



# How Increased Funding Can Advance the Mission of the Indian Health Service to Improve Health Outcomes for American Indians and Alaska Natives

## KEY POINTS

- There are long standing and persistent health and health care disparities among American Indians and Alaska Natives (AI/ANs), which are a result of centuries of structural discrimination, forced relocation, reduced economic opportunities, and chronic underfunding of health care for this population.
- AI/ANs have lower life expectancy; a greater likelihood of dying from COVID-19, diabetes, and unintentional injuries; and are more likely to be uninsured than the rest of the U.S. population.
- Funding for the Indian Health Service (IHS) addresses only an estimated 48.6% of the health care needs for AI/ANs and has historically been subject to year-by-year discretionary allocations from Congress, which creates substantial long-term uncertainty in funding levels and makes it challenging to maintain and modernize needed health care infrastructure.
- The Fiscal Year (FY) 2023 President's Budget, informed by tribal consultations, proposes an historic increase in the IHS budget that would fully address this gap in funding.
- Tribes are in favor of IHS receiving a significantly higher federal appropriation in order to make progress on unmet needs.
- Enhanced funding could help address staffing shortages to improve access to care; strengthen disease prevention programs to reduce the burden of chronic conditions; increase access to trauma-informed mental health, substance use disorder treatment, and specialty care services not available at Indian health sites; modernize health care infrastructure; and address other key priorities identified through tribal consultation.
- Additional funding is a long overdue investment in the health of AI/ANs. It would allow IHS, Tribal, and Urban Indian health programs to make progress towards addressing unmet needs and improving health outcomes to advance health equity.

## INTRODUCTION

This paper discusses disparities in health and health care experienced by American Indian and Alaska Native (AI/AN)\* populations, the role of the federal government in financing and providing health care services to these populations, and how enhanced funding could help further the Indian Health Service’s mission in ensuring that tribal communities have access to high quality healthcare services.

## HEALTH AND HEALTH CARE DISPARITIES AMONG AMERICAN INDIANS AND ALASKA NATIVES

Disparities do not have one simple cause, and studies have found potential sources of health care disparities include barriers to accessing medical care and treatment.<sup>1</sup> AI/ANs have long experienced worse health status when compared with other Americans due to multiple factors, such as discrimination, poverty, and lack of educational opportunities. Issues related to economic and social conditions in tribal communities are rooted in historical mistreatment of Native people in the U.S., such as forced relocation from tribal homelands to isolated areas, lack of funding for health care services and infrastructure, and limited access to economic opportunities and other resources that affect social mobility.

Life expectancy for AI/AN people is shorter than life expectancy for other subpopulations in the U.S. (see Table 1).<sup>2</sup> AI/AN populations are disproportionately affected by certain health conditions and have worse health outcomes compared to the overall U.S. population. These conditions and health outcomes include high rates of infant mortality, alcohol and substance use disorder, mental illness, suicide, diabetes, obesity, smoking and tobacco use, and HIV/AIDS. For example, in 2020, infant mortality rates (infant deaths per 1,000 provisional live births) were 60 percent higher for AI/AN than for the U.S. population overall (8.93 vs. 5.43).<sup>3</sup> Similarly, the percentage of new HIV cases was higher among AI/AN people (10.5 percent) than among White people (5.3 percent) in 2019.<sup>4</sup> In terms of self-reported health, the National Health Interview Survey shows that the age-adjusted percentage of AI/AN adults in fair or poor health was higher than for the overall U.S. population (20.6 percent vs. 12.1 percent).<sup>5</sup>

**Table 1. Life Expectancy, by race and ethnicity (2019)**

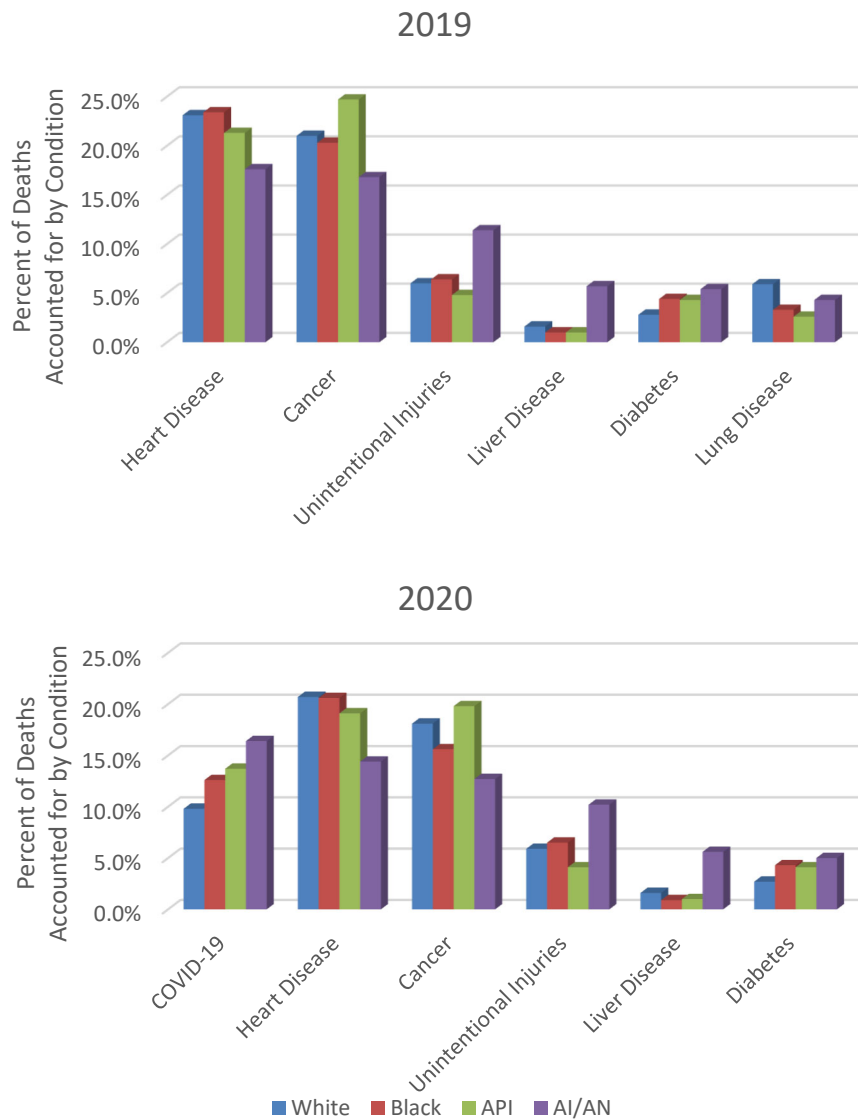
	Years
Asian non-Latino	85.6
Latino	81.9
White non-Latino	78.8
Black non-Latino	74.8
AI/AN non-Latino	71.8

Source: National Center for Health Statistics. <https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-19.pdf>

Figure 1 displays the the top six leading causes of death for AI/ANs in 2019 and 2020 by race and shows that COVID-19, unintentional injuries, liver disease, and diabetes accounted for larger percentages of deaths among AI/ANs compared to other races.

\* This report uses the term “AI/AN” generally, except where data sources specify “non-Hispanic AI/AN” (this report uses the term “Latino” to refer to individuals of Hispanic and Latino origin).

**Figure 1. Leading Causes of Death among AI/ANs in Comparison to Other Race Categories, 2019 and 2020**



**Note:** AI/AN is American Indian/Alaska Native; API is Asian/Pacific Islander. Causes of death presented are the top six leading causes of death among AI/ANs.

**Source:** ASPE analysis of WISQARS data for 2019 and 2020. <https://wisqars.cdc.gov/fatal-leading>

Years of potential life lost (YPLL) is a concept that estimates the average time an individual would have lived if that individual had not died prematurely. The YPLL measure is used to quantify social and economic loss from premature death, and to emphasize specific causes of death affecting younger age groups. YPLL incorporates age at death, and its calculation mathematically weights the total deaths by applying values to death at each age. Centers for Disease Control and Prevention (CDC) data show that, among AI/ANs, the top contributing factors for years of potential life lost in 2020 included unintentional injuries, COVID-19, liver disease, suicide, heart disease, and cancer.<sup>6</sup> Table 2 lists the top contributing factors for YPLL among AI/ANs and displays the YPLL rates for those causes of death among other race categories, for comparison. Unintentional injury accounts for a greater percentage of YPLL in Table 2 compared to the percentage of all deaths in Figure 1 because a greater proportion of fatal unintentional injuries occur among younger individuals. The YPLL for AI/ANs is approximately 1.3 times ( $6,285/4,971=1.26$ ) the YPLL across all races.

**Table 2. Years of Potential Life Lost (per 100,000 population by age 65) by Race, 2020**

Top contributing factors for years of potential life lost (YPLL)								
	Unintentional injuries	Liver Disease	COVID-19	Suicide	Heart disease	Cancer	Perinatal complications	All Causes
AI/AN	1,586	635	593	496	438	340	114	6,285
Asian/ Pacific Islander	325	41	164	193	219	357	142	2,115
Black	1,502	86	444	246	957	632	508	7,831
White	1,314	163	214	382	448	526	212	4,649
All Races	1,271	150	248	349	503	526	257	4,971

**Note:** AI/AN is American Indian/Alaska Native. Data are unadjusted for racial misclassification. AI/AN persons who identify as AI/AN when living are often classified as a different race at the time of death.

**Source:** WISQARS Years of Potential Life Lost (YPLL) Report, 1981-2020. <https://wisqars.cdc.gov/ypll>

COVID-19 was the leading cause of death among AI/ANs in 2020, and available data indicate the age-adjusted COVID-19 mortality rate among AI/AN persons was 1.8 times that among White persons.<sup>7</sup> Other evidence of mortality disparities from IHS data show the AI/AN age-adjusted death rate is 33 percent higher than the overall U.S. death rate (all races), and show the following disparities in causes of death compared to the overall U.S. population:<sup>8</sup>

- Alcohol-related: 570 percent greater among AI/ANs
- Diabetes mellitus: 207 percent greater
- Unintentional injuries: 133 percent greater
- Homicide: 100 percent greater
- Suicide: 64 percent greater
- Firearm injury: 29 percent greater
- Pneumonia and Influenza: 50 percent greater
- Diseases of the heart: 11 percent greater
- Cerebrovascular disease: 10 percent greater

## HISTORICAL CONTEXT OF THE FEDERAL GOVERNMENT’S ROLE IN AI/AN HEALTHCARE

The relationship between the federal government and AI/AN Tribes as sovereign entities is rooted in Article 1, Section 8, of the U.S. Constitution, and the responsibility of the U.S. government to provide health care for AI/AN people has been further shaped by treaties, Supreme Court decisions, executive orders, and enacted legislation including the Snyder Act of 1921, which defines the federal government’s responsibility for American Indian health care and authorizes appropriations for “the relief of distress and conservation of health” among AI/ANs throughout the United States. The Transfer Act of 1955 authorized transfer of operations and maintenance of hospital and health facilities for AI/ANs to the Public Health Service from the Department of the Interior. The Indian Health Care Improvement Act (IHCA) of 1976 and subsequent reauthorizations authorized a wide range of Indian health programs and provided for direct billing of Medicare, Medicaid, and other third-party payers, and the IHCA was permanently reauthorized as part of the Affordable Care Act (ACA) enacted in 2010.<sup>9</sup>

The IHS, an agency within the Department of Health and Human Services, is responsible for providing federal health services to AI/ANs throughout the United States. IHS works closely with tribal partners to coordinate a comprehensive system of care for AI/AN people through a network of over 600 hospitals, clinics, and health stations on or near Indian reservations. The network of IHS, Tribal, and Urban Indian health programs is often referred to as the “I/T/U” system. IHS federal “direct service” programs are operated by the federal

government. Tribally-operated programs are administered by Tribes and Tribal organizations. Urban Indian health programs are operated by Urban Indian Organizations (UIOs). IHS funds programs that serve over 2.7 million AI/ANs who are members of 574 federally recognized tribes located in 37 states.

## OVERVIEW OF THE INDIAN HEALTH CARE SYSTEM

The IHS is not health insurance; similar to other federally operated health care systems like the military health system or the Veterans Health Administration, IHS provides direct health care services to defined populations. It includes three categories of Indian health care providers: IHS federal “direct service,” Tribally-operated, and Urban Indian health programs. AI/ANs are not required to pay out-of-pocket to receive care from “I/T/Us,” an abbreviation referring to the network of IHS, Tribal, and Urban Indian health programs. However, if AI/ANs have health insurance coverage, I/T/Us are able to bill third party payers such as private insurance, Medicare, and Medicaid (among other payers) for reimbursement, which helps cover the cost of delivering services. When Medicaid-covered services are provided by IHS/Tribal health programs to AI/ANs enrolled in Medicaid, the federal medical assistance percentage for those Medicaid expenditures is 100%. This means the federal government reimburses 100% of the expenditures states claim related to such services, and states are not required to contribute to the reimbursement for such services, as is typically the case for other populations covered by Medicaid.<sup>10</sup>

The IHS is headquartered in Rockville, Maryland, and has 12 regional offices that oversee Indian health care programs located in each of 12 regions, called IHS Areas: Alaska, Albuquerque, Bemidji, Billings, California, Great Plains, Nashville, Navajo, Oklahoma City, Phoenix, Portland, and Tucson. IHS Area Offices provide oversight of local service units.<sup>11</sup> Currently, there are 170 service units, and over 60 percent of the IHS appropriation is administered by Tribes, primarily through self-determination contracts or self-governance compacts under authority of the Indian Self Determination and Education Assistance Act (P.L. 93-638).<sup>12</sup> In addition to IHS direct service and Tribally-operated facilities, there are 41 UIOs funded by IHS through grants and contracts under the Indian Health Care Improvement Act (P.L. 94-437) to provide health care services for AI/ANs in urban areas across the country. Approximately 70 percent of AI/ANs live in urban areas, 25 percent of whom reside in counties served by UIOs funded in part by IHS.<sup>13</sup>

As shown in Table 3, the Indian health system includes different types of facilities including health centers, hospitals, health stations, school health centers, regional treatment centers, and Alaska Village Clinics. Figure 2 shows the locations of these facilities.

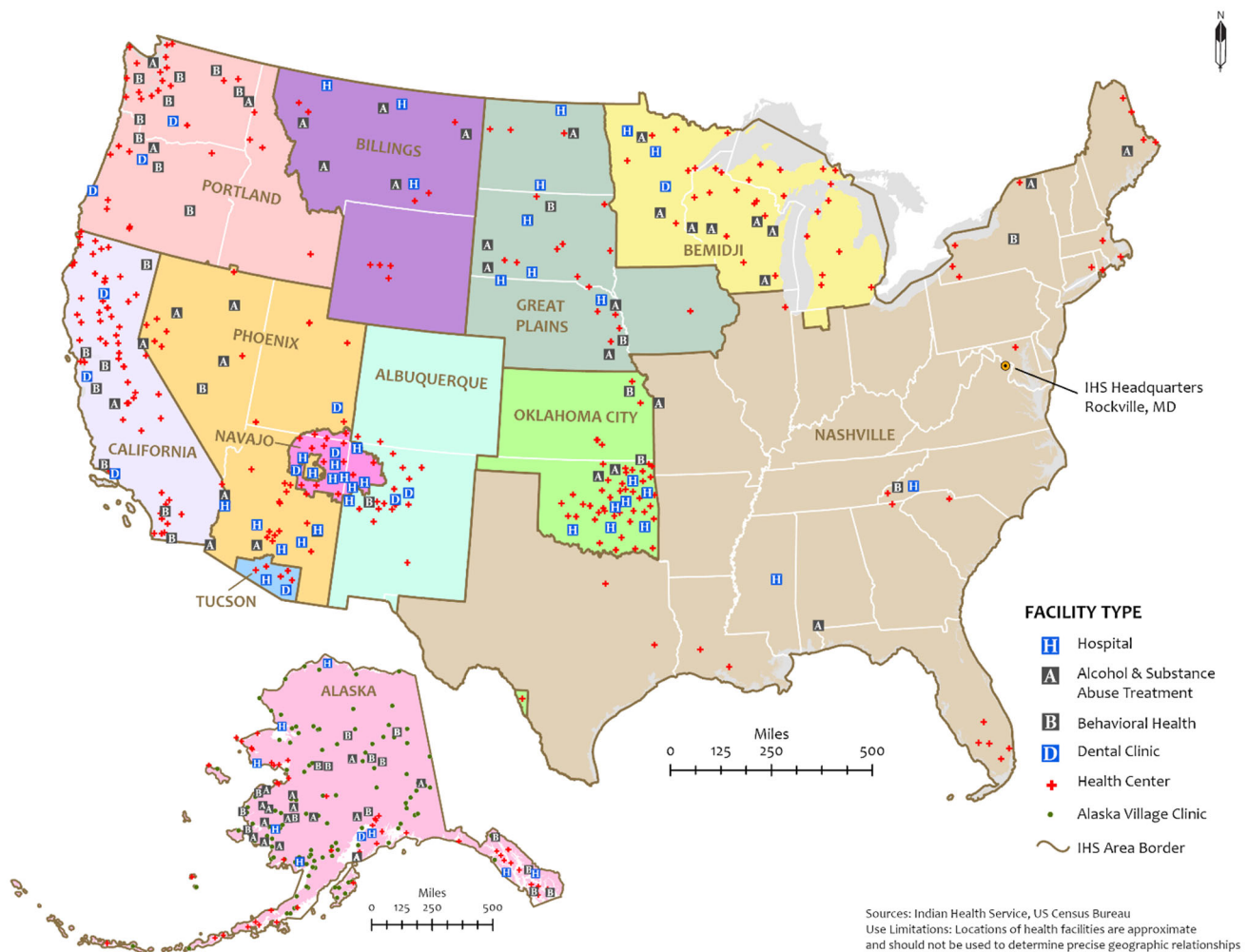
**Table 3. IHS Facilities (as of December 15, 2021)**

Type of Facility	Health Centers	Hospitals	Health Stations	Alaska Village Clinics	School Health Centers	Youth Regional Treatment Centers
IHS-federal	51	24	25	N/A	12	6
Tribal	319	22	79	146	8	6

**Note:** This table does not include UIOs. Programs operated by UIOs funded by IHS include outreach and referral, dental services, primary care services, community health, outpatient and inpatient substance use disorder services, behavioral health services, health promotion and disease prevention, and other health-related services.

**Source:** Indian Health Service

Figure 2. Map of IHS Facilities



**Note:** Different colors on the map represent the twelve IHS Areas (regions): Alaska, Albuquerque, Bemidji, Billings, California, Great Plains, Nashville, Navajo, Oklahoma City, Phoenix, Portland, and Tucson.

**Source:** Indian Health Service

Specific services vary by site, including inpatient services, ambulatory care, outreach and referral, residential and outpatient substance abuse treatment programs, health promotion and disease prevention services, immunizations, and mental health care. When certain services such as specialty care are not available from local direct care facilities and an individual does not have another source of health care coverage for a medically necessary service, IHS patients may be eligible to obtain care from non-IHS providers through the IHS Purchased/Referred Care (PRC) program, depending on available program funding.<sup>14</sup> IHS provides health care services and funds public health infrastructure through sanitation facilities construction in Tribal communities that lack adequate water and sewer systems. In addition, IHS funding supports health facility construction and health information technology.

## CHARACTERISTICS AND HEALTH CARE UTILIZATION OF THE IHS-ELIGIBLE SERVICE POPULATION

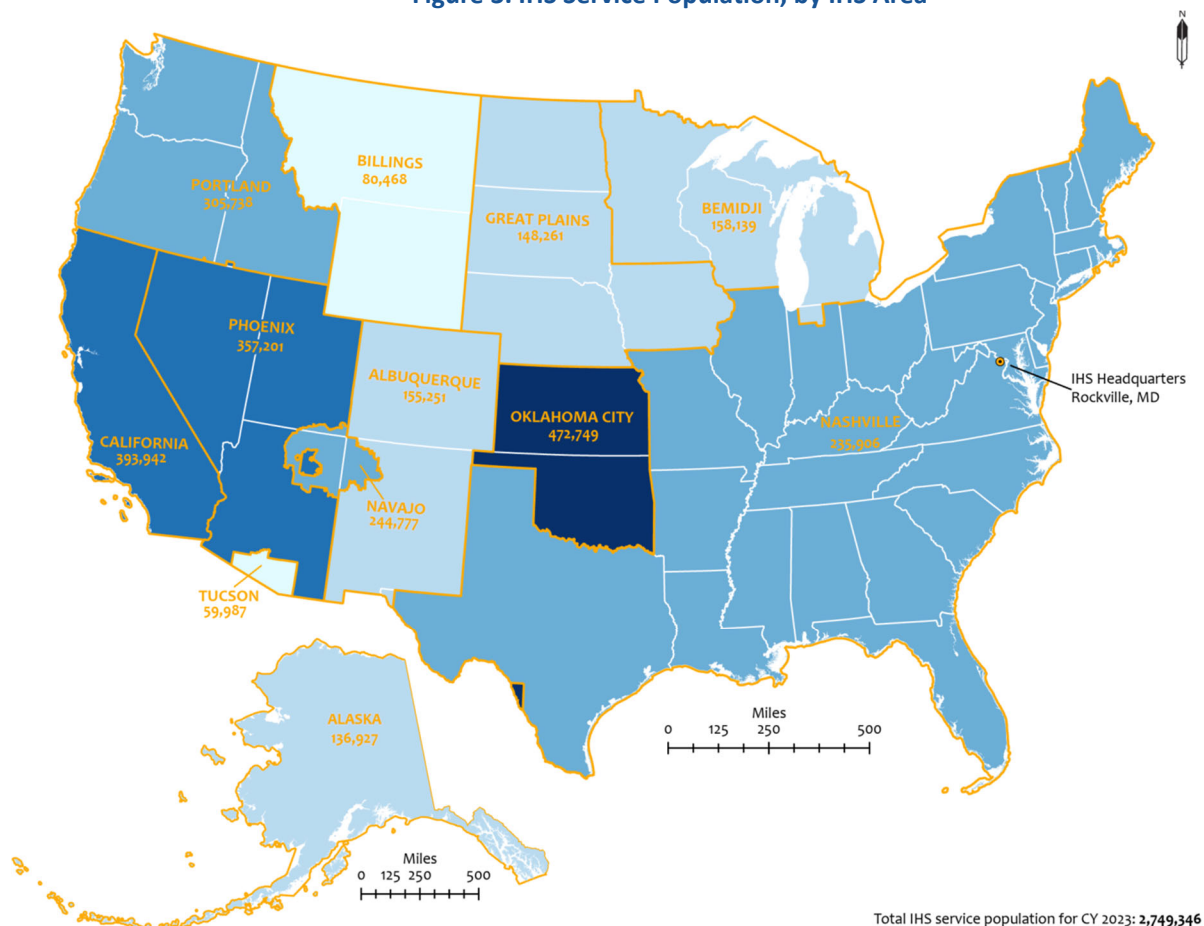
**Service population size and user population demographics.** The IHS-eligible service population is estimated to be 2.7 million people, calculated based on the number of self-identified AI/AN people in U.S. Census Bureau data; however, not all eligible individuals use IHS services. The eligible population is estimated by counting AI/ANs who reside in geographic areas in which IHS has responsibilities (i.e., on or near reservations in Purchased/Referred Care Delivery Areas<sup>†</sup>). Registered AI/AN patients with at least one direct or contract inpatient stay, ambulatory care visit, or dental visit during the prior three years at an IHS federal or Tribal facility are defined as “IHS users.” The IHS user population totaled 1.7 million people in 2021 (approximately 64 percent of the IHS-eligible service population). In fiscal year (FY) 2021, there were approximately 625,055 individuals who received services from federally-operated IHS facilities and 1,027,583 from tribally-operated facilities. In Calendar Year 2020, UIOs served 79,502 AI/ANs in urban centers. IHS data indicate the number of IHS users with Medicaid coverage increased from 677,811 in 2016 to 724,359 in 2019.<sup>15</sup> Other data sources estimate more than 1 million AI/ANs are enrolled in Medicaid/Children’s Health Insurance Program (CHIP) and 138,000 AI/ANs have Medicare coverage.<sup>16,17</sup> IHS encourages individuals to enroll in health coverage if eligible, because third-party reimbursements supplement Congressionally-appropriated funds that IHS receives.

Figure 3 shows the service populations for each IHS Area. The IHS Areas with the smallest service populations are Tucson and Billings, and the Areas with the largest service populations are the California and Oklahoma City Areas. The Tucson and Nashville Areas have the smallest IHS user populations, and the Areas with the largest IHS user populations are the Navajo and Oklahoma City Areas. Fifty-two percent of the total IHS user population is female, and 19.1 percent of the total IHS user population is over age 54.<sup>18</sup> The Census Bureau projects the AI/AN population (alone or in combination with other race groups) will increase from 7 million to 10 million between 2020 and 2060.<sup>19</sup> The U.S. Census Bureau’s count of AI/ANs is based on information about self-reported, self-identified race categories, which is not the same as registered tribal membership/tribal affiliation. User population growth is a factor in estimating the need for new and replacement health care facilities because many IHS facilities report they are currently operating at or beyond capacity.<sup>20</sup> The IHS Health Systems Planning Process considers historical information, demographics, and population statistics to determine the appropriate facility size and space needed to provide care for a specific population.<sup>21</sup>

---

<sup>†</sup> Purchased/Referred Care Delivery Area: a county that includes all or part of an Indian reservation, any county that has a common boundary with the reservation, and the states of Alaska, Nevada, and Oklahoma. (42 CFR §136.22)

**Figure 3. IHS Service Population, by IHS Area**



**Note:** Different colors on the map represent the twelve IHS Areas.

**Source:** Indian Health Service

**Health care utilization.** Overall, IHS provides over 37,000 inpatient admissions and more than 13.1 million outpatient visits each year.<sup>22</sup> Leading causes of hospitalization among IHS users are pregnancy, childbirth, and the puerperium (12.9 percent of total IHS and Tribal hospital discharges in FY 2017); respiratory diseases (10.7 percent); digestive system diseases (10.6 percent); and circulatory system diseases (7.5 percent). The leading causes of ambulatory medical visits among IHS users include diseases of the musculoskeletal system and connective tissue; mental, behavioral, and neurodevelopmental disorders; endocrine, nutritional, metabolic diseases and immunity disorders; and symptoms, signs, and ill-defined conditions. The rate of IHS hospital admissions per 10,000 users was 240.2 in FY 2017 (based on data reported by IHS and Tribal health programs).<sup>‡</sup>

**Health status and quality of care.** Chronic health problems can lead to conditions that require more costly health care. The IHS funds a variety of programs providing preventive services, including clinical services to improve community health and wellness through immunizations, case management, health screenings, patient education and counseling. IHS facilities have implemented a patient centered medical home model to enhance quality of care and improve health outcomes among IHS patients.<sup>23</sup> Additional investment in disease prevention programs can help improve health outcomes in tribal populations. One example of this is the Special Diabetes Program for Indians (SDPI), which has helped slow the growth in prevalence of diabetes in

<sup>‡</sup> IHS users are defined as those with a health care contact within IHS in the prior 3 years. The provided rate is not for the broader IHS-eligible service population.



tribal communities and reduce AI/AN diabetes-related mortality between 1997 and 2017.<sup>24</sup> Diabetes is one of several risk factors that can contribute to kidney disease and kidney failure/end-stage renal disease (ESRD),<sup>25</sup> and diabetes prevention can help reduce complications associated with kidney disease. Despite the success of this program, AI/AN populations remain more likely to die from diabetes than other population groups.<sup>26</sup>

In addition to medical care, IHS provides vital services to address mental health and behavioral health needs in Indian Country, including suicide prevention, substance use disorder treatment, and programs that integrate behavioral health policies and procedures in primary care and emergency room settings. The IHS Telebehavioral Health Center of Excellence provides behavioral health services via televideo, including adult counseling, child counseling, family counseling, trauma/Post Traumatic Stress Disorder (PTSD) counseling, child psychiatry, adult psychiatry, and addiction psychiatry. Additional funding can help IHS improve access to both in-person and virtual screening for depression, anxiety, trauma and reduce wait times to see a mental health counselor or psychiatrist.

Historical trauma or intergenerational trauma resulting from past mistreatment of Native people has been cited as a contributing factor to disparities in AI/AN health status compared to other population groups.<sup>27</sup> IHS has an established policy on providing trauma-informed care and offers training for clinical and non-clinical staff to increase understanding about the impacts of trauma on physical and behavioral health.

Among AI/ANs more broadly, findings in the National Healthcare Quality and Disparities Report (NHQDR) indicate that from 2000 through 2019, of the 116 quality measures with data for AI/ANs, 53 measures (46 percent) were improving, 55 measures (47 percent) were not changing, and 8 measures (7 percent) were getting worse. Measures reported in the NHQDR highlight several dimensions of quality including person-centered care, care coordination, effectiveness of care, and patient safety. Available data for these measures suggest that overall, while some aspects of health and health care quality for AI/ANs have been improving over time, more improvement is needed. For example, from 2001 to 2018, the incidence of end-stage renal disease (ESRD) due to diabetes decreased among AI/AN people from 526 per million to 273.1 per million population. However, this remains far higher than among Whites (152.2 per million).<sup>§</sup>

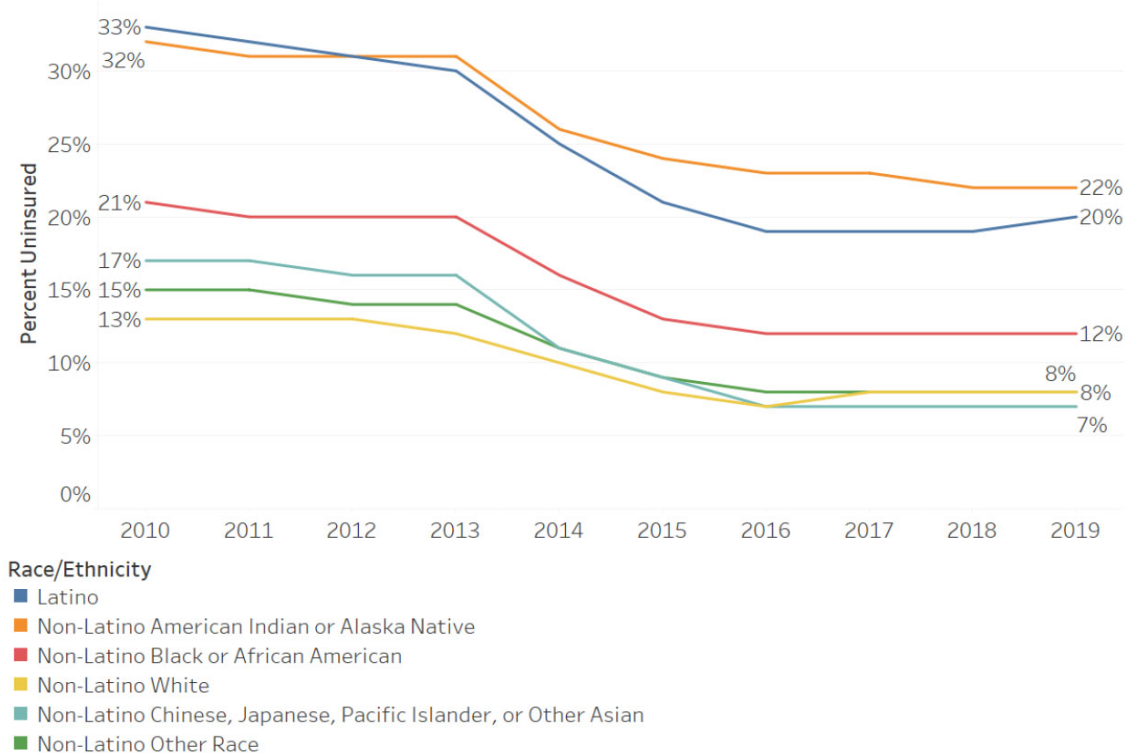
**Health care access.** One contributing factor to health outcomes is access to health care. AI/AN people often have worse access to care than other racial and ethnic populations.<sup>28</sup> Barriers to care due to long travel distances is common in tribal communities. Increasing funding for the Purchased/Referred Care (PRC) program can facilitate access by enabling IHS to refer patients to private health care providers for inpatient and outpatient services including specialty care not available at an IHS or Tribal health facility. PRC program funding increases allow IHS and Tribally-managed PRC programs to approve referrals in priority categories other than Medical Priority I (“life or limb” Emergent or Acutely Urgent Care Services); in FY 2020, 93 percent of IHS-operated PRC programs were able to purchase services beyond Medical Priority II (Preventive Care Services), such as Medical Priority Level III (Primary and Secondary Care Services) inpatient and outpatient care. However, IHS data show IHS-operated PRC programs denied and deferred an estimated \$1.1 billion for approximately 265,785 services for eligible AI/ANs in FY 2020.<sup>29</sup> As a result of denied or deferred PRC services, an individual patient may incur the cost of obtaining care from a non-IHS provider, or the individual may delay obtaining needed care. IHS reports the number PRC denials and deferrals as a measure of unmet need; however, it is not a complete measure of unmet need because Tribally-managed programs, which serve approximately 39 percent of IHS-eligible AI/ANs, are not required to report their PRC denials data.

---

<sup>§</sup> White individuals are the reference population for comparisons among the racial population groups in the National Healthcare Quality and Disparities Report.

**Health coverage.** AI/ANs also have high uninsured rates compared to other populations in the U.S. Although the uninsured rate among AI/ANs\*\* under age 65 decreased after the passage of the Affordable Care Act (ACA), from 32 percent in 2010 to 22 percent in 2019, U.S. Census Bureau data indicate the non-Latino AI/AN population continues to have the highest uninsured rate compared to other populations (see Figure 4).<sup>30</sup> In 2019, 15.2 percent of all AI/AN individuals (all ages) were uninsured, 51.9 percent had private health insurance coverage, and 42.1 percent of AI/ANs had Medicaid/CHIP, Medicare, or other public health coverage, according to the American Community Survey.<sup>††</sup> For comparison, among non-Latino White individuals, 6.3 percent were uninsured, 74.7 percent had private health insurance coverage, and 34.3 percent had Medicaid/CHIP, Medicare, or other public health coverage (see Figure 5).<sup>31</sup> Individuals who receive their care through the IHS but do not have any health insurance are considered uninsured by federal government surveys.

**Figure 4. Uninsured Rate among the Nonelderly U.S. Population, by Race and Ethnicity, 2010-2019**



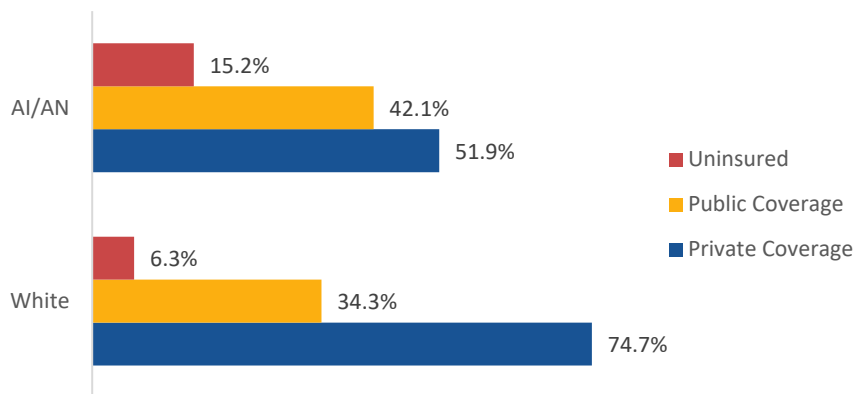
**Note:** The Non-Latino American Indian or Alaska Native trendline does not capture the entire AI/AN population, some of whom are of Latino descent.

**Source:** Analysis of American Community Survey Public Use Microdata Sample, 2010-2019, in: <https://aspe.hhs.gov/reports/health-insurance-coverage-access-care-among-latinos>

\*\* The Census data separate out AI/ANs by self-reported Latino heritage, and the statistics here refer to non-Latino AI/ANs. Some AI/ANs with mixed ancestry may acknowledge this heritage by listing themselves as Latino while others with mixed ancestry may choose not to list themselves as Latino.

†† Estimates sum to more than 100 percent because survey participants were able to report more than one form of health coverage.

**Figure 5. Health Coverage among American Indian/Alaska Native (AI/AN) and White Populations (All Ages), 2019**



**Source:** 2019 American Community Survey 1-Year Estimates Selected Population Profiles

**Note:** AI/AN and White estimates both refer to non-Latino individuals. Estimates sum to more than 100 percent because survey participants were able to report more than one form of health coverage. Private coverage includes employment-based, direct purchase, and TRICARE. Public coverage includes Medicare, Medicaid/CHIP, and Veterans Affairs coverage.

**Health insurance payments to IHS.** Table 4 shows FY 2021 IHS collections from third party reimbursements, by source of payment. These data are for IHS federal facilities and do not incorporate information for Tribally-operated facilities. Medicaid is the largest source of third party reimbursements for services billed by IHS federal facilities, accounting for nearly two-thirds of insurance payments. This is consistent with research showing Medicaid expansion under the ACA has brought needed resources into IHS and tribal areas.<sup>32</sup>

**Table 4. IHS collections from third party reimbursements, by source of payment, FY 2021**

Payer Source	Percent of IHS Collections
Medicaid	66.6
Medicare	19.2
Private Insurance	13.6
Veterans Affairs	0.6

**Notes:** Veterans Affairs denotes payments for IHS-VA dual-eligible beneficiaries. IHS does not have reimbursement data for Tribally-operated facilities.

**Source:** Indian Health Service

**COVID-19.** AI/ANs have had disproportionately higher rates of COVID-19 infection, hospitalization, and mortality compared to non-Latino Whites.<sup>33,34,35</sup> According to analyses of age-adjusted hospitalization surveillance data for the period between March 1, 2020, and January 8, 2022, AI/ANs were hospitalized with COVID-19 at a rate 3.2 times that of non-Latino White persons. This compares to a rate of 5.2 times that of non-Latino White persons during the period between March 1, 2020 and August 1, 2020, which suggests that racial disparities in COVID-19 hospitalizations have declined over time.<sup>36</sup> Underlying health and health care inequities, or differences in health status and distribution of health resources between different population groups, can put racial and ethnic minority populations at increased risk of infection, having more severe illness, and dying from COVID-19.<sup>37</sup> As of July 17, 2022, there were approximately 494,000 COVID-19 cases reported to IHS out of 4.5 million COVID-19 tests performed (cumulative 11.5 percent positivity rate); reporting by tribal and urban facilities is voluntary.<sup>38</sup> The IHS COVID-19 Pandemic Vaccination Plan provides guidance for I/T/Us to equitably distribute and administer COVID-19 vaccines to protect AI/ANs from COVID-19 infection and severe outcomes.

---

## The AI/AN population has the highest percentage of vaccination by race and ethnicity for individuals receiving at least one dose (73.0%), and second highest percentage of fully vaccinated individuals (60.9%).

**Source:** Centers for Disease Control and Prevention.

As of July 15, 2022, over 3 million doses of COVID-19 vaccine were distributed to 356 I/T/Us that selected vaccine distribution through the IHS. As of July 15, 2022, the 356 sites have administered over 2.2 million doses of COVID-19 vaccines.<sup>39</sup> Additional doses have been distributed and administered in Indian Country through state immunization programs. Available data reported to the CDC suggest that the non-Latino AI/AN population has the highest rate of full vaccination among racial and ethnic groups in the U.S. The AI/AN population has the highest percentage of vaccination by race and ethnicity for individuals receiving at least one dose (73.0%), and second highest percentage of fully vaccinated individuals (60.9%).<sup>40</sup>

IHS continues to coordinate across the Indian health care system and with state and local public health officials to respond to the COVID-19 pandemic. During the COVID-19 public health emergency, IHS has been able to ensure service delivery with the help of \$9 billion in supplemental appropriations that provided targeted federal relief funding to address COVID-19 in Indian Country.<sup>41</sup> IHS received COVID-19 Relief funding through the Coronavirus Preparedness and Response Supplemental Appropriations Act, 2020; the Families First Coronavirus Response Act; the Coronavirus Aid, Relief, and Economic Security Act or the CARES Act; the Paycheck Protection Program and Health Care Enhancement Act; the Coronavirus Response and Relief Supplemental Appropriations Act, 2021; and the American Rescue Plan Act of 2021, of which a combined amount of \$3.2 billion was for IHS federal facilities, \$4.6 billion was for Tribal facilities, and \$480 million was for Urban Indian health programs.<sup>42</sup> This relief funding supported a variety of activities including general COVID-19 response, disease surveillance, testing-related activities, vaccine-related costs, PRC, medical equipment, mental health treatment, and health care facilities maintenance and improvements. Despite unprecedented demand for medical supplies, IHS was able to use available flexibilities to expedite acquisition of needed products including additional personal protective equipment and lab supplies.<sup>43</sup> IHS has also used its COVID-19 relief funds to expand the use of telehealth and complete sanitation and clean water projects in tribal communities. COVID-19 contributed to longstanding staffing shortages at IHS facilities, and vacancies for clinicians who provide specialty care related to COVID-19 (acute stage symptoms and potential persistent COVID-19 symptoms) are especially difficult to fill.

**Staffing.** IHS employs more than 15,000 people, over half of whom are AI/ANs.<sup>44</sup> IHS has ongoing difficulties retaining and recruiting staff at IHS facilities, especially in remote locations. Vacancy rates are highest for nurses, physicians, and dentists. Vacancy rates for various healthcare staff by IHS area are shown in Table 5.

**Table 5. IHS Health Care Professions Vacancy Rates, By IHS Area, FY 2021**

IHS Area	Medical Officers Vacancy Rate	Physician Assistant Vacancy Rate	Pharmacist Vacancy Rate	Nurse Vacancy Rate	Advanced Practice Nurse Vacancy Rate	Dentist Vacancy Rate
Alaska	Data not available					
Albuquerque	16%	0%	17%	28%	36%	16%
Bemidji	60%	0%	23%	19%	38%	37%
Billings	51%	44%	16%	51%	48%	17%
California	50%	0%	0%	60%	0%	0%
Great Plains	38%	18%	17%	33%	28%	22%
Headquarters	38%	0%	0%	7%	0%	0%
Nashville	18%	100%	14%	38%	50%	20%
Navajo	12%	12%	10%	21%	9%	15%
Oklahoma City	14%	0%	11%	14%	7%	6%
Phoenix	31%	19%	15%	31%	31%	23%
Portland	50%	0%	0%	50%	0%	100%
Tucson	24%	17%	23%	36%	25%	30%
<b>IHS Overall</b>	<b>26%</b>	<b>20%</b>	<b>15%</b>	<b>29%</b>	<b>25%</b>	<b>19%</b>

**Source:** Indian Health Service

**Note:** The table does not include data for Alaska Area because all facilities in the Area are tribal sites that do not voluntarily report information about vacancy rates to IHS.

To encourage health professionals to practice in IHS facilities and to support workforce development, IHS funds scholarship, externship,<sup>††</sup> and loan repayment programs and uses the National Health Service Corps to recruit medical professionals to work at IHS facilities. The IHS Scholarship Program offers awards in disciplines including clinical psychology, dentistry, medical technology, nurse practitioner, optometry, podiatry, osteopathic and allopathic physicians, and social work. In FY 2021, the IHS Scholarship Program funded 255 scholarship awards out of 488 total applicants, and the IHS Loan Repayment Program supported 1,620 awardees out of 1,658 total applicants. However, the amount of funding available for the IHS health professions programs is insufficient for making awards to all eligible applicants; an additional \$11 million would be needed to fund all award applicants. In addition to these healthcare workforce development programs, if IHS were provided with statutory flexibilities that would allow IHS to offer higher compensation and benefits and relocation incentives, this could help IHS recruit and retain permanent employees and reduce its reliance on costly contractor staff, which in FY 2021 cost IHS \$46 million.

## OVERVIEW OF IHS BUDGET AND POTENTIAL IMPACT OF FUNDING ENHANCEMENTS

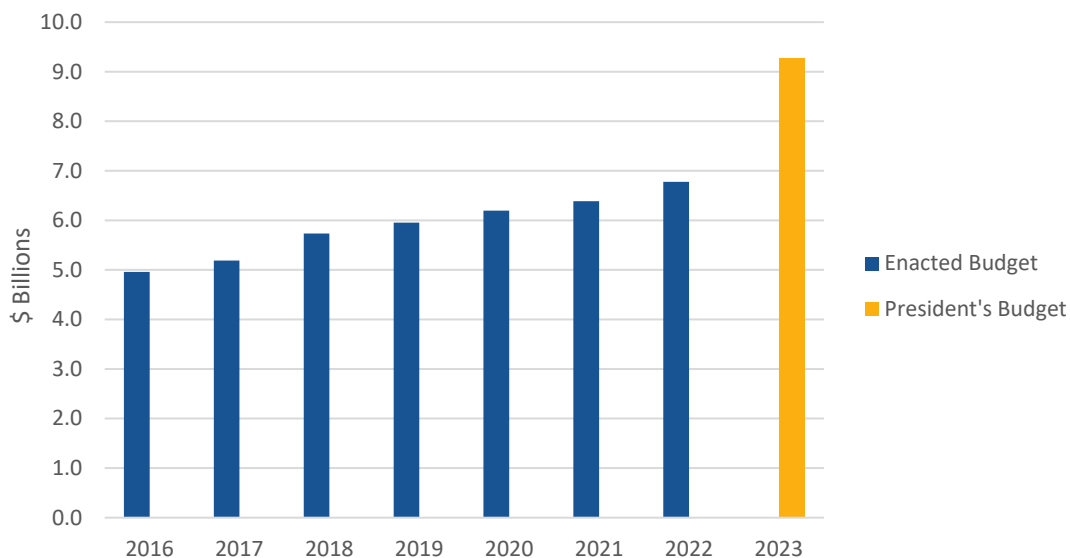
The average age of IHS health care facilities is more than 40 years, which can pose challenges to providing high quality patient care and recruiting personnel.<sup>45</sup> The lack of sufficient IHS resources to address ongoing facility operation and maintenance needs has resulted in a maintenance backlog, and the FY 2021 backlog for IHS and tribal facilities was \$1.02 billion.<sup>46</sup> After consulting with tribes, IHS recently initiated plans to modernize the agency’s health information technology infrastructure.<sup>47</sup> To achieve more equitable outcomes, access, and quality of care for all individuals served by IHS programs, funding to support infrastructure investments should be ongoing and support continuous maintenance as well as enhancements and upgrades as technology and building standards evolve.

<sup>††</sup> Externships offer IHS scholarship recipients pre-professional clinical training while familiarizing externs with Native communities. <https://www.ihs.gov/scholarship/ihsexternprogram/>

**Budget.** Figure 6 displays enacted budget amounts for IHS for FYs 2016 through 2022, including discretionary funding plus \$150 million mandatory appropriations for the SDPI. The SDPI historically is the only mandatory funding item in the IHS budget. The FY 2022 IHS budget appropriation was \$6.8 billion (not including COVID-19 supplemental funding). In addition to appropriations, IHS funding includes third-party collections from Medicaid, Medicare, private insurance, and other reimbursements, as described previously in Table 4. Such reimbursements to IHS federal facilities totaled \$1.26 billion in FY 2021.<sup>48</sup> The FY 2023 President’s Budget proposes to significantly increase funding for IHS, with funding levels growing over time from \$9.3 billion in FY 2023 to \$36.7 billion in FY 2032 to address health needs in Indian Country.<sup>49</sup>

Tribal consultation is part of the annual HHS budget formulation process, and IHS takes into account tribal priorities when developing the annual IHS budget request. Tribal priorities include Mental Health, Alcohol/Substance Abuse, and Health Care Facilities Construction. A Tribal Budget Formulation Workgroup comprised of tribal leaders from across the country concluded that \$49.9 billion is needed for FY 2023 to adequately fund the IHS.<sup>50</sup>

**Figure 6. IHS Budget Authority, Fiscal Years 2016-2022**



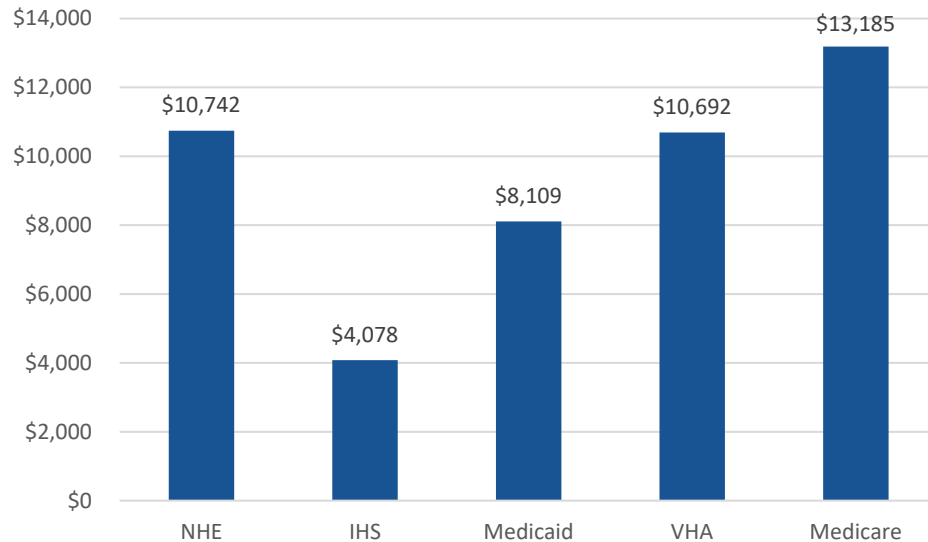
Source: IHS Congressional Justifications<sup>51</sup>

**Funding needs.** Unlike many other federal healthcare programs, IHS relies on annual discretionary funding, which can result in uncertainty for I/T/Us, particularly during lapses in funding due to government shutdowns. It also makes long-term planning challenging. Tribal leadership has stated that IHS would benefit from having more predictable, stable funding.

Among the major entitlement and non-entitlement federal health care programs, per capita spending is the lowest for IHS at \$4,078, compared to \$8,109 for Medicaid, \$10,692 for the Veterans Health Administration (VHA), and \$13,185 for Medicare (see Figure 7).<sup>52</sup> Note that this figure for IHS includes the funds that IHS receives from direct appropriations, Medicare, Medicaid, and other payers. In addition, the IHS per capita amount does not reflect tribal spending amounts for Indian health that are not voluntarily reported to IHS, so it is an underestimate. These per capita spending estimates calculated by the U.S. Government Accountability Office (GAO) are based on 2017 data, and GAO notes that fundamental differences in the programs limit the extent to which comparisons of federal funding for each program can be used to assess the adequacy of program funding. Another point of comparison is the estimated per capita national health expenditure (NHE) amount for the same data year, which was \$10,742.<sup>53</sup> A difference between the funding mechanism for IHS

compared to Medicaid and Medicare is that IHS must deliver services within its available appropriation; an increasing number of people served could result in reductions in per capita spending unless funding is also increased. In contrast, Medicaid and Medicare are entitlement programs that do not have spending caps, so spending generally increases as the population served grows.

**Figure 7. Estimated Per Capita Spending for Select Federal Health Care Programs, 2017**



**Note:** IHS collects payments from various payers such as Medicare, Medicaid, and private insurance, which are captured in the per capita spending estimate for IHS listed above. For 2017, per capita funding for Medicaid (\$411/user), Medicare (\$126/user), Private Insurance (\$78/user), and VA reimbursement (\$4/user) are included in the \$4,078 IHS per capita calculation.

**Sources:** U.S. Government Accountability Office. Indian Health Service: Spending Levels and Characteristics of IHS and Three Other Federal Health Care Programs. December 2018 (GAO-19-74R); Keehan SP, Cuckler GA, Poisal JA, et al. National Health Expenditure Projections, 2019-28: Expected Rebound in Prices Drives Rising Spending Growth. Health Affairs, 39(4), March 2020.

Congress established the Indian Health Care Improvement Fund (IHCIF) in the IHCA to address resource disparities in the Indian health system. Although total funding for the agency has gradually increased over time, the overall IHS-wide Level of Need Funded (LNF) is 48.6 percent, according to the most recent calculation. The LNF is a formula, also known as the Federal Disparity Index, developed by a federal-tribal workgroup, and it estimates that IHS appropriations fund approximately half of the total funding that would be required to fully address existing health care resource needs. The FY 2023 President’s Budget proposal fully funds the FY 2018 LNF gap over the 5-year period from FY 2024 to FY 2028.

---

## The FY 2023 President’s Budget proposal would fully eliminate the FY 2018 Level of Need Funded (LNF) gap over the 5-year period from FY 2024 to FY 2028.

In order to target funds to the sites with the greatest need, IHS considers the actual costs of providing health care services based on local geographic or other circumstances, as well as services and resources provided by Federal programs, private insurance, and programs of State and local governments.<sup>54</sup> IHS calculates allocations of the IHCIF appropriation using the LNF percentage to target funding to the IHS service units and Tribal facilities with the lowest LNF percentages.

### CONCLUSION

A historic increase in funding for the Indian health care system in 2020-2021 in response to the COVID-19 pandemic provided much needed additional resources to support the IHS mission to raise the physical, mental, social, and spiritual health of AI/ANs to the highest level. The Administration’s Executive Order 13985 “Advancing Racial Equity and Support for Underserved Communities Through the Federal Government”<sup>55</sup> supports equitable treatment of all population groups especially those that have been underserved, such as AI/ANs. Targeted supplemental appropriations allowed IHS to fund critical public health surveillance and pandemic response activities, and IHS was able to implement flexibilities to sustain regular operations and service delivery.<sup>56</sup> However, one-time funding is insufficient to adequately address the ongoing need for investments in the IHS system, Tribal Nations, and other care delivery partners and stakeholders.

The IHS is responsible for supporting the provision of health services to American Indians and Alaska Natives throughout the United States. Appropriating funding at the expanded level proposed in the Fiscal Year 2023 President’s Budget could further strengthen the Indian health care system to fully fund service delivery needs, support infrastructure modernization and other improvements, and increase the size of the healthcare workforce with the ultimate goal of addressing persistent health disparities and improving health outcomes for AI/ANs.



## REFERENCES

1. National Academy of Sciences, Institute of Medicine. 2003. Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care. Washington, DC: The National Academies Press.  
<https://doi.org/10.17226/10260>
2. Arias E, Xu JQ. United States life tables, 2019. National Vital Statistics Reports; vol 70 no 19. Hyattsville, MD: National Center for Health Statistics. March 2022.  
<https://www.cdc.gov/nchs/data/nvsr/nvsr70/nvsr70-19.pdf>
3. Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 2018-2020 on CDC WONDER Online Database, released in 2021. Data are from the Multiple Cause of Death Files, 2018-2020, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at <http://wonder.cdc.gov/mcd-icd10-expanded.html> on Apr 6, 2022 9:29:34 PM; Centers for Disease Control and Prevention, National Center for Health Statistics. National Vital Statistics System, State and National Provisional Counts.  
<https://www.cdc.gov/nchs/nvss/vsrr/provisional-tables.htm>
4. Agency for Healthcare Research and Quality. 2021 National Healthcare Quality and Disparities Report. AHRQ Pub. No. 21(22)-0054-EF.
5. Centers for Disease Control and Prevention. Health of American Indian and Alaska Native Adults, by Urbanization Level: United States, 2014-2018. NCHS Data Brief No. 372.  
<https://www.cdc.gov/nchs/products/databriefs/db372.htm>
6. Centers for Disease Control and Prevention. WISQARS Years of Potential Life Lost (YPLL) Report, 1981-2020. <https://wisqars.cdc.gov/ypll>
7. Arrazola J, Masiello MM, Joshi S, et al. COVID-19 Mortality Among American Indian and Alaska Native Persons — 14 States, January–June 2020. MMWR Morb Mortal Wkly Rep 2020;69:1853–1856.
8. Indian Health Service. The age-adjusted data also have been adjusted for misreporting of AI/AN race on death certificates.
9. P.L. 100-713, P.L. 102-573, P.L. 104-313, P.L. 106-417, P.L. 106-568
10. In addition to 100% federal match rate for reimbursing Indian Health Service facilities, FMAP exceptions apply to certain other services, populations, and circumstances. See Medicaid and CHIP Payment and Access Commission. Federal Match Rate Exceptions: Current Exceptions to Standard Federal Match Rates. <https://www.macpac.gov/federal-match-rate-exceptions/>
11. "Service unit" is IHS terminology referring to a local level organizational unit of the Indian health care delivery system, which in some cases may include multiple hospital and ambulatory care facilities within the service unit.
12. Indian Health Service. Fact Sheet: IHS Profile. <https://www.ihs.gov/newsroom/factsheets/ihsprofile/>
13. Indian Health Service. Fact Sheet: Urban Indian Health Program.  
<https://www.ihs.gov/newsroom/factsheets/uihp/>
14. 42 CFR Part 136 Subpart C, Contract Health Services. <https://www.ecfr.gov/>
15. Indian Health Service. Fact Sheet: IHS Profile. <https://www.ihs.gov/newsroom/factsheets/ihsprofile/>
16. Centers for Medicare & Medicaid Services. Indian Health & Medicaid.  
<https://www.medicare.gov/medicaid/indian-health-medicare/index.html>
17. Testimony of the National Indian Health Board for the U. S. Department of Health and Human Services 23rd Annual Tribal Budget and Policy Consultation, Wednesday, April 7, 2021.
18. Indian Health Service.
19. U.S. Census Bureau. Facts for Features: American Indian and Alaska Native Heritage Month: November 2021. Release Number CB21-FF.08. <https://www.census.gov/newsroom/facts-for-features/2021/aian-month.html>
20. U. S. Department of Health and Human Services. Indian Health Service Fiscal Year 2023 Justification of Estimates for Appropriations Committees.  
<https://www.ihs.gov/budgetformulation/congressionaljustifications/>

21. Indian Health Service. Division of Facilities Planning and Construction. Health Systems Planning. <https://www.ihs.gov/dfpc/resources/>
22. Indian Health Service. Fact Sheet: IHS Profile. <https://www.ihs.gov/newsroom/factsheets/ihsprofile/>
23. Indian Health Service. Special General Memorandum 17-01. May 2017. <https://www.ihs.gov/ihs/sgm/2017/sgm-1701/>
24. Benoit SR, Hora I, Albright AL, et al. New directions in incidence and prevalence of diagnosed diabetes in the USA. *BMJ Open Diab Res Care* 2019;7:e000657. doi: <http://dx.doi.org/10.1136/bmjdr-2019-000657>; and National Center for Health Statistics. Health, United States, 2018. Hyattsville, MD. 2019. [https://www.cdc.gov/nchs/hsu/contents2018.htm#Table\\_005](https://www.cdc.gov/nchs/hsu/contents2018.htm#Table_005)
25. Centers for Disease Control and Prevention. CKD Related Health Problems. March 2021. <https://www.cdc.gov/kidneydisease/publications-resources/annual-report/ckd-related-health-problems.html>
26. U. S. Department of Health and Human Services Office of Minority Health. Diabetes and American Indians/Alaska Natives. <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=33>
27. D Warne and D Lajimodiere. American Indian health disparities: psychosocial influences. *Social and Personality Psychology Compass* 9/10 (2015): 567-579.
28. Agency for Healthcare Research and Quality. 2021 National Healthcare Quality and Disparities Report. AHRQ Pub. No. 21(22)-0054-EF.
29. U. S. Department of Health and Human Services. Indian Health Service Fiscal Year 2023 Justification of Estimates for Appropriations Committees. <https://www.ihs.gov/budgetformulation/congressionaljustifications/>
30. Office of the Assistant Secretary for Planning and Evaluation. Health Insurance Coverage and Access to Care Among Latinos: Recent Trends and Key Challenges. Issue Brief No. HP-2021-22 (October 2021). <https://aspe.hhs.gov/reports/health-insurance-coverage-access-care-among-latinos>
31. HHS Office of Minority Health. Profile: American Indian/Alaska Native (Updated January 2022). Accessed at: <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=3&lvlid=62>
32. Frean M, Shelder S, Rosenthal MB, et al. Health Reform and Coverage Changes Among Native Americans. *JAMA Internal Medicine* 2016;176(6):858-860.
33. Hatcher SM, Agnew-Brune C, Anderson M, et al. COVID-19 Among American Indian and Alaska Native Persons — 23 States, January 31–July 3, 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1166-1169. <http://dx.doi.org/10.15585/mmwr.mm6934e1>
34. Centers for Disease Control and Prevention. Age-adjusted Laboratory-Confirmed COVID-19-Associated Hospitalization Rates by Race and Ethnicity — COVID-NET, March 1, 2020–February 5, 2022. <https://www.cdc.gov/coronavirus/2019-ncov/community/health-equity/racial-ethnic-disparities/disparities-hospitalization.html>
35. Arrazola J, Masiello MM, Joshi S, et al. COVID-19 Mortality Among American Indian and Alaska Native Persons — 14 States, January-June 2020. *MMWR Morb Mortal Wkly Rep* 2020;69:1853-1856. <http://dx.doi.org/10.15585/mmwr.mm6949a3>
36. U.S. Government Accountability Office. COVID-19: Federal Efforts to Provide Vaccines to Racial and Ethnic Groups. February 2022. GAO-22-105079. <https://www.gao.gov/assets/gao-22-105079.pdf>
37. Office of the Assistant Secretary for Planning and Evaluation. Health Disparities by Race and Ethnicity during the COVID-19 Pandemic: Current Evidence and Policy Approaches. (March 2021). <https://aspe.hhs.gov/reports/health-disparities-race-ethnicity-during-covid-19-pandemic-current-evidence-policy-approaches>
38. Indian Health Service. COVID-19 Cases by IHS Area. <https://www.ihs.gov/coronavirus/>
39. Indian Health Service. COVID-19 Vaccine Distribution and Administration by IHS Area. <https://www.ihs.gov/coronavirus>
40. Centers for Disease Control and Prevention. CDC COVID Data Tracker: Vaccination Trends by Race/Ethnicity, Percent of People Receiving COVID-19 Vaccine by Race/Ethnicity and Date

- Administered, United States, December 14, 2020-June 16, 2022. <https://covid.cdc.gov/covid-data-tracker/#vaccination-demographics-trends>
41. Indian Health Service. FY 2020-2021 Coronavirus (COVID-19) and American Rescue Plan Act Funding Allocations. <https://www.ihs.gov/coronavirus/>
  42. U.S. Government Accountability Office. Indian Health Service: Relief Funding and Agency Response to COVID-19 Pandemic. March 2022. GAO-22-104360. <https://www.gao.gov/products/GAO-22-104360>
  43. U.S. Government Accountability Office. COVID-19 Contracting: Indian Health Service Used Flexibilities to Meet Increased Medical Supply Needs. October 2021. GAO-22-104745. <https://www.gao.gov/products/gao-22-104745>
  44. Indian Health Service. Fact Sheet: IHS Profile. <https://www.ihs.gov/newsroom/factsheets/ihsprofile/>
  45. U. S. Department of Health and Human Services. Fiscal Year 2022 Budget in Brief. <http://www.hhs.gov/budget>
  46. U. S. Department of Health and Human Services. Indian Health Service Fiscal Year 2023 Justification of Estimates for Appropriations Committees. <https://www.ihs.gov/budgetformulation/congressionaljustifications/>
  47. Indian Health Service. March 2022. The IHS Health Information Technology Modernization Program - Presentation from March 10 Tribal Consultation / Urban Confer.
  48. U.S. Government Accountability Office. Indian Health Service: Information on Third-Party Collections and Processes to Procure Supplies and Services. March 2022. GAO-22-104742. <https://www.gao.gov/products/gao-22-104742>
  49. U. S. Department of Health and Human Services. Fiscal Year 2023 Budget in Brief. <http://www.hhs.gov/budget>
  50. National Indian Health Board. Testimony of the National Indian Health Board for the U.S. Department of Health & Human Services 23rd Annual Tribal Budget and Policy Consultation. April 7, 2021. <https://www.ihs.gov/budgetformulation/congressionaljustifications/>
  51. <https://www.ihs.gov/budgetformulation/congressionaljustifications/>
  52. U.S. Government Accountability Office. Indian Health Service: Spending Levels and Characteristics of IHS and Three Other Federal Health Care Programs. December 2018. GAO-19-74R. <https://www.gao.gov/products/gao-19-74r>
  53. Keehan SP, Cuckler GA, Poisal JA, et al. National Health Expenditure Projections, 2019-28: Expected Rebound in Prices Drives Rising Spending Growth. Health Affairs, 39(4), March 2020. <https://doi.org/10.1377/hlthaff.2020.00094>
  54. Indian Health Service. Indian Health Care Improvement Fund Workgroup Interim Report (June 2018). [https://www.ihs.gov/sites/ihs/if/themes/responsive2017/display\\_objects/documents/2018/2018\\_IHCF\\_WorkgroupInterimReport.pdf](https://www.ihs.gov/sites/ihs/if/themes/responsive2017/display_objects/documents/2018/2018_IHCF_WorkgroupInterimReport.pdf)
  55. The White House. Executive Order on Advancing Racial Equity and Support for Underserved Communities Through the Federal Government. January 20, 2021. <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/>
  56. Indian Health Service. Indian Health Service COVID-19 Response, 100 Day Review. April 2021. [https://www.ihs.gov/sites/coronavirus/themes/responsive2017/display\\_objects/documents/IHS\\_COVID\\_100DayReview.pdf](https://www.ihs.gov/sites/coronavirus/themes/responsive2017/display_objects/documents/IHS_COVID_100DayReview.pdf)

## U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Office of the Assistant Secretary for Planning and Evaluation

200 Independence Avenue SW, Mailstop 447D  
Washington, D.C. 20201

For more ASPE briefs and other publications, visit:  
[aspe.hhs.gov/reports](https://aspe.hhs.gov/reports)



### ABOUT THE AUTHOR

Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services.

### SUGGESTED CITATION

How Increased Funding Can Advance the Mission of the Indian Health Service to Improve Health Outcomes for American Indians and Alaska Natives (Report No. HP-2022-21). Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. July 2022.

### COPYRIGHT INFORMATION

All material appearing in this report is in the public domain and may be reproduced or copied without permission; citation as to source, however, is appreciated.

### DISCLOSURE

This communication was printed, published, or produced and disseminated at U.S. taxpayer expense.

---

Subscribe to ASPE mailing list to receive  
email updates on new publications:

<https://list.nih.gov/cgi-bin/wa.exe?SUBED1=ASPE-HEALTH-POLICY&A=1>

For general questions or general  
information about ASPE:

[aspe.hhs.gov/about](https://aspe.hhs.gov/about)