BALLARD BRIEF

February 2024

Inadequate Healthcare for American Indians in the United States

Brooke Grow

Key Takeaways

- Inadequate healthcare access for American Indians due to geographical barriers, historical trauma, and funding shortages results in higher rates of chronic diseases, financial burdens, and reduced quality of life.
- In 2016, Congress allocated over 5 times more funds per inmate for the federal prison system ($6,973) than for the Indian Health Service per person in the American Indian population ($1,297).[1]
- Of the hospitals located on reservations in the United States, all but three have less than 50 beds, and most do not provide surgical or obstetric services.[2]
- Only 33% of American Indians report having any form of insurance, compared to 80% of non-Hispanic whites and 52% of African Americans.[3]
- There is limited research about the types of interventions that positively impact the issue; however, increased cultural competency training and transportation to medical facilities have helped improve access and quality of healthcare.

Summary

For first-generation college students, receiving an acceptance letter to an institution of higher education is a milestone: a means to secure economic and social opportunities not afforded to their family members. However, for many first-generation students, college acceptance does not equate to a college credential or degree, with only 27.4% graduating within 4 years. These lower attrition rates stem from a lack of familial financial resources and inadequate academic preparation in high school. Additionally, a different set of rules, jargon, and expectations between home life and institutions of higher education create a 'hidden curriculum' for first-generation students, making college completion challenging to navigate. Adverse effects of an early exit from college include diminished earning potential and employability, decreased quality of life, and an increased risk of defaulting on student debt. Organizations such as the Center for First-Generation Student Success and the Gantry Group work to eliminate the achievement gap between first-generation and continuing-generation students through high-impact practices at individual institutions.

Key Terms

American Indians—A term used to describe the indigenous peoples of the United States, including Native Americans, Alaska Natives, and Native Hawaiians.

Base roll—The base roll is the list of original members as designated in a tribal constitution or another document detailing enrollment criteria.[4]

Chronic disease—As defined by the CDC, a chronic disease is a condition that lasts one year or more and requires ongoing medical attention or limits activities of daily living or both.[5]

Food insecurity—A lack of consistent access to enough food for every person in a household to live a healthy life.[6]

Health disparities—This refers to preventable differences in health outcomes between different populations or groups, generally experienced by disadvantaged populations. It is differences in the burden of disease, injury, violence, or opportunities to obtain optimal health.[7]

Health insurance coverage—The availability of health insurance to individuals and families, which can impact their ability to access healthcare services. It is the legal entitlement to payment or reimbursement for healthcare costs, generally contracted through a health insurance company or a government program.[8]

Historical trauma—The lasting impacts of traumatic events experienced by a group of people, such as the forced relocation and cultural oppression experienced by many American Indian communities. It is often multi-generational.[9]

Medical mistrust—A lack of trust in or suspicion of medical organizations and providers.[10]

Social determinants of health—The factors outside of medical care that can be influenced by social policies and affect the health of an individual or population. The World Health Organization defines them as the conditions in which people are born, grow, live, work, and age.[11]

Surface acres—Surface acres include everything above the ground, and subsurface mineral estates refer to underground resources such as oil, gas, and other minerals.[12]

Q: Who is typically recognized as

an American Indian, and what criteria are used to define their identity?

A: According to the Bureau of Indian Affairs, an American Indian is someone acknowledged as having a blood quantum from a federally recognized tribe or village; this person can be recognized as an enrolled tribal member or by the United States government.[13] Blood quantum refers to the ancestral proportion of a person's lineage that traces back to documented full-blood American Indian heritage. For example, if an individual's family tree includes one parent of pure American Indian descent and another with no American Indian ancestry, their blood quantum would equate to 50%. The Bureau of Indian Affairs uses a blood quantum definition—generally one-fourth American Indian blood—or tribal membership to recognize an individual as American Indian.[14] However, blood quantum is not the only factor determining whether a person is considered an American Indian. Other factors can also be used, including a person's knowledge of his or her tribe's culture, history, language, religion, and personal identification.[15] No single federal or tribal criteria has outlined the determination of a person's identity as an American Indian overall. Many American Indian tribes, including the Navajo Nation, still use blood quantum as part of their citizenship requirements.[16] However, different tribes and communities may have their own criteria and definitions for determining who is considered a group member. Two common requirements for membership are direct descendants from someone named on the tribe's base roll or relationship to a tribal member who descended from someone named on the base roll.[17] The matter of tribal identity is intricate, as it necessitates consideration of the persistent historical, cultural, and political influences that envelop American Indian communities.

Q: What is the Indian Health Service (IHS)?

A: The Indian Health Service (IHS) is a branch of the Department of Health and Human Services, founded on July 1, 1955. Their goal is to raise the physical, mental, social, and spiritual health of American Indians.[18] It is the healthcare system responsible for providing a variety of free federal healthcare benefits and services to federally recognized American Indians in the United States. The IHS provides an array of

medical services, including inpatient, ambulatory, emergency, dental, public health nursing, and preventive health care.[19] It provides funds for tribal and urban Indian health programs. However, it is not health insurance. IHS has to work within yearly budgets approved by Congress and does not receive enough funds to meet all the health needs of American Indians.[20]

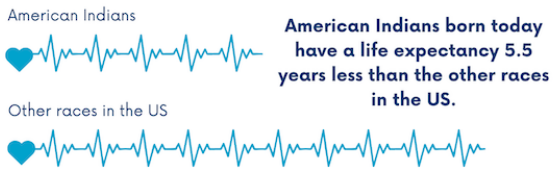
Health insurance helps pay for medical services not provided under IHS, such as specialty care, healthcare off the reservation, and other services. It is recommended that all American Indians hold some form of health insurance in addition to relying on IHS-provided services.[21] For American Indians living off the reservations, IHS has limited allocated funds to provide some access to care, but it is not comprehensive.[22]

The IHS provides a health service delivery system for approximately 2.56 million of the nation's estimated 5.2 million American Indians.[23] Operating hospitals, health clinics, and community health centers, as well as implementing disease prevention and health promotion programs, constitute the health service delivery system.[24]

Q: What are some of the specific health issues faced by the American Indian communities?

A: American Indian communities face specific health issues that contribute to a lower life expectancy compared to the overall United States population. The Indian Health Service stated American Indians born today have a life expectancy of 5.5 years less than the other races in the US (73.0 to 78.5 years, respectively).[25] According to data, American Indians are affected at higher rates by preventable and chronic diseases, such as chronic liver disease and cirrhosis, diabetes, heart disease, and chronic lower respiratory diseases.[26] For example, of all American Indian Elders above 55 years old, around 9 out of 10 of them have been diagnosed with at least one chronic disease.[27] This statistic compares to 7 out of 10 of the general population that have been diagnosed with at least one chronic disease among the same age range.[28] Reports show that more than

16% of American Indians received a diagnosis of diabetes, compared to the 8.7% of non-Hispanic whites that received this diagnosis; these statistics show that the rate of American Indians with diabetes is double the rate for the general United States population.[29] Additionally, they experience higher rates of substance abuse and alcoholism. The American Addiction Center reported that 7.1% of American Indians have an alcohol use disorder, and nearly 25% of American Indians report binge drinking in the past month.[30] They also stated that American Indians are more likely than any other ethnic group to report drug abuse in the past month (17.4%) or year (28.5%).[31]



The lack of access to healthy foods is also a significant challenge in these communities, which leads to inadequate nutrition and other issues. About 1 in 4 American Indians experience food insecurity, compared to 1 in 9 Americans overall.[32] Due to the location of reservations, only 25.6% of individuals living in tribal areas are within 1 mile of a supermarket—defined as walking distance—compared with 58.8% of all Americans.[33] Without easy accessibility to supermarkets, American Indian populations also have about twice the rate of nutrition-related health conditions, including cardiovascular disease, diabetes, and obesity, as non-Hispanic white Americans.[34] These health issues are interconnected and trace back to historical, social, and economic factors that have contributed to health disparities in American Indian communities. Addressing these specific health issues requires a comprehensive approach that considers the unique cultural and historical factors that have shaped the experiences of American Indians in the United States.

Q: When did the United States start providing healthcare for American Indians?

A: Healthcare for American Indians initially lacked significant attention and resources from the United States government to such an extent that it required intervention from the Supreme Court to initiate substantial improvements, which began in the early 1900s. In 1914, Warren K. Moorehead, a commissioner for the Bureau of Indian Affairs, stated, “It is incomprehensible to me that appropriations for combating disease

are so meager."[35] Over the years, several Supreme Court cases addressed the relationship between tribes, states, and the federal government. In 1921, the Snyder Act was passed, which provided specific legislative authority for Congress to allocate funds for the healthcare of American Indian people.[36] This act, along with the recent reauthorizations of the Indian Health Care Improvement Act (IHCIA), laid the foundation for the provision of healthcare to American Indians.[37] The IHCIA, initially passed in 1976, aimed to address the significant health disparities among American Indians compared to the general population. Several reauthorizations of the IHCIA have taken place to address ongoing healthcare needs and enhance health services for American Indians. The reasons for reauthorization have included updating and expanding services, addressing new challenges, ensuring funding, and strengthening the legal framework. It was most recently reauthorized as part of the broader healthcare reform bill in March 2010, marking a crucial milestone in improving healthcare services for American Indian communities.[38] The Indian Health Service, described and discussed above, was created to provide healthcare services to all 574 federally recognized American Indian tribes.[39] It is important to note that healthcare for American Indians was initially guaranteed in exchange for millions of acres of land, highlighting the historical and ongoing injustices faced by American Indian communities.

Q: Where do American Indians live throughout the United States?

A: American Indians reside throughout the United States, with significant populations in California, Alaska, Oklahoma, and New Mexico. They also live in various other states, including Utah, Arizona, and Texas.[40] There are currently 574 federally recognized American Indian tribes spread throughout the country.[41] While American Indians are present throughout most of the country, specific reservations are designated for their populations. The largest reservation is the Navajo Nation Reservation, which is 16 million acres and is located in Arizona, New Mexico, and Utah.[42] The Bureau of Indian Affairs (BIA) is responsible for the management of 55 million surface acres and 57 million acres of subsurface mineral estates, which are held in trust by the United States specifically for American

Indians.[43] American Indian tribes hold tribal sovereignty.[44] Tribal sovereignty encompasses self-governance, cultural preservation, and economic control. As sovereign entities, American Indian nations determine their government, citizenship, laws, policing, taxation, and property use. The federal government is obligated to safeguard tribal lands, support self-governance, and provide essential services for tribal survival.

European Americans developed the reservation system to remove American Indians from the lands that they wanted to settle, which led to the forced relocation of many tribes.[45] Over the course of history, there have been specific events that highlight this forced relocation, such as the Trail of Tears in the 1830s, which led to the displacement of thousands of Cherokee people.[46] Additionally, government policies such as the Indian Removal Act of 1830 and the Dawes Act of 1887 further contributed to the movement of American Indian communities, resulting in substantial shifts in their residency patterns.[47,48]

The relationship between reservations and the United States government is complex and involves a combination of federal, state, and tribal jurisdiction, which can vary from one reservation to another. This special status is a result of a long history of treaties, laws, and court decisions that recognize the unique status and rights of American Indian tribes and their reservations within the United States.

Geographical Barriers and Infrastructure

Many American Indian communities are located in remote and rural areas, making it difficult to access healthcare facilities and develop a sustainable healthcare infrastructure. This

Contributing Factors

distance can pose a significant challenge, especially for individuals who lack access to transportation or do not have mobility. Many American Indians reported lack of transportation to be a frequent barrier when attempting to access critical services, including healthcare. A study done by the Minnesota Healthcare program found that 39% of American Indians reported transportation barriers compared to 18% of non-Hispanic whites.[49] This study showed that transportation barriers were an issue for all groups, but are twice as likely to be reported by American Indians.

Similarly, another study examined 161,350 patients nationwide utilizing hospitals that serve low-income and uninsured populations. It found that American Indians were 2.29 times more likely to miss healthcare appointments due to transportation barriers when compared to white patients.[50] Not only is there a lack of reliable private transportation, but there is also a lack of public transportation options on reservations.[51] Approximately 66% of residents residing on reservations have some access to a tribal transit system, generally buses, situated within their reservation. In comparison, an estimated 70% of the rural population in the United States has access to a rural transit system.[52] However, this study identified that the percentages shown might be higher than the actual population served because complete information about the service areas of tribal and rural transit operators is not available. As a result, there could be areas within reservations or rural transit service areas with limited or no service. Without adequate public or private transportation options, walking is the predominant form of transportation, which is a significant barrier for those needing medical treatment.[53]

Often, there are limited healthcare options in American Indian communities because of a lack of healthcare infrastructure. A majority of American Indian communities lack sufficient hospitals, clinics, and healthcare providers. This lack can result in a lack of specialized care for serious medical conditions, such as cancer or heart disease. For the hospitals on reservations throughout the United States, all but the three large hospitals, located in Alaska, New Mexico, and Arizona, have less than 50 beds and most do

not provide surgical or obstetric services.[54] This small number of beds can make it difficult for individuals to access the life-saving care they need. A study by the Pew Research Center showed that American Indians traveled the longest distance for hospitalization services when compared to other races and ethnicities. The average American traveled 17 minutes for those living in rural communities and 10 minutes for those living in urban areas.[55] In comparison, American Indians traveled about 24 minutes, which was attributed to the geographic location of reservations and their extreme rural nature.[56] To illustrate the rural character of reservations, the Pew Research Center reported that of the 27,000 miles of American Indian reservation roads, 20,450 miles, or 76%, are unpaved roads, and 6,550 miles, or 24%, are paved roads.[57] That means only 1 in 4 roads are paved. Additionally, thousands of miles of roads on reservations owned by the Bureau of Indian Affairs are among the most unsafe and poorly maintained in the United States.[58] The distance between medical facilities and American Indian communities, along with the condition of roads, increases the difficulty of implementing community programs to promote health and wellness. It contributes to the difficulty of providing preventative care, such as screenings and vaccines, to those in the communities.

Overall, the geographical characteristics of many American Indian communities make it difficult to provide comprehensive healthcare and access to the necessary resources to promote and preserve health.

Another one of the most significant challenges faced by American Indians in healthcare infrastructure is the shortage of healthcare providers. Many healthcare providers may not be willing to stay to work in these areas due to a lack of resources and limited opportunities for career advancement.[59] One study showed many barriers associated with the shortage of healthcare providers, including poor access to specialists, high turnover rates, and cross-cultural differences that negatively impact the patient-provider relationship.[60] This shortage of healthcare providers can lead to limited access to quality healthcare services, particularly in the areas of specialty care, dentistry, and mental health services. For example, the American Indian population makes up 1.7% of the US population; however, only 0.2% of the 190,800 active dentists in the US serve American Indians.[61] Along with a lack of providers, there is a lack of resources. The Indian Health Service, which is responsible for providing healthcare services to American Indians, is underfunded and understaffed.[62] As a result, many healthcare facilities lack the necessary equipment and

resources to provide quality healthcare services. Aging facilities and the lack of resources to modernize equipment and health information technology have created a dire need for large investments in basic infrastructure. These conditions can impact the quality of healthcare services provided to American Indians, leading to an increased incidence of preventable diseases and conditions, as described in the context section.[63] Moreover, many healthcare providers in these communities may not have specialized training in specific medical fields, which can result in inadequate treatment and limited access to specialized healthcare services. For example, American Indian women are 20 times more likely to give birth in a hospital without obstetric service.[64] This likelihood is because there are only 9 IHS-run healthcare facilities that have a labor and delivery program compared to over 2,700 healthcare facilities nationwide.[65,66] To put this into context, if there were a correct ratio between healthcare facilities and the population, there would be 45 IHS-run healthcare facilities with labor and delivery programs.[67]

Historical Trauma

The history of trauma and oppression faced by American Indians, including forced relocation, loss of land and resources, forced assimilation, and the suppression of cultural practices, has had a lasting impact on their health, access to healthcare, and attitude toward healthcare.[68] Like many marginalized communities, American Indian communities experience racist or prejudice-filled acts, including physical assaults and microaggressions or subtle discrimination.[69] There have been many studies that show the lasting effects of discrimination and racism and how they contribute to both poor mental and physical health.[70] Research has indicated that American Indian people experience social injustices and health disparities at disproportionately higher rates than other racial or ethnic groups in the US.[71] One historical example of this is with tuberculosis mortality in 1925. For every 100,000 people in the general population, 87 died from tuberculosis. Among American Indians overall, the number was much higher—603 out of every 100,000. Specifically in Arizona, the situation was even more serious—1,510 out of every 100,000 American Indians died from tuberculosis.[72] That means for every person in the general population that died from tuberculosis, 7 American Indians died, and 17 Arizona American Indians died. Other disparities include poverty, interpersonal violence, lifetime traumatic events, worse health outcomes, and higher mental health concerns.[73]

Around 16–24% of American Indians experience PTSD, compared to only 4.8–6.4% of the general population.[74] These percentages show that they are 4 times as likely to experience PTSD due to exposure to violence, history of abuse, combat experience, or other reasons.[75] The oppression faced by American Indians is multi-generational and continues to affect multiple aspects of the American Indian people's daily lives, including within healthcare.

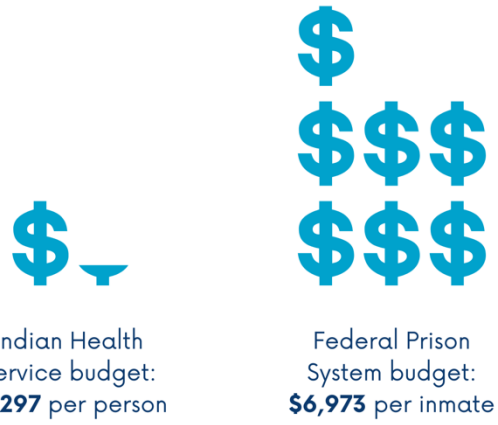
This trauma can make it difficult for individuals to trust the healthcare system and seek out medical care when needed. An early study from this effort identified the fact that American Indian cancer patients exhibited relatively higher levels of medical mistrust and lower levels of satisfaction with prior healthcare.[76] The American Indian population represents a geographically isolated and socioeconomically marginalized population with historical reasons for mistrust of healthcare providers and institutions.[77] A study on American Indians Elders found that one-third of them did not have a regular or personal healthcare provider.[78] This lack of healthcare was due to multiple factors, but one of the main ones was fear and distrust in the doctors and medical care. The Elders reported fears of being excessively medicated, misdiagnosed, and others.[79] This mistrust leads to the community, especially the older generation, who suffer from more health issues, refusing medical care or delaying needed treatment for both short-term and long-term diseases and infections.[80]

Another one of the factors contributing to distrust in medical professionals is a history of mistreatment and trauma. One of the earliest examples of this was in 1783 when Lord Jeffrey Amherst ordered his people to introduce smallpox to the American Indian population through blankets offered to them.[81] These people gave blankets to the Shawnee and Lenape (Delaware) communities, resulting in the death of thousands.[82] There is also a legacy of forced medical experimentation and abusive treatment of American Indians by Western medicine, which has led to distrust and suspicion of Western medical practices and services. Historical and recent instances of unethical research, specifically the Havasupai Diabetes Project, have generated mistrust in American Indian communities.[83] The Havasupai Diabetes Project was a research study conducted in the late 1980s by Arizona State University to investigate diabetes prevalence among the Havasupai Tribe, involving the collection of blood samples for genetic analysis. The controversial use of genetic data collected for the Havasupai Diabetes Project for unrelated research, such as schizophrenia and migration history, eroded trust and led to

profound medical mistrust within the Havasupai Tribe.[84] This history of mistreatment can make it difficult for healthcare providers to establish trust with patients and provide effective care. The continued effects of the traumatic history of the American Indians with healthcare and with the United States government led to many barriers that contribute to the lack of adequate healthcare access.

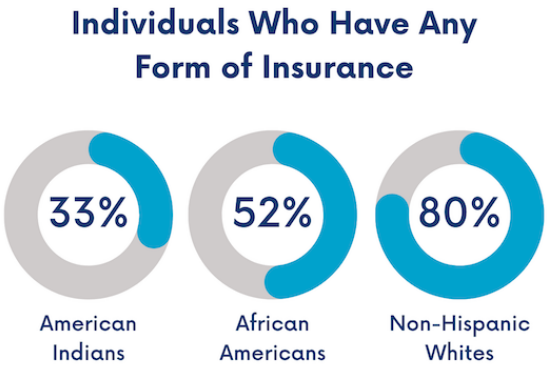
Funding Shortfalls

Another contributing factor is the state of inadequate funding given to American Indian healthcare resources. The Indian Health Service is the governmental program responsible for providing healthcare services for all American Indians.[85] Nevertheless, Congress has consistently not allocated a sufficient amount of funding to meet American Indians' health needs.[86] In 2016, Congress set the Indian Health Service budget at $4.8 billion. To put this into context, spread across the US population of 3.7 million American Indians, this amounts to $1,297 per person.[87] That compares to the $6,973 allocated per inmate in the federal prison system that same year.[88] This disparity shows that the United States is spending more than 5 times as much money on an inmate than an American Indian. Healthcare comes at a cost, and therefore lack of funding decreases the effectiveness, quality, and reach of the care. The IHS facilities may not have enough resources to sufficiently provide necessary medical services, such as preventive care, treatment for chronic conditions, and access to specialty care. Oftentimes, the IHS is forced to prioritize its budget. For example, managing chronic illnesses such as diabetes, autoimmune disorders, cancer, and heart disease can rapidly deplete the constrained resources, leaving minimal funding available for preventive measures.[89]



As stated in the most recent budget reports from the IHS, they place the majority of the funding toward direct healthcare services and staffing costs, leaving the rest to be allocated for other programs.[90] Due to the historically discretionary nature of federal funding for Indian healthcare, the enhancement of healthcare resources for American Indians has persisted in a fragmented manner, meaning that the enhancement of healthcare resources for American Indians has been marked by disconnected and disjointed efforts, lacking a

cohesive and consistent long-term strategy.[91] Research has shown the serious lack of funding for healthcare through the IHS system is partially accountable for the physical and mental health disparities faced by American Indians.[92] For example, in 10 out of the 12 IHS service areas, mental health is the primary health concern for American Indian and Alaska Native communities, contributing to over 33% of service demands, yet the IHS only allocates 7% of its budget for mental health and substance abuse services.[93] This underfunding has left only two psychiatrists and four psychologists per 100,000 individuals served by the IHS, which is one-seventh of the number of psychiatrists and one-sixth the number of psychologists available to the general population.[94]

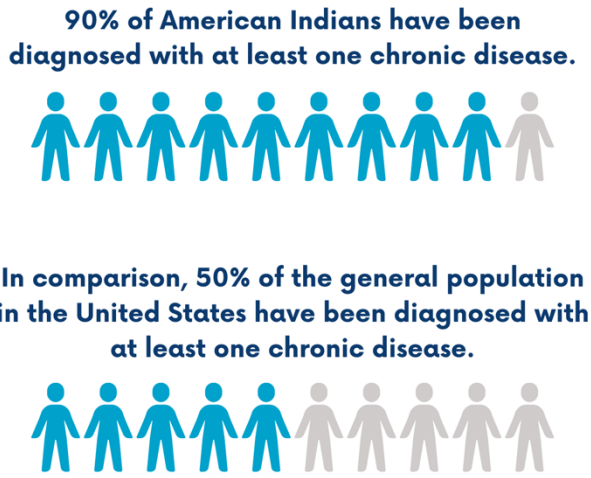


The lack of funding for IHS facilities can result in low salaries and poor working conditions, which can lead to high staff turnover. This lack of funding makes it difficult for IHS facilities to maintain a stable medical staff and provide consistent healthcare services. Studies have found that when compared to other races and ethnicities, American Indian workers had persistently higher turnover rates of around 6.5% when compared to 4.5% for whites.[95] Another general funding issue is that a smaller number of medical graduates are choosing primary care specialties (with just 32% of all physicians opting for primary care), and a mere 9% of physicians are interested in practicing in rural regions.[96]

There is also the issue of insurance. Many American Indians are uninsured or underinsured, which makes it difficult for them to access healthcare services outside of the IHS system. Only 33% of American Indians report having any form of insurance, compared to 80% of non-Hispanic whites and 52% of African Americans.[97] The shortfall in funding leads to treatment or diagnosis delays, forcing patients to opt for more affordable but less effective treatment options, forgo treatment altogether, or face service denials.[98] Overall, these funding shortfalls for the IHS contribute to a lack of healthcare access for American Indians, which has negative impacts on their health and well-being.

Consequences

Increased Rates of Chronic Diseases



The lack of healthcare access among American Indians has resulted in increased rates of chronic diseases and health problems. Chronic diseases such as diabetes, heart disease, and cancer can lead to decreased quality of life, increased healthcare costs, and premature death.[99] One of the most significant consequences of increased rates of chronic diseases among American Indians is the impact on overall health and well-being. About 90% of American Indians have been diagnosed with at least one chronic disease.[101] In comparison, around 50% of the general population in the United States has been diagnosed with at least one chronic disease.[102] Chronic diseases can cause a wide range of symptoms and complications, such as fatigue, pain, and decreased mobility, which can limit a person's ability to engage in daily activities and enjoy life fully. These symptoms can result in increased rates of depression and anxiety, as well as a decreased sense of self-worth and purpose.[103] Chronic diseases are the leading causes of death in the United States, and American Indians are more likely than all other races in the United States to die of many of them, such as heart disease, diabetes, stroke, kidney disease, and others.[104] As stated earlier, around 16% of American Indians have been diagnosed with diabetes, which is twice as high as the diagnosis rate for non-Hispanic whites.[105] Twice as many American Indians as non-Hispanic whites are at risk of developing kidney failure, with diabetes being the primary contributor, responsible for almost 40% of all cases in the United States.[105] This statistic shows that while chronic diseases are dangerous on their own, they also can compound, leaving the American Indian population at higher health risk.

Chronic diseases often require ongoing medical care and treatment, which can have adverse impacts on treatment effectiveness and long-term health outcomes. It can become a challenge that is costly both financially and for an individual's health. Without access to healthcare, individuals may not receive regular preventative screenings or be able to seek medical care when symptoms first appear. This lack of access to healthcare can result in delayed diagnoses and missed opportunities for

early intervention, which can impact treatment effectiveness and long-term health outcomes.[106] Additionally, inadequate or delayed treatment can result in the progression of different chronic diseases. For example, one study found that American Indians generally waited 10 weeks between diagnosis of cancer and starting treatment, which was significantly longer than non-Hispanic whites were waiting to start treatment.[107] To put this into context, it is generally advised that cancer patients should not wait for more than two months to begin treatment.[108]

Financial Burden

The inadequate healthcare coverage among American Indians leads to increased financial burden through high healthcare costs and debt. High healthcare costs disproportionately affect uninsured adults and those with lower incomes, both of which describe the large majority of American Indians.[109] Contrary to common misconceptions, the federal government does not fully cover healthcare needs in Native and Indigenous communities. Although American Indians theoretically have some insulation from financial problems due to access to healthcare through IHS and tribe-specific health insurance plans, evidence indicates that American Indian-specific healthcare is insufficient.[110] From 2016 to 2019, the IHS declined payment for over 500,000 patients, leading to a cumulative medical debt exceeding $2 billion.[111] Recent studies indicate that American Indian families are more prone to medical debt and to forgo filling prescriptions due to financial constraints compared to non-Hispanic whites.[112] Additionally, chronic diseases, which disproportionately affect American Indians, lead to missed work and reduced productivity, which can impact an individual's ability to support themselves and their families financially. Cost of care is the most common reason patients with chronic diseases and conditions delay treatment.[113] Direct healthcare costs for individuals with chronic diseases amount to an average of $6,032 annually. This number is 5 times greater than their counterparts without chronic disease.[114]

The likelihood of accruing medical debt is higher for individuals residing farther from an IHS or Tribal facility, with the probability of unpaid medical debt increasing with approximately every 100-mile increment in distance from the nearest IHS or Tribal healthcare facility.[115] By law, the IHS is mandated to function as a "residual" healthcare provider, offering services only when unavailable through alternative sources, despite often serving as the primary or sole healthcare provider for a substantial portion of the eligible population.[116] Against the

general expectation that individuals with higher socioeconomic status, additional health coverage, and proximity to medical providers would have improved access to alternative care, the significant proportion of IHS-eligible individuals who are economically disadvantaged, lack additional healthcare coverage and reside in rural areas likely severely restricts access to non-IHS services for many.[117] This fact suggests that American Indians may be inclined to seek care outside the IHS or Tribal system, and such care might only be partially covered or not covered at all.[118]

Elevated rates of chronic diseases within the American Indian population also impact the healthcare system. These elevated rates of chronic diseases create a downward cycle that burdens both providers and patients. Chronic diseases require ongoing medical care and treatment, which can strain healthcare resources and increase healthcare costs.[119] For example, in 2005, IHS treatment costs for 10.9% of American Indian adults with diabetes accounted for 37.0% of all adult treatment costs.[120] Additionally, chronic diseases can lead to extensive need for inpatient management and hospitalization, which can further increase healthcare costs and strain the system's capacity to provide care.[121]

Reduced Quality of Life

The impact of inadequate healthcare on the physical and mental well-being of American Indians is pronounced, with far-reaching consequences on their quality of life. Insufficient access to timely and effective medical interventions results in prolonged pain, discomfort, and compromised physical health. American Indians report a high prevalence of pain symptoms, including back pain, recurrent headaches, and neck pain. In one study, 35% of American Indians reported back pain, compared to the 26% of non-Hispanic whites that reported.[122] It was also reported that 23% of American Indians experience recurrent headaches, while only 15% of non-Hispanic whites reported the same experience.[123]

The absence of comprehensive healthcare services contributes to a deterioration in the overall physical quality of life for many American Indians. It also contributes to the overall mental

health of the American Indian population. The death rate from suicide among American Indian adults is about 20% higher as compared to the non-Hispanic white population.[124] This suicide rate is such a prominent issue that violent deaths, unintentional injuries, homicide, and suicide account for 75% of all mortality for American Indians in their 20s.[125] Addressing the barriers to accessible healthcare is paramount for preserving and enhancing the physical and mental well-being of American Indian individuals, ensuring they have the opportunity to lead healthy and fulfilling lives.

Quality of life among American Indians also has broader social and cultural impacts. The cultural disconnect that results from inadequate healthcare compounds the challenges faced by American Indians, extending beyond physical issues. A substantial number of American Indians adhere to tribal religions and traditional medicinal practices. Research indicates that 70% of Navajos residing on the reservation seek the services of traditional healers, and another study found that approximately 28% of Indians in Milwaukee and the San Francisco Bay area continued to engage with traditional practitioners.[126] This percentage shows that the absence of culturally sensitive healthcare services creates a sense of disenfranchisement and cultural insensitivity. A lack of cultural sensitivity and competency can deter communication quality between physicians and patients, which leads to an increased risk of misdiagnosis and loss of trust.[127] Additionally, the decreased life expectancy can result in a loss of cultural knowledge, traditions, and practices. Reduced quality of life due to the healthcare system can limit an individual's ability to participate in cultural and community activities, which can have a ripple effect on the entire community's social fabric and cohesion. Bridging this cultural gap is crucial not only for improved health outcomes but also for fostering a healthcare environment that respects and embraces the diverse cultural backgrounds of American Indian communities.

Practices

Cultural Competence

Addressing cultural barriers and educating medical professionals on how to incorporate culture appropriately into care is a critical step toward increasing access to healthcare for American Indians. This practice involves training healthcare providers to understand and respect the cultural beliefs and practices of American Indian patients. This training allows providers to tailor their care with an understanding of these practices. Many

American Indians choose to look towards Western medicine to address symptoms while also pursuing spiritual guidance from traditional healers in their community.[128] For example, The White Bison Medicine Wheel and 12 step program exemplifies cultural competence in healthcare through its incorporation of native teachings. Grounded in shared beliefs in a Supreme Being, the guidance of elders, and respect for tribal diversity, the initiative addresses alcohol recovery by integrating traditional wisdom. By fostering a daily commitment to spiritual renewal and aligning thoughts with the warrior mindset, the program not only acknowledges cultural principles but also offers a comprehensive approach to holistic well-being.[129] One of the primary ways to address cultural barriers is through cultural competency training. Cultural competency training provides healthcare professionals with the knowledge and skills necessary to provide effective care to patients from different cultural backgrounds. This training can include an understanding of the history of American Indians, their cultural beliefs and practices, and how to communicate effectively with patients from this community. By presenting healthcare providers with this knowledge, they can implement care that is more culturally sensitive and respectful. For example, it is very difficult to provide quality care to an American Indian elder without understanding the culture of respect that surrounds who they are.[130] Additionally, it is essential that qualified American Indians are hired to work as healthcare providers within their communities.[131] In recent years the number of American Indian employees has increased; as of 2019, 69% of all IHS employees are American Indian.[132] This approach can help to build trust between healthcare providers and American Indian patients, as they are more likely to understand and respect the cultural practices of their patients. With a better understanding of respect for their culture, beliefs, and practices, healthcare providers can achieve better outcomes.[133]

The impact of addressing cultural barriers and educating medical professionals is significant. Research has shown that American Indian patients are more likely to seek care when their cultural beliefs and practices are respected, leading to better health outcomes.[134] Additionally, healthcare providers who receive cultural competency training report feeling more prepared to address the unique healthcare needs of American Indian patients.[135] One study states that cultural competence training showed promise as a strategy for improving the knowledge, attitudes, and skills of health professionals.[136] In a

systematic review looking into the effectiveness of cultural competency training for healthcare providers of minority populations, researchers found that the training significantly improved the cultural competence of the healthcare providers and patient satisfaction.[137] By having a higher level of cultural understanding, healthcare providers are more likely to encourage patients to seek preventative care, leading to better overall health outcomes. This increased likelihood is because when designing preventive programs, it is imperative that various factors, especially cultural and regional factors, are considered.[138]

However, despite these efforts, there are still gaps in this best practice. There is a significant shortage of American Indian healthcare providers, which makes it challenging to provide care that is culturally sensitive and appropriate. Across all specialties, there are only about 3,400 American Indian individuals who are physicians as of 2019.[139] This statistic represents 0.41% of all physicians throughout the United States.[140] This shortage can be due to a variety of factors, such as limited access to education opportunities and the challenges of healthcare-related burnout. One article explained that medicine requires a strong background in science and math, strong communication skills, and societal awareness, which are often difficult to obtain within the reservation school systems due to limited resources.[141]

Furthermore, cultural competency training is not standardized across all healthcare facilities, and there is a lack of resources to implement these programs. In 2023, 63% of physicians identified insufficient IHS resources as a very large barrier.[142] Additionally, more research is needed to evaluate the effectiveness of cultural competency training programs and to identify best practices for incorporating traditional healing practices and understanding into Western medical care. There is limited research that looks into the effectiveness of cultural competency training for minority groups in general, but there is little to no research on the effectiveness among the American Indian population specifically.

Transportation to Medical Facilities

Ensuring transportation to medical facilities is crucial for enhancing healthcare accessibility among American Indians on reservations, addressing a significant barrier to healthcare access in remote areas with limited transport options. Offering services such as shuttle programs, ride-sharing initiatives, or community-based volunteer driver programs is vital. Tribal transit services vary widely in size and complexity, ranging from small, volunteer-

based programs with a single vehicle to large and intricate systems like the Navajo Nation, which operates over a dozen routes and charter options simultaneously.[143] These programs often operate on limited budgets and draw staff from diverse disciplines. This diversity in disciplines means that the staff does not come from one specific department in the hospital; they can come from various teams and departments as long as they have received the proper training. In reservation areas, professionals and human service providers involved in tribal transit creatively acquire vans, share rides, and coordinate routes to generate revenue and provide benefits to elders.[144] Funding for these programs does not come from IHS, but can come from tribal governments, healthcare providers, or government and private grants. Collaborations with transportation companies may involve reduced fares or reimbursement for American Indian patients. These financial considerations promote attendance at medical appointments, facilitate treatments, and encourage preventive care, thereby improving long-term health outcomes and reducing healthcare costs.[145] However, the lack of a simple, uniform, tribally appropriate funding agreement prevents hundreds of millions of dollars in available Federal and State transportation funds from reaching Tribal populations that could greatly benefit from these funds.[146]

The impact of providing transportation to medical facilities has been significant. Lack of transportation has been identified as one of the main barriers to accessing healthcare for American Indians living on reservations.[147] By providing transportation, patients are more likely to attend their medical appointments, receive necessary treatments, and stay on top of preventative care measures.[148] This increased access to healthcare can lead to improved health outcomes and reduced healthcare costs in the long term. For example, transportation services can help individuals with chronic diseases such as diabetes, cardiovascular disease, or cancer to manage their conditions and avoid complications that could lead to hospitalization. One such service is called White Horse Medical Transportation, which is located in Phoenix, Arizona, near the Navajo Nation and the Hopi Reservation. They transport patients to medical appointments, hospitals, homes, pharmacy pick-ups, and other healthcare facilities. Their drivers are all CPR and first aid certified and have some healthcare experience. While they are considered a non-emergency medical transportation provider, their services fulfill an

essential need on reservations for many residents who have no means of transportation. There are many healthcare and public health workers on reservations that take healthcare to the patient's home. For example, during COVID-19 there were many programs that performed high-risk monitoring and testing at home.[149] One study conducted on the White Mountain Apache reservation showed that integrating public health outreach and direct medical care brought the community-wide case fatality rate to 1.3%, which was lower than the statewide American Indian case fatality rate of 3.2%.[150]

While providing transportation services is a critical best practice, there are some gaps that need to be addressed, such as funding. Transportation programs can be costly, particularly in rural areas with limited infrastructure. Reservation transit programs range in scope from tribes operating one vehicle to provide local access to human services programs to systems operating 40 vehicles to provide access to employment, services, and education over long distances. Annual operating budgets range from $40,000 to nearly $2 million on average across all tribes, depending on the number of operating vehicles and the size of the team.[151] Many reservation communities struggle with limited resources and may not have the funds to support transportation services. As a result, partnerships between tribal governments, healthcare providers, and transportation companies may be necessary to secure funding and improve the availability and reliability of transportation services. Another gap is the lack of research on the impact of transportation services on healthcare access and outcomes for American Indians living on reservations. Research gaps regarding the impact of tribal transit systems on healthcare access for American Indians include a shortage of rigorous quantitative studies, a need for assessments of long-term effects, and insufficient exploration of cultural competency.[152] Additionally, there is a lack of comparative analyses, community engagement assessments, and examinations of geographical variations in the existing research landscape. In conclusion, addressing the financial challenges and research gaps in transportation services for American Indians on reservations is crucial for ensuring equitable access to medical facilities. Collaborative efforts between tribal governments, healthcare providers, and transportation companies, along with a focus on uniform funding agreements, are essential to maximizing the positive impact of these services.

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