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Health of American Indian and Alaska Native Elders in California

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Executive Summary

This report examines the health risks, health status and health services use of the American Indian/Alaska Native (AIAN) elders in California–which is home to one of the nation's largest populations of AIAN elderly.[1] More AIANs reside in California than any other single state in the United States. There are more federally recognized tribes in California (107) than any state except Alaska, and California also has numerous non-federally recognized tribes. Although an estimated 14% of AIANs are members of California Indigenous tribes, the majority are members of tribes with reservations outside of the state.[2] Consequently, the majority of California AIANs do not live on reservations but live in other urban and rural areas. Los Angeles County is home to the largest urban AIAN population in the country.[3] Assessing and understanding the disease burden among California AIAN elders will enable service providers, health advocates and policymakers to set priorities and allocate resources that will benefit the health and well being of this vulnerable population. Although national health status data exist on the AIAN population as a whole, there is a severe lack of state-level and sub-state level data focused on the health of AIAN elders. This report presents the first comprehensive population-level health data on California's Native Elders.

U.S. American Indian and Alaska Native Elder Population Is Growing

As more American Indians and Alaska Natives (hereinafter referred to as American Indian or AIAN) live to adulthood and old age, the elder population age 55 and over is projected to increase from 13% of the total US AIAN population in 2000 to 26% in 2050. This shifting demographic profile of the population calls for focused attention on the health status of AIAN elders.

American Indian Elders Are Mostly Urban

The majority of California's older people age 55 and over among all racial and ethnic groups (about 70%) live in urban areas while about 60% of AIAN elders live in urban areas, the lowest rate of elders living in urban areas among all races and ethnicities in California.

American Indian Elders Are Economically Insecure

AIAN elders age 55 and over in California are nearly three times more likely (49% vs.17%) to be poor or near poor (less than 200% of the federal poverty level (FPL)), than non-Latino whites (hereinafter referred to as white).

Diabetes Is a Major Disparity and a Risk For Other Health Problems

Almost one-third of American Indian elders age 55 and over (30%) have been diagnosed with diabetes, the highest prevalence of any racial group and over twice the 13% rate of whites. Diabetes is a *fellow traveler* with health conditions such as hypertension, heart disease and stroke, which are other disparities also experienced by older AIANs.

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1 John R. Aging among American Indians: Income security, health and social support networks. In TP Miles (Ed), Full-Color Aging: Facts, goals, and recommendations for America's diverse elders, Washington, DC: Gerontological Society of America. 1999.

2 2007 California Health Interview Survey. Accessed on June 6, 2009. Available at: *www.askchis.ucla.edu*

3 Ibid.

American Indian Elders Ages 55-64: Crest of a Chronic Disease Epidemic

The largest health disparities are between AIAN and non-natives in the 55-64 year old sub-group. For example, 26% of AIANs ages 55-64 compared to 12% of whites have been diagnosed with diabetes. Additionally, nearly one in five AIAN elders ages 55-64 (18%) report having been diagnosed with asthma. This younger elder group requires attention; they are at the crest of the chronic disease epidemic.

Cancer Screening Rates Are Low

More than one-quarter of AIAN elder women ages 55-64 (29%) have not had a cervix screening in the last three or more years, compared to 12% for whites. Almost one-quarter of AIAN women age 55 and over (23%) have not had a mammogram in over two years, compared to 17% of whites. Nearly three in 10 AIANs age 55 and over (29%) have never had a colon cancer screening compared to 16% of whites.

Health Risks for American Indian Elders

Behavioral risk factors are strongly influenced by socio-economic conditions and are related to health disparities. Almost one in five AIAN elders ages 55-64 are current tobacco smokers (18%), among the highest of any group. AIAN males ages 55-64 report at-risk alcohol use at twice the rate compared to whites (41% vs. 20%). Over one in five AIANs (22%) get no physical activity at all compared to 12% of whites. One-third of AIAN elders age 65 and over are obese, compared to one-fifth of whites.

American Indians Fall More Than Any Racial or Ethnic Population

One in five AIAN elders age 65 and over (22%) have had multiple falls in the past year, the highest prevalence of any racial group (14% for all other races). Further, nearly twice as many AIAN elders who live below 200% FPL had multiple falls compared to all other races who live below 200% FPL. Half of AIAN elders with multiple falls sought medical care for their falls, but only one-quarter received a review of their medications by a health care professional following the falls.

Access to Care Barriers for American Indian Elders in California

One-half of AIANs ages 55 to 64 (52%) have employment-based insurance compared to three-quarters of whites (73%). AIANs ages 55 to 64 are nearly twice as likely to be uninsured compared to whites, 12% vs. 7%, respectively. Nine in 10 AIANs ages 55-64 (90%) report a usual source of care compared to 96% of whites. Contrary to common stereotypes, only one in 20 AIAN elders ages 55-64 (5%) use/or are eligible for Indian Health Service (IHS) coverage.

For each section or health topic presented in the following, we provide a brief review of the issue being described, such as a review of obesity, how it is measured, and its connection to health outcomes or access to care. We present a brief description of the key findings from our data analysis followed by issue specific data charts, graphs and tables. The analysis compares the health factor by race, the two elder age groups (55-64 and 65 and over), and low-income. The race/ethnicity category called “All Races (non-AIAN)” includes all races/ethnicities other than AIAN.

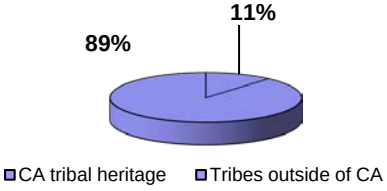
Demographics

The American Indian population is increasing at about 1.8% a year, not including growth from tribes gaining federal recognition.[4] According to US Census data, 4.7 million persons in the United States are AIAN or AIAN in combination with one or more other races.[5] Of these, 3.3 million are adults. The growing AIAN population, coupled with an increase in the life expectancy among AIANs over the past thirty years, will contribute to the growth of the AIAN elderly population (defined as age 55 and over). The increase in life expectancy is partly due to concerted efforts by Indian Health Services to decrease infant mortality and improvements made to maternal and child health conditions since 1955. As more AIANs live to adulthood and old age, the elderly population is projected to increase from 13% in 1990 to 26% in 2050 as a proportion of the total AIAN population.[6] This shifting demographic profile of the AIAN population calls for focused attention on the health status of the elder AIAN community.

American Indian and other elders of color often have experienced lives with low incomes, poor housing, dangerous work settings and inadequate health care. Those conditions, combined with experiences of discrimination, can lead to a situation of cumulative disadvantage or *weathering* that results in the earlier onset of disease and disability than the white population. As a result, AIANs, age 55 and over are included in this study. This age group is not eligible for Medicare which starts at age 65 (the permanently disabled and those with renal failure may qualify at earlier ages), nor many other age-based social services, but may have needs equivalent to whites in their late 60s.

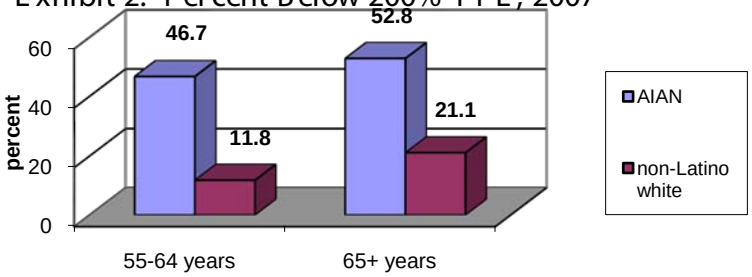
More American Indian elders reside in California than any other state. There are over 100 federally recognized tribes in California. Although an estimated 11% of AIANs age 55 and over are members of California Indigenous tribes, the majority are members of tribes with reservations outside of the state (Exhibit 1).[7] The majority of older people among all racial and ethnic groups (about 70%) live in urban areas of California. While 60% of AIAN elders live in California's urban areas, they are also the most likely racial/ethnic group to live in rural areas. American Indians are 2-3 times more likely to be poor or near poor than non-Latino whites (58% vs. 33%; Exhibit 2). All racial and ethnic elders above age 65 are generally more likely to have incomes below or near the poverty level compared to their 55-64 year old counterparts. Exhibit 3 provides comprehensive information on the demographics of AIANs for the 55-64 and 65 and over age groups in comparison to other racial/ethnic groups in California.

Exhibit 1. Percent of California AIAN Elders Age 55 and Over by Tribal Heritage



Source: 2007 California Health Interview Survey

Exhibit 2. Percent Below 200% FPL, 2007



Source: 2007 California Health Interview Survey

4 Ogunwole SU. The American Indian and Alaska Native Population: 2000. US Department of Commerce. US Census Bureau. Census 2000 Brief. Feb. 2002.

5 US Census Bureau. *Selected Population Profile in the United States*. American Community Survey Table S0201. Available at: http://factfindercensus.gov

6 US Bureau of the Census. 1996. *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050.* Current Population Reports, P25-1130. Washington, DC: US Government Printing Office.

7 2007 California Health Interview Survey. Accessed on August 11, 2009. Available at: www.chis.ucla.edu

Exhibit 3. Demographic Characteristics of California Adults Age 55 and Over by Race/Ethnicity

		American Indian		non-Latino White		Latino non-AIAN		Non-Latino		Non-Latino Asian		All Races	
	Demographic Information	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+
	Female	**51.6** (42.8 - 60.4)	**57.0** (48.4 - 65.7)	**51.6** (49.8 - 53.5	**55.7** (54.3 - 57.0)	**47.5** (42.9 - 52.2)	**57.0** (52.3 - 61.7)	**64.8** (58.0 - 71.6)	**58.1** (51.9 - 64.3)	**52.9** (46.7 - 59.2)	**57.4** (52.5 - 62.2)	**51.9** (50.2 - 53.6)	**56.2** (54.8 - 57.6)
Income Level	0-199% of fpl	**46.7** (37.2 - 56.2)	**52.8** (44.8 - 60.7)	**11.8** (10.6 - 13.0)	**21.1** (20.0 - 22.3)	**48.2** (43.5 - 52.9)	**57.3** (52.8 - 61.9)	**27.5** (21.5 - 33.5)	**42.7** (36.5 - 48.9)	**29.5** (24.1 - 34.9)	**48.2** (43.1 - 53.2)	**21.5** (20.0 - 23.0)	**32.0** (30.6 - 33.3)
	200-299% of fpl	**14.9** (8.5 - 21.3)	**15.8** (11.0 - 20.6)	**10.1** (8.7 - 11.4)	**18.6** (17.5 - 19.7)	**16.4** (12.9 - 20.0	**16.3** (13.2 - 19.3)	**13.2** (8.9 - 17.5)	**18.4** (12.8 - 23.9)	**11.6** (8.1 - 15.2)	**10.7** (7.9 - 13.5)	**11.7** (10.5 - 12.9)	**17.1** (16.1 - 18.1)
	300% of fpl and above	**38.4** (30.4 - 46.4)	**31.4** (24.6 - 38.3)	**78.1** (76.4 - 79.7)	**60.3** (58.9 - 61.6)	**35.4** (31.1 - 39.6)	**26.4** (21.8 - 30.9)	**59.3** (52.8 - 65.9)	**38.9** (33.1 - 44.7)	**58.9** (52.9 - 64.9)	**41.2** (36.3 - 46.0)	**66.7** (65.1 - 68.4)	**50.9** (49.5 - 52.3)
Education	<12 years	**32.5** (23.7 - 41.3)	**36.4** (27.9 - 44.8)	**4.5** (3.4 - 5.6)	**10.1** (9.1 - 11.1)	**44.7** (39.9 - 49.5)	**56.9** (52.3 - 61.6)	**9.3** (4.0 - 14.6)	**18.7** (14.3 - 23.1)	**11.2** (7.8 - 14.6)	**20.7** (16.0 - 25.5)	**12.9** (11.5 - 14.4)	**19.9** (18.5 - 21.2)
	High school graduate	**30.2** (21.4 - 39.0)	**31.4** (24.2 - 38.6)	**21.1** (19.4 - 22.7)	**32.1** (30.7 - 33.4)	**24.6** (20.5 - 28.8)	**22.9** (19.2 - 26.6)	**23.5** (17.9 - 29.2)	**32.2** (25.6 - 38.9)	**24.9** (19.2 - 30.6)	**23.2** (18.7 - 27.7)	**22.4** (20.9 - 23.8)	**29.3** (28.0 - 30.6)
	Some college	**22.9** (16.1 - 29.8)	**20.4** (15.7 - 25.0)	**27.1** (25.5 - 28.7)	**24.8** (23.8 - 25.9)	**17.2** (14.6 - 19.9)	**10.8** (8.7 - 12.8)	**39.8** (33.2 - 46.4)	**26.0** (21.2 - 30.9)	**17.2** (11.6 - 22.9)	**14.6** (11.6 - 17.7)	**25.1** (23.7 - 26.5)	**21.2** (20.3 - 22.2)
	College Graduate	**14.3** (10.2 - 18.4)	**11.9** (7.7 - 16.1)	**47.3** (45.6 - 49.1)	**33.0** (31.8 - 34.2)	**13.4** (10.9 - 16.0)	**9.4** (6.1 - 12.7)	**27.4** (22.2 - 32.5)	**23.0** (18.2 - 27.8)	**46.6** (40.4 - 52.8)	**41.5** (36.7 - 46.2)	**39.6** (38.1 - 41.1)	**29.6** (28.4 - 30.8)
Marital Status	Married or lives with partner	**65.6** (59.3 - 72.0)	**55.8** (48.1 - 63.5)	**74.1** (72.5 - 75.6)	**61.9** (60.7 - 63.2)	**73.3** (69.4 - 77.2)	**55.9** (51.2 - 60.6)	**50.5** (43.8 - 57.2)	**40.9** (34.9 - 47.0)	**83.0** (78.4 - 87.5)	**70.5** (65.8 - 75.2)	**73.4** (72.0 - 74.8)	**61.0** (59.6 - 62.3)
	Other	**34.4** (28.0 - 40.7)	**44.2** (36.5 - 51.9)	**25.9** (24.4 - 27.5)	**38.1** (36.8 - 39.3)	**26.7** (22.8 - 30.6)	**44.1** (39.4 - 48.8)	**49.5** (42.8 - 56.2)	**59.1** (53.0 - 65.1)	**17.0** (12.5 - 21.6)	**29.5** (24.8 - 34.2)	**26.6** (25.2 - 28.0)	**39.0** (37.7 - 40.4)
	Urban*	**63.0** (54.3 - 71.7)	**64.7** (56.4 - 72.9)	**67.7** (66.1 - 69.4)	**65.5** (64.3 - 66.8)	**69.7** (65.4 - 73.9)	**74.3** (70.7 - 77.9)	**85.0** (81.0 - 89.0)	**85.0** (80.9 - 89.0)	**89.2** (83.9 - 94.5)	**90.1** (87.3 - 93.0)	**71.7** (70.2 - 73.1)	**71.3** (70.2 - 72.4)
	CA tribal heritage	**12.4** (5.2-19.7)	**9.7** (5.3 - 14.1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Percent (95% confidence interval)

* Based on the IHS definition of urban and rural.

Source: 2007 California Health Interview Survey

Behavioral Risk Factors

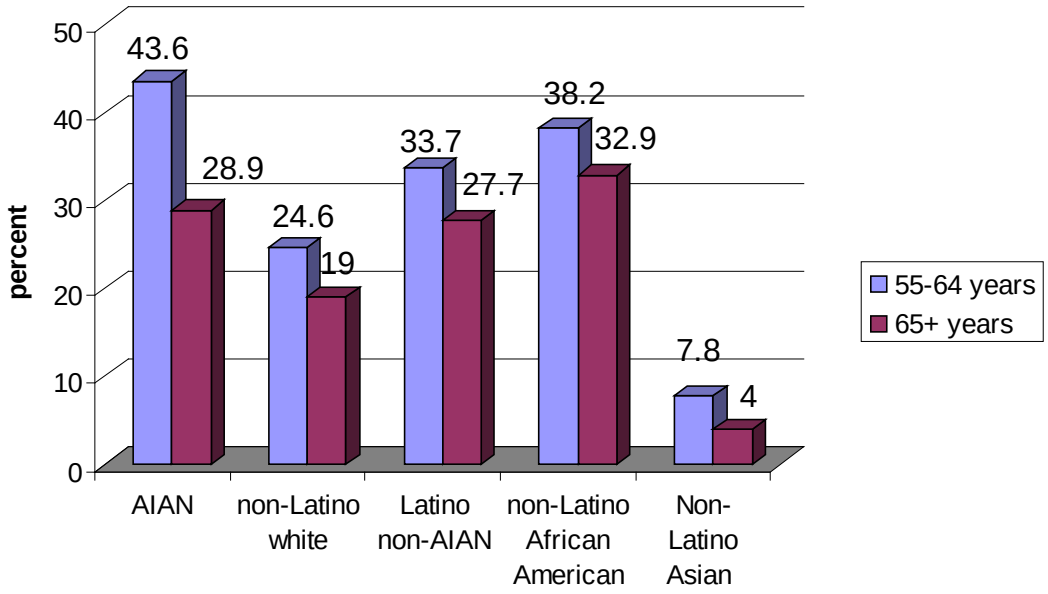
Obesity

A healthy weight for adults is usually assessed by using height and weight to compute a number called the body mass index (BMI). BMI is related to the amount of body fat in an individual. An adult who has a BMI under 18.5 is considered underweight, 18.5-24.9 is a healthy weight, 25-29.9 is overweight, and a BMI of 30 or higher is considered obese. Many chronic diseases such as type 2 diabetes, heart disease, cancer, arthritis and breathing problems are associated with obesity. Obesity is often associated with poverty, low physical activity, poor diet and nutrition, genetic predisposition and psychosocial factors.

In California, elders ages 55 to 64 of all races/ethnicities have a higher prevalence of obesity compared to those age 65 and over (Exhibit 4). AIAN ages 55 to 64 have a higher rate of obesity than other races/ethnicities. There are no appreciable differences in obesity by gender in the older AIAN population (Exhibit 5).

For AIAN elders ages 55-64, approximately one in five report leading a sedentary lifestyle with no leisure time physical activity. One in four AIAN elders ages 65 and over report no leisure time physical activity compared to one in five elders of all other races/ethnicities in the same age group (Table 2a).

Exhibit 4. Obesity Rates for California Adults Age 55 and Over



Source: 2007 California Health Interview Survey

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Exhibit 5. Behavioral Risk Factors of California Adults Age 55 and Over by Race/Ethnicity

		American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
	Risk Factors	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Obesity (BMI (2007)	Both genders	**43.6** (34.6 - 52.7)	**28.9** (20.9 - 36.8)	**24.6** (23.0 - 26.1)	**19.0** (17.9 - 20.0)	**33.7** (29.5 - 37.8)	**27.7** (23.8 - 31.6)	**38.2** (32.0 - 44.5)	**32.9** (26.5 - 39.4)	**7.8** (4.9 - 10.8)	**4.0** (2.6 - 5.5)	**25.3** (23.9 - 26.7)	**19.2** (18.2 - 20.3)	**39.2** (30.7-47.8)	**25.1** (23.3 - 27.0)
	Female	**42.0** (31.3 - 52.7)	**33.1** (23.6 - 42.6)	**22.3** (20.5 - 24.2)	**18.1** (16.8 - 19.4)	**36.7** (31.4 - 42.1)	**29.6** (24.8 - 34.4)	**40.7** (33.5 - 48.1)	**33.8** (25.9 - 41.7)	**6.4** (3.1 - 9.6)	**3.7** (1.8 - 5.7)	**24.5** (22.8 - 26.2)	**18.9** (17.6 - 20.2)	**36.2** (27.4 - 45.1)	**26.4** (24.2 - 28.6)
	Male	**45.2** (31.7 - 58.7)	**23.2** (15.0 - 31.4)	**27.0** (24.4 - 29.5)	**20.1** (18.3 - 21.9)	**30.0** (24.6 - 37.1)	**25.2** (18.9 - 31.6)	**33.5** (22.5 - 44.5)	**31.6** (20.7 - 42.6)	**9.5** (4.3 - 14.6)	**4.4** (2.2 - 6.6)	**26.3** (24.1 - 28.5)	**19.7** (17.9 - 21.4)	**42.9** (28.7 - 57.1)	**23.3** (19.9 - 26.7)
	>5/day of fruit and vegetable (2005)	**50.5** (42.6-58.5)	**41.1** (29.6-52.5)	**49.6** (47.8-51.4)	**49.2** (47.7-50.8)	**45.2** (40.3-50.2	**46.2** (40.9-51.5)	**44.3** (37.4-51.1)	**40.3** (33.8-46.9)	**47.2** (41.3-53.1)	**43.0** (37.4-48.6)	**48.3** (46.6-49.9)	**47.6** (46.1-49.1)	**46.7** (35.5 - 57.8)	**41.8** (39.4 - 44.2)
	Sedentary lifestyle (2007)*	**19.8** (12.7 - 27.0)	**24.6** (17.0 - 32.3)	**13.3** (12.0 - 14.6)	**19.5** (18.4 - 20.7)	**19.6** (15.5 - 23.7)	**21.5** (17.7 - 25.3)	**22.4** (16.4 - 28.3)	**23.0** (18.3 - 27.6)	**13.8** (9.9 - 17.7)	**18.1** (13.5 - 22.6)	**15.1** (13.8 - 16.3)	**19.9** (18.7 - 21.1)	**24.2** (16.5 - 31.8)	**25.1** (23.0 - 27.2)
	Food insecurity for those with incomes under 200% of the Federal Poverty Level (2007)	**41.0** (27.3 - 54.7)	**23.5** (12.0 - 34.9)	**31.9** (26.3 - 37.6)	**11.7** (9.8 - 13.6)	**41.6** (34.6 - 48.7)	**28.4** (23.2 - 33.6)	**43.8** (30.4 - 57.1)	**28.9** (20.0 - 37.8)	**39.7** (28.9 - 50.5)	**20.1** (14.2 - 26.0)	**38.3** (34.3 - 42.4)	**19.7** (17.5 - 22.0)	|---|	|---|

Percent (95% confidence interval)

* Respondents were asked a series of questions on level of physical activity. A sedentary lifestyle is defined as no reported leisure time physical activity (i.e. any physical activities or exercises such as running, calisthenics, golf, gardening, or walking).

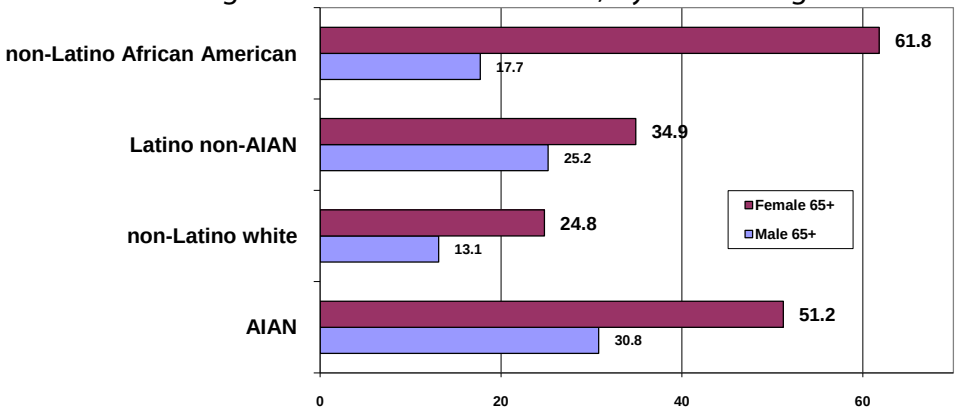
Source: 2007 and 2005 California Health Interview Surveys

Alcohol Use

Excessive alcohol use increases the risk of high blood pressure, heart attack and stroke. Alcohol plays a significant role in accidents (e.g. car crashes) and suicide, especially among AIANs. Liver disease (most often attributed to alcohol use) is the seventh leading cause of death among AIAN elders age 55 and over. Binge drinking is defined as consuming five or more drinks during a single occasion for men or four or more drinks during a single occasion for women. At-risk alcohol use is defined as drinking more than two drinks per day on average for men or more than one drink per day on average for women.[8]

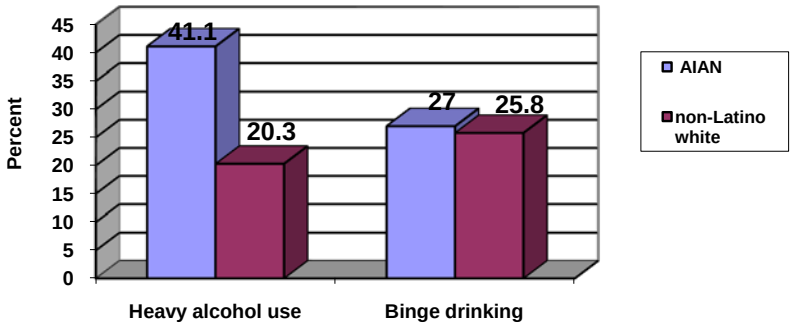
In California, those between the ages of 55 and 64 are more likely to be at-risk alcohol users and binge drinkers than those age 65 and over. For all races/ethnicities, women over the age of 65 are more likely to be at-risk alcohol users than men, whereas men are more likely to be binge drinkers than women (Exhibit 6). AIAN male elders ages 55-64 are nearly twice as likely to report at-risk alcohol use as non-Latino whites ages 55-64 (Exhibit 7). Nearly four out of ten AIAN women below 200% FPL are at-risk alcohol users compared to three out of ten women of all other races under 200% of the federal poverty level.

Exhibit 6. Percentage of At-Risk Alcohol Users, by Gender Age 65 and Over



Source: 2007 California Health Interview Survey

Exhibit 7. Percentage of Males Ages 55-64 Who Report At-Risk Alcohol Use or Binge Drinking



Source: 2007 and 2003 California Health Interview Surveys

[8] http://www.cdc.gov/alcohol/

10960 Wilshire Boulevard, Suite 1550 Los Angeles, CA 90024 PH: 310 794.0909 FAX: 310 794.2686

Exhibit 8. Alcohol Use of California Adults Age 55 And Over by Race/Ethnicity

		American Indian Alaska Native		non-Latino White		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
	Risk Factors	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Female	At-risk alcohol use* (2003)	**36.5** (18.8-54.3)	**51.2** (29.6-72.9)	**37.3** (34.3-40.2)	**24.8** (22.5-27.1)	**33.8** (23.6-44.0)	**34.9** (23.7-46.1)	**37.0** (25.0-49.0)	**61.8** (45.5-78.0)	**12.4*** (2.3-22.4)	**3.7*** (0-7.5)	**35.1** (32.4-37.9)	**25.6** (23.2-27.9)	**42.6** (22.5-62.7)	**29.6** (25.2-34.1)
	Binge drinking* (2007)	**10.1*** (2.9 - 17.2)	**7.3** (3.6 - 11.0)	**15.8** (14.2 - 17.3)	**7.2** (6.1 - 8.2)	**8.8** (6.1 - 11.5)	**2.9** (1.6 - 4.3)	**8.6** (5.1 - 12.0)	**2.9*** (1.2 - 4.7)	**4.3*** (1.6 - 6.9)	**1.7*** (0 - 3.7)	**12.6** (11.4 - 13.8)	**5.5** (4.7 - 6.2)	**3.1*** (1.1 - 5.1)	**4.0** (3.1 - 4.9)
Male	At-risk alcohol use* (2003)	**41.1** (21.3-60.9)	**30.8** (16.5-45.0)	**20.3** (17.6-22.9)	**13.1** (10.9-15.3)	**41.9** (32.4-51.4)	**25.2** (16.0-34.5)	**21.8** (11.8-31.8)	**17.7*** (5.7-29.7)	**14.9** (6.6-23.2)	**10.0*** (2.3-17.7)	**23.0** (20.5-25.6)	**14.4** (12.3-16.6)	**30.9** (20.9-41.5)	**28.7** (23.6-33.7)
	Binge drinking* (2007)	**27.9** (16.9 - 38.9)	**9.9*** (2.5-17.3)	**25.8** (23.5 - 28.2)	**12.4** (11.1 - 13.7)	**30.2** (23.6 - 36.7)	**16.3** (11.0 - 21.6)	**14.8** (6.6 - 22.9)	**10.6** (5.5 - 15.7)	**18.8** (10.4 - 27.2)	**3.3** (1.5 - 5.0)	**25.5** (23.3 - 27.6)	**11.7** (10.5 - 13.0)	**19.0** (13.1 - 24.9)	**14.2** (11.6 - 16.7)

Percent (95% confidence interval)

* CDC: Excessive alcohol use, either in the form of heavy or at-risk drinking (drinking more than two drinks per day on average for men or more than one drink per day on average for women), or binge drinking (drinking five or more drinks during a single occasion for men or four or more drinks during a single occasion for women), can lead to increased risk of health problems such as liver disease or unintentional injuries. http://www.cdc.gov/alcohol/

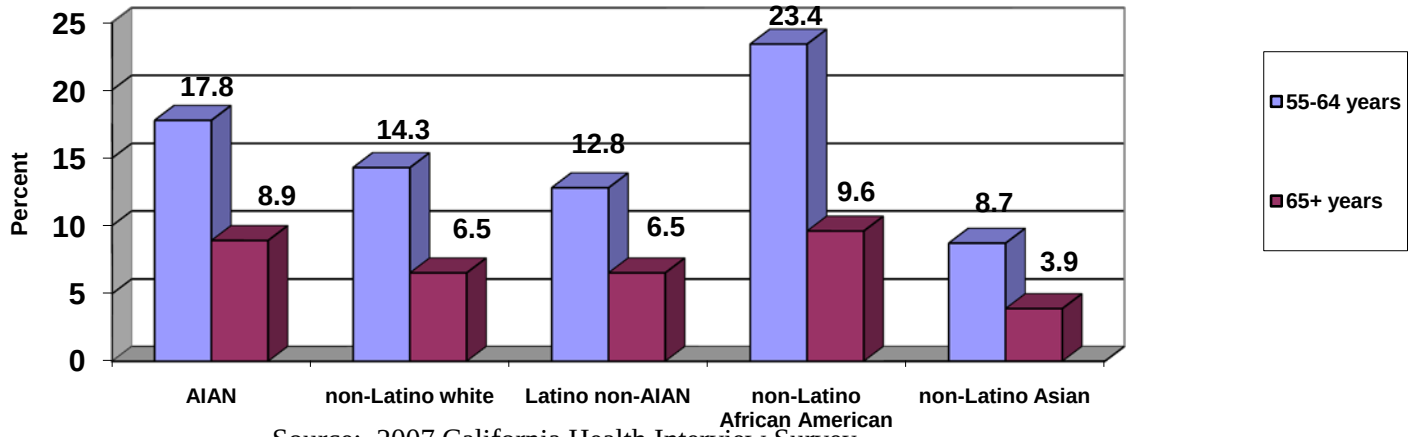
Source: 2003 and 2007 California Health Interview Surveys.

Tobacco Use

Commercial cigarette smoking, chewing and dipping are non-traditional uses of tobacco among AIANs. Smoking increases the risk of many types of cancer, high blood pressure, heart disease and stroke. Quitting smoking will help lower a person's risk of these diseases and other health consequences, including premature death.

AIAN and non-Latino African-American elders have among the highest prevalence in both age groups for current tobacco smoking compared to other races/ethnicities (Exhibit 9). This difference in tobacco use is even more pronounced among AIAN elders who are under 200% FPL. All race/ethnicity elders ages 55 to 64 have a higher prevalence of currently smoking tobacco compared to those age 65 and over. There is no significant gender difference in tobacco use for these age groups; therefore, data by gender are not presented (Exhibit 10).

Exhibit 9. Percent Who Currently Smoke Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 10. Current Smoking Status of California Adults Ages 55 Years and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Risk Factor	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Currently smoking*	**17.8** (11.5 - 24.1)	**8.9** (5.6 - 12.2)	**14.3** (12.9 - 15.8)	**6.5** (5.8 - 7.1)	**12.8** (8.8 - 16.8)	**6.5** (3.6 - 9.3)	**23.4** (17.2 - 29.6)	**9.6** (6.6 - 12.6)	**8.7** (5.5 - 11.8)	**3.9** (2.3 - 5.5)	**14.0** (12.7 - 15.3)	**6.3** (5.6 - 7.0)	**16.1** (11.1-21.1)	**13.1** (11.3 - 14.8)

Percent (95% confidence interval)

*Current smokers are defined as those who currently smoke and have smoked more than 100 cigarettes in their lifetimes.

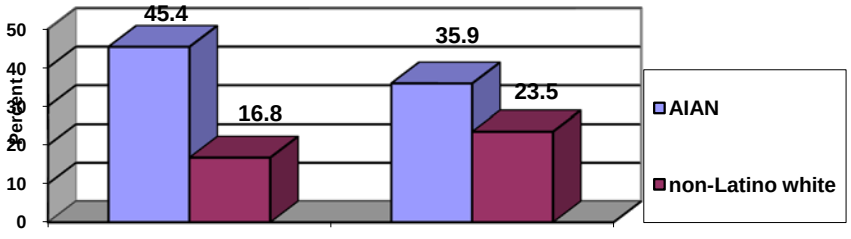
Source: 2007 California Health Interview Survey

Self-Reported Health Status

Self-reported health status is the most commonly used global measure of health status. It is highly correlated with illness and disability, as well as being a good predictor of mortality. AIAN elders ages 55-64 are the most likely to self-report fair or poor health status among all races/ethnicities. They are more than 2.5 times more likely to self-report fair or poor health status than their non-Latino white counterparts (Exhibit 11). For all races/ethnicities, excluding AIANs, the percentage of elders age 65 and over who self-report fair or poor health status is higher than the percentage of elders ages 55-64 reporting fair or poor health status. For AIANs, the percentage of elders age 65 and over who self-report fair or poor health status is lower than the percentage of elders ages 55-64 who report fair or poor health status. This may be due to the out-migration of AIAN elders in poor health status and the in-migration of those in good health. In the 2000 Census, among AIANs age 55 and over, about 5,800 had left California in the previous five years while 5,400 others moved into the state, a turnover of 14% of the state's older AIAN population. It is possible that some of those who are the most ill return to their reservation or closer to an historic family residence for medical care and family support.

AIAN elders age 55 and over with incomes below 200% FPL are more likely to self-report fair or poor health status. For all racial/ethnic groups, those who reported 13 or more doctor visits in the past year are significantly more likely to self-report fair or poor health status compared to those who reported 0-12 visits.

Exhibit 11. Percent Who Report Fair or Poor Health Status Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 12. Percent Reporting Fair or Poor Health by Number of Doctor Visits for California Adults Age 55 and Over by Race/Ethnicity

	American Indian		non-Latino white		Latino non-AIAN		Non-Latino African		Non-Latino Asian		All Races (non-AIAN)		< 200% Federal	
	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
0-12 doctor visits in past year	**40.4** (31.2-49.6)	**34.9** (27.7-42.0)	**13.9** (12.7-15.2)	**21.4** (20.2-22.6)	**37.7** (32.8-42.6)	**44.1** (39.0-49.1)	**28.1** (23.2-33.1)	**37.4** (31.0-43.8)	**34.8** (28.1-41.4)	**40.4** (35.5-45.3)	**21.8** (20.2-23.4)	**29.0** (27.6-30.4)	**54.3** (44.6-63.9)	**47.3** (44.9-49.7)
13 or more doctor visits in past year	**70.9** (54.1-87.8)	**61.3** (39.4-83.1)	**51.9** (46.8-57.0)	**49.2** (44.5-53.9)	**81.5** (70.6-92.4)	**79.5** (62.3-96.8)	**40.5*** (16.5-64.6)	**73.9** (55.3-92.6)	**73.6** (47.9-99.3)	**65.4** (47.1-83.8)	**56.0** (51.0-60.9)	**54.6** (50.2-59.1)	**79.4** (70.2-88.5)	**69.0** (61.4-76.5)
Any doctor visits in past year	**45.5** (36.5-54.5)	**35.9** (28.9-42.9)	**16.8** (15.4-18.3)	**23.5** (22.3-24.7)	**39.8** (35.0-44.6)	**45.4** (40.6-50.2)	**28.8** (22.7-34.8)	**39.9** (33.7-46.1)	**35.7** (29.4-42.0)	**41.1** (36.2-46.0)	**24.0** (22.4-25.6)	**30.4** (29.1-31.8)	**57.6** (48.9-66.2)	**48.6** (46.3-50.9)

Percent (95% confidence interval) *Estimates are statistically unstable Source: 2007 California Health Interview Survey

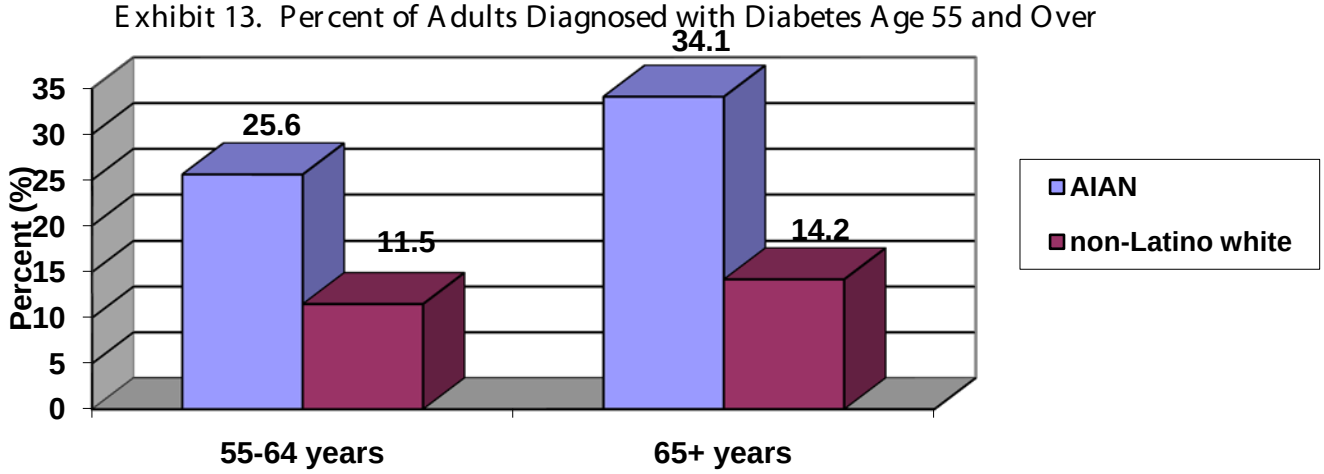
Health Conditions

Diabetes

American Indians and Alaska Natives experience significantly higher rates of diabetes than most other races/ethnicities. Diabetes is the third leading cause of death for AIANs age 55 and over and is a risk factor for health conditions such as hypertension, heart disease and stroke. Diabetes is also the leading medical cause of amputations, blindness and kidney disease.

Approximately one in four AIAN elders ages 55-64 and one in three age 65 and over report being diagnosed with diabetes. American Indian elders of both age groups are diagnosed with diabetes at over twice the rate of non-Latino whites (Exhibit 13). Diabetes, hypertension and cardiovascular disease are *fellow travelers*, as evidenced by approximately three in four AIAN elders with diabetes (75%) also being diagnosed with hypertension, and nearly one in three elders with diabetes (28%) also being diagnosed with heart disease.

Exhibit 13. Percent of Adults Diagnosed with Diabetes Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 14. Diabetes for California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		< 200% Federal Poverty Level (FPL) 55+ years	
Health Conditions	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Ever diagnosed with diabetes	**25.6** (17.2-34.1)	**34.1** (24.9-43.3)	**11.5** (10.3 - 12.7)	**14.2** (13.2 - 15.2)	**23.1** (19.1 - 27.1)	**27.2** (23.3 - 31.1)	**23.1** (17.0 - 29.2)	**27.9** (22.0 - 33.8)	**13.0** (9.4 - 16.6)	**20.0** (16.3 - 23.8)	**14.6** (13.4 - 15.9)	**17.9** (16.8 - 19.0)	**36.1** (26.8-45.4)	**23.3** (21.4 - 25.2)

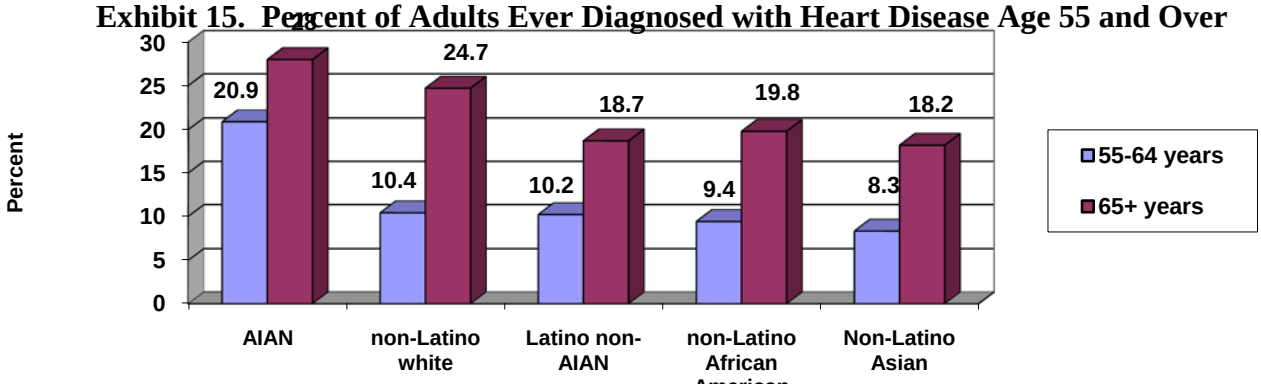
Percent (95% confidence interval)
Source: 2007 California Health Interview Survey

Cardiovascular (Heart) Disease

Heart disease is the leading cause of death among all races and is a major cause of disability. American Indians and Alaska Natives die from heart disease at younger ages than other racial and ethnic groups in the United States. Thirty-six percent of those who die of heart disease die before age 65.[9] Despite these statistics, heart disease can be prevented by controlling cholesterol, high blood pressure or hypertension, diabetes, as well as exercising, maintaining a healthy weight, moderating alcohol use and abstaining from tobacco use.

In California, AIAN elders age 55 and over have the highest prevalence of heart disease of all races/ethnicities. All race/ethnicity elders over age 65 have a higher prevalence of heart disease than those ages 55 to 64 (Exhibit 15). Those AIAN elders living below 200% of the federal poverty level are significantly more likely to have heart disease than all other races/ethnicities. Additionally, over half of AIAN elders ages 55 to 64, and nearly two thirds over age 65 have hypertension.

Exhibit 15. Percent of Adults Ever Diagnosed with Heart Disease Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 16. Cardiovascular Disease of California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		≤200% Federal Poverty Level (FPL) 55+ years	
Health Conditions	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Ever diagnosed with heart disease	**20.9** (12.6-29.2)	**28.0** (20.3-35.7)	**10.4** (9.3 - 11.5)	**24.7** (23.5 - 25.8)	**10.2** (7.4 - 13.0)	**18.7** (15.1 - 22.3)	**9.4** (6.4 - 12.4)	**19.8** (14.2 - 25.5)	**8.3** (5.3 - 11.3)	**18.2** (14.4 - 22.0)	**10.2** (9.2 - 11.2)	**22.5** (21.4 - 23.7)	**28.4** (20.6 - 36.2)	**18.9** (17.3 - 20.5)
Ever diagnosed with hypertension	**57.4** (48.7-66.0)	**62.6** (54.4-70.9)	**39.4** (37.6 - 41.1)	**59.1** (57.8 - 60.4)	**42.7** (38.1 - 47.3)	**61.3** (56.8 - 65.8)	**66.4** (60.3 - 72.5)	**74.9** (69.3 - 80.4)	**48.1** (41.8 - 54.4)	**62.1** (57.3 - 67.0)	**42.8** (41.1 - 44.4)	**60.7** (59.3 - 62.0)	**63.5** (54.8-72.1)	**57.4** (55.0 - 59.8)

Percent (95% confidence interval) Source: 2007 California Health Interview Survey

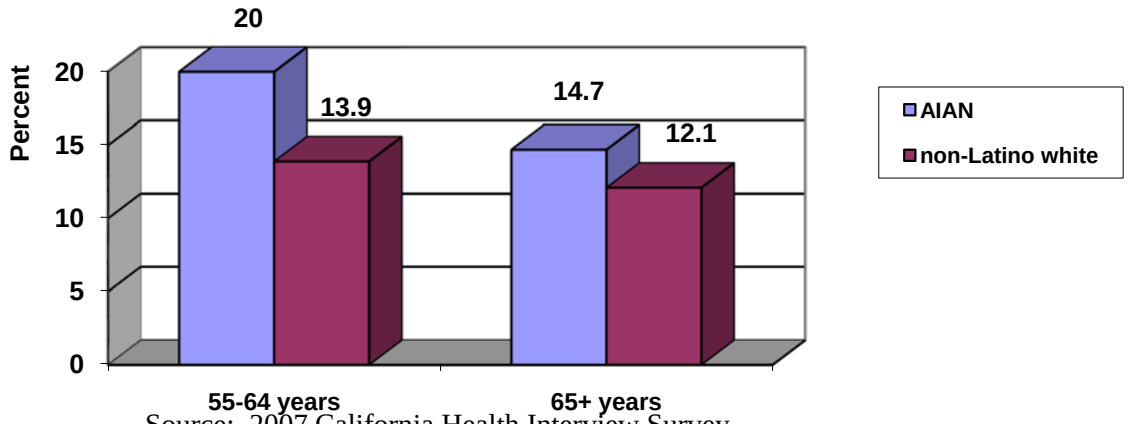
9 Oh SS, Croft JB, Greenlund KJ, Ayala C, Zheng ZJ, Mensah GA, Giles WH. Disparities in Premature Deaths from Heart Disease—50 States and the District of Columbia. *MMWR* 2004;53:121–25. *http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5306a2.htm*

Asthma

Asthma is a chronic lung disease that inflames and narrows the airways and makes it difficult to breathe during asthma attacks.[10] Severe asthma attacks may require emergency care, and may even cause death. A number of factors are thought to increase the chances of developing asthma. These include a family history of asthma, exposure to secondhand smoke, living in an urban area, low birth weight, and being overweight. While asthma cannot be cured, it can be controlled with medication and by reducing asthma triggers such as exposure to secondhand smoke, cockroach allergens, mold, pet dander, dust, pollen and air pollution.

While asthma is most commonly associated with children, in California one in five AIAN elders ages 55 to 64 also report having asthma (Exhibit 17). American Indian elders ages 55-64 have the second highest prevalence of asthma, with African Americans having the highest prevalence among all races/ethnicities. The prevalence of asthma is lower for those age 65 and over.

Exhibit 17. Prevalence of Asthma for Adults Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 18. Asthma for California Adults Age 55 Years and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Health Condition	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Has asthma	**20.0** (12.9 - 27.2)	**14.7** (10.8 - 18.7)	**13.9** (12.8 - 15.1)	**12.1** (11.2 - 12.9)	**9.0** (7.1 - 10.9)	**9.2** (7.1 - 11.3)	**20.0** (14.1 - 26.0)	**10.7** (7.6 - 13.9)	**9.6** (5.1 - 14.1)	**8.9** (6.1 - 11.7)	**13.0** (12.0 - 14.1)	**11.1** (10.3 - 11.9)	**16.3** (10.8 - 21.7)	**11.9** (10.7 - 13.1)

Percent (95% confidence interval)
Source: 2007 California Health Interview Survey

10 Asthma is not COPD or chronic obstructive pulmonary disease. COPD is a progressive disease that makes it hard to breathe. Tobacco smoking is the leading cause of COPD. Most people who have COPD smoke or used to smoke.

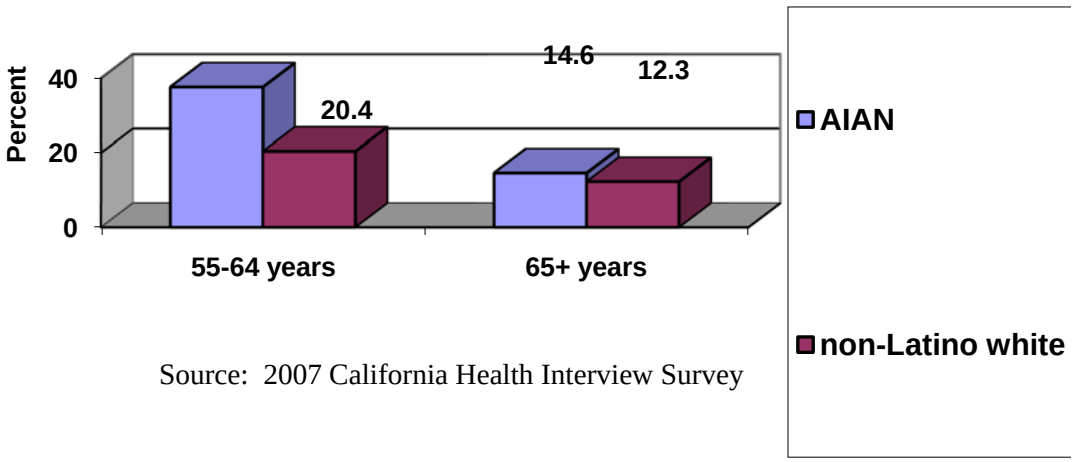
Cancer and Cancer Screening

While the cancer rate is decreasing among whites, it is increasing among AIAN populations. Nationally, AIANs have a lower cancer incidence than other races/ethnicities, but are diagnosed more frequently with late-stage disease and have poor 5-year survival rates compared to other populations.[11] Cancer is the second leading cause of death for AIANs age 55 and over.

Cancer screening is very important in diagnosing cancer at early, treatable stages of the disease. Colonoscopy, sigmoidoscopy and fecal occult blood testing (FOBT) are screening tools used for the detection of colon cancer starting at age 50. Mammography is used to detect breast cancer, pap smears are used to detect cervical cancer, and the PSA blood test is used to detect prostate cancer, though its utility is controversial for the oldest age groups.

All elders in California ages 55 to 64 have a higher prevalence of never having received a colon screening compared to those age 65 and over (Exhibit 19). This finding is especially pronounced among AIAN elders. American Indian elders age 65 and over have similar rates of colon screening compared to other races/ethnicities. In addition, AIAN women ages 55 to 64 are more likely not to have received a mammogram in over two years compared to all other races/ethnicities.

Exhibit 19. Percent Who Have Never Had a Colon Screening Age 55 and Over



Source: 2007 California Health Interview Survey

11 Espey D K, Wu XC, et al. (2007). Annual report to the nation on the status of cancer, 1975-2004, featuring cancer in American Indians and Alaska Natives. *Cancer* 110(10): 2119-2152.

Exhibit 20. Cancer Diagnosis and Screening Behaviors of California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Ever diagnosed with any cancer (2005)	**9.8** (5.7-13.9)	**24.4** (13.8-34.9)	**19.9** (18.4-21.4)	**32.8** (31.4-34.3)	**8.5** (5.6-11.4)	**14.9** (10.9-18.9)	**8.6** (5.2-11.9)	**21.4** (15.6- 27.3)	**5.5** (2.8-8.2)	**11.1** (7.3- 14.9)	**15.7** (14.5-16.8)	**26.9** (25.6-28.2)	**14.1** (6.1-22.1)	**17.8** (16.1-19.5)
Diagnosed with any cancer excluding skin (2005)	**8.0** (4.8-13.1)	**17.9** (10.4-29.0)	**10.5** (9.4-11.8)	**22.0** (20.8-23.3)	**6.9** (4.9-9.8)	**13.0** (10.1-16.7)	**8.5** (6.0-12.0)	**21.3** (16.1-27.6)	**1.4*** (3.5-9.3)	**10.4** (7.5-14.3)	**9.2** (8.3-10.1	**19.1** (18.1-20.2)	**10.8** (6.4-15.3)	**13.9** (12.8-15.0)
Diagnosed with skin cancer only (2005)	**2.0*** (1.1-3.7)	**8.0** (3.8-16.3)	**10.3** (9.1-11.7)	**14.0** (12.7-15.4)	**1.6** (0.7-3.4)	**2.1*** (1.0-4.4)	|---|	**2.0*** (0.6-6.3)	**0.5*** (0.1-2.1)	**1.5*** (0.3-6.4)	**6.9** (6.1-7.8)	**10.2** (9.2-11.1)	**3.2** (0.7-5.7)	**3.9** (3.3-4.5)
Had a pap smear in the past 3 years (2007) (55-64 years only)*	**82.7** (70.4-95.1)	*	**91.0** (89.5-92.5)	*	**87.9** (83.4-92.3)	*	**90.3** (86.1-94.5)	*	**80.1** (73.6-86.5)	*	**88.9** (87.4-90.4)	*	**68.0** (62.1-74.0)	**76.8** (72.7-81.0)
Never had sigmoidoscopy, colonoscopy or FOBT (2007)	**37.6** (28.7-46.5)	**14.6** (9.7-19.5)	**20.4** (18.8-22.0)	**12.3** (11.4-13.3)	**35.9** (31.1-40.8)	**19.0** (15.4-22.5)	**18.3** (12.8-23.8)	**14.7** (9.6-19.9)	**32.6** (26.9-38.3)	**23.9** (19.3-28.5)	**24.5** (22.9-26.0)	**15.2** (14.1-16.3)	**38.5** (29.7-47.3)	**38.6** (36.3-40.8)
Mammogram screening (>2 years ago or never had) (2007)	**23.6** (14.7-32.6)	**23.0** (16.1-30.0)	**12.5** (11.2-13.7)	**20.9** (19.3-22.5)	**16.9** (12.9-20.8)	**22.3** (17.5-27.1)	**10.7** (6.3-15.1)	**21.1** (15.0-27.2)	**21.0** (15.3-26.8)	**31.5** (24.3-38.8)	**14.0** (12.8-15.3)	**22.6** (20.8-24.3)	**26.5** (20.4-32.7)	**29.1** (26.5-31.7)
Never had a PSA test (2005)	**49.7** (38.0-61.3)	**32.6** (17.5-47.8)	**33.3** (30.6-36.0)	**25.5** (23.4-27.6)	**58.4** (51.0-65.8)	**40.8** (32.0-49.5)	**53.3** (41.8-64.9)	**26.2** (15.9-36.4)	**64.1** (55.1-73.1)	**48.9** (40.3-57.5)	**42.1** (36.9-44.6)	**30.6** (28.3-32.9)	**50.4** (35.5-65.3)	**60.1** (56.2-64.0)

Percent (95% confidence interval), |---| indicates sample size too small to report

*Pap smears for age 65 and over are not reported since the AHRQ Guide to Clinical Preventive Services recommendation is to not routinely screen women older than age 65 for cervical cancer if they have had adequate recent screening with normal Pap smears and are not otherwise at high risk for cervical cancer. http://www.ahrq.gov/clinic/uspstf/uspscerv.htm

Source: 2005 and 2007 California Health Interview Surveys

Disability and Related Conditions

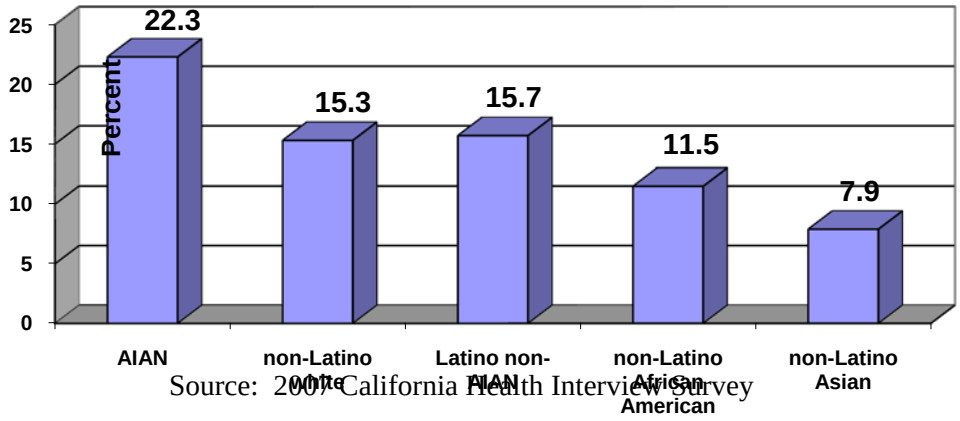
Falls

Unintentional falls are a threat to the lives, independence and health of adults age 65 and over. Among older adults, falls are the leading cause of injury deaths. They are also the most common cause of nonfatal injuries and hospital admissions for trauma. People who fall suffer moderate to severe injuries such as bruises, fractures or head traumas. These injuries can make it hard to get around and limit independent living.

Although significant proportions of older adults fall each year in the United States, falls are not an inevitable part of aging and can be prevented by exercising regularly, having a physician review medications, having regular eye exams, reducing hazards and improving lighting in the home.

In California, one in five AIAN elders age 65 and over have reported multiple falls in the past year, the highest prevalence of any racial or ethnic group (Exhibit 21). Nearly twice as many AIAN elders who live below 200% FPL reported multiple falls compared to all other races and ethnicities (27.1% vs. 15.1%). There appear to be no significant gender differences in reported falls among elders (Exhibit 22). Almost half of AIAN elders received medical care because of their falls, similar to all elders in the state, while only one-quarter of AIAN elders had a health care professional review their medications after a fall. This low rate of an activity that should occur for all persons with multiple falls is partly driven by the fact that few seniors without a falls-related medical visit report a medication review, although only half report a medication review even among those with a falls-related medical visit. Physicians find conducting a comprehensive medication review time consuming, are not always aware of current protocols, and may not know how to bill for the activity.[12] One-half of AIAN elders started to use a cane or a walker after a fall, compared to nearly 70% of AIAN elders under 200% FPL.

Exhibit 21. Prevalence of Multiple Falls for Adults Age 65 and Over



Source: 2007 California Health Interview Survey

12 Tinetti ME, Gordon C, Sogolow E, Lapin P, Bradley EH. Fall-risk evaluation and management: challenges in adopting geriatric care practices. *Gerontologist*. 2006 Dec;46(6):717-25.

Exhibit 22. Multiple Falls and Follow-up for California Adults Age 65 and Over by Race/Ethnicity

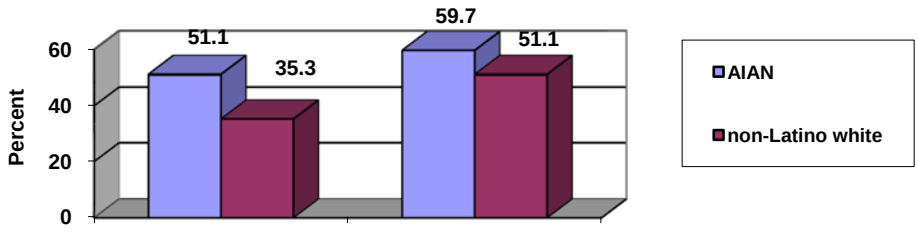
		American Indian Alaska Native	non-Latino White	Latino non-AIAN	Non-Latino African American	Non-Latino Asian	All Races (non-AIAN)	<200% Federal Poverty Level (FPL) 55+ years	
	Elder Falls	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+
Fell to ground more than once within past 12 months	Both genders	**22.3** (14.8-29.9)	**15.3** (14.3 -16.3)	**15.7** (12.4 - 19.1)	**11.5** (7.8 - 15.3)	**7.9** (5.6 - 10.2)	**14.3** (13.3-15.2)	**27.1** (18.2 - 36.0)	**15.2** (13.5 - 16.9)
	Female	**23.0** (15.0-30.9)	**16.3** (15.0 - 17.5)	**16.8** (13.3 - 20.4)	**14.9** (9.5 - 20.3)	**9.8** (6.3 - 13.3)	**15.5** (14.3 - 16.6)	**27.6** (15.9 - 39.3)	**17.7** (15.6 - 19.8)
	Male	**21.5** (13.2-29.8)	**14.2** (12.7 - 15.6)	**14.3** (8.1 - 20.5)	**6.8*** (2.3 - 11.4)	**5.4** (2.8 - 8.0)	**12.7** (11.2 - 14.2)	**26.1** (14.8 - 37.4)	**11.0** (8.6 - 13.4)
Among those with multiple falls	Received medical care because of a fall in the past year	**48.8** (37.0-60.6)	**45.6** (42.1 -49.2)	**56.0** (44.9 - 67.1)	**47.6** (30.6 - 64.6)	**32.4** (19.5 -45.3)	**46.5** (42.9-50.0)	**66.3** (54.3 - 78.4)	**50.9** (45.3 - 56.5)
	Received professional advice about how to avoid falls	**42.2** (30.9 - 53.4)	**40.3** (36.8 - 43.8)	**35.9** (23.7 - 48.0)	**56.7** (39.9 - 73.5)	**36.9** (21.9 - 51.9)	**39.8** (36.2 - 43.3	**52.8** (40.5 - 65.0)	**39.2** (33.7 - 44.6)
	Made changes to home because of a fall in past year	**22.6** (12.8 - 32.4)	**26.9** (23.6 - 30.1)	**35.7** (23.6 - 47.9)	**35.2** (18.6 - 51.9)	**21.1*** (7.1 - 35.1)	**28.4** (24.9 - 31.9)	**29.3** (15.8 - 42.9)	**31.9** (26.7 - 37.2)
	Health care professional reviewed medications after fall	**25.2** (14.8 - 35.6)	**29.5** (26.1 - 32.8)	**31.3** (21.6 - 41.1)	**52.9** (36.0 - 69.9)	**16.7** (6.9 - 26.4)	**30.0** (26.9 - 33.2)	**35.5** (18.8 - 52.2)	**33.8** (28.3 - 39.3)
	Started to use cane or walker because of fall in past year	**50.1** (38.4 - 61.7)	**36.9** (33.4 - 40.4)	**43.8** (32.0 - 55.7)	**50.1** (33.1 - 67.1)	**26.9** (15.0 - 38.9)	**37.9** (34.4 - 41.4)	**69.9** (58.1 - 81.7)	**44.6** (39.1 - 50.0)
	Changed daily routines because of fall in past year	**26.1** (15.4 - 36.9)	**24.9** (21.8 - 28.0)	**33.3** (21.3 - 45.3)	**37.7** (20.9 - 54.5)	**20.7** (9.7 - 31.8)	**26.6** (23.2 - 29.9)	**23.7** (13.0 - 34.5)	**28.3** (23.3 - 33.2)
	Started exercise or physical therapy because of fall in past year	**22.0** (12.6 - 31.4)	**27.0** (23.9 - 30.1)	**27.3** (14.9 - 39.6)	**43.6** (26.4 - 60.7)	**21.7** (11.0 - 32.5)	**27.2** (23.9 - 30.6)	**30.9** (14.6 - 47.1)	**26.4** (21.5 - 31.2)

Percent (95% confidence interval) Source: 2007 California Health Interview Survey

Arthritis

Arthritis is the nation's most common cause of disability. The most frequently occurring forms of arthritis include osteoarthritis, rheumatoid arthritis, lupus, fibromyalgia and gout. Some forms of arthritis, such as the autoimmune related conditions of rheumatoid arthritis and lupus, can affect multiple organs and cause widespread symptoms. The most common form is osteoarthritis which is a degenerative condition that results in the common symptoms of pain, aching, stiffness and swelling in or around the joints. Arthritis can make it difficult for people to be physically active, increasing their risk for getting and worsening many other chronic diseases. For example, among AIANs ages 55-74 with diabetes or heart disease, over two-thirds also have arthritis. Among all California AIAN elders, over half reported ever having been diagnosed with arthritis, gout, lupus or fibromyalgia, the highest prevalence of any racial/ethnic group. Those age 65 and over had a higher prevalence of arthritis than those ages 55 to 64 (Exhibit 23). Over 60% of AIANs living below 200% FPL reported having been diagnosed with arthritis, compared to about half of all other races living below 200% of the federal poverty level (Exhibit 24).

Exhibit 23. Percent Diagnosed with Arthritis Age 55 and Over



Source: 2005 California Health Interview Survey

Disability

Disability in a broad context can refer to a physical or mental impairment that can limit major life activities. For elders, these activities can include their navigation in society (driving, paying bills, shopping, preparing meals), or even their self-care (toileting, bathing, dressing oneself or walking). When elders suffer from a physical disability, special equipment or help from another person can be instrumental in helping them perform these activities.

In California, more AIAN elders in both age groups reported needing special equipment or help for daily activities. For those living below 200% of the federal poverty level, twice as many AIAN elders needed help or special equipment compared to all other races/ethnicities (Exhibit 24).

Exhibit 24. Arthritis and Disability for Each Race/Ethnicity for California Adults Age 55 and Over

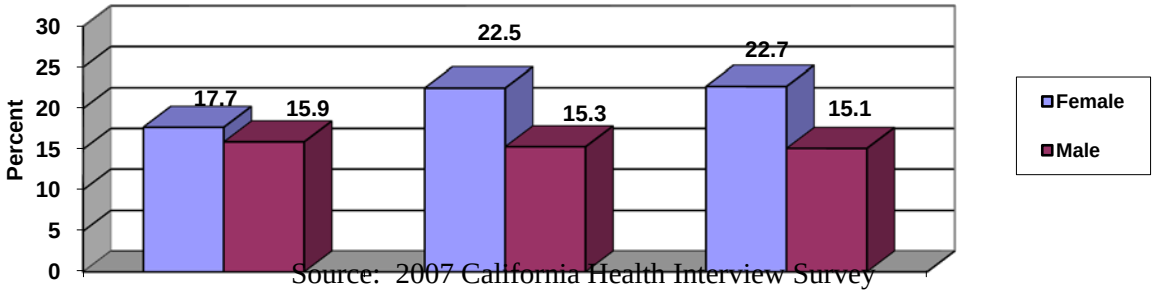
	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		≤200% Federal Poverty Level (FPL) 55+ years	
	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Ever diagnosed with arthritis, gout, lupus or fibromyalgia (2005)	**51.1** (42.9-59.3)	**59.7** (47.8-71.7)	**35.3** (33.6-37.1)	**51.1** (49.6-52.6)	**33.7** (29.1-38.4)	**52.6** (47.4-57.9)	**40.2** (33.4-47.0)	**53.3** (46.4-60.2)	**19.4** (15.1-23.7)	**40.9** (35.2-46.6)	**33.5** (32.0-35.0)	**50.1** (48.6-51.6)	**61.8** (50.6 - 72.9)	**48.9** (46.5 - 51.3)
Need help with daily activities (2003)	**8.4** (3.2-13.6)	**16.1** (9.3-22.8)	**2.7** (2.1-3.3)	**6.2** (5.4-7.1)	**3.5** (1.7-5.3)	**8.2** (5.4-10.9)	**7.9** (4.6-11.1)	**12.5** (7.0-18.1)	**3.0*** (0.8-5.1)	**4.7** (2.6- 6.8)	**3.3** (2.7-3.9)	**6.7** (5.9- 7.4)	**21.8** (13.7-30.0)	**9.1** (7.8-10.4)

Percent (95% confidence interval)
Source: 2003 and 2005 California Health Interview Surveys

Mental Health and Mental Health Access

In general, women in both age categories reported a higher need for help for emotional/mental health problems or use of alcohol/drugs than their male counterparts, and reported higher rates of having accessed mental health services and higher rates of prescription drug use for emotional/mental health issues, though these differences may not be statistically significant. Of those who reported a need for help with emotional/mental health problems or use of alcohol/drugs, AIAN elders ages 55 to 64 reported higher rates of having seen a health care provider for these issues compared to all other races/ethnicities (Exhibit 25).

Exhibit 25. Mental Health and Mental Health Access for AIAN Age 55-64 by Gender



Source: 2007 California Health Interview Survey

Exhibit 26. Mental Health Access for California Adults Age 55 and Over by Race/Ethnicity

		American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
	Mental Health Access	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Needed help for emotional/mental health problems or alcohol/drug use*	female	**17.7** (11.9 - 23.5)	**11.6** (6.5 - 16.7)	**20.9** (18.5 - 23.3)	**7.2** (6.4 - 8.1)	**16.1** (12.0 - 20.3)	**7.1** (4.1 - 10.1)	**14.1** (9.4 - 18.7)	**5.9** (3.3 - 8.5)	**8.1** (4.4 - 11.8)	**5.1*** (0.7 - 9.5)	**18.1** (16.3 - 19.9)	**6.8** (5.9 - 7.8)	**15.7** (9.1 - 22.4)	**13.1** (11.2 - 15.0)
	male	**15.9** (8.5 - 23.3)	**3.6*** (0.3 - 6.8)	**13.5** (11.6 - 15.5)	**5.0** (4.1 - 5.9)	**9.6** (5.9 - 13.4)	**5.7** (2.5 - 8.9)	**5.2** (2.2 - 8.2)	**4.1*** (0 - 8.3)	**1.9*** (0.6 - 3.2)	**3.1*** (0.3 - 5.9)	**9.2** (9.7 - 12.8)	**4.9** (4.0 - 5.7)	**18.8** (11.3 - 26.4)	**9.8** (7.5 - 12.0)
Saw any healthcare provider for emotional-mental and/or alcohol-drug issues, past year**	female	**22.5** (15.0 - 29.9)	**13.8** (7.1 - 20.5)	**18.9** (16.6 - 21.2)	**7.9** (7.0 - 8.8)	**14.3** (10.8 - 17.8)	**9.6** (4.1 - 15.0)	**11.7** (7.4 - 16.0)	**6.3** (2.8 - 9.8)	**7.0** (3.6 - 10.5)	**3.8*** (0 - 7.9)	**16.2** (14.5 - 17.9)	**7.5** (6.3 - 8.8)	**15.1** (7.7 - 22.4)	**11.3** (9.6 - 13.0)
	male	**15.3** (7.9 - 22.7)	**10.9** (6.9 - 14.9)	**11.7** (10.1 - 13.3)	**4.3** (3.6 - 5.1)	**7.6** (4.7 - 10.6)	**5.3** (2.5 - 8.1)	**4.6*** (1.7 - 7.5)	**3.6*** (0 - 7.7)	**1.8*** (0.4 - 3.2)	**3.0*** (0.9 - 5.1)	**9.5** (8.2 - 10.7)	**4.3** (3.6 - 5.1)	**23.7** (15.2 - 32.2)	**7.7** (6.1 - 9.2)
prescription medicine for emotional/mental health issue, past year***	female	**22.7** (14.1 - 31.3)	**18.8** (11.7 - 25.9)	**22.7** (20.4 - 25.0)	**13.3** (12.2 - 14.3)	**18.0** (13.6 - 22.4)	**14.9** (9.2 - 20.7)	**12.6** (7.9 - 17.3)	**10.5** (6.1 - 14.9)	**6.4** (3.3 - 9.5)	**5.3** (2.3 - 8.3)	**19.1** (17.3 - 20.9)	**12.3** (11.0 - 13.6)	**22.6** (15.0 - 30.3)	**15.9** (14.1 - 17.7)
	male	**15.1*** (5.4 - 24.8)	**9.0*** (1.4 - 16.5)	**12.8** (11.1 - 14.4)	**6.6** (5.7 - 7.6)	**6.9** (4.1 - 9.7)	**3.8*** (1.0 - 6.6)	**5.5*** (2.2 - 8.8)	**3.9*** (0 - 8.1)	**1.9*** 0.6 - 3.3)	**2.8*** (1.0 - 4.6)	**10.1** (8.8 - 11.3)	**5.5** (4.7 - 6.4)	**15.8** (9.3 - 22.4)	**7.8** (6.2 - 9.4)

Percent (95% confidence interval)

* Was there ever a time during the past 12 months when you felt that you might need to see a professional because of problems with your mental health emotions or nerves or your use of alcohol or drugs?

** In the past 12 months have you seen your primary care physician for problems with your mental health, emotions, nerves or your use of alcohol or drugs? And, have you seen any other professional, such as a counselor, psychiatrist, or social worker for problems with your mental health, emotions, nerves or your use of alcohol or drugs?

*** During the past 12 months, did you take any prescription medications, such as an antidepressant or sedative, almost daily for two weeks or more, for an emotional or personal problem?

Source: 2007 California Health Interview Survey

Health Insurance

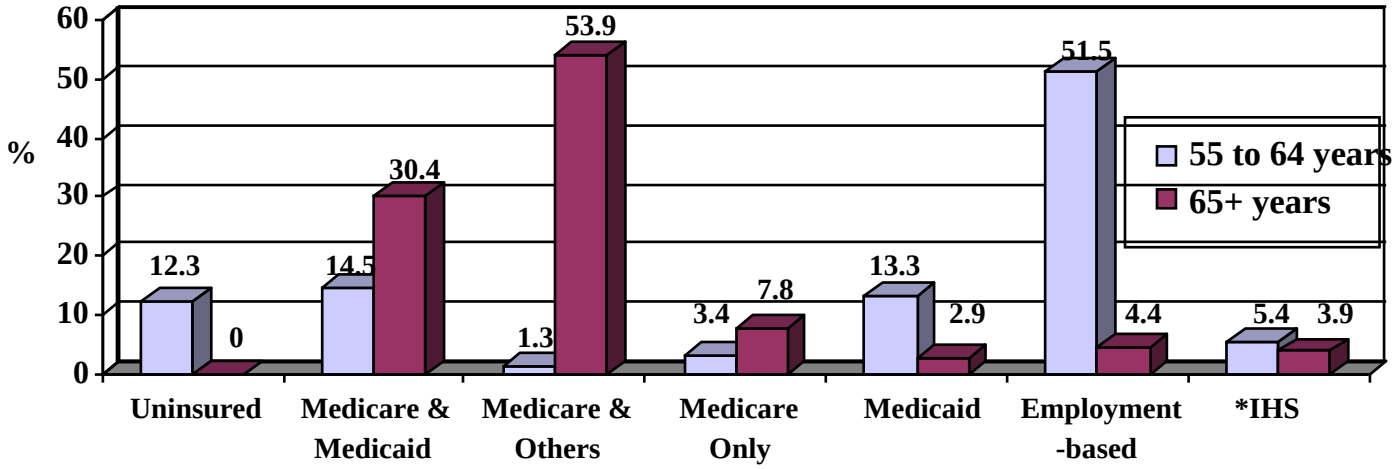
A striking 14.5% of AIAN elders ages 55-64 and 30.4% of AIAN elders age 65 and over are dual-eligibles, meaning they are covered by both Medicare and Medicaid (i.e., *Medi-Medi*), compared to 2.4% and 9.6% of non-Latino whites (Exhibit 27). To be eligible for Medicare, one must be age 65 or older, blind or permanently disabled. To be eligible for Medi-Cal (California's Medicaid program), one must have a very low income, no assets, and be elderly, blind, disabled or a family with children. Given the AIAN dual-eligible rate for elders ages 55-64, they are both poor and permanently disabled at six times the rate of non-Latino whites ages 55-64. AIAN elders age 65 and over meet the low-income requirements for Medicaid at over three times the rate of non-Latino whites age 65 and over. These data demonstrate that Medicare-Medicaid coverage is an important source of coverage and health care access for AIAN elders.

American Indian elders ages 55 to 64 are nearly twice as likely to be uninsured as non-Latino whites, 12% versus 7% respectively. While more than half of AIAN elders ages 55 to 64 (52%) have employment-based insurance, this rate is much lower than the 73% of non-Latino whites with employment-based insurance. Roughly half of AIANs age 65 and over have Medicare coverage in combination with other forms of private insurance, primarily Medicare supplemental (Medi-gap), compared to about three-quarters of non-Latino whites (Exhibit 28).

Only one in twenty AIAN elders (5%) use/or report that they are eligible for IHS services (Exhibit 28). Because access to IHS services is linked to the reservation that the tribal member is enrolled in and the majority of California AIAN elders are members of tribes with reservations outside of the state, IHS is not an accessible source of care for most AIAN elders living in California.

The national health care reform that passed in 2010 should improve access for aging AIANs under age 65 by improving the rate of employment-based insurance, increasing the incomes that families can have and still qualify for Medicaid (Medi-Cal in California), increasing funding to health centers (which includes Urban Indian Clinics), and expanding the use of home and community-based care for those with disabilities and the elderly. The bills exempt enrolled tribal members from the mandate that all individuals have health insurance under the assumption that they can obtain tribal or IHS services. Since only approximately 10% of AIANs age 55 and over who live in California report being enrolled in a federally recognized tribe (Exhibit 28), this provision will have little impact on most American Indians in the state.

Exhibit 27. Source of Care for American Indians in California Age 55 and Over



Source: 2007 California Health Interview Survey

Exhibit 28. Insurance Coverage for California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Insurance type (2007)	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Uninsured	**12.3** (6.7 - 17.9)	|---|	**6.8** (5.7 - 7.9)	**0.2** (0.1 - 0.3)	**27.2** (22.3 - 32.1)	**2.7** (1.2 - 4.2)	**11.7** (6.5 - 16.8)	|---|	**15.1** (11.4 - 18.9)	**1.6*** (0.6 - 2.6)	**11.8** (10.4 - 13.1)	**0.8** (0.5 - 1.1)	**11.7** (6.1 - 17.2)	**12.6** (10.8 - 14.5)
Medicare & Medicaid	**14.5** (6.3 - 22.7)	**30.4** (23.0 - 37.9)	**2.4** (1.8 - 3.1)	**9.6** (8.7 - 10.4	**4.8** (3.3 - 6.4)	**33.8** (29.5 - 38.1)	**8.2** (5.5 - 11.0)	**35.7** (29.7 - 41.7)	**2.5*** (0.3 - 4.7)	**33.7** (28.8 - 38.6)	**3.3** (2.7 - 3.9)	**18.3** (17.1 - 19.5)	**36.5** (28.1 - 44.9)	**29.9** (27.8 - 31.9)
Medicaid only	**13.3** (7.4 - 19.1)	**2.9*** (0 - 8.3)	**3.1** (2.5 - 3.8)	**0.2*** (0.1 - 0.3)	**12.0** (9.0 - 15.1)	**3.1*** (1.2 - 5.0)	**8.7** (5.3 - 12.1)	**0.6*** (-0.0 - 1.3)	**12.4** (8.2 - 16.7)	**2.9*** (1.1 - 4.8)	**6.3** (5.4 - 7.1)	**1.1** (0.6 - 1.5)	**14.2** (8.3 - 20.0)	**10.3** (8.8 - 11.9)
Medicare & Others	**1.3*** (0.1 - 2.5)	**53.9** (45.4 - 62.4)	**0.8** (0.5 - 1.1)	**78.3** (77.1 - 79.4)	**0.2*** (-0.0 - 0.5)	**47.8** (43.1 - 52.4)	**0.6*** (0 - 1.4)	**49.9** (43.7 - 56.1)	**0.4*** (0 - 1.3)	**46.9** (41.9 - 51.8)	**0.6** (0.4 - 0.9)	**67.4** (66.1 - 68.8)	**15.9** (9.9 - 22.0)	**25.8** (23.9 - 27.6)
Medicare only	**3.4** (1.6 - 5.2)	**7.8** (3.6 - 12.0)	**2.9** (2.3 - 3.6)	**8.0** (7.3 - 8.7)	**1.7** (0.8 - 2.6)	**8.2** (5.9 - 10.5)	**1.0*** (0.2 - 1.8)	**8.1** (5.0 - 11.2)	**0.4*** (-0.0 - 0.8)	**9.5** (6.5 - 12.5)	**2.3** (1.8 - 2.7)	**8.2** (7.5 - 9.0)	**6.2** (2.8 - 9.6)	**7.7** (6.6 - 8.8)
Employment-based	**51.5** (42.7 - 60.3)	**4.4*** (1.2 - 7.7)	**72.8** (71.2 - 74.5)	**3.1** (2.7 - 3.5)	**48.2** (43.5 - 52.8)	**3.2** (1.8 - 4.5)	**62.0** (55.4 - 68.6)	**5.2** (2.3 - 8.0)	**59.7** (53.8 - 65.7)	**4.5** (2.7 - 6.4)	**66.1** (64.4 - 67.8)	**3.4** (2.9 - 3.9)	**14.7** (6.8 - 22.6)	**9.6** (8.2 - 11.0)
Privately purchased	**2.2*** (0.8 - 3.6)	**0.5*** (0 - 1.5)	**9.3** (8.2 - 10.3)	**0.3** (0.1 - 0.5)	**3.8** (2.2 - 5.3)	**0.8*** (0.1 - 1.4)	**3.2*** (1.0 - 5.4)	|---|	**7.4** (4.6 - 10.2)	**0.6*** (0 - 1.2)	**7.6** (6.8 - 8.5)	**0.4** (0.2 - 0.6)	|---|	**2.1** (1.5 - 2.7)
Other public	**1.6*** (0.3 - 2.8)	|---|	**1.8** (1.4 - 2.2)	**0.3*** (0.0 - 0.6)	**2.1** (1.2 - 3.0)	**0.5*** (0 - 1.3)	**4.5*** (0.7 - 8.3)	|---|	**2.0*** (0.8 - 3.2)	**0.4*** (0 - 0.9)	**2.0** (1.6 - 2.4)	**0.3** (0.1 - 0.6)	**0.7*** (0 - 1.4)	**2.1** (1.5 - 2.6)
Any I.H.S.	**5.4** (3.1-7.7)	**3.9** (2.3-5.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
California AIAN with I.H.S.	**28.7** (18.8-38.5)	**26.5** (12.8-40.2)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Non-CA AIAN with I.H.S.	**3.2** (1.6-4.8)	**3.1** (1.7-4.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Percent (95% confidence interval)

*Estimates are statistically unstable

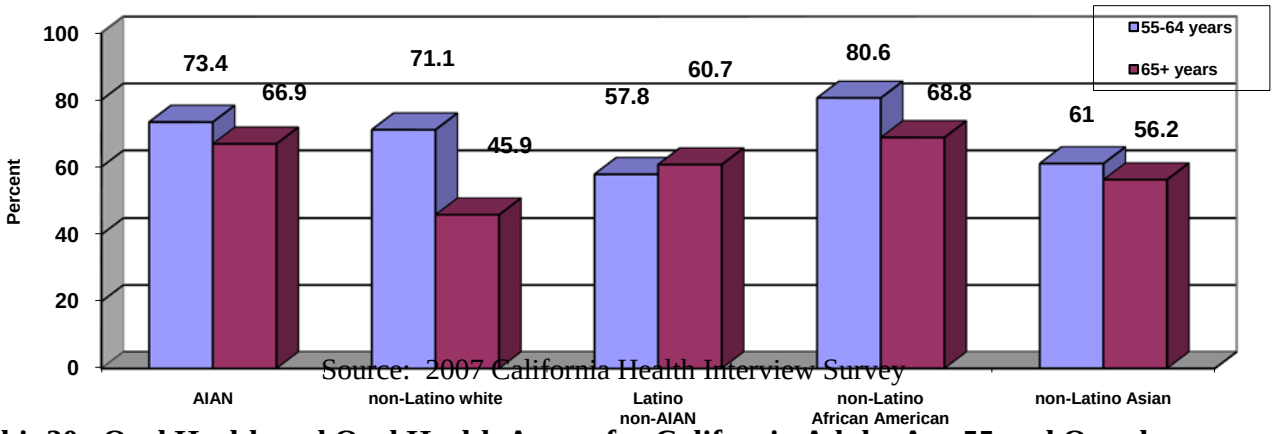
Source: 2007 California Health Interview Survey

Oral Health and Oral Health Access

Oral health is a significant contributor to an individual's general well-being and health status. As individuals age, access to oral health care and regular dental visits are important. Poor oral health can contribute to poor nutritional intake, pain and social isolation; many health conditions also have oral manifestations that may serve as an initial sign of disease and the need for further clinical assessment.[13]

A significantly higher rate of all minority elders ages 55-64 report having gone more than one year since their last dental visit compared to non-Latino whites. About one in five AIANs ages 55-64 (21%) could not afford needed dental care compared to about one in ten non-Latino whites ages 55-64 (12%). Similar disparities exist in the age 65 and over group as well. The AIAN-all races differences largely disappear when looking only at low-income (below 200% FPL) elders, suggesting that the differences are associated with income disparities (Exhibit 29). The better than average rate of dental insurance for AIAN elders is largely a function of dental coverage by Medi-Cal, coverage which was ended due to state budget cuts in 2009 (Exhibit 29).

Exhibit 29. Percent with Dental Insurance in the Past Year by Race/Ethnicity



Source: 2007 California Health Interview Survey

Exhibit 30. Oral Health and Oral Health Access for California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Oral Health and Oral Health Access	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
No dental insurance in past year (2007)	**26.6** (19.3 - 33.9)	**33.1** (25.1 - 41.1)	**28.9** (27.3 - 30.6)	**54.1** (52.8 - 55.5)	**42.2** (37.3 - 47.0)	**39.3** (34.8 - 43.9)	**19.4** (14.9 - 23.8	**31.2** (25.9 - 36.5)	**39.0** (33.0 - 45.0)	**33.8** (29.2 - 38.3)	**31.9** (30.3 - 33.5)	**47.7** (46.3 - 49.0)	**30.7** (22.4 - 39.1)	**45.0** (42.8 - 47.3)
More than one year since last dental visit (2003)	**32.7** (24.6 - 40.8)	**42.6** (33.1 - 52.0)	**20.5** (19.0 - 22.1)	**27.1** (25.7 - 28.6)	**37.2** (32.2 - 42.1)	**40.0** (35.0 - 44.9)	**29.6** (24.0 - 35.3)	**49.9** (42.8 - 57.1)	**31.5** (25.8 - 37.2)	**28.1** (23.1 - 33.1)	**25.2** (23.7 - 26.7)	**30.3** (28.9 - 31.7)	**48.9** (39.4 - 58.4)	**45.9** (43.1 - 48.8)
Could not afford dental care that was needed (2003)	**21.4** (13.6 - 29.1)	**14.4** (8.0 - 20.9)	**11.9** (10.7 - 13.1)	**7.5** (6.7 - 8.4)	**30.4** (25.7 - 35.1)	**21.8** (17.4 - 26.1)	**21.6** (16.6 - 26.6)	**14.8** (9.2 - 20.4)	**20.5** (15.7 - 25.3)	**14.2** (10.5 - 17.9)	**16.6** (15.3 - 17.9)	**10.8** (9.8 - 11.8)	**24.2** (16.5 - 31.9)	**25.9** (23.8 - 27.9)

Percent (95% confidence interval)
Source: 2003 and 2007 California Health Interview Surveys

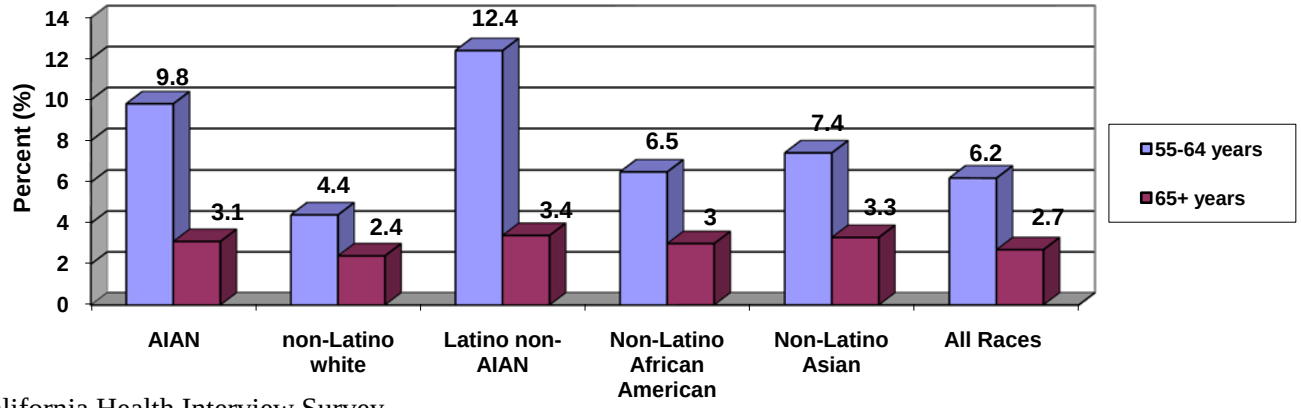
[13] US Department of Health and Human Services. Oral Health in America: A Report of the Surgeon General-- Executive Summary. Rockville, MD: US Department of Health and Human Services, National Institute of Dental and Craniofacial Research, National Institutes of Health, 2000. Available at: http://www2.nidcr.nih.gov/sgr/execsumm.htm#partThree

Access to Care

Having health insurance coverage and having access to health care are separate issues. While an individual might have health insurance, that health insurance may not provide affordable, accessible or quality care. Barriers to accessing health care may include high cost-sharing such as high deductibles or co-payments, a long distance to health care providers, the lack of specialty care, long waiting times for care and/or difficulty understanding providers. These problems can all contribute to not having a usual source of care where the individual could receive continuity of care and develop an on-going relationship with a provider.

AIAN elders ages 55-64 are twice as likely to report having no usual source of care compared to non-Latino whites in the same age category, 9.8% versus 4.4%, and are the most likely to report no usual source of care of all races/ethnicities except for Latino non-AIANs (Exhibit 31). While the rate of no usual source of care declines with age for all races/ethnicities, the proportion of AIANs with no usual source of care drops substantially between ages 55-64 and age 65 and over.

Exhibit 31. Percent with No Usual Source of Care by Race/Ethnicity Age 55 and Over



Source: 2005 California Health Interview Survey

Exhibit 32. Health Care Access of California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Health Services Indicators	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
Has no usual source of care (2005)	**9.8** (4.0 - 15.7)	**3.1** (0.2 - 6.0)	**4.4** (3.7-5.1)	**2.4** (1.9-2.8)	**12.4** (8.9-16.0)	**3.4** (1.7-5.1)	**6.5*** (2.5-10.4)	**3.0*** (0-6.7)	**7.4** (5.0-9.9)	**3.3** (1.5-5.2)	**6.2** (5.4-7.1)	**2.7** (2.2-3.1)	**5.8*** (1.5 - 10.0)	**7.5** (6.2 - 8.7)

Percent (95% confidence interval)
Source: 2005 California Health Interview Survey

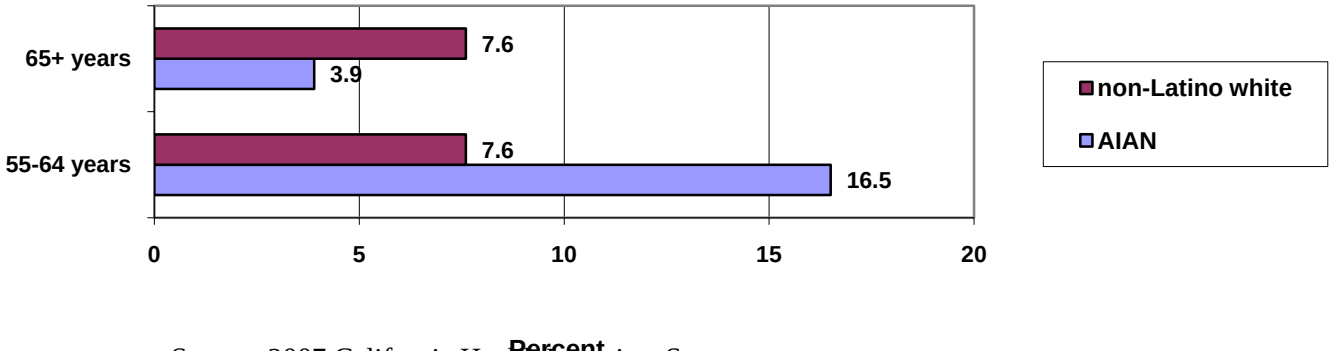
Health Care Utilization

American Indian elders ages 55-64 are two times more likely to report 13 or more doctor visits in the past year than non-Latino white elders ages 55-64 (17% vs. 8%) (Exhibit 33). This difference is likely due to higher levels of chronic conditions within the AIAN population.

The highest rate of emergency room visits was among AIANs age 55 and over living below 200% FPL, where almost 40% reported an emergency room visit in 2007 compared to 25% of all other races/ethnicities (Exhibit 34).

While flu and pneumonia shots are covered by Medicare, all race/ethnicity elders age 65 and over are far from reaching the generally accepted target of 90% for flu and pneumonia shots for adults age 65 and over.[14] In addition, racial/ethnic disparities for vaccination coverage exist. American Indian (61%) and non-Latino African American (56%) elders age 65 and over report significantly lower flu and pneumonia vaccinations than non-Latino whites (71%). AIAN people of all ages have free access to immunizations at Indian Health Service facilities and most vaccines can be administered by most health care providers at low or no cost.[15]

Exhibit 33. Thirteen or More Doctor Visits in the Past Year Age 55 and Over



Source: 2007 California Health Interview Survey

[14] http://www.healthypeople.gov/Document/HTML/Volume1/14Immunization.htm#_edn74

[15] Centers for Disease Control and Prevention. Vaccines and Immunizations. Accessed January 27, 2010. Available at: http://www.cdc.gov/vaccines/spec-grps/ai-an.htm

Exhibit 34. Health Care Utilization by California Adults Age 55 and Over by Race/Ethnicity

	American Indian Alaska Native		non-Latino white		Latino non-AIAN		Non-Latino African American		Non-Latino Asian		All Races (non-AIAN)		<200% Federal Poverty Level (FPL) 55+ years	
Health-care Utilization	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	Ages 55-64	Age 65+	AIAN	All Other Races
13 or more doctor visits in past year (2007)	**16.5** (9.1 - 23.8)	**3.9** (2.0 - 5.8)	**7.6** (6.5 - 8.8)	**7.6** (6.9 - 8.2)	**4.7** (3.0 - 6.5)	**3.8** (2.2 - 5.3)	**5.4** (2.8 - 7.9)	**6.9** (3.7 - 10.1)	**2.5*** (0.9 - 4.1)	**2.7** (1.7 - 3.6)	**6.4** (5.6 - 7.3)	**6.2** (5.7 - 6.8)	**13.1** (7.7 - 18.5)	**5.9** (5.0 - 6.8)
Visited emergency room in the past 12 months	**25.8** (18.0 - 33.6	**29.5** (21.4 - 37.6)	**18.0** (16.5 - 19.4)	**24.8** (23.6 - 26.1)	**19.3** (15.9 - 22.7)	**21.9** (18.2 - 25.6)	**29.2** (22.6 - 35.9)	**25.1** (20.1 - 30.1)	**12.2** (7.4 - 17.1)	**17.8** (14.3 - 21.4)	**18.4** (17.1 - 19.7)	**23.4** (22.3 - 24.6)	**38.4** (27.9 - 48.8)	**24.9** (23.0 - 26.8)
Had flu shot within past 12 months* (2007)	**44.5** (35.7 - 53.3)	**60.7** (52.3 - 69.1)	**44.4** (42.6 - 46.2)	**70.7** (69.4 - 71.9)	**39.6** (35.1 - 44.2)	**64.7** (60.2 - 69.1)	**33.5** (27.4 - 39.6)	**55.6** (49.4 - 61.7)	**49.2** (43.0 - 55.5)	**72.3** 67.3 - 77.2)	**43.6** (41.9 - 45.2)	**69.1** (67.8 - 70.4)	**54.2** (45.5 - 63.0)	**55.1** (52.8 - 57.3)
Ever had pneumonia shot**(2003)	**30.9** (22.9 - 38.9)	**55.5** (47.2 - 63.8)	**21.8** (20.2 - 23.3)	**68.1** (66.6 - 69.5)	**15.3** (11.6 - 19.1)	**54.2** (49.2 - 59.2)	**25.7** (20.0 - 31.4)	**53.5** (46.4 - 60.6)	**16.7** (12.0 - 21.3)	**50.6** (44.8 - 56.4)	**20.5** (19.2 - 21.9)	**63.2** (61.7 - 64.7)	**51.7** (41.0 - 62.4)	**56.1** (53.2 - 58.9)

Percent (95% confidence interval)
Source: 2003 and 2007 California Health Interview Surveys

* The CDC recommends the influenza vaccine for any person who is older than 50 *http://www.cdc.gov/flu/professionals/acip/flu_vax_adults0809.htm#box2*

** The CDC recommends the pneumococcal vaccine for any person who is older than 65 unless they have high risk for disease (e.g., sickle cell disease, HIV infection or other immuno-compromising conditions) *http://www.cdc.gov/vaccines/vpd-vac/pneumo/default.htm*

Methods

Generating state-level American Indian elder health information requires a data source that is not hindered by the race classification issues that traditionally limit AIAN research.[16] Racial misclassification is the most common error affecting AIAN data and has been one of the most difficult obstacles to overcome.[17] The development of the California Health Interview Survey (CHIS) accounted for these issues at various stages and proves to be a distinctive health data source for AIAN issues.

CHIS is the largest on-going state-level public health survey in the US and has the ability to provide accurate data on the AIAN population due to modifications made at different development stages, including survey design, training protocol and sampling methodology. The survey instrument has been through extensive cultural and linguistic review. The race/ethnicity questions were specifically designed to avoid data problems faced by other surveys collecting AIAN data. Persons who answered as American Indian or Alaska Native on any race question were asked to further identify their tribal affiliation(s), whether they are an enrolled member of a tribe, and in which tribe they were enrolled. This data allows us to distinguish individuals from California tribes, non-California tribes, and those without tribal affiliations. AIAN cultural competency training materials developed for the data collection subcontractor were incorporated into the standard interviewer training protocol.[18]

CHIS collects health information from California's non-institutional population through a random digit dial telephone survey administered in multiple languages. In 2007, CHIS collected data from over 53,000 households. This provides local-level estimates for 41 individual counties and three groups of the smallest counties, along with sub-county data for Los Angeles and San Diego.

Data Analyses

Data analyses were performed primarily using the publicly available online query system, *AskCHIS* (*www.chis.ucla.edu*). Data from the CHIS 2007 survey are presented when available. In some cases, to increase the sample size, multiple years were combined. Some questions of interest were not asked in 2007 and we present the most recent data available. Four demographic comparisons were made when examining each variable: race, age, gender and poverty.

American Indian/Alaska Natives were classified as those who self reported being AIAN single race or in combination with other races/ethnicities. All other comparison groups were defined based on the CHIS construct variable "Race-OMB/Department of Finance" and excluded respondents who had any mention of AIAN race. Due to small sample size and unstable estimates, Native Hawaiians and other Pacific Islanders were excluded from the analyses.

Analyses were restricted to the age categories 55 to 64 years, and 65 years and over. Examining the 55 to 64 year old category is used as a standard in AIAN research as AIANs tend to age earlier than other

16 Burhansstipanov L, Hampton JW, Wiggins C. Issues in Cancer Data and Surveillance for American Indian and Alaska Native Populations, Journal of Registry Management.1999:29:4:153-157; Rhoades DA. Racial misclassification and disparities in cardiovascular disease among American Indians and Alaska Natives. Circulation. 2005: 111: 1250-6.
17 Burhansstipanov L and Satter DE. Office of Management and Budget, Racial Categories and Implications for American Indians and Alaska Natives. *AJPH.* 2000: 90: 1720-1723.
18 Satter DE, Veiga-Ermert A, Burhansstipanov L, Pena L, Restivo T. Communicating Respectfully with American Indian and Alaska Natives: Lessons from the California Health Interview Survey. Journal of Cancer Education. 2005: 20: 49- 51.

races. This classification was accepted by the project's Native Elder Health Working Group which consists of stakeholders in both the AIAN and aging communities. CHIS asks questions regarding falls only of those age 65 and over. Analyses were examined by gender with no significant differences other than the variables included in this report (obesity, alcohol use, falls and mental health). Urban and rural residency was defined by the California Area Indian Health Service (IHS) definition. According to the California IHS definition, counties are either classified as urban or rural. In addition, the cities of San Diego, Santa Barbara, and Bakersfield are classified as urban areas within rural counties.

Additionally, the impact of poverty on each variable was examined by those who report living below 200% of the federal poverty level. This is defined as the household income in the previous year relative to the federal poverty threshold. These individuals have less than twice the income of the poverty threshold. In 2006, the federal poverty threshold for an individual age 65 and over was $9,669 and in 2008, the threshold was $10,326. The thresholds rise with the number of persons in the household.

What Is a Confidence Interval?

Because the estimated value is based on a sample of the overall population, it has a degree of uncertainty, and the confidence interval (CI) shows the range where the actual value may lie. The 95% CI that we use can be interpreted as the range where the point estimate would occur 95 out of 100 times if the same survey were repeated 100 times.

What Do Suppressed and Unstable Data Mean?

As a confidentiality protocol in CHIS, when a cell has fewer than five respondents, no information is presented. When the data are suppressed it is marked by a dashed line symbol in the cell (|---|). In addition, as a CHPR data standard, when the Coefficient of Variation (i.e. the standard error divided by the mean) is greater than 30%, we mark the estimate with an asterisk (*) to show that the possible "true value" can fall in such a wide range in comparison to the value from this survey that it should be considered as unstable. Ways to avoid unstable estimates center around increasing the sample size. This means that methods such as pooling years, combining genders or increasing the geographical area of an estimate can decrease the likelihood of producing an unstable estimate.

Resources

Administration on Aging
http://www.aoa.dhhs.gov/

Agency for Healthcare Research and Quality, Improving Long-term Care for American Indians in Region VIII
http://www.ahrq.gov/news/ulp/amindltc/ulpailtc.htm

Alzheimer's Disease Education and Referral Center
http://www.alzheimers.org/

American Association of Retired People
http://www.aarp.org/

American Indian, Alaska Native, Native Hawaiian Caucus, APHA
http://www.nativecaucus.org/

The American Parkinson Disease Association, Inc.
http://apdaparkinson.com/

Arthritis Foundation
http://www.arthritis.org/

AskCHIS (The California Health Interview Survey)
http://www.chis.ucla.edu/

Association for Protection of the Elderly
http://www.apeape.org/

Canadian Institute of Health Research
http://www.cihr-irsc.gc.ca/e/193.html

The Gerontological Society of America
http://www.geron.org/

Hospice Patient Alliance
http://hospicepatients.org/

IHS National Epidemiology Program
http://www.ihs.gov/MedicalPrograms/Epi/index.asp

LA County Department of Health Services
http://ladhs.org/

National Association on HIV Over Fifty
http://www.hivoverfifty.org/nahof_resources.html

National Congress of American Indians
http://www.ncai.org/

National Council on Aging
http://www.ncoa.org/

National Indian Council on Aging
http://www.nicoa.org/

National Institute of Arthritis and Musculoskeletal and Skin Diseases
http://www.niams.nih.gov/

National Osteoporosis Foundation
http://www.nof.org/

National Senior Citizens Law Center
http://www.nsclc.org/

Native American Cancer Research
http://natamcancer.org/

Native Research Network
http://www.aaip.com/nrnet/nrn.html

State of California, Health and Human Services Agency
http://www.oshpd.cahwnet.gov/hid/infores/DbInventory/inventory.htm

State of California, Department of Health Care Services, Indian Health Program
http://www.prh.dhs.ca.gov/

State of California, Department of Public Health, Links to County Health Departments and Local Services
http://www.cdph.ca.gov/services/Pages/LocalServices.aspx

Stop Elder Abuse
http://www.elderlyabuse.com/

US DHHS Administration for Native Americans
http://www.acf.dhhs.gov/programs/ana/

US DHHS, The California Area Indian Health Service
http://www.ihs.gov/FacilitiesServices/AreaOffices/California/Universal/PageMain.cfm?p=10

US DHHS, The Indian Health Services
http://www.ihs.gov/

US DHHS, The National Cancer Institute
http://www.nci.nih.gov/

US DHHS, Office of Minority Health
http://www.omhrc.gov/

US DHHS, The Substance Abuse and Mental Health Services Administration
http://www.samhsa.gov/index.aspx

Urban Indian Health Institute
http://www.uihi.org/

US Senate Committee on Indian Affairs
http://indian.senate.gov/

The Veteran's Administration
http://www.va.gov/

The Western Law Center for Disability Rights
http://wlcdr.everybody.org/special-programs/outreach.mason

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Lauren M. Smith, MPP (Mohawk of Six Nations) is a graduate student in Public Policy at the UCLA School of Public Affairs.

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Funder Information

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