

American Indian and Alaska Native Childhood Obesity in California

A Healthy Weight for Our Children

December 2014





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EXECUTIVE SUMMARY

Compared to the general United States population, American Indians Alaskan Natives (AIAN) shoulder a disproportionate burden of a wide variety of adverse health outcomes. Obesity is one such highly widespread problem, and also one that is preventable. Childhood obesity, along with its complications costs the health care system \$14.1 billion in annual health care costs and on continuing into adulthood, is estimated to decrease life expectancy by as much as 10 years.

American Indian and Alaska Natives, due to a myriad of historical, environmental, and social factors face unique disparities. These factors have played a significant role in shaping the health outcomes of these peoples, who, in addition to these unique influences, are generally also not sampled in high enough numbers to make valid comparisons and statistical inferences.

This report presents a compilation of Body Mass Index (BMI) data collected from the 2001 through 2012 by the California Department of Education for 5th, 7th, and 9th graders who attend public or charter schools in California. We present data for different categories of weight status (healthy weight, overweight, obese), by gender, grade, years as well as some comparison data by race.

Some key findings of this report are as follows

In 44 of 58 counties, the combined percentage of overweight and obesity among sampled AIAN children is ***higher than 40%***.

In nine of these 44 counties, the combined rate is ***over 50%***.

Within an 11-year period from 2001-2012, the percentage of overweight and obese AIAN children in CA ***has increased***.

When compared to non-Hispanic Whites, ***there is no county in CA*** with an equal or higher percentage of AIAN children at healthy weight.

This report is intended for tribal leaders, Indian Health Programs, policy makers, and other tribal/urban Indian organizations as a source of baseline, county-specific data on prevalence of obesity and overweight for California's AIAN children in 5th, 7th, and 9th grades. It is meant as a guide for programmatic planning, awareness, and as a starting point for further research and intervention.

By disseminating timely and accurate health information to native communities and organizations throughout the state, the California Tribal Epidemiology Center (CTEC) seeks to improve the health of American Indians and Alaska Natives in California.



INTRODUCTION

Overweight and obesity, conditions diagnosed by body mass index (BMI) and characterized by the excessive accumulation and storage of fat in the body and have reached epidemic levels in the United States. Overweight for children is defined by the Center for Disease Control and Prevention (CDC) as a BMI that is above the 85th percentile and below the 95th percentile for children of the same age and sex, while obesity is a BMI at the 95th percentile or above for children of the same age and sex.¹ Obesity oftentimes follows one from childhood through adulthood leading to a slew of lifelong consequences that affect more than just the individual.

The prevalence of being obese among children in the United States has remained constant at approximately 17% from 2003-2012.² Although there has not been comprehensive research done on the prevalence of obesity in the American Indian and Alaska Native (AIAN) population since 1990, there have been several smaller studies that show rates of being overweight among AIAN children even exceed the high national averages.^{3,4} Among AIAN children ages 6 to 19, the rate of overweight and obesity has been estimated at 39%, compared to 15% for all races combined.⁵ A study of schoolchildren in seven American Indian communities found that 28.6% of AIAN children ages 6 to 11 were considered obese.⁶ According to the Indian Health Service (IHS) Clinical Reporting System, between 45% and 51% of AIAN children and youth are not at a healthy weight for their age and sex.⁷ As reported by the Pediatric Nutrition Surveillance System, from 2003-2010, the extreme obesity level of low-income pre-school-age children decreased among every race except AIAN preschoolers.⁸

American Indians and Alaska Natives lost vast amounts of land to the United States through westward expansion, the reservation system, and relocation.⁹ This historical loss created two determinants of obesity in the AIAN population; environmental and social. AIAN people were hunters, fishers, and gatherers, the loss of land led to a decrease of these practices.¹⁰ The loss of these cultural practices resulted in decreased physical activity among AIAN children in urban and reservation areas, who have also developed more sedentary lifestyle than their ancestors.^{11, 12, 13, 14} Loss of land meant less access to healthy foods. From the 1920's through 1950's, several studies showed that AIAN children suffered from malnutrition and reduced food availability.¹⁵ In an effort to combat the high rates of malnutrition among the AIAN population, federal, state, and tribal policies and programs began emerging in the 1960s.^{16, 17} Programs such as the Food Distribution Program on Indian Reservations supplied commodity foods for those in need and while it has been found that such programs were successful in decreasing the problem of malnutrition, another issue surfaced, obesity.¹⁸

The environmental determinant due to loss of land manifested themselves in the California AIAN population. Before Europeans began to settle in what is now known as California, American Indians subsisted by hunting, fishing, and gathering their foods. AIAN throughout California hunted wild game, fish, and vegetation such as elk, clams, mussels, eels, salmon, acorn meal, wild plums, yucca flowers, pine nuts, and greens.^{19, 20, 21, 22, 23} These foods were high in nutrients, low fat, and had low carbohydrates.²⁴ In 1910, the beginning of the damming of the Klamath River began

INTRODUCTION

to change the diets of those tribes that lived along the river. The dams blocked fish passages that were a staple food item for the tribes.²⁵ These environmental changes led to a change in diet. Cheese, flour, sugar, and domesticated meats replaced the traditional foods.²⁶

Another environmental determinant due to loss of land and relocation was the migration of AIAN peoples to the urban areas of California.²⁷ AIAN living in California live in both urban and rural areas, however studies have shown that individuals, regardless of race/ethnicity living in rural areas are more likely to be obese than those living in urban areas. Reasons for this disparity include several environmental factors such as high rates of poverty, limited access to exercise facilities, safe sidewalks, grocery stores, and health care.²⁸ Additionally, rural areas have limited resources at schools to provide physical and nutrition education.²⁹

A social determinant has been the creation of food deserts. It has been found that AIAN are more likely to suffer from food insecurity than any other racial populations within the United States.³⁰ Many of the tribes in California are located in a food desert, an area where there is not a nearby source of fresh fruits, vegetables, or other perishable items, forcing people to travel to purchase these items. In the unlikely circumstance that these foods are available, they may be more expensive at a small convenience or general store. Nutrient dense foods have become more difficult to find in these areas. Food deserts can occur in rural and urban areas.³¹

The consequences of obesity span through personal health, tribal, and national levels. Obese children are more likely to have: high blood pressure and high cholesterol, which are risk factors for cardiovascular disease (CVD); increased risk of impaired glucose tolerance, insulin resistance and type 2 diabetes; breathing problems, such as sleep apnea, and asthma; joint problems and musculoskeletal discomfort.^{32,33} For tribes, the complications of chronic diseases related to obesity, and the higher risk of early death can lead to more loss of culture by not having elders to share their wisdom and knowledge.^{34, 35, 36} Nationally, the direct costs associated with childhood obesity are \$14.1 billion a year. Medicaid costs for a healthy weight child are \$2446 a year compared to \$6730 for an obese child.³⁷

Childhood obesity is an epidemic. Historical loss has caused environmental and social determinants of obesity among the American Indian and Alaska Native population in California. Although Healthy People 2020 planned to reduce childhood obesity, and the obesity rates of children declined in California from 2003-2011, there has been little extensive research into AIAN youth obesity rates in California.³⁸



METHODS

Physical Fitness Testing: Beginning in 2001, as part of their FITNESSGRAM® program, the state of California implemented mandatory physical fitness testing annually for all 5th, 7th, and 9th grade children attending one of the 117 public or charter schools in the state. Testing includes regular measurement of height and weight of participating children. These measurements are then computed to determine BMI and weight status, and have previously been used for research purposes.³⁹

Study Population. The primary population data in this report corresponds to all 5th, 7th, and 9th grade children, aged 7–18 years who attended public or charter schools in California, completed the mandatory physical fitness testing between 2001 and 2012, and identify as American Indian/Alaska Native (henceforth American Indian or AIAN). Data on other races (‘non-Hispanic White’, and ‘All races combined’) is also presented for comparison purposes. Race/ethnicity information was collected from school enrollment forms, completed by parents and provided the option to choose only one race or ethnicity. Secondary data analysis of this restricted-use data was determined “Not Human Subjects Research” by the Johns Hopkins Bloomberg School of Public Health Internal Review Board. The requirements for informed consent do not apply to projects that are not governed by the human subjects research regulations.

Health Outcome: Body mass index (BMI) is calculated using a child's weight and height and is a measure used to determine childhood overweight and obesity. BMI does not measure body fat directly, but it is considered to be a reasonable indicator of body fatness for most children and teens. While for adults, weight status (‘overweight’, ‘obese’, etc.) is determined using BMI categories, a child's weight status is determined using an age- and sex-specific percentile for BMI. This is because children's body composition varies both in the normal progression of the growth process, as well as between genders.⁴⁰ For children and adolescents (aged 2–19 years), ‘Overweight’ is defined as a BMI at or above the 85th percentile and lower than the 95th percentile for children of the same age and gender, and ‘Obesity’ is defined as a BMI at or above the 95th percentile for children of the same age and gender in the United States.^{41,42}

This report is a compilation of data on AIAN children in various weight categories, and compares data across counties, race, and gender. For county-level estimates, when the number within a certain weight class was < 10, data for that county was combined with the neighboring county and combined percentages were reported. Percentage estimates were suppressed whenever number of children in a certain weight category was below 10.

Combined Counties include the following:

Alpine, Mono & Tuolumne

Amador & Calaveras

Colusa & Glenn

Lassen & Modoc

Madera & Mariposa

Marin & Sonoma

Monterey & San Benito

Nevada, Plumas, & Sierra

Santa Clara & Santa Cruz

Tehama & Trinity

Maps for this report were prepared using ArcGIS® version 10.2



STATE OF CALIFORNIA



STATE OF CALIFORNIA

AIAN are only 0.75% of the 5th, 7th and 9th grade population in California, but are 0.89% of the youth which are obese (see Figure 1). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest rates and 9th graders the lowest rates.

Figure 1. AIAN Percent of Population and Obesity, 2010-2012

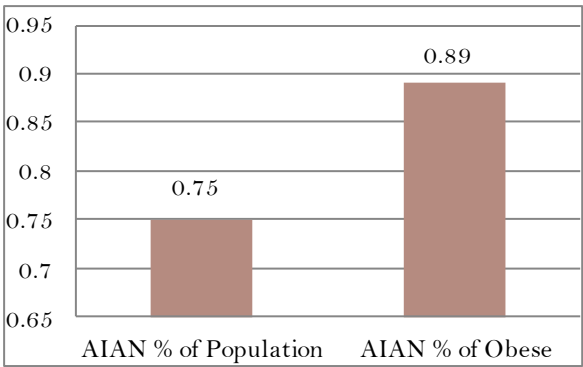
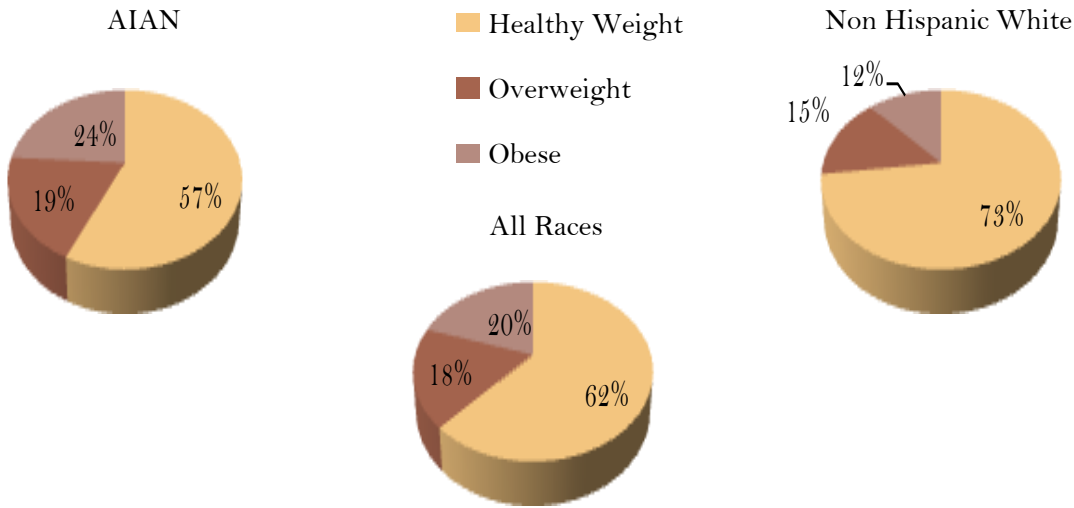


Figure 2. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 73%% of NHW and 62% of All Races combined.

Table 1. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003		2004-2006		2007-2009		2010-2012	
		n	%	n	%	n	%	n	%
Female	Overweight	3444	19.8	2931	20.2	3347	25.1	2817	22.3
	Obese	3286	19.3	3284	22.9	3208	23.8	3132	23.4
Male	Overweight	3334	16.8	2730	18.9	3104	22.2	2530	16.8
	Obese	4209	23.9	3796	26.1	3927	27.4	3806	27.2
Total	Overweight	6805	18.4	5661	19.5	6288	23.7	5347	20.2
	Obese	7485	21.6	7080	24.0	7206	25.5	6938	25.8

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in California. Differences over time show that AIAN male youth are more likely to be obese that AIAN females in California.

ALAMEDA COUNTY

AIAN are only 0.5% of the 5th, 7th and 9th grade population in Alameda County but are 0.6% of the youth which are obese (see Figure 3). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest rates and 9th graders the lowest rates.

Figure 3. AIAN Percent of Population and Obesity, 2010-2012

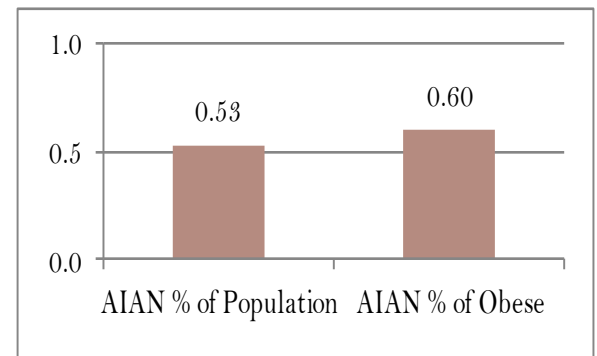
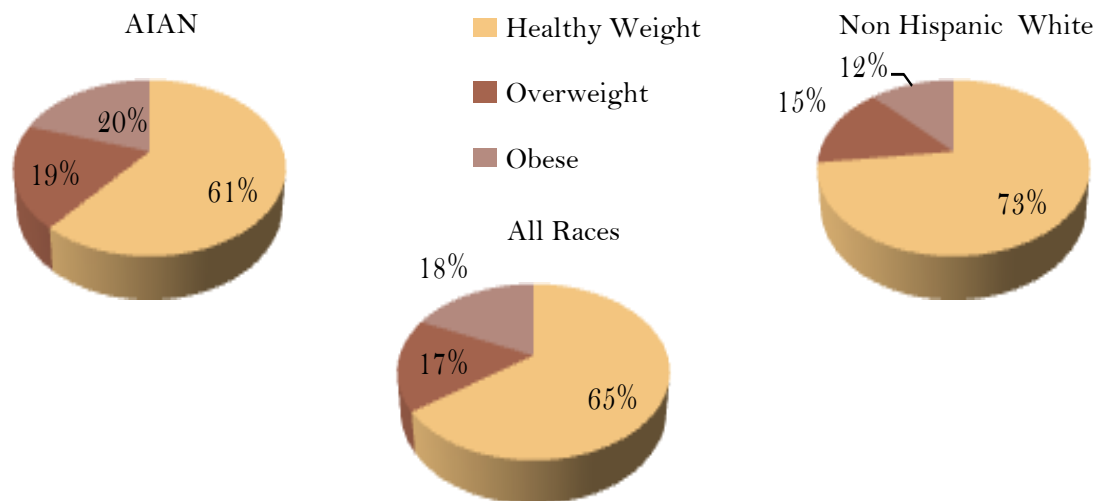


Figure 4. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 39% compared to 27% respectively.

Table 2. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	14.2	17.2	15.5	19.9
	Obese (%)	14.2	19.2	20.4	17.4
Male	Overweight (%)	15.4	19.8	15.6	17.6
	Obese (%)	23.2	23.0	22.1	21.9
Total	Overweight (%)	14.8	18.6	15.6	18.7
	Obese (%)	19.1	21.2	21.3	19.7
Sample Size (n)		1,159	721	668	679

Differences over time show that AIAN male youth are consistently more likely to be overweight/obese than AIAN females in Alameda County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Alameda County.

ALPINE, MONO & TUOLUMNE COUNTIES

AIAN are 3.26% of the 5th, 7th and 9th grade population in Alpine, Mono, and Tuolumne Counties but account for 6.35% of the youth which are obese (see Figure 5). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for NHW's and All Races Combined decrease slightly with 9th graders having the lowest rate. Obesity rates for AIANs increase in 7th grade, then decrease to the lowest rate in 9th grade.

Figure 5. AIAN Percent of Population and Obesity, 2010-2012

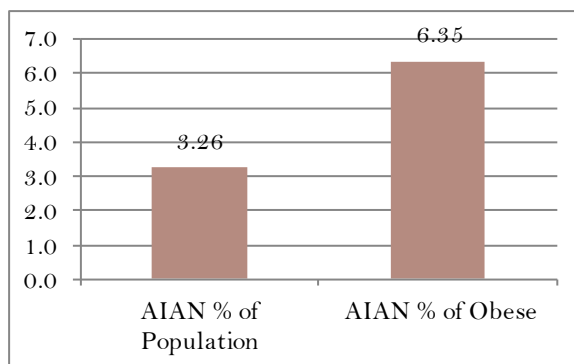
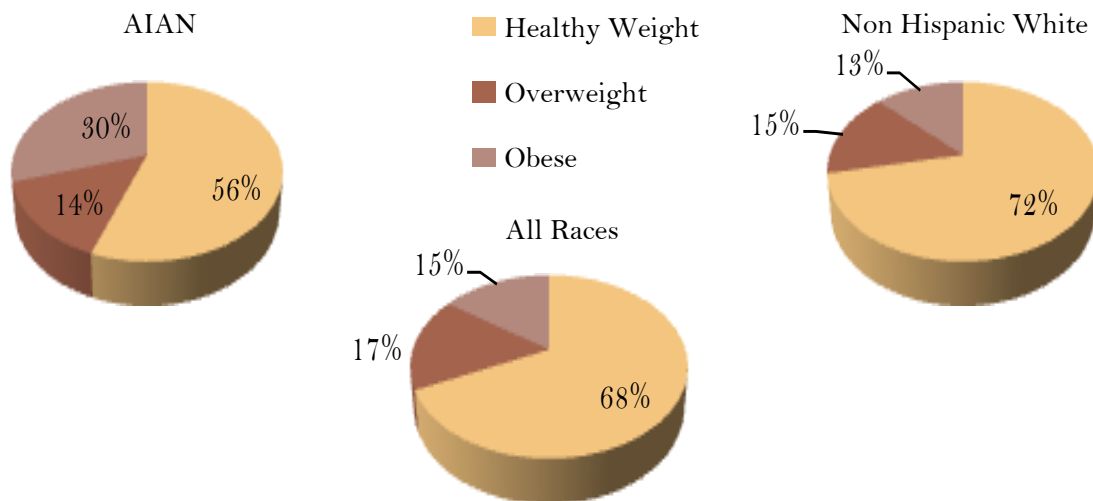


Figure 6. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 56% of AIAN youth are at a healthy weight compared to 72% of NHW and 68% of All Races combined.

Table 3. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	26.6	12.4	33.0	19.2
	Obese (%)	25.3	20.6	33.9	28.8
Male	Overweight (%)	25.4	21.3	26.8	*
	Obese (%)	19.7	22.0	28.3	30.8
Total	Overweight (%)	26.0	14.4	29.7	14.6
	Obese (%)	22.7	21.4	31.0	29.8
Sample Size (n)		150	224	239	151

Even though national studies show obesity rates in California children are decreasing, they fluctuate in AIAN youth in Alpine, Mono, and Tuolumne Counties. Differences overtime show that no gender is more likely to be overweight/obese than another gender in Alpine, Mono, and Tuolumne Counties.

AMADOR AND CALAVERAS COUNTY

AIAN are only 2.95% of the 5th, 7th and 9th grade population in Amador and Calaveras Counties but are 3.38% of the youth which are obese (see Figure 7). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly as they age, with 5th graders having the highest rates and 9th graders the lowest rates.

Figure 7. AIAN Percent of Population and Obesity, 2010-2012

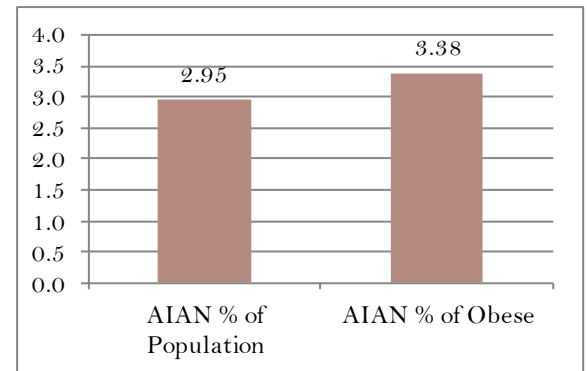
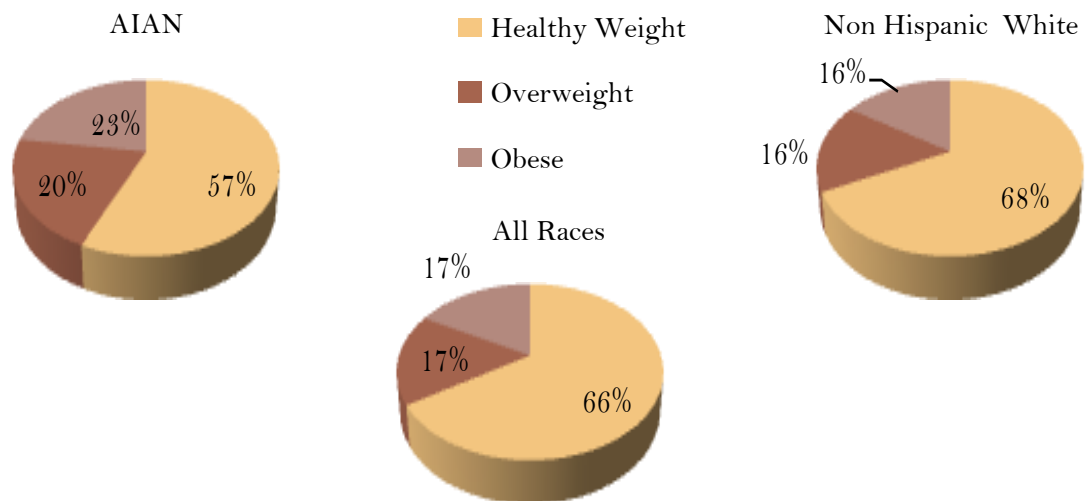


Figure 8. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 68% of NHW and 66% of All Races Combined.

Table 4. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.2	18.8	22.3	23.5
	Obese (%)	10.4	11.9	27.3	18.6
Male	Overweight (%)	18.8	15.6	17.2	16.3
	Obese (%)	20.8	9.4	27.3	20.6
Total	Overweight (%)	18.5	17.0	20.0	20.1
	Obese (%)	16.3	10.5	27.3	19.6
Sample Size (n)		178	229	220	194

Differences over time show that females are frequently more likely to be more overweight/obese than males in Amador and Calaveras Counties. Although national studies show obesity rates in California are decreasing, the rates plateau in 2007-2009 in Amador and Calaveras Counties then declined in 2010-2012.

BUTTE COUNTY

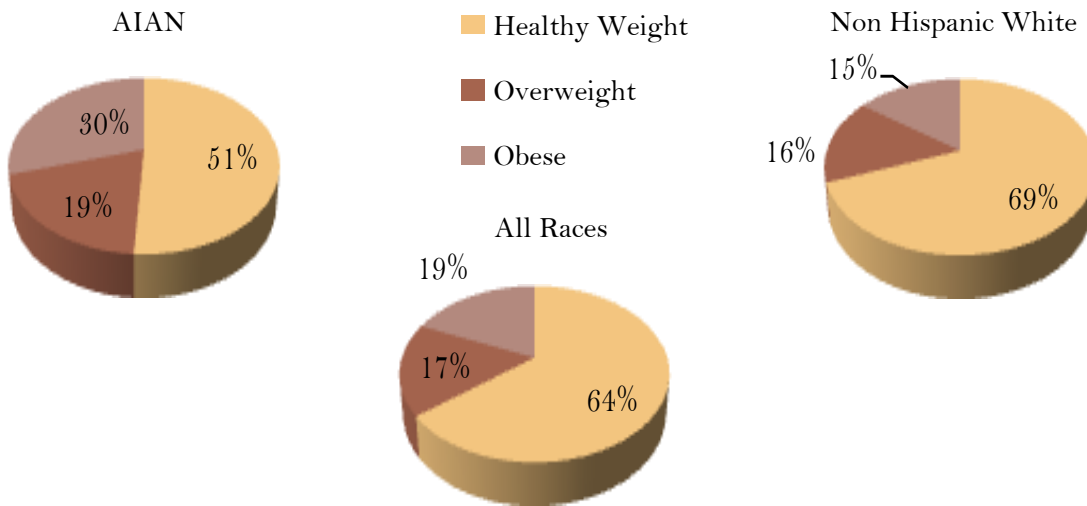
AIAN are 3.32% of the 5th, 7th and 9th grade population in Butte County but account for 5.28% of the youth which are obese (see Figure 9). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIAN youth decrease slightly as they age, with 5th graders having the highest rates of obesity and 9th graders the lowest rates of obesity.

Figure 9. AIAN Percent of Population and Obesity, 2010-2012



Figure 10. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 51% of AIAN youth are at a healthy weight compared to 69% of NHW and 64% of All Races combined.

Table 5. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	20.4	21.8	23.0	20.1
	Obese (%)	20.8	21.5	23.3	28.0
Male	Overweight (%)	19.8	16.5	17.0	19.0
	Obese (%)	20.1	24.6	27.8	30.9
Total	Overweight (%)	20.1	19.0	19.9	19.5
	Obese (%)	20.5	23.1	25.6	29.5
Sample Size (n)		513	584	673	655

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Butte County. Although in 2001-2003, males and females had a similar obesity rate, differences over time show that males are consistently more obese than females.

CALAVERAS & AMADOR COUNTIES

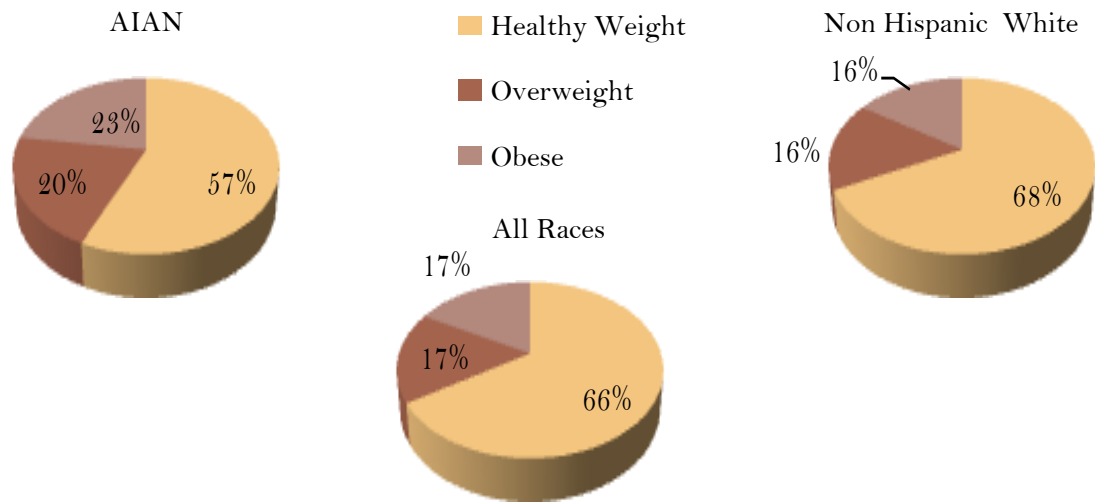
AIAN are only 2.95% of the 5th, 7th and 9th grade population in Calaveras and Amador Counties but are 3.38% of the youth which are obese (see Figure 11). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly as they age, with 5th graders having the highest rates and 9th graders the lowest rates.

Figure 11. AIAN Percent of Population and Obesity, 2010-2012



Figure 12. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 68% of NHW and 66% of All Races Combined.

Table 6. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.2	18.8	22.3	23.5
	Obese (%)	10.4	11.9	27.3	18.6
Male	Overweight (%)	18.8	15.6	17.2	16.3
	Obese (%)	20.8	9.4	27.3	20.6
Total	Overweight (%)	18.5	17.0	20.0	20.1
	Obese (%)	16.3	10.5	27.3	19.6
Sample Size (n)		178	229	220	194

Differences over time show that females are frequently more likely to be more overweight/obese than males in Calaveras and Amador Counties. Although national studies show obesity rates in California are decreasing, the rates plateaued in 2007-2009 in Calaveras and Amador Counties then declined in 2010-2012.

COLUSA & GLENN COUNTIES

AIAN are 4.77% of the 5th, 7th and 9th grade population in Colusa and Glenn Counties but account for 5.56% of the youth which are obese (see Figure 13). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for NHW's and All Races Combined decrease slightly with age, with 5th graders having the highest rates, and 9th graders the lowest. The obesity rates for AIAN remain stable across the grades.

Figure 13. AIAN Percent of Population and Obesity, 2010-2012

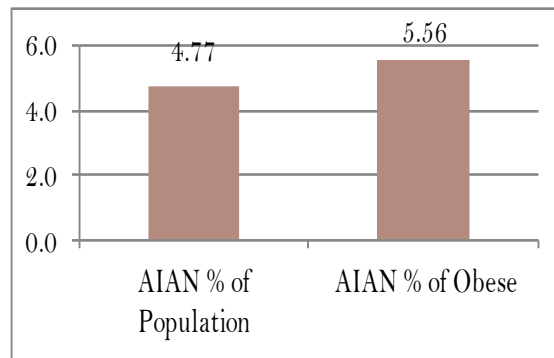
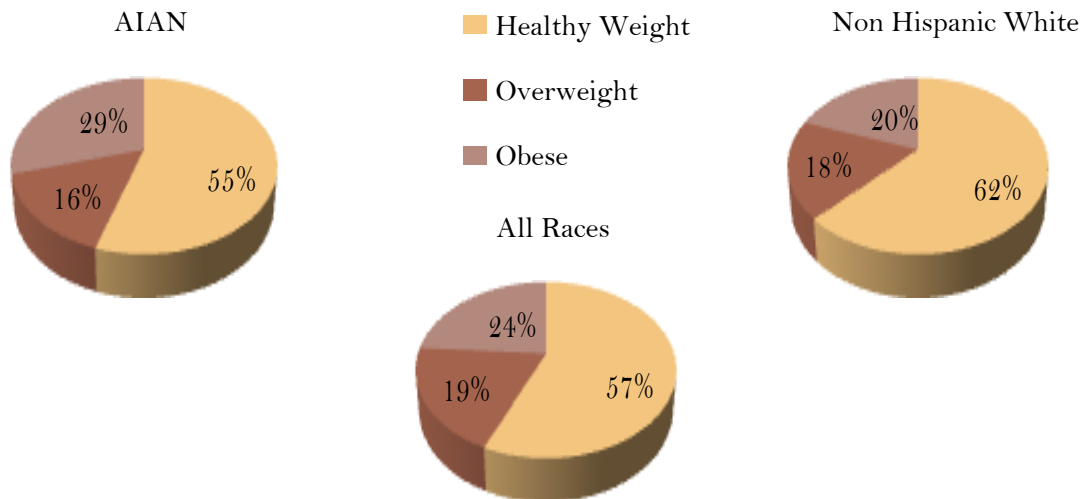


Figure 14. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 55% of AIAN youth are at a healthy weight compared to 62% of NHW and 57% of All Races combined.

Table 7. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	30.6	24.6	36.4	17.8
	Obese (%)	32.7	31.6	25.5	27.4
Male	Overweight (%)	27.0	*	16.4	13.2
	Obese (%)	35.1	36.5	34.3	31.6
Total	Overweight (%)	29.1	18.3	25.4	15.6
	Obese (%)	32.6	34.2	30.3	29.4
Sample Size (n)		86	120	122	282

Even though national studies show obesity rates in California children are decreasing, they are decreasing for AIAN youth in Colusa and Glenn Counties. Differences over time show that females are frequently more likely to be overweight/obese than males in Colusa and Glenn Counties.

Note: Percentage not reported when n is less than 10

CONTRA COSTA COUNTY

AIAN are only 0.5% of the 5th, 7th and 9th grade population in Contra Costa County but are 0.57% of the youth which are obese (see Figure 15). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIAN and NHW males decreases with age, as 9th graders have the lowest rates, but for AIAN and NHW females, obesity increases with age as 9th graders have the highest rates.

Figure 15. AIAN Percent of Population and Obesity, 2010-2012

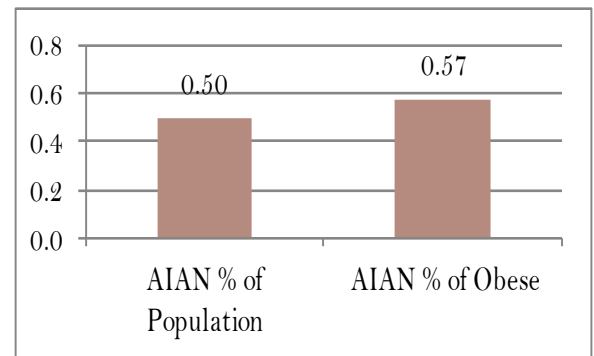
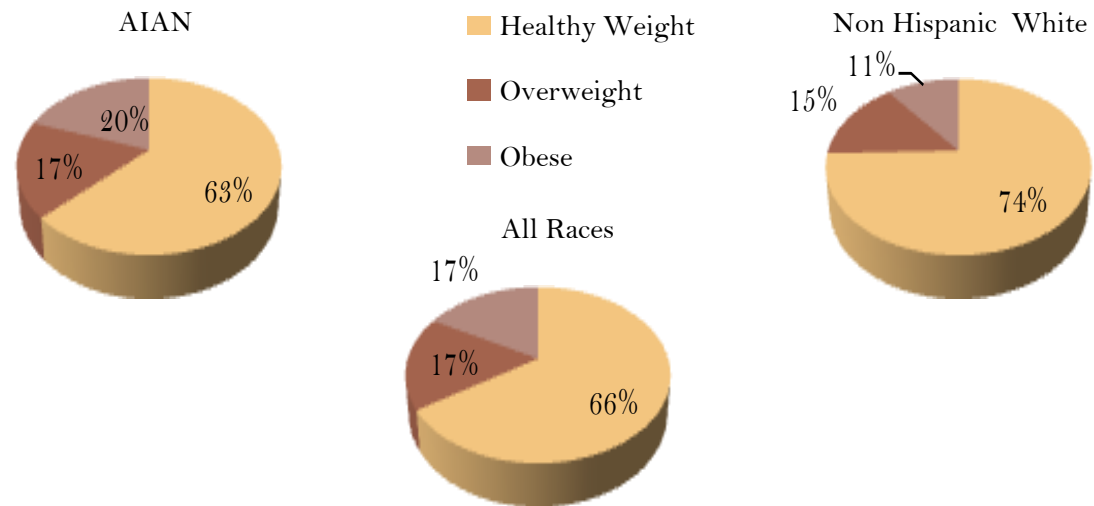


Figure 16. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 37% compared to 26% respectively.

Table 8. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.9	20.1	20.9	17.3
	Obese (%)	10.6	17.9	16.2	18.1
Male	Overweight (%)	15.0	14.4	16.5	17.9
	Obese (%)	16.2	22.1	24.1	21.1
Total	Overweight (%)	14.5	17.3	18.8	17.6
	Obese (%)	13.6	19.9	20.1	19.6
Sample Size (n)		774	617	543	540

Differences over time show that AIAN male youth are consistently more likely to be overweight/obese than AIAN females in Contra Costa County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Contra Costa County.

DEL NORTE COUNTY

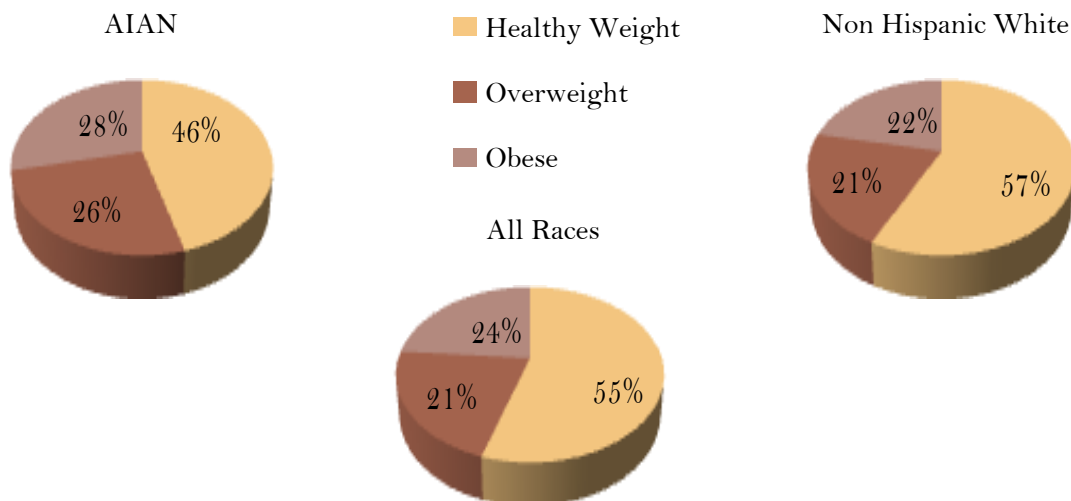
AIAN are 14.18% of the 5th, 7th and 9th grade population in Del Norte County but account for 17.04% of the youth which are obese (see Figure 17). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests that the obesity rates decrease from grades 5 to 7, and then increase from grades 7 to 9 for AIAN and NHW youth.

Figure 17. AIAN Percent of Population and Obesity, 2010-2012



Figure 18. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 46% of AIAN youth are at a healthy weight compared to 57% of NHW and 55% of All Races combined.

Table 9. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.6	24.3	29.5	24.3
	Obese (%)	18.0	23.3	28.8	26.0
Male	Overweight (%)	17.6	16.8	17.1	27.5
	Obese (%)	23.5	23.6	27.0	31.1
Total	Overweight (%)	18.2	20.5	23.4	25.9
	Obese (%)	20.6	23.4	27.9	28.5
Sample Size (n)		325	380	308	344

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Del Norte County. Differences over time show that AIAN females were more likely to be overweight/obese than AIAN males in Del Norte County, but that shifted in 2010-2012 to males being more likely to be overweight/obese.

EL DORADO COUNTY

AIAN are only 1.42% of the 5th, 7th and 9th grade population in El Dorado County but are 2.28% of the youth which are obese (see Figure 19). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests very little difference in obesity rates for AIANs, NHWs and All Races combined by grade.

Figure 19. AIAN Percent of Population and Obesity, 2010-2012

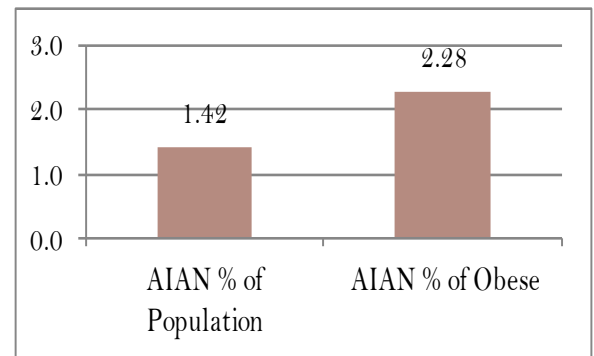
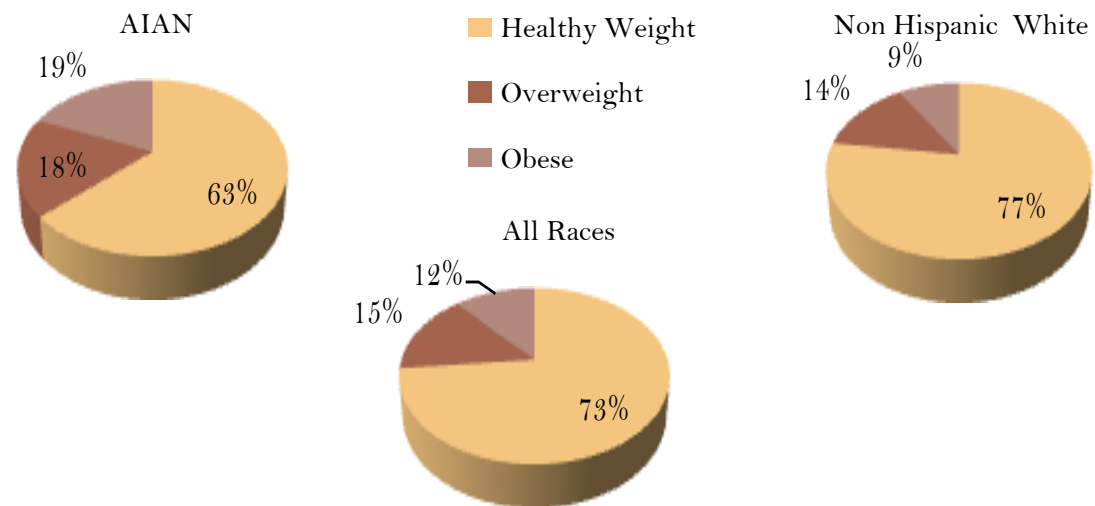


Figure 20. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 37% compared to 23% respectively.

Table 10. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.3	16.8	19.6	18.8
	Obese (%)	13.8	18.6	19.6	18.1
Male	Overweight (%)	14.5	15.6	24.7	17.5
	Obese (%)	13.9	13.3	12.0	19.0
Total	Overweight (%)	16.2	16.3	22.0	18.2
	Obese (%)	13.8	16.3	16.0	18.6
Sample Size (n)		253	395	318	264

Differences over time show that AIAN female youth are consistently more likely to be overweight/obese than AIAN males in El Dorado County. Although national studies show obesity rates in California children are decreasing overtime, they are increasing in El Dorado County.

FRESNO COUNTY

AIAN are 0.80% of the 5th, 7th and 9th grade population in Fresno County but account for 0.93% of the youth which are obese (see Figure 21). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests a decrease in obesity rates for AIANs and NHWs youth by grade, with 5th graders having the highest rates of obesity, and 9th graders having the lowest obesity rates.

Figure 21. AIAN Percent of Population and Obesity, 2010-2012

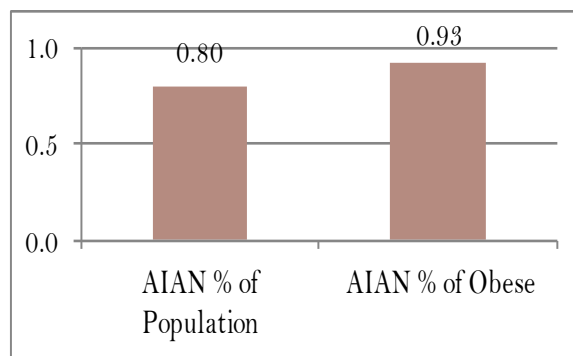
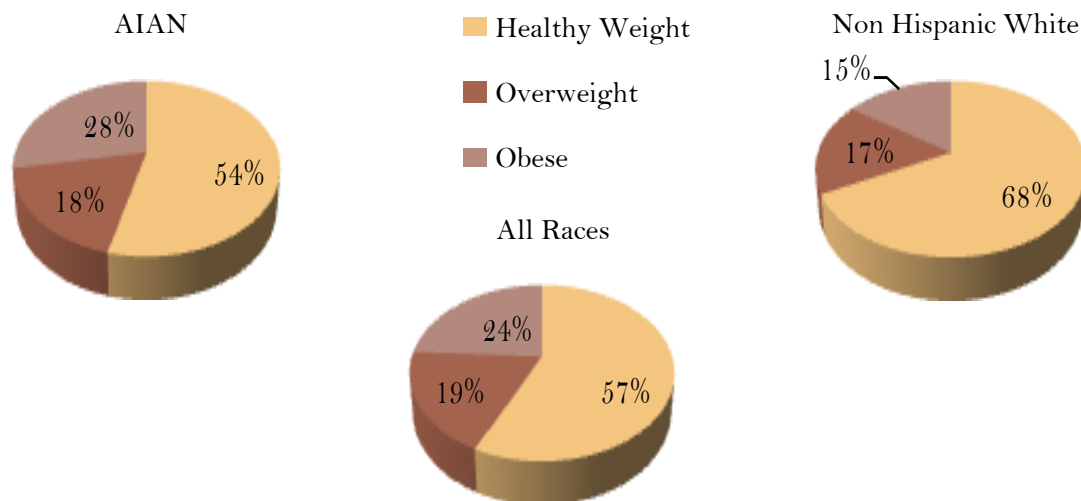


Figure 22. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 54% of AIAN youth are at a healthy weight compared to 68% of NHW and 57% of All Races combined.

Table 11. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	19.3	17.5	17.7	18.7
	Obese (%)	20.6	24.5	24.6	26.6
Male	Overweight (%)	18.1	16.6	16.3	17.7
	Obese (%)	23.2	22.3	29.4	29.1
Total	Overweight (%)	18.7	17.1	17.0	18.2
	Obese (%)	21.9	23.4	27.0	27.9
Sample Size (n)		1,099	1,430	1,065	831

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Fresno County. Differences over time show that AIAN males are generally more likely to be obese than AIAN females in Fresno County.

GLENN & COLUSA COUNTIES

AIAN are only 4.77% of the 5th, 7th and 9th grade population in Glenn and Colusa Counties but are 5.56% of the youth which are obese (see Figure 23). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for NHW's and All Races Combined decrease slightly with age, with 5th graders having the highest rates, and 9th graders the lowest. The obesity rates for AIAN remain stable across the grades.

Figure 23. AIAN Percent of Population and Obesity, 2010-2012

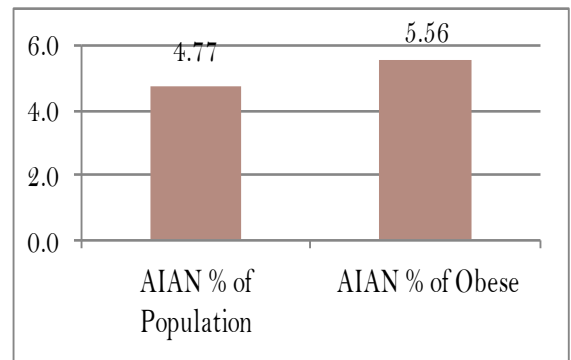
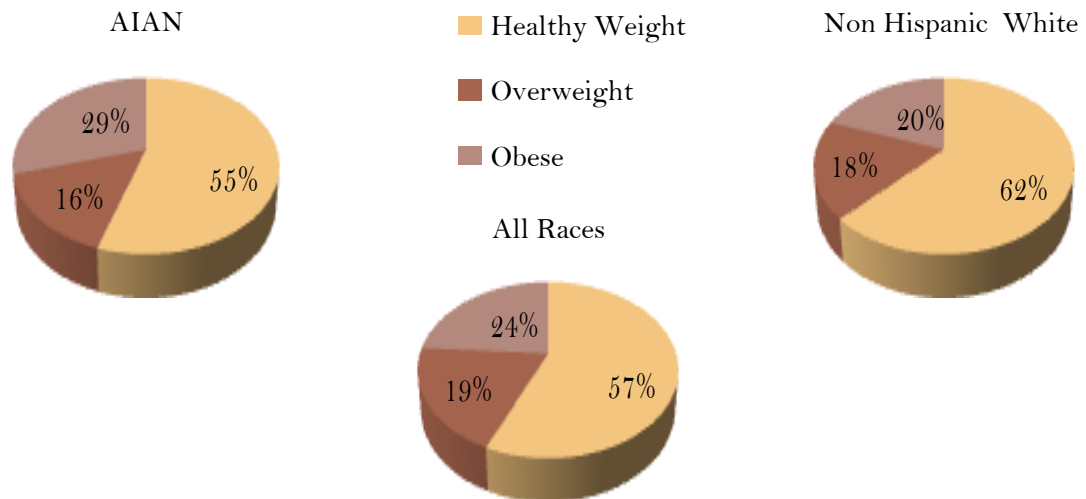


Figure 24. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 44% compared to 38 % respectively.

Table 12. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	30.6	24.6	36.4	17.8
	Obese (%)	32.7	31.6	25.5	27.4
Male	Overweight (%)	27.0	*	16.4	13.2
	Obese (%)	35.1	36.5	34.3	31.6
Total	Overweight (%)	29.1	18.3	25.4	15.6
	Obese (%)	32.6	34.2	30.3	29.4
Sample Size (n)		86	120	122	282

Even though national studies show obesity rates in California children are decreasing, they are decreasing for AIAN youth in Glenn and Colusa Counties. Differences over time show that females are frequently more likely to be overweight/obese than males in Glenn and Colusa Counties.

Note: Percentage not reported when n is less than 10

HUMBOLDT COUNTY

AIAN are 9.36% of the 5th, 7th and 9th grade population in Humboldt County but account for 12.81% of the youth which are obese (see Figure 25). Which means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races combined decrease with age, with 5th graders having the highest obesity rates, and 9th graders the lowest rates of obesity.

Figure 25. AIAN Percent of Population and Obesity, 2010-2012

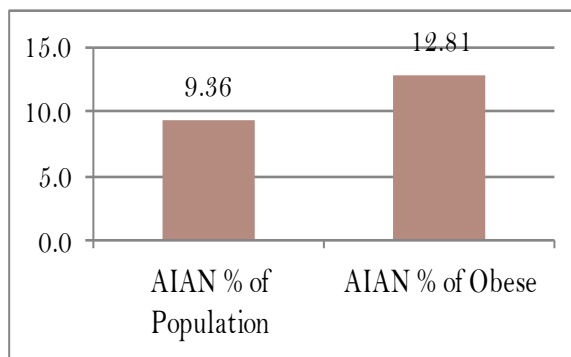
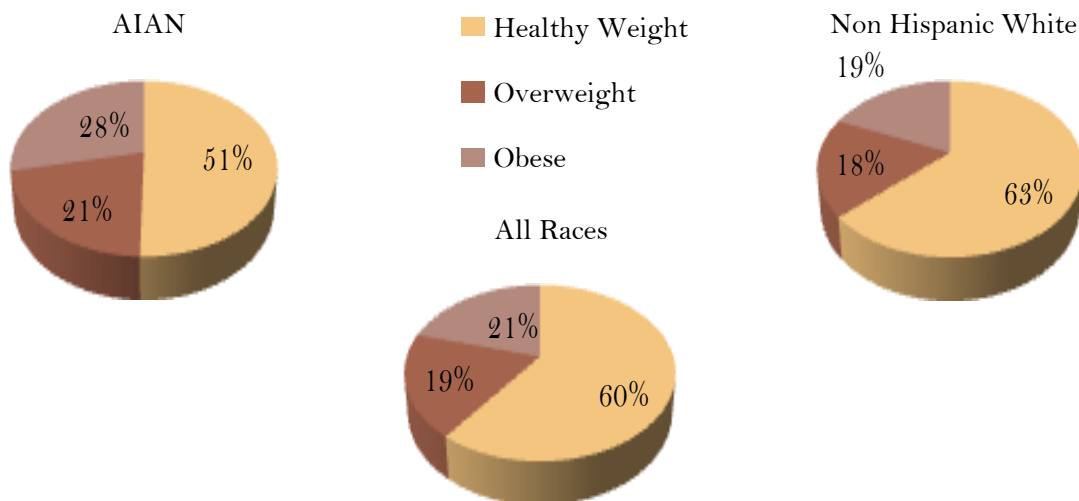


Figure 26. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 51% of AIAN youth are at a healthy weight compared to 63% of NHW and 60% of All Races combined.

Table 13. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	21.1	24.7	22.1	23.5
	Obese (%)	23.8	26.8	27.2	25.1
Male	Overweight (%)	20.5	22.7	19.5	19.1
	Obese (%)	25.3	30.1	29.4	31.4
Total	Overweight (%)	20.8	23.6	20.8	21.2
	Obese (%)	24.6	28.5	28.3	28.4
Sample Size (n)		953	1,041	1,183	972

Even though national studies show obesity rates in California children are decreasing, they are stable in AIAN youth in Humboldt County. AIAN males are consistently more likely to be overweight/obese than AIAN females in Humboldt County.

IMPERIAL COUNTY

AIAN are only 0.94% of the 5th, 7th and 9th grade population in Imperial County but are 1.31% of the youth which are obese (see Figure 27). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 9th graders having the lowest rates.

Figure 27. AIAN Percent of Population and Obesity, 2010-2012

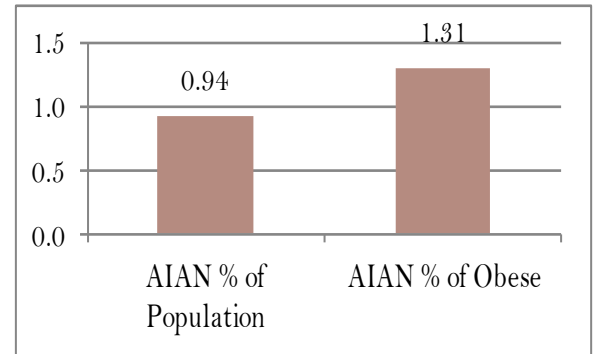
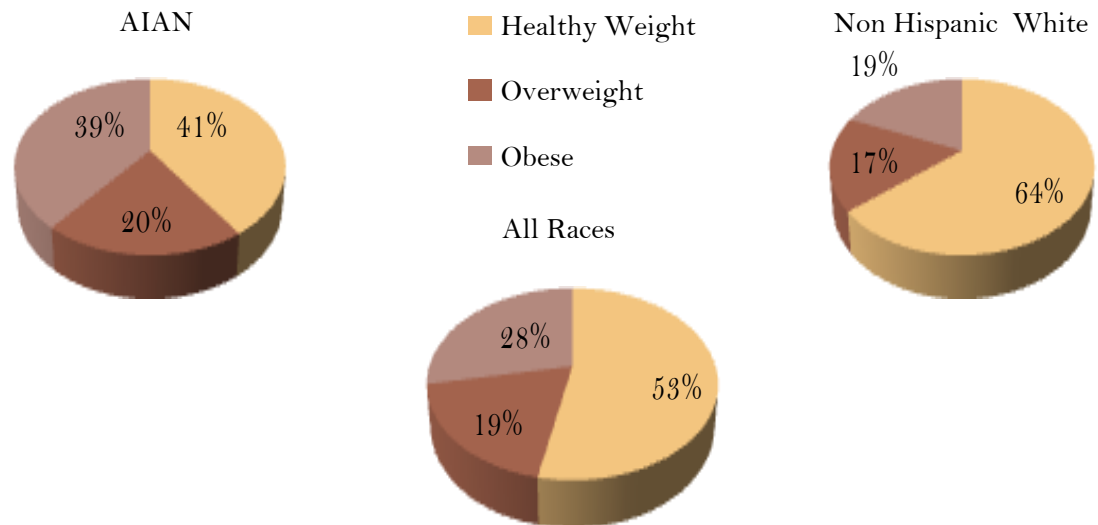


Figure 28. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 59% compared to 36% respectively.

Table 14. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.8	25.0	16.8	22.9
	Obese (%)	41.7	34.8	47.4	36.2
Male	Overweight (%)	*	13.9	11.8	18.3
	Obese (%)	48.8	49.6	50.4	41.7
Total	Overweight (%)	14.8	19.3	14.5	20.4
	Obese (%)	45.1	42.4	48.8	39.0
Sample Size (n)		182	269	256	225

Differences over time show that AIAN male and female youth obesity rates fluctuate. Although national studies show obesity rates in California children are decreasing over-time, they fluctuate in Imperial County.

Note: Percentage not reported when n is less than 10

INYO COUNTY

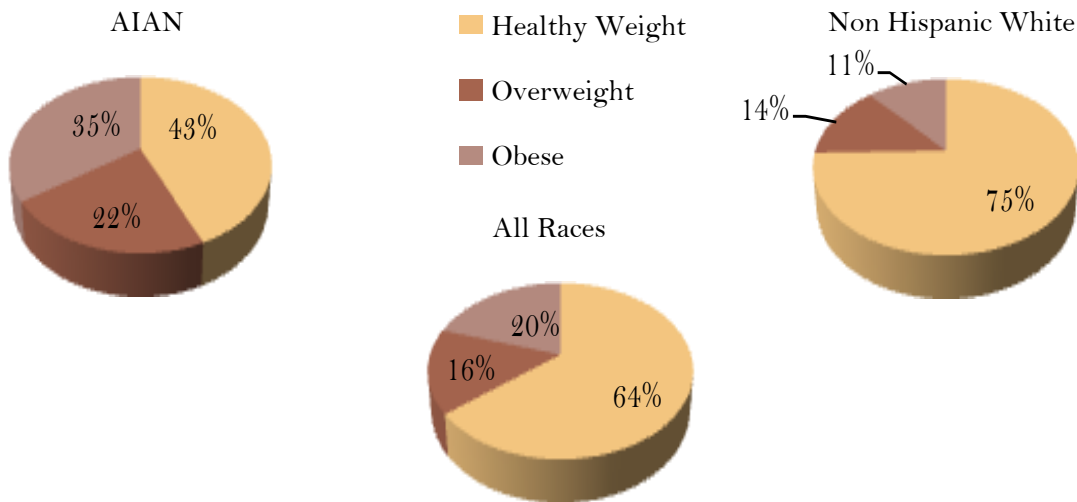
AIAN are 15.79% of the 5th, 7th and 9th grade population in Inyo County but account for 29.24% of the youth which are obese (see Figure 29). Which means that AIAN youth have a much higher burden of obesity than other races.

Data from 2010-2012 in Inyo County suggests that while obesity rates decline with age in NWHs and All Races combined, the obesity rates of AIAN youth increase with age.

Figure 29. AIAN Percent of Population and Obesity, 2010-2012



Figure 30. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 43% of AIAN youth are at a healthy weight compared to 75% of NHW and 64% of All Races combined.

Table 15. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	27.5	18.2	21.7	19.8
	Obese (%)	31.9	46.6	29.6	28.4
Male	Overweight (%)	21.1	21.4	22.4	24.4
	Obese (%)	39.5	45.9	36.6	40.3
Total	Overweight (%)	24.6	19.9	22.1	22.1
	Obese (%)	35.3	46.2	33.3	34.5
Sample Size (n)		167	186	249	235

Even though national studies show obesity rates in California children are decreasing, the rates fluctuate in AIAN youth in Inyo County. Differences over time show that AIAN males are consistently more likely to be overweight/obese than AIAN females in Inyo County.

KERN COUNTY

AIAN are only 0.71% of the 5th, 7th and 9th grade population in Kern County but are 0.70% of the youth which are obese (see Figure 31). This means that AIAN youth have a slightly lesser burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders generally having the highest obesity rates and 9th graders the lowest obesity rates.

Figure 31. AIAN Percent of Population and Obesity, 2010-2012

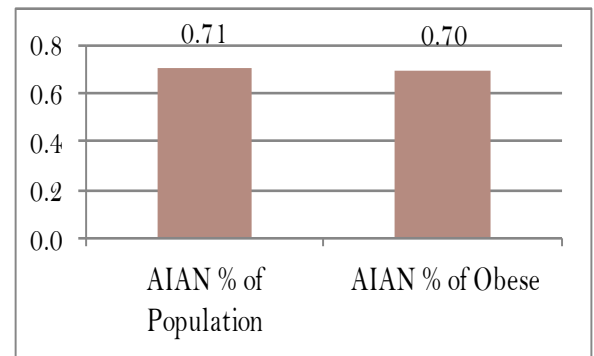
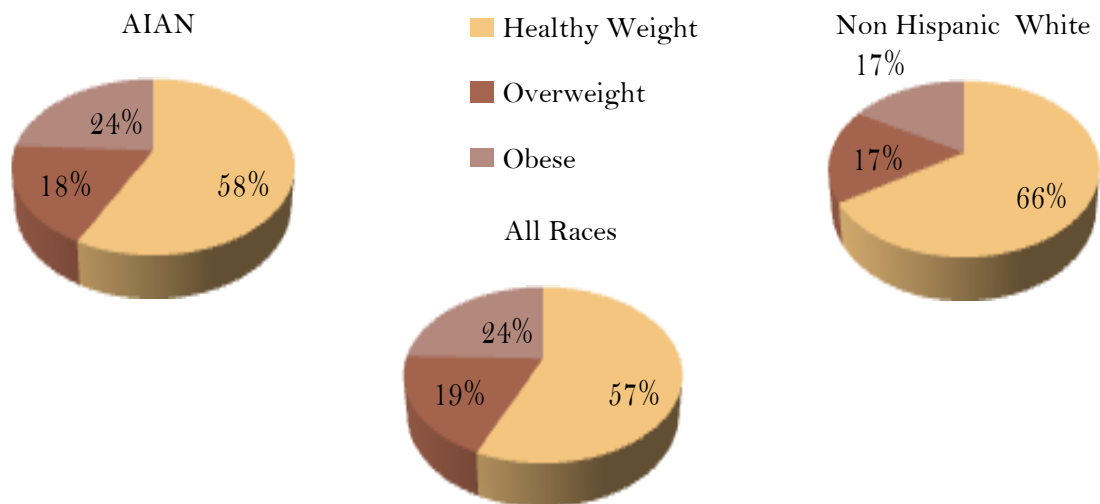


Figure 32. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 42% compared to 34% respectively. However, AIAN youth are just as likely to be at a healthy weight, 58% when compared to All Races combined at 57%

Table 16. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.7	18.9	21.6	21.0
	Obese (%)	20.7	23.1	21.1	19.9
Male	Overweight (%)	15.8	16.5	18.5	15.8
	Obese (%)	18.0	24.0	28.2	2.4
Total	Overweight (%)	16.8	17.6	20.2	18.4
	Obese (%)	19.4	23.5	24.4	24.1
Sample Size (n)		1,293	884	818	696

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Kern County. Although national studies show obesity rates in California children are decreasing overtime, they increased and stabilized in Kern County.

KINGS COUNTY

AIAN are 1.79% of the 5th, 7th and 9th grade population in Kings County but account for 2.91% of the youth which are obese (see Figure 33). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 in Kings County suggests that obesity rates slightly decrease among AIANs and All Races combined with 9th graders having the lowest rates. Obesity rates slightly increases among NHWs, with 9th graders having the highest rates.

Figure 33. AIAN Percent of Population and Obesity, 2010-2012

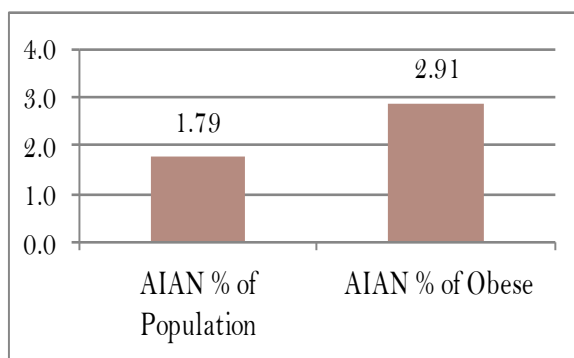
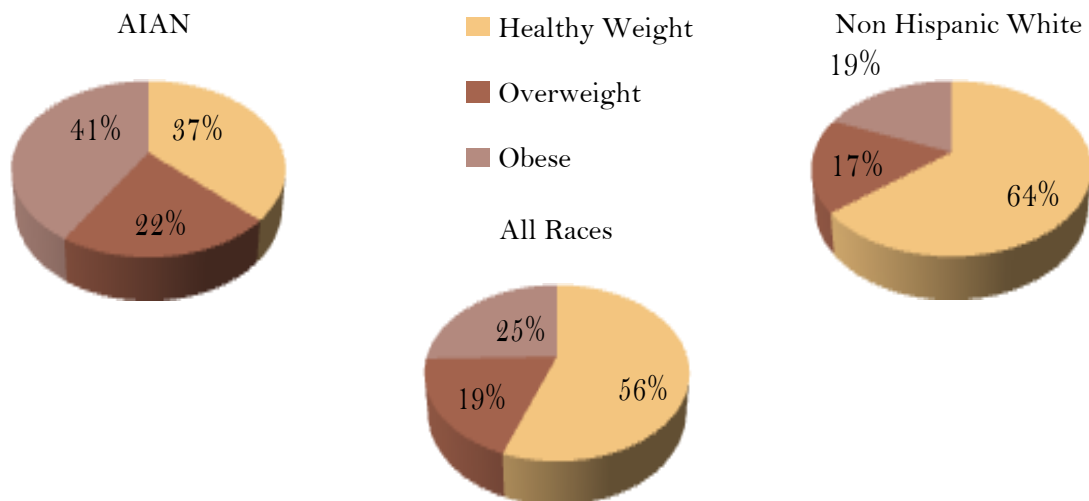


Figure 34. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 37% of AIAN youth are at a healthy weight compared to 64% of NHW and 56% of All Races combined.

Table 17. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	25.9	20.2	19.6	24.2
	Obese (%)	34.1	40.4	46.7	43.0
Male	Overweight (%)	17.2	22.1	20.0	19.3
	Obese (%)	31.1	40.4	39.1	39.8
Total	Overweight (%)	21.2	21.2	19.8	21.6
	Obese (%)	32.6	40.4	42.8	41.2
Sample Size (n)		184	193	222	320

Even though national studies show obesity rates in California children are decreasing, the obesity rate of AIAN youth is largely increasing. Differences over time show that AIAN females are frequently more likely to be overweight/obese than AIAN males in Kings County.

LAKE COUNTY

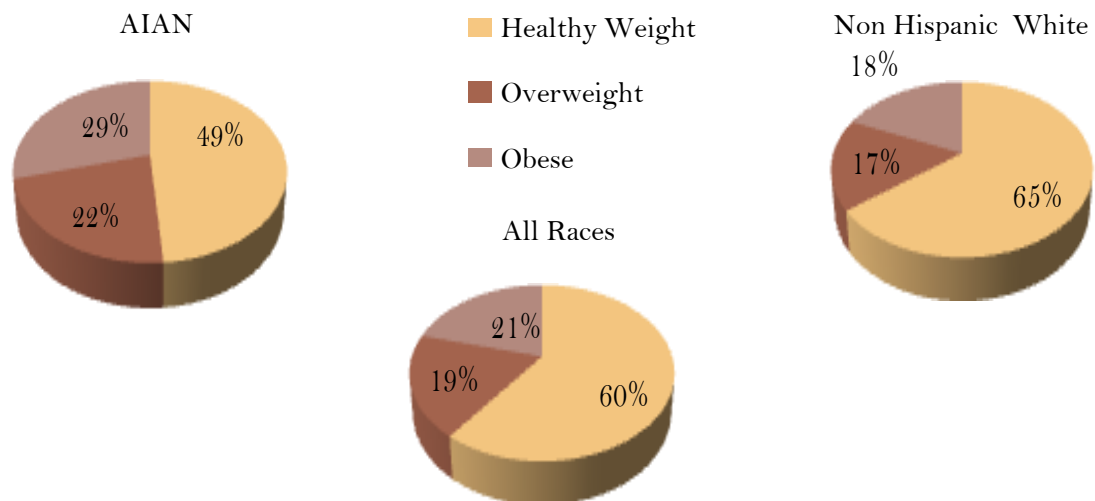
AIAN are only 4.93% of the 5th, 7th and 9th grade population in Lake County but are 21.37% of the youth which are obese (see Figure 35). This means that AIAN youth have a much higher burden of obesity in this population.

Data from 2010-2012 suggests that obesity rates vary in Lake County by grade, race, and gender.

Figure 35. AIAN Percent of Population and Obesity, 2010-2012



Figure 36. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 51% compared to 35% respectively.

Table 18. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	32.9	28.8	30.6	31.4
	Obese (%)	27.1	28.0	29.9	27.9
Male	Overweight (%)	15.8	19.8	20.5	11.8
	Obese (%)	32.9	26.1	31.8	30.7
Total	Overweight (%)	24.0	24.6	25.7	22.1
	Obese (%)	30.1	27.1	30.8	29.2
Sample Size (n)		146	236	276	267

Differences over time show that AIAN female youth are consistently more likely to be overweight/obese than AIAN males in Lake County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Lake County.

LASSEN & MODOC COUNTIES

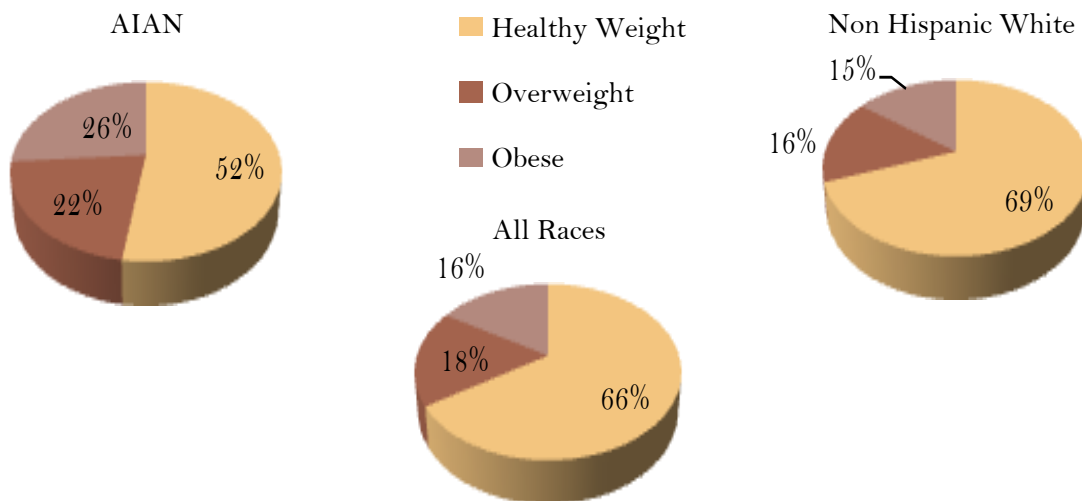
AIAN are 4.95% of the 5th, 7th and 9th grade population in Lassen and Modoc Counties but account for 7.91% of the youth which are obese (see Figure 37). Which means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests that obesity rates among AIANs, NHWs, and All Races combined decrease with age. Obesity rates are at their highest in 5th grade, and at their lowest in 9th grade.

Figure 37. AIAN Percent of Population and Obesity, 2010-2012



Figure 38. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 52% of AIAN youth are at a healthy weight compared to 69% of NHW and 66% of All Races combined.

Table 19. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	23.7	23.9	20.9	24.1
	Obese (%)	15.1	27.3	23.3	19.5
Male	Overweight (%)	21.8	18.9	16.2	18.5
	Obese (%)	31.9	32.2	35.1	33.3
Total	Overweight (%)	22.6	21.3	18.8	21.4
	Obese (%)	24.5	29.8	28.8	26.2
Sample Size (n)		212	178	160	168

National studies show obesity rates in California children are decreasing. In Lassen and Modoc Counties, after the obesity rates among AIAN youth plateau in 2004-2006, the rates are decreasing. In Lassen and Modoc Counties, differences over time show that AIAN males are consistently more likely to be overweight/obese than AIAN females.

LOS ANGELES COUNTY

AIAN are only 0.31% of the 5th, 7th and 9th grade population in Los Angeles County and are 0.31% of the youth which are obese (see Figure 39). This means that AIAN youth have the same burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease with age, with 5th graders having the highest rates of obesity and 9th graders the lowest obesity rates.

Figure 39. AIAN Percent of Population and Obesity, 2010-2012

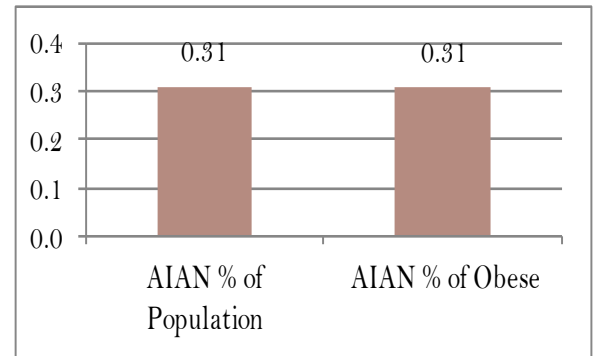
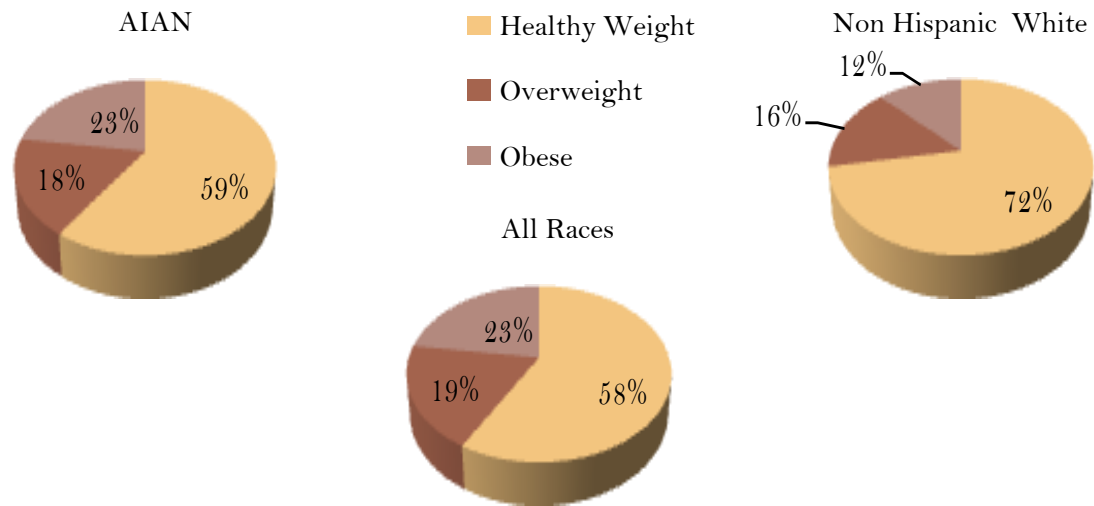


Figure 40. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 41% compared to 28% respectively. However, AIAN youth are just as likely to be at a healthy weight, 59% when compared to All Races combined, 58%.

Table 20. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	19.1	17.9	16.7	17.7
	Obese (%)	16.9	19.1	20.7	20.7
Male	Overweight (%)	16.6	15.2	17.3	17.8
	Obese (%)	24.6	28.5	26.4	24.8
Total	Overweight (%)	17.8	16.6	17.0	17.7
	Obese (%)	20.8	23.8	23.6	22.8
Sample Size (n)		4,046	3,057	3,054	3,173

Differences over time show that AIAN male youth are consistently more likely to be overweight/obese than AIAN females in Los Angeles County. National studies show obesity rates in California children are decreasing overtime. After obesity rates peaked in 2004-2006, Los Angeles County is consistent with the state pattern.

MADERA & MARIPOSA COUNTIES

AIAN are 1.67% of the 5th, 7th and 9th grade population in Madera and Mariposa Counties, but account for 1.61% of the youth which are obese (see Figure 41). This means that AIAN youth have a slightly lesser burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races combined decrease with age, with 5th graders having the highest rates of obesity, and 9th graders having the lowest obesity rates.

Figure 41. AIAN Percent of Population and Obesity, 2010-2012

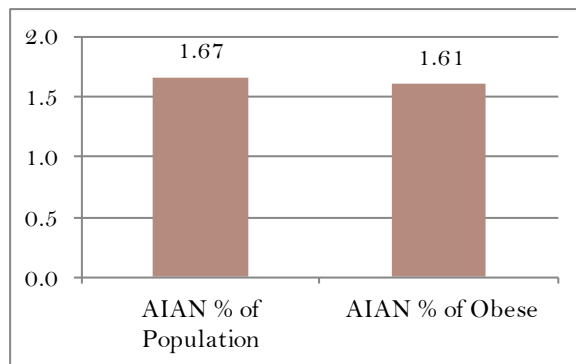
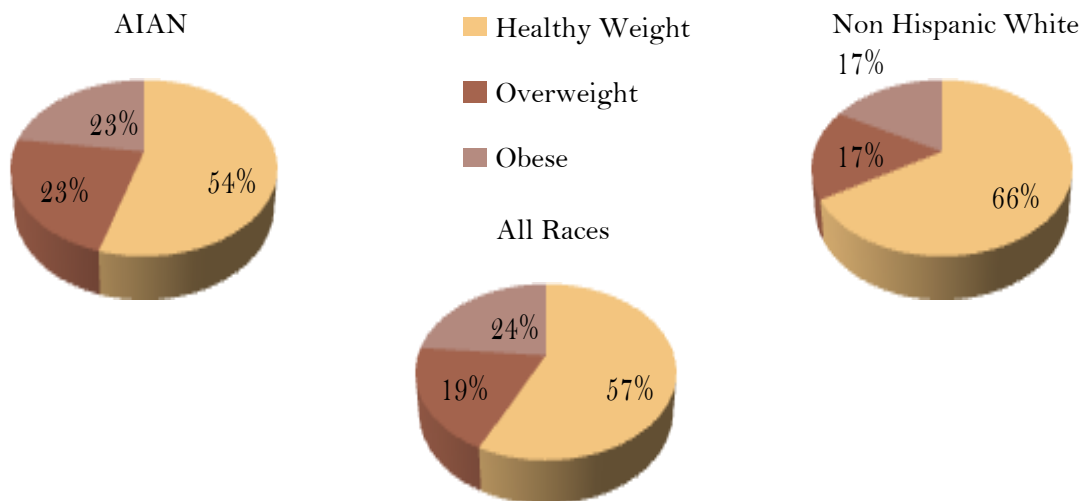


Figure 42. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 54% of AIAN youth are at a healthy weight compared to 66% of NHW and 57% of All Races Combined.

Table 21. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.3	17.8	19.7	24.3
	Obese (%)	*	16.1	19.1	16.9
Male	Overweight (%)	14.3	12.5	18.3	20.9
	Obese (%)	20.5	15.6	24.2	29.4
Total	Overweight (%)	13.8	15.0	19.0	22.7
	Obese (%)	14.8	15.9	21.7	22.7
Sample Size (n)		210	246	364	330

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Madera and Mariposa Counties. Differences over time show that AIAN males are frequently more likely to be overweight/obese than AIAN females in Madera and Mariposa Counties.

Note: Percentage is not reported when n is less than 10.

MARIN & SONOMA COUNTIES

AIAN are only 1.06% of the 5th, 7th and 9th grade population in Marin and Sonoma Counties but are 1.61% of the youth which are obese (see Figure 43). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races Combined decrease with age, with 9th graders having the lowest obesity rates.

Figure 43. AIAN Percent of Population and Obesity, 2010-2012

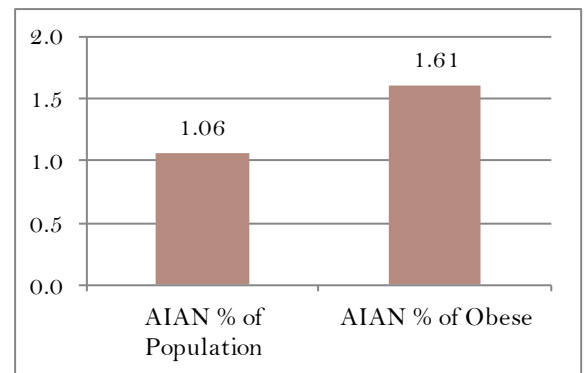
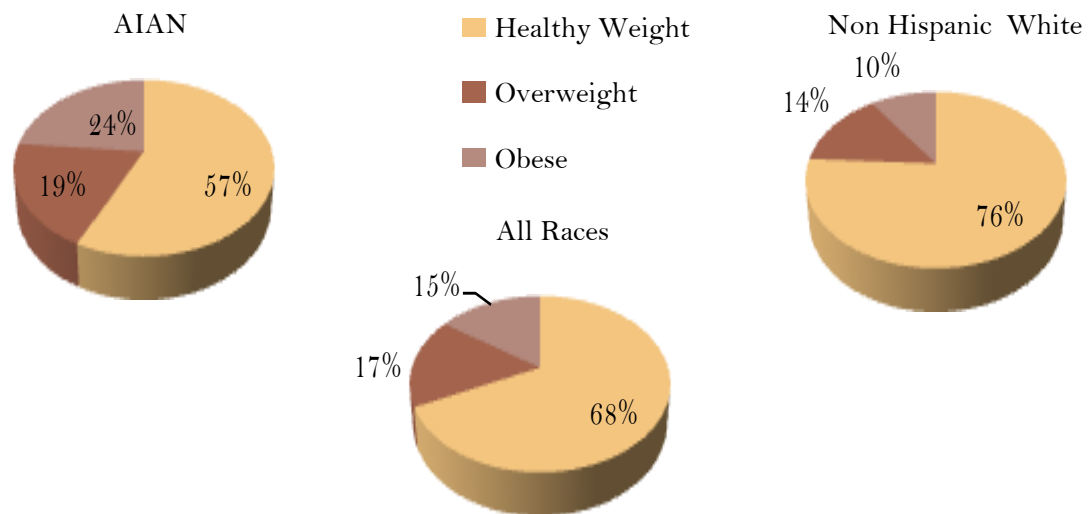


Figure 44. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 43% compared to 24% respectively.

Table 22. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	16.3	23.9	44.1	20.9
	Obese (%)	17.4	19.9	28.5	19.5
Male	Overweight (%)	13.2	18.2	42.9	18.0
	Obese (%)	23.1	27.7	25.4	27.1
Total	Overweight (%)	14.7	21.0	43.5	19.3
	Obese (%)	20.3	23.9	26.9	23.6
Sample Size (n)		531	624	694	641

Differences over time show that no one gender is more likely to be overweight/obese than another gender in Marin and Sonoma Counties. The obesity rates in California are declining, in Marin and Sonoma County, the rates plateau in 2007-2009 and declined in 2010-2012.

MARIPOSA & MADERA COUNTIES

AIAN are 1.67% of the 5th, 7th and 9th grade population in Mariposa and Madera Counties, but account for 1.61% of the youth which are obese (see Figure 45). This means that AIAN youth have a slightly lesser burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races combined decrease with age, with 5th graders having the highest rates of obesity, and 9th graders having the lowest obesity rates.

Figure 45. AIAN Percent of Population and Obesity, 2010-2012

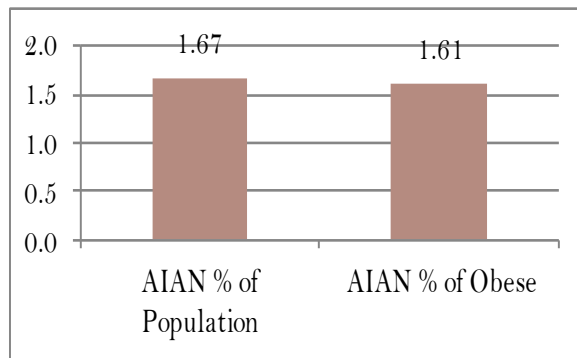
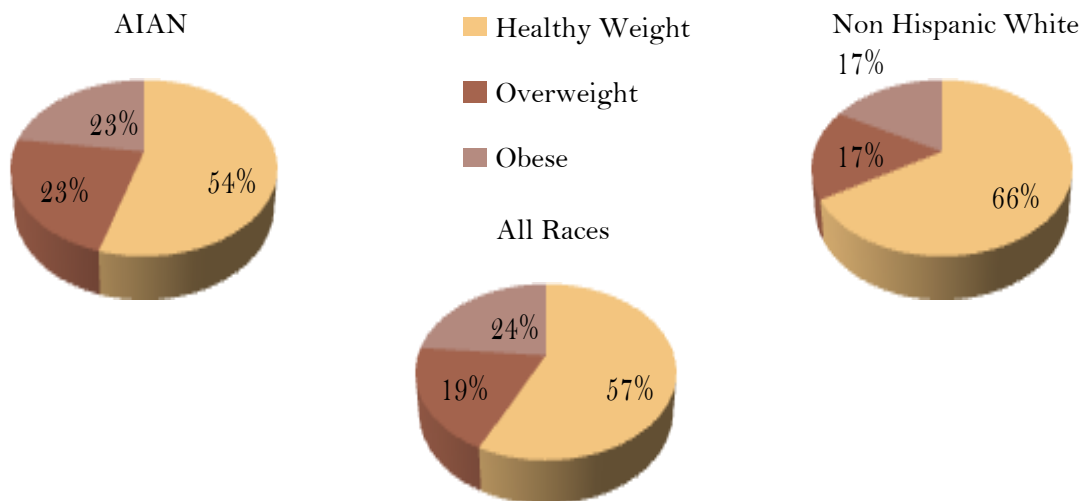


Figure 46. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 54% of AIAN youth are at a healthy weight compared to 66% of NHW and 57% of All Races combined.

Table 23. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.3	17.8	19.7	24.3
	Obese (%)	*	16.1	19.1	16.9
Male	Overweight (%)	14.3	12.5	18.3	20.9
	Obese (%)	20.5	15.6	24.2	29.4
Total	Overweight (%)	13.8	15.0	19.0	22.7
	Obese (%)	14.8	15.9	21.7	22.7
Sample Size (n)		210	246	364	330

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Mariposa and Madera Counties. Differences over time show that AIAN males are frequently more likely to be overweight/obese than AIAN females in Mariposa and Madera Counties.

Note: Percentage not reported when n is less than 10.

MENDOCINO COUNTY

AIAN are only 6.62% of the 5th, 7th and 9th grade population in Mendocino County but are 8.99% of the youth which are obese (see Figure 47). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age. Fifth graders have the highest obesity rates and 9th graders have the lowest rates of obesity.

Figure 47. AIAN Percent of Population and Obesity, 2010-2012

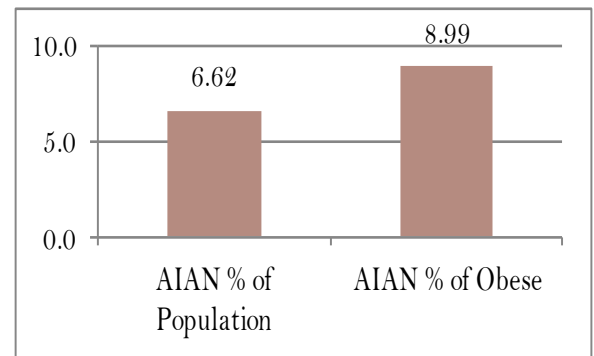
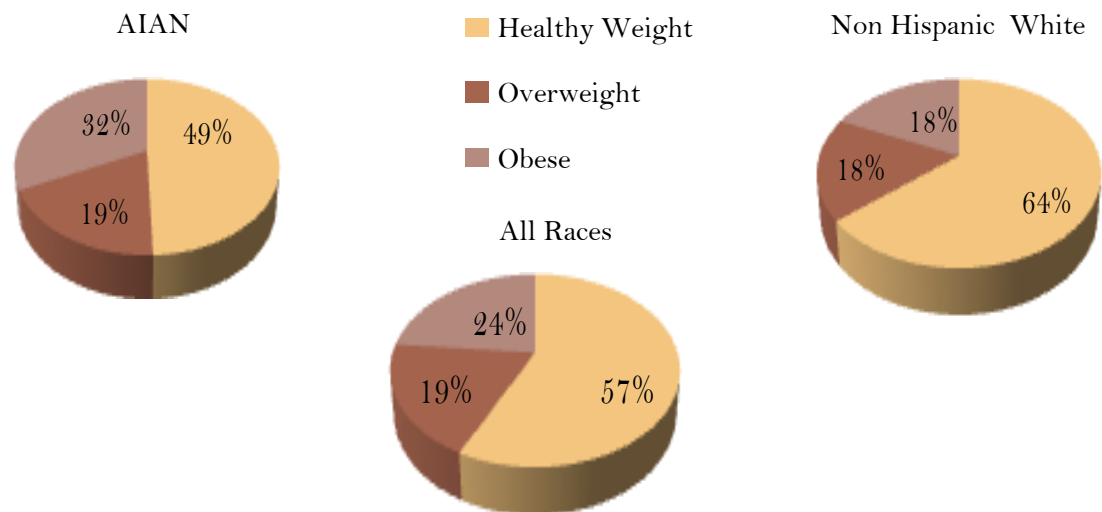


Figure 48. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 51% compared to 36% respectively.

Table 24. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	27.8	20.6	23.6	20.0
	Obese (%)	23.3	33.2	30.6	30.8
Male	Overweight (%)	18.0	22.4	18.1	14.0
	Obese (%)	27.9	34.1	36.3	33.3
Total	Overweight (%)	22.2	21.5	20.7	18.5
	Obese (%)	25.9	33.6	33.6	32.1
Sample Size (n)		316	446	464	524

Differences over time show a fluctuation of obesity rates when comparing which gender of AIAN youth is more likely to be overweight/obese in Mendocino County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Mendocino County.

MERCED COUNTY

AIAN are 0.46% of the 5th, 7th and 9th grade population in Merced County but account for 0.54% of the youth which are obese (see Figure 49). This means that AIAN youth have a higher burden of obesity than other races.

The data suggests that obesity rates are lowest for 7th graders for AIANs, NHWs, and All Races combined in Merced County.

Figure 49. AIAN Percent of Population and Obesity, 2010-2012

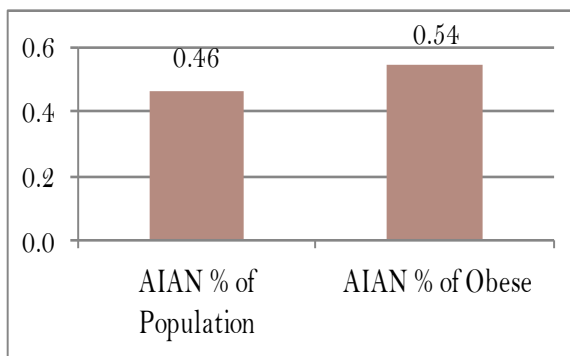
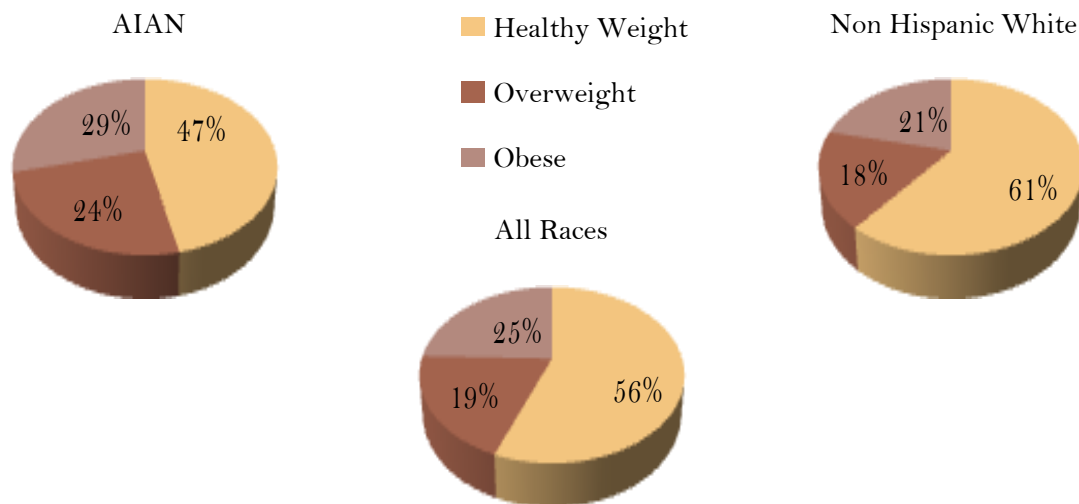


Figure 50. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 47% of AIAN youth are at a healthy weight compared to 61% of NHW and 56% of All Races combined.

Table 25. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.9	21.2	22.5	32.1
	Obese (%)	15.2	37.9	29.6	26.2
Male	Overweight (%)	14.3	23.2	18.4	15.8
	Obese (%)	18.0	34.8	31.6	32.9
Total	Overweight (%)	16.7	22.2	20.4	24.4
	Obese (%)	16.5	36.3	30.6	29.4
Sample Size (n)		461	135	147	160

National studies show obesity rates in California children are decreasing. After peaking in 2004-2006, the obesity rates are decreasing in AIAN youth in Merced County. Differences over time show the AIAN females are consistently more likely to be overweight/obese than AIAN males in Merced County.

MODOC & LASSEN COUNTIES

AIAN are only 4.95% of the 5th, 7th and 9th grade population in Modoc and Lassen Counties but are 7.91% of the youth which are obese (see Figure 51). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests that obesity rates among AIANs, NHWs, and All Races combined decrease with age. Obesity rates are at their highest in 5th grade, and at their lowest in 9th grade.

Figure 51. AIAN Percent of Population and Obesity, 2010-2012

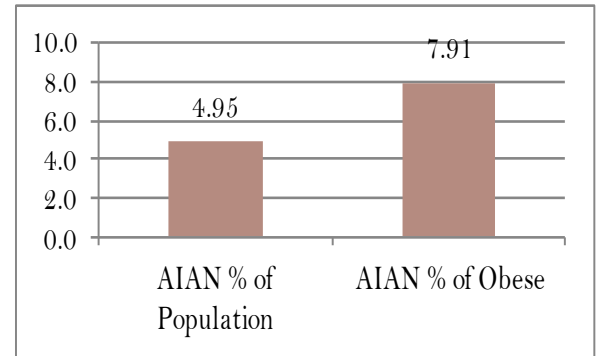
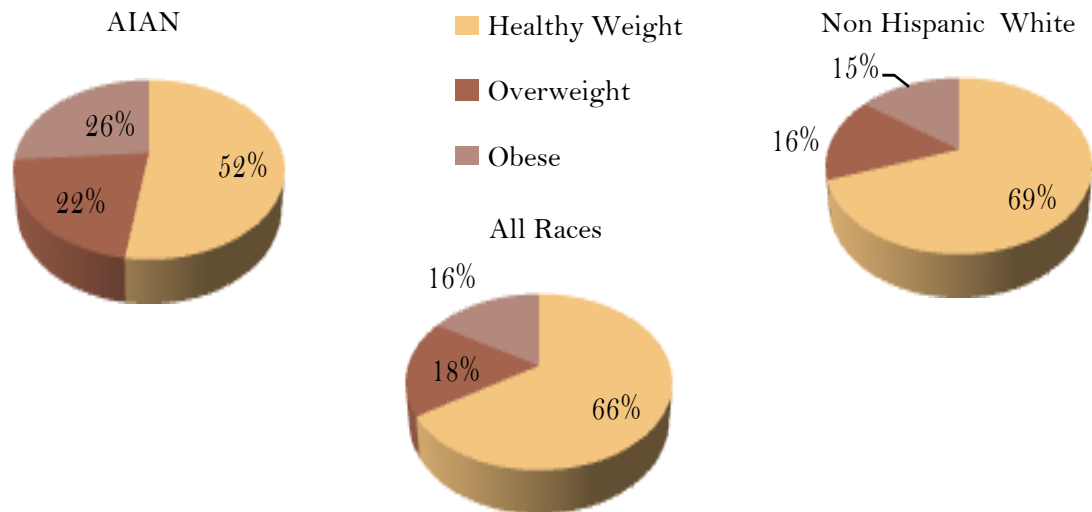


Figure 52. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 48% compared to 31% respectively.

Table 26. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	23.7	23.9	20.9	24.1
	Obese (%)	15.1	27.3	23.3	19.5
Male	Overweight (%)	21.8	18.9	16.2	18.5
	Obese (%)	31.9	32.2	35.1	33.3
Total	Overweight (%)	22.6	21.3	18.8	21.4
	Obese (%)	24.5	29.8	28.8	26.2
Sample Size (n)		212	178	160	168

National studies show obesity rates in California children are decreasing. In Modoc and Lassen Counties, after the obesity rates among AIAN youth plateaued in 2004-2006, the rates are decreasing. Differences over time show that AIAN males are consistently more likely to be overweight/obese than AIAN females in Modoc and Lassen Counties.

MONO, ALPINE & TUOLUMNE COUNTIES

AIAN are 3.26% of the 5th, 7th and 9th grade population in Mono, Alpine, and Tuolumne Counties but account for 6.35% of the youth which are obese (see Figure 53). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for NHW's and All Races Combined decrease slightly with 9th graders having the lowest rate. Obesity rates for AIANs increase in 7th grade, then decrease to the lowest rate in 9th grade.

Figure 53. AIAN Percent of Population and Obesity, 2010-2012

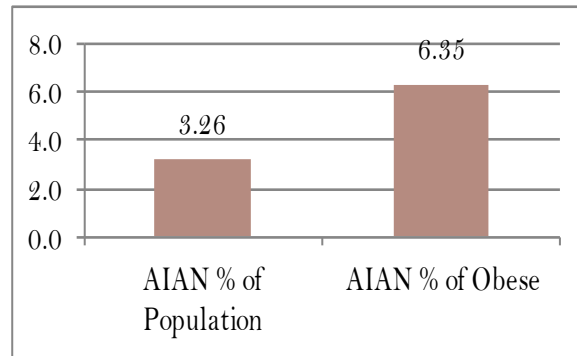
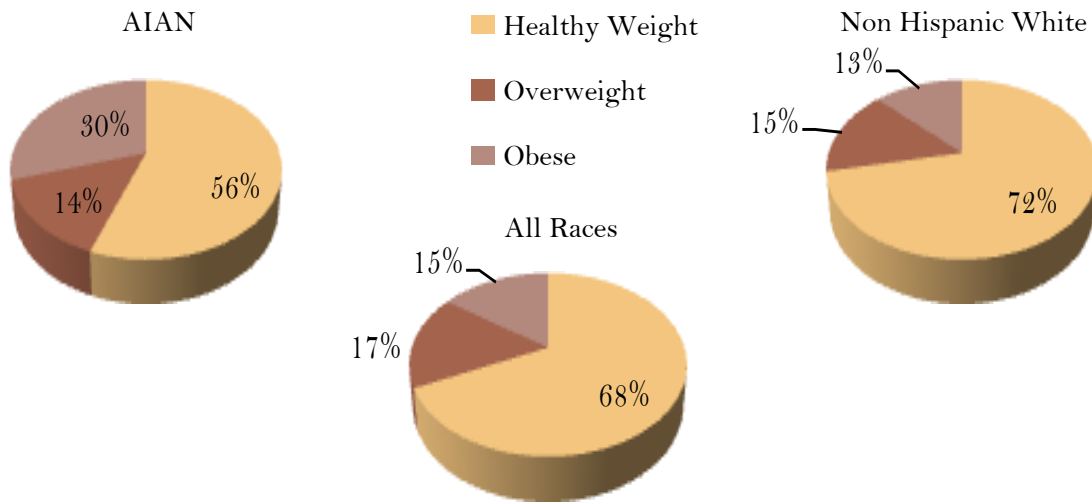


Figure 54. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 56% of AIAN youth are at a healthy weight compared to 72% of NHW and 68% of All Races combined.

Table 27. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	26.6	12.4	33.0	19.2
	Obese (%)	25.3	20.6	33.9	28.8
Male	Overweight (%)	25.4	21.3	26.8	*
	Obese (%)	19.7	22.0	28.3	30.8
Total	Overweight (%)	26.0	14.4	29.7	14.6
	Obese (%)	22.7	21.4	31.0	29.8
Sample Size (n)		150	224	239	151

Even though national studies show obesity rates in California children are decreasing, they fluctuate in AIAN youth in Mono, Alpine, and Tuolumne Counties. Differences overtime show that no gender is more likely to be overweight/obese than another gender in Mono, Alpine, and Tuolumne Counties.

MONTEREY & SAN BENITO COUNTIES

AIAN are only 0.44% of the 5th, 7th and 9th grade population in Monterey and San Benito Counties but are 0.44% of the youth which are obese (see Figure 55). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for NHWs and All Races combined decrease slightly with age, with 9th graders having the lowest obesity rates, while for AIAN's, obesity rates increase with age.

Figure 55. AIAN Percent of Population and Obesity, 2010-2012

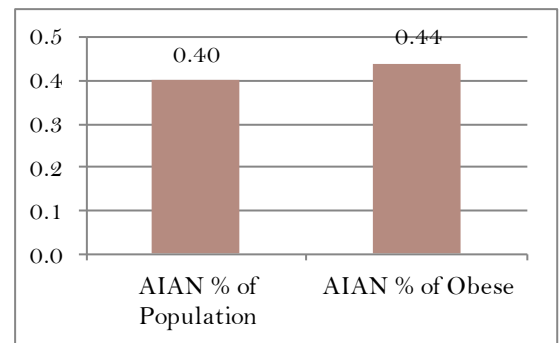
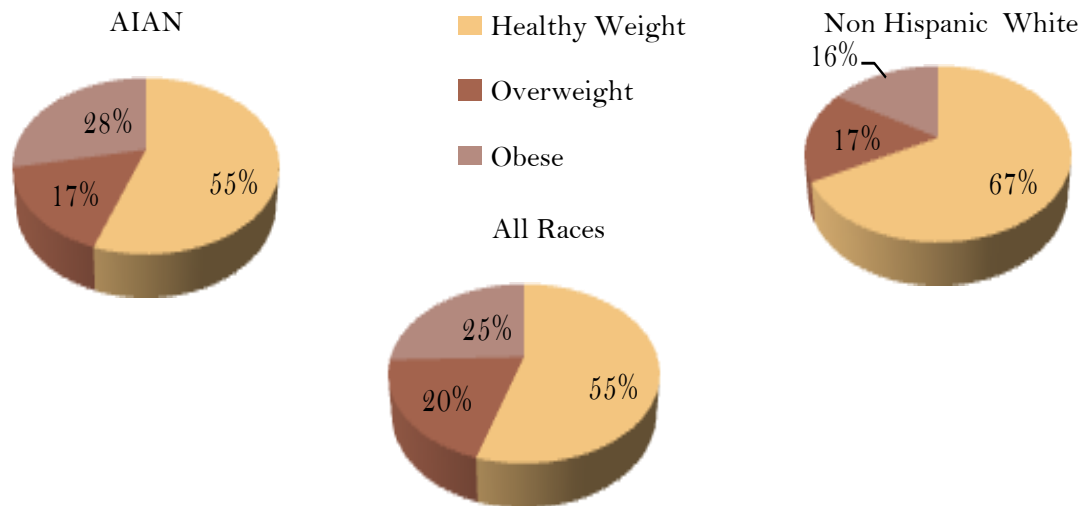


Figure 56. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 45% compared to 33% respectively, but just as likely to be overweight/obese as All Races Combined at 45%.

Table 28. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.2	16.1	19.1	12.2
	Obese (%)	13.6	23.2	29.6	24.5
Male	Overweight (%)	18.4	20.9	19.4	20.6
	Obese (%)	20.2	29.1	26.2	32.0
Total	Overweight (%)	17.8	18.5	19.3	16.4
	Obese (%)	17.1	26.1	28.0	28.2
Sample Size (n)		1,071	222	218	195

Differences over time for all grades combined show that AIAN male youth are frequently more likely to be overweight/obese than AIAN females in Monterey and San Benito Counties. Although national studies show obesity rates in California children are decreasing over time, they are increasing in Monterey and San Benito Counties.

NAPA COUNTY

AIAN are 1.11% of the 5th, 7th and 9th grade population in Napa County but account for 1.12% of the youth which are obese (see Figure 57). This means that AIAN youth have a higher burden of obesity than other races.

In Napa County, the data suggest that obesity rates decrease with age for AIANs, NHWs, and All Races combined. Ninth graders have the lowest obesity rates, while 5th graders have the highest rates of obesity.

Figure 57. AIAN Percent of Population and Obesity, 2010-2012

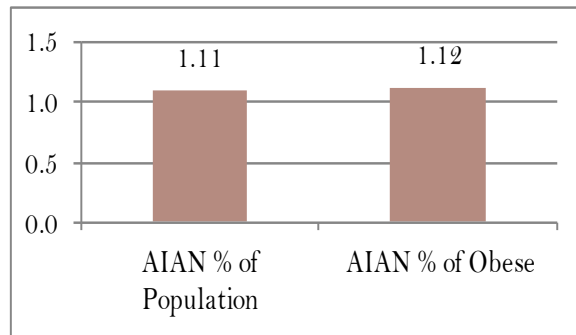
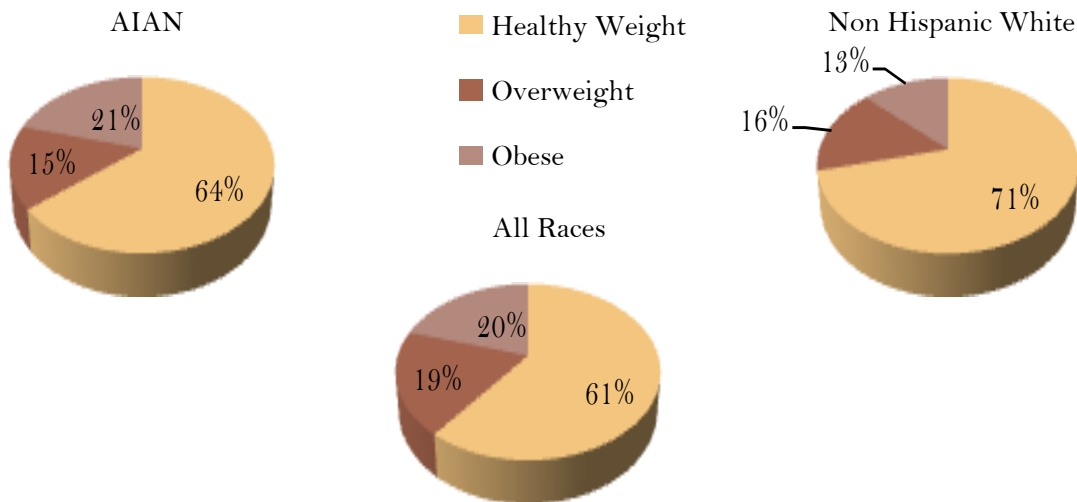


Figure 58. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 64% of AIAN youth are at a healthy weight compared to 71% of NHW. However, when compared with All Races combined, AIAN youth are slightly less likely to be overweight/obese.

Table 29. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.4	13.7	13.5	16.2
	Obese (%)	22.5	14.4	19.6	23.5
Male	Overweight (%)	23.5	19.5	15.1	14.3
	Obese (%)	23.5	21.9	20.3	18.2
Total	Overweight (%)	18.0	16.5	14.4	15.2
	Obese (%)	23.0	18.0	20.0	20.7
Sample Size (n)		261	267	320	145

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Napa County. Differences over time show that AIAN males are frequently more likely to be overweight/obese than AIAN females in Napa County.

NEVADA, PLUMAS & SIERRA COUNTIES

AIAN are only 2.25% of the 5th, 7th and 9th grade population in Nevada, Plumas, and Sierra Counties but are 3.80% of the youth which are obese (see Figure 59). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggest obesity rates decline with age for NHWs and All Races Combined with 9th graders having the lowest rates, while obesity rates increase with age for AIAN's with 9th graders having the highest rates.

Figure 59. AIAN Percent of Population and Obesity, 2010-2012

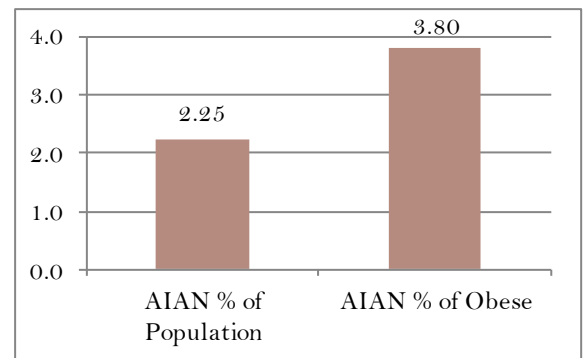
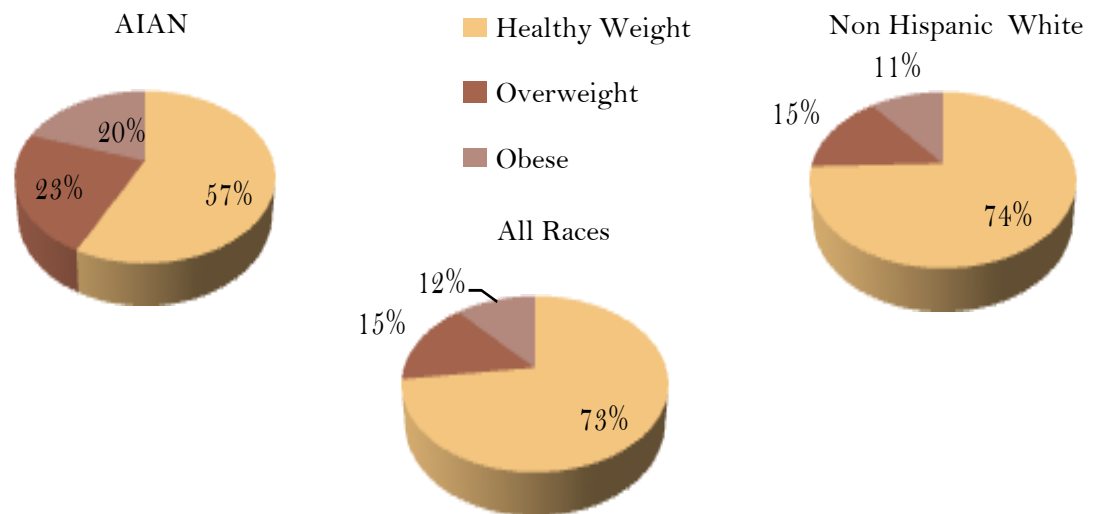


Figure 60. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 43% compared to 26% respectively.

Table 30. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.6	15.9	17.5	23.3
	Obese (%)	21.6	26.8	19.4	22.1
Male	Overweight (%)	15.2	15.5	18.5	22.6
	Obese (%)	28.8	29.8	15.4	17.9
Total	Overweight (%)	16.4	15.7	18.0	22.9
	Obese (%)	25.0	28.3	17.2	19.8
Sample Size (n)		140	166	233	192

Differences over time show that from 2001-2006, males were consistently more likely to be overweight/obese in Nevada, Plumas, and Sierra Counties, but from 2007-2012, AIAN females were more consistently likely to be overweight/obese. Although obesity rates are declining in children in California, the obesity rates fluctuate among AIAN youth in these counties.

ORANGE COUNTY

AIAN are 0.58% of the 5th, 7th and 9th grade population in Orange County but account for 0.62% of the youth which are obese (see Figure 61). Which means that AIAN youth have a higher burden of obesity than other races.

In Orange County, the data from 2010-2012 suggests a slight decrease in obesity rates as children age among AIANs, NHWs, and All Races combined. Fifth graders have the highest obesity rates, while 9th graders have the lowest rates.

Figure 61. AIAN Percent of Population and Obesity, 2010-2012

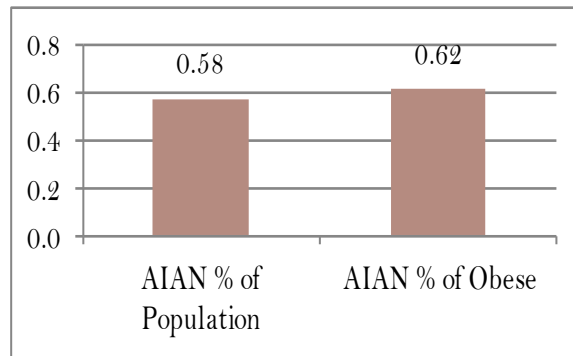
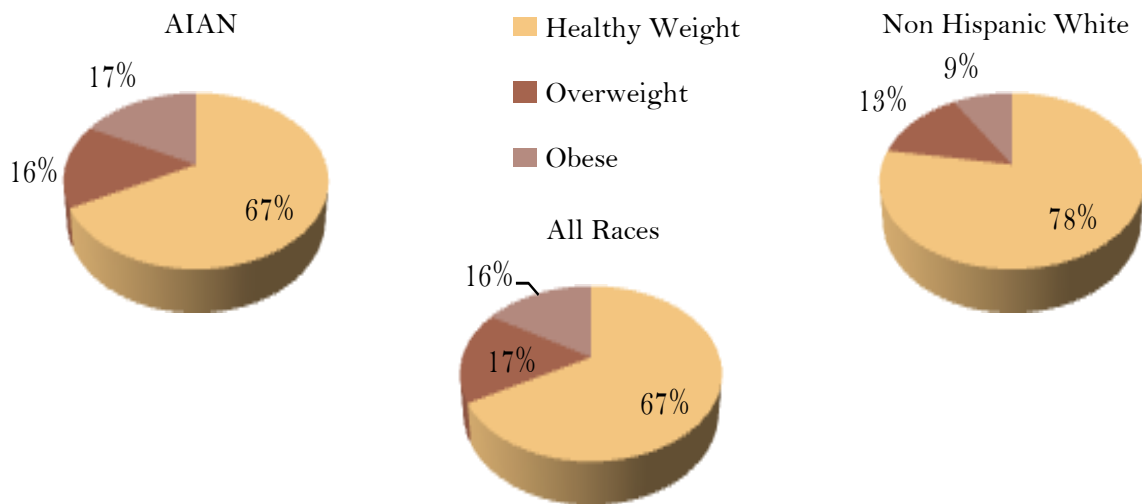


Figure 62. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 67% of AIAN youth are at a healthy weight compared to 78% of NHW. However, AIAN youth are just as likely as All Races combined to be overweight/obese. Both had a healthy weight of 67%.

Table 31. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.5	16.0	15.4	16.6
	Obese (%)	9.4	14.2	14.6	15.8
Male	Overweight (%)	14.7	17.6	15.7	14.2
	Obese (%)	15.0	17.7	18.6	18.7
Total	Overweight (%)	14.1	16.8	15.5	15.4
	Obese (%)	12.3	16.1	16.8	17.4
Sample Size (n)		3,968	1,366	1,210	1,836

Although national studies show obesity rates in California children are decreasing overtime, they are increasing among AIAN youth in Orange County. Differences over time show that AIAN males are consistently more likely to be obese/overweight when compared to AIAN females.

PLACER COUNTY

AIAN are only 1.14% of the 5th, 7th and 9th grade population in Placer County but are 1.66% of the youth which are obese (see Figure 63). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest obesity rates and 9th graders the lowest rates of obesity.

Figure 63. AIAN Percent of Population

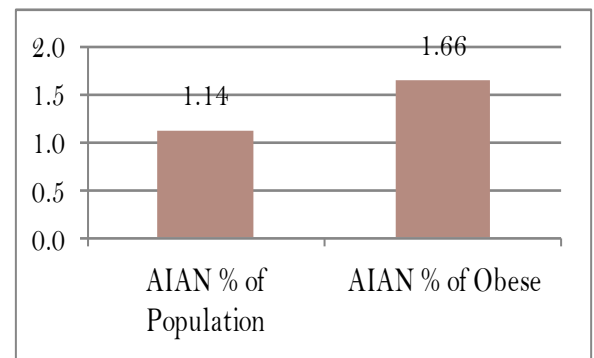
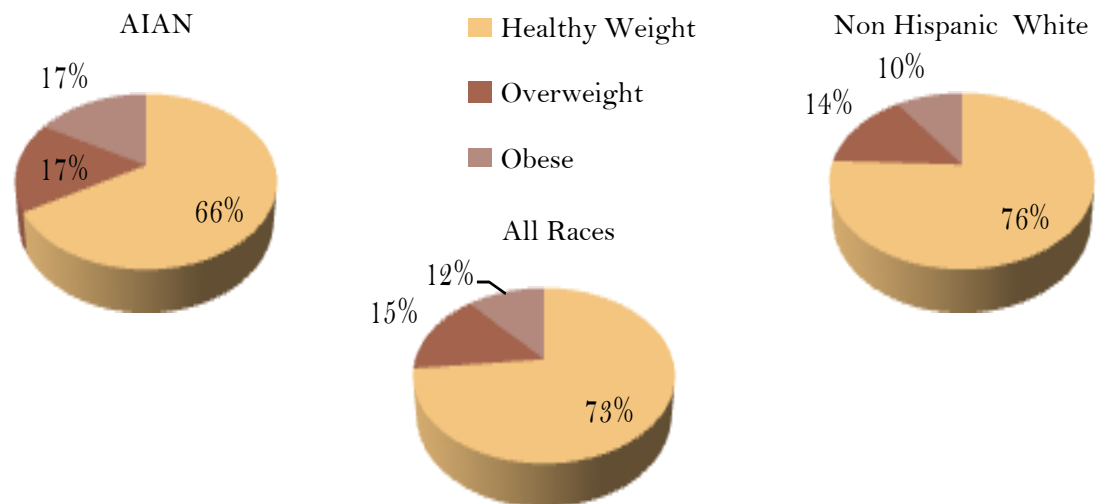


Figure 64. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 34% compared to 24% respectively.

Table 32. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.0	18.9	18.3	16.6
	Obese (%)	16.8	17.1	17.2	17.4
Male	Overweight (%)	15.8	13.9	14.8	16.9
	Obese (%)	26.7	17.3	15.8	16.0
Total	Overweight (%)	14.3	16.4	16.5	16.7
	Obese (%)	21.5	17.2	16.5	16.7
Sample Size (n)		251	348	369	472

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Placer County. Although national studies show obesity rates in California children are decreasing overtime, the rates slightly increased in 2010-2012 in Placer County after decreasing for several years.

PLUMAS NEVADA & SIERRA COUNTIES

AIAN are 2.25% of the 5th, 7th and 9th grade population in Plumas, Nevada, and Sierra Counties but account for 3.80% of the youth which are obese (see Figure 65). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggest obesity rates decline with age for NHWs and All Races Combined with 9th graders having the lowest rates, while obesity rates increase with age for AIAN's with 9th graders having the highest rates.

Figure 65. AIAN Percent of Population and Obesity, 2010-2012

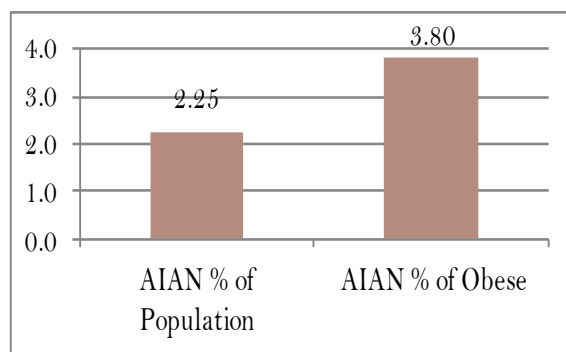
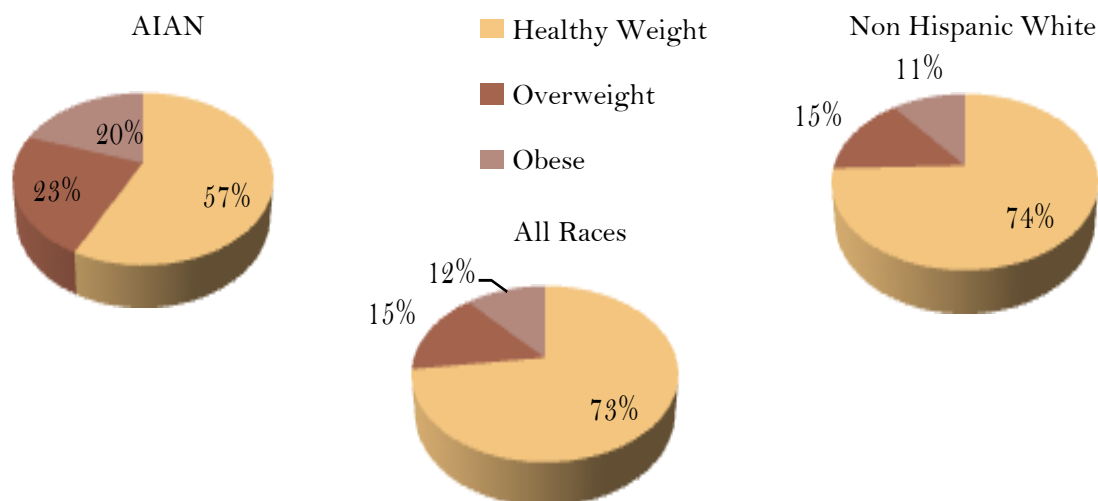


Figure 66. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 74% of NHW and 73% of All Races combined.

Table 33. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.6	15.9	17.5	23.3
	Obese (%)	21.6	26.8	19.4	22.1
Male	Overweight (%)	15.2	15.5	18.5	22.6
	Obese (%)	28.8	29.8	15.4	17.9
Total	Overweight (%)	16.4	15.7	18.0	22.9
	Obese (%)	25.0	28.3	17.2	19.8
Sample Size (n)		140	166	233	192

Differences over time show that from 2001-2006, males were consistently more likely to be overweight/obese in Plumas, Nevada, and Sierra Counties, but from 2007-2012, AIAN females were more consistently likely to be overweight/obese. Although obesity rates are declining in children in California, the obesity rates fluctuate among AIAN youth in these counties.

RIVERSIDE COUNTY

AIAN are only 0.64% of the 5th, 7th and 9th grade population in Riverside County but are 0.72% of the youth which are obese (see Figure 67). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest obesity rates and 9th graders the lowest rates of obesity.

Figure 67. AIAN Percent of Population and Obesity, 2010-2012

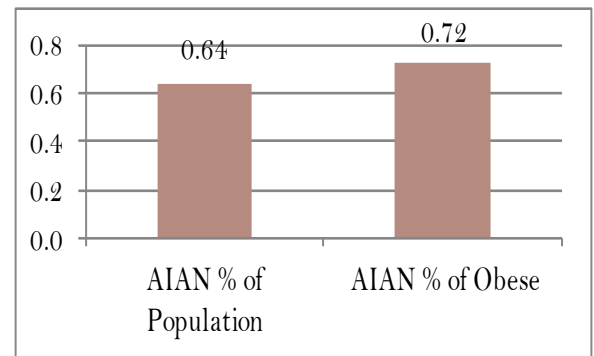
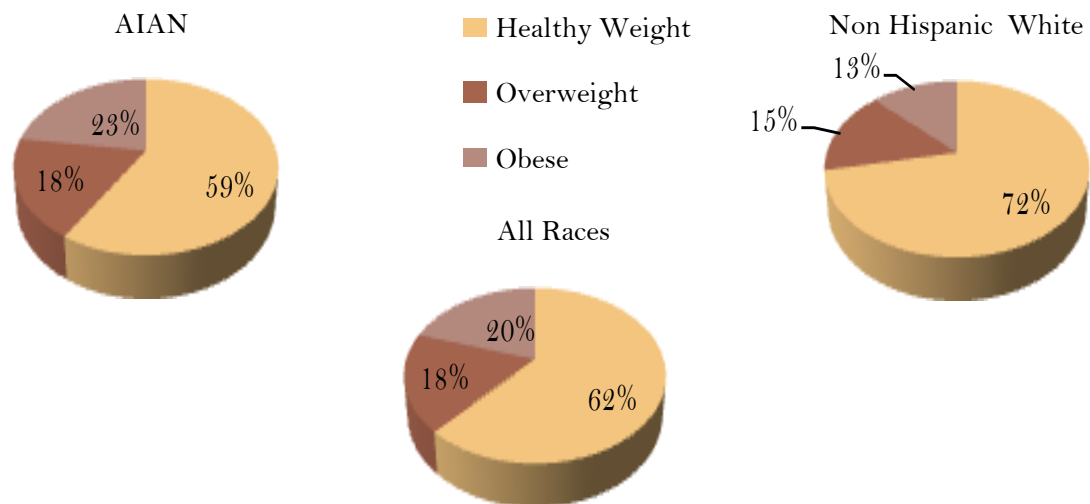


Figure 68. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 41% compared to 28% respectively.

Table 34. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	16.8	20.7	20.7	19.5
	Obese (%)	17.4	20.0	22.3	19.8
Male	Overweight (%)	16.6	18.7	17.2	17.2
	Obese (%)	20.4	25.9	27.8	26.0
Total	Overweight (%)	16.7	19.8	19.0	18.4
	Obese (%)	18.9	22.8	25.0	22.8
Sample Size (n)		1,837	1,675	1,754	1,760

Differences over time show that AIAN male youth are consistently more likely to be overweight/obese than AIAN females in Riverside County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Riverside County.

SACRAMENTO COUNTY

AIAN are 1.02% of the 5th, 7th and 9th grade population in Sacramento County but account for 1.09% of the youth which are obese (see Figure 69). This means that AIAN youth have a slightly higher burden of obesity than other races.

In Sacramento County, the 2010-2012 data suggests obesity rates for AIAN's and NHW's decreases with age, with 9th graders having the lowest obesity rates.

Figure 69. AIAN Percent of Population and Obesity, 2010-2012

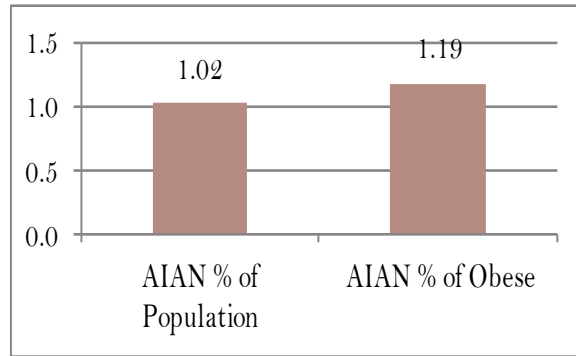
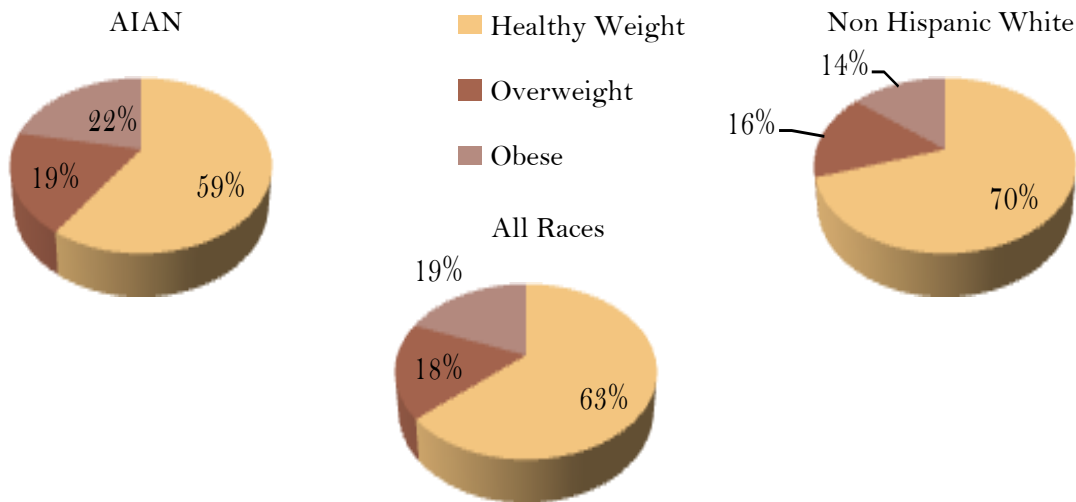


Figure 70. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 59% of AIAN youth are at a healthy weight compared to 70% of NHW and 63% of All Races combined.

Table 35. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	20.4	19.5	18.8	22.1
	Obese (%)	19.3	19.7	22.4	21.1
Male	Overweight (%)	17.7	15.3	18.4	15.3
	Obese (%)	21.1	23.2	24.2	22.7
Total	Overweight (%)	19.0	17.4	18.6	18.6
	Obese (%)	20.2	21.4	23.3	21.9
Sample Size (n)		1,649	1,865	1,698	1,497

Even though national studies show obesity rates in California children are decreasing, the rate fluctuates in AIAN youth in Sacramento County. Differences over time show that AIAN females are frequently more likely to be obese/overweight than AIAN males in Sacramento County.

SAN BENITO & MONTEREY COUNTIES

AIAN are only 0.40% of the 5th, 7th and 9th grade population in San Benito and Monterey Counties but are 0.44% of the youth which are obese (see Figure 71). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for NHWs and All Races combined decrease slightly with age, with 9th graders having the lowest obesity rates, while for AIAN's, obesity rates increase with age.

Figure 71. AIAN Percent of Population and Obesity, 2010-2012

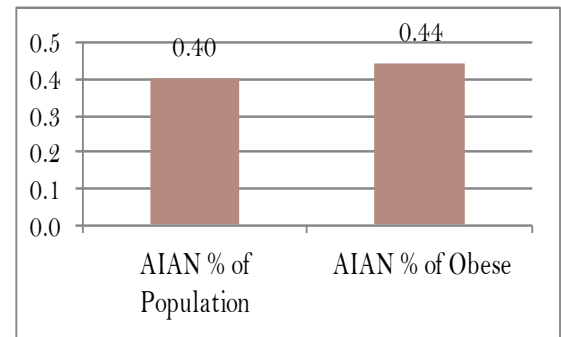
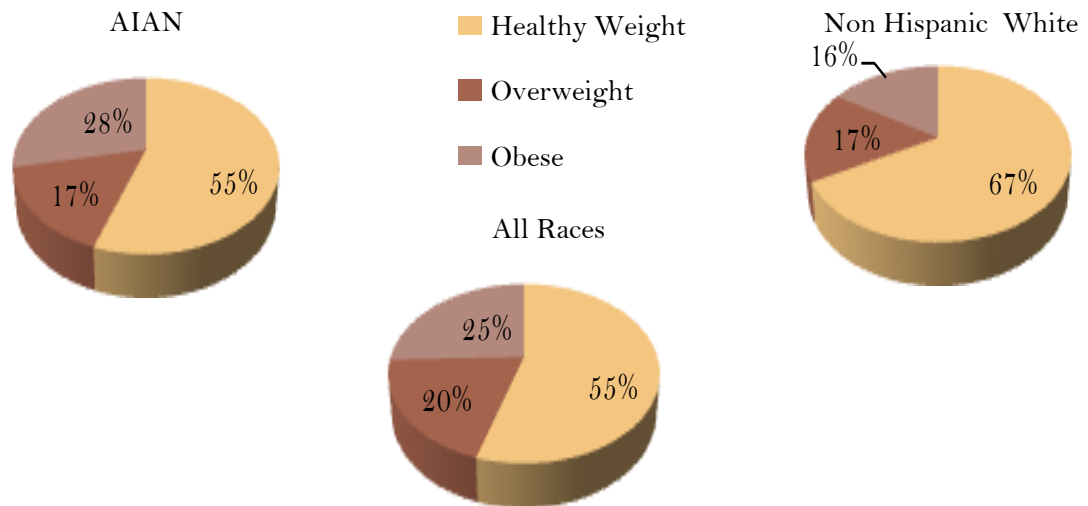


Figure 72. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 45% compared to 33% respectively, but just as likely to be overweight/obese as All Races Combined at 45%.

Table 36. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.2	16.1	19.1	12.2
	Obese (%)	13.6	23.2	29.6	24.5
Male	Overweight (%)	18.4	20.9	19.4	20.6
	Obese (%)	20.2	29.1	26.2	32.0
Total	Overweight (%)	17.8	18.5	19.3	16.4
	Obese (%)	17.1	26.1	28.0	28.2
Sample Size (n)		1,071	222	218	195

Differences over time for all grades combined show that AIAN male youth are frequently more likely to be overweight/obese than AIAN females in San Benito and Monterey Counties. Although national studies show obesity rates in California children are decreasing over time, they are increasing in San Benito and Monterey Counties.

SAN BERNARDINO COUNTY

AIAN are 0.57% of the 5th, 7th and 9th grade population in San Bernardino County but account for 0.63% of the youth which are obese (see Figure 73). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIAN's, NHWs and All Races Combined decreases with age, with 9th graders having the lowest obesity rates.

Figure 73. AIAN Percent of Population and Obesity, 2010-2012

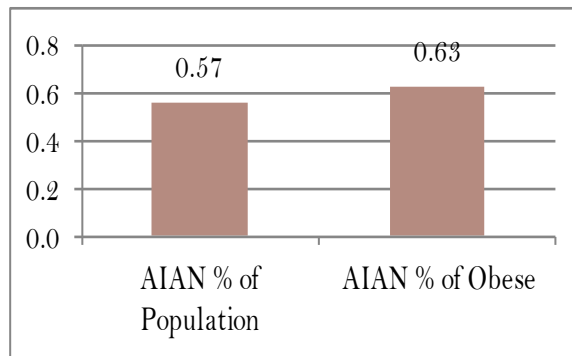
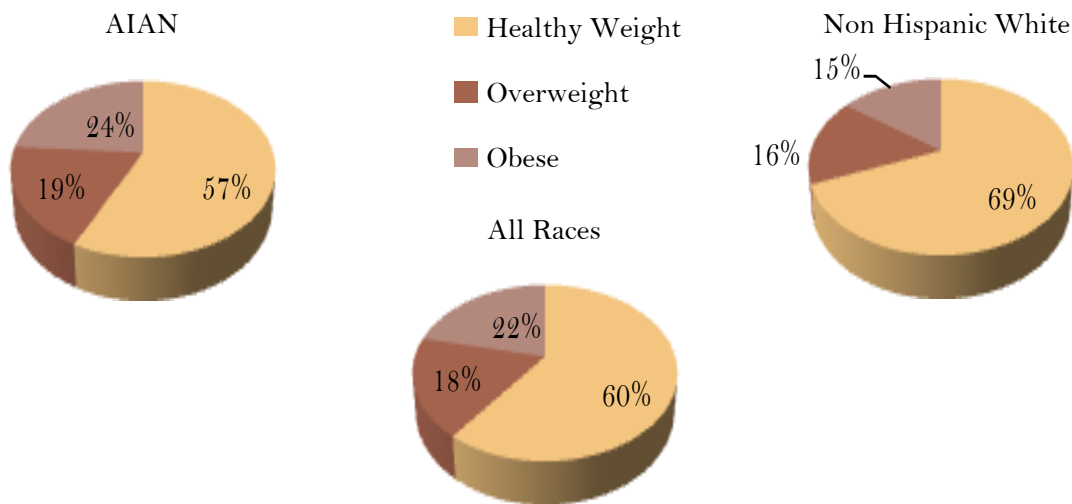


Figure 74. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 69% of NHW and 60% of All Races combined.

Table 37. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	16.3	16.6	19.7	18.8
	Obese (%)	14.3	21.0	19.1	20.6
Male	Overweight (%)	17.2	18.2	14.0	18.9
	Obese (%)	17.5	26.1	25.6	27.0
Total	Overweight (%)	16.8	17.4	17.0	18.8
	Obese (%)	15.9	23.5	22.2	23.9
Sample Size (n)		4,391	1,697	1,614	1,497

Even though national studies show obesity rates in California children are decreasing, rate fluctuates in AIAN youth in San Bernardino County. Differences over time show that AIAN males are consistently more likely to be obese/overweight than AIAN females in San Bernardino County.

SAN DIEGO COUNTY

AIAN are only 0.68% of the 5th, 7th and 9th grade population in San Diego County but are 0.84% of the youth which are obese (see Figure 75). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for NHWs and All Races combined decrease slightly with age, with 5th graders having the highest rates and 9th graders the lowest rates. For the AIAN population, there was variation by gender.

Figure 75. AIAN Percent of Population and Obesity, 2010-2012

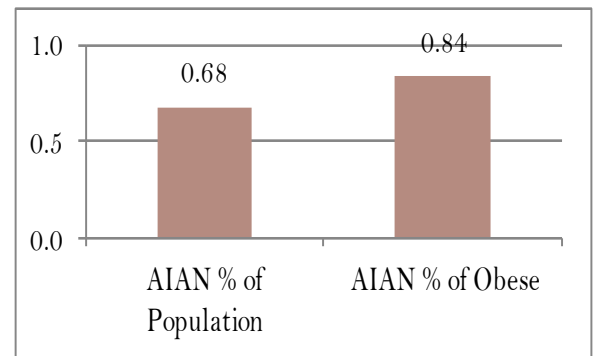
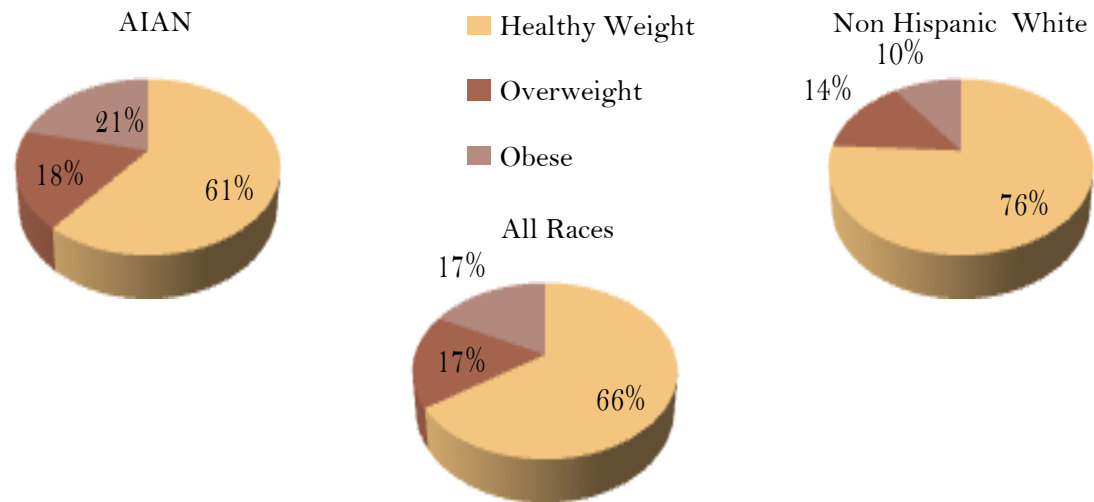


Figure 76. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 39% compared to 24% respectively.

Table 38. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	19.4	20.7	17.1	19.3
	Obese (%)	20.8	21.3	19.7	18.4
Male	Overweight (%)	15.3	17.9	16.4	16.6
	Obese (%)	25.3	22.6	26.6	24.2
Total	Overweight (%)	17.3	19.3	16.7	17.9
	Obese (%)	23.1	22.0	23.2	21.3
Sample Size (n)		2,620	2,655	2,257	2,091

Differences over time show that no one gender is consistently more likely to be overweight/obese when comparing AIAN youth in San Diego County. Although national studies show obesity rates in California children are decreasing overtime, the rate fluctuates in San Diego County.

SAN FRANCISCO COUNTY

AIAN are 0.56% of the 5th, 7th and 9th grade population in San Francisco County but account for 1.01% of the youth which are obese (see Figure 77). This means that AIAN youth have a slightly higher burden of obesity than other races.

In San Francisco County, the data suggests a variation in obesity rate increases and decreases by race, grade, and gender.

Figure 77. AIAN Percent of Population and Obesity, 2010-2012

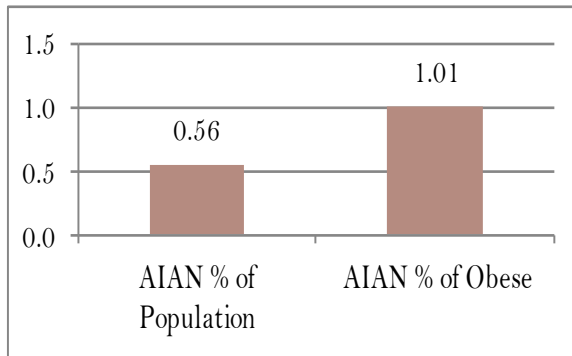
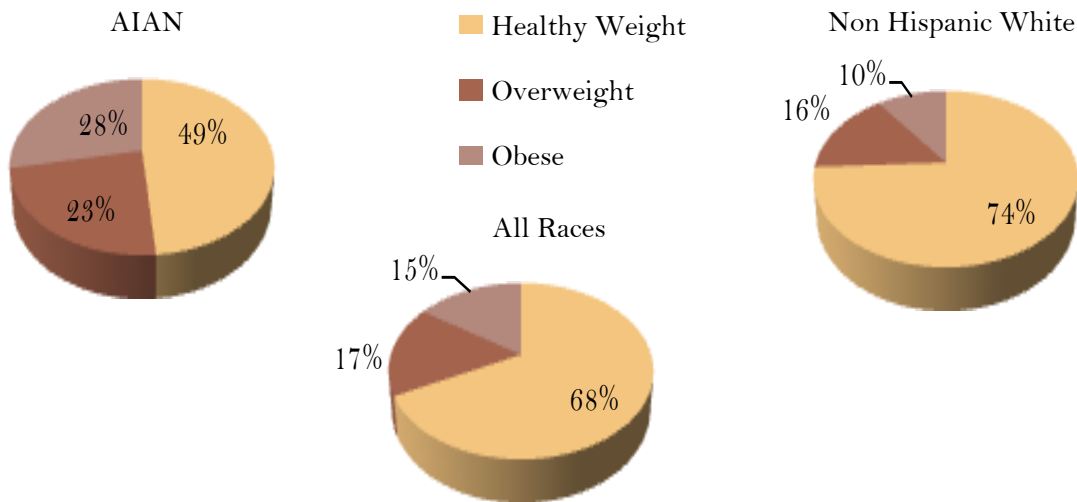


Figure 78. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 49% of AIAN youth are at a healthy weight compared to 74% of NHW and 68% of All Races combined.

Table 39. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.3	16.3	16.5	32.2
	Obese (%)	15.4	18.6	21.5	24.4
Male	Overweight (%)	17.0	16.8	16.3	14.3
	Obese (%)	17.0	25.3	30.0	31.9
Total	Overweight (%)	17.7	16.6	16.4	23.2
	Obese (%)	16.1	22.1	25.8	28.2
Sample Size (n)		192	181	159	181

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in San Francisco County. Differences over time show that no one gender is consistently more likely to be obese/overweight when comparing AIAN youth in San Francisco County.

SAN JOAQUIN COUNTY

AIAN are only 1.8% of the 5th, 7th and 9th grade population in San Joaquin County but are 2.21% of the youth which are obese (see Figure 79). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest obesity rates and 9th graders the lowest rates of obesity.

Figure 79. AIAN Percent of Population and Obesity, 2010-2012

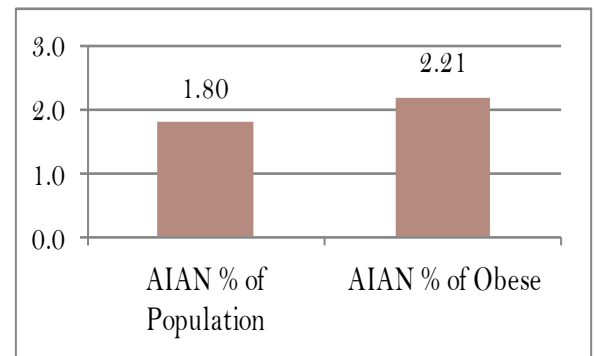
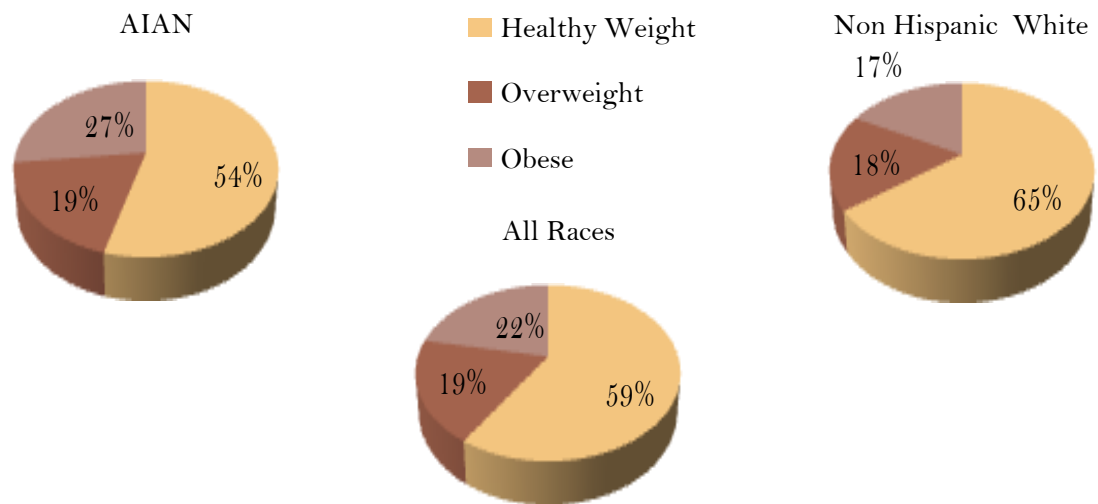


Figure 80. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 46% compared to 35% respectively.

Table 40. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.3	20.6	20.4	20.1
	Obese (%)	18.2	23.3	21.4	26.1
Male	Overweight (%)	16.4	17.9	18.1	17.6
	Obese (%)	23.6	27.0	28.7	27.6
Total	Overweight (%)	16.8	19.3	19.3	18.9
	Obese (%)	20.9	25.2	24.9	26.8
Sample Size (n)		1,834	1,588	1,621	1,516

Differences over time show that AIAN male youth are generally more likely to be overweight/obese than AIAN females in San Joaquin County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in San Joaquin County.

SAN LUIS OBISPO COUNTY

AIAN are 1.34% of the 5th, 7th and 9th grade population in San Luis Obispo County but account for 1.58% of the youth which are obese (see Figure 81). This means that AIAN youth have a higher burden of obesity than other races.

In San Luis Obispo County, the 2010-2012 data suggests that obesity rates for AIANs and All Races combined decreases with age, as 5th graders have the highest rates of obesity and 9th graders have the lowest rates of obesity.

Figure 81. AIAN Percent of Population and Obesity, 2010-2012

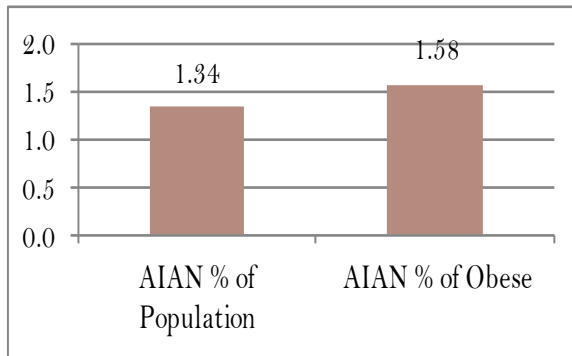
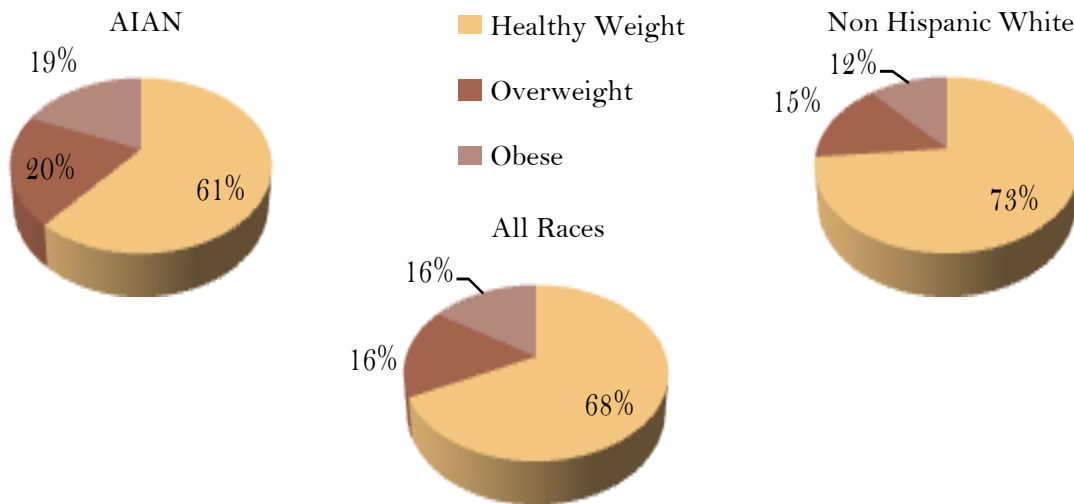


Figure 82. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 61% of AIAN youth are at a healthy weight compared to 73% of NHW and 68% of All Races combined.

Table 41. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	20.9	23.2	14.9	19.6
	Obese (%)	19.4	14.5	14.9	17.0
Male	Overweight (%)	20.3	17.9	18.3	21.0
	Obese (%)	14.5	15.4	23.3	20.3
Total	Overweight (%)	20.6	20.4	16.4	20.3
	Obese (%)	16.9	15.0	18.1	18.6
Sample Size (n)		136	147	134	296

Even though national studies show obesity rates in California children are decreasing, the rates fluctuate in AIAN youth in San Luis Obispo County. Differences over time show that among AIAN youth in San Luis Obispo County, no one gender is consistently most likely to be obese/overweight.

SAN MATEO COUNTY

AIAN are only 0.31% of the 5th, 7th and 9th grade population in San Mateo County but are 0.43% of the youth which are obese (see Figure 83). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest obesity rates and 9th graders the lowest rates of obesity.

Figure 83. AIAN Percent of Population and Obesity, 2010-2012

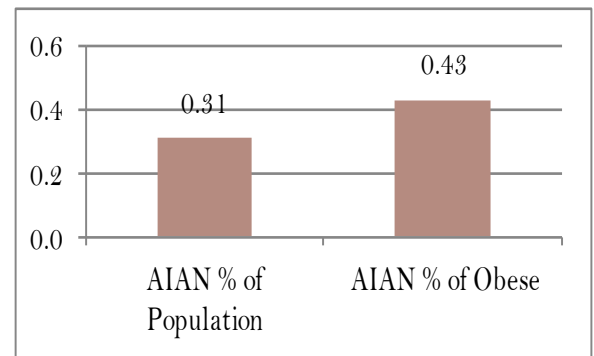
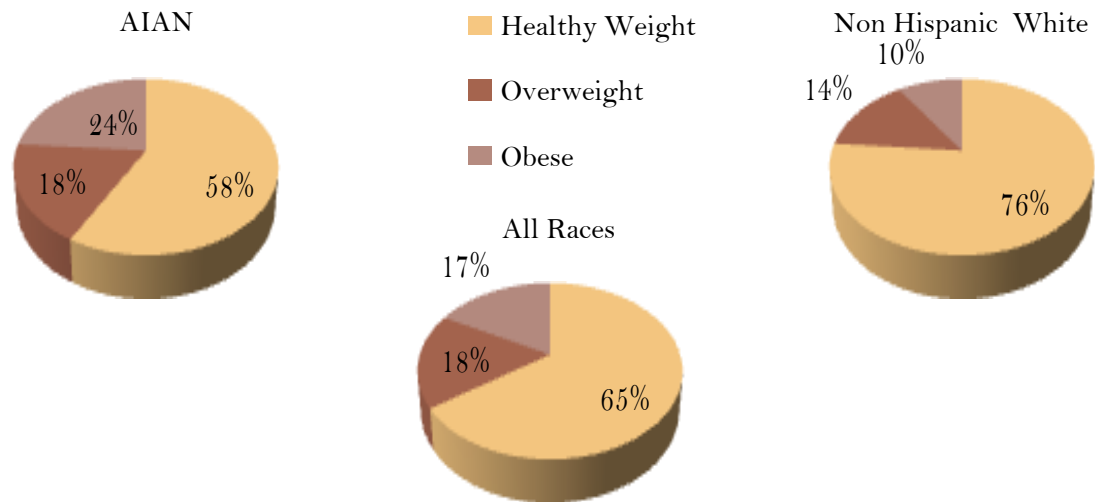


Figure 84. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 42% compared to 24% respectively.

Table 42. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	22.1	16.8	22.3	23.5
	Obese (%)	17.3	17.4	10.7	16.2
Male	Overweight (%)	20.5	20.0	18.1	14.0
	Obese (%)	33.0	14.4	12.9	30.1
Total	Overweight (%)	21.4	18.3	20.1	18.0
	Obese (%)	24.5	15.9	11.9	24.2
Sample Size (n)		192	327	219	161

Differences over time show that among AIAN youth in San Mateo County, no one gender is consistently more likely to be obese/overweight. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in San Mateo County.

SANTA BARBARA COUNTY

AIAN are 0.72% of the 5th, 7th and 9th grade population in Santa Barbara County but account for 0.94% of the youth which are obese (see Figure 85). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggests a decrease in obesity rates as children age for AIAN males, NHWs and All Races combined, with 9th graders having the lowest obesity rates.

Figure 85. AIAN Percent of Population and Obesity, 2010-2012

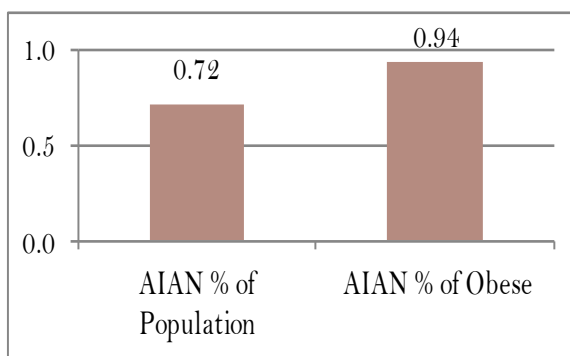
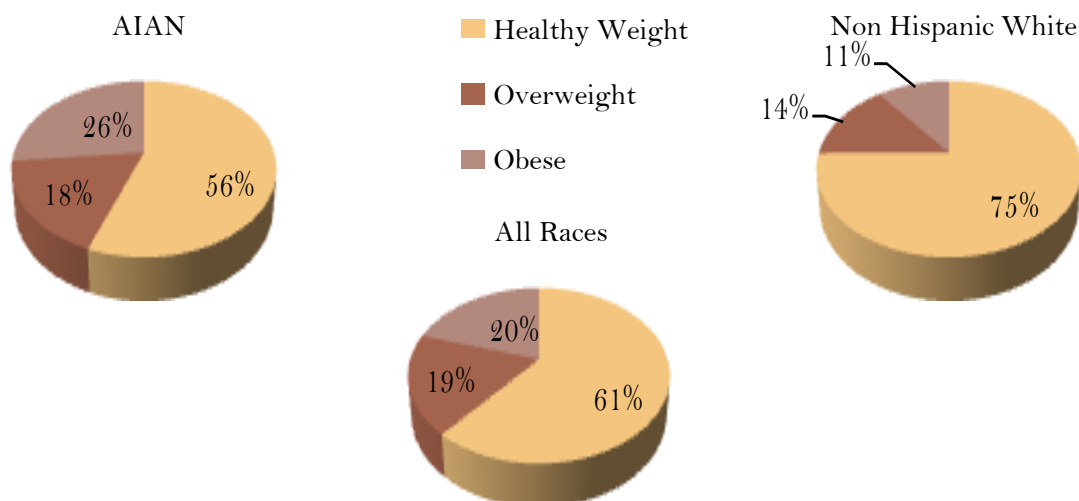


Figure 86. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 56% of AIAN youth are at a healthy weight compared to 75% of NHW and 61% of All Races combined.

Table 43. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	14.8	20.2	19.4	18.0
	Obese (%)	16.9	20.2	18.3	23.7
Male	Overweight (%)	16.9	21.3	14.1	17.4
	Obese (%)	17.5	21.8	27.8	29.2
Total	Overweight (%)	15.8	20.8	16.6	17.7
	Obese (%)	17.2	21.1	23.4	26.5
Sample Size (n)		366	365	385	283

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Santa Barbara County. Differences over time show that AIAN males are consistently more likely to be obese/overweight than AIAN females in Santa Barbara County.

SANTA CLARA & SANTA CRUZ COUNTIES

AIAN are only 0.42% of the 5th, 7th and 9th grade population in Santa Clara and Santa Cruz Counties but are 0.52% of the youth which are obese (see Figure 87). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests that obesity rates decrease with age among AIANs, NHWs, and All Races Combined, with 9th graders having the lowest rates of obesity.

Figure 87. AIAN Percent of Population and Obesity, 2010-2012

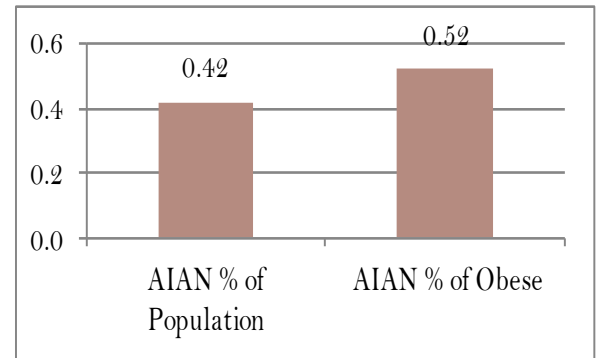
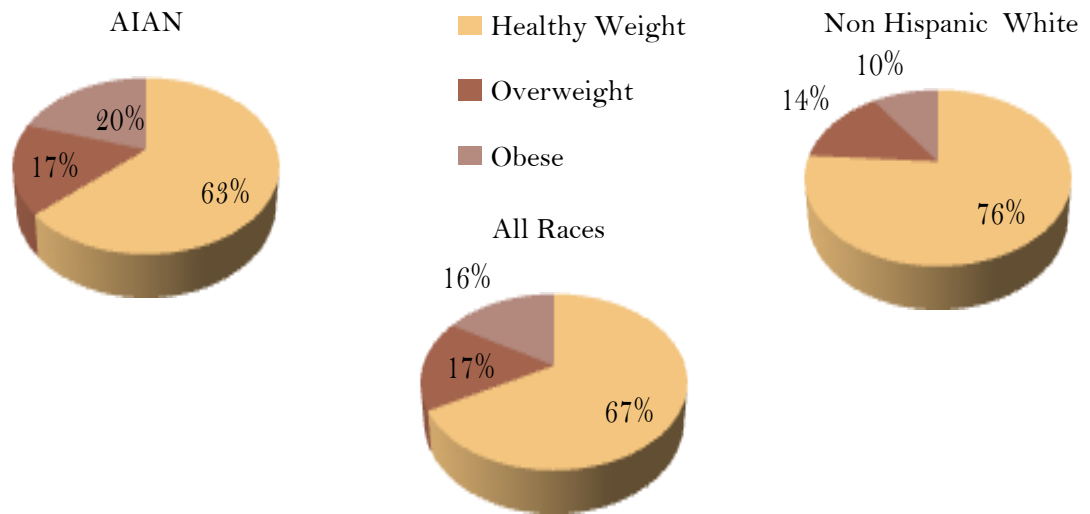


Figure 88. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 37% compared to 24% respectively.

Table 44. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

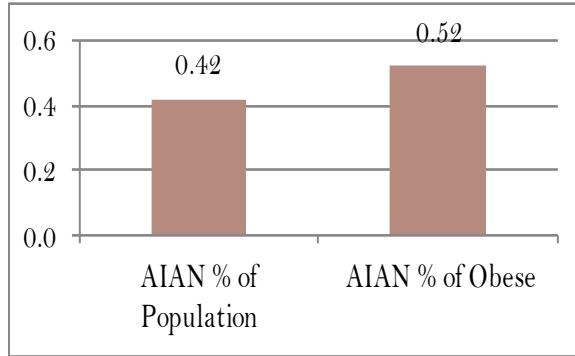
Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.8	16.4	17.4	18.7
	Obese (%)	8.8	19.8	23.8	18.7
Male	Overweight (%)	14.9	16.2	15.9	14.5
	Obese (%)	15.1	22.6	30.4	21.6
Total	Overweight (%)	14.4	16.3	16.7	16.5
	Obese (%)	12.1	21.1	26.9	20.2
Sample Size (n)		2,080	853	798	798

Differences over time show that AIAN male youth are frequently more likely to be overweight/obese than AIAN females in Santa Clara and Santa Cruz Counties. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Santa Clara and Santa Cruz Counties.

SANTA CRUZ & SANTA CLARA COUNTIES

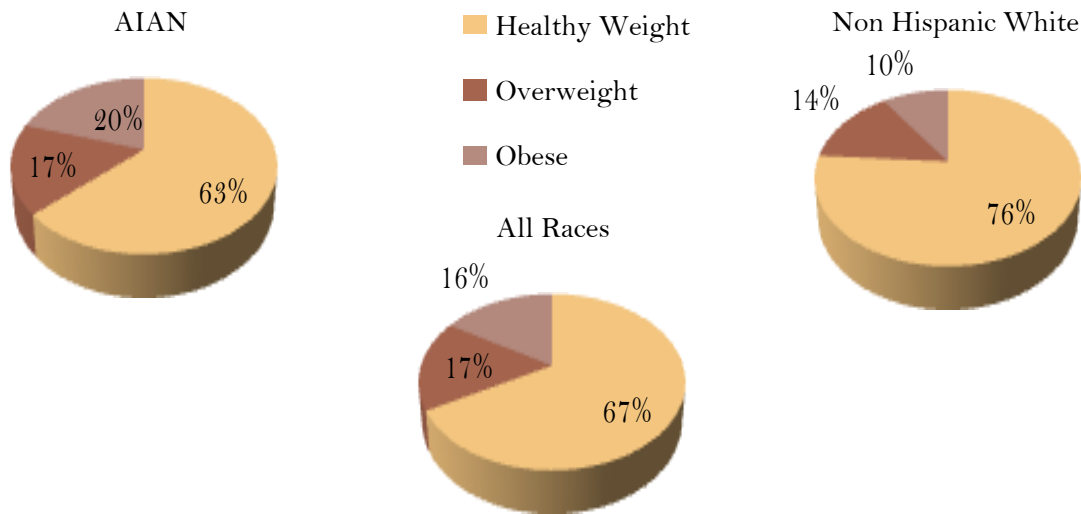
Figure 89. AIAN Percent of Population and Obesity, 2010-2012

AIAN are 0.42% of the 5th, 7th and 9th grade population in Santa Cruz and Santa Clara Counties but account for 0.52% of the youth which are obese (see Figure 89). This means that AIAN youth have a slightly higher burden of obesity than other races.



Data from 2010-2012 suggests that obesity rates decrease with age among AIANs, NHWs, and All Races Combined, with 9th graders having the lowest rates of obesity.

Figure 90. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 63% of AIAN youth are at a healthy weight compared to 76% of NHW and 67% of All Races Combined.

Table 45. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	13.8	16.4	17.4	18.7
	Obese (%)	8.8	19.8	23.8	18.7
Male	Overweight (%)	14.9	16.2	15.9	14.5
	Obese (%)	15.1	22.6	30.4	21.6
Total	Overweight (%)	14.4	16.3	16.7	16.5
	Obese (%)	12.1	21.1	26.9	20.2
Sample Size (n)		2,080	853	798	798

Differences over time show that AIAN male youth are frequently more likely to be overweight/obese than AIAN females in Santa Cruz and Santa Clara Counties. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Santa Cruz and Santa Clara Counties.

SHASTA COUNTY

AIAN are only 5.63% of the 5th, 7th and 9th grade population in Shasta County but are 8.31% of the youth which are obese (see Figure 91). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 9th graders having the lowest rates.

Figure 91. AIAN Percent of Population and Obesity, 2010-2012

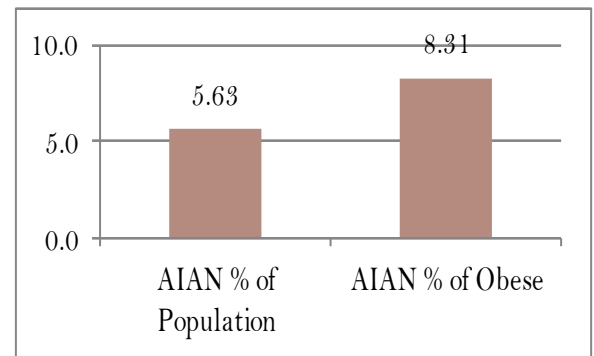
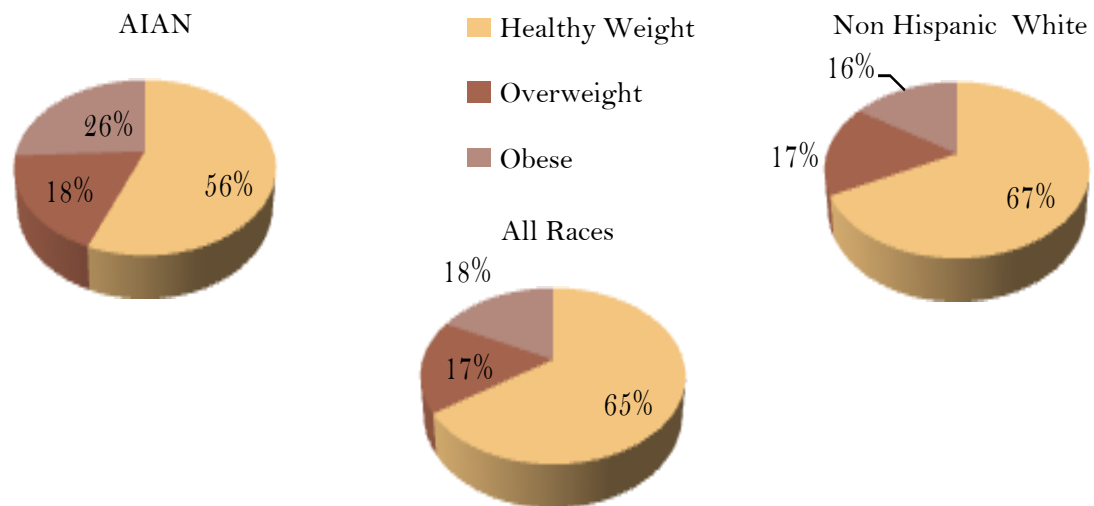


Figure 92. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 36% compared to 24% respectively.

Table 46. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.5	20.1	19.3	19.7
	Obese (%)	18.7	24.5	24.4	25.2
Male	Overweight (%)	20.4	23.4	16.3	16.7
	Obese (%)	26.3	27.4	29.2	26.7
Total	Overweight (%)	18.9	21.8	17.7	18.2
	Obese (%)	22.4	25.9	27.0	26.0
Sample Size (n)		635	740	831	963

Differences over time show that AIAN male youth are frequently more likely to be obese than AIAN females in Shasta County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Shasta County.

SIERRA, NEVADA & PLUMAS COUNTIES

AIAN are 2.25% of the 5th, 7th and 9th grade population in Sierra, Nevada, and Plumas Counties but account for 3.80% of the youth which are obese (see Figure 93). This means that AIAN youth have a higher burden of obesity than other races.

Data from 2010-2012 suggest obesity rates decline with age for NHWs and All Races Combined with 9th graders having the lowest rates, while obesity rates increase with age for AIAN's with 9th graders having the highest rates.

Figure 93. AIAN Percent of Population and Obesity, 2010-2012

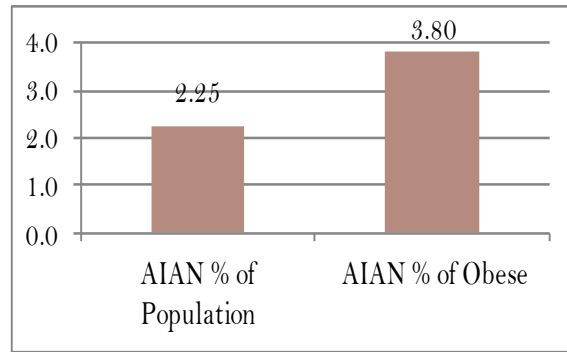
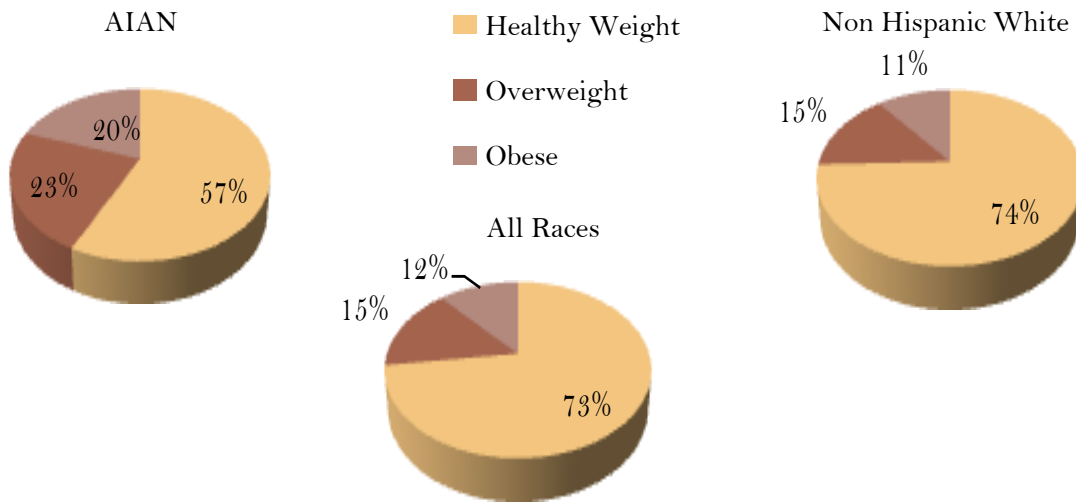


Figure 94. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 57% of AIAN youth are at a healthy weight compared to 74% of NHW and 73% of All Races combined.

Table 47. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	17.6	15.9	17.5	23.3
	Obese (%)	21.6	26.8	19.4	22.1
Male	Overweight (%)	15.2	15.5	18.5	22.6
	Obese (%)	28.8	29.8	15.4	17.9
Total	Overweight (%)	16.4	15.7	18.0	22.9
	Obese (%)	25.0	28.3	17.2	19.8
Sample Size (n)		140	166	233	192

Differences over time show that from 2001-2006, males were consistently more likely to be overweight/obese in Sierra, Nevada, and Plumas Counties, but from 2007-2012, AIAN females were more consistently likely to be overweight/obese. Although obesity rates are declining in children in California, the obesity rates fluctuate among AIAN youth in these counties.

SISKIYOU COUNTY

AIAN are only 5.21% of the 5th, 7th and 9th grade population in Siskiyou County but are 7.47% of the youth which are obese (see Figure 95). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 5th graders having the highest obesity rates and 9th graders having lower rates of obesity.

Figure 95. AIAN Percent of Population and Obesity, 2010-2012

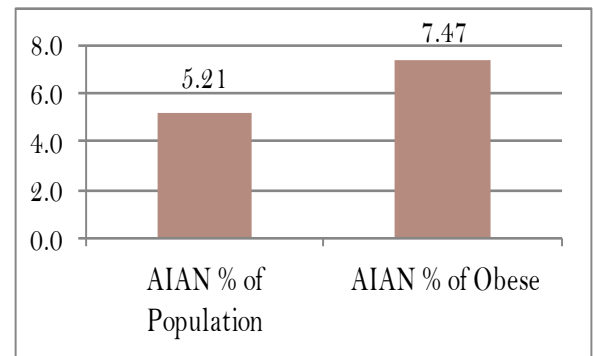
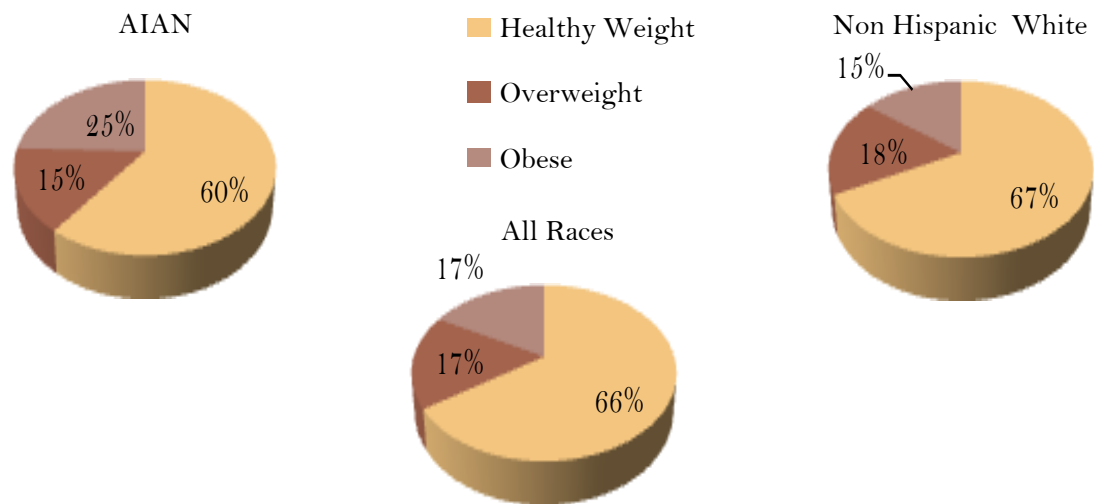


Figure 96. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 40% compared to 33% respectively.

Table 48. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	24.3	13.7	42.7	15.1
	Obese (%)	25.2	24.2	17.7	28.0
Male	Overweight (%)	26.4	14.6	40.0	15.7
	Obese (%)	19.4	22.3	21.7	20.5
Total	Overweight (%)	25.4	14.1	41.2	15.3
	Obese (%)	22.0	23.2	19.9	24.4
Sample Size (n)		232	198	216	176

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Siskiyou County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Siskiyou County.

SOLANO COUNTY

AIAN are 1.08% of the 5th, 7th and 9th grade population in Solano County but account for 1.10% of the youth which are obese (see Figure 97). This means that AIAN youth have a slightly higher burden of obesity than other races.

In Solano County, data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decreases with age with 5th graders having the highest obesity rates, and 9th graders having lower rates of obesity.

Figure 97. AIAN Percent of Population and Obesity, 2010-2012

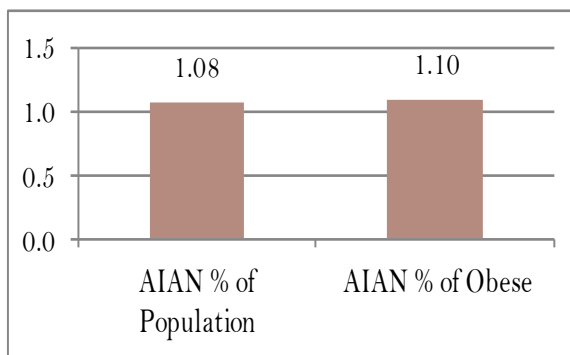
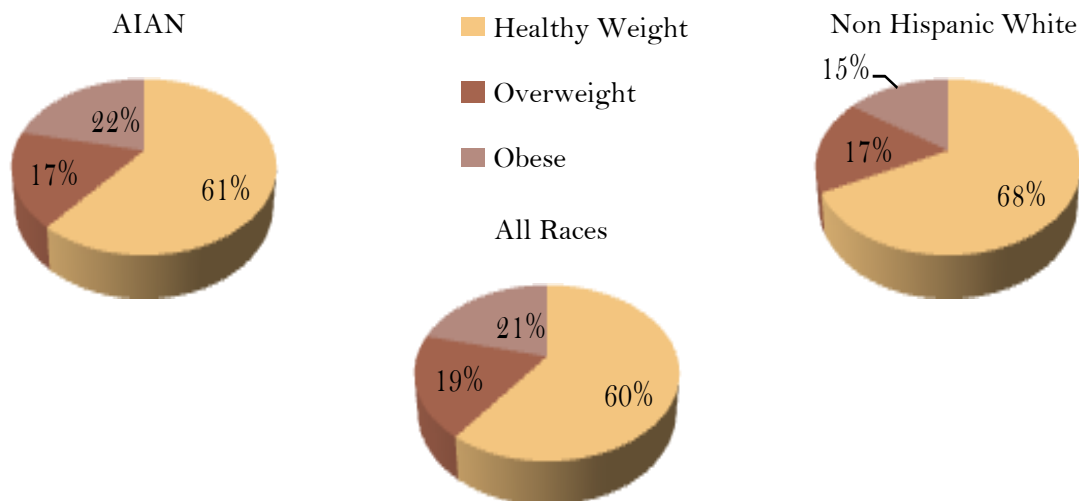


Figure 98. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 61% of AIAN youth are at a healthy weight compared to 68% of NHW. However, AIAN are likely to be slightly less overweight/obese than All Races combines, as 60% of All Races combined youth are at a healthy weight.

Table 49. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	21.4	21.2	38.3	15.4
	Obese (%)	22.3	24.4	18.6	24.4
Male	Overweight (%)	16.6	20.9	37.7	19.8
	Obese (%)	19.3	19.8	21.9	18.3
Total	Overweight (%)	19.0	21.1	38.0	17.5
	Obese (%)	20.8	22.3	20.1	21.5
Sample Size (n)		1,466	399	334	423

Even though national studies show obesity rates in California children are decreasing, the rates fluctuate in AIAN youth in Solano County. Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN male youth in Solano County.

SONOMA & MARIN COUNTIES

AIAN are only 1.06% of the 5th, 7th and 9th grade population in Sonoma and Marin Counties but are 1.61% of the youth which are obese (see Figure 99). This means that AIAN youth have a slightly higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races Combined decrease with age, with 9th graders having the lowest obesity rates.

Figure 99. AIAN Percent of Population and Obesity, 2010-2012

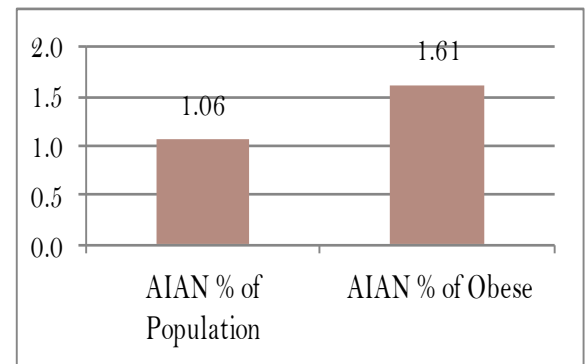
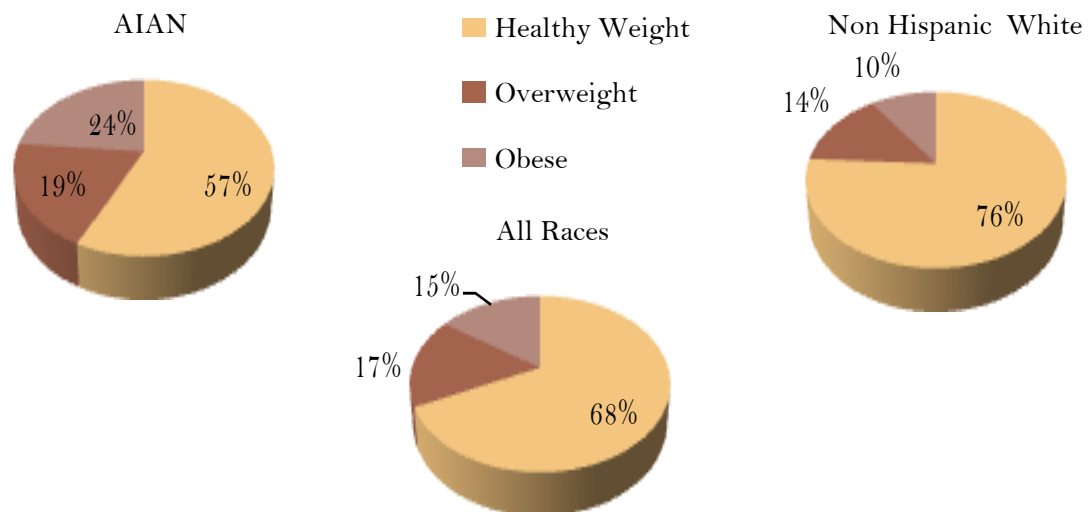


Figure 100. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 43% compared to 24% respectively.

Table 50. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	16.3	23.9	44.1	20.9
	Obese (%)	17.4	19.9	28.5	19.5
Male	Overweight (%)	13.2	18.2	42.9	18.0
	Obese (%)	23.1	27.7	25.4	27.1
Total	Overweight (%)	14.7	21.0	43.5	19.3
	Obese (%)	20.3	23.9	26.9	23.6
Sample Size (n)		531	624	694	641

Differences over time show that no one gender is more likely to be overweight/obese than another gender in Sonoma and Marin Counties. The obesity rates in California are declining, in Sonoma and Marin Counties, the rates plateau in 2007-2009 and declined in 2010-2012.

STANISLAUS COUNTY

AIAN are 0.85% of the 5th, 7th and 9th grade population in Stanislaus County but account for 0.95% of the youth which are obese (see Figure 101). This means that AIAN youth have a higher burden of obesity than other races.

In Stanislaus County, data from 2010-2012 suggests obesity rates may decrease slightly with age for AIANs, NHW's, and All Races combined, as 9th graders have lower obesity rates than 5th graders.

Figure 101. AIAN Percent of Population and Obesity, 2010-2012

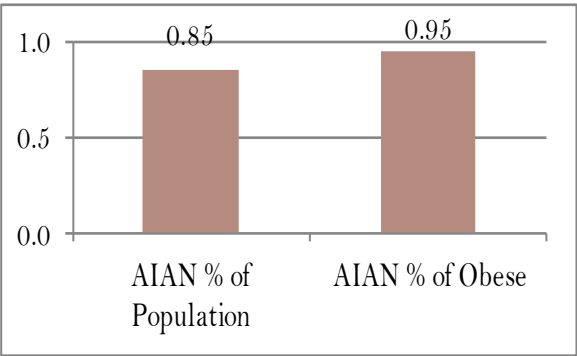
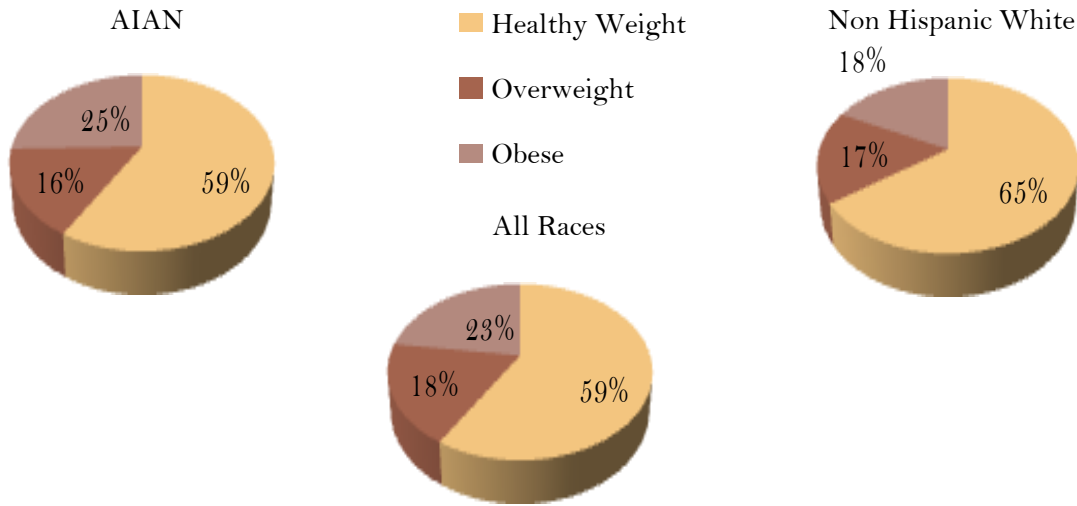


Figure 102. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 59% of AIAN youth are at a healthy weight compared to 65% of NHW. When compared to All Races combined, AIAN youth are just as likely to be overweight/obese, as both groups are at a healthy weight of 59%.

Table 51. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	18.3	15.7	45.2	18.4
	Obese (%)	18.3	23.2	23.3	23.1
Male	Overweight (%)	19.2	20.9	44.8	13.6
	Obese (%)	21.4	23.1	27.9	27.9
Total	Overweight (%)	18.7	18.3	45.0	16.1
	Obese (%)	19.7	23.1	25.7	25.4
Sample Size (n)		599	657	674	579

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Stanislaus County. Differences over time show that male AIAN youth are consistently more likely to be overweight/obese than female AIAN youth in Stanislaus County.

SUTTER COUNTY

AIAN are only 0.82% of the 5th, 7th and 9th grade population in Sutter County but are 1.16% of the youth which are obese (see Figure 103). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for NHWs and All Races combined fluctuate by grade, and gender. The AIAN youth population is too small to determine variations in obesity by grade.

Figure 103. AIAN Percent of Population and Obesity, 2010-2012

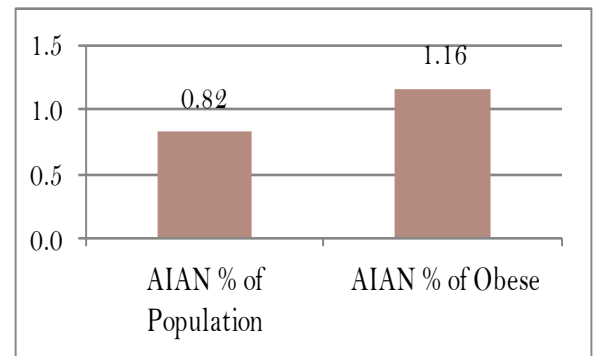
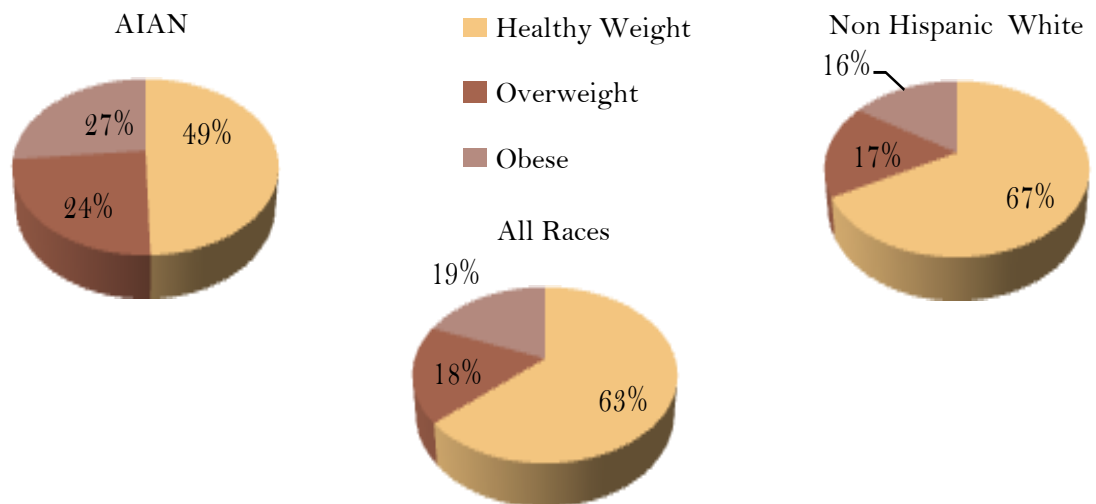


Figure 104. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 51% compared to 33% respectively.

Table 52. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	26.4	13.6	45.2	34.1
	Obese (%)	*	25.9	23.8	26.8
Male	Overweight (%)	18.6	14.5	39.1	17.6
	Obese (%)	27.1	19.3	19.5	26.5
Total	Overweight (%)	22.3	14.0	42.1	23.9
	Obese (%)	20.5	22.6	21.6	26.6
Sample Size (n)		112	164	171	109

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Sutter County. Although national studies show obesity rates in California children are decreasing overtime, they are rising in Sutter County.

Note: Percentage not reported when n is less than 10

TEHAMA & TRINITY COUNTIES

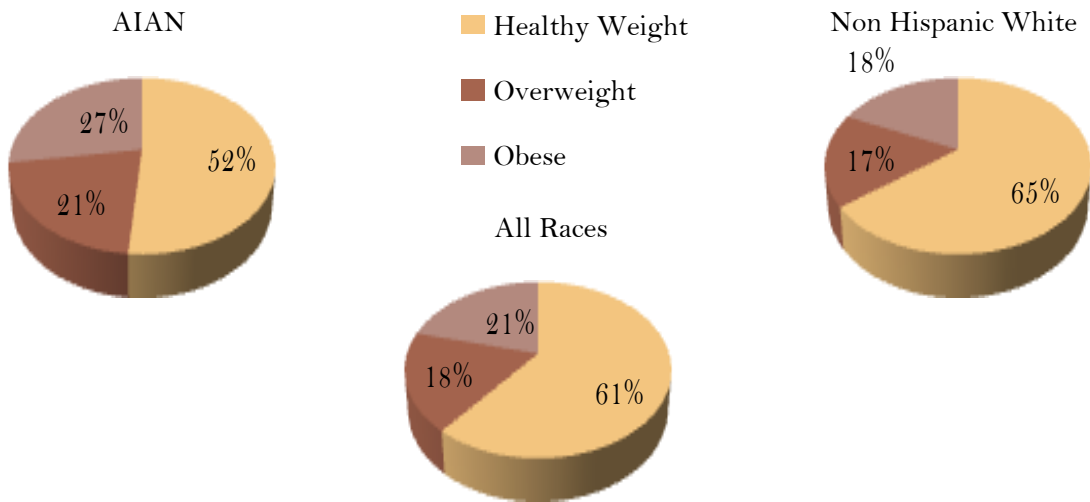
AIAN are 4.50% of the 5th, 7th and 9th grade population in Tehama and Trinity Counties, but account for 5.86% of the youth which are obese (see Figure 105). This means that AIAN youth have a higher burden of obesity than other races.

These data suggest that obesity rates for NHWs, and All Races combined decrease with age, while for AIANs, obesity rates increase with age, with 9th graders have the second highest obesity rate, and 5th graders have the lowest rate.

Figure 105. AIAN Percent of Population and Obesity, 2010-2012



Figure 106. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 52% of AIAN youth are at a healthy weight compared to 65% of NHW and 61% of All Races combined.

Table 53. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	*	30.9	52.8	26.2
	Obese (%)	30.8	22.1	29.9	25.5
Male	Overweight (%)	*	23.0	51.8	17.2
	Obese (%)	20.0	28.7	27.3	28.9
Total	Overweight (%)	14.9	26.5	52.3	21.2
	Obese (%)	24.5	25.8	28.7	20.9
Sample Size (n)		94	155	237	325

Even though national studies show obesity rates in California children are decreasing, the rates fluctuate in AIAN youth in Tehama and Trinity Counties. Differences over time show that female AIAN youth are consistently more likely to be overweight/obese than male AIAN youth in Tehama and Trinity Counties.

TRINITY & TEHAMA COUNTIES

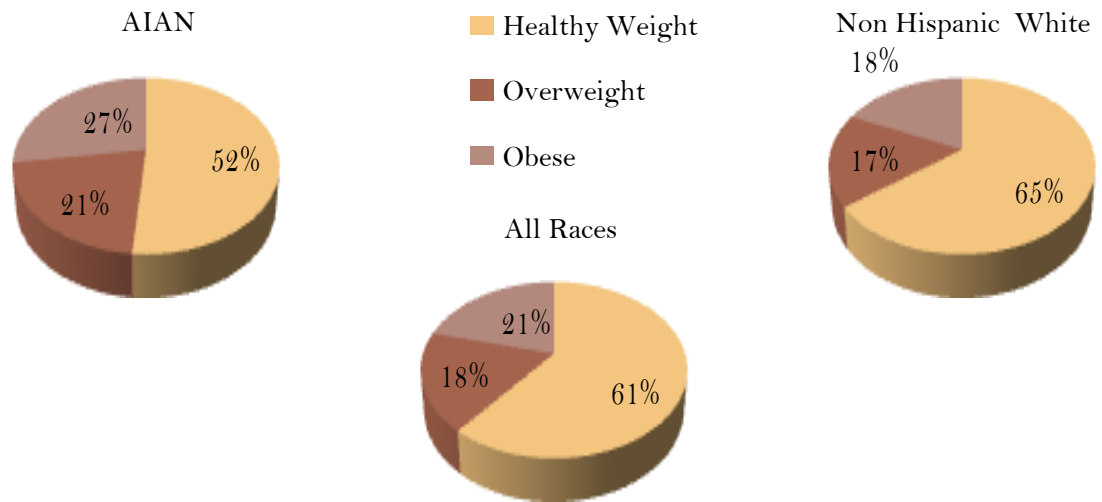
AIAN are only 4.50% of the 5th, 7th and 9th grade population in Trinity and Tehama Counties, but are 5.86% of the youth which are obese (see Figure 107). This means that AIAN youth have a higher burden of obesity in this population.

These data suggest that obesity rates for NHWs, and All Races combined decrease with age, while for AIANs, obesity rates increase with age, with 9th graders have the second highest obesity rate, and 5th graders have the lowest rate.

Figure 107. AIAN Percent of Population and Obesity, 2010-2012



Figure 108. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 48% compared to 35% respectively.

Table 54. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	*	30.9	52.8	26.2
	Obese (%)	30.8	22.1	29.9	25.5
Male	Overweight (%)	*	23.0	51.8	17.2
	Obese (%)	20.0	28.7	27.3	28.9
Total	Overweight (%)	14.9	26.5	52.3	21.2
	Obese (%)	24.5	25.8	28.7	20.9
Sample Size (n)		94	155	237	325

Even though national studies show obesity rates in California children are decreasing, the rates fluctuate in AIAN youth in Trinity and Tehama Counties. Differences over time show that female AIAN youth are consistently more likely to be overweight/obese than male AIAN youth in Trinity and Tehama Counties.

Note: Percentage not reported when n is less than 10

TULARE COUNTY

AIAN are 1.29% of the 5th, 7th and 9th grade population in Tulare County but account for 1.62% of the youth which are obese (see Figure 109). This means that AIAN youth have a higher burden of obesity than other races.

In Tulare County, data from 2010-2012 suggests that obesity rates for AIANs, NHWs, and All Races combined decreases with age. Ninth graders have the lowest obesity rates.

Figure 109. AIAN Percent of Population and Obesity, 2010-2012

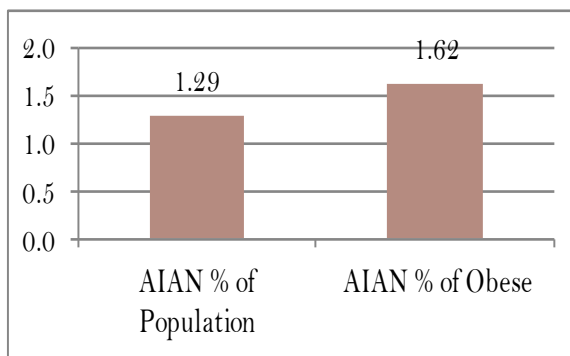
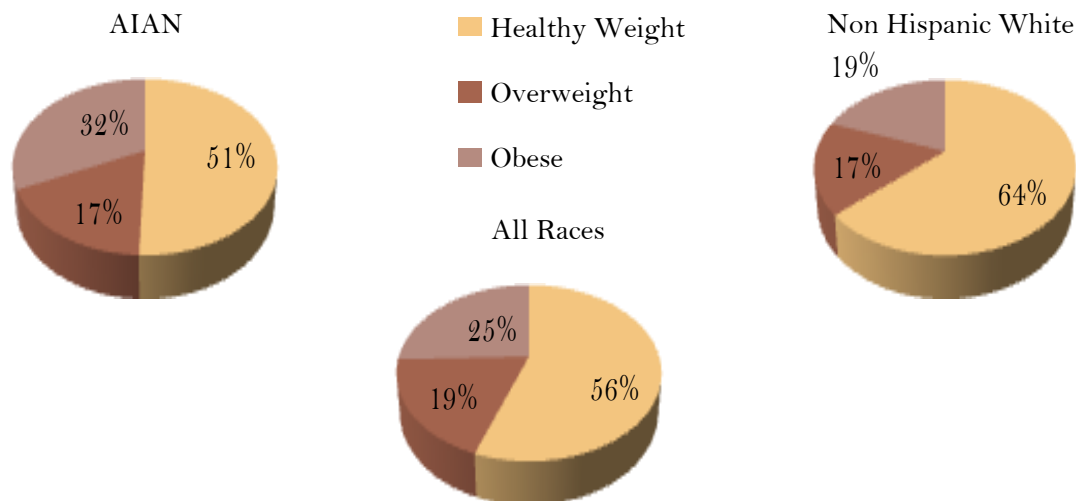


Figure 110. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 51% of AIAN youth are a healthy weight compared to 64% of NHW and 56% of All Races combined.

Table 55. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	23.2	25.3	47.6	17.8
	Obese (%)	21.5	27.4	27.0	28.5
Male	Overweight (%)	15.2	20.4	48.8	14.0
	Obese (%)	22.7	24.2	31.4	35.5
Total	Overweight (%)	19.3	23.0	48.3	17.4
	Obese (%)	22.1	25.9	29.3	32.0
Sample Size (n)		579	553	744	800

Even though national studies show obesity rates in California children are decreasing, they are rising in AIAN youth in Tulare County. Differences over time show that from 2001-2006, female AIAN youth were more likely to be overweight/obese, but from 2006-2012, the trend switched to male AIAN youth more likely to be overweight/obese in Tulare County.

TUOLUMNE COUNTY

AIAN are only 3.10% of the 5th, 7th and 9th grade population in Tuolumne County but are 4.57% of the youth which are obese (see Figure 111). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races combined decrease slightly with age, with 9th graders having the lowest rates of obesity.

Figure 111. AIAN Percent of Population and Obesity, 2010-2012

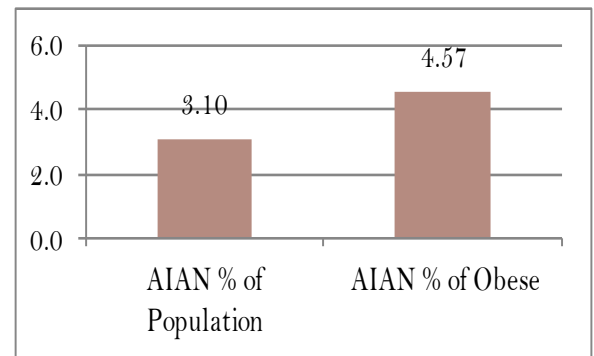
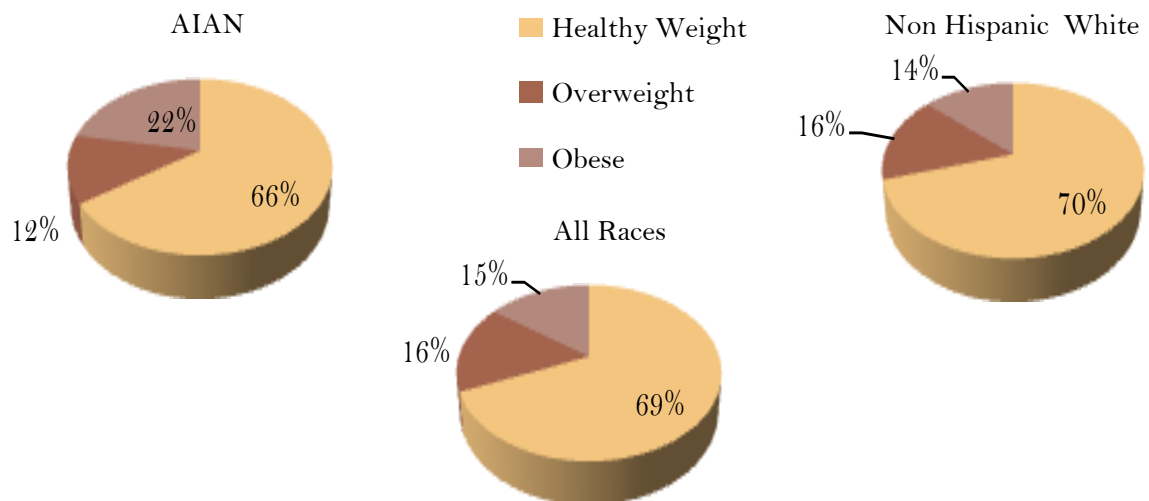


Figure 112. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 34% compared to 30% respectively.

Table 56. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	23.2	*	37.5	*
	Obese (%)	26.8	21.2	25.0	19.6
Male	Overweight (%)	25.6	20.7	27.6	*
	Obese (%)	*	15.2	22.4	24.6
Total	Overweight (%)	24.2	17.1	31.8	12.4
	Obese (%)	22.2	17.7	23.5	22.1
Sample Size (n)		99	158	170	113

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Tuolumne County. Although national studies show obesity rates in California children are decreasing overtime, the rates fluctuate in Tuolumne County.

Note: Percentage not reported when n is less than 10

VENTURA COUNTY

AIAN are 0.52% of the 5th, 7th and 9th grade population in Ventura County but account for 0.43% of the youth which are obese (see Figure 113). This means that AIAN youth have a slightly lesser burden of obesity than other races.

Data from 2010-2012 suggests obesity rates for AIAN males, NHWs, and All Races combined decreases with age, with 9th graders having the lowest obesity rates. Rates increase for AIAN females, with 9th graders having the highest rate of obesity.

Figure 113. AIAN Percent of Population and Obesity, 2010-2012

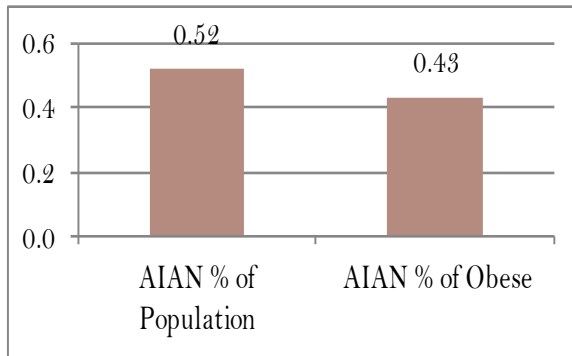
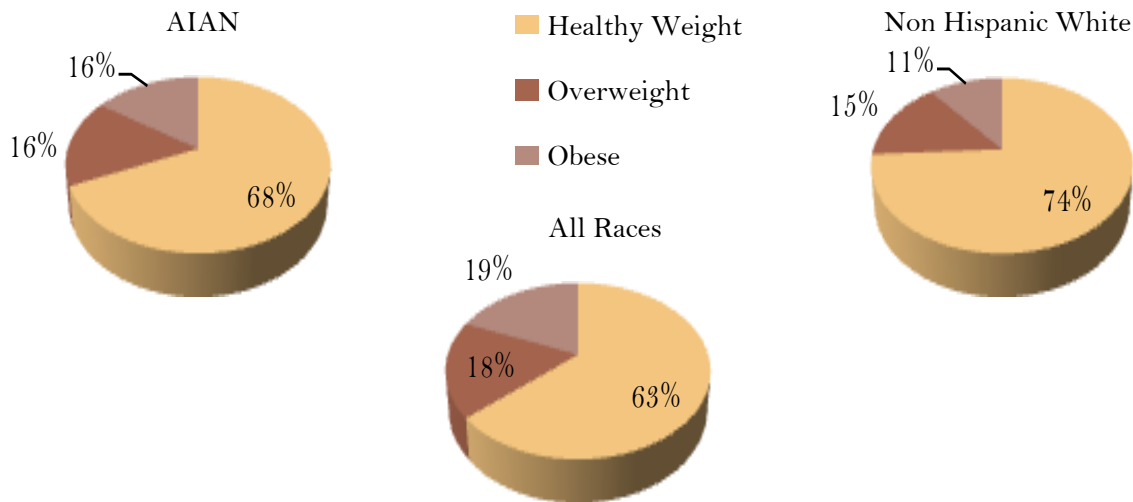


Figure 114. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, only 68% of AIAN youth are at a healthy weight compared to 74% of NHW. AIAN youth are less likely to be overweight/obese when compared to All Races combined, with 68% at a healthy weight compared to 63% for All Races combined.

Table 57. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	15.7	19.7	38.8	14.5
	Obese (%)	16.2	20.3	17.3	14.5
Male	Overweight (%)	17.1	15.6	36.8	17.7
	Obese (%)	24.0	25.0	21.9	16.5
Total	Overweight (%)	16.4	17.7	37.8	16.2
	Obese (%)	20.3	22.6	19.6	15.5
Sample Size (n)		809	1,042	547	476

National studies show obesity rates in California children are decreasing. After peaking in 2004-2006, obesity rates in Ventura County are following this pattern. Differences over time also show that AIAN male youth are consistently more likely to be overweight/obese than AIAN female youth in Ventura County.

YOLO COUNTY

AIAN are only 0.98% of the 5th, 7th and 9th grade population in Yolo County but are 1.36% of the youth which are obese (see Figure 115). This means that AIAN youth have a higher burden of obesity in this population.

Data from 2010-2012 suggests obesity rates for AIANs, NHWs and All Races varies by gender and age.

Figure 115. AIAN Percent of Population and Obesity, 2010-2012

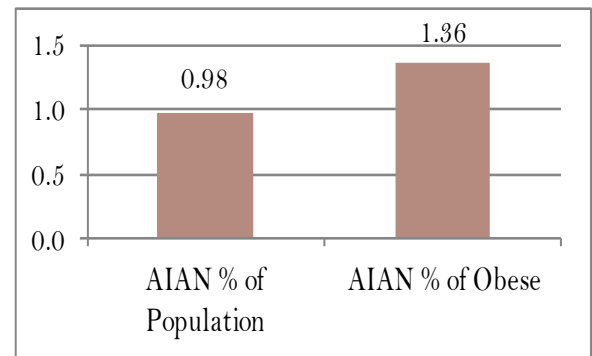
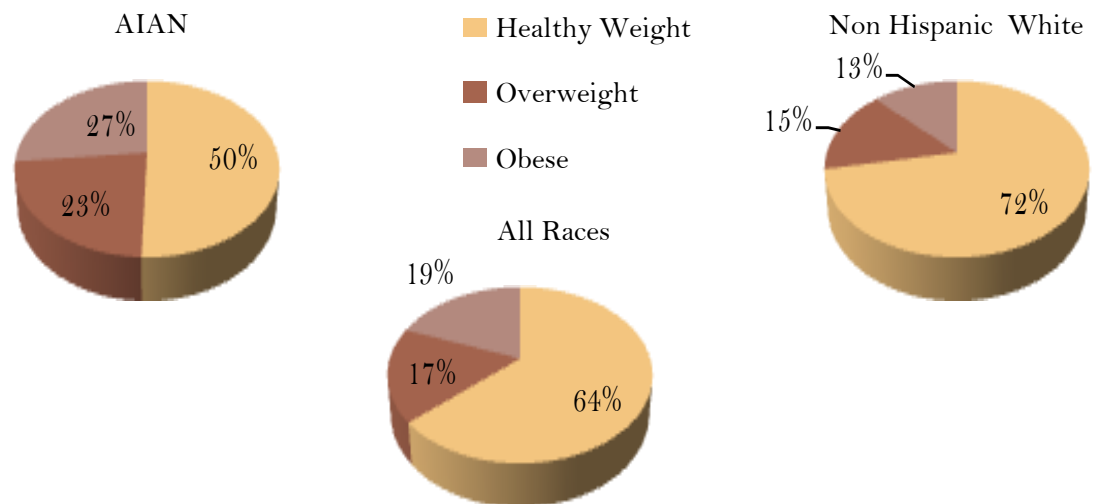


Figure 116. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are more likely to be overweight/obese than NHW youth, 50% compared to 28% respectively.

Table 58. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	15.7	22.6	43.7	22.4
	Obese (%)	28.1	28.4	26.2	28.6
Male	Overweight (%)	14.9	23.7	46.7	23.3
	Obese (%)	26.9	15.8	31.5	24.4
Total	Overweight (%)	15.4	22.9	45.1	22.8
	Obese (%)	27.6	22.3	28.7	26.6
Sample Size (n)		156	157	195	184

Differences over time show that AIAN female youth are frequently more likely to be overweight/obese than AIAN males in Yolo County. Although national studies show obesity rates in California children are decreasing overtime, rates fluctuate in Yolo County.

YUBA COUNTY

AIAN are 4% of the 5th, 7th and 9th grade population in Yuba County but account for 3.46% of the youth which are obese (see Figure 117). This means that AIAN youth have a lesser burden of obesity than other races.

In Yuba County, data from 2010-2012 suggests obesity rates for AIANs, NHWs, and All Races combined decrease with age. Ninth graders have lower obesity rates than 5th graders.

Figure 117. AIAN Percent of Population and Obesity, 2010-2012

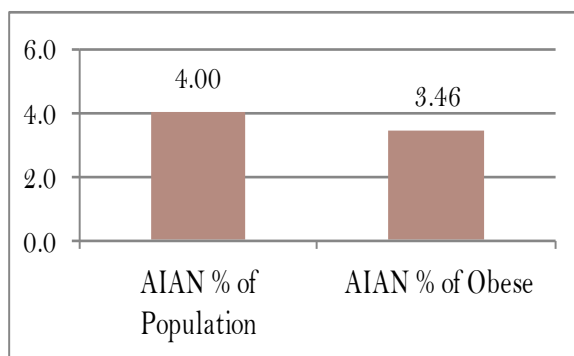
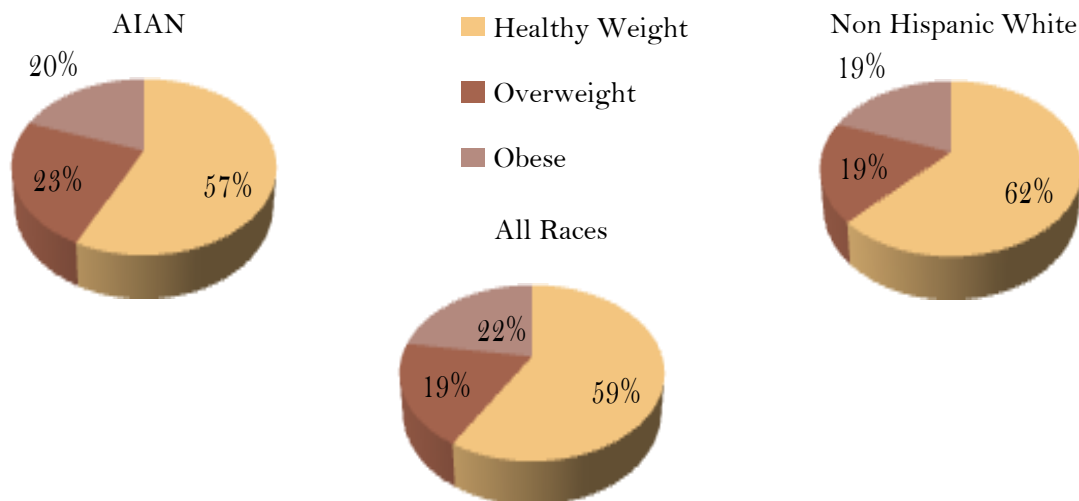


Figure 118. Weight Status for 5th, 7th and 9th Graders Combined by Race, 2010-2012



Current data shows that AIAN youth are less likely to be overweight/obese than NHW youth, only 57% of AIAN youth are at a healthy weight compared to 62% of NHW and 59% of All Races combined.

Table 59. Weight Trends in AIAN 5th, 7th and 9th Graders Combined by Gender

Gender		2001-2003	2004-2006	2007-2009	2010-2012
Female	Overweight (%)	22.0	22.2	37.5	28.8
	Obese (%)	20.2	24.8	17.6	17.6
Male	Overweight (%)	20.0	22.3	39.8	17.7
	Obese (%)	22.2	21.0	23.1	21.3
Total	Overweight (%)	21.0	22.2	38.7	23.4
	Obese (%)	21.2	22.9	20.4	19.5
Sample Size (n)		448	472	437	334

Even though national studies show obesity rates in California children are decreasing, after peaking in 2004-2006, the rates the AIAN rates in Yuba county are following this pattern. Differences over time show a fluctuation in rates when comparing which gender is more likely to be overweight/obese for AIAN youth.

RESULTS

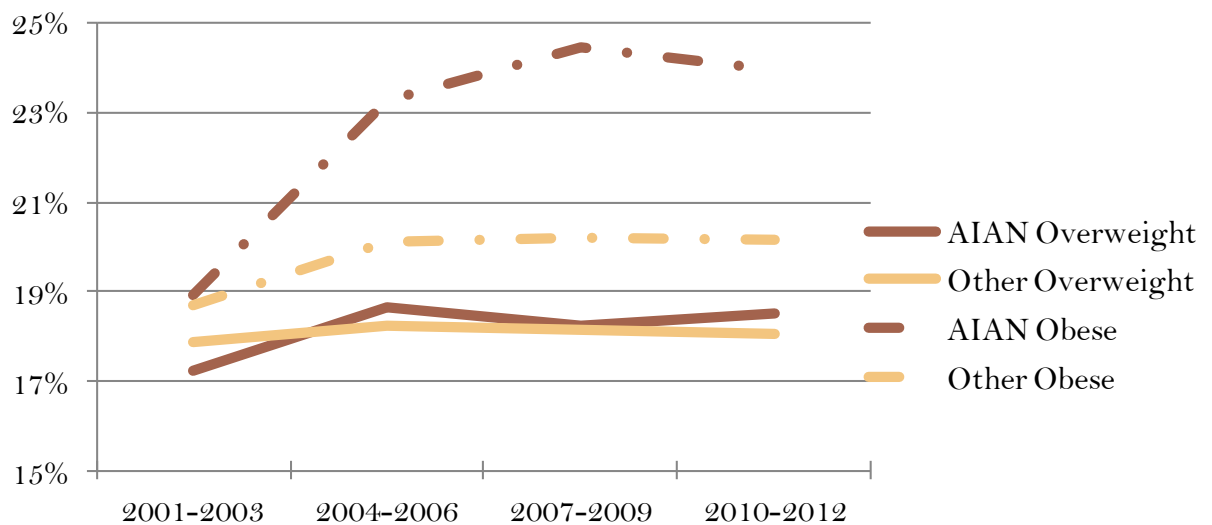
The California Department of Education's FITNESSGRAM Program collected data from 117 public and charter schools in all 58 counties in California from 2001-2012. The total number of American Indian and Alaska Native 5th, 7th, and 9th graders for each year were:

2001-2003: 39,291, 2004-2006: 30,320, 2007-2009: 29,398, and 2010-2012: 28,890. AIAN youth made up less than 1% of the population.

During the 2010-2012 testing cycle 40% of AIAN 5th, 7th, and 9th graders combined were considered overweight or obese in 44 counties; 9 of these counties had rates greater than 50%. 60% of AIAN 5th, 7th, and 9th graders had a healthy weight in only 14 out of the 58 counties. Furthermore, from 2010-2012 there was not a single county where AIAN have a higher rate of 5th, 7th, and 9th graders that were at a healthy weight compared to non Hispanic Whites.

The pattern of 5th, 7th, and 9th graders from 2001-2012 that fall in the overweight and obese category by race is shown in Graph 1. Obese AIAN 5th, 7th, and 9th graders have increased the greatest from approximately 19% in 2001-2003 to almost 25% in 2010-2009.

Graph 1. 5th, 7th, and 9th Graders Weight Status by Race 2001-2012

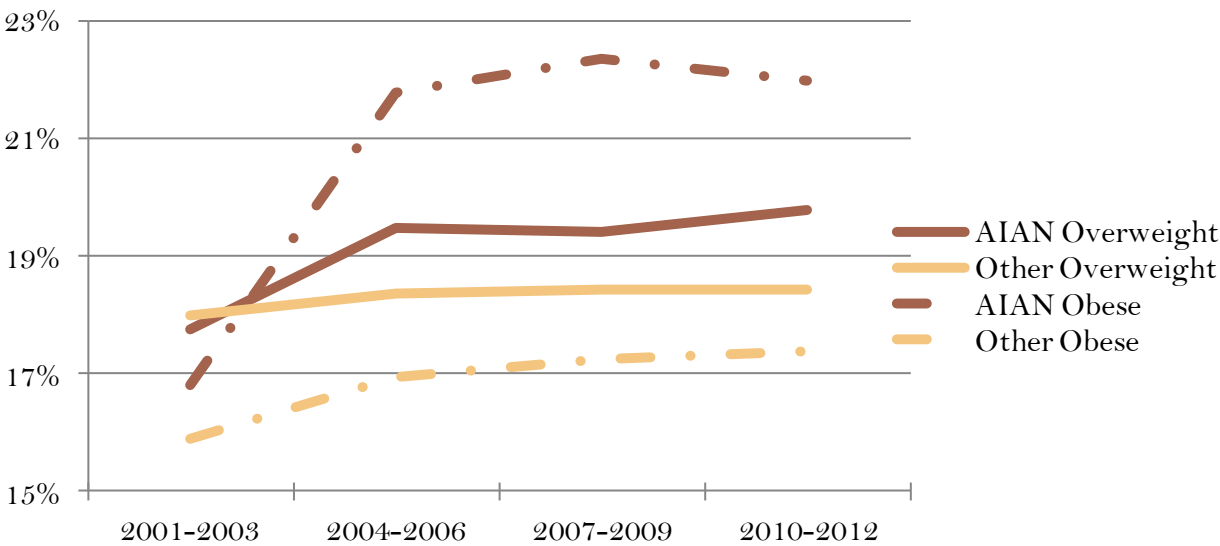


Graph 2 exhibits 5th, 7th, and 9th grade females. American Indian and Alaska Native females are more likely to be overweight and obese than other races. They had the greatest increase in obesity from 2001-2012 with rates increasing approximately 5% from 2001-2003 to 2004-2006.

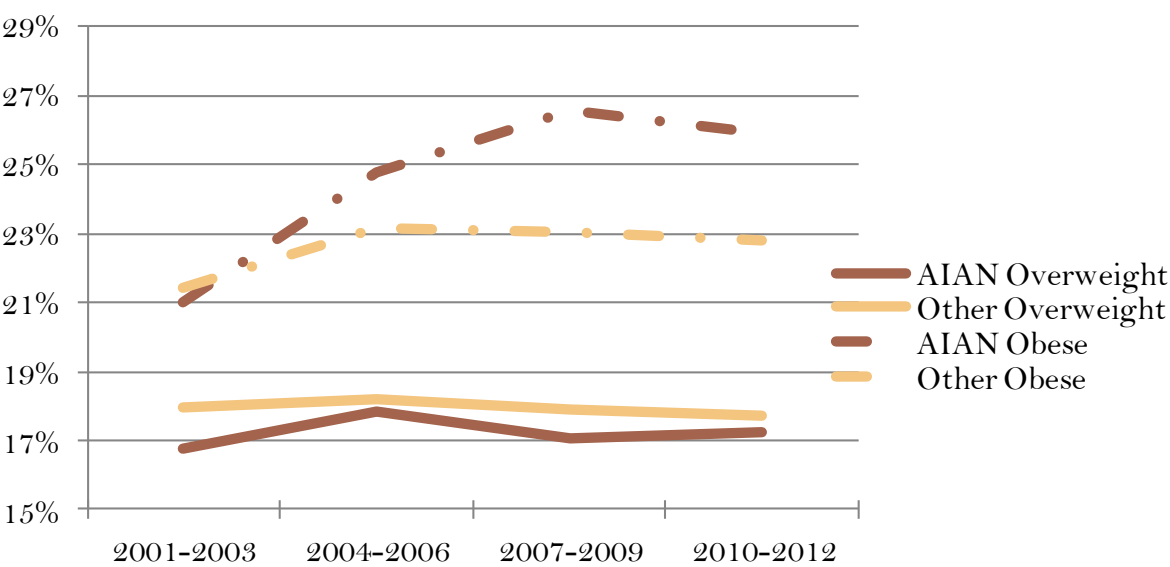
American Indian and Alaska Native males in 5th, 7th, and 9th grades have the highest rates of obesity, steadily increasing from approximately 21% in 2001-2003 to approximately 26% in 2010-2012 as shown in Graph 3.

RESULTS

Graph 2. Female 5th, 7th, and 9th Graders Weight Status by Race 2001-2012

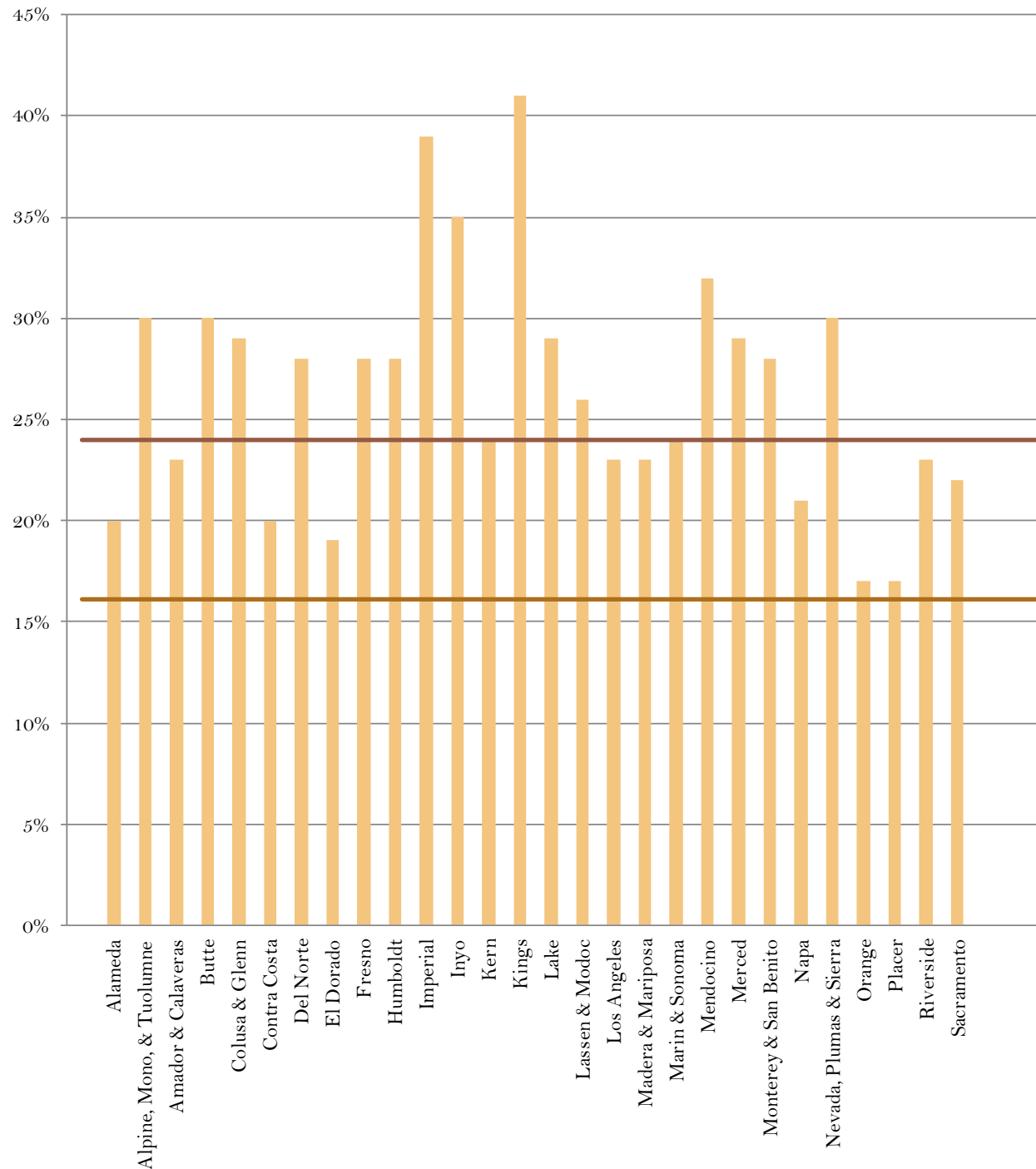


Graph 3. Male 5th, 7th, and 9th Graders Weight Status by Race 2001-2012



RESULTS

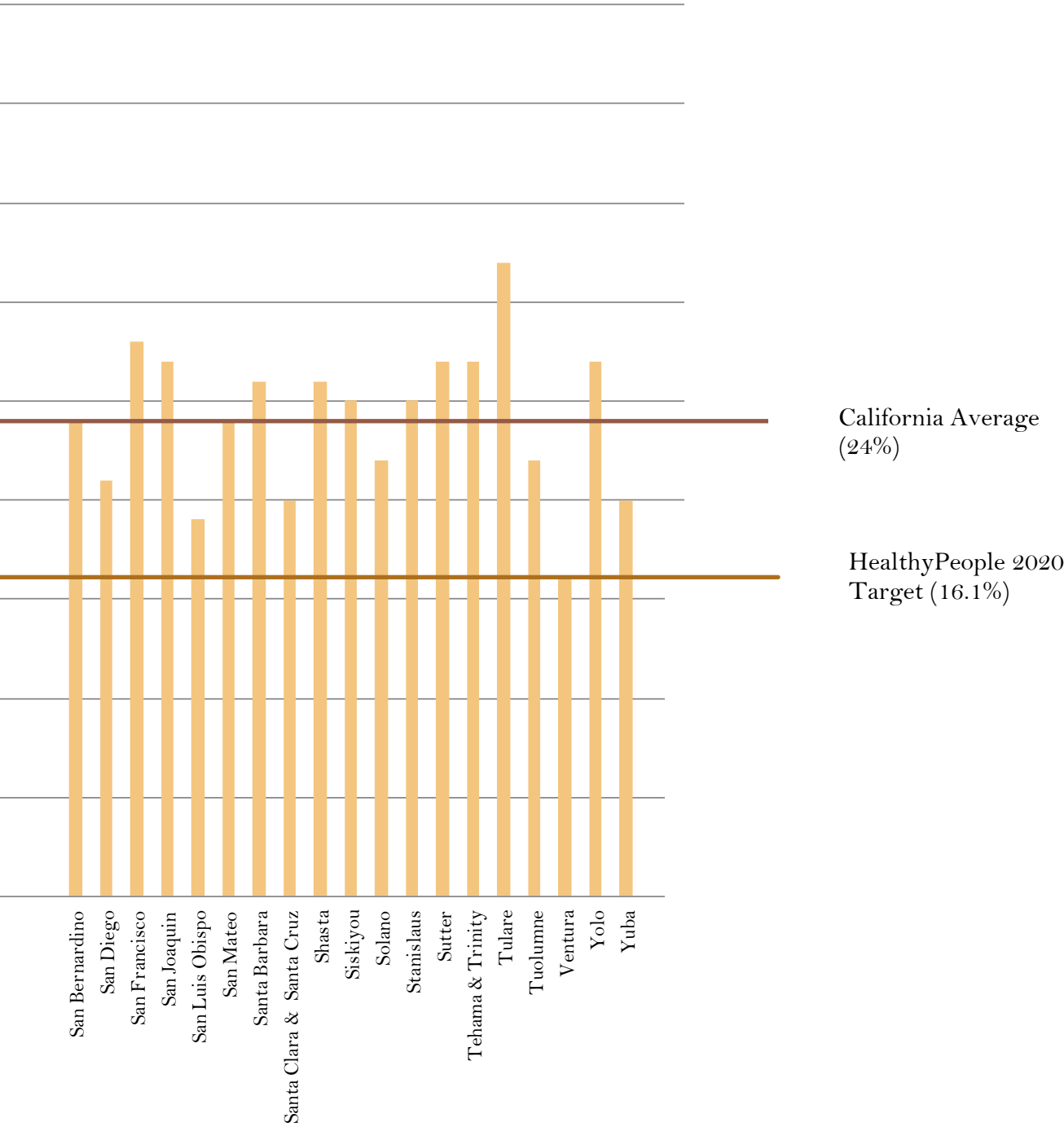
Graph 4. AIAN Percent Obese 5th, 7th, and 9th Graders by County, 2010-2012



The percent of obese AIAN 5th, 7th, and 9th graders in California from 2012-2012 is almost 7% higher than that of the Healthy People 2020 target of 16.1%. In 2010-2012 only one California county, Ventura County met the Healthy People 2020 target. Kings County has the highest % of Obese AIAN 5th, 7th, and 9th graders at 41%.

RESULTS

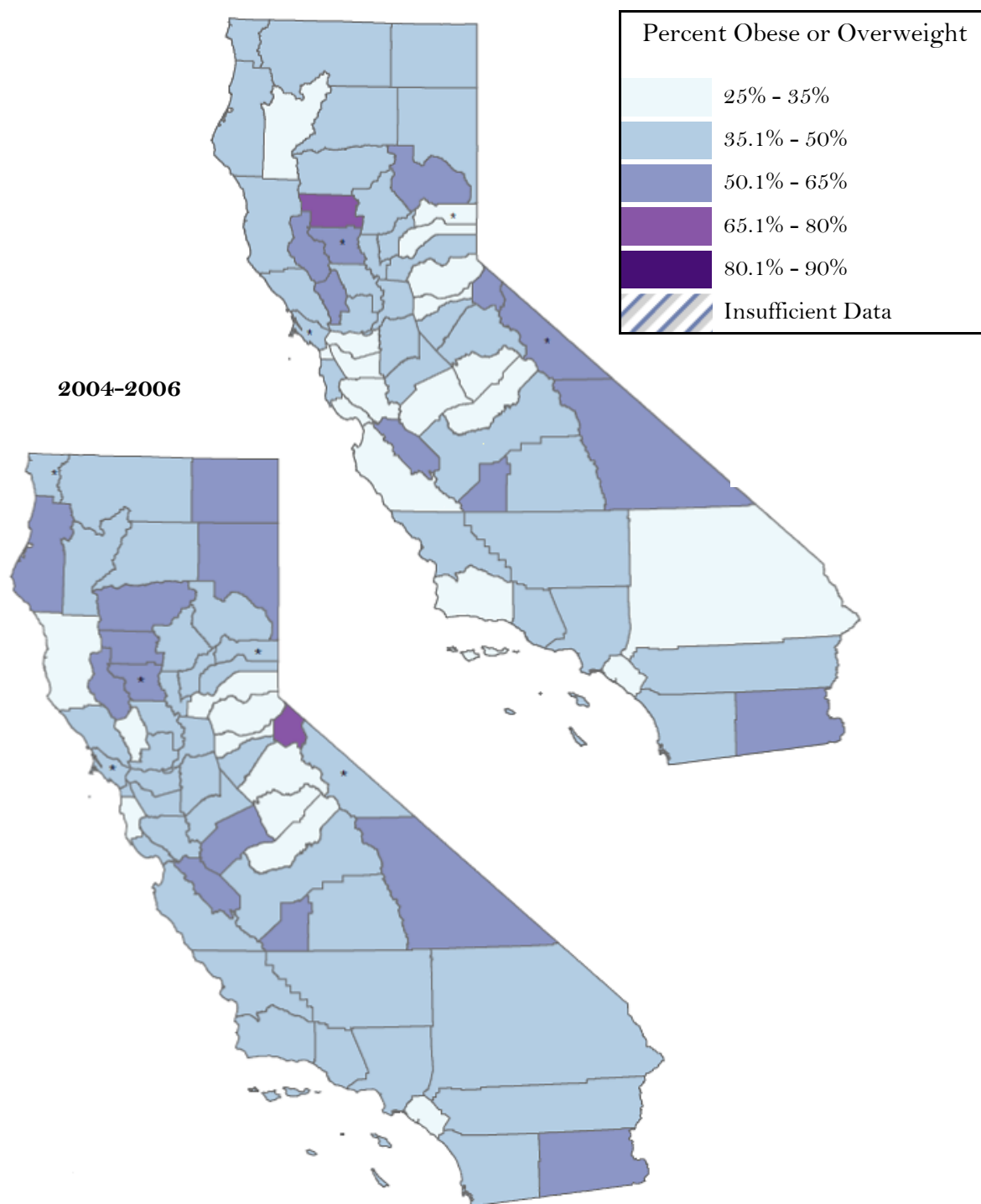
Graph 4. AIAN Percent Obese 5th, 7th, and 9th Graders by County, 2010-2012



RESULTS-Year

AIAN Percent Obese 5th, 7th, and 9th Graders by Year

2001-2003



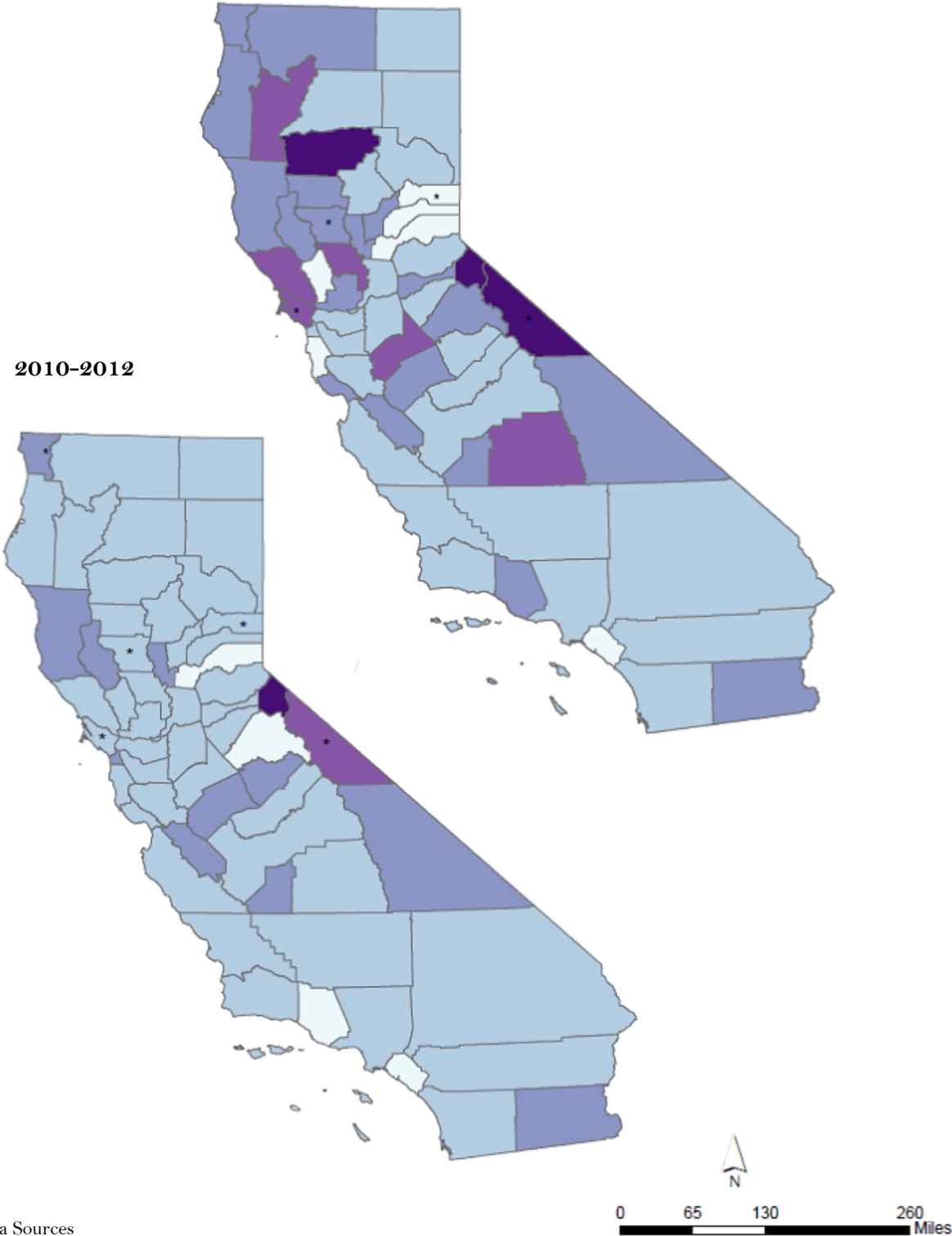
*The number of obese and overweight AIAN 5th, 7th, and 9th graders in the county was below 10. In order to achieve reportable numbers, data for these counties have been combined with one or more neighboring county. For a list of counties combined, please refer to page 5.

RESULTS

AIAN Percent Obese 5th, 7th, and 9th Graders by Year

2007-2009

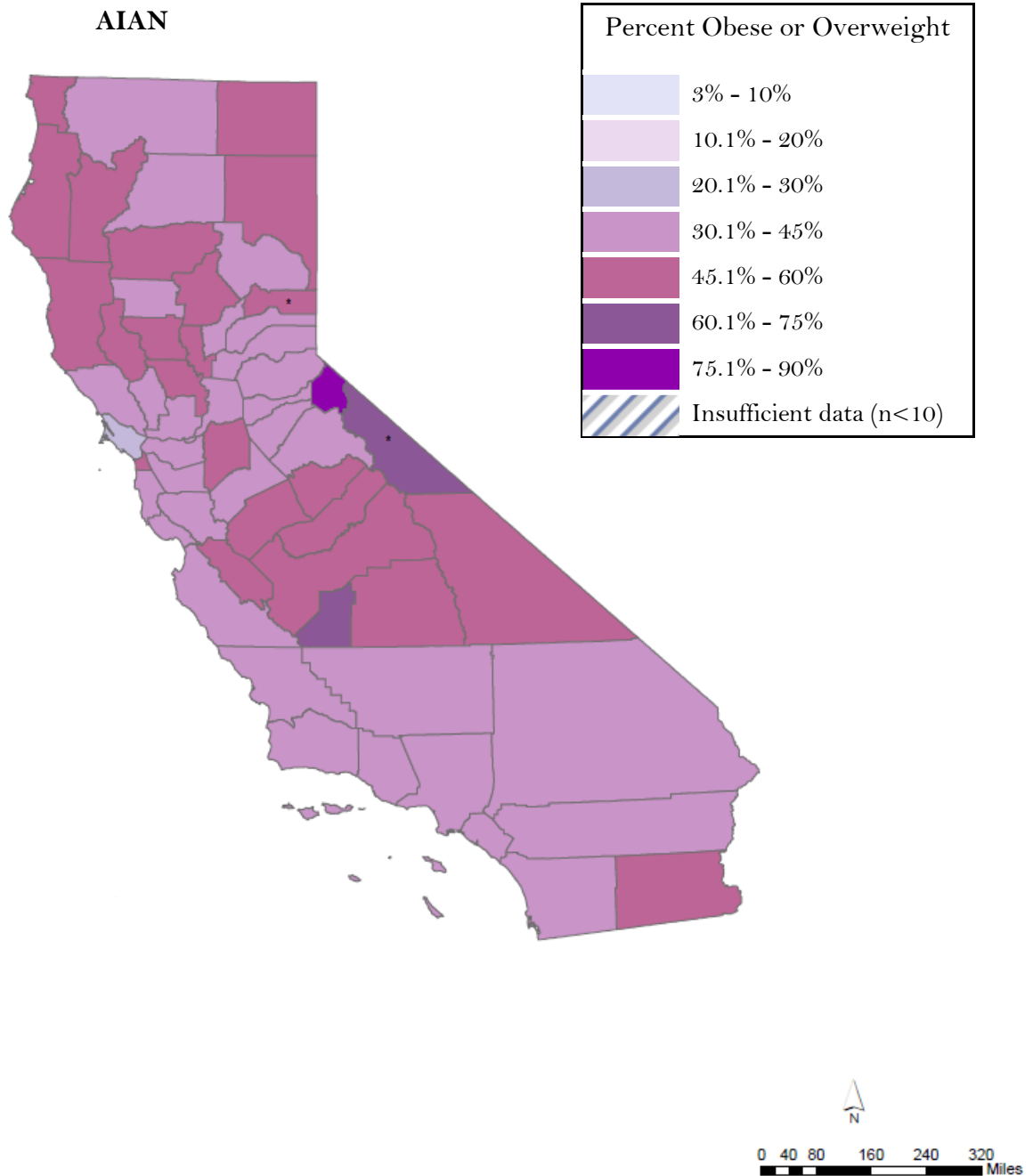
2010-2012



Data Sources
1. CA Department of Finance
2. FITNESSGRAM Physical Fitness Test (CA Dept. of Education)
Map Prepared by: Aley Joseph, CRIHB
Date 11/6/2014

RESULTS-Race

AIAN Percent Obese 5th, 7th, and 9th Graders by Gender, 2010-2012

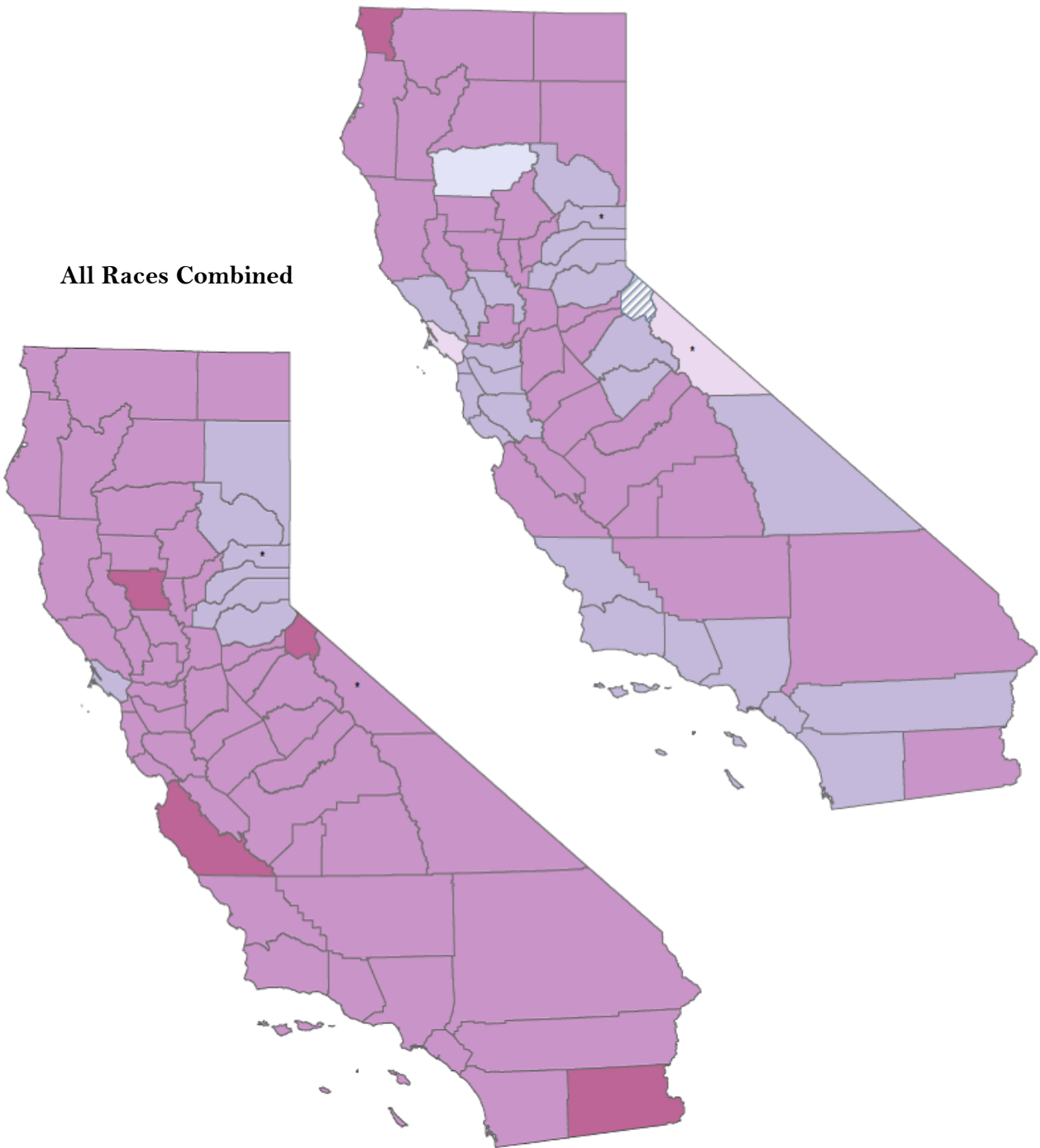


*The number of obese and overweight AIAN 5th, 7th, and 9th graders in the county was below 10. In order to achieve reportable numbers, data for these counties have been combined with one or more neighboring county. For a list of counties combined, please refer to page 5.

RESULTS

AIAN Percent Obese 5th, 7th, and 9th Graders by Gender, 2010-2012

Non Hispanic White

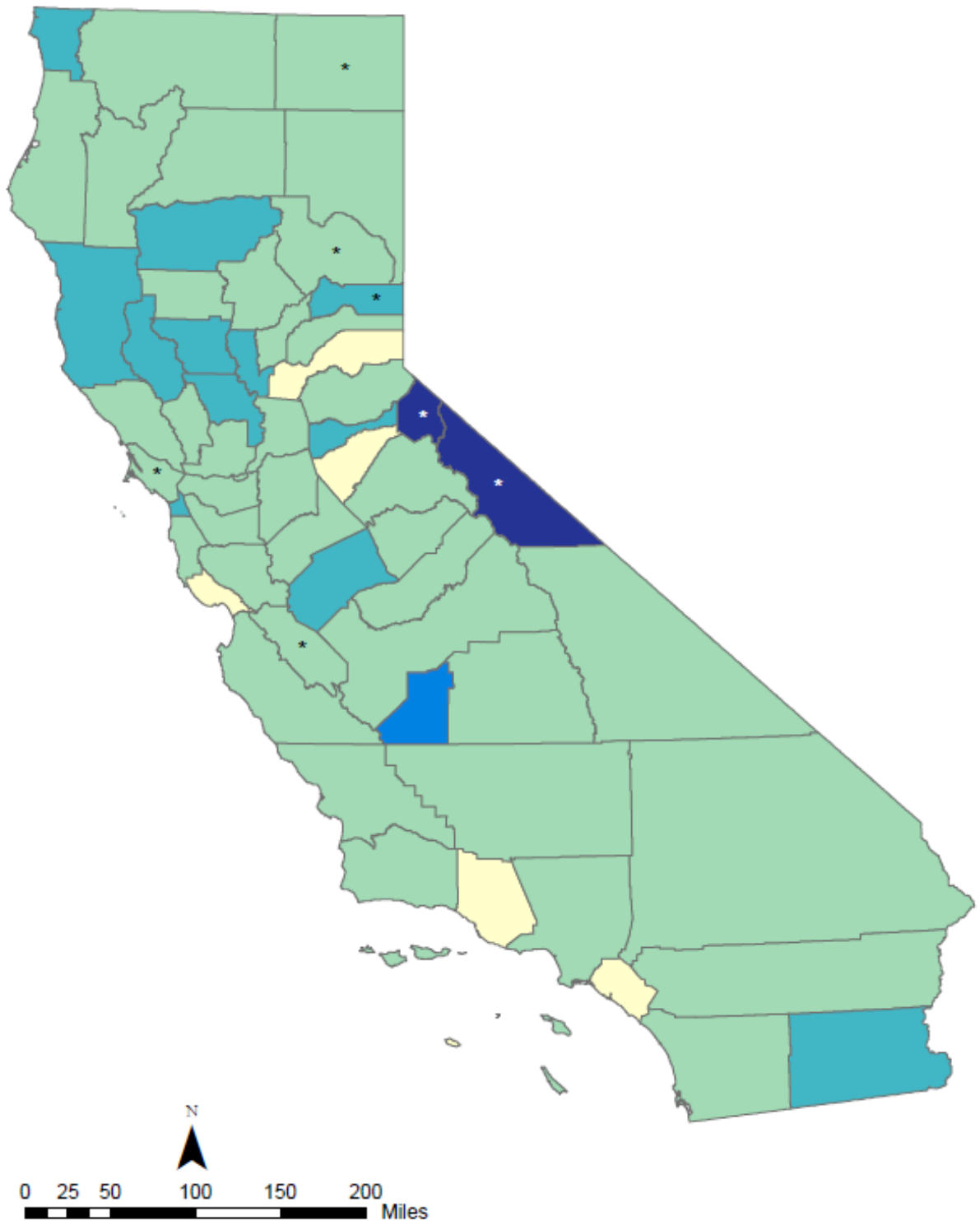


Data Sources
1. CA Department of Finance
2. FITNESSGRAM Physical Fitness Test (CA Dept. of Education)
Map Prepared by: Aley Joseph, CRIHB
Date 11/6/2014

RESULTS-Gender

AIAN Percent Obese 5th, 7th, and 9th Graders by Gender, 2010-2012

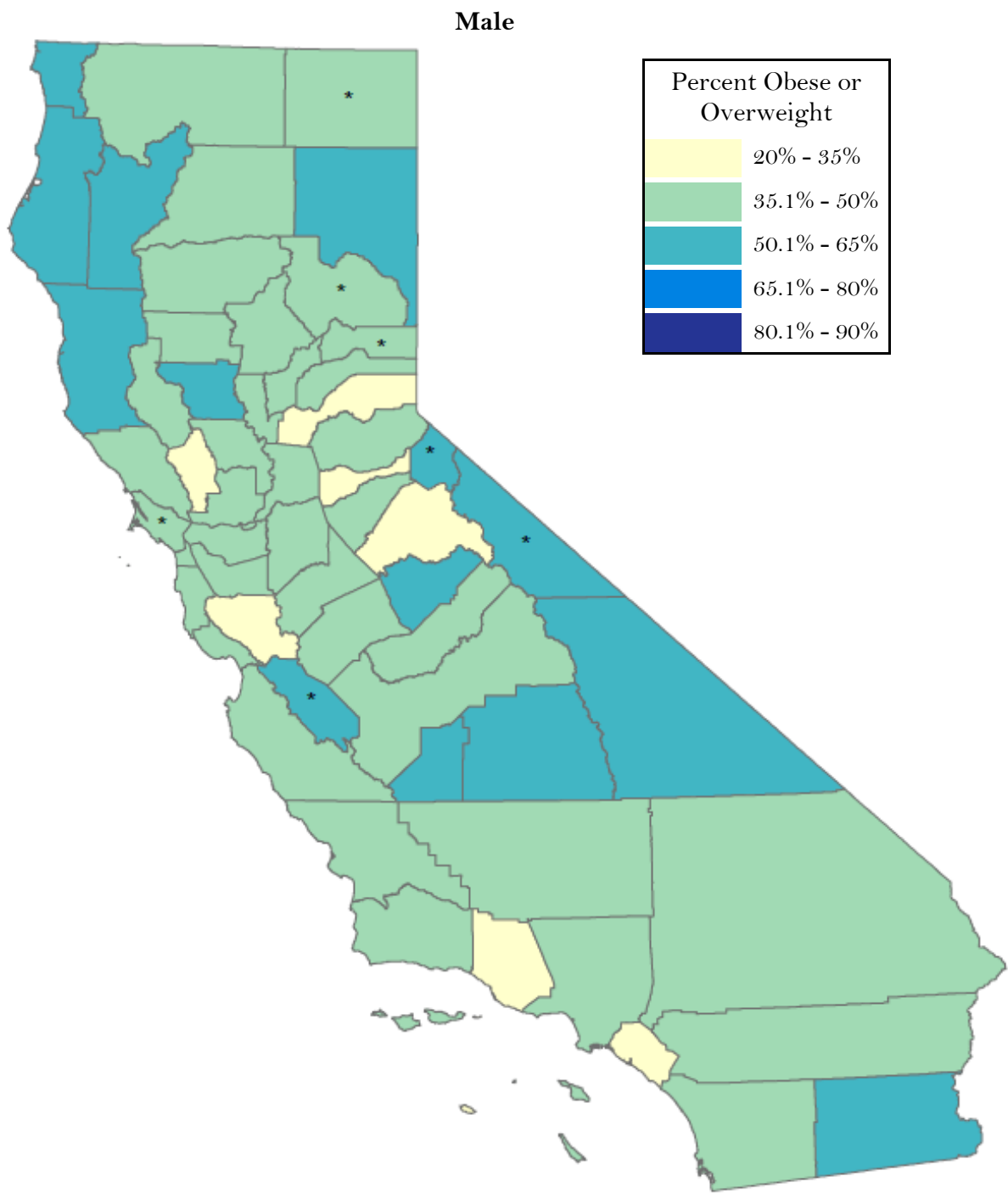
Female



*The number of obese and overweight AIAN 5th, 7th, and 9th graders in the county was below 10. In order to achieve reportable numbers, data for these counties have been combined with one or more neighboring county. For a list of counties combined, please refer to page 5.

RESULTS-Gender

AIAN Percent Obese 5th, 7th, and 9th Graders by Gender, 2010-2012



Data Sources

1. CA Department of Finance
 2. FITNESSGRAM Physical Fitness Test (CA Dept. of Education)
- Map Prepared by: Aley Joseph, CRIHB
Date 11/6/2014



DISCUSSION

With the advent of national initiatives to reduce healthcare costs, and more recently, the Affordable Care Act, the prevention of chronic diseases has become a national priority.⁴³ Topmost among the list of preventable chronic diseases are those related to Obesity and complications.^{44, 45} Specifically childhood obesity has been the focus of a lot of attention on state-wide and national level.^{46, 47} This report provides past and current data that helps outline the extent of the problem for American Indian/Alaska Native (AIAN) populations in California.

STRENGTHS

This report has several strengths. Due to the mandatory nature of the physical fitness tests that forms the basis of the data for this report, we are able to report population-based data that has been collected in a consistent format and that covers all public and charter schools over a wide geographic area across the state of California. In addition, by presenting data from 2001 through 2012, the reader is able to assess overall differences over time in the percentage of obesity and overweight. Differences across other variables such as gender, race, and grades can also be assessed. Further, since race data is self-reported and not based on proof of tribal enrollment, data is inclusive of a wider range of AIAN people.

LIMITATIONS

The report is not without its limitations. Primary among them is that estimates reported here are sample percentages and none of the differences among groups samples have been tested for statistically significant differences. Secondly, the method of documenting race during the collection of this data introduces some limitations. Although there are some benefits from self-reporting race, the potential to draw conclusions correlating reported health outcomes with factors associated with tribal services, residence and tribal resources is limited due to the fact that race is self-reported by the parent. In addition, when documenting their child's race, parents were given the option to choose only 1 race/ethnicity, leading to possible exclusion of data for those that identified with two or more races. Even though differences in obesity and overweight have been reported over time, these are aggregate differences; this dataset does not provide the opportunity to track individual students over time.

RECOMMENDATIONS

In spite of its limitations, this report has the potential to serve several purposes. Primarily, it serves as a useful resource to gain a preliminary understanding of baseline data regarding weight status of American Indian kids in grades 5-9 who attend public and charter schools in California. By reporting this data for variables such like gender, grades, years and races, it serves to provide a comparative framework that can be used by Tribes, Tribal Health Programs, other tribal organizations, community health workers and the other members of the American Indian community of California for a wide variety of uses such as programmatic planning, grant applications, or further data collection with relevant focused service areas.

In addition to comparisons across counties, useful insights might also be provided by comparison of the data in this report to The Healthy People 2020 (HP 2020) indicators related to 'Nutrition and Weight Status'. HP 2020 is widely recognized and established as a foundation for many federal prevention initiatives.⁴⁸ For adolescents aged 12 – 19 years, the HP 2020 age group that is approximated to most closely corresponds to the age group of this report's sample population), the HP 2020 goal is to **bring obesity rates down to 15.7% by the year 2020** (from the 2005-08 rate of 17.4%).⁴⁹ Comparing most recent rates of Obesity presented in this report to the HP 2020 target percentage serves as a useful benchmark to set future programmatic goals.

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