

### State of Wyoming Department of Health

# Racial and Ethnic Disparities in Wyoming: 2012 Report

Published by the Public Health Division Wendy E. Braund MD, MPH, MSEd, FACPM State Health Officer and Senior Administrator





### **State of Wyoming Department of Health**

# Racial and Ethnic Disparities in Wyoming: 2012 Report

Racial and Ethnic Disparities in Wyoming: 2012 Report is published by the Public Health Division

Wendy E. Braund, MD, MPH, MSEd, FACPM

State Health Officer and Senior Administrator

Additional information and copies may be obtained from:
Lillian Zuniga
Wyoming Office of Multicultural Health
6101 Yellowstone Road, Suite 510
Cheyenne, WY 82002
307-777-5601
Fax: 307-777-5402
Lillian.Zuniga@wyo.gov

This document is available in alternative format upon request.

This publication was supported by the State Partnership Grant Program to Improve Minority Health, #STTMP071036, which is 100% federal funding from the federal Office of Minority Health, U.S. Department of Health and Human Services.

### **Acknowledgements**

The Racial and Ethnic Disparities in Wyoming: 2012 Report is the result of work done by a dedicated group of individuals committed to improving health equity among the people of Wyoming. The Wyoming Office of Multicultural Health is appreciative of the efforts and valuable contributions of: Mary Chase and Angi Crotsenberg, Epidemiology Contractors; Elizabeth Ono Rahel/Mariko Design LLC, Graphic Design; Brittany Wardle and Lillian Zuniga, Wyoming Office of Multicultural Health; Ashley Busacker, PhD, Senior Epidemiology Advisor/CDC Assignee, Wyoming Department of Health; Joseph Grandpre, PhD, MPH, Chronic Disease Epidemiologist, Wyoming Department of Health; and members of the Wyoming Office of Multicultural Health Advisory Committee.

# Racial and Ethnic Disparities in Wyoming: 2012 Report

### **The Purpose**

This report is the first comprehensive examination of health disparities in Wyoming and includes more than 30 health and related social indicators. The report is intended to serve as a comprehensive resource for major health indicators by discussing important demographic and socioeconomic factors. The report provides guidance for strategic planning, policy development, systems change, and behavioral interventions aimed at eliminating health disparities in Wyoming. It also serves as a useful reference of health indicators for broad racial and ethnic population groups in Wyoming by providing supporting data for those health indicators and other significant factors that may be contributing to these identified health disparities. The report is designed to inform and guide each of us to support the elimination of health disparities and to improve connections with Wyoming's many diverse populations.

As a tool, this report can provide the following:

- monitor the state's progress toward eliminating the health status gap between racial and ethnic minorities and the White population
- ▶ provide recent data for use by communitybased organizations, tribal governments and communities, faith-based organizations, local health departments, state agencies, legislators, and local businesses that can steer efforts to provide services and outreach for specific groups and communities with health status gaps
- inform vital decision-makers regarding the potential for eliminating health disparities through policy reform and systems modifications

According to *America's Health Rankings*<sup>TM</sup>, Wyoming's overall health ranking in 2011 was 21st in the country.<sup>1</sup> The health status ranking of Wyoming is affected by the health status of minorities and other underserved

population groups. Data in this report are presented by race and ethnicity to describe health status gaps. While race and ethnicity do not cause a health condition or health status, factors related to race and ethnicity may be associated with disparities in health outcomes.

### **About the Data**

The Health Status of Minority Populations in Wyoming is a compilation of data from numerous sources. The key indicators presented were chosen in regard to relationships with health, disparities and on availability of data. All rates presented by race/ethnicity are mutually exclusive categories. Therefore, rates and figures presented will differ from earlier reports. Data are presented as percentages in some instances (e.g., Wyoming Behavioral Risk Factor Surveillance System (BRFSS) data) or as rates per 100,000 population (e.g., mortality data). Most of the figures in this report include 95% confidence interval indicators around each estimated number. When these intervals do not overlap, the difference between two estimates can be considered to be statistically significant.

### **Health Disparities**

Health disparities are gaps in issues of health and health care services among distinct segments of the population. These inequalities have no boundaries from state to state and can also vary by gender, race, ethnicity, sexual orientation, education, income, disability, or geographic location. Healthy People 2020² has established benchmarks and monitored progress over time in order to encourage collaborations across sectors, guide individuals toward making informed health decisions, and measure the impact of prevention activities. Healthy People 2020 has two overarching goals that are relevant to the data presented: 1) Achieve healthy equity, eliminate disparities, and improve the health of all groups and 2) Create social and physical environments that promote good health for all.

<sup>&</sup>lt;sup>1</sup> United Health Foundation. *America's Health Rankings*<sup>TM</sup>: Wyoming. 2010. Available at http://www.americashealthrankings.org/StateRanking.aspx.

<sup>&</sup>lt;sup>2</sup> U.S. Department of Health and Human Services. Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available at http://healthypeople.gov/2020/default.aspx.

Social determinants of health are the range of personal, social, economic, and environmental factors that influence health. This report contains indicators that provide information about the determinants of health and also includes some non-traditional indicators that go beyond the boundaries of what has been seen as traditional health care. Including data for public health components such as education, housing, transportation, agriculture, and environment can inform collaboration for improving population health. Pursuing health equity means working toward the elimination of health disparities by increasing access to individual and community-based comprehensive, culturally-competent healthcare systems as well as potentially modifying influences on shaping health policies.

### **Minority Health**

New approaches and new partnerships are needed to help close the health disparities gap in the United States. The Department of Health and Human Services (HHS), Office of Minority Health released The National Partnership for Action to End Health Disparities (NPA) in April 2011<sup>3</sup>. The NPA was established to mobilize nationwide, comprehensive, community-driven health equity. The mission of the NPA is to increase the effectiveness of programs which target the elimination of health disparities through the coordination of partners, leaders, and stakeholders committed to action.

One initial and primary product of the NPA, the National Stakeholder Strategy for Achieving Health Equity<sup>4</sup>, provides a roadmap for eliminating health disparities through cooperative and strategic actions. The HHS' strategic action plan and the National Stakeholders Strategy provided visible and accountable federal leadership. This leadership plan will also promote collaborations among community, states, tribes, the private sector, and other stakeholders to more effectively reduce health disparities.

## **Demographics and Social and Economic Well-Being**

Understanding the ethnic and racial demographics of the population of Wyoming is pivotal information in discussions and education about health as well as the disparities that lie within. In 2010, the state's population was 563,626—an increase of fourteen percent from the 2000 population of 493,782. Table 1 below provides a breakdown population comparison of the ethnicity and race for Wyoming and the United States of America. The table shows that Wyoming has seen an overall increase in population as well as increases in all racial/ethnic groups. For example, the Asian population increased nearly 60% from 2000 to 2010. Wyoming and the U.S. have seen more growth in some groups than others, with the White and Non-Hispanic White groups having the lowest growth percentages.





<sup>&</sup>lt;sup>3</sup> US Department of Health & Human Services, National Partnerships for Actions to End Health Disparities. http://www.minorityhealth. hhs.gov/.

<sup>&</sup>lt;sup>4</sup> US Department of Health & Human Services, Office of Minority Health, http://www.minorityhealth.hhs.gov/templates/content.aspx?ID=8841.

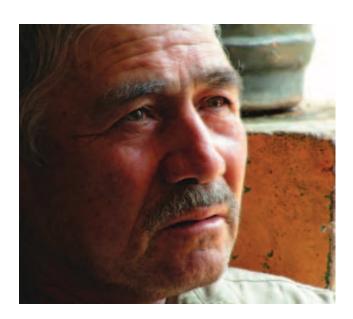




Table 1. Wyoming and United States Population, 2000 and 2010

		Wyomin	ıg	United States			
Racial/Ethnic Group	2000	2010	% Change	2000	2010	% Change	
White alone	454,670	511,279	+12.5	211,460,626	223,553,265	+5.7	
Black alone	3,722	4,748	+27.6	34,658190	38,929,319	+12.3	
American Indian alone	11,133	13,336	+19.8	2,475,956	2,932,248	+18.4	
Asian alone	2,771	4,426	+59.7	10,242,998	14,674,252	+43.3	
Hawaiian/Pl alone	302	427	+41.4	398,835	540,013	+35.4	
Other race alone	12,301	17,049	+38.6	15,359,073	19,107,368	+24.4	
Two or more races	8,883	12,361	+39.2	6,826,228	9,009,073	+32.0	
Total	493,782	563,626	+14.1	281,421,906	308,745,538	+9.7	
Hispanic (any race)	31,669	50,231	+58.6	35,305,818	50,477,594	+43.0	
Non-Hispanic white	438,799	483,874	+10.3	194,552,774	196,817,552	+1.2	

Source: U.S. Census Bureau

Hispanic ethnicity is shown separately from the racial groups because persons of Hispanic ethnicity may be of any race. More than 10% of Wyoming's 2010 population are Hispanic compared to 7.2% in 2000. Although the White group accounts for more than 90% of Wyoming's population, there are 52,347 individuals who do not identify as White alone and can be considered Wyoming's minority population.

Wyoming's 23 counties have different racial/ethnic composition, ranging from 74% White in Fremont County where the Wind River Indian Reservation is located, to 97% White in Crook County. Table 2 shows the racial distribution among Wyoming's counties, and Table 3 gives the county populations by Hispanic ethnicity. Both tables present data by number and percentage.

**Table 2. Population by Race: Wyoming Counties, 2010** 

					Hawaiian/		Two or	Total
	White	Black	Asian	Indian	PI	Other	more races	Population'
Albany	32,720	422	1,021	259	21	885	971	36,299
Big Horn	11,009	26	39	100	2	350	142	11,668
Campbell	42,974	159	256	531	22	1,223	968	46,133
Carbon	14,103	116	109	160	14	1,026	357	15,885
Converse	13,160	46	41	106	7	241	232	13,833
Crook	6,884	14	11	48	0	43	83	<i>7</i> ,083
Fremont	29,813	101	157	8,498	10	412	1,132	40,123
Goshen	12,526	79	41	108	12	320	163	13,249
Hot Springs	4,609	12	20	70	3	26	72	4,812
Johnson	8,267	14	38	92	0	64	94	8,569
Laramie	81,205	2,248	976	878	142	3,478	2,811	91,738
Lincoln	1 <i>7</i> ,281	33	57	146	4	363	222	18,106
Natrona	70,015	665	510	<i>7</i> 81	39	1,630	1,810	75,450
Niobrara	2,397	5	9	21	0	13	39	2,484
Park	26,951	56	166	168	25	399	440	28,205
Platte	8,268	28	32	38	5	170	126	8,667
Sheridan	27,782	107	192	359	23	209	444	29,116
Sublette	9,552	32	51	87	1	383	141	10,247
Sweetwater	38 <i>,7</i> 48	438	336	423	42	2,799	1,020	43,806
Teton	18,821	49	235	111	15	1,715	348	21,294
Uinta	19,514	55	61	168	36	860	424	21,118
Washakie	7,795	22	48	93	1	373	201	8,533
Weston	6,885	21	20	91	3	67	121	<i>7</i> ,208
	%	%	%	%	%	%	%	
Albany	90.1	1.2	2.8	0.7	0.1	2.4	2.7	
Big Horn	94.4	0.2	0.3	0.9	0.0	3.0	1.2	
Campbell	93.2	0.3	0.6	1.2	0.0	2.7	2.1	
Carbon	88.8	0.7	0.7	1.0	0.1	6.5	2.2	
Converse	95.1	0.3	0.3	0.8	0.1	1.7	1.7	
Crook	97.2	0.2	0.2	0.7	0.0	0.6	1.2	
Fremont	<i>7</i> 4.3	0.3	0.4	21.2	0.0	1.0	2.8	
Goshen	94.5	0.6	0.3	0.8	0.1	2.4	1.2	
Hot Springs	95.8	0.2	0.4	1.5	0.1	0.5	1.5	
Johnson	96.5	0.2	0.4	1.1	0.0	0.7	1.1	
Laramie	88.5	2.5	1.1	1.0	0.2	3.8	3.1	
Lincoln	95.4	0.2	0.3	0.8	0.0	2.0	1.2	
Natrona	92.8	0.9	0.7	1.0	0.1	2.2	2.4	
Niobrara	96.5	0.2	0.4	0.8	0.0	0.5	1.6	
Park	95.6	0.2	0.6	0.6	0.1	1.4	1.6	
Platte	95.4	0.3	0.4	0.4	0.1	2.0	1.5	
Sheridan	95.4	0.4	0.7	1.2	0.1	0.7	1.5	
Sublette	93.2	0.3	0.5	0.8	0.0	3.7	1.4	
Sweetwater	88.5	1.0	0.8	1.0	0.1	6.4	2.3	
Teton	88.4	0.2	1.1	0.5	0.1	8.1	1.6	
Uinta	92.4	0.3	0.3	0.8	0.2	4.1	2.0	
Washakie	91.4	0.3	0.6	1.1	0.0	4.4	2.4	
Weston	95.5	0.3	0.3	1.3	0.0	0.9	1.7	

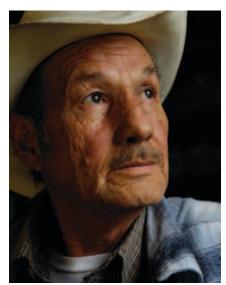
Source: U.S. Census Bureau

\*Unknown race not included in total

**Table 3. Population by Hispanic Ethnicity: Wyoming Counties, 2010** 

	Hispanic	or Latino	Non-Hispan	Non-Hispanic or Latino			
	N	%	N	%			
Albany	3,202	8.8	33,097	91.2			
Big Horn	984	8.4	10,684	91.6			
Campbell	3,611	7.8	42,522	92.2			
Carbon	2,668	16.8	13,217	83.2			
Converse	867	6.3	12,966	93.7			
Crook	141	2.0	6,942	98.0			
Fremont	2,264	5.6	37,859	94.4			
Goshen	1,288	9.7	11,961	90.3			
Hot Springs	105	2.2	4,707	97.8			
Johnson	276	3.2	8,293	96.8			
Laramie	11,978	13.1	79,760	86.9			
Lincoln	<i>7</i> 81	4.3	17,325	95.7			
Natrona	5,231	6.9	70,219	93.1			
Niobrara	52	2.1	2,432	97.9			
Park	1,365	4.8	26,840	95.2			
Platte	580	6.7	8,087	93.3			
Sheridan	1,013	3.5	28,103	96.5			
Sublette	712	6.9	9,535	93.1			
Sweetwater	6,689	15.3	37,117	84.7			
Teton	3,191	15.0	18,103	85.0			
Uinta	1,855	8.8	19,263	91.2			
Washakie	1,162	13.6	7,371	86.4			
Weston	216	3.0	6,992	97.0			





Source: U.S. Census Bureau





Figure 1 below shows median family income by race. For the years 2005–09, the median income for Wyoming families varied by race from \$64,720 in families identified as White alone to \$41,130 in American Indian families to \$47,500 in the Native Hawaiian/Pacific Islander families. Due to small population sizes, many of the differences in median income between racial groups were not statistically significant. However, those families who self-identified as being White had a significantly higher median family income than Black, American Indian, and families that identified as Some Other Race or Two or More Races (multiracial).

(Note: Figure 1 and other figures in this report include 95% confidence interval indicators around each estimated number. When these intervals do not overlap, the difference between two estimates can be considered to be statistically significant.)

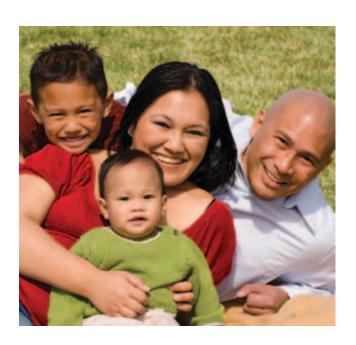
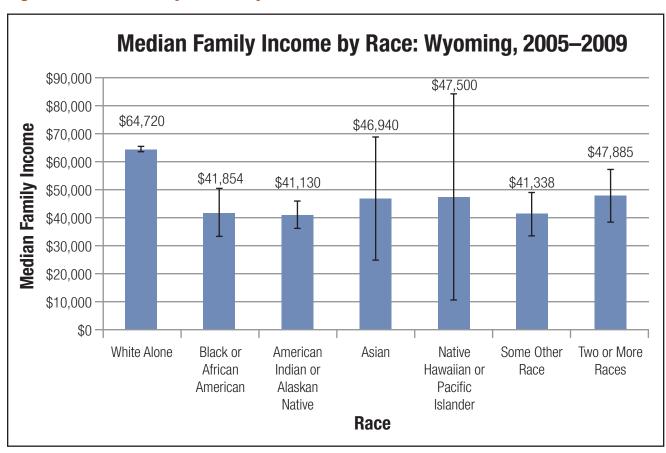


Figure 1. Median Family Income by Race

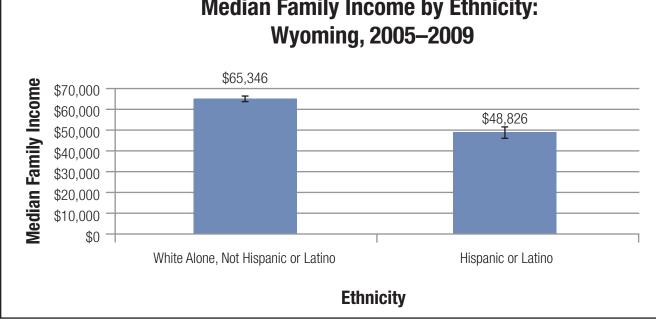


Source: American Community Survey, U.S. Census

Figure 2 shows median family income by ethnicity. The median family income for White, Non-Hispanic families was \$65,346, which is significantly higher than the \$48,826 median income of Hispanic families.

**Median Family Income by Ethnicity:** Wyoming, 2005-2009

Figure 2. Median Family Income by Ethnicity



Source: American Community Survey, U.S. Census

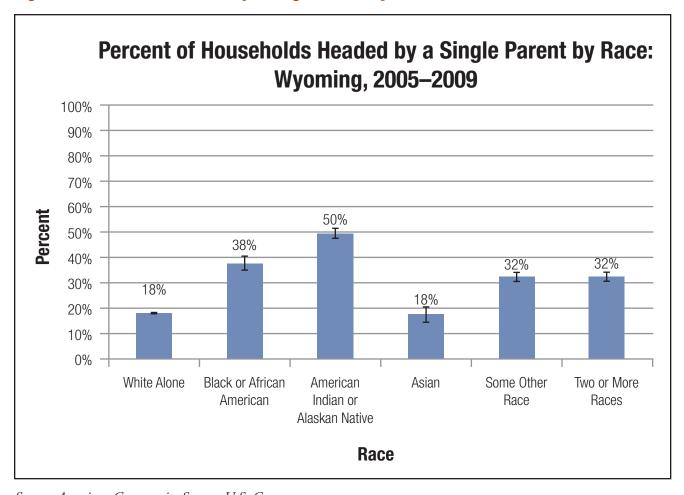
In addition to income, socioeconomic status (SES) is often measured by education, occupation, and various other factors. These indicators have been theorized to affect health and health disparities by affecting healthcare, environmental exposures, and health behaviors.<sup>5</sup> Families with lower incomes often have limited access to healthcare and may not be diagnosed or treated for disease in a timely manner. They may not have health insurance or a primary care physician. Healthy eating habits and regular exercise may not be priorities for families who are struggling to make ends meet. Both education and occupation are factors that contribute to income level, and each has its own effects on health status as well, particularly on health insurance. Higher educational levels can lead to better jobs and an increased chance of health coverage being provided by an employer. The following data represent factors related to socioeconomic status.



Nancy E. Adler and Katherine Newman, Socioeconomic Disparities in Health: Pathways and Policies. Health Affairs, 21, no. 2 (2002): 60-76

Household structure can be a proxy for socioeconomic status. Data from the National Health Interview Survey show that children who live in households with "two married adults who are the biological or adoptive parents of all children in the family" are healthier and have better access to health care. Families in Wyoming experience differences in household structure. Single-parent households are more likely to have financial issues because they have half of the income potential of a two parent family. Figure 3 below shows that a significantly higher percentage of American Indian households (50%) are headed by a single parent compared to 18% of White and Asian households. The percentages of households headed by single parents among Black (38%), Other Race (32%) and Two or More Race (32%) families are all significantly higher than the percentages for White and Asian households.

Figure 3. Households Headed by a Single Parent by Race



Source: American Community Survey, U.S. Census

<sup>&</sup>lt;sup>6</sup> Blackwell DL. Family structure and children's health in the United States: Findings from the National Health Interview Survey, 2001–2007. National Center for Health Statistics. Vital Health Stat 10(246). 2010.

Percent of Households Headed by a Single Parent by Ethnicity: Wyoming, 2005–2009 100% 90% 80% 70% 60% 50% 32% 40% 30% 18% 20% 10% 0% White Alone, Not Hispanic or Latino Hispanic or Latino **Ethnicity** 

Figure 4. Households Headed by a Single Parent by Ethnicity

Source: American Community Survey, U.S. Census

The percentage of Wyoming households headed by a single parent also differed by ethnicity with a significantly lower percentage (18 %) of White Non-Hispanic households headed by a single parent compared to 32 % of Hispanic families as represented above in Figure 4.





Poverty status can have a significant impact on health. The World Health Organization reports that people living in poverty "suffer worse health and die younger." Data from the 2009 National Health Interview Survey show that among adults ages 18 years and older, 28.4% of those living in poverty reported their health to be fair or poor compared to 7.7% of adults not in poverty. With patterns similar to those found in median family income by race, the percentages of individuals in Wyoming living below the poverty level by race are shown in Figure 5. A significantly lower percentage of White individuals (8.8%) were living below poverty level than individuals with a race of Black (20.8%) or American Indian (20.8%).

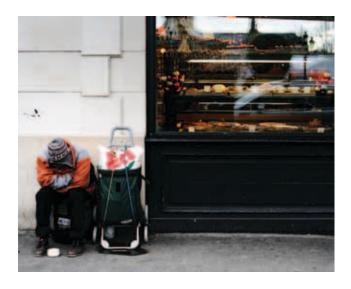
Percent of Individuals\* Living Below the Poverty Level by Race: Wyoming, 2005–2009 50% 45% 18.2% 40% 35% 20.8% 30% 20.8% 25% 11.9% 9.1% 20% 15% 8.8% 4.4% 10% 5% 0% Some Other White Alone Black or African American Asian Native Two or More Indian or Hawaiian American Race Races Alaskan Native or Pacific Islander Race

Figure 5. Individuals Living Below the Poverty Level by Race

Source: American Community Survey, U.S. Census

\*Poverty status is determined for all people except institutionalized people, people in military group quarters, people in college dormitories and unrelated individuals under 15 years old. These groups were excluded from the numerator and denominator when calculating poverty rates.

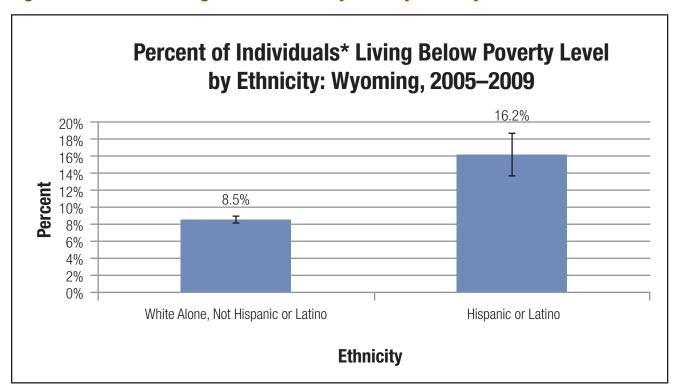
Organisation for Economic Co-operation and Development, World Health Organization. Development Assistance Committee Guidelines and Reference Documents: Poverty and Health. 2003.





There are also significant differences between the percentages of individuals below poverty level by ethnicity. Among White Non-Hispanic people, 8.5% live below the poverty level compared to 16.2% of those of Hispanic ethnicity (Figure 6).

Figure 6. Individuals Living Below the Poverty Level by Ethnicity

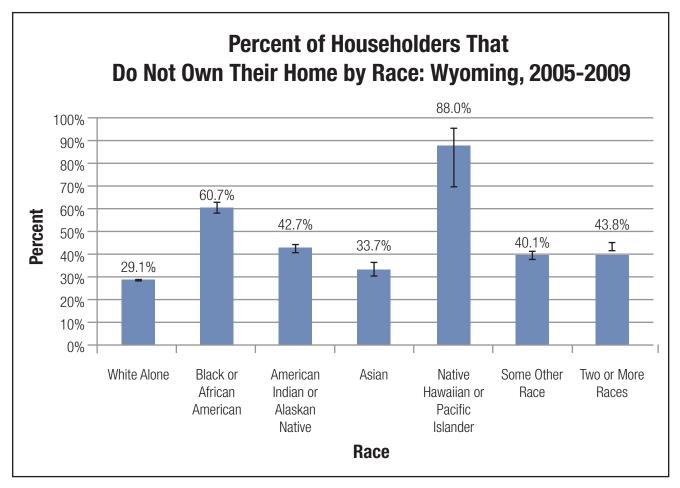


Source: American Community Survey, U.S. Census

\*Poverty status is determined for all people except institutionalized people, people in military group quarters, people in college dormitories and unrelated individuals under 15 years old. These groups were excluded from the numerator and denominator when calculating poverty rates.

Another economic indicator that varies by race and ethnicity is the percent of householders that do not own their own homes (Figure 7). Although a very small portion of Wyoming's population, the Native Hawaiian/Pacific Islander householders had the highest percentage (88.0%) of not owning their own homes followed by Black householders (60.7%). Significantly fewer White householders in Wyoming (29.1%) do not own their homes, a lower percentage than that for any of the other racial groups.

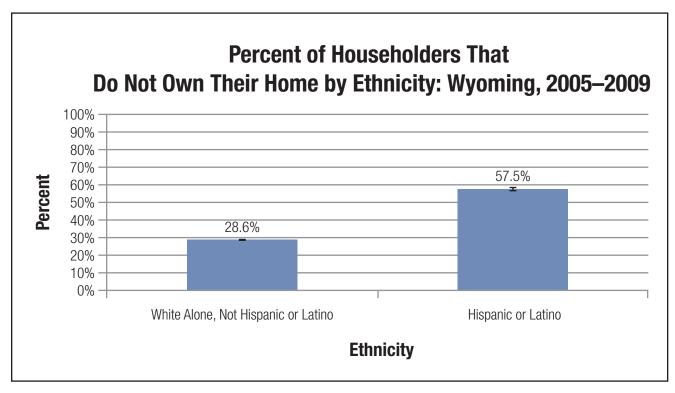
Figure 7. Householders That Do Not Own Their Own Home by Race



Source: American Community Survey, U.S. Census



Figure 8. Householders That Do Not Own Their Own Home by Ethnicity



Source: American Community Survey, U.S. Census

In addition, a significantly higher percentage of Hispanic householders (57.5%) do not own their home compared to 28.6% of White, non-Hispanic householders as shown in Figure 8.

### **Maternal and Infant Health**

### **Indicators**

Most of the Wyoming data in this section were obtained from the Wyoming Department of Health, Vital Statistics Services. The data is population-based and generally considered to be reliable since birth certificates are the primary source of data collection. Please note that due to Wyoming's small population, the number of births for some minority groups is very small during a one-year time frame. To increase reliability, several years of data have been compiled for this report. Even so, some numbers are so small that they are unlikely to be statistically significantly different from the numbers for other race groups. They have been included because they are the best estimates currently available.

### **Prenatal Care**

Prenatal care allows healthcare providers to identify and monitor the health of a pregnant woman and her baby in order to prevent and treat conditions that can lead to prematurity, low birth weight, and infant death.<sup>8</sup> Receiving prenatal care in the first trimester and receiving a sufficient number of visits are important in ensuring optimal birth outcomes. When a particular racial or ethnic group has a higher proportion of women who do not receive any or adequate prenatal care, health disparities for these infants may be increased.

In the 27 states including Wyoming that used the 2003 revised version of the birth certificate in 2008, 71.0% of women who delivered a live infant received prenatal care beginning in the first trimester. The Healthy People 2020 target is for 77.9 % of women to receive prenatal care in the first trimester. In Wyoming from 2007–2011, 70.8% of women received prenatal care in the first trimester. This percentage was lowest among American Indian women with 53% receiving prenatal care in the first trimester compared to White women (72.5%) and Asian/Pacific Islander women (75.0%) (Figure 9).





<sup>&</sup>lt;sup>8</sup> U.S Department of Health and Human Services. Fact Sheet: Infant Mortality. January 13, 2006. Accessed at http://www.hhs.gov/news/factsheet/infant.html.

<sup>&</sup>lt;sup>9</sup> Osterman MJK, Martin JA, Mathews TJ, Hamilton BE. Expanded data from the new birth certificate, 2008. National vital statistics reports; vol 59 no 7. Hyattsville, MD: National Center for Health Statistics. 2011.

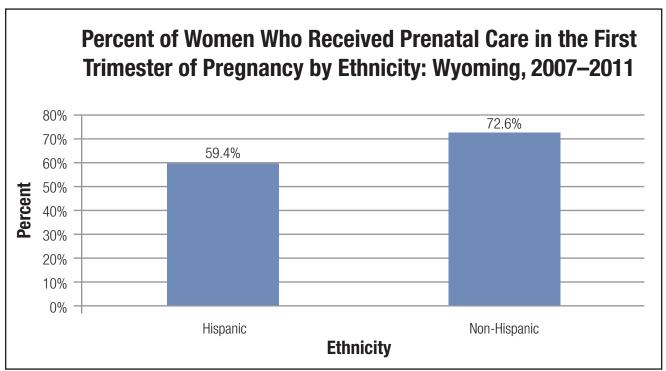
**Percent of Women Who Received Prenatal Care in the** First Trimester of Pregnancy by Race: Wyoming, 2007–2011 100% 90% 80% 75.0% 72.5% 70% 62.8% 62.4% 60% 53.0% 50% 40% 30% 20% 10% 0% White American Indian Asian/ African American Two or Pacific Islander More Races **Race** 

Figure 9. Prenatal Care in the First Trimester by Race

Source: Wyoming Vital Statistics Services

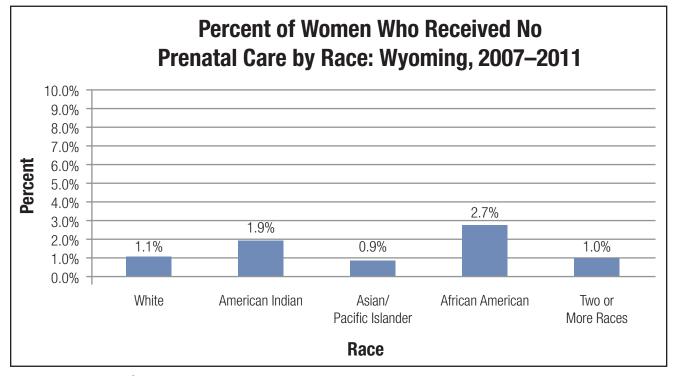
Differences in the percentages of women receiving prenatal care in the first trimester of pregnancy were also seen in different ethnic groups. A smaller percentage of Hispanic women (59.4%) received prenatal care in the first trimester compared to 72.6% of Non-Hispanic women as shown in Figure 10.

Figure 10. Prenatal Care in the First Trimester by Ethnicity



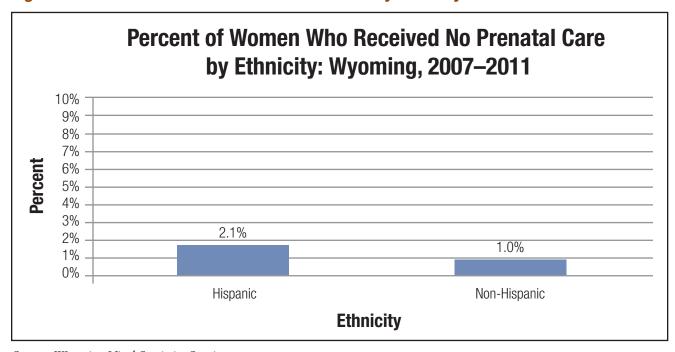
Another indicator for adequacy of prenatal care is the percent of women who received no prenatal care. The percent of Wyoming women who gave birth in 2007–2011 and had no prenatal care was 1.2%. The percentage by race ranged from 0.9% in Asian/Pacific Islander women to 1.9% for American Indian women and 2.7% for Black/ American women (Figure 11). Nearly twice as many Hispanic women (2.1%) received no prenatal care as Non-Hispanic women (1.0%) as shown in Figure 12.

Figure 11. No Prenatal Care in the First Trimester by Race



Source: Wyoming Vital Statistics Services

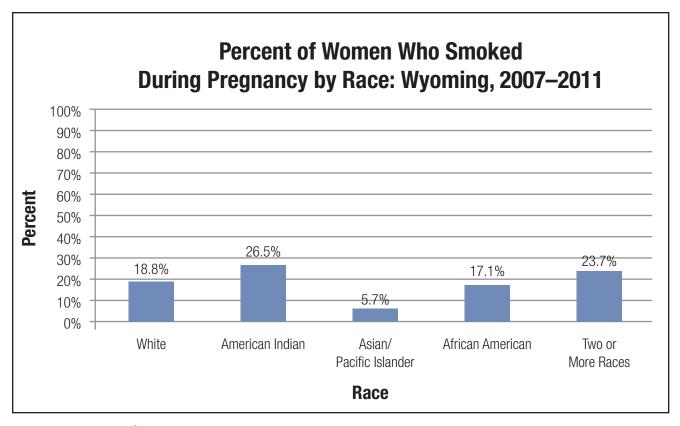
Figure 12. No Prenatal Care in the First Trimester by Ethnicity



### **Smoking During Pregnancy**

Of the Wyoming women who gave birth during 2007–2011, the percentage that reported smoking during pregnancy varied by race from the highest percentages of 26.5% in American Indian women and 23.7% in women of two or more races to the lowest percentage (5.7%) in Asian women (Figure 13). In addition, a lower percentage of Hispanic women (10.4%) smoked during pregnancy compared to 19.8% of Non-Hispanic women (Figure 14).

Figure 13. Smoking During Pregnancy by Race



March of Dimes. Alcohol and Drugs: Smoking During Pregnancy. Accessed at http://www.marchofdimes.com/pregnancy/alcohol\_smoking.html. September 2, 2012

<sup>&</sup>lt;sup>11</sup> The health consequences of smoking: a report of the Surgeon General. [Atlanta, Ga.]: Dept. of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health; Washington, D.C.: For sale by the Supt. of Docs., U.S. G.P.O., 2004.

<sup>&</sup>lt;sup>12</sup> Centers for Disease Control and Prevention, National Vital Statistics System. Vital Stats Selected Maternal Risk Factors. Accessed at http://205.207.175.93/Vitalstats/TableViewer/tableView.aspx. September 2, 2012.

**Percent of Women Who Smoked During Pregnancy by Ethnicity: Wyoming, 2007–2011** 100% 90% 80% 70% 60% 50% 40% 30% 19.8% 20% 10.4% 10% 0% Non-Hispanic Hispanic **Ethnicity** 

**Figure 14. Smoking During Pregnancy by Ethnicity** 

Source: Wyoming Vital Statistics Services

### **Low Birth Weight**

Infants born at low birth weight (<2,500 grams) are at increased risk for serious health problems and even death. In 2007 in the U.S., 8.2% of births were low birth weight (<2,500 grams). The Healthy People 2020 target is to reduce the percentage to 7.8% low birth weight. For Wyoming births from 2007–2011, 8.6% of infants were born at low birth weight. However, Blacks and Asians had higher low birth weight rates at 15.0% and 14.5%, respectively. Low birth weight rates are similar for Hispanic women (8.9%) and Non-Hispanic women (8.5%).

Figure 15. Low Birth Weight by Race

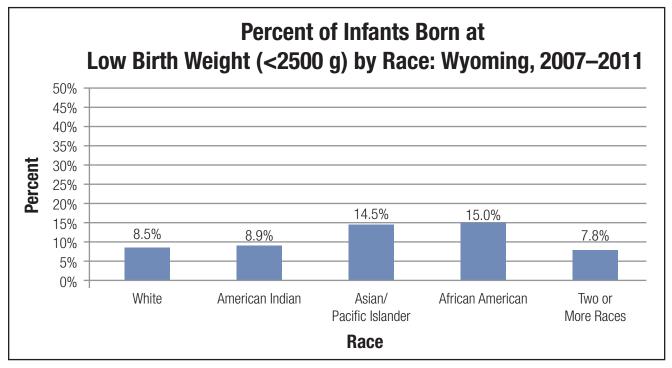
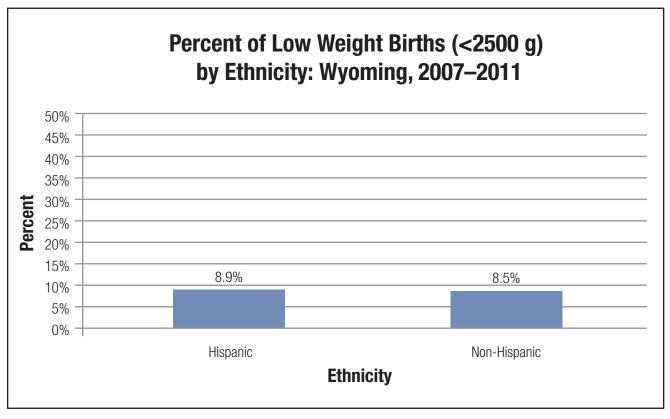


Figure 16. Low Birth Weight by Ethnicity





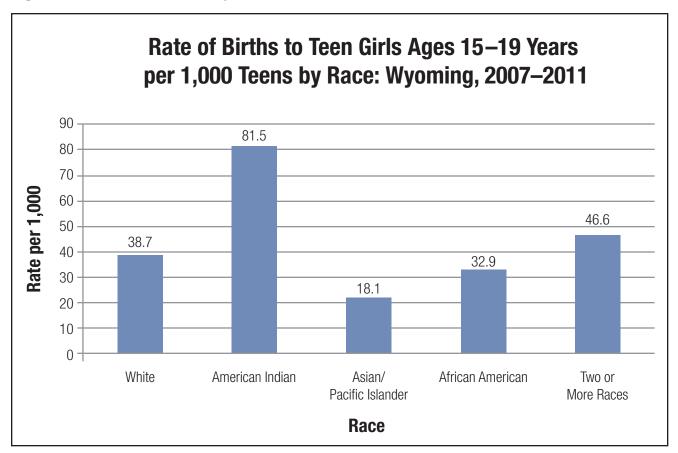


### **Teen Births**

In the U.S. in 2010, the teen birth rate was 34.3 births per 1,000 women ages 15-19 years. The rate is higher for Wyoming teens at 43.0 per 1,000 from 2007–2011. The differences between some of the racial and ethnic groups in Wyoming are large. Among racial groups, American Indians teens had the highest birth rate (81.5 per 1,000), a rate more than twice that of White teens (38.7 per 1,000). Teen birth rates for all racial groups are shown in Figure 17.



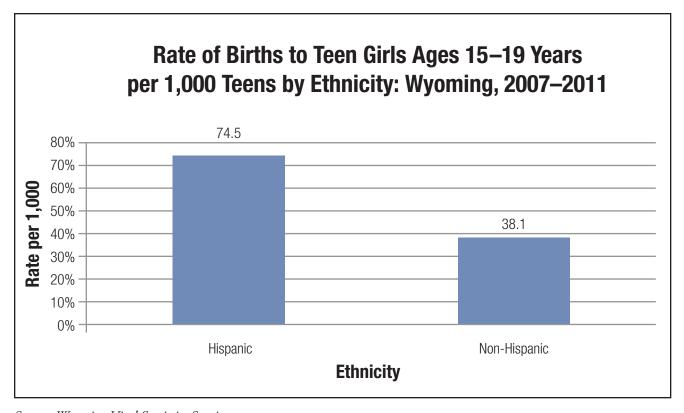
Figure 17. Teen Birth Rates by Race



<sup>&</sup>lt;sup>13</sup> Centers for Disease Control and Prevention. About Teen Pregnancy. Accessed at http://www.cdc.gov/TeenPregnancy/AboutTeenPreg.htm.

Disparities in teen birth rates are also apparent between ethnic groups in Wyoming. The birth rate for Hispanic teens ages 15–19 years (74.5 per 1,000) in Wyoming is nearly double the rate for Non-Hispanic teens (38.1 per 1,000).

Figure 18. Teen Birth Rates by Ethnicity



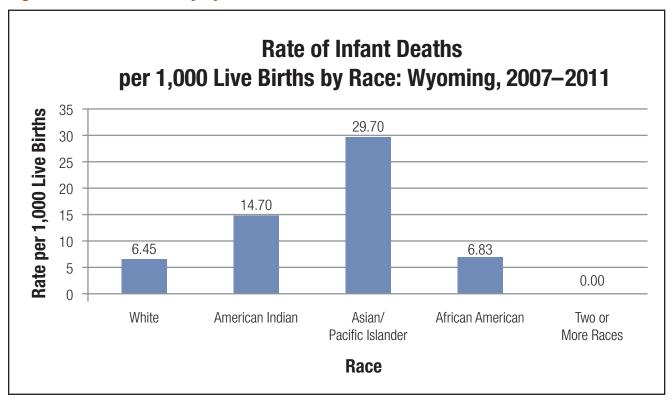
Source: Wyoming Vital Statistics Services

### **Infant Mortality**

Infant mortality can be used as a measure of the health of a population. Most infant deaths are caused by congenital anomalies, pregnancy complications, prematurity, low birth weight, sudden infant death syndrome (SIDS), and injuries. <sup>14</sup> The infant mortality rate is defined as the number of deaths of infants less than one year of age per live births in the time period. Infant mortality by race/ethnicity is calculated using the infant's race in the numerator and the mother's race in the denominator. In the U.S. in 2010, there were 6.1 infant deaths per 1,000 live births, which is lower than the Wyoming rate of 7.8 infant deaths per 1,000 live births for 2007–2011. The Healthy People 2020 target is 6.0 infant deaths per 1,000 live births. The highest infant mortality rates were seen among Asian/Pacific Islander infants at 29.7 and American Indian infants at 14.7 (Figure 19).

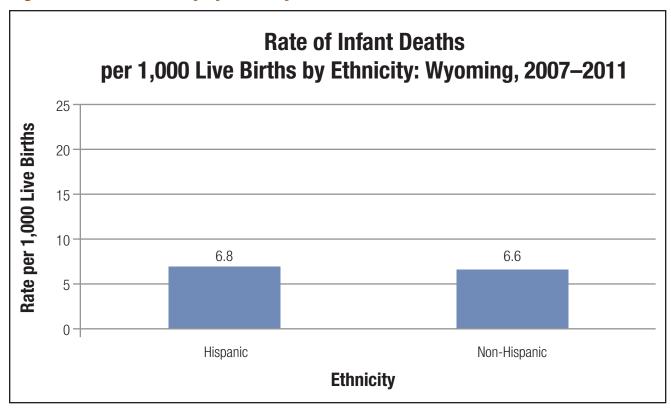
<sup>&</sup>lt;sup>14</sup> Centers for Disease Control and Prevention. Infant Mortality. http://www.cdc.gov/reproductivehealth/MaternalInfantHealth/InfantMortality.htm

**Figure 19. Infant Mortality by Race** 



Source: Wyoming Vital Statistics Services

Figure 20. Infant Mortality by Ethnicity



### **Child and Adolescent Health**

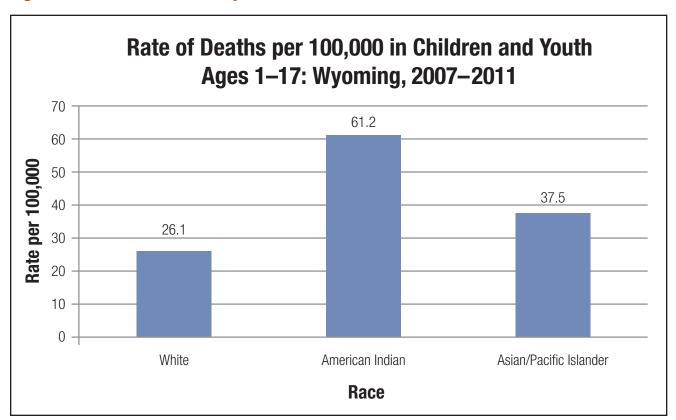
### **Indicators**

With the exception of the child death data from the Wyoming Department of Health, Vital Statistics Services, all data in this section are survey-based estimates.

### **Child and Adolescent Deaths**

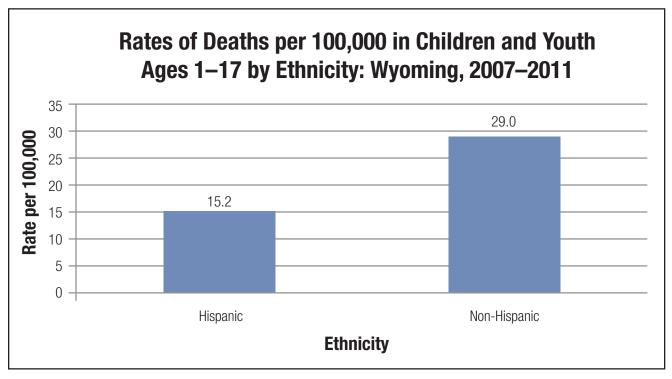
While Wyoming's population is small relative to other U.S. states and Wyoming does not have a large number of child deaths, rates of child death for particular groups can be high. For the years 2007–2011, the death rate among children ages 1–17 years was 27.2 per 100,000. American Indian children had the highest rate of deaths at 61.2 per 100,000, more than twice the rate for White children (Figure 21).

Figure 21. Child Death Rates by Race



The rate of deaths in Black children is too small to report. The rate of deaths among Hispanic children ages 1–17 years (15.2 per 100,000) was nearly half that of Non-Hispanic children at 29.0 per 100,000 (Figure 22).

Figure 22. Child Death Rates by Ethnicity



Source: Wyoming Vital Statistics Services

Many of the child and adolescent deaths that occur in Wyoming are due to unintentional injuries. The rate of unintentional injury deaths is too small to report for Black and Asian/Pacific Islander children and adolescents, and the rate for American Indian children and adolescents is based on a small number so should not be considered stable. From 2005-2010, children in Wyoming had higher rates of unintentional injury deaths (18.1 per 100,000 children and adolescents) than children in the U.S. (10.3 per 100,000). The unintentional injury death rate among White children and adolescents in Wyoming was 17.5 compared to 10.6 in the U.S. Among American Indian children and adolescents, there were 44.6 deaths per 100,000 in Wyoming, which is more than twice the U.S rate of 15.8 (Figure 23). Death rates for Hispanic children and adolescents are lower than those of Non-Hispanic children and adolescents in Wyoming and in the U.S. as shown in Figure 24. Rates for both Hispanic and Non-Hispanic children are higher in Wyoming than in the U.S.

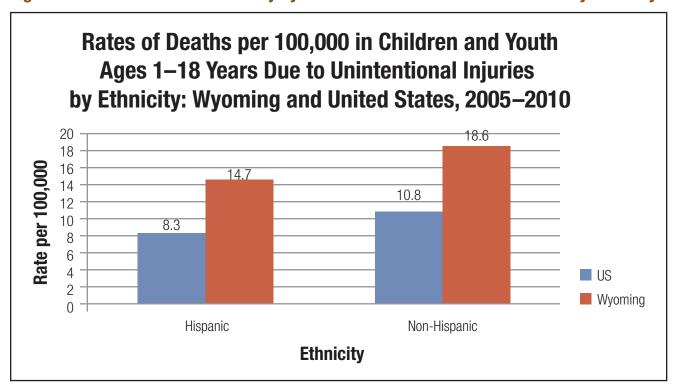


Rate of Deaths per 100,000 in Children and Youth **Ages 1–18 Years Due to Unintentional Injuries** by Race\*: Wyoming and United States, 2005-2010 50 44.62 Rate per 100,000 40 30 18.1 17.5 20 15.8 10.6 10.3 US 10 Wyoming 0 White American Indian/ Total Alaska Native Race

Figure 23. Rates of Unintentional Injury Deaths in Children and Adolescents by Race

Source: Centers for Disease Control and Prevention (CDC), WISQARS

Figure 24. Rates of Unintentional Injury Deaths in Children and Adolescents by Ethnicity



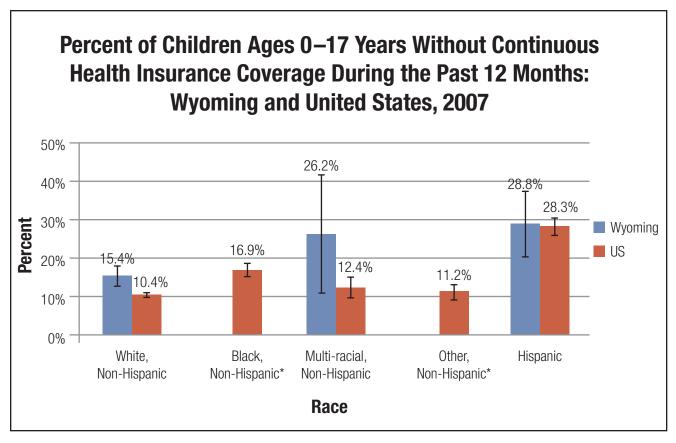
Source: CDC, WISQARS

<sup>\*</sup>Rates for Black and Asian/Pacific Islander Races not displayed because they were not available for Wyoming due to small numbers. The rate for American Indian/Alaska Native is based on fewer than 20 deaths and may be unstable.

### **Child and Adolescent Health Insurance Coverage**

A lack of health insurance coverage for children is associated with lower immunization rates, a lack of treatment for common childhood illness, and an increased risk of death. Health insurance coverage for children varies by race and ethnicity. Data from the 2007 National Survey of Children's Health (the most recent year for which data are available) indicate that a significantly higher percentage of Hispanic children and adolescents in Wyoming (28.85%) ages 0–17 years were without continuous health insurance coverage for the last twelve-month period compared to 15.4% of White, Non-Hispanic children and adolescents (Figure 25). For other racial groups, estimates are based on small sample sizes making it difficult to discern differences in insurance coverage.

Figure 25. Children Without Continuous Health Insurance Coverage



Source: 2007 National Survey of Children's Health.

\* Wyoming estimates are omitted due to sample sizes too small to meet National Survey of Children's standards for reliability or precision.

<sup>&</sup>lt;sup>15</sup> Bernstein, Jill, Chollet, Deborah, and Peterson, Stephanie. How Does Insurance Improve Health Outcomes? Issue Brief. Mathematica Policy Research, Inc. April 2010. No. 1. Accessed at http://www.mathematica-mpr.com/publications/PDFs/health/reformhealthcare\_IB1.pdf, September 9, 2012.

### **Adolescent Smoking and Drinking**

Smoking in adolescence can affect health over the lifespan by restricting lung growth and limiting maximum lung function. Adolescents who smoke have lower levels of fitness and health. In addition, teens who smoke are more likely to smoke as adults increasing risks for associated chronic diseases including chronic obstructive pulmonary disease (COPD) and various cardiovascular diseases. <sup>16</sup> Underage drinking also carries significant risks. Alcohol use by adolescents is associated with suicide, high risk sex, sexual assault, and motor vehicle crashes. In addition, alcohol exposure during adolescence can lead to impaired brain development and a higher likelihood of adult alcohol dependence. <sup>17</sup> Data from the Wyoming Youth Risk Behavior Survey describe smoking and drinking among high school students in Wyoming for the years 2005–2011. For White students, the percent who have smoked at least one cigarette during the past thirty days remained fairly constant over the time period at approximately 20% (Figure 26). From 2005–2009, a significantly higher percentage of Hispanic students reported smoking than White students, but this difference was not statistically significant in 2011.

**Percent of High School Students Who Smoked** in the Last 30 Days on at Least One or More Days by Race/Ethnicity: Wyoming, 2005–2011 100% 90% 80% 70% Perecent 60% White 39.0% 50% Hispanic 31.7% 30.6% 34.4% 40% 28.4% Multiple Race 21.5% 30% 20.9% 20.09 19.3% Total 20% 10% 0% 2005 2007 2009 2011

**Figure 26. Smoking Among High School Students** 

Source: CDC, Youth Risk Behavior Survey

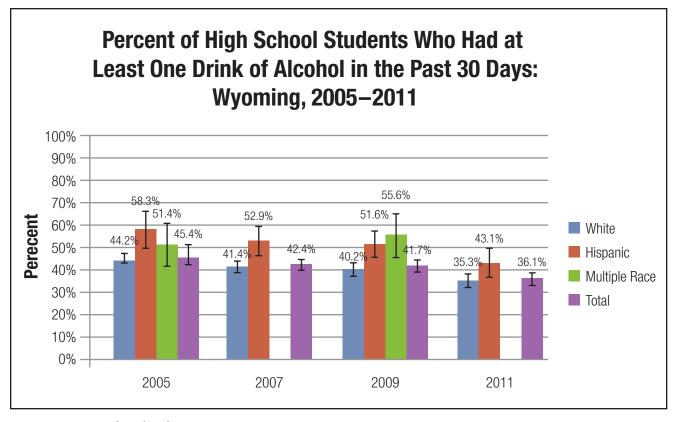
Data are not available for Multiple Race for 2007 and 2011 due to small numbers.

<sup>&</sup>lt;sup>16</sup> U.S. Department of Health and Human Services. *Preventing Tobacco Use Among Young People: A Report of the Surgeon General.* Atlanta, Georgia: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Centers for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health, 1994.

National Institute on Alcohol Abuse and Alcoholism. Underage Drinking: A Major Public Health Challenge. Alcohol Alert: No.59, April 2003. Accessed at http://pubs.niaaa.nih.gov/publications/aa59.htm.

The percent of Wyoming high school students who had at least one drink of alcohol in the past 30 days is shown in Figure 27. Similar to the pattern observed for smoking, a significantly higher percentage of Hispanic students reported drinking than White students from 2005–2009, but this difference was not statistically significant in 2011. The percent of students who drank in the past 30 days has decreased over time for all racial/ethnic groups except for Multiple Race. The total percentage has decreased significantly from 45.4% in 2005 to 36.1% in 2011.

Figure 27. Alcohol Use Among High School Students



Source: CDC, Youth Risk Behavior Survey

Data are not available for Multiple Race for 2007 and 2011 due to small numbers.

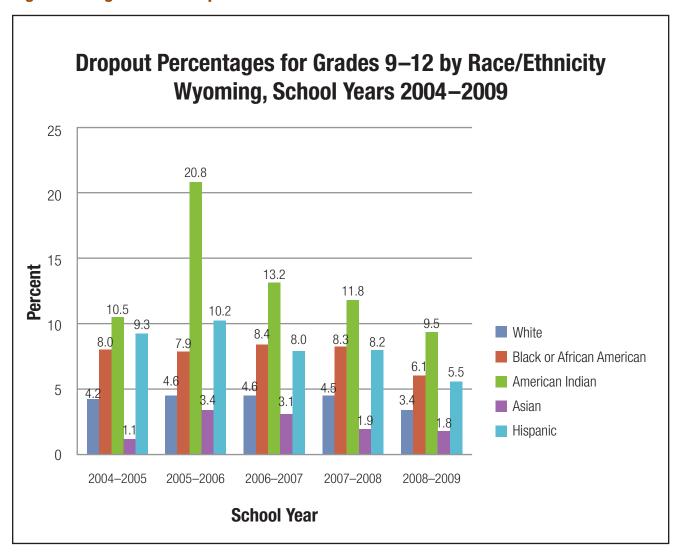




### **High School Dropouts**

Research shows that education level is associated with health. As a person's level of education increases, their health outcomes improve. Therefore, high school dropout rates are important indicators for health. According to the Wyoming Department of Education, the dropout rates for Wyoming students in grades 9–12 during 2004–2009 had wide differences by race and ethnicity (Figure 28). American Indian students consistently had the highest dropout rates while Asian students had the lowest rates. White students had the second lowest dropout rates, followed by Black and Hispanic students.

Figure 28. High School Dropout Rates



Source: Wyoming Department of Education

<sup>&</sup>lt;sup>18</sup> Freudenberg N, Ruglis J. Reframing school dropout as a public health issue. Prev Chronic Dis 2007;4(4). http://www.cdc.gov/pcd/issues/2007/oct/07\_0063.htm. Accessed September 9, 2012.

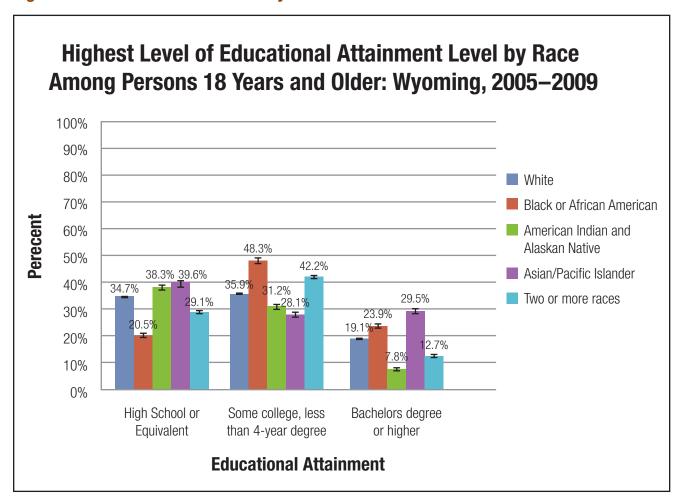
### **Adult Health**

### **Indicators**

### **Educational Attainment**

Higher educational attainment can lead to higher earnings, safer housing, and improved access to medical care and nutritious food. Therefore, an increased level of educational attainment is associated with improved health.<sup>19</sup> Black adults have the highest percentage (72.2%) of attainment of either some college or a bachelor's degree or higher, followed by Asian adults at 57.6%, White adults at 55%, and adults of Two or More Races at 54.9%. American Indian adults have the lowest percent at 39.0%. Figure 29 shows the percent of educational attainment for Wyoming adults by race.

Figure 29. Educational Attainment by Race

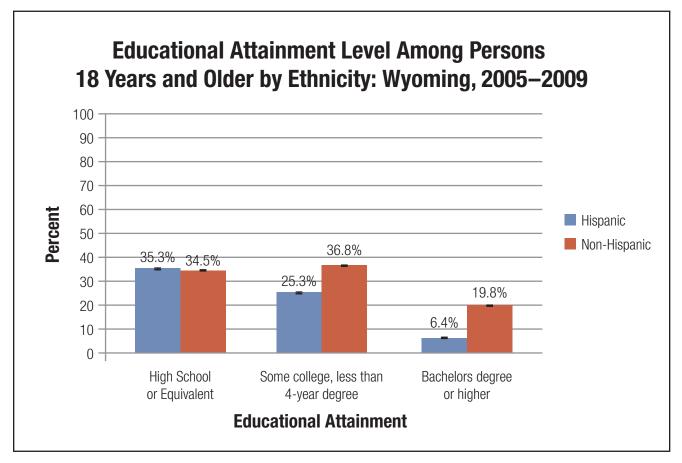


Source: U.S. Census Bureau

<sup>&</sup>lt;sup>19</sup> Freudenberg N, Ruglis J. Reframing school dropout as a public health issue. Prev Chronic Dis 2007;4(4). http://www.cdc.gov/pcd/issues/2007/oct/07\_0063.htm. Accessed September 9, 2012.

Figure 30 shows educational attainment by ethnicity. More than three times as many Non-Hispanic adults (19.8%) earned a bachelor's degree as Hispanic adults (6.4%). In addition, a larger percentage of Non-Hispanic adults (36.8%) have some college but no degree compared to 25.3% of Hispanic adults. A similar percentage of Non-Hispanic and Hispanic adults have a high school diploma or the equivalent.

Figure 30. Educational Attainment by Ethnicity



Source: U.S. Census Bureau

### **Behavioral Indicators**

The Behavioral Risk Factor Surveillance System (BRFSS) is a national survey of health risk behaviors that is sponsored by the Centers for Disease Control and Prevention (CDC). The BRFSS is conducted in all U.S. states and several territories. It is the largest telephone health survey in the world and was established in 1984. Each state conducts their own BRFSS survey which includes both core and state-added questions.

Limitations resulting from sample size do not allow estimates to be made for all racial and ethnic groups in Wyoming in a particular year. However, the estimates can be presented when several years of data are combined. Table 4 provides estimates for selected health risk factors and health conditions.

Table 4. Percent estimates for health risk factors by race/ethnicity: Wyoming

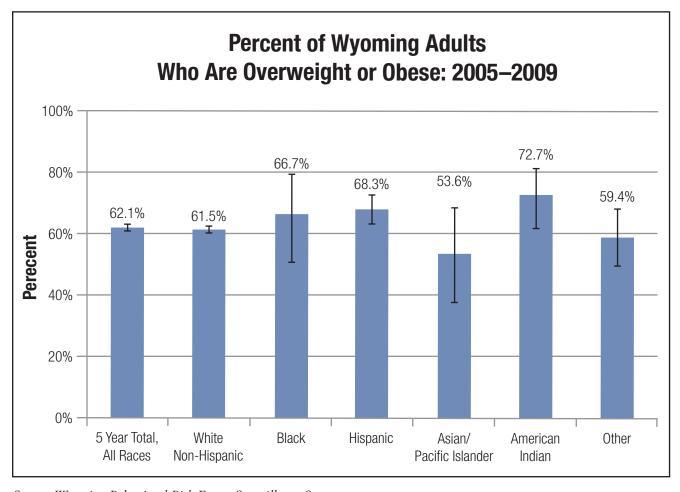
	Years	White	Black	Hispanic	Asian/ Pacific Islander	American Indian/ Alaska Native	Other Race	Total All Races
		%	%	%	%	%	%	%
Current cigarette smoking	2005- 2009	19.4	26.2	25.9*	18.2	47.5*	23.0	20.4
Current male smokeless tobacco use	2005- 2009	16.7	6.7	9.2		30.0	9.3	16.6
Work exposure to secondhand smoke	2005– 2008	14.3		25.3*		33.1*	26.4*	15.3
Binge drinking	2005– 2009	13.8	14.2	15.6	6.6	24.7	14.1	14.2
Drinking and driving	2006 & 2008	2.5	1.6	1.6	0	1.3	1.0	2.4
Overweight or obese	2005– 2009	61.5	66.7	68.3*	53.6	72.7	59.4	62.1
Obesity	2005– 2009	24.2	32.3	29.8	22.1	41.8*	27.0	24.9
Very obese	2005- 2009	7.9	7.1	11.5*	8.6	9.1	10.2	8.1
No leisure time physical activity	2005- 2009	22.4	26.3	25.6	12.9	21.6	21.5	22.6
Inadequate fruit and vegetable consumption	2005, 2007, & 2009	77.2	73.2	76.0	58.5	65.2	64.0	76.7
Any Cardiovascular Disease (CVD) risk factors	2005, 2007, & 2009	84.5	76.4	85.5	75.6	93.2	76.2	84.6
3 or more CVD risk factors	2005, 2007, & 2009	27.4	42.5	25.1	30.2	23.8	34.4	27.2
Does not always wear seatbelts	2006- 2008	34.8	30.9	30.1	30.0	40.4	34.4	34.7
Sunburn	2006 & 2008	50.0	10.8*	35.1*		34.1*	20.5*	48.4

Source: Wyoming BRFSS

<sup>\*</sup> This designates a percent that is significantly different than the percent for White race. If a percent does not have this symbol, it is not statistically different than the percent for White Race.

Overweight is defined as having a body mass index (BMI) of 25-29, and obesity is defined as having a BMI of  $\geq$ 30. Both conditions are associated with an increased risk of coronary artery disease, type 2 diabetes, and certain types of cancer. Figure 31 illustrates the differences by race and ethnicity in Wyoming adults who are overweight or obese. A significantly higher percentage of Hispanic adults are overweight or obese individuals than adults who are White, Non-Hispanic.

Figure 31. Overweight and Obesity in Wyoming Adults

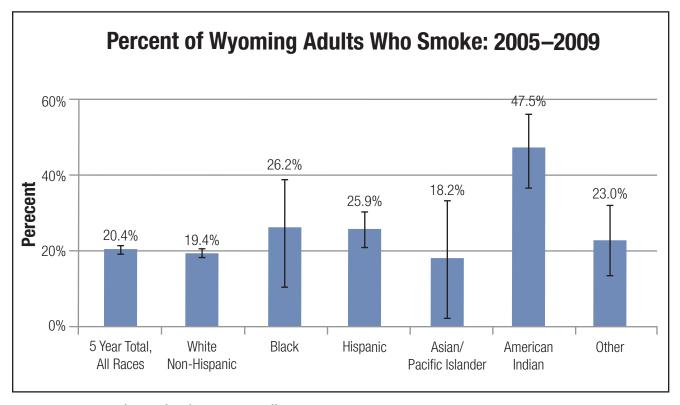


Source: Wyoming Behavioral Risk Factor Surveillance System

<sup>&</sup>lt;sup>20</sup> U.S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity. [Rockville, MD]: U.S. Department of Health and Human Services, Public Health Service, Office of the Surgeon General; [2001]. Available from: U.S. GPO, Washington.

Smoking is responsible for nearly one in every five deaths in the U.S each year. Smoking is associated with lung cancer as well as other types of cancer, lung diseases, coronary heart disease, and stroke. Smoking in pregnant women is also associated with poor birth outcomes.<sup>21</sup> In Wyoming, nearly half of all American Indian adults (47.5%) smoke, and both Hispanic adults (25.9%) and American Indian adults (47.5%) have significantly higher rates of smoking than adults who are White, Non-Hispanic (Figure 32).

**Figure 32. Smoking Among Wyoming Adults** 







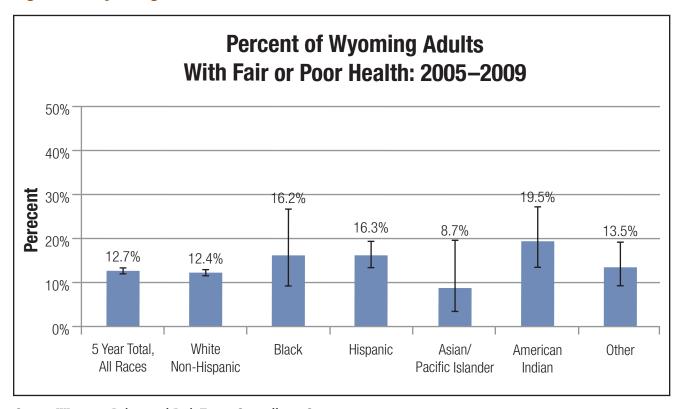
<sup>&</sup>lt;sup>21</sup> Centers for Disease Control and Prevention. Fact Sheet: *Health Effects of Cigarette Smoking*. National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Accessed at http://www.cdc.gov/tobacco/data\_statistics/fact\_sheets/health\_effects/effects\_cig\_smoking/index.htm September 9,2012.





Figure 33 shows the percentage of Wyoming adults who report only fair or poor health. A significantly higher percentage of Hispanic adults (16.3%) and American Indian adults (19.5%) report of fair or poor health status compared to 12.4% of White, Non-Hispanic adults.

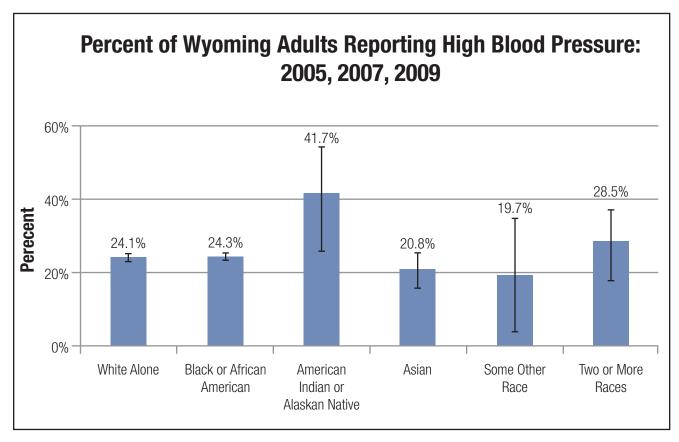
Figure 33. Wyoming Adults with Fair or Poor Health





High blood pressure can pose health risks including coronary heart disease, stroke, and kidney failure if it remains high over time.<sup>22</sup> In Wyoming, a significantly higher percentage of Black adults (41.7%) have high blood pressure compared to Non-Hispanic, White (24.3%) and Hispanic (20.8%) adults.

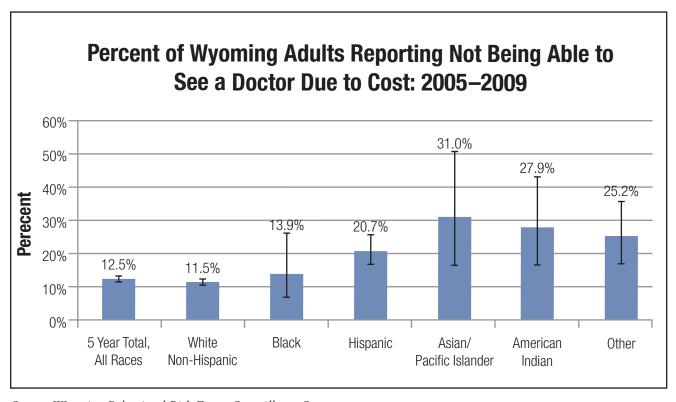
Figure 34. High Blood Pressure in Wyoming Adults



 $<sup>^{22}</sup>$  National Heart Lung and Blood Institute, What is High Blood Pressure? Accessed at http://www.nhlbi.nih.gov/health/health-topics/topics/hbp/ on September 9, 2012 .

Access to healthcare impacts "overall physical, social, and mental health status, prevention of disease and disability, detection and treatment of health conditions, quality of life, preventable death, and life expectancy." Except for Black adults, adults in all other racial/ethnic groups have a significantly higher percentage of adults reporting not being able to see a doctor due to cost compared to Non-Hispanic, White adults (Figure 35).

Figure 35. Wyoming Adults Not Able to See a Doctor Due to Cost







<sup>&</sup>lt;sup>23</sup> U.S. Department of Health and Human Services. Healthy People 2020: Access to Care. Accessed at http://www.healthypeople.gov/2020/topicsobjectives2020/overview.aspx?topicid=1 September 9, 2012.

### **Mortality**

Heart disease and cancer are among the top five leading causes of death for every racial group in the U.S. and Wyoming. Cancer is the second leading cause for every group in Wyoming, but heart disease is replaced as the leading cause of death by unintentional injuries for the American Indian and Other race groups (Table 5). Unintentional injuries appear in the five leading causes for all groups except Asian/Pacific Islanders.

Table 5. Leading Causes of Death by Race in Wyoming, 2005–2007

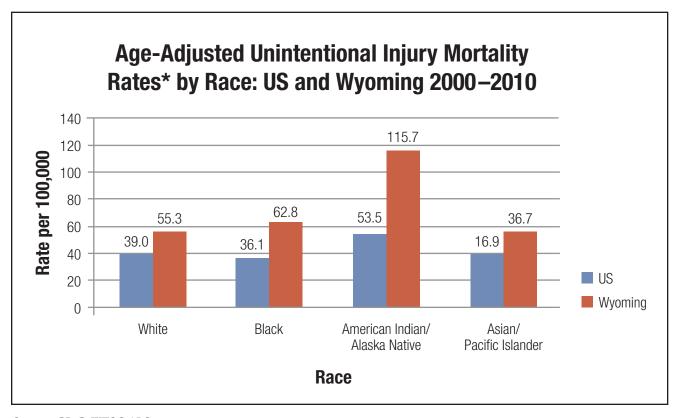
Rank	All Groups	White* A	frican American	AI/AN	Asian/PI	Other
1	Heart Disease (22.9%)	Heart Disease (23.2%)	Heart Disease (20.3%)	Unintentional Injury (18.5%)	Heart Disease (20.0%)	Unintentional Injury (16.7%)
2	Malignant Neoplasms (21.7%)	Malignant Neoplasms (22.0%)	Malignant Neoplasms (15.6%)	Malignant Neoplasms (13.3%)	Malignant Neoplasms (11.4%)	Malignant Neoplasms (13.1%)
3	Chronic Lower Respiratory Disease (7.3%)	Chronic Lower Respiratory Disease (7.5%)	Cerebrovascular Disease (7.8%)	Heart Disease (11.5%)	Influenza & Pneumonia (8.6%)	Heart Disease (12.5%)
4	Unintentional Injury (7.2%)	Unintentional Injury (6.9%)	Unintentional Injury (7.8%)	Liver Disease (10.0%)	Cerebrovascular Disease (5.7%)	Liver Disease (9.2%)
5	Cerebrovascular Disease (5.3%)	Cerebrovascular Disease (5.3%)	Chronic Lower Respiratory Disease (6.3%)	Diabetes Mellitus (6.3%)	Diabetes Mellitus (5.7%)	Diabetes Mellitus (6.2%)

Source: CDC, WISQARS Leading Cause of Death Reports

<sup>\*</sup>Includes Non-Hispanic White and Hispanic White; Hispanic is not listed separately by this data source.

In the U.S., about 180,000 people die annually from violence and unintentional injuries at a cost of more than \$405 billion in medical care and lost productivity.<sup>24, 25</sup> Unintentional injury death rates are higher in Wyoming than in the U.S. for most racial/ethnic groups (Figure 36). For the American Indian group, the rates are much higher than for White adults in Wyoming.

Figure 36. Unintentional Injury Mortality by Race



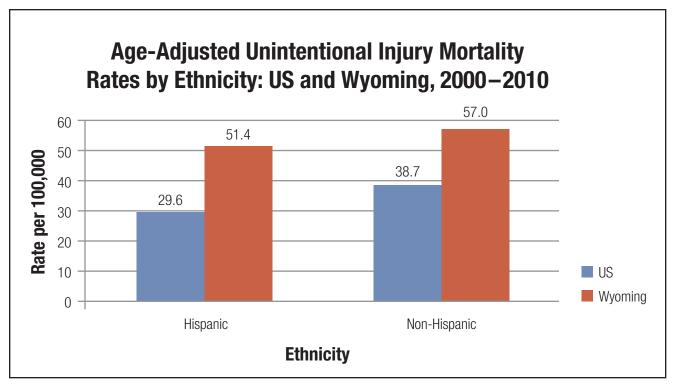
Source: CDC, WISQARS

<sup>\*</sup> The rate for Asian/Pacific Islander race is based on fewer than 20 deaths and may be unreliable.

 <sup>&</sup>lt;sup>24</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS) [online] (2007) [accessed 2011 Mar 4]. Available from URL: http://www.cdc.gov/injury/wisqars.
 <sup>25</sup> Finkelstein EA, Corso PS, Miller TR, Associates. Incidence and Economic Burden of Injuries in the United States. New York, NY: Oxford University Press; 2006.

Unintentional injury is a large public health problem. Unintentional injury rates by ethnicity are shown in Figure 37. Overall rates are similar between Hispanic and Non-Hispanic groups in Wyoming. Rates in both of these groups in Wyoming are higher than U.S. rates.

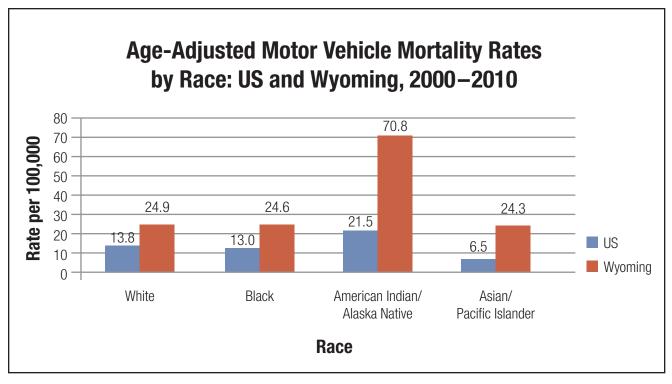
**Figure 37. Unintentional Injury Mortality by Ethnicity** 



Source: CDC, WISQARS

Motor vehicle crashes are a serious issue in Wyoming and in the U.S. Nationally, more people between the ages of 5–34 years are killed in motor vehicle crashes than by any other cause, and on average, eight teenagers are killed in motor vehicle crashes every day.<sup>26</sup> Motor vehicle crash mortality rates are significantly higher in Wyoming than in the U.S. for most racial/ethnic groups (Figure 38). Rates are the highest among American Indians in Wyoming.

Figure 38. Motor Vehicle Mortality Rates by Race



Source: CDC, WISQARS

\*Rates for Black and Asian/Pacific Islander Race are based on fewer than 20 deaths and may be unstable.

<sup>&</sup>lt;sup>26</sup> Centers for Disease Control and Prevention. Web-based Injury Statistics Query and Reporting System (WISQARS). Atlanta, GA [updated 2011 Feb 24; accessed 2011 Nov 1]. Available from: http://www.cdc.gov/injury/wisqars.

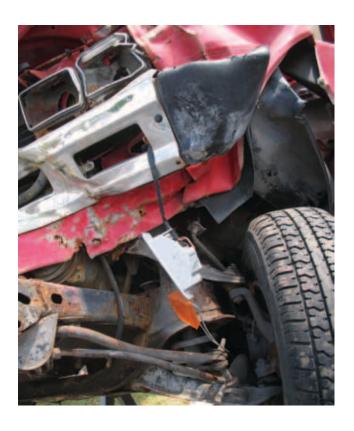
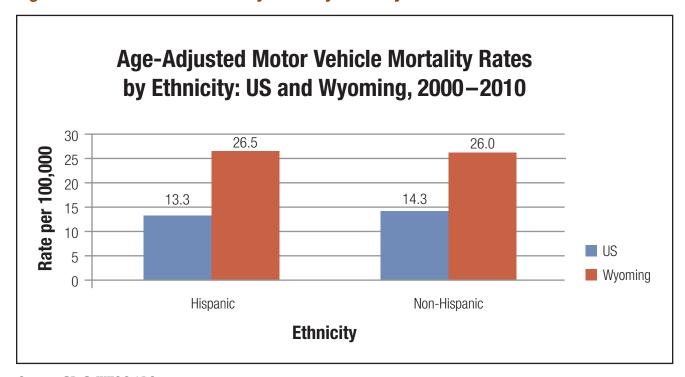




Figure 39 shows motor vehicle mortality rates by ethnicity. Similar to the pattern seen for overall unintentional injury rates by ethnicity, motor vehicle mortality rates are similar between Hispanic and Non-Hispanic groups in Wyoming. Rates in both of these groups in Wyoming are higher than U.S. rates.

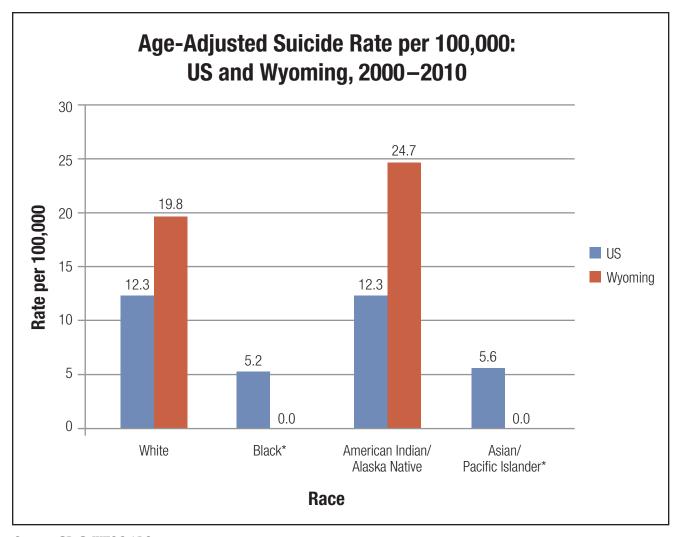
Figure 39. Motor Vehicle Mortality Rates by Ethnicity



Source: CDC, WISQARS

Suicide is a public health problem that results in the deaths of more than 100 people on average every day in the U.S... Although suicide is not one of the five leading causes for Wyoming or the U.S., the suicide rates in most of the western states are higher than those in the rest of the country. Wyoming is no exception with rates higher than the U.S. for most racial groups (Figure 40). There are no significant differences among the rates within the Wyoming groups.

Figure 40. Suicide Rates by Race



Source: CDC, WISQARS

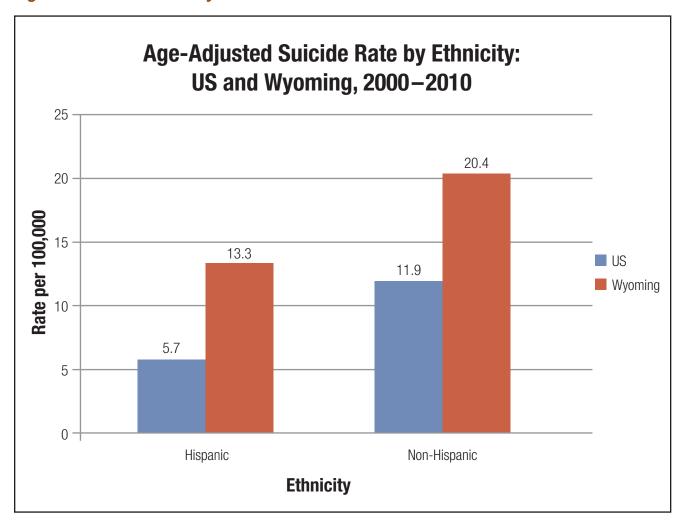
Standard Population is 2000, all races, both sexes. Population estimates are aggregated for multi-year reports to produce rates, including those of unknown age.

<sup>\*</sup>State-level counts and rates based on fewer than 10 deaths have been suppressed.

<sup>&</sup>lt;sup>27</sup> Centers for Disease Control and Prevention. Understanding Suicide Fact Sheet 2012. Available at http://www.cdc.gov/Violence Prevention/pdf/Suicide\_FactSheet\_2012-a.pdf.

<sup>&</sup>lt;sup>28</sup> Kochanek KD, Xu JQ, Murphy SL, Miniño AM, Kung H. Deaths: Final Data for 2009. National Vital Statistics Reports; vol 60 no 3. Hyattsville, MD: National Center for Health Statistics. 2011.

Figure 41. Suicide Rates by Race



Source: CDC, WISQARS

Standard Population is 2000, all races, both sexes. Population estimates are aggregated for multi-year reports to produce rates, including those of unknown age.

### **Discussion**

Although Wyoming has a smaller minority population than many other states, the health disparities described in this report are real and effect the entire population of the state. Because patterns for different indicators differ by racial and ethnic groups, a review of the areas in which the minority groups differ from the White or Non-Hispanic groups are listed below. Note: Not all indicators are available for every group.

## Blacks in Wyoming are more likely than Whites to:

- ► Have lower median family incomes;
- ▶ Have single parent households;
- ► Live below poverty level;
- Not own their own homes:
- Not receive prenatal care in the first trimester of pregnancy;
- ► Not receive any prenatal care;
- ► Have low birth weight infants;
- Have children without continuous health insurance coverage;
- ▶ Drop out of school; and
- ► Have high blood pressure.

## American Indians in Wyoming are more likely than Whites to:

- ► Have lower median family incomes;
- Have single parent households;
- ► Live below poverty level;
- Not own their own homes:
- ▶ Not receive prenatal care in the first trimester;
- ► Not receive any prenatal care;
- Smoke during pregnancy;
- Have higher teen birth rates;
- Have high infant mortality rates;
- ► Have higher overall child death rates and child death rates due to unintentional injuries;
- ▶ Drop out of school;
- ► Not have a college degree;
- Be overweight or obese;

- ► Smoke as adults;
- ▶ Be exposed to secondhand smoke at work;
- Have fair or poor health;
- ► Not get health care due to cost;
- ► Have higher unintentional injury and motor vehicle crash mortality rates.

## Asian/Pacific Islanders in Wyoming are more likely than Whites to:

- Not own their own homes (only Pacific Islanders);
- ► Have a low birth weight baby;
- ► Not smoke during pregnancy;
- ► Have lower teen birth rates:







- ► Have high infant mortality rates;
- ► Have high overall child death rates;
- ► Have a lower rate of high school dropouts;
- ► Attain higher educational levels;
- Not get health care due to cost;
- ► Have lower rates of deaths due to unintentional injuries.

# Hispanics in Wyoming are more likely than Non-Hispanics to:

- ► Have lower median family incomes;
- ► Have single parent households;
- ► Live below poverty level;
- Not own their own homes;
- Not receive prenatal care in the first trimester;

- ► Not receive any prenatal care;
- ► Not smoke during pregnancy;
- ► Have higher teen birth rates;
- ► Have children without continuous health insurance coverage;
- Smoke and drink while high school students;
- ▶ Drop out of school;
- ► Have lower levels of educational attainment;
- ► Smoke as an adult;
- ▶ Be exposed to secondhand smoke at work;
- ▶ Be overweight or obese;
- ▶ Be very obese;
- ► Have fair or poor health;
- Not get health care due to cost

#### **APPENDIX A**

#### **Glossary of Terms Used in this Document**

**BRFSS:** The Behavioral Risk Factor Surveillance System is an ongoing, monthly telephone survey which collects data from randomly selected North Carolina adults in households with telephones.

**Confidence Intervals:** Confidence intervals are included in many of the charts in this report and are represented by the vertical lines at the top of the bar in a bar chart. Confidence intervals are a measure of the reliability of an estimate. The confidence intervals in the charts in this report indicate that there is a 95% probability that the true number lies within these intervals. When confidence intervals do not overlap, it is an indication that the difference between two numbers is statistically significant.

**Data:** Information or numbers collected and used to present facts.

**Disparity:** Person(s) or group(s) not being equal in age, rank, health, etc.; gaps, unequal, unfair.

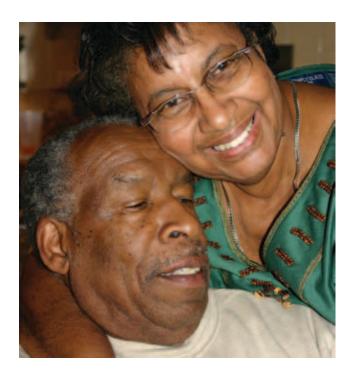
**Health Disparities:** The major differences or inequalities in health that exist between whites and racial/ ethnic minorities.

**Healthy People 2010:** A federal initiative and report that states the goals and targets needed to improve the health and quality of life for individuals and communities.

**Leading Health Indicators:** The major public health concerns in the United States; chosen based on their ability to motivate action.

**Mortality Rate:** The number of deaths in proportion to a population.

**Updated Measure:** The latest available number, rate or measure to be used as a comparison with the Baseline Measure.





### **APPENDIX B**

#### **BRFSS Question Definitions**

**Current cigarette smoking:** Wyoming adults reporting having smoked at least 100 cigarettes in their lifetime and are currently smoking every day or some days.

Daily smoking: Wyoming adults who smoked 100 cigarettes in lifetime and now smoke every day.

**Current some days smoking:** Wyoming adults reporting currently smoking cigarettes some days but not every day.

**Ever smoked cigarettes:** Wyoming adults reporting having ever smoked at least 100 cigarettes in their entire life.

**Current smokeless tobacco use:** Wyoming adults reporting using smokeless tobacco products every day or some days.

**Any current tobacco use:** Wyoming adults reporting at least one of the following: current cigarette smoking (smoking 100 cigarettes in a person's lifetime and currently smoking every day or some days); current smokeless tobacco use; or current cigar, bidi, or pipe smoking. No distinction is made between daily and less frequent use.

**Daily tobacco use:** Wyoming adults reporting everyday use of cigarettes and/or smokeless tobacco products such as chewing tobacco or snuff. (Other tobacco products such as cigars, pipes, bidis, kreteks, or any other tobacco product were not included in this measure because frequency of use was not ascertained.)

**Cigarette smoking and drinking:** Wyoming adults reporting current cigarette smoking (smoking 100 cigarettes in a person's lifetime and currently smoking every day or some days) and any alcohol consumption in the past 30 days.

**Binge drinking:** Wyoming adults reporting consuming 5 or more drinks (4 or more for females) on an occasion at least once in the past 30 days.

**Extreme drinking:** Wyoming adults who reported that the largest number of drinks they had on one occasion in the past month was 10 or more.

**Heavy drinking:** Wyoming men reporting drinking more than 60 drinks of alcohol in the past 30 days, or women reporting drinking more than 30 drinks of alcohol in the past 30 days.

**Drink and drive:** Wyoming adults reporting driving one or more times in the past month when they have had perhaps too much to drink.

**Overweight or obese:** Wyoming adults reporting body mass index (weight in kg/height in meters squared) >= 25.0.

**Obesity:** Wyoming adults reporting body mass index (weight in kg/height in meters squared) >=30.0.

**No leisure time physical activity:** Wyoming adults reporting no physical activity in past 30 days other than their regular job.

**Insufficient sleep:** Wyoming adults who report getting insufficient sleep all 30 of the past 30 days.

**No health insurance:** Wyoming adults reporting not having any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare.

**Working poor:** Wyoming adults reporting they are employed for wages and have annual household incomes less than \$25,000.

**Alternate working poor:** Wyoming adults reporting they are employed for wages or are self-employed and have annual household incomes less than \$25,000.

**No health insurance, age 18–64 years:** Wyoming adults age 18–64 reporting not having any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare.

**No personal doctor:** Wyoming adults reporting they do not have one or more persons they think of as their personal doctor or health care provider.

**Unable to see a doctor for needed care:** Wyoming adults reporting they were unable to see doctor because of the cost at least once in past 12 months

**Any health care access risk factor:** Wyoming adults reporting at least one of the following: no health insurance, no personal doctor/doctors, or unable to see a doctor for needed care because of the cost at least once in the past year.

**All 3 access issues:** Wyoming adults reporting no health care coverage, no personal doctor, and could not see a doctor for needed care because of the cost at least once in the past 12 months.

**Underinsured:** Wyoming adults reporting either of the following: 1) uninsured, or 2) insured and couldn't see a doctor for needed care because of the cost at least once in the past 12 months.

**Checkup in 2 years:** Wyoming adults reporting having visited a doctor for a routine checkup in the past 2 years.

**No recent checkup:** Wyoming adults reporting having not visited a doctor for a routine checkup in 5 years or never had one.

**Recent fall, age 45+:** Wyoming adults age 45 and older reporting at least one fall in the past 3 months.

**Injury from recent fall, age 45+:** Wyoming adults age 45 and older reporting at least one injury from a fall in the past 3 months.

**Does not always use seatbelts:** Wyoming adults who do not always use seatbelts when they ride in a car. Denominator excludes person who never ride in a car.

**Heart disease:** Wyoming adults reporting having ever been told by a doctor, nurse, or other health professional that they had a heart attack, angina, or coronary heart disease.

**Stroke:** Wyoming adults reporting having ever been told by a doctor, nurse, or other health professional that they had a stroke.

**Cardiovascular disease (CVD):** Wyoming adults reporting having ever been told by a doctor, nurse, or other health professional that they have had heart disease or stroke.

**Diabetes:** Wyoming adults reporting they were told by a doctor they have diabetes. Women who were only told this during pregnancy are counted as not having diabetes

**Pre-diabetes:** Wyoming adults who do not have diabetes reporting (on optional module) pre-diabetes or borderline diabetes. For 2009, this includes women who were told during pregnancy.

**Any diabetes:** Wyoming adults reporting either diabetes (on core) or pre-diabetes (on optional module). Denominator is all adults

### Community diabetes activities awareness:

Wyoming adults reporting that they have heard of activities to address the problem of diabetes in their community. Those that do not know were included as not having heard of.

#### **Blood sugar test:**

Wyoming adults without diabetes reporting a test for high blood sugar or diabetes within 3 years.

#### Lifetime asthma:

Wyoming adults reporting they have ever been told by a doctor that they have asthma.

#### **Current asthma:**

Wyoming adults reporting they have ever been told by a doctor that they have asthma and report they still have asthma.

Any chronic condition (all years): Wyoming adults reporting heart disease, stroke, diabetes or current asthma.

