



# National Resource Center for American Indian, Alaska Native, and Native Hawaiian Elders

## Health Status of Alaska Native Elders

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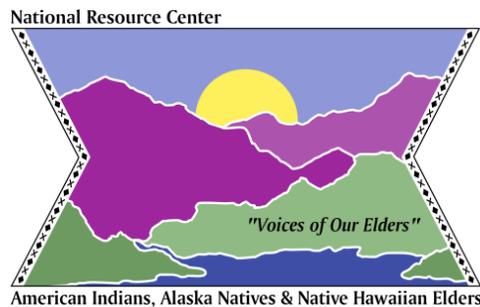
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*The information in this paper does not reflect the opinion of the Administration on Aging*





February 2005

Dear Reader:

The National Resource Center for American Indian, Alaska Native, and Native Hawaiian Elders (NRC) at the University of Alaska Anchorage (UAA) has completed its first year and is pleased to send you its four papers: (1) Qualitative Report: Conferences of Alaska Native Elders, Our View of Dignified Aging; (2) Health Status of Alaska Native Elders, (3) Best, Promising, and Emerging Practices, and (4) Elder Abuse Among Alaska Native Elders.

These papers are intended to provide information to decision makers on all levels in the Alaska Native community statewide and regionally, to the State of Alaska, and to various federal offices in Washington, D.C. so that culturally appropriate Elder health care services and programs can be designed and implemented with input from the Elders themselves. By extension the information provided here would be of interest to the many American Indian tribes and Native Hawaiian Elders. Dr. Josefina Carbonell, the Assistant Secretary on Aging, has directed the NRC to concentrate its efforts in Alaska in the first and second contract years.

This project started with meetings between the Alaska Native Tribal Health Consortium (ANTHC) and the NRC Alaska. A memorandum of agreement was reached to have a joint Alaska Native Elder Health Advisory Committee. This committee has met several times to give direction to both organizations. Meetings with our Elders were then held in regional Alaska Native areas that represent all of our Alaska Native cultural groups. All of the meetings were recorded, transcribed, and later analyzed by our research associates. The transcribed regional meetings papers were then sent back to the regional centers, mostly at senior centers, for their review and comments. Cultural consultants from all of the regional areas were also included to review the final comments in the paper entitled, "Our View of Dignified Aging" to provide an extra cultural review to maintain accuracy.

This project, also referred to as "Voices of Our Elders," is funded by the Department of Health and Human Service through the Administration on Aging in Washington, D.C. Grant No. 90AM2752. The NRC is officially located at the College of Health and Social Welfare (CHSW). The NRC started in the fall of 2003. Dean Cheryl Easley of CHSW traveled with the NRC staff to many of our regional meetings. The strategic focus chosen for the College of Health and Social Welfare is gerontology and this gives the NRC Alaska additional administrative support.

The NRC is one of two resource centers in the nation. The other, entitled the National Resource Center for Native American Aging, has been in existence for twelve years and is located at the University North Dakota. Among other activities, the NRC North Dakota conducts surveys on the status of Native American Elder health and related issues across the nation. Both NRCs are undertaking a joint project to address the issue of elder abuse and exploitation, and its several other related dynamics.

The NRC is interested in receiving your comments and thoughts on the information presented in the four papers. We invite you to view them on our new website at:

<http://elders.uaa.alaska.edu/>.

Sincerely,

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Social Welfare

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## Executive Summary

This paper is a description of the population of Alaska Native Elders, threats to their health and welfare and summary data on their use of health services. This paper was prepared for the National Resource Centre for American Indian, Alaska Native and Native Hawaiian Elders. The conclusions presented in this paper do not necessarily reflect the opinions of the US Administration on Aging.

The findings are summarized below:

1. The proportion of Alaska Native Elders to the total Alaska Native population is smaller than all other races.
2. The population of Alaska Native Elders is growing.
3. The fastest growing Alaska Native Elder population is in the urban areas of the state.
4. There are fewer differences between death rates between elderly Alaska Natives and Whites than in younger age groups.
5. There are few differences in the cause of death among Elders of different races.
6. Self-perceived health status is much lower in Alaska Native Elders than in the US general population
7. Alaska Native Elders report more chronic conditions than American Indian Elders
8. The number of chronic conditions appears to be related to age, income and education level.
9. Alaska Native Elders reported fewer limitations in functional activities than the American Indian or US general populations.
10. The most frequently reported limitations were walking (ADL) and heavy housework (IADL).
11. Outpatient services used are consistent with identified health problems.
12. One third of Alaska Native Elders report no need for dental services.
13. Accidents and Injuries generate more inpatient hospital days for Alaska Native Elders than any other cause.
14. Alaska Native Elders in Urban areas use a disproportionate amount of medical services.
15. Alaska Native Elders prefer assisted living to nursing home care.





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## **I. Introduction**

### **A. Purpose**

The purpose of this report is to describe the health status and the use of health services of Alaska Native Elders. The report is funded by the National Resource Center for Alaska Native, American Indian and Native Hawaiian Elders. It is intended to provide the basic template for future reports which incorporate other Native American groups.

### **B. Use**

This report can be used by the National Resource Center to:

1. Provide a template for base-line data on the description of the population, health status, and the use of services among Alaska Native populations.
2. Provide a template for similar descriptive projects for other groups of Native Americans.
3. Assist in the analysis and evaluation of the consistency between the values of Native American Elders and the services available to them.

### **C. Organization**

This report has three basic sections. The first section describes the Elder population of Alaska Natives. It examines long-term population trends, changes within specific cohorts of Elders, and the changes in the population by location throughout the state of Alaska.

The second section describes the health status of Elders and includes data on the death rates, cause of deaths, and limitations in activities of daily living that reduce the ability of Elders to function in their home environments.

The last section describes the use of services by Alaska Native Elders, and includes data on the distribution and use of outpatient, dental, inpatient, and long term care services.

Data for Alaska Native Elders are compared with available data on the U.S. population as a whole, and American Indian populations whenever possible.





## II. A Description of the Alaska Native Elder Population

This section presents data on the characteristics of the U.S, American Indian, and Alaska Native elderly populations. It begins with an overall comparison of the distribution of population by age across the country, and then further refines these data to examine American Indians and Alaska Natives. The rationale for the four cohorts that will be used to describe the elderly population whenever possible is presented after the overall description of the population.

For the purposes of this report, Elders are defined as people age 55 and over. Whenever possible, subsets of this population are presented. This definition of Elder may be different than that ascribed by the Alaska Native community. Whereas this paper relies on chronological age, the cultural definition of “Elder” carries a high status within the community. Therefore, someone who is considered an Elder in a community may not be elderly. Similarly, someone who is elderly might not necessarily carry the mantle of an Elder. This paper uses chronological age.

### A. United States and Native American Elderly Populations

The proportion of Elders age 55 and over in the Native American population is considerably smaller than the corresponding proportion in the general population.<sup>1</sup>

Figure 1 shows that American Indians and Alaska Natives have a higher proportion of their total population in younger age groups, and a lower proportion of senior citizens. This may be attributable to the high birth rate and high rates of violence, including unintentional and intentional injuries that take many Native Americans between the ages of 15-54.

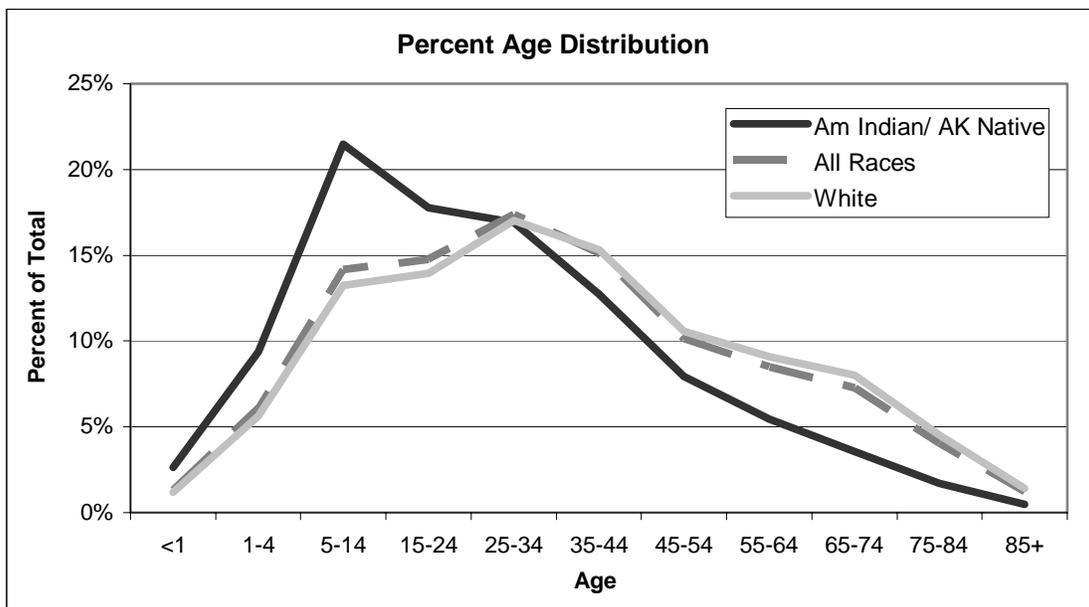


Figure 1

<sup>1</sup> Elders: Indian Health Focus, 1998-1999, US Department of Health and Human Services, Indian Health Service, Office of Public Health, Office of Program Support, Program Statistics Team, page 9.





At about age 35, the proportion of American Indians and Alaska Natives in the population falls below the proportion of all US races, and in particular US whites. A detailed presentation of these proportions is shown in Table 1.

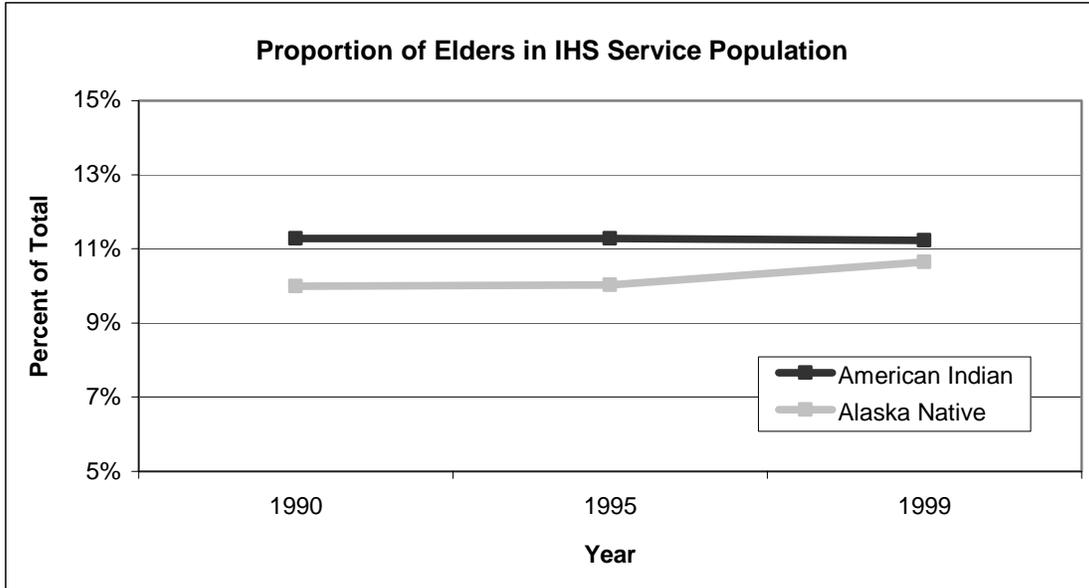
<b>Table 1. Percent Age Distribution of Population, 1990</b>			
Age Group	American Indian/ Alaska Native	U.S. All Races	U.S. Caucasian
All Ages	100,000	100,000	100,000
Under 1 year	2.616	1.294	1.204
1-4 years	9.390	6.086	5.631
5-9 years	11.239	7.277	6.819
10-14 years	10.251	6.881	6.437
15-19 years	9.470	7.138	6.682
20-24 years	8.286	7.647	7.273
25-29 years	8.729	8.569	8.332
30-34 years	8.198	8.791	8.690
35-39 years	6.971	8.027	8.053
40-44 years	5.740	7.083	7.265
45-49 years	4.353	5.578	5.802
50-54 years	3.577	4.564	4.760
55-59 years	2.965	4.235	4.491
60-64 years	2.485	4.268	4.613
65-69 years	2.077	4.066	4.457
70-74 years	1.466	3.215	3.569
75-79 years	1.090	2.461	2.747
80-84 years	0.619	1.582	1.779
85 years and over	0.478	1.238	1.396
Median Age	24.2 years	32.9 years	34.4 years

**B. Alaska Natives vs. all other Native Americans**

The proportion of Elders in American Indian populations appears to somewhat exceed that of Alaska Native populations (see Figure 2 and Table 2). The data are estimated using IHS total population data and extracting the Alaska Native data that come from the 1990 and 2000 Census<sup>2</sup>. While these are estimates, the trend appears to be clear. The proportion of Elders in American Indian populations consistently exceeds the proportion of Elders in Alaska Native populations. This again could be attributable to the high rates of intentional and unintentional injuries coupled with the high birth rate of Alaska Native populations.

<sup>2</sup> For a more complete description of Alaska Native populations, see *The Status of Alaska Natives, Report 2004, vol I*, Institute for Social and Economic Research, University of Alaska Anchorage, May 2004





**Figure 2**

<b>Table 2. Proportion of Elders in IHS Service Population</b>						
	1990		1995		1999	
	American Indian	Alaska Native	American Indian	Alaska Native	American Indian	Alaska Native
All Ages	1,120,451	86,785	1,271,667	99,781	1,377,282	108,226
All Elders	126,301	8,668	143,316	10,012	154,552	11,528
% of total	11.3%	10.0%	11.3%	10.0%	11.2%	10.7%

**C. Alaska Native Elders**

Figure 3 compares the growth of Alaska Native and non-native populations over the last 12 years. The data clearly show that the rate of growth for non-native Alaska populations far exceeds the rate of growth for Alaska Natives. Over the past 12 years, the Alaska Native population has grown 62%, from a 1990 count of 4,119 to a 2002 level of 6,669. During a similar period of time, the total non-Native population has grown from 18,320 to a current level of 31,934 individuals, for an increase of 74%. Over the past twenty years, the Alaska State Legislature has created an environment designed to keep non-native Elders in the state. The list of interventions is numerous, but includes:

1. The Alaska Longevity Bonus program
2. Property Tax forgiveness
3. Increased programs for seniors
4. The Alaska Pioneer Home system



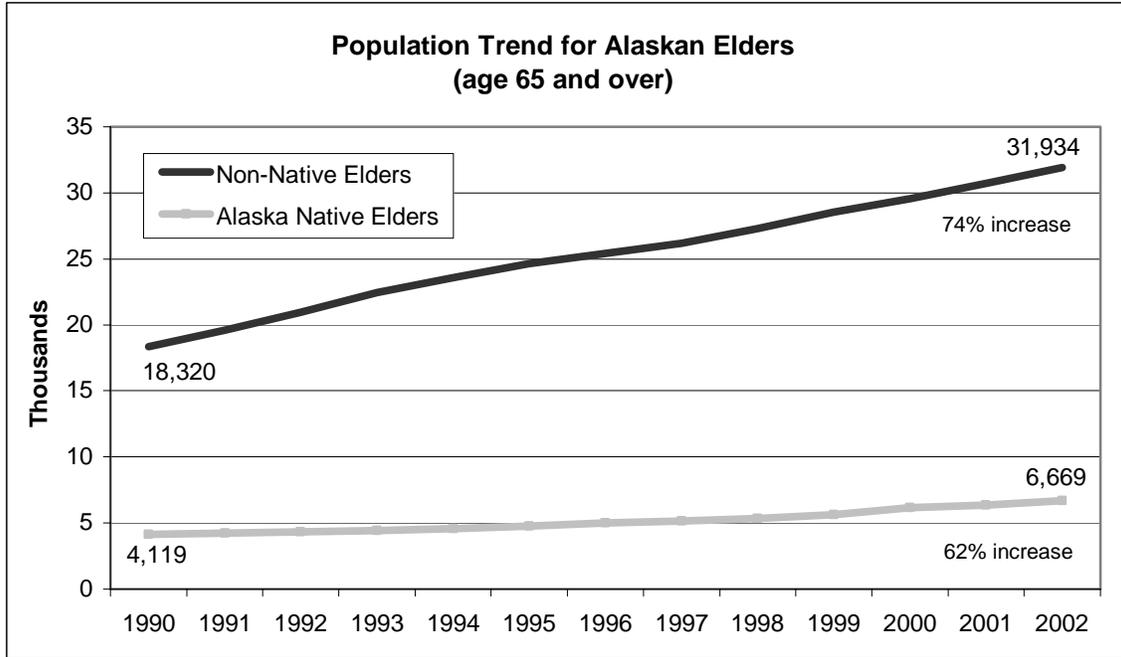


Figure 3

These policy initiatives appear to have had a marked affect that exceeds the effect of population alone. The proportion of non-Native Elders in Alaska has continued to grow at a very rapid rate. It is estimated that this rate is the second fastest in the country. Anchorage is ranked second in the nation for small metro areas and third for large and small metro areas (see Table 3).

There may be significant policy implications of these different rates of growth. Specifically, the higher proportion of non-native to Alaska Native Elders, together with their far more rapid growth rate, suggests that service delivery systems will be targeted toward those areas that address the needs of non-Native Elders. This suggests that Alaska Native Elders need to pay particular attention at the equitable allocation of program resources to address their needs as their population numbers are far less visible than those of the non-native counterparts.





<b>Table 3. Percent Change of Elderly Population 65 and Older</b>		
<u>MAJOR METROS</u>		
Rank	City	Growth Rate**
1	Las Vegas, NV	86.2%
2	Phoenix-Mesa, AZ	38.0%
3	Austin-San Marcos, TX	37.3%
4	Houston-Galveston-Brazoria, TX	31.8%
5	Atlanta, GA	30.8%
<u>SMALL METROS</u>		
Rank	City	Growth Rate**
1	Naples, FL	77.3%
2	Anchorage, AK	72.5%
3	Myrtle Beach, SC	61.7%
4	Las Cruces, NM	55.7%
5	Fort Walton Beach, FL	55.2%
<u>STATE RANKINGS</u>		
Rank	State	Growth Rate**
1	Nevada	71.5%
2	Alaska	59.6%
3	Arizona	39.5%
4	New Mexico	30.1%
5	Hawaii	28.5%

\*Metro areas are CMSAs, MSAs and (in New England) NECMAs, as defined by OMB in June, 2000. Major metros have 2000 total populations exceeding 1 million; small metros have 2000 total populations of less than 1 million.

\*\*1990-2000 change in the 65+ population as percent of the age 65+ population in 1990.

#### D. Age Cohorts

For the purposes of this study, we have used an IHS definition of elderly.<sup>3</sup> Starting at age 55, the population of Elders is broken into four age groups. They are shown in Table 4.

<b>Table 4. Definition and Rationale of Elder Age Cohorts</b>	
<b>Age Cohort</b>	<b>Definition</b>
55-64	Pre-retirement age, and the beginning age of similar IHS publications
65-74	Elders become Medicare eligible and often begin retirement
75-84	Increased use of services, beginning of cohort of frail elderly
85 and older	Frail Elders

<sup>3</sup> IHS, op. cit, page 2





Alaska Natives and American Indians have approximately the same distribution among the age cohorts. There is a higher proportion of seniors in the US population (see Table 1 and Figure 1). However, it appears as if the proportion of American Indians in senior groups is slightly higher than the proportion of Alaska Natives (see Table 2).

Within the Alaska Native population of Elders, the fastest growing cohort is Elders 85 and over (see Table 5 and Figure 4). The data show that the number of seniors who are eligible for service programs but not yet eligible for Medicare (55-64) had a 50% growth rate over the 12-year period. This growing cohort, reflecting the growing number of “Baby Boomers” across the country, can be expected to create major pressures on the Medicare system within the next ten years. This expanding cohort of Alaska Native Elders ages 55-64 suggests that additional services may be required to satisfy the increased needs of this pre-Medicare population.

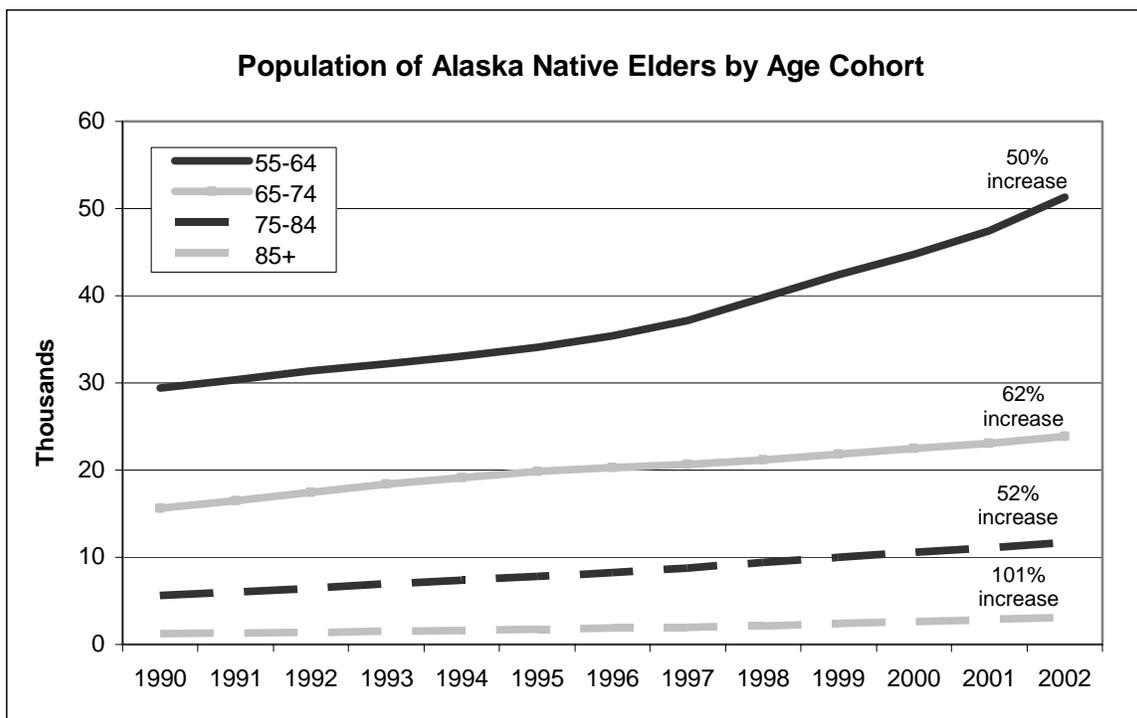


Figure 4

Table 5. Population Cohorts of Alaska Native and American Indian Elders									
	Alaska Native					American Indian			
	1990	1995	1999	% change		1990	1995	1999	% change
55-64	4549	5222	5918	30.1%	61246	69521	75042	22.5%	
65-74	2578	3150	3671	42.4%	40194	45440	48961	21.8%	
75-84	1246	1279	1517	21.7%	19386	22159	23870	23.1%	
85+	295	361	422	43.1%	5476	6195	6679	22.0%	
Total	8668	10012	11528	33.0%	126302	143315	154552	22.4%	

\*Source U.S. Census Bureau 2000





The growth rate for Elders 65-74 is high, yet the numbers are still small coming from a 1990 total of approximately 2,500 to a 2002 estimate of over 4,000 Elders. This shows a major increase in the need for long-term care services of this newly Medicare-eligible population. The smaller increase of the numbers of Alaska Native Elders, ages 75-84, reflects their smaller proportion of the total group of elderly population. Although the 101% increase in the number of frail elderly is significant, and may have an impact on service delivery, their numbers are still small, coming from a 1990 population of 400 to a 2002 population of 900. Although the numbers are small, the pressure on service delivery may be high, since many Alaska Native Elders prefer to remain in their own communities—most of which are rural and typically do not have a level of long-term care service available to non-natives who are more likely in urban Alaskan centers.

**E. Gender**

National data have consistently shown that women outlive men. The same is true with Alaska Native elderly populations. This is shown in Table 6.

<b>Table 6. Death Rates by Age Cohort &amp; Gender, 2000</b>				
Age	Alaska Natives		Alaska Whites	
	Male	Female	Male	Female
Under 1 year	700.2	492.2	667.6	550.5
1-4 years	44.9	39.8	32.6	25.5
5-14 years	20.2	17.7	19.8	14.1
15-24 years	136.2	58.9	105.8	41.1
25-34 years	179.1	84.8	124.1	55.1
35-44 years	295.2	171.9	233.6	125.7
45-54 years	520.0	284.9	496.9	281.4
55-64 years	1,090.4	772.1	1,163.3	730.9
65-74 years	2,478.3	1,899.8	2,905.7	1,868.3
75-84 years	5,351.2	3,850.0	6,933.1	4,785.3
85 years and older	10,725.8	9,118.2	17,716.4	14,890.7

**F. Where Elders Reside in Alaska**

US Census data from 1990 to 2002 strongly suggest that the largest areas of growth of Elders are in urban areas (Table 7). A regional comparison (Figure 5) of Alaska Native Elders age 55 and over by census areas shows the highest rates of growth in the top five urban regions of the state, including:

1. The Matanuska Susitna Borough
2. The Municipality of Anchorage
3. The City and Borough of Juneau
4. The Kenai Peninsula Borough
5. The Fairbanks North Star Borough
6. The Sitka City and Borough

These data, however, are imperfect. Alaskan boroughs are large and incorporate both urban and rural communities. However, the consistently higher rates of growth of Elders in the urban areas is unmistakable and dwarfs the proportional growth in non-urban areas. The higher rates

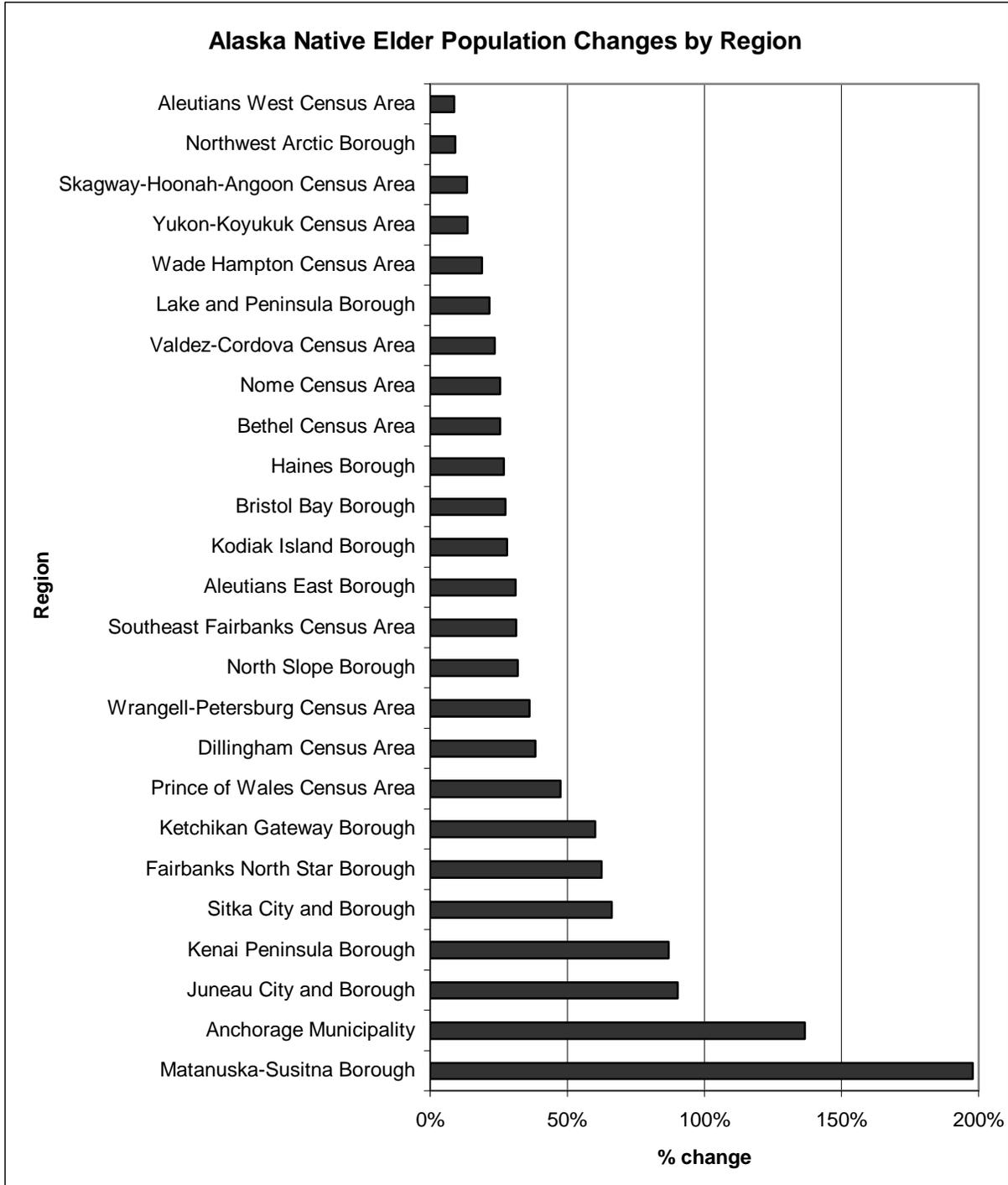


of growth of Elders in these regions requires additional analysis. However, it could show a slow migration from rural to urban areas for Elders to access needed health services not available in many rural communities.

<b>Table 7. Regional Comparison of Alaska Native Elder (55+) Population Projections</b>					
<b>Area</b>	<b>1990</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>% change between 1990 and 2000</b>
All Regions	8,675	12994	13636	14336	50%
Matanuska-Susitna Borough	137	408	454	509	198%
Anchorage Municipality	1060	2508	2508	2832	137%
Juneau City and Borough	300	571	625	683	90%
Kenai Peninsula Borough	298	557	595	654	87%
Sitka City and Borough	230	382	404	428	66%
Fairbanks North Star Borough	436	708	784	839	62%
Ketchikan Gateway Borough	223	357	375	400	60%
Prince of Wales Census Area	265	391	399	430	48%
Dillingham Census Area	337	466	466	483	38%
Wrangell-Petersburg Census Area	174	237	258	264	36%
North Slope Borough	417	550	556	599	32%
Southeast Fairbanks Census Area	102	134	148	155	31%
Aleutians East Borough	103	135	135	121	31%
Kodiak Island Borough	256	328	344	367	28%
Bristol Bay Borough	51	65	65	73	28%
Haines Borough	52	66	70	66	27%
Bethel Census Area	1187	1490	1490	1588	26%
Nome Census Area	700	878	891	904	25%
Valdez-Cordova Census Area	196	242	266	282	24%
Lake and Peninsula Borough	158	192	195	183	22%
Wade Hampton Census Area	529	629	654	657	19%
Yukon-Koyukuk Census Area	593	674	695	728	14%
Skagway-Hoonah-Angoon Census Area	193	219	219	231	14%
Northwest Arctic Borough	541	590	626	633	9%
Aleutians West Census Area	137	149	149	146	9%
Denali Borough	*	29	29	29	*
Yakutat City and Borough	*	39	34	38	*

\* Source: U.S. Census Bureau, 2000

Note: 1990 Census data does not include Denali Borough or City & Borough of Yakutat. These areas were created after the April 1, 1990 Census.



**Figure 5**



### III. Health Status of Alaska Native Elders

This section describes the health status of Alaska Native/Native American Elders compared with their counterparts in other races across the country. The health status assessment begins with a review of causes of death. Next, available data on perceived health status and functional limitations are presented.

#### A. Elder Death Rates

##### 1. Overall Death Rates

The death rate of Native American Elders exceeds that of the general US population. Table 8 shows that the death rate for Elders in each age cohort is higher for African Americans than for American Indians and Alaska Natives, and far higher than their white counterparts. This follows the general trend in racial and ethnic health disparities that is seen throughout the country. However, it is interesting to note that the death rates for African Americans are higher than for Native Americans.

<b>Table 8. Age Specific Death Rates (Rate per 100,000 Population)</b>							
	American Indian & Alaska Native	Alaska Native Only	U.S. Rate			Ratio of American Indian & Alaska Native to:	
			All Races	Caucasian	African American	All Races	Caucasian
Under 1	856.0	288.1	768.8	646.5	1,467.9	1.1	1.3
1-4 years	91.3		40.6	35.1	70.3	2.2	2.6
5-14 years	41.4	35.6	22.5	20.6	33.4	1.8	2
15-24 years	196.5	241.5	95.3	84.3	159.8	2.1	2.3
25-34 years	288.0	424.6	141.3	121.5	284.9	2	2.4
35-44 years	466.2	427.9	240.8	207.0	511.3	1.9	2.3
45-54 years	860.2	683.3	460.1	413.0	915.3	1.9	2.1
55-64 years	1,617.4	1,359.5	1,114.5	1,049.1	1,823.2	1.5	1.5
65-74 years	3,188.5	2,980.3	2,563.5	2,495.3	3,568.2	1.2	1.3
75-84 years	6,072.9	7,464.5	5,851.8	5,801.4	6,911.1	1.0	1.0
85 years and older	12,702.4	14,570.9	15,469.5	15,616.3	14,413.3	0.8	0.8

*\*American Indians and Alaska Natives, IHS Service Area, 1994-1996, and Selected U.S. Populations, 1995*

The proportion of deaths for seniors appears to be higher among American Indian and Alaska Native groups than other national population groups (Table 8). These differences may be explained by the higher death rates from intentional and unintentional injuries experienced by Native American populations.

Alaska Native Elders have far lower death rates than their non-native counterparts in Alaska.<sup>4</sup> Table 8 shows that the death rates for the younger cohorts are far higher than non-native Alaskans, and are far lower for seniors. Again, this reflects the high rates of intentional and unintentional injuries that claim the lives of younger Alaskans.

<sup>4</sup> ISER Report, op.cit.



## 2. Death Rates by Age Cohort

National data shown in Table 9 compare overall death rates by age cohort for all races and American Indians and Alaska Natives (see Table 4 for a definition of each age cohort). From 1950-2000, data are compared by gender. The data show a substantially higher death rate at all elderly age cohorts for males than females. This is a consistent finding in all demographic tables comparing men and women – women typically live longer than men. However, it is interesting to note that death rates for American Indians and Alaska Natives have been consistently lower over time than their white counterparts for both genders. All census years of 1980 and beyond suggest the same pattern: American Indian and Alaska Native death rates are lower than national averages, and female death rates are lower than those of males. Table 9 also shows the progressively higher death rates for each older age cohort.

<b>Table 9. Death Rates According to Sex, Race, and Age: United States, 1950-2001</b>							
	<b>1950</b>	<b>1960</b>	<b>1970</b>	<b>1980</b>	<b>1990</b>	<b>2000</b>	<b>2001</b>
<b>All persons</b>							
55-64 years	1,901.0	1,735.1	1,658.8	1,346.3	1,196.9	992.2	964.6
65-74 years	4,104.3	3,822.1	3,582.7	2,994.9	2,648.6	2,399.1	2,353.3
75-84 years	9,331.1	8,745.2	8,004.4	6,692.6	6,007.2	5,666.5	5,582.4
85 years and older	20,196.9	19,857.5	16,344.9	15,980.3	15,327.4	15,524.4	15,112.8
<b>All males</b>							
55-64 years	2,395.3	2,309.5	2,282.7	1,815.1	1,553.4	1,230.7	1,192.7
65-74 years	4,931.4	4,914.4	4,873.8	4,105.2	3,491.5	2,979.6	2,911.5
75-84 years	10,426.0	10,178.4	10,010.2	8,816.7	7,888.6	6,972.6	6,833.0
85 years and older	21,636.0	21,186.3	17,821.5	18,801.1	18,056.6	17,501.4	16,744.8
<b>All females</b>							
55-64 years	1,404.8	1,196.4	1,098.9	934.3	878.8	772.2	754.0
65-74 years	3,333.2	2,871.8	2,579.7	2,144.7	1,991.2	1,921.2	1,890.8
75-84 years	8,399.6	7,633.1	6,677.6	5,440.1	4,883.1	4,814.7	4,760.5
85 years and older	19,194.7	19,008.4	15,518.0	14,746.9	14,274.3	14,719.2	14,429.9
<b>American Indian/Alaska Native males</b>							
55-64 years	---	---	---	1,547.5	1,211.3	1,090.4	1,053.4
65-74 years	---	---	---	2,968.4	2,461.7	2,478.3	2,393.5
75-84 years	---	---	---	5,607.0	5,389.2	5,351.2	4,775.3
85 years and older	---	---	---	12,635.2	11,243.9	10,725.8	9,758.0
<b>American Indian/Alaska Native females</b>							
55-64 years	---	---	---	837.1	805.9	772.1	749.4
65-74 years	---	---	---	1,765.5	1,679.4	1,899.8	1,801.7
75-84 years	---	---	---	3,612.9	3,073.2	3,850.0	3,839.7
85 years and older	---	---	---	8,567.4	8,201.1	9,118.2	8,492.0

\* Source: Centers for Disease Control and Prevention, National Center for Health Statistics, National Vital Statistics System, Grove RD, Hetzel AM., Vital statistics rates in the United States, 1940-60.





### 3. Causes of Death

Table 10 compares the cause of death for decedents 65 years of age and older. The data are taken from a federal IHS report.<sup>5</sup> The report only includes data for decedents 65 years of age and older, and therefore is not completely comparable with similar data collected for Alaska, which begin at age 55. Nonetheless some trends are very clear. The tables show that American Indians and Alaska Natives are less likely than their US or white counterparts to die from diseases of the heart, malignant neoplasms, cerebral vascular accidents, or chronic and obstructive pulmonary disease. For all other causes of death, Alaska Natives and American Indians have far higher death rates. The most notable among these is the almost threefold difference between death rates from diabetes among American Indian and Alaska Native populations than those in the US population as a whole, or among Caucasian residents.

The second most visible disparity is in chronic diseases of the liver and cirrhosis, where the death rates for American Indians and Alaska Natives are 2.5 times higher than those for the US average or for US whites.

<b>Table 10. Top 10 Leading Causes of Death for Elders 65 and Older</b>				
<b>Rank</b>	<b>Cause</b>	<b>American Indian &amp; Alaska Native</b>	<b>U.S. All Races</b>	<b>U.S. White</b>
1	Diseases of the Heart	1502.3	1837.4	1843.7
2	Malignant Neoplasms	978.0	1137.2	1129.4
3	Diabetes Mellitus	354.0	132.7	122.5
4	Cerebrovascular Disease	353.1	414.2	410.0
5	Pneumonia & influenza	264.9	221.7	224.5
6	Chronic Obstructive Pulmonary Diseases	210.8	263.9	276.0
7	Accidents	123.1	86.8	87.0
8	Nephritis, Nephrotic Syndrome, & Nephrosis	92.0	60.2	56.3
9	Chronic Liver Disease & Cirrhosis	75.4	30.5	31.2
10	Septicemia	63.5	50.4	46.9

\* Source: 1998-99 Indian Health Focus: Elders

Table 11 focuses on the causes of death in Alaska. For Alaska Natives and Alaska whites, the top two causes of death are the same: malignant neoplasms, followed by diseases of the heart. Unintentional injuries is in the top five causes of death for Alaska Natives, while it is not in the top five for Alaskan Whites. These data suggest that all Alaskan Elders are confronting the same or similar health problems.

The high proportion of all deaths related to cancer and heart disease suggest that some basic level of preventive care should be available to all Alaskan Elders, regardless of residence. The major racial or ethnic health disparities by cause of death among these groups of Elders appear to be that Alaska Natives are still at high risk of death by unintentional injuries or accidents. This suggests that rural communities still confront the need for on-site trauma care. Surprisingly, diabetes did not appear in the top five causes of death for Alaska Natives. This is different than the high rate of death, nationally, for American Indians and Alaska Natives—around 2.7 times higher than all races in the US. However, it is the fifth cause of death among

<sup>5</sup> IHS Elders op.cit, page 23, Table 8





Caucasian Alaskan Elders. This suggests that exploration is needed to better understand the extent of diabetes as a major cause of death among Alaska Native Elders.

The third leading cause of death among Alaska Natives is chronic lower respiratory disease. Diseases of this nature include pneumonia, emphysema, and chronic obstructive lung disease. It is very high in both Alaska Natives and their white counterparts.

<b>Table 11. Top 5 Leading Causes of Death and Assault for Alaska Residents 55 Years or Older by Race, 2000-2002</b>		
<b>Asian/Pacific Islander</b>		
<u>Rank</u>	<u>Cause</u>	<u>Rate</u>
1	Malignant Neoplasms	310.1
2	Diseases of the Heart	225.0
3	Cerebrovascular Disease	152.0
4	Diabetes Mellitus	79.1
5	Unintentional Injuries	42.6
<b>African American</b>		
<u>Rank</u>	<u>Cause</u>	<u>Rate</u>
1	Malignant Neoplasms	740.4
2	Diseases of the Heart	627.7
3	Cerebrovascular Disease	241.4
4	Diabetes Mellitus	128.8
5	Alzheimer's Disease	80.5
<b>Alaska Native</b>		
<u>Rank</u>	<u>Cause</u>	<u>Rate</u>
1	Malignant Neoplasms	844.0
2	Diseases of the Heart	653.6
3	Chronic Lower Respiratory Disease	229.0
4	Unintentional Injuries	162.1
5	Cerebrovascular Disease	157.0
<b>Caucasian</b>		
<u>Rank</u>	<u>Cause</u>	<u>Rate</u>
1	Malignant Neoplasms	643.7
2	Diseases of the Heart	598.7
3	Cerebrovascular Disease	168.0
4	Chronic Lower Respiratory Diseases	148.4
5	Diabetes Mellitus	77.0

\* Source: Bureau of Vital Statistics, 2002

#### 4. Death Rates by Age Cohort

Table 12 shows the differences in the top five causes of death by the four Alaska Native Elder cohorts. For all four cohorts, heart disease and cancers (malignant neoplasms) are the top two causes of death. As the cohort ages, strokes or cerebral vascular diseases account for a higher proportion of the deaths, finally becoming the third leading cause of death for the frail elderly (those 85 years of age and older). Chronic lower respiratory diseases are a threat to all Elders in the four cohorts. Of interest is the high death rate for unintentional injuries of the 55-64 year





old cohort, and its disappearance in older groups. This is probably because this cohort is the last age cohort of working rural Alaskans. After age 65, there are fewer unintentional injuries, and its ranking as a major cause of death declines. On the rise, however, is diabetes in the 65 to 74 year old cohort, and finally Alzheimer’s disease among the frail elderly.

<b>Table 12. Top 5 Leading Causes of Death by Elders Age Cohort for Alaska Population</b>			
<b>Age Group</b>	<b>Cause of Death</b>	<b>Deaths</b>	<b>Age-Specific Rate</b>
<b>55-64</b>	Malignant Neoplasms	439	322.6
	Diseases of the Heart	276	202.8
	Unintentional Injuries	82	60.3
	Chronic Lower Respiratory Diseases	45	33.1
	Cerebrovascular Diseases	43	31.6
	<b>TOTAL DEATHS</b>	<b>1191</b>	<b>875.1</b>
<b>65-74</b>	Malignant Neoplasms	551	819.7
	Diseases of the Heart	422	627.8
	Chronic Lower Respiratory Diseases	122	181.5
	Cerebrovascular Diseases	96	142.8
	Diabetes	59	87.8
	<b>TOTAL DEATHS</b>	<b>1617</b>	<b>2405.7</b>
<b>75-84</b>	Diseases of the Heart	489	1537
	Malignant Neoplasms	471	1480.4
	Cerebrovascular Diseases	172	540.6
	Chronic Lower Respiratory Diseases	160	502.9
	Diabetes	70	220
	<b>TOTAL DEATHS</b>	<b>1868</b>	<b>5871.3</b>
<b>85+</b>	Diseases of the Heart	321	4181.3
	Malignant Neoplasms	145	1888.8
	Cerebrovascular Diseases	133	1732.4
	Chronic Lower Respiratory Diseases	63	820.6
	Alzheimer's Disease	45	586.2
	<b>TOTAL DEATHS</b>	<b>1093</b>	<b>14237.3</b>

**B. Perceived Health Status of Alaska Native Elders**

The previous section described the characteristics of mortality within the Alaska Native Elder population. This section describes the perceived health status of living Alaska Native Elders.

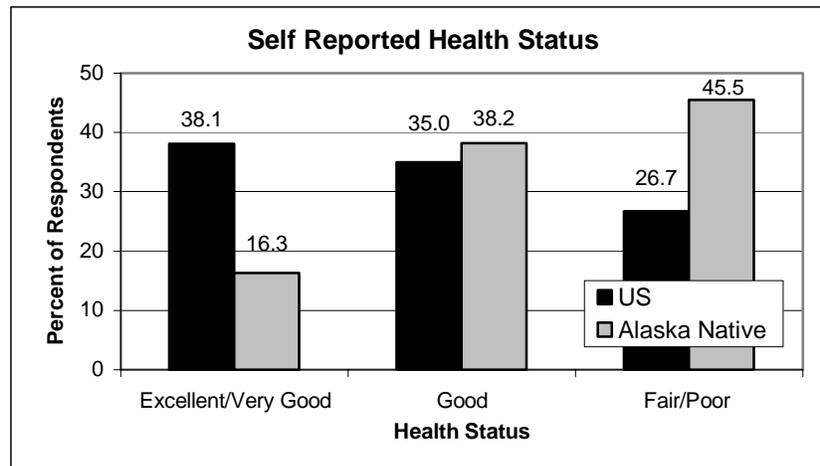
It is possible to compare some Alaskan communities with other selected American Indian communities using a similar instrument, prepared by the University of North Dakota National Center on Native American Aging. As part of their federal charge, the National Resource Center conducts routine health needs assessments of Native American Elders across the country. To date, 132 tribes from 88 different sites have been surveyed nationally. Five of those sites are from Alaska.

Most of the information in this section is taken from the North Dakota survey. Where possible, it is compared with national data. The National Health interview survey is conducted by the





National Center for Health Statistics to assess the health status of the US population. In the survey, respondents are asked to assess their own health status.



**Figure 6**

Figure 6 compares data from Alaska Native Elders<sup>6</sup> with national data from the National Health Interview Survey<sup>7</sup>. The data show marked disparities between national measures of self-reported health status and similar data from Alaska Natives. Clearly, a greater proportion of Alaska Native Elders perceive their health status as fair or poor than their US counterparts. The limited number of Alaska Native Elder survey respondents make it difficult to detect differences in perceived health status by gender or marital status. It is hoped that additional survey data may allow such a comparison.

Table 13 shows that, as expected, frail elderly (age 85 and over) perceive their health status as fair or poor more than their younger counterparts. This is consistent with the functional limitations of older age groups (see Table 23).

<b>Table 13. Perceived Health Status and Age Crosstabulation</b>								
	<b>55-64 years of age</b>		<b>65-74 years of age</b>		<b>75-84 years of age</b>		<b>85 and over</b>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
excellent	10	8%	7	4%	3	4%	0	0%
very good	13	10%	27	16%	5	6%	1	5%
good	55	42%	60	35%	30	38%	8	40%
fair	40	31%	54	31%	29	37%	6	30%
poor	12	9%	24	14%	12	15%	5	25%
<b>Total</b>	<b>130</b>	<b>100%</b>	<b>172</b>	<b>100%</b>	<b>79</b>	<b>100%</b>	<b>20</b>	<b>100%</b>

<sup>6</sup> Results from the North Dakota National Center for Native American Aging, Alaska Data, 2003

<sup>7</sup> Summary Health Statistics for U.S. Adults: National Health Interview Survey, 2002, Data From the National Health Interview Survey, Hyattsville, Maryland; Jul-04, DHHS Publication No. (PHS) 2004-1550; U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES Centers for Disease Control and Prevention; National Center for Health Statistics





There is a clear relationship between health and poverty<sup>8</sup>. This relationship is shown in Alaska Native Elder populations as well. While data on the relationship between income level and health status are weak, the same relationship with the education level is clear: people with a higher level of education have a higher perceived health status (see Table 14).

<b>Table 14. Perceived Health Status by Educational Level</b>								
	<b><u>never attended, kindergarten only</u></b>		<b><u>elementary</u></b>		<b><u>high school</u></b>		<b><u>college</u></b>	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
excellent	1	4%	6	3%	6	6%	6	10%
very good	2	9%	26	12%	9	9%	8	13%
good	6	26%	77	37%	41	39%	26	43%
fair	8	35%	70	33%	38	36%	14	23%
poor	6	26%	30	14%	11	10%	6	10%
Total	23	100%	209	100%	105	100%	60	100%

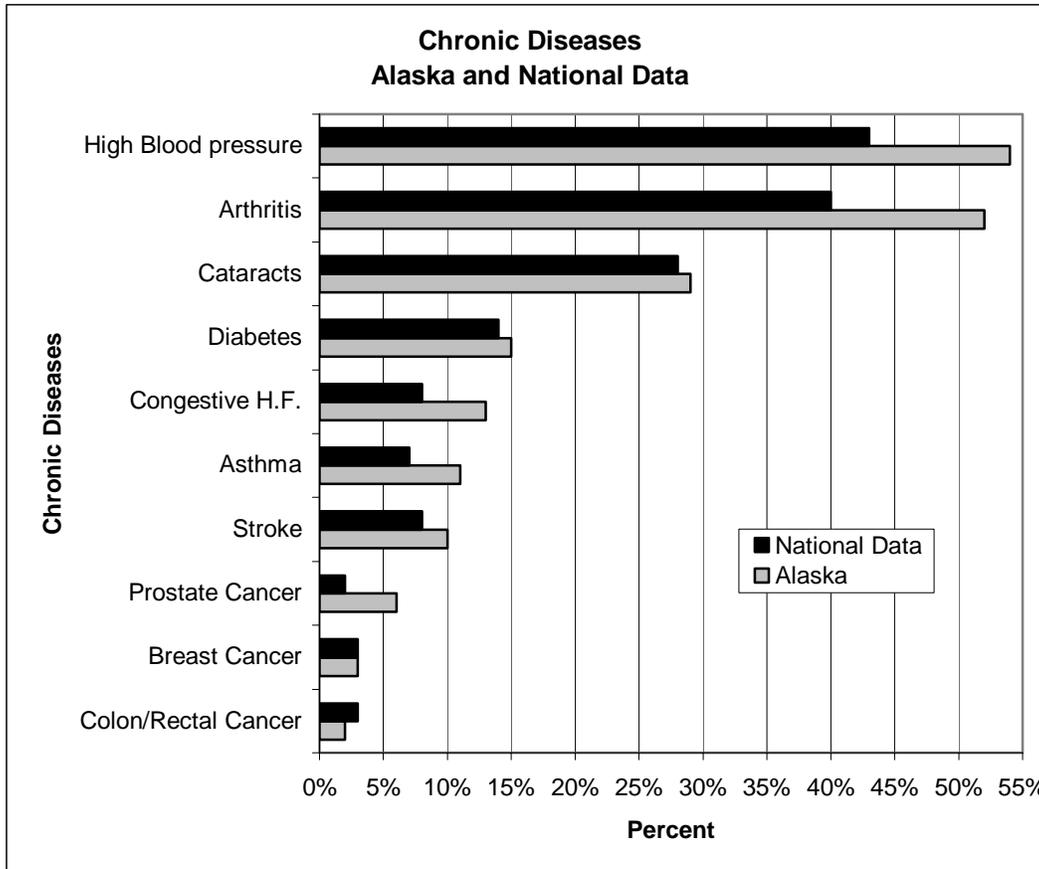
### **C. The Extent of Chronic Illness Among Alaska Native Elders**

As fewer young persons die of infectious and bacterial diseases and survive to old age, they become at greater risk for chronic and degenerative diseases like heart disease, cancer, and stroke<sup>9</sup>. Figure 7 compares chronic diseases reported by Alaska Native Elders with similar data from American Indian Elders. The survey instrument included common chronic illnesses. The list was not intended to be an exhaustive list of chronic conditions, but rather those that would be the most commonly understood. The data show that more Alaska Native Elders suffer from almost all chronic conditions than their American Indian counterparts. The only exceptions are breast and colorectal cancers.

<sup>8</sup> Marmot, M. "The influence of income on Health" in Lee, P.R. and Estes, C.L. *The Nations Health'* 7<sup>th</sup> ed. Jones and Bartlet Publishers 2003 pg 79-92.

<sup>9</sup> Rothstein, W.G., "Trends in Mortality in the 20<sup>th</sup> Century", in Lee, P.R. and Estes, C.L. *The Nations Health'* 7<sup>th</sup> ed. Jones and Bartlet Publishers 2003 pg 11-30.





**Figure 7**

On average, Alaska Native Elders in the study population reported having two (2.01) chronic conditions. The number of chronic conditions is not uniform across all segments of the population. There appears to be a relationship between chronic illness and age and income.

As expected, the mean number of chronic conditions increased with age. Significant differences were seen at earlier age groups than expected. Table 15 shows that the mean number of chronic conditions for the age group 55 to 64 was significantly lower than for respondents 65 and older.

<b>Table 15. Age Group and Mean Number of Chronic Illnesses</b>	
Age Group	Mean
55 - 64	1.73
65 and over	2.16

Table 16 shows the relationship between income level and the mean number of chronic conditions. Income levels reported by respondents were divided into two groups. The first group was those respondents with incomes less than \$24,999. The second group included those with income of \$25,000 or more. While the differences were not statistically significant, the higher income group had fewer chronic conditions on average than the lower income group.





Table 16. Annual Income and Mean Number of Chronic Illnesses	
Income Level	Mean
under \$24,999	2.27
\$25,000 and over	1.89

Income and educational level are usually closely related; people with higher education tend to have more money. Table 17 reflects this relationship. It shows that people with a high school or college education have fewer chronic conditions than respondents with an elementary education or less.

Table 17. Level of Education and Mean Number of Chronic Illnesses				
	N	Minimum	Maximum	Mean
Never attended or K only	23	0	7	2.43
Elementary	209	0	7	2.08
High school	105	0	6	1.89
College	60	0	5	2.03

Obesity is one of the principle contributors to chronic conditions such as heart disease, diabetes, and stroke. Figure 8 shows that a higher proportion of Alaska Native Elders are overweight or obese than their American Indian counterparts. This marked difference warrants additional study. A greater understanding of these differences could help develop more effective programs for Alaska Native Elders.

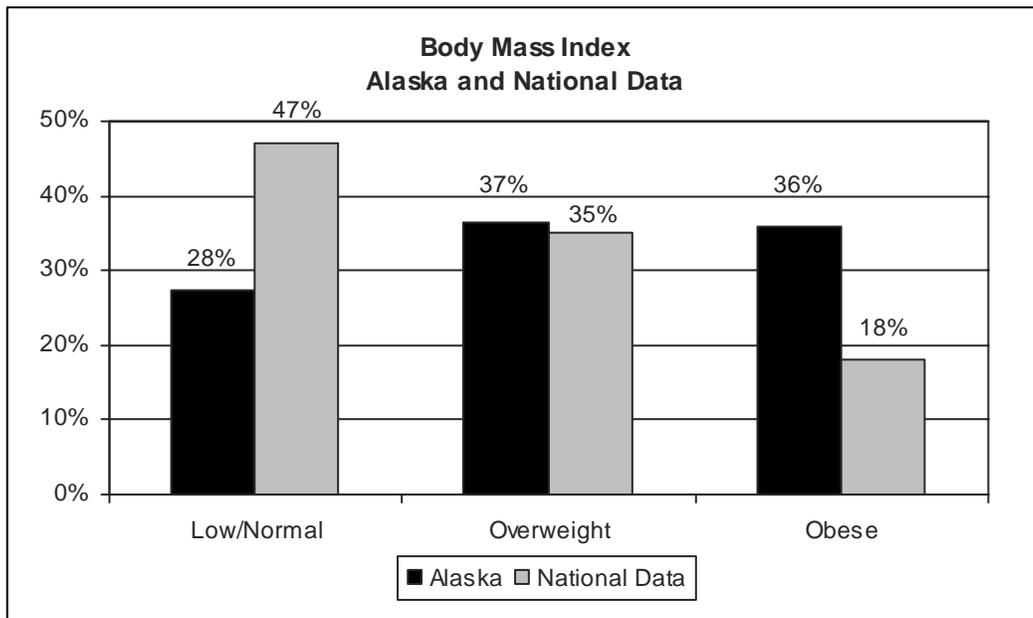


Figure 8





#### D. Functional independence of Alaska Native Elderly

The quality of life in later years may be diminished if illness, chronic conditions, or injuries limit the ability to care for oneself without assistance. Older persons maintain their independence and eliminate costly care-giving services by, among other things, cooking their own meals, shopping on their own, bathing and dressing themselves, and walking and climbing stairs without assistance.

An indication of functional well-being is the ability to perform certain tasks of daily living. These tasks are grouped into two categories: essential activities of daily living (ADL), such as bathing, eating, and dressing; and the more complex instrumental activities of daily living (IADL), such as making meals, shopping, and cleaning.

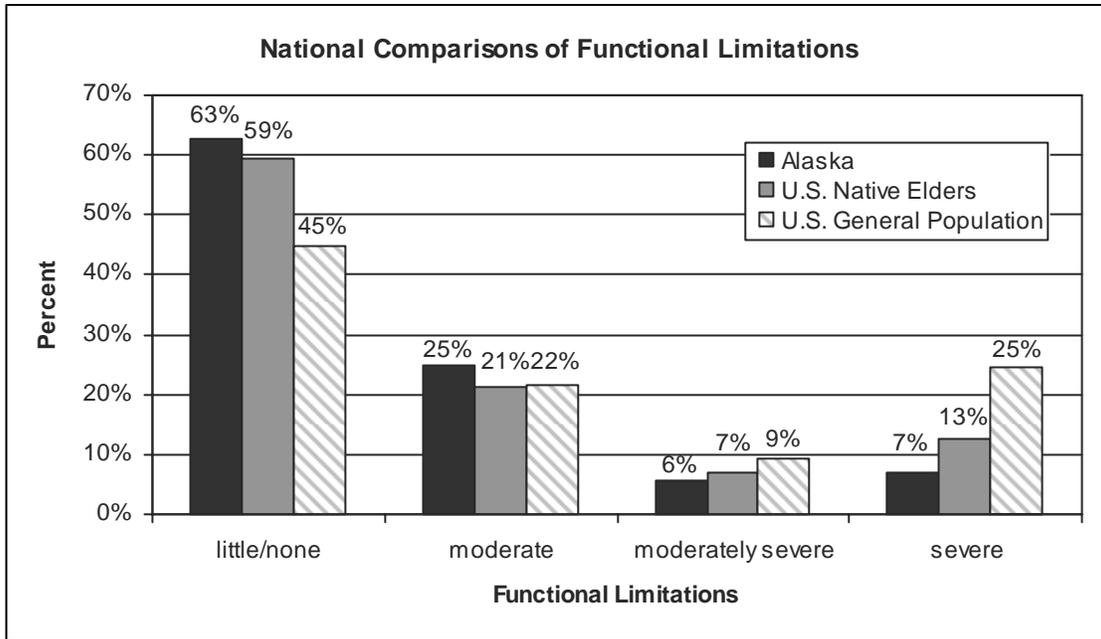
Alaska Native Elders were asked if they had difficulty with basic tasks. The tables below present data on ADLs and IADLs. Data on the IADLs are used in subsequent calculations to estimate the level of impairment within the elderly population as an indicator of the need for home and community-based long-term care services. Table 18 shows that the mean number of limited activities of daily living was .55, while there were more than twice as many limitations in instrumental activities of daily living.

<b>Table 18. Average Limitations in ADLs and IADLs</b>				
	N	Minimum	Maximum	Mean
ADLS	412	0	6	0.55
IADLS	412	0	7	1.16

Alaska Native Elders report fewer limitations in their activities of daily life than either American Indian or the US General Population. There is a higher proportion of Alaska Native Elders who report little to no limitations than other groups, and a lower proportion who report severe limitations. This finding may have implications for methods for estimating the need for facility-based long term care services. Table 19 summarizes the results of functional limitations from that survey.

<b>Table 19. Functional Limitation Categories</b>		
<b>Categories</b>	<b>Limitations</b>	<b>Recommended Services</b>
Little or none	No ADL limitations, up to one IADL limitation	No Services Required
Moderate	One ADL limitation with fewer than 2 IADLs	Home and Community Based Services,
Moderately Severe	2 ADL limitations	Assisted Living
Severe	3 or more ADL limitations	Skilled Nursing Facility





**Figure 9**

The essential activities of daily living are required for independent function. To the extent that an individual is unable to carry out these activities of daily living, they are functionally impaired. Table 20 shows that one out of every five Alaska Native Elders has difficulty with walking. In rural parts of the state, this limitation may present a serious impediment to independent functioning. Bathing and showering is the second most commonly reported functional limitation.

Task	Difficulty
Walking	21.1%
Bathing/showering	10.0%
Getting in and out of bed	7.5%
Dressing	5.6%
Using/getting to the toilet	5.3%
Eating	5.1%

The instrumental activities of daily living enable an individual to remain self sufficient. Table 21 shows data on the extent of difficulties that Alaska Native Elders have with instrumental activities of daily living. Help with housework appears to be the most common need among Alaska Native Elders, followed by shopping and meal preparation.





<b>Table 21. Difficulty with Instrumental Activities of Daily Living</b>	
<b>Task</b>	<b>Difficulty</b>
Doing heavy housework	42.2%
Shopping	18.0%
Preparing meals	15.0%
Doing light housework	13.3%
Managing money	8.5%
Using the telephone	5.1%

**E. Estimating the Need for Residential, Home, and Community-Based Services**

A continuum of long-term care services was described at the beginning of this section, and a need for institutional (skilled nursing home) services was also projected. The following paragraphs estimate the need for other segments of the continuum of long-term care services.

Activities of daily living (ADLs) are often used to estimate the level of impairment within a population. The range of impairment is typically divided into three categories:

1. No impairment (zero ADLs)
2. Moderate impairment (1-2 ADLs)
3. Severe impairment (3 or more ADLs)

The intensity of services required would follow the severity of the impairment. Those with no impairments would require little or no service. Those with one or two ADLs may require some home and community-based services on an intermittent or continuous basis. Those individuals with severe impairments may require a high level of service intensity.

The State of Alaska Division of Senior and Disabilities Services questions the value of using ADL data in determining the extent of need for certain long-term care services.<sup>10</sup> Review of Alaska data on functional limitations of people in assisted living facilities suggests higher levels of functional independence than is reflected in national data. National data suggest that people with 3 or more ADLs are considered severely impaired. State experience suggests that this cutoff may be as high as 5.5 ADLs. Both estimation methods are used in projecting long-term care needs.

Table 22 shows that Alaska Native Elders may be in need of some residential, home, or community-based services. Another 33 and 467 individuals may need a higher level of care such as assisted living or other types of institutional care. These ranges are the result of the two different estimation methods.

<sup>10</sup> Personal correspondence with Kay Branch, (May 3, 2004). Former Rural Long-term Care Development staff, Division of Senior and Disabilities Services, DHSS.





<b>Table 22. ADLs and the Level of Impairment</b>					
		<b>Savant Estimates<sup>11</sup></b>		<b>Division of Senior and Disabilities Services<sup>12</sup></b>	
<b>Number of ADLs</b>	<b>Percent of Respondents</b>	<b>Impairment Level</b>	<b>Number at Risk of Needing Service</b>	<b>Impairment Level</b>	<b>Number at Risk of Needing Service</b>
0	72.1%	Not Impaired (72.1%)	0	Not Impaired (72.1%)	0
1	15.3%	Moderately Impaired (20.9%)	1,394	Moderately Impaired (27.4%)	1,827
2	5.6%				
3	2.7%	Severely Impaired (7%)	467	Severely Impaired (0.5%)	33
4	2.2%				
5	1.7%				
6	0.5%				
7	0%				
			6,669		6,669

The relationship between age and functional limitations follows the same pattern as the relationship between age and self reported health status and the number of chronic conditions. As in individual ages, the number of limitations increases. Table 23 shows this relationship for ADLs and IADLs. The difference between functional limitation and other measures of health status is the age at which the differences become more pronounced. For example, after age 65 the number of chronic conditions increases dramatically. Younger cohorts have less than half the number of limitations in ADLs than the frail elderly cohort. Limitations in IADLs appear earlier. Elders appear to have few limitations until the age of 74. The population 75 and older shows a dramatic jump in functional limitations. This suggests that personal care and chore services might be effectively targeted at the 75 to 84 year age cohort to enable them to live more independently in their home communities.

<b>Table 23. Mean ADLs or IADLs by Age</b>		
<b>Age Group</b>	<b>ADLs</b>	<b>IADLs</b>
55-65	.53	.92
65-74	.51	.99
75-84	.52	1.46
85+	1.05	2.30
Average	.55	1.16

<sup>11</sup> Calculations based on the Savant Study commissioned and published by the Older Alaskans Commission, State Plan for Services to Older Alaskans, 1991-1993, and used in Mather and Associates (1993) Un Analysis of the Need for Nursing Home and Less Restrictive Alternatives for the Yukon Kuskokwim Region.

<sup>12</sup> Kay Branch memo op cit.

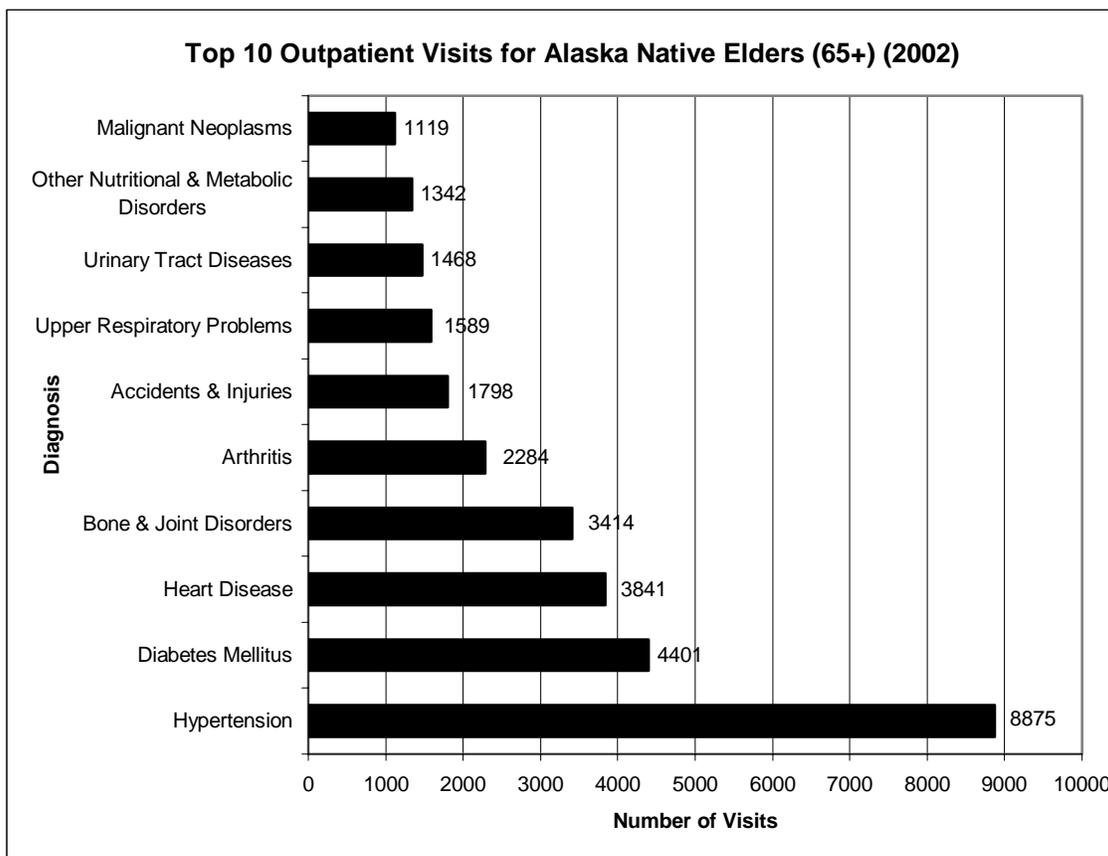


**IV. Use of Health Services**

This section summarizes available data on the use of health services by Alaska Native Elders. Most of the information presented here has been extracted from inpatient and outpatient records maintained by the Alaska Native Tribal Health Consortium. That includes data on care provided to IHS beneficiaries in IHS facilities or contract facilities. The following sections include data on outpatient, dental and inpatient care, summaries of surgical procedures performed on elderly, and information long-term care services, especially those involving Medicaid waivers and nursing home use.

**A. Outpatient Physical Health Services**

Outpatient services are those provided to ambulatory patients or those who can walk into a clinic and do not require an overnight stay. Figure 10 shows the top ten outpatient visits for Elders 65 years of age and older. It does not include the 55-64 year cohort that is included in many of the other analyses. The figure shows that the most common reason for an outpatient visit is for hypertension, followed by diabetes, heart disease, bone and joint disorders, and arthritis. These data include those outpatient visits in which services were actually performed for the specific diagnosis and do not include visits that were only for testing or follow-up of hospital procedures.



**Figure 10**



The data also show the attention that is placed on the prevention of heart disease; the high number of visits to control blood pressure is a good indicator of the intensity with which tribal governments are attempting to prevent heart disease. Similarly, the emphasis on outpatient visits for diabetes shows an acute awareness of the importance of outpatient and other preventive activities in reducing the need for diabetes-related hospital admissions and fatalities.

### B. Dental Care

One out every three Alaska Native Elders reported no need for dental services (Figure 11). This is significantly lower than American Indian Elders. For those Elders who reported a need for dental work, filling or replacing teeth was the most common procedure mentioned. The low number of respondents needing pain relief suggests that emergency dental service needs are being met.

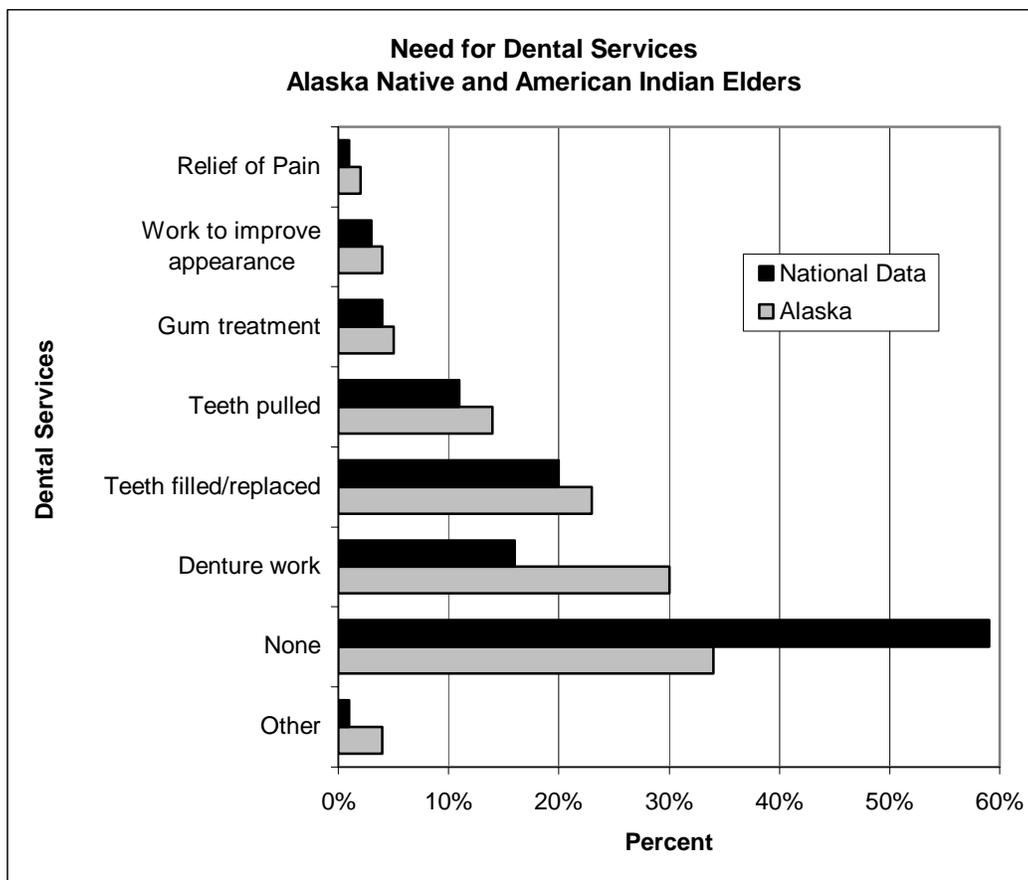


Figure 11

Despite the low need for dental services, over half (54%) of Alaska Native Elders hadn't seen a dentist in over a year, and four percent (4%) had never seen a dentist (Table 24). This information appears to be contradictory and requires additional study.





	Number	Percent
never	18	4%
less than 6 months	94	23%
6 months to 1 year	74	18%
over 1 year	218	54%
Total	404	100%

### C. Inpatient Services

Table 25 shows the distribution of inpatient days and diagnoses by diagnostic code at admission for Elders 65 years of age and older. The most frequent reason for inpatient care is accidents and injuries. Note that this is not the leading cause of death for all Elder cohorts, except for the 55 to 65 year old cohort (see Table 12). The other leading reasons for hospital admission generally follow the causes of death shown before. They are strokes (cerebral vascular accidents), pneumonia (one of the leading reasons for lower-respiratory infections), heart disease, and cancer.

<u>Rank</u>	<u>Diagnosis</u>	<u>Alaska totals</u>
1	Accidents & Injuries	1,584
2	Cerebrovascular Disease	1,094
3	Pneumonia	1,031
4	Heart Disease	1,018
5	Malignant Neoplasm	970

Table 26 compares the top five diagnoses for discharges for each of the major hospitals within the Alaska Native system. Some diagnoses require longer hospital stays than others. This is particularly true when examining the number of discharges by discharge diagnosis. Accidents and injuries, while accounting for the highest number of in-patient days, are lower in the ranking for total discharges than heart diseases, or pneumonia. This is because accidents and injuries typically take longer periods of treatment and convalescence than other diagnoses.

<u>Rank</u>	<u>Diagnosis</u>	<u>Alaska totals</u>
1	Heart Disease	228
2	Pneumonia	169
3	Accidents & Injuries	167
4	Malignant Neoplasm	11
5	Bronchitis, Emphysema	109

*\* Data from the IHS National Database (NPIRS) in Albuquerque, NM, Inpatient Report 2C-Location of Encounter: Hospital Discharges, Days and Average Length of Stay By Admission Diagnosis Rcode, and Age Groups*



**D. Surgeries**

The Alaska Native Medical Center is the tertiary referral hospital for Alaska Native managed hospitals throughout the state. However, data on the surgeries performed, are collected by the residents of the beneficiary. Therefore, it is easy to track the proportion of individuals residing in a given borough or district, compared with the number of surgeries performed.

Table 27 compares the number of Elders receiving surgeries with the total proportion of Alaska Natives within the population of the catchments area. The table shows that, although 18% of Alaska Native Elders reside in Anchorage, 35% of all of the surgeries performed on Elders involved Alaska Natives in Anchorage. In all other communities, the proportion of surgeries was less than the proportion of the Elder population. This suggests that there is a migration of Alaska Natives in need of intensive inpatient surgeries into the Anchorage area, which has significant implications for the resources that are devoted to supporting such surgeries, including the prevention of the medical migration.

<b>Table 27. Alaska Native Elder Surgeries</b>				
<b>Area</b>	<b>Alaska Native Population</b>		<b>Alaska Native Surgeries</b>	
All Regions	13,636	100%	2654	100%
Anchorage Municipality	2,508	18%	939	35%
Aleutians East Borough	135	1%	42	2%
Aleutians West Census Area	149	1%	47	2%
Bethel Census Area	1,490	11%	265	10%
Bristol Bay Borough	65	0%	15	1%
Denali Borough	29	0%	6	0%
Dillingham Census Area	466	3%	83	3%
Fairbanks North Star Borough	784	6%	27	1%
Haines Borough	70	1%	10	0%
Juneau City and Borough	625	5%	63	2%
Kenai Peninsula Borough	595	4%	122	5%
Ketchikan Gateway Borough	375	3%	22	1%
Kodiak Island Borough	344	3%	81	3%
Lake and Peninsula Borough	195	1%	51	2%
Matanuska-Susitna Borough	454	3%	80	3%
Nome Census Area	891	7%	169	6%
North Slope Borough	556	4%	118	4%
Northwest Arctic Borough	626	5%	159	6%
Prince of Wales Census Area	399	3%	32	1%
Sitka City and Borough	404	3%	34	1%
Skagway-Hoonah-Angoon Census Area	219	2%	14	1%
Southeast Fairbanks Census Area	148	1%	9	0%
Valdez-Cordova Census Area	266	2%	67	3%
Wade Hampton Census Area	654	5%	121	5%
Wrangell-Petersburg Census Area	258	2%	18	1%
Yakutat City and Borough	34	0%	12	0%
Yukon-Koyukuk Census Area	695	5%	48	2%



### E. Long-Term Care

Alaska's Medicaid program supports most of the state's long-term care expenses. Federal law allows individuals who would be eligible for admission into a nursing home to use home and community-based services if the individual's medical needs could be met at a cost equal to or less than the cost of nursing home admission. The Medicaid waivers are a strong indication of the extent of community-based services.

Table 28 compares the proportion of Elders 55 and over in each census area with the proportion of Medicaid waivers awarded to Alaska Native Elders. The data show a tendency to focus long-term care in urban areas. Anchorage, for example, has 18% of all Alaska Native Elders, yet has 46% of all Medicaid waivers approved as of June 9, 2003. Other large communities follow a similar pattern.

<b>Table 28. HCB Waiver Participation Comparison to Population of Alaska Native Elders</b>				
<b>Region</b>	<b># of waivers*</b>	<b>% of waivers</b>	<b># of pop**</b>	<b>% of pop</b>
Anchorage total	446	46%	2,832	20%
Mat-Su total	150	15%	509	4%
Kenai Peninsula total	129	13%	654	5%
Fairbanks NSB total	74	8%	839	6%
Juneau total	28	3%	683	5%
Bethel total	26	3%	1,588	11%
Valdez-Cordova total	20	2%	282	2%
Wrangell-Petersburg total	15	2%	264	2%
Ketchikan total	14	1%	400	3%
Prince of Wales total	13	1%	430	3%
Kodiak Island total	12	1%	367	3%
Skagway-Angoon-Hoonah total	9	1%	231	2%
Southeast Fairbanks total	8	1%	155	1%
Dillingham total	7	1%	483	3%
Haines total	4	0%	66	0%
Sitka total	3	0%	428	3%
Yakutat total	3	0%	38	0%
Yukon-Koyukuk total	3	0%	728	5%
Wade Hampton total	2	0%	657	5%
Lakes & Peninsula total	1	0%	183	1%
Nome total	1	0%	904	6%
North Slope total	1	0%	599	4%
Out of State total	4	0%	*	*
<b>Total</b>	<b>973</b>	<b>100%</b>	<b>14,336</b>	<b>100%</b>

The Mat-Su Borough has 4% of the Alaska Native Elder population, yet accounts for 15% of all waivers issued. Other communities of note are the Kenai Peninsula Borough and the Fairbanks North Star Borough. The proportion of the population and the Medicaid waivers in Juneau and Sitka, which are shown in previous tables as having disproportionate numbers of Elders, have Medicaid waivers of a relatively small proportion period. It is interesting that Bethel, with 11% of





all Alaska Native Elders, only accounts for 3% of home and community-based Medicaid waivers. This suggests that there is a lack of community-based services in many rural areas, despite the prevailing value among Native Elders for services close to home.

**F. Use of Nursing Home Services**

In rural communities, Alaska Native Elders comprise almost all of the elderly community in all four age cohorts. In several communities, there are some non-natives in the 55-64 year cohort. In urban areas, the Alaska Native elderly population is probably 20% of the entire elderly population. However, there appears to be a disproportionate use of nursing homes by Alaska Natives in all but a few of the major Alaskan communities.

Table 29 compares the percent of Alaska Natives in nursing home populations in various facilities throughout the state for the years 2000 to 2003. In some communities, the number of Alaska Natives in nursing homes approaches 50% or higher even in mixed Alaska Native/White communities. This suggests that there are very few opportunities for long-term care in rural areas. Without such facilities, families may be referring those in need of care to urban centers for nursing home care.

<b>Table 29. Alaska Native Elders in Nursing Homes, 2003</b>					
Facility	Total Recipients	Alaska Native Recipients	% Alaska Native Recipients	% Alaska Native Patient Days	Average Days per year
Ketchikan General Hospital LTC	29	14	48%	47%	93.2
Wrangell Medical Center LTC	19	4	21%	10%	71.5
Cordova Community Hospital LTC	10	5	50%	55%	304.4
Petersburg Medical Center LTC	18	2	11%	10%	189.0
Providence Kodiak Island MC LTC	21	12	57%	60%	342.8
South Peninsula Hospital LTC	29	7	24%	20%	227.0
Quyaana Care Center	21	20	95%	93%	230.1
Wildflower Court	59	19	32%	37%	258.5
Wesley Rehab Care Center	35	17	49%	54%	191.9
Providence Extended Center	291	92	32%	34%	211.2
Denali Center	110	44	40%	44%	242.5
Sitka Community Hospital LTC	17	11	65%	71%	242.2
Heritage Place	73	5	7%	12%	386.6
Mary Conrad Center	131	25	19%	21%	238.8

Table 30 demonstrates the willingness of Alaska Native Elders to use long term care facilities. The greater willingness to use assisted living over nursing homes could translate into added awareness of community based services in the future.

<b>Table 30. Willingness to Use</b>		
	Number	Percent
Nursing home	65	16%
Assisted living	233	57%





## V. Conclusions

This paper is a description of the population of Alaska Native Elders, threats to their health and welfare and summary data on their use of health services. While the data presented are not exhaustive, some basic conclusions emerge. They are presented below.

1. The proportion of Alaska Native Elders to the total Alaska Native population is smaller than all other races. Even though American Indians and Alaska Natives have a higher proportion of their total population in younger age groups, and a lower proportion of senior citizens, American Indian Elders are a higher proportion of their population than Alaska Native Elders. This may be attributable to the high birth rate and high rates of violence, including unintentional and intentional injuries, that take many Native Americans between the ages of 15-54.
2. The population of Alaska Native Elders is growing. Over the past 12 years it has grown 62%. The fastest growing age cohort is the frail elderly, ages 85 and older. This has major implications for services for medically fragile Alaska Native Elders.
3. The fastest growing Alaska Native Elder population is in the urban areas of the state. US Census data show the highest growth in the Matanuska-Susitna Borough and the Boroughs of Anchorage, Juneau, Kenai, Fairbanks, and Sitka. While the geographic boundaries of these areas may incorporate rural areas, the rate of growth suggests a migration of Alaska Native Elders from rural to urban communities. This migration may be an indicator of inadequate senior services in rural parts of the state.
4. There are fewer differences between death rates between elderly Alaska Natives and Whites than in younger age groups. In younger age groups, there are higher death rates for Alaska Natives than for Alaska Whites. This is true in every cohort except in children less than one year of age, where the difference is small. In later years these differences are less pronounced.
5. There are few differences in the causes of death among Elders of different races. The 2 most frequent causes of death among Alaska Asians and Pacific Islanders, African Americans, Caucasians, and Alaska Native Elders are cancers and heart disease. However, Alaska Native Elders have higher death rates from unintentional injury and chronic lower respiratory diseases, such as pneumonia, emphysema, and chronic obstructive lung disease. Some of these conditions, especially unintentional injuries, are preventable, while others require further study to develop effective preventive interventions.
6. Self-perceived health status is much lower in Alaska Native Elders than in the US general population. The data show marked disparities between national measures of self-reported health status and similar data from Alaska Natives.
7. Alaska Native Elders report more chronic conditions than American Indian Elders. The differences between the two groups is great in all queried conditions except in cataracts, and breast and colorectal cancers.





8. The number of chronic conditions appears to be related to age, income, and education level. There is a significant increase in the average number of chronic conditions after the age of 65. As expected, there is a relationship between poverty and the number of reported chronic conditions.
9. Alaska Native Elders reported fewer limitations in functional activities than the American Indian or US general populations. Activities of daily living (ADL) and instrumental activities of daily living (IADL) are both measures of functional independence. A higher percentage of the US population reported moderately severe to severe limitations when compared to Alaska Native Elders. This may reflect the protective properties of a rural lifestyle and/or the Alaska Native values of self-sufficiency and hard work.
10. The most frequently reported limitations were walking (ADL) and heavy housework (IADL). These are both essential activities for life in rural Alaska. Addressing these functional limitations may require increased community based services, such as personal care and chore services.
11. Outpatient services used are consistent with identified health problems. The data also show that the attention currently being placed on the prevention of heart disease and high blood pressure is a good indicator of the intensity with which tribal governments are attempting to prevent heart disease. Similarly, the emphasis on outpatient visits for diabetes shows an acute awareness of the importance of outpatient and other preventive activities in reducing the need for diabetes-related hospital admissions and fatalities.
12. One third of Alaska Native Elders reported no need for dental services. This is almost half of the reported need by their American Indian counterparts. Despite the low need for dental services, over half (54%) of Alaska Native Elders had not seen a dentist in over a year, and four percent (4%) had never seen a dentist. This information appears to be contradictory and requires additional study.
13. Accidents and Injuries generate more inpatient hospital days for Alaska Native Elders than any other cause. Additionally, the lower numbers of discharges show that these admissions require a longer hospital stay. Preventing accidents and injuries, therefore, can both reduce hospital expenses and family disruption.
14. Alaska Native Elders in urban areas use a disproportionate amount of medical services. The evidence of this is seen in the use of surgical procedures and long-term care provided in urban areas. For example, while 18% of Alaska Native Elders reside in Anchorage, 35% of all of the surgeries performed on Elders and 46% of all Medicaid waivers approved as of June 9, 2003 involved Alaska Natives in Anchorage. Other large communities follow a similar pattern.
15. Alaska Native Elders prefer assisted living to nursing home care. This demonstrates that a greater willingness of Alaska Native Elders to use assisted living over nursing homes could translate into added awareness of community based services in the future.

