ARIZONA DEPARTMENT
OF HEALTH SERVICES

LEADING CAUSES OF DEATH AND HEALTH DISPARITIES AMONG THE AMERICAN INDIAN AND ALASKA NATIVE POPULATION IN ARIZONA

2021

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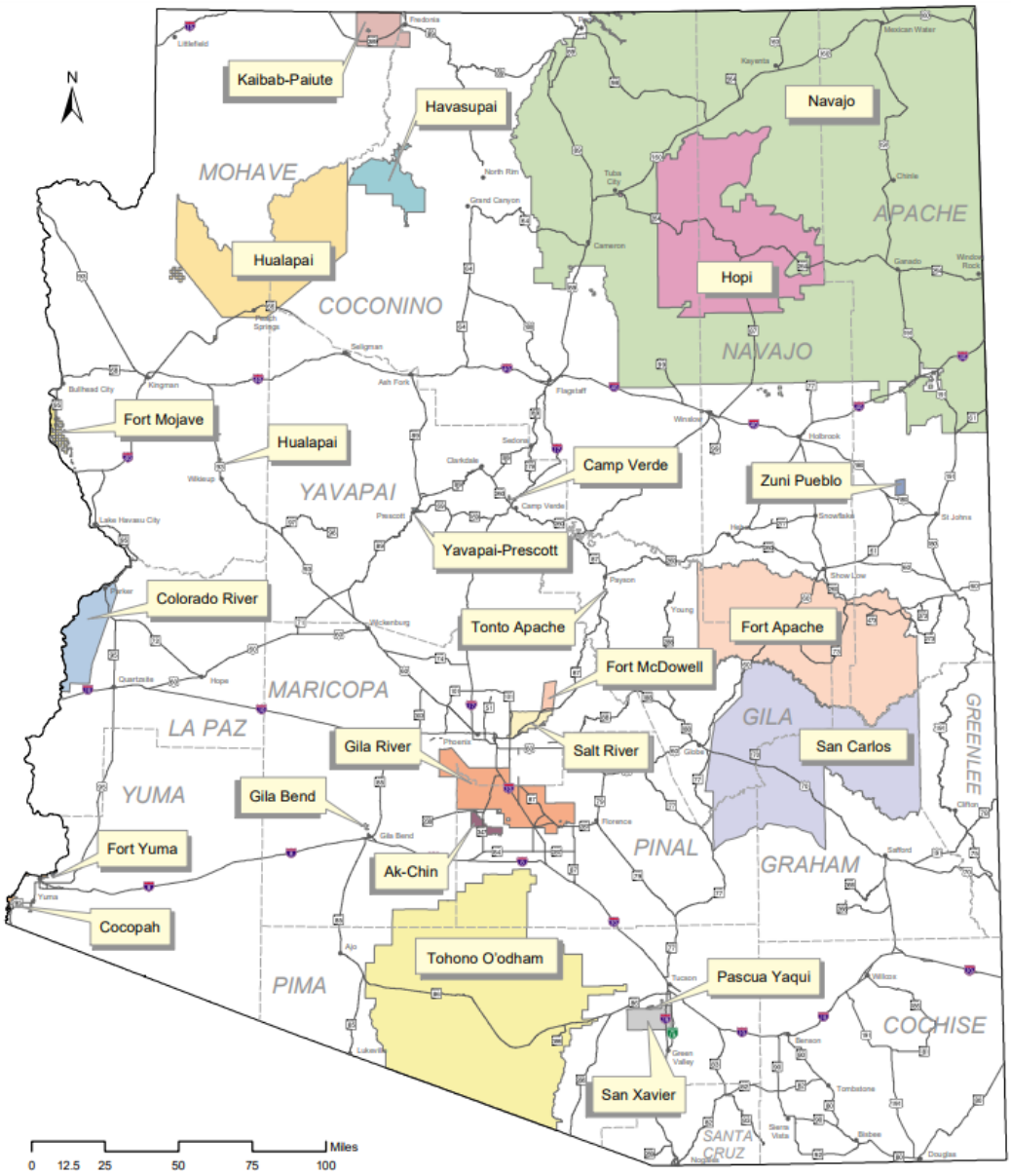
Background

Arizona Tribal Lands and Reservations

The state of Arizona is home to 22 sovereign American Indian Tribes. The American Indian/Alaska Native (AI/AN) community represents a vital and significant part of Arizona's population. In 2019, 5.3% of residents in Arizona identified as AI/AN, representing nearly 386,000 persons[1]. This is the 2nd largest AI/AN population in the United States with only California having a larger population of AI/AN individuals[1]. Tribal lands comprise 28% of Arizona's land base[2]. The map below illustrates tribal lands across the state.



[1] United States Census Bureau Quick Facts, 2019
[2] https://www.azdhs.gov/documents/director/tribal-liaison/AZ_IndianReservationsMap.pdf

Arizona Counties

There are fifteen counties in the state of Arizona that vary greatly by population size, environment, and demographic makeup. Arizona's counties are large in geographical size with Coconino County being the largest at 18,618 square miles and Santa Cruz County being the smallest at 1,236 square miles[3]. The map below illustrates all fifteen counties.

[3] United States Census Bureau Geography Division, 2017

Executive Summary

This profile highlights some of the health disparities and major causes of death faced by the AI/AN community in Arizona. The purpose of this report is to inform tribal leaders and organizations on health disparities impacting AI/AN, identify health priorities, and serve as a guide to develop programs and interventions aimed at improving the health of AI/AN in Arizona.

This report includes tables and graphs with information on chronic diseases, causes of death, and lifestyle health-related risk factors. Data from the Arizona population health and vital statistics, United States Census Bureau, and the Arizona Behavioral Risk Factor Surveillance System (BRFSS) were utilized to compile the information presented in this report.

The five major causes of death among AI/AN in Arizona, 2019:

1. Diseases of the heart
2. Cancer
3. Unintentional injuries/accidents
4. Diabetes
5. Chronic liver disease and cirrhosis

Report Highlights

- In 2019, 5.3% of Arizonans identified as AI/AN.
- Arizona AI/AN were on average 14 years younger at the time of death compared to all racial/ethnic groups.
- From 2009 through 2019, death rates due to diabetes, chronic liver disease/cirrhosis, motor vehicle accidents, unintentional accidents, and intention self-harm (suicide) were significantly higher among AI/AN compared to all other racial/ethnic groups.
- Chronic diseases, and lifestyle risk factors that play a role in the development of chronic diseases, are the leading causes of death and disability in the United States. Compared to other racial/ethnic groups:
    - The prevalence of diabetes, pre-diabetes, and high cholesterol was higher among AI/AN.
    - The prevalence of sexually transmitted diseases (early syphilis, gonorrhea, chlamydia) and HIV/AIDS was higher among AI/AN.
    - The rate of teen pregnancy and poor neonatal/infant health outcomes were higher among AI/AN, while the utilization of prenatal care services was lower among AI/AN.
    - Obesity and physical inactivity were higher among AI/AN adults.
    - The prevalence of smoking, smokeless tobacco use, and self-perceived fair/poor health was higher among AI/AN adults.
- Social determinants of health (SDOH) are conditions in the places where people live, learn, work, and play that affect a wide range of health risks and outcomes. Compared to other racial/ethnic groups:
    - AI/AN adults in Arizona had lower levels of educational attainment, lower income, higher poverty, and higher levels of unemployment.
    - AI/AN adults in Arizona had the second highest prevalence of health care coverage, but the second lowest prevalence of having a personal doctor or health care providers.

Race/Ethnicity Population Distribution

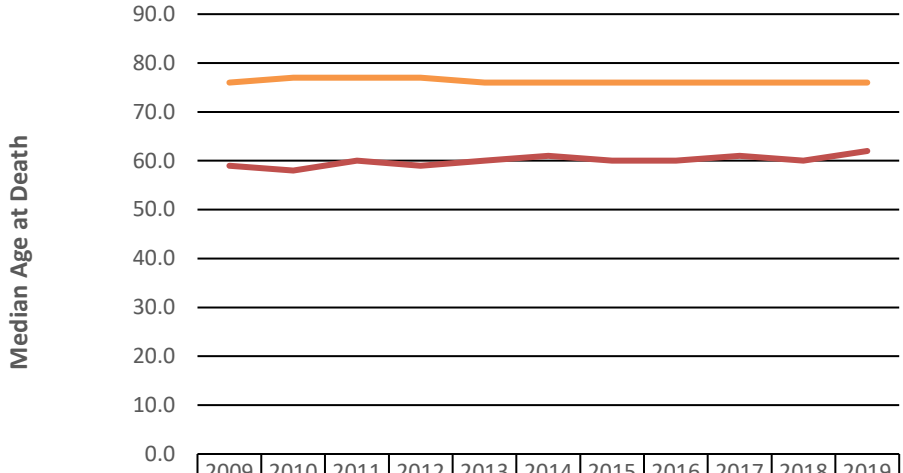
Table 1. Arizona Race/Ethnicity Distribution, 2019[4]

Race/Ethnicity	Percent
Non-Hispanic White	54.1%
Hispanic	31.7%
American Indian/Alaska Native	5.3%
Black/African American	5.2%
Asian/Pacific Islander	3.7%

Life Expectancy

AI/AN born today have a life expectancy that is 5.5 years less than the total United States population (73.0 years to 78.5 years, respectively)[5]. In Arizona, on average, mortality due to all causes for AI/AN (62 years) was 14 years younger than the state average (76 years) in 2019 (Figure 1). There are a variety of factors that contribute to this higher risk of early death, including higher rates of chronic health conditions, lifestyle health-related risk factors, social determinants of health, and location of residence.

Figure 1. Median Age at Death from all Causes among American Indians/Alaska Natives Compared to the State of Arizona (2009-2019)[6]



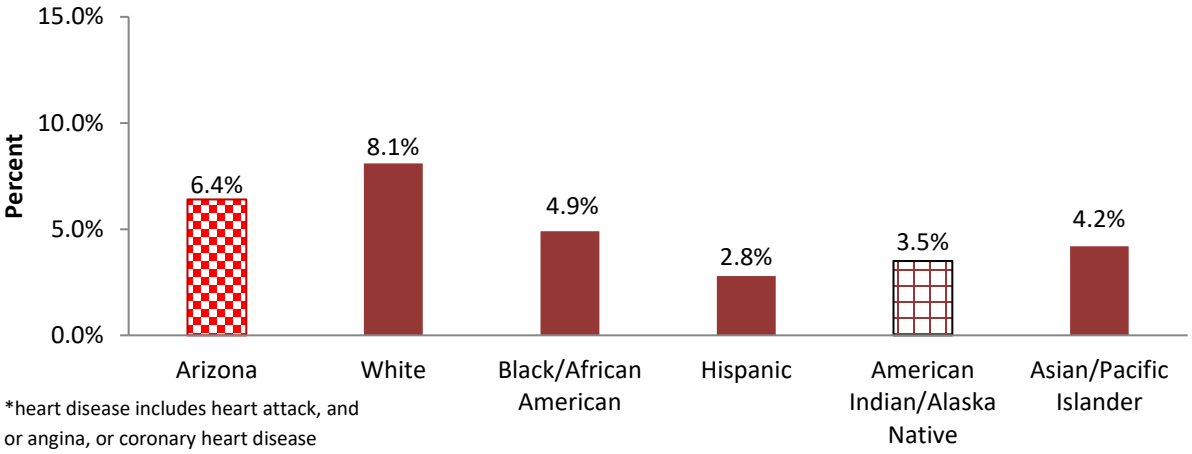
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	76	77	77	77	76	76	76	76	76	76	76
American Indian/Alaska Native	59	58	60	59	60	61	60	60	61	60	62

[4] Arizona Quick Facts, United States Census Bureau, 2019
[5] https://www.ihs.gov/newsroom/factsheets/disparities/
[6] http://pub.azdhs.gov/health-stats/report/hspam/2019/index.php

Heart Disease

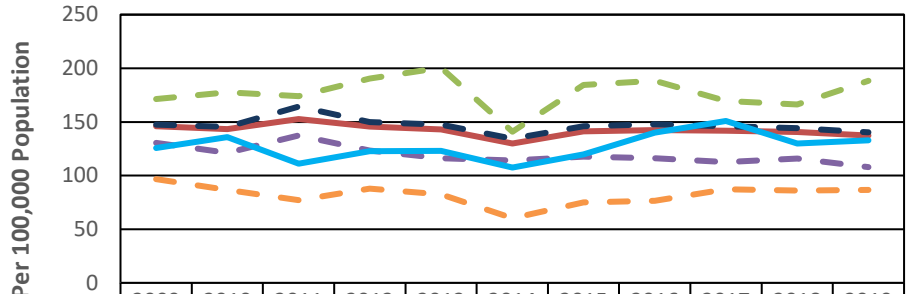
In the United States, heart disease is the leading cause of death among most racial and ethnic groups, including AI/AN[7]. Compared to the entire state of Arizona, AI/AN adults had a lower prevalence of heart disease (3.5%) in 2019. Relative to other racial/ethnic groups, AI/AN adults in Arizona had the fourth highest prevalence of heart disease (Figure 2). Since 2014, the mortality rate (per 100,000 persons) due to heart disease has been increasing for AI/AN from 107.5 in 2014 to 132.8 in 2019, briefly surpassing the state rate in 2017 (Figure 3).

Figure 2. Percentage of Arizona Adults with Heart Disease* by Race/Ethnicity, BRFSS 2019[8]



*heart disease includes heart attack, and or angina, or coronary heart disease

Figure 3. Age-Adjusted Mortality Rate for Heart Disease by Race/Ethnicity, 2009-2019[9]



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	145.9	143.3	152.7	145.8	143	129.9	141.3	142.5	141.9	140.5	137.3
White	147.5	145.4	164.3	150	147.6	134.4	146	147.7	146.1	144.3	140.4
Black/African American	171.3	177.7	174	190.5	200.5	140.9	184.4	188.3	169.6	166.4	188.3
Hispanic	130.5	121.3	137.4	123.4	116.1	114	117.6	116.3	112.5	116	107.9
American Indian/Alaska Native	125.8	135.9	111.1	122.7	122.9	107.5	119.9	139.9	150.9	129.9	132.8
Asian/Pacific Islander	96.7	86.8	77	87.9	82.5	60.3	75	76.6	87.2	86	86.7

[7] https://www.cdc.gov/heartdisease/facts.htm
[8] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019
[9] Arizona Department of Health Services Bureau of Public Health Statistics

Stroke

In the United States, AI/AN and non-Hispanic whites have similar rates of strokes and stroke-related deaths.[10] Stroke is the sixth leading cause of death among AI/AN[11]. Compared to the entire state of Arizona, AI/AN adults had a lower prevalence of stroke (2.0%) in 2019 (Figure 4). Among AI/AN, mortality due to stroke has increased from 24.7 in 2009 to 35.7 in 2019. Compared to all racial/ethnic groups, mortality due to stroke was highest among AI/AN and African Americans in 2019 (Figure 5).

Figure 4. Percentage of Arizona Adults with Stroke by Race/Ethnicity, BRFSS 2019[12]

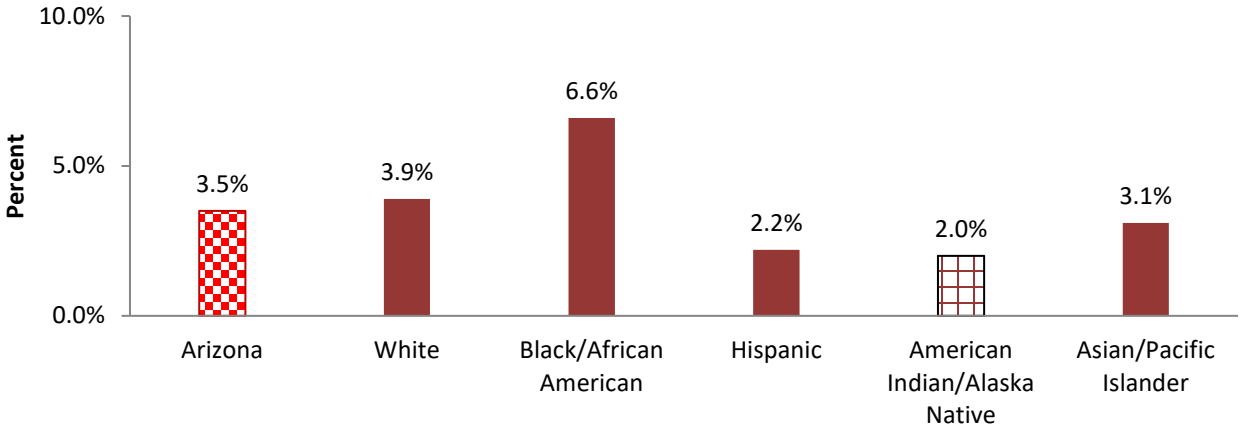
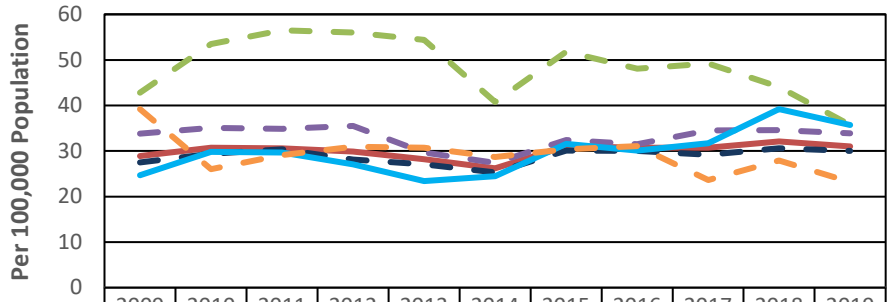


Figure 5. Age-Adjusted Mortality Rate for Stroke* by Race/Ethnicity, 2009-2019[13]



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	28.9	30.7	30.6	29.9	28.2	26.2	31.1	30.7	30.7	32.1	31.0
White	27.5	29.4	30.4	28.1	27.1	25.3	30.1	30.0	29.2	30.6	30.0
Black/African American	42.8	53.5	56.5	56.0	54.4	40.8	51.8	48.1	49.2	44.1	35.7
Hispanic	33.8	35.1	34.9	35.5	29.7	27.4	32.4	31.5	34.5	34.6	33.9
American Indian/Alaska Native	24.7	29.8	29.7	27.1	23.4	24.5	31.6	30.1	31.7	39.2	35.7
Asian/Pacific Islander	39.2	26.0	29.1	30.9	30.7	28.7	30.4	31.1	23.6	27.9	23.2

[10] https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=43
[11] https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-13-508.pdf
[12] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019
[13] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Diabetes

In the United States, compared to whites, AI/AN adults are more than twice as likely to have been diagnosed with type 2 diabetes[14]. People with diabetes can experience devastating complications, including heart disease, stroke, blindness, and amputations. Compared to the entire state of Arizona and other racial/ethnic groups, AI/AN adults had the highest prevalence of diabetes (21.2%) in 2019 (Figure 6). Mortality due to diabetes was considerably higher among AI/AN compared to other racial/ethnic groups in Arizona (Figure 7).

Figure 6. Percentage of Arizona Adults with Diabetes by Race/Ethnicity, BRFSS 2019[15]

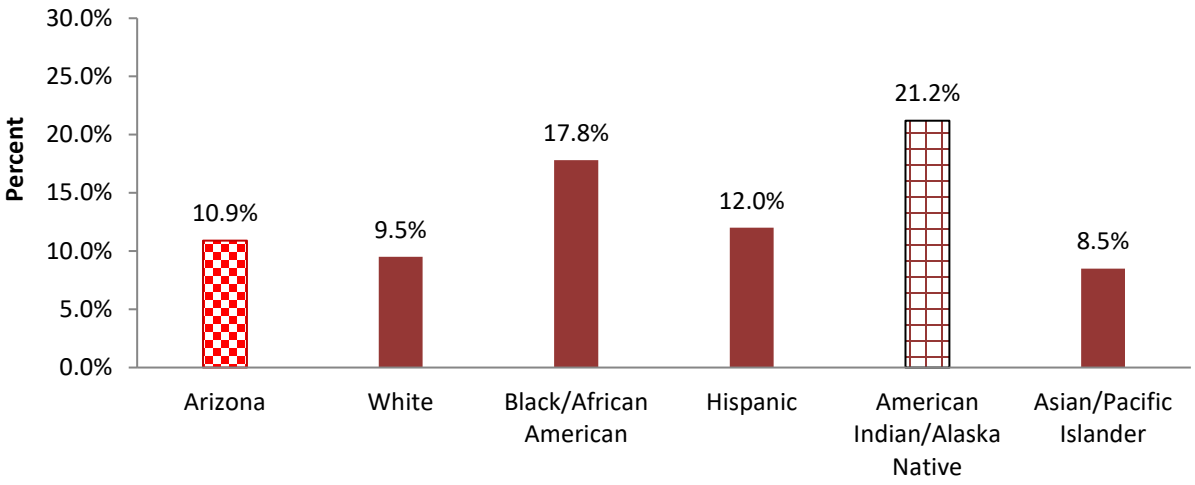
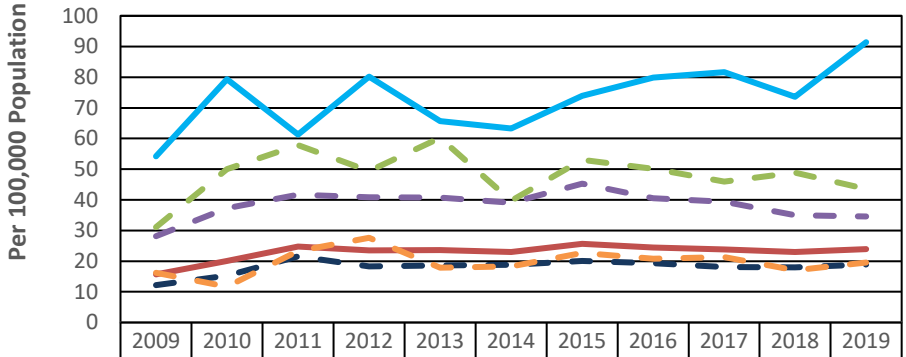


Figure 7. Age-Adjusted Mortality Rate for Diabetes by Race/Ethnicity 2009-2019[16]



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	15.7	20.1	24.8	23.5	23.6	23.0	25.7	24.5	23.8	23.0	23.9
White	12.2	15.2	21.6	18.3	18.6	18.8	20.1	19.3	18.1	18.0	18.9
Black/African American	31.1	50.0	57.8	49.4	60.2	39.7	53.0	50.1	45.9	48.9	43.6
Hispanic	28.1	37.3	41.7	40.8	40.7	39.1	45.3	40.5	39.4	35.0	34.6
American Indian/Alaska Native	54.2	79.3	61.3	80.2	65.7	63.2	73.9	79.9	81.6	73.6	91.4
Asian/Pacific Islander	16.2	11.7	23.3	27.6	17.9	18.3	22.7	20.8	21.3	17.0	19.5

[14] https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2018_SHS_Table_A-4.pdf
[15] Arizona Behavioral Risk Factor Surveillance System (BRFSS)
[16] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Cancer

In the United States, compared to whites, AI/AN are more likely to get certain cancers[17]. Cancer rates vary by tribe, region, and gender among AI/AN. Compared to the entire state of Arizona, AI/AN adults had a lower prevalence of cancer in 2019 (3.5%). Across racial/ethnic groups, AI/AN adults in Arizona had the fourth highest prevalence of cancer history in 2019 (Figure 8). Mortality due to cancer has increased in the last ten years among AI/AN from 113.3 in 2009 to 132.3 in 2019 (Figure 9).

Figure 8. Percentage of Arizona Adults with any Cancer Type* by Race/Ethnicity BRFSS, 2019[18]

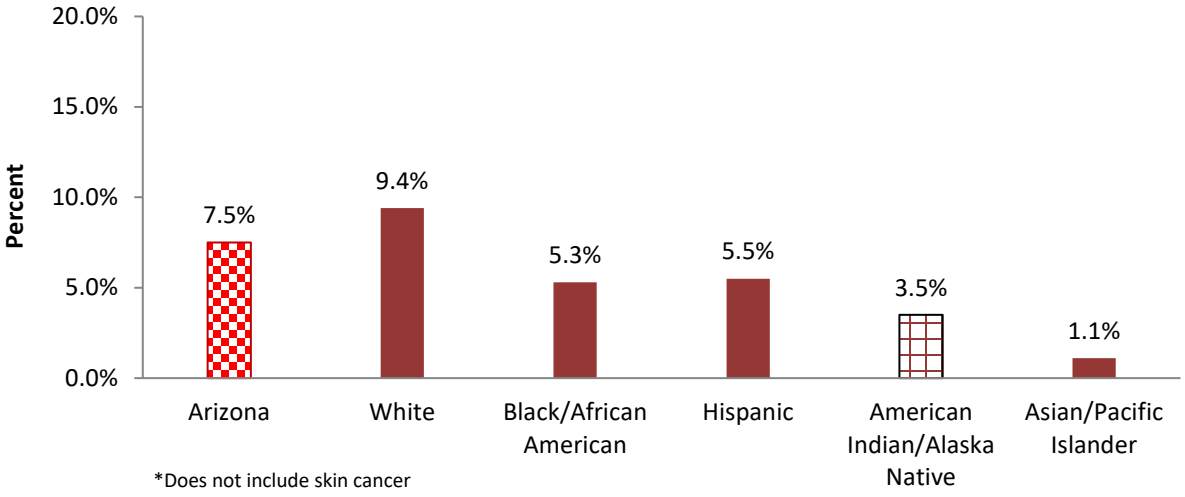
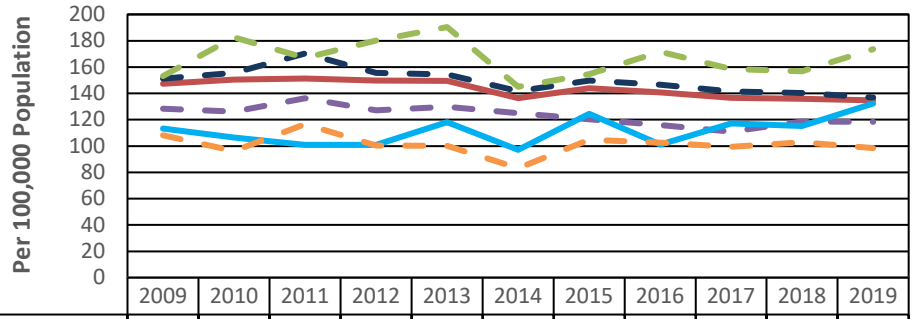


Figure 9. Age-Adjusted Mortality Rate for Cancer by Race/Ethnicity, 2009-2019[19]



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	147.2	150.5	151.3	149.8	149.6	136.3	144	140.7	136.6	135.9	134.7
White	151.1	155.6	170.3	155.6	154.3	141.8	149.8	146.7	141.4	140.2	136.9
Black/African American	153.1	182.6	167.1	180.1	190.4	145	154.7	171.6	158.5	156.7	173.5
Hispanic	128.4	126.2	136.3	127.2	129.8	124.9	120.4	115.9	110.9	118.7	118.3
American Indian/Alaska Native	113.3	106.4	100.8	100.8	118.2	97.1	124.4	101.2	117.1	115.3	132.3
Asian/Pacific Islander	108.1	96.2	116.6	100.5	100.1	83.2	104.8	102.6	99.4	102.7	98.4

[17] https://www.cdc.gov/cancer/dcpc/research/articles/cancer-AIAN-US.htm
[18] Arizona Behavioral Risk Factor Surveillance System (BRFSS)
[19] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Chronic Obstructive Pulmonary Disease (COPD)

In the United States, compared to other racial/ethnic groups, AI/AN are more likely to report ever having COPD.[20] The most significant risk factor for COPD is cigarette smoking. Compared to other racial/ethnic groups, cigarette smoking is more common among AI/AN in the United States.[21] In Arizona, the prevalence of COPD (5.1%) in 2019 was lower among AI/AN adults when compared to the entire state and the third highest when compared across racial/ethnic groups (Figure 10).

In the United States, asthma disproportionally impacts AI/AN[22]. In Arizona, the prevalence of asthma among AI/AN adults (16.7%) in 2019 was higher than the entire state. Across racial/ethnic groups, AI/AN adults in Arizona had the highest prevalence of asthma (16.7%) (Figure 11).

Figure 10. Percentage of Arizona Adults with COPD by Race/Ethnicity, BRFSS 2019[23]

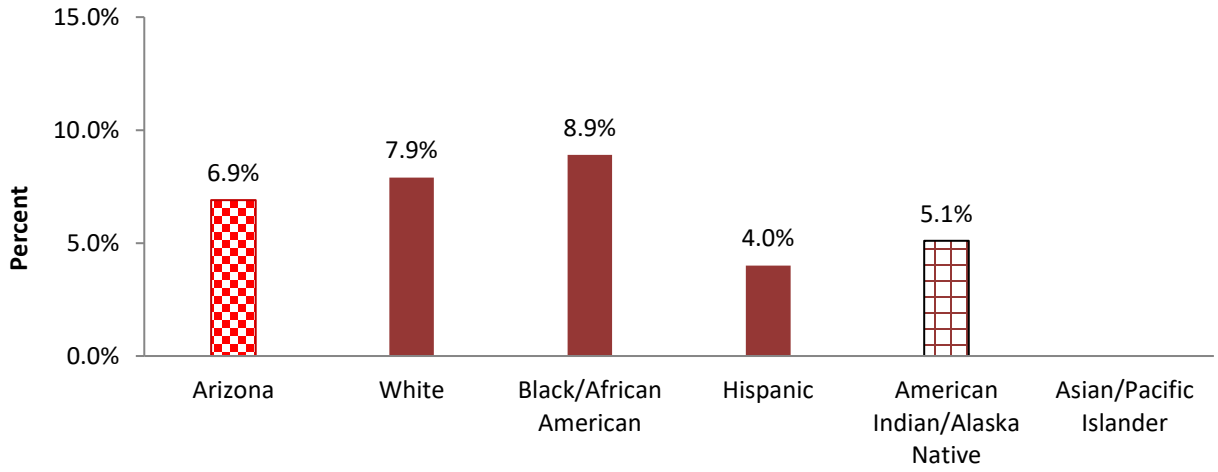
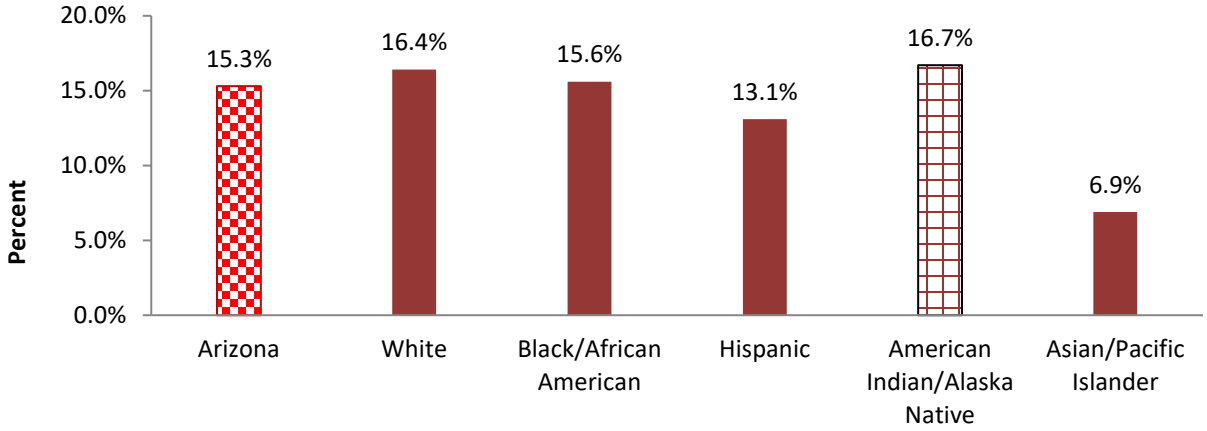


Figure 11. Percentage of Arizona Adults with Asthma by Race/Ethnicity, BRFSS 2019[23]

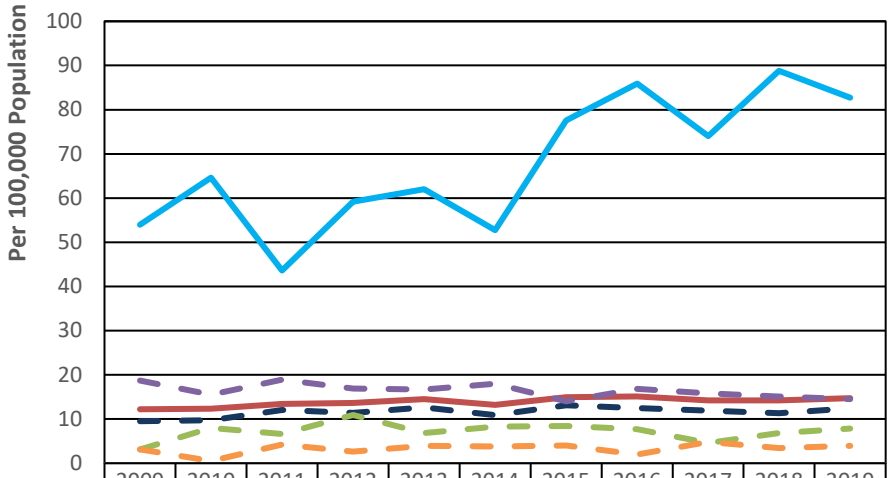


[20] https://www.cdc.gov/mmwr/volumes/68/wr/mm6824a1.htm
[21] https://www.cdc.gov/tobacco/campaign/tips/groups/american-indian-alaska-native.html
[22] https://ftp.cdc.gov/pub/Health_Statistics/NCHS/NHIS/SHS/2018_SHS_Table_A-2.pdf
[23] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Chronic Liver Disease and Cirrhosis

In the United States, chronic liver disease was the fifth leading cause of death among AI/AN in 2018, and the third leading cause of death for AI/AN men ages of 35-44.[24] Chronic alcoholism contributes to chronic liver disease, cirrhosis, and other chronic conditions. Compared to the entire state of Arizona and other racial/ethnic groups, mortality due to chronic liver disease and cirrhosis between 2009 through 2019 was significantly higher among AI/AN (Figure 12). Mortality rates (per 100,000 persons) due to chronic liver disease and cirrhosis has continually increased the last ten years among AI/AN from 54.0 in 2009 to 82.7 in 2019 (Figure 12).

Figure 12. Age-Adjusted Mortality Rate for Chronic Liver Disease and Cirrhosis by Race/Ethnicity, 2009-2019[25]



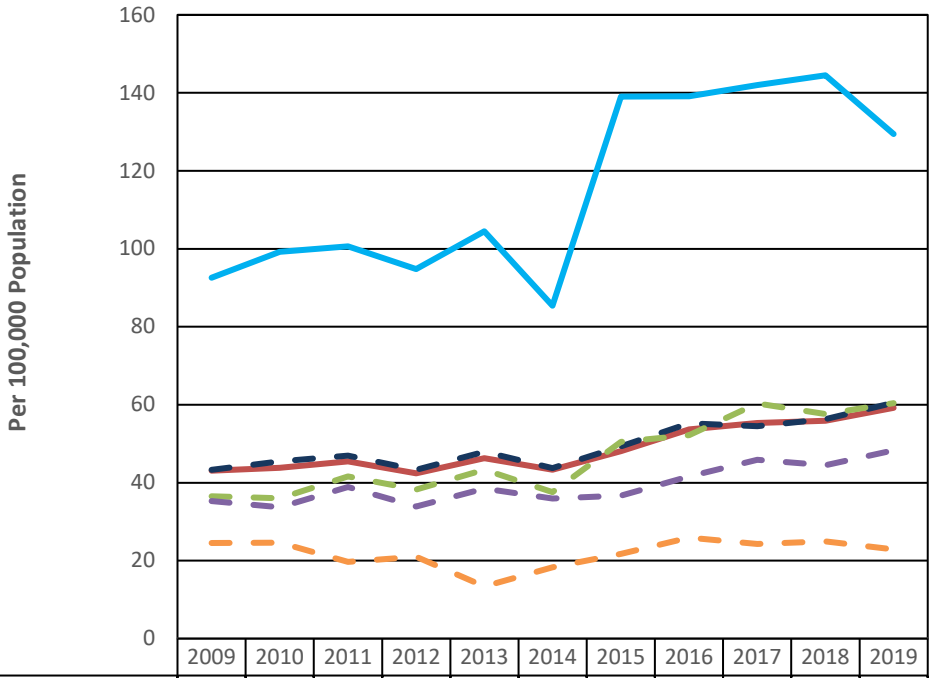
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	12.2	12.3	13.4	13.6	14.5	13.2	14.9	15.1	14.2	14.2	14.7
White	9.5	9.7	12.0	11.4	12.6	10.9	13.1	12.5	11.9	11.3	12.4
Black/African American	3.1	8.0	6.6	10.9	6.8	8.3	8.4	7.7	4.6	6.8	7.8
Hispanic	18.7	15.5	18.9	16.9	16.7	18.0	14.0	16.8	15.8	15.1	14.5
American Indian/Alaska Native	54.0	64.6	43.6	59.2	62.0	52.7	77.6	85.9	74.0	88.8	82.7
Asian/Pacific Islander	3.1	0.5	4.2	2.6	3.9	3.8	4.0	2.0	4.8	3.4	3.9

[24] https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=4&lvlid=32
[25] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Accidents (Unintentional injuries)

In the United States, unintentional injuries are the leading cause of death among AI/AN between the ages of 1 and 44 years and the third leading cause of for all ages[26]. Compared to the entire state of Arizona and other racial/ethnic groups, AI/AN had the highest mortality rate due to unintentional injuries between 2009 to 2019 (Figure 13).

Figure 13. Age-Adjusted Mortality Rate for Accidents (Unintentional Injuries) by Race/Ethnicity, 2009-2019[27]



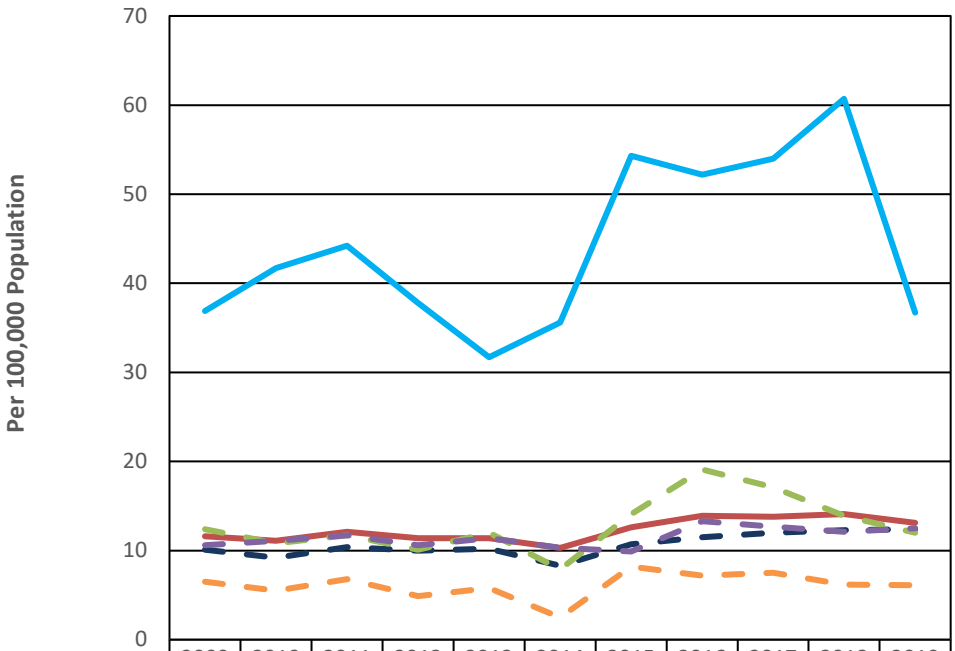
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	43.1	43.8	45.5	42.4	46.3	43.3	48.1	53.7	55.3	55.9	59.2
White	43.3	45.5	46.9	43.3	47.9	43.7	49.3	55.2	54.5	56.3	60.5
Black/African American	36.5	36.0	41.6	38.2	43.3	37.6	50.5	52.2	60.3	57.6	60.4
Hispanic	35.3	33.7	38.9	33.9	38.5	35.9	36.7	41.6	45.9	44.5	48.3
American Indian/Alaska Native	92.6	99.2	100.6	94.8	104.5	85.4	139.0	139.1	142.0	144.5	129.4
Asian/Pacific Islander	24.5	24.6	19.7	21.0	13.4	18.3	21.7	25.9	24.3	24.9	22.9

[26] https://www.ihs.gov/sites/dps/themes/responsive2017/display_objects/documents/Indian_Health_Focus_Injuries_2017_Edition_508.pdf
[27] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Motor Vehicle Accidents

In the United States, motor vehicle accidents are the leading cause of unintentional injuries for AI/AN[28]. Compared to the entire state of Arizona and other racial/ethnic groups, AI/AN had the highest mortality rate due to motor vehicle accidents between 2009 to 2019. There was a striking decrease of motor vehicle accident deaths from 2018 (60.7) to 2019 (36.7) among AI/AN (Figure 14).

Figure 14. Age-Adjusted Mortality Rate for Motor Vehicle Accidents by Race/Ethnicity 2009-2019[29]



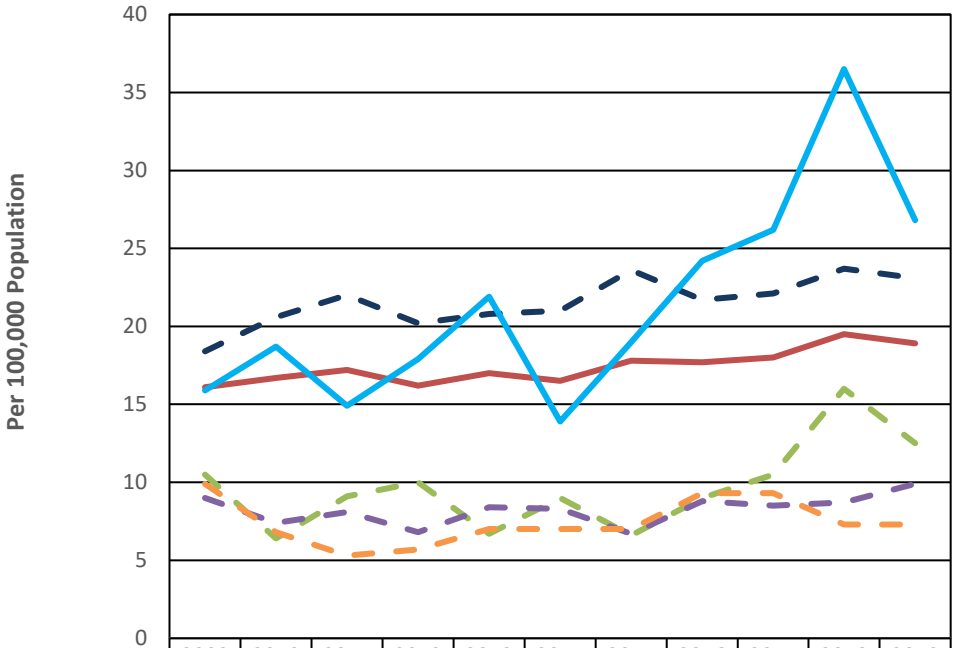
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	11.6	11.1	12.1	11.4	11.4	10.3	12.6	13.9	13.8	14.1	13.1
White	10.1	9.2	10.4	10.0	10.2	8.3	10.7	11.5	12.0	12.3	12.4
Black/African American	12.4	10.8	11.7	10.1	12.0	7.9	14.1	19.1	17.1	13.9	12.0
Hispanic	10.6	11.1	11.7	10.6	11.4	10.3	9.9	13.3	12.7	12.1	12.5
American Indian/Alaska Native	36.9	41.7	44.2	37.8	31.7	35.6	54.3	52.2	54.0	60.7	36.7
Asian/Pacific Islander	6.5	5.5	6.8	4.9	5.8	2.5	8.2	7.2	7.5	6.2	6.1

[28] https://www.cdc.gov/transportationsafety/native/factsheet.html
[29] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Intentional Self-Harm (Suicide)

In the United States, compared with whites, the mortality rate from suicide for AI/AN adults is about 20 percent higher[30]. Compared to the entire state of Arizona and other racial/ethnic groups, AI/AN had the highest mortality rate due to suicide between 2016 to 2019 (Figure 15).

Figure 15. Age-adjusted Mortality Rate for Intentional Self-Harm (Suicide) by Race/Ethnicity 2009-2019[31]



	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Arizona	16.1	16.7	17.2	16.2	17.0	16.5	17.8	17.7	18.0	19.5	18.9
White	18.4	20.6	22.0	20.2	20.8	21.0	23.6	21.7	22.1	23.7	23.1
Black/African American	10.5	6.4	9.1	10.0	6.7	9.0	6.6	9.0	10.5	16.0	12.5
Hispanic	9.0	7.4	8.1	6.8	8.4	8.3	6.7	8.8	8.5	8.7	9.9
American Indian/Alaska Native	15.9	18.7	14.9	17.9	21.9	13.9	19.0	24.2	26.2	36.5	26.8
Asian/Pacific Islander	9.9	6.8	5.3	5.7	7.0	7.0	7.0	9.3	9.3	7.3	7.3

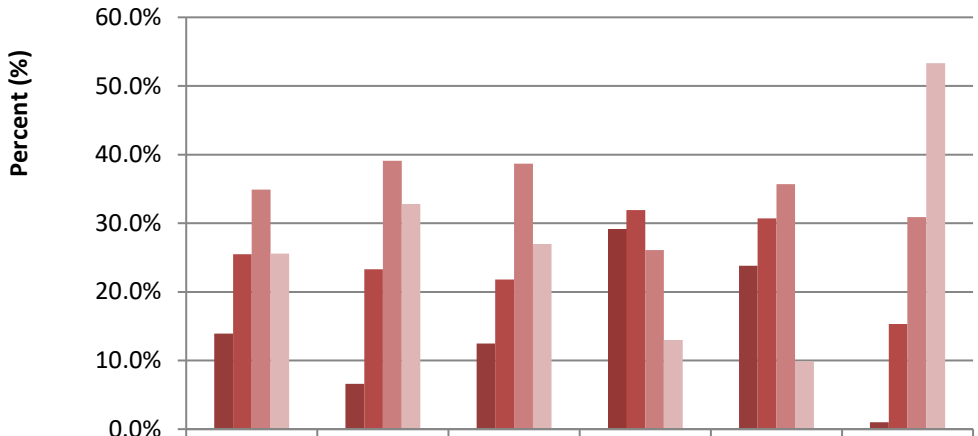
[30] https://www.cdc.gov/nchs/data/nvsr/nvsr69/nvsr69-13-508.pdf
[31] Arizona Department of Health Services Bureau of Public Health Statistics, https://pub.azdhs.gov/health-stats/report/ahs/ahs2019/pdf/2b3.pdf

Sociodemographic Characteristics and Health Care Access

Data from the 2019 Arizona Behavioral Risk Factor Surveillance System (BRFSS) was used to examine the prevalence of selected sociodemographic, lifestyle health-related risk factors, and chronic conditions among AI/AN adults compared to other racial/ethnic groups. The BRFSS is a telephone (landline and cell) survey conducted annually in all 50 states, the District of Columbia and U.S. territories to collect information on health-related behavioral risk factors, preventable health practices, health care access, and chronic conditions among noninstitutionalized U.S. adults aged 18 years or older.

Compared to the entire state of Arizona, AI/AN had a higher prevalence with less than a high school diploma and a lower prevalence with a college degree in 2019. In addition, across racial/ethnic groups, AI/AN adults in Arizona had the second highest prevalence with less than a high school diploma (23.8%), and the lowest prevalence with a college degree (9.9%) (Figure 16).

Figure 16. Education Status by Race/Ethnicity BRFSS, 2019[32]

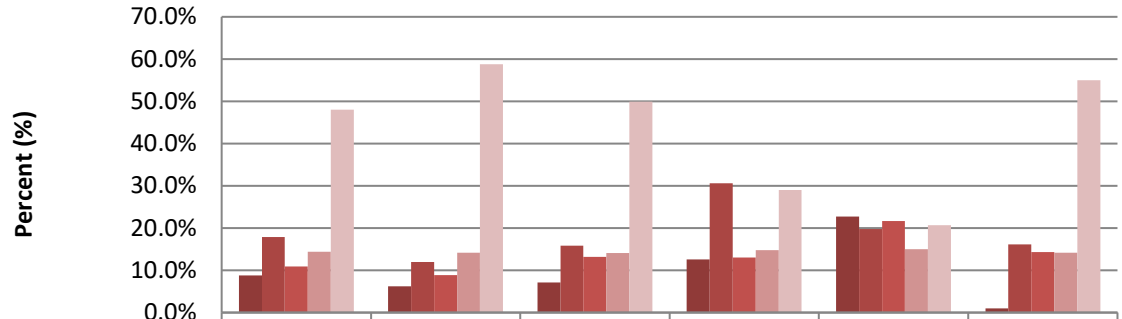


	Arizona	White	Black/ African American	Hispanic	American Indian/ Alaska Native	Asian/ Pacific Islander
< High School	13.9%	6.6%	12.5%	29.1%	23.8%	1.0%
High School/GED Graduate	25.5%	23.3%	21.8%	31.9%	30.7%	15.3%
Some College	34.9%	39.1%	38.7%	26.1%	35.7%	30.9%
College Graduate	25.6%	32.8%	27.0%	13.0%	9.9%	53.3%

[32] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

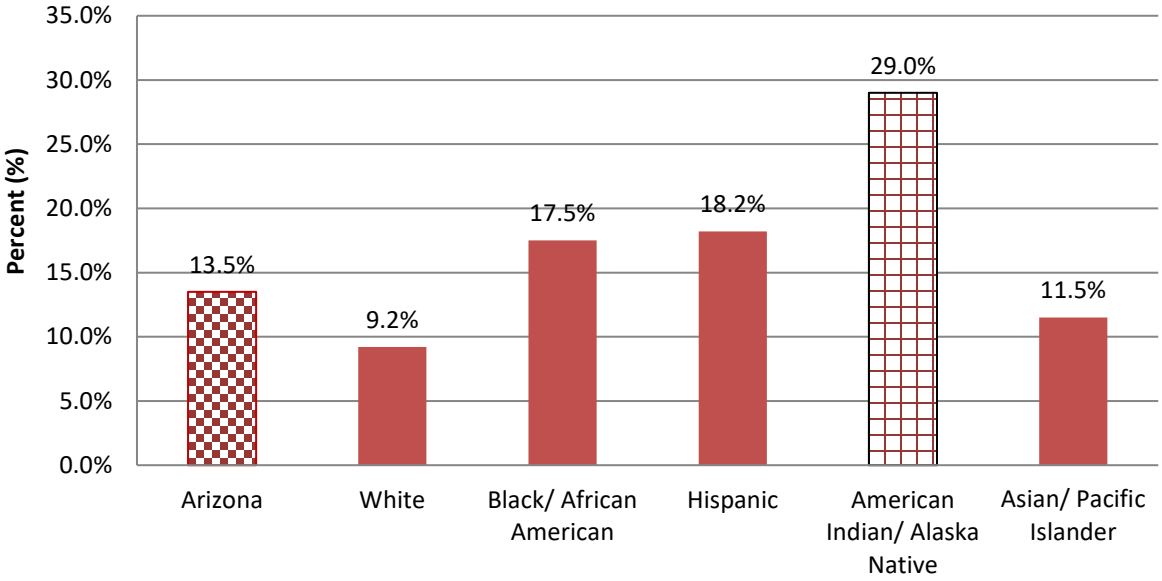
Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of an income less than $15,000 (Figure 17), a higher prevalence of poverty (Figure 18), and a higher prevalence of unemployment in 2019 (Figure 19). In addition, across racial/ethnic groups, AI/AN adults in Arizona reported the highest prevalence of an income less than $15,000 a year (22.7%) (Figure 17), the highest prevalence of poverty (29.0%) (Figure 18), and the highest prevalence of being unemployed (10.0%) (Figure 19).

Figure 17. Income Status by Race/Ethnicity, BRFSS, 2019[33]



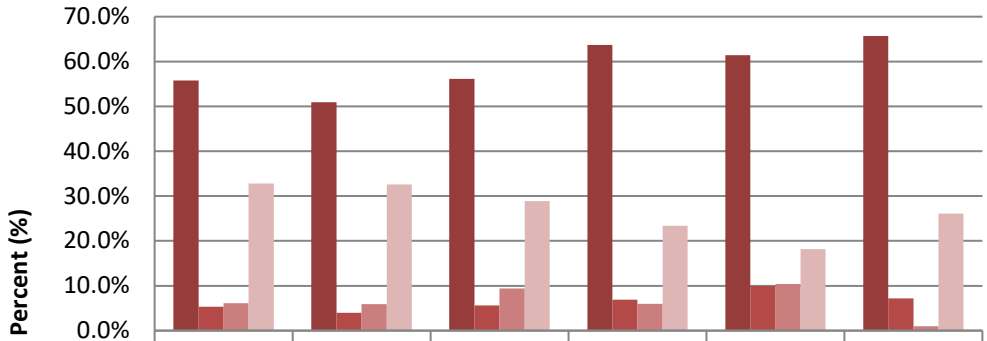
	Arizona	White	Black/ African American	Hispanic	American Indian/ Alaska Native	Asian/ Pacific Islander
<$15,000	8.8%	6.2%	7.1%	12.6%	22.7%	1.0%
$15,000-$24,999	17.9%	12.0%	15.8%	30.6%	19.8%	16.1%
$25,000-$34,999	10.9%	8.9%	13.2%	13.0%	21.7%	14.3%
$35,000- $49,999	14.4%	14.2%	14.1%	14.8%	15.0%	14.2%
>$50,000	48.0%	58.8%	49.9%	29.0%	20.7%	55.0%

Figure 18. Adults in Poverty by Race/Ethnicity, BRFSS, 2019[34]



[33] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019
[34] American Community Survey, United States Census Bureau, 2019

Figure 19. Employment Status by Race/Ethnicity, BRFSS, 2019[35]



	Arizona	White	Black/ African American	Hispanic	American Indian/ Alaska Native	Asian/ Pacific Islander
Employed/Self-Employed	55.8%	50.9%	56.1%	63.7%	61.4%	65.7%
Unemployed	5.3%	4.0%	5.6%	6.9%	10.0%	7.2%
Unable to Work	6.1%	5.9%	9.4%	6.0%	10.4%	1.0%
Other	32.8%	32.6%	28.9%	23.4%	18.2%	26.1%

[35] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of health care coverage (Figure 20), but a lower prevalence of having a personal doctor or health care provider (Figure 21). In addition across racial/ethnic groups, AI/AN adults had the second highest prevalence of health care coverage (89.6%) (Figure 20), but the second lowest prevalence of having a personal doctor or health care provider (61.4%) (Figure 21). This highlights that having health insurance and availability of services, such as those offered through Indian Health Services (IHS) and tribally-operated facilities, does not guarantee access to a usual source of care. IHS is a health care system that provides clinical, behavioral, and limited specialty health care services to enrolled members of federally recognized AI/AN tribes and is not a health insurance plan[36]. Traditionally, IHS facilities are located in geographically isolated areas, on reservations. As more AI/AN reside in urban areas, access to these facilities is more limited[37].

Figure 20. Have Health Care Coverage by Race/Ethnicity, BRFSS, 2019[38]

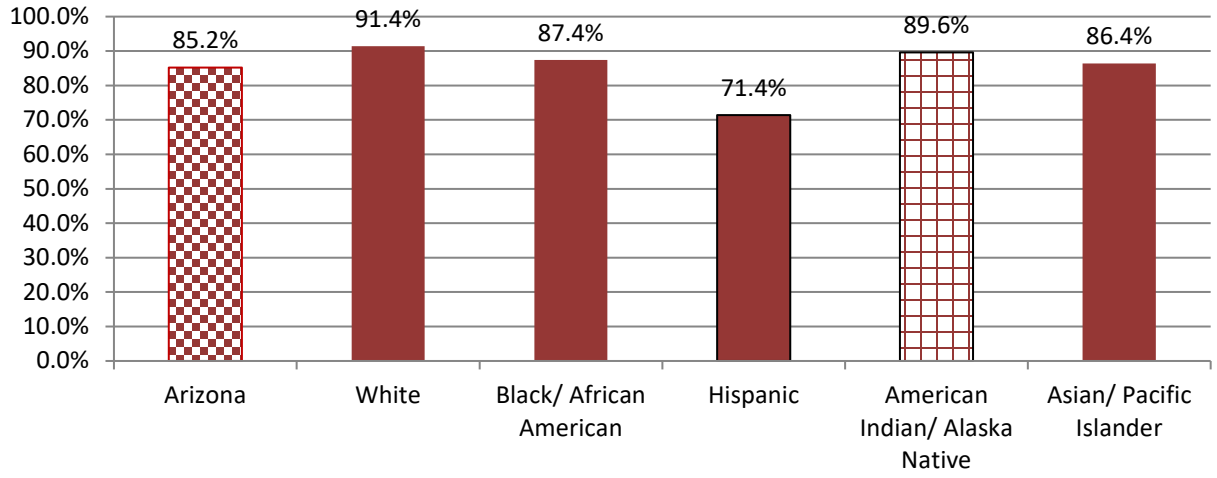
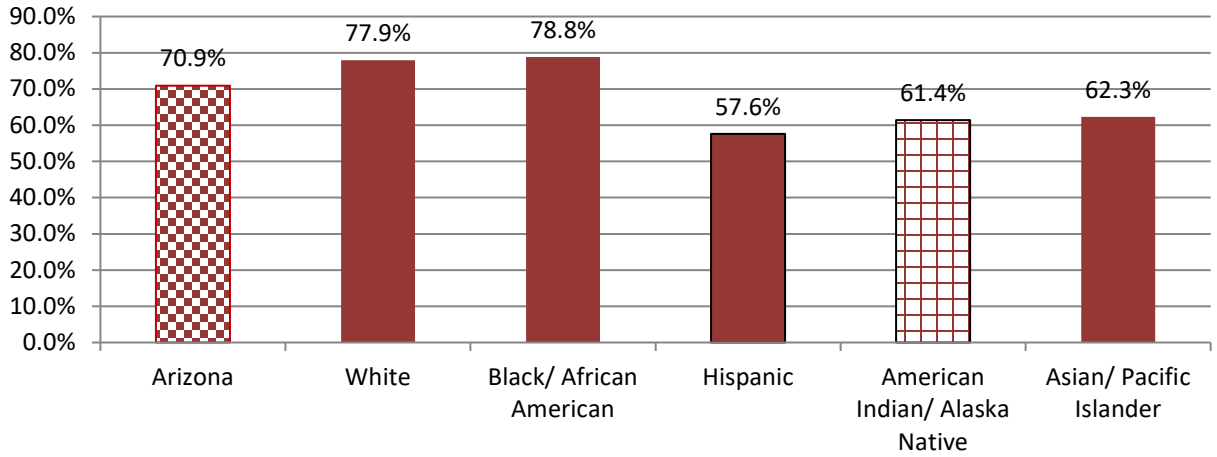


Figure 21. Have a Personal Doctor or Health Care Provider by Race/Ethnicity, BRFSS, 2019[38]



[36] Zuckerman S, Haley JM, Roubideaux Y, Lillie-Blanton M. Health service access, use, and insurance coverage among American Indians/Alaska Natives and Whites: what role does the Indian Health Service play? Am J Public Health 2004;94:53–59.
[37] Sequist TD, Cullen T, Acton KJ. Indian Health Service innovations have helped reduce health disparities affecting American Indian and Alaska Native people. Health Aff (Millwood) 2011;30:1965–1973. http://dx.doi. org/10.1377/hlthaff.2011.0630
[38] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Lifestyle Health-Related Behaviors

Tobacco use, being overweight or obese, and having high blood pressure or high cholesterol are risk factors that can lead to heart disease, diabetes, and other chronic diseases. In the United States, AI/AN have the highest prevalence of tobacco use, obesity, and physical inactivity[39]. Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of smoking (Figure 22) and a higher prevalence of smokeless tobacco use (Figure 23) in 2019. Across all racial/ethnic groups, AI/AN adults in Arizona had the highest prevalence of smoking (22.6%) (Figure 22) and the highest prevalence of using smokeless tobacco (10.9%) in 2019 (Figure 23).

Figure 22. Percentage of Arizona Adults Who are Current Smokers by Race/Ethnicity BRFSS 2019[40]

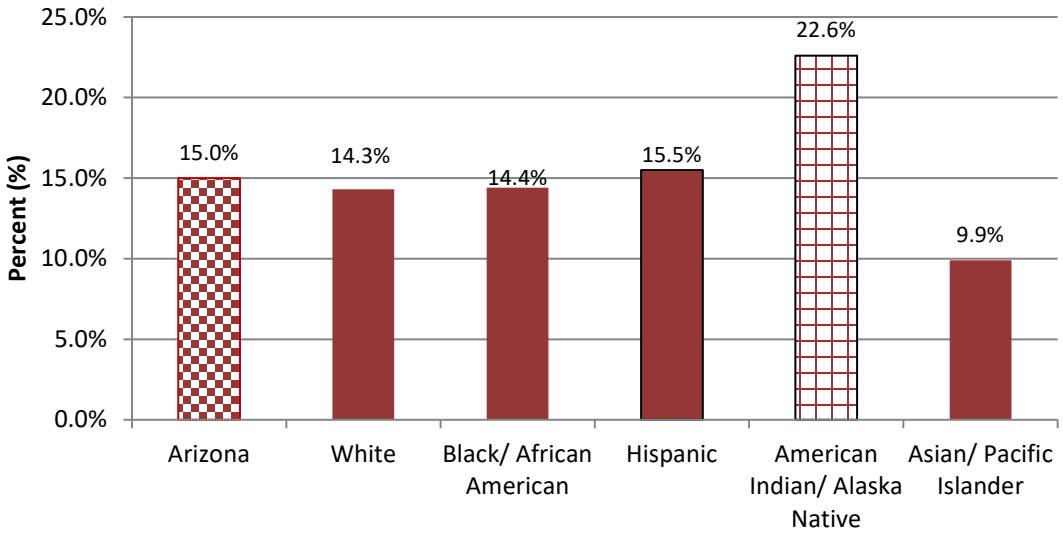
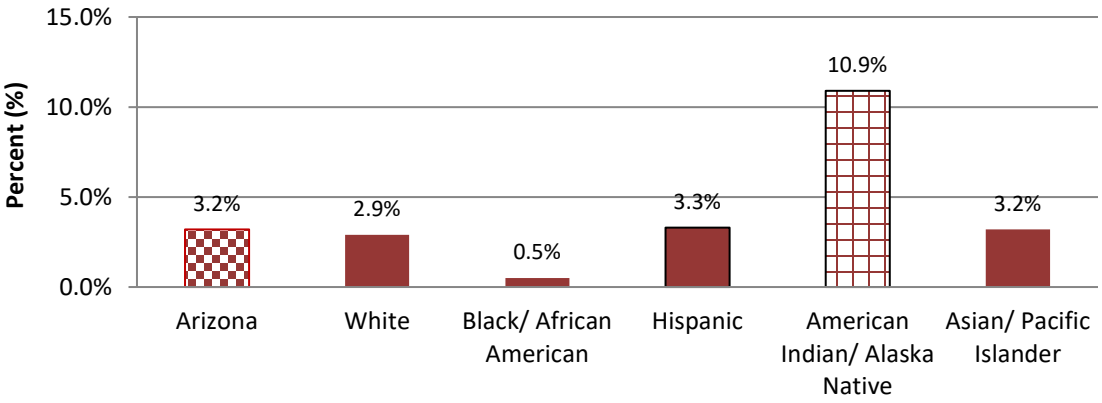


Figure 23. Percentage of Arizona Adults Who are Current Smokeless Tobacco Users by Race/Ethnicity, BRFSS 2019[41]

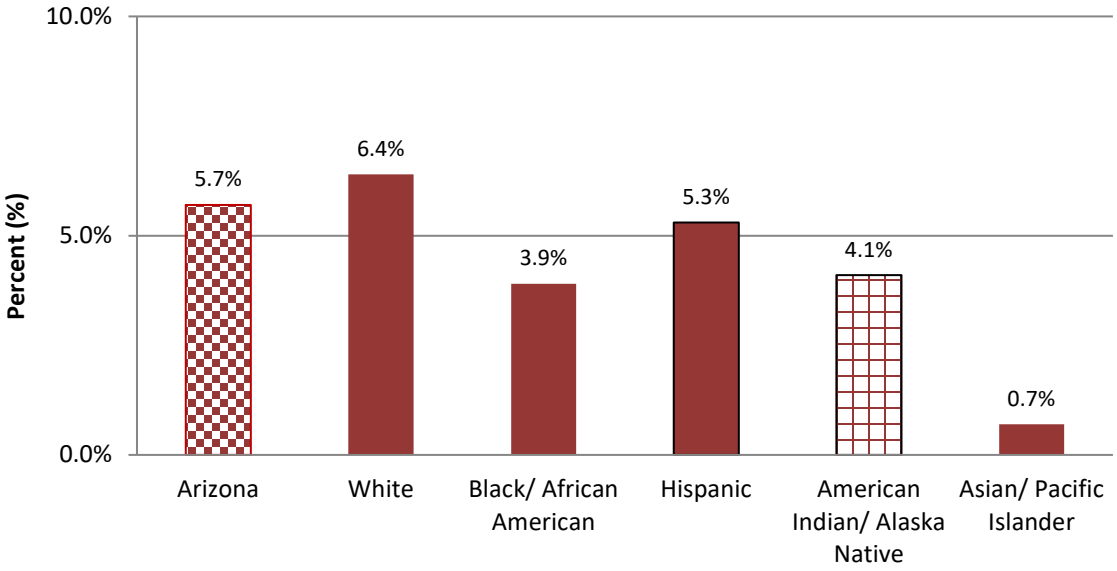


[39] https://www.cdc.gov/tribal/data-resources/information/chronic-diseases.html
[40] Arizona Behavioral Risk Factor Surveillance System (BRFSS)
[41] Arizona Behavioral Risk Factor Surveillance System (BRFSS)

Compared to the entire state of Arizona, AI/AN adults had a lower prevalence of heavy drinking (Figure 24) in 2019. Across all racial/ethnic groups, AI/AN adults in Arizona had the third highest prevalence of heavy drinking (4.1%) in 2019 (Figure 24). Heavy drinkers were defined as adult men having more than 14 drinks per week and adult women having more than 7 drinks per week.

Note: The BRFSS is not without limitations. The BRFSS is self-reported and is subject to recall and social desirability bias. Place of residence (urban, rural, suburban, or reservation) is not elucidated but might influence the degree to which health disparities or risk behaviors affect certain groups. Persons who could not be reached by telephone (land line or cell line) could not respond to the BRFSS. Data could be skewed because persons of lower socioeconomic status might not have been included in the survey due to poorer phone access.

Figure 24. Percentage of Arizona Adults Who were Heavy Drinkers by Race/Ethnicity, BRFSS 2019[42]



[42] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of physical inactivity (Figure 25) and a higher prevalence of being overweight or obese (Figure 26) in 2019. Across racial/ethnic groups, AI/AN had the highest prevalence of physical inactivity (35.2%) (Figure 25) and the highest prevalence of being overweight or obese (81.1%) (Figure 26).

Figure 25. Percentage of Arizona Adults Who Reported Leisure-Time Physical Inactivity[43] by Race/Ethnicity, BRFSS, 2019[44]

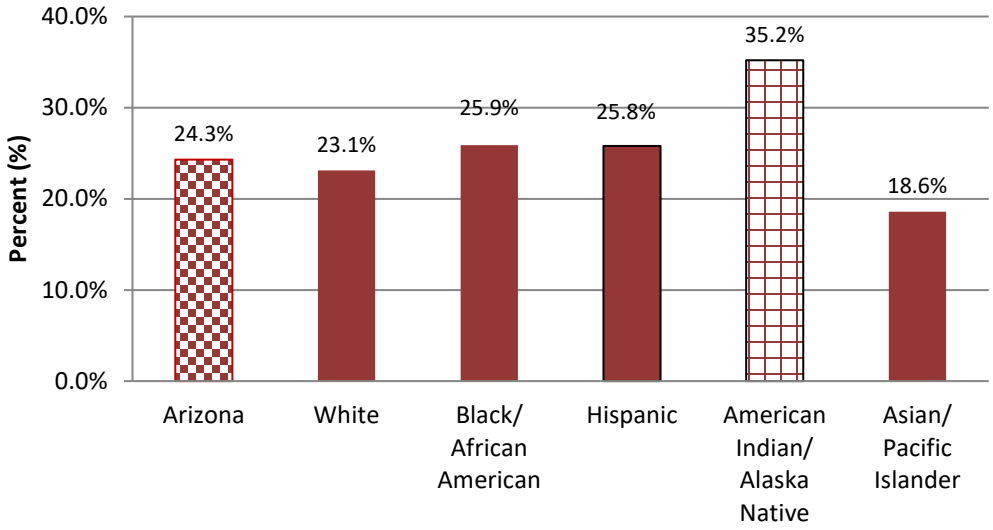
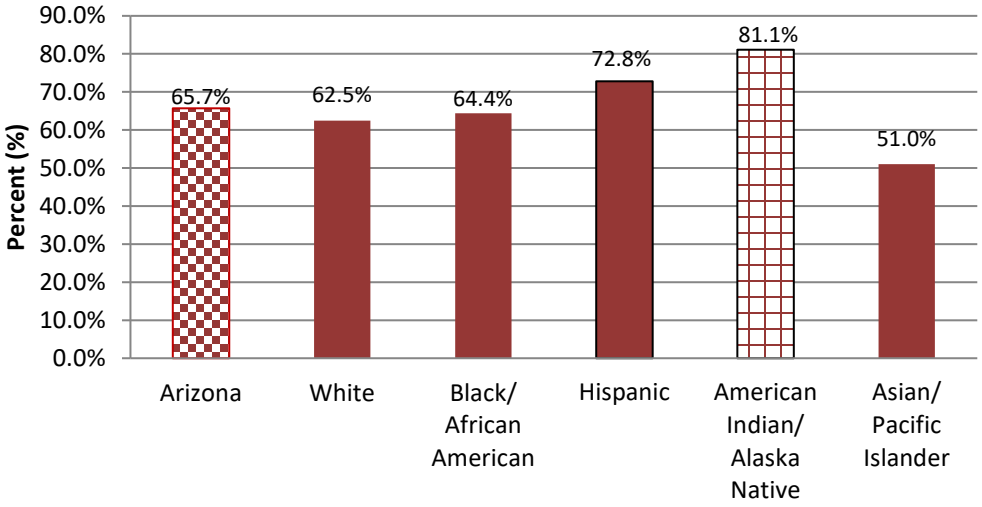


Figure 26. Percentage of Arizona Adults Who are Overweight or Obese by Race/Ethnicity, BRFSS, 2019[44]



[43] Physical inactivity was defined according to a non-confirmatory response to the following question: "During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"
[44] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of high cholesterol (Figure 27), but a lower prevalence of high blood pressure (Figure 28) in 2019. Across racial/ethnic groups, AI/AN adults in Arizona had the highest prevalence of high cholesterol (78.8%) (Figure 27), and the third highest prevalence of having high blood pressure (30.9%) (Figure 28).

Figure 27. Percentage of Arizona Adults Who Reported High Cholesterol by Race/Ethnicity, BRFSS, 2019[45]

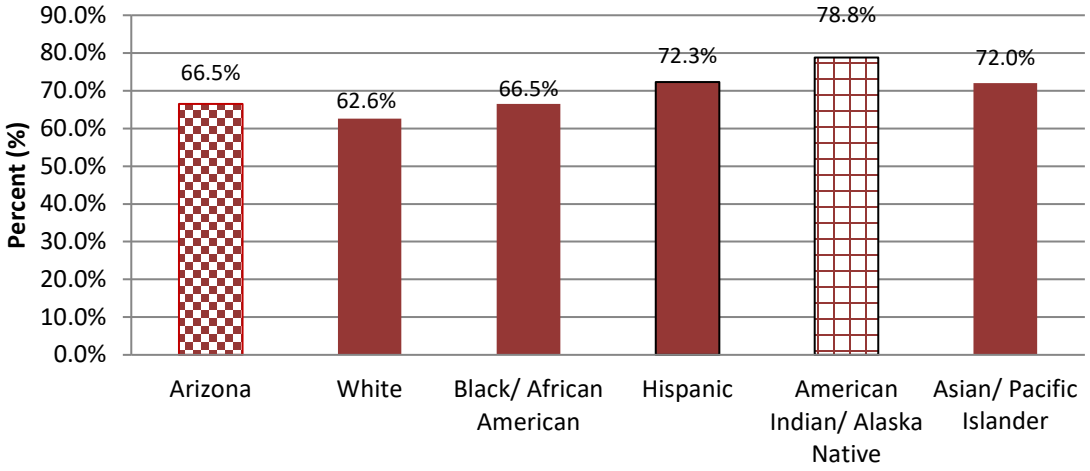
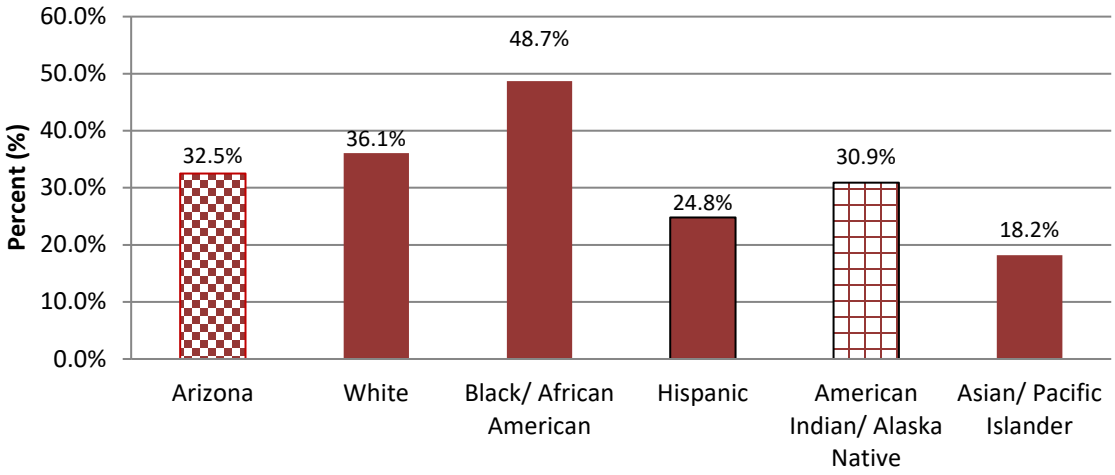


Figure 28. Percentage of Arizona Adults Who Reported High Blood Pressure by Race/Ethnicity, BRFSS, 2019[46]



[45] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Other Chronic Conditions and Health Status

AI/AN have higher rates of chronic disease than other racial/ethnic groups in the United States[46]. Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of pre-diabetes (Figure 29) and a lower prevalence of arthritis (Figure 30) in 2018 and 2019, respectively. Across racial/ethnic groups, AI/AN adults in Arizona had the highest prevalence of pre-diabetes (24.8%) (Figure 29), and the third highest prevalence of arthritis (16.0%) (Figure 30) when compared to other racial/ethnic groups.

Figure 29. Percentage of Arizona Adults Who Reported Pre-Diabetes by Race/Ethnicity, BRFSS 2018[47]

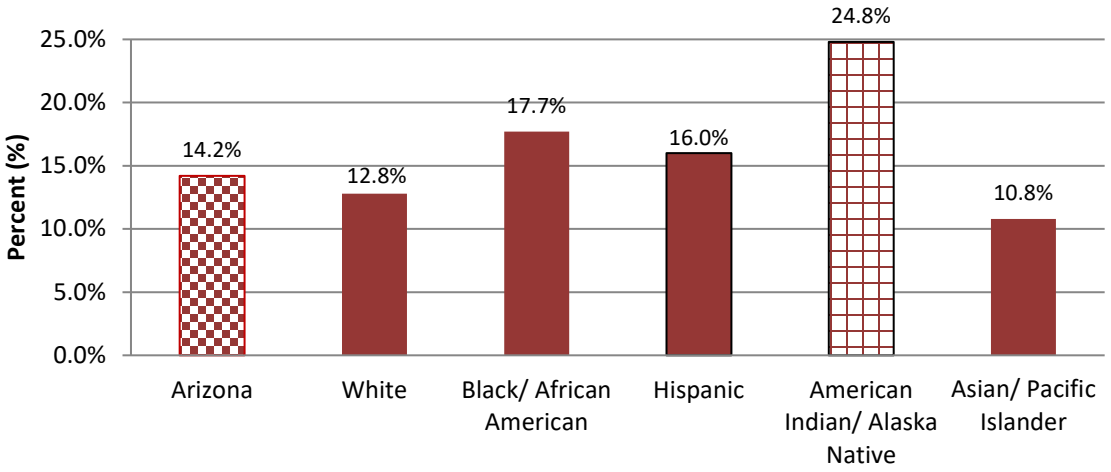
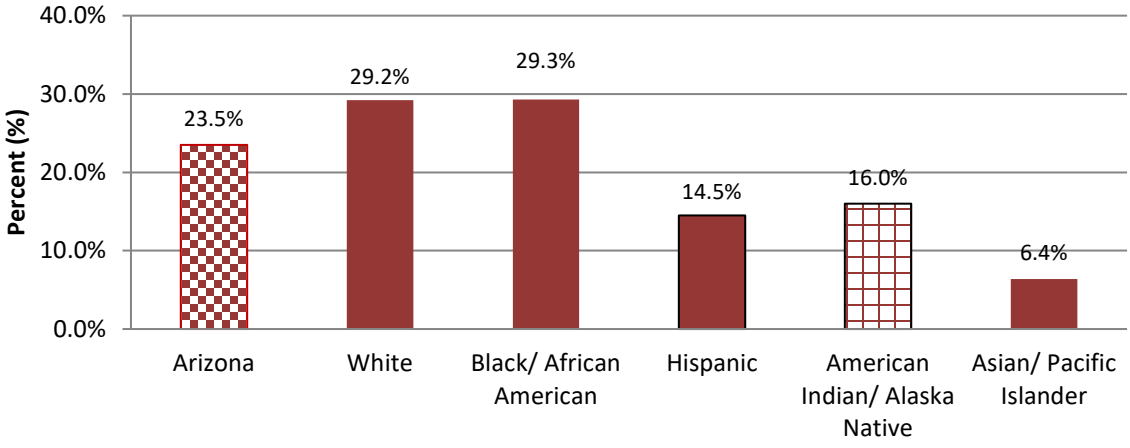


Figure 30. Percentage of Arizona Adults Who Reported Arthritis by Race/Ethnicity, BRFSS 2019[48]



[46] https://www.cdc.gov/tribal/data-resources/information/chronic-diseases.html
[47] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2018 (note, pre-diabetes was not assessed on the 2019 AZ BRFSS)
[48] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

Self-assessed health status (ranging from poor to excellent) has been validated as a useful indicator of health among different populations and allows for broad comparisons across a variety of health conditions[49]. Compared to the entire state of Arizona, AI/AN adults reporting their health as fair or poor was higher in 2019 (Figure 31). Across racial/ethnic groups, the prevalence of AI/AN adults in Arizona reporting their health as fair or poor was highest (29.1%) (Figure 31).

Mental health distress is a term used to describe a range of symptoms individuals experience such as anxiety, stress, depressions, or problems with emotions[50]. In the 2019 Arizona BRFSS, adults were asked how many days during the past 30 days their mental health status (e.g., stress, depression, and problems with emotions) was not good. Frequent mental distress was defined as a report of 14 or more mentally unhealthy days during the past 30 days. Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of frequent mental health distress (Figure 32) in 2019. Across racial/ethnic groups, AI/AN adults in Arizona had the second highest prevalence of frequent mental health distress (17.1%) (Figure 32).

Figure 31. Percentage of Arizona Adults Who Reported Fair or Poor Health[51] by Race/Ethnicity, BRFSS, 2019[52]

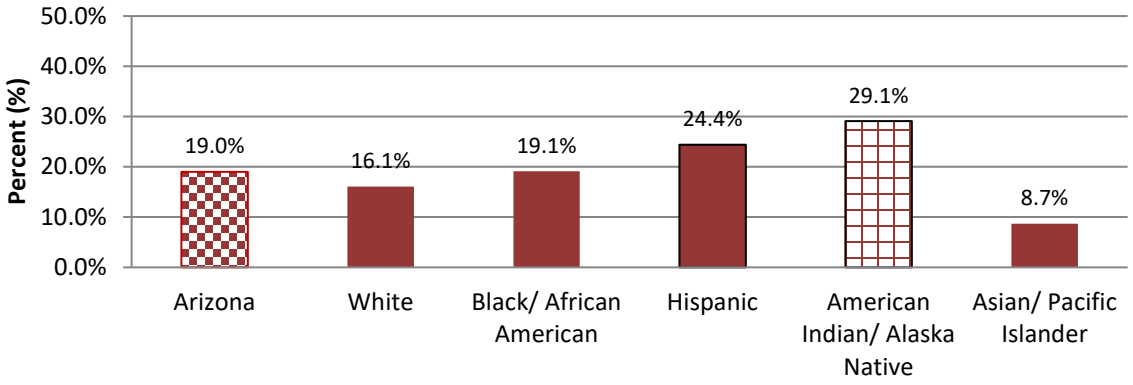
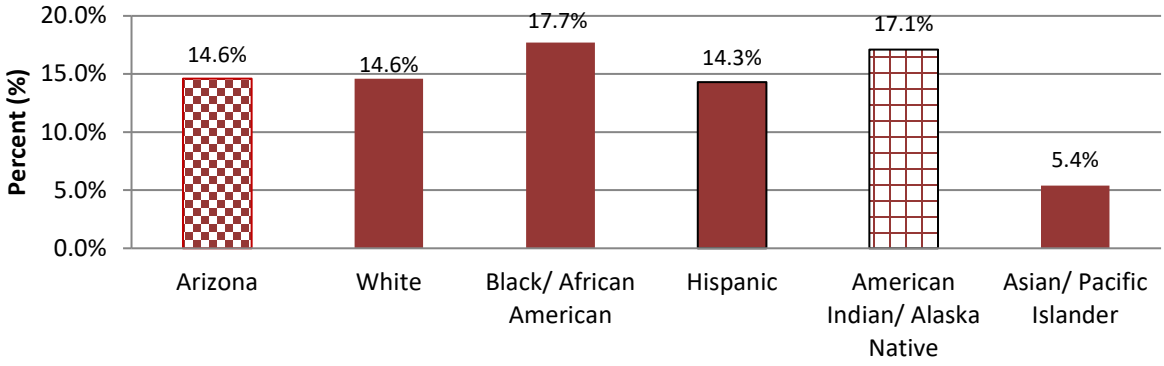


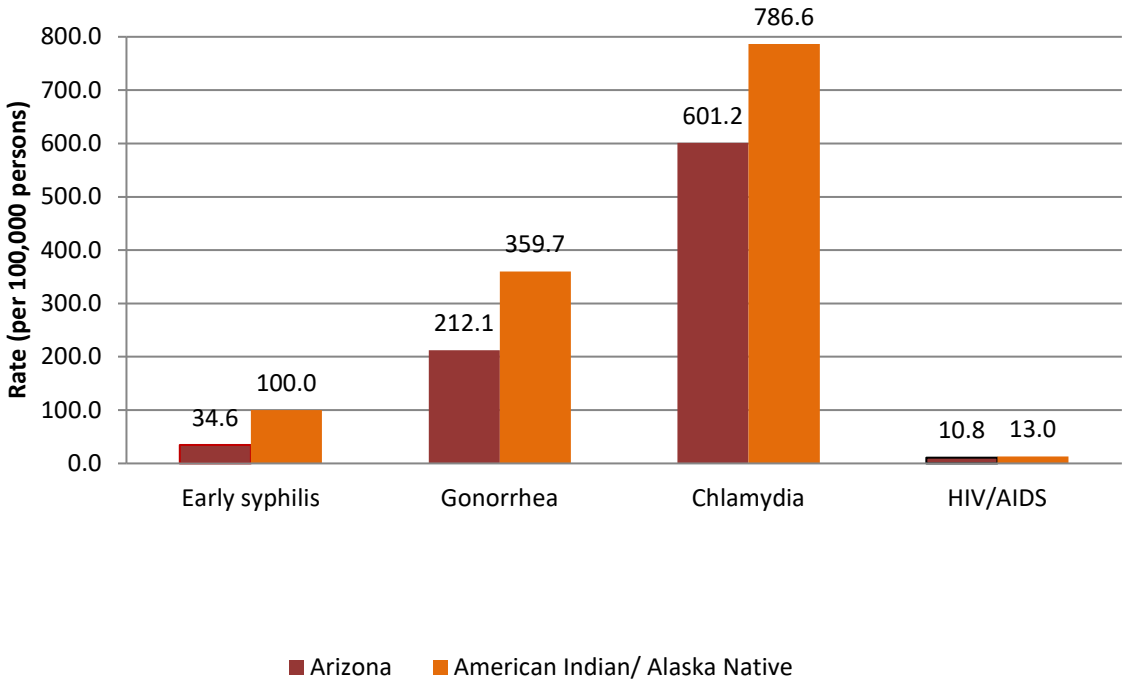
Figure 32. Percentage of Arizona Adults Who Reported Frequent Mental Health Distress by Race/Ethnicity, BRFSS, 2019[52]



[49] Idler E, Benyamini Y. Self-rated Health and Mortality: a Review of Twenty-Seven Community Studies. J Health Soc Behav. 1997; 38(1): 21-37.
[50] https://www.cdc.gov/nchs/products/databriefs/db203.htm
[51] Respondents rated their general health as being excellent, very good, good, fair, or poor. The responses were then categorized into two groups: 1) those who reported that their health was excellent, very good, or good and 2) those who reported that their health was fair or poor. Fair or poor health status was defined as a report of fair or poor health.
[52] Arizona Behavioral Risk Factor Surveillance System (BRFSS), 2019

In the United States, AI/AN have higher rates of sexually transmitted diseases (STDs) and HIV/AIDS compared with whites[53]. Compared to the entire state of Arizona, AI/AN adults had higher rates (per 100,000 persons) of early syphilis (100.0), gonorrhea (359.7), chlamydia (786.6), and HIV/AIDS (13.0) in 2019 (Figure 33).

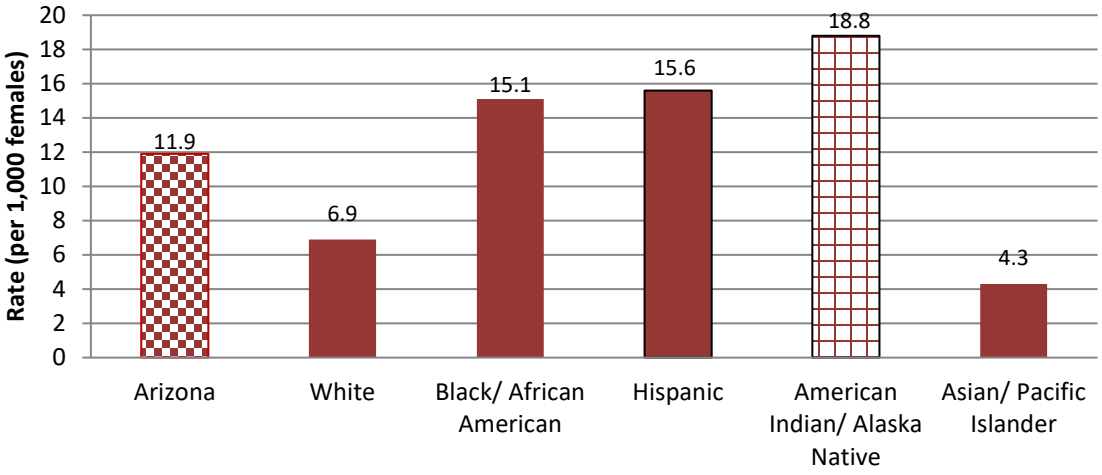
Figure 33. Sexually Transmitted Diseases and HIV/AIDS Rate among American Indians Compared to all Race/Ethnic Groups in Arizona, 2019[54]



[53] https://www.cdc.gov/nchhstp/healthdisparities/americanindians.html
[54] https://pub.azdhs.gov/health-stats/report/hspam/2019/indian2019.pdf

Teen pregnancy and childbearing bring substantial social and economic costs through immediate and long-term impacts on teen parents and their children[56]. AI/AN have the highest rates of teen birth rates of all racial/ethnic groups in the United States[55]. Compared to the entire state of Arizona, AI/AN adults had a higher prevalence of teen pregnancy in 2019 (Figure 34). Across racial/ethnic groups, AI/AN in Arizona had the highest rates (per 1,000 females) of teen pregnancy (18.8) (Figure 34).

Figure 34. Teen Pregnancy Rate by Race/Ethnicity Arizona, 2019[56]



[55] https://www.cdc.gov/teenpregnancy/about/index.htm
[56] https://pub.azdhs.gov/health-stats/report/tp/2019/teenpregnancy2019.pdf

Prenatal care is a proven strategy to improve outcomes, and is recommended with early and ongoing risk assessment for all women, with content and timing tied to the needs and risk status of the women and her fetus[57]. Compared to the entire state of Arizona, AI/AN had higher rates (per 1,000 females) of no prenatal care in the first trimester (42.6), fewer than five total prenatal visits (17.4), and no prenatal care (5.3) in 2019 (Figure 35). Compared to the entire state of Arizona, AI/AN had higher rates (per 1,000 live births) of newborns born too early (preterm or <37 weeks, 10.6), too small (7.9 and 1.3), requiring intensive care (8.6), with birth defects (0.7); and higher rates of infant mortality (6.9), Sudden Infant Death Syndrome (SIDS, 0.7), and post-neonatal mortality (3.8) in 2019 (Figure 36).

Figure 35. Utilization of Prenatal Care Services among American Indians Compared to all Race/Ethnic Groups in Arizona, 2019[58]

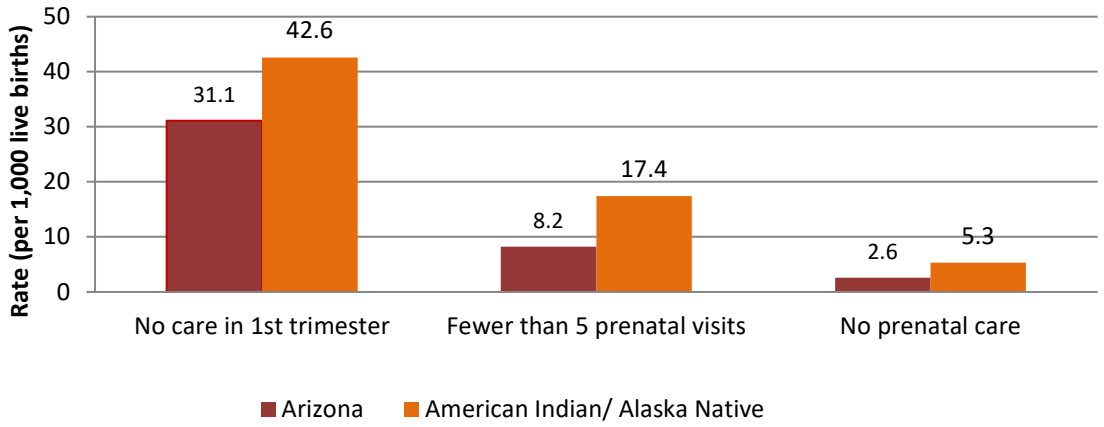
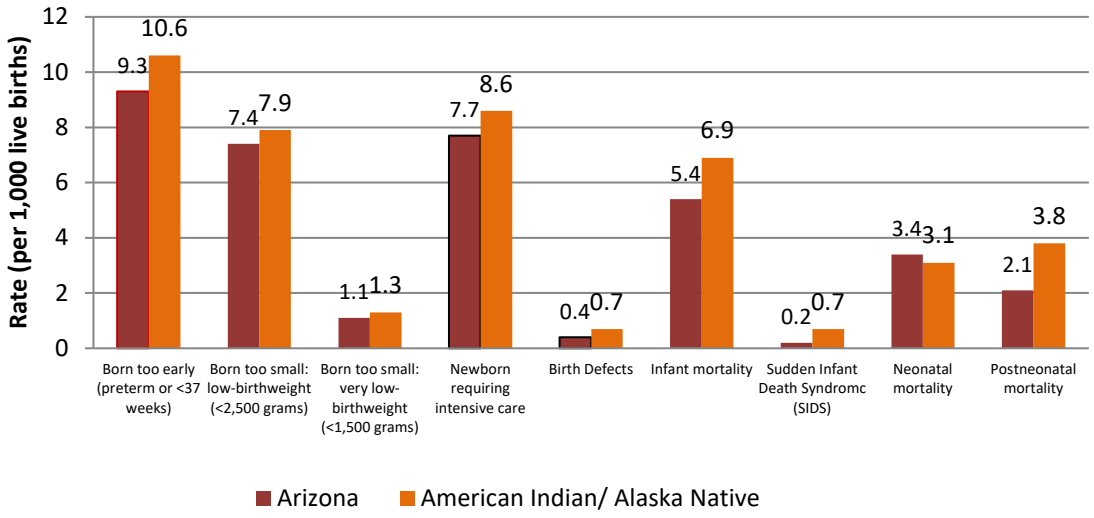


Figure 36. Newborn's Health and Birth Characteristics among American Indians Compared to all Race/Ethnic Groups in Arizona, 2019[59]



[57] https://www.acog.org/clinical-information/physician-faqs/-/media/3a22e153b67446a6b31fb051e469187c.ashx
[58] https://pub.azdhs.gov/health-stats/report/hspam/2019/indian2019.pdf
[59] https://pub.azdhs.gov/health-stats/report/hspam/2019/indian2019.pdf

Recommendations and Conclusions

The Arizona Department of Health Services is dedicated to ensuring the "Health and Wellness of All Arizonans." The following are suggested recommendations for consideration by ADHS staff, tribal and urban Indian partners.

- Identify and build working relationships between ADHS staff, tribal, inter tribal council, urban Indian partners, Indian Health Services (IHS). These working relationships will allow ADHS and tribal partners to work closely to decrease mortality and prevalence rates, identify cross collaboration opportunities, and ensure communication among program areas within ADHS and tribal programs.
- Maximize inclusion and participation of tribal partners in the implementation of the 2021-2025 Arizona Health Improvement Plan (AzHIP) priority areas of Health Equity, Health in All Policies/Social Determinants of Health, Mental Well-Being, Rural and Urban Underserved Health, and Pandemic Recovery and Resiliency.
- Utilize the data in this report to develop a plan of action to address the higher rates of health disparities among AI/AN communities as compared to the state rates.
- ADHS should continue to prepare reports specific to AI/AN on the leading causes of death, the health risk factors, and social determinants of health for the ADHS Native American Liaison and tribal partners.