Health Care In Alaska

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GEOGRAPHY
Descriptions of Alaska’s geography invariably begin by declaring that Alaska is the largest state in the nation. This simple declaration, however, is inadequate to effectively depict the vastness of the State’s geography and the extremes of its terrain and climate. All states are unique in some way, but Alaska is distinct in many aspects, from its size to its climate to the differences in lifestyle and living conditions between its metropolitan areas and its smallest most remote villages. As a result, the citizens of Alaska face special and uncommon circumstances in building, maintaining, and accessing a health care system that must serve such an expansive and varying territory.

Alaska is, by far, the largest state in the nation, accounting for 20 percent of the land mass of the continental United States and encompassing an area larger than the states of Texas, Montana, and California combined. At its widest points, it stretches 2,400 miles from east to west and over 1,400 miles from north to south. If a map of Alaska is overlaid on a map of the continental United States, Alaska stretches across the country, extending from the coast of California to Macon, Georgia and from the Minnesota-Canadian border to Arkansas. If cut in two, each part would still be larger than any other state.

Alaska is home to some of the most varied and formidable terrain in the world, ranging from one of North America’s only rainforests in the southeast to treeless tundra in the Arctic. The State has more miles of coastline than the lower 48 states combined and thousands of residents inhabit islands that can be reached only by water craft or aircraft. Even Juneau, the State’s capital and third largest city, is not connected to the mainland by roads and is reachable only by boat or aircraft.

Glaciers, ice-fields, and mountains (Alaska is home to six major mountain ranges) blanket much of the State, hindering road and infrastructure development and rendering even inland areas accessible only by aircraft or by snow-machine - if the distances to be traveled are not too vast. Despite its size, Alaska ranks 47th among the 50 states in road miles. Yet, approximately 75 percent of Alaska communities are not connected by road to a community with a hospital. In addition, extreme weather, including snow, ice, and temperatures that can range from 70 degrees below zero to 110 degrees above zero, makes travel very difficult in much of the State during parts of the year.
DEMOGRAPHICS

Population
The U.S. Census Bureau reports that Alaska is home to about 610,000 people, ranking 48th out of the 50 states in population. Coupled with its vast geography, Alaska’s relatively small number of residents yields a population density of approximately one person per square mile, about 70 times smaller than the national average. Indeed, the many definitions of “rural” and even the federal definition of “frontier” -- an area of less than six people per square mile -- are inappropriately dense classifications to describe most of Alaska. Although close to half of Alaska’s population is concentrated in the Anchorage region, the State’s largest metropolitan area, 25 percent of all Alaskans, and 46 percent of Native Alaskans, live in communities of less than 1,000 people. Nearly one-quarter of the State’s population live in towns and villages that are reachable only by boat or aircraft.

Despite small population figures, the State has grown rapidly during the past fifteen years, experiencing a population growth rate of greater than 40 percent over this period, more than four times the national average. This growth is another factor that has distinguished Alaska from other, more “typical” rural states, which have grown at a much slower rate, or in some cases, have lost population. The population growth rate has slowed in recent years, however, as net migration has declined due to military base closings and realignments, low national unemployment rates, and declines in some of the State’s key industries, such as oil and timber.

Age
Alaska’s population is younger than the nation’s as a whole, and far younger than the population of most rural areas of the country. The median age of the State’s population is slightly less than 30 years of age, and close to 80 percent of the people living in Alaska are 44 years of age or younger. Only about five percent of Alaska’s population is age 65 and over, compared to almost 13 percent nationwide. The State’s relatively young population produces a different set of health system development issues and service requirements than those encountered in most rural regions of the country. This creates greater need for such services as maternal and child health and accentuates the relative dominance of Medicaid, as opposed to Medicare, as a major payer of health care services.

Ethnicity
Another of Alaska’s unique demographic features is the high proportion of indigenous peoples in the population. Native Americans make up less than one percent of the population of the U.S., but comprise more than 16 percent of Alaska’s population. The Alaskan Native population is dominant in the Northern region of the State, where more than three of every four residents are Alaskan Native, and in the Southwest region, where Alaskan Natives comprise over 60 percent of the population. This high proportion of Alaskan Natives, many of whom live in small remote villages, and the complexity of federal laws addressing this population, are fundamental considerations in developing sustainable health care delivery and financing systems in Alaska.
After Alaskan Natives, African American and Alaskan/Pacific Islanders are the most predominant ethnic minority groups, although each of those make up less than five percent of the population. Whites comprise close to 75 percent of the population of the State.

Economy and Income
Alaska's economy is dominated by a few industries and is subject to periods of "boom and bust". More than 90 percent of the State's revenue is generated by the oil and natural gas industry. The State is therefore exposed to ups and downs in the market for these products. Local economies also depend on fishing, timber, mining, and tourism - all industries that are highly dependent on world markets and environmental status. Fishing and tourism, in particular, tend to be seasonal and dependent on transient workers, creating heavy demands on local health systems during parts of the year. A health care delivery system that may be adequate for the year-round resident population often becomes heavily stressed by the influx of large numbers of workers and travelers during fishing or tourist season.

Due to the seasonal nature of much of Alaska's industry, the rate of unemployment fluctuates drastically during the year. In 1997, the unemployment rate varied from a high of 10.4 percent in February to a low of six percent in August. Similar fluctuations occur every year. The yearly average unemployment rate in Alaska has ranged between seven and eight percent over the last four years, compared to the national average of about five percent.

Despite high unemployment rates, Alaska appears relatively affluent when compared to the rest of the United States, with higher household median income and per capita income than the nation as a whole. Alaska ranks second in the nation, behind Connecticut, in these categories. These figures are driven by the predominance of the petroleum and fishing industries in parts of the State. Bristol Bay, the State's most productive fishing area, and the North Slope Borough, the home of North America's largest oil field at Prudhoe Bay, each have median household incomes of more than $50,000 per year. Median income figures in some of the outlying rural and "bush" regions are less than half as much. In addition, the cost of living in Alaska is extremely high, diluting the buying power of these relatively high incomes.

Despite favorable overall income statistics, much of Alaska is relatively poor. Some small outlying villages lack sewage and water systems and housing is often barely adequate, particularly in Alaska's extreme climate. These factors have obvious and profound implications for public health. Coupled with the scarcity of health care providers and facilities in many of these regions, provision of even the most basic public health and primary care services is often difficult or impossible.

Health Status
Alaska ranks fairly low in many health status measures, standing near the bottom of state rankings in rates of infectious disease, occupational fatalities, and prevalence of smoking.
The rate of premature deaths is also very high, resulting in part from high death rates due to accidents, suicide, and chronic liver disease and cirrhosis, which rank respectively as the State’s third, fourth, and eighth leading causes of death. The State’s suicide rate is more than twice the national average, and may run to several hundred times the national rate in many “bush” villages. All of these causes of death may be reflective of a young, predominately male population and culture, limited access to health care services in many parts of the State, and a lack of well financed and organized mental health and substance abuse services. Interestingly, Alaska’s age-adjusted rate for heart disease is much lower than the U.S. rate, perhaps reflective of residents’ active lifestyles.

A significant reason for the State’s low ranking in health status measures is the relatively poor health status of the Alaskan Native population. The HIV infection rate for Alaska Natives is the highest in the State and death rates for suicide and homicide are many times the national average. Rates of substance abuse and resulting health problems (e.g., fetal alcohol syndrome, liver disease) are high and rising. Alaska Natives have one of the highest age-adjusted mortality rates for cancer in the U.S. and the prevalence of diabetes is also very high and continues to increase. In addition, as noted above, basic public health measures, such as adequate water and sanitation services, are not available in many small Native and non-Native villages.

BACKGROUND
Alaska’s current health care delivery system has fundamental elements and ways of behaving that may be traced to territorial days. The Alaska frontier is remote, with a harsh environment. Basic human needs have often been difficult to meet under those circumstances. In the past, local decision-makers were far removed from national influences and control, giving rise to a system in which more or less autonomous agencies articulated their plans and actions in isolation from each other, and certainly from the heads of their agencies in Washington, D.C.

EARLY FEDERAL INVOLVEMENT
Almost immediately following the purchase of the new territory from Russia, there was a substantial Federal involvement in the health matters of Alaska. The Army, Navy, Coast Guard, Air Force, Bureau of Indian Affairs, Bureau of Education (now defunct), Indian Health Service, Veterans Affairs – all have participated in the delivery of health services in Alaska at one time or another over the past century and a half. (Reported by R. Fortuine, M.D., in Polar Notes #14, Dartmouth College).

Following early and sporadic attempts by various branches of the U.S. military to deliver health care to Alaska, Federal health services for Alaska Natives became more or less systematic with the beginning of the Twentieth Century. According to Fortuine, between 1912 and 1953 the Federal Bureau of Education, and later, the Bureau of Indian Affairs, built hospitals in Juneau, Akiak, Noorvik, Unalaska, Tanana, Haines, Kanakanak (Dillingham), Tyonek, Mountain Village, Kotzebue, Barrow, Mt. Edgcome and Anchorage. Health care was not confined to hospitals. The Bureau of Education employed teachers who were also physicians. Physicians and nurses also worked aboard the Martha Evangeline, which was a federally owned, remodeled Yukon River boat delivering health
care to the villages of the lower Yukon River between 1926 and 1934. Then, as now, Federal agencies purchased contract health care services for Alaska Natives from private providers located in Anchorage, Nome, Juneau, and Seattle. For the most part, as Fortuine points out, private care providers tended not to be situated near the heavy concentrations of Native population, and so, health care services had to be taken out to them – a situation that prevails to this day.

**THE TERRITORY ASSERTS ITSELF IN HEALTH MATTERS**

World War II was a period of great disruption in providing health care in Alaska, particularly those services provided by the Bureau of Indian Affairs to Alaska’s Native population. The long duration of significant Federal involvement in Alaska’s health system had been virtually assured by the chronic weakness of Territorial government. When the war ended, however, the Territory began, on its own, to assume a major role in providing health care to rural residents. Territorial Governor at that time was Ernest Gruening, a physician. He appointed C. Earl Albrecht, M.D. to be the first full-time Commissioner of Health for the Territory. Albrecht was committed to a public health approach: He stressed prevention, maternal and child services, nutrition and health education, thus, laying the foundation for the public health services currently conducted by the Alaska Division of Public Health.

Between 1947 and 1959, the State emulated the earlier Federal practice of using boats to deliver health services, bringing on the *M/V Hygiene*, the *M/V Health*, and the *M/V Yukon Health*. These vessels made regular trips along the coastal regions and up the Yukon and Kuskokwim Rivers.

**THE MIDDLE DECADES: TB; PUBLIC HEALTH NURSES; COMMUNITY HEALTH AIDES**

By the end of the War, tuberculosis had become a devastating killer of Alaska Natives. The Alaska Native Medical Center opened in 1953, at the height of the tuberculosis epidemic. During that time, according to Fortuine, Alaska’s Native people were hit hard by polio, ear and eye problems, measles, mumps, rubella, and dental problems. The now famous report of Dr. Thomas Parran (*Alaska’s Health: A Survey Report, 1954*), brought national attention to these deplorable health conditions of Alaska Natives. Americans and the Congress were shocked by the Parran Report, which caused a substantial infusion of new funding into Indian Health Service activities in Alaska.

A system of itinerant nursing, which covered most of the rural villages of Alaska, had grown up under the Federal services to Alaska Natives. Prior to Statehood in 1959, the Indian Health Service had begun to contract much of that service through the Territorial health department apparatus established under Gruening and Albrecht.

The itinerant public health nursing program exemplified what was most unique about health care delivery in Alaska, when compared with the rest of the United States. Except to the extent that private providers worked under contract, the treatment of patients and the maintenance of patient records, along with broad-based case management, was being performed by public agencies, not by the private care industry. The nurses provided both
public health services (as we understand that term today) as well as primary care to individual patients who were sick.

It would be an understatement to say that the public health nursing program was the “star of the show”. Their heroic reputation was well deserved, and prevailed until the late 1960s. It was then that Alaska Natives began to form regional health delivery agencies (private, not-for-profit tribal corporations) in order to contract services from the Indian Health Service under the “Buy Indian” Act. Later, Public Law 93-638 (the Indian Self Determination and Education Assistance Act) superceded Buy Indian, and the Tribes rushed quickly to assume management leadership over the federal health care resources that served them. Throughout the 1970s there was a movement away from the idea that itinerant nurses should provide a full range of care on a periodic basis to remote villages. “We need someone in the village all the time….we can’t save our ailments for when the nurse is going to be in the village”...were the frequent pleas of Native people at the time. Thus, the change in perception about the utility of the public health nursing program as it then existed coincided exactly with the growing movement toward Native self determination and the emergence of the Community Health Aide (CHA) as the new “hero” on Alaska’s health scene. As the 1970s wore on, the role of the public health nurse gradually changed from that of primary care deliverer, to that of public health monitor and fact-finder, educator and prevention specialist.

Thus, increasingly, in that decade, public health nurses worked with schools, acted as visiting consultants for CHAs, conducted well-baby clinics, and oversaw immunization programs. The final end of the “public health nurse as practitioner” arrived with the passage of Alaska’s Nurse Practice Act, in 1980. With that law, only nurse practitioners were allowed to perform as the itinerant nurses had performed in the past (many of whom had been two and three year diploma RNs) - often independently – nearly always far from the comforting presence of an urban medical technology.

Parenthetically, the Nurse Practice Act also brought to an end an informal community health aide system that had begun to emerge in non-Native communities. Often, a nurse, or someone with nurse training found themselves living in one of the non-Native communities (usually, the logging and fishing communities in the southeast part of Alaska). Their spouse might be a logger, or a fisherman, or a government employee. Word would get around the community that... “so and so is a nurse!” Before long mothers with sick children would be knocking at that individual’s kitchen door – “Eric stepped on a nail - will you take a look at it?” If the new “provider” knew a physician in say, Juneau, Anchorage, Petersburg, Sitka, or Seattle (to name a few) they might call and establish a link similar to the kind made legendary in the model CHA program then operating under the IHS. This “informal” CHA system ended with the Nurse Practice Act under threatened legal action by various licensing authorities. As a consequence, small, non-Native communities in Alaska suddenly found themselves totally without primary care resources unless they could afford to travel to a clinic or hospital, or unless they had a large enough population (about 1000 persons) to warrant the presence of a mid-level practitioner. An estimated 45,000 Alaskans in approximately 40 communities currently find themselves in that situation.
The Community Health Aide Program in Alaska has been a resounding success. Virtually every Alaska Native village now has at least one of these well-trained para-professionals who act as the eyes, ears and hands for a physician located far away. Community health aides were first conceptualized by the Russians as early as 1820 (Fortune, as remarked by Nice and Johnson, in The Alaska Health Aide Program: A Tradition of Helping Ourselves, 1998). By the 1830s, Russian physicians were using these “feldshers”, or special aides located in remote areas. Nice and Johnson go on to describe how the modern CHA program grew out of two programs in the early 1950s that used aides. One was the Sanitation Aide Program, in which the Alaska Native Service contracted with the Alaska Health Department to train special Sanitation Aides for the Yukon-Kuskokwim region. The other was the Chemotherapy Aide/Recorder program, in which village volunteers were identified who could administer medication and keep accurate patient records for the treatment of tuberculosis. The program was all volunteer until 1968, when Congress authorized funds to train and pay salaries to 185 Aides in 157 villages (approximately $2 million). By 1991, nearly 300 positions were funded, at about $30 million – still a huge savings when compared with the alternative of providing “conventional” medical services using physicians and nurses over the same impossible topography.

PROFILE OF ALASKA’S CURRENT HEALTH CARE SYSTEM

Like almost everything in Alaska, the health care system is shaped by the unique geography, climate, and demographics of the State. The remoteness of some villages and extreme weather conditions play important roles in determining access and availability of care. Alaskan Natives and a substantial military presence often result in two, or even three, “systems” of care in some communities, each providing similar services to different populations.

Services are financed by a variety of payers, including the U.S. Indian Health Service (IHS), the U.S. Departments of Defense (DoD) and Veterans’ Affairs (VA), Medicare, Medicaid, and individuals, businesses, and private insurers (primarily Blue Cross of Washington and Alaska). The impact of the federal government is substantial, as over 70 percent of the population receives some federally funded health care. Through IHS, DoD, VA, Medicare, Medicaid, and other programs, the federal government is the largest single payer for services, accounting for over a third of all dollars spent on health care in Alaska. Public expenditures, from Federal, State, and local government sources, account for more than 60 percent of Alaska’s health care spending. Over 70,000 people, more than 11 percent of the population, are uninsured.

Levels of Care

The Alaska health care system uses a regional approach to service organization, with communities categorized based on the types of services and levels of care that are available. The community levels-of-care approach identifies appropriate health resources and services for five community levels, considering factors such as continuity, coordination, and continuum of services and referral patterns. Service linkage from lower
to higher levels of care are a central element of the system. Descriptions of each level of care and the services available are discussed below.

Level I -- Village
Level I communities offer basic primary care services that encompass many of the daily personal health care needs of residents. Services include health education, preventive care (e.g., surveillance, immunizations, health promotion), and evaluation and management of episodes of general discomfort and chronic conditions. Directing patients to more specialized services is also a major function of primary care providers in Level I communities. Level I communities meet at least one of the following criteria:

1. Continuing services can be conveniently provided in the area.
2. The system is designed primarily for ambulatory care.
3. Emergency measures can be provided in a timely manner.

Villages that support Level I services typically have populations between 25 and 750 residents. Non-dedicated clinic space (i.e., the space may not be used exclusively for health care services) is often used for the provision of care. Staffing of Level I services may be comprised of a Community Health Aide, a resident trained as a Level I Emergency Medical Technician (EMT-I), or an itinerant Public Health Nurse. Level I communities are isolated and may be accessible only by limited air or marine travel services.

Level II -- Sub-Regional Centers
Level II communities also focus on the delivery of primary care and preventive services, but offer a broader range of these services than are provided in Level I communities. They typically contain a Health Center that may be staffed by a Physician Assistant or Nurse Practitioner, a Public Health Nurse, and EMT-IIs or EMT-IIIIs. Level II communities typically have service area populations of at least 1,000 residents and have access to higher level centers by sea or daily air service.

Level III -- Regional Centers
Level III communities provide an expanded set of services that encompass secondary levels of care. Services may include basic hospital services in a facility that is capable of providing diagnostic and routine laboratory services, uncomplicated obstetrical services, and hospital inpatient care. Level III communities usually have more than 3,000 people in the primary service area and up to 60,000 in the surrounding community within 60 minutes travel time. Staff available include primary care physicians, itinerant specialist physicians, hospital support staff, EMT-IIs or paramedics, and other health care professionals (e.g., dentists, pharmacists, and optometrists).

Level IV -- Urban Centers
Services in Level IV communities are typically institutional and specialized. Secondary and tertiary care services, such as high risk neonatal care, open heart surgery, and head and spinal cord injury services are examples of Level IV services. Provision of these services requires a significant population base (typically at least 40,000 residents) to
support the necessary staffing and equipment. As a result, Level IV communities are regional centers for the provision of specialty care.

**Level V – Metropolis**
Level V communities contain highly specialized and technologically intensive services that are economically out of reach of all but the largest communities. They contain medical and dental teaching facilities and may provide services such as organ transplants and burn care. A population of at least 450,000 is required to support Level V services; as a result, they are not currently available in Alaska. Seattle is the closest and most frequently utilized Level V community for Alaska residents.

**Federal Government-Owned or Funded Services**

**Services for Alaskan Natives/ Native Americans**
As part of its trust responsibility, the federal government is required to provide health care services to the Native Alaskan population, which numbers about 110,000. Services are delivered through the Alaska Area Native Health Service (AANHS), an administrative unit of IHS, and a combination of other organizations, including Regional Health Corporations, Village Corporations, State and local government. Most of the facilities and services provided through AANHS are managed directly by Regional and Village Corporations through compacts and contracts negotiated under Public Law 93-638, the Indian Self-Determination and Education Assistance Act of 1975. This law authorized tribes (or, in Alaska's case, Native Corporations) to assume the operation and administration of certain programs previously administered by the federal government (i.e., rather than providing services directly, the federal government provides funding to Tribes/Native Corporations and these entities provide services to the Alaskan Native population).

Services available in the Alaska Native Health System range from sophisticated high-tech inpatient and trauma care at the Alaska Native Medical Center in Anchorage to basic personal care services provided by Community Health Aides (CHAs) in remote villages. CHAs work under remote physician supervision in small villages throughout the State to provide primary care, prevention, and health promotion services. These providers are unique to the Native Health System and have no direct counterparts in the "lower 48 states, nor in Alaska's non-Native system. A full range of other services, including Community Health Clinics (CHCs), community mental health services, and hospitals are available under the Alaska Native Health System (some of these services are supported by State and private funding in addition to federal funding). Despite this breadth of services, it is widely accepted that funding for the Native system is inadequate and, as discussed above, the health status of the Native population lags behind that of the rest of the State.

**Services for Military Personnel and Veterans**
Almost a quarter of the Alaska population is eligible for health care services through the Department of Defense and the Department of Veterans’ Affairs. Through these two agencies, military personnel, dependents, and retirees are provided a range of services
through ten federal health facilities, including two hospitals. The military also contracts with a network of private and other providers to deliver services to eligible beneficiaries.

**Primary Care and Physician Services**

Primary care services in Alaska are provided by a spectrum of providers, ranging from Community Health Aides in remote Native villages, to mid-level practitioners in CHCs and Rural Health Clinics (RHCs), to physicians in urban multi-specialty group practices. A variety of government agencies and organizations supports the development of primary care services, including the Department of Health and Social Services, the Alaska Primary Care Office, the Alaska Primary Care Association, the Alaska Center for Rural Health, and the Alaska Family Practice Residency Program.

As in many rural areas of the country, Alaska has an inadequate supply of primary care practitioners and those that are available are disproportionately located in urban communities, especially Anchorage. The State has 20 federally designated Health Professional Shortage Areas (HPSAs) and 10 Medically Underserved Areas (MUAs), covering nearly a third of the population and two-thirds of the land area. Recruitment and retention is especially difficult, primarily in remote areas, and there is extensive turnover of health personnel. Many communities rely on the National Health Service Corps for placement of physicians and other primary care providers and itinerant Public Health Nurses play an important primary and preventive care role, particularly in the most isolated villages.

In some cases, RHCs and other primary care clinics must retain patients overnight due to severe weather or other conditions that prevent travel and transfer. These facilities and attending practitioners cannot be reimbursed for providing this care, as third party payers have no mechanism for paying for “inpatient” services in these outpatient facilities (e.g., federal law precludes Medicare and Medicaid payment for overnight stays in RHCs and clinics). For this reason, there is some interest in expanding eligibility for Critical Access Hospital (CAH) conversion to include isolated clinics where adequate personnel and other resources are available.

Physician specialty services tend to be concentrated in larger communities where there are hospitals. The majority of physician specialists and services are located in Anchorage.

**Hospitals**

There are 24 acute care hospitals in Alaska, including two military hospitals and six hospitals operated by Native Corporations.¹ A full inventory of Alaska hospitals, by census region, is provided below.

¹It is not clear that military hospitals or hospitals operated by Native Corporations are eligible to participate in the Medicare Rural Hospital Flexibility Program. As a result, in the sections of the Plan describing development and implementation of the program, only non-Native and non-federal hospitals are addressed. State authority over Native and Federal facilities is
The relatively large hospitals in Anchorage, Fairbanks, and Juneau serve as regional referral facilities for providers from rural areas of the State. As described in the description of levels-of-care, above, hospitals in Seattle also serve as key referral destinations for residents of Alaska in need of high tech and specialty services.

Like hospitals in the rest of the country, Alaska's hospitals face continuing trends of declining inpatient utilization and tight finances. Occupancy is generally low, with several hospitals experiencing occupancy rates below 10 percent. Population growth in some areas of the State may help to alleviate these declines, but growth is typically in young age groups that are not heavy users of health care services, particularly inpatient services. Overall trends are likely to continue, therefore, and may accelerate as managed care makes inroads in the State, particularly in urban areas.

**ALASKA HOSPITALS**

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<td>Palmer</td>
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<td>Private Non-Profit</td>
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</tbody>
</table>

| Interior Region                             |            |            |                  |
| Fairbanks Memorial Hospital                 | Fairbanks  | 166        | Private Non-Profit |

| Southeast Region                            |            |            |                  |
| Bartlett Memorial Hospital                  | Juneau     | 51         | Public/Municipal |

limited, and it is not clear that the State would be able to survey and license such facilities. If these issues are adequately addressed and Native and/or federal facilities express interest in the program, (footnote cont. from previous page) ...the State will work with HCFA and other appropriate organizations to develop and file an amendment to the Plan incorporating these providers.
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<th>Hospital Name</th>
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<td>Kotzhebue</td>
<td>22</td>
<td>Federal - AANHS</td>
</tr>
</tbody>
</table>

*Total number of beds includes acute care, long term care, and other inpatient beds operated by the hospital.

**Emergency Medical Services (EMS) System**

As noted above, injuries are the third leading cause of death in Alaska. Coupled with the State’s geography and climate and the vast distances between communities, a coordinated EMS system that links emergency personnel and other providers at all levels of the health care system is essential. Alaska’s EMS system has been built over the last 30 years. It has evolved from a few communities with poorly equipped and inadequately trained personnel to a system that includes both volunteer and paid first responders,
trained and certified EMTs and paramedics, ground and air ambulance services, and 24-hour hospital emergency departments staffed by physicians, nurses, and other personnel trained in emergency and trauma care.

Over 4,000 EMTs, EMS Instructors, and Defibrillator Technicians are certified by the Department of Health and Social Services and another 150 Mobile Intensive Care Paramedics are licensed through the Department of Commerce and Economic Development, Alaska State Medical Board. Many of these personnel are members of the approximately 100 EMS agencies and 18 air medical services. Ground and air medical services, providing advanced life support, must be certified by the Department of Health and Social Services. Services range in size from small rural agencies providing basic life support to state of the art, paramedic-based agencies in the more populous areas of the State.

The State is divided into seven EMS regions, which encompass the community levels-of-care approach to service organization (see above). System goals for State, regional, and community EMS programs are set around 15 core components, including training, communications, patient transport/transfer, equipment and supplies, accessibility to care, prevention, education, and safety, and disaster response.

The lead agency in the State for the development of EMS and trauma care services is the Community Health and Emergency Medical Services (CHEMS) Section of the Alaska Department of Health and Social Services, Division of Public Health. Responsibilities of this agency include overall system coordination, injury prevention education, training and certification, and Medevac and trauma system planning. CHEMS is advised by the Alaska Council on Emergency Medical Services and has facilitated the development of the Alaska EMS Goals, which is used by State, regional, and local agencies for EMS planning and evaluation. The State also maintains a Trauma Registry to track the causes and severity of injuries and the quality of the trauma care provided.

Public Health Services

As in other states, the mission of the Public Health system in Alaska focuses on health protection and promotion, disease prevention, and assuring access to quality services. To achieve this mission, Public Health services are population-based and address clinical prevention, health education, chronic and communicable diseases, maternal and child health, food and drug safety, environmental health, early intervention, mental health, substance abuse, services for the developmentally disabled, and other key health issues.

The Public Health system in Alaska is unique in several respects. First, public health in Alaska is almost entirely a State responsibility. Except for the city of Anchorage and the North Slope Borough, there are no local or Borough Public Health Departments. Thus, the Division of Public Health in the Alaska Department of Health and Social Services is responsible for both the financing and the provision of Public Health services throughout much of the State (in addition, Native Regional Health Corporations serve as de facto local/regional health departments for Native communities).
Second, due to the isolation of many villages and the lack of health care providers and infrastructure, the public health system represents the only point of access to health care or social services for much of the rural, non-Native population. As a result, Public Health Nurses (PHNs), including itinerant PHNs that travel to remote villages, are often the only providers available to many residents of these villages. The multiple needs of the population require each PHN to carry out a variety of roles that are usually carried out by multiple people representing multiple professions in urban-based systems. It is not unusual, for example, for a PHN in a small village to provide well-child care, EPSDT screening, immunizations, infectious disease prevention, education, and treatment, family planning services, coordination of care for children with special needs, home visits for at-risk families, community advocacy and organization, and other services related to health care, social, and community needs.

With the assistance of a Turning Point grant from the Robert Wood Johnson and W.K. Kellogg Foundations, the Division of Public Health is currently engaged in a process to assess and redesign the State’s Public Health system to better meet future needs.

Other Services and Programs

A variety of other health care services and programs are available to residents of Alaska, including mental health, substance abuse, and long-term care services. In addition, services for special populations, such as the developmentally disabled and victims of domestic violence and sexual assault, are important components of the health care and social services system. More information on these services is available from a number of sources and documents, including the Overview of Alaska’s Health Care Delivery Systems, February 20, 1996.

ECONOMIC IMPACT OF THE HEALTH SYSTEM ON RURAL COMMUNITIES IN ALASKA

As in the rest of the United States, the health care system in Alaska is a key component of the State’s economy, generating jobs and income, encouraging new business formation and expansion, and attracting new residents. Over 20,000 people work in the health care industry in Alaska, making it one of the State’s largest employers, and accounting for more workers than the oil, restaurant, or timber industries, or the finance sector. More than 40 percent of all private health sector workers are employed in hospitals, accounting for as many jobs as the next four largest health care sectors combined. Because of Alaska’s rural nature, the importance of the health care sector is heightened, as rural economies are rarely as diverse as urban economies and are thus very dependent on the fitness of existing industries.

In 1991, health care services in Alaska accounted for nearly $1.6 billion in spending. This total had doubled by 1998. The federal government accounts for more than one-third of this spending, through the Indian Health Service, Medicaid, Medicare, veterans’ and military health services, and other programs. Through the Medicaid program, revenue
sharing for small rural hospitals, grants, direct services funding, etc., the State is the second largest payer of health care services in Alaska.