Alaska Division of Public Health

2021 Primary Care Needs Assessment

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Executive Summary

Healthcare workforce shortages have been an ongoing issue for Alaska from early territorial days and the demand for healthcare workforce continues to increase at all levels, including paraprofessional, EMS, primary care, and specialty care providers. Healthcare workforce vacancies require many health care organizations to rely increasingly on temporary staffing, such as locum tenens or itinerate workers, to maintain services.

For the purposes of this needs assessment, primary and preventative health care also includes oral health and behavioral health services if they are provided as a general outpatient service. Access to basic primary and preventive health care services are limited in many areas of Alaska. Sixty-nine percent of primary care providers are located in Anchorage and the surrounding Matanuska-Susitna region.

Alaska has no in-state medical schools, making it necessary to join educational partnerships, such as the WWAMI Regional Medical Education Program, and recruit and retain out-of-state providers for hard to fill positions. The ongoing and increasing demand for healthcare workers has contributed to increased wages for health care providers and healthcare costs in Alaska overall. Staff turnover and health care provider shortages have been, and continue to be, a significant issue in our health care systems.

The state of Alaska's Primary Care Office (PCO) coordinates Federal Healthcare Provider Shortage Designations, and workforce development initiatives and enhancement programs such as National Health Service Corp, J1-Visas, National Interest Waivers, and 3R-Net, to support recruitment and retention of healthcare providers. Every five years the PCO also conducts a Primary Care Needs Assessment to further understand the primary healthcare needs of Alaskans. This report is intended to provide a broad overview of primary healthcare access and capacity to inform policy and programming

that addresses the needs of Alaska's underserved communities. Included is state-specific information related to key issues, special populations, resources and recommendations.

The needs assessment methodology was developed through the analysis of data already in existence that help identify unmet health care needs, disparities and health workforce issues in the state. Secondary data was used to present a comprehensive and informative picture of Alaska's vulnerable populations, unmet health care needs, health disparities and health workforce issues in the state. The PCO compiled data from local, state and federally recognized agencies together with reliable studies and reports based on surveys and firsthand results. The sources of data replicate best practices as recommended by Health Resource Service Administration (HRSA).

A qualitative analysis was conducted of all of Alaska's Community Health Assessments (CHA). The analysis identified issues and barriers impacting primary care needs of Alaska's 29 boroughs and census areas. Informants from the CHAs represent a broad cross section of the state including primary care community health centers, and both tribal and non-tribal partners. Data collected consist of a prioritization of core health indicators used to describe communities needs throughout Alaska. Relative health status, health risk factors, behavioral and mental health issues, and social determinants of health such as socioeconomic status, education, physical environment, infrastructure, as well as access to primary and preventive health care services were examined.

To assess priorities from a regional perspective, a qualitative analysis of rural Community Health Needs Assessments (CHNAs) was conducted to identify common needs. All 13 of Alaska's Critical Access Hospital communities have posted a CHNA on their websites with publish dates spanning 2016-2020. The top three needs identified were Behavioral health, Chronic health conditions and access to care.

Purpose

The Alaska Primary Care Office (PCO) is located within the Alaska Department of Health and Human Services (DHHS) within the Division of Public Health. The Alaska PCO continues to build upon its work to identify health workforce shortages and improve the health status of the medically underserved populations in Alaska. The purpose of this report was to identify high-priority health issues affecting Alaskans and determine areas of greatest need in the state.

The statewide Primary Care Needs Assessment (PCNA) presents a comprehensive and informative view of Alaska's vulnerable populations, unmet health care needs, health disparities, and health workforce issues in the state. The PCO utilized existing tools and data sources as well as networking with PCO partners and health organizations within the state to gather an extensive array of health needs within Alaska. This report provides a statewide overview of Alaska as well as highlights certain areas of concern, workforce shortages, and barriers to access health care.

Background and PCO Key Programs

The Alaska PCO has been in place since 1994 through the State Primary Care Offices Cooperative Agreement managed by the federal agency of HRSA, authorized under Title 3, Sections 330 and 333, of the Public Health Service Act, as amended. Over the years, the PCO roles and responsibilities have varied with the main goals of improving primary care service delivery, enhance access to care, and address and reduce health workforce shortages to meet the needs of underserved populations.

The Alaska PCO accomplishes its mission by working across government and healthcare settings, communities and organizations. The Alaska PCO also works directly with other divisions and departments as well as statewide stakeholders and partners to develop policies and programs that increase access to primary care. The key programs of the PCO are shortage designation coordination, provider recruitment and retention, and access to primary care services and health planning.

Shortage Designation Coordination

Alaska PCO coordinates the shortage designation process in the state. The PCO submits applications to HRSA to designate areas in Alaska, primarily as Health Professional Shortage Areas (HPSA) or Medically Underserved Areas or Populations (MUA/P). However, there are several types of shortage designations[1]:

a) **Health Professional Shortage Areas (HPSA)** identify geographic areas, populations groups, or facilities within the state that are experiencing a shortage of health care professionals.
b) **Medically Underserved Areas (MUAs)** and **Medically Underserved Populations (MUPs)** identify geographic areas and populations with a lack of access to primary care services.
c) **Exceptional Medically Underserved Population (Exceptional MUP)** identify a specific population subset that does not meet the established criteria but due to unusual circumstances do not have access to primary care services.
d) **Governor's Designated Secretary-Certified Shortage Areas for Rural Health Clinics** are areas designated by a state Governor or designee as having a shortage according to the state-established shortage plan/criteria for the establishment of a Rural Health Clinic.

As a HRSA designated state PCO, one of our responsibilities is to establish a Statewide Rational Service Area (SRSA) plan. An RSA is a state-identified geographic area within which area residents seek and obtain most of their health care services[2]. The SRSA plans must reflect utilization patterns for each discipline: primary care, dental, and mental health. The purpose of the SRSA plan is to establish a statewide system for defining service areas that reasonably reflect effective health care access patterns and needs in Alaska. To support the shortage designation process and PCO priorities, the Alaska PCO also completes a statewide primary care needs assessment.

Provider Recruitment and Retention

To address identified health care needs, reduce health care workforce shortages and barriers to care in the Alaska, the PCO promotes the recruitment and retention of health care providers in underserved areas by leveraging federal, state and other programs, such as:

a) **National Health Service Corps (NHSC):** Federal program that awards scholarships and loan repayment to providers in eligible disciplines, and help health care facilities to recruit, retain and support clinicians serving in high-need areas.
b) **Alaska's SHARP Program (SHARP 1 & 3):** Alaska's support for service program is a public-private partnership working to improve the recruitment, retention and distribution of health professionals for Alaska. SHARP offers two types of support-for-service benefit, either (a) education loan repayment, or (b) direct incentive, to practitioners in support of their work with or on behalf of Alaska's priority populations. SHARP practitioners can be in medical, dental, behavioral health or healthcare administration disciplines.

[1] Health Resources and Services Administration (HRSA); Shortage Designations < https://bhw.hrsa.gov/shortage-designation/what-is-shortage-designation> (13, November 2020).
[2] Lopes, P. M. (2000, February). State-Wide Rational Service Areas for Primary Care Services: Lessons from Six States. Retrieved from Health Resources and Services Administration (HRSA): https://www.hrsa.gov/sites/default/files/grants/apply/assistance/pco/primarycareserviceareas.pdf

c) **J-1 Visa Waiver or Conrad 30 Waiver Program:** Under this program, DHSS may recommend up to 30 J-1 Visa physicians annually to receive a waiver of the 2-year home residence requirement in exchange for a commitment of 3-years of service in an underserved area.

Access to Primary Care Services and Health Planning

The Primary Care Office also aids communities interested in expanding access to primary health care resources through various means, including but not limited to making information on HPSAs and MUA/P available, sharing data on Alaska's primary health care workforce. The PCO also supports Alaska's health care safety net providers through Health Center Planning and Development and building collaboration with other statewide entities such as the Alaska Primary Care Association, Alaska Dental Action Coalition, Alaska Mental Health Trust Authority, Alaska Native Health Board, Alaska Native Tribal Health Organization and Alaska Area Health Education Centers.

Alaska Overview and State Characteristics

Alaska presents unique challenges in access to and delivery of primary care services most notably because of the state's vast size, number of isolated communities, and the amount of area that is medically underserved. With an area of 663,268 square miles, Alaska is approximately one fifth the size of the contiguous United States and has the lowest population density of approximately one person per square mile[3]. Alaska has an estimated population of 731,545 with the densest population area in Anchorage and the Matanuska-Susitna Valley[4].

The state of Alaska is not organized into counties like most other states, instead it is divided into 19 boroughs and 10 US Census Bureau defined areas[5]. The North Slope Borough is the largest geographically at 9,430 square miles. Alaska's unorganized borough covers 78,149 square miles and is divided into census areas, the largest of which is the Yukon-Koyukuk Census area covering 5,588 square miles.

Rural is defined in Alaska's state healthcare workforce incentive program authorized by *AS 18.29.190(7)*, as "a community with a population of 5,500 or less that is not connected by road or rail to Anchorage or Fairbanks or with a population of 1,500 or less that is connected by road or rail to Anchorage or Fairbanks."

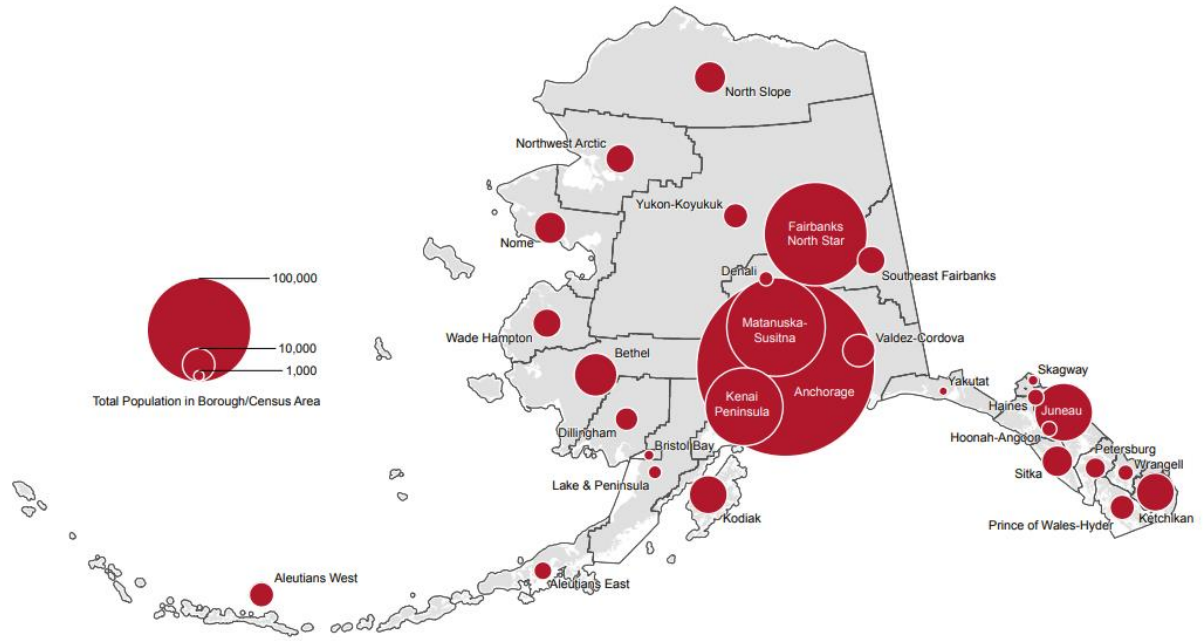
In addition to being considered rural, a large segment of Alaska's population may also be considered to reside in frontier areas. By the commonly used standard of six or fewer persons per square mile, all but four of Alaska's county-equivalents could be considered frontier; however, this definition lacks

[3] US Census: 2019 Quick Facts: https://www.census.gov/quickfacts/AK
[4] US Census: 2019 Quick Facts: https://www.census.gov/quickfacts/AK
[5] DHSS, Boroughs Alaska Health Profiles Geography http://dhss.alaska.gov/dph/InfoCenter/Pages/ia/geo_bca.aspx#:~:text=Informed%20Alaskans&text=Boroughs%2FCensus%20Areas%20are%20the,to%202015%20census%20area%20definitions.

precision. Statewide, Alaska's population density is 1.2 persons per square mile, much smaller than the U.S. population density of 92.9, [6], and the lowest population density of any region in the United States. [7]

As illustrated in the following map, over half of the state's residents live in the vicinity of the Municipality of Anchorage and the Matanuska Susitna Borough. This area of the state has the greatest number of resources, infrastructure, hospitals, clinics, and medical personnel. A significant amount of the state's population is also dispersed between small villages and larger "hub" communities, occupying rural areas and/or islands. The vast majority of Alaska's remaining population lives in communities of less than 1,000 residents spread across a huge, mostly road-less, territory accessible only by air or boat.

Figure 1. Total Population by Borough/Census Area



Produced by: Alaska Department of Labor and Workforce Development, Research and Analysis Section
Source: 2010 US Census

The frontier nature of Alaska, with the official nickname of the Last Frontier, presents additional challenges to delivery of primary care. Many communities are located at considerable distance from hospitals and without road access. For many small communities' physicians, dentists, and mid-level providers are available on an itinerant basis only. Treatment for serious conditions must occur at larger

[6] US Population Density, 2019, Statista, https://www.statista.com/statistics/183475/united-states-population-density/#:~:text=In%202019%2C%20the%20population%20density,square%20mile%20of%20land%20area.&text=Population%20density%20has%20been%20tracked,1790%20to%2087.4%20in%202010.
[7] Map: Population Density by Census Tract, 2010, https://live.laborstats.alaska.gov/cen/maps/population/borpop.pdf

hospitals in urban centers for which air travel is necessary. Alaska's robust tribal health system provides the majority of health care to rural Alaska.

Alaska's population is younger than the national average, but the gap is narrowing, largely due to the aging of Alaska's large baby boomer population. The U.S. median age in 2019 was 38.4, and the median age for Alaska was 35.5. Alaska had the fourth-youngest population in the U.S. after Utah (31.3), the District of Columbia (34.2), and Texas (35.0). In 2010, the U.S. median age was 37.2, and Alaska's was 33.8.[8]

Alaska has a large indigenous population. The Alaska Native or American Indian (alone) population in Alaska was 113,714 in 2019, or 16 percent of the state's total population, a larger proportion than any other state. For comparison, New Mexico's population was 11 percent American Indian (alone) and Hawaii's was 10 percent Native Hawaiian or other Pacific Islander (alone), according to the U.S. Census Bureau's 2019 Population Estimates program.[9] Because the population described by census as American Indian/Alaska Native tends to be people indigenous to Alaska and not American Indian people, this publication will use the term "Alaska Native" people. The figure below summarizes Alaska's population by race and ethnicity.

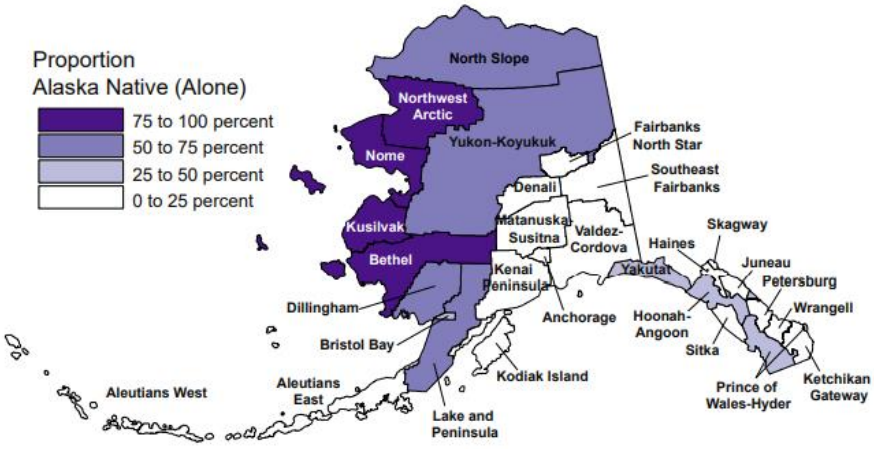
[8] Alaska Population Overview, 2019 Estimates, AK DOLWD, https://live.laborstats.alaska.gov/pop/estimates/pub/19popover.pdf
[9] Alaska Population Overview, 2019 Estimates, AK DOLWD, https://live.laborstats.alaska.gov/pop/estimates/pub/19popover.pdf

Figure 2. Alaska Population by Race and Hispanic Origin

Alaska Population by Race and Hispanic Origin[10]	July 2019	Percent
Total	731,007	
White (alone)	477,041	65%
Alaska Native or American Indian (alone)	113,714	16%
Black or African American (alone)	26,895	4%
Asian (alone)	47,916	7%
Native Hawaiian or Other Pacific Islander (alone)	10,603	1%
Two or More Races	54,838	8%
Hispanic Origin (of any race)	52,842	

The communities in Alaska's Northern and Southwest regions and the Yukon-Koyukuk Census area are primarily indigenous and most inhabitants are Alaska Native people. The following map shows where Alaska Native people live across the state.[11]

Figure 3. Proportion Alaska Native (Alone) by Borough and Census Area, 2019



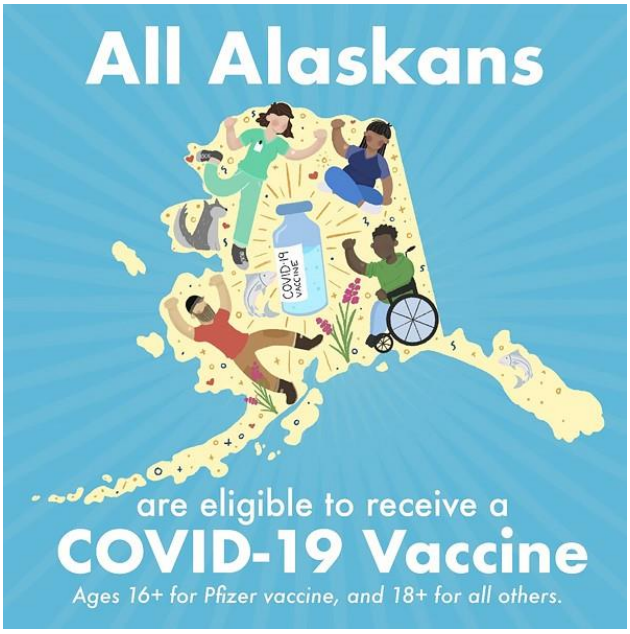
Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

[10] https://live.laborstats.alaska.gov/pop/

[11] AK DOL, 2019 Alaska Population Estimates, https://live.laborstats.alaska.gov/pop/estimates/pub/19popover.pdf

COVID-19 Pandemic and Economic Impact to Alaska

The first novel coronavirus (COVID 19) case in the United States was confirmed in Washington state on January 21st, 2020—Alaska's closest neighboring state. Alaska's first recorded coronavirus case came in early March 2020. By mid-March, measures to curb the virus' spread pulled students from classrooms, suspended indoor dining, and postponed elective medical procedures.



In 2020 Alaska saw 27,200 jobs lost[12]. Leisure and hospitality experienced the most losses with 9,600 jobs lost because the tourist season never materialized. In 2019, 6.7 percent of Alaska's jobs—around 22,000 were tied to the eating and drinking industry.[13] This is more jobs than the oil industry, construction or the federal government in Alaska. Eating and drinking jobs tend to be lower-wage and experience high-turnover further impacting health equity and access to primary care services.

Before the COVID-19 pandemic, Alaska had weathered a long statewide recession, statewide budget and revenue issues remain unresolved as oil prices continue to decrease. The pandemic impacted two of Alaska's critical sectors—oil and tourism. The state had more than 15,000 oil and gas jobs in 2014 before a four-year decline that reduced the number of jobs. That number had gradually climbed to about 10,000 jobs in early 2020 before the pandemic drove oil and gas jobs below 7,000, where they remained at the end of 2020.[14]

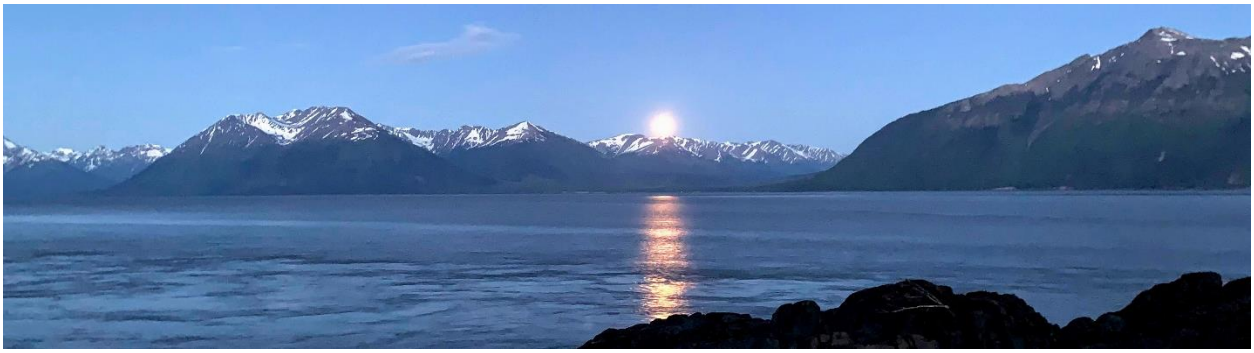
COVID-19 surged in Alaska later in 2020, with total monthly cases more than doubling from October to November. For context, Alaska's first 6,000 cases took nearly seven months to accumulate, but 6,000 cases were recorded in the first nine days of December and Anchorage entered another "hunker down" phase for the entire month of December. [15]

During January 1 through December 31, 2020, 46,045 cases of SARS-CoV-2 infection among Alaska residents were reported to the Section of Epidemiology, and 245 deaths were determined to be caused by or associated with COVID-19.[16] Pandemic disruptions continue remain undetermined.

Alaska's COVID-19 vaccine rates are currently leading the country. In early March 2021 Alaska was the first state in the nation to make COVID-19 vaccinations available to anyone over the age of 16 who live or works in the state. Part of Alaska's success in vaccinating so many of its population is its ability to

[12] Alaska Economic Trends January, 2021, https://labor.alaska.gov/trends/jan21.pdf
[13] Alaska Economic Trends December, 2020, https://labor.alaska.gov/trends/dec20.pdf
[14] Alaska Economic Trends January, 2021, https://labor.alaska.gov/trends/jan21.pdf
[15] Alaska Economic Trends January, 2021, https://labor.alaska.gov/trends/jan21.pdf
[16] State of Alaska Epidemiology, 2021 Summary of COVID-19 Deaths — Alaska, January 1 through December 31, 2020, http://www.epi.alaska.gov/bulletins/docs/b2021_02.pdf

receive vaccine allocations from various sources, including the Indian Health Service, to account for Alaska's 229 sovereign tribes as well as its large veteran population. The pandemic isn't over, and the timing and success of widespread vaccination will be a major determinant of future health of Alaskans and the economy. The short-term consequences of the pandemic will be significant, but it will take years to understand the long-term effects.



Cost of Living

Alaska continues to have a high cost of living. Common expenditures including grocery, healthcare, housing, utilities, and transportation all rank higher than the national average. In 2020, Alaska ranked sixth among the highest-cost states at 128.4, about 28 percent above average U.S. costs as illustrated in the image below. The ranking represents Anchorage, Juneau, and Fairbanks, which are home to about 57 percent of the state's population.[17] High cost of living prevent middle- and low-income Alaskan families from building equity and gaining long-term economic stability.

Figure 4. States with the Highest Cost of Living in 2020

Rank	State	Index
	U.S. Average	*100.0*
1	Hawaii	197.6
2	New York	153.9
3	California	142.7
4	Oregon	134.3
5	Massachusetts	129.7
6	**Alaska**	**128.4**
7	Maryland	128.0
8	Connecticut	124.2
9	New Jersey	122.4
10	Rhode Island	118.6

Sources: Missouri Economic Research and Information Center; and The Council for Community and Economic Research

[17] Alaska Economic Trends July, 2020, https://labor.alaska.gov/trends/jul20.pdf

Measures of Health Status & Methodology Overview

The needs assessment methodology was developed through the analysis of data already in existence to help identify unmet health care needs, disparities and health workforce issues in the state. Secondary data was used to present a comprehensive and informative picture of Alaska's vulnerable populations, unmet health care needs, health disparities and health workforce issues in the state. The PCO compiled data from local, state and federally recognized agencies together with reliable studies and reports based on surveys and firsthand results. The sources of data replicate best practices as recommended by HRSA.

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Data collected consist of a prioritization of core health indicators used to describe communities needs throughout Alaska. Relative health status, health risk factors, behavioral and mental health issues, and social determinants of health such as socioeconomic status, education, physical environment, infrastructure, as well as access to primary and preventive health care services were examined.

The Alaska PCO solicited feedback from key stakeholders to advise the structure and format of the needs assessment throughout the project. Key stakeholders represented the complexity and diversity of the Alaska healthcare system and included representatives from state government, tribal health organizations, and Alaska Primary Care Association representing all of Alaska's Federally Qualified Health Centers.

Health Status of Alaskans

The health status of Alaska's population was examined using statewide mortality rates, in addition to a more detailed look at selected health indicators, and social determinants of health. The following section provides an overview of the health of Alaskans according to these indicators.

Mortality

Alaska's mortality data come from the Division of Public Health's Health Analytics and Vital Records. In 2019, the most recent year for which data are available, 4,621 Alaskan residents died.[18] American Indian and Alaska Native residents had the highest age-adjusted death rate by race at, 1,205.2 deaths per 100,000 population. [19] Northern Alaska saw the highest age-adjusted death rate at 1,233.9 deaths per 100,000 population. [20] In Alaska, as in the U.S., most deaths each year are due to chronic diseases. The following figures show the 10 leading causes of death in Alaska.

[18] State of Alaska DHSS, Alaska Vital Statistics 2019 Annual Report, 2019.
[19] State of Alaska DHSS, Alaska Vital Statistics 2019 Annual Report, 2019.
[20] State of Alaska DHSS, Alaska Vital Statistics 2019 Annual Report, 2019.

Figure 5. Leading Causes of Death in Alaska – Mortality

Cause of Death	Deaths Rank	Deaths	Crude Rate	Age Adjusted Rate	Mean Age of Death
Leading Causes of Death					
Malignant Neoplasms	1	1,022	139.8	148.8	70.1
Diseases of Heart	2	842	115.2	132.3	71.6
Accidents (Unintentional Injuries)	3	434	59.4	63.0	49.1
Cerebrovascular Diseases	4	210	28.7	36.0	75.1
Intentional Self-Harm (Suicide)	5	209	28.6	28.7	37.8
Chronic Lower Respiratory Diseases	6	202	27.6	30.9	72.8
Alzheimer Disease	7	128	17.5	26.6	84.9
Diabetes Mellitus	8	111	15.2	16.4	68.6
Chronic Liver Disease and Cirrhosis	9	110	15.0	14.4	54.1
Assault (Homicide)	10	78	10.7	10.9	37.4
All Causes	**-**	**4,621**	**632.1**	**715.8**	**66.2**
Select Causes of Death					
Alcohol-Induced Causes	-	185	25.3	23.7	52.0
Firearm-Related Causes	-	179	24.5	24.7	38.7
Drug-Induced Causes	-	149	20.4	20.1	41.2

Figure 6. Leading Causes of Death in Alaska – Years of Potential Life Lost

Cause of Death	YPLL Rank	YPLL	Crude YPLL Rate	Age Adjusted YPLL Rate	Mean YPLL
Leading Causes of Death					
Malignant Neoplasms	2	7,815	1,113.8	959.0	7.6
Diseases of Heart	4	6,526	930.1	838.6	7.8
Accidents (Unintentional Injuries)	1	11,927	1,699.9	1,754.8	27.5
Cerebrovascular Diseases	8	1,345	191.7	186.7	6.4
Intentional Self-Harm (Suicide)	3	7,813	1,113.5	1,165.2	37.4
Chronic Lower Respiratory Diseases	9	1,129	160.9	134.6	5.6
Alzheimer Disease	24	82	11.7*	8.7*	0.6
Diabetes Mellitus	10	995	141.8	129.2	9.0
Chronic Liver Disease and Cirrhosis	6	2,329	331.9	344.8	21.2
Assault (Homicide)	5	2,936	418.4	444.1	37.6
All Causes	**-**	**57,772**	**8,233.8**	**8,051.6**	**12.5**
Select Causes of Death					
Alcohol-Induced Causes	-	4,284	610.6	624.4	23.2
Firearm-Related Causes	-	6,531	930.8	975.4	36.5
Drug-Induced Causes	-	5,034	717.5	735.2	33.8

Unlike the U.S. overall, Malignant Neoplasms (Cancer) remains the number one leading cause of death followed closely by heart disease. Unlike the rest of the country, death from unintentional injury is listed as the 3rd leading cause of death. Unintentional injury disproportionately impacts Alaskans and claimed the lives of 434 individuals in 2019.

In order to fully understand the burden of injury on Alaskans, the years of potential life lost (YPLL)—a measure of the number of years of potential life lost due to premature death—is assessed alongside the number of deaths per 100,000 people.[21] YPLL is an estimate of the average number of years a person would have lived had they not died prematurely (before 75 years of age). In 2019, unintentional injuries were also the leading cause of YPLL, and were responsible for 11,927 YPLL, and an age-adjusted YPLL rate of 1,754.8 YPLL per 100,000 population. [22] More detail is provided in the figure on select causes of death for alcohol induced, firearm related and drug-induced causes. (These three categories overlap with numbers listed in the leading cause of death.)

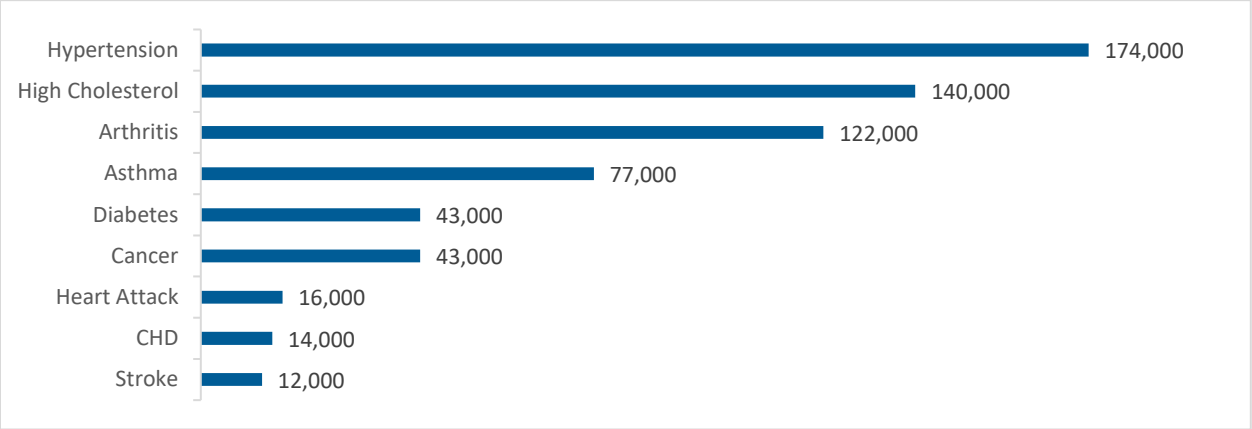
Morbidity

Chronic disease and unintentional injury make up 8 of the leading causes of death in Alaska. The mortality data also show the presence of disease and injury among individuals living in Alaska. Nationally, 70% of deaths and 75% of health care spending are related to chronic disease. Injuries (intentional and unintentional) represent 10% of health care spending nationwide.[23]

The figure below displays the Self-reported data from adult Alaskans regarding their history of being diagnosed with chronic conditions. Hypertension and high cholesterol impact an estimated 174,000 and 140,000 Alaskans, respectively.[24] The data do not show those who are experiencing more than one of these comorbidities.

[21] Alaska Statewide Violence and Injury Prevention Partnership, Alaska Statewide Violence and Injury Prevention Plan 2018-2022, 2018.
[22] State of Alaska DHSS, Alaska Vital Statistics 2019 Annual Report, 2019.
[23] State of Alaska DHSS, Section of Chronic Disease Prevention and Health Promotion, Strategic Plan 2018-2022, 2018.
[24] Healthy Alaskans 2030 State Health Assessment, 2019

Figure 7. Alaska Adults Diagnosed with Select Chronic Diseases, 2017[25]



Cancer has remained the leading cause of death in Alaska since 1993. Every year, more than 2,000 Alaskans are diagnosed with cancer. The annual cost to treat cancer in the state exceeds $200 million.[26] In 2018 the four most common causes of cancer death included lung, colorectal, pancreas, and breast cancer. The four commonly diagnosed cancers in Alaska in 2017 were breast, lung, prostate, and colorectal cancer.[27]

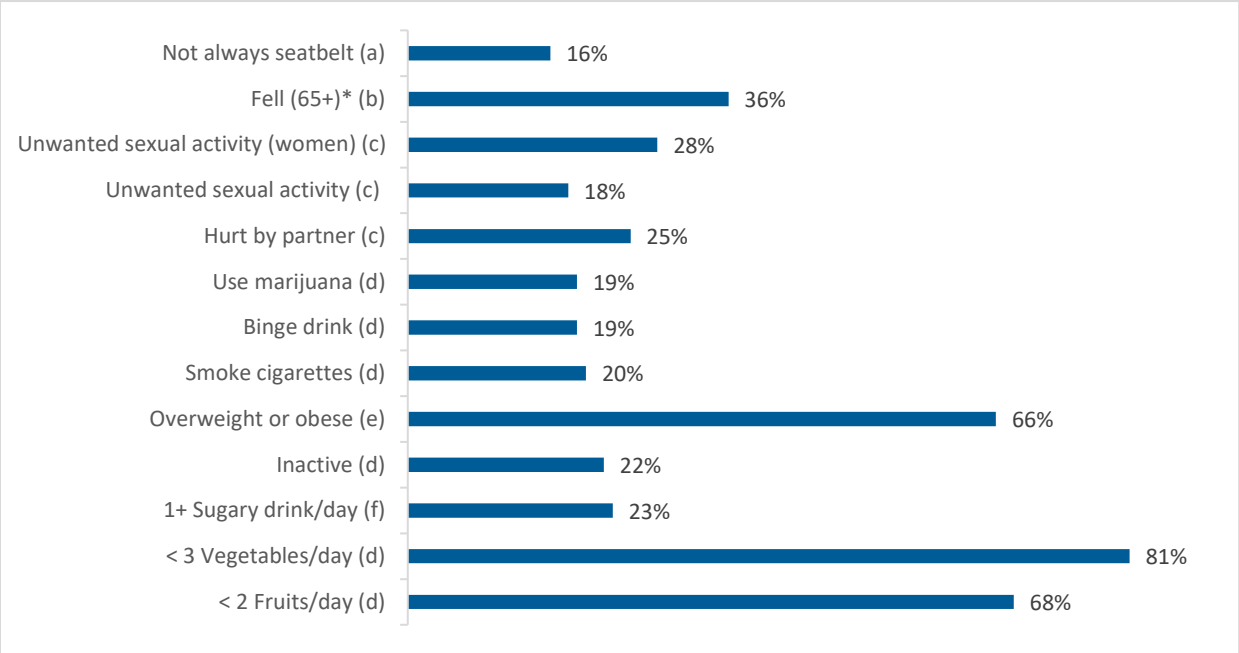
In 2018, heart disease accounted for 18% of deaths and stroke accounted for 5% in Alaska.[28] Diabetes is a health condition that can increase the likelihood of heart disease and stroke. Uncontrolled diabetes can lead to significant disability, including blindness, amputations, and kidney failure. On average, people with diabetes have health care costs that are more than two times higher than those without diabetes.[29] The state of Alaska Diabetes Prevention and Control Program report that 7.5% of adults in Alaska report being diagnosed with diabetes and another 11.1% of adults report being diagnosed with prediabetes. More than 100,000 Alaska adults have been diagnosed with diabetes or prediabetes; and an even greater number are likely at risk and do not know it.[30] Similar to national trends, the prevalence of diabetes in Alaska has significantly increased during recent years by an average of 0.6% per year during the past 10 years.[31]

Many behaviors and experiences put individuals at risk for negative health outcomes. Using tobacco, being inactive, having a poor diet, and being overweight or obese increases the likelihood that someone

[25] State of Alaska DHSS, Section of Chronic Disease Prevention and Health Promotion, Behavioral Risk Factor Surveillance System, 2017.
[26] State of Alaska DHSS, Section of Chronic Disease Prevention and Health Promotion, Alaska Comprehensive Cancer Control Plan 2016-2020, 2016
[27] State of Alaska DHSS, Section of Chronic Disease Prevention and Health Promotion, Alaska Chronic Disease Facts 2020 Brief Report, 2020
[28] State of Alaska DHSS, Section of Chronic Disease Prevention and Health Promotion, Alaska Chronic Disease Facts 2020 Brief Report, 2020
[29] State of Alaska, DHSS, Section of Chronic Disease Prevention and Health Promotion, Diabetes Prevention and Control Program, 2019
[30] State of Alaska, DHSS, Section of Chronic Disease Prevention and Health Promotion, Diabetes Prevention and Control in Alaska, 2019
[31] State of Alaska, DHSS, Section of Chronic Disease Prevention and Health Promotion, Diabetes Prevention and Control in Alaska, 2019

will develop chronic disease, suffer reduced quality of life, and ultimately die from that disease. Risk factors for unintentional injuries vary widely by type of injury; alcohol and substance abuse are risk factors linked primarily with injuries in Alaska. The following figure shows the prevalence of selected risk factors for chronic disease and injury among adults in Alaska.

Figure 8. Select Chronic Disease and Injury Risk Factors, Alaska Adults 2017[32]



Notes: (a) When drive or ride in a car, (b) In past year, (c) In lifetime, (d) In past 30 days, (e) Currently, (f) On an average day.

Mental health and substance abuse (related to alcohol and other substances) have long been identified as critical issues in Alaska, which contribute to increased suicide risk, increased incidence of violence including homicide, adverse childhood events, and inter-generational trauma. In 2017, 7.6 percent of all emergency medical service (EMS) transports in Alaska resulted from alcohol misuse while 1.6 percent of all EMS transports resulted from opioid misuse. Alcohol misuse reaches beyond individuals and can result in trauma that lasts for generations. In 2016, nearly half of all Alaska children in foster care or living in out-of-home placements came from a home with alcohol abuse by a parent or guardian. Alcohol-misuse also places a strain on Alaska's economy. In 2015, alcohol use disorder cost the state about $1.84 billion in lost productivity, incarceration for criminal offenses, and medical treatment or hospitalization. From 2010-2016, there were 962 alcohol-related deaths in Alaska – this is 198 more deaths than meth and opioid related deaths combined.[33]

[32] State of Alaska Division of Public Health, Behavioral Risk Factor Surveillance System, (2017 *Except 2016, where noted)

[33] Health Impacts of Alcohol Misuse in Alaska, 2018, http://www.epi.alaska.gov/bulletins/docs/rr2018_02.pdf

In Alaska, there were 623 identified opioid overdose deaths from 2010-2017, and over that time the opioid overdose death rate increased 77% (from 7.7 per 100,000 persons in 2010 to 13.6 in 2017). From 2012–2017, the rate of out-of-hospital naloxone administrations by Emergency Medical Service (EMS) personnel more than doubled, from 8.0 to 17.7 administrations per 1,000 EMS calls in 2012 and 2017, respectively. [34]

Survivors of violent crimes are at risk for posttraumatic stress disorder, major depressive episodes, and drug abuse/dependence. Youth exposed to community violence have increased rates of anxiety, aggression, and future violent behavior. In 2018, Alaska's homicide rate per 100,000 individuals was 7.5, compared to 6.0 for the US.[35] The 2015 Alaska Victimization Survey results show a decline in intimate partner violence and sexual assault since 2010, although data support that fully 50% of adult women in the state have experienced violence in their lifetime, compared to 37.3% nationwide.[36] Adverse Childhood Experiences (ACEs) are major risk factors for leading causes of illness and death as well as poor quality of life. The higher the number of ACEs a person has, the more likely they are to experience poor health. The 2013-2015 BRFSS found that 65.7% of Alaskans had one or more ACEs, while 19.5% reported four or more.[37]

[34] Opioids in Alaska, 2020, http://dhss.alaska.gov/dph/Director/Pages/opioids/home.aspx
[35] CDC, National Health Center Health Statistics, Homicide Mortality, 2018, https://www.cdc.gov/nchs/pressroom/sosmap/homicide_mortality/homicide.htm
[36] Alaska Victimization Survey, 2015, https://www.uaa.alaska.edu/academics/college-of-health/departments/justice-center/research/alaska-victimization-survey/
[37] AK DHSS DPH, Health Indicator Report for Adverse Childhood Experiences http://ibis.dhss.alaska.gov/indicator/view/xace4cnt.HA.html

Health Disparities and Social Determinants of Health

Health disparities refer to differences in health outcomes and their causes, between population groups. Race or ethnicity, sex, sexual identity, age, disability, socio-economic status, and geographic location all contribute to an individual's ability to achieve and maintain good health, and often also determine the level of access and quality of care available to them.

Social determinants of health include a variety of social, economic and lifestyle factors that directly or indirectly affect the health status of individuals and populations. These may include lifestyle factors (behaviors that increase risk of illness or injury), access to health care and preventative services, education, income, housing, quality of physical environment, and/or Adverse Childhood Experiences (ACEs). Social determinants of health are important to consider in assessing health status because of the role they play in increasing or decreasing resilience among Alaskans.

Socioeconomic inequality and geography also contribute to significant barriers to primary care access in Alaska, impacting health outcomes. Due to Alaska's extreme remoteness, emergency travel between communities can be difficult. Geographic isolation means significant challenges in assuring all populations have access to routine preventive care, and acute medical and specialty care. Approximately 75% of Alaskan communities, including the capital city of Juneau, are not connected to a road system. Accessing "nearby health services" or specialized health care means travel by commercial jet, small plane, the marine ferry system, all-terrain vehicles, small boats or snow machines. Some residents may travel distances equivalent to Washington, D.C. to New Orleans for even routine medical care. Severe weather can render travel impossible, creating especially critical situations in medical emergencies. Across the state and between population groups, significant health disparities were identified.

Poverty

Poverty, which considers household income level as well as household size, is another critical social determinant of health. Approximately 18.9% of the population of Alaska (and 26.2% of those under 18

years) lives below 125% of the Federal Poverty Level.[38] And, 31.8% of Alaska Native people live below poverty thresholds.[39] Rural Alaskan populations have a higher poverty rate, lower education rate, and a higher unemployment rate than urban Alaska. Specifically, the Rural Health Information Hub reports that,

- The poverty rate in rural Alaska is 14.3% compared with 9.6% in urban areas
- Rural Alaskans have not completed high school at a rate of 9.6% compared to 6.7% of urban Alaskans
- The unemployment rate in rural Alaska is 8.5%, while in urban Alaska, it is 6.5%.

Poverty affects health both through decreased access to material resources, like health care and nutritious food, and through increased exposure to negative social and environmental factors, like violence, lead, and air pollution. It is associated with poor maternal health and birth outcomes such as infant mortality, low birth weight, and child maltreatment. According to the Kids Count Alaska Economic Well-Being report, there are significant disparities in family income by race/ethnicity in Alaska. While median family income was $75,500 in 2015, only White families earned more, on average, than the median ($91,300) while all other race/ethnicities earned less (non-White median family income was $48,700).[40]

Risk factor prevalence is higher for people with less than a high school education compared to the total Alaska population. Alaskans who have not completed high school report higher rates of physical inactivity, poor or fair self-rated health status, and have higher prevalence of frequent mental distress, hypertension and diabetes. Differences in risk factors and disease morbidity also exist for certain age groups, geographic areas, disability status and income groups, often related to the social determinants of health. In 2017, Alaska adults living under 125% of federal poverty guidelines were more than twice as likely to be smokers as those living above the threshold.[41]

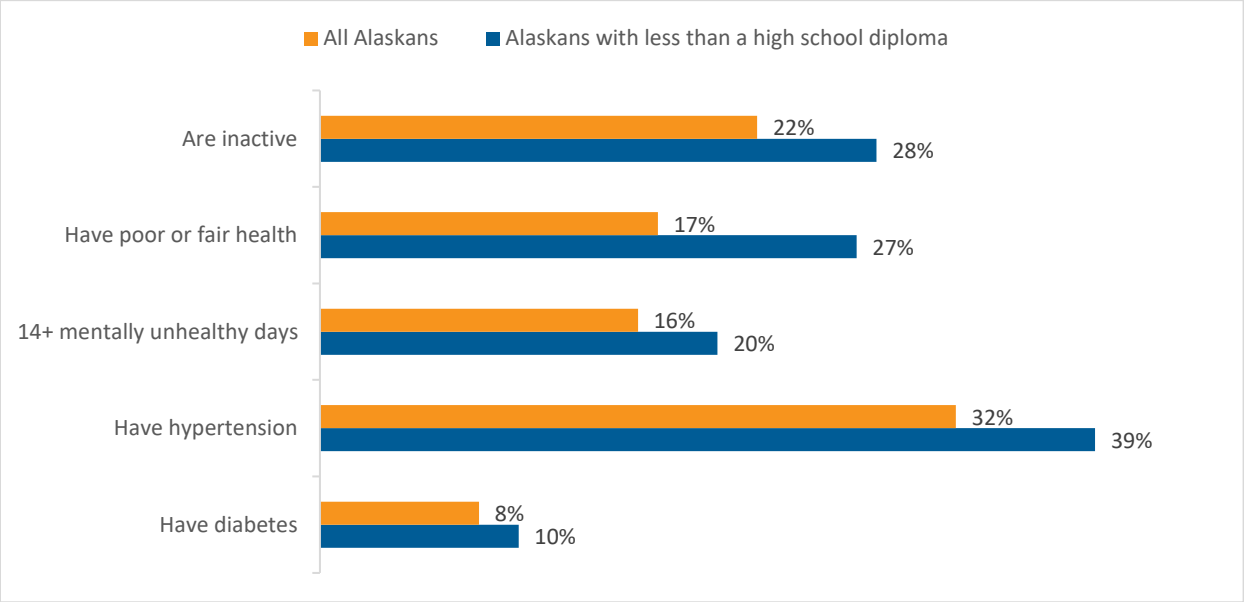
[38] U.S. Census Bureau, Current Population Survey, 2018 Annual Social and Economic Supplement.

[39] U.S. Bureau of the Census, 2017

[40] Kids Count Alaska Economic Well-Being report, 2018 https://static1.squarespace.com/static/586370cec534a5dbdedba846/t/5c68bb116e9a7f0b4e2d0514/1550367517802/FullReportKidsCount.pdf

[41] Alaska Department of Health and Social Services (n.d.c). Informed Alaskans. Accessed February 8, 2021 http://ibis.dhss.alaska.gov/query/result/BRFSS23/BRFSS_CM/XSMOKER.html

Figure 9. Prevalence of Selected Risk Factors by Education Level, 2017



Source: Alaska Division of Public Health, Behavioral Risk Factor Surveillance System

Underinsured and Uninsured

Among all Alaskans, 12.6% percent are without health insurance coverage, compared to 8.8% in the U.S. Thirty percent of Alaska adults do not have one person they consider their personal health care provider, and 14% report being unable to seek health care services in the past 12 months due to cost.[42]

Uninsured populations are less likely to access routine, preventive care and more likely to seek care when health problems are severe and require treatment. In 2018, 61% of Alaskan adults aged 19-64 years were covered by employer or other private health insurance and 17% were covered by Medicaid.[43] Among children with special health care needs, 48% were covered by Medicaid.[44] According to the 2019 Scorecard on State Health System Performance by the Commonwealth Fund, Alaska ranks 46th in the nation for uninsured adults and 47th for uninsured children.[45] In 2017, 10% of Alaska children under age 19 were not covered by any health insurance, compared to 5% for the U.S.[46] In the same year, 13% of Alaska parents (defined as adults who live with at least one of their own children under age 18) were not covered by any health insurance. American Indian and Alaska Native tribal members generally have access to tribal health services even if they do not have other health care coverage. A limitation of many of these data sources on health insurance is that they do not count tribal coverage or Indian Health Service (IHS) as insurance, which may inflate Alaska's percentage who are uninsured. Indian Health Services is often underfunded and so the rate of uninsured Alaska Natives still has a detrimental effect

[42] Alaska Behavioral Risk Factor Surveillance System, 2017
[43] Kaiser Foundation, https://www.kff.org/statedata/
[44] Kaiser Foundation, Medicaid in Alaska, http://files.kff.org/attachment/fact-sheet-medicaid-state-AK
[45] The Commonwealth Fund, 2019 Scorecard on State Health System Performance
[46] Kids Count Alaska Economic Well-Being report, 2018
https://static1.squarespace.com/static/586370cec534a5dbdedba846/t/5c68bb116e9a7f0b4e2d0514/1550367517802/FullReportKidsCount.pdf

on overall healthcare funding in the state due to a lack of reimbursement from private insurers or Medicaid.

Healthcare Insurance does not guarantee healthcare access. When it comes to health care costs, Alaskan's are typically among the highest in the nation. Another way to look at medical costs is the typical health insurance premium through the public marketplace. The figure below shows Alaska's average premium via the Affordable Care Act was second highest for 2020, at $698 per month after Wyoming ($875). The national average was $442.[47]

Figure 10. Public Health care premiums in 2020

Rank	State	Avg monthly premium
	U.S. Average	*$442*
1	Wyoming	$875
2	**Alaska**	**$698**
3	Nebraska	$667
4	Vermont	$645
5	Iowa	$636
6	West Virginia	$619
7	New York	$588
8	South Dakota	$588
9	Connecticut	$547
10	Oklahoma	$527

**Silver tier premium care insurance for a 40-year-old under the Affordable Care Act.*
Source: The Henry J. Kaiser Family Foundation

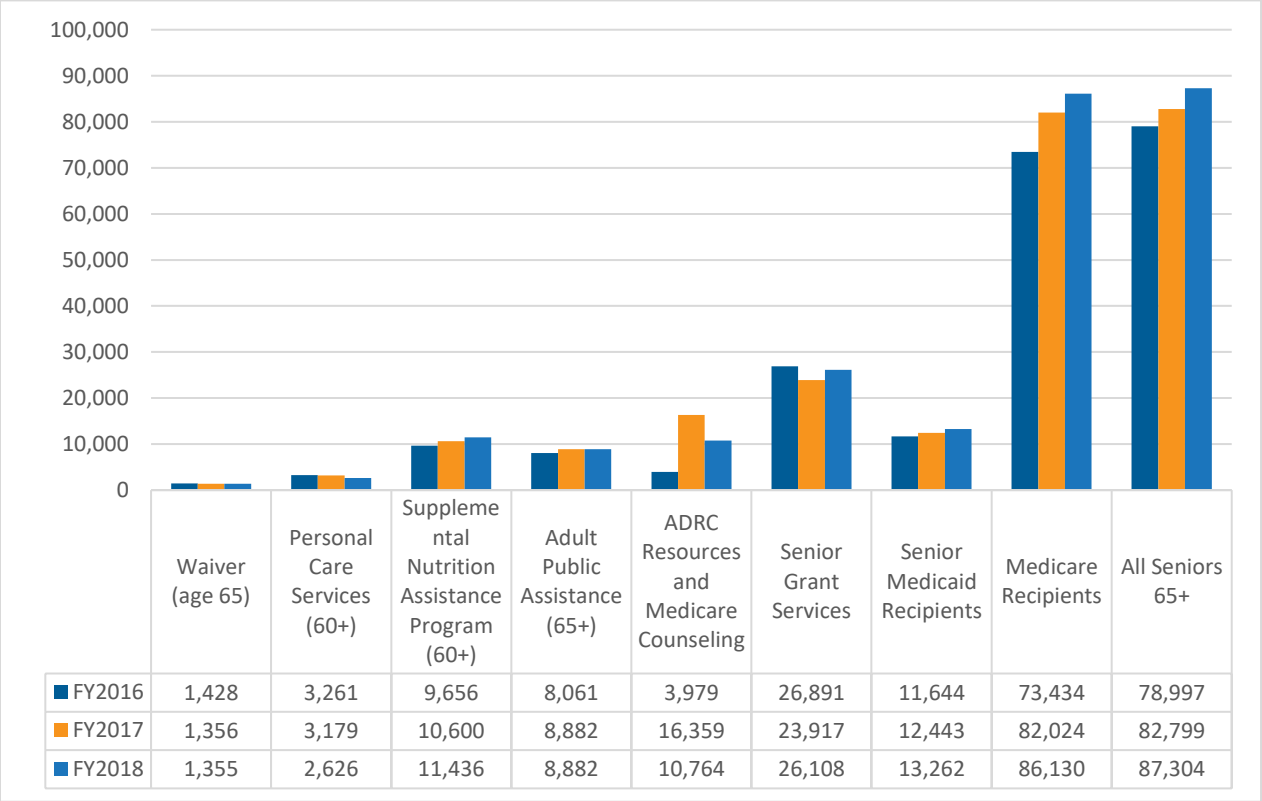
Elderly

The proportion of the state population aged 65 and older was 12 percent in 2019.[48] Although Alaska still has one of the smallest percentages of seniors (only Utah's is lower), it is following the nationwide aging trend. Alaska's population is projected to increase by over 26% between 2012 and 2042. Alaska's population aged 65+ is the fastest growing demographic in the state. Alaska has a very limited pool of available workers to provide supportive services for seniors. In the larger communities, it is also very difficult to find primary care providers who will accept Medicare. This will dramatically increase Alaska's need for health and social services and further stress the health system.

[47] Alaska Economic Trends, July 2020, The Cost of Living https://labor.alaska.gov/trends/jul20.pdf
[48] Alaska Population Overview, 2019 Estimates, AK DOLWD, https://live.laborstats.alaska.gov/pop/estimates/pub/19popover.pdf

From 2016-2018 utilization of services for seniors has increased across most areas of service. Waiver, Personal Care Services and Senior Grant Services have seen slight decreases in utilization. Medicare saw the largest growth in utilization with 12,669 more users in fiscal year 2018 than in fiscal year 2016.[49]

Figure 11. Alaska Senior Service Utilization, FY16-FY18



	Waiver (age 65)	Personal Care Services (60+)	Supplemental Nutrition Assistance Program (60+)	Adult Public Assistance (65+)	ADRC Resources and Medicare Counseling	Senior Grant Services	Senior Medicaid Recipients	Medicare Recipients	All Seniors 65+
FY2016	1,428	3,261	9,656	8,061	3,979	26,891	11,644	73,434	78,997
FY2017	1,356	3,179	10,600	8,882	16,359	23,917	12,443	82,024	82,799
FY2018	1,355	2,626	11,436	8,882	10,764	26,108	13,262	86,130	87,304

Alaska has a very limited pool of available workers to provide supportive services for seniors. In the larger communities, it is also very difficult to find primary care providers who will accept Medicare. There is also a very limited number of primary care providers who specialize in geriatrics. The Alaska Health Workforce Coalition 2017-2021 Action Agenda identified Direct Support Professionals/Direct Care Workers as the highest priority healthcare occupation; primary care providers are also one of the top priority occupations for Alaska. The direct caregiver workforce for home health services is an important issue across all aspects of the workforce including recruitment, retention, training, oversight and quality of care. Growth in the direct care workforce has not kept pace with the growth in the senior population. Oversight and quality of care are especially an issue for those paying privately as the quality controls from grant and Medicaid waiver funded services are not in place for private pay services. Agency direct care staff are sometimes not trained or certified for providing in-home care. The direct care workforce often does not have the appropriate training to work with people with Alzheimer's Disease and Related Dementia.

[49] Alaska State Plan for Senior Services 2019, http://dhss.alaska.gov/acoa/Documents/ACoA_StatePlan_FY2020-FY2023.pdf

LGBTQ+

Nationally, sexual and gender minorities have many of the same health concerns as the general population. As a distinct group, they experience certain health challenges at higher rates. Research suggests that some subgroups of the LGBTQ+ community are likely to develop more chronic conditions, as well as higher prevalence and earlier onset of disabilities than heterosexuals. Other major health concerns include HIV/AIDS and sexual and physical violence.[50]

LGBTQ+ people face health disparities linked to social stigma, discrimination and denial of human rights. These disparities include higher rates of several negative outcomes which are already higher in Alaskan than the national average, including substance use, mental health symptoms, suicide and violent victimization.[51]

In a 2019 Gallup poll, 3.7% of the Alaska's age 18+ population self-identified as lesbian, gay, bisexual, or transgender.[52] Making up approximately 25,000 total individuals age 13+ who identify as LGBTQ+. LGBTQ+ individuals are at increased risk for suicidality, depression and anxiety, substance abuse, and homelessness. They also experience difficulties with when and how to disclose their identity status to their doctors, due to safety concerns. Transgender patients nationwide report having their healthcare providers refuse to see them and or provide non trans-affirming or even substandard care.[53]

Alaska is a vast geographic area with diverse cultures and demographic characteristics. As such the utilization of national data to inform prevention efforts on behalf of Alaskan populations can be problematic. To help address the paucity of data regarding the Alaskan LGBTQ+ population, a statewide health needs assessment was conducted in collaboration with the non profit Identity and researchers from the University of Alaska Anchorage. Of the 670 participants the top three issues affecting LGBTQ+ Health were identified as follows: access to welcoming and affirming health care, provider competency and training, and mental health. [54]

Veterans

According to the U.S. Census Bureau, Alaska has the highest percentage of Veterans per population at 10.7% compared to an average of 6.9% in the U.S.[55] Alaska's veteran population in 2017 was 68,719, 13.12% of the state population.[56] The figure below shows Alaska's healthcare utilization data. In 2017 about half of the population was enrolled in the Veterans Administration Health System, which suggests that the veteran population seeks healthcare elsewhere within the state's service delivery system. Approximately 34% of Alaskans Veterans identify as non-white minority.[57] American Indian and Alaska

[50]Jennifer Kates, Usha Rangi, Adara Beamesderfer, Alina Salganicoff & Lindsey Dawson (2018) Health and Access to Care and Coverage for Lesbian, Gay, Bisexual, and Transgender (LGBT) Individuals in the U.S.
[51]Vanessa Verigin, 2020 Alaska LGBTQ+ Health Needs Assessment Priorities.
[52] MAP: Movement Advancement Project, https://www.lgbtmap.org/equality-maps/profile_state/AK
[53] Heck, Lindquist,, Machek, & Cochran, (2014) School belonging, school victimization and the mental health of LGBT Young Adults: Implications for School Psychologists.
[54] Vanessa Verigin, 2020 Alaska LGBTQ+ Health Needs Assessment Priorities.
[55] US Census Bureau American Community Survey, 2019, https://www.census.gov/programs-surveys/acs/
[56] US Department of Veterans Affairs, State Summaries Alaska 2017 https://www.va.gov/vetdata/docs/SpecialReports/State_Summaries_Alaska.pdf
[57] US Department of Veterans Affairs, State Summaries Alaska 2017 https://www.va.gov/vetdata/docs/SpecialReports/State_Summaries_Alaska.pdf

Native tribal members generally have access to tribal health services. A limitation of many of these data sources is that they do not include tribal coverage or Indian Health Service services.

Figure 12. VA Healthcare and Benefits

VA Healthcare and Benefits (as of 9/30/2017)	Alaska	National
Number of veterans receiving disability compensation	19,772	4,552,819
Number of veterans receiving pension	292	276,570
Number of dependency & indemnity comp beneficiaries	829	411,390
Number of education beneficiaries	3,871	987,577
Number of enrollees in VA healthcare system	33,843	9,116,200
Number of unique patients treated	19,915	6,035,183

Homelessness

Homelessness has many contributing factors such as unemployment, income, poverty, food insecurity and housing stability. Persons experiencing homelessness (PEH) are at elevated risk for many adverse medical conditions and premature death.

As of January 2019, Alaska had an estimated 1,907 individuals experiencing homelessness on any given day, as reported by Continuums of Care to the U.S. Department of Housing and Urban Development (HUD). Of that Total, 161 were family households, 111 were Veterans, 176 were unaccompanied young adults (aged 18-24), and 269 were individuals experiencing chronic homelessness.[58]

Public school data reported to the U.S. Department of Education during the 2017-2018 school year shows that an estimated 3,769 public school students experienced homelessness over the course of the year. Of that total, 351 students were unsheltered, 678 were in shelters, 222 were in hotels/motels, and 2,518 were doubled up.[59]

Key Findings from Statewide Community Health Assessments

A qualitative analysis was conducted of 17 of Alaska's Community Health Assessments (CHA). The analysis identified issues and barriers impacting primary care needs of Alaska's 29 boroughs and census areas. Informants from the CHAs represent a broad cross section of the state including primary care community health centers, and both tribal and non-tribal partners.

The data collected from the CHA review consisted of a prioritization of core health indicators used to describe communities needs throughout Alaska. The three top priorities most prevalent across all regions of the state identified were Behavioral Health issues, chronic disease, and access to care.

[58] United States Interagency Council on Homelessness, Alaska Homeless Statistics, 2019 https://www.usich.gov/homelessness-statistics/ak

[59] United States Interagency Council on Homelessness, Alaska Homeless Statistics, 2019 https://www.usich.gov/homelessness-statistics/ak

Similar themes emerged from a review of the Healthy Alaskans Scorecard, the Comprehensive Integrated Mental Health Plan Scorecard and the qualitative analysis of the Community Health Needs Assessments as those identified in the health status of Alaskans.

Healthy Alaskans has tracked population health improvement projects for several decades in assessments, scorecards, and state health improvement plans. Healthy Alaskans is a joint initiative between the State of Alaska Department of Health and Social Services and the Alaska Native Tribal Health Consortium. Through a participatory process engaging stakeholder from around the state, Healthy Alaskans 2020 identified 25 Alaska-specific leading health indicators to guide efforts around common health objectives. Communication and widespread information dissemination on these initiatives encourages organizations and communities to commit to improving the health of all Alaskans by aligning their efforts.

The Healthy Alaskans 2020 project scorecard[60] has updates on the progress toward meeting the target for the 25 Leading Health Indicators. 2020 data shows:

- 10 indicators have met the target (these topics include a decrease in cancer mortality, tobacco use, and binge drinking)
- 3 indicators are improving (these topics include increase in childhood immunization rates, rural housing units with access to water and sewer, and preventable hospitalizations)
- 19 indicators are getting worse (these topics include obesity, suicide, mental health, child maltreatment, and unintentional injury)

Behavioral Health is inclusive of substance use disorder and mental health. Common issues included an insufficient number of mental health and substance use disorder treatment providers to meet the needs of the community and stigmatization regarding mental health and substance use disorder, lack of coverage through insurance plans, and perceived inaccessibility of care are barriers to seeking treatment. The Office of Substance Misuse and Addition Prevention within the Division of Public Health is specifically focused on prevention, availability of services and overdose treatment in Alaska.[61] Established in 2019, The Alliance: United to Prevent Alcohol Misuse and Promote Community Wellness, is a collaborative statewide effort to improve health outcomes related to alcohol misuse. The Alaska Mental Health Trust Authority is committed to improving the lives of beneficiaries and coordinates with State of Alaska Department of Health and Social Services on the Comprehensive Integrated Mental Health Plan.[62]

Chronic health topics included obesity, heart disease and diabetes. Eldercare and lack of specialty care in local communities were also listed. Higher rates of adverse social determinants of health negatively impact the physical and mental wellbeing of rural Alaskans. This then affects the level of acute and chronic health conditions that rural health care organizations cope with using limited resources.

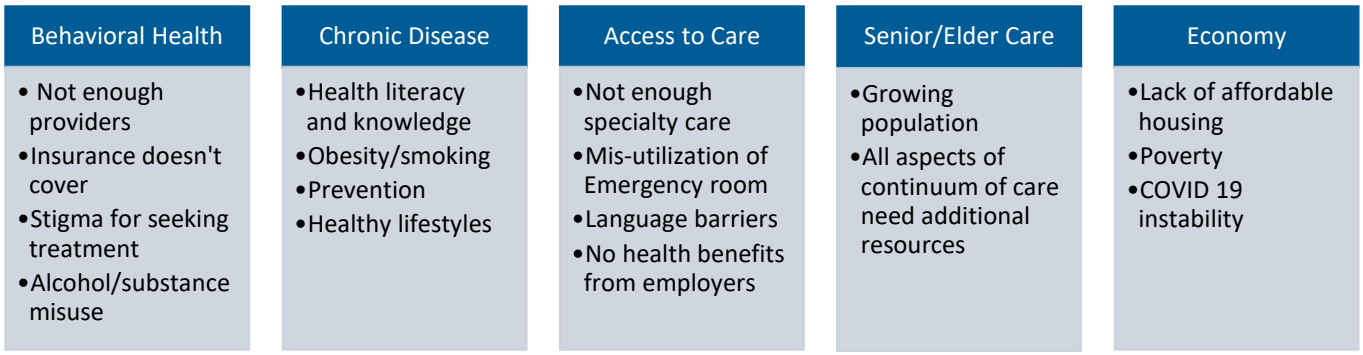
Socioeconomic inequality, geography and provider distribution contribute to barriers to primary care access in Alaska. Wealth and economic opportunity are unevenly distributed. Many small village

[60] https://www.healthyalaskans.org/wp-content/uploads/2020/03/HA2020_Scorecard_2018.pdf
[61] AK DHSS DPH OSMAP, http://dhss.alaska.gov/osmap/Pages/prevention.aspx
[62] Strengthening the System: Alaska's Comprehensive Integrated Mental Health Program Plan 2020-24, http://dhss.alaska.gov/Commissioner/Pages/MentalHealth/default.aspx#:~:text=Strengthening%20the%20System%20identifies%20priorities,that%20quickly%20meets%20their%20needs

communities are burdened with high levels of poverty and unemployment and have few healthcare resources. Due to Alaska's geography, travel between communities to access healthcare or employment can be difficult. These factors impact health and healthcare access, particularly for low-income residents in rural communities. Across the state, significant health disparities persist.

The following image shows the key themes that emerged through the analysis of the CHAs and how they align with the State Health Assessment as well as Healthy Alaskans and the Mental Health Trust scorecard.

Figure 13. Alaska's Community Health Needs



Alaska's Primary Health Care Delivery System

Alaska has one of the most complex healthcare delivery systems in the nation. The frontier nature of the state requires innovative partnerships and solutions unique to Alaska. Alaska's small population and large geography necessitates strong relationships and collaboration but creates limitations in capacity and economies of scale.

Alaska's healthcare delivery system is shaped by the unique geography, climate, history, and demographics of the state. Some of these same factors have not only contributed to the significant challenges to the traditional provision of rural healthcare services, but also given rise to a remarkable capacity for innovation in healthcare provider types, systems, and delivery modalities.

The Alaska healthcare system uses a regional approach to the organization of its system of health care delivery, with communities categorized based on the types of services and levels of care that are available, and referral linkages from lower to higher levels of care. It is dependent on a community's access to the "road system" and distance to the nearest hospital, as well as population size and local health care resources. There is only one local health department in the entire state, and it is located within the Municipality of Anchorage. The limited local resources and lack of local health departments means that public health and health care systems utilize an inclusive statewide approach.

Alaska's healthcare system is comprised of multiple public and private systems, including tribal healthcare, large and small regional hospitals, community health centers, military systems, and private facilities. While there is no commercial managed care in Alaska, there are several federal systems of care with some managed care characteristics, such as a commitment to prevention and wellness, employed physicians, and essentially closed populations. The tribal and governmental systems represent a larger portion of both facilities and service providers in Alaska than in other states, over 16% of the population is eligible for services in the tribal system and 12.5% are covered by the military system. (By way of

comparison, in the U.S., the proportions are 2% tribal and 4.8% military.)[63] Medicaid expansion went into effect in late 2015 and provided coverage for an additional 46,000 Alaskans, according to DHSS. Medicaid expansion has also increased the number of health care jobs in Alaska.[64]

Tribal Health System

The Alaska Area Indian Health Service (IHS) works in conjunction with Alaska Native Tribes and Tribal Organizations (T/TO) to provide comprehensive health services to 174,990 Alaska Natives. Approximately 99% of the Alaska Area budget is allocated to T/TOs who operate under the authority of Indian Self-Determination and Education Assistance Act of 1975, Public Law 93-638, as amended. The Alaska Area maintains 11 Title I contracts with Alaska tribes and tribal organizations and negotiates one Title V compact with 25 separate tribal funding agreements each year.[65]

The Alaska Tribal Health Compact, formalized in 1998, is a comprehensive system of health care that serves all 229 federally recognized tribes in Alaska. IHS-funded, tribally managed hospitals are in Anchorage, Barrow, Bethel, Dillingham, Kotzebue, Nome and Sitka. There are 58 tribal health centers, 160 tribal community health aide clinics and five residential substance abuse treatment centers. Tribal health organizations often provide the only health care in rural Alaska. Many of these clinics are now receiving Section 330 HRSA funds and are operating as community health centers, seeing both beneficiaries and non-beneficiaries.

The Alaska Native Tribal Health Consortium (ANTHC) was organized as a statewide non-profit health service organization owned by Alaska Natives and managed by all tribes in Alaska. ANTHC manages all statewide health services formerly provided by the Indian Health Service. ANTHC has responsibility for essential statewide services, including the Alaska Native Medical Center, a 156-bed acute care facility in Anchorage, that also serves as the referral center for specialty care.[66]

ANTHC also works with partner agencies to coordinate training and education for Community Health Aides, Behavioral Health Aides, and Dental Health Aides. These providers are critical to the provision of health services throughout the state, most notably in rural areas with limited infrastructure.

The tribal health system is an essential and integrated part of the rural health care system in Alaska. From the standpoint of primary care, the Alaska tribal health system is important both because it provides services in rural Alaska and because of the opportunities it provides for recruiting health practitioners through the National Health Service Corps, Indian Health Service Loan Repayment, and State Loan Repayment Programs. This is the result of automatic HPSA status for Alaska Native and American Indian populations.

[63] U.S. Census Bureau, S2701: Health Insurance Coverage Status American Community Survey 5-Year Estimates (2010-2014)
[64] Alaska Economic Trends, January 2019, http://labor.alaska.gov/trends/jan19.pdf
[65] Indian Health Service Alaska, https://www.ihs.gov/alaska/
[66] Alaska Native Tribal Health Consortium, https://anthc.org/who-we-are/overview/

Rural Emergency Medical Services (EMS)

In 1977, the Alaska Department of Health and Social Services was designated the lead agency for developing the EMS system and incorporating an advisory committee, the Alaska Council on Emergency Medical Services (ACEMS) appointed by the Governor. The eleven-member council advises the Commissioner and the Governor regarding the planning and implementation of a statewide emergency medical services system. DHSS leverages the seven EMS regions, the Interior Region, Norton Sound Health Corporation, North Slope Borough, Northwest Arctic Borough, South East Region, Southern Region, and the Yukon-Kuskokwim Health Corporation to provide training, testing, and agency technical assistance. The seven regional EMS Councils include three private non-profit, three tribal health organizations, and one local government.

Alaska has 243 EMS agencies. Of these, 107 are licensed agencies (92 with unduplicated air and ground transport licenses). Most Alaska EMS agencies are in rural and frontier areas, many are community led, and several are privately operated by industries such as oil or mining.

As with most states, the EMS agencies in Alaska are strained and vulnerable. Reductions in volunteerism, limited revenues, greater requirements for licensure, and diminishing local funding are taking a toll. State and federal policies and efforts are ramping up to create new opportunities for reimbursement and incorporate value and outcome-based revenues. Alaska EMS is currently focused on adopting national EMS training standards, modernizing legislation regarding do-not-resuscitate orders, and implementing a Physician Orders for Life Sustaining Treatment (POLST) registry to replace the current system, Comfort One.

There is an on-going need for EMS training and collaboration on topics such as community paramedicine/mobile integrated health, mental health, and palliative care integration. The aging population, high rates of chronic diseases such as cancer and heart disease, in addition to the impact of the COVID-19 pandemic, has emphasized the importance of EMS services in local communities and identified opportunities for expanded primary care role for emergency responders.

Hospitals and Long-Term Care

Alaska has a total of 26 hospitals, including military, psychiatric, and tribal hospitals. Of the 24 acute care hospitals serving Alaska, two are American College of Surgeons, Committee on Trauma, Level II Trauma facilities, both located in Anchorage. The rural health care facilities, including Alaska's Critical Access Hospitals (CAHs), are Level IV trauma centers and maintain the capabilities to stabilize and transfer trauma patients. The Alaska Trauma Program takes the lead in trauma designations and maintaining the Alaska Trauma Registry.

In Alaska, CAHs provide essential healthcare services in the rural and remote areas that comprise the majority of the state's geographical footprint. This includes not only the residents of the communities with hospitals, but the residents of surrounding villages in the region, and includes large seasonal workforce fluctuations from fishing, tourism, and year-round recreational activities. Rural hospitals provide a community hub for local healthcare services, access to primary care and emergency services, and a bridge to specialized care outside the community.

Critical access hospitals are small hospitals with 25 beds or less. They are intended to serve rural communities, although not all rural hospitals have a critical access hospital designation. The critical access hospital program was established to ensure that people enrolled in Medicare have access to healthcare services in rural areas, particularly hospital care. There are thirteen CAHs Alaska hospitals certified by Medicare as CAHs enabling them to obtain cost-based reimbursement rates from the Federal Medicare program, six are operated by tribal organizations, and most of them are not on the road system. Another critical health aspect of Alaska CAHs is the skilled nursing services provided in long-term care and swing beds. These co-located services allow for economies of scale, shared staff and expand the continuum of care. Alaska has one of the lowest per capita skilled nursing beds and one of the fastest growing elderly populations making Alaska CAHs a key part of the long-term care system.

Federally Qualified Health Centers (FQHCs)

Alaska's community health centers are federally qualified, nonprofit clinics designated to provide care for low income and medically underserved communities. There are 27 FQHCs and 1 FQHC Look-Alike operating in over 160 sites throughout Alaska.[67] More than half of the sites are tribally managed. Approximately 1 out of 7 Alaskans receives their primary care through a FQHC. In 2019, 115,116 patients were served.[68] Federally Qualified Health Centers are unique in that they provide integrated medical, dental, behavioral health and substance misuse treatment services. FQHCs are governed by their patients and driven by community need. They serve as the safety net provider serving patients regardless of their ability to pay. In addition to integrated primary care FQHCs also provide social and wrap-around services.

[67] Alaska Primary Care Association, Annual Report, 2019: https://www.alaskapca.org/assets/AKPrimaryCare_2019%20Annual%20Report%20-%20Online.pdf
[68] HRSA, Alaska Health Center Data, 2019, https://data.hrsa.gov/tools/data-reporting/program-data/state/AK

The map below identifies the location of each FQHC and demonstrates the vast distances between clinic facilities, and their geographical isolation.[69]

Figure 14. Federally Qualified Health Centers in Alaska

Public Health Nursing

State of Alaska Public Health Nursing (SOA PHN) is within the Division of Public Health. Due to the lack of local health jurisdictions in rural Alaska, SOA PHN is an essential health resource providing preventative and other health services to individuals statewide. In addition to providing services at Public Health Centers, public health nurses also support approximately 280 small communities and villages in coordination with community health aides. While some public health centers are staffed by full-time employees, most centers are staffed by itinerant nurses who are only available on a limited basis. Some of the functions performed by public health nurses include immunization of children and adults, education of the public on disease prevention, connecting people with healthcare and social services, and promotion of injury prevention and healthy living.

[69] Alaska Primary Care Association, FQHC Map, 2018

Veterans Administration Clinics

Alaska has the highest percentage of Veterans per population at 10.7% compared to an average of 6.9% in the U.S.[70] There are 5 outpatient Veteran Administration clinics located in Fairbanks, Matanuska Valley, Kenai, Juneau, and Homer. The number of outpatient resources is significantly lower than in states with comparable veteran populations. The last census count for Alaska veterans was 71,004 and the geographic distribution of Alaska's veterans is illustrated the US Census Alaska Veterans Statistic Summary.[71]

The Alaska Veterans Healthcare System has approximately half of Alaska's veterans enrolled for health services in the VA system. The Alaska Veterans Administration (VA) and 26 Native healthcare organizations have a continuing sharing agreement that allows tribal health organizations to agree to participate in and receive reimbursement for providing health services to non-Native as well as Native veterans in rural areas where there is no access to VA health facilities. The VA has also developed agreements with non-tribal delivery sites such as community health centers. The Alaska Veterans Healthcare System has five primary service sites (Anchorage, Fairbanks, Wasilla, Juneau, and Kenai) and a tribal facility in Sitka. A new national telehealth initiative, Anywhere to Anywhere provides an opportunity for the VA to contract with community mental health providers in or out of Alaska to provide telehealth to veterans regardless of their location.[72]

Primary Care Access

Alaska's geography presents unique challenges to ensuring adequate access to primary care within reasonable travel times. Travel routes to health care resources are restricted by large water barriers, lack of road systems and extreme terrain which leads to longer and costly travel for residents to seek care. In addition, travel is further affected by cold winters which make travel difficult, time consuming and sometimes dangerous. Extreme weather conditions also impact the drivability of roads as the physical road surfaces are damaged from the freeze and thaws. The ability to travel by plane, boat, or snow machine can be limited by inclement weather delaying access to care. Additionally, access to public transportation is limited and only exists in Alaska's three largest cities, Anchorage, Fairbanks, Juneau with limited routes to neighboring communities.

Alaska's healthcare infrastructure is generally more precarious in rural and in urban areas. Difficulties achieving economies of scale lead to greater fixed costs in rural areas. Weaker local economies limit health investment, meaning that there are fewer providers, less infrastructure, and more barriers to access per capita in rural areas than in urban areas. Geography and weather across the state create additional access barriers. Many rural communities are objectively and significantly isolated from larger populations and services.

For the purposes of this needs assessment, behavioral health and dental care are considered primary care if they are provided as a general outpatient service. Dental care in Alaska is offered by an array of

[70] US Census Bureau American Community Survey, 2019, https://www.census.gov/programs-surveys/acs/
[71] US Census Bureau, Veteran Statistics-Alaska, 2014, https://www2.census.gov/library/visualizations/2015/comm/vets/ak-vets.pdf
[72] State of Alaska DHSS, DPH, Office of Health Care Access, Alaska State Health Care Environment, 2019 http://dhss.alaska.gov/dph/HealthPlanning/Documents/publications/AlaskaStateHealthCareEnvironment.pdf

providers including private dentists, FQHCs offering dental services, and tribally operated systems. Behavioral health services are offered by a variety of provider types including private practitioners, non-profit organizations, community mental health centers, FQHCs offering integrated behavioral health and primary care, hospitals-operated outpatient centers, and tribal health organizations. The State's Division of Behavioral Health provides grants to an extensive array of private non-profit, tribal and public agencies in all areas of the state to support prevention and treatment services.

Primary Care Providers and Community Health Aides

Primary Care services in Alaska are provided by a spectrum of clinicians including primary care physicians, mid-level providers (physician assistants and nurse practitioners), and Community Health Aides and Community Health Practitioners.

Health care provider statistics are available from multiple sources, and each has its own limitations. The Alaska Department of Commerce, Community and Economic Development maintains a searchable professional license database. Entering a licensing board type (e.g. medical, dental, social work, nursing) allows users to download a listing of current licensees. However, for a variety of reasons (retirement, relocation out of state), not all licensed providers are currently practicing in the state. In addition, since providers working in Indian Health Service facilities do not have to be licensed physicians working in the state. Association of American Medical College's Alaska Physician Workforce Profile shows that Alaska ranked eighth in the nation for ratio of active patient primary physicians per 100,000 population overall.[73] The majority of physicians (69%) in Alaska are located in the Anchorage/Mat Su region as noted in the figure below.

Figure 15. Licensed Physicians, by region, Alaska 2021

Region	Number of Physicians	Percent of Physicians
Statewide	**1,888**	**%Total**
Anchorage/Mat-Su	1,308	69.28%
Gulf Coast	149	7.89%
Interior	191	10.12%
Northern	21	1.11%
Southeast	180	9.53%
Southwest	39	2.07%

Providers other than physicians include nurse practitioners, certified nurse midwives, and physician assistants who serve in private clinics as well as several of the community health centers. Clinics run by communities or tribal organizations employ mid-level providers when the community does not have a population base enough to support a physician practice, or when there is a shortage. Especially in rural areas, Alaska relies on mid-level providers more than most states. Less restrictive than in many other

[73] Association of American Medical Colleges. 2018 State Data Book Snapshots, https://www.aamc.org/media/37841/download

states, Alaska's state practice and licensure law allows for all nurse practitioners to have full practice rights.

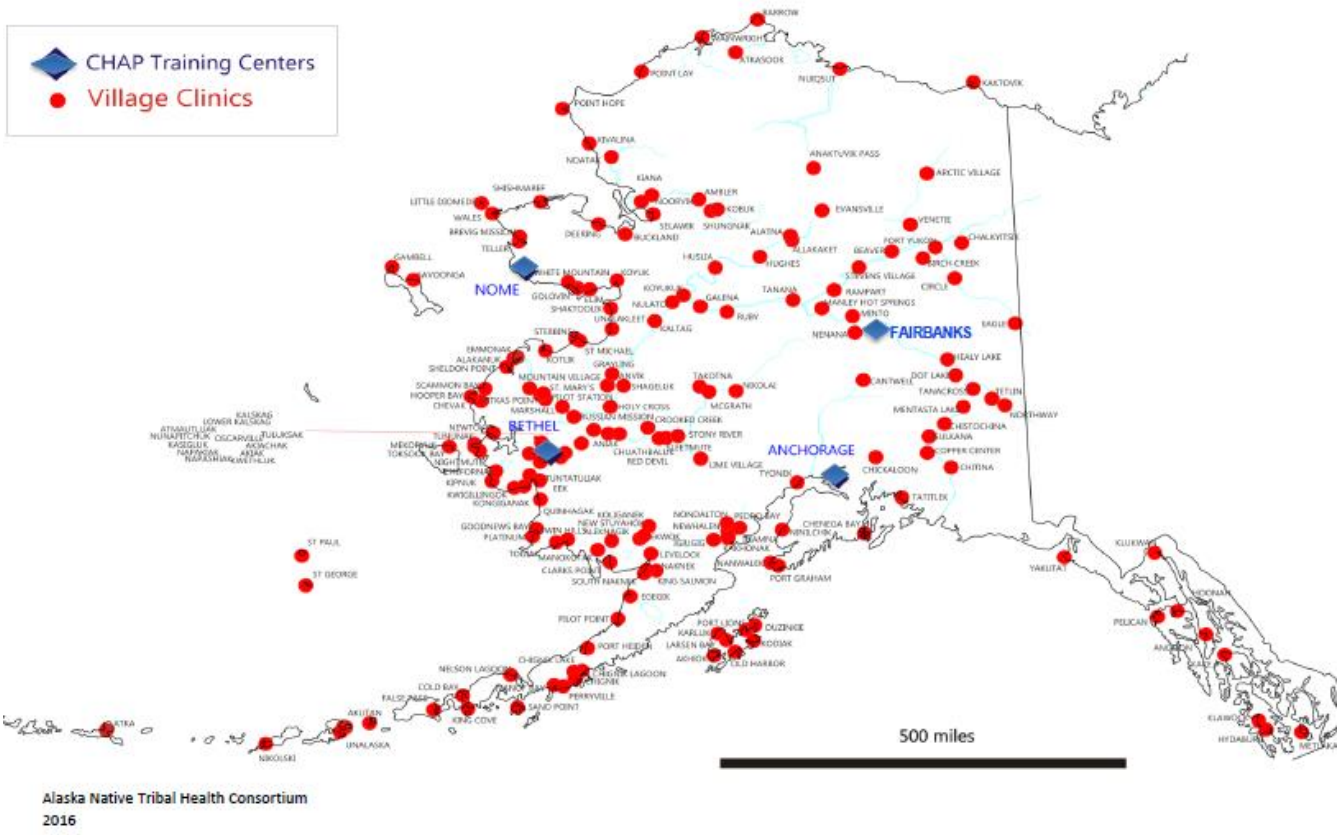
In addition to utilizing midlevel providers (PAs and NPs), the continuum of care in rural areas of Alaska also includes care provided by paraprofessionals under innovative programs. Community Health Aides/Practitioners, Dental Health Aides, and Behavioral Health Aides exist to specifically meet the needs of Alaska Native peoples and residents of remote villages. These providers generally live and work in the village and are employed by the local tribal council or tribal health organization (THO). Village-based medical services are based in clinics that rely largely on Community Health Aides/Practitioners, Behavioral Health Aides and Dental Health Aides/Therapists. Village based clinics also receive itinerant services from regional health services and contract healthcare providers, as well as public health nurses.

The Community Health Aide/Practitioner (CHAP) Program was developed in the 1950s in response to several health concerns including the tuberculosis epidemic, high infant mortality, and high rate of injuries in rural Alaska. Currently, approximately 550 community health aides provide care in over 170 rural villages across the state.[74] Community Health Aides are selected by their communities to receive training. Training centers are in Anchorage, Bethel, and Nome. There are four sessions of CHA training, each lasting three to four weeks. Between sessions, the CHAs work in their clinics completing a skills list and practicum. Completion of the four-session training curriculum and successful completion of a clinical skills preceptorship and examination, qualify the CHA as a Community Health Practitioner.

The village-based CHAPs are a vital link in the delivery system. The CHAP program has operated successfully in Alaska for over 50 years. The map below shows the large number of Community Health Aide and Village Clinics and distribution throughout rural Alaska.[75]

[74] ANTHC Community Health Aide Program, https://anthc.org/community-health-aide/#:~:text=The%20Community%20Health%20Aide%20Program,the%20Alaska%20Native%20Medical%20Center
[75] CHAP Program Map, https://akchap.org/wp-content/uploads/2020/10/2016_Village_TC_map.pdf

Figure 16. Community Health Aide/Practitioner Village Clinics



Community Health Aides—CHA/Ps obtain medical histories, perform physical examinations, make assessments, and develop care plans. Utilizing the *Alaska Community Health Aide/Practitioner Manual* and its associated assessment and treatment protocols, CAH/Ps refer patients to midlevel providers, physicians, and hospitals as needed. There is an established referral relationship, which includes mid-level providers, physicians, regional hospitals, and the Alaska Native Medical Center. In addition, providers such as public health nurses, physicians and dentists make visits to villages to see clients in collaboration with the CHA/Ps.

Behavioral Health Providers

Shortages of Behavioral Health providers are seen throughout Alaska, especially in rural areas. As of November 27, 2020, 26 of Alaska's 19 boroughs and 10 US Census Bureau defined areas had a geographic or a special population HPSA designation. The three areas that remain without a designation are Juneau, Sitka and Kodiak Island Borough.

Alaska's Behavioral Health professionals with current active licenses in Alaska include 87 psychiatrists; 187 clinical psychologists; 704 licensed professional counselors; 56 marriage and family therapists; 606 social workers (bachelor's and master's level); and 31 psychological associates.[76]

Most of the state's psychiatrists work in the Anchorage area. Many are in private practice, and others work partially or wholly as contractors or employees within the tribal system, the military or not-for-profit service agencies. Several Alaska-based and out-of-state psychiatrists itinerate to regional medical centers to provide psychiatric assessments and to oversee treatment for residents.

Figure 17. Number and location of licensed psychiatrists in Alaska

Region	Number of Psychiatrists	Percent of Psychiatrists
Statewide	**87**	**%Total**
Anchorage/Mat-Su	65	74.71%
Gulf Coast	3	3.45%
Interior	15	17.24%
Northern	0	0.00%
Southeast	4	4.60%
Southwest	0	0.00%

Many rural Alaska communities have either part-time workers helping with behavioral health needs or no behavioral health services other than the occasional itinerant provider. To help bridge the gaps in service ANTHC has developed a training certification program for village-based behavioral health aides (BHAs). Under the direction of the Tribal Health Directors, ANTHC used the Community Health Aide program as a model to train and deploy a workforce of BHAs. Where possible BHA services are integrated into primary care settings. BHAs work under the supervision of a licensed clinician.

Behavioral Health Aides are counselors, health educators and advocates. They work with individuals and on community-based behavioral health needs. The BHAs seek to achieve balance in the community by integrating their sensitivity to cultural needs with specialized training in behavioral health concerns and approaches to treatment.

Dental Health Providers

According to the Alaska Division of Corporations, Business and Professional Licensing, there were 607 Dentists with a current, active license and an Alaskan address as of mid-February 2021. While the dentist population ratio for Alaska overall looks favorable, there is a problem of distribution between urban and rural areas. As shown in the figure below, 60 percent of the dentists work in the Anchorage/Mat-Su area. The Northern and Southwest regions have the lowest number of dentists. Many of the villages in Alaska, accessible only by boat, plane or snowmobile, receive no on-site dental services. Regional Tribal Health Organization dental departments have historically provided care through itinerant visits to villages in their area from the regional hub. The frequency of dental visits depends on

[76] Alaska Department of Commerce, Community and Economic Development, Division of Corporations, Business and Professional Licensing. Accessed 2/20/21.

factors such as geography, weather and the availability of a dentist. The priority for services during these itinerant visits is children.

Figure 18. Licensed dentists, by region, Alaska 2021

Region	Number of Dentists	Percent of Dentists
Statewide	**607**	**%Total**
Anchorage/Mat-Su	368	60.63%
Gulf Coast	61	10.05%
Interior	93	15.32%
Northern	8	1.32%
Southeast	58	9.56%
Southwest	19	3.13%

Dental Hygienists are licensed oral health professionals who focus on preventing and treating oral diseases. As licensed professionals, dental hygienists perform independent work under general supervision from a licensed dentist. Alaska's Dental Hygiene workforce provides increased access to care for dental patients, particularly in preventative oral health care. Currently there are 551 dental hygienists practicing in Alaska.[77]

Figure 19. Licensed dental hygienists, by region, Alaska 2021

Region	Number of Dental Hygienists	Percent of Dental Hygienists
Statewide	**551**	**%Total**
Anchorage/Mat-Su	347	62.98%
Gulf Coast	58	10.53%
Interior	73	13.25%
Northern	3	0.54%
Southeast	62	11.25%
Southwest	8	1.45%

Much of rural and remote Alaska has received designation for dental HPSAs. The Health Resource Service Administration estimates that it would take about 35 additional dentists to provide dental services in these areas of the state. The dentist-population ratio does not consider actual full-time

[77] Alaska Department of Commerce, Community, and Economic Development, Division of Corporations, Business and Professional Licensing, Accessed 2/19/21.

equivalent work hours and transportation time providing dental services in rural and remote areas of the state.[78]

Access to fluoridated water is effective for better dental health, preventing and reducing tooth decay. In 2018, 73% of the U.S. population on public water systems, or a total of 207,426,535 people, had access to fluoridated water.[79] Alaska falls well below the CDC recommendations for community water supplies by having approximately 49.6 percent of the population on community water systems accessing fluoridated water.[80] Health professional shortage designations receive an additional point for non-fluoridated water access, most of Alaska's Dental HPSAs receive the additional point. However, one additional point does not alleviate the dental staffing needs in rural Alaska.

By early 2000, oral health outcomes of rural Alaska and the chronic difficulties in staffing professional dental services led executives from across the Alaska Tribal Health System to develop an innovative system for oral health care delivery in Alaska. From these discussions the Alaska Dental Health Aide (DHA) initiative was formed to increase the number of dental providers in rural Alaska. The DHA like the BHA is modeled after the CHAP program, whereby the DHA is designed specifically for rural community members to practice in the community where they are from and are known. The DHA program includes four types of dental care providers; the Primary Dental Health Aide, the Expanded Function Dental Health Aide, the Dental Health Aide Hygienist, and Dental Health Aide Therapist.

Dental Health Aides are trained to provide limited dental care in remote communities. Dental Health Aides deliver dental disease prevention services and assist dentists and other providers during visits to their communities. Certified Dental Health Aides and Therapists practice in rural villages in Alaska under the supervision of a dentist. They provide preventive care such as cleanings, in addition to treatment including cavity removal, fillings, and uncomplicated extractions. In 2020, there were DHATs practicing in 81 communities, serving more than 40,000 rural Alaskans.[81]

[78] Health Resources and Services Administration (HRSA). Designated Health Professional Shortage Areas Statistics. First Quarter of Fiscal Year 2021 Designated HPSA Quarterly Summary (As of December 31, 2020). Retrieved from https://data.hrsa.gov/topics/health-workforce/shortage-areas (22, February 2021).
[79] National Water Fluoridation Statistics. CDC Division of Oral Health. Retrieved from https://www.cdc.gov/fluoridation/statistics/index
[80] State Fluoridation Reports. CDC. Available at https://nccd.cdc.gov/DOH_MWF/Reports/Summary_Rpt.aspx
[81] Alaska Dental Therapy Education Program, 2020 https://akchap.org/wp-content/uploads/2020/07/2020-DHAT-Map-1-1.pdf

Pharmacy

The Alaska Division of Corporations, Business and Professional Licensing reported 617 pharmacists with current, active licenses in mid-February 2021. Similarly, to other health professions, most pharmacists work in Anchorage/Mat-Su regions and fewer in the Northern and Southwest regions.

Figure 20. Licensed pharmacists, by region, 2021

Region	Number of Pharmacists	Percent of Pharmacists
Statewide	**617**	**%Total**
Anchorage/Mat-Su	381	61.75%
Gulf Coast	64	10.37%
Interior	71	11.51%
Northern	12	1.94%
Southeast	66	10.70%
Southwest	23	3.73%

Telemedicine

The vastness, geography and climate of Alaska make it ideal for telemedicine applications. Alaska has a history of multiple pilots, trials, and services demonstrating the possibilities of telemedicine. Access and high-speed broadband continue to be barriers and challenges for the same reasons. The Universal Services Fund (USF) promotes equal access in remote regions by lowering the cost to health care organizations to obtain broadband connectivity through subsidies, which have been extremely helpful in expanding telehealth in Alaska.

The Alaska tribal health system was an innovator in implementing a robust telehealth system starting in 1999. The Alaska Federal Health Care Access Network (AFHCAN) is a telehealth system that encompasses over 200 sites with video-teleconferencing clinical care capability. Services are delivered to rural and remote areas that would otherwise have very limited access to immediate care, across several specialties including radiology, ENT, dermatology, cardiology, endocrinology, orthopedics, occupational therapy, pulmonology, and wound care. The use of these technologies is constantly being improved to incorporate innovative technologies and practices to expand its application for use in areas of health care need.

Telemedicine is also used in many hospitals across the state. These services include tele-behavioral health, tele-pharmacy, tele-stroke, e-ICU, tele-rehabilitation, tele-radiology, tele-dentistry, tele-screening for diabetic retinopathy, tele-dermatology, and patient education. Additionally, the Veterans Affairs Department provides health care services to veterans in rural and remote areas across the state and can access specialty consultation with providers in other states using telehealth technology. Telehealth technologies are also being used by the Division of Senior and Disability Services to conduct required assessments for the Home and Community Based Waiver and Personal Care Assistance programs.

COVID-19 pandemic expanded use of telemedicine in Alaska significantly. In FY2020, the Medicaid program paid $27.6 million in claims for services delivered via telehealth methods, an increase of 303 percent over the amount paid for services delivered via telehealth in FY2019. The increased use of telehealth has a potential for program savings in transportation costs that are avoided due to services delivered in a recipient's home community via telehealth. The savings in transportation costs has not yet been quantified and will be difficult to analyze until the COVID-19 public health emergency is no longer affecting travel for Alaskans.[82]

Broadband access is still a barrier to expanding telehealth utilization, especially in remote Alaska. Newly funded pilot projects will be focusing on at increasing telehealth services in rural areas of Alaska, Michigan, Texas, and West Virginia.[83] The Telehealth Technology Assessment Resource Center, managed by the Alaska Native Tribal Health Consortium, will measure bandwidth in the Aleutians West Borough, Bristol Bay Borough, Dillingham Census Area, Nome Census Area, North Slope Borough and Northwest Arctic Borough. The goal is to drive policy and infrastructure changes to improve connectivity in the state.

Anchorage Project Access (APA)

Anchorage Project Access is a model of donated specialty care. In this model, a primary care organization recruits healthcare volunteers who agree to serve a specified volume of patients with specified services for free. These services are provided in the healthcare professional's office. In the Anchorage area there are 623 volunteer physicians, dentists and providers including hospitals, imaging centers, therapists, ancillary and other support services.[84] All care, including screening, preliminary lab work, and follow up is coordinated and supported by the APA. In 2019, 195 patients received donated care.[85] The APA model has been very successful in securing complex healthcare services and maintaining networks of volunteers willing to provide significant support within a very structured agreement.

[82] Annual Medicaid Reform Report, http://dhss.alaska.gov/HealthyAlaska/Documents/redesign/FY-2020-Annual-Medicaid-Reform-Report.pdf
[83] Telehealth Technology Assessment, https://www.hhs.gov/about/news/2021/01/11/hhs-invests-8-million-to-address-gaps-in-rural-telehealth-through-telehealth-broadband-pilot.html
[84] Anchorage Project Access, 2021 https://anchorageprojectaccess.org/
[85] Anchorage Project Access, 2019 Annual Report

Health Workforce Recruitment and Retention

Alaska's health care system has suffered a shortage and mal distribution of primary care health providers for many years, especially in rural communities. The difficulties in recruiting and retaining qualified clinicians are complex, but the impact of the extreme geographic isolation of Alaska's clinical settings cannot be denied. Retention challenges destabilize work settings leading to even further retention problems.

Alaska faces a number of challenges in the recruitment and retention of physicians, dentists, behavioral health professionals, and other primary care providers. This includes the lack of medical or dental schools in the state, limited training programs, and the extreme geographical isolation of most regions. Rural areas of the state experience the most significant shortage of health care personnel and resources. Most physicians are located in communities with at least 1,000 people and most are located in the Anchorage/Mat-Su region. The pattern of statewide shortages and urban concentration of personnel continues when reviewing dentists, pharmacists and behavioral health professionals. Such a concentration in one region further exacerbates the problem of providing appropriate health care personnel in rural areas during disasters. This lack of disbursement of health personnel is considered an inherent risk for communities in terms of their health and medical disaster response capability.[86]

Alaska's geography presents unique challenges to ensuring adequate access to primary care within reasonable travel times. Travel routes to health care resources are restricted by large water barriers, lack of road systems and extreme terrain which leads to longer and costly travel for residents to seek care. In addition, travel is further affected by cold winters which make travel difficult, time consuming and sometimes dangerous. Extreme weather conditions also impact the drivability of roads as the physical road surfaces are damaged from the freeze and thaws. The ability to travel by plane, boat, or snow machine can be limited by inclement weather delaying access to care. Additionally, access to

[86] State of Alaska HERO Jurisdictional Risk Assessment

public transportation is limited and only exists in Alaska's three largest cities, Anchorage, Fairbanks, Juneau with limited routes to neighboring communities.

Health Professional Shortage Areas and Provider Need

With the assistance of the Alaska PCO, the Secretary of the U.S. Department of Health and Human Services (HHS) designates areas, population groups, or facilities as being medically underserved areas (MUA) or as having a health professional shortage area (HPSA) based on the lack of primary care physicians, dentists and psychiatrists population to provider ratios and other indicators of need which includes the infant mortality rate, the poverty rate and the percentage of elderly. The requirements and methodology for making these designations are determined by HRSA. While HPSA designations are not a scientific way to point out access to workforce limits, they were created to be a reliable programmatic guide for directing resources. HPSA designation is the initial step which allows providers to apply for Medicaid incentives and facilities to apply to be a site to host National Health Service Corps (NHSC) and other federal programs that support recruitment. Medically Underserved and Governor Designations allow for clinics to become Federally Qualified Health Centers (FQHCs) and qualifying clinics for specific kinds of reimbursement under Medicaid and Medicare.

All of Alaska's 19 boroughs and 10 US Census Bureau defined areas have either a geographic, population group or facility HPSA. The following figures show the number of Health Professional Shortage Area designations and Medically Underserved Area designations in each census area and borough. Some HPSAs are designated by geographic area. Federally Qualified Health Centers, FQHC Look-A-Like (LAL), tribal hospitals and Indian Health Facilities are automatically granted facility HPSAs.

As shown in the figures below, Alaska currently has 46 areas and population groups designated as medically underserved (MUA/P). Additionally, Alaska has 938 areas, population groups, and facilities designated as having a shortage of health professionals in three disciplines: primary medical care (292 designations), dental health care (297 designations), and mental health care (303 designations).

Figure 21. Primary Care: Number of Health Professional Shortage Areas and Medically Underserved Areas and Populations by Census Area/Borough

Census Area/Borough	Geo-graphic Areas	CHC Facility	Alaska Native or Native American Tribal Population	Correctional Facility	HPSA Population
Aleutians East Census Area	1		6		
Aleutians West Census Area	1	1	6		
Anchorage Borough		4	7	1	1
Bethel Census Area	1	2	42		
Bristol Bay Borough	1	1	4		
Denali Borough	1		1		
Dillingham Census Area		1	14		
Fairbanks North Star Borough		2	5		1
Haines Borough			2		
Hoonah-Angoon Census Area	1		6		
Juneau City and Borough		1	2		
Kenai Peninsula Borough		3	10	1	
Ketchikan Gateway Borough			2		
Kodiak Island Borough		2	7		
Kusilvak Census Area	1		14		
Lake and Peninsula Borough			14		
Matanuska-Susitna Borough		2	2	1	1
Nome Census Area	1	1	16		
North Slope Borough	1		8		
Northwest Arctic Borough		1	14		
Petersburg Borough					
Prince of Wales-Hyder Census Area	1		12		
Sitka City and Borough			3		
Skagway Municipality	1	1			
Southeast Fairbanks Census Area	1		7		
Valdez-Cordova Census Area	1	3*	12		
Wrangell City and Borough			2		
Yakutat Borough	1	1	1		
Yukon-Koyukuk Census Area	1	1	34		
STATEWIDE TOTAL	**15**	**24**	**253**		

Data Source: SDMS Designation Demographic and Health Data Export, 11/27/2020

** Includes one FQHC Look-A-Like (LAL)*

Figure 22. Dental Health: Number of Health Professional Shortage Areas and Medically Underserved Areas and Populations by Census Area/Borough

Census Area/Borough	Geo-graphic Areas	CHC Facility	Alaska Native or Native American Tribal Population	Correctional Facility	HPSA Population
Aleutians East Census Area	1		6		
Aleutians West Census Area	1	1	6		
Anchorage Borough		5	7	1	1
Bethel Census Area	1	2	42		
Bristol Bay Borough	1	1	4		
Denali Borough	1		1		
Dillingham Census Area		1	14		
Fairbanks North Star Borough		2	5		
Haines Borough			2		
Hoonah-Angoon Census Area	1		6		
Juneau City and Borough		1	2		
Kenai Peninsula Borough		3	10	1	
Ketchikan Gateway Borough			2		
Kodiak Island Borough		2	7		
Kusilvak Census Area	1		14		
Lake and Peninsula Borough	1		14		
Matanuska-Susitna Borough	4	2	2	1	
Nome Census Area	1	1	16		
North Slope Borough	1		8		
Northwest Arctic Borough	1	1	14		
Petersburg Borough	1				
Prince of Wales-Hyder Census Area			12		
Sitka City and Borough			3		
Skagway Municipality	1	1			
Southeast Fairbanks Census Area			7		
Valdez-Cordova Census Area		3*	12		
Wrangell City and Borough			2		
Yakutat Borough	1	1	1		
Yukon-Koyukuk Census Area	1	1	34		
STATEWIDE TOTAL	**19**	**25**	**253**		

Data Source: SDMS Designation Demographic and Health Data Export, 11/27/2020

** Includes one FQHC Look-A-Like (LAL)*

Figure 23. Mental Health: Number of Health Professional Shortage Areas and Medically Underserved Areas and Populations by Census Area/Borough

Census Area/Borough	Geo-graphic Areas	CHC Facility	Alaska Native or Native American Tribal Population	Correctional Facility	HPSA Population
Aleutians East Census Area	1		6		
Aleutians West Census Area	1	1	6		
Anchorage Borough		5	8	1	1
Bethel Census Area	1	2	42		
Bristol Bay Borough	1	1	4		
Denali Borough	1		1		
Dillingham Census Area	1	1	14		
Fairbanks North Star Borough		2	5		1
Haines Borough	1		2		
Hoonah-Angoon Census Area	1		6		
Juneau City and Borough		1	2		
Kenai Peninsula Borough	1	3	10	1	
Ketchikan Gateway Borough	1		2		
Kodiak Island Borough		2	7		
Kusilvak Census Area	1		14		
Lake and Peninsula Borough	1		14		
Matanuska-Susitna Borough	1	2	2	1	
Nome Census Area	1	1	16		
North Slope Borough	1		8		
Northwest Arctic Borough	1	1	14		
Petersburg Borough	1				
Prince of Wales-Hyder Census Area	1		12		
Sitka City and Borough			3		
Skagway Municipality	1	1			
Southeast Fairbanks Census Area	1		7		
Valdez-Cordova Census Area	1	3*	12		
Wrangell City and Borough	1		2		
Yakutat Borough	1	1	1		
Yukon-Koyukuk Census Area	1	1	34		
STATEWIDE TOTAL	**24**	**25**	**254**		

Data Source: SDMS Designation Demographic and Health Data Export, 11/27/2020

** Includes one FQHC Look-A-Like (LAL)*

Figure 24. Medically Underserved Areas

Census Area/Borough	Medically Underserved Areas
Aleutians East Census Area	1
Aleutians West Census Area	1
Anchorage Borough	15
Bethel Census Area	2
Bristol Bay Borough	1
Denali Borough	1
Dillingham Census Area	1
Fairbanks North Star Borough	1
Haines Borough	1
Hoonah-Angoon Census Area	1
Juneau City and Borough	1
Kenai Peninsula Borough	1
Ketchikan Gateway Borough	1
Kodiak Island Borough	1
Kusilvak Census Area	1
Lake and Peninsula Borough	1
Matanuska-Susitna Borough	1
Nome Census Area	1
North Slope Borough	1
Northwest Arctic Borough	1
Petersburg Borough	
Prince of Wales-Hyder Census Area	1
Sitka City and Borough	
Skagway Municipality	1
Southeast Fairbanks Census Area	1
Valdez-Cordova Census Area	3
Wrangell City and Borough	1
Yakutat Borough	1
Yukon-Koyukuk Census Area	3
STATEWIDE TOTAL	**46**

Data Source: SDMS Designation Demographic and Health Data Export, 11/27/2020
** Includes one FQHC Look-A-Like (LAL)*

Based on the HPSA designation data above, the Health Resources and Services Administration (HRSA) estimates that 231,828 (20.91%) Alaskan residents are underserved in terms of primary medical care resources with a need of 59 additional practitioners to remove primary care designations. Similarly, HRSA estimates that 195,552 (26.32%) Alaskan residents are underserved in terms of dental health care resources with a need of 35 providers to remove dental designations, and 377,740 (17.19 %) Alaskan residents are underserved in terms of mental health care resources with a need of 16 providers to remove mental health HPSAs.[87] MUA/MUPs cover 98 percent of the Alaska land mass (654,624 square miles of Alaska's total 663,268 square miles) and approximately 98 percent of Alaska's population (719,146 people of 731,007 total population).

Shortages in primary care workforce severely affect Alaska's rural and frontier areas. However, primary care and behavioral health practices in the communities of Anchorage and Fairbanks also repeatedly encounter barriers in recruiting providers. In 2020, the PCO office began to examine opportunities for areas of Alaska with higher number of Medicaid beneficiaries to receive Special Population Medicaid HPSA designations. In April of 2020 Medicaid Special population designations for Primary Care, Dental Health, and Mental Health were awarded to the Anchorage Borough. The Matanuska-Susitna Borough also received a Medicaid special population HPSA for primary care. Additionally, a behavioral health Medicaid Special Population HPSA was awarded to Matanuska-Susitna Borough replacing their previous Behavioral Health geographic HPSA which only covered a portion of the northern part of the borough. In August of 2020 Fairbanks also received a Medicaid special population designation for primary care and behavioral health.

The demand for physicians continues to grow faster than supply in Alaska as well as across the nation. By the year 2033, projections for primary care physicians indicate a shortfall of between 21,400 and 55,200 primary care physicians nationally.[88] The study was conducted prior to the rise of COVID-19. The impacts of provider need in relation to COVID-19 will continue to unfold in the coming months and years.

No single effort can create an ideal healthcare workforce, as such Alaska has adopted a multi-pronged approach to improve the size and distribution of the primary care workforce that attempts to meet the unique needs facing Alaska's primary care system. Alaska's recruitment and retention efforts include coordinated planning, pipeline and education efforts and support for service programs. Great efforts are made to provide clear communication of and exposure to the unique challenges and rewards that rural and underserved clinical opportunities can bring.

[87] Health Resources and Services Administration (HRSA). Designated Health Professional Shortage Areas Statistics. First Quarter of Fiscal Year 2021 Designated HPSA Quarterly Summary (As of December 31, 2020). Retrieved from https://data.hrsa.gov/topics/health-workforce/shortage-areas (22, February 2021).
[88] Association of American Medical Colleges. The Complexities of Physician Supply and Demand: Projections From 2018 to 2033, June 2020. https://www.aamc.org/media/45976/download

Coordination of Workforce Planning

Health care sites have problems with adequate staffing, including high turnover, high vacancy rates, high discontinuity of care, staff transience leading to burnout and staff dissatisfaction, reduced institutional expertise, and lost billing revenues. Clinicians have challenges with large education debt, high cost of living in rural and remote locations, and resulting financial pressures.

To address identified health care needs, reduce health care workforce shortage and barriers to care in Alaska, the PCO promotes the recruitment and retention of health care providers in underserved areas by leveraging the following federal and state programs:

- **National Health Service Corps (NHSC) and NURSE Corps:** federal programs that award scholarships and loan repayment to providers in eligible disciplines, and help health care facilities to recruit, retain and support clinicians serving in high-need areas.
- **State Loan Repayment Program (SLRP):** state program that helps employers recruit and retain primary medical, dental, and mental healthcare providers by providing loan repayment to those entering service obligations. In Alaska this is referred to as the SHARP program.
- **SHARP 3:** a new state managed program that is a public-private partnership which offers all the benefits of the SLRP program but adds greater flexibility for practitioner participation and utilizes employer and contributor funding. (Applicant solicitation period began in January 2021).
- **J-1 Visa Waiver or Conrad 30 Waiver Program:** Under this program, The Alaska Department of Health and Social Services may recommend up to 30 J-1 Visa physicians annually to receive a waiver of the 2-year home residence requirement in exchange for a commitment of 3-years of service in an underserved area.
- **Rural Recruitment and Retention Network (3RNet):** The State of Alaska Office of Healthcare Access manages Alaska's state page on 3RNet to promote healthcare job opportunities within the State.

Pipeline and Education Efforts

The impact of healthcare workforce shortages is felt more acutely in Alaska than in other states, in part because Alaska does not provide training for many healthcare occupations. Alaska has no dental school or in-state medical school, and it was the last state in the United States to develop a residency program. The Alaska Family Medicine Residency (AFMR) was developed in the 1990s by a consortium of state leaders with the intent to train family physicians for the unique aspects of practice in the most remote parts of the state. It is the only residency program based in Alaska. Since it's inception AFMR has been affiliated with the University of Washington. Residents receive extra training in rural settings, emergency medicine, orthopedics, obstetrics, pediatrics, neonatal intensive care, and trans-cultural medicine to prepare them for the unique challenges of practicing in rural regions of Alaska. Alaska ranks first in the nation for the percent of physicians retained in the state from Graduate Medical Education (GME).[89]

Within Alaska, the University of Alaska and Alaska Pacific University have training programs for nursing, behavioral health, clinical assistants, dental assistants, dental hygiene, pharmacy technicians, social work and allied health. The Washington, Wyoming, Alaska, Montana, and Idaho (WWAMI) program is an interstate program that assists Alaska with physician training through a partnership with the University of Washington. Alaska residents spend their first few years of medical school at the University of Alaska Anchorage campus followed by additional classroom and clinical instruction at the University of Washington's Seattle campus.

Alaska's pipeline programming includes projects aimed at developing a healthcare workforce that accurately reflects the state's underserved communities. The shortage of primary care providers has led to workforce development strategies such as the creation of the Community Health Aide, Dental Health Aide and Behavioral Health Aide programs in Alaska's tribal health system, and the ongoing work of the Alaska Area Health Education Center (AHEC).

Alaska's AHEC program focuses on strengthening and diversifying Alaska's health workforce. The AHEC program engages Alaskans from disadvantaged backgrounds into health careers; coordinates clinical experiences for health professions students to rural communities with underserved populations to encourage employment in these areas' and facilitates connections to continuing education for providers in underserved areas to enhance health workforce retention. The AHEC has six regionally based centers, serving the Interior, Northwestern, South Central, Southeast, Southwest and Yukon-Kuskokwim regions.

The South Central AHEC together with the Alaska Primary Care Association formed a partnership with the Alaska Department of Labor and Workforce Development to start a Health Apprenticeship Program focusing on certifying staff already working in FQHCs in Alaska. The programs include Certified Medical Administrative Assistant, Certified Clinical Medical Assistant, Certified Billing and Coding Specialist, Electronic Health Records Specialist, and Community Health Workers. The apprenticeship programs allow individuals to continue academic endeavors from their community and the organization can grow their own staff in the process.

[89] Association of American Medical Colleges. Alaska Physician Workforce Profile. (2019) https://www.aamc.org/media/37841/download

Service Incentives

Alaska incentivizes licensed primary care health professionals to serve critical shortage areas by providing financial assistance through loan repayment programs such as Alaska's SHARP programs and National Health Service Corps The provision of support for service to healthcare personnel is intended to help ensure that residents throughout the state, including recipients of Medicaid, Medicare and the uninsured, have improved access to healthcare services.

SHARP 1 is Alaska's state loan repayment program and provides education loan repayment and direct incentive to healthcare professionals in support of their work with Alaska's vulnerable populations whereby they practice in a federally designated HPSA. The loan repayment program is comprised of a federal-state program, which uses matching federal grant fund for awards. SHARP-1 leverages federal, Alaska Mental Health Trust Authority and employer funding to support recruiting and retaining primary care providers in federally designated Health Care Professional Shortage Areas. SHARP is operated by the State of Alaska, Department of Health and Social Services. Since state fiscal year 2014, employer match has become a more prominent part of each year's program budget.

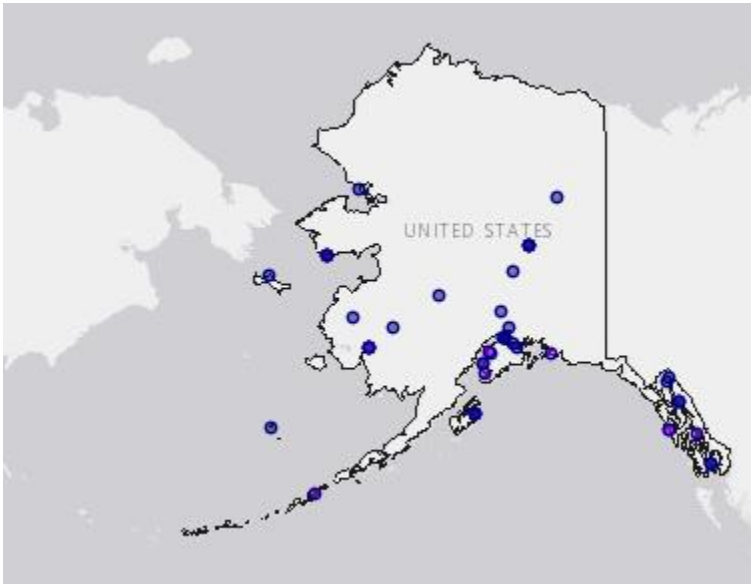
Established in 2009, the program has funded over 250 professionals, serving in 57 facilities throughout the entire state working in designated health professional shortage areas/underserved areas. SHARP practitioners work in medical, dental, and behavioral health occupations in all regions of Alaska. By the end of 2020, SHARP 1 and 2 has provided $23,057,595 in clinician support for service.

The state-funded SHARP-2 program from 2012-2016 was discontinued due to state budget shortfalls, but spurred interest in an option that did not rely on state funds. The Alaska Statute 18.29 established SHARP-3 and the SHARP Advisory Council in May 2019.It is a public-private partnership that offers all the benefits of the original program, adds greater flexibility for practitioner participation, and utilizes employer and contributor funding. The first solicitation period for SHARP-3 began in January of 2021.

Figure 25. Map of SHARP Participant Locations

Alaska's healthcare sites and clinicians benefit from participation in the National Health Service Corps (NHSC) and NurseCorps programs. In 2020 there were 138 NHSC loan repayment participants working in 45 sites across the state.[90] There were 6 Nurse Corps participants in 2020 practicing at sites in Alaska.[91] The figure below shows the locations of NHSC contracts.

Figure 26. Locations of Clinicians with NHSC contracts



These programs are intended to meet both immediate community healthcare needs, and increase the likelihood of continued service within the placement site, as providers develop relationships within the community they are more likely to continue to practice in these sites once they complete their service obligation.

[90] NHSC Field Strength Report, HRSA, 9/30/2020.
[91] NurseCorps Field Strength Report, HRSA, 9/30/2020.

Final Summary

Most of the data and analysis provided for the Primary Care Needs Assessment reflects the health status of Alaska pre COVID-19 pandemic. While future Primary Care Needs Assessments will show the impact of the pandemic, this one will not. It was too soon in the pandemic to gather data on prevalence and impact. Areas of impact are expected to be seen in multiple dimensions of wellness both in the healthcare delivery structure and staffing needs as well as the needs of the Alaskan communities served.

Findings the PCO would like to highlight from this assessment include the following:

The health needs in Alaska are 1) access to care, and 2) addressing health disparities for rural and tribal populations in chronic disease, unintentional injuries, behavioral health including substance misuse and suicide. 3) There is an increasing demand for healthcare workforce at all levels, including paraprofessional, EMS, primary care, and specialty care. The unique geography of Alaska requires innovative solutions to deliver care in isolated and remote areas and a robust statewide referral system to improve health outcomes for rural residents.

The findings identified from this assessment are not necessarily new information, but support and expand the knowledge base about primary care in Alaska. The PCO will continue to drill down into data and stakeholder feedback from this assessment. Collaboration with statewide partners and stakeholders will continue as information is disseminated from the needs assessment and other opportunities to address workforce needs in Alaska arise through the development of a statewide rational service area plan (SRSA).

The purpose of the SRSA plan is through a collaborative effort with key stakeholders to establish a statewide system for defining service areas that reasonably reflect effective health care access patterns and needs in Alaska. The SRSA plan will reflect utilization patterns for each discipline: primary care, dental, and mental health and will help to better inform HPSA designations and provider need. The SRSA will help develop strategies to maximize leverage of state and federal incentive programs, in addition to the impact of workforce incentives in relieving staffing shortages in critical areas. It will provide an

opportunity to continue to advocate for consideration of frontier and remote characteristics in HPSA scoring that better align scores to Alaska's unique needs.

Since 2016, the Section of Health Planning and Systems Development was co-located with emergency programs and renamed the Section of Rural and Community Health Systems. Staffing was reduced and some positions were eliminated through attrition and state budget reductions. With a limited number of staff with significant workloads, the PCO lacked the capacity to do a significant amount of data analysis and survey collection as in prior Statewide Primary Care Assessments.

The PCO continues to build capacity through ongoing opportunities for professional growth and development and utilizing internal and external contracts on a project basis to assist with advanced level analysis and evaluation of data at a borough/census area level to increase the knowledge of Alaska's health disparities and strengths.

In conclusion, the PCO will focus on the widespread dissemination of the findings and facilitating the use of the information in order to target primary care related issues, disparities and needs in communities throughout the state. The completed 2021 Alaska Primary Care Needs Assessment will provide communities with an effective tool for examining primary health care systems as well as critical health indicators and health access factors specific to communities and regions throughout the state. The findings from this needs assessment will directly relate to community census area and to Healthy Alaskans 2030 (HA2030) planning. Discussions and planning utilizing HA 2030 plans and findings from this needs assessment will aid in developing responses to the ongoing changes in the nation's health care system in a knowledgeable manner that is specific to communities. The Alaska PCO anticipates that statewide partners and community stakeholders will be interested in further analysis of the data gathered during this assessment and stands ready to respond to queries.