CHAPTER 3. ALASKA NATIVE HEALTH AND WELL-BEING

Are Alaska Natives healthier now than they were 15 years ago? In some ways, yes. Still, major health problems—and social problems like domestic violence—are very widespread. Many of these problems are linked to alcohol. This chapter looks at health and well-being among Alaska Natives at the start of the 21st century. We report changes over time, mostly since 1990, but also from earlier periods, in a wide range of indicators. We also compare the health of Natives with that of other Alaskans and other Americans.

Data Sources and Organization of Chapter

We collected and analyzed the best available information from many sources, as noted in the text and on the figures. In particular, we relied on data from the Alaska Department of Health and Social Services, especially the Bureau of Vital Statistics, the Alaska Area Native Health Service, and the Alaska Native Tribal Health Consortium.

The most recent information available for some measures is from the late 1990s. That’s largely because most agencies and organizations base their calculations of health measures by race on figures from the U.S. census. As we described in Chapter 2, there was an important change in the 2000 census. For the first time, people answering census questions could specify more than one primary race. So 2000 census data include not only people who described themselves as just Alaska Native, but also those who reported being of Native and some other race. State agencies are still grappling with how to report racial information for Alaskans of more than one race—and especially how to compare data from before 2000 with data since 2000. As a result, many have not reported some data by race in the past several years.

Another recent change also complicates comparisons over time. To compare rates of disease or death among populations—say to compare death rates from heart disease among Alaska Natives and other Americans—statisticians do what they call “age adjusting,” because not all populations have the same age make-up. For example, Alaska Natives as a people are younger than the overall American population. To make populations comparable, statisticians use a “standard population,” with specific shares of the population in each age group. That way, rates of death or other measures aren’t affected by the fact that a population has more older or more younger people. The federal government now uses the 2000 U.S. population as the standard. But for the previous 60 years, the 1940 U.S. population was the standard. The change is important, because it means that rates calculated with the 1940 standard aren’t directly comparable with rates calculated under the new standard. When appropriate in this chapter, we’ll remind readers about how this change affects the figures we’re reporting.

Below we first summarize our findings about Alaska Native health and well-being, grouping them under “Successes Since 1990” and “Continuing Challenges.” Four sections follow the summary: (1) Background: Long-Term Improvements in Living Conditions: a description of broad improvements in sanitation systems, housing, and health care facilities in Native communities since the mid-1970s; (2) Introduction to Findings: a general description of trends in Native health since 1990; (3) Successes Since 1990: a detailed discussion of our findings about improvements in Native health since 1990; and (4) Continuing Challenges: a description of health and social problems that either worsened or showed no improvement in the past decade.
Summary of Findings

Successes Since 1990

- **Life expectancy among Alaska Natives continues to increase.** It was up from 64.4 years in 1980 to 68.8 in 1990 and 69.5 by 1997.

- **More Native babies are surviving.** Infant mortality rates dropped more than a third between the early and the late 1990s, bringing rates much closer to but still above national averages.

- **Native teenagers are less likely to have babies.** The teen birth rate declined more than 20 percent between 1990 and 1999. Still, it remains more than twice the rate among white teenagers.

- **Smoking among Native high-school students is down,** dropping nearly a third between 1995 and 2003—from 62 percent to 44 percent. Despite that progress, smoking among Native students remains nearly four times higher than among other students.

- **Alaska Natives are much less likely to die by accident.** The rate of accidental death was nearly 40 percent lower in the late 1990s than in the early 1980s. Still, rates of accidental death among Natives remain more than twice those of other Alaskans.

- **Rates of homicide and suicide may be trending down and at least didn’t increase.** From the data we have, we can’t say for certain that homicide and suicide rates are declining—because these rates are based on small numbers that can fluctuate sharply from year to year. But the rates in recent years didn’t increase, and as more data accumulate in the coming decade, the trends will be clearer. Still, current rates remain several times higher than those among other Alaskans.

- **Alaska Natives are less likely to die from pneumonia or flu,** with rates in the late 1990s nearly a third less than they had been 10 years earlier. Still, in the late 1990s Alaska Natives were still about a third more likely than white Americans to die from these causes.

- **Native children are being immunized at higher rates than other American children.** In recent years, more than 81 percent of Native children were immunized for common childhood diseases, compared with about 77 percent of children nationwide.

- **The Native health care system saw improvements,** including construction of a new Native medical center in Anchorage to replace a hospital built in the 1950s. Other improvements included expansion of the community health aide system to more than 170 villages by 2003 and the introduction of telemedicine to some remote places.

- **More than 60 percent of small Native communities controlled alcohol** by the end of the 1990s. Before state law was changed in the mid-1980s, very few communities were able to control alcohol locally.

- **About 77 percent of rural homes had safe water and sewer systems by 2003.** That’s up from 40 percent in 1990 and is projected to reach 87 percent by 2007.

- **Nearly 3,700 new housing units were built in remote communities in the 1990s.** Nearly one quarter of all housing in remote areas was added between 1990 and 2000.
Continuing Challenges

- **Rates of Fetal Alcohol Spectrum Disorder (FASD) increased sharply.** FASD among Alaska Native children increased from 2.5 cases per 1,000 births in the late 1980s to 5 per 1,000 in the late 1990s. FASD is many times more common among Alaska Natives than other Alaskans and other Americans.

- **Alaska Native children are far more likely to be neglected or abused** than other Alaska children. From 1997-2001, more than half the neglected or abused children were Alaska Native. Analysts say alcohol plays a part in 80 percent of child abuse.

- **Alaska Native women are victims of domestic violence and sexual assault far more often than other Alaska women.** From 2000-2003, 36 percent of the victims of domestic violence and 44 percent of the victims of sexual assault were Native, although they make up only about 19 percent of adult Alaskans. Experts say alcohol contributes to more than 80 percent of domestic violence and sexual assault.

- **More than a third of Alaska’s prison inmates are Alaska Natives,** although they make up only about a fifth of Alaskans. The number of Native prisoners increased 50 percent from 1993-2002, a rate considerably faster than overall Native population growth. Native prisoners are mainly men ages 20 to 49. Law enforcement authorities link a large share of crime to alcohol.

- **Sniffing fumes of gasoline, glue, and other substances remains a widespread problem among all Alaska teenagers,** but many rural residents and health officials believe the problem is worse in remote villages. The 1990s saw establishment of Alaska’s first treatment center specifically for inhalant abusers.

- **About 40 percent of Alaska Native adults smoke,** compared with about 25 percent among other Alaska adults. Unlike the smoking rate among Native teenagers, which declined recently, the rate among adults stayed about the same. Smoking causes most lung cancer, a big share of emphysema, and various heart problems.

- **Obesity among Native adults increased sharply in the past decade.** The percentage of Native adults considered obese went from less than 20 percent in the early 1990s to nearly 30 percent a decade later.

- **Diabetes soared among Alaska Natives in the past 15 years.** In 1985, about 16 of every 1,000 Natives had diabetes—about half the rate among other Americans. By 1999, diabetes among Natives had doubled, to 31.4 cases per 1,000—above the U.S. rate of 30.1.

- **Heart disease is now as widespread among Alaska Natives as among other Alaskans.** Twenty years ago, heart disease was less common among Alaska Natives.

- **Alaska Natives are still more likely than other Americans to die at all ages, but the biggest gaps are among young adults.** In 1999, Alaska Natives ages 25 to 34 were nearly four times more likely to die than white Alaskans their age.
Background: Long-term Improvements in Living Conditions

In the 1960s, when Alaska was a new state, a major federal report on Alaska Natives described conditions in most villages: small, crowded, dilapidated houses; unsafe water supplies and unsanitary sewage disposal; health care only from the occasional visiting doctor or nurse. The director of the Alaska Native Medical Center at the time said these living conditions were “central to most health problems of villagers.”1 Since then, the villages have seen sharp improvements in sanitation systems, housing, and access to health care.

Construction of Rural Sanitation Systems

In 1974, only a handful of Alaska’s rural homes—somewhere around 10 percent—had running water and flush toilets. Map 3-1 shows which Alaska communities had some form of public sanitation at that time. That includes communities with (1) public water and sewer systems or (2) safe water sources, either a water system or a central location where residents could come to haul water.

But keep in mind that even in those places with water and sewer systems, not all houses were necessarily connected. We know that sanitation systems often extended only to parts of communities—and in fact that’s still true today. But the map shows where at least some access to public sanitation systems existed, even if it was only a central location to get water. (In some other communities, residents had their own individual wells and septic tanks—so they had safe water and waste disposal, even though there might not have been public systems. Those communities aren’t shown on the map because 1974 data about them are not available.)

The largest cities—Anchorage, Fairbanks, and Juneau—had water and sewer systems in the 1970s, as did most of the larger towns in southcentral and southeast Alaska. Elsewhere, just a handful of places—often the regional centers or other large villages—had both public water and sewer systems in 1974.

But the state and federal governments were working to improve sanitation in rural Alaska, spending about $135 million in the 1970s. The first step in villages without water or sewer systems was establishing a safe water source, usually some central location where residents could come to get water. Roughly 65 rural communities had at least a central source of water by 1974.

That left somewhere around 100 small villages where residents typically hauled water directly from lakes or rivers and used honey buckets for sewage—and there may or may not have been any central location to dump the honey buckets.

Improvements 1980-2003

Between 1980 and 2003, the federal and state governments spent more than $1 billion to improve sanitation in rural Alaska. Most of that spending—$840 million—was just since 1990. Nearly 90 communities got new or improved sanitation systems during that time, as Map 3-2 shows.

Pinpointing when each community got sanitation systems is impossible, because there’s no central source of data going back that far at the community level. We relied on information from the U.S. census to estimate changes between 1980 and 1990. For changes from 1990 through 2003, we used a combination of census data and information from the Alaska Department of

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Environmental Conservation. Census information from different years is not always exactly comparable, and sometimes it’s based just on a sample, rather than on data from all households—so it may not be as accurate as complete data would be.

Also, keep in mind that tracking sanitation improvements in rural communities is complicated not only by lack of complete data from the early years but also because the original systems in some communities have failed or partly failed; the systems may or may not have been replaced by 2003. And building a sanitation system in any given community typically involves several projects over a period of years.

**Status in 2003**

So where are we today? The Alaska Department of Environmental Conservation reports that at the end of 2003, 77 percent of rural houses had complete sanitation systems—either piped or flush/haul systems or individual wells and septic systems.

Map 3-3 shows that 32 small rural places still completely lacked piped water and sewer systems in 2003. In another 23 communities, less than 30 percent of the houses had piped systems. Those places are primarily small Native communities in southwest, western, and interior Alaska. And in many other rural communities, a majority but still not all houses were connected to sanitation systems in 2003, as Figure 3-1 shows.

**Future Expectations**

The major expansion in rural sanitation systems in recent times is especially impressive, if you remember that the rural population and the number of rural houses were growing at the same time.

Planning, design, or construction of new systems—or improvements in and expansion of existing systems—was underway in about 156 communities in 2003. The Department of Environmental Conservation projects that by 2007, 87 percent of all rural homes will have complete sanitation systems.
Map 3-1. Status of Public Water and Sewer Systems, 1974

Note: This is the best available information about public sanitation systems in the early 1970s. In some communities—Minto, for example—systems that existed in the 1970s later failed and had to be replaced. Additional communities where houses had individual wells and septic tanks are not shown, since such systems were private rather than public.

Sources: 2 (c) Report: Federal Programs and Alaska Natives, Robert Nathan and Associates, 1976; Alaska Community Database
Map 3-2. Communities Where Public Sanitation Systems Were Built Since 1975 and Served at Least 30 Percent of Houses as of 2003*

*The map is based on the best available information, which may not be accurate for every community. Most communities in the Ahtna region have individual wells and septic tanks, as do some places in the Cook Inlet, Bristol Bay, and Doyon regions. Systems in some of those places have been upgraded since 1975 as well, but we can’t tell which from existing data.

Sources: U.S. census, 1980 and 1990; Alaska Department of Environmental Conservation, Village Safe Water Program
Map 3-3. Communities With No or Very Limited Sanitation Systems, 2003*

*These are communities where all or most homes had neither (1) piped water or flush/haul sanitation systems or (2) individual wells and septic tanks.

Source: Alaska Department of Environmental Conservation, Village Safe Water Program
Figure 3-1. How Many Rural Houses Have Complete Sanitation Systems?


Share of Rural Houses with Sanitation Systems, By Community Group, 2003

<table>
<thead>
<tr>
<th>Category</th>
<th>Communities</th>
</tr>
</thead>
<tbody>
<tr>
<td>All or 90% of houses have systems</td>
<td>103</td>
</tr>
<tr>
<td>At least 60% of houses have systems</td>
<td>61</td>
</tr>
<tr>
<td>At least 30% of houses have systems</td>
<td>22</td>
</tr>
<tr>
<td>Less than 30% of houses have systems</td>
<td>23</td>
</tr>
<tr>
<td>No houses have systems</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total: 241 Communities</strong></td>
<td></td>
</tr>
</tbody>
</table>

Source: Alaska Department of Environmental Conservation Village Safe Water Program
Improvements in Housing Stock

In 1968, a milestone publication, *Alaska Natives and the Land*, documented conditions among Alaska Natives just before the Alaska Native Claims Settlement Act was passed. It reported that of the roughly 7,500 houses in Native villages at that time, 7,100 needed to be replaced and an additional 350 were needed every year to meet population growth.

And in fact there has been substantial construction in rural Alaska in the past 30 years. Information from the U.S. census tells us that most of the houses in rural Alaska today occupied by all Alaskans—Native and non-Native—have been built since 1970.

In remote rural areas, where most of the population is Alaska Native, Native regional housing authorities have largely managed housing construction in recent decades. Those housing authorities were established in the 1970s, under terms of the Indian Self-Determination and Education Assistance Act. They were strengthened with passage of the Native American Housing and Self-Determination Act in 1996. Between 1998 and 2002, about 1,150 units (not necessarily all individual houses) were built with money appropriated under that act.

Map 3-4 shows how many houses were built in remote rural and other rural areas in every decade since 1970. Tracing new housing construction in specific villages over time is impossible, because such data don’t exist. But the figures from the U.S. census show the magnitude of housing construction throughout rural Alaska in the past 30 years.

Most units built in rural areas were individual houses, but the figures include all housing units, which might be duplexes or other multi-unit structures. Also keep in mind that these figures include all housing, regardless of whether Alaska Natives or other Alaskans live in them.

The remote rural areas shown on the map are predominantly Alaska Native. Of the roughly 16,800 houses in remote areas in 2000, about 13,800—more than 80 percent—were built after 1970. The pie graphs on Map 3-4 shows that about 28 percent of the houses in remote areas were built in the 1970s, 32 percent in the 1980s, and 22 percent in the 1990s. The remaining 18 percent were built before 1970.

In other rural areas, there were about 29,600 housing units as of 2000. About 20,600 of those—70 percent—were built since 1970. About 26 percent were built during the 1970s, 25 percent during the 1980s, and 19 percent during the 1990s. The other 30 percent pre-date 1970.

Future levels and timing of rural housing construction are impossible to predict, but we know that construction is continuing under terms of the Native American Housing and Self-Determination Act.

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2 Office of Native American Programs, Housing and Urban Development, Anchorage
Map 3-4. Housing Construction in Rural Census Areas, 1970-2000

Source: U.S. Bureau of the Census
Improvements in Health Care System

In 1974, even basic health care wasn’t routinely available in most villages. The 2(c) Report: Federal Programs and Alaska Natives, published in the mid-1970s, reported the status of health-care facilities throughout Alaska (including those of the Indian Health Service, state government, the military, and private and religious organizations). Map 3-5 shows that information.

The Indian Health Service (IHS) operated Native hospitals in Anchorage, Sitka, Tanana, Bethel, Barrow, Kotzebue, and Dillingham in 1974. There were also other public and private hospitals in the larger communities. The IHS or the state government also had health centers—which usually had at least one permanent staff person—in about a dozen places, mostly rural regional centers or larger villages and towns. And the state or IHS had what were called “clinics” in about 80 communities. But these clinics had no local staff; they were typically areas in public buildings, set aside so when visiting state or federal health-care workers periodically came to town, they had a place to see patients. About 85 Native villages didn’t have even specific clinic areas for visiting health-care workers.3

Map 3-6 shows locations of just IHS facilities thirty years later, in 2003. IHS health-care facilities are now managed by Alaska Native health organizations. IHS now funds the formerly private hospital in Nome, and it has closed the hospital in Tanana. Except for those changes, IHS hospitals are in the same locations as in the 1970s. Those hospitals have seen significant improvements over the years. There are also 26 IHS health centers around Alaska. And in more than 170 villages, there are clinics that are generally staffed by at least one local community health aide. Health aides examine patients and report symptoms to doctors via telephone or radio, or through the evolving telemedicine system that allows doctors to see digital images of patients. The aides then carry out doctors’ instructions; they’re also trained to provide emergency first aid and to help educate residents about health issues.

Besides health aides, who live in the villages they serve, state public health nurses also routinely travel to villages to help with immunization and other public health programs. Most village residents who need dental care have to travel to regional hubs or urban places, but dentists sometimes travel to smaller communities. (For example, the Medicaid program contracts with pediatric dental teams to visit communities in southeast Alaska.) Mental health centers have also been established in about 15 Native communities, mostly regional centers. A dozen or so Native communities—again, mostly regional centers—have substance-abuse treatment centers. About 85 villages have mental health or substance-abuse counselors. Most mental health and substance-abuse clinics are in Anchorage or other urban places.

Despite these additions, many communities still lack adequate facilities. Village residents have worked with the federal Denali Commission to identify what they need. In 2000, the Commission estimated that needed rural primary care facilities would cost $250 million.4 And getting advanced medical care still requires villagers to make long, expensive trips to Anchorage or other urban towns.

4 Denali Commission, 2001 Annual Report
Map 3-5. Health Care Facilities in Alaska, 1974
(IHS and Other)*

*Map includes all public and private health care facilities as of 1974. "Unstaffed clinics" were typically areas in public buildings where visiting doctors or nurses could see patients.

Map 3-6. IHS Health Care Facilities in Alaska, 2003

Note: Map includes just facilities funded by the Indian Health Service in 2003.

Source: Alaska Area Native Health Service
Introduction to Findings

Alaska’s Native villages have, as we just discussed, benefited from long-term and ongoing improvements in the quality of and access to health care, in safe water and sewer systems, and in the quality of housing. Those improvements began in the 1960s and 1970s, but accelerated in the 1980s and 1990s, with sharply increased federal and state spending.

Alaska Natives today are living longer; fewer babies are dying; and illnesses that are caused or aggravated by unsanitary conditions and crowded, substandard housing are either gone or on their way out.

In the past decade, deaths from Sudden Infant Death Syndrome and diseases of early infancy dropped, as did deaths from pneumonia and flu. Outbreaks of measles were cut sharply; hepatitis A was stopped in its tracks; and cases of hepatitis B dropped by more than half, according to figures from the Alaska Department of Health and Social Services. Tuberculosis has not been eradicated, but rates are a small fraction of what they were a few decades ago, when tuberculosis was a leading cause of death among Alaska Native people.

Improvements in the Native health-care system in the past 10 years include construction of a new Alaska Native Medical Center in Anchorage and new or expanded health-care clinics and other facilities throughout rural Alaska. Another improvement in rural Alaskans’ access to medical care since the late 1990s is telemedicine—which allows health aides or other health-care workers in remote communities to electronically transmit images and patient information to doctors in larger communities, who can then better diagnose problems. The Alaska Telehealth Advisory Council reported in late 2003 that 235 Alaska communities had telemedicine connections.5

Another major change in the 1990s was that Native organizations took over administration of virtually all the Indian Health Service operations in Alaska, providing Native people with a level of control over health-care delivery they never had before. Native communities in the past decade also increasingly voted to use their authority under state law to control alcohol locally—and there is evidence that local control of alcohol is helping reduce some of the many problems alcohol abuse has created in Native communities.

Also in the 1990s, a special federal entity—the Denali Commission—was created, with authority (among other things) to build and equip health, nutrition, and child-care projects across the state. Projects could include hospitals, clinics, and drug and alcohol treatment centers. The commission and rural communities have jointly identified primary care facilities needed in many places, and in the coming years will work together to improve facilities to meet the standard of “adequate.”

The federal and state governments spent almost $850 million for rural sanitation systems between 1990 and 2003 and nearly doubled the share of rural houses with safe water and sewer systems. Housing built in remote rural areas between 1990 and 2000 added nearly 30 percent to the housing stock in those areas.

But despite these advances, Alaska Natives today are still far more likely than other Alaskans to die by accident, suicide, or homicide—although rates of accidental death are significantly lower now than in the 1980s. Natives are more likely to go to prison and to be victims of domestic violence and sexual assault. They are more likely to smoke and to be overweight—which is

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contributing to soaring rates of diabetes. The two leading causes of death among Alaska Natives are now cancer and heart disease—just as they are among other Alaskans and other Americans.

In many ways, the future challenges in improving Native health are—as they are throughout the United States—fighting problems caused by what people do: drinking too much; eating too much of the wrong things; smoking. Alaska Natives themselves have recognized and are taking steps to fight alcohol abuse and other behavioral problems, including bans or restrictions on alcohol in about 60 percent of the smallest communities. Federal and state agencies, together with Native organizations, are (1) making people aware of the consequences of what they do and (2) helping them change behavior that risks their health and endangers other people.

Figure 3-2 shows why the fight against smoking, heavy drinking, and other risky behavior is so important. The U.S. Centers for Disease Control has assessed how various factors affect life expectancy. Genetic make-up, which one cannot control, determines 20 percent of life expectancy. The environment—food, housing, sanitation—determines another 20 percent; and access to health care, 10 percent. The remaining half of life expectancy—as much as all the other factors combined—depends on behavior that affects your health: what you eat and drink, how much you exercise, whether you smoke, whether you use drugs.

Figure 3-2. What Determines How Long You Live?

Source: U.S. Centers for Disease Control
Successes Since 1990

Life Expectancy Improves
Increasing life expectancy among Alaska Natives is a good measure of better health. Figure 3-3 shows improvements in life expectancy among Alaska Natives and all Americans since 1950.

An Alaska Native born in 1950 could expect to live, on average, 46 years—22 years less than the average American life expectancy. In the 1950s, U.S. public health programs began fighting tuberculosis and other infectious diseases, helping boost life expectancy for the average Alaska Native. Native babies born in 1960, just a decade later, could expect to live on average 61 years.

Since then, increases in life expectancy have continued every decade, but at a slower pace. Native babies born in 1997 could expect to live 69.5 years, up from 68.8 for babies born in 1990. That continuing improvement reflects many things, including improved access to health care, better medical technology and health facilities, and improved living conditions—including less crowded housing, safer water supplies, and better sewage disposal. Still, in 1997 Native life expectancy still fell 7 years short of the average life expectancy of 76.5 years for all Americans.

Figure 3-3. Years of Life Expectancy at Birth

![Graph showing life expectancy improvements from 1950 to 1997 for Alaska Natives and all Americans.]

Sources: Alaska Area Native Health Service; Alaska Bureau of Vital Statistics

More Babies Survive
Another widely-used measure of improving health is a reduction in infant mortality—the share of babies who die before their first birthday. When fewer babies die, it’s a sign of better health, resulting from better medical care (both pre- and post-natal) and healthier living conditions. As Figure 3-4 shows, infant mortality among Alaska Natives—and among other Americans as
well—has been declining for decades and continued to drop in the 1990s. In 1945, more than 120 of every 1,000 Native babies died before their first birthday. By 1975, deaths had dropped to 24 per 1,000 and by 1990 to about 15 per 1,000. By the 1998-2000 period, the rate was at 9.5 per 1,000—much closer to but still above the rate of 7.0 per 1,000 for the entire U.S. population.

In recent years, Alaska Native babies have been much less likely to die from Sudden Infant Death Syndrome (SIDS) and from various diseases of early infancy, according to figures of the Alaska Native Tribal Health Consortium. Analysts also sometimes divide infant mortality into two periods: babies who die during the first month of life (neonatal period) and those who die sometime after the first month, but before they reach their first birthday (postnatal period). Figure 3-5 shows that breakdown in infant mortality among Alaska Native and other American infants during the period 1998-2000.

The rate of deaths for Alaska Native babies during their first month was actually lower than the national rate—4.2 per 1,000 babies compared with 4.7. That neonatal death rate among Natives was half what it had been in 1980, and it represents the clearest payoff for the significant effort the Native health care system has made to reduce infant mortality. Pre-maternal homes provide shelter close to hospitals for women from villages who are awaiting delivery. Prenatal care and education have also emphasized the need for a healthy lifestyle during pregnancy.

The postnatal mortality rate for Alaska Native infants also declined in recent years, dropping from 11.8 per 1,000 babies in 1980 to 5.3 during the 1998-2000 period. Still, this rate was twice as high as the 2.4 per 1,000 rate among all American babies during that time. So the Alaska Native Medical Care Center in Anchorage and other parts of the Native health care system are now focusing on ways to better support families with new babies when they return home.

Figure 3-4. Infant Mortality Rates, Alaska Natives and All Americans, 1945-2000
(Deaths per 1,000 Births)

<table>
<thead>
<tr>
<th>Year</th>
<th>Alaska Natives</th>
<th>All Americans</th>
</tr>
</thead>
<tbody>
<tr>
<td>1945</td>
<td>123.7</td>
<td>38.3</td>
</tr>
<tr>
<td>1950</td>
<td>97.6</td>
<td>29.2</td>
</tr>
<tr>
<td>1955</td>
<td>79.4</td>
<td>26.4</td>
</tr>
<tr>
<td>1960</td>
<td>87.0</td>
<td>25.7</td>
</tr>
<tr>
<td>1965</td>
<td>65.4</td>
<td>24.7</td>
</tr>
<tr>
<td>1970</td>
<td>26.7</td>
<td>20.0</td>
</tr>
<tr>
<td>1975</td>
<td>23.9</td>
<td>16.1</td>
</tr>
<tr>
<td>1980</td>
<td>21.4</td>
<td>12.6</td>
</tr>
<tr>
<td>1985</td>
<td>16.0</td>
<td>10.6</td>
</tr>
<tr>
<td>1990</td>
<td>15.1</td>
<td>9.2</td>
</tr>
<tr>
<td>1995</td>
<td>9.6</td>
<td>7.6</td>
</tr>
<tr>
<td>2000</td>
<td>9.5</td>
<td>7.0</td>
</tr>
</tbody>
</table>

Sources: Alaska Native Health Services, Alaska Area Profile, August 2002; Alaska Native Health Board, Progress Toward Healthy Alaskans 2010 Goals, July 2003

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Teen Pregnancy Rates Drop
Teen-age girls across the U.S. are less likely to have babies now than they were 10 years ago. As Figure 3-6 shows, birth rates among Alaska Native girls (15 to 19) dropped from a high of 123 births per 1,000 in 1982 to 108 in 1990 and to 85 by 1999. That decline is good news, because teen-age mothers face a sea of troubles. Many don’t get support from the fathers of their babies, according to national studies, and often they don’t finish high school. Teen-age mothers and their children are much more likely to be poor than families with two parents. But despite the improvement, birth rates among Native teenagers remain over twice those of white teenagers.

Figure 3-6. Birth Rates, Alaska Native and White Teenage Girls in Alaska, 1980-1999
(Births per 1,000 Girls 15-19)

Source: Alaska Bureau of Vital Statistics
Overall Death Rates and Rates of Accidental Death Decline

The overall death rate for Alaska Natives—deaths from all causes—declined about 20 percent between the 1980s and the late 1990s (Table 3-1). We don’t know whether that decline has continued since then, because no recent figures on overall death rates by race are yet available.

That’s because of the problem we explained at the beginning of this chapter, stemming from the change in the 2000 census that allowed respondents to specify more than one primary race. State agencies have not yet fully determined how to calculate rates by race, when many people, including Alaska Natives and others, reported being of more than one race. Also, when new death rates by race are available, they will (as we also discussed at the beginning of the chapter) be adjusted by a new “standard population.” So the new rates won’t be directly comparable with the old rates. As time goes on, however, we will be able to see whether the trend is still down.

Table 3-1. Death Rates From All Causes Combined, Alaska Natives and White Americans (Age-Adjusted Deaths per 100,000)

<table>
<thead>
<tr>
<th></th>
<th>1979-83</th>
<th>1994-98</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Natives</td>
<td>944.8</td>
<td>757.9</td>
<td>-20 percent</td>
</tr>
<tr>
<td>White Americans*</td>
<td>544.8</td>
<td>466.8</td>
<td>-14 percent</td>
</tr>
</tbody>
</table>

* Nationwide from 1981 and 1996.


Still, despite the decline in the Native death rate, Natives are still far more likely than other Alaskans to die at all ages (Figure 3-7). The biggest differences are among young people—especially Natives 25 to 34, who die at nearly four times the rate of white Alaskans their age.

Figure 3-7. Death Rates, by Age, All Causes, Alaska Natives and White Alaskans, 1999 (Deaths per 100,000, In Each Age Group)

Source: Alaska Bureau of Vital Statistics
A large part of the explanation for the higher death rates among young adult Natives is that many violent deaths are among young people—and violent death rates in the Native community are higher than among other Alaskans and other Americans. The top half of Figure 3-8 shows trends in violent death rates (accidents, suicides, homicides) in the 1980s and 1990s, and the bottom half shows figures for 1999-2001. The most recent figures are not directly comparable to the earlier figures because they are adjusted with a different standard population (as we talked about at the beginning of the chapter).

* Adjusted with 1940 U.S. standard population.

** Adjusted with 2000 U.S. standard population.

Rates of accidental death among Alaska Natives dropped about 40 percent from the early 1980s to the late 1990s. Some of the major causes of accidental death in rural Alaska are motor vehicle crashes, drownings, accidental poisonings, and boat and airplane accidents. Accidental poisoning can be from a wide range of causes, including unintentional drug and alcohol overdoses; huffing—inhalation of fumes from gasoline or other noxious substances; and accidental exposure to pesticides or other chemicals.

Health officials credit much of the drop in accidental deaths to injury prevention programs for adults and children. For example, the Alaska Native Tribal Health Consortium sponsors a program that has focused on reducing the number of deaths by drowning and motor-vehicle-related injuries by encouraging drivers and passengers to use life vests in boats, seat belts in cars, and helmets on snow machines and three-wheelers. Data from the U.S. Centers for Disease Control show that such efforts have helped: between 1990 and 1998, the rate of drowning among all Alaskans (Alaska Natives and others) dropped 40 percent; deaths related to motor vehicles dropped 20 percent; and injury rates dropped 27 percent.

Still, despite this good news, rates of accidental death among Alaska Natives remain more than twice those among other Alaskans.

Recent trends in suicides and homicides are less clear. That’s because the rates are (mercifully) based on much smaller numbers of deaths than the accident rates are. A relatively small increase or decrease in the number of deaths by suicide or homicide in any given year can cause a substantial change in the rates.

So while homicide and suicides rates among Natives appear lower in the late 1990s than in the early 1980s, we can’t say for certain that such declines will hold. We know, from numbers published by the Alaska Native Tribal Health Consortium for the 1980s and 1990s (as shown in Table 3-2), that the rates fluctuate. Still, ANTHC’s numbers show that rates of suicide and homicide at least did not worsen in recent times.

But even though they didn’t increase, suicide and homicide rates among Alaska Natives remain in the range of three to four times higher than among the U.S. white population.

Table 3-2 provides a more comprehensive look at the changing rates of death from various causes among Alaska Natives and other Americans from the early 1980s to the late 1990s. Again, keep in mind that these rates are not directly comparable with the most recent rates, shown later in Figure 3-22, because the new rates are age-adjusted with a new standard population. Still, the trends and comparisons shown in Table 3-2 give us an accurate picture of changes over the past 20 years.
### Table 3-2. Leading Causes of Deaths, Alaska Natives and Whites Nationwide (Age-Adjusted Rates per 100,000)

#### Rates among Alaska Natives

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>153.3</td>
<td>172.3</td>
<td>155.6</td>
<td>171.0</td>
<td>12%</td>
</tr>
<tr>
<td>Cerebrovascular Diseases</td>
<td>32.4</td>
<td>39.5</td>
<td>34.6</td>
<td>38.0</td>
<td>17%</td>
</tr>
<tr>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>25.1</td>
<td>18.4</td>
<td>23.0</td>
<td>16.7</td>
<td>NS</td>
</tr>
<tr>
<td>Chronic Obstructive Pulmonary Diseases</td>
<td>12.8</td>
<td>25.8</td>
<td>31.2</td>
<td>37.2</td>
<td>191%</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>3.4</td>
<td>6.9</td>
<td>12.7</td>
<td>12.3</td>
<td>262%</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>152.6</td>
<td>168.3</td>
<td>147.2</td>
<td>140.0</td>
<td>NS</td>
</tr>
<tr>
<td>Homicide and Legal Intervention</td>
<td>37.0</td>
<td>25.6</td>
<td>21.0</td>
<td>15.2</td>
<td>-60%</td>
</tr>
<tr>
<td>Pneumonia and Influenza</td>
<td>29.2</td>
<td>32.1</td>
<td>29.3</td>
<td>18.9</td>
<td>-35%</td>
</tr>
<tr>
<td>Suicide</td>
<td>43.4</td>
<td>53.4</td>
<td>52.9</td>
<td>47.0</td>
<td>NS</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>188.2</td>
<td>168.2</td>
<td>131.7</td>
<td>107.1</td>
<td>-43%</td>
</tr>
<tr>
<td><strong>Total, All Cases</strong></td>
<td><strong>944.8</strong></td>
<td><strong>890.4</strong></td>
<td><strong>804.7</strong></td>
<td><strong>757.9</strong></td>
<td><strong>-20%</strong></td>
</tr>
</tbody>
</table>

#### Rates among White Americans, Nationwide

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cancer</td>
<td>128.6</td>
<td>131.0</td>
<td>131.3</td>
<td>125.2</td>
<td>-3%</td>
</tr>
<tr>
<td>Cerebrovascular Diseases</td>
<td>35.7</td>
<td>28.9</td>
<td>24.7</td>
<td>24.5</td>
<td>-31%</td>
</tr>
<tr>
<td>Chronic Liver Disease and Cirrhosis</td>
<td>10.5</td>
<td>8.6</td>
<td>7.8</td>
<td>7.3</td>
<td>30%</td>
</tr>
<tr>
<td>Chronic Obstructive Pulmonary Diseases</td>
<td>16.8</td>
<td>19.3</td>
<td>20.6</td>
<td>21.5</td>
<td>28%</td>
</tr>
<tr>
<td>Diabetes Mellitus</td>
<td>8.9</td>
<td>8.6</td>
<td>10.5</td>
<td>12.0</td>
<td>35%</td>
</tr>
<tr>
<td>Heart Disease</td>
<td>191.4</td>
<td>171.0</td>
<td>143.1</td>
<td>129.8</td>
<td>-32%</td>
</tr>
<tr>
<td>Homicide and Legal Intervention</td>
<td>6.6</td>
<td>5.7</td>
<td>6.2</td>
<td>4.9</td>
<td>-26%</td>
</tr>
<tr>
<td>Pneumonia and Influenza</td>
<td>11.6</td>
<td>13.0</td>
<td>12.8</td>
<td>12.2</td>
<td>5%</td>
</tr>
<tr>
<td>Suicide</td>
<td>12.3</td>
<td>12.8</td>
<td>12.1</td>
<td>11.6</td>
<td>-6%</td>
</tr>
<tr>
<td>Unintentional Injuries</td>
<td>39.3</td>
<td>34.6</td>
<td>30.3</td>
<td>29.9</td>
<td>-24%</td>
</tr>
<tr>
<td><strong>Total, All Cases</strong></td>
<td><strong>544.8</strong></td>
<td><strong>520.1</strong></td>
<td><strong>486.8</strong></td>
<td><strong>466.8</strong></td>
<td><strong>-14%</strong></td>
</tr>
</tbody>
</table>

NS = not significant; +- Chi Square Test for Trend significant at p<0.05


### Smoking Drops But Still Widespread Among Native Teenagers

Smoking among Alaska Native teenagers declined from about 62 percent in 1995 to 45 percent by 1993—a decline of nearly a third (Figure 3-9). But that rate was nearly four times the rate of 12 percent among other Alaska high-school students in 2003. So although rates are down, smoking among Native teenagers is still staggeringly high. Also, the 2003 Youth Risk Behavior Survey shows that a third of Native high-school boys, and nearly 20 percent of Native girls, also use smokeless tobacco. Among other Alaska high-school students, around 11 percent of boys but very few girls use smokeless tobacco.

Using tobacco can cause lung cancer, emphysema, and heart disease, among other things. National research shows that not only is nicotine addictive, but that addiction occurs in most
smokers during adolescence. Public health campaigns and increased sales taxes on tobacco have likely helped reduce smoking among Alaska’s teenagers.

**Figure 3-9. Share of Alaska High-School Students Who Smoke, 1995 and 2003**

<table>
<thead>
<tr>
<th></th>
<th>1995</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>AK Native</td>
<td>61.9%</td>
<td>44.2%</td>
</tr>
<tr>
<td>Non-Native</td>
<td>32.4%</td>
<td>12.3%</td>
</tr>
</tbody>
</table>

*Source: Alaska Youth Risk Behavior Survey, 1995 and 2003*

**Community Control of Alcohol Grows**

Analysts say that the most difficult social problems in the Native community—from high rates of suicide to domestic violence and child abuse—can be traced in large part to alcohol. We’ll document the levels of some of those problems in the next section of this chapter.

But here we talk about one important step Alaska Native villages are taking to fight alcohol. Residents of more than 100 Native communities—including over 60 percent of the smallest rural communities and a few of the larger ones—have voted for some form of alcohol control in their communities. It was only in the 1980s that the Alaska Legislature passed “local option” laws giving communities the authority to control alcohol by holding special elections and getting the approval of a majority of voters.

Communities have approved different levels of local control over alcohol. Some ban just sales, some ban sales and imports, and some also ban possession.

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Figure 3-10 shows the status of alcohol control in small rural communities as of 2001. ISER research in the late 1990s estimated that communities with alcohol controls may have prevented as many as 20 percent of violent deaths that would otherwise have occurred. Other research has demonstrated that banning or limiting alcohol has reduced the prevalence of binge drinking and reduced injuries—particularly vehicle injury, homicide, and hypothermia.

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**Figure 3-10. Alcohol Control in Small Rural Communities, 2001**

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8 Matthew Berman, *Alcohol Control Policy and Native American Communities*, April 1999. A version of this paper was published by the National Institute on Alcohol Abuse and Alcoholism, Research Monogram 37, 2002.

Continuing Challenges

Alcohol Abuse Remains Widespread
Alcohol abuse plagues Alaska Native communities. Alcohol has been linked to high rates of Fetal Alcohol Spectrum Disorder, child abuse, domestic violence, sexual assault, violent death, and incarceration. Below we look at each of those problems.

Rates of Fetal Alcohol Spectrum Disorder High and Climbing
During the last half of the 1990s, 5 of every 1,000 Alaska Native babies were diagnosed with Fetal Alcohol Spectrum Disorder (FASD). That’s the new term health workers are using to describe the range of conditions—including mental retardation, growth deficiencies, behavior disorders, and more—that children can develop when they’re exposed to alcohol in the womb.

And many more babies—most of them Native—born in Alaska every year are in some way affected by prenatal exposure to alcohol. The state government agency that diagnoses and helps children with FASD reports that about 125 children born in Alaska annually are affected in some way because their mothers drank during pregnancy; only a small share of those are specifically diagnosed with FASD.10

Figure 3-11 shows that rates of FASD among Alaska Natives were higher in the 1990s than in previous periods and many times the rate among non-Natives. In fact, Alaska has the highest rate of FASD in the country, and 89 percent of the Alaska victims are Alaska Natives. Research shows that the woman most likely to have a child with FASD is an Alaska Native woman over age 30, who not only drinks during pregnancy but also smokes.11

Children with FASD place large financial and behavioral burdens on families and communities. They need much more than other children, and those needs boost costs for special care services and adoption, as well as for infant learning programs, health care, educational services, and more.12 The lifetime costs of care for one person diagnosed with FASD have been estimated at $1.4 million dollars.13

In Alaska, state agencies report that about 65 percent of children with FASD are either in state custody or living in foster care. Only 23 percent of affected children are living at home with one or both biological parents.

FASD is completely preventable—it happens only when pregnant women drink. It is only within roughly the past decade or so that more health professionals themselves realized that pregnant women who drink any alcohol—even small quantities—can damage their babies. Not long ago, doctors often told women that a beer or a glass of wine wouldn’t hurt and could help relax them.

Native and state organizations now have major efforts underway to prevent and diagnose FASD and to help those affected by it. In 1998, Alaska established the Office of Fetal Alcohol Syndrome in the Department of Health and Social Services, to develop an FASD prevention program and to improve services for those affected by prenatal exposure to alcohol. Another effort—the FAS Surveillance Project—has teams of physicians and social workers statewide,

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13 Alaska Department of Health and Social Services, Economic Cost of Alcohol and Other Drug Abuse, Phase Two, McDowell Group, for Alaska Advisory Board on Alcohol and Drug Abuse, November 13, 2001, page 34.
evaluating and diagnosing children with FASD. These teams have increased reporting to the Alaska Birth Defects Registry and are providing comprehensive services to families affected by FASD. The state has also used television, radio, and newspaper ads to educate Alaskans about the dangers of drinking during pregnancy.

Part of the increase in FASD rates in the 1990s may be due to the fact that doctors were becoming more aware of the problem and therefore more likely to diagnose it. Health officials also anticipate that the current effort to improve diagnostic services will result in increased reporting and, therefore, in increased rates of FASD in the coming years as well.

**Figure 3-11. Fetal Alcohol Spectrum Disorder Rates Among Alaska Natives and Non-Natives, 1977-1999**
*(Cases per 1,000 Births)*

<table>
<thead>
<tr>
<th>Year</th>
<th>Alaska Native</th>
<th>Non-Native</th>
</tr>
</thead>
<tbody>
<tr>
<td>1977-80</td>
<td>1.4</td>
<td>0.1</td>
</tr>
<tr>
<td>1981-84</td>
<td>3.8</td>
<td>0.1</td>
</tr>
<tr>
<td>1985-88</td>
<td>4.1</td>
<td>0.2</td>
</tr>
<tr>
<td>1989-92</td>
<td>2.5</td>
<td>0.3</td>
</tr>
<tr>
<td>1995-99</td>
<td>5</td>
<td>0.2</td>
</tr>
</tbody>
</table>

*Source: Alaska Department of Health and Social Services*
Many Children are Abused or Neglected

Another problem that can be laid largely at the door of alcohol is child abuse and neglect. Analysts estimate that 80 percent of all substantiated child abuse cases in Alaska are related to alcohol or drug abuse. Figure 3-12 shows that abuse and neglect of children in Alaska aren’t confined to any one type of family. Almost half the substantiated cases of abuse are in two-parent families. Next are families headed by single mothers, which account for 35 percent of abuse cases, followed by 10 percent among households with a mother and a stepfather, and nearly 3 percent among single fathers.

Figure 3-12. Child Abuse in Alaska, by Type of Family, Among All Alaska Families (November 2003)

<table>
<thead>
<tr>
<th>Type of Family</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two-Parent Family</td>
<td>44.6%</td>
</tr>
<tr>
<td>Single Mother</td>
<td>35.3%</td>
</tr>
<tr>
<td>Mother/Stepfather</td>
<td>10.0%</td>
</tr>
<tr>
<td>Single Father</td>
<td>2.7%</td>
</tr>
<tr>
<td>All Others</td>
<td>7.4%</td>
</tr>
</tbody>
</table>

Total: 552 Families

Source: Alaska Department of Health and Social Services, Office of Children’s Services

Figure 3-13 shows that Alaska Native children are far more likely than any other children in Alaska to be abused or neglected. During the period from 1997-2001, Alaska Native children suffered more than half the substantiated child abuse in Alaska, but made up only about 25 percent of children under 18.

The figure also shows that three-in-four cases of child abuse among Alaska Native children are cases of neglect rather than physical abuse. Although White and Black children are less likely overall to be abused, more of those cases involve abuse rather than neglect.
Figure 3-13. Victims of Child Abuse and Neglect in Alaska, by Race (1997-2001)

Total Substantiated Cases, 1997-2001: 3,229

Note: Based on unduplicated, substantiated cases of abuse and neglect among children under 18.

Source: Alaska Department of Health and Social Services, Division of Family and Youth Services
Domestic Violence and Sexual Assault are Widespread

Domestic violence and sexual assault are also closely linked to alcohol abuse, with alcohol a factor in an estimated 85 percent of reported cases of domestic violence and 80 percent of sexual assault. Native people—almost entirely women—are frequent victims of both crimes.

Figure 3-14 shows that from 2000-2003, 36 percent of the victims of domestic violence were Alaska Native, compared with a Native share of less than 20 percent of the adult population. (Experts also say that the 19,000 cases of domestic violence reported during that period fall far short of the actual incidence of domestic violence, since many cases are not reported.)

Figure 3-14. Victims of Domestic Violence in Alaska, by Race
(Total Reports, 2000-2003: 19,028)

<table>
<thead>
<tr>
<th>Race</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Native</td>
<td>6,830</td>
</tr>
<tr>
<td>White</td>
<td>8,704</td>
</tr>
<tr>
<td>Other*</td>
<td>3,494</td>
</tr>
</tbody>
</table>

*Includes other races and cases where race of victim was unknown.
Source: Council on Domestic Violence and Sexual Assault

Figure 3-15 shows the number of sexual assault cases reported in Alaska from 2000 to 2003, and the pattern is the same: Alaska Native women made up 44 percent of the victims of sexual assault, despite representing less than 20 percent of the general population. Again, experts say the reported number of cases is less than the actual number of sexual assaults, since some cases go unreported.

The University of Alaska Anchorage’s Justice Center recently reported that, in Anchorage during the years 2000 and 2001, Alaska Natives were 7.6 times more likely than others to be victims of sexual assault. Additional statewide data from the Council for Domestic Violence and Sexual Assault show that same pattern: even though the total number of reported sexual assaults declined between 2000 and 2003, the proportion of Alaska Natives who were sexually assaulted increased.

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14 André Rosay and Robert Langworthy, Descriptive Analysis of Sexual Assaults in Anchorage, Alaska, Alaska Justice Statistical Analysis Center, Justice Center, University of Alaska Anchorage, October 2003.
Figure 3-15. Adult Victims of Sexual Assault in Alaska, by Race
(Total Reports, 2000-2003: 2,668)

<table>
<thead>
<tr>
<th>Race</th>
<th>Number of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alaska Native</td>
<td>1,173</td>
</tr>
<tr>
<td>White</td>
<td>966</td>
</tr>
<tr>
<td>Other*</td>
<td>529</td>
</tr>
</tbody>
</table>

*Includes victims of other races and those of unknown race.

Source: Council for Domestic Violence and Sexual Assault

Suicide Rates Stubbornly High

As we reported earlier, suicide rates among Alaska Natives did not increase in the past decade—and there is some indication they may be down somewhat—but they remain extremely high. Alaska Natives commit suicide at three to four times the rate among white Americans nationwide. Suicide was the fifth leading cause of death among Alaska Natives during the period from 1999 to 2001.

Studies have shown that three quarters of the Alaska Natives who commit suicide are unmarried men between the ages of 15 and 24, and that alcohol is involved in two-thirds of those deaths. Young Alaska Native women also commit suicide at three to four times the rates of other young women in Alaska. Another grim statistic is shown below: Alaska Native pre-teens and teenagers are several times more likely than other Alaska teenagers to attempt suicide.

Rates of Attempted Suicide Among Alaska’s Children and Teenagers

- Native boys, age 10-14: 6 times that of non-Native boys
- Native girls, age 10-14: 3 times that of non-Native girls
- Native boys, age 15-19: 5.6 times that of non-Native boys
- Native girls, age 15-19: 4 times that of non-Native girls

Firearms are used in 67 percent of suicides and 65 percent of homicides in Alaska, and Native men have the highest rate of deaths from firearms.\(^{16}\)

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\(^{16}\) Ibid.
One-Third of Alaskans in Prison are Alaska Native

Authorities believe that alcohol also plays a big role in the high rates of imprisonment among Alaska Natives. A recent Alaska Judicial Council report on criminal justice describes the extent of the effect of alcohol abuse on village life. “In rural and Bush Alaskan communities, the amount of violence and crime appears directly proportional to the amount of alcohol consumed by the residents.”\(^{17}\)

Between 1993 and 2002, the number of Alaska Natives in state prisons increased 50 percent, while numbers of non-Native prisoners increased about half that much (Figure 3-16). On average, Alaska Natives made up about 36 percent of the inmates in Alaska prisons in the 1990s—nearly twice their share of the total population, which is around 19 percent.

In 2002, 1,338 Alaska Natives were in Alaska prisons. (Another 220 Alaska Natives were in prison in Arizona, where a total of 652 Alaska inmates were incarcerated.) As Figure 3-17 shows, nearly half the Native prisoners were young adults between the ages of 20 and 34. And they were overwhelmingly men—in December 2002, 94 percent of Native prisoners were men. Of the total 1,328 Native prisoners, just 84 were women.

The bottom half of Figure 3-17 shows why Natives and non-Natives were in prison. Of the 84 Alaska Native women in prison in 2002, 36 percent had committed crimes against people, 17 percent crimes against property, and 15 percent had violated alcohol laws. Crimes against people were also the most common offense among non-Native women, but non-Native women were more likely than Native women to have committed crimes against property or violated drug laws.

Among Native men, the most common crimes were against persons, but a close second—nearly one-third of crimes—were sex offenses. Native men are twice as likely as non-Natives to be in prison for sex offenses.

Figure 3-16. Numbers and Percentages of Alaskans in Prison, 1993-2002

Numbers of Inmates, Alaska Natives and Non-Natives

<table>
<thead>
<tr>
<th>Year</th>
<th>Alaska Native</th>
<th>Non-Native</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>887</td>
<td>1,816</td>
</tr>
<tr>
<td>1994</td>
<td>966</td>
<td>1,875</td>
</tr>
<tr>
<td>1995</td>
<td>1,010</td>
<td>2,078</td>
</tr>
<tr>
<td>1996</td>
<td>1,056</td>
<td>2,170</td>
</tr>
<tr>
<td>1997</td>
<td>1,227</td>
<td>2,312</td>
</tr>
<tr>
<td>1998</td>
<td>1,232</td>
<td>2,256</td>
</tr>
<tr>
<td>1999</td>
<td>1,244</td>
<td>2,184</td>
</tr>
<tr>
<td>2000</td>
<td>1,312</td>
<td>2,271</td>
</tr>
<tr>
<td>2001</td>
<td>1,360</td>
<td>2,378</td>
</tr>
<tr>
<td>2002</td>
<td>1,338</td>
<td>2,287</td>
</tr>
</tbody>
</table>

Share of Population and of Inmates, Alaska Natives and Non-Natives

Source: Alaska Department of Corrections
Figure 3-17. How Many Alaskans are in Prison and Why? (December 2002)

What Ages? (Alaska Natives only)

![Pie chart showing age distribution of Alaskan Natives in prison]

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Number</th>
<th>Percent of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-34</td>
<td>84</td>
<td>33%</td>
</tr>
<tr>
<td>35-49</td>
<td>173</td>
<td>67%</td>
</tr>
<tr>
<td>All Other Ages</td>
<td>1,244</td>
<td>37%</td>
</tr>
<tr>
<td>Total</td>
<td>2,090</td>
<td>100%</td>
</tr>
</tbody>
</table>

Why? (Most Common Offenses)

### Women

- Crimes Against Persons: 36% (AK Native: 31%, Non-Native: 19%)
- Crimes Against Property: 17% (AK Native: 19%, Non-Native: 14%)
- Violations of Alcohol Laws: 15% (AK Native: 12%, Non-Native: 12%)
- Violations of Drug Laws: 11% (AK Native: 16%, Non-Native: 4%)

### Men

- Crimes Against Persons: 34% (AK Native: 40%, Non-Native: 35%)
- Sex Offenses: 31% (AK Native: 31%, Non-Native: 16%)
- Crimes Against Property: 12% (AK Native: 15%, Non-Native: 12%)
- Violations of Alcohol Laws: 8% (AK Native: 7%, Non-Native: 8%)

Source: Alaska Department of Corrections
Admissions to Treatment Centers

Figure 3-18 offers a sort of bad news/good news message. The number of Alaska Natives going into treatment for alcohol or drug addiction increased over the past decade—but that increase probably shows, at least in part, that more people with alcohol or drug problems are willing to go into treatment. Over 90 percent of the Alaska Native admissions during that period were for alcohol treatment.

Recent information indicates, however, that alcohol treatment and support resources in Alaska may not be enough for the demand. According to a 2002 report, Alaskans Waiting in Line for Substance Abuse, women wait an average of 46 days for placement in a treatment program and men wait an average of 40 days. For people who are ready and willing to enter treatment, these are long waiting times. And an earlier report said that three out of four women on waiting lists for treatment had children. Again, experts say alcohol is a factor in most child abuse.

Figure 3-18. Number of Alaska Natives Admitted to Substance Abuse Treatment Facilities, 1992-1999

<table>
<thead>
<tr>
<th>Year</th>
<th>No. of Admissions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>2,768</td>
</tr>
<tr>
<td>1993</td>
<td>3,774</td>
</tr>
<tr>
<td>1994</td>
<td>3,735</td>
</tr>
<tr>
<td>1995</td>
<td>3,661</td>
</tr>
<tr>
<td>1996</td>
<td>4,333</td>
</tr>
<tr>
<td>1997</td>
<td>4,126</td>
</tr>
<tr>
<td>1998</td>
<td>3,983</td>
</tr>
<tr>
<td>1999</td>
<td>3,163</td>
</tr>
</tbody>
</table>

Share of Admissions for Alcohol Abuse: 90%

Sources: Substance Abuse and Mental Health Services Administration; Drug and Alcohol Services Information System; Office of Applied Studies

Other Health Problems

Alcohol and Drug Use Among High-School Students

Table 3-3 shows drug and alcohol use among high-school students in Alaska in both 1995 and 2003. These are results of the Youth Risk Behavior Survey, part of a national effort sponsored by the federal Centers for Disease Control and Prevention and carried out in Alaska by the state departments of Health and Social Services and Education and Early Development. High-school students from a sample of school districts statewide answer questions about several kinds of behavior that might risk their health.

Drinking alcohol, smoking marijuana, and sniffing inhalants are the most common kinds of substance abuse among teenagers, whether they’re Native or non-Native. The only significant difference in reports from Native and non-Native students is that Native students are more likely to smoke marijuana—and the share who reported smoking in the 30 days before the survey increased from 29 percent in 1995 to 36 percent in 2003. During the same period, marijuana use among non-Native students dropped from 29 percent to 21 percent.

The encouraging news in the table is that the share of high school students who report binge drinking and sniffing inhalants—like fumes from gasoline or glue—dropped significantly between 1995 and 2003.

About 27 percent of both Native and non-Native students reported binge drinking—having five or more drinks in a short time—at least once during the 30 days before the 2003 survey, down from 31 percent in 1995. The share of teenagers binge drinking is still worrisome, but Alaska students are now somewhat less likely than students nationwide to report binge drinking.

The decline in reported use of inhalants among Alaska high-school students was even larger. In 1995, 19 percent of Native students and 23 percent of non-Native students reported that they had used inhalants at some time. By 2003, that share had dropped to 10 percent among both Native and non-Native high-school students. One in 10 students sniffing substances that can cause brain damage, organ failure, and death is still unacceptably high. But the rate is at least moving in the right direction.

<table>
<thead>
<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Current marijuana use a</td>
<td>29%</td>
<td>29%</td>
<td>36%</td>
<td>21%</td>
<td>24%</td>
</tr>
<tr>
<td>Ever used inhalants</td>
<td>19%</td>
<td>23%</td>
<td>10%</td>
<td>10%</td>
<td>15%</td>
</tr>
<tr>
<td>Binge drinking b</td>
<td>31%</td>
<td>31%</td>
<td>27%</td>
<td>27%</td>
<td>30%</td>
</tr>
</tbody>
</table>

a Used at least once in past 30 days
b Had five or more drinks within a few hours, at least once in past 30 days

Inhalant abuse has been receiving more publicity in Alaska in recent years, and rural residents and health officials report that use of inhalants is a long-standing and widespread problem in villages. The figures we just reported are for high-school students; many rural residents are worried about inhalant abuse among pre-teens. One official with a Native health corporation has called inhalant abuse the state’s “silent killer.” A state health official and a rural drug-abuse counselor have suggested that the difficulty of getting illegal drugs in some remote places could help explain the prevalence of inhalant abuse.

In 1999, the state Division of Alcoholism and Drug Abuse reported that there had been at least nine deaths in Alaska from inhalants during the 1990s, but at the same time acknowledged that there may have been additional deaths that were not attributed to inhalants.

Frank Murkowski, Alaska’s current governor and former U.S. senator, has brought increasing attention to the problem in recent years, focusing in particular on use by pre-teens. He has quoted “informal surveys” finding that one quarter of children ages 12 to 18 in villages have tried inhalants.

Efforts are underway to combat the problem. In 1999, the federal government funded Alaska’s first treatment center for inhalant abuse; the McCann Treatment Center is in Bethel. In 2002, Alaska agreed to participate in a national effort to reduce inhalant abuse and educate parents about the problem; that effort is led by the Alliance for Consumer Education.

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**High Rates of Smoking**

Alaska Native adults are much more likely than non-Natives to smoke, as Figure 3-19 shows. From 1991 through 2002 the percentage of Native adults who smoke hovered between 40 and 45 percent, compared with about 25 percent among non-Native adults.

That widespread use of cigarettes is showing up in increased rates of death from lung and other cancer, pulmonary diseases like emphysema, and heart disease.

The Alaska Native Health Board has developed programs to combat the use of tobacco, including the “Support Center for Tobacco Programs,” to help individuals, tribes, and regional health organizations develop quit-smoking programs, as well as to find ways of eliminating exposure to second-hand smoke.

**More Obesity**

Like other Alaskans—and Americans in general—many Alaska Natives eat too much for the amount of exercise they do. But the problem is even more widespread among Native people. Figure 3-20 shows that the percentage of Native adults considered “obese” climbed from about 18 percent to 30 percent in just the decade of the 1990s. Among non-Natives, rates of obesity climbed from around 12 percent of adults to over 20 percent in the 1990s.

Health experts lay the blame for increasing obesity among Alaska Natives largely on the modern American diet of sugary soft drinks, processed foods, and high-fat snack foods. In the past decade, tribal health corporations have tried to battle obesity through, among other things, community education programs about healthy food choices.
Climbing Rates of Diabetes

Poor diet, inactivity, and obesity put adults at much higher risk for diabetes. And in the last decade, doctors and other health care workers have become increasingly worried about the fast spread of diabetes among Alaska Natives. Diabetes can cause kidney failure, blindness, and circulatory problems that lead to amputations. It also makes victims much more susceptible to heart disease and stroke.  

Increases in the prevalence of diabetes among Alaska Natives—based on statistics from the Indian Health Service’s clinical programs—are shown in Figure 3-21.  

“Westernization” of the diet has been blamed for much of the diabetes among Alaska Natives. Overall, rates of diabetes among Alaska Natives jumped 100 percent between 1985 and 1999—from 15.7 to 31.4 cases per 1,000 people. They went from a rate considerably below the national average in 1985 to a rate above the national average within 15 years.

One diabetes expert with the Alaska Native Tribal Health Consortium refers to the disease as “the footprint of Native contact with western influence.” She points out that the Aleut population has had the longest contact with westerners and also has the highest prevalence rate—53.9 cases per 1,000 population, up from 27.2 in 1985. The Eskimo people were the last Native people to be in contact with westerners, and in 1985 they had a rate of only 8.8 cases per 1,000 people. But by 1999 that rate had jumped to 21.3.  

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26 Cindy Schraer, director, Diabetes Program, Alaska Native Tribal Health Consortium.
Finally, we end this chapter with a look at the most recent figures on death rates among Alaskans from cancer and heart disease—which are now the two leading causes of death among Alaskans of all races—and at the death rate from accidents, which is also among the top five causes of death among all Alaskans. Twenty-five years ago, at the start of the 1980s, accidents were the leading cause of death among Alaska Natives. Natives at that time were less likely than Whites nationwide to die of heart disease, but more likely to die of cancer.27

As Figure 3-22 shows, times have changed. During the period 1999-2001, cancer was the leading cause of death among Alaska Natives, and it killed Natives more frequently than any other Alaskans. But based on figures from the 1980 and early 1990s, that gap may be narrowing, possibly as a result of better access to health care and earlier diagnosis among Alaska Natives.

On the other hand, by 2000 heart disease killed Alaska Natives at about the same rate as White Alaskans, although less frequently than Black Alaskans. Asian Alaskans had the lowest rate of deaths from heart disease. Growing rates of heart disease among Natives are related to high levels of smoking and to the growing incidence of diabetes and obesity discussed earlier.

27“Age-Adjusted Mortality Rates for Leading Causes of Death Among Alaska Natives and U.S. Whites,” a table in Alaska Native Mortality, 1989-1998, Alaska Native Tribal Health Consortium, August 2002. The table shows that in the period 1979-83, Alaska Natives died from cancer at a rate of 153.3 per 100,000, compared with 128.6 per 100,000 among whites nationwide. At the same time, heart disease killed Alaska Natives at a rate of 152.6 per 100,000, compared with a national rate of 191.4. Recall that these figures are age-adjusted with the 1940 U.S. standard population; they show trends but are not directly comparable with the figures in Figure 3-22.
Accidents are the third leading cause of death among Alaska Natives in the most recent figures. Death rates from accidents have declined, as we reported earlier, but they remain more than twice as high as among other Alaskans.

![Figure 3-22. Death Rates From Cancer, Heart Disease, and Accidents Among Alaskans, 1999-2001](image)

<table>
<thead>
<tr>
<th></th>
<th>AK. Native</th>
<th>White</th>
<th>Black</th>
<th>Asian/Pacific Isl.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cancer</strong></td>
<td>239.5</td>
<td>193.5</td>
<td>166.7</td>
<td>123.5</td>
</tr>
<tr>
<td><strong>Heart Disease</strong></td>
<td>218.6</td>
<td>209.9</td>
<td>270.3</td>
<td>116.1</td>
</tr>
<tr>
<td><strong>Accidents</strong></td>
<td>119.5</td>
<td>51</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Based on U.S. 2000 standard population.

** Numbers of accidental deaths among Black and Asian Alaskans during this period were small, making rates statistically questionable.

*Source: Alaska Bureau of Vital Statistics*