

# Healthy Alaskans 2020 Health Assessment: Understanding the Health of Alaskans



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# Healthy Alaskans 2020 Health Assessment: Understanding the Health of Alaskans

#### **Purpose**

Healthy Alaskans 2020 (HA2020) is a statewide collaborative initiative sponsored by the Alaska Department of Health and Social Services and the Alaska Native Tribal Health Consortium, with funding from CDC's National Public Health Improvement Initiative. The initiative is aimed at improving the health of all Alaskans with a vision of Healthy Alaskans in Healthy Communities. Healthy Alaskans 2020 provides a framework to support the work of partners and stakeholders statewide who are actively engaged in improving the health of Alaskans. Specific steps to building this framework have been completing a statewide health assessment, prioritizing 25 health objectives and targets for the decade for Alaska, and identifying strategies and actions to reach those targets. In 2013, the major work of HA2020 was completing a statewide health assessment for Alaska, and selecting 25 Leading Health Indicators (LHIs) with targets to reach by 2020.

The success of HA2020 is attributed to many strategic decisions related to the design of the organizational structure, creation and support of partnerships, and compilation and presentation of the best available data on health status, health factors, and health priorities. The purpose of this document is to provide an overview of the statewide health assessment data used to inform the HA2020 initiative in selecting the 25 LHIs and in setting targets.

#### **Getting to Alaska's 25 Leading Health Indicators**

Determining the 25 leading health indicators for HA2020 began with designing the HA2020 structure and a process for selecting the indicators. A small group of staff from both sponsoring agencies made up the HA2020 Core Team, which has overseen the planning and implementation of the entire initiative. Additional stakeholder teams were created to provide different levels of input and feedback on health issues in Alaska. The primary working team is the Advisory Team, which used its expertise, combined with the background and data related to health status indicators described below, to recommend statewide health priorities.

Other critical teams referred to in this document include the Data Team, which collected and rated the existing health status data in the state; the Community of Interest, Alaska stakeholders—broadly defined—which provided public input on health priorities; the Target-setting Teams, which determined targets for LHIs; and finally the Steering Team, comprised of leaders from the two partner organizations supporting this initiative, that made the final decision on the 25 leading health priorities.

Several different sets of information guided various decision-making bodies during the process of



selecting the HA2020 framework and 25 LHIs including: (1) a summary of health status in Alaska, including the impact of the social determinants of health; (2) summaries of two surveys of Alaskans regarding perceived health priorities in their communities; (3) a progress report on the previous decade's Healthy Alaskans LHIs; (4) information on data quality and availability; and (5) consultation from data experts regarding LHI target-setting. The demographic description below provides the context for decision-making on health priorities.

#### **Understanding Alaska**

Alaska is an extreme frontier state with 1.2 persons per square mile spread throughout 362 communities; by comparison, U.S. population density is 87.4 persons per square mile.<sup>1</sup> The state population of 731,449<sup>2</sup> is spread across an area larger than California, Texas, and Montana combined, equal to 1/5 the landmass of the entire U.S. One quarter of the population lives in communities with less than 2,500 people. Alaska has about 200 villages that are reachable only by air or boat along Arctic rivers, coastline, and islands. Alaska is a challenging environment in which to provide public health and preventive services due to its highly dispersed population, high transportation costs, and limited local public health infrastructure.

Three different systems provide healthcare in Alaska: the private sector; the military and Veterans' Administration health system; and the Alaska Tribal Health System. The "private sector" can be defined as any services provided outside of the military or tribal systems. It includes hospitals (both non-profit and for-profit); the offices of physicians, dentists, and mental health professionals; and various types of clinics such as Federally-Qualified Health Centers. Additionally, limited public health services are provided by state Public Health Nurses at clinics and itinerantly; two communities in the state also have local health departments. Alaska is unique in being the only state that does not have any managed care organizations in the private sector, and formal provider networks are minimal. Alaska has a very diverse population. According to the 2010 U.S. census, 7.3% of Alaskans are identified as having more than one race. Alaska's 2012 "bridged" race estimates,<sup>3</sup> developed to allow comparisons of multiple-race and single-race data collection systems, classify 70.9% of Alaskans as White; 16.8% as American Indian or Alaska Native;<sup>4</sup> 7.6% as Asian or Pacific Islander; and 4.8% as African American. In addition, 6.1% of Alaskans identify as being of Hispanic origin, regardless of race. Approximately half of the state's population resides in Anchorage. Within the Anchorage School District, the state's largest school district, minority students comprise more than 50 percent of the student population, and 91 languages are spoken. The most common of these are Spanish, Hmong, Samoan, Tagalog and Yup'ik.<sup>5</sup> Outside of Anchorage, the state is similarly diverse, and many rural and remote communities are predominantly Alaska Native. In Alaska there are at least 20 distinct indigenous languages spoken among Alaska Native peoples.<sup>6</sup>

Alaska's population is also very "young." According to 2012 population estimates, the median age of Alaskans is 34.1 years, with only 8.7% of the population older than 64 years, compared with a U.S. median age of 37.0 and 12.9% age 65 or older.<sup>7</sup> Similar to the national pattern, however, the percentage of Alaska's population age 65 or older is expected to increase rapidly over the coming decades, reaching an estimated 14.5% of the population by 2034.<sup>8</sup>

Approximately 13.6% of the population of Alaska (and 18.6% of those under 18 years) lives below 125% of the Federal Poverty Level.<sup>9</sup> Twenty-one percent of all Alaskans are without health insurance coverage, compared to 15% in the U.S.<sup>9</sup> Thirty-eight percent of Alaska adults do not have one person they consider their personal healthcare provider, and 15% report being unable to seek healthcare services in the past 12 months due to cost.<sup>10</sup> American Indian/Alaska Native tribal members generally have access to tribal health services even if they do not have health care coverage.

#### **The Health of Alaskans**

Several types of indicators can be used to gain a picture of the health status of Alaskans. Broad categories of these indicators include: 1) causes of death (mortality); 2) causes of illness and injury (morbidity); 3) behaviors that increase risk of illness or injury; 4) access to healthcare and preventive services; and 5) other social and economic determinants of health. No picture of health status is complete without an examination of health inequities across all of these sets of indicators.

The following section provides an overview of the health of Alaskans according to the above listed categories of health indicators. This summary is an abbreviated form of material presented to the HA2020 Advisory Team during meetings in the fall of 2012 and the spring of 2013.

#### **Mortality**

Population health is determined by a number of factors. The following figure depicts the extent to which each factor impacts premature death in the U.S.

## Impacts of Various Domains on Early Deaths in the U.S.<sup>11</sup>



Source: McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Affairs. 2002;21:78-93.

Behavioral risk factors, often referred to as lifestyle factors, are responsible for approximately four out of 10 U.S. premature deaths. Chief among these risk behaviors are tobacco use, poor diet, and inactivity, the combination of which account for 69% of preventable deaths in the U.S.<sup>12</sup>

Alaska's mortality data come from the Alaska Bureau of Vital Statistics. In Alaska, as in the U.S., the majority of deaths each year are due to chronic diseases. In 2011, the most recent year for which data are available, 3,856 Alaskan residents died. The following figure shows the 10 leading causes of death in Alaska, and compares that ranking with U.S. deaths.

## Leading Causes of Death, Alaska and U.S. (2011)

Cause of Death	Deaths	AK Age- Adjusted Rate	US Age- Adjusted Rate	US Rank
1. Cancer	934	173.8	168.6	2
2. Heart Disease	737	148.8	173.7	1
3. Unintentional Injuries	377	56.0	38.0	5
4. Chronic Lower Respiratory Disease	193	41.2	42.7	3
5. Stroke	167	38.9	37.9	4
6. Suicide	142	20.0	12.0	10
7. Diabetes	106	20.2	21.5	7
8. Chronic Liver Disease and Cirrhosis	98	12.9	9.7	12
9. Alzheimer's Disease	72	20.4	24.6	6
10. Influenza and Pneumonia	59	12.8	15.7	8

Source: Alaska Bureau of Vital Statistics; National Center for Health Statistics (2011 Preliminary)

Unlike in the U.S. overall, cancer is the leading cause of death (by number and rate) in Alaska; heart disease is second. Perhaps more striking is the difference in rates of injury death–unintentional injuries and suicide in particular–between Alaska and the U.S. The Alaska age-adjusted rate of death from unintentional injuries (ranked 3rd in Alaska and 5th in the U.S.) is 56.0 per 100,000, compared to 38.0 per 100,000 in the U.S. overall. The age-adjusted suicide rate, which only just makes the top 10 list in the U.S., is 20.0 per 100,000 in Alaska, approximately two-thirds higher than the U.S. rate. Another notable Alaska-versus-U.S. difference is the rate of death due to chronic liver disease and cirrhosis: the Alaska age-adjusted rate is 12.9 per 100,000 compared to only 9.7 per 100,000 in the U.S.

Rates of death reveal only part of the picture of mortality in Alaska. Because certain causes strike down the youngest Alaskans, it is also important to consider the years of potential life lost due to specific causes of death.

This is defined as the number of years lost prior to an Alaskan's 75th year, aggregated by cause. The following graph shows the six leading causes of death based on the total years of potential life lost.

#### Years of Potential (<75 Years) Life Lost, Alaska (2011)



Source: Alaska Bureau of Vital Statistics

Unintentional injury death is consistently the cause of death in Alaska associated with the largest toll in terms of years of potential life lost; cancer and heart disease are second and third, respectively.

Another important indicator of the health of a population is the rate of death for those ages 28 days to 1 year. The graph below shows how the disparity between the U.S. and Alaska has been nearly eliminated. Though the Alaska Native rate has also declined over this period, it remains nearly twice that seen for all Alaskans.

#### Post-neonatal (28 days - 1 year) Deaths per 1,000 Live Births All Alaskans, Alaska Natives, U.S. (2000-2011)



Source: Alaska Bureau of Vital Statistics

### Morbidity

Several sources of Alaska data, including disease and injury registries, hospital discharge records, and telephone-based behavior surveys, provide information about morbidity, or the presence of illness or injury among Alaskans.

The following table shows the top reasons for hospitalization in Alaska (2011) by percentage of discharge diagnoses.<sup>13</sup> The relative cost of those diagnoses is also shown. Childbirth and perinatal conditions, followed by circulatory conditions, are the most frequent reasons for hospitalization; circulatory disease and injuries/poisonings are both significant burdens in terms of health spending.

#### **Reason for Hospitalization, Alaska (2011)**

	% of Discharges	% of Charges
Childbirth/Delivery	17%	6%
Newborns, Perinatal Conditions	16%	8%
Circulatory Disease	11%	19%
Digestive System	9%	9%
Injuries/Poisonings	9%	12%

Source: Alaska Hospital Discharge Database

Self-reported data from adult Alaskans regarding their history of being diagnosed with chronic conditions aligns with the hospital discharge data. Specifically, hypertension and high cholesterol impact an estimated 160,000 and 123,000 Alaskans, respectively.

#### Number Who Were Ever Diagnosed with Select Chronic Diseases, Alaska Adults (2012)<sup>+</sup>



\*of those screened last 5 years Source: Alaska Behavioral Risk Factor Surveillance System

These data do not show the impact of multiple chronic conditions. Many individuals, in Alaska as in the U.S., are simultaneously dealing with more than one chronic condition. Having multiple chronic conditions negatively impacts quality of life<sup>14</sup> as well as healthcare costs.<sup>15</sup>

The Alaska Cancer Registry provides a significant amount of information regarding cancer incidence in Alaska. The following table shows the top five cancers in Alaska in 2011. Breast cancer (among women) ranks first in terms of both cases and age-adjusted rates of cancer incidence. Lung cancer is second in number of cases; prostate cancer has the second highest incidence rate.

#### **Counts and Incidence Rates for Top 5 Cancers, Alaska (2011)**

Rank*	Cancer Site	Number of Cases	Age-Adjusted Cases per 100,000
1	Breast (women only)	418	128.9
2	Lung and Bronchus	346	64.6
3	Prostate (men only)	314	90.7
4	Colorectal	258	40.7
5	Urinary Bladder	134	25.3

\*based on counts Source: Alaska Cancer Registry A database maintained by DHSS, Office of Children's Services is used to monitor reports of child maltreatment. Child abuse and neglect are longstanding issues in Alaska, with rates historically significantly higher than in the U.S. overall. The following graph shows improvement in the Alaska and U.S. rates (per 1,000 children) of substantiated child maltreatment over the past five years; however, the Alaska rate remains more than 50% higher than the U.S. rate.

#### Child Maltreatment, All Alaskans, U.S. (2007-2011)



Sources: Alaska Department of Health and Social Services, Office of Children's Services; U.S. Department of Health and Human Services, Administration for Children and Families

Self-reported data from the Alaska Behavioral Risk Factor Surveillance System (ABRFSS) can be used to assess quality of life and level of disability experienced by Alaska adults. One in 10 Alaska adults reports being in poor mental health during about half of the prior month; a similar percentage report being in poor physical health for that many days. According to CDC's definition (having a health problem that requires use of special equipment or having a health problem that limits daily activities), one in five Alaska adults experiences a disability.

#### Quality of Life Indicators (Past 30 Days), Alaska Adults (2012)



Source: Alaska Behavioral Risk Factor Surveillance System

#### **Risk Factors**

Many behaviors and experiences put individuals at risk for negative health outcomes and associated personal and financial costs. The following graph shows the prevalence of selected risk factors for chronic disease and injury among adults in Alaska.

#### Select Chronic Disease and Injury Risk Factors, Alaska Adults (2012\*)



\*except 2011, where noted

Source: Alaska Behavioral Risk Factor Surveillance System

As with the previous graph, these data do not convey the extent to which Alaskans experience multiple risk behaviors. In 2012, one in five Alaska adults reported two or more of the following chronic conditions or risk factors: smoking, obesity, inactivity, history of diabetes and history of cardiovascular disease.<sup>16</sup>

Alaska youth are also engaging in behaviors that put them at risk for negative health outcomes. The following graph shows the prevalence of selected risk factors for chronic disease and injury among high school students in Alaska.

#### Select Chronic Disease and Injury Risk Factors, Alaska High School Students (2013)



Source: Youth Risk Behavior Survey

#### **Access to Healthcare and Preventive Services**

Routinely collected Alaska data can also be examined to give an indication of the status of access to healthcare and preventive services, such as screenings for certain diseases. The following graph shows the percentage of Alaska and U.S. adults who have not received selected age- and sexspecific preventive services.

#### Percentage of Adults Not Receiving Select Preventative Services, Alaska and U.S. (2012)



Source: Alaska Behavioral Risk Factor Surveillance System

Data from the National Immunization Survey indicate that Alaska's vaccine coverage rate for children 19 to 35 months is low compared to other states. The following graph shows the trend in Alaska and U.S. rates of children being vaccinated with the recommended childhood immunization schedule. During this time series, two vaccines were added to the recommendation, resulting in the dip between 2008 and 2009.

#### Child (19-35 months) Vaccinations\* All Alaskans, U.S. (2000-2012)



\*4:3:1:3:3 series of DTaP, polio, MMR, Hib, Hep B; Recommendation changed in 2009, adding Varicella and PCV to series.

Source: National Immunization Survey

The percentage of live births born to women who received adequate prenatal care (as defined by an Adequacy of Prenatal Care Utilization Index of 80 or greater) has declined over the last decade.

#### Adequate Prenatal Care, All Alaskans (2000-2012)



Source: Alaska Bureau of Vital Statistics

The percentage of Alaskans without health insurance coverage increased slightly over the past 12 years, following the pattern seen in the U.S. In 2012, the Alaska rate was 23% higher than the national rate.

#### Percentage with No Health Insurance, Alaska and U.S. (2000-2012)



Source: U.S. Census Bureau, Current Population Survey

#### **Social Determinants of Health**

Health is determined by a complex set of interdependent factors, including individual behavior, biology, genetics, and access to health services, as well as the physical and social environment. The combined impact of these factors both drives and is influenced by health outcomes.

## Healthy People 2020: A society in which all people live long, healthy lives



Source: Reproduced from U.S. Department of Health and Human Services, Healthy People 2020: A resource for promoting health and preventing disease throughout the nation.

"Social determinants are the circumstances in which people are born, grow up, live, work, and age, as well as the systems put in place to deal with illness. These circumstances are in turn shaped by a wider set of forces: economics, social policies, and politics."

#### - World Health Organization

The U.S. Census provides state-level estimates of several of these social determinants. The following figure shows the Alaska and U.S. trends in educational attainment as assessed by the percentage of 18 to 24 year-olds who have obtained a high school diploma. The Alaska rate very closely mirrors the U.S. rate on this indicator.

#### Percentage of 18-24 Year Olds with a High School Diploma, All Alaskans and U.S. (2005-2012)



Source: U.S. Census Bureau, American Community Survey

Poverty, which takes into account household income level as well as household size, is another critical social determinant of health. Due to the higher cost of living in Alaska compared to the U.S. overall, poverty status for Alaska is defined as 125% of the federal poverty threshold. The Alaska rate shows more variability than the U.S. rate over the past eight years; however, in 2012, the percentages of Alaskans and U.S. residents who met this definition of being in poverty were similar.

#### Percentage of Persons Living Below the Federal Poverty Level\*, All Alaskans and U.S. (2005-2012)



Source: U.S. Census Bureau, Current Population Survey; \*below 125% of FPL for Alaska (below 100% of FPL for U.S.)

The following figures are just two examples of the link between social determinants and health outcomes in Alaska. Both household income level and race are associated with smoking prevalence. Smoking prevalence decreases with rising income levels in both Alaska Natives and non-Natives; however, at every income level Alaska Native adults smoke at a higher rate compared to non-Natives.

#### **Social Determinant: Income & Race**

# Prevalence of Adult Smoking, by Income and Race, Alaska (2008-2010)



Source: Alaska Behavioral Risk Factor Surveillance System

The following figure depicts the relationship between hospitalization for lower respiratory tract infections and access to in-home water service in one region of Alaska.

#### **Social Determinant: Physical Environment**

Hospitalization Rate Among Infants for Lower Respiratory Tract Infections (LRTI), Pneumonia, and RSV in Region A (1999-2004)



Source: Hennessy et al., AJPH (2008)

Because the social determinants of health impact individual skills and behaviors, social participation, lifestyle, knowledge, and overall health status, they have a major role in creating–or mitigating– inequities in health across population subgroups.

## **Inequities in the Health of Alaskans**

Various Alaska populations suffer from disparities in health caused by systematic and avoidable social and economic circumstances that create barriers for achieving full health potential and lead to poor health outcomes. According to the National Institute of Health, *"Health disparities are differences in the incidence, prevalence, mortality, and burden of diseases and other adverse health conditions that exist among specific population groups."*<sup>17</sup> In Alaska, these disparities exist among populations of different racial or ethnic backgrounds, education, income, geographic location, and gender, among others. Health equity and the elimination of health disparities are part of the overarching goals of the CDC Healthy People 2020 initiative. In addition, one of the objective selection criteria for HA2020 is that, "Objectives should address healthy equity and differences in health status and services across different population subgroups, including racial, socioeconomic, age, gender, disability status, and geographic groups."

Health inequities are seen across all types of indicators previously discussed, including mortality, morbidity, and risk factors. Although American Indian/Alaska Native (AI/AN) and non-Native people in Alaska share most leading causes of death, AI/AN mortality rates are significantly higher for many leading causes including cancer, heart disease, unintentional injury, homicide, and suicide.<sup>18</sup> Mortality rates also differ by age groups and gender, such as suicide mortality rates, with Alaskan males aged 15-24 years suffering disproportionately from the highest rates.



#### Average Annual Suicide Deaths per 100,000 By Age Group and Gender (2008-2012)

\*Less than 3 deaths, no rates calculated Source: Alaska Bureau of Vital Statistics

Unintentional injury mortality rates show a similar pattern. Regional disparities also exist, with some regions experiencing significantly higher mortality rates and/or morbidity rates for certain conditions. For example, cancer mortality rates are generally highest in the northern Alaska regions, with lower rates in Southcentral and Southeast Alaska.

#### Age-Adjusted Cancer Deaths per 100,000 (All Cancer Sites Combined) by Region (2006-2010)



Created by statecancerprofiles.cancer.gov on 06/02/2014 4:29 pm.

State Cancer Registries may provide more current or more local data.

Data presented on the State Cancer Profiles Web Site may differ from statistics reported by the State Cancer Registries (for more information).

Source: Death data provided by the <u>National Vital Statistics System</u> public use data file. Death rates calculated by the National Cancer Institute using <u>SEER\*Stat</u>. Death rates (deaths per 100,000 populations per year) are age0adjusted to the <u>2000 US standard</u> <u>population</u> (19 age groups: <1, 1-4, 5-9. ..., 80-84, 85+). The Healthy People 2020 goals are based on rates adjusted using different methods but the differences should be minimal. Populations counts for denominators are based on the Census 1969-2011 US Population Data File as modified by NCI.

\*Data have been <u>suppressed</u> to ensure confidentiality and stability of rate estimates. Counts are suppressed if fewer than 16 cases were reported in a specific area-sex-race category.

\*\* Data have been suppressed for states with a population below 50,000 per sex for American Indian/Alaska Native of Asian/Pacific Islanders because of concerns regarding the relatively small size of these populations in some states.

Healthy People 2020 Goal C-1: Reduce the overall cancer death rate to 160.6.

Healthy People 2020 Objectives provided by the Centers for Disease Control and Prevention.

Al/AN people experience higher rates of colorectal cancer incidence and colorectal cancer mortality of any group in Alaska and the United States. Although Al/AN diabetes prevalence rates have historically been lower

than the national U.S. rates, rates have increased significantly over the past twenty years, along with the prevalence of overweight and obesity among Al/AN people.<sup>19,20,21</sup> Al/AN adults and adolescents have higher prevalence rates of certain risk behaviors when compared to the non-Native population in Alaska, including smoking and binge drinking. The Alaska Native prevalence of smoking is higher than for non-Natives at all income levels.

There are also disparities in the prevalence of risk factors and disease morbidity among other Alaska sub-populations. For example, selected 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 inactivity, poor or fair selfrated health status, and have higher prevalence of hypertension, asthma, and diabetes. Differences in risk factors and disease morbidity also exist for certain age groups, geographic areas, disability status, income, among other divisions, often related to the social determinants of health. During 2009-2011, Alaskan adults living under 125% of federal poverty guidelines were nearly twice as likely to be smokers as those living above the threshold.<sup>20</sup> Adults with disabilities are also more likely than adults without disabilities to be current smokers.<sup>20</sup>

#### Prevalence of Selected Risk Factors, by Education Level (2012)\*



<sup>\*</sup>Except 2011, where noted Source: Alaska Behavioral Risk Factor Surveillance System

#### **Health Concerns of Alaskans**

In assessing the health of Alaskans, it is important to consider the concerns and viewpoints of the population in addition to epidemiological data. While health data and statistics can tell us what health outcomes or risk factors may be of concern from a population view, this may differ from the concerns at a local community or individual level. With that in mind, public input was solicited from Alaskans through two surveys to understand what health issues are of the greatest concern to Alaskans. The surveys provided an opportunity for anyone in the Community of Interest (the general public with any interest, concern, or investment in health issues) to participate in HA2020 and inform the Advisory Team in selecting LHIs. The first survey asked which broad health categories and specific health topics were important to respondents and the second asked participants to prioritize concerns from a list of potential indicators. The concerns and priorities identified were compiled and analyzed at a statewide and regional level.

The first survey asked Alaskans about health priorities in their own lives and in their communities. The health topics of highest concern to respondents were (in order of highest concern) alcohol use, cost of health care, diet/ exercise/obesity, substance abuse, and violence. Similar health topics were of high concern, regardless of region. In all regions, alcohol use was in the leading two health concerns among all health topics.

The second survey collected additional information on general health areas of concern and also asked respondents to identify specific health measures, or indicators, most meaningful to themselves and their communities. Health concerns were similar to those identified in the first survey, including alcohol/drugs, nutrition/exercise, health care, and abuse/violence. Specific health indicators most frequently selected were:

- Rate of death due to suicide;
- Percentage of adults age 18 and older who meet criteria for overweight and obese;
- Percentage of high school students who felt so sad or hopeless every day for 2 weeks or more in a row that they stopped doing some usual activities in the past 12 months;
- Percentage of high school students with three or more adults (other than their parents) from whom they feel comfortable seeking help; and
- Number of households with access to safe water and proper sewage disposal.

The Advisory Team reviewed the results of both surveys at various stages in the decision making process to inform their selection of the 25 LHIs.

## Looking Back: Learning from Healthy Alaskans 2010

From the earliest planning stages, those working on HA2020 emphasized the value of building upon previous Healthy Alaskans efforts. What had worked well with Healthy Alaskans 2010 (HA2010)? What were the challenges? What progress had been made by 2010 in terms of health status?

Division of Public Health staff and leadership concluded (through a small survey and additional discussions) that while the materials from the HA2010 initiative were widely used by Alaska public health professionals for purposes ranging from grant writing to prioritizing health improvement objectives, the number of indicators was unmanageable. Systematic tracking of over 400 indicators was not possible, and the HA2010 initiative did not produce a final report for the decade. An additional shortcoming was the lack of identified strategies to reach the objective targets.

Healthy Alaskans 2010 was funded through a three-year "Turning Point" grant from the Robert Wood Johnson Foundation for an Alaska Public Health Improvement Initiative. Diverse organizations and agencies participated in the Healthy Alaskans Partnership Council, which served as the advisory group. When the grant expired, new resources were not allocated for next steps such as selecting strategies and assigning responsibility to lead agencies for achieving the targets set for 2010. The Division of Public Health obtained grants through the decade to move toward selected targets, and allocated some staff time toward improved data collection and public health information system development, but the level of resources committed was insufficient. Follow-through on a plan with more limited scope has thus been an agreed-upon goal for the HA2020 process.

A status report on the progress toward meeting HA2010 targets was produced both to evaluate the HA2010 effort and to provide information to inform the identification of objectives for HA2020. The report was limited to the 23 LHIs, rather than attempting to include all 400 of the indicators identified in HA2010. The Data Team developed a template based on similar indicator reports produced by DHSS and ANTHC, collected the data, and drafted the report. The report was approved by the Steering Team and used by the Advisory Team as a reference as they selected potential LHIs. The report was published on the HA2020 website in January 2013. The report indicated minimal progress across the HA2010 LHIs. Of the 25 indicators (two of the 23 LHIs had two parts each), two targets were met; five were indeterminable due to changes in measurement or no initial target being set; and the remaining 18 were not met, though 12 improved over the decade. The failure to reach some of the targets can be attributed to unrealistically high goals (e.g., 100% access to healthcare). A similar experience of setting unachievable goals led the national Healthy People 2020 effort to develop a 10%-improvement-over-baseline target setting methodology. This understanding was incorporated into the process of target setting in Healthy Alaskans 2020, and the target setting criteria included consideration of "realistic but challenging" targets.

#### **Data-informed Process**

A guiding principle of HA2020 has been to use the highest quality data available in every step of planning and implementation. This has been evidenced in a number of ways throughout the process, from organizational structures and processes to the selection of potential LHIs. A Data Team was formed by the planners early on to utilize the collective expertise of data stewards and epidemiologists within State government, ANTHC, and partners statewide. The roles and responsibilities of this group have varied to meet the needs of different phases of the initiative.

Major data-related projects have included:

- A status report (described above) of the progress made on the LHIs from HA2010;
- A review of potential frameworks for organizing Alaska's LHIs (e.g., County Health Rankings); Healthy People 2020 was proposed as a model;
- Development of a set of selection criteria to be used for developing the HA2020 objectives and indicators;
- An inventory of potential LHIs based on selection criteria;
- Scoring of PLHIs based on data quality and subject matter expert consultation; and
- A report of baseline data including data limitations.

### **Choosing Targets**

Once the 25 LHIs were selected, the next step was setting the targets to reach by 2020. Recommendations for each target were developed by topic-specific teams comprised of content experts from DHSS, ANTHC and partner agencies. Each team reviewed the following for each LHI:

- Progress toward the HA2010 target (if the LHI was part of HA2010) and progress towards the Healthy People 2020 target, if applicable;
- Targets set for the same or similar indicators in other initiatives, grants, or statewide plans;
- Baseline data and recent trends, including a straight line projection to 2020; and
- Target projections based on both 6% and 10% improvements over baseline.

The selection of 6% and 10% as target projections was modeled on the target-setting process used for Healthy People 2020. For that process, a default 10%-improvement-over-baseline methodology was used except in cases where there was a strong reason to select a target using another criterion. As the HA2020 process was initiated a few years into the decade (leaving fewer years to make progress), a 6% improvement was determined to be more realistic. Although data going back to 2000 were reviewed, the 'baseline' used in setting targets was generally data from 2010 where available, or neighboring years in some instances (e.g., 2009 for YRBS indicators).

The teams of content experts used the materials provided, combined with their own knowledge and experience in the topical areas, to develop recommendations for targets that struck a balance between being achievable and aspirational. The targets were approved by the Advisory Team and adopted by the HA2020 Steering Team.

#### **Plans for tracking Leading Health Indicators**

The co-sponsors of the HA2020 initiative made an early, strategic decision to limit the number of priorities to 25 LHIs. The previous decade's Healthy Alaskans initiative (http://dhss.alaska.gov/dph/Director/Pages/ha2010/ default.aspx), though valuable, selected such a large number of indicators (400+) that efforts to monitor indicators and focus efforts on strategies to meet objectives were limited. By focusing on a smaller set of leading health indicators, HA2020 planners hope to remove these barriers, ultimately

increasing the likelihood that specific health objectives will be met by 2020.

The 25 LHIs will be tracked on Alaska's recently-launched Indicator-Based Information Systems for Public Health, or IBIS-PH. This web-based data tool will be refreshed regularly (annually, for most indicators) with updated data and information, including a short description of the public health importance of the LHI, definitions and notes, and a graph showing 10-year Alaska and U.S. trends and the HA2020 target. The web-based system will allow public access (77% of Alaskans live in a household with internet use)<sup>21</sup> to updated information for each LHI at any time. These data will also be summarized and posted in a scorecard format annually, with baseline, target, current values, and a colored icon indicating the extent to which progress is on track to meet the target for the 25 LHIs.

#### Notes:

<sup>1</sup> U.S. Census Bureau. Resident population data; 2010. http://www.census.gov/2010census/data/apportionment-dens-text.php. Accessed 11-5-2013.

<sup>2</sup> U.S. Census Bureau, American Fact Finder, American Community Survey, Annual estimates of the resident population: April 1, 2010 to July 1, 2012; July 2012 estimate. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview. xhtml?pid=PEP\_2012\_PEPANNRES. Accessed 11-5-2013.

<sup>3</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section. Alaska Population by Bridged Race and Hispanic origin, July 2012. http://laborstats.alaska.gov/pop/popest.htm. Accessed 11-8-2013.

<sup>4</sup> According to the 2010 US Census, 19.4% of Alaskans are considered to be American Indian or Alaska Native alone or in combination with any other race. http://live.laborstats. alaska.gov/cen/dp.cfm. Accessed 11-14-2013.

<sup>5</sup> Anchorage School District website, About ASD. https://www.asdk12.org/aboutasd/ Accessed 4-4-2013.

<sup>6</sup> University of Alaska Fairbanks, Alaska Native Language Center website, Languages, http://www.uaf.edu/anlc/languages/. Accessed 4-4-2012.

<sup>7</sup> U.S. Census Bureau, American Fact Finder, American Community Survey. ACS Demographic and housing estimates, 2007-2011. http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS\_11\_5YR\_DP05. Accessed 11-14-2013.

<sup>8</sup> Alaska Department of Labor and Workforce Development, Research and Analysis Section. Population projections, 2010 to 2023, Alaska by age, sex and race. Alaska Economic Trends, Vol. 30, Number 12. December 2010.

<sup>9</sup> U.S. Census Bureau, Current Population Survey, 2012 Annual Social and Economic Supplement. https://www.census.gov/hhes/www/cpstables/032013/pov/pov46\_001\_100125.htm. Accessed 11-14-2013.

<sup>10</sup> Alaska Department of Health and Social Services, Behavioral Risk Factor Surveillance System, 2012.

<sup>11</sup> McGinnis JM, Williams-Russo P, Knickman JR. The case for more active policy attention to health promotion. Health Affairs. 2002; 21:78-93.

<sup>12</sup> Mokdad AH, Marks JS, Stroup DF, Gerberding JL. Actual causes of death in the United States, 2000. JAMA. 2004; 291(10):1238-45.

<sup>13</sup> The Hospital Discharge Data Set consists of hospitals reporting under a voluntary agreement; the data do not encompass every hospital discharge in the state. Most of the acute care civilian hospitals in the state are included; however, Matanuska-Susitna Medical Center and six small rural Tribal hospitals were not reporting and are not included in these figures.

<sup>14</sup> Anderson G. Chronic Care: Making the Case for Ongoing Care. Princeton, NJ: Robert Wood Johnson Foundation; 2010.

<sup>15</sup> Centers for Medicare and Medicaid Services (CMS). State level chronic condition Reports. http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CCStateReports.html (Report 2). Accessed 12-20-2013.

<sup>16</sup> Alaska Department of Health and Social Services, Behavioral Risk Factor Surveillance System, 2012.

<sup>17</sup> National Institutes of Health. Addressing health disparities: The NIH program of action. 2000. http://healthdisparities.nih.gov/whatare.html. Accessed 11-14-2013.

<sup>18</sup> Alaska Native Epidemiology Center. Statewide data: leading causes of death, 2014. http://www.anthctoday.org/epicenter/assets/data/statewide/leading\_causes\_of\_death\_ statewide\_12\_31\_13.pdf. Accessed 4-1-2014.

<sup>19</sup> Alaska Native Epidemiology Center. Statewide data: diabetes, 2014. http://www. anthctoday.org/epicenter/assets/data/statewide/diabetes\_statewide\_12\_30\_13.pdf. Accessed 4-1-2014.

<sup>20</sup> Alaska Department of Health and Social Services. Informed Alaskans - Alaska Behavioral Risk Factor Surveillance System, 1991 - 2011. http://dhss.alaska.gov/dph/InfoCenter/ Pages/ia/default.aspx. Accessed 4-1-2014.

<sup>21</sup> Alaska is among the states with the highest percentage of "highly connected" individuals, in terms of Internet use; 77% of Alaskans live in a household with internet use. (Source: U.S. Census Bureau. Computer and Internet Use in the Unites States - Population Characteristics. U.S. Census Bureau, Economics and Statistics Administration, U.S. Department of Commerce; May 2013. Accessed 12-16-2013 at: http://www.census.gov/hhes/computer/files/2011/p20-568.pdf).



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