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REPORT TO THE CONGRESS

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Progress And Problems In Providing Health Services To Indians

B-164031(2)

Health Services Administration
Department of Health, Education, and Welfare

BY THE COMPTROLLER GENERAL OF THE UNITED STATES

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MARCH 11, 1974

COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON, D.C. 20548

B-164031(2)

To the President of the Senate and the
Speaker of the House of Representatives

This is our report on the progress and problems in providing health services to Indians.

We made our review pursuant to the Budget and Accounting Act, 1921 (31 U.S.C. 53), and the Accounting and Auditing Act of 1950 (31 U.S.C. 67).

We are sending copies of this report to the Director, Office of Management and Budget, and to the Secretary of Health, Education, and Welfare.

Elmer B. Staats

Comptroller General
of the United States

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ABBREVIATIONS

GAO	General Accounting Office
HEW	Department of Health, Education, and Welfare
HSA	Health Services Administration
IHS	Indian Health Service
MCH	maternal and child health

COMPTROLLER GENERAL'S REPORT TO THE CONGRESS

PROGRESS AND PROBLEMS IN PROVIDING HEALTH SERVICES TO INDIANS
Health Services Administration
Department of Health, Education, and Welfare B-164031(2)

D I G E S T

WHY THE REVIEW WAS MADE

Because health is generally considered a vital factor affecting the ability of disadvantaged citizens to improve their circumstances, GAO reviewed the progress being made to reduce certain major Indian health problems.

Basic facts

The Federal Government, by historical precedent and by treaty, is responsible for providing comprehensive health care to American Indians and Alaska Natives (Indians), especially those living on reservations and in isolated villages where economic and educational disadvantages are prevalent.

GAO made its review at six service units (institutional-based medical services programs serving defined geographic areas) of the Indian Health Service (IHS), a component of the Department of Health, Education, and Welfare's (HEW's) Health Services Administration. 56c

FINDINGS AND CONCLUSIONS

The health of Indians had substantially improved since HEW assumed responsibility for Indian health care in 1955. Indian health, however, is still significantly worse than that of the general population (See pp. 10 to 13.)

GAO's review of the following selected health problems showed there were significant unmet needs.

Maternal and child health

Maternal and child health (MCH) programs significantly improved the health of mothers and children. However, many Indian mothers and children were not participating in these programs because:

--Indian mothers did not fully understand the value of MCH care. (See p. 18.)

--Access to MCH clinics was poor and actions to overcome lack of transportation were generally inadequate. (See p. 19.)

--Followup procedures were inadequate or nonexistent. (See p. 21.)

Otitis media

Otitis media--inflammation of the middle ear--has been the number one reported disease among Indians since 1964. It affects mostly children and frequently, unless properly treated, results in hearing losses which limit education, vocational, and social opportunities.

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The following elements of a comprehensive program to control otitis media were missing or incomplete at the six service units.

--Comprehensive data on the extent of the disease and on service backlogs, for overall program planning and evaluation. (See p. 25.)

--Screening procedures for early identification of cases requiring treatment. (See p. 25.)

--Education programs to increase awareness of the disease and need for early treatment. (See p. 26.)

--Adequate followup procedures to insure that all cases received required treatment. (See p. 27.)

Environmentally related diseases

Providing safe water and basic sanitation facilities is essential in preventing environmentally related diseases, such as gastroenteritis, bacillary dysentery, infectious hepatitis, and impetigo.

IHS has reported that from 1957 to 1971, the number of Indian families having potentially contaminated water supplies decreased by 41 percent and families with inadequate waste disposal facilities decreased by 25 percent.

However, in visits to 381 randomly elected households, GAO found a large number with potential health hazards due to environmental problems. (See p. 32.)

These Indians living in housing rated unsatisfactory because of environmental conditions were treated by ISH for environmentally related diseases at a rate almost four times as high as those living in housing considered to be in satisfactory condition. (See p. 32.)

Many water supply sources were actually or potentially unsafe, primarily because water systems had not been properly maintained. IHS had made individuals or tribes responsible for maintaining the systems but had not made sure that they had the capability to properly operate and maintain them. (See p. 34.)

Solid waste disposal was inadequate at all service units; they had no formal programs to control collection and proper disposal of solid wastes. (See p. 36.)

Tuberculosis

Although the tuberculosis problem has significantly decreased, Indians die of tuberculosis at a rate about 4 times that of the general population and contract tuberculosis at a rate about 4-1/2 times that of the general population. (See p. 39.)

IHS standards for tuberculosis control services were based on generally accepted public health standards. However, some people needing these services had not received them in accordance with IHS standards. (See p. 41.)

About 1,100 people with positive reactions to tuberculosis were dropped from program supervision by 2 service units because of a lack of resources. (See p. 43.)

Venereal disease

Venereal disease is considered to be a national health problem of epidemic proportions with the reported rate

among the Indian population many times that of the general population. (See p. 46.)

To control syphilis, IHS generally reported cases it treated to the appropriate public health agencies. However, IHS

--did not maintain proper management controls to insure that all cases were reported and

--was not aware of the disposition of reported cases to determine whether further control was needed. (See p. 48.)

Control measures for gonorrhea were being applied only on a limited basis. (See p. 51.)

Alcoholism and alcohol abuse

According to IHS, alcoholism probably adversely affects more aspects of Indian life than any other health problem, with most accidents, homicides, assaults, and suicide attempts being associated with drinking. A substantial amount of IHS' medical services workload can be traced to alcohol abuse and alcoholism. (See p. 53.)

Little data exists on the extent of the Indian alcohol problem and on the effectiveness of federally supported alcohol rehabilitation programs on the reservations. IHS does not systematically refer patients with alcohol problems to rehabilitation programs. (See p. 54.)

RECOMMENDATIONS

The Secretary of HEW should direct IHS to take the following actions to improve delivery of health service programs for Indians.

Maternal and child health

Determine the basic reasons for nonparticipation in MCH programs and expand its efforts to

--educate Indian mothers on the value of MCH programs,

--develop MCH programs accessible to Indian mothers and infants and overcome transportation problems, and

--followup with mothers to encourage them to receive scheduled MCH services. (See p. 22.)

Otitis media

Develop a comprehensive program for

--obtaining data on the extent of the disease and on restorative and rehabilitative backlogs,

--systematic screening for early detection and treatment,

--education programs for increasing awareness of the disease and the need for early treatment, and

--treatment of all cases requiring correction. (See p. 31.)

Environmentally related diseases

Develop procedures and criteria for determining tribes' capabilities for maintaining and operating water and sanitation systems and

--provide appropriate education and training programs before transferring responsibility for the systems to individuals and tribes,

--monitor and maintain such systems

until tribal capability has been established, and

--emphasize working with tribal governing bodies to establish and enforce adequate solid waste disposal procedures. (See p. 38.)

Tuberculosis

Operate a control program which conforms to public health standards for treating, controlling, and following up on all tuberculosis patients and other exposed persons. (See p. 44.)

Venereal disease

Develop an adequate venereal disease control system, including gonorrhea screening for women patients. Such a system should include adequate recordkeeping, reporting, and management review procedures. This should insure that persons treated for venereal disease are referred to the appropriate resource for interviewing and that their identified contracts are traced and treated. (See p. 52.)

Alcoholism

Establish procedures for systematically referring patients with alcohol problems to rehabilitation programs and develop, or help Indian communities to develop, information which

--identifies the extent of the alcohol problem and factors leading to, and resulting from, the problem;

--influences funding sources on the need for alcoholism programs at specific locations; and

--provides a basis for evaluating existing programs. (See p. 55.)

AGENCY ACTIONS AND UNRESOLVED ISSUES

HEW agreed with most of GAO's recommendations and reported actions taken or planned to implement them. HEW noted, however, that some implementing actions would be costly.

Actions taken or planned by HEW should improve the delivery of health services to Indians. However, further action is required in certain program areas and HEW should

--initiate discussions with other Federal, State, and tribal agencies with concurrent responsibilities for education and transportation to obtain cooperative working agreements for solution or reduction of the problem of nonparticipation in MCH programs (see p. 23),

--consider implementing IHS' suggested long-term surveillance of otitis media as a program objective and the use of the ongoing maternal and child health program as a way to accomplish this objective (see p. 31),

--implement effective tuberculosis control programs by encouraging, but not depending upon, State cooperation (see p. 44).

MATTERS FOR CONSIDERATION BY THE CONGRESS

GAO believes this report will provide insight to the Congress on the extent to which some significant health needs of Indians are being met and the problems encountered by HEW in meeting these needs. This insight should be useful to the Congress in considering the adequacy of the resources available to HEW to provide health care to Indians.

CHAPTER 1

INTRODUCTION

On July 1, 1955, responsibility for providing health care to American Indians and Alaska Natives (Indians) was transferred from the Bureau of Indian Affairs, Department of the Interior, to the Department of Health, Education, and Welfare (HEW). At the same time, HEW established the Indian Health Service (IHS) and made it responsible for providing comprehensive health care to Indians. Formerly an agency of HEW's Health Services and Mental Health Administration, IHS became part of the Health Services Administration (HSA), HEW, on July 1, 1973. IHS serves an estimated 488,000 Indians living primarily on rural reservations in 23 States and in isolated villages in Alaska.

The goal of IHS' comprehensive health services program is to raise the health of Indians to the highest possible level. Included in its comprehensive program are programs for hospitalization, outpatient medical care, public health nursing, school health, maternal and child health, dental and nutrition services, health education, and environmental health services. Special services include prenatal, postnatal, well-baby, family planning, diabetes, heart disease, trachoma, tuberculosis, and immunization programs.

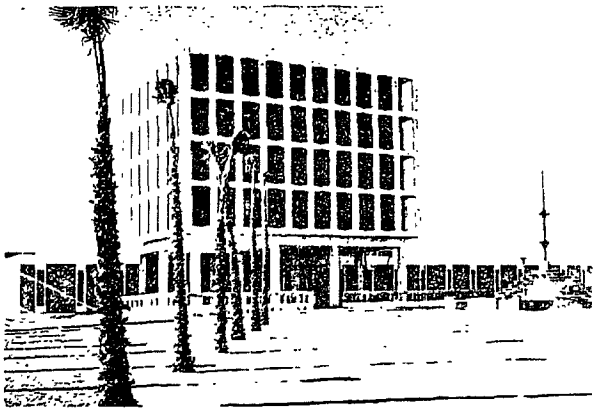
Medical, dental, nursing, and other health services are delivered through 51 hospitals, 84 health centers, 18 mobile dental units, and more than 300 clinics operated by IHS field health staff and through negotiated agreements and contracts with other Federal, State, and local health facilities and programs; physicians; dentists; hospitals; and Indian tribes. Pictures of IHS facilities are shown on the following page.

Medical and dental services provided by IHS directly or through contracts in fiscal year 1972 included:

--102,472 hospital admissions (excluding 13,025 births),

--2,411,681 outpatient visits, and

--844,724 corrective and preventive dental services to 183,689 patients.

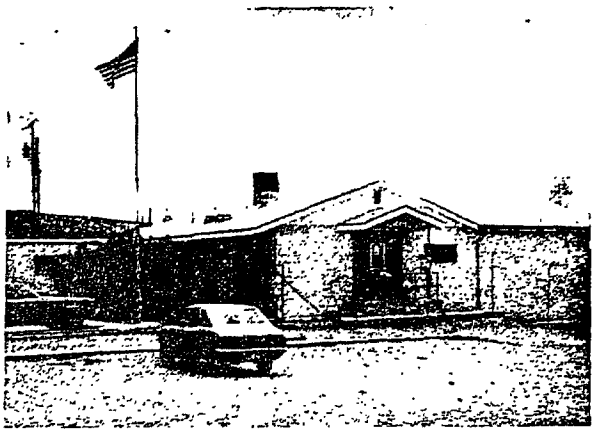


Phoenix Indian Medical Center
Phoenix, Arizona
(Serves as a referral hospital for all health facilities in the Phoenix area.)

(IHS photo)

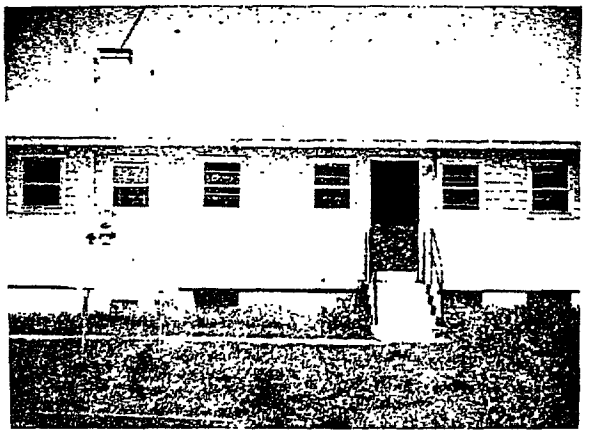
Parker Hospital
Colorado River Reservation
Phoenix area

(GAO photo)



Peach Springs Health Center
Hualapai Reservation
Phoenix area

(GAO photo)



Ponemah Clinic
Red Lake Reservation
Aberdeen area

(GAO photo)

Environmental health services included constructing and maintaining water supply and waste disposal facilities, controlling disease-carrying insects and rodents, and inspecting food service facilities and institutions serving Indians. IHS reported undertaking construction of about 1,300 sanitation projects from fiscal year 1960 through fiscal year 1971 and estimated that about 13,550 Indian homes received additional or improved water and waste facility services because of its construction and repair projects in fiscal year 1972.

IHS appropriations for fiscal year 1973 totaled $217,297,000, of which about $173 million was for providing health services and about $45 million for constructing hospital, outpatient care, and sanitation facilities. IHS employed about 7,400 persons as of October 31, 1972.

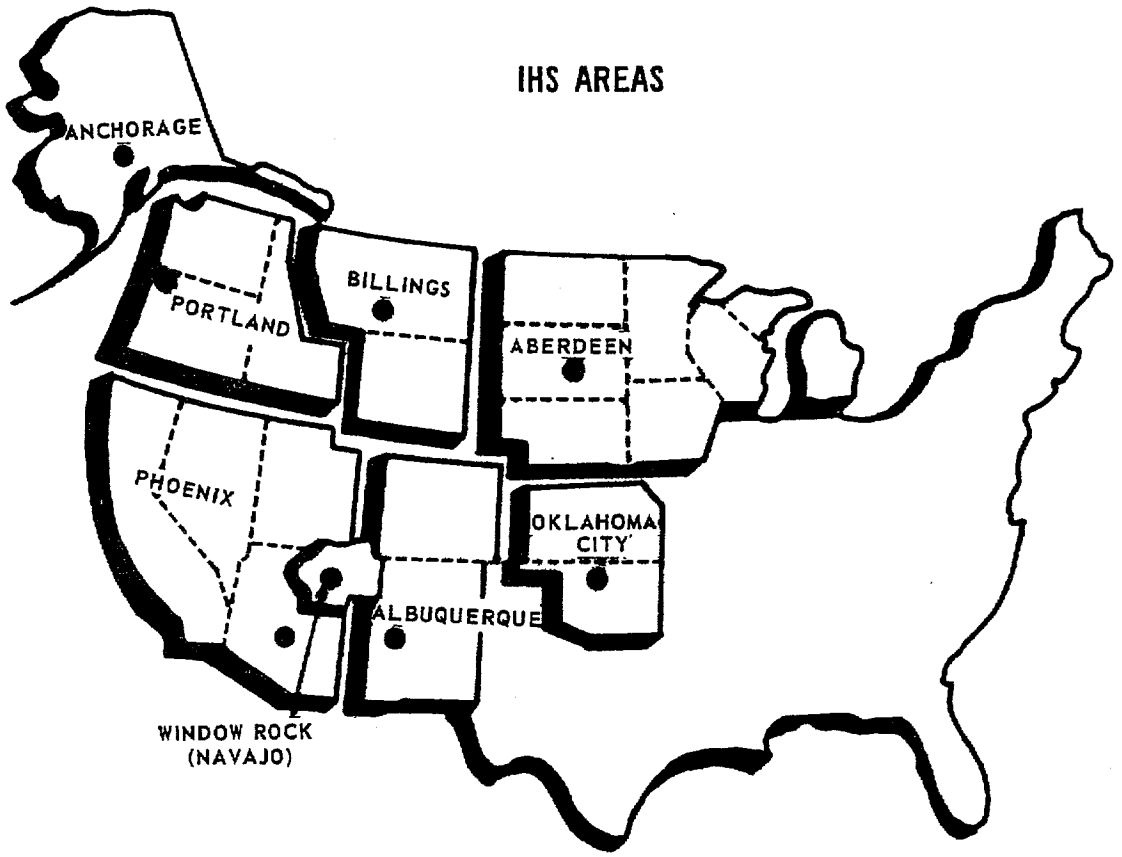
IHS has eight area offices, each responsible for operating the Indian health programs in the States within its geographic area. (See map on the following page.)

Each area has a number of service units, each serving a part of the area, usually a single reservation. A few units, however, cover a number of small reservations, and some larger reservations are served by several service units. Most service units have a hospital or health center and a number of satellite clinics providing inpatient care and outpatient services.

In addition, IHS has three other geographically distinct program operations. One is an intertribal contract program to obtain health services for California Indians; another is a multitribal agreement for Indian management of a health delivery system using IHS facilities in Mississippi, Florida, North Carolina, and Lousiana; and the third is the IHS research and development program being conducted at the Papago reservation in southern Arizona.

Although the administrative responsibilities are the concern of the area offices, the basic health program operations are primarily the responsibility of the service units. Area and IHS headquarters officials stated that they considered themselves to be consultants and advisors to the service unit personnel.

IHS AREAS


ANCHORAGE
PORTLAND
BILLINGS
ABERDEEN
PHOENIX
OKLAHOMA CITY
ALBUQUERQUE
WINDOW ROCK
(NAVAJO)

SCOPE OF REVIEW

Our review was made at IHS headquarters, Rockville, Maryland; at area offices in Aberdeen, South Dakota; Billings, Montana; Phoenix and Window Rock (Navajo), Arizona; and at six service units serving the Navajo Tribe at Crownpoint, New Mexico; the White Mountain Apache Tribe at Whiteriver, Arizona; the Oglala Sioux Tribe at Pine Ridge, South Dakota; the Quechan and Cocopah Tribes at Yuma, Arizona, and Winterhaven, California (Fort Yuma); the Chippewa Tribe at Red Lake, Minnesota; and the Crow Tribe at Crow Agency, Montana.

We reviewed administrative and management records of IHS and alcoholism control programs operated by the tribes. With IHS physicians we reviewed randomly sampled medical records and obtained studies and reports from the IHS Data Center in Albuquerque, New Mexico, and the IHS Health Programs System Center near Tucson, Arizona. We did not review how efficiently IHS used existing resources or the productivity of IHS staff.

The estimated number of Indians in fiscal year 1972 living in the areas and the service units included in our review are shown below.

Area	Population	Service unit	Population
Aberdeen	67,000	Pine Ridge	9,926
		Red Lake	3,027
Billings	28,000	Crow Agency	6,973
Navajo (Window Rock)	93,000	Crownpoint	8,887
Phoenix	50,000	Fort Yuma	1,621
		Whiteriver	6,470
Total	238,000	Total	36,904

CHAPTER 2

MAJOR INDIAN HEALTH PROBLEMS

IHS faces major obstacles in raising Indian health to the highest possible level. On the reservations, IHS not only provides the family doctor, the dentist, and the community hospital but also must be responsible for public health, sanitation, and water facilities. The ability of any organization to have an impact on a population's health is affected by a number of related factors, such as

--education levels of the people being served and the organization's ability to communicate standards of personal and community hygiene to the population,

--housing conditions,

--transportation and geography,

--a community's political maturity and the local government's degree of commitment to improve the community conditions,

--language problems or cultural and religious beliefs that may conflict with the demands of a modern society and modern medical practices, and

--economic development and family income.

Our previous reviews of Federal programs which provide assistance to Indians, particularly for education and housing, have established that serious needs exist and have indicated that Indians are economically "at the bottom of the ladder."

Indians experience higher rates of illness and have shorter life expectancies than the overall U.S. population.

Year	Indian life expectancy	Life expectancy of U.S. total population (note a)
1950	60 years	68 years
1967	64 years	71 years
1970	65 years	71 years (provisional)

[a]Includes Indian.

The following schedule shows Indian death rates for the leading causes of death.

Cause of death	Indian deaths per 100,000 population 1955 (note a)	1971	Percent of increase or decrease(-) in Indian death rate since 1955	Ratio of Indian deaths to U.S. total population deaths 1971
Accidents	156.2	157.1	1	2.9
Heart diseases	135.2	142.0	5	0.4
Malignant neoplasm	62.1	62.5	1	0.4
Cirrhosis of liver	16.0	45.6	185	2.9
Cerebrovascular disease	46.1	42.8	-7	0.4
Influenza and pneumonia	92.2	38.6	-58	1.4
Certain diseases of early infancy	70.5	29.6	-58	1.5
Diabetes mellitus	14.1	23.0	63	1.3
Homicide	15.0	20.6	37	2.4
Suicide	9.4	18.7	99	1.7
Congenital malformations	17.9	10.9	-39	1.5
Tuberculosis	55.5	7.8	-86	3.7
Enteritis and other diarrheal diseases	39.5	4.4	-89	4.0

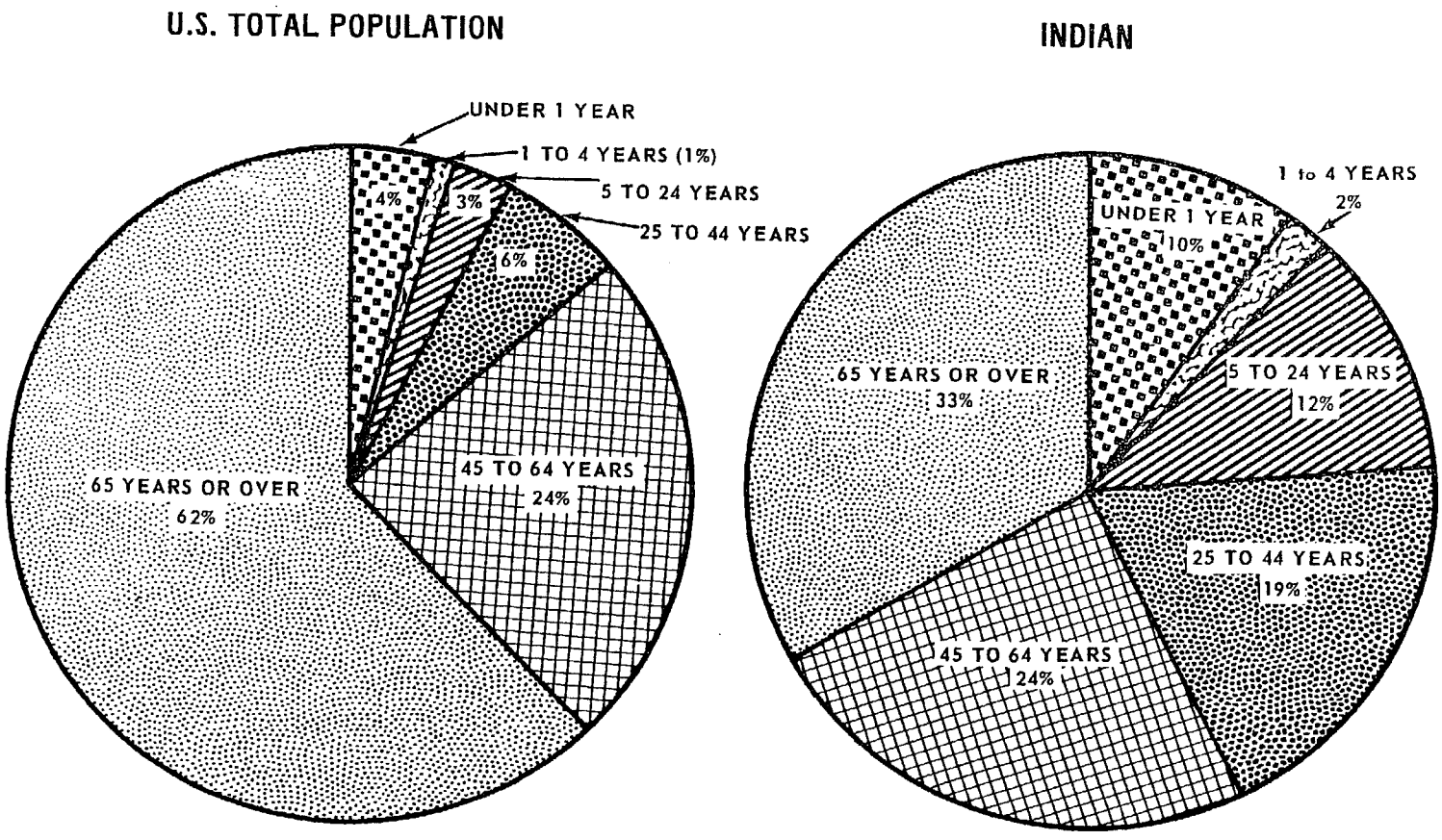
[a]Average 3-year total (1954-56).

Infant deaths for every 1,000 live births are compared below.

Year	Indians	U.S. total population
1955	62.5	26.4
1967	32.2	22.4
1971	23.8	19.2 (provisional)

The incidence rate for some reported diseases are compared in the following table.

DISTRIBUTION OF DEATHS BY AGE DURING 1971



Disease	Incidence rate per 100,000 population for 1971		Ratio of Indian disease incidence to that of U.S. total population
	Indians	U.S. total population	
Gonococcal infection	1,647.5	325.1	5.1
Mumps	288.5	60.6	4.8
Dysentery (amebic and bacillary)	419.0	9.1	46.0
Hepatitis	370.4	33.5	11.1
Syphilis	180.5	46.6	3.9
Tuberculosis, new active cases	162.0	36.5	4.4

The above data illustrates the gap between the health of Indians and the health of the U.S. total population. Data for comparing the health of Indians with the health of other rural populations is not available. Although unique geographical, cultural, and transportation problems on the reservations do not permit direct comparison of selected IHS statistics (number of beds, patient-days, incidence of hospitalization, etc.) with similar statistics for the U.S. total population to assess the level of care being provided and to determine whether additional resources could be used effectively, IHS data indicates significant shortages of doctors, dentists, nurses, and support personnel. For example, IHS' June 1973 physician-population ratio of 1 physician to every 1,084 people is well below the most recently reported U.S. average ratio of 1 to 720; its current pharmacist-population ratio of 33 pharmacists to every 100,000 people is about half its recommended ratio of 65 to every 100,000 people.

IHS officials estimated that they needed 4,200 more personnel and an additional $130 million for the health services program. This estimate excludes the need for new construction and for correcting known deficiencies in existing IHS facilities.

LACK OF COMPREHENSIVE DATA ON UNMET HEALTH NEEDS

IHS' planning system did not comprehensively identify unmet Indian health needs or establish priority programs for meeting them.

When a service unit or an area office determines that a significant unmet health need exists, a program package should be prepared containing a plan of action and an estimate of required additional resources. However, this system did not fully disclose the extent of unmet health needs and the necessary resources.

Information from IHS headquarters' files in August 1972 and February 1973 indicated that there were gaps in program packages and data which prevented IHS from comprehensively identifying specific unmet Indian health needs. Program packages had not been submitted in many cases. For example, although all six service units in our review had a substantial incidence level of otitis media, only three had funds available from special-emphasis otitis media program contracts; the other three had not developed program packages for otitis media although service unit personnel recognized that this health problem was serious.

The IHS data system, another source of program planning information, contained workload statistics and data on the incidence of disease, injury, and death. An IHS task force which reviewed the data system reported in June 1972 that:

--Many people were unaware of the data system, minimizing its value at all levels.

--The data system was believed to be an end in itself and thus was not appropriately used as a management tool.

--Data was of appalling quality, and the quality control of input was grossly unsatisfactory. Error rates, in some instances, were so gross as to lead to erroneous management decisions.

--The data needed to be better analyzed before it reached IHS management.

According to IHS officials, action has been taken, or is planned, to correct the deficiencies.

We recognize that certain health problems may not be easily quantified. However, data on unmet Indian health needs and the required additional resources would be useful to IHS and the Congress in providing resources to meet significant Indian health needs.

We reviewed the following major Indian health problems selected on the basis of IHS information which showed that serious unmet needs might exist.

--Maternal and child health (MCH).
--Otitis media.
--Environmental related diseases.
--Tuberculosis.
--Veneral disease.
--Alcoholism.

The following chapters deal with our assessment of IHS' progress and problems in dealing with these problems.

CHAPTER 3

MCH PROGRAMS NEED TO BE IMPROVED

IHS' MCH program is concerned with providing medical care for mothers during the prenatal, delivery, and postpartum periods and well-baby care for the infant and preschool child. IHS' objective is to improve the quality and availability of MCH care so that mothers and infants obtain optimum physical and mental health.

Although the MCH program has significantly reduced maternal and infant deaths among Indians, substantial numbers of Indian mothers and infants have not fully participated in the program.

MCH PROGRAMS NOT REACHING MANY MOTHERS AND INFANTS

According to IHS the infant (less than 1 year old) death rate for Indians declined by more than 60 percent--from 62.5 deaths to 23.8 deaths per 1,000 live births--from 1955 to 1971. IHS officials said that health education had contributed to the fact that about 99 of every 100 registered Indian live births in 1971 were in hospitals. Partly as a result of this, the 1971 death rate for Indian infants from 1 to 28 days old is lower than the provisional rate for the total population--12.5 and 14.3 deaths, respectively, for every 1,000 live births.

However, the 1971 death rate for Indian infants from 1 month to 1 year old was more than double the provisional rate for the U.S. total population--11.4 and 4.9, respectively, for every 1,000 live births. The IHS Director stated that the higher death rate of this age group was due to problems associated with low economic status, poor housing, and lack of sanitation facilities. The leading causes of death in this age group were respiratory, digestive, infective, and parasitic diseases and accidents.

The MCH programs at the six service units we reviewed provided prenatal and postpartum examinations, well-baby care, and immunizations.

According to IHS headquarters officials, the standards of care for their MCH program are goals for the most

desirable level of care to be provided. To find out the extent to which IHS' standards of care were being met, we examined the medical records for 235 births selected randomly from a total of 1,139 live births during calendar year 1970. The sampled records showed that:

--80 percent of the 235 mothers did not attend their first prenatal clinic in the first 3 months of pregnancy, 92 percent did not attend all the recommended prenatal clinics after their first visit, and 20 percent did not seek care until they were in labor.

--54 percent of the 166 mothers for which adequate medical information was available did not receive postpartum examinations.

Of the 228 infants for which adequate information was available, 39 percent did not attend the initial well-baby clinic, 21 percent did not attend any well-baby clinics, and 95 percent did not make the recommended 9 to 12 well-baby clinic visits.

Several IHS physicians said they considered some of the standards for MCH care--in particular the number of well-baby clinic visits--to be unrealistic. For example, the MCH physician at the Crownpoint Service Unit stated that the recommended 9 to 12 well-baby visits during an infant's first year of life were unrealistic and that 6 bimonthly visits would be enough. The Phoenix area office MCH physician said his program was set up for six well-baby visits in the first year. The Chief of Staff at the Red Lake Service Unit Hospital stated that four well-baby visits during an infant's first year were sufficient.

The Phoenix and Navajo area office MCH physicians stated in February 1973 that IHS was revising its standards for MCH care, including the number of well-baby clinic visits. The IHS standard for the number of well-baby visits during the first year is based on the standards of the American Academy of Pediatrics. The academy's current standard is six to nine well-baby visits during the first year.

Need for MCH education programs

IHS' manual emphasizes the need for educating individuals on the value of early prenatal care. According to the manual:

> "Community educational activities should be directed toward informing the general population of the specific value of early prenatal care and where it can be obtained. * * * Physicians and nurses should take every opportunity to discuss the need for early supervision with mothers reporting late in pregnancy, and with all women of child-bearing age seeking care for any reason whatsoever."

Only one of the six service units conducted regularly scheduled MCH education activities within the communities. At Red Lake the public health nurses conducted a program four times a year in several communities to provide expectant mothers with MCH information through the use of movies, brochures, and counseling.

At the other service units physicians and nurses provided MCH education generally as part of their regular MCH clinic duties. Several IHS officials acknowledged the absence of systematic education in the MCH program, despite their recognition of the need for it and the contribution it could make to improve the health of Indian mothers and infants. These officials cited inadequate staffing as the reason.

We had IHS physicians review the medical records of 58 infants who died before reaching their first birthday. The physicians informed us that about one-third of the infants might not have died from the conditions causing their deaths if adequate MCH services had been provided with emphasis on providing and influencing their mothers with health education. For example, two physicians believed that nine deaths from such causes as pneumonia, meningitis, severe dehydration, gastroenteritis, and accidential asphyxiation might have been avoided if mothers had received and been influenced by health education.

Lack of access to health facilities

Several IHS officials cited the lack of adequate transportation as one of the main obstacles to improved participation. The Navajo area office MCH physician commented that the lack of dependable transportation, plus the vast distances between health facilities and remote locations of many dwellings, prevented many women from seeking MCH care. He also remarked that MCH patients would not receive adequate care until transportation problems were overcome; however, he did not know how to solve the problem. He believed that using health services employees to provide transportation was a poor solution to this problem because there were not enough employees to provide adequate transportation; distances and lack of communication would make coordinated efforts extremely difficult; and providing transportation would take a lot of time which would keep employees from carrying out their other duties.

Transportation difficulties in the Crownpoint Service Unit were commented on in its August 1972 report resulting from a study by the service unit of its health problems. According to the report, the service unit--which from Crownpoint, extends roughly 50 miles north, 25 miles to the south, 80 miles east, and 25 miles to the west--has

> "* * * two major paved roads * * * Highway 56 between Thoreau and Crownpoint and Navajo 9 between Crownpoint and U.S. 66. In addition, there is a side road to Mariano Lake. All other roads are dirt * * *. Many of these roads are impassible [sic] in winter due to snow and mud, and difficult to navigate in summer * * *. There is no public transportation. While some people have vehicles and can get to clinics if the car runs, as gasoline and the road permits, others must walk for miles, hitch rides, borrow vehicles or pay exorbitant fees for transportation.
>
> "Many people are unable to come to the hospital when acutely ill because of poor transportation, and often people are seen when their condition is critical because poor transportation prevented their seeking medical care sooner."

The report cited several specific needs.

--Improvement and pavement of heavily traveled dirt roads.

--Funds to reimburse those who transport patients to the hospital.

--Funds to locate paraprofessional personnel in remote areas.

Despite these problems, the Navajo area office had not prepared a plan of action to alleviate the MCH patients' transportation problems.

A March 1971 report to the Navajo people from the area director acknowledged that transportation was a problem and stressed that IHS was meeting the problem by making health services directly accessible to the communities by operating clinics at local community health centers, health stations, and schools. Some physicians and nurses, however, pointed out that limited facilities for examinations and lack of privacy made some field clinics unsuitable for prenatal and postpartum care.

The Crownpoint Service Unit Hospital Medical Director suggested that overcrowded outpatient facilities compounded the problem of getting women in for MCH care. He said that it was difficult to convince pregnant women that they should come to the hospital 10 or 12 times during their pregnancies--especially if they do not feel sick--considering that many of them might spend 2 hours or more getting to the hospital and then have to wait 3 or 4 hours to see a doctor for about 5 minutes.

The Fort Yuma Service Unit hospital is within 25 miles of most of the service population, but transportation is still a problem. Community health workers from both of the reservations served by the facility told us that they spend much of their time transporting patients to the hospital who otherwise would not get medical attention. To alleviate the transportation problem, IHS contracted with one of the tribes served by the Service Unit to provide scheduled bus service from the reservation to the hospital. The tribe obtained a bus in September 1972 but, due to changes in tribal government, did not use it until March 1973.

The fiscal year 1973 program plan for the Whiteriver Service Unit stated that many patients could not come to the hospital when they needed care because no public transportation was available and only about 25 percent of the people had private transportation. People without transportation of their own must rely on the community health workers or depend on others to provide this service for a fee. Despite this known need, the Service Unit's emphasis plans for fiscal year 1973 did not deal with inadequate transportation. The Phoenix area director told us that, even though he acknowledges IHS responsibility for providing needed transportation, not much has been done recently.

According to the fiscal year 1973 program plan for the Pine Ridge Service Unit, only about 67 percent of the households on the reservations had vehicles and about one-third of these were from 5 to 15 years old. The plan noted that many cars were in poor condition and that most owners were financially unable to properly maintain them. In addition, the Service Unit had no commercial or public transportation system; an ambulance service funded by IHS and operated by the tribe provided emergency transportation. The reservation police operated an ambulance, and Government vehicles could be used if directed by an IHS physician. In addition, community health workers provided some transportation.

IHS headquarters officials informed us that IHS was not responsible for providing basic transportation systems and that they try to overcome the accessibility problem by locating field health facilities at the community level and by providing outreach through their field health staff.

Need for followup procedures

The IHS manual does not contain guidelines for a followup system to insure that mothers and infants receive scheduled MCH services. The physician in charge of MCH services at the Crownpoint Service Unit advised us that insufficient clerical and nursing staff prevented setting up any such system. Other service units in our review, however, had developed some followup procedures. The Crow Agency Service Unit, for example, had established procedures to send cards and letters to patients who missed appointments. At Fort Yuma, procedures required that the public health nurse be notified when a mother or child with

high-risk health problems missed two clinic appointments. The public health nurse said she followed up on these patients when her workload permitted.

Service unit records were not sufficient for us to determine the extent to which service units had carried out prescribed followup procedures. Service unit officials generally acknowledged, however, that followup was incomplete and inadequate.

Area office and service unit officials commented that more field health staff would be needed to provide effective followup. Officials at the Whiteriver Service Unit said, for example, that an MCH project established with special contract funds had increased the Service Unit's capability to provide prenatal followup because of the additional staff provided by the project.

CONCLUSIONS

Many Indian mothers and infants are not fully participating in the MCH program. An examination of patients' medical records at six service units indicated that the MCH program was not providing services which met IHS' standards because the program was having difficulty in reaching a substantial part of the target population.

Due to the relatively poor health of Indians, IHS may have to meet its participation standards for the MCH program to make further progress in reducing health problems of Indian mothers and infants. However, many factors have an impact on participation, such as the need for health education, and the lack of transportation and followup services.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct that IHS determine the basic causes of nonparticipation in MCH programs and adjust the MCH programs accordingly. Specifically, we recommend that IHS be directed to expand its efforts to

--educate Indian mothers on the value of MCH programs,

--develop MCH programs accessible to Indian mothers and infants and overcome transportation problems, and

--follow up with mothers to encourage them to receive scheduled services at MCH clinics.

AGENCY COMMENTS AND OUR EVALUATION

HEW (see app. I) concurred with all of our recommendations and noted that IHS was attempting to implement our recommendations through the efforts of health educators, nurses, and social workers. With regard to the transportation problem, HEW stated that the provision of transportation by outreach social workers was a costly remedial solution but was the best solution that HEW could offer within its responsibilities.

Although we acknowledge IHS' remedial efforts to overcome the educational and transportation problems which adversely affect the MCH programs, we believe that more can and should be done to improve the care of Indian mothers and children

Therefore, we recommend that the Secretary of HEW direct IHS to initiate discussions with other Federal, State, and tribal agencies with concurrent responsibilities for education and transportation to obtain cooperative working agreements for the solution or reduction of these problems.

CHAPTER 4

NEED FOR A MORE COMPREHENSIVE PROGRAM OF OTITIS MEDIA CONTROL

Otitis media--inflammation of the middle ear--has ranked as the number one reportable disease among Indians since 1964. From 1962 to 1971 the reported incidence of otitis media increased 183 percent among Indians--up from 3,802 cases per 100,000 population to 10,742 cases per 100,000 population. Affecting mostly children, otitis media can result in serious, permanent damage to the ears which severely limits children's ability to progress in school and which reduces vocational and social opportunities. If left untreated, the disease can develop life-threatening complications including the formation of a growth in the middle ear and/or on the bone structure behind the ear. Without surgical intervention, the growth may erode into the brain and terminate in a fatal meningitis or brain abscess.

Inflammation of the middle ear is usually caused by extension of infection from the nose and nasopharynx. The underlying cause, therefore, is usually a viral upper respiratory infection. Acute and chronic forms of otitis media result from an invasion of the inner ear by virulent bacteria.

As with many infectious diseases, there is a strong relationship between otitis media and impoverished living conditions. Crowded housing helps spread upper respiratory infections, and inadequate sanitary facilities and nutritional intake increases susceptibility to the disease.

According to a report by the Association on American Indian Affairs, basic immunological and epidemiological studies now being conducted may result in a good prevention program. At present, however, there are no known vaccines to prevent the disease. Meanwhile, controlling the disease must depend upon (1) a program of early detection and treatment, to prevent progression to stages which cause permanent hearing loss and which may threaten life and (2) identifying those Indians who have hearing losses and providing them with restorative surgery or rehabilitation.

Increases in IHS appropriations by congressional action in fiscal year 1971, coupled with Presidential allocations of funds, enabled IHS to establish a special program to prevent and control the disease. IHS reported that the approach was to be threefold.

--Preventive measures which attack environmental, social, cultural, and educational factors which contribute to the incidence of otitis media.

--Finding and treating cases of acute otitis media, with emphasis on controlling the infection in children under 2 years of age.

--Treating chronic otitis media and screening to identify complications and aftereffects and to rehabilitate patients.

IHS contracted with various medical schools to provide services on the reservations as determined necessary by the respective area offices. Three of the six service units were delivering otitis media services under the special program. Although these additional services were beneficial, much remained to be done at the six service units.

NEED FOR IDENTIFYING AND TREATING OTITIS MEDIA AMONG PRE-SCHOOL-AGE CHILDREN

According to IHS studies, pre-school-age children, particularly those under 2 years of age, are the most susceptible to otitis media. If the first attack of ear infection occurs before the first birthday, the risk of repeated attacks is greater than if the first attack occurs later.

The six service units had no special screening programs for pre-school-age children, although most of the otitis media patients the service units treated during fiscal year 1972 were pre-school-age children. Further, none of the service units had comprehensive data on the extent of otitis media in this age group. Most of the chronic or advanced cases occurred in children 6 years of age or older. The following table compares the incidence of acute and chronic otitis media in school-age and pre-school-age children treated at the six service units in fiscal year 1972.

	Outpatients				Inpatients		
	Acute otitis media		Chronic otitis media		Acute and chronic otitis media		
	Up to 5 years	6 years and over	Up to 5 years	6 years and over	Up to 5 years	6 years and over	Total
Fort Yuma	117	41	9	21	3	2	193
Crownpoint	901	491	73	440	8	1	1,914
Whiteriver	398	294	77	142	25	7	943
Pine Ridge	926	291	83	216	60	3	1,579
Red Lake	290	173	36	74	74	7	654
Crow Agency	313	184	39	90	42	10	678
	2,945	1,474	317	983	212	30	
	4,419		1,300		242		5,961

Since none of the service units had comprehensive screening programs to identify or estimate the number of times this disease occurred in pre-school-age children, the number of untreated cases was not known. However, some evidence showed that large numbers of such cases were not being treated in time to prevent damage or hearing loss. For example, hearing tests of 2,533 school-age children in the Crownpoint Service Unit, conducted from November 1971 to February 1972, showed that 11 had a growth in the middle ear and/or on the bone structure behind the ear, 106 had a perforated eardrum, 41 had both eardrums perforated, and 34 had hearing losses from otitis media even though the eardrums were not perforated.

Hearing tests of 2,400 Pine Ridge school children, just before or during the 1971-72 school year, showed that 213 had less-than-normal hearing and should receive further testing and examination by ear specialists.

Need for educating parents

IHS reported that Indians generally do not recognize the seriousness of otitis media and the importance of bringing their children in for early treatment. Because the disease is widespread in many of the Indian tribes, some parents do not consider it abnormal or as something warranting medical attention.

IHS maintains that educational programs, to increase awareness of the seriousness of the disease and the need for early treatment, are essential parts of a comprehensive control program. However, none of the service units had

established such programs. Service unit officials generally attributed this to the lack of staff.

As discussed in chapter 3, IHS had not been able to obtain extensive participation in its MCH program, which could serve as an important way to identify middle-ear problems in pre-school-age children.

LACK OF FOLLOWUP OF CASES REQUIRING TREATMENT AND RESTORATIVE AND REHABILITATIVE MEASURES

Because of the widespread occurrence of otitis media and because significant programs to alleviate this problem have only recently begun, large segments of the Indian population have sustained mild to total hearing losses.

Screening to identify such individuals and providing the required restorative or rehabilitative measures should be an integral part of a comprehensive otitis media program. Damaged ears can often be repaired through surgery and hearing can be partially or fully restored. In addition, surgery is sometimes required to cure chronic otitis media and/or to remove growths in the middle ear. When hearing cannot be fully restored by surgery, hearing aids and/or other rehabilitative measures may be necessary.

Each of the six service units had some form of screening program to identify hearing losses and/or other middle-ear problems among school-age children. However, three of the service units had backlogs of cases for which service unit personnel could not provide treatment. Also, the screening programs lacked adequate followup procedures to insure that all persons having middle-ear problems were treated. For example, as part of its special-emphasis program, the Navajo area (which includes the Crownpoint Service Unit) contracted with the University of Colorado to examine not less than 5,000 Navajo students in 5 schools. The contract provided that the school nurse and the otolaryngology (ear, nose, and throat) section of the Gallup Indian Medical Center, the main Navajo area hospital, were to be notified of each child needing medicine or surgical treatment or rehabilitation. Of 2,533 students screened in the Crownpoint Service Unit, 192 children needed medical or surgical treatment or rehabilitation.

The names were provided to the Gallup Indian Medical Center, but no followup action was taken to bring the children in for treatment. The Chief of Otolaryngology at the Gallup Indian Medical Center, who supervised the contract programs, said that he had provided a list of the students needing treatment to the service unit and that it was the service unit's responsibility to see that the children received treatment.

Crownpoint Service Unit officials stated that they had not received a list of the students identified by the contractor and had not been made aware that they were responsible for following up on these students.

The supervisory public health nurse at the Crownpoint Service Unit said she had received copies of the screening program results for each patient, which she had filed in her records without followup because of insufficient staff, and this information was available to the doctor if one of the students came into the service unit for any reason. The Chief of Otolaryngology at the Gallup Indian Medical Center said he was not aware that Crownpoint had not used the list and had assumed that the lack of referrals from Crownpoint was due to the service unit's special arrangements to refer some of its ear surgeries to the Fitzsimmons Army Hospital in Denver, rather than to the Gallup Indian Medical Center.

We also noted that, of 2,400 school-age children examined, IHS and special-emphasis program personnel at Pine Ridge identified, before or during the 1971-72 school year, 213 who had less-than-normal hearing and should receive further examination. At the time of our fieldwork in the fall of 1972, 107 of the 213 had not yet received further examination at an ear, nose, and throat clinic.

The Whiteriver and Fort Yuma Service Units, which did not have special-emphasis contract programs, also did not have systematic procedures for screening and referring patients. However, annual hearing tests were given at the schools serving the service units' populations.

According to the Fort Yuma public health nurse, school nurses gave hearing tests and were to refer children with hearing losses to their physicians or, in the case of Indian children, to the service unit's outpatient clinic. The Fort

Yuma public health nurse stated that she had no system or records to identify those Indian children referred to the service unit clinic, to insure that they received treatment. The Fort Yuma Service Unit had no backlog of cases awaiting surgery.

At Whiteriver the public health nurses gave the hearing tests in the schools. When a child with a significant hearing loss was identified, the parents were contacted and urged to bring their child in for further examination at the service unit hospital. Children with severe ear problems were to be referred to the ear, nose, and throat clinic at the Phoenix Indian Medical Center. One public health nurse told us that she stopped referring children for further examinations because she knew that no followup action would be taken. We were informed that the lack of resources had curtailed the amount of surgery for Whiteriver patients. A service unit physician estimated that at least 200 cases needed surgery, of which about 10 were treated at the Phoenix Indian Medical Center in fiscal year 1972.

At the Crownpoint Service Unit, comprehensive screening programs had been limited to the special-emphasis screening of school children. Persons requiring ear surgery were listed on an ear registry which in October 1972 contained 91 names. The service unit had been able to obtain some surgical service from the Fitzsimmons Army Hospital in Denver and up to 40 ear surgeries were being performed annually.

The Chief of Otolaryngology for the Navajo area stated that complete epidemiological data had not been developed for the area. He estimated, however, that about 6,000 Navajos, or 5 percent of the population, had impaired hearing requiring surgery. We estimate that, at the percent rate of four ear surgeries performed each week at the Gallup Indian Medical Center, it would take 30 years to treat this backlog, even if no new cases developed. The Chief of Otolaryngology estimated it would cost about $4.5 million to remove the backlog.

Rehabilitative services

Area and service unit officials generally agreed that providing hearing aids and/or other rehabilitative measures was important for a comprehensive otitis media program; however, some service units did not adequately provide such services.

At Pine Ridge, for example, 40 individuals were identified in fiscal year 1972 as possibly being able to benefit from hearing aids. At the time of our visit in July 1972, the special-emphasis contract at Pine Ridge had been in effect for 16 months; and both the contractor and IHS officials said that, because they could not agree on who was responsible for rehabilitative services, no attempts were made to obtain hearing aids. In contrast, the Crow Agency Service Unit had bought about a year's supply of hearing aids which were being issued rapidly...

CONCLUSIONS

The six service units had not effectively and comprehensively controlled and treated otitis media. Special-emphasis programs at three of the service units were helped, but the following elements of a comprehensive program were missing or incomplete at all service units.

--Comprehensive data on the extent of the disease and on service backlogs, for overall program planning and evaluation.

--Screening procedures to insure that all cases requiring treatment were identified at an early stage to prevent or minimize damage to ears.

--Education programs to increase awareness of the disease and the need for early treatment.

--Adequate followup procedures to insure that all persons identified through screening programs received required treatment, surgery, or rehabilitative measures.

Although the service units apparently do not emphasize comprehensive screening programs because they are unable to provide services to the backlogged cases, the data developed from such screening is important to (1) demonstrate the extent of the otitis media problem, (2) determine the resources needed to control and treat this disease, and (3) serve as a measure of program performance.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct IHS to obtain comprehensive data on the extent of the disease and on the extent of restorative and rehabilitative backlogged cases. This information should then be used to (1) establish program objectives in terms of the number of people needing services and program priorities for allocating resources and (2) measure program performance in alleviating this health problem. We also recommend that the Secretary of HEW direct IHS to establish (1) systematic screening procedures, including better referral and followup procedures, to provide for early detection and treatment and to insure that those requiring further services receive them and (2) education programs for increasing awareness of the disease and the need for early treatment.

AGENCY COMMENTS AND OUR EVALUATION

HEW advised us (see app. I) that IHS is currently expanding its otitis media programs to include stated program objectives and periodic measurements of program performance. HEW further informed us of IHS' establishment of educational programs over the past 2 years.

However, HEW disagreed with our recommendation that screening procedures should be established to identify the extent of the disease in pre-school-age children. According to HEW a more effective way to control the disease would be to place each case of acute otitis media under long-term surveillance which would be modified as the disease recurs or fails to recur in each individual. Such an effort, it was pointed out, would be costly.

We do not disagree with HEW's preference for the long-term surveillance approach to control otitis media, and we acknowledge that such a program would be expensive. However, we believe that all steps necessary to control this disease should be taken.

Therefore, we recommend that the Secretary of HEW direct IHS to consider making the implementation of the suggested long-term surveillance activity a program objective. Also, IHS should consider its ongoing maternal and child health program as a way for accomplishing this objective by making long-term surveillance of otitis media a part of the program.

CHAPTER 5

NEED TO IMPROVE ENVIRONMENTAL CONDITIONS AFFECTING INDIAN HEALTH

Public Law 86-121 (42 U.S.C. 2004a), enacted in 1959, authorized IHS to construct sanitation facilities, including domestic and community water supplies and facilities, and sewage and waste disposal facilities for Indian homes and communities. IHS reported that, from 1957 to 1971, the number of families using potentially contaminated water was reduced by 41 percent and that the number of families with inadequate waste disposal facilities was reduced by 25 percent. This progress was attributed to the Public Law 86-121 program and to the housing improvement and construction programs of other Federal agencies. IHS has pointed out to the Congress that, even though progress has been made, many families still lack basic sanitation facilities and are therefore subject to serious health hazards.

To determine the sanitary level representative of approximately 9,450 households at the 6 service units, we visited 381 randomly selected households, accompanied by IHS environmental health personnel. We found that 54 percent of the families had no water supply source in their homes, 9 percent had inadequate food storage facilities, 65 percent did not have flush toilets, 48 percent lacked satisfactory liquid waste disposal facilities, and 26 percent of their homes showed evidence of heavy fly infestation. In addition, approximately 63 percent of the families were found to be using water from actually or potentially unsafe sources.

During fiscal year 1972, those Indians living in housing rated unsatisfactory because of environmental conditions made demands on the IHS primary health care system (as measured by IHS' workload factor of one for each inpatient day and 0.2 for each outpatient visit) for treatment of certain environmentally related diseases[1] at a rate almost four times as high as those living in housing with satisfactory environmental conditions. The results of our study are shown below.

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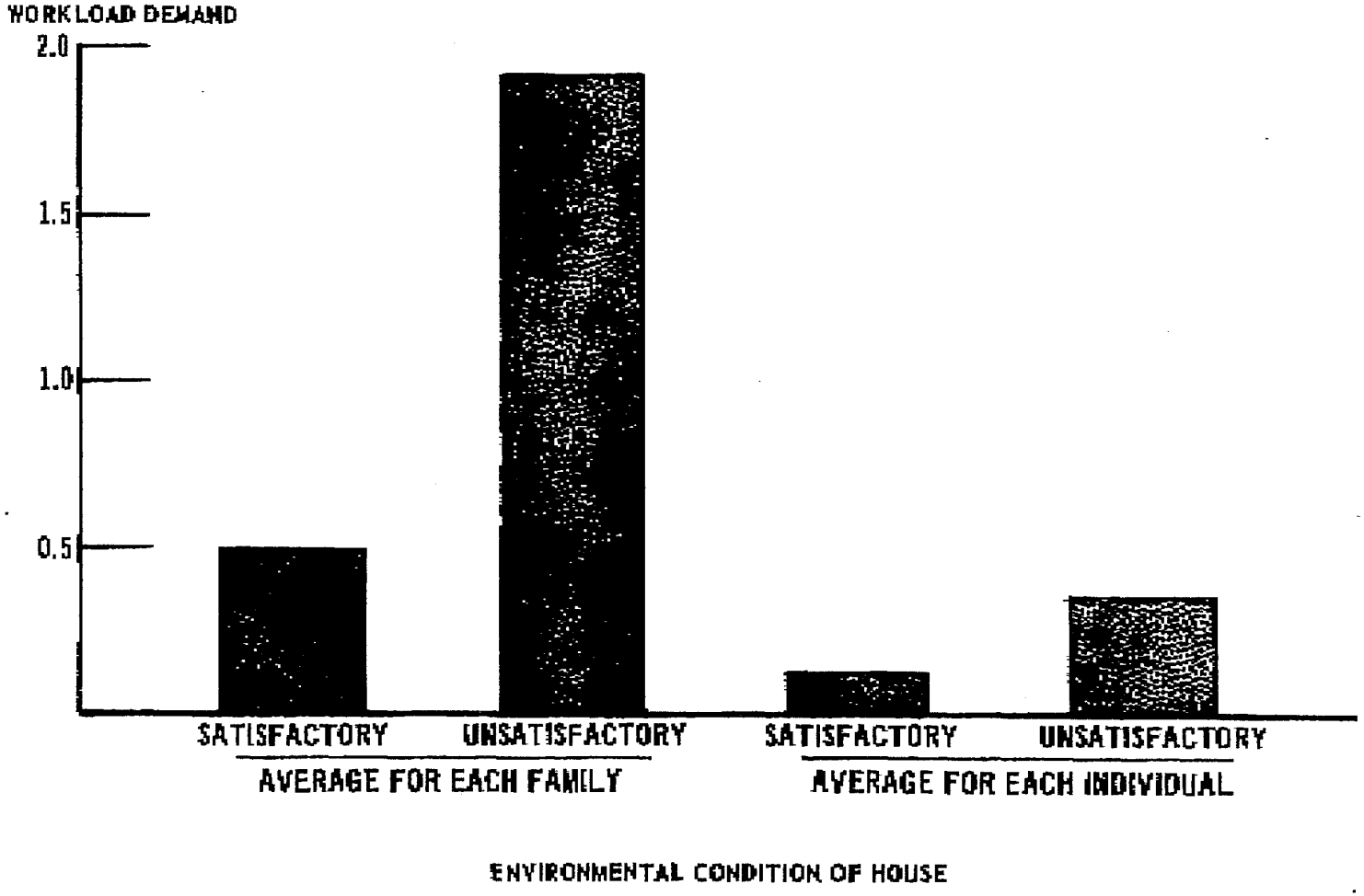
[1]Gastroenteritis, bacillary dysentery, infectious hepatitis, and impetigo.

WORKLOAD DEMAND ON HEALTH CARE SYSTEM IN FISCAL YEAR 1972



Although our study indicated that the reported incidence of environmentally related diseases was affected by the environmental condition of housing, our tests showed that this incidence could not conclusively be attributed to the environmental condition of housing and that such conditions could not be used as the only predictors of the degree to which these diseases would cause a demand for health care.

NEED FOR SAFE WATER

According to its manual, IHS is

> "* * * to improve health and economic conditions of the Indian by assisting with the aquisition of an adequate, potable water supply and by encouraging this continued use, operation, and maintenance of the supply."

IHS constructs domestic and community water supply systems as part of home construction and housing improvement programs operated jointly by the Bureau of Indian Affairs, Department of the Interior; the Department of Housing and Urban Development; and IHS. IHS also provides some systems and system improvement for existing homes.

We accompanied IHS environmental health personnel in visits to 381 randomly selected homes to determine their water supply sources and systems. Of the 381 homes, 240, or 63 percent, were using water which was not protected from contamination or which environmental health personnel judged to be contaminated; 206 homes did not have running water piped into the home. At our request, IHS took water samples for bacterial analysis at 308 of the homes in 5 of the 6 service units; 62 families, or about 20 percent, were consuming unsafe water as measured by the criteria for bacterial content used by State public health agencies. Of the 62 families, 13 had running water in their homes. IHS officials cited improper maintenance as a probable cause for the unsafe water in the 13 homes. At one service unit, several families had used river water for approximately 4 months while the community water system was inoperable. IHS officials said the system might not have failed if it had been properly maintained.

The individual and community water systems can be constructed without cost to the Indians; but the individual or the community must agree to operate, maintain, and repair these facilities. IHS officials advised us, however, that systems were frequently turned over without assurance that the Indians were appropriately organized or were capable of operating and maintaining them properly. Consequently, system failures were usually attributable to mechanical failures caused by improper maintenance and lack of skill. A 1972 IHS study of 1,028 water and sanitation facilities projects serving 45,951 homes showed that only 351 projects serving 14,196 homes had acceptable preventive maintenance.

IHS officials informed us that, in some instances, tribes did not have enough incentive to properly maintain systems because they knew IHS must repair a system if it deteriorates enough to threaten the health of tribal members.

IHS officials told us that those tribes forming utilities commissions generally maintained and operated the systems properly but that tribes sometimes were reluctant to form such commissions because the commissions usually assess and collect payments from tribal members. IHS officials stated that they had recently been working with the tribe responsible for the community system which had broken down (see p. 34) and had helped to establish a utilities commission.

Three of the six service units offered maintenance training, but attendance was poor. Environmental health personnel said they did not have the time to give individual instruction to the large number of families needing it.

Early in 1973, an IHS task force was developing requirements for training the Indian community and IHS personnel in maintaining and operating water supply systems. Also IHS officials informed us that they had assigned one person in each area office to coordinate all IHS activities for establishing or improving tribal operations and maintenance organizations.

NEED FOR MORE EFFECTIVE SOLID WASTE DISPOSAL PRACTICES

In a 1967 report entitled "Solid Waste/Disease Relationships," the Public Health Service stated that, although insufficient data existed to permit a quantitative estimate of any solid waste/disease relationship, solid waste had a definite, if not well defined, causal relationship to some diseases. The report cited "the known ability of fly-vectors to proliferate enormously in organic wastes, to contaminate man." Flies, according to the report, are "significant transmitters of shigellosis (bacillary dysentery)." Also rats which are attracted to and multiply in refuse and associated residues can probably cause human salmonellosis (another acute diarrheal disease). The report suggests that more effective management of waste disposal programs would reduce the number of flies and rats significantly and thereby limit the opportunity for human infection.

IHS' stated objective with regard to solid waste disposal is to "promote the health of the American Indian * * * individual and community through the controlled collection and proper disposal of wastes." However, the six service units had no formal programs to accomplish this objective. We observed many open sites where households and communities dumped garbage and trash, ignoring public health standards for waste disposal. (See p. 37.)

IHS considers the encouragement of the Indian community to establish and maintain adequate solid waste management programs as its principal responsibility in this area. IHS gave Indians encouragement and technical advice and occasionally provided staff and equipment but was usually unsuccessful in getting adequate waste disposal programs established because tribes had not enacted or enforced needed health codes.

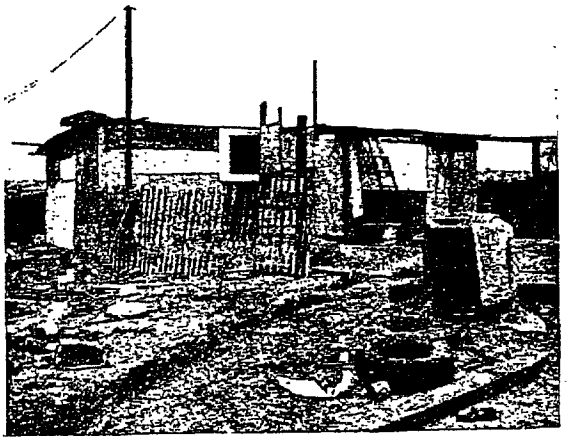
Tribes at both the Whiteriver and Fort Yuma Service Units had some solid waste pickup, but neither followed sanitary landfill procedures. At Fort Yuma one tribe used an off-reservation dump site but some illegal dump sites were on reservation lands.

(GAO photo)

Community dump
Whiteriver Service Unit
Phoenix area

(GAO photo)

Community dump
Crow Agency Service Unit
Billings area



(GAO photo)

Household waste
Ft. Yuma Service Unit
Phoenix area

CONCLUSIONS

During fiscal year 1972 those Indians living in housing rated unsatisfactory because of environmental conditions made demands on the IHS primary health care system for treatment of certain environmentally related diseases at a rate almost four times higher than those living in housing with satisfactory environmental conditions. A significant number of the Indian families in the service units were using water supply sources which were actually or potentially unsafe. Many of these sources were unsafe because water supply systems were not properly maintained.

We also found inadequate solid waste disposal practices at all service units. Public health authorities believe that inadequate solid waste disposal can cause certain diseases. However, the six service units had no formal programs to control collection and proper disposal of solid wastes.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct IHS to:

--Develop procedures and criteria for determining tribal capabilities for maintaining and operating water and sanitation systems.

--Provide appropriate education and training programs, before transferring responsibility for the systems to individuals and tribes.

--Monitor and maintain such systems until tribal capability has been established.

--Place more emphasis on working with tribal governing bodies to establish and enforce adequate solid waste disposal procedures.

AGENCY COMMENTS

HEW generally agreed with our recommendations and pointed out that an IHS task force was developing requirements for training the Indian community and IHS personnel in the maintenance and operation of water supply systems. Also HEW stated that solid waste would be emphasized at a conference of area office chiefs. (See app. I.)

CHAPTER 6

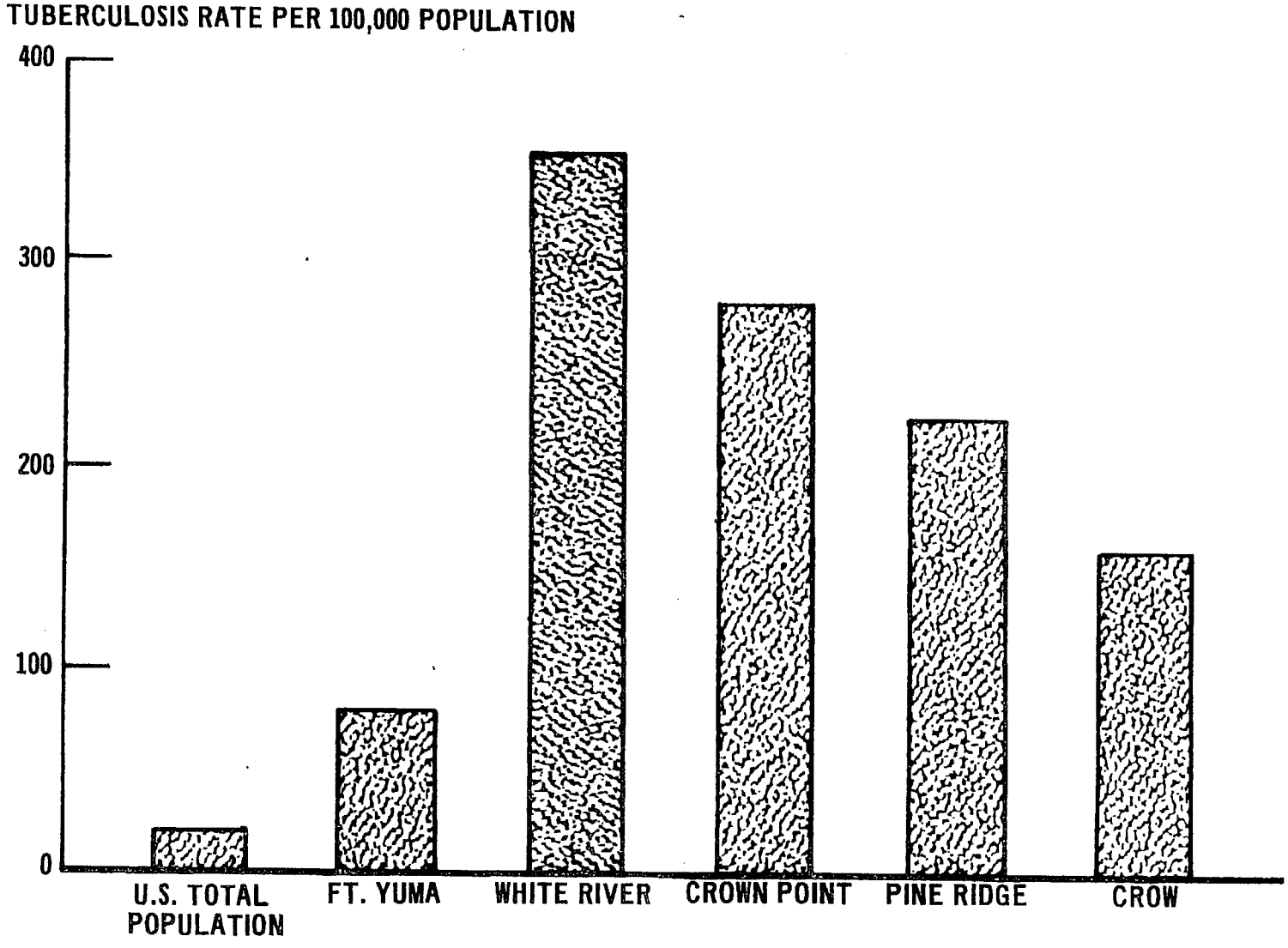
NEED TO IMPROVE MANAGEMENT OF TUBERCULOSIS CONTROL PROGRAMS

Indians die of or contract tuberculosis about 4 and 4-1/2 times as often, respectively, as the total U.S. population. The morbidity of, and deaths from, tuberculosis have been significantly reduced in both the Indian and the total U.S. population as a result of better treatment and therapy. In the total population, the 1955 incidence--about 9 tuberculosis deaths per 100,000 population--declined about 77 percent to about 2 deaths per 100,000 population in 1971. The Indian death rate during the same period declined 86 percent, from about 55 to 8 deaths per 100,000 population.

An IHS research paper described the nature of tuberculosis as follows:

> "Tuberculosis is a relatively nonvolatile communicable disease. Growth of the tubercle baccilus is slow, and bodily resistance to infection is strong."
>
> * * * *
>
> "Those whose infections are not naturally arrested proceed directly to the infectious or active stage; they experience severe lung damage, but most survive even without therapy. Modern drug therapy can quickly arrest the further spread of the disease and minimize lung damage and mortality risk. Tuberculosis is never fully cured, however, and reactivations can occur even after drug therapy. The risk of reactivation is strongly related to the quality of therapy and the extent of lung damage before arrest."

We examined tuberculosis control programs at the five service units which operated their own control programs (the Red Lake Service Unit reported to an overall State control program). The 1972 tuberculosis morbidity rates at these service units were much higher than those for the total U.S. population, as shown in the following chart.


TUBERCULOSIS RATE PER 100,000 POPULATION
400
300
200
100
0
U.S. TOTAL POPULATION
FT. YUMA
WHITE RIVER
CROWN POINT
PINE RIDGE
CROW

Tuberculosis control activities at the five service units were carried out as part of the service units' overall program, and funds were not specifically earmarked for tuberculosis control. Each service unit had a tuberculosis control program, but program services varied considerably. Service units used IHS' Tuberculosis Control Manual as guidance for operating the program. The manual closely follows the recommendations of Government and private agencies concerned with establishing public health standards for controlling and eradicating the disease by treating, controlling, and following up on tuberculosis patients and others who have been exposed to the disease. According to IHS officials, their tuberculosis control standards are goals for the most desirable level of tuberculosis control services to be provided.

People needing tuberculosis supervision at the five service units had not received treatment, tests, or other services in accordance with IHS standards. Further, officials at 2 service units advised us that about 1,100 people with positive reactions to tuberculosis tests were dropped from program supervision because the service units were unable to provide them with services.

Also appropriate followup procedures were needed to insure that all people known to be exposed to, or infected with, the disease received the tests and treatments prescribed by IHS standards. Many of the service units did not keep adequate records for followup action.

TUBERCULOSIS CONTROL PROGRAMS NOT MEETING STANDARDS

About 47 percent of the patients at the Fort Yuma, Whiteriver, and Crownpoint Service Units were a month or more overdue for tests or treatments based on the IHS standards. For example:

--The manual specifies that at least 90 percent of all patients with active tuberculosis need to receive regular drug therapy and should have bacteriological examinations within 6 months of diagnosis and periodical medical evaluations. One service unit had 22 active tuberculosis cases on record in September 1972. Of these 22, 9 were 1 to 7 months overdue in receiving one or more of the above services; 2 of the

9 were 1 and 7 months overdue, respectively, for bacteriological tests, and 3 of the 9 were 2 or more months overdue for their drug therapy. One medical evaluation was 3 months overdue, 2 were 2 months overdue, and another 3 were 1 month overdue.

--The manual defines a "converter" as a person who, within a 12-month period or less, converts from a negative skin test to a positive skin test but shows no evidence of pulmonary infection. The manual specifies that converters are to receive 1 year of oral drug therapy with clinical examinations and X-rays every 3 months. In September 1972, 1 service unit reported that it had 23 converters in the tuberculosis program. We found that 18 were overdue for services; of the 18, 17 had not filled their prescriptions to continue or complete their oral drug therapy and 5 were overdue for medical evaluations and other tests.

--The manual states that all people who have positive skin tests should receive additional tests. All positive reactors do not necessarily have active tuberculosis but have been infected by persons who had active tuberculosis. IHS considers oral drug therapy desirable for all positive reactors according to the degree of risk of developing active cases; this therapy is required for certain positive reactors, such as children and those having positive reactions within 12 months of prior negative tests. At 1 service unit the pharmacists' records showed that 79 positive reactors had drug prescriptions. Of these, 23, or 29 percent, were overdue for renewing their medication.

The two remaining service units did not keep records which indicated tuberculosis patients' compliance with specific treatment standards. The Crow Agency Service Unit records indicated, however, that in January 1972 about 25 percent of the 271 people in the tuberculosis control program were overdue for services. The Pine Ridge Service Unit records of July 1972 showed that about 8 percent of the 405 people under program supervision had not received treatment and other services according to IHS standards. These records did not specifically show the length of time these services were overdue.

IHS officials stated that the major problem with IHS' tuberculosis control program was that, with limited field health personnel, IHS could not make sure that the prescribed drug therapy and prevention program was completed. Navajo area office officials stated, for example, that the oral drug therapy program was fairly successful in having school children complete drug therapy but that about 75 percent of Navajo adults failed to complete drug therapy. The Phoenix area 1972 program report on tuberculosis control stated that as many as 65 percent of the patients had failed to take their prescribed medication.

IHS told us that many of the patients on drug therapy did not feel ill and thus were not motivated, without health education, to take their medication. IHS service unit and area personnel emphasized that the field health staffs were not large enough to make sure that the patients were taking prescribed medication.

INADEQUATE CONTROL OVER PATIENTS

Three service units had identified more infected persons than they were able to supervise.

In August 1971 the Pine Ridge Service Unit dropped about 600 reactors who had not completed treatment because the reactor caseload had become too large to manage.

The Whiteriver Service Unit dropped about 500 reactors who had not completed treatment between April and September 1972. The supervisory public health nurse stated that these people had been dropped because the limited number of field health personnel did not permit effective followup.

The Crownpoint Service Unit did not supervise reactors who did not need mandatory drug therapy. Medication was offered to those placed in the program, but, if they did not respond to letters sent when their medication was overdue, they were dropped without field health personnel followup. Of the 69 reactors identified during fiscal years 1971-72, 19 were not recorded as being placed in the Crownpoint program.

At the Fort Yuma, Whiteriver, and Crownpoint Service Units, tuberculosis control registers (summaries of medical data on those patients requiring any type of medical supervision) were current at the time of our fieldwork in

October 1972. The registers at the Pine Ridge and Crow Agency Service Units had not been updated for 3 and 9 months, respectively. The five service units' registers had numerous errors; people who were, or should have been, receiving services were not placed on the registers; and information on diagnoses and on due dates for services was omitted.

Instead of correcting and updating the registers, most service units used other, noncoordinated records. For example, some service units kept separate records for skin test clinics, medical prescriptions, and chest examination clinics. At two service units we found that patients were on the registers but not on the other records, and vice versa. These inaccuracies in the registers impair their value as control tools.

CONCLUSION

Tuberculosis, a major Indian health problem requiring extensive health education and control efforts, could be better controlled if IHS used tuberculosis registers more effectively.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct IHS to operate a tuberculosis control program that would conform to public health standards for treating, controlling, and following up on tuberculosis patients and others who have been exposed to the disease. This program should include

--keeping and using complete and accurate tuberculosis registers;

--promoting health education to make delivery of services more effective; and

--implementing followup procedures to insure that all people exposed to, or infected with, the disease receive the prescribed tests and treatment.

AGENCY COMMENTS AND OUR EVALUATION

The HEW response indicated general concurrence with our recommendations. (See app. I.) In response to our recommendation on the use of tuberculosis registers, HEW noted:

"* * * IHS is attempting to obtain the cooperation of the States who have the resources to help IHS maintain and update tuberculosis registers. Presently, Alaska and Arizona are cooperating in the utilization of their State tuberculosis registers. Also, a Tuberculosis Control Officer for IHS has been recently designated and will be directed to give priority to this task."

While concurring with our recommendation for the establishment and implementation of health education programs, HEW commented on one particular control program, as follows:

"* * * IHS has developed a cooperative tuberculosis control program with the Navajo tribe, the Arizona State T. B. Branch, and the Communicable Disease Center's T. B. Branch. Twenty-one persons including 12 indigenous field workers, provide health education programs. Although the Navajo program has been generally successful, there are some technical problems, as pointed out by the GAO report, that have to be resolved before IHS could implement the program in other areas."

Regarding our recommendation on followup procedures, we were informed that:

"* * * Follow-up action to assure that persons found to be exposed to or infected with the disease receive prescribed tests and treatment is being done. However, to extend these activities to a higher level of performance without additional funds will require curtailing other high priority activities. IHS must carefully allocate its resources so as to not benefit one substantive program to the detriment of another."

Although we agree that obtaining State cooperation is a way for implementing our recommendation concerning tuberculosis control registers, we believe that adequate maintenance and use of such a register as a basic management tool should not be contingent on such cooperation.

CHAPTER 7

MORE EXTENSIVE EPIDEMIOLOGICAL CONTROL PROGRAMS NEEDED FOR VENEREAL DISEASE

The reported incidence of venereal disease, specifically syphilis and gonorrhea, has increased significantly for Indians. From 1962 to 1971 (as of May 1973, the most recent year for which overall data was available) the syphilis incidence rate increased by 117.6 percent and the gonorrhea rate by 79.4 percent.

The fiscal year 1972 venereal disease rates in the six service units reviewed were generally much higher than those for the U.S. total population. The table below shows how many times greater the reported venereal disease rate per 100,000 population for Indians was than the rate per 100,000 for the U.S. total population.

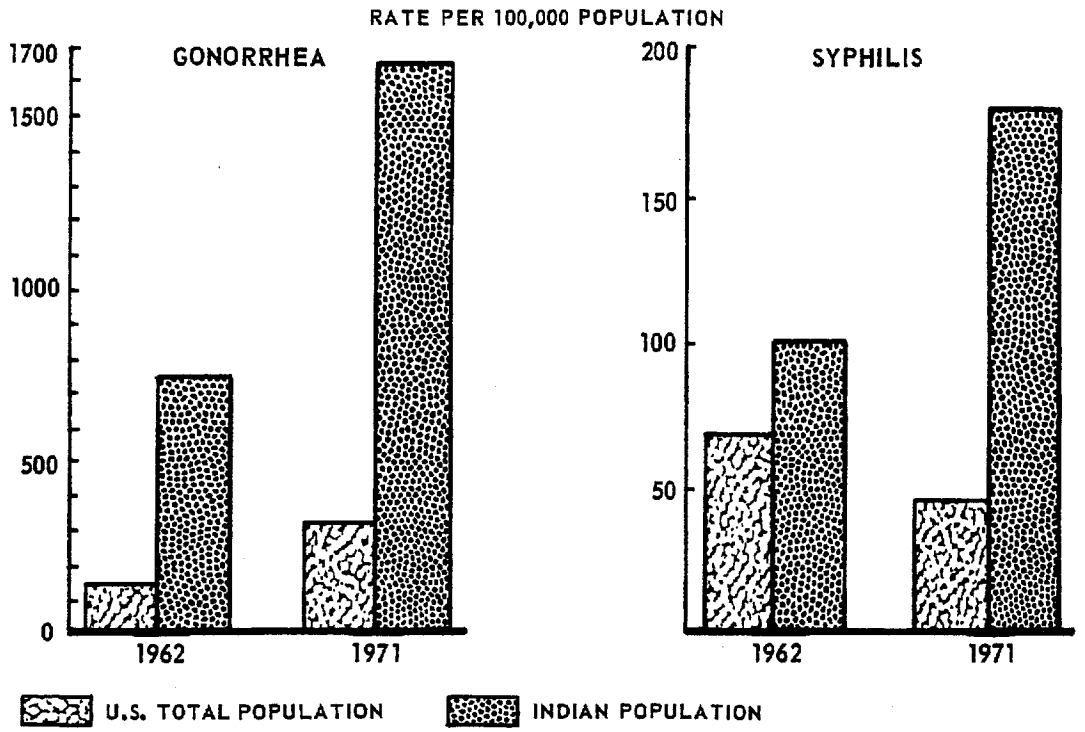
	Syphilis	Gonorrhea
Fort Yuma	13.3	3.2
Whiteriver	21.4	6.6
Crownpoint	39.5	6.4
Pine Ridge	4.2	8.6
Red Lake	8.3	2.3
Crow Agency	13.4	6.4

During fiscal year 1972 the 6 service units reported treating 89 new cases of syphilis and 755 new cases of gonorrhea.

According to HEW, venereal disease is a national health problem of epidemic proportions. The number of gonorrhea cases has doubled in the past 5 years--making gonorrhea second only to the common cold as the most widespread contagious disease in the Nation. During fiscal year 1972 about 24,000 cases of infectious or potentially infectious syphilis were reported, more than in any year since 1950. Gonorrhea, with 718,401 cases reported in fiscal year 1972, was at its highest recorded level. Since public health authorities believe that only about 17 percent of all cases of syphilis and gonorrhea are actually reported, the total number of cases is much higher.

The growth in the venereal disease rate between 1962 and 1971 is several times greater in the Indian population than in the U.S. total population, as shown below.

GROWTH IN THE VENEREAL DISEASE RATE BETWEEN 1962 AND 1971



IHS officials told us that, although there is probably a greater rate of syphilis and gonorrhea cases in the Indian population than in the U.S. total population, the difference was not as great as indicated by the reported rates because there were probably many more unreported cases of venereal disease in the total population than in the Indian population.

According to the American Public Health Association--a professional organization of persons active or interested in the field of public health--interviewing patients to identify their sexual contacts and tracing and treating these contacts so that the spread of the disease to others can be avoided are fundamental steps to control venereal disease. Mass screening to identify asymptomatic women (showing no clinical symptoms until the late stages of the disease) is

also an important way to control gonorrhea, according to the Center for Disease Control, an HEW agency which guides the Nation's efforts to prevent and control communicable diseases.

The six service units' efforts to control venereal disease mainly consisted of treating persons seeking relief from symptoms. Although some of the service units were to refer syphilis cases to State health authorities for interviewing and contact tracing, they did not consistently report syphilis cases. IHS did not keep adequate records to insure that all cases were reported. Although some service units had established procedures for interviewing and tracing contacts of gonorrhea patients, these procedures had broken down. Only one of the service units had established testing procedures for identifying asymptomatic women.

Syphilis control

IHS and State officials informed us that control measures for syphilis, such as interviewing and contact tracing, were performed by the State health authorities for five of the six service units. These service units generally treated the diagnosed cases and then reported them to State health authorities for followup. The sixth service unit--Crownpoint--was participating in a Navajo project for venereal disease control. This project served the Navajo reservation and was staffed by personnel from IHS, the Center for Disease Control, and Arizona and New Mexico.

For three of the service units, State reporting procedures generally required that patients' names to be telephoned immediately to State health authorities and be confirmed with written reports. None of these service units kept records of the telephone calls, copies of the written reports, or any other records to show that the reports had been made. To test the extent to which service units were reporting syphilis cases, we submitted the names of 36 patients treated during fiscal year 1972 at these three service units to the appropriate public health agency to find out whether the names had been reported. Officials of the public health agencies responsible for tracing contacts of diagnosed cases told us that they had not received reports for 12 of the 36 cases.

The results of our test are shown in the following table.

Service unit	Number of cases	Cases reported	Cases not reported
Fort Yuma	4	0	4
Whiteriver	10	6	4
Crownpoint	22	18	4
Total	36	24	12

According to the Fort Yuma Service Unit Director, venereal disease cases were not reported before February 1972 because the service unit did not have a reporting system. The cases we reviewed had been identified before February 1972. The service unit director stated that cases had been reported after a system was established in February 1972.

The Whiteriver Service Unit Clinical Director said the medical staff stopped sending reports late in 1971 because the staff believed the Phoenix area office was sending them. The Crownpoint Service Unit venereal disease control officer said the examining physicians had probably neglected to submit the reports.

Once contacts are identified, they must be tested and treated. None of the six service units, however, requested information on the disposition of the reported cases so that any necessary followup action could be taken.

Two of the service units had received some information, however, and the Navajo project prepared quarterly summaries of the number of syphilis patients interviewed. Also the Navajo project established central laboratory facilities for the Navajo area and should be able to directly identify cases requiring contact tracing.

Gonorrhea control

Gonorrhea control measures include contact tracing for male patients and routine screening programs for females which include a culture for gonorrhea on women already receiving pelvic examinations for various reasons.

Four of the six service units had developed procedures for gonorrhea contact tracing, but the procedures had broken down. The total of male gonorrhea cases treated and interviewed for contact tracing in fiscal year 1972 at the six service units follows:

Service unit	Treated	Interviewed
Red Lake	18	(a)
Fort Yuma	16	1
Whiteriver	81	3
Crow Agency	57	1
Crownpoint	144	3
Pine Ridge	174	(b)
Total	490	8

[a]The director said the service unit did no gonorrhea contact tracing because gonorrhea was not considered to be a significant problem.

[b]The venereal disease control officer stated that he had no time to trace gonorrhea contacts.

The gonorrhea control procedures at Fort Yuma, according to the service unit director, called for the medical records staff to refer patients treated for gonorrhea to the public health nurse for interviewing and contact tracing. Such referrals were not always made, however, because the supervisory medical records clerk was not aware that this was her responsibility. The service unit director informed us that he would issue clarifying instructions.

According to the Whiteriver clinical director, physicians are responsible for interviewing gonorrhea patients to identify contacts and to give their names to the public health nurses for tracing. He stated, however, that the physicians did not always do this because it was extremely difficult to get patients to identify contacts.

Crow Agency procedures called for the medical records staff to notify each contact of an appointment date. If the contact failed to keep the appointment, the public health nurse was notified so she could supposedly follow up to persuade the contact to submit to testing and treatment.

The Navajo project reported that severe staffing deficiencies in all service units in the Navajo area, including Crownpoint, made gonorrhea contact interviewing and followup difficult. Project personnel were hoping to establish more effective gonorrhea control through the use of their centralized laboratory program.

Only one service unit had established procedures to identify asymptomatic females by taking gonorrhea cultures from women undergoing pelvic examinations. Area office officials advised us that funds and facilities for processing such cultures were not generally available. After we completed our fieldwork, Fort Yuma Service Unit officials advised that the service unit had been able to obtain services from California for processing gonorrhea cultures and had begun taking cultures from women undergoing pelvic examinations.

With the exception of the Navajo project, the service units reviewed had not determined the resources needed to fully implement venereal disease control measures and to make these needs known to their area offices. Some other service units in the areas we visited had developed plans and estimates of resources required to meet their venereal disease control needs, including gonorrhea-screening programs for women.

CONCLUSIONS

Venereal disease has reached epidemic proportions in this country. The reported rate of venereal disease among Indians is many times higher than the rate reported for the total U.S. population. Despite these facts IHS has not developed a comprehensive program for controlling the spread of venereal disease in the Indian population.

The service units' efforts to control venereal disease were largely limited to treating people seeking relief from the disease. IHS is currently doing little to control gonorrhea other than treating infected persons. Its syphilis control efforts, which are limited to treating and reporting cases to the appropriate public health agencies, need to be improved.

To properly fulfill its function as the principal provider of comprehensive health services to Indians, IHS needs to

better coordinate its activities with those of other agencies involved in venereal disease control and to have the ability to identify and evaluate the disposition of venereal disease cases for Indians treated at IHS facilities to insure that all people afflicted with, or exposed to, venereal disease are provided with the opportunity for maximum protection.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct IHS to develop an adequate venereal disease control system including gonorrhea screening as part of any pelvic examination given to women patients. Such a system should include adequate recordkeeping, reporting, and management review procedures to insure that people treated for venereal disease are referred to the appropriate source for interviewing and that their identified contacts are traced and treated.

AGENCY COMMENTS

HEW (see app. I) concurred with our recommendations and noted that IHS had started a program of screening female patients for gonorrhea. HEW further acknowledged the need to improve case reporting and indicated that IHS was attempting to make improvements in this area.

CHAPTER 8

NEED FOR MORE IHS INVOLVEMENT IN INDIAN ALCOHOLISM PROGRAMS

According to IHS alcoholism probably adversely affects more aspects of Indian life than any other health factor and has been an Indian health problem since the 17th century. IHS reports that alcoholism causes cirrhosis, nutritional deficiencies, and neuropsychiatric disorders, disintegrates family relationships, and adversely affects the economic functioning of the whole Indian society. Most accidents, homocides, assaults, and suicide attempts are associated with drinking. IHS officials have stated that a significant part of their medical services workload can be traced to alcohol abuse and alcoholism. However, IHS has done little to explore the nature of, extent of, and solution for the alcohol problem in most Indian communities. An IHS report on alcoholism, completed in February 1970, stipulated that IHS provide leadership, technical support, and consultation to help Indian communities and suggested the following as a standard management approach

--collect data and obtain advice from community leaders to determine the extent and effects of local alcoholism;

--inventory local resources and identify gaps in available alcoholism services;

--set goals, identify alternatives, and establish objectives for new projects to meet community needs;

--implement plans; and

--evaluate the program against goals and objectives and revise plans in light of experience gained.

We found that, although IHS provided medical treatment to alcoholics, almost all the funds for projects to prevent drinking problems or rehabilitate alcoholics were provided by the Office of Economic Opportunity until July 1972 and thereafter by HEW's National Institute of Alcohol Abuse and Alcoholism. During fiscal year 1972, Federal, State,

tribal, and private sources funded 124 alcoholism and alcohol abuse programs on Indian reservations. Due to incomplete and varying program reporting, IHS and Institute officials were unable to determine the number of people being served by these programs or to estimate the extent to which existing programs met the total need.

An Institute official commented that the Institute knew little of the specific problems affecting the alcoholic Indian. He considered IHS the prime Federal source of data on Indian alcoholism. An IHS headquarters official acknowledged that, regardless of the funding source, IHS had the responsibility to insure that all Indian health services were comprehensive, well planned, and provided in the best possible manner. However, IHS headquarters and service unit officials said they had little data on the magnitude of community alcoholism and had no data on how effectively the projects were dealing with the alcohol problem. IHS officials believed these programs, for the most part, to be incomplete, fragmentary, and lacking substantial impact on the problem.

IHS officials noted that IHS lacked the manpower to obtain reliable data on the causes and effects of community alcoholism and that the community itself should be motivated to undertake the necessary studies.

During 1968 one service unit had surveyed the social, economic, and psychological problems of about 25 percent of its population. The survey found, among other things, that poverty and lack of meaningful employment led to drinking-related aggression and crimes. The service unit director said the survey data was invaluable in making the community more aware of the alcohol problem and in providing the basic information needed to justify an alcoholism project for the service unit.

Estimates by IHS officials linked as much as 60 percent of the demand on the health care system at the six service units directly and indirectly to alcohol. According to IHS, during fiscal year 1972, 1,097 patients made 2,637 visits to these service units for reasons directly associated with alcohol abuse, such as episodic and habitual excess drinking, alcoholic addiction, intoxication, and delirium tremens.

At the 6 service units, 181 patients had been diagnosed 3 or more times during fiscal year 1972 for these alcohol abuse related conditions. In examining IHS records for 156 of these patients, we found that 114, or about 73 percent, had been referred from a number of sources, including IHS, to alcoholism, mental health, or social services programs for assistance. IHS does not systematically refer patients with alcohol problems to rehabilitation programs.

Records kept by the alcoholism projects operating in the service units could not be readily summarized to show the number of patients served. For example, the records of one project showed the number of patient visits rather than the number of patients serviced.

CONCLUSIONS

Alcoholism and alcohol abuse in the Indian population has existed for many years. Its adverse effects on the individual, the family, and the community are substantial.

The alcoholism and alcohol abuse problem deserves a high priority in IHS. In its role as the provider of comprehensive health services to Indians and in the light of the admitted substantial impact of alcohol abuse on its primary health care system, IHS should assist each Indian community to develop and strengthen programs dealing with the alcohol problem and should evaluate the impact of such programs on Indian health and the related health care system.

RECOMMENDATIONS

We recommend that the Secretary of HEW direct IHS to develop, or help the Indian communities to develop, information which

--identifies the extent of the alcohol problem and factors leading to, and resulting from, the problem;

--influences funding sources on the need for alcoholism programs at specific locations; and

--provides a basis for evaluating existing programs.

We also recommend that the Secretary of HEW direct IHS to establish procedures for systematically referring patients with alcohol problems to rehabilitation programs.

AGENCY COMMENTS

HEW acknowledged (see app. I) that alcoholism probably adversely affects more aspects of Indian life than any other health factor and concurred with our proposals. HEW stated that data on factors leading to alcoholism, being developed by an evaluation program in Alaska, would be shared with other areas of the country as part of IHS' continuing effort to (1) improve and initiate new projects to curb alcohol abuse and (2) "influence" funding sources on the need for particular alcoholism programs at specific locations. We were informed by HEW that its National Institute of Alcohol Abuse and Alcoholism, as the funding agency of all Indian alcoholism programs, was developing methodologies to evaluate all existing programs and that the results from this undertaking should further the quality of current and future programs.

Regarding the referral of patients with alcohol problems to rehabilitation programs, HEW said that this was being done at locations where rehabilitation programs existed.

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20201

NOV 26 1973

Mr. Willis L. Elmore
Assistant Director
Manpower and Welfare Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Elmore:

The Secretary has asked that I respond to your request for comments on your draft report to the Congress entitled, "Progress and Problems in Providing Selected Health Services to Indians." Our comments are enclosed.

We appreciate the opportunity to comment on this draft report.

Sincerely yours,

John D. Young

John D. Young
Assistant Secretary, Comptroller

Enclosure

APPENDIX I

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE COMMENTS ON GAO'S DRAFT REPORT TO CONGRESS ENTITLED, "PROGRESS AND PROBLEMS IN PROVIDING SELECTED HEALTH SERVICES TO INDIANS"

GAO RECOMMENDATION

That IHS determine the basic reasons for nonparticipation in MCH programs and further efforts to (i) educate Indian mothers on the value of MCH programs; (ii) develop MCH programs accessible to Indian mothers and infants which would include efforts to overcome transportation problems; and (iii) follow-up with mothers to encourage them to receive scheduled MCH services.

DEPARTMENT COMMENT

We concur. Indian Health Services (IHS) has identified factors, similar to those pointed out in the report that contribute to nonparticipation in MCH programs. Steps have already been taken to further improve participation along the lines called for in the recommendation. Specifically, IHS:

(i) has increased educational activities by contracting with the tribes indigenous people to work as Community Health representatives or Community Maternal and Child Health workers. Both types of workers receive special training in Maternal and Child Health care.

(ii) recognizes that the transportation problem is a major cause of difficulties in attendance at IHS clinics. While not a specific responsibility of the Service, IHS is trying to overcome this problem in order to have its Maternal and Child Health programs accessible to Indian mothers and children by providing transportation of patients to its clinics by Community Health representatives, by Community Maternal and Child Health workers -- and if necessary -- by Public Health nurses. We recognize that these remedial efforts are costly but are trying to expand them as the best solution within our responsibilities. Also, the expansion of field clinics, bringing the services closer to the family, is another way of overcoming the nonparticipation problem.

(iii) has increased follow-up efforts to encourage mothers to receive scheduled MCH services by utilizing "outreach health workers," such as Community Health representatives, Community Maternal and Child Health workers, Public Health nurses, and nurse-midwives. However, poor participation in prenatal, postpartum and well-baby programs is linked to the transportation problem.

GAO RECOMMENDATION

We recommend that Indian Health Service obtain comprehensive data on the extent of otitis media and on the extent of existing restorative and rehabilitative backlogs. This information should then be used to (i) establish program objectives in terms of the number of people needing services and program priorities for the allocation of resources; and (ii) measure program performance in alleviating this health problem.

DEPARTMENT COMMENT

We concur. IHS is currently expanding its otitis media program to include stated program objectives and periodic evaluations to determine program effectiveness.

GAO RECOMMENDATION

That IHS establish (i) systematic screening procedures with strengthened referral and follow-up procedures in order to provide for early detection and treatment and to assure that those identified as requiring further services receive such services, and (ii) education programs for increasing awareness of the disease and the need for early treatment.

DEPARTMENT COMMENT

We disagree with systematic screening as an effective means to control otitis media. Since acute otitis media is episodic, a mass screening program would identify only chronic otitis media, and this is not the problem in the young preschool children. A more effective, and costly, way of controlling the disease would be to place each case of acute otitis media in a long-term surveillance program which would be modified as the disease recurs or fails to recur in each individual case. With respect to the second part of the recommendation, we have already initiated such educational programs for both primary care physicians and Indian communities over the past two years.

GAO RECOMMENDATION

Develop procedures and criteria for determining tribal capabilities for maintaining and operating water and sanitation systems, including provision for appropriate education and training programs prior to transferring responsibility for the systems to individuals and tribes, and continue to monitor and maintain such systems until tribal capability has been established; and place increased emphasis on working with tribal governing bodies to establish and enforce adequate solid waste disposal procedures.

DEPARTMENT COMMENT

We generally concur. As the GAO report notes, IHS currently has a task force developing requirements for training the Indian community and IHS personnel in the maintenance and operation of water supply systems. IHS has encouraged the Indian community to establish and maintain adequate solid waste management programs. Technical advice and, in some cases, resources and equipment is provided in getting adequate waste disposal programs established. We plan to include solid waste as an "emphasis item" at the forthcoming conference of Area Environmental Health Office Chiefs.

GAO RECOMMENDATION

That IHS operate a tuberculosis control program that would effectively conform to generally accepted public health standards for the treatment, control, and follow-up of tuberculosis patients and others who have been exposed to the disease. This would include (i) maintaining and using complete, accurate, and timely tuberculosis registers; (ii) establishing and implementing health education programs to make the delivery of services more effective; and (iii) establishing and implementing follow-up procedures to assure that all persons found to be exposed to or infected with the disease receive the prescribed tests and treatment.

DEPARTMENT COMMENT

Although the Indian mortality rate from tuberculosis has been substantially reduced, we concur that more needs to be done. Ongoing IHS tuberculosis control programs are being modified to generally conform to public health standards for the treatment, control, and follow-up of tuberculosis patients and others who have been exposed to the disease. The following actions, when implemented will meet the GAO recommendation:

> IHS is attempting to obtain the cooperation of the States who have the resources to help IHS maintain and update tuberculosis registers. Presently, Alaska and Arizona are cooperating in the utilization of their State tuberculosis registers. Also, a Tuberculosis Control Officer for IHS has been recently designated and will be directed to give priority to this task.
>
> IHS has developed a cooperative tuberculosis control program with the Navajo tribe, the Arizona State T.B. Branch, and the Communicable Disease Center's T.B. Branch. Twenty-one persons including 12 indigenous field workers, provide health education programs. Al-

though the Navajo program has been generally successful, there are some technical problems, as pointed out by the GAO report, that have to be resolved before IHS could implement the program in other areas.

Follow-up action to assure that persons found to be exposed to or infected with the disease receive prescribed tests and treatment is being done. However, to extend these activities to a higher level of performance without additional funds will require curtailing other high priority activities. IHS must carefully allocate its resources so as to not benefit one substantive program to the detriment of another.

GAO RECOMMENDATION

That IHS develop an adequate venereal disease control system including gonorrhea screening programs for female patients. Such a system should include adequate records, reporting and management review procedures to provide assurance that persons treated for venereal disease are referred to the appropriate resource for interviewing, and other identified contacts are traced and treated.

DEPARTMENT COMMENT

We concur. With help from Communicable Disease Center's Venereal Disease Control Branch, Atlanta, we have already started a program of screening female patients for gonorrhea when any sexually active patient is submitted to a pelvic examination. Cultures for gonorrhea are taken at the time of such examination with culture media provided by Communicable Disease Center. Positive findings are reported to the respective State Health Department. We recognize there is room for improving the reports and are attempting to accomplish this. Persons treated for infectious venereal diseases are reported to the local or State Health Departments which usually are the agencies responsible for the identification, tracing and follow-up of contacts. If the contact is one of the Indians or Alaska Natives that we serve, the Indian Health Service provides the treatment.

GAO RECOMMENDATION

That IHS develop, or help, the Indian communities to develop information which (i) identifies the extent of the alcohol problem and factors leading to, and resulting from, the problem, (ii) influences funding sources on the need for particular alcoholism programs at specific locations, and (iii) provides a basis for evaluation of existing programs.

DEPARTMENT COMMENT

We concur. As the GAO report notes, alcoholism probably adversely affects more aspects of Indian life than any other health factor, and has been an Indian health problem since the 17th Century. However, much has been done towards providing comprehensive health service to the alcoholic in the Indian community and in identifying factors leading to alcoholism. IHS is currently sponsoring an evaluation program in the Alaska Indian community to identify factors leading to alcoholism. Data from this study will be shared with other areas of the country as part of IHS's continuing effort to (i) improve and initiate new projects to curb alcohol abuse, and (ii) "influence" funding sources on the need for particular alcoholism programs at specific locations. The National Institute of Alcohol Abuse and Alcoholism (NIAAA) the funding agency of all Indian alcoholism programs, is currently developing methodologies to evaluate all existing programs. Results from this undertaking should further the quality of current and future programs.

GAO RECOMMENDATION

That IHS establish systematic procedures for referral of patients with alcohol problems to rehabilitation programs.

DEPARTMENT COMMENT

The intent of this recommendation is presently being done at those locations where such rehabilitation programs exist.

PRINCIPAL OFFICIALS OF THE DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE RESPONSIBLE FOR ACTIVITIES DISCUSSED IN THIS REPORT

	Tenure of office	
	From	To
SECRETARY OF HEALTH, EDUCATION, AND WELFARE:		
Caspar W. Weinberger	Feb. 1973	Present
Frank C. Carlucci (acting)	Jan. 1973	Feb. 1973
Elliot L. Richardson	June 1970	Jan. 1973
ASSISTANT SECRETARY FOR HEALTH:		
Charles C. Edwards	Apr. 1973	Present
Richard L. Seggel (acting)	Jan. 1973	Apr. 1973
Merlin K. DuVal, Jr.	July 1971	Dec. 1972
ADMINISTRATOR, HEALTH SERVICES ADMINISTRATION:		
Harold O. Buzzell	July 1973	Present
ADMINISTRATOR, HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION:		
Harold O. Buzzell	May 1973	June 1973
David J. Sencer (acting)	Jan. 1973	May 1973
Vernon E. Wilson	July 1970	Dec. 1972
DIRECTOR, INDIAN HEALTH SERVICE:		
Emery A. Johnson	Dec. 1969	Present

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