2396.	2281.	
30-34	2736.	1263.	1473.	1263.	
35-39	2940.	1378.	1562.	1378.	
40-44	2695.	1250.	1445.	1250.	
45-49	1960.	899.	1061.	899.	
50-54	1217.	521.	695.	521.	
55-59	1014.	450.	563.	450.	
60-64	903.	401.	502.	401.	
65-69	704.	292.	411.	292.	
70-74	518.	215.	303.	215.	
75-79	370.	154.	216.	154.	
80-84	227.	85.	143.	85.	
85+	130.	40.	90.	40.	

AGE	PCT.		AGE	PCT.	
	MALE	FEMALE		MALE	FEMALE
0-4	.06	.14	0-4	.06	.14
5-9	.13	.23	5-9	.13	.23
10-14	.25	.34	10-14	.25	.34
15-19	.34	.46	15-19	.34	.46
20-24	.47	.66	20-24	.47	.66
25-29	.64	.80	25-29	.64	.80
30-34	.72	.90	30-34	.72	.90
35-39	.83	1.11	35-39	.83	1.11
40-44	1.43	1.69	40-44	1.43	1.69
45-49	1.99	2.31	45-49	1.99	2.31
50-54	2.20	2.49	50-54	2.20	2.49
55-59	2.02	2.35	55-59	2.02	2.35
60-64	3.61	3.82	60-64	3.61	3.82
65-69	4.79	4.90	65-69	4.79	4.90
70-74	5.76	5.67	70-74	5.76	5.67
75-79	6.46	6.26	75-79	6.46	6.26
80-84	7.71	7.50	80-84	7.71	7.50
85+	9.60	9.31	85+	9.60	9.31
TOTAL	49.02	50.98	TOTAL	49.02	50.98

PROJECTED POPULATION, OREGON, WASHINGTON A, 1985

	TOTAL	A-1		TOTAL	A-2	
		MALE	FEMALE		MALE	FEMALE
TOTAL	84150.	41306.	42844.	84150.	41306.	42844.
0-4	15087.	7661.	7427.	15087.	7661.	7427.
5-9	13662.	6926.	6736.	13662.	6926.	6736.
10-14	11541.	5854.	5687.	11541.	5854.	5687.
15-19	6275.	3054.	3221.	6275.	3054.	3221.
20-24	6759.	3240.	3479.	6759.	3280.	3479.
25-29	6600.	3159.	3441.	6600.	3159.	3441.
30-34	5133.	2468.	2666.	5133.	2468.	2666.
35-39	3940.	1893.	2048.	3940.	1893.	2048.
40-44	3116.	1479.	1637.	3116.	1479.	1637.
45-49	2692.	1305.	1386.	2692.	1305.	1386.
50-54	2266.	1065.	1201.	2266.	1065.	1201.
55-59	1970.	955.	1015.	1970.	955.	1015.
60-64	1755.	809.	945.	1755.	809.	945.
65-69	1293.	575.	717.	1293.	575.	717.
70-74	954.	383.	571.	954.	383.	571.
75-79	558.	220.	338.	558.	220.	338.
80-84	380.	157.	223.	380.	157.	223.
85+	169.	63.	106.	169.	63.	106.

		PCT.				PCT.	
		MALE	FEMALE			MALE	FEMALE
AGE	85+	.08	.13	AGE	85+	.08	.13
80-84	.19	.27	.19	80-84	.19	.27	.19
75-79	.26	.40	.26	75-79	.26	.40	.26
70-74	.46	.68	.46	70-74	.46	.68	.46
65-69	.68	.85	.68	65-69	.68	.85	.68
60-64	.96	1.12	.96	60-64	.96	1.12	.96
55-59	1.13	1.21	1.13	55-59	1.13	1.21	.96
50-54	1.27	1.43	1.27	50-54	1.27	1.43	1.27
45-49	1.55	1.65	1.55	45-49	1.55	1.65	1.55
40-44	1.76	1.94	1.76	40-44	1.76	1.94	1.76
35-39	2.25	2.43	2.25	35-39	2.25	2.43	2.25
30-34	2.93	3.17	2.93	30-34	2.93	3.17	2.93
25-29	3.75	4.09	3.75	25-29	3.75	4.09	3.75
20-24	3.90	4.13	3.90	20-24	3.90	4.13	3.90
15-19	3.63	3.83	3.63	15-19	3.63	3.83	3.63
10-14	6.96	6.76	6.96	10-14	6.96	6.76	6.96
5-9	8.23	8.00	8.23	5-9	8.23	8.00	8.23
0-4	8.10	8.83	8.10	0-4	8.10	8.83	8.10
MALE	49.09	50.91	MALE	49.09	50.91	MALE	49.09
FEMALE	49.09	50.91	FEMALE	49.09	50.91	FEMALE	49.09

	A-1		A-2	
	TOTAL	MALE	TOTAL	MALE
TOTAL	72695.	35749.	72695.	35749.
0-4	13762.	6988.	13762.	6988.
5-9	11582.	5872.	11582.	5872.
10-14	6368.	3122.	6368.	3122.
15-19	7032.	3476.	7032.	3476.
20-24	6960.	3395.	6960.	3395.
25-29	5386.	2622.	5386.	2622.
30-34	4159.	2007.	4159.	2007.
35-39	3366.	1624.	3366.	1624.
40-44	2935.	1457.	2935.	1457.
45-49	2484.	1195.	2484.	1195.
50-54	2054.	965.	2054.	965.
55-59	2025.	998.	2025.	998.
60-64	1558.	745.	1558.	745.
65-69	1213.	514.	1213.	514.
70-74	769.	325.	769.	325.
75-79	584.	259.	584.	259.
80-84	295.	122.	295.	122.
85+	165.	63.	165.	63.

AGE		PCT.		AGE		PCT.	
85k	80-84	MALE	FEMALE	85k	80-84	MALE	FEMALE
75-79	70-74	0.09	0.14	75-79	70-74	0.09	0.14
65-69	60-64	0.17	0.24	65-69	60-64	0.17	0.24
55-59	50-54	0.36	0.45	55-59	50-54	0.36	0.45
45-49	40-44	0.45	0.61	45-49	40-44	0.45	0.61
35-39	30-34	0.71	0.96	35-39	30-34	0.71	0.96
25-29	20-24	1.03	1.12	25-29	20-24	1.03	1.12
15-19	10-14	1.37	1.41	15-19	10-14	1.37	1.41
5-9	0-4	1.64	1.77	5-9	0-4	1.64	1.77
		2.00	2.03			2.00	2.03
		2.23	2.40			2.23	2.40
		2.76	2.96			2.76	2.96
		3.61	3.80			3.61	3.80
		4.67	4.90			4.67	4.90
		4.78	4.89			4.78	4.89
		4.29	4.46			4.29	4.46
		8.08	7.86			8.08	7.86
		9.61	9.32			9.61	9.32

PROJECTED POPULATION, OREGON, WASHINGTON: A, 1990

	TOTAL	A-1 MALE	FEMALE	TOTAL	A-2 MALE	FEMALE
TOTAL	96697.	47425.	49272.	96697.	47425.	49272.
0-4	16539.	8399.	8141.	16539.	8398.	8141.
5-9	14978.	7593.	7385.	14978.	7593.	7385.
10-14	13613.	6905.	6708.	13613.	6905.	6708.
15-19	11370.	5727.	5643.	11370.	5727.	5643.
20-24	6034.	2882.	3151.	6034.	2882.	3151.
25-29	6410.	3052.	3358.	6410.	3052.	3358.
30-34	6291.	2973.	3317.	6291.	2973.	3317.
35-39	4863.	2327.	2537.	4863.	2327.	2537.
40-44	3648.	1724.	1924.	3648.	1724.	1924.
45-49	2861.	1324.	1537.	2861.	1324.	1537.
50-54	2456.	1163.	1293.	2456.	1163.	1293.
55-59	2174.	1054.	1120.	2174.	1054.	1120.
60-64	1708.	775.	934.	1708.	775.	934.
65-69	1459.	625.	834.	1459.	625.	834.
70-74	1014.	429.	586.	1014.	429.	586.
75-79	694.	260.	434.	694.	260.	434.
80-84	366.	133.	233.	366.	133.	233.
85+	217.	81.	136.	217.	81.	136.

AGE	PCT.					PCT.				
	MALE	PERCENT	0	5	10	MALE	PERCENT	0	5	10
85+	0.08	0.14	0.08	0.14	0.08	0.08	0.14	0.08	0.14	0.08
80-84	0.14	0.24	0.14	0.24	0.14	0.14	0.24	0.14	0.24	0.14
75-79	0.27	0.45	0.27	0.45	0.27	0.27	0.45	0.27	0.45	0.27
70-74	0.44	0.61	0.44	0.61	0.44	0.44	0.61	0.44	0.61	0.44
65-69	0.65	0.86	0.65	0.86	0.65	0.65	0.86	0.65	0.86	0.65
60-64	0.80	0.97	0.80	0.97	0.80	0.80	0.97	0.80	0.97	0.80
55-59	1.09	1.16	1.09	1.16	1.09	1.09	1.16	1.09	1.16	1.09
50-54	1.20	1.34	1.20	1.34	1.20	1.20	1.34	1.20	1.34	1.20
45-49	1.37	1.59	1.37	1.59	1.37	1.37	1.59	1.37	1.59	1.37
40-44	1.78	1.99	1.78	1.99	1.78	1.78	1.99	1.78	1.99	1.78
35-39	2.41	2.62	2.41	2.62	2.41	2.41	2.62	2.41	2.62	2.41
30-34	3.08	3.43	3.08	3.43	3.08	3.08	3.43	3.08	3.43	3.08
25-29	3.16	3.47	3.16	3.47	3.16	3.16	3.47	3.16	3.47	3.16
20-24	2.98	3.26	2.98	3.26	2.98	2.98	3.26	2.98	3.26	2.98
15-19	5.92	5.84	5.92	5.84	5.92	5.92	5.84	5.92	5.84	5.92
10-14	7.14	6.94	7.14	6.94	7.14	7.14	6.94	7.14	6.94	7.14
5-9	7.85	7.64	7.85	7.64	7.85	7.85	7.64	7.85	7.64	7.85
0-4	8.68	8.42	8.68	8.42	8.68	8.68	8.42	8.68	8.42	8.68
SUM	49.04	50.96	49.04	50.96	49.04	49.04	50.96	49.04	50.96	49.04

PROJECTED POPULATION, OREGON, WASHINGTON A, 1995

	A-1	A-2
	MALE	FEMALE
TOTAL	TOTAL	TOTAL
TOTAL	112331.	112331.
0-4	55085.	57246.
5-9	10244.	9931.
10-14	8324.	8096.
15-19	7570.	7354.
20-24	6755.	6657.
25-29	5404.	5522.
30-34	2682.	3041.
35-39	2873.	3238.
40-44	2804.	3157.
45-49	2119.	2383.
50-54	1543.	1807.
55-59	1180.	1433.
60-64	1151.	1205.
65-69	855.	1030.
70-74	599.	824.
75-79	466.	598.
80-84	291.	466.
85 &	157.	299.
	69.	142.
	211.	211.
	456.	456.
	736.	736.
	1147.	1147.
	1422.	1422.
	1885.	1885.
	2356.	2356.
	2613.	2613.
	3350.	3350.
	4503.	4503.
	5961.	5961.
	6110.	6110.
	2682.	2682.
	3041.	3041.
	5522.	5522.
	6755.	6755.
	7354.	7354.
	8096.	8096.
	8324.	8324.
	10244.	10244.
	55085.	57246.

AGE	PCT.		PERCENT		SUM	
	MALE	FEMALE	MALE	FEMALE	MALE	FEMALE
85+	.06	.13			10	10
80-84	.14	.27			5	5
75-79	.26	.40			0	0
70-74	.41	.61			5	5
65-69	.53	.73			0	0
60-64	.76	.92			5	5
55-59	1.02	1.07			10	10
50-54	1.37	1.28			5	5
45-49	1.61	1.61			0	0
40-44	1.89	2.12			5	5
35-39	2.50	2.81			10	10
30-34	2.56	2.88			5	5
25-29	2.39	2.71			0	0
20-24	4.81	4.92			5	5
15-19	6.01	5.93			10	10
10-14	6.74	6.55			5	5
5-9	7.41	7.21			0	0
0-4	9.12	8.84			5	5
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PROJECTED POPULATION, OREGON, WASHINGTON, A.2000

	TOTAL	A-1 MALE	FEMALE	TOTAL	A-2 MALE	FEMALE
TOTAL	132209.	64842.	67367.	132209.	64842.	67367.
0-4	25094.	12741.	12352.	25094.	12741.	12352.
5-9	20030.	10154.	9876.	20030.	10154.	9876.
10-14	16360.	8299.	8062.	16360.	8299.	8062.
15-19	14764.	7406.	7298.	14764.	7406.	7298.
20-24	12888.	6374.	6513.	12888.	6374.	6513.
25-29	10358.	5029.	5329.	10358.	5029.	5329.
30-34	5457.	2524.	2933.	5457.	2524.	2933.
35-39	5790.	2709.	3081.	5790.	2709.	3081.
40-44	5520.	2554.	2966.	5520.	2554.	2966.
45-49	4136.	1897.	2238.	4136.	1897.	2238.
50-54	3060.	1376.	1684.	3060.	1376.	1684.
55-59	2503.	1168.	1335.	2503.	1168.	1335.
60-64	2042.	933.	1109.	2042.	933.	1109.
65-69	1569.	660.	909.	1569.	660.	909.
70-74	1118.	446.	673.	1118.	446.	673.
75-79	834.	316.	519.	834.	316.	519.
80-84	483.	176.	307.	483.	176.	307.
85+	264.	81.	183.	264.	81.	183.

AGE	PCT.					AGE	PCT.				
	MALE	PERCENT	5	0	10		MALE	PERCENT	5	0	10
85+	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	85+	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
80-84	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	80-84	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
75-79	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	75-79	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
70-74	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	70-74	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
65-69	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	65-69	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
60-64	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	60-64	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
55-59	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	55-59	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
50-54	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	50-54	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
45-49	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	45-49	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
40-44	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	40-44	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
35-39	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	35-39	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
30-34	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	30-34	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
25-29	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	25-29	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
20-24	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	20-24	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
15-19	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	15-19	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
10-14	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	10-14	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
5-9	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	5-9	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
0-4	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX	0-4	XXXXXX	XXXXXX	XXXXXX	XXXXXX	XXXXXX
SUM	49.05	50.95	5	0	10	SUM	49.05	50.95	5	0	10

APPENDIX D

**RATIONALE FOR DETERMINING
INPATIENT BED NEED**

Worksheet #1--Determination of Expected Admissions and Admission Rates
by Service Area and Total N.W. Area, F.Y. 1976

	<u>Population</u>	<u>Expected ^{1/} Admissions</u>	<u>Estimated ^{2/} Admission Rate</u>
TOTAL NW AREA	98,033	16,056	163.8
<u>Service Unit</u>			
Puget Sound	4,926	793	161.0
Yakima	8,946	1,440	161.0
Taholah	3,226	519	161.0
Neah Bay	3,053	492	161.0
NW Washington	3,356	540	161.0
Colville	6,046	973	161.0
Wellpinit	2,278	367	161.0
No. Idaho	3,440	554	161.0
Fort Hall	4,716	759	161.0
Umatilla	1,578	386	244.6
Warm Springs	3,640	586	161.0
Chemawa	205	33	161.0
Portland Area Office	<u>1,579</u>	<u>254</u>	<u>161.0</u>
sub-totals	46,989	7,696	163.8

Adjusted Area Average Admission Rate=

$$\frac{\text{Total Expected Admissions}}{\text{Total Population/ 1,000}} = \frac{7,696}{46,989} = 163.8$$

<u>Non-Service Unit Counties (with sizable Indian populations)</u>	<u>Population as reported by Indian Centers</u>	<u>Expected Admissions</u>	<u>Estimated ^{3/} Admission Rate</u>
Multnomah, ORE.	8,000	1,310	163.8
King, WA.	19,000	3,112	163.8
Pierce, WA.	6,000	983	163.8
Spokane, WA.	5,100	835	163.8
All other counties	<u>12,944</u>	<u>2,120</u>	<u>163.8</u>
sub-totals	51,044	8,360 =	163.8

^{1/} Expected Admissions as determined by multiplying population by estimated admission rate for each given area

^{2/} Because most actual admission rates were lower than the U.S. average (except for Umatilla where actual experience rates were used), and because no estimations are available on an admission rate given optimum access to care, the U.S. average admission rate of 161.0/1,000 population was used.

^{3/} Service Unit adjusted average admission rate of 163.8/1,000 used.

SOURCE: See Table II and Table IV.

Worksheet #2 - Current Beds Made Available for Service Units

Formula: Patient days \div 365 = Average daily patient load (ADPL)
(ADPL equals beds made available)

<u>Total Service Unit Area:</u>	23,986 \div 365 = 65.7 = <u>66</u>
Puget Sound:	1,885 \div 365 = 5.2 = <u>5</u>
Yakima:	4,049 \div 365 = 11.1 = <u>11</u>
Taholah:	1,884 \div 365 = 5.2 = <u>5</u>
Neah Bay:	1,397 \div 365 = 3.8 = <u>4</u>
N.W. Washington:	1,216 \div 365 = 3.3 = <u>3</u>
Colville:	1,581 \div 365 = 4.3 = <u>4</u>
Wellpinit:	1,458 \div 365 = 3.9 = <u>4</u>
Northern Idaho:	2,976 \div 365 = 8.2 = <u>8</u>
Fort Hall:	2,747 \div 365 = 7.5 = <u>8</u>
Umatilla:	1,795 \div 365 = 4.9 = <u>5</u>
Warm Springs:	2,557 \div 365 = 7.0 = <u>7</u>
Chemawa:	271 \div 365 = .74 = <u>1</u>
Portland Area Office:	170 \div 365 = .5 = <u>1</u>

SOURCE: CHS Report 3I

Worksheet #3 - Determination of Bed Need Utilizing Expected Admission
from Worksheet #1.

Formula: Expected Admission $\frac{1}{X}$ A.L.O.S. $\frac{2}{}$ = Patient Days
 Patient Days $\div 365$ = Average Daily Patient Load (ADPL)
 ADPL + 1.28 $\sqrt{\text{ADPL}}$ = BED NEED

Service Units:

Puget Sound:	793 X 5.2 = 4,124 4,124 \div 365 = <u>11.3</u> 11.3 + 1.28 $\sqrt{11.3}$ =	<u>15.6</u>	=	<u>16</u>
Yakima:	1,440 X 5.2 = 7,488 7,488 \div 365 = <u>20.5</u> 20.5 + 1.28 $\sqrt{20.5}$ =	<u>26.3</u>	=	<u>26</u>
Taholah:	519 X 5.2 = 2,699 2,699 \div 365 = <u>7.4</u> 7.4 + 1.28 $\sqrt{7.4}$ =	<u>10.9</u>	=	<u>11</u>
Neah Bay:	492 X 5.2 = 2,558 2,558 \div 365 = <u>7</u> 7 + 1.28 $\sqrt{7}$ =	<u>10.4</u>	=	<u>10</u>
NW Washington:	540 X 5.2 = 2,808 2,808 \div 365 = <u>7.7</u> 7.7 + 1.28 $\sqrt{7.7}$ =	<u>11.3</u>	=	<u>11</u>
Colville:	973 X 5.2 = 5,060 5,060 \div 365 = <u>13.9</u> 13.9 + 1.28 $\sqrt{13.9}$ =	<u>18.7</u>	=	<u>19</u>
Wellpinit:	367 X 5.2 = 1,908 1,908 \div 365 = <u>5.2</u> 5.2 + 1.28 $\sqrt{5.2}$ =	<u>8.1</u>	=	<u>8</u>
No. Idaho:	554 X 5.2 = 2,829 2,829 \div 365 = <u>7.8</u> 7.8 + 1.28 $\sqrt{7.8}$ =	<u>11.4</u>	=	<u>11</u>
Fort Hall:	759 X 5.2 = 3,947 3,947 \div 365 = <u>10.8</u> 10.8 + 1.28 $\sqrt{10.8}$ =	<u>15</u>	=	<u>15</u>
Umatilla:	386 X 5.2 = 2,007 2,007 \div 365 = <u>5.5</u> 5.5 + 1.28 $\sqrt{5.5}$ =	<u>8.5</u>	=	<u>9</u>

Worksheet #3 continued

Warm Springs:	$586 \times 5.2 = 3,047$ $3,047 \div 365 = 8.4$ $8.4 + 1.28 \sqrt{8.4} =$	<u>12.1</u>	=	<u>12</u>
Chemawa:	$33 \times 5.2 = 172$ $172 \div 365 = .47$ $.47 + 1.28 \sqrt{.47} =$	<u>1.4</u>	=	<u>1</u>
Portland Area Office:	$254 \times 5.2 = 1,321$ $1,321 \div 365 = 3.6$ $3.6 + 1.28 \sqrt{3.6} =$	<u>6.0</u>	=	<u>6</u>

Non-Service Unit Counties:

Multnomah, OR:	$1,310 \times 5.2 = 6,812$ $6,812 \div 365 = 18.7$ $18.7 + 1.28 \sqrt{18.7} =$	<u>24.2</u>	=	<u>24</u>
King, WA:	$3,112 \times 5.2 = 16,182$ $16,182 \div 365 = 44.3$ $44.3 + 1.28 \sqrt{44.3} =$	<u>52.8</u>	=	<u>53</u>
Pierce, WA:	$983 \times 5.2 = 5,112$ $5,112 \div 365 = 14$ $14 + 1.28 \sqrt{14} =$	<u>18.7</u>	=	<u>19</u>
Spokane, WA:	$835 \times 5.2 = 4,342$ $4,342 \div 365 = 11.8$ $11.8 + 1.28 \sqrt{11.8} =$	<u>16.2</u>	=	<u>16</u>
All other counties:	$2,120 \times 5.2 = 11,024$ $11,024 \div 365 = 30.2$ $30.2 + 1.28 \sqrt{30.2} =$	<u>37.2</u>	=	<u>37</u>

- 1/ Expected Admissions from Worksheet #1.
2/ A.L.O.S. of 5.2 days used (3 year Service Unit average).

Worksheet #4 - Determination of Bed Need for 1986.

Formula: Projected population^{1/} x estimated admission rate^{2/} = expected admissions
Expected admissions x A.L.O.S.^{3/} = Patient days
Patient days ÷ 365 = ADPL
ADPL + 1.28 √ADPL = BED NEED

Service Units:

Puget Sound:	$6,690 \times 161.0/1000 = 1,077$ $1,077 \times 5.2 = 5,600$ $5,600 \div 365 = 15.3$ $15.3 + 1.28 \sqrt{15.3} =$	20.3	=	<u>20</u>
Yakima:	$12,152 \times 161/1,000 = 1,956$ $1,956 \times 5.2 = 10,171$ $10,171 \div 365 = 27.9$ $27.9 + 1.28 \sqrt{27.9} =$	34.7	=	<u>35</u>
Taholah:	$4,381 \times 161/1,000 = 705$ $705 \times 5.2 = 3,666$ $3,666 \div 365 = 10$ $10 + 1.28 \sqrt{10} =$	14.0	=	<u>14</u>
Neah Bay:	$4,146 \times 161/1,000 = 667$ $667 \times 5.2 = 3,468$ $3,468 \div 365 = 9.5$ $9.5 + 1.28 \sqrt{9.5} =$	13.4	=	<u>13</u>
NW Washington:	$4,558 \times 161/1,000 = 734$ $734 \times 5.2 = 3,817$ $3,817 \div 365 = 10.4$ $10.4 + 1.28 \sqrt{10.4} =$	14.5	=	<u>15</u>
Colville:	$8,212 \times 161/1,000 = 1,322$ $1,322 \times 5.2 = 6,874$ $6,874 \div 365 = 18.8$ $18.8 + 1.28 \sqrt{18.8} =$	24.3	=	<u>24</u>
Wellpinit:	$3,094 \times 161/1,000 = 498$ $498 \times 5.2 = 2,590$ $2,590 \div 365 = 7.1$ $7.1 + 1.28 \sqrt{7.1} =$	10.5	=	<u>11</u>

Worksheet #4 continued

No. Idaho: $4,662 \times 161/1,000 = 751$
 $751 \times 5.2 = 3,905$
 $3,905 \div 365 = 10.7$
 $10.7 + 1.28 \sqrt{10.7} = 14.9 = \underline{15}$

Fort Hall: $6,045 \times 161/1,000 = 973$
 $973 \times 5.2 = 5,060$
 $5,060 \div 365 = 13.9$
 $13.9 + 1.28 \sqrt{13.9} = 18.7 = \underline{19}$

Umatilla: $2,142 \times 161/1,000 = 345$
 $345 \times 5.2 = 1,794$
 $1,794 \div 365 = 4.9$
 $4.9 + 1.28 \sqrt{4.9} = 7.7 = \underline{8}$

Warm Springs: $4,944 \times 161/1,000 = 796$
 $796 \times 5.2 = 4,139$
 $4,139 \div 365 = 11.3$
 $11.3 + 1.28 \sqrt{11.3} = 15.6 = \underline{16}$

Chemawa $278 \times 161/1,000 = 45$
 $45 \times 5.2 = 234$
 $234 \div 365 = .64$
 $.64 + 1.28 \sqrt{.64} = 1.7 = \underline{2}$

Portland Area Office: $2,143 \times 161/1,000 = 345$
 $345 \times 5.2 = 1,794$
 $1,794 \div 365 = 4.9$
 $4.9 + 1.28 \sqrt{4.9} = 7.7 = \underline{8}$

Non-Service Counties:

Multnomah, Or. $10,829 \times 161/1,000 = 1,743$
 $1,743 \times 5.2 = 9,064$
 $9,064 \div 365 = 24.8$
 $24.8 + 1.28 \sqrt{24.8} = 31.2 = \underline{31}$

King, Wa. $25,720 \times 161/1,000 = 4,141$
 $4,141 \times 5.2 = 21,533$
 $21,533 \div 365 = 58.9$
 $58.9 + 1.28 \sqrt{58.9} = 68.7 = \underline{69}$

Pierce, Wa. $8,122 \times 161/1,000 = 1,308$
 $1,308 \times 5.2 = 6,802$
 $6,802 \div 365 = 18.6$
 $18.6 + 1.28 \sqrt{18.6} = 24.1 = \underline{24}$

Worksheet # 4 continued

Spokane, Wa.	$6,903 \times 161/100 = 1,111$		
	$1,111 \times 5.2 = 5,777$		
	$5,777 \div 365 = 15.8$		
	$15.8 + 1.28 \sqrt{15.8} =$	20.9	= <u>21</u>
All Other	$17,522 \times 161/1000 = 2,821$		
Counties:	$2,821 \times 5.2 = 14,669$		
	$14,669 \div 365 = 40.2$		
	$40.2 + 1.28 \sqrt{40.2} =$	48.3	= <u>48</u>

- 1/ Projected population derived from growth rates in Appendix C.
- 2/ Current U.S. Average Admission Rates was used for lack of better estimation
- 3/ Current Service Unit A.L.O.S. of 5.2 days used



APPENDIX E

HEALTH CARE RESOURCES



INDIAN HEALTH SERVICE FACILITIES

PORTLAND AREA IHS

WASHINGTON

COLVILLE INDIAN HEALTH CENTER

Nespelem, Washington

Outpatient treatment facility with Service Unit Director, PHS Physician, Dentist, Pharmacist, Social Worker, Public Health Nurse, Mental Health Worker, Sanitary Technician, Clinic Nurses, and Clerical Staff.

Provides outpatient medical and dental care to Colville Reservation Indians. Outpatient treatment may be provided to other Indians who are in the area or are able to travel to the Health Center. Inpatient hospital care and treatment from specialists is provided to reservation-based Indians only, through contract arrangement with community hospitals and doctors.

Satellite health centers are located at Inchelium and at Omak.

WELLPINIT INDIAN HEALTH STATION

Wellpinit, Washington

Outpatient treatment facility located on the Spokane Indian Reservation, with a PHS Physician, Clinic Nurse, and Clerical Staff.

Provides outpatient medical care primarily to Spokane Reservation Indians. Outpatient treatment may be provided to other Indians who are in the area and able to travel to the Health Center at Wellpinit.

Inpatient medical care and treatment from specialists is provided to reservation-based Indians only, through contract arrangements with community doctors, dentists, and hospitals.

INDIAN HEALTH SERVICE FACILITIES

WASHINGTON CONT.

YAKIMA INDIAN HEALTH CENTER

Toppenish, Washington

Outpatient treatment facility with Service Unit Director, PHS Physicians, Dentist, Pharmacist, Social Worker, Public Health Nurses, Community Health Educator, Clinic Nurses, Civil Engineering Technician, Sanitarian, and Clerical Staff.

Provides outpatient and inpatient medical and dental care primarily for Yakima Reservation Indians. Outpatient treatment may be provided to other Indians who are in the area and are able to travel to the Health Center.

Inpatient hospital care and treatment from specialists is provided to reservation-based Indians only, through contract arrangement with community hospitals and doctors.

PUGET SOUND SERVICE UNIT INDIAN HEALTH LOCATION

Seattle, Washington

Administrative offices for obtaining and coordinating a variety of services in addition to contract inpatient and outpatient health services for the following Indian tribes located in Western Washington:

Muckleshoot	Sauk Saiuttle
Nisqually	Skokomish
Port Gamble (Clallam)	Squaxin Island
Port Madison (Suquamish)	Tulalip

Staff includes Service Unit Director, Health Educator, Field Engineers, and Environmental Health Technician, who provide consultation services to the above-named Indian tribes and to State and community agencies.

A PHS Mobil Dental Trailer, with a PHS Dentist and Dental Assistant, is stationed at Suquamish, Washington for approximately two months during the year to provide dental care to the Port Madison (Suquamish) and Port Gamble (Clallam) Indians living in the area. The Mobile Dental Trailer is also stationed at Potlatch, Washington to provide service to the Skokomish and Squaxin Island Indians; at Tacoma, Washington, to provide service to the Puyallup and Nisqually Indians; at Auburn, to service the Muckleshoot Indians; and at Marysville, Washington, to provide dental services to the Tulalip Indians. Information on the schedule of these Dental Trailers may be obtained by contacting the Western Washington Indian Health Location in Seattle.

INDIAN HEALTH SERVICE FACILITIES

WASHINGTON CONT.

TAHOLAH INDIAN HEALTH CENTER

Taholah, Washington

Outpatient treatment facility located on the Quinault Indian Reservation, with a Service Unit Director, PHS Physician, Pharmacist, Dentist, Clinic Nurse, and Clerical Staff.

Provides outpatient medical care to Quinault, Chehalis, and Shoalwater Reservation Indians. Outpatient treatment may be provided to other Indians who are able to travel to the Health Center at Taholah.

Inpatient hospital care and treatment from specialists is provided to reservation-based Indians only, through contract arrangements with community doctors and hospitals.

A Health Station is located at Queets (Quinault Reservation) to provide needed health services to the Quinault Indians living at Queets. An additional health station is located at the Chehalis Reservation.

NEAH BAY INDIAN HEALTH CENTER

Neah Bay, Washington

Outpatient treatment facility located on the Makah Indian Reservation, with a PHS Physician, Administrative Officer, Pharmacist, Dentist, Clinic Nurse, Mental Health Worker, and Clerical Staff.

Provides outpatient medical care to the Makah, Hoh, Jamestown Band of Clallam Indians, Lower Elwah, and Quileute Reservation Indians. Outpatient treatment may be provided to other Indians who are in the area or able to travel to the Health Center at Neah Bay. The PHS Physician holds weekly clinics on the Quileute Reservation at La Push.

Inpatient hospital care and treatment from specialists is provided to reservation-based Indians only, through contract arrangement with local doctors, dentists, and hospitals.

The Lower Elwha Station at Port Angeles, Washington provides health care to the Lower Elwah and Jamestown Band of Clallam Indians. Similarly, the La Push Health Station at La Push, Washington provides health care to the Quileute and Hoh Indians.

INDIAN HEALTH SERVICE FACILITIES

WASHINGTON CONT.

LUMMI INDIAN HEALTH CENTER

Marietta, Washington

Outpatient treatment facility located on the Lummi Indian Reservation, with a PHS Physician, Administrative Officer, Clinic Nurses, Mental Health Worker and Clerical Staff.

Provides outpatient medical care to Lummi, Nooksack, Swinomish, and Skagit Indians. Outpatient treatment may be provided to other Indians who are in the area or able to travel to the Health Center.

Outpatient care for reservation-based Swinomish, Nooksacks, and Skagits who live at too great a distance from the Lummi Health Center is provided through community doctors, hospitals, etc., under the IHS contract program.

A PHS mobile dental trailer staffed with a PHS Dental Officer and Dental Assistant is stationed at Marietta, Washington to provide dental care to the Lummi Indians. Similarly, the dental trailer is station at La Conner, Washington for approximately three months during the year to provide dental care to the Swinomish Indians.

PUYALLUP HEALTH CENTER

Tacoma, Washington

The Puyallup Indian Health Center is the only Tribally run and operated Health Center. Outpatient treatment including primary medical care, dental, and outreach services is provided to Puyallup Indians and to other Indians who are in the area or able to travel to the Health Center.

INDIAN HEALTH SERVICE FACILITIES

PORTLAND AREA OFFICE

OREGON

INDIAN HEALTH SERVICE, HSMHA, PHS,
DEPT. OF HEALTH, EDUCATION, AND WELFARE

Portland, Oregon

This is the Area Office for the Portland Area Indian Health Service, which includes the States of Oregon, Washington, and Idaho.

This office provides administrative, consultative, coordinating and supportive services to the nine Health Centers, two Health Locations, and one Health Station, located mostly on Indian reservations throughout the three-state area.

In addition to a Director and other administrative personnel, the Area staff includes consultants on the following program activities:

Accident prevention	Mental health
Contract health services	Nursing services
Dental services	Nutrition and dietetics
Environmental health	Pharmacy
Health education	Program planning
Human resources development	Social services
Maternal and child health	Statistics
	Tribal Affairs

The Area Office is an administrative facility and does not provide any direct medical care, inpatient or outpatient. Eligible reservation-based Indians temporarily in Portland and in need of medical care are referred to the nearest IHS Health Center, or care is arranged locally under the Contract Health Service program, depending on the urgency of the situation.

INDIAN HEALTH SERVICE FACILITIES

OREGON CONT.

WARM SPRINGS INDIAN HEALTH CENTER

Warm Springs, Oregon

Outpatient treatment facility with Service Unit Director, Physicians, Dentist, Pharmacist, Clinic Nurses, Health Educator, Nutritionist, Public Health Nurse, Sanitary Technician, and Clerical Staff.

Provides outpatient medical and dental care to Warm Springs Reservation Indians. Outpatient treatment may be provided to other Indians who are in the area or able to travel to the Health Center.

Inpatient hospital care and treatment from specialists is provided to Reservation-based Indians only, through contract arrangement with local hospitals and doctors.

Limited inpatient and outpatient treatment is provided at the Burns Health Station to the Paiute Indians living at the Burns Colony located near Burns, Oregon, and also to those Indians living at Celilo Village near The Dalles, Oregon at the Celilo Health Station. Additional medical care is provided by community hospitals, doctors, and dentists under the IHS Contract Health Service program.

CHEMAWA INDIAN SCHOOL HEALTH CENTER

Chemawa, Oregon

Outpatient treatment facility with a Service Unit Director/ Social Worker, PHS Physician, Dentist, Pharmacist, Clinic Nurses, and Clerical Staff. The Health Center also has twelve beds for short-term inpatient care as well as a holding facility for temporary custody of students with emotional or drinking problems.

This Health Center provides outpatient (and limited inpatient) treatment to Indian students enrolled and living at this BIA Indian boarding school.

Inpatient care of longer duration and care from specialists for Chemawa students is obtained from local hospitals and doctors on a contract basis.

INDIAN HEALTH SERVICE FACILITIES

OREGON CONT.

UMATILLA INDIAN HEALTH CENTER Yellow Hawk Clinic

Pendleton, Oregon

Outpatient treatment facility located on the Umatilla Indian Reservation with a Service Unit Director, PHS Physician, Dentist, Lab Staff, and Medical and Clerical Staff.

Outpatient medical care to Umatilla Reservation Indians. Outpatient treatment may be provided to other Indians in the area who are able to travel to the Health Center. Services include medical (and pharmacy) social and mental health, dental, environmental, alcohol and drug abuse services and specialty clinics.

Inpatient hospital care and treatment from specialists is provided to reservation based Indians only, through contractual arrangements with community doctors and hospitals.

INDIAN HEALTH SERVICE FACILITIES

IDAHO

FORT HALL INDIAN HEALTH CENTER

Fort Hall, Idaho

Outpatient treatment facility located on the Fort Hall Indian Reservation, with Service Unit Director/Social Worker, PHS Physicians, Dentist, Pharmacist, Public Health Nurse, Mental Health Social Worker, Sanitarian Technician, Clinical Nurses, and Clerical Staff.

Provides outpatient medical care to Fort Hall Reservation Indians. Direct dental care is available at the Blackfoot Dental clinic in Blackfoot. Outpatient treatment may be provided to other Indians in the area who are able to travel to the Health Center.

Inpatient hospital care and treatment from specialists is provided to reservation Indians only, through contract arrangements with community hospitals and doctors.

NORTHERN IDAHO INDIAN HEALTH CENTER

Lapwai, Idaho

Outpatient treatment facility located on the Nez Perce Indian Reservation, with a Service Unit Director, PHS Physician, Dentist, Pharmacist, Health Educator, Sanitarian, Clinic Nurse, and Clerical Staff.

Provides outpatient medical care to Nez Perce, Coeur d'Alene, and Kootenai Reservation Indians. Outpatient treatment may be provided to other Indians in the area who are able to travel to the Health Center.

A health station located at Kamiah provides services to those Indians in the area.

Inpatient hospital care and treatment from specialists is provided to reservation based Indians only, through contractual arrangements with community doctors, dentists, and hospitals.

Since the Coeur d'Alene and Kootenai Reservations are not within commuting distance to the Health Center at Lapwai, both outpatient and inpatient care is provided to these Indians, through the IHS Contract Health Services program.

STATE OF WASHINGTON - HOSPITALS BY COUNTY
Number of Total Beds, Admissions and Percent Occupancy

Northwest, Wa.	#Beds	#Adm.	%Occ	Unused # Beds
CLALLAM COUNTY (Neah Bay S.U.)				
Forks Community Hospital	30	---	---	NA
Olympic Memorial Hospital	86	5,079	75.6	20
JEFFERSON COUNTY (Neah Bay & Tahola S.U.)				
Jefferson General Hospital	59	1,118	55.9	26
WHATCOM COUNTY (NW Wash. S.U.)				
St. Joseph's General Hospital	103	5,974	68.0	32
St. Luke's General Hospital	109	4,483	60.6	42
SKAGIT COUNTY (NW Washington S.W.)				
Island Hospital	38	1,968	73.7	9
Skagit Valley Hospital	129	5,735	65.9	43
United General Hospital	98	2,735	39.4	59
SNOHOMISH COUNTY (Puget Sound S.U.)				
Cascade Valley Hospital	28	1,456	64.3	9
Stevens Memorial Hospital	140	8,507	75.7	34
General Hospital of Everett	181	9,566	71.3	51
Providence Hospital	156	7,815	72.4	43
Valley General Hospital	60	2,145	75.0	15
KING COUNTY (Puget Sound S.U.)				
Auburn General Hospital	90	5,433	72.2	25
Overlake Memorial Hospital	161	8,782	67.7	52
Community Memorial Hospital	38	1,948	60.5	15
Evergreen General Hospital	74	3,818	60.3	29
Fairfax Hospital	108	810	68.5	34
Valley General Hospital	225	12,650	82.8	38
Ballard Community Hospital	132	5,352	65.9	45
Nelems Memorial Hospital	16	518	37.5	9
Doctors Hospital	177	7,566	65.0	61
Group Health Hospital	260	16,168	82.2	46
*Medical Dental Hospital	28	1,629	42.9	15
Northgate General Hospital	80	4,203	70.0	24
Northwest Hospital	194	9,332	56.1	85
Providence Medical Center	344	14,049	81.8	62
Riverton General Hospital	82	4,684	62.2	30
*Schick's Shadel Hospital	50	732	52.0	24
Seattle General Hospital	133	4,538	57.9	55
St. Frances Xavier Carbrini Hsp.	235	6,156	47.9	122
*Standing Memorial Osteopathic Hsp.	44	1,679	56.8	19
Swedish Hospital Medical Center	422	21,129	35.8	270
*U.S. Public Health Service Hsp.	249	3,993	49.6	125
Harborview Medical Center	245	7,587	76.6	57

STATE OF WASHINGTON - HOSPITALS BY COUNTY, CONT.

Northwest, Wa. Cont.	#Beds	#Adm.	%Occ	Unused # Beds
KING COUNTY, CONT.				
University Hospital	301	9,309	71.5	85
*Veteran's Administration Hospital	354	7,864	84.5	54
Virginia Mason Hospital	287	12,511	81.5	53
Waldo General Hospital	100	2,543	40.0	60
West Seattle General Hospital	130	4,166	45.4	70
*Children's Orthopedic Hospital	166	8,419	61.6	63
Burien General Hospital	104	5,710	65.1	36
PIERCE COUNTY (Puget Sound S.U.)				
Rainier School Hospital	37	353	56.8	15
Western State Hospital	1,195	2,383	61.0	466
Good Samaritan Hospital	173	8,038	74.4	44
*U.S. Penitentiary Hospital	35	159	17.1	29
Allenmore Hospital	50	3,527	74.0	13
Doctors Hospital of Tacoma	70	2,853	71.4	20
Lakewood General Hospital	244	5,710	73.0	65
*Madigan Army Medical Center	420	15,828	88.8	47
*Mary Bridge Children's Hospital	64	3,609	45.3	35
Puget Sound Hospital	136	4,063	63.4	49
St. Joseph Hsp. & Health Care Center	248	9,955	66.9	82
Tacoma General Hospital	259	15,542	82.6	45
*Veteran's Administration Hospital	679	2,084	71.5	193
KITSAP COUNTY				
*Naval Regional Medical Center	140	2,928	90.2	13
Harrison Memorial Hospital	184	10,797	80.4	36
ISLAND COUNTY				
Whidbey General Hospital	44	1,594	47.7	23
*Naval Hospital	25	1,514	68.0	8
PACIFIC COUNTY (Taholah S.U.)				
Ocean Beach Hospital	26	1,037	50.0	13
Willapa Harbor Hospital	35	---	---	NA
GRAYS HARBOR COUNTY (Taholah S.U.)				
Grays Harbor Community Hospital	96	5,056	66.7	31
St. Joseph Hospital	89	4,045	63.2	32
Mark E. Reed Memorial Hospital	26	1,139	38.5	15
KLICKITAT COUNTY (Yakima S. U.)				
Skyline Hospital	41	1,106	39.0	25
Klickitat Valley Hospital	45	1,358	35.6	28
LEWIS COUNTY				
Centralia General Hospital	47	2,697	74.5	11
St. Helen Hospital	58	2,314	46.6	30
Morton General Hospital	26	1,437	53.8	12

STATE OF WASHINGTON - HOSPITALS BY COUNTY, CONT.

Northwest, Wa. Cont.	#Beds	#Adm.	%Occ.	Unused # Beds
COWLITZ COUNTY				
Cowlitz General Hospital	117	4,817	61.5	45
St. John's Hospital	144	7,413	74.3	37
THURSTON COUNTY				
St. Peter Hospital	180	9,376	78.3	39
MASON COUNTY				
Mason General Hospital	65	2,382	60.0	26
CLARK COUNTY				
Columbia View Hospital	23	516	78.3	4
St. Joseph Community Hospital	181	6,720	61.9	68
Vancouver Memorial Hospital	214	11,090	68.2	68
*Veterans Administration Hospital	353	3,839	80.0	70
Central, Wa.	#Beds	#Adm.	%Occ.	Unused # Beds
OKANOGAN COUNTY (Colville S.U.)				
Okanogan-Douglas County Hospital	50	1,677	65.0	17
Mid-Valley Hospital	27	1,832	81.5	4
North Valley Hospital	79	740	79.7	18
YAKIMA COUNTY (Yakima S.U.)				
Sunnyside General Hospital	38	---	---	NA
Valley Memorial Hospital	33	1,381	47.1	17
Central Memorial Hospital	63	2,993	69.8	19
*New Valley Osteopathic Hospital	28	1,291	53.6	12
St. Elizabeth Hospital	214	11,488	75.7	52
Yakima Valley Memorial Hospital	190	10,346	73.8	49
CHELAN COUNTY				
Lake Chelan Community Hospital	28	882	35.7	18
Central Washington Deaconess Hospital	162	7,893	63.6	58
*Eye and Ear Hospital of Wenatchee	24	1,509	50.0	12
KITTITAS COUNTY				
Kittitas Valley Community Hospital	50	1,967	46.2	26
GRANT COUNTY				
Columbia Basin Hospital	58	1,123	74.1	15
Samaritan Hospital	50	2,838	50.0	25
Quincy Valley Hospital	16	---	---	NA
McKay Memorial Hospital	42	503	81.0	7
Coulee Community Hospital	28	---	18.0	23
BENTON COUNTY				
Kennewick General Hospital	60	3,365	56.7	25
Prosser Memorial Hospital	61	1,736	60.7	23
Kadlec Hospital	135	7,408	66.7	44
FRANKLIN COUNTY				
Our Lady of Lourdes Hospital	80	4,000	63.8	28

STATE OF WASHINGTON - HOSPITALS BY COUNTY, CONT.

Eastern, Wa.	#Beds	#Adm.	%Occ.	Unused # Beds
PEND OREILLE COUNTY (Wellpinit S.U.)				
Mount Linton Hospital	19	509	28.6	13
Newport Community Hospital	23	966	47.8	12
STEVENS COUNTY (Wellpinit S.U.)				
St. Joseph's Hospital	33	1,474	54.5	18
Mount Carmel Hospital	55	2,169	45.5	29
FERRY COUNTY (Colville S.U.)				
Ferry County Memorial Hospital	25	757	72.2	6
ASOTIN COUNTY				
Tri-State Memorial Hospital	59	2,537	61.0	23
WHITMAN COUNTY				
Whitman Community Hospital	58	1,895	50.0	29
Eskaton-Pullman Health Care Center	42	2,059	50.0	21
LINCOLN COUNTY				
Lincoln Hospital District Three	93	1,011	79.6	18
Memorial Hospital	44	528	65.9	15
COLUMBIA COUNTY				
Dayton General Hospital	48	1,149	68.8	14
SPOKANE COUNTY				
Tri-County Hospital	26	867	38.5	15
*U.S. Air Force Regional Hospital	65	2,885	57.1	27
Eastern State Hospital	485	740	73.4	129
Deaconess Hospital	229	15,231	69.6	69
*Edgecliff Hospital	66	153	47.0	34
Holy Family Hospital	228	9,760	64.9	80
*Raleigh Hills Hospital of Spokane	12	638	58.3	5
Sacred Heart Medical Center	518	22,980	74.5	132
*Shriners Hospital for Crippled Children	40	242	75.0	10
Spokane Valley General Hospital	107	5,304	64.5	37
St. Luke's Memorial Hospital	138	5,505	69.5	42
*Veterans Administration Hospital	213	3,151	87.3	27
ADAMS COUNTY				
Othello Community Hospital	46	1,580	30.4	32
Ritzville Memorial Hospital	20	690	45.0	11
GARFIELD COUNTY				
Garfield County Memorial Hospital	14	413	57.1	6
WALLA WALLA COUNTY				
St. Mary Community Hospital	116	5,055	69.0	35
*Veterans Administration Hospital	190	2,225	81.1	35
Walla Walla General Hospital	71	2,823	69.0	22
				5,198

STATE OF OREGON - HOSPITALS BY COUNTY
Number of Total Beds, Admissions and Percent Occupancy

Northwest, Ore.	#Beds	#Adm.	%Occ.	Unused # Beds
CLATSOP COUNTY				
Columbia Memorial Hospital	85	3,061	49.4	43
Seaside Hospital	55	1,131	40.0	33
CLACKAMAS COUNTY				
*Dammasch State Hospital	460	3,131	86.1	63
Dwyer Memorial Hospital	70	3,455	71.4	20
Oregon City Hospital	40	1,593	52.6	18
Willamette Falls Community Hospital	107	6,021	71.0	31
TILLAMOOK COUNTY				
Harvey E. Rinehart Memorial Hospital	43	654	46.5	23
Tillamook County General Hsp.	78	1,836	29.5	54
COLUMBIA COUNTY				
Columbia District Hospital	78	1,430	70.5	23
WASHINGTON COUNTY				
Forest Grove Community Hospital	46	1,863	63.0	17
Tuality Community Hospital	93	4,633	78.5	19
MULTNOMAH COUNTY				
Gresham Community Hospital	93	2,960	55.1	41
*Cedar Hills Psychiatric Hospital	64	296	42.2	36
Eastmoreland General Hospital	100	3,859	68.0	32
Emanuel Hospital	554	16,205	65.9	188
Good Samaritan Hospital	529	19,765	72.8	143
Holladay Park Hospital	195	6,078	69.2	60
Kaiser Foundation Hospitals	250	15,208	84.0	40
Medical Center Hospital	52	1,590	40.4	30
Physicians and Surgeons Hospital	136	4,756	85.1	20
Portland Adventist Hospital	259	9,630	73.7	68
*Raleigh Hills Hospital	18	496	94.4	1
Providence Medical Center	448	16,724	81.0	85
*Shriners Hospital	60	493	60.0	24
St. Vincent Hospital	413	17,165	78.9	87
*University of Ore. Health Science Center	528	15,579	71.2	152
*Veterans Administration Hospital	527	11,346	83.9	84
Woodland Park Hospital	275	8,332	49.5	138
<hr/>				
Southwest, Ore.	#Beds	#Adm.	%Occ.	
LINN COUNTY				
Albany General Hospital	106	5,380	70.8	30
Lebanon Community Hospital	101	3,373	51.5	48

STATE OF OREGON - HOSPITALS BY COUNTY, CONT.

Southwest, Ore. Cont.	#Beds	#Adm.	%Occ.	Unused # Beds
JACKSON COUNTY				
Ashland Community Hospital	58	2,274	51.7	28
Crater General Hospital	28	---	---	NA
Providence Hospital	93	4,942	89.2	10
Rogue Valley Memorial Hospital	220	12,001	85.0	33
COOS COUNTY				
Southern Coos General Hospital	24	898	41.7	13
Coquille Valley Hospital	30	1,068	43.3	17
LINCOLN COUNTY				
New Lincoln Hospital	41	---	---	NA
North Lincoln Hospital	47	1,220	40.8	27
Pacific Communities Hospital	48	1,188	37.5	30
MARION COUNTY				
Santiam Memorial Hospital	41	---	---	NA
Silverton Hospital	38	1,701	50.0	19
Fairview Hospital & Training Center	48	374	52.1	22
*Oregon State Hospital	646	2,612	89.9	65
Salem Hospital	384	20,186	77.6	86
LANE COUNTY				
Mckenzie-Willamette Memorial Hsp.	78	4,829	69.2	24
Cottage Grove Hospital	65	1,349	67.7	20
Eugene Hospital and Clinic	51	2,741	83.7	8
Sacred Heart General Hospital	390	19,182	76.4	92
Valley Lane Hospital	15	434	26.7	10
Western Lane Hospital	47	815	66.0	15
DOUGLAS COUNTY				
Lower Umpqua Hospital	42	559	61.9	16
Douglas Community Hospital	133	3,982	39.8	80
Mercy Medical Center	106	5,296	70.8	30
*Veterans Administration Hospital	364	2,576	87.6	45
Myrtle Creek Hospital	19	370	26.3	14
Forest Glenn Hospital	23	744	39.1	14
YAMHILL COUNTY				
Newberg Community Hospital	55	1,456	40.0	33
McMinnville Community Hospital	78	3,648	73.1	20
BENTON COUNTY				
Good Samaritan Hospital	158	7,642	72.2	43
POLK COUNTY				
Polk Community Hospital	40	2,120	65.0	14

STATE OF OREGON - HOSPITALS BY COUNTY, CONT.

Southwest, Ore. Cont.	#Beds	#Adm.	%Occ.	Unused # Beds
CURRY COUNTY				
Curry General Hospital	24	1,125	54.2	10
JOSEPHINE COUNTY				
Josephine General Hospital	81	4,128	74.1	20
Southern Oregon General Hospital	46	1,537	60.9	17
Eastern, Ore.	#Beds	#Adm.	%Occ.	Unused # Beds
WASCO COUNTY (Warm Springs S.U.)				
Columbia Park Hsp. & Training Center	10	52	70.0	3
The Dalles General Hospital	125	4,196	58.4	52
HARNEY COUNTY (Warm Springs S.U.)				
Harney County Hospital	47	1,514	45.8	25
JEFFERSON COUNTY (Warm Springs S.U.)				
Mountain View District Hospital	40	1,446	65.0	14
UMATILLA COUNTY (Umatilla S.U.)				
Umatilla Hospital	17	---	---	NA
Good Shepherd Hospital	56	2,261	60.7	22
Eastern Oregon Hsp. & Training Cen.	1,002	---	---	NA
Pendleton Community Hospital	56	2,143	46.4	30
St. Anthony Hospital	183	3,480	63.9	66
BAKER COUNTY				
St. Elizabeth Community Hospital	50	1,900	56.0	22
CROOK COUNTY				
Pioneer Memorial Hospital	39	1,867	56.4	17
DESCHUTES COUNTY				
Central Oregon District Hospital	67	2,142	46.3	35
St. Charles Memorial Hospital	99	5,143	82.8	17
MALHEUR COUNTY				
Malheur Memorial Hospital	72	780	63.9	25
WALLOWA COUNTY				
Wallowa Memorial Hospital	76	1,270	64.5	26
MORROW COUNTY				
Pioneer Memorial Hospital	20	334	30.0	14

STATE OF OREGON - HOSPITALS BY COUNTY, CONT.

Eastern, Ore. Cont.	#Beds	#Adm.	%Occ.	Unused # Beds
HOOD RIVER COUNTY				
Hood River Memorial Hospital	48	1,855	45.8	26
GRANT COUNTY				
Blue Mountain Hospital	39	811	28.2	28
KLAMATH COUNTY				
Presbyterian Intercommunity Hospital	146	7,844	73.3	38
UNION COUNTY				
Grand Ronde Hospital	65	3,341	75.4	15
LAKE COUNTY				
Lake District Hospital	48	949	75.0	12
				<hr/> 3,013

STATE OF IDAHO - HOSPITALS BY COUNTY
Number of Total Beds, Admissions and Percent Occupancy

North, Id.	#Beds	#Adm.	%Occ.	Unused # Beds
BOUNDARY COUNTY (No. Idaho S.U.)				
Community Hospital	61	1,352	55.2	27
KOOTENAI COUNTY (No. Idaho S.U.)				
Kootenai Memorial Hospital	171	7,774	66.7	56
SHOSHONE COUNTY (No. Idaho S.U.)				
W. Shoshone General Hospital	58	1,967	43.1	33
E. Shoshone Hospital	40	1,653	57.5	17
NEZ PERCE COUNTY (No. Idaho S.U.)				
St. Joseph's Hospital	103	5,641	78.6	22
BENEWAH COUNTY (No. Idaho S.U.)				
Benewah Community Hospital	37	1,554	48.6	19
LATACH COUNTY				
Gritman Memorial Hospital	62	3,067	59.0	25
BONNER COUNTY				
Bonner General Hospital	46	1,919	64.4	16
<hr/>				
Central, Id.	#Beds	#Adm.	%Occ.	Unused # Beds
IDAHO COUNTY (No. Idaho S.U.)				
St. Mary's Hospital	28	566	46.4	15
Grangeville General Hospital	29	823	34.5	8
CLEARWATER COUNTY (No. Idaho S.U.)				
Clearwater Valley Hospital	26	1,201	57.7	10
*State Hospital North	60	390	56.7	25
VALLEY COUNTY				
Valley County Hospital	11	271	27.3	7
McCall Memorial Hospital	21	850	57.1	9
ADAMS COUNTY				
Community Hospital	20	199	15.0	17
LEMHI COUNTY				
Steele Memorial Hospital	40	1,598	59.0	16

STATE OF IDAHO - HOSPITALS BY COUNTY, CONT.

Southwest, Id.	#Beds	#Adm.	%Occ.	Unused # Beds
ADA COUNTY				
*Idaho Elks Rehabilitation Hospital	38	442	81.6	6
St. Alphonus Hospital	227	10,164	85.0	34
St. Luke's Hospital	216	11,023	79.6	44
*Veterans Administration Hospital	172	2,364	88.4	19
CANYON COUNTY				
Caldwell Memorial Hospital	154	6,729	66.2	52
Idaho State School & Hospital	34	165	44.7	18
Mercy Medical Center	144	6,751	78.5	30
GEM COUNTY				
Walter Knox Memorial Hospital	49	1,784	51.0	24
JEROME COUNTY				
St. Benedicts Hospital	80	1,803	71.3	22
ELMORE COUNTY				
Elmore Memorial Hospital	19	1,421	89.5	18
*U.S. Air Force Hospital	25	1,481	43.6	14
WASHINGTON COUNTY				
Memorial Hospital	30	1,010	43.3	17
Southeast, Id.	#Beds	#Adm.	%Occ.	Unused # Beds
POWER COUNTY (Fort Hall S.U.)				
Power County Hospital	45	939	73.3	12
BINGHAM COUNTY (Fort Hall S.U.)				
Bingham Memorial Hospital	100	2,372	79.0	21
State Hospital South	241	760	69.4	73
BANNOCK COUNTY (Fort Hall S.U.)				
Marsh Valley Hospital	17	435	35.3	10
Bannock Memorial Hospital	137	6,874	69.3	10
St. Anthony Community Hospital	118	3,148	38.9	72
BUTTE COUNTY				
Lost Rivers Hospital	24	786	70.8	7
FREEMOND COUNTY				
Ashton Memorial Hospital	28	643	42.9	15
Freemont General	17	591	41.2	9
CASSIA COUNTY				
Cassia Memorial Hospital	102	2,492	76.5	23

STATE OF IDAHO - HOSPITALS BY COUNTY, CONT.

Southeast, Id. Cont.	#Beds	#Adm.	%Occ.	Unused # Beds
TETON COUNTY				
Teton Valley Hospital	13	561	53.8	6
GOODING COUNTY				
Gooding County Memorial Hospital	25	1,105	60.0	10
BLAINE COUNTY				
Blaine County Hospital	15	630	46.7	7
Moritz Community Hospital	28	1,075	42.9	15
BONNEVILLE COUNTY				
Community Hospital of Idaho Falls	111	4,236	60.4	43
Idaho Falls Hospital	258	8,477	88.4	29
ONEIDA COUNTY				
Oneida Hospital	11	518	54.5	5
BEAR LAKE COUNTY				
Bear Lake Memorial Hospital	35	962	34.3	22
FRANKLIN COUNTY				
Franklin County Hospital	49	550	85.7	7
MADISON COUNTY				
Madison Memorial Hospital	30	2,423	80.0	6
MINIDOKA COUNTY				
Minidoka Memorial Hospital	61	1,358	85.2	9
CARIBOU COUNTY				
Caribou Memorial Hospital	70	780	68.6	21
TWIN FALLS COUNTY				
Magic Valley Memorial Hospital	126	7,586	81.7	23
Twin Falls Clinic Hospital	37	1,473	59.5	14
				<u>1,099</u>

HEALTH RESOURCES IN THE STATE OF WASHINGTON

Because the state of Washington is so large with an equally large population and population distribution, health resources in the state of Washington has been divided into four sections: Northwest, Southwest, Central, and Eastern. These areas have been subdivided for clarity and for easier analysis of location, density, and availability of facilities and manpower.

Northwest Washington, Population: 1,945,724 (1975)

HOSPITALS: There are 59 hospitals in the Northwest area. Six of these are federally operated facilities, five are specialty hospitals and one is a U.S. Penitentiary hospital. Twenty-two hospitals are located within the city of Seattle; six are located in primarily rural areas. Several hospitals are major referral centers for specialty care for physicians throughout the Northwest area, the state and the entire Pacific Northwest.

The area's hospitals range in licensed capacity from 14 beds to 1,195 beds; most are between 100 and 300 beds in size.

NURSING HOMES: The 175 nursing homes in the Northwest area vary in size from 14 to 269 beds and offer both skilled nursing and intermediate care to patients.

HEALTH MANPOWER: In 1974, there were 4,393 physicians in practice in the 10 county area. Of these physicians, 2,732, or 62 percent were non-federal physicians in direct care. All specialties are represented on Table XIX, the non-primary care specialties being concentrated primarily in the Seattle and Tacoma areas because of the existence of the University of Washington Medical School and hospitals providing specialty care.

Because of the presence of the University of Washington Medical School with its faculty and research programs, many physicians in the Seattle area do not see patients. Thus, it is especially important to distinguish between all licensed physicians and those involved in direct patient care.

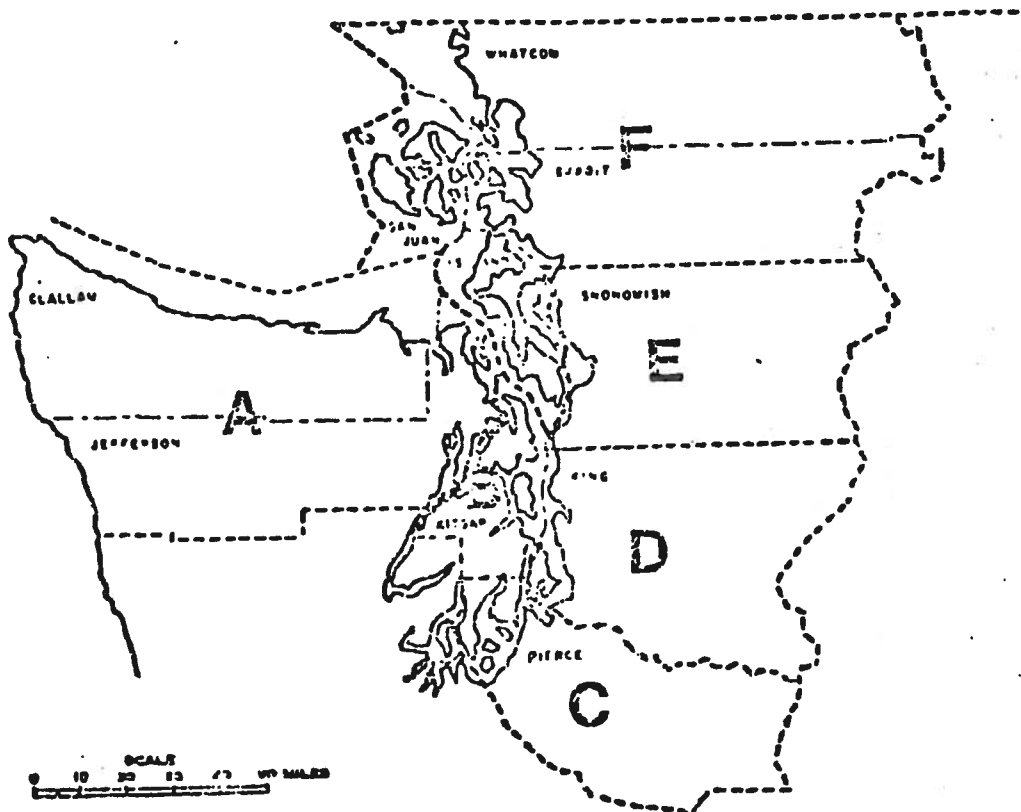
Federal physicians affiliated with the military, Veterans Administration, or Public Health Service hospitals in the area numbered 440 in 1974. Federal physicians exist in the greatest numbers in King and Pierce counties where they account for 6 percent and 28 percent of the physicians populations in those respective areas. In Kitsap and Island counties, federal physicians account for 24 percent and 52 percent of the physician populations, respectively.

The non-federal physician-to-population ratios vary widely among the ten counties. In the entire region, there is one physician for every 769 persons; this ranges from 1:624 in King County to 1:2383 in Island County. For primary care practices alone, the physician-to-population ratios range from 1:1265 in King County to 1:3178 in Island County. Seven counties have primary care physician-to-population ratios below the ration of 1:1500.

STATE OF WASHINGTON - NORTHWEST AREA

COUNTIES:

- A - Clallam
Jefferson
- B - Kitsap
- C - Pierce
- D - King
- E - Snohomish
- F - Island
San Juan
Skagit
Whatcom



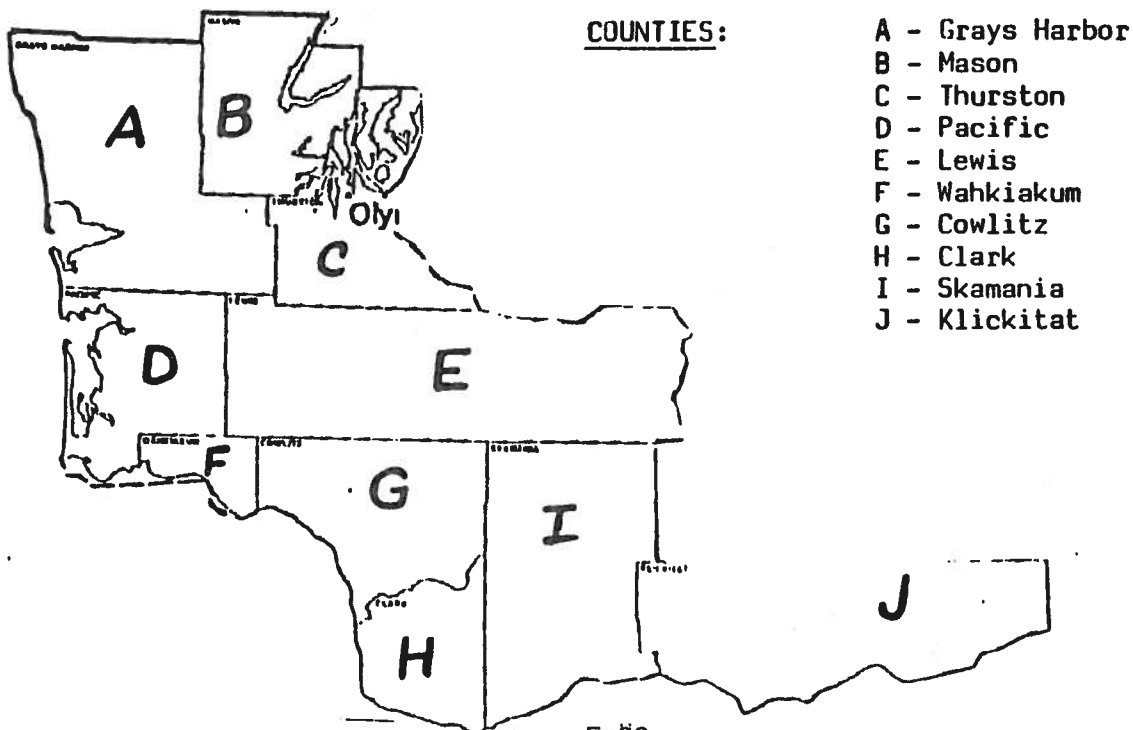
Southwest Washington, Population: 701,500 (1974)

HOSPITALS: In the ten county area of Southwest Washington, there are 17 general hospitals, licensed for a total of 1,413 beds. Vancouver Memorial Hospital serves as the area's only major specialty facility. Six hospitals are owned by a non-profit corporation; five by a public hospital district; four are church owned; one by a proprietary corporation. In addition, a 23-bed psychiatric hospital and a Veteran's Administration Hospital are located in Vancouver.

NURSING HOMES: There are 3,834 licensed nursing home beds within 52 facilities in the Southwest area. According to Washington State Department of Social and Health Services projections, if the present number of beds remains static, the area will be 253 nursing home beds "overbedded" in 1980, except for Lewis County, which is considered to have a shortage of 66 beds. Currently, the ten counties have 8.1 nursing home beds per 1,000 population, compared with the State average of 7.7 per 1,000 population.

HEALTH MANPOWER: There were 556 physicians reported in the Southwest area; 3,848 Registered Nurses, 2,444 LPN's and 253 Dentists.

STATE OF WASHINGTON - SOUTHWEST AREA



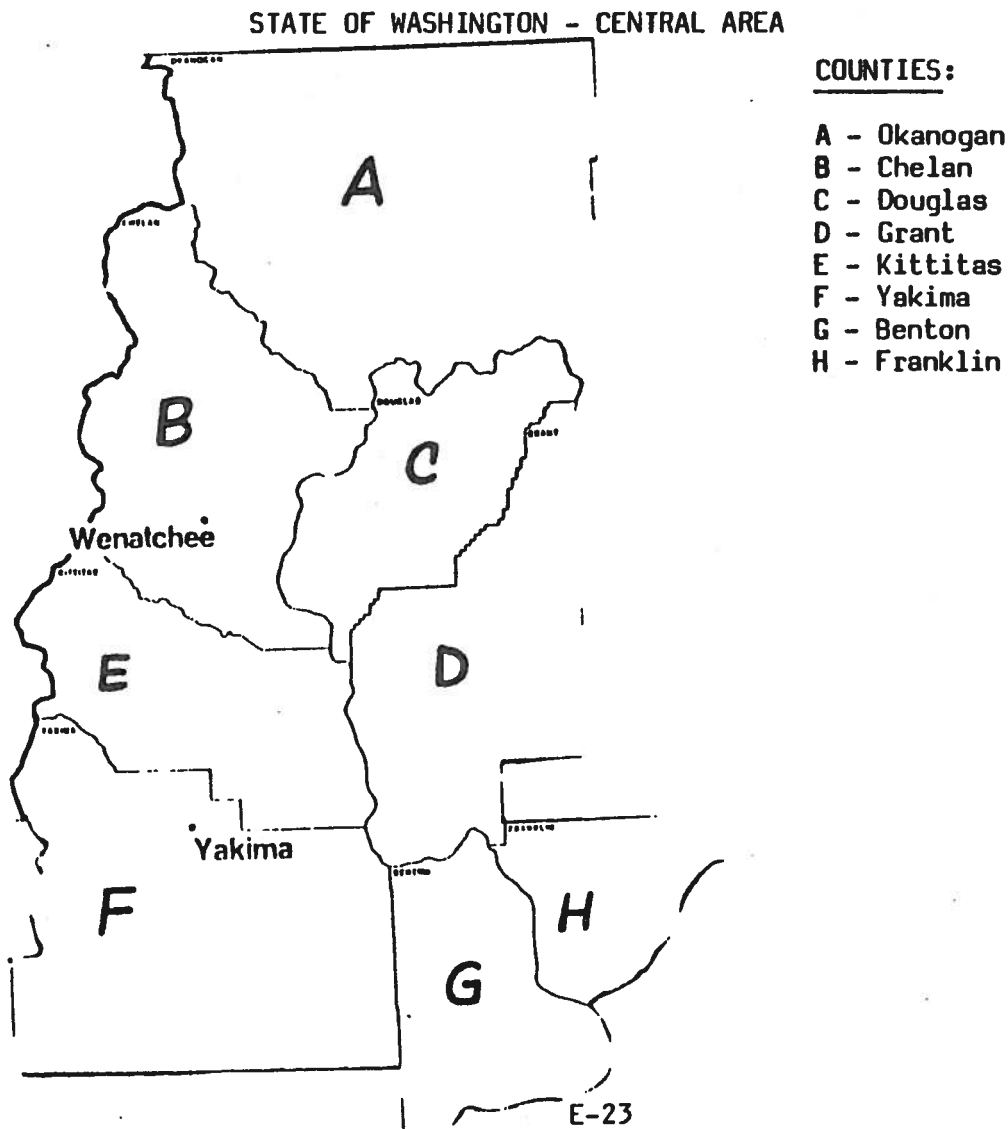
Central Washington, Population: 401,100 (1975)

HOSPITALS: There are 20 hospitals in the eight county Central Washington area, licensed for a total of 1,516 beds.

NURSING HOMES: Thirty-one (31) nursing homes with 2,996 licensed beds saw 3,560 admissions at an occupancy rate of 93 percent.

HEALTH MANPOWER: There were 424 physicians, 14 of those federal physicians and 398 non-federal physicians. There were 2,210 RN's 1,510 which are active (69.8%). There is a ratio of 3.54 active RN's per 1,000 population and 3.12 LPN's per 1,000 population.

Of the physicians, there is a ratio of 0.78 per 1,000 population, for Central Washington, as compared with the state wide ratio of 1.16 per 1,000.



Eastern Washington, Population: 445,800 (1973)

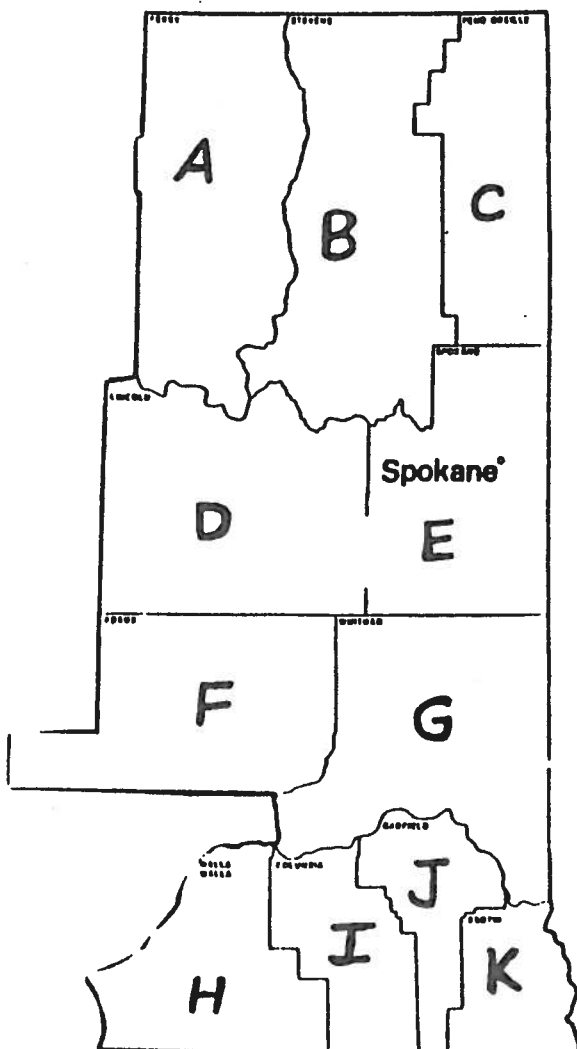
HOSPITALS: The eleven Eastern county area has a self-contained, highly specialized tertiary health care center in Spokane, with primary and secondary care available to all residents of the area. In this area, there are 22 hospitals including two Veterans' Administration Hospitals, Eastern Washington State Hospital, Shriners Hospital for crippled children, Raleigh Hills Hospital (alcoholism center), Edge-cliff Hospital (tuberculosis), and Fairchild Air Force Base Hospital. There are a total of 2,487 beds, excluding the afore-mentioned hospitals.

NURSING HOMES: There are fifty nursing homes in the area with a total of 3,954 beds. Spokane has 32 of the nursing homes, with a total of 2,672 beds or 67.6 percent of the total beds in the area.

There are 32 licensed boarding homes in the area with 1,488 beds.

HEALTH MANPOWER: There were 627 physicians, 1,792 RN's, 788 LPN's, and 278 Dentists.

STATE OF WASHINGTON - EASTERN AREA



COUNTIES:

- A - Ferry
- B - Stevens
- C - Pend Oreille
- D - Lincoln
- E - Spokane
- F - Adams
- G - Whitman
- H - Walla Walla
- I - Columbia
- J - Garfield
- K - Asotin

TABLE XVIII

Hospitals and Nursing Homes by Region,
State of Washington; 1975

AREA	POPULATION	General Hospital			Federal and Special Purpose			Nursing Homes	
		No.	#Beds	%Occ	No.	#Beds	%Occ	No.	#Beds
Northwest	1,945,724	47	7,795	65.3	12	2,254	60.7	175	16,407
Southwest	701,500	17	1,413	59.4	1	353	80.0	52	3,834
Central	393,400	20	1,516	67.5	2	52	51.8	31	2,920
Eastern	445,800	22	2,487	54.6	6	586	67.6	50	3,954
STATE	3,486,424	106	13,211	62.7	21	3,245	62.7	308	27,115

SOURCE: HSA Applications for Designation, 1974 - State of Washington
American Hospital Association Guide to the Health Care Field,
1975 Edition

TABLE XIX

Selected Provider Characteristics by Region,
State of Washington; 1970-1974

STATE	Northwest	Southwest	Central	East	
6,000	4,393	556	424	627	Physicians
22,878	15,037	3,848	2,201	1,792	RN's
10,743	6,192	2,444	1,319	788	LPN's (1974)
110	55	N/A	N/A	N/A	Physicians Asst.
62	51	N/A	N/A	N/A	Nurse Practitioner
2,364	1,629	253	204	278	Dentists
329	198	26	44	61	Optometrists
160	117	N/A	11	N/A	Opticians
54	38	3	4	9	Podiatrists
229	145	37	28	19	Chiropractors
39	23	N/A	7	N/A	Naturopaths
452	351	25	26	50	Physical Therapists
2,700	1,696	291	307	406	Pharmacists
345	241	28	20	56	Dieticians

SOURCE: HSA Applications for Designation, 1974 - State of
Washington

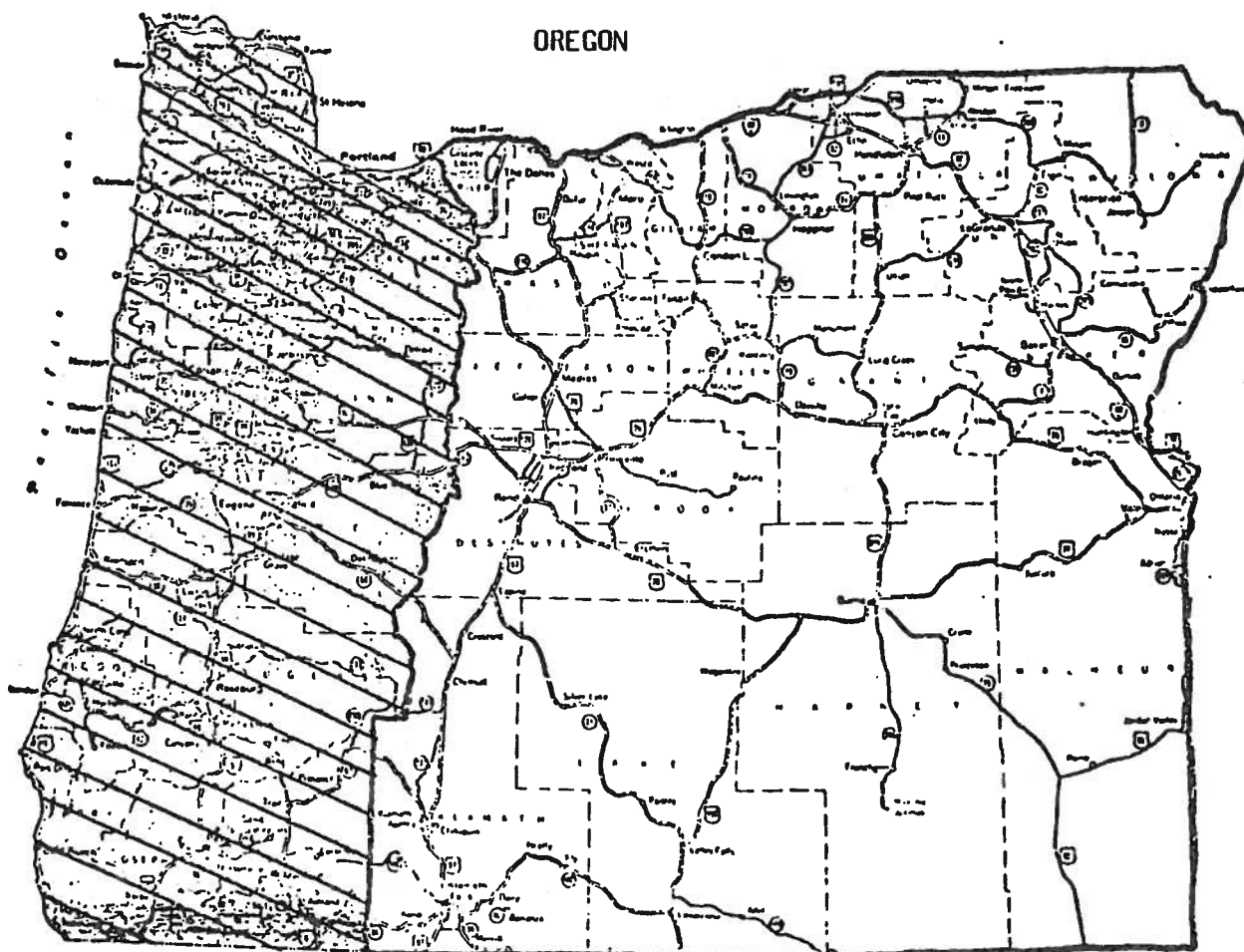
HEALTH RESOURCES IN THE STATE OF OREGON

The state of Oregon, with a population estimate of 1,448,050 (1974), has one major metropolitan area that being the city of Portland. This city serves as a tertiary medical care center for much of Oregon, Washington, (Vancouver), and to some extent, Idaho. This metropolitan area reports no shortage in manpower or facilities, but the eastern and southern portions of the state report a shortage and mal-distribution of health care manpower. This is because of the predominately rural setting in the eastern and souther parts of Oregon.

HOSPITALS: There were 856 hospitals with 11,805 beds, which includes two V.A., three Mental, and thre specialty inpatient facilities.

NURSING HOMES: There were 193 nursing homes, 13,264 beds in the state of Oregon.

HEALTH MANPOWER: There were 3,730 physicians (1,845 primary and 1,885 specialty) reported in Oregon. There were 9,016 RN's and LPN's in 1973-74, and 1,560 dentists and 323 optometrists. (see Tables XX and XXI)



	General Hospitals		VA, Mental, and Other Special Inpatient Facilities		Long-Term Care Facilities	
	<u>Facilities</u>	<u>Beds</u>	<u>Facilities</u>	<u>Beds</u>	<u>Facilities</u>	<u>Beds</u>
Baker	1	50			2	124
Benton	1	166			3	237
Clackamas	5	447	1	460	18	1,232
Clatsop	2	163			3	176
Columbia	1	39			2	124
Coos	3	194			5	290
Crook	1	58			2	124
Curry	1	24			1	68
Deschutes	2	231			4	211
Douglas	5	299	1	463	4	309
Gilliam	-	-			1	29
Grant	1	39			1	26
Harney	1	49			1	40
Hood River	1	48			2	71
Jackson	4	408			9	527
Jefferson	1	48			-	--
Josephine	2	128			4	211
Klamath	1	146			3	256
Lake	1	48	n/a	(24 LTC)	-	--
Lane	6	570			16	1,216
Lincoln	3	127			2	55
Linn	2	203			8	402
Malheur	2	148	n/a	(38 LTC)	2	169
Marion	3	476	2	1,002	17	939
Morrow	1	44			-	--
Multnomah	12	3,608	3	110	51	3,738
Polk	1	40			3	236
Sherman	-	-			-	--
Tillamook	2	121			2	111
Umatilla	4	1,330	n/a	(65 LTC/288 mental)	5	846
Union	1	65			2	--
Wallowa	1	76			-	--
Wasco	1	125			3	304
Washington	3	556	2	82	11	752
Wheeler	-	-			-	--
Yamhill	2	134			7	385
TOTAL						

Source: 1975 Oregon State Plan for the Construction and Modernization of Hospitals, Public Health Centers and Medical Facilities, Oregon State Health Division, August 1974.

STATE OF OREGON
HEALTH CARE MANPOWER IN OREGON

	1975 Physicians		1973	1974	1973
	Primary	Specialty	Nurses-RN/LPN	Dentists	Optometrists
Baker	9	*	52	8	4
Benton	46	54	214	36	9
Clackamas	84	66	675	96	15
Clatsop	20	10	155	24	6
Columbia	11	2	78	11	2
Coos	41	34	164	32	6
Crook	9	*	64	6	2
Curry	7	--	27	9	2
Deschutes	70	*	219	30	8
Douglas	49	53	211	35	9
Gilliam	1	*	5	1	--
Grant	4	*	34	3	1
Harney	6	*	32	3	1
Hood River	14	*	41	9	2
Jackson	76	96	360	73	16
Jefferson	4	*	37	4	1
Josephine	28	28	103	26	4
Klamath	59	*	192	30	6
Lake	6	*	24	2	1
Lane	153	168	767	157	31
Lincoln	18	7	79	17	3
Linn	46	30	205	34	12
Malheur	27	*	130	11	4
Marion	102	153	698	109	24
Morrow	2	*	10	1	1
Multnomah	700	1,068	4,757	601	96
Polk	11	6	43	10	4
Sherman	--	*	2	--	--
Tillamook	9	3	60	9	2
Umatilla	50	*	291	21	7
Union	25	*	72	10	3
Wallowa	5	*	16	3	1
Wasco	30	*	98	12	5
Washington	95	96	773	106	26
Wheeler	--	*	2	--	--
Yamhill	28	11	131	21	9
TOTAL	1,845	1,885	10,821	1,560	323

* Number of Specialty Physicians not available

TABLE XX

Hospitals and Nursing Homes by Region,
State of Oregon; 1975

AREA	POPULATION	General Hospital			Federal and Special Purpose			Nursing Homes	
		No.	#Beds	%Occ	No.	#Beds	%Occ	No.	#Beds
Northwest	1,001,400	22	3,999	60.2	6	1,657	73.0	87	6,133
Southwest	961,070	33	2,758	58.6	2	1,010	88.7	79	4,875
Eastern	300,500	22	2,381	58.8	0	0	0	27	2,256
STATE	2,262,970	77	9,138	60.0	8	2,667	77.0	193	13,264

SOURCE: HSA Applications for Designation, 1974 - State of Oregon
American Hospital Association Guide to the Health Care Field,
1975 Edition

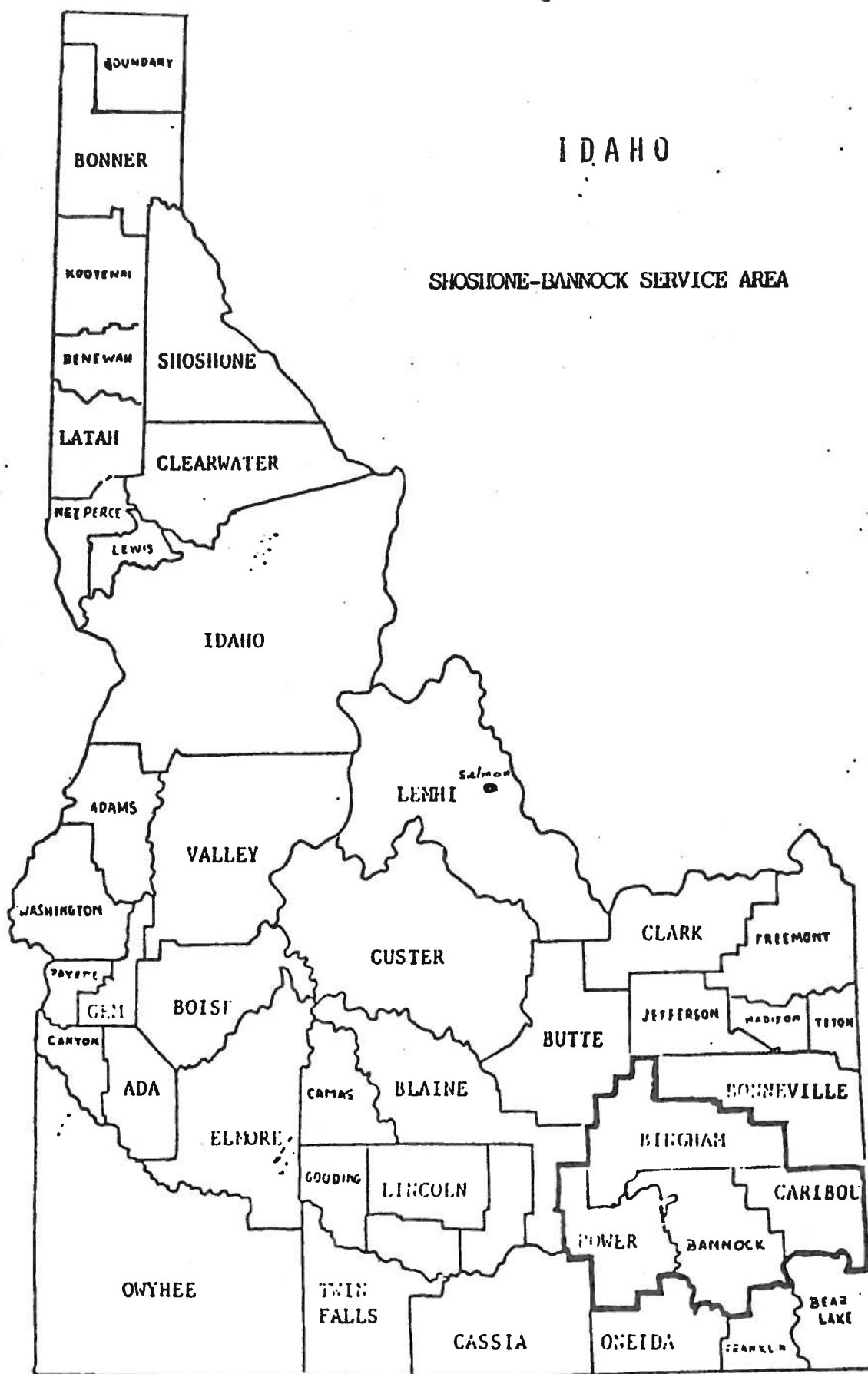
TABLE XXI

Selected Provider Characteristics by Region,
State of Oregon; 1970-1974

STATE	Northwest	Southwest	Eastern	
3,730	2,164	1,245	321	Physicians
9,106	4,783	3,002	1,321	RN's
N/A	1,725	N/A	*	LPN's (1974)
N/A	N/A	N/A	N/A	Physicians Asst.
N/A	N/A	N/A	N/A	Nurse Practitioner
1,560	847	559	154	Dentists
323	147	129	47	Optometrists
N/A	N/A	N/A	N/A	Opticians
31	27	N/A	4	Podiatrists
134	101	N/A	33	Chiropractors
N/A	N/A	N/A	N/A	Naturopaths
N/A	N/A	N/A	N/A	Physical Therapists
902	N/A	N/A	221	Pharmacists
N/A	N/A	N/A	N/A	Dieticians

*Included in RN's

SOURCE: HSA Applications for Designation, 1974 - State
of Oregon



HEALTH RESOURCES IN THE STATE OF IDAHO

The state of Idaho, with a population estimate of 799,000 (1974), is the smallest of the three state area. Much of the state is rural, and the winters tend to be somewhat severe.

Compared to national figures, there may be an excess of beds in Idaho, through the state's rural character explains the abundance of small hospitals with low utilization.

HOSPITALS: There are 52 hospitals in the state of Idaho (includes four Federal and special purpose hospitals) with a total of 3,699 beds. The average size hospital is 59 beds through the largest, St. Alphonsus in Ada County, has 227 beds and the smallest are 11 bed facilities in Valley and Oneida Counties.

The state wide hospital occupancy rate is 59.9 percent which reflects the tendency of the small rural hospital to have occupancy rates in the 40-60 percent range. In 1974, there was one hospital for every 260 people. To maintain this ratio, by 1980 the state will need 550 more beds; and by 1985 another 545.

NURSING HOMES: There were 55 nursing homes in Idaho with 4,009 beds.

HEALTH MANPOWER: There were 887 physicians (283 primary and 604 specialists) reported for the state of Idaho. There were 4,104 RN's, 2,745 LPN's, 336 dentists and 98 optometrists.

Idaho maintains a ratio of one physician per 901 people, and by 1980 projects an additional need of 160 doctors and by 1985 another 150 plus. Over 35 percent of the state's physicians are practicing in the Ada-Canyon County area.

(see Tables XXII and XXIII)

TABLE XXII

Hospital and Nursing Homes by Region,
State of Idaho; 1975

AREA	POPULATION	General Hospital			Federal and Special Purpose			Nursing Homes	
		No.	Beds	%Occ	No.	Beds	%Occ	No.	Beds
Northern		8	578	59.1	0	0	0	12	1,064
Central		7	175	42.4	1	60	56.7	5	262
Southwest		9	953	62.1	3	235	71.2	16	1,386
Southeast		24	1698	70.8	0	0	0	22	1,297
STATE	799,000	48	3404	59.0	4	295	67.5	55	4,009

SOURCE: American Hospital Association Guide to the Health Care Field,
1975 Edition
HSA Applications for Designation, 1974 - State of Idaho

TABLE XXIII

Selected Provider Characteristics
State of Idaho; 1970-1974

STATE	
887	Physicians
4,114	RN's
2,745	LPN's (1974)
N/A	Physicians Asst.
N/A	Nurse Practitioner
336	Dentists
98	Optometrists
N/A	Opticians
N/A	Podiatrists
73	Chiropractors
N/A	Naturopaths
N/A	Physical Therapists
596	Pharmacists
N/A	Dieticians

SOURCE: HSA Applications for Designation, 1974 - State of Idaho

APPENDIX F

CONSUMER INPUT



CONSUMER INPUT

Consumer input regarding the desirability of an Indian hospital, willingness to travel, and preferred location of a hospital was gathered at a series of meetings (from November 1976 to April 1977) with reservation-based and Urban Indians alike.

Letters requesting consumer meetings were sent to all Tribal Chairpersons and recognized Urban Indian leaders in the tri-state area at the beginning of the Hospital Feasibility Study. Generally coordinated with the help of Tribal Health, Education and Welfare (HEW) committees, these meetings varied in the number of participants regardless of the size of the consumer group or Tribe being represented. Many Tribes chose the Tribal Council as the body providing input, while others chose HEW committees, and still others widely publicized the meetings encouraging all Indian people to participate. Because of time constraints, it was left up to the Tribe or Urban group to select the time, place, and participants at these consumer meetings. However, once the time and place of these meetings were verified, the respective Service Unit director was invited to attend and participate.

The intent of these meetings were twofold: one, to provide information and answer any questions regarding the hospital study and two, to gather consumer input as to wants, desires and concerns.

The following is a summary of these meetings which formulates the acceptability phase in the analysis of options (Chapter V) of the Hospital Feasibility Study.

- In total, 506 Indians provided input at either the meetings or through the mail.
- Eleven IHS Service Units were visited and over 30 Tribes gave input.
- 72.3% of those Indians providing input stated they would like an Indian hospital in the Northwest.
- 9.3% would not like to have an Indian hospital
- 11.1% of the respondents were undecided
- 7.3% did not respond to this question

- 31% chose Seattle as the best location for an Indian hospital
- 2% chose Portland
- 24% chose Spokane
- 6% chose Yakima

Other areas included Tacoma, Taholah, Olympia, Aberdeen, Upper Skagit, Sedro-Wooley, Lewiston, Neah Bay, Newport, and various locations on reservations.

- 7% stated they would be willing to travel 1-10 miles to an Indian hospital
- 10% said 10-20 miles
- 23% said 20-50 miles
- 35% said 50-100 miles
- 10% said 100-300 miles

The following concerns were repeatedly expressed:

- The distance of a central hospital would be inconvenient for most Indians.
- Although many Indians liked the CHS program, the present CHS services are inadequate.
- PHS hospital in Seattle is lacking in quality of care and is not responsive to Indian needs.
- A hospital is needed, however, the quality of care provided at an Indian hospital would have to be of equal quality of local hospitals.
- Fears that CHS services will be cut if an Indian hospital was developed.
- Unfamiliarity with major cities hampers the Indian patient as he/she seeks hospitalization.
- Indian people desire quality care that is accessible (i.e. time/distance and culturally acceptable).
- Smaller hospitals would be more accessible and be a more equal means of obtaining hospitalization (Indian population being so dispersed in large geographic area).

Date	Meeting Place	# Present				# Want a Hospital				# Do not want a Hospital				No response	Location					Distance	Comments
		# Present	# Want a Hospital	# Do not want a Hospital	Undecided	Seattle	Portland	Spokane	Yakima	Other	1-10	10-20	20-50		50-100	100-300					
11-7-76	Jamestown, Wa. (Jamestown Clallam) Tribe	5	1	1	2	1	2			Local		1	1		Want a hosp. but want to go to one of their choice. Fear poor care, poor conditions, prejudice. Satisfied w/CHS Choice of hosp. should be optional. Want better services-more CHS ser. Want hosp.-fear CHS would be cut						
11-8-76	Port Angeles, Wa. (Lower Elwha Tribe)	11	7	1	3	6			1	(1)Port Angeles (1)Penninsula Area (2)Richland, Wa. (1)Mission (1)Pendleton, Ore (1)local	2	3	2	4	Choice of hosp. should be optional. Want better services-more CHS ser. Want hosp.-fear CHS would be cut						
11-11-76	Pendleton, Ore. (Umatilla Tribe)	18	7	7	4	5	1	1	1		5	2	3	3	Improve CHS, would like specialty services in a hosp. too hard to travel great distances to hosp. Distance is a major concern. Climate conditions are poor in winter, so travel/distance is a barrier						
11-15-76	Bonnors Ferry, Ida. (Kootenai Tribe)	10	8		2		8					2	3	2	Distance is a major concern. Climate conditions are poor in winter, so travel/distance is a barrier						
11-16-76	Spokane, Wa. (Spokane Urban Indians)	12	9		3		9					1	7	1	Want a hosp. but not "civil service" staffing. Want hosp. run & operated by Indians sensitive to Indian needs						
11-17-76	Upper Skagit (Upper Skagit Tribe)	14	5	5	4	9		1	(2) Upper Skagit		2	2	8		Concerned about having to travel great distances						
11-24-76	Nespelem (Colville Tribe)	5	4		1		5				1	1	2	1	Would like hosp. in their area						
12-1-76	Usk, Wa. (Kalispel Tribe)	(5)	(see mailed in list at end of talley sheets)																		
12-2-76	Wellpinit, Wa. (Spokane Tribe)	5	5				5						5								
12-7-76	Oakville, Wa. (Chehalis Tribe)	3	1		2	2				(1)Boise, Ida.			1		Need reassurance that CHS would not be cut back - need better health plan for Indians						
12-9-76	Yelm, Wa. (Nisqually Tribe)	3	2		1	3						1	2								

[illegible]

Hospital Feasibility Study
Consumer Input - Northwest Indians
Talley - Sheet

Date	Meeting Place	# Present	# Want a Hospital	# Do not want a Hospital	Undecided	No response	Location					Distance					Comments
							Seattle	Portland	Spokane	Yakima	Other	1-10	10-20	20-50	50-100	100-300	
1-7-77	Yakima, Wa. (Yakima Urban Indians)	5	5				1			4			1	3		1	
1-7-77	Warmsprings, Ore. (Warmsprings Tribe)	5	1	2	2			1			(2) Local				2	1	Traveling great distance to hosp. too inconvenient. Need better planning for Health service delivery-more prevention
1-11-77	Taholah, Wa. (Quinalt Tribe)	8	7		1						(5) Taholah (2) Olympia	3	1	4			
1-12-77	Shelton, Wa. (Squaxin Island and Skokomish Tribe)	4		2	2		1					2	2				
1-18-77	Deming, Wa. (Nooksack Tribe)	22	9	2	10	1	7	1			(3) Watcom Co. (1) Everett (4) Bellingham (1) Nooksack (1) Sedro Woolley (1) Skagit	4	7	4	6		Want hosp. or expanded CHS. Lots of services unavailable. Want to use local hosp. because of time/distance.
2-8-77	Shelton, Wa. (Squaxin Is. Tribe, Puyallup and various other PS Tribes)	21	19		2		16				(1) Boise, Ida. (1) Anacortes (1) Mt. Vernon	2	3	7	8	1	Need more preventative services.
2-16-77	Makah, Wa. (Makah Tribe)	8	7		1		8				Local	1			3	3	Would like hosp. care closer to home.
2-17-77	Tacoma, Wa. (Puyallup Tribe, Tulalip, Port Gamble, Skokomish & various other PS Tribes)	9	9				8				(1) Tacoma		1	6	2		Distance too great an inconvenience. Need more - better inpatient services.
3-10-77	La Conner, Wa. (NW Wash. S.U. Tribes-Lummi, Upper Skagit, Nooksack)	14	14				11				(1) Upper Skagit (2) Sedro Woolley		1		2	10	Need a hosp. but there are many areas to consider - i.e. time/distance/money/freedom of choice
3-29-77	Seattle, Wa. (Seattle Urban Indians) SIHB	10	4	3	3		8		2			1	4	3	1		

Hospital Feasibility Study
Consumer Input - Northwest Indians
Talley - Sheet

Date	Meeting Place	Location										Distance					Comments	
		# Present	# Want a Hospital	# Do not want a Hospital	Undecided	No response	Seattle	Portland	Spokane	Yukima	Other	1-10	10-20	20-50	50-100	100-300		
RESPONSES MAILED IN																		
	Lummi Tribe	19	17		1	1	15				(2)Bellingham (1)Lummi		1	3	9			
	Kalispel Tribe	22	22					19			(3)Newport			2	19			
	Quinalt Tribe	40	31	7	2		16	3			(1)Olympia (9)Tacoma(3)Aberdeen (2)PHS hosp		1	10	16	6		
	Colville Tribe	65	62		1	2	1	33	8		(15)Nespelem (3)Colville (1)Ellensburg (1)Centrally located	5	12	13	29	4		
	NW Washington Service Unit Tribes	26	17	2	4	3	18	1			(2)Small hosp. near Reservation (1)Tacoma		1	8	10	4		Would like joint-use hosp. Local hosp. more accessible. Don't want to travel great distances. CHS provides access to local services.
	Shoalwater Bay Indians	15	14		1		8				(5)Tacoma (1)Wash. or Ore.		2	6	1	1		Joint-use is OK. Fear of prejudice, cost & hardship of travel. More inpatient services needed. Local care more acceptable
	Idaho Tribes	62	44	18				30			(9)Local near Reservations (2)St. Maries (3)Plummer			24	24	5		Poor experience with CHS hosp. Want increased CHS to insure good health care. Comfort of patient & family important. Need culturally acceptable care & surroundings.
	Various mail-in responses (Neah Bay, Fort Hall, etc)	3	3					1	1		(1)Neah Bay	1				1		Need more inpatient services. Neah Bay is isolated. Increase monies for CHS
	TOTALS	506	366	47	56	37	157	8	122	29		36	50	116	177	51		

APPENDIX G

DRAFT STUDY DESIGN

NORTHWEST PORTLAND AREA INDIAN HEALTH BOARD

1501 STANDARD PLAZA • 1100 S.W. SIXTH AVENUE

(503) 228-4185

PORTLAND, OREGON 97204

DRAFT STUDY DESIGN

"Scope of work for Indian Hospital Feasibility Study"

Felicia S. Hodge, MPH, Evaluation Coordinator

GOAL:

To submit a report studying the feasibility of developing an Indian hospital in the Pacific Northwest.

OBJECTIVE:

To create a planning process within 9 months (April 1977) to:

- a) Assess and document health care needs of the Indian residents of the states of Washington, Oregon and Idaho;
- b) Identify and document available health services in each service area;
- c) Determine gaps and barriers to the securing of health services by the Indian people;
- d) Determine the likelihood of developing an Indian hospital in the light of above factors;
- e) Identify and research possible alternatives to meeting unmet health care needs.

GENERAL WORKING ASSUMPTIONS:

1. All Federally recognized Indians are to be provided quality and equal health care.
2. The population within the scope of the program will be based upon the latest U.S. Census or a more accurate count of the demand population if a service area can actually show that the count is more accurate than the latest census. Individual or tribal income is not considered in eligibility or priority for care.
3. Resources will be planned and organized commensurable with demonstrated need.
4. Indians are to be provided services according to a timely, a convenient, and with a dignity reflective of their culture.
5. That availability of service, distance to service and waiting time are determining factors in demand for service.
6. That manpower will be available to staff the facilities if funding resources are available.
7. The quality of services should be the best technology can provide to assure Indians they are receiving quality care.

ACTIVITIES

A. ASSESSMENT AND DOCUMENTATION OF HEALTH CARE NEEDS OF THE INDIAN RESIDENTS OF THE STATES OF WASHINGTON, OREGON AND IDAHO BY OCTOBER 29, 1976.

- A. 1. Determine the total Federally recognized Indian population distribution by service area (reservation and non-reservation) and by age and sex.

DATA SOURCE: On Request Reports, Indian Health Service, Portland Area
U.S. Bureau of Census
State Planning Agencies
Mozart I. Spector, Indian Health Service Statistics
Department, Rockville, Maryland

METHODOLOGY: The data obtained from the above sources will be distributed by County and by Service Unit areas. The Indian population within each Service Unit can be identified as Federally recognized Indians, data obtained from Indian Health Service and/or Service Units. The Indian population within the remaining counties outside of the eleven Service Units is not readily identifiable as Federally recognized, data being obtained from the Bureau of Census.

Forecasts of the Indian population will be estimated through the year 2,000.

- A. 2. Determine the health problems and needs of this Indian population. Possible variations in these needs by geographic location, age group and sex.

DATA SOURCE: On Request Reports, Indian Health Service, Portland Area
Contract Health Care Inpatient Reports
Service Units' waiting list, registers of unmet needs, and/or denials
Consumer Reports
Ambulatory Patient Care Reports (APC)

METHODOLOGY: Reported health problems will be determined by statistics on given diseases in the area (morbidity), death rates (mortality) by county as reported in the On Request Reports and/or the APC system and as compared to the general population. Total hospital stay by type of service will be tallied from the Contract Health Care Inpatient records.

Health needs will be identified by analyzing waiting lists of candidates for Contract Health Care, registers of unmet health needs or denials as obtained from each Service Unit Director. Wants and needs will be obtained as voiced from responses from newsletters, community meetings, and from written responses.

Seasonal variations, transportation problems, and age group or sex will be considered as will the inability of Indian Health Service to provide various services (i.e. dental care to adults, prothesis, and hearing aids).

- A. 3. Determine present patterns of health care service utilization by this Indian population.

DATA SOURCE: Contract Health Care Inpatient Reports
Service Unit Reports
Portland Urban Indian Program
Seattle Indian Health Board
Tacoma Indian Health Center

METHODOLOGY: Patterns of health care inpatient utilization by the Indian population will be determined by 1) analyzing the admission rates and lengths of stay by type of service for inpatient care as recorded in the Contract Health Care Inpatient Reports, 2) and as reported by the major Urban Indian Center referral records for the three state area.

Outpatient utilization patterns will be documented from CHS reports and trends will be analyzed.

Indian utilization patterns of hospitalization by diagnosis will be compared with that of the general population or a selected group.

B. IDENTIFICATION AND DOCUMENTATION OF AVAILABLE HEALTH SERVICES
IN THE AREA BY NOVEMBER 15, 1976.

- B. 1. Summary of health resources which are available to each service area.

DATA SOURCE: Area Health Systems Agency (HSA) applications

METHODOLOGY: Each Health Systems Agency is required by law to list, in its application for designation, all available health services in its area. I will obtain needed information from these Health Systems Agency reports for all counties in the three state area. Information on number and size of hospitals, services offered, numbers of physicians, third party payers, clinics, locations, etc., will be listed and documented.

- B. 2. Analysis of these resources to determine their funding source, cost in Contract Health Care, Indian utilization, and the scope of their services, both geographic as well as type of service.

DATA SOURCE: Health Facilities Cost Review System
Area Health Systems Agency (HSA) applications
Indian Health Service Contract Health Care Reports

METHODOLOGY: Health care facilities will be identified as primary, secondary, and tertiary health care facilities. Identification of each hospital, their funding source, cost under Contract Health Care and Indian utilization will be obtained from Indian Health Service Contract Health Care Reports. The scope of services for these facilities are to be found in the Health Systems Agency applications and/or from each facility. Costs per day for hospitalization plus length of stay (for Indian patients) and average daily patient load will be obtained from the Indian Health Service Contract Health Service

- B. 3. Analysis of these resources to determine whether there is any specific effort to respond to the needs of Indians.

DATA SOURCE: State Health Departments
Consumer Reports
Hospital Evaluation Reports
Indian Health Service statistics

METHODOLOGY: I will contact each one of the identified health resources, health departments, and service area offices by letter requesting information on any special efforts on their part to respond to the needs of the Indian residents in their respective area.

Special efforts will include, but not be limited to, dissemination of information to various Indian communities, availability of manpower (Public Health Nurses), special programs for Indian consumers, cooperative efforts with Indian Health Service, and awareness of Indian consumers health problems and needs.

C. DETERMINATION OF GAPS AND BARRIERS TO THE SECURING OF HEALTH SERVICES BY THE INDIAN PEOPLE BY DECEMBER 15, 1976.

- C. 1. Analyzing assessed need vs. services received.

DATA SOURCE: As received from above A-1,2,3 and B-1,2,3 sources.

METHODOLOGY: By analyzing the assessed need vs. the services received, I can determine the gaps in health care and thus determine possible means of interventions. *

- C. 2. Analyzing barriers to care in each Service Unit and County.

DATA SOURCE: Health Systems Agency applications
Service Unit Reports
Indian Health Service data
Consumer Reports

METHODOLOGY: Barriers to care would include time, cost transportation, geographic, etc. All these and any other barriers will be identified by researching Health Systems Agency data, Indian Health Service data, and by querying Service Units and Indian consumers (at community meetings). The magnitude and extent of these barriers will be analyzed and attention paid to the possibility and probability of overcoming these identified barriers in the event an Indian hospital is available in several locations.

D. DETERMINATION OF HEALTH CARE WANTS AND DESIRES BY JANUARY 31, 1977.

D. 1. Various tribal and community desires (for meeting unmet needs).

DATA SOURCE: Consumer Reports
Tribal Resolutions

METHODOLOGY: Responses from Indian consumers will be sought at community meetings held at each Service Unit and from newspaper articles (NPAIHB and local newspapers).

Discussions of proposal (unmet needs, services available and proposed Indian hospital) to Tribal Councils with written responses (resolutions of wants, solutions, selected location, and estimations of usage) from recognized tribal bodies will be obtained at planned meetings throughout the three state area at each Service Unit area.

E. DEVELOPMENT OF AN INDIAN HOSPITAL IN LIGHT OF ABOVE FACTORS BY MARCH 31, 1977.

E. 1. Most appropriate type of hospital, service mix.

DATA SOURCE: Public Health Service

METHODOLOGY: From the data collected thus far (population, problems, needs, utilization, resources, gaps, barriers, wants and desires), various models can be constructed to portray the type and service mix needed within a hospital to meet the Indian health needs in the Pacific Northwest. This model will consider various variables and such things as barriers, resources available, cost and possible benefits. I will request assistance from Indian Health Service, possibly a physicians group or an employee knowledgeable in this area.

E. 2. Bed size, staff, patient load, demand, priority, policy.

DATA SOURCE: Resource Allocation Criteria (RAC)

METHODOLOGY: Depending on the selected type and service mix to be considered in an Indian hospital, the criteria for the bed size, staff, and patient load, etc., will be extracted from the RAC book available through Indian Health Service.

E. 3. Location, willingness to travel, attract and retain staff.

DATA SOURCE: Consumer Reports
Comparative figures from selected hospitals
Public Health Service

METHODOLOGY: From the planned meetings with each Service Unit and from community meetings, I will elicit responses from consumers as to their preference for location, willingness to travel in various situations and estimates of tribal members electing to use such a facility. Resolutions from recognized tribal bodies will support their preference. Interviews with Indian Health Service personnel will also perhaps give me much needed information on problems of attracting and retaining staff and possible solution if it should arise.

E. 4. Cost of renovating existing structures and/or building new hospital utilizing wing of present hospital.

DATA SOURCE: Regional Office of Facilities Engineering and Construction (ROFEC/DHEW)
Portland Area Indian Health Service, Office of Construction and Maintenance

METHODOLOGY: I will utilize the services of ROFEC and the IHS in obtaining estimations of cost of renovating existing structures and/or building a new hospital or utilizing a wing of an existing hospital.

E. 5. Cost of staffing, equipping, and running a hospital.

DATA SOURCE: Regional Office of Facilities Engineering and Construction (ROFEC/DHEW)
American Hospital Association
Other Indian Health Service Hospitals
Indian Health Service

METHODOLOGY: For each hospital service mix group, an estimation of cost of staffing, equipping, and running a hospital will be made, graphically displayed on a matrix chart.

E. 6. Comparative cost of purchasing inpatient services from private and public hospitals.

DATA SOURCE: Contract Health Care Reports

METHODOLOGY: Data extracted from Contract Health Care reports will be compared with the above in Section E-5.

E. 7. Additional benefits from Indian hospital (training, educational, cost, services, health status of Indians, consumer satisfaction, employment).

DATA SOURCE: As reported from various Indian hospitals

METHODOLOGY: I will make a request by letter to various Indian hospitals as to additional benefits they have received since the inception of their hospital. Estimations then would be made as to possible benefits the Northwest area can expect.

F. IDENTIFY AND RESEARCH POSSIBLE ALTERNATIVES TO MEETING UNMET HEALTH CARE NEEDS BY MARCH 31, 1977.

- F. 1. Present system (with some possible alterations).
- F. 2. Primary care centers.
- F. 3. A Hospital or combination of.
- F. 4. Other

DATA SOURCE: Indian Health Service statistics
Other Indian health care facilities, clinics, nursing homes, etc.

METHODOLOGY: I will briefly present each possible alternative to meeting unmet health care needs, outlining the changes, costs and benefits to be taken under consideration.

CRITERIA FOR FEASIBILITY:

That given a certain amount of money, more health care services can be provided to more Indians at a lower cost per patient than currently experienced under the present system of Contract Health Services. This criteria is based on cost/effectiveness and will form the basis for determining the feasibility of constructing or developing an Indian hospital in the Pacific Northwest.

15

	15 JUL	AUG	SEPT	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	30 JUN
Orientation	X											
Submit detailed work plan		X										
Assessment of health care needs			X-----X									
Summary of available health care in the area					X.							
Determination of gaps and barriers						X						
Indian wants and desires							X					
Analyzing probability of an Indian hospital in light of above factors								X---X				
Develop alternatives									X			
First draft of report										X		
First draft modified											X	
Final report submitted to Project Officer					.							X

[illegible]