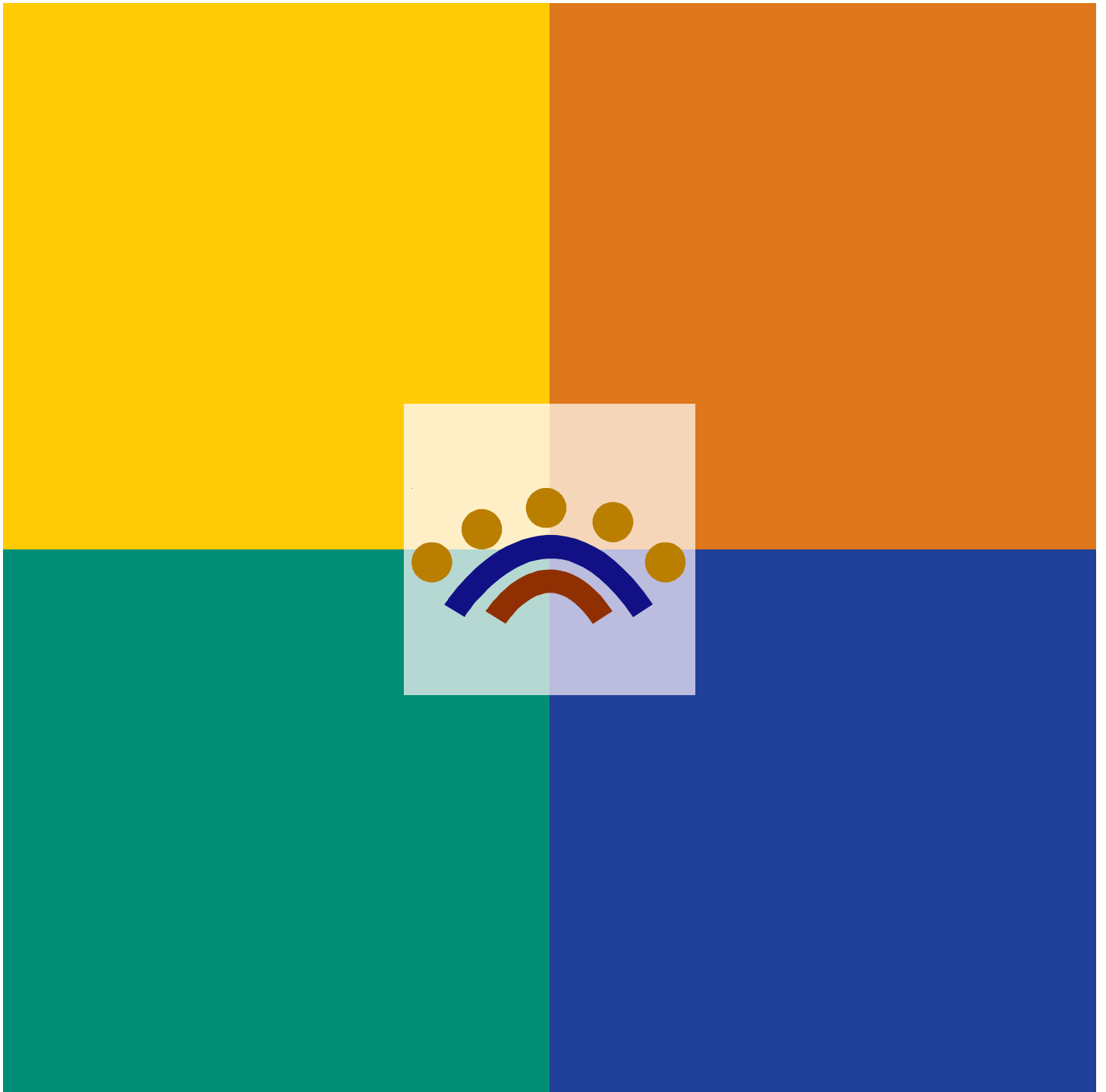


# HEALTH STATUS

by Race and Ethnicity

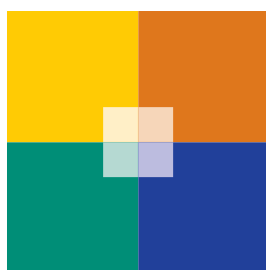


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This report is also available on the Internet at URL:  
<http://ibis.health.utah.gov/ophapubs.html>

# HEALTH STATUS

by Race and Ethnicity



Utah Department of Health  
Office of Public Health Assessment  
Center for Health Data

May 2005

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## **Suggested citation**

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The 2005 report, Utah Health Status by Race and Ethnicity, portrays important “health disparities” by race and ethnicity. Disparities are said to exist when the health status on a given measure in one or more race/ethnic populations is different from that found in other populations. It is a national goal of the U.S. Public Health Service to eliminate health disparities including those by race and ethnicity, sex, income, education, sexual orientation, disability, and geographic location.

We acknowledge that significant diversity exists within each of the race and ethnic categories used in this report, and that the use of such broad categories will, at times, obfuscate health disparities among smaller subgroups. Regardless of its limitations, it is hoped that this report will serve as a guide for Utah Department of Health programs, Utah’s Ethnic Health Advisory Committee, and others with an interest in reducing health disparities, so that they may make evidence-based decisions on their priorities and future activities aimed at improving health status in Utah populations.

The report was produced with significant contributions from programs across the Utah Department of Health. Health program staff produced the most recent data available by race and ethnicity and submitted text contributions. The contributing health programs are cited at the bottom of each data page. Readers with additional questions on the information presented on a page can contact the health program cited at the bottom of that page.

This report presents 69 data pages. Each data page represents a quantitative measure that indicates population health status according to a key public health construct, such as infant mortality or cigarette smoking. For each measure, text health status and provide contextual understanding of the issue. The order of of contents.

The text element, “Why is it important?” the public health relevance of the measure. state’s overall results on the measure, as race or ethnic disparities. “How can we race- and ethnicity-specific interventions that are effective in improving status on the measure.



and data elements provide a view of information that aim to enrich reader the data pages is displayed in the table

includes a short paragraph that describes “How are we doing?” describes the well as text bullets that describe any improve?” describes general as well as

Near the top of each page is a bar graph that depicts the age-adjusted values for the measure for all Utahns, and for selected race and ethnic populations. Each bar in this graph includes a narrow line that depicts the 95% confidence interval for that bar. At the bottom of each page is a data table that includes those age-adjusted values as well as the annual number of events, population counts that were used to compute rates, and crude rates and 95% confidence intervals for the crude and age-adjusted rates. A description of the use and meaning of confidence intervals may be found in Appendix F on page 100.

Readers may notice that the race and Hispanic ethnicity categories that were used vary from one page to another. Whenever possible, five race categories were used, separating Pacific Islander from Asian, but this was not always possible. It was also our goal to present three categories for Hispanic ethnicity: Hispanic or Latino; White, non-Hispanic; and other non-Hispanic, but sometimes the data were not presented to us in this way. As a result, each page represents the way the data have been stored. In some cases, as with the death certificate data, data are now stored with Asian and Pacific Islander coded separately, but the change occurred only recently and sufficient data from past years were not available to produce reliable results by race and ethnicity. Readers must refer to the labels on the graphs and tables to see how race and ethnicity have been presented for that measure. A complete description of the race and ethnicity grouping recommended by the U.S. Office of Management and Budget [OMB] may be found in Appendix B on page 92.



# Introduction

Population counts used to compute population rates are presented in the data tables on each page. The data used to calculate each measure spanned the time period that included the year 2000. Because the 2000 U.S. Census numbers are considered the most reliable estimates available, those numbers have been used as population denominators, regardless of the exact time period used in the numerator data. A complete table of numbers used, as well as a description of considerations in using those numbers is included in Appendix C on page 94.

Other appendices to this report include descriptions of how rates were computed, why age-adjusted numbers were used to make race/ethnic comparisons, and other technical considerations.



## Executive Summary

The Healthy People 2010 initiative was designed to promote health and prevent illness, disability, and premature death. The health objectives detailed in the initiative provide a roadmap to improve health in the first decade of the twenty-first century.

The goals of Healthy People 2010 are to:

- Increase quality and years of healthy life
- Eliminate health disparities

Eliminating health disparities in racial and ethnic communities has not been an easy task, although efforts have already made some progress. Identifying health disparities through data is the first step in eliminating disparities.

This report provides relevant information about the health status of our minority communities through 69 health status indicators in the state of Utah, using data that ranges from 1997 through 2004.

This report has been organized into the following eight sections:

- Demographic Context
- Health Care Services and Systems
- Risk Factors for Illness
- Health Problems of Mothers and Infants
- Infectious Diseases
- Injury and Violence
- Chronic Diseases and Conditions
- Cancer

Highlights from each section in which significant health disparities were found among minority communities are outlined below. Further detail on these indicators can be found in the report.

### Demographic Context

- On average, Utah's population is younger than that of other states, with 27.1 as the median age compared to 35.3 for the U.S. With the exception of the Asian population, the average ages of minority populations within Utah are lower than that found in the White, non-Hispanic population.
- The highest all-cause death rate was found among Black or African American persons (1,016.0 per 100,000 population compared with 797.2 in Utah, overall).
- The shortest life expectancy at birth among all groups was found among Black/African American (74.2 years) or American Indian/Alaska Native (74.5 years) Utahns, compared with 77.9 years, overall.
- American Indian/Alaska Native (17.4%) and Hispanic/Latino (12.7 %) persons had higher rates of poverty than Utah's general population (9.1%). Children who were American Indian/Alaska Native (37.6%), Black or African American (23.9%), and Hispanic/Latino (22.2%) were more likely to be living in poverty than children statewide (10.1%).

### Health Care Services and Systems

- The proportion of persons covered by health insurance was lowest in the Hispanic/Latino population (24.8%). In other words, one out of every four Hispanic/Latino persons did not have insurance.
- Hispanic/Latino Utahns were significantly less likely than the state to report they had a usual source of care, colon cancer screening, Pap test, PSA test, blood cholesterol screening, and adult influenza immunization.



## Executive Summary

- Utah's American Indian/Alaska Native populations were most likely to report that they were unable to access care when they needed it even though they had health insurance. Indian Health Service was considered health insurance coverage for this analysis.
- Black/African American Utahns had the largest percentage of persons reporting high blood pressure (35.8% compared with 22.6% overall).
- Utah's minority communities each had significantly lower rates of early prenatal care than Utah's overall population (78.0%). Utah's Native Hawaiian/Pacific Islander population (48.1%) had the lowest percentage of mothers receiving early prenatal care.

### Risk Factors for Illness

- Overweight/obesity increases risk for chronic disease. With the exception of Asian (32.1%), all Utah minority groups had significantly higher percentages of adult overweight/obesity (64.0% to 79.9%) when compared against the overall population (55.6%).
- Most likely to report "no physical activity" were American Indian/Alaska Native and Hispanic/Latino Utahns.
- Cigarette smoking was reportedly higher among Utahns who were Black/African American.
- Chronic drinking was more common among Utah's American Indian/Alaska Native (8.6%) population. Binge drinking was significantly more common among persons who were Black/African American (24.9%), American Indian/Alaska Native (18.5%), and Hispanic/Latino (14.5%) compared with all Utahns (9.4%).

### Health Problems of Mothers and Infants

- The infant mortality rate for all Utah infants was 5.2 per 1,000 live births. Among Black/African American and Hispanic/Latino populations, the infant death rate was significantly higher (13.8 and 6.4 respectively).
- Of all live births, 6.6% of Utah infants were born with low birth weight. Babies born to Black/African American (14.7%), American Indian/Alaska Native (9.2%), and Asian (8.8%) mothers were at greater-than-average risk of being low birth weight. The percentage of babies born with low birth weight among Black or African American mothers was more than double than Utah's general population.
- Adolescent births are defined as births to girls aged 15–17. Rates of adolescent births were highest among Hispanic/Latina (65.9 per 1,000 girls), and were also significantly higher among American Indian/Alaska Native (44.0), and Native Hawaiian/Pacific Islander (31.9) girls compared with the state average. The Hispanic/Latina rate was nearly four times the rate for Utah overall (17.5).
- Rates of structural birth defects were lower among Asian/Pacific Islander (17.2 per 1,000 births), Black/African American (14.3), and Hispanic/Latino (18.4) Utah mothers than for Utah mothers overall.

### Infectious Diseases

- New cases of tuberculosis were more common among persons who were Black/African American (19.9 per 100,000), Asian (15.8), Native Hawaiian/Pacific Islander (10.3), and Hispanic/Latino (5.9) than all Utahns (1.7).
- Chlamydia rates were higher among American Indian/Alaska Native (212.3, per 100,000), Black/African American (368.6), and Hispanic/Latino (402.1) populations than among the entire state (147.5).





## Executive Summary

- Rates of gonorrhea were higher among Black/African American (85.0 per 100,000) and Hispanic/Latino (34.6) Utahns than for Utah overall.
- HIV incidence was higher among Black/African American (78.0 per 100,000) and Hispanic/Latino (15.7) communities than among Utah's general population (7.7).

### Injury and Violence

- The rate of unintentional injury deaths among American Indian/Alaska Native Utahns (76.7 per 100,000) was more than twice as high as Utah's overall rate (33.8). The rate of motor vehicle crash deaths was nearly four times as high among American Indian/Alaska Native Utahns as the general population.
- In Utah, Black/African American, American Indian/Alaska Native, and Hispanic/Latino persons die from homicide at a rate two to three times that of the general population.

### Chronic Diseases and Conditions

- The percentage of persons who reported fair or poor health (as opposed to good, very good or excellent health) was higher among Utahns who were American Indian/Alaska Native (21.5%), Native Hawaiian/Pacific Islander (17.6%), or Hispanic/Latino (19.5%) than for all Utahns (11.0%).
- Utah's Black/African American and American Indian/Alaska Native populations were most likely to report seven or more days of poor mental health (27.1% and 22.9% respectively), compared to the overall state rate (15.0%).
- The percentage of adults diagnosed with arthritis in Utah was somewhat higher than average for Utah's American Indian/Alaska Native (32.2%) and Black/African American (34.3 %) populations. Arthritis was also more common among women, older persons, and persons who had hypertension or diabetes.
- Asthma incidence among Utahns who were American Indian/Alaska Native (11.4%) was twice the rate found among Utahns overall (5.5%).
- Diabetes rates among American Indian and Alaska Native persons were about twice that of all Utahns for both diabetes and diabetes deaths. Hispanic/Latino populations had higher diabetes prevalence among adults aged 35 or over.<sup>1</sup>
- American Indian/Alaska Native Utahns (8.7%) were more likely to have been diagnosed with coronary heart disease than the state overall (4.5%). Utah's Asian/Pacific Islander (31.9 per 100,000 population) and Hispanic/Latino (71.7) populations had lower rates of death from coronary heart disease than the state overall (99.4).

### Cancer

- Colorectal cancer death rates were highest among Utah's Black/African American population (35.8 per 100,000) compared to Utah's general population (16.1).
- Black or African American men (63.0) had twice the risk of death from prostate cancer as men from Utah's general population (31.4 per 100,000 males).

The Utah Department of Health has been working for many years with initiatives to eliminate the inequalities in the health of our state. The Department continuously strives to improve information systems because they are an indispensable tool to eliminate the disparities or inequalities that exist in health.



# Guide to This Report

This label describes the measure being addressed on the current page.

The section heading appears at the top of each page.

This graph displays the age-adjusted rate (when available) by race and ethnicity.

This text further defines and describes the measure being addressed and why it is important.

This text summarizes overall findings as well as racial and ethnic disparities for the measure using data from the table.



## Demographic Context

### Death Rates

#### Why Is It Important?

The overall death rate of a population is the ratio of persons who died over a certain period, from any cause, to the number of persons remaining in the population. A lower death rate indicates better overall health status and longer life expectancy.

#### How Are We Doing?

- Utah has enjoyed low death rates compared to other states, probably due to healthy lifestyles (especially low rates of tobacco, alcohol, and substance use), lower rates of poverty, and better access to excellent health care.
- Lower overall death rates were found from 1998–2003 for Asian/Pacific Islander and Hispanic/Latino Utahns. The overall death rates among Utah's Black population was statistically significantly higher than the overall rate.

#### How Can We Improve?

Race and ethnic disparities in the all-cause death rate exist because there are disparities in the leading causes of death. The leading causes of death are similar for all Utahns: heart disease, cancer, stroke, diabetes, pneumonia and influenza, and motor vehicle crash deaths. Interventions that focus on prevention and appropriate treatment of those diseases will improve all-cause death rates.

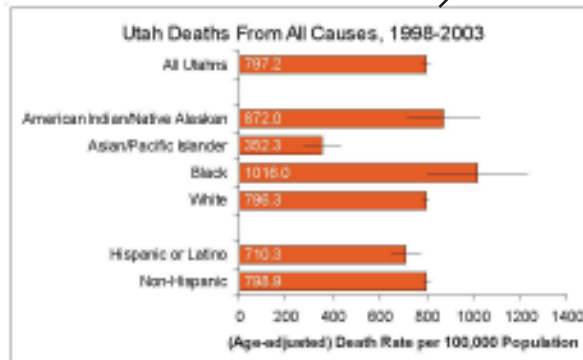
Evidence of race and ethnic disparities have been documented at various points in the U.S. health care system, including having a usual source of care, getting an accurate diagnosis, getting appropriate treatment, and use of prescription medications. Such differences persist, even after controlling for health insurance coverage and sociodemographic characteristics. Suggested interventions to ensure that all patients receive effective, understandable, and respectful care include cultural sensitivity training for medical and front office staff, recruitment of more diverse and locally appropriate staff and

leadership, and provision of language assistance.<sup>1</sup>

Utah Deaths From All Causes, 1998–2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate	Age-Adjusted Rate*
All Utahns	12,515	2,233,169	560.3 ( 550.5 – 570.1 )	797.2 ( 782.2 – 811.1 )
American Indian/Native Alaskan	120	33,733	356.7 ( 293.0 – 420.5 )	872.0 ( 716.2 – 1028.0 )
Asian/Pacific Islander	75	59,348	131.4 ( 102.3 – 160.6 )	352.3 ( 274.1 – 430.5 )
Black	87	23,063	375.1 ( 296.0 – 454.1 )	1015.0 ( 802.2 – 1231.0 )
White	12,125	2,117,026	572.7 ( 562.5 – 582.9 )	796.3 ( 782.1 – 810.4 )
Hispanic or Latino	465	201,558	230.8 ( 209.8 – 261.8 )	710.3 ( 645.8 – 774.9 )
Non-Hispanic	12,045	2,031,610	583.0 ( 582.4 – 603.6 )	795.9 ( 784.7 – 813.2 )

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database  
\*Age adjusted to the U.S. 2000 standard population

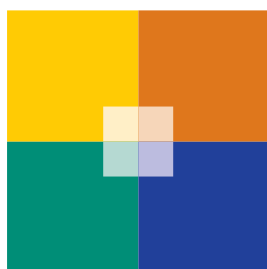


This table contains the data used to create the graph. It also includes the sample size (where applicable), total number of adults in the relevant population, and the estimated number of those adults who were affected by the measure.

Utah Department of Health program information related to the measure is included in this text.



# DEMOGRAPHIC CONTEXT





## Age Distribution of the Population

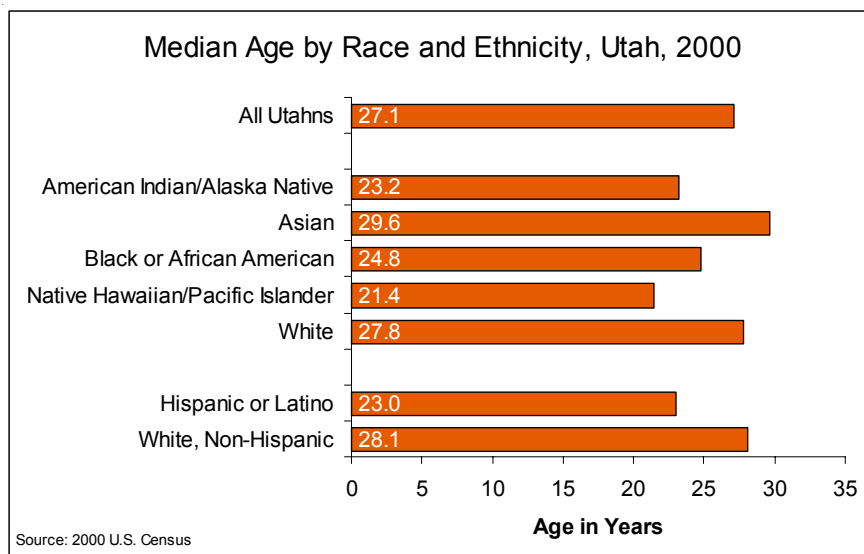
### *Why Is It Important?*

Utah has a young population compared with the U.S., and certain race and ethnic groups are even younger, on average. Because health status is strongly associated with one's age, we must use age-adjusted estimates of health status to compare population groups on overall health status beyond just the contribution of age.

### *How Are We Doing?*

- Utahns are on average younger than the rest of the U.S. population. Utah's median age (the age at which half the population is younger and the other half older) in 2000 was 27.1 compared with 35.3 in the U.S.
- The median ages in Utah's race and ethnic communities vary.
 

– American Indian/Alaska Native	23.2
– Asian	29.6
– Black or African American	24.8
– Native Hawaiian/Pacific Islander	21.4
– White	27.8
– Hispanic/Latino	23.0
– White, non-Hispanic	28.1



### *How Can We Improve?*

The Utah Department of Health maintains up-to-date information on population estimates for Utah's race and ethnic populations so that health statistics may be appropriately interpreted. We must also be aware that age is a component of culture and that the age of a population has implications for the types of services emphasized (e.g., family planning versus cancer screening).

### Age Distribution of the Utah Population, 2000

Race/Ethnicity	<1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75-84	85+	Total Population
All Utahns	2.00%	7.38%	17.25%	19.77%	14.65%	13.41%	10.64%	6.38%	4.55%	3.00%	0.97%	100.00%
American Indian/Alaska Native	0.03%	0.13%	0.35%	0.32%	0.24%	0.21%	0.12%	0.06%	0.03%	0.01%	0.01%	1.51%
Asian	0.03%	0.12%	0.26%	0.37%	0.39%	0.28%	0.21%	0.10%	0.07%	0.04%	0.01%	1.87%
Black or African American	0.03%	0.12%	0.23%	0.21%	0.17%	0.14%	0.08%	0.03%	0.02%	0.01%	0.00%	1.03%
Native Hawaiian/Pacific Islander	0.02%	0.08%	0.19%	0.18%	0.12%	0.09%	0.06%	0.03%	0.01%	0.01%	0.00%	0.78%
White	1.88%	6.93%	16.22%	18.70%	13.73%	12.69%	10.18%	6.16%	4.42%	2.93%	0.96%	94.80%
Hispanic or Latino	0.26%	0.94%	1.81%	1.92%	1.78%	1.14%	0.62%	0.30%	0.17%	0.07%	0.02%	9.03%
White, Non-Hispanic	1.63%	6.05%	14.52%	16.87%	12.03%	11.61%	9.58%	5.87%	4.26%	2.86%	0.94%	86.23%
Other, Non-Hispanic	0.10%	0.39%	0.92%	0.97%	0.83%	0.66%	0.44%	0.21%	0.12%	0.07%	0.02%	4.74%

Source: Asian and Pacific Islander estimates calculated by Lois Haggard, all others from 2000 U.S. Census bridged data.

## Death Rates

### Why Is It Important?

The overall death rate of a population is the ratio of persons who died over a certain period, from any cause, to the number of persons remaining in the population. A lower death rate indicates better overall health status and longer life expectancy.

### How Are We Doing?

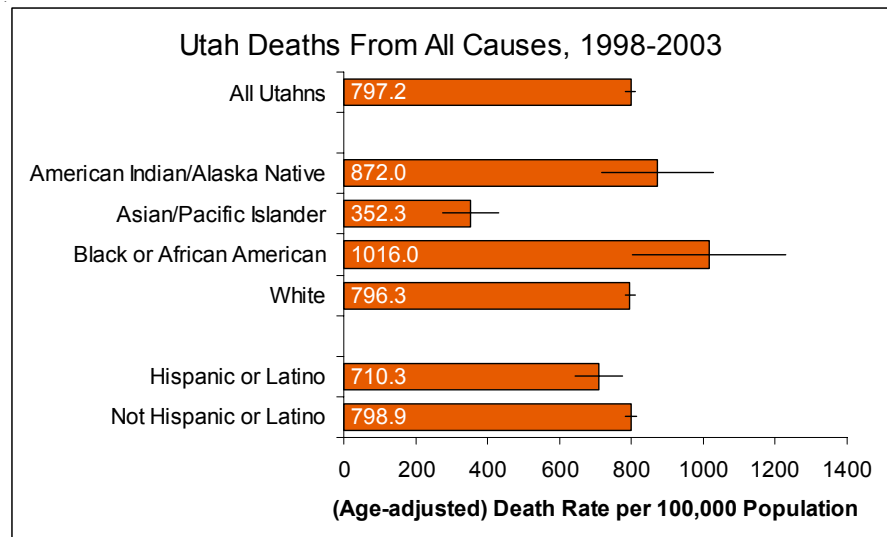
- Utah has enjoyed low death rates compared to other states, probably due to healthy lifestyles (especially low rates of tobacco, alcohol, and substance use), lower rates of poverty, and better access to excellent health care.
- Lower overall death rates were found from 1998–2003 for Asian/Pacific Islander and Hispanic/Latino Utahns. The overall death rates among Utah's Black/African American population was statistically significantly higher than the overall rate.

### How Can We Improve?

Race and ethnic disparities in the all-cause death rate exist because there are disparities in the leading causes of death. The leading causes of death are similar for all Utahns: heart disease, cancer, stroke, diabetes, pneumonia and influenza, and motor vehicle crash deaths. Interventions that focus on prevention and appropriate treatment of those diseases will improve all-cause death rates.

Evidence of race and ethnic disparities have been documented at various points in the U.S. health care system, including having a usual source of care, getting an accurate diagnosis, getting appropriate treatment, and use of prescription medications. Such differences persist, even after controlling for health insurance coverage and sociodemographic characteristics. Suggested interventions to ensure that all patients receive effective, understandable, and respectful care include cultural sensitivity training for medical and front office staff, recruitment of more diverse and locally appropriate staff and leadership, and provision of language assistance.<sup>2</sup>

### Utah Deaths From All Causes, 1998-2003



Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-Adjusted Rate* (95% CI Range)	Sig.**
All Utahns	12,513	2,233,169	560.3 ( 550.5 - 570.1 )	797.2 ( 783.2 - 811.1 )	n/a
American Indian/Alaska Native	120	33,733	356.7 ( 293.0 - 420.5 )	872.0 ( 716.2 - 1,028.0 )	
Asian/Pacific Islander	78	59,348	131.4 ( 102.3 - 160.6 )	352.3 ( 274.1 - 430.5 )	↓
Black or African American	87	23,063	375.1 ( 296.0 - 454.1 )	1,016.0 ( 802.2 - 1,231.0 )	↑
White	12,125	2,117,025	572.7 ( 562.5 - 582.9 )	796.3 ( 782.1 - 810.4 )	
Hispanic or Latino	465	201,559	230.9 ( 209.9 - 251.8 )	710.3 ( 645.8 - 774.9 )	↓
Not Hispanic or Latino	12,048	2,031,610	593.0 ( 582.4 - 603.6 )	798.9 ( 784.7 - 813.2 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

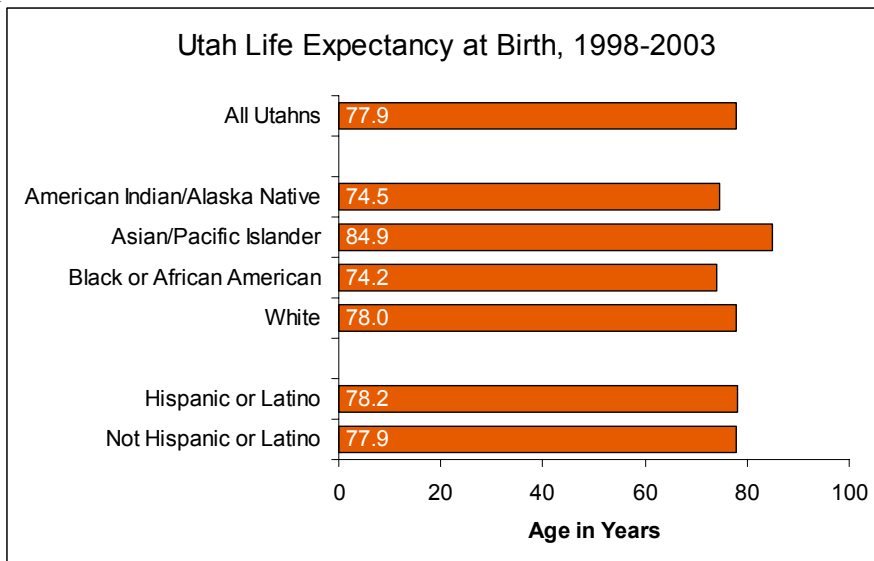


## Life Expectancy at Birth

### *Why Is It Important?*

Shifts in life expectancy are often used to describe trends in mortality. Being able to predict how populations will age has implications for the planning and provision of services and support. Small increases in life expectancy translate into large increases in the population.

As the life expectancy of a population lengthens, the number of people living with chronic illnesses tends to increase because chronic illnesses are more common among older persons.



### *How Are We Doing?*

- Prevention and control of infectious diseases has had a profound impact on life expectancy during the twentieth century. In the United States, life expectancy at birth from 1900 to 2000 increased from 48 to 74 years for men, and from 51 to 79 years for women. In contrast to life expectancy at birth, which increased sharply early in the twentieth century, life expectancy at age 65 improved primarily after 1950. Improvements in nutrition, hygiene, and medical care contributed to decreases in death rates throughout the lifespan.
- Life expectancy for the combined Asian/Pacific Islander populations (age 84.9) is higher than that in the rest of the state (77.9), while life expectancy for Utah's Black/African American and American Indian/Alaska Native populations is somewhat lower (74.2 and 74.5, respectively).

### *How Can We Improve?*

Improving life expectancy will require the same sort of thorough effort that is required to decrease the all-cause death rate. In contrast to the overall death rates, because of the way life expectancy is computed, increases in life expectancy are more sensitive to deaths among younger age groups, and especially infant mortality, than reductions in death rates among older age groups.

### Utah Life Expectancy at Birth, 1998-2003

Race/Ethnicity	Life Expectancy
All Utahns	77.9
American Indian/Alaska Native	74.5
Asian/Pacific Islander	84.9
Black or African American	74.2
White	78.0
Hispanic or Latino	78.2
Not Hispanic or Latino	77.9

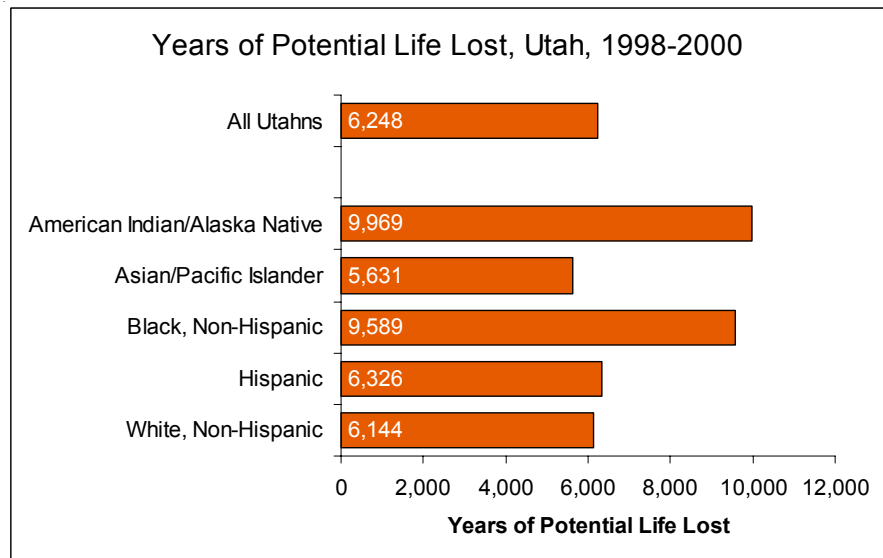
Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

Note: Reed-Merrill method was used to compute life expectancy.

## Years of Potential Life Lost

### *Why Is It Important?*

Since most deaths occur among persons in older age groups, overall death rates are dominated by the underlying disease processes of the elderly. Years of potential life lost (YPLL) puts more weight on deaths among younger persons. Although somewhat controversial, it assumes an average life expectancy of age 75 and totals the number of years of life lost per 100,000 persons due to premature mortality (death before age 75) in a given population.



### *How Are We Doing?*

- Using YPLL as an indicator of premature mortality, the greatest number of years lost were in Utah's American Indian/Alaska Native (9,969 years per 100,000 persons) and Black, non-Hispanic (9,589 years) populations.
- The lowest number of years lost was found in the combined Asian/Pacific Islander populations (5,631 years).

### *How Can We Improve?*

Interventions to reduce YPLL will be similar to those for overall mortality and life expectancy. Effective interventions should ensure that all patients receive effective, understandable, and respectful care, and include cultural sensitivity training for medical and front office staff, recruitment of more diverse and locally appropriate staff and leadership, and provision of language assistance.<sup>2</sup>

## Years of Potential Life Lost (YPLL) Before Age 75, Utah, 1998-2000

	All Races	American Indian/Alaska Native	Asian/Pacific Islander	Black, Non-Hispanic	Hispanic	White, Non-Hispanic
United States	7,615	8,162	3,847	13,424	6,079	6,961
Utah	6,248	9,969	5,631	9,589	6,326	6,144

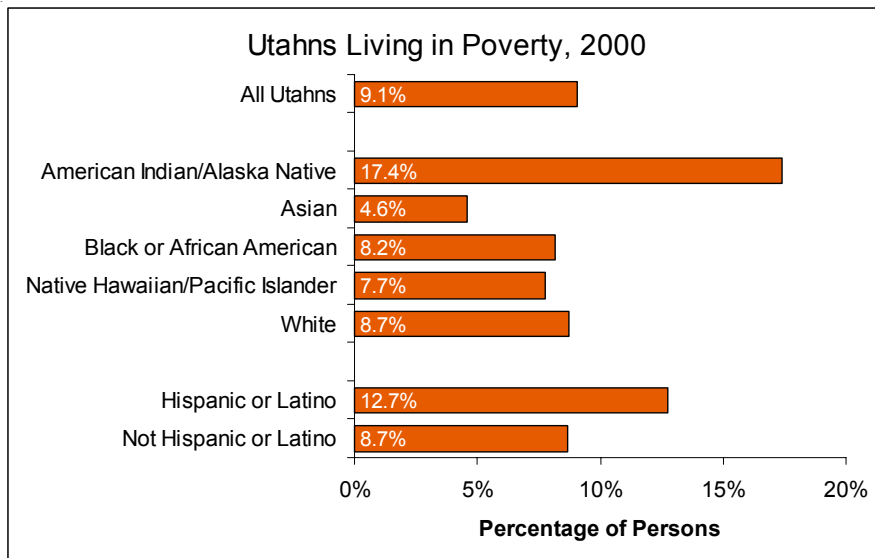
Source: National Vital Statistics System, National Center for Health Statistics, CDC.

Note: Age-adjusted YPLL before age 75 per 100,000 population.

## Poverty

### *Why Is It Important?*

Poverty status takes into account both income and family size and is strongly associated with overall health status. The measure is based on the federal poverty level (FPL) published annually by the U.S. Department of Health and Human Services. In 2005, the FPL for a family of four was \$19,350. The percentage of persons in poverty provides an indicator of the financial resources available for basic necessities (e.g., food, clothing, and health care) to maintain or improve individual and family well-being.



### *How Are We Doing?*

- In 2000, over 202,000 Utahns were living in poverty.
- Utah's American Indian/Alaska Native and Hispanic/Latino populations had higher poverty rates, while poverty rates in Utah's Asian population were lower than the state overall rate.
- Note that the poverty rates on this page have not been age adjusted, and the younger American Indian/Alaska Native and Hispanic/Latino populations are, on average, earlier in their careers and lifelong earning power, which may account for some share of the higher poverty rates.

### *How Can We Improve?*

Poverty is a result of complex social and economic forces. Some interventions aim to reduce the number of persons in poverty by improving an individual's ability to contribute to and compete in society. Those approaches might include improving educational attainment and job training, and reducing teen pregnancy. Other approaches aim to ameliorate the negative impacts of poverty by providing safety net services essential for basic subsistence. These latter approaches include provision of free or low-cost basic medical and dental health care, food stamps, TANF (Temporary Assistance to Needy Families), and affordable housing.

Percentage of Utahns Living in Poverty, 2000

Race/Ethnicity	# in Poverty	Total Population	Crude Rate
All Utahns	202,189	2,233,169	9.1%
American Indian/Alaska Native	5,866	33,733	17.4%
Asian	1,910	41,866	4.6%
Black or African American	1,880	23,063	8.2%
Native Hawaiian/Pacific Islander	1,354	17,482	7.7%
White	184,602	2,117,025	8.7%
Hispanic or Latino	25,651	201,559	12.7%
Not Hispanic or Latino	176,502	2,031,610	8.7%

Source: U.S. Census 2000

Note: In 2000, the U.S. Census Bureau poverty threshold was \$17,603 for a family of four.

## Child Poverty

### *Why Is It Important?*

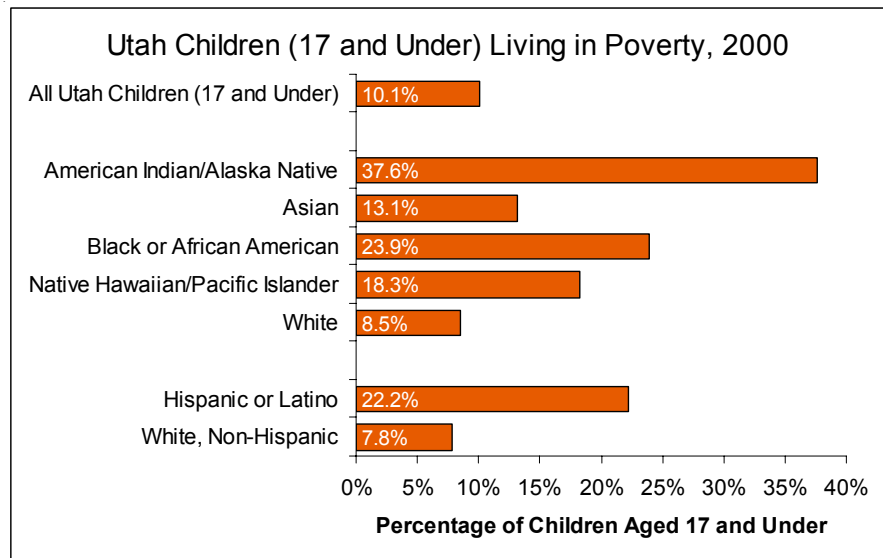
Poverty in the early years of a child's life, more than at any other time, has especially harmful effects on continuing healthy development and well-being, including developmental delays and infant mortality. Well-being in later childhood, such as teen pregnancy, substance abuse, and educational attainment, are also influenced by early childhood poverty.<sup>3</sup>

### *How Are We Doing?*

- Utah has a lower proportion of children in poverty than the U.S. as a whole.
- In 2000, an estimated 10.1% of Utah children aged 17 or under (nearly 72,000 Utah children) were living in poverty.
- Children in Utah's White, non-Hispanic population have the lowest poverty rates among all groups. Conversely, regardless of the racial or ethnic population, Hispanic/Latino and non-White Utah children are at higher risk of living in poverty than children who are White and non-Hispanic/Latino.

### *How Can We Improve?*

Most of the approaches to overall poverty are applicable to childhood poverty. In addition, there is greater emphasis on affordable child care for parents who need to attend school or work, preventive health and dental care for children, and access to affordable family planning services to decrease teen pregnancy and increase the likelihood that all pregnancies are intended.



Percentage of Utah Children (Age 17 and Under) Living in Poverty, 2000

Race/Ethnicity	# of Children in Poverty	Total Child Population	Crude Rate
All Utah Children (17 and Under)	71,765	708,295	10.1%
American Indian/Alaska Native	3,821	10,166	37.6%
Asian	1,179	8,980	13.1%
Black or African American	1,264	5,298	23.9%
Native Hawaiian/Pacific Islander	1,073	5,865	18.3%
White	52,658	618,731	8.5%
Hispanic or Latino	16,603	74,880	22.2%
White, Non-Hispanic	46,022	587,220	7.8%

Source: U.S. Census 2000

# HEALTH CARE SERVICES AND SYSTEMS





## Health Insurance Coverage

### *Why Is It Important?*

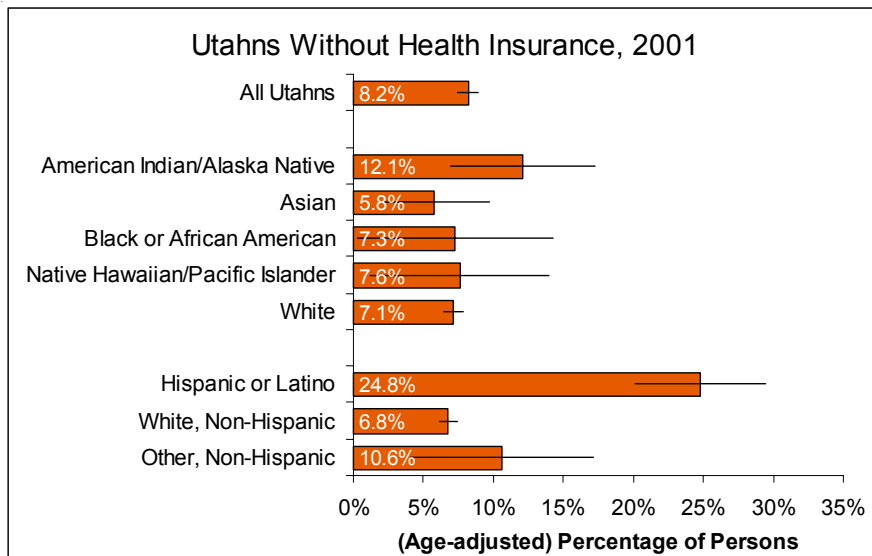
Persons with health insurance are more likely than persons without health insurance to have a regular source of primary health care, and are more likely to have routine preventive care. Persons without coverage often delay seeking needed care or avoid seeking care altogether.

### *How Are We Doing?*

- An estimated 193,620 Utahns (8.7%) were without health insurance coverage in 2001, the most recent year for which data may be analyzed by race.
- Although there are differences in health insurance coverage by race, most were not statistically significant. That is, each non-White race group has a margin of error that is fairly wide and includes the state total percentage.
- There is a sizeable difference in coverage for Hispanic/Latino Utahns, of whom one in four lack health insurance coverage. Although Hispanic/Latino Utahns are in fact more likely to be employed full or part time than adults in the state overall,<sup>4</sup> they may be more likely to be employed in lower-wage, less-skilled jobs that are less likely to provide health insurance coverage.

### *How Can We Improve?*

The expense for health care and health insurance coverage is increasing faster than the rate of overall inflation. The trend in recent years has been for fewer employers to offer coverage, to offer it only after a waiting period, to offer reduced benefits, or to offer a higher-deductible plan with or without a health savings account option. Under those scenarios, lower-wage workers will not get the same coverage as higher-wage, higher-skilled workers.



### Percentage of Utahns With No Health Insurance Coverage, 2001

Race/Ethnicity	Sample Size	Total Population	# With No Insurance	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	22,979	2,233,169	193,620	8.7% ( 7.9% - 9.5% )	8.2% ( 7.5% - 8.9% )	n/a
American Indian/Alaska Native	597	33,733	4,385	13.0% ( 7.2% - 18.8% )	12.1% ( 7.0% - 17.3% )	
Asian	297	41,866	2,324	5.6% ( 1.9% - 9.2% )	5.8% ( 1.9% - 9.7% )	
Black or African American	141	23,063	1,254	5.4% ( 1.9% - 15.7% )	7.3% ( 0.3% - 14.3% )	
Native Hawaiian/Pacific Islander	169	17,482	1,547	8.8% ( 2.1% - 15.6% )	7.6% ( 1.2% - 14.0% )	
White	21,236	2,117,025	158,218	7.5% ( 6.7% - 8.2% )	7.1% ( 6.4% - 7.8% )	↓
Hispanic or Latino	1,693	201,559	52,089	25.8% ( 21.1% - 30.6% )	24.8% ( 20.1% - 29.4% )	↑
White, Non-Hispanic	20,412	1,925,711	136,795	7.1% ( 6.4% - 7.8% )	6.8% ( 6.1% - 7.5% )	↕
Other, Non-Hispanic	212	105,899	12,716	12.0% ( 3.4% - 20.6% )	10.6% ( 4.0% - 17.1% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Adequacy of Health Insurance

### *Why Is It Important?*

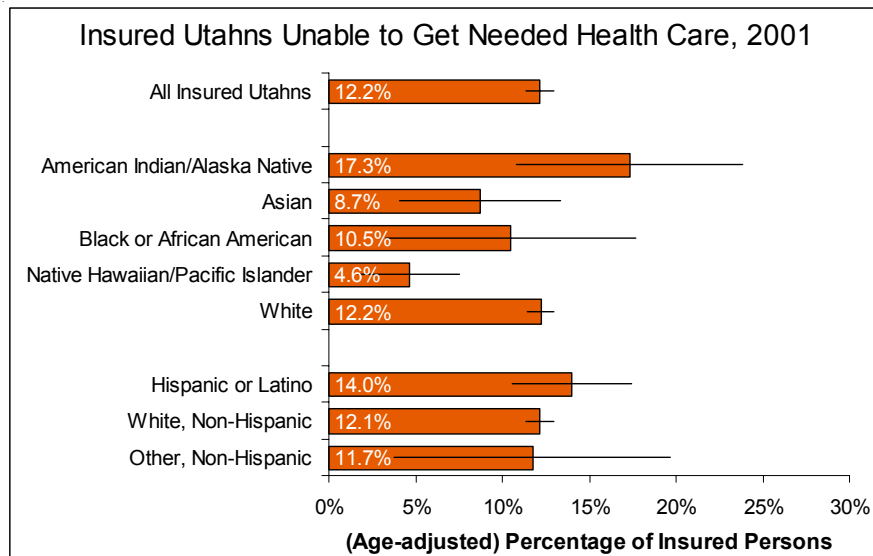
Not all health insurance plans are created equal. For persons who have health insurance coverage, some plans may still be inadequate for one's needs. Adequacy of a health insurance plan was measured in a survey that asked persons with coverage if they had delayed or were unable to get health care when they needed it in the last year.

### *How Are We Doing?*

- In 2001, 11.6%, or over 235,000 Utahns, were unable to get health care when they needed it, even though they had health insurance coverage. The reasons for having a problem with access to care were varied and included inability to afford the care, inability to find services in the area, and insurance that did not cover the services.
- Native Hawaiian/Pacific Islander Utahns were least likely to report problems with access to care.
- Persons in Utah's American Indian/Alaska Native populations were most likely to report that they were unable to access care when they needed it, although the difference was not statistically significant.

### *How Can We Improve?*

Access to care can be improved in different areas, such as geographic availability, affordability, cultural accessibility (e.g., language assistance), and cultural appropriateness. Utah's American Indian/Alaska Native tribal lands are in remote, rural, or frontier areas of the state that often cannot support a full-time medical staff. Creative arrangements for provision of medical and dental services must be sought.



Percentage of Insured Utahns Who Were Unable to Get Needed Medical, Dental, or Mental Health Care in the Previous 12 Months, Persons With Health Insurance Coverage, 2001

Race/Ethnicity	Sample Size	Insured Population	# Unable to Get Care	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Insured Utahns	20,662	2,039,549	235,596	11.6% ( 10.8% - 12.3% )	12.2% ( 11.4% - 12.9% )	n/a
American Indian/Alaska Native	511	29,348	4,840	16.5% ( 9.7% - 23.3% )	17.3% ( 10.8% - 23.8% )	
Asian	278	39,542	3,288	8.3% ( 3.6% - 13.0% )	8.7% ( 4.0% - 13.4% )	
Black or African American	125	21,809	1,623	7.4% ( 2.6% - 12.3% )	10.5% ( 3.3% - 17.7% )	
Native Hawaiian/Pacific Islander	148	15,936	990	6.2% ( 1.9% - 10.5% )	4.6% ( 1.7% - 7.5% )	↓
White	19,394	1,958,807	227,196	11.6% ( 10.8% - 12.4% )	12.2% ( 11.4% - 13.0% )	
Hispanic or Latino	1,204	149,470	16,966	11.4% ( 8.6% - 14.1% )	14.0% ( 10.5% - 17.4% )	
White, Non-Hispanic	18,687	1,788,916	207,182	11.6% ( 10.8% - 12.4% )	12.1% ( 11.3% - 12.9% )	
Other, Non-Hispanic	184	93,183	9,848	10.6% ( 3.9% - 17.3% )	11.7% ( 3.8% - 19.7% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Usual Source of Care

### Why Is It Important?

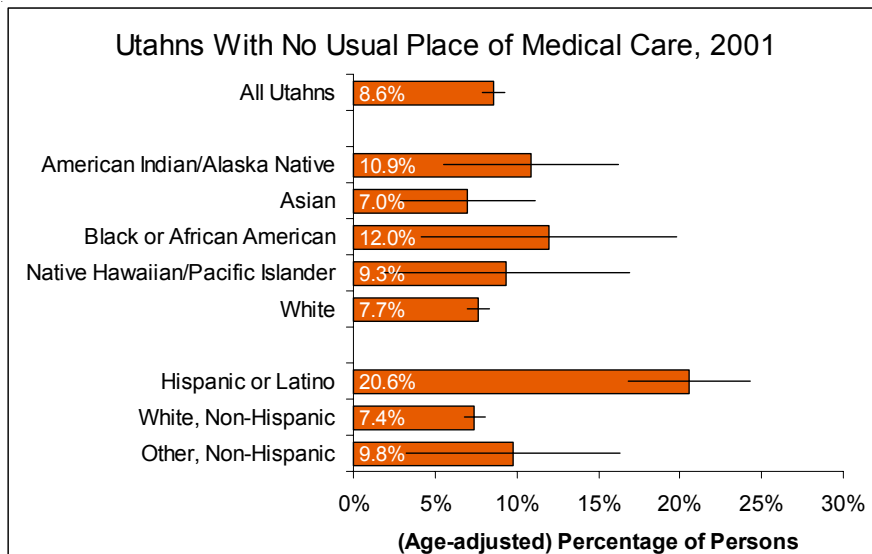
As each new health care need arises, an individual's first point of contact with the health care system is typically his or her primary care provider. A primary provider can most effectively and efficiently manage a patient's medical care because they understand that person's medical history and social context. Having a regular source of health care is also an indicator of overall access to care.

### How Are We Doing?

- In 2001, most Utahns had a usual doctor; only 8.6% reported they had no usual place where they accessed health care.
- Black/African American, American Indian/Alaska Native, and Native Hawaiian/Pacific Islander Utahns were somewhat less likely to have a usual place of care than were all Utahns.
- Hispanic or Latino Utahns were significantly less likely to have a usual place of care than Utah overall. This finding is consistent with the finding that Hispanic/Latino Utahns were much less likely to have health insurance coverage.

### How Can We Improve?

The rate with which Utahns have a usual source of care may potentially be improved using a variety of mechanisms, including improving health insurance coverage, geographic proximity and affordability of health care services, and by removing barriers such as those presented by different languages and cultural backgrounds. Education of recent immigrants to U.S. cultural norms regarding when to visit a doctor versus an emergency room, and to emphasize preventive health care, including prenatal care and well-child care may also be useful.



## Percentage of Utahns Who Had No Usual Place of Medical Care, 2001

Race/Ethnicity	Sample Size	Total Population	# With No Usual Place	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	23,700	2,233,169	197,372	8.8% ( 8.1% - 9.6% )	8.6% ( 7.9% - 9.3% )	n/a
American Indian/Alaska Native	607	33,733	3,895	11.5% ( 5.6% - 17.5% )	10.9% ( 5.5% - 16.2% )	
Asian	303	41,866	2,755	6.6% ( 2.8% - 10.3% )	7.0% ( 2.9% - 11.1% )	
Black or African American	143	23,063	2,371	10.3% ( 2.8% - 17.8% )	12.0% ( 4.2% - 19.8% )	
Native Hawaiian/Pacific Islander	175	17,482	1,964	11.2% ( 1.8% - 20.7% )	9.3% ( 1.7% - 16.9% )	
White	21,764	2,117,025	163,809	7.7% ( 7.1% - 8.4% )	7.7% ( 7.0% - 8.3% )	↓
Hispanic or Latino	1,888	201,559	43,392	21.5% ( 17.8% - 25.3% )	20.6% ( 16.8% - 24.3% )	↑
White, Non-Hispanic	20,919	1,925,711	144,875	7.5% ( 6.8% - 8.2% )	7.4% ( 6.8% - 8.1% )	↓
Other, Non-Hispanic	218	105,899	8,607	8.1% ( 2.2% - 14.1% )	9.8% ( 3.3% - 16.3% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Routine Medical Care Visits

### Why Is It Important?

Clinical preventive services are important for maintaining good health. Early detection and treatment of disease improves the chances of full recovery. Physician counseling can influence health behaviors and prevent disease entirely in many cases. It is especially important for persons in poor health to have a primary physician who can give them appropriate care that fits their medical and social context.

### How Are We Doing?

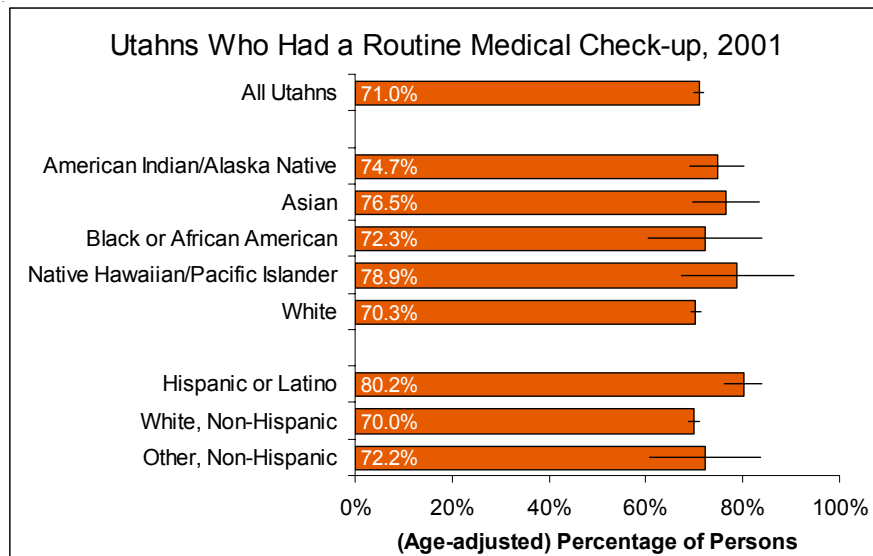
- The 2001 Utah Health Status

Survey reports that 71.0% of Utahns had received a routine medical check-up in the previous 12 months.

- Women were more likely than men to have had a routine check-up, presumably because of child-bearing and other reproductive health-related issues.
- Differences by race and ethnicity were generally small and not statistically significant. However, Hispanic/Latino Utahns were more likely to have had a routine medical care visit.

### How Can We Improve?

Nationally, Black/African American and Hispanic/Latino persons have fewer primary care visits than persons with White and Asian/Pacific Islander backgrounds. In some communities, Community Health Centers have helped to offset the disparity in primary care visits. Mechanisms for improving routine, preventive health care include better health insurance coverage, geographic proximity and affordability of health care services, and removal of barriers such as those presented by different languages and cultural backgrounds. Raising public awareness regarding recommended preventive health care, including immunizations, prenatal care, and well-child care may also be useful.



Percentage of Utahns Who Received a Routine Medical Check-up in the Previous 12 Months, 2001

Race/Ethnicity	Sample Size	Total Population	# With Check-up	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	18,253	2,233,169	1,578,864	70.7% ( 69.6% - 71.8% )	71.0% ( 69.9% - 72.0% )	n/a
American Indian/Alaska Native	466	33,733	25,086	74.4% ( 68.5% - 80.2% )	74.7% ( 68.9% - 80.4% )	
Asian	239	41,866	32,244	77.0% ( 69.6% - 84.4% )	76.5% ( 69.5% - 83.5% )	
Black or African American	117	23,063	17,035	73.9% ( 62.6% - 85.1% )	72.3% ( 60.5% - 84.1% )	
Native Hawaiian/Pacific Islander	123	17,482	14,258	81.6% ( 72.0% - 91.2% )	78.9% ( 67.3% - 90.6% )	
White	17,049	2,117,025	1,484,286	70.1% ( 69.0% - 71.2% )	70.3% ( 69.2% - 71.4% )	
Hispanic or Latino	1,183	201,559	160,838	79.8% ( 76.2% - 83.4% )	80.2% ( 76.3% - 84.0% )	↑
White, Non-Hispanic	16,409	1,925,711	1,344,391	69.8% ( 68.7% - 70.9% )	70.0% ( 68.9% - 71.1% )	
Other, Non-Hispanic	155	105,899	78,667	74.3% ( 64.5% - 84.1% )	72.2% ( 60.6% - 83.7% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

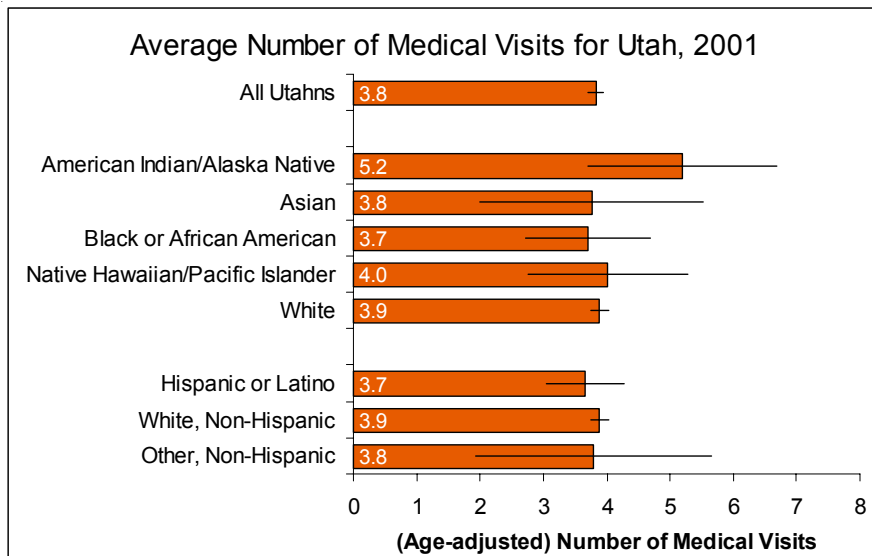
## Average Number of Medical Visits

### Why Is It Important?

This indicator may be used to assist in planning of health care service and provider needs. Large variances in the number of medical visits suggest the potential for problems with health status or access to care.

### How Are We Doing?

- In 2001, Utahns averaged 3.8 annual visits to a medical doctor.
- The average number of medical visits was higher for women and increased with age (data not shown).
- There was some variation by race and ethnicity, but the differences were not statistically significant.



### How Can We Improve?

The average number of medical visits among members of a population is influenced by many factors, including access to care, medical need, and utilization norms. Better health status will tend to decrease the average number of medical visits in a population.

## Average Number of Medical Visits in the Previous 12 Months for Utah Residents, 2001

Race/Ethnicity	Sample Size	Total Population	Total # of Med Visits	Avg. Number of Visits (95% CI Range)	Age-adjusted Visits* (95% CI Range)	Sig.**
All Utahns	23,203	2,233,169	8,176,972	3.7 ( 3.5 - 3.8 )	3.8 ( 3.7 - 3.9 )	n/a
American Indian/Alaska Native	597	33,733	162,631	4.8 ( 4.2 - 5.5 )	5.2 ( 3.7 - 6.7 )	
Asian	293	41,866	131,269	3.1 ( 2.7 - 3.6 )	3.8 ( 2.0 - 5.5 )	
Black or African American	137	23,063	83,002	3.6 ( 2.8 - 4.4 )	3.7 ( 2.7 - 4.7 )	
Native Hawaiian/Pacific Islander	173	17,482	72,100	4.1 ( 3.3 - 5.0 )	4.0 ( 2.8 - 5.3 )	
White	21,284	2,117,025	7,941,892	3.8 ( 3.7 - 3.8 )	3.9 ( 3.8 - 4.0 )	
Hispanic or Latino	1,871	201,559	566,982	2.8 ( 2.6 - 3.0 )	3.7 ( 3.1 - 4.3 )	
White, Non-Hispanic	20,459	1,925,711	7,244,336	3.8 ( 3.7 - 3.8 )	3.9 ( 3.8 - 4.0 )	
Other, Non-Hispanic	211	105,899	365,299	3.4 ( 2.7 - 4.2 )	3.8 ( 1.9 - 5.7 )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Colon Cancer Screening

### Why Is It Important?

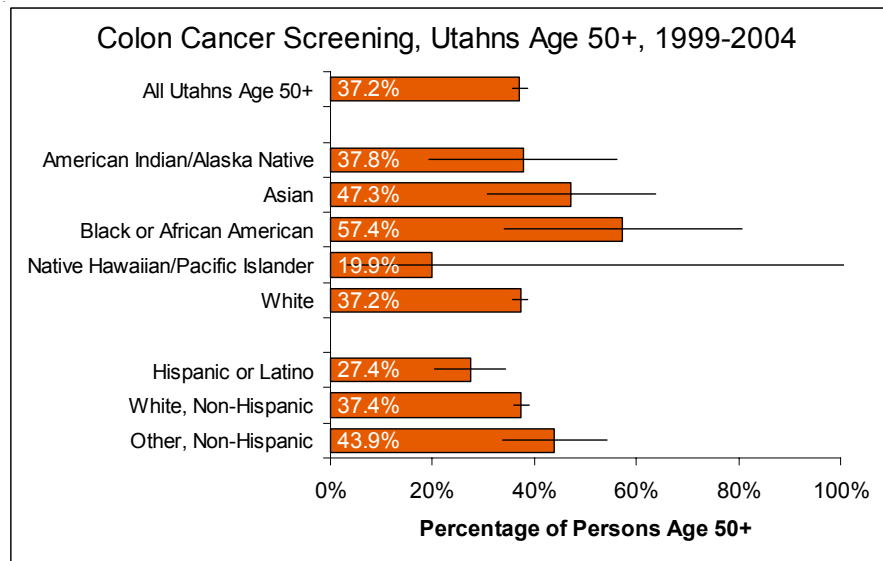
Colorectal cancer is the second leading cause of cancer-related death in the U.S. and Utah. Screening for this cancer is important as deaths can be substantially reduced when precancerous polyps are detected early and removed. The chance of surviving colorectal cancer is better than 90% when the cancer is diagnosed before it has gone beyond the intestinal wall.

### How Are We Doing?

- Among Utah adults aged 50 and older from 1999 through 2004, 37.2% had been screened for colon cancer within the past five years.
- Racial differences were found, but were not statistically significant. Utahns who were Hispanic or Latino were less likely to have been screened for colorectal cancer.

### How Can We Improve?

Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age. Routine screening can include either an annual fecal occult blood test (FOBT), and/or flexible sigmoidoscopy every five years, or colonoscopy every ten years, or barium enema every five to ten years. Many studies suggest that racial and ethnic minorities tend to be diagnosed at later stages of cancer progression.<sup>2</sup> The National Cancer Institute advises each individual to discuss risk factors and screening options with his or her health care provider.



### Percentage of Utahns Age 50 or Over Who Reported Having Had a Sigmoidoscopy or Colonoscopy in the Past Five Years, 1999-2004

Race/Ethnicity	Sample Size	Total Population Age 50+	Number Age 50+ With Sigmoid/Colonoscopy	Crude Rate (95% CI Range)	Sig.*
All Utahns Age 50+	8,533	438,775	163,176	37.2% ( 35.8% - 38.6% )	n/a
American Indian/Alaska Native	63	3,620	1,367	37.8% ( 19.4% - 56.1% )	
Asian	48	6,863	3,244	47.3% ( 30.8% - 63.7% )	
Black or African American	26	2,225	1,276	57.4% ( 34.0% - 80.7% )	
Native Hawaiian/Pacific Islander	6	1,585	316	19.9% ( 2.7% - 69.3% )	
White	8,192	424,482	157,890	37.2% ( 35.8% - 38.6% )	
Hispanic or Latino	278	18,138	4,972	27.4% ( 20.6% - 34.3% )	↓
White, Non-Hispanic	8,043	407,047	152,426	37.4% ( 36.0% - 38.9% )	
Other, Non-Hispanic	177	13,590	5,972	43.9% ( 33.7% - 54.1% )	

Source: Behavioral Risk Factor Surveillance System

Note: Only age-specific rates were used for this measure due to small sample size and the limited age group reported.

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Pap Test

### Why Is It Important?

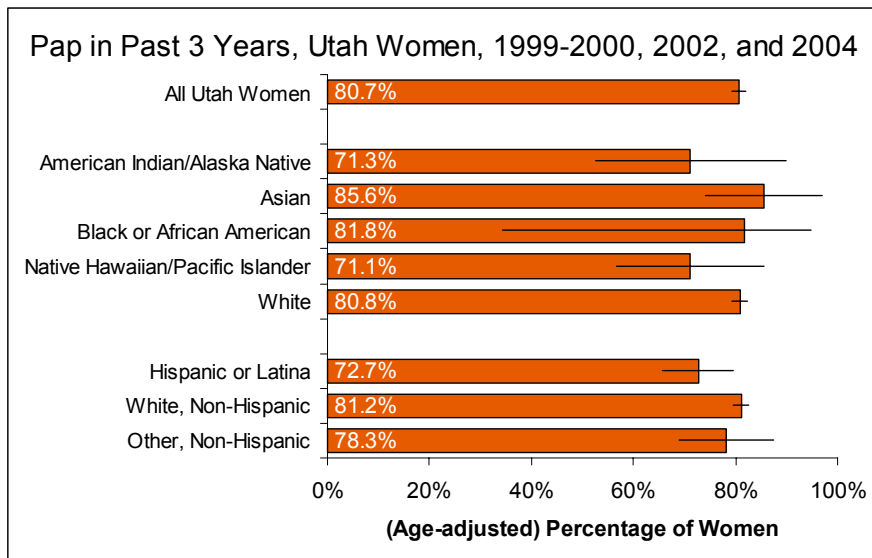
Cervical cancer is one of the most curable cancers if detected early through routine screening. Almost all cases of cervical cancer are caused by infection with high-risk types of the human papillomavirus. As these viruses are transmitted through sexual contact, any woman who is sexually active is at risk for developing cervical cancer. Other risk factors include having sexual relations at an early age, having multiple sex partners or partners with many other partners, and cigarette smoking.

### How Are We Doing?

- Among all Utah women aged 18 or over, 80.7% had received a Pap test in the past three years.
- There was some variation in Pap test rates among women from different racial backgrounds, but the differences were not statistically significant. Utah's Hispanic/Latina women, however, were significantly less likely to have received a timely Pap test.

### How Can We Improve?

New guidelines released by the American Cancer Society<sup>5</sup> recommend that cervical screening begin about three years after a woman begins having intercourse but no later than 21 years of age. Cervical screening should be performed every year with conventional Pap tests or every two years with liquid-based Pap tests. Beginning at age 30, women who have had three normal test results in a row may undergo screening every two to three years.<sup>6</sup>



Percentage of Utah Women (Age 18 or Over) Who Reported Having Had a Pap Smear in the Past Three Years, 1999, 2000, 2002, and 2004

Race/Ethnicity	Sample Size	Total # of Women	# of Women With Pap	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Women	6,225	765,236	617,759	80.7% ( 79.2% - 82.2% )	80.7% ( 79.3% - 82.2% )	n/a
American Indian/Alaska Native	80	10,182	8,015	78.7% ( 67.0% - 90.5% )	71.3% ( 52.5% - 90.0% )	
Asian	59	16,449	14,381	87.4% ( 77.8% - 97.0% )	85.6% ( 74.1% - 97.1% )	
Black or African American	20	5,442	5,013	92.1% ( 62.7% - 98.3% )	81.8% ( 34.2% - 94.9% )	
Native Hawaiian/Pacific Islander	31	4,525	2,653	58.6% ( 36.5% - 80.8% )	71.1% ( 56.6% - 85.5% )	
White	5,859	728,638	588,257	80.7% ( 79.2% - 82.3% )	80.8% ( 79.3% - 82.3% )	
Hispanic or Latina	369	55,979	44,240	79.0% ( 73.8% - 84.3% )	72.7% ( 65.8% - 79.6% )	↓
White, Non-Hispanic	5,619	675,193	546,542	80.9% ( 79.3% - 82.5% )	81.2% ( 79.7% - 82.6% )	
Other, Non-Hispanic	209	34,064	27,189	79.8% ( 72.8% - 86.8% )	78.3% ( 69.1% - 87.5% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

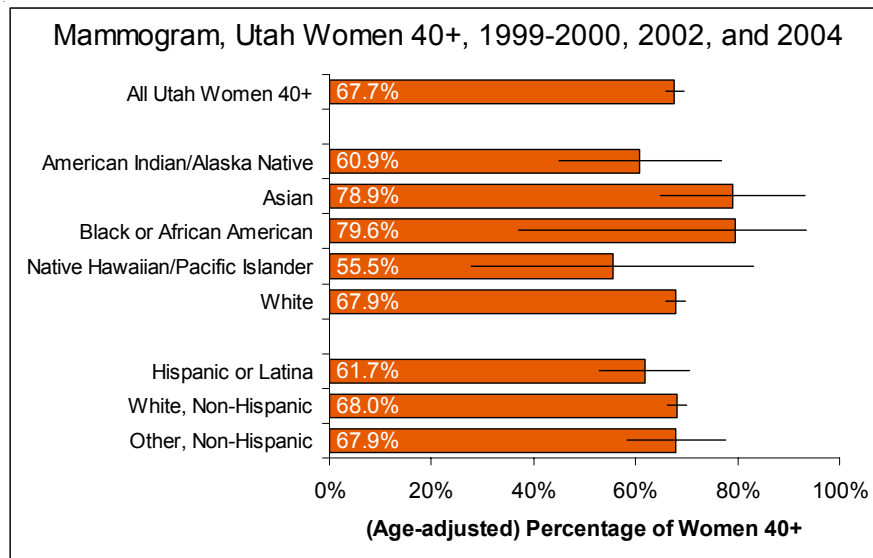
\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Mammogram

### Why Is It Important?

Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer death in both Utah and the U.S. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years,<sup>7-12</sup> and by about 17% in women aged 40 to 49 years.<sup>13-14</sup> Recent research suggests that ultrasound may be a better screening tool for some women.



### How Are We Doing?

- Since 1999 the question has been asked of female respondents to the BRFSS survey in even-numbered years. During this time period, the percentage of Utah women aged 40 or older who reported receiving a mammogram within the last two years was 67.7%.
- Wide confidence intervals in the survey data preclude interpretation differences between Utah women of different racial and ethnic backgrounds.

### How Can We Improve?

There is consensus that women aged 40 or older should undergo routine screening with mammography at least every two years.<sup>15-17</sup> Women who are at higher than average risk of breast cancer should seek expert medical advice about whether they should begin screening before age 40 and the frequency of that screening.<sup>16</sup>

Percentage of Utah Women Age 40 and Over Who Reported Having Had a Mammogram in the Past Two Years, 1999, 2000, 2002, and 2004

Race/Ethnicity	Sample Size	Total # of Women 40+	# of Women Had Mamm.	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Women 40+	4,951	372,516	257,122	69.0% ( 67.3% - 70.8% )	67.7% ( 65.8% - 69.5% )	n/a
American Indian/Alaska Native	49	3,819	2,044	53.5% ( 33.4% - 73.6% )	60.9% ( 44.9% - 76.8% )	
Asian	32	6,933	5,474	79.0% ( 64.8% - 93.1% )	78.9% ( 64.7% - 93.2% )	
Black or African American	12	1,965	1,707	86.9% ( 47.8% - 96.7% )	79.6% ( 37.0% - 93.4% )	
Native Hawaiian/Pacific Islander	10	1,546	730	47.2% ( 3.4% - 91.1% )	55.5% ( 27.9% - 83.1% )	
White	4,763	358,253	248,075	69.2% ( 67.5% - 71.0% )	67.9% ( 66.0% - 69.8% )	
Hispanic or Latina	190	18,196	11,264	61.9% ( 53.0% - 70.8% )	61.7% ( 52.9% - 70.5% )	
White, Non-Hispanic	4,634	340,817	236,659	69.4% ( 67.6% - 71.3% )	68.0% ( 66.1% - 70.0% )	
Other, Non-Hispanic	114	13,503	8,848	65.5% ( 54.0% - 77.0% )	67.9% ( 58.2% - 77.6% )	

Source: Behavioral Risk Factor Surveillance System

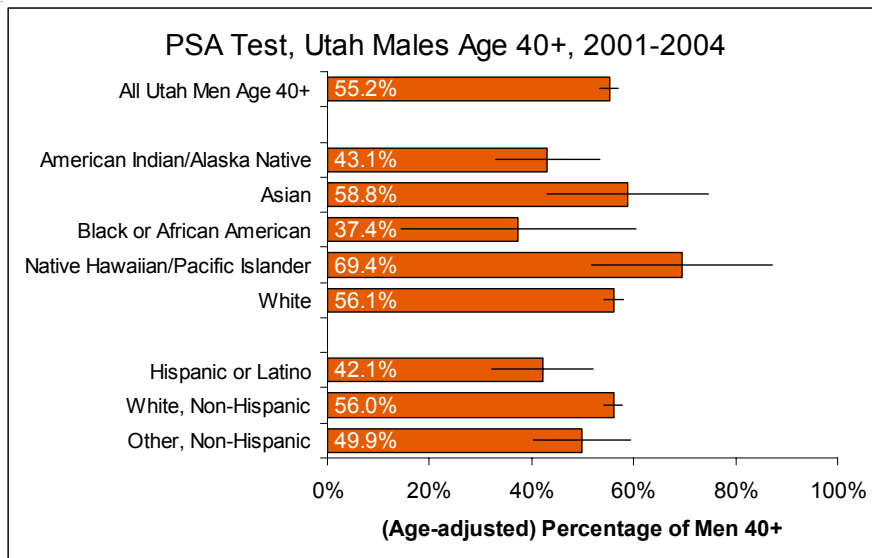
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Prostate Cancer Screening

### Why Is It Important?

Prostate cancer is the most common form of cancer (excluding skin cancer) among men and the second leading cause of cancer death for men in Utah and the U.S. Although screening can detect early-stage prostate cancers, it is not yet known whether early detection results in reduced mortality from this disease. One screening test commonly used is a blood test for a substance called prostate-specific antigen, or PSA. A concern with this test is that there are a relatively large number of false-positive results which may lead to additional medical tests and procedures that may be unnecessary.



### How Are We Doing?

- Between 2001 and 2004, among all Utah men aged 40 and over, 55.2% had received a PSA test.
- Men in Utah's Hispanic/Latino and American Indian/Alaska Native populations were less likely to have received a PSA test. Black/African American men were also less likely to have received the test, but the precision of the survey measure in that population precluded a statistically significant finding.

### How Can We Improve?

Men in all Utah communities, not just race and ethnic minority communities, should pay attention to new guidelines on the recommended type and frequency of prostate cancer screening.

Percentage of Utah Men Age 40 and Over Who Reported Ever Having Had a PSA Test, 2001-2004

Race/Ethnicity	Sample Size	Total Number of Men 40+	# Men 40+ With PSA Test	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig. **
All Utah Men Age 40+	4,239	346,765	200,500	57.8% ( 55.8% - 59.8% )	55.2% ( 53.4% - 57.0% )	n/a
American Indian/Alaska Native	38	3,596	1,975	54.9% ( 35.3% - 74.5% )	43.1% ( 32.9% - 53.3% )	↓
Asian	27	5,454	2,761	50.6% ( 28.5% - 72.7% )	58.8% ( 43.0% - 74.6% )	
Black or African American	17	2,793	997	35.7% ( 11.7% - 59.8% )	37.4% ( 14.3% - 60.5% )	
Native Hawaiian/Pacific Islander	9	1,698	789	46.5% ( 9.8% - 83.2% )	69.4% ( 51.8% - 87.1% )	
White	3,994	333,224	196,898	59.1% ( 57.1% - 61.1% )	56.1% ( 54.2% - 57.9% )	
Hispanic or Latino	147	19,122	7,506	39.3% ( 29.0% - 49.5% )	42.1% ( 32.2% - 52.0% )	↓
White, Non-Hispanic	3,945	314,997	186,151	59.1% ( 57.1% - 61.1% )	56.0% ( 54.2% - 57.9% )	
Other, Non-Hispanic	120	12,646	6,157	48.7% ( 37.9% - 59.5% )	49.9% ( 40.3% - 59.5% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Blood Cholesterol Screening

### *Why Is It Important?*

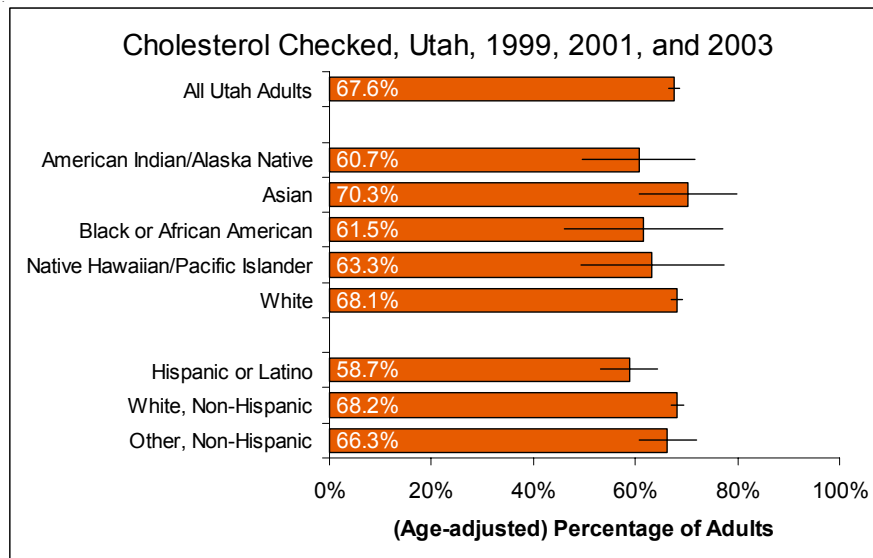
High blood cholesterol has been shown to increase the risk of heart disease and development of atherosclerosis, a progressive narrowing and hardening of the arteries over time. Obesity and diets high in saturated fat or cholesterol contribute to high levels of blood cholesterol. Prompt and effective treatment can reverse the effects of high cholesterol.

### *How Are We Doing?*

- During the years the survey question was asked, about two thirds of Utah adults aged 18 and over had their cholesterol checked in the past five years.
- There was some variation in blood cholesterol check rates among Utahns from different racial backgrounds, but the differences were not statistically significant. Hispanic/Latino Utahns, however, were significantly less likely to have received a blood cholesterol check in the past five years.

### *How Can We Improve?*

The National Heart, Lung, and Blood Institute recommends that adults aged 20 or older be screened for high blood cholesterol at least every five years.



Percentage of Utah Adults (Age 18 or Over) Who Reported Having Their Cholesterol Checked in the Past Five Years, 1999, 2001, and 2003

Race/Ethnicity	Sample Size	Total Adult Population	# Had Chol. Checked	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	10,484	1,514,471	991,357	65.5% ( 64.2% - 66.7% )	67.6% ( 66.4% - 68.7% )	n/a
American Indian/Alaska Native	104	20,137	10,763	53.4% ( 40.4% - 66.5% )	60.7% ( 49.7% - 71.7% )	
Asian	86	30,694	18,391	59.9% ( 47.3% - 72.5% )	70.3% ( 60.7% - 80.0% )	
Black or African American	50	13,401	7,209	53.8% ( 34.7% - 72.9% )	61.5% ( 46.0% - 77.1% )	
Native Hawaiian/Pacific Islander	28	9,653	4,314	44.7% ( 23.8% - 65.6% )	63.3% ( 49.2% - 77.3% )	
White	9,744	1,440,586	959,229	66.6% ( 65.3% - 67.9% )	68.1% ( 66.9% - 69.2% )	
Hispanic or Latino	589	123,364	62,001	50.3% ( 44.9% - 55.6% )	58.7% ( 53.2% - 64.3% )	↓
White, Non-Hispanic	9,536	1,322,871	885,830	67.0% ( 65.6% - 68.3% )	68.2% ( 67.1% - 69.4% )	
Other, Non-Hispanic	315	68,236	39,485	57.9% ( 50.7% - 65.0% )	66.3% ( 60.6% - 72.0% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

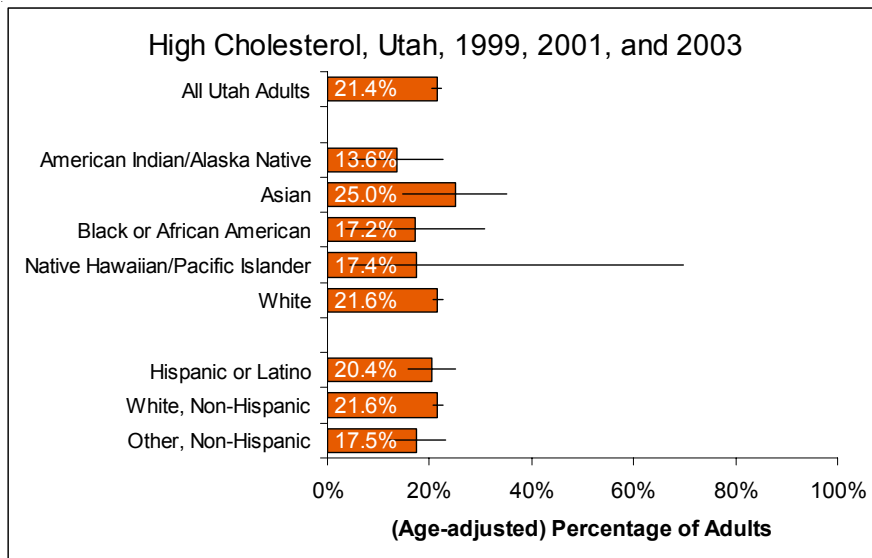
\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## High Cholesterol Awareness

### *Why Is It Important?*

High levels of cholesterol and triglycerides increase the risk for heart disease. The National Heart, Lung, and Blood Institute (NHLBI) defines “high” blood cholesterol as 240 mg/dL or greater and “borderline high” cholesterol as 200 to 239 mg/dL. Risk categories for cholesterol levels vary depending on factors such as age, gender, family history, and general health conditions. Variation in rates of high cholesterol awareness can either be due to differences in the prevalence of high cholesterol or to different rates of testing for high blood cholesterol.



### *How Are We Doing?*

- In 1999, 2001, and 2003, 21.4% of Utah adults reported that they had been told by a doctor that their cholesterol was high.
- There were no statistically significant differences in high cholesterol awareness among Utah’s racial and ethnic populations.

### *How Can We Improve?*

Behaviors that prevent or lower high blood cholesterol include eating a diet low in saturated fat and cholesterol, increasing physical activity, not smoking or drinking excessive alcohol, and maintaining a healthy weight. The NHLBI recommends that adults 20 years or older be screened for high blood cholesterol at least every five years.<sup>6</sup>

Percentage of Utah Adults (Age 18 or Over) Who Reported Having Been Told They Had High Cholesterol, 1999, 2001, and 2003

Race/Ethnicity	Sample Size	Total Adult Population	# With High Cholesterol	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	10,801	1,514,471	298,236	19.7% ( 18.7% - 20.7% )	21.4% ( 20.4% - 22.4% )	n/a
American Indian/Alaska Native	107	20,137	1,585	7.9% ( 2.1% - 13.7% )	13.6% ( 4.4% - 22.7% )	
Asian	91	30,694	4,600	15.0% ( 7.1% - 22.9% )	25.0% ( 14.7% - 35.3% )	
Black or African American	52	13,401	1,571	11.7% ( 1.3% - 22.2% )	17.2% ( 3.6% - 30.8% )	
Native Hawaiian/Pacific Islander	31	9,653	195	2.0% ( 0.3% - 11.7% )	17.4% ( 4.3% - 69.7% )	
White	10,033	1,440,586	293,314	20.4% ( 19.3% - 21.4% )	21.6% ( 20.6% - 22.6% )	
Hispanic or Latino	602	123,364	16,897	13.7% ( 10.4% - 17.0% )	20.4% ( 15.8% - 25.0% )	
White, Non-Hispanic	9,820	1,322,871	271,517	20.5% ( 19.5% - 21.6% )	21.6% ( 20.6% - 22.7% )	
Other, Non-Hispanic	331	68,236	7,667	11.2% ( 7.2% - 15.3% )	17.5% ( 12.0% - 23.1% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Blood Pressure Screening

### Why Is It Important?

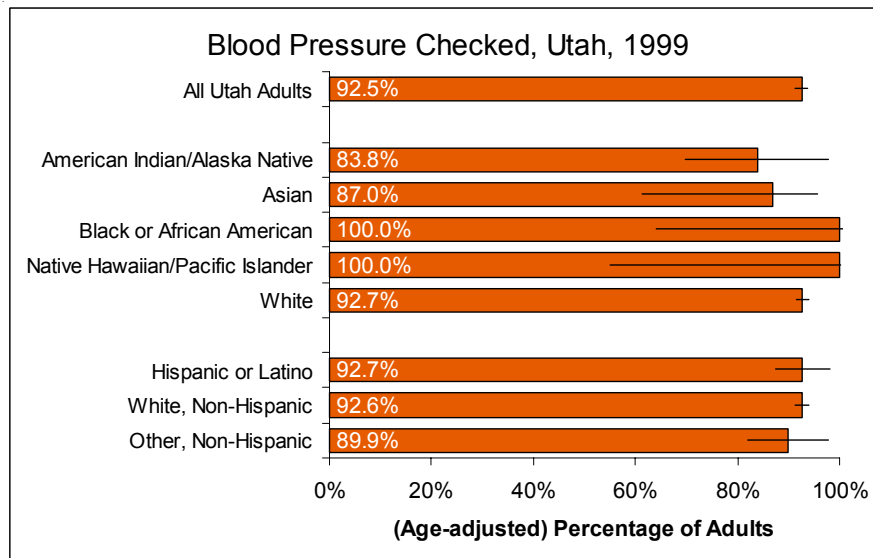
Uncontrolled high blood pressure is a major risk factor for heart attack, stroke, congestive heart failure, and kidney failure. Many people suffer from high blood pressure without even knowing it. It is estimated that one in four U.S. adults has high blood pressure but only one third of them know it.<sup>18</sup> Getting your blood pressure checked regularly is the only way to determine if you have high blood pressure.

### How Are We Doing?

- During 1999, most (92.5%) Utahns reported having their blood pressure checked within the last two years.
- Although there was some racial and ethnic variability in blood pressure check rates, the differences were not statistically significant.

### How Can We Improve?

In 2003, 21.8% of Utahns were told by a health professional that they had high blood pressure. This statistic has remained virtually unchanged since the 1980s, although it may be an underestimate of true high blood pressure prevalence since there are no outward symptoms. Having your blood pressure checked by a health professional is the only way to determine if you have high blood pressure. Black/African American persons have a relatively higher risk for stroke. Blood pressure screening and control of high blood pressure are important preventive measures for reduction of stroke incidence.



Percentage of Utah Adults (Age 18 or Over) Who Reported Having Had Their Blood Pressure Checked in the Past Two Years, 1999

Race/Ethnicity	Sample Size	Total Adult Population	# Had BP Checked	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	3,184	1,514,471	1,399,204	92.4% ( 91.1% - 93.7% )	92.5% ( 91.3% - 93.8% )	n/a
American Indian/Alaska Native	45	20,137	16,885	83.8% ( 68.9% - 98.8% )	83.8% ( 69.7% - 97.8% )	
Asian	22	30,694	24,809	80.8% ( 27.8% - 94.9% )	87.0% ( 61.4% - 95.7% )	
Black or African American	11	13,401	13,401	100.0% ( 64.1% - 100.0% )	100.0% ( 64.1% <sup>†</sup> - 100.0% )	
Native Hawaiian/Pacific Islander	8	9,653	9,653	100.0% ( 55.0% - 100.0% )	100.0% ( 55.0% <sup>†</sup> - 100.0% )	
White	3,057	1,440,586	1,334,104	92.6% ( 91.3% - 93.9% )	92.7% ( 91.4% - 94.0% )	
Hispanic or Latino	159	123,364	114,892	93.1% ( 88.6% - 97.7% )	92.7% ( 87.4% - 98.0% )	
White, Non-Hispanic	2,922	1,322,871	1,224,238	92.5% ( 91.2% - 93.8% )	92.6% ( 91.3% - 93.9% )	
Other, Non-Hispanic	94	68,236	59,132	86.7% ( 75.5% - 97.9% )	89.9% ( 82.0% - 97.9% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

† The confidence interval for this age-adjusted rate was assumed to be the same as the confidence interval for the crude rate.

## High Blood Pressure Awareness

### Why Is It Important?

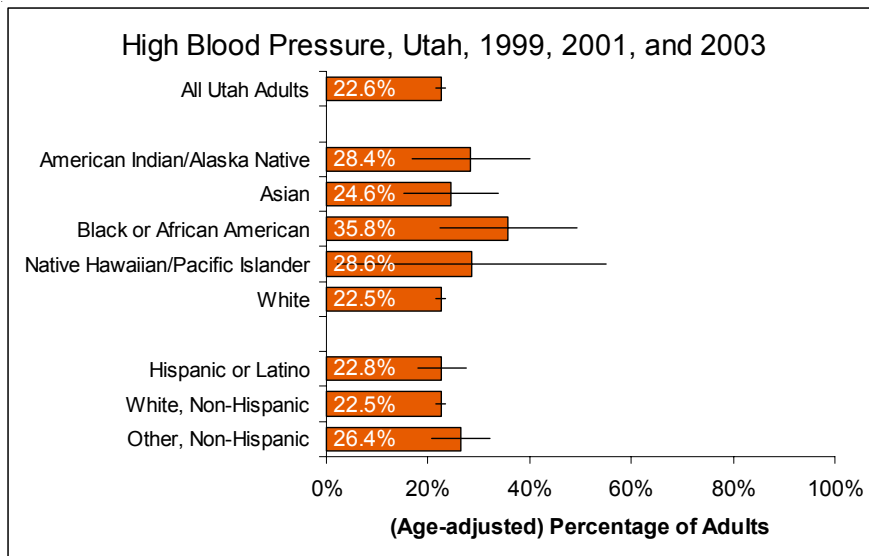
High blood pressure is a condition that can be found in persons of all ages. It is defined as a systolic blood pressure of 140 mmHg or greater or a diastolic blood pressure of 90 mmHg or greater. As a result of high blood pressure, the heart has to work harder, increasing the risk of stroke, coronary heart disease, and kidney failure.

### How Are We Doing?

- Overall, in 1999, 2001, and 2003, 22.6% of Utah adults reported that they had been told by their doctor that they had high blood pressure.
- Although there was some racial and ethnic variability in blood pressure awareness, differences were not statistically significant.

### How Can We Improve?

The only way to detect high blood pressure is through regular blood pressure measurement. According to the American Heart Association, blood pressure measurement should be performed at least every two years after a normal reading. Individuals with blood pressures near the top of the normal range or with a family history of high blood pressure should consult their health care providers about how often to have their blood pressures checked. Weight loss, medication, exercise, smoking cessation, stress management, and lowering sodium and alcohol intake can control high blood pressure.<sup>6</sup>



Percentage of Utah Adults (Age 18 or Over) Who Reported Having Been Told They Had High Blood Pressure, 1999, 2001, and 2003

Race/Ethnicity	Sample Size	Total Adult Population	# With High Blood Pressure	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	10,837	1,514,471	314,516	20.8% ( 19.8% - 21.8% )	22.6% ( 21.6% - 23.6% )	n/a
American Indian/Alaska Native	107	20,137	4,664	23.2% ( 12.9% - 33.4% )	28.4% ( 16.9% - 40.0% )	
Asian	92	30,694	4,087	13.3% ( 6.2% - 20.5% )	24.6% ( 15.2% - 33.9% )	
Black or African American	52	13,401	3,220	24.0% ( 10.9% - 37.2% )	35.8% ( 22.3% - 49.2% )	
Native Hawaiian/Pacific Islander	31	9,653	1,718	17.8% ( 2.5% - 33.1% )	28.6% ( 2.2% - 55.0% )	
White	10,068	1,440,586	305,537	21.2% ( 20.2% - 22.3% )	22.5% ( 21.5% - 23.5% )	
Hispanic or Latino	604	123,364	18,539	15.0% ( 11.5% - 18.5% )	22.8% ( 18.0% - 27.5% )	
White, Non-Hispanic	9,853	1,322,871	282,825	21.4% ( 20.3% - 22.4% )	22.5% ( 21.5% - 23.6% )	
Other, Non-Hispanic	332	68,236	12,210	17.9% ( 13.0% - 22.8% )	26.4% ( 20.7% - 32.1% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

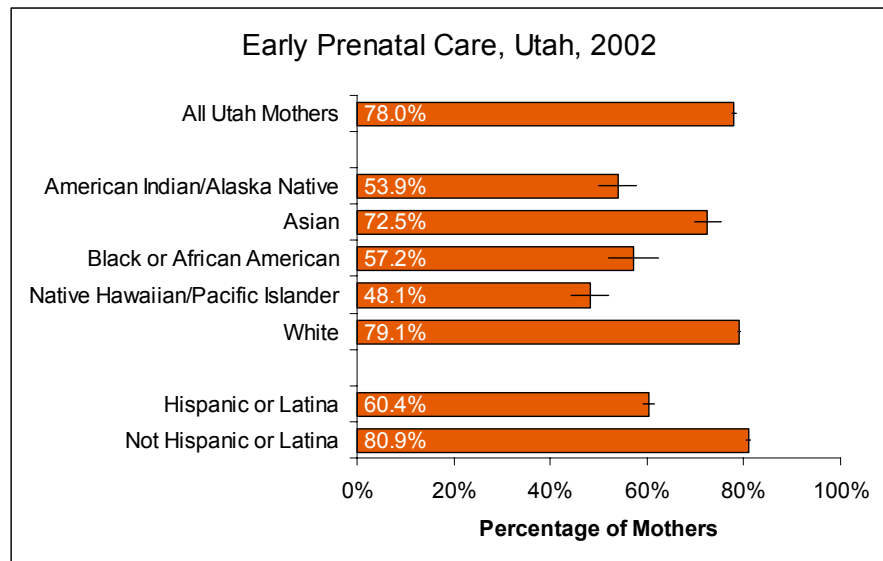
## Prenatal Care

### Why Is It Important?

Women who receive early and consistent prenatal care (PNC) enhance their likelihood of giving birth to a healthy child. Health care providers recommend that most women begin prenatal care in the first trimester of their pregnancy.

### How Are We Doing?

- The proportion of mothers receiving first-trimester prenatal care began declining in the mid-nineties, and has leveled-off at about 78%.
- Lower rates of first-trimester prenatal care were found for all non-White and for Hispanic/Latina mothers in 2002.



### How Can We Improve?

Ethnic and racial minority women in Utah tend to access prenatal care less than our majority White population of women. Wide varieties of reasons for this have been cited, some of which include poverty, lack of access to quality health services, cultural beliefs that pregnancy is natural, and various forms of racism. We need to continue to collaborate closely with our racial and ethnic minority leaders and community members to continue to explore specific reasons for this disparity and to address the barriers that exist.

The Baby Your Baby Media Campaign has produced public service ads (PSAs) for television and radio to educate Hispanic/Latina women about the importance of early and continuous prenatal care. These PSAs are produced in Spanish and aired on popular Spanish radio and television programs. There are several nonprofit organizations in Salt Lake County who have trained promotoras (lay community health educators) to canvas areas of the county in order to educate women about the importance of early and consistent prenatal care and facilitate their entry into the community health care system. Lastly, the Utah

Chapter of the March of Dimes has implemented an incentive program to encourage low income women who reside in Salt Lake County to receive prenatal care. This “Teddy Bear Den” program provides clothing and nursery items for expectant mothers who attend prenatal care visits early and regularly. We are hopeful that these collaborative efforts will help to decrease this disparity among Utah’s Hispanic/Latina population.

### Early Prenatal Care, Utah, 2002

Race/Ethnicity	# With PNC	Total Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Mothers	38,324	49,140	78.0% ( 77.6% - 78.4% )	n/a
American Indian/Alaska Native	359	666	53.9% ( 50.1% - 57.7% )	↓
Asian	689	950	72.5% ( 69.7% - 75.4% )	↓
Black or African American	191	334	57.2% ( 51.9% - 62.5% )	↓
Native Hawaiian/Pacific Islander	298	619	48.1% ( 44.2% - 52.1% )	↓
White	36,538	46,207	79.1% ( 78.7% - 79.4% )	↑
Hispanic or Latina	4,217	6,984	60.4% ( 59.2% - 61.5% )	↓
Not Hispanic or Latino	33,997	41,998	80.9% ( 80.6% - 81.3% )	↑

Source: UDOH, Office of Vital Records and Statistics, Birth Certificate Database

\*“Early Prenatal Care” is defined as care in the first trimester of pregnancy

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

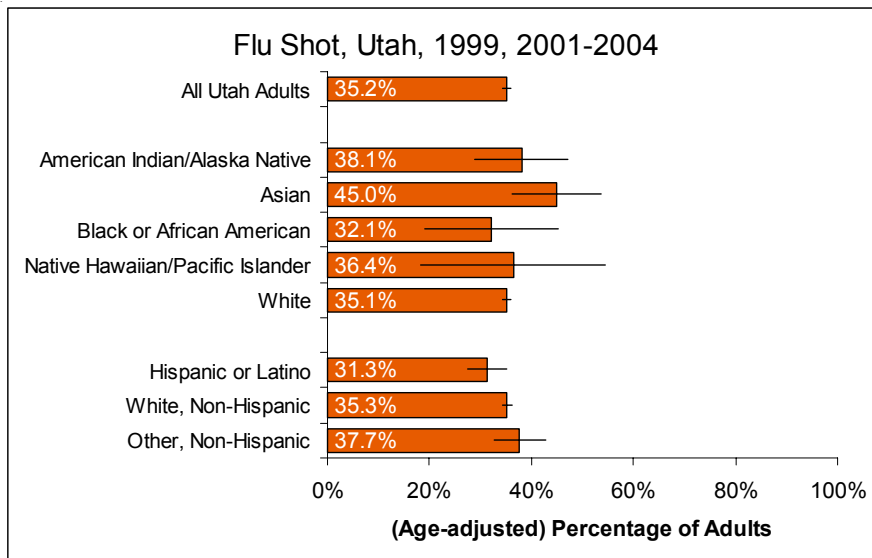
## Immunization - Influenza, Adults

### Why Is It Important?

Influenza, or flu, is an acute viral infection involving the respiratory tract that can occur in epidemics or pandemics. Influenza can cause a person, especially older persons, to be more susceptible to bacterial pneumonia.

### How Are We Doing?

- About one third (35.2%) of Utah adults aged 18 and over received a flu shot in the years since 1999 that the question appeared on the survey.
- Asian adults were more likely to have received a flu shot than were individuals in other racial or ethnic groups.
- Utah Hispanic/Latino adults were least likely to have received a flu shot.



### How Can We Improve?

People in high-risk groups, such as adults aged 50 or over and others with certain chronic conditions, women who are pregnant, and children under two years of age, should receive influenza vaccine yearly. Anyone wishing to protect themselves against influenza should be immunized throughout the influenza season as vaccine is available. For more information, contact your medical provider or local health department.

Percentage of Utah Adults (Age 18+) Who Reported Having a Flu Shot in Past 12 Months, 1999, 2001-2004

Race/Ethnicity	Sample Size	Total Adult Population	# Had Flu Shot	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	20,016	1,514,471	504,497	33.3% ( 32.4% - 34.2% )	35.2% ( 34.4% - 36.1% )	n/a
American Indian/Alaska Native	222	20,137	6,911	34.3% ( 25.5% - 43.2% )	38.1% ( 28.9% - 47.2% )	↑
Asian	173	30,694	11,303	36.8% ( 27.6% - 46.1% )	45.0% ( 36.4% - 53.6% )	
Black or African American	85	13,401	4,220	31.5% ( 17.1% - 45.9% )	32.1% ( 19.0% - 45.3% )	
Native Hawaiian/Pacific Islander	63	9,653	3,814	39.5% ( 25.1% - 54.0% )	36.4% ( 18.3% - 54.6% )	
White	18,643	1,440,586	484,119	33.6% ( 32.7% - 34.5% )	35.1% ( 34.3% - 36.0% )	↓
Hispanic or Latino	1,110	123,364	31,436	25.5% ( 21.9% - 29.1% )	31.3% ( 27.5% - 35.2% )	
White, Non-Hispanic	18,183	1,322,871	448,611	33.9% ( 33.0% - 34.8% )	35.3% ( 34.4% - 36.1% )	
Other, Non-Hispanic	629	68,236	23,477	34.4% ( 29.4% - 39.4% )	37.7% ( 32.6% - 42.7% )	

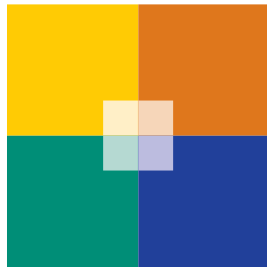
Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



# RISK FACTORS FOR ILLNESS





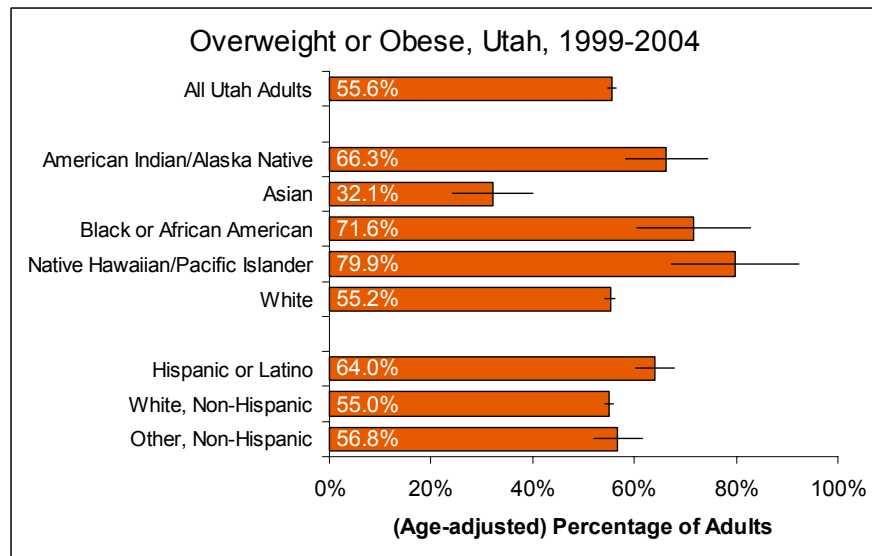


## Overweight or Obese

### Why Is It Important?

Being overweight increases the risk of chronic diseases, including heart disease, stroke, hypertension, type 2 diabetes, osteoarthritis, Alzheimer's and some cancers. Obesity is the second leading cause of preventable death in the U.S.<sup>19</sup>

Utahns have been gaining weight so rapidly that in 2003 over half (56.4%) of all adults were overweight or obese. The obesity epidemic among Utahns threatens to reverse the decades-long progress made in reducing death from chronic disease.



### How Are We Doing?

- The percentage of adults who were overweight or obese increased steadily in Utah and the U.S. in the last decade. In Utah, the percentage increased from 39% in 1989 to 56% in 2003.
- The prevalence of overweight or obesity is significantly lower among adult Asian Utahns, but higher among Native Hawaiian/Pacific Islander, Black/African American, American Indian/Alaska Native, and Hispanic/Latino adult Utahns.

### How Can We Improve?

A combined intervention of behavior therapy, a low-calorie diet, and increased physical activity has been shown to be effective for weight loss and maintenance. Because of differences within social and cultural groups, interventions need to be tailored to both groups and individuals. A recent National Heart, Lung, and Blood Institute report recommends that the initial six-month goal of weight therapy should be a 10% reduction in body weight. The full report can be found at [http://www.nhlbi.nih.gov/guidelines/obesity/sum\\_clin.htm](http://www.nhlbi.nih.gov/guidelines/obesity/sum_clin.htm)

Percentage of Utah Adults (Age 18 or Over) Who Were Overweight,\* 1999-2004

Race/Ethnicity	Sample Size	Total Adult Population	Number Overweight	Crude Rate (95% CI Range)	Age-adjusted Rate** (95% CI Range)	Sig.***
All Utah Adults	22,169	1,514,471	820,561	54.2% ( 53.3% - 55.1% )	55.6% ( 54.8% - 56.5% )	n/a
American Indian/Alaska Native	240	20,137	12,762	63.4% ( 55.1% - 71.6% )	66.3% ( 58.2% - 74.3% )	↑
Asian	189	30,694	8,730	28.4% ( 21.0% - 35.9% )	32.1% ( 24.2% - 40.0% )	↓
Black or African American	93	13,401	9,590	71.6% ( 60.2% - 82.9% )	71.6% ( 60.4% - 82.9% )	↑
Native Hawaiian/Pacific Islander	68	9,653	7,222	74.8% ( 62.3% - 87.3% )	79.9% ( 67.4% - 92.4% )	↑
White	20,792	1,440,586	776,658	53.9% ( 53.0% - 54.8% )	55.2% ( 54.3% - 56.1% )	
Hispanic or Latino	1,151	123,364	73,896	59.9% ( 56.0% - 63.8% )	64.0% ( 60.2% - 67.8% )	↑
White, Non-Hispanic	20,237	1,322,871	711,799	53.8% ( 52.9% - 54.7% )	55.0% ( 54.1% - 55.9% )	
Other, Non-Hispanic	683	68,236	36,627	53.7% ( 48.8% - 58.6% )	56.8% ( 51.9% - 61.6% )	

Source: Behavioral Risk Factor Surveillance System

\*Overweight criteria is BMI≥25. Body mass index (BMI) is calculated by dividing weight in kilograms by height in meters squared.

\*\*Age adjusted to the U.S. 2000 standard population

\*\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Daily Fruit Consumption

### Why Is It Important?

There are many benefits to eating fresh fruits and vegetables, including weight loss, a decrease in the risk of certain types of cancer, and a lower risk of heart disease. Some of the benefits result directly from the fruits and vegetables, and other benefits derive from the fact that if a person consumes five servings of fruits or vegetables a day, he or she is usually consuming fewer less-healthy foods, such as foods that are high in fat or calories.<sup>20</sup> The National Academy of Sciences, U.S. Department of

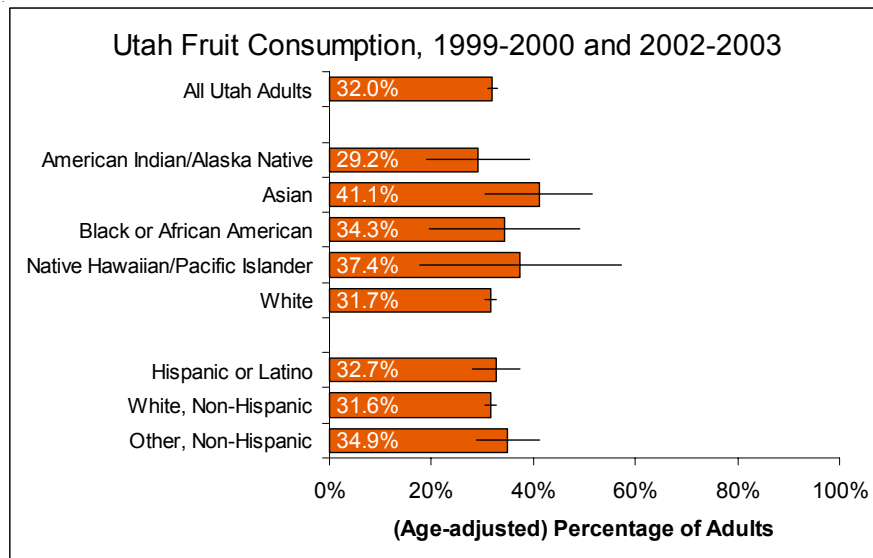
Agriculture (USDA), the National Cancer Institute, and the American Cancer Society recommend that two to four servings of fruits be consumed each day depending on a person's energy intake.

### How Are We Doing?

- In the years the survey question was asked, only 32% of Utah adults reported eating two or more servings of fruit each day.
- Although there was some variability in fruit consumption among Utah's racial and ethnic communities, the differences were not statistically significant.

### How Can We Improve?

Nutrition research has found that the more richly colored fruits and vegetables are, the better they are at fighting disease and promoting health. The Centers for Disease Control and Prevention (CDC) suggests eating not only greens, but also your reds, oranges, yellows, and blues. They advise putting something of each color on your plate or in your lunch bag to get the recommended five to nine servings of fruits and vegetables every day.



Percentage of Utah Adults (Age 18+) Who Reported Eating Two+ Fruits Daily, 1999-2000, and 2002-2003

Race/Ethnicity	Sample Size	Total Adult Population	# Eating Fruit	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,150	1,514,471	474,335	31.3% ( 30.3% - 32.4% )	32.0% ( 30.9% - 33.0% )	n/a
American Indian/Alaska Native	149	20,137	5,615	27.9% ( 18.1% - 37.6% )	29.2% ( 19.1% - 39.3% )	
Asian	113	30,694	11,106	36.2% ( 26.0% - 46.4% )	41.1% ( 30.6% - 51.5% )	
Black or African American	58	13,401	5,423	40.5% ( 23.3% - 57.6% )	34.3% ( 19.6% - 49.0% )	
Native Hawaiian/Pacific Islander	44	9,653	3,999	41.4% ( 23.7% - 59.1% )	37.4% ( 17.7% - 57.2% )	
White	13,395	1,440,586	448,027	31.1% ( 30.0% - 32.2% )	31.7% ( 30.6% - 32.7% )	
Hispanic or Latino	750	123,364	41,183	33.4% ( 28.7% - 38.1% )	32.7% ( 28.0% - 37.3% )	
White, Non-Hispanic	12,933	1,322,871	410,934	31.1% ( 30.0% - 32.2% )	31.6% ( 30.5% - 32.7% )	
Other, Non-Hispanic	412	68,236	23,234	34.0% ( 28.1% - 40.0% )	34.9% ( 28.8% - 41.1% )	

Source: Behavioral Risk Factor Surveillance System

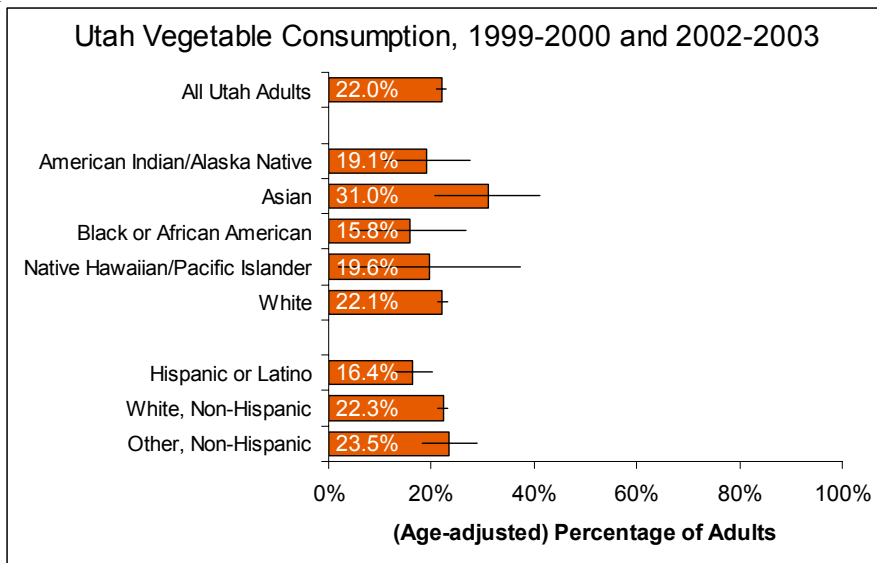
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Daily Vegetable Consumption

### Why Is It Important?

There are many benefits to eating fresh fruits and vegetables, including weight loss, a decrease in the risk of certain types of cancer, and a lower risk of heart disease. Some of the benefits result directly from the fruits and vegetables, and other benefits derive from the fact that if a person consumes five servings of fruits or vegetables a day, he or she is usually consuming fewer less-healthy foods, such as foods that are high in fat or calories.<sup>20</sup> The National Academy of Sciences, U.S. Department of Agriculture (USDA), the National Cancer Institute, and the American Cancer Society recommend that three to five servings of vegetables be consumed each day depending on a person's energy intake.



### How Are We Doing?

- Only 22% of Utah adults reported eating three or more daily servings of vegetables in the recent years in which the survey question was asked.
- The percentage of Utah adults who reported eating three or more daily servings of vegetables was higher (although not statistically significant) among Utah's Asian population, and lower among Utah's Hispanic/Latino population.

### How Can We Improve?

Not sure how to eat 5 to 9 A Day? The Centers for Disease Control and Prevention recommend starting the day with 100% fruit or vegetable juice. Slice bananas or strawberries on top of your cereal. Have a salad with lunch, and an apple for an afternoon snack. Include a vegetable with dinner and you already have 5 A Day.

### Percentage of Utah Adults (Age 18+) Who Reported Eating 3+ Vegetables Daily, 1999-2000 and 2002-2003

Race/Ethnicity	Sample Size	Total Adult Population	# Eating Vegetables	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,150	1,514,471	323,144	21.3% ( 20.4% - 22.3% )	22.0% ( 21.1% - 22.9% )	n/a
American Indian/Alaska Native	149	20,137	4,154	20.6% ( 11.2% - 30.0% )	19.1% ( 10.7% - 27.5% )	
Asian	113	30,694	8,401	27.4% ( 17.5% - 37.2% )	31.0% ( 20.7% - 41.2% )	
Black or African American	58	13,401	2,493	18.6% ( 3.4% - 33.8% )	15.8% ( 4.9% - 26.8% )	
Native Hawaiian/Pacific Islander	44	9,653	1,823	18.9% ( 4.8% - 33.0% )	19.6% ( 2.0% - 37.2% )	
White	13,395	1,440,586	309,776	21.5% ( 20.6% - 22.5% )	22.1% ( 21.1% - 23.1% )	
Hispanic or Latino	750	123,364	18,424	14.9% ( 11.7% - 18.1% )	16.4% ( 12.8% - 20.1% )	↓
White, Non-Hispanic	12,933	1,322,871	287,738	21.8% ( 20.8% - 22.7% )	22.3% ( 21.3% - 23.2% )	
Other, Non-Hispanic	412	68,236	15,676	23.0% ( 17.5% - 28.4% )	23.5% ( 18.2% - 28.9% )	

Source: Behavioral Risk Factor Surveillance System

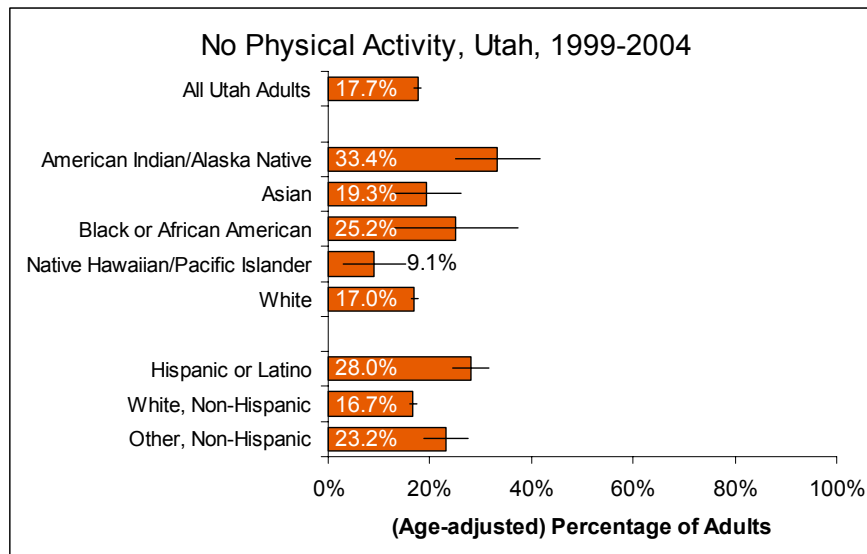
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## No Physical Activity

### Why Is It Important?

The risk posed by physical inactivity is almost as high as cigarette smoking, high blood pressure, and high blood cholesterol. Physically inactive persons are almost twice as likely to develop coronary heart disease as persons who engage in regular physical activity.<sup>21</sup> Physical inactivity is also linked to other adverse health conditions, including diabetes, osteoporosis, and some cancers,<sup>22</sup> and is associated with the increased rates of obesity seen in Utah and the U.S. Physical inactivity was defined as no participation in any physical activities for exercise, other than those associated with a regular job.<sup>6</sup>



### How Are We Doing?

- Among all Utah adults, 17.7% reported they were physically inactive from 1999–2004.
- Adults from Utah's Native Hawaiian/Pacific Islander community were less likely to report being physically inactive, whereas those in the American Indian/Alaska Native and Hispanic/Latino communities were more likely to report physical inactivity.

### How Can We Improve?

Similar to good nutrition, physical activity is part of a lifestyle and must be adapted and integrated into an individual's daily routine. Consistency is considered as important as intensity. Walkable communities help to increase physical activity rates with characteristics such as a compact local shopping area, walking and biking trails, low-speed streets with safe and convenient crossings, and neighborhood schools and parks.

Percentage of Utah Adults (Age 18 or Over) Who Reported No Physical Activity Outside of Work in the Past Month, 1999-2004

Race/Ethnicity	Sample Size	Total Adult Population	# With No Physical Activity	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	22,901	1,514,471	259,140	17.1% ( 16.5% - 17.8% )	17.7% ( 17.0% - 18.3% )	n/a
American Indian/Alaska Native	244	20,137	5,959	29.6% ( 21.7% - 37.5% )	33.4% ( 25.0% - 41.7% )	↑
Asian	194	30,694	6,301	20.5% ( 12.8% - 28.3% )	19.3% ( 12.5% - 26.1% )	
Black or African American	98	13,401	3,374	25.2% ( 12.5% - 37.8% )	25.2% ( 13.1% - 37.3% )	
Native Hawaiian/Pacific Islander	69	9,653	1,221	12.7% ( 4.1% - 21.2% )	9.1% ( 3.0% - 15.2% )	↓
White	21,407	1,440,586	237,738	16.5% ( 15.9% - 17.2% )	17.0% ( 16.3% - 17.6% )	↓
Hispanic or Latino	1,268	123,364	32,127	26.0% ( 22.8% - 29.3% )	28.0% ( 24.4% - 31.5% )	↑
White, Non-Hispanic	20,824	1,322,871	214,602	16.2% ( 15.6% - 16.9% )	16.7% ( 16.0% - 17.3% )	↓
Other, Non-Hispanic	702	68,236	15,197	22.3% ( 17.9% - 26.6% )	23.2% ( 18.8% - 27.6% )	↑

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Recommended Physical Activity

### Why Is It Important?

Physical activity is recognized as an independent protective factor against cardiovascular disease and has been shown to reduce the risk of several other diseases and improve physical and mental health. Among the elderly, regular activity improves bone density, reducing the risk of hip fracture, and helps to relieve pain from osteoarthritis. It would be difficult to overestimate the health-promoting influence of regular physical activity.

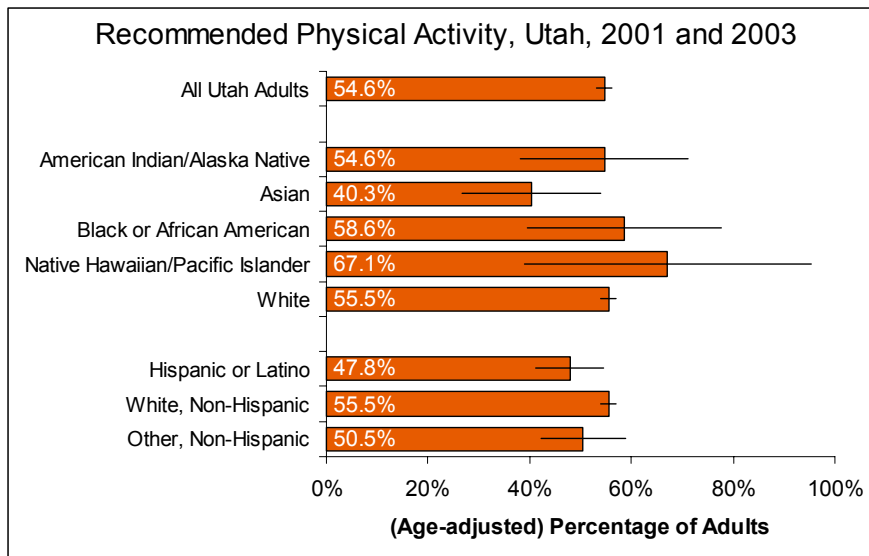
“Recommended physical activity” is defined by the U.S. Centers for Disease Control and Prevention as light or moderate physical activity for at least 30 minutes five or more times per week or vigorous physical activity for at least 20 minutes three or more times per week.

### How Are We Doing?

- In 2001 and 2003, just over half of all Utah adults reported getting recommended physical activity.
- Adults in Utah’s Asian and Hispanic/Latino communities were less likely to report getting recommended physical activity.

### How Can We Improve?

Even small changes in levels of physical activity can lead to big improvements in personal health.<sup>22</sup> The greatest health benefits are to persons who have never exercised regularly and then start meeting the recommended guideline.



Percentage of Utah Adults (Age 18 or Over) Who Reported Getting the Recommended Amount of Physical Activity, 2001 and 2003

Race/Ethnicity	Sample Size	Total Adult Population	# Getting Physical Activity	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	7,377	1,514,471	839,052	55.4% ( 53.9% - 56.9% )	54.6% ( 53.1% - 56.1% )	n/a
American Indian/Alaska Native	60	20,137	11,380	56.5% ( 40.6% - 72.4% )	54.6% ( 38.3% - 71.0% )	↓
Asian	65	30,694	14,044	45.8% ( 30.7% - 60.8% )	40.3% ( 26.6% - 53.9% )	
Black or African American	39	13,401	7,773	58.0% ( 36.2% - 79.9% )	58.6% ( 39.5% - 77.7% )	
Native Hawaiian/Pacific Islander	23	9,653	7,708	79.9% ( 63.6% - 96.2% )	67.1% ( 39.0% - 95.2% )	
White	6,776	1,440,586	807,398	56.0% ( 54.5% - 57.6% )	55.5% ( 53.9% - 57.0% )	↓
Hispanic or Latino	419	123,364	60,204	48.8% ( 42.2% - 55.4% )	47.8% ( 41.1% - 54.5% )	
White, Non-Hispanic	6,697	1,322,871	741,528	56.1% ( 54.5% - 57.6% )	55.5% ( 53.9% - 57.0% )	
Other, Non-Hispanic	226	68,236	36,906	54.1% ( 45.7% - 62.5% )	50.5% ( 42.2% - 58.8% )	

Source: Behavioral Risk Factor Surveillance System

Note: Recommended physical activity is defined by the U.S. Centers for Disease Control and Prevention as light or moderate physical activity for at least 30 minutes five or more times per week or vigorous physical activity for at least 20 minutes three or more times per week.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Cigarette Smoking

### Why Is It Important?

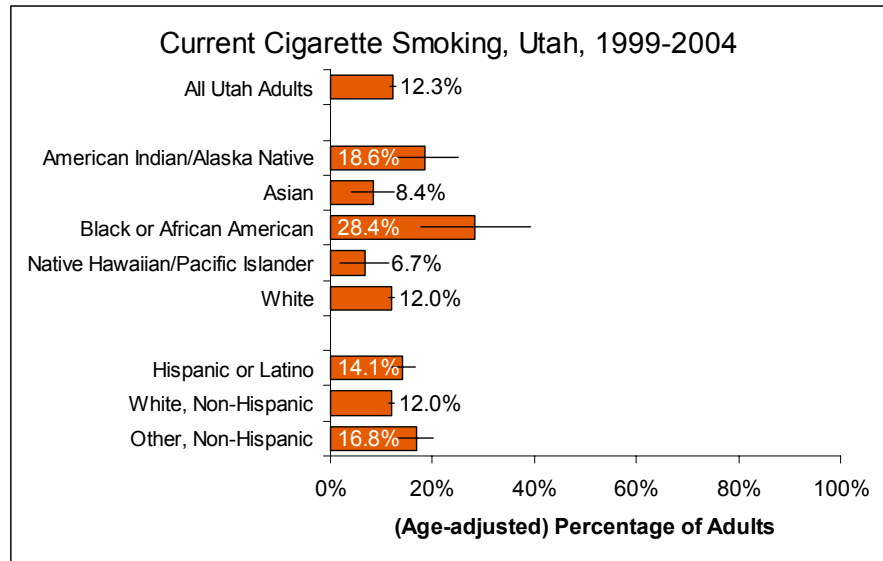
Tobacco use remains the leading preventable cause of death and disease in the U.S., claiming more than 440,000 lives each year. Smoking increases the risk for chronic lung disease, coronary heart disease, and stroke, as well as cancer of the lungs, larynx, esophagus, mouth, cervix, pancreas, bladder, and kidneys. Exposure to secondhand smoke has been linked to heart disease, lung cancer, and respiratory illnesses.

### How Are We Doing?

- Utah's smoking rate is the lowest in the nation, and continues to decline. Even so, over 195,000 Utahns of all ages still smoke. People with low incomes and fewer years of formal education reported higher rates of tobacco use than the state average. Recent surveys show that more than 80% of Utah smokers want to quit. Comprehensive and free quitting services are needed to help Utah smokers quit and ensure a decline in tobacco use.
- Adults in Utah's Black/African American community were more likely to smoke cigarettes, and those in the Hispanic/Latino community were marginally more likely to do so.

### How Can We Improve?

Despite Utah's overall low tobacco use rates, some communities face tobacco-related health risks that equal or exceed the national average. The Utah Tobacco Prevention and Control Program (TPCP) is addressing these disparities by funding community-based organizations to develop networks of anti-tobacco advocates, educate community leaders about tobacco-related disparities, improve data collection, ensure that media and educational materials and services are culturally and linguistically appropriate, and conduct tobacco prevention and cessation activities.



Percentage of Utah Adults (Age 18 or Over) Who Reported Current Cigarette Smoking, 1999-2004

Race/Ethnicity	Sample Size	Total Adult Population	# Who Smoked	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	22,919	1,514,471	189,222	12.5% ( 11.9% - 13.1% )	12.3% ( 11.7% - 12.8% )	n/a
American Indian/Alaska Native	246	20,137	3,636	18.1% ( 11.9% - 24.2% )	18.6% ( 12.2% - 25.1% )	
Asian	195	30,694	3,607	11.8% ( 5.4% - 18.1% )	8.4% ( 4.2% - 12.7% )	
Black or African American	98	13,401	3,623	27.0% ( 16.5% - 37.6% )	28.4% ( 17.6% - 39.2% )	↑
Native Hawaiian/Pacific Islander	70	9,653	953	9.9% ( 3.0% - 16.8% )	6.7% ( 1.9% - 11.5% )	↓
White	21,423	1,440,586	175,654	12.2% ( 11.6% - 12.8% )	12.0% ( 11.5% - 12.6% )	
Hispanic or Latino	1,271	123,364	17,577	14.2% ( 11.9% - 16.6% )	14.1% ( 11.6% - 16.6% )	
White, Non-Hispanic	20,838	1,322,871	160,617	12.1% ( 11.5% - 12.7% )	12.0% ( 11.4% - 12.6% )	
Other, Non-Hispanic	703	68,236	11,805	17.3% ( 13.8% - 20.8% )	16.8% ( 13.4% - 20.3% )	↑

Source: Behavioral Risk Factor Surveillance System

Note: Current cigarette smoking was defined as anyone who has smoked 100 cigarettes or more and currently smokes every day or some days.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Chronic Drinking

### Why Is It Important?

Alcohol misuse can lead to health problems and accidental injuries. It is also associated with disruptions in family, work, and personal life. Alcohol use during pregnancy is known to cause fetal alcohol syndrome. Chronic drinking is defined as 60 or more alcoholic drinks in the past 30 days for men and 30 or more alcoholic drinks in the past 30 days for women. Those guidelines differ because women metabolize alcohol differently than men. In addition,

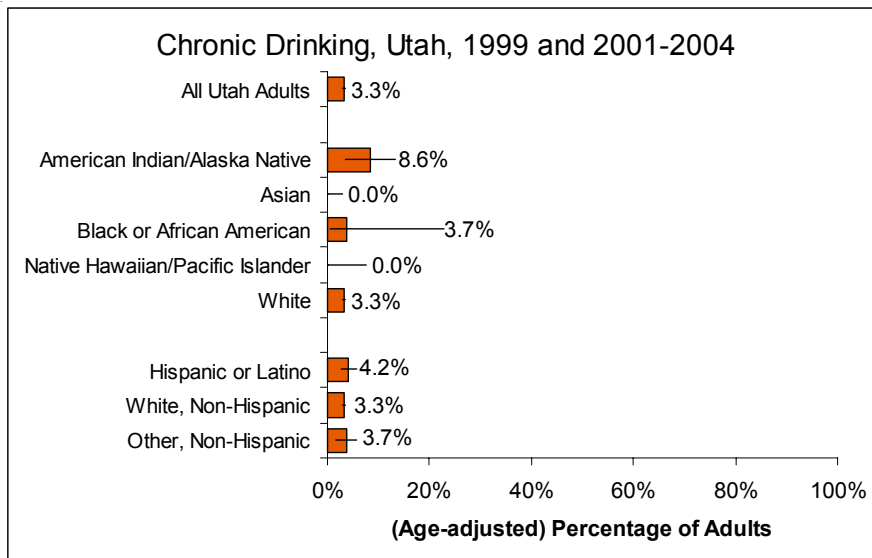
females have less body water than males, so they become more intoxicated than males after drinking the same amount of alcohol.<sup>6</sup>

### How Are We Doing?

- Chronic drinking rates are low in Utah, with only 3.3% of all Utah adults reporting the behavior.
- Chronic drinking was more prevalent among Utah's American Indian/Alaska Native population.
- Asian adults were statistically significantly less likely to report chronic drinking.

### How Can We Improve?

The Division of Substance Abuse and Mental Health ensures that substance abuse treatment services are available throughout the state. The Division contracts with local county governments (Local Substance Abuse Authorities, or LSAA) to provide these services and monitors these authorities through site visits, a year-end review process, and a peer review process.<sup>23</sup>



Percentage of Utah Adults (Age 18+) Who Reported Chronic Drinking, 1999 and 2001-2004

Race/Ethnicity	Sample Size	Total Adult Population	# Chronic Drinking	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	19,956	1,514,471	51,182	3.4% ( 3.1% - 3.7% )	3.3% ( 3.0% - 3.6% )	n/a
American Indian/Alaska Native	221	20,137	1,960	9.7% ( 4.2% - 15.3% )	8.6% ( 3.7% - 13.5% )	↑ ↓
Asian	173	30,694	0	0.0% ( 0.0% - 2.9% )	0.0% ( 0.0% - 2.9% <sup>†</sup> )	
Black or African American	86	13,401	312	2.3% ( 0.3% - 16.1% )	3.7% ( 0.6% - 22.8% )	
Native Hawaiian/Pacific Islander	63	9,653	0	0.0% ( 0.0% - 7.6% )	0.0% ( 0.0% - 7.6% <sup>†</sup> )	
White	18,595	1,440,586	48,565	3.4% ( 3.0% - 3.7% )	3.3% ( 3.0% - 3.6% )	
Hispanic or Latino	1,103	123,364	4,928	4.0% ( 2.6% - 5.4% )	4.2% ( 2.6% - 5.8% )	
White, Non-Hispanic	18,136	1,322,871	44,045	3.3% ( 3.0% - 3.7% )	3.3% ( 2.9% - 3.6% )	
Other, Non-Hispanic	626	68,236	2,386	3.5% ( 1.6% - 5.4% )	3.7% ( 1.7% - 5.8% )	

Source: Behavioral Risk Factor Surveillance System

Note: Chronic drinking was defined as 60+ drinks in the past 30 days for men and 30+ drinks in the past 30 days for women.

\*Age adjusted to the U.S. 2000 standard population

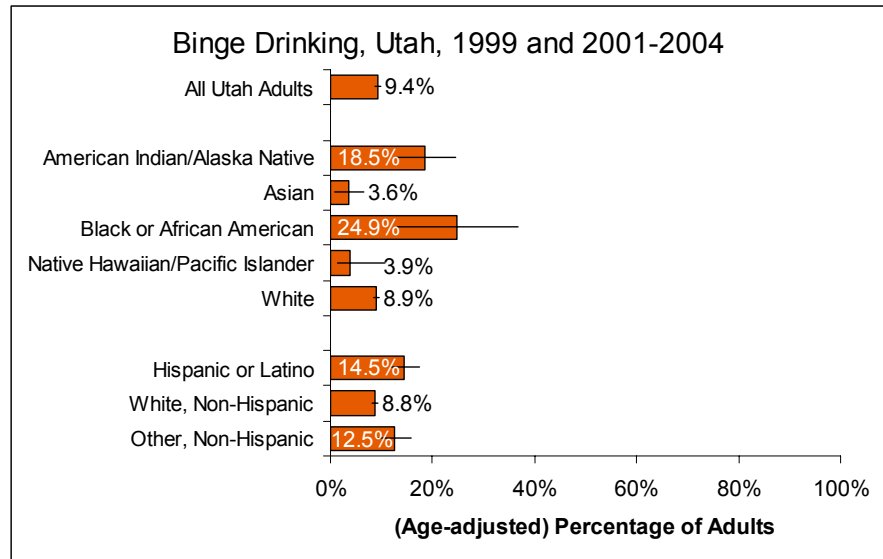
\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

† The confidence interval for this age-adjusted rate was assumed to be the same as the confidence interval for the crude rate.

## Binge Drinking

### Why Is It Important?

Binge drinking is an indicator of potentially serious alcohol abuse, and is related to driving under the influence of alcohol. Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Binge drinking among women of childbearing age is especially problematic. Birth defects associated with prenatal alcohol exposure can occur during the first six to eight weeks of pregnancy before a woman knows she is pregnant. Approximately 85,000 deaths each year in the U.S. are attributed to alcohol abuse.



### How Are We Doing?

- In Utah, the percentage of adults who reported binge drinking in the past 30 days fluctuated between a high of 12% in 1989 to a low of 7.7% in 1997. In the survey years reported here, 9.4% of Utah adults reported recent binge drinking. Utah still has a way to go to reach the Healthy People 2010 objective of 6%.
- Binge drinking was more commonly reported by survey respondents from Utah's Black/African American, American Indian/Alaska Native, and Hispanic/Latino communities than in the state overall. Asian adults were least likely to report binge drinking.

### How Can We Improve?

Utah is served by 13 Local Substance Abuse Authority districts operating a statewide system of care. For more information go to the Utah Division of Substance Abuse and Mental Health at <http://www.hsdas.utah.gov/>

Percentage of Utah Adults (Age 18 or Over) Who Reported Drinking Five or More Drinks on One Occasion in the Past Month, 1999 and 2001-2004

Race/Ethnicity	Sample Size	Total Adult Population	# Binge Drinking	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	19,967	1,514,471	150,242	9.9% ( 9.4% - 10.5% )	9.4% ( 8.8% - 9.9% )	n/a
American Indian/Alaska Native	218	20,137	4,735	23.5% ( 15.5% - 31.5% )	18.5% ( 12.4% - 24.6% )	↑
Asian	173	30,694	1,549	5.0% ( 1.2% - 8.9% )	3.6% ( 0.8% - 6.4% )	↓
Black or African American	86	13,401	3,321	24.8% ( 13.1% - 36.5% )	24.9% ( 13.0% - 36.8% )	↑
Native Hawaiian/Pacific Islander	62	9,653	676	7.0% ( 2.5% - 19.5% )	3.9% ( 1.4% - 10.6% )	
White	18,608	1,440,586	134,573	9.3% ( 8.8% - 9.9% )	8.9% ( 8.4% - 9.5% )	
Hispanic or Latino	1,100	123,364	20,390	16.5% ( 13.5% - 19.5% )	14.5% ( 11.7% - 17.3% )	↑
White, Non-Hispanic	18,152	1,322,871	121,375	9.2% ( 8.6% - 9.7% )	8.8% ( 8.3% - 9.4% )	↓
Other, Non-Hispanic	622	68,236	9,537	14.0% ( 10.5% - 17.5% )	12.5% ( 9.2% - 15.9% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

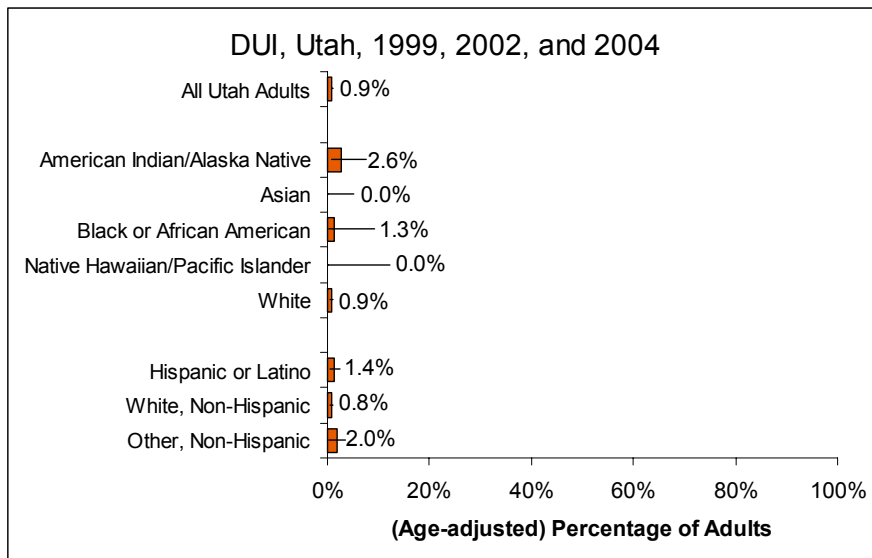
\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## DUI (Driving Under the Influence)

### Why Is It Important?

Motor vehicle traffic crashes are a leading cause of death in Utah, especially for persons aged 45 and under. Many factors influence the risk of a traffic crash, but the single most significant predictor of an accident is the driver's state of sobriety.<sup>24</sup> A blood alcohol concentration (BAC) of 0.08 meets the legal definition of "under the influence of alcohol," and is Utah's standard for prosecution. At a BAC of only 0.10, a driver has six times the normal risk of getting into a motor vehicle crash, and at 0.14 the risk is twentyfold.



### How Are We Doing?

- Less than 1% of Utah adults reported that they drove a car after drinking alcohol in the past month.
- Although there was some variation by race and ethnicity, the differences were not statistically significant.

### How Can We Improve?

Legal penalties, including incarceration, probation, fines, suspension of driver's license, electronic monitoring, ignition interlock, treatment, and other measures may be enforced is a person whose BAC is or exceeds 0.08 is found to be in control of a vehicle.

PRIME For Life is a research-based program that is the mandated statewide in Utah, as well as certain other states. PRIME For Life is typically taught for 16 to 20 hours and includes a student self-assessment, individual and group activities, and has been found to be helpful in reducing recidivism.<sup>25</sup>

Percentage of Utah Adults (Age 18 or Over) Who Reported Driving After Alcohol Use in the Past Month, 1999, 2002, and 2004

Race/Ethnicity	Sample Size	Total Adult Population	# With DUI	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	12,377	1,514,471	15,662	1.0% ( 0.8% - 1.3% )	0.9% ( 0.7% - 1.1% )	n/a
American Indian/Alaska Native	161	20,137	761	3.8% ( 1.3% - 11.2% )	2.6% ( 0.9% - 7.5% )	
Asian	102	30,694	0	0.0% ( 0.0% - 5.1% )	0.0% ( 0.0% - 5.1% <sup>†</sup> )	
Black or African American	45	13,401	323	2.4% ( 0.3% - 16.8% )	1.3% ( 0.2% - 9.1% )	
Native Hawaiian/Pacific Islander	40	9,653	0	0.0% ( 0.0% - 12.3% )	0.0% ( 0.0% - 12.3% <sup>†</sup> )	
White	11,645	1,440,586	13,728	1.0% ( 0.7% - 1.2% )	0.9% ( 0.6% - 1.1% )	
Hispanic or Latino	667	123,364	2,244	1.8% ( 0.5% - 3.2% )	1.4% ( 0.4% - 2.5% )	
White, Non-Hispanic	11,264	1,322,871	11,935	0.9% ( 0.7% - 1.1% )	0.8% ( 0.6% - 1.1% )	
Other, Non-Hispanic	390	68,236	2,018	3.0% ( 0.5% - 5.4% )	2.0% ( 0.4% - 3.6% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

† The confidence interval for this age-adjusted rate was assumed to be the same as the confidence interval for the crude rate.

## Seat Belt Use

### Why Is It Important?

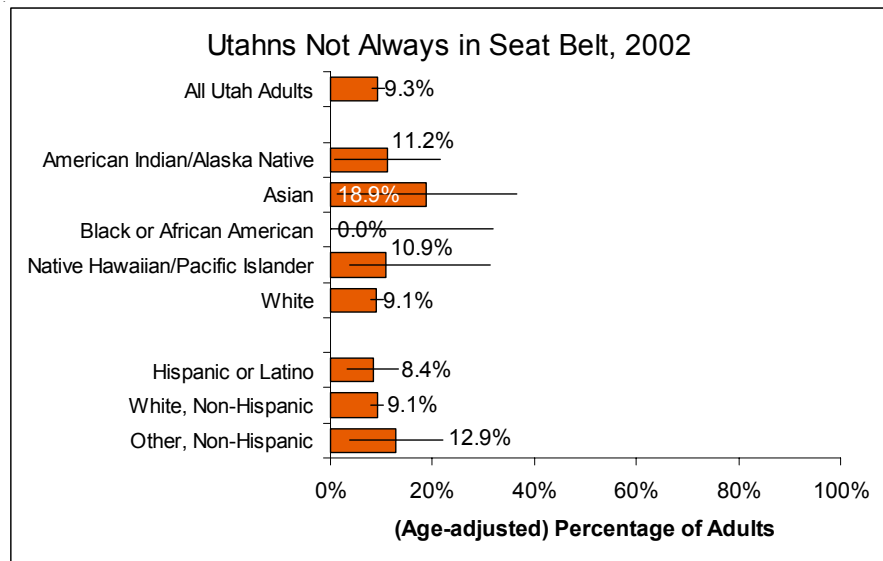
Motor vehicle crashes (MVCs) are the leading cause of injury death and the second leading cause of hospitalization from injury for all ages and ethnicities in Utah. The National Highway Traffic Safety Administration reports that proper and consistent use of seat belts could reduce MVC-related injuries and deaths by as much as 50%.

### How Are We Doing?

According to the Utah Department of Public Safety's observational surveys, overall adult safety belt usage has increased among all Utahns increased from 18% in 1986 to 86% in 2004. Self-reported data from Utah's Behavioral Risk Factors Surveillance System (BRFSS) survey indicates that Asian Utahns may be somewhat less likely to report that they "always" use safety belts, although the difference was not significant. In an effort to get more children properly restrained, local health departments have conducted sustained car seat and booster seat campaigns since the late 1990s, with particular focus on the Latino and Native American populations.

### How Can We Improve?

Caregivers of all races and ethnicities should continue to be educated about the importance of booster seats for children ages 4–8 as they are too small to fit in adult seat belts. Low-cost seats should be made available to at-risk populations. In addition, evidence from other states has shown that primary seat belt laws can further reduce death and injury related to MVCs.



Percentage of Utah Adults (Age 18 or Over) Who Reported They Did Not Always\* Use a Seat Belt, 2002

Race/Ethnicity	Sample Size	Total Adult Population	# With No Seat Belt	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.***
All Utah Adults	4,062	1,514,471	142,299	9.4% ( 8.2% - 10.6% )	9.3% ( 8.1% - 10.5% )	n/a
American Indian/Alaska Native	46	20,137	2,448	12.2% ( 3.9% - 38.0% )	11.2% ( 0.8% - 21.7% )	
Asian	27	30,694	8,387	27.3% ( 9.1% - 81.9% )	18.9% ( 1.3% - 36.5% )	
Black or African American	13	13,401	0	0.0% ( 0.0% - 31.8% )	0.0% ( 0.0% - 31.8% <sup>†</sup> )	
Native Hawaiian/Pacific Islander	16	9,653	1,460	15.1% ( 4.4% - 51.6% )	10.9% ( 3.8% - 31.4% )	
White	3,872	1,440,586	131,878	9.2% ( 7.9% - 10.4% )	9.1% ( 7.9% - 10.3% )	
Hispanic or Latino	177	123,364	10,811	8.8% ( 4.0% - 13.5% )	8.4% ( 3.4% - 13.5% )	
White, Non-Hispanic	3,748	1,322,871	121,019	9.1% ( 7.9% - 10.4% )	9.1% ( 7.9% - 10.3% )	
Other, Non-Hispanic	113	68,236	11,298	16.6% ( 3.7% - 29.4% )	12.9% ( 3.9% - 22.0% )	

Source: Behavioral Risk Factor Surveillance System

\*Did not report "always" or "nearly always" use seat belt

\*\*Age adjusted to the U.S. 2000 standard population

\*\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

† The confidence interval for this age-adjusted rate was assumed to be the same as the confidence interval for the crude rate.

# HEALTH PROBLEMS OF MOTHERS AND INFANTS

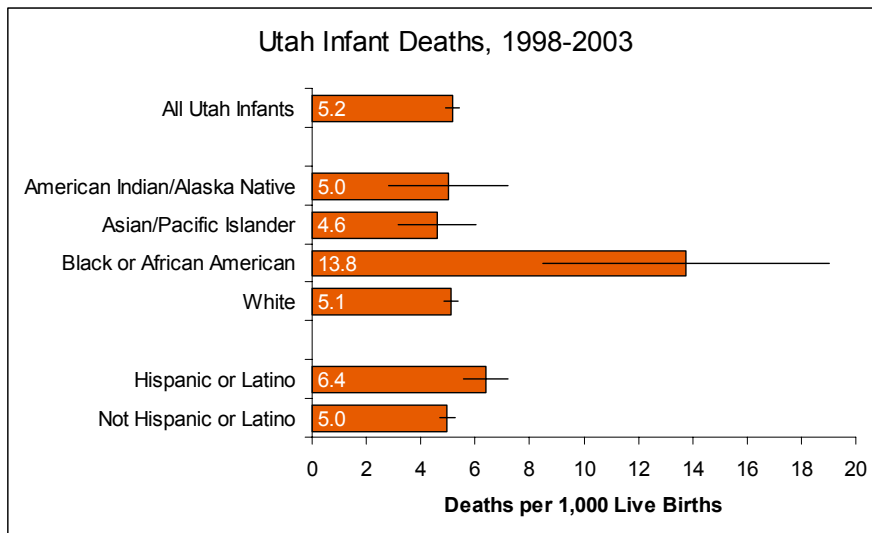




## Infant Mortality

### Why Is It Important?

The infant death rate is an important measure of a nation's health and a worldwide indicator of health status and social well-being. It is a critical indicator of the health of a population. Three causes account for more than half of all infant deaths: birth defects, conditions in the perinatal period (includes disorders of short gestation and can reflect the overall state of maternal health, as well as the quality and accessibility of primary health care for pregnant women), and SIDS. Infant mortality, when resulting from a complicated delivery, is associated with increased risk of maternal mortality.



### How Are We Doing?

- From 1998 through 2003, there were 5.2 infants who died during their first year of life in Utah per 1,000 infants born. During 2003, 248 Utah infants died during their first year of life.
- From 1998 through 2003, the infant death rates for infants born to Black/African American and Hispanic/Latina mothers were higher than the overall state rate at 13.8 and 6.4 per 1,000 live births, respectively.

### How Can We Improve?

Infant mortality rates are slightly higher in the Utah Hispanic/Latino population than in the population overall. However, the infant mortality rate for Black/African American infants is dramatically higher than other racial and ethnic groups. Conditions in the perinatal period account for the largest proportion of deaths in Black/African American infants. These conditions include disorders of short gestation and can reflect the overall state of maternal health, as well as the quality and accessibility of primary health care for pregnant women. Analysis of data to identify risk factors associated with infant mortality in Utah is complicated by the fact that our population numbers are small. However, case review of infant

deaths is accomplished through several Utah Department of Health, Community and Family Health Services programs. These programs utilize a mortality review process which is aimed at identifying and examining the factors that contributed to the infant deaths in order to identify public health strategies to improve outcomes.

### Utah Infant Mortality, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Live Births	Rate per 1,000 Births (95% CI Range)	Sig.**
All Utah Infants	245	47,599	5.2 ( 4.9 - 5.4 )	n/a
American Indian/Alaska Native	3	665	5.0 ( 2.8 - 7.2 )	
Asian/Pacific Islander	7	1,445	4.6 ( 3.2 - 6.0 )	
Black or African American	4	315	13.8 ( 8.5 - 19.0 )	↑
White	229	44,782	5.1 ( 4.9 - 5.4 )	
Hispanic or Latino	40	6,163	6.4 ( 5.6 - 7.2 )	↑
Not Hispanic or Latino	206	41,436	5.0 ( 4.7 - 5.2 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

\*\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



# Health Problems of Mothers/Infants

## Infant Mortality Related to Birth Defects

### Why Is It Important?

Birth defects are the leading cause of infant mortality. They are directly associated with one of every four deaths among infants in Utah. Thus, preventing birth defects is a key to improving children's survival and health.

Preventing birth defects requires a combination of surveillance to track and assess these conditions, research to find their causes, and direct prevention services, to ensure that all women and their providers know of effective primary prevention already available,

such as periconceptional folic acid to prevent neural tube defects (see page 47). It is also important that families have the resources to help them in the difficult times following the tragic loss of their child with a birth defect. The Utah Birth Defect Network (UBDN) is engaged in activities to help prevent birth defects through surveillance and services, as well as to provide resource information to families who have experienced the death of a baby and their providers.

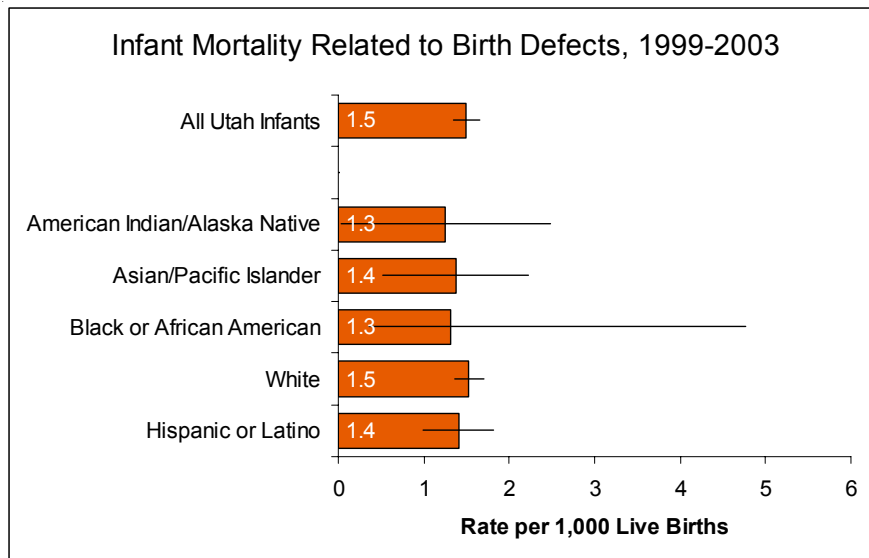
### How Are We Doing?

During 1999–2003, infant mortality among babies with a birth defect was 72 per 1,000, more than 10 times higher than the overall infant mortality in Utah (5 per 1,000). Thus, even if only 3 in 100 babies are born with a birth defect, they contribute to 3 in 10 infant deaths in Utah (1.5 of the 5 infant deaths per 1,000 live births). There was little variation among Utah's racial and ethnic populations.

### How Can We Improve?

With improvements in the control and treatment of infection and prematurity, the relative impact of birth defects on infant mortality is likely to increase over time, unless known primary prevention strategies are implemented and others are found. Surveillance, research, and primary prevention services are keys to reducing infant mortality due to birth defects. The UBDN currently contributes to tracking and

assessing impact, trends, and disparities related to birth defects-related mortality. Organizations that offer resources and support to families who have experienced the death of an infant include the SHARE Pregnancy and Infant Loss Support, Inc. ([www.nationalshareoffice.com](http://www.nationalshareoffice.com)), The Compassionate Friends, Inc. ([www.compassionatefriends.org](http://www.compassionatefriends.org)), and Bereaved Parents of the USA ([www.bereavedparentsusa.org](http://www.bereavedparentsusa.org)).



Infant Mortality Related to Birth Defects, Utah, 1999-2003

Race/Ethnicity	Average Annual #	Total Live Births	Rate per 1,000 Births (95% CI Range)	Sig.*
All Utah Infants	72	48,046	1.5 ( 1.3 - 1.6 )	n/a
American Indian/Alaska Native	1	640	1.3 ( 0.0 - 2.5 )	
Asian/Pacific Islander	2	1,459	1.4 ( 0.5 - 2.2 )	
Black or African American	<1	305	1.3 ( 0.4 - 4.8 )	
White	60	38,989	1.5 ( 1.4 - 1.7 )	
Hispanic or Latino	9	6,411	1.4 ( 1.0 - 1.8 )	

Source: UDOH, Utah Birth Defect Network

Note: Individuals were classified into only one race/ethnic category.

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Low Birth Weight

### Why Is It Important?

Low birth weight increases the risk for infant mortality and morbidity. As birth weight decreases, the risk for death increases. Low birth weight infants who survive often require intensive care at birth, may develop chronic illnesses, and later may require special education services. Health care costs and length of hospital stay are higher for low birth weight infants.

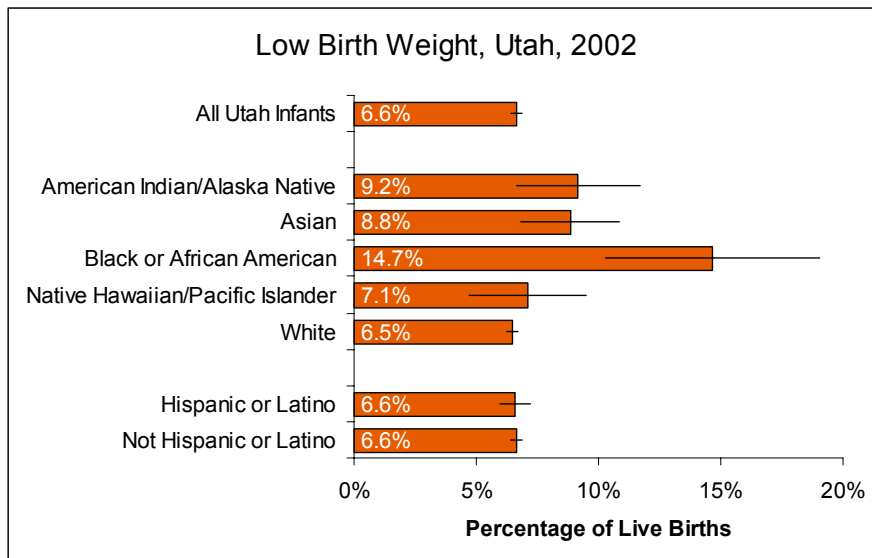
### How Are We Doing?

- In 2002, 6.6% of all live births produced infants who weighed less than 2,500 grams (about 5.5 lbs) at birth.
- Babies born to Black/African American, American Indian/Alaska Native, and Asian mothers were at greater-than-average risk of being low birth weight.

### How Can We Improve?

Low birth weight rates for Utah's racial minorities are higher than for Utah's White population, with rates for Black women being almost twice that of White women. The etiology of Black-White disparities in low birth weight is complex and is not explained entirely by demographic risk factors such as maternal age, education, or income. Among the factors that might contribute to the disparity is a difference in medical conditions before and during pregnancy. Studies have noted that the higher proportion of Black infants born at very low birth weights (VLBW) was related to an elevated risk in their mothers of major conditions associated with VLBW, primarily chorioamnionitis or premature rupture of the membranes, hypertensive disorders, and hemorrhage. Black women have also been noted to experience higher rates of non-sexually transmitted urogenital tract infections, including bacteriuria, bacterial vaginosis, and Group B streptococcal vaginal colonization, which are risk factors for preterm birth. Risk factors for these non-sexually transmitted

infections are not well understood, however vaginal douching, a health behavior practiced purportedly more frequently in Black than White women, has been linked to alterations in vaginal flora and to ascending urogenital tract infection. Analysis of data to identify risk factors associated with LBW births among Black women in Utah is complicated by the fact that our population numbers are small.



Percentage of Utah Infants With Low Birth Weight, 2002

Race/Ethnicity	# LBW	Total Live Births	Crude Rate (95% CI Range)	Sig.*
All Utah Infants	3,261	49,140	6.6% ( 6.4% - 6.9% )	n/a
American Indian/Alaska Native	61	666	9.2% ( 7.1% - 11.7% )	↑
Asian	84	950	8.8% ( 7.2% - 10.9% )	↑
Black or African American	49	334	14.7% ( 11.2% - 19.0% )	↑
Native Hawaiian/Pacific Islander	44	619	7.1% ( 5.3% - 9.5% )	
White	3,002	46,207	6.5% ( 6.3% - 6.7% )	
Hispanic or Latino	459	6,984	6.6% ( 6.0% - 7.2% )	
Not Hispanic or Latino	2,785	41,998	6.6% ( 6.4% - 6.9% )	

Source: UDOH, Office of Vital Records and Statistics, Birth Certificate Database

Note: Low birth weight was defined as less than 2,500 grams (about 5 lbs. 8 oz.)

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



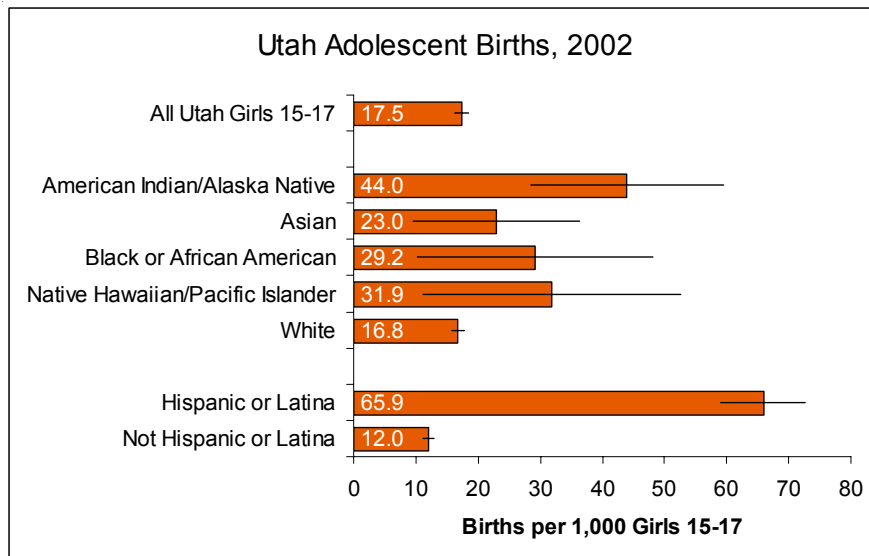


# Health Problems of Mothers/Infants

## Adolescent Births

### *Why Is It Important?*

Compared to babies born to older mothers, babies born to adolescent mothers, particularly young adolescent mothers, are at higher risk of low birth weight and infant mortality. These babies are more likely to grow up in homes that offer lower levels of emotional support and cognitive stimulation, and they are less likely to earn a high school diploma. For the mothers, giving birth during adolescence is associated with limited educational attainment, which in turn can reduce future employment prospects and earning potential.



### *How Are We Doing?*

- The number of Utah girls aged 15 to 17 who gave birth in 2002 was 17.5 per 1,000 girls.
- Adolescent births were significantly more common among Hispanic/Latina (65.9), American Indian/Alaska Native (44.0), and Native Hawaiian/Pacific Islander Utah girls (31.9 births per 1,000 girls). The rate among Hispanic/Latina girls aged 15 to 17 was nearly four times the overall state rate, with 1 of every 15 girls having given birth in 2002.

### *How Can We Improve?*

Prevention of teen pregnancy includes programs to encourage sexual abstinence for all teens and family planning services for sexually active teens. A detailed report on adolescent pregnancy in Utah has been published by the Utah Department of Health and can be accessed on the Internet ([www.health.utah.gov/cash](http://www.health.utah.gov/cash)).

The Utah Department of Health funds eight abstinence-only community-based projects for youth aged 9–14 throughout the state with federal abstinence education monies.

### Births to Utah Adolescent Girls (Age 15-17), 2002

Race/Ethnicity	# Births to Teens	Total Girls 15-17	Crude Rate per 1,000 (95% CI Range)	Sig.*
All Utah Girls 15-17	998	57,190	17.5 ( 16.4 - 18.5 )	n/a
American Indian/Alaska Native	42	955	44.0 ( 31.7 - 59.4 )	↑
Asian	18	781	23.0 ( 13.7 - 36.4 )	
Black or African American	15	514	29.2 ( 16.3 - 48.1 )	
Native Hawaiian/Pacific Islander	15	470	31.9 ( 17.9 - 52.6 )	↑
White	900	53,508	16.8 ( 15.7 - 17.9 )	
Hispanic or Latina	337	5,116	65.9 ( 59.1 - 72.7 )	↑↑
Not Hispanic or Latino	660	54,894	12.0 ( 11.1 - 12.9 )	↓↓

Source: UDOH, Office of Vital Records and Statistics, Birth Certificate Database

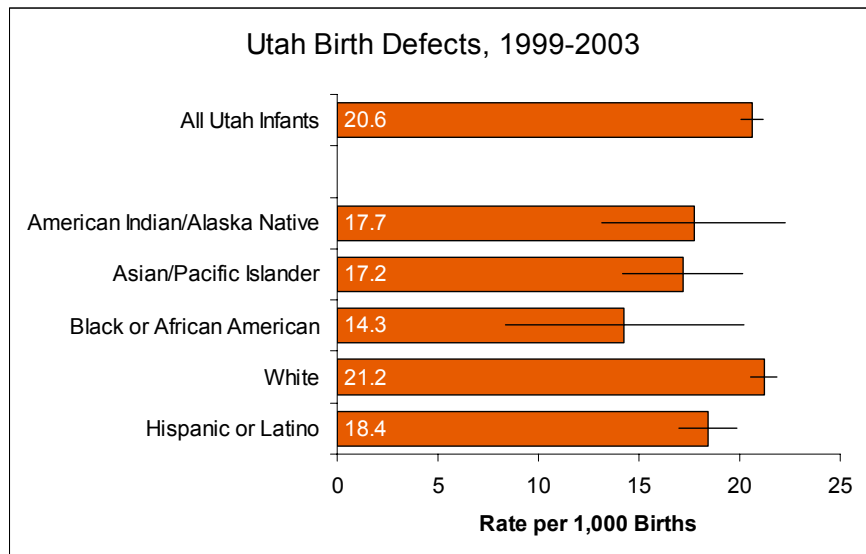
\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Overall Birth Defects

### Why Is It Important?

Birth defects are a major cause of stillbirths and infant deaths. People with birth defects are also at increased risk for chronic illness, disability, and premature death. Because Utah has the highest birth rate in the nation, birth defects are an especially important issue here. Assessing the distribution of birth defects and their impact over time and in racial/ethnic groups provides crucial evidence to direct health care planning, provide efficient services, identify disparities, and provide inroads into the search of causes.



### How Are We Doing?

- During 1999–2003 the overall rate of major structural birth defects was 20.6 per 1,000, or 1 in 48 births. Because the UBDN does not monitor every type of birth defect, this number is actually lower than the actual rate for all birth defects.
- According to the UBDN, 17.7% of birth defects have a genetic origin (a chromosomal or single gene condition), 0.4% have an environmental origin (including maternal illnesses and medications), and 0.1% are due to twinning. In the remaining 81.8%, the cause is unknown.
- Birth defects also contribute to prematurity, another major cause of preventable mortality and disability. In 2003, 20.2% of babies with birth defects were premature compared to 9.5% of all Utah newborns.
- Although overall birth defect rates vary somewhat by race and ethnicity, it is also important to assess rates of individual defects. This report presents such assessment for selected major birth defects.

### How Can We Improve?

We can improve with better surveillance, research, and primary prevention services. Currently the UBDN in partnership with local and national organizations is (1) tracking all major birth defects to assess trends, address community concerns, examine clustering, and quantify morbidity and mortality; (2) searching for causes of birth defects in collaboration with and with funding from the U.S. Centers for Disease Control and Prevention (CDC); and (3) promoting and evaluating primary prevention of severe birth defects, including education campaigns among women and health care providers to promote the use of the B-vitamin folic acid to prevent spina bifida and other neural tube defects.

### Birth Defects, Utah, 1999-2003

Race/Ethnicity	Average Annual #	Total Births	Rate per 1,000 Births (95% CI Range)	Sig.*
All Utah Infants	990	48,039	20.6 ( 20.0 - 21.8 )	n/a
American Indian/Alaska Native	11	643	17.7 ( 13.2 - 22.3 )	↓
Asian/Pacific Islander	25	1,467	17.2 ( 14.2 - 20.1 )	↓
Black or African American	4	308	14.3 ( 8.4 - 20.2 )	↓
White	830	39,170	21.2 ( 20.6 - 21.8 )	↓
Hispanic or Latino	119	6,450	18.4 ( 17.0 - 19.9 )	↓

Source: UDOH, Utah Birth Defect Network

Note: Individuals were classified into only one race/ethnic category. "Total births" include all live births plus fetal deaths.

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



# Health Problems of Mothers/Infants

## Folic Acid Consumption

### Why Is It Important?

Folic acid, a B-vitamin, can prevent many neural tube defects (NTDs), which are severe defects of the brain and spine (see page 47). The occurrence of NTDs could be reduced by more than half if women consumed adequate folic acid (400 micrograms) daily from at least one month before conception through the first months of pregnancy. Because approximately 50% of pregnancies are unplanned, it is important for every woman to consume a multi-vitamin with folic acid whether

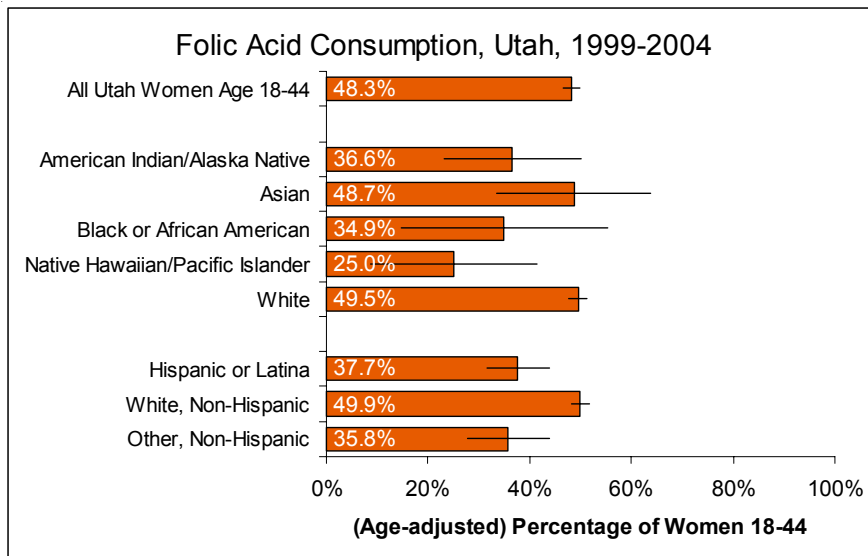
contemplating pregnancy or not. Food fortification with folic acid, mandated in 1998, has increased intake, but does not provide enough folic acid to prevent NTDs for all women of childbearing age.

### How Are We Doing?

- Nearly half (48.3%) of all Utah women aged 18 to 44 reported that they were taking vitamins or supplements with 400 micrograms of folic acid daily.
- Folic acid consumption was significantly lower among Native Hawaiian/Pacific Islander and Hispanic/Latina women aged 18–44, and also somewhat lower among those in Utah’s Black/African American and American Indian/Alaska Native communities.

### How Can We Improve?

The U.S. Public Health Service recommended in 1992 that all women of childbearing age consume 400 micrograms of folic acid daily. Continuing to educate women, particularly young women entering childbearing years is critical. Educational campaigns need to target minority groups reporting lower rates of folic acid consumption. The effect of these campaigns needs to be assessed regularly through surveys, and the effect on NTD rates needs to be tracked by ongoing birth defects monitoring.



Percentage of Utah Women (Age 18-44) Who Reported Taking Folic Acid Daily, 1999-2004

Race/Ethnicity	Sample Size	# Females 18-44	# Taking Folic Acid	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Women Age 18-44	6,397	466,492	223,633	47.9% ( 46.3% - 49.6% )	48.3% ( 46.6% - 50.0% )	n/a
American Indian/Alaska Native	86	7,429	2,717	36.6% ( 23.1% - 50.1% )	36.6% ( 23.1% - 50.1% )	
Asian	63	11,103	5,107	46.0% ( 30.2% - 61.8% )	48.7% ( 33.5% - 63.8% )	
Black or African American	30	4,035	1,695	42.0% ( 14.2% - 69.8% )	34.9% ( 14.6% - 55.3% )	
Native Hawaiian/Pacific Islander	36	3,431	883	25.7% ( 9.2% - 42.3% )	25.0% ( 8.6% - 41.3% )	↓
White	5,897	440,494	215,966	49.0% ( 47.3% - 50.7% )	49.5% ( 47.7% - 51.2% )	
Hispanic or Latina	446	42,870	15,706	36.6% ( 30.6% - 42.6% )	37.7% ( 31.7% - 43.8% )	↓
White, Non-Hispanic	5,675	399,654	197,984	49.5% ( 47.8% - 51.3% )	49.9% ( 48.1% - 51.7% )	
Other, Non-Hispanic	244	23,968	8,727	36.4% ( 28.1% - 44.8% )	35.8% ( 27.8% - 43.8% )	↓

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Neural Tube Defects

### *Why Is It Important?*

Neural tube defects (NTDs) are severe malformations of the brain and spine that cause premature death, chronic illness, and disabilities. The two most common NTDs are anencephaly and spina bifida. NTDs occur in the very early weeks of pregnancy, but many can be prevented by women taking the B-vitamin folic acid daily from before conception through early pregnancy. It is crucial that all women and their providers know this information.

Much can be done to improve the health and prevent disabilities in children who are born with NTDs. These children often require long term treatment and rehabilitation services. Tracking the occurrence of these conditions, their distribution, and their outcomes provides much-needed evidence to help plan efficient services and improve outcomes among people with these conditions. The Utah Birth Defect Network (UBDN) together with other public and private partners is engaged both in folic acid prevention efforts as well as in continuing tracking of NTDs.

### *How Are We Doing?*

According to the UBDN data, from 1994–2003, NTDs occurred in 1 in 1,365 births (7.3 per 10,000 births). These rates represent a halving of the rates compared to before 1992. Hispanic Utahns experienced a higher rate of NTDs compared to other groups. The rate for the combined Asian and Pacific Islander populations was significantly lower than the overall state rate.

### *How Can We Improve?*

As of 2003, over half of Utah women of childbearing age still do not use folic acid daily. Thus, a considerable number of additional neural tube defects could be prevented with increased use of folic acid. Such prevention will benefit families and the state by improving health and decreasing personal,

family, and societal burden for these severe conditions. Such efforts have recently been designed and implemented to reach Hispanic women. Complete and timely tracking and evaluation of NTDs is also crucial to assess prevention efforts and evaluate impact.

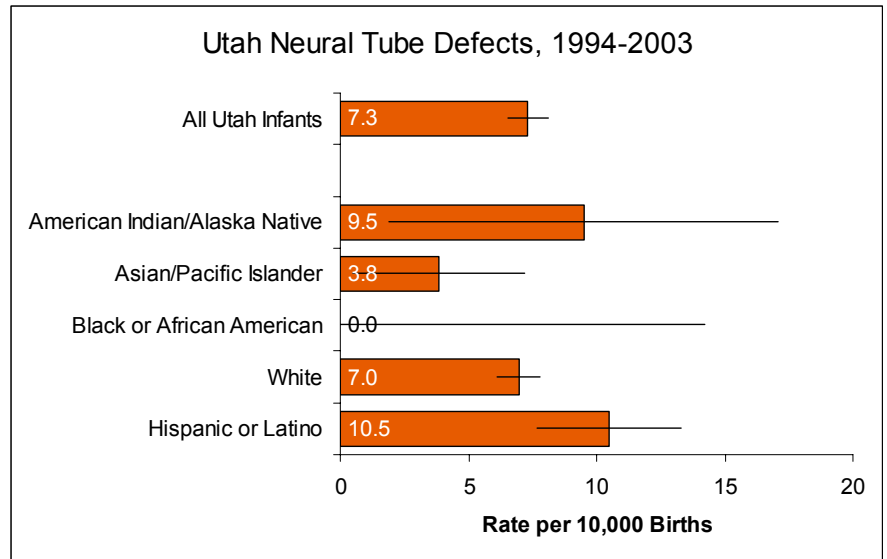
### Neural Tube Defects, Utah, 1994-2003

Race/Ethnicity	Average Annual #	Total Births	Rate per 10,000 Births (95% CI Range)	Sig.*
All Utah Infants	33	45,074	7.3 ( 6.5 - 8.1 )	n/a
American Indian/Alaska Native	1	632	9.5 ( 1.9 - 17.1 )	↓
Asian/Pacific Islander	1	1,306	3.8 ( 0.5 - 7.2 )	
Black or African American	0	271	0.0 ( 0.0 - 14.2 )	
White	26	37,480	7.0 ( 6.1 - 7.8 )	↑
Hispanic or Latino	5	5,141	10.5 ( 7.7 - 13.3 )	

Source: UDOH, Utah Birth Defect Network

Note: Individuals were classified into only one race/ethnic category. "Total births" include all live births plus fetal deaths.

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.





# Health Problems of Mothers/Infants

## Orofacial Clefts

### Why Is It Important?

Orofacial clefts (cleft lip and/or cleft palate) are among the most common birth defects. They can occur alone or in combination with other defects and can significantly affect children's health. Children with orofacial clefts require medical and surgical services to treat the structural malformations. These children, even after surgery, can be at increased risk of illness and disability, particularly with respect to hearing and communication, and may require long-term health and rehabilitation services to improve outcomes and reduce complications.

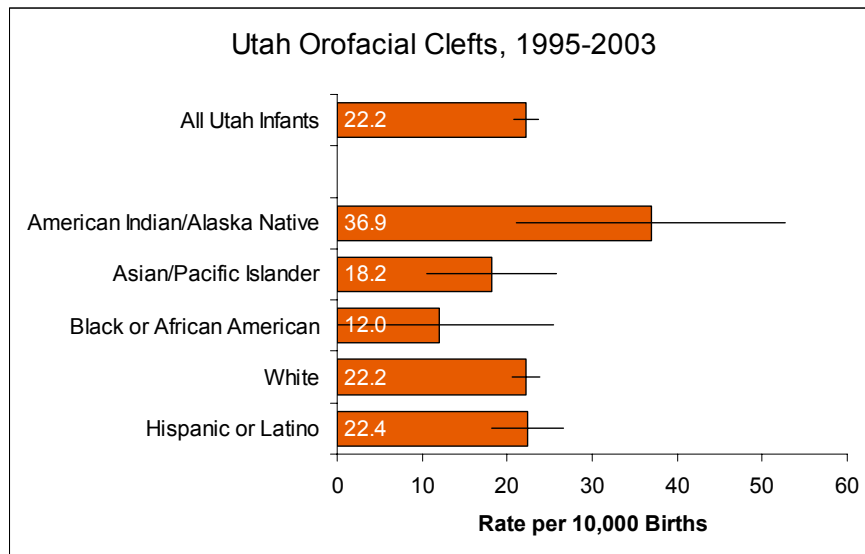
Although orofacial clefts are common in the U.S., they appear to be even more frequent in Utah, which reports among the highest rates of orofacial clefts in the U.S. and internationally.

### How Are We Doing?

The Utah Birth Defect Network (UBDN) began tracking rates of orofacial clefts in Utah in 1995. The rate of orofacial clefts for the period 1995–2003 in Utah was 1 in 450 births (22.2 per 10,000 births). Based on these data, the UBDN estimates that on average, more than 100 affected children are born in Utah every year. Of these children, approximately 65 will have cleft lip with or without cleft palate, and 35 will have cleft palate alone. Rates of orofacial clefts were similar across Utah's racial and ethnic populations. The rate among American Indian/Alaska Native Utahns was seemingly higher, but the estimate was based on few affected children, leading to wide confidence intervals. The number of affected births among Black/African American Utahns was too small for stable rate estimates.

### How Can We Improve?

Since 1995, the UBDN has been tracking rates of orofacial clefts, evaluating their origin, and, more recently, researching their causes. Current activities include (1) tracking rates across the state and in different population groups, (2) working with national and international partners in evaluating potential reasons for the high rate in Utah, and (3) supporting the search for further clues on causes. UBDN and University researchers in Utah are also planning to estimate medical costs and assess the quality of life of affected children and families.



Orofacial Clefts, Utah, 1995-2003

Race/Ethnicity	Average Annual #	Total Births	Rate per 10,000 Births (95% CI Range)	Sig.*
All Utah Infants	102	45,807	22.2 ( 20.8 - 23.7 )	n/a
American Indian/Alaska Native	2	632	36.9 ( 21.1 - 52.7 )	
Asian/Pacific Islander	2	1,341	18.2 ( 10.6 - 25.8 )	
Black or African American	<1	279	12.0 ( 0.0 - 25.5 )	
White	84	37,883	22.2 ( 20.6 - 23.8 )	
Hispanic or Latino	12	5,407	22.4 ( 18.2 - 26.6 )	

Source: UDOH, Utah Birth Defect Network

Note: Individuals were classified into only one race/ethnic category. "Total births" include all live births plus fetal deaths.

\* The rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Congenital Heart Defects

### Why Is It Important?

Congenital heart defects are common birth defects. Children with heart defects can be severely affected and can require complex surgical and medical treatment. Even such treatment sometimes fails to prevent chronic illness and premature death. Children with less severe forms of heart defects can still be affected in their quality of life. As treatment and support continually improves, increasing numbers of affected people live longer and healthier lives. Adolescents and adults that have been successfully treated now represent a growing group in the population and have specific health care needs.

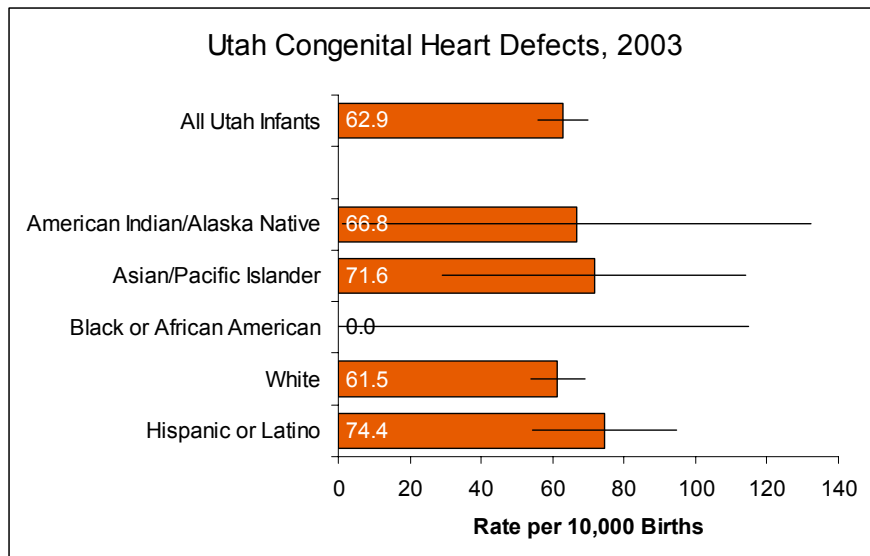
Tracking congenital heart defects among Utahns is crucial in assessing the impact of these common conditions, identifying disparities, evaluating causes, and in effective planning of the care of affected children and adults.

### How Are We Doing?

The Utah Birth Defect Network (UBDN) began tracking selected congenital heart defects (conotruncal and left obstructive heart defects) in 1997 and later expanded to include all major heart defects. In 2003 the overall rate of major congenital heart defects was 1 in 159 births (62.9 per 10,000 births). On average, approximately 300 affected babies or more are born every year in Utah. Rates do not appear to vary significantly among racial and ethnic groups in Utah, but the precision of these estimates is limited, and more accumulated data is needed.

### How Can We Improve?

More and better data can provide the evidence needed to assess race-specific impact and survival, find causes and preventive factors, and plan for services. Current activities of the UBDN include (1) tracking rates across the state and in different population groups, (2) working with researchers at the University of Utah Health Sciences Center to evaluate the genetics of specific congenital heart defects, and (3) searching for risk factors for congenital heart defects in collaboration with and with funding from the U.S. Centers for Disease Control and Prevention.



Congenital Heart Defects, Utah, 2003

Race/Ethnicity	# Heart Defects	Total Births	Rate per 10,000 Births (95% CI Range)	Sig.*
All Utah Infants	315	50,079	62.9 ( 56.0 - 69.8 )	n/a
American Indian/Alaska Native	4	599	66.8 ( 1.3 - 132.2 )	
Asian/Pacific Islander	11	1,537	71.6 ( 29.3 - 113.9 )	
Black or African American	0	331	0.0 ( 0.0 - 114.7 )	
White	247	40,195	61.5 ( 53.8 - 69.1 )	
Hispanic or Latino	53	7,120	74.4 ( 54.4 - 94.5 )	

Source: UDOH, Utah Birth Defect Network

Note: Individuals were classified into only one race/ethnic category. "Total births" include all live births plus fetal deaths.

\* The rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.



I N F E C T I O U S  
D I S E A S E S







## Hepatitis A

### Why Is It Important?

Hepatitis A is the most common type of hepatitis reported in the U.S. Utah was identified as 1 of 11 states with average annual disease rates at least twice the national average during the 1987–1997 time period. Hepatitis A may be spread by food prepared or handled by an infected person who does not wash his or her hands carefully. Hepatitis A may be spread by water contaminated with human feces. It may also be spread by close intimate contact (household or sexual) and by diaper changing.

### How Are We Doing?

- The number of hepatitis A infections reported annually has decreased significantly since 1997, and was 4.1 per 100,000 persons between 1998 and 2002.
- The hepatitis A incidence rates for non-Hispanic/Latino and White Utahns were lower than the overall state rate.

### How Can We Improve?

Although it is not clear why racial and ethnic disparities exist for hepatitis A incidence, potential explanations include miscoding of communicable disease case reports and differences in exposure from travel to high-risk areas such as Mexico.

Prevention of hepatitis A is possible through vaccination and avoiding contaminated food and drink. The best way to prevent hepatitis A is through ensuring access to vaccine and providing education about risk factors and ways to prevent disease. At this time, efforts to prevent hepatitis A in Utah have been global and have not targeted specific racial or ethnic groups. Information and vaccine programs

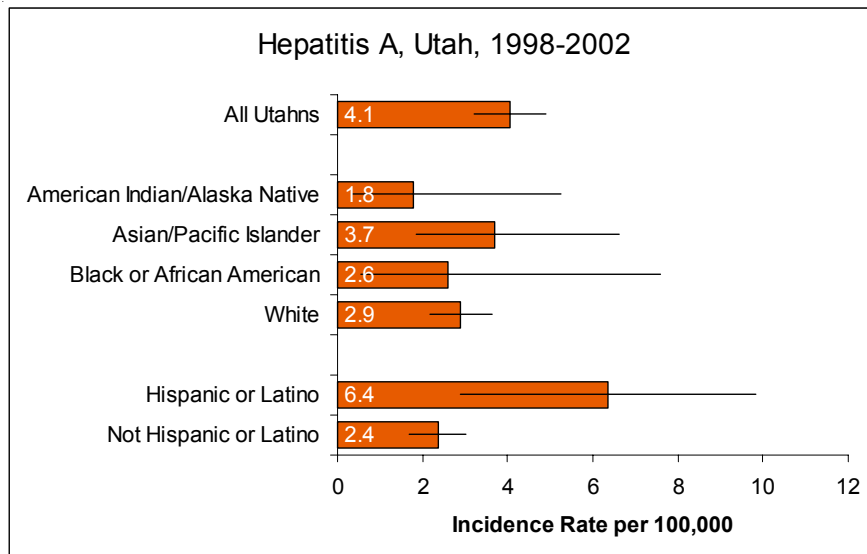
have targeted schools and workplaces to ensure comprehensive prevention of hepatitis A in Utah. However, prevention strategies are developed based on identified needs and may change as more data become available.

### Utah Hepatitis A Incidence, 1998-2002

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	91	2,233,169	4.1 ( 3.2 - 4.9 )	n/a
American Indian/Alaska Native	1	33,733	1.8 ( 0.4 - 5.3 )	
Asian/Pacific Islander	2	59,348	3.7 ( 1.9 - 6.6 )	
Black or African American	1	23,063	2.6 ( 0.5 - 7.6 )	
White	61	2,117,025	2.9 ( 2.2 - 3.6 )	↓
Hispanic or Latino	13	201,559	6.4 ( 2.9 - 9.8 )	
Not Hispanic or Latino	48	2,031,610	2.4 ( 1.7 - 3.0 )	↓

Source: UDOH, Bureau of Epidemiology

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Tuberculosis

### Why Is It Important?

Tuberculosis (TB) is caused by bacteria called *Mycobacterium tuberculosis* that usually attack the lungs but may attack any part of the body. TB is typically spread through the air when a person with TB disease of the lungs or throat expels tiny airborne particles. People nearby may breathe in these particles and become infected. People who have latent TB infection do not feel sick, do not have any symptoms, and cannot spread TB. But they may develop active TB disease at some time in the future. One third of the world's population is currently infected with the TB bacillus.

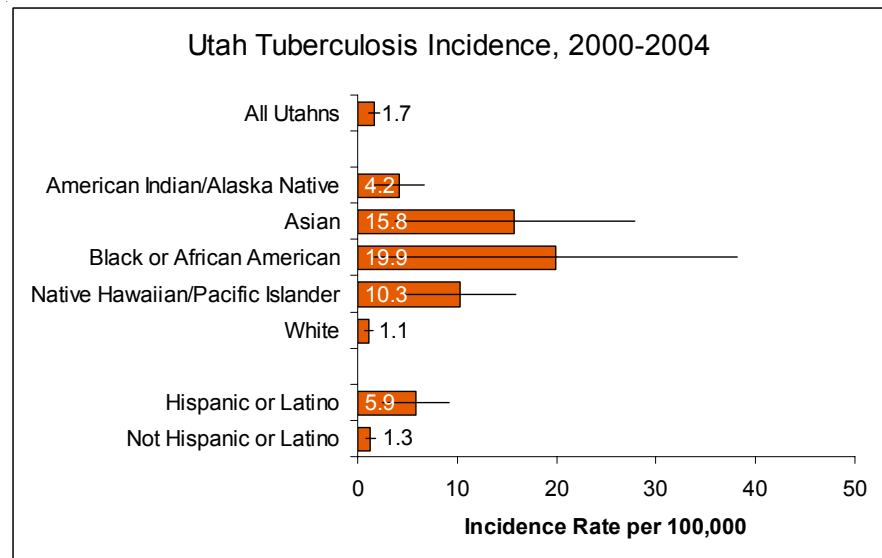
Early detection and treatment of TB are essential to control the spread of the disease. Treatment for TB is at least six months for most patients. In Utah, all patients with active TB disease are placed on directly observed therapy (DOT), where a health care worker watches the patient swallow each dose of TB medication.

### How Are We Doing?

- Between 2000–2004, the average tuberculosis incidence rate among all Utahns was 1.7 per 100,000 population. TB incidence has been decreasing nationally, and the Utah case rate has also been decreasing over the last decade. Utah's rate is about one-third the national rate.
- Tuberculosis incidence was higher among Black/African American, Asian, Native Hawaiian/Pacific Islander, and Hispanic/Latino Utahns.

### How Can We Improve?

From 2000–2004, an average of 65% of the persons diagnosed with TB in Utah were born outside the U.S. To address the high rates among foreign-born persons, the Utah TB Control Program has implemented TB control initiatives among recent international arrivals to our state.



Utah Tuberculosis Incidence, 2000-2004

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	38	2,233,169	1.7 ( 1.2 - 2.2 )	n/a
American Indian/Alaska Native	1	33,733	4.2 ( 1.7 - 8.7 )	
Asian	7	41,866	15.8 ( 3.7 - 27.8 )	↑
Black or African American	5	23,063	19.9 ( 1.7 - 38.2 )	↑
Native Hawaiian/Pacific Islander	2	17,482	10.3 ( 4.7 - 19.6 )	↑
White	24	2,117,025	1.1 ( 0.7 - 1.6 )	↓
Hispanic or Latino	12	201,559	5.9 ( 2.5 - 9.2 )	↑
Not Hispanic or Latino	26	2,031,610	1.3 ( 0.8 - 1.8 )	

Source: UDOH, Bureau of Communicable Disease Control

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Chlamydia

### Why Is It Important?

Chlamydia is the most frequently reported notifiable disease in the U.S., with 877,478 cases being reported in 2003, over two-thirds of which occurred among persons aged 15 to 24. Chlamydia infections in both men and women commonly show no symptoms. Untreated infections can lead to infertility. As with other STDs, pregnant women with chlamydia can pass the infection to their infant during delivery, potentially resulting in ophthalmia.

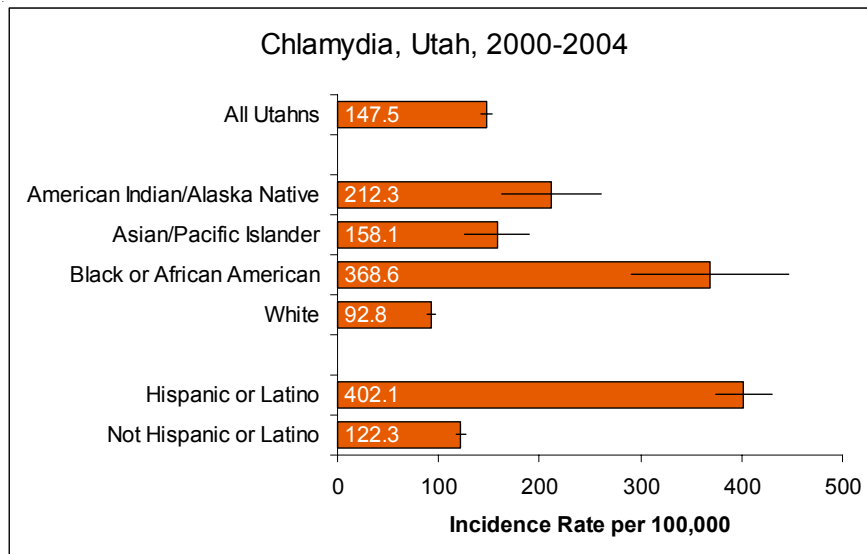
### How Are We Doing?

- Chlamydia rates in Utah and in the U.S. have increased over the last ten years, at least partially due to improved screening, detection, and reporting.
- From 2000–2004, Utah reported a chlamydia rate of 147.5 cases per 100,000 persons.
- The chlamydia rate was higher among Utah's Hispanic/Latino, Black/African American, and American Indian/Alaska Native populations.

### How Can We Improve?

A 2003 CDC publication suggests that differences in rates may be biased due to minority populations' higher use of public clinics. In Utah in an attempt to provide more culturally appropriate health care services to non-English speaking, at-risk populations, the TB Control/Refugee Health Program and the STD Control Program collaborated on bringing a Medical Interpreter Training project "Bridging the Gap," course to Utah. Courses have been conducted since inception in 2001. The Cross Cultural Health Care Program (CCHCP) of Seattle developed the course, which includes a five-day, 40-hour course for medical interpreters speaking multiple languages. The content of the course focuses on professional interpreting skills, knowledge of the health care field, medical vocabulary, cultural knowledge and sensitivity, and communication skills for appropriate advocacy. Participants come from community-based organizations,

local health departments, nonprofit interpreting agencies, and local school district interpreters. Languages that have been represented by interpreters included Spanish, Bosnian, Arabic, Farsi, Korean, Somali, Malaysian, Vietnamese, Samoan, and French.



### Utah Chlamydia Incidence, 2000-2004

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	3,294	2,233,169	147.5 ( 142.5 - 152.5 )	n/a
American Indian/Alaska Native	72	33,733	212.3 ( 163.1 - 261.4 )	↑
Asian/Pacific Islander	94	59,348	158.1 ( 126.1 - 190.0 )	
Black or African American	85	23,063	368.6 ( 290.3 - 446.8 )	↑↑
White	1,964	2,117,025	92.8 ( 88.7 - 96.9 )	↓↓
Hispanic or Latino	810	201,559	402.1 ( 374.4 - 429.7 )	↑↑
Not Hispanic or Latino	2,484	2,031,610	122.3 ( 117.5 - 127.1 )	↓↓

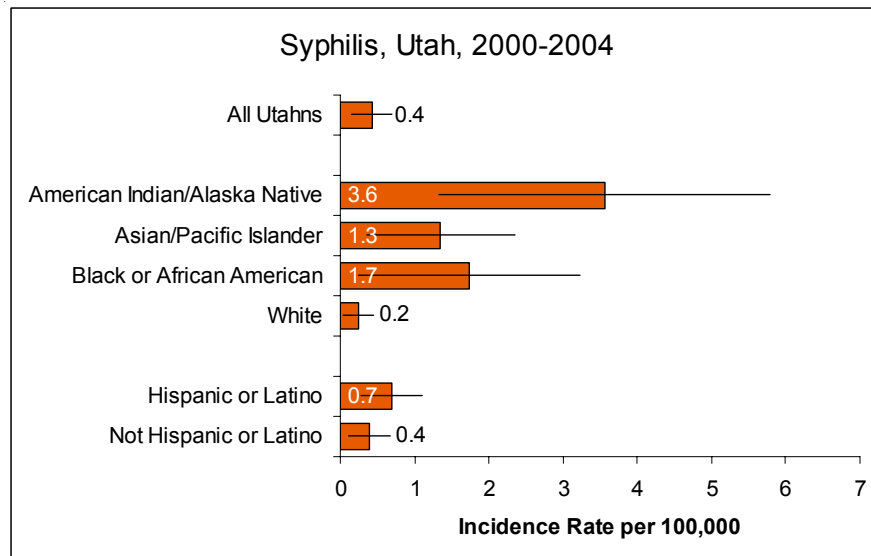
Source: UDOH, Bureau of Communicable Disease Control

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Syphilis

### Why Is It Important?

Syphilis is a complex sexually transmitted disease (STD) caused by the bacterium *Treponema pallidum* (spp. *pallidum*). Syphilis is passed from person to person through direct contact, and can be passed from mother to fetus. Sexual transmission can also occur during the secondary stage of syphilis. In later stages of the disease, the bacteria move throughout the body, damaging many organs over time. Susceptibility to more serious infections also increases when an individual is infected with an STD. The open nature of the syphilitic sores makes it easier to acquire HIV, if exposed, or to transmit the virus, if infected. Public health intervention and education measures are crucial in eliminating syphilis.



### How Are We Doing?

- From 2000 through 2004, 47 primary and secondary (P&S) syphilis cases were reported in Utah.
- Although case rates are low, Utah's American Indian/Alaska Native population had a statistically significantly higher rate of syphilis than the overall state rate.

### How Can We Improve?

A 2003 CDC publication states that differences in rates may be biased due to minority populations' higher use of public clinics whose doctors may be more likely to comply with disease notification requirements. In Utah in an attempt to provide more culturally appropriate health care services to non-English speaking, at-risk populations, a Medical Interpreter Training project, "Bridging the Gap," course was brought to Utah. It is anticipated that with better medical interpretation, non-English speaking individuals will have the vital information needed to protect themselves against acquiring or reacquiring sexually transmitted diseases.

### Utah Syphilis Incidence, 2000-2004

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	9	2,233,169	0.4 ( 0.2 - 0.7 )	n/a
American Indian/Alaska Native	1	33,733	3.6 ( 1.3 - 7.8 )	↑
Asian/Pacific Islander	1	59,348	1.3 ( 0.4 - 3.3 )	
Black or African American	<1	23,063	1.7 ( 0.2 - 6.1 )	
White	5	2,117,025	0.2 ( 0.0 - 0.5 )	
Hispanic or Latino	1	201,559	0.7 ( 0.3 - 1.4 )	
Not Hispanic or Latino	8	2,031,610	0.4 ( 0.1 - 0.7 )	

Source: UDOH, Bureau of Communicable Disease Control

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Gonorrhea

### Why Is It Important?

Although much less common than chlamydia infections, gonorrhea, caused by *Neisseria gonorrhoeae*, is a priority public health concern in Utah. Long-term consequences similar to those of chlamydia result in negative health outcomes. Untreated gonorrhea infections can damage the reproductive systems of both males and females, leading to infertility. Gonorrhea can spread to joints and become systemic (disseminated gonorrhea). In addition to the cervix and urethra, the rectum and pharynx are also important sites of gonococcal infection.

### How Are We Doing?

- Gonorrhea infection in Utah occurred at the rate of 16.5 per 100,000 population from 2000–2004.
- Incidence of gonorrhea infection was higher among Utah's Black/African American and Hispanic/Latino populations.

### How Can We Improve?

From the Centers for Disease Control and Prevention STD Surveillance 2003:

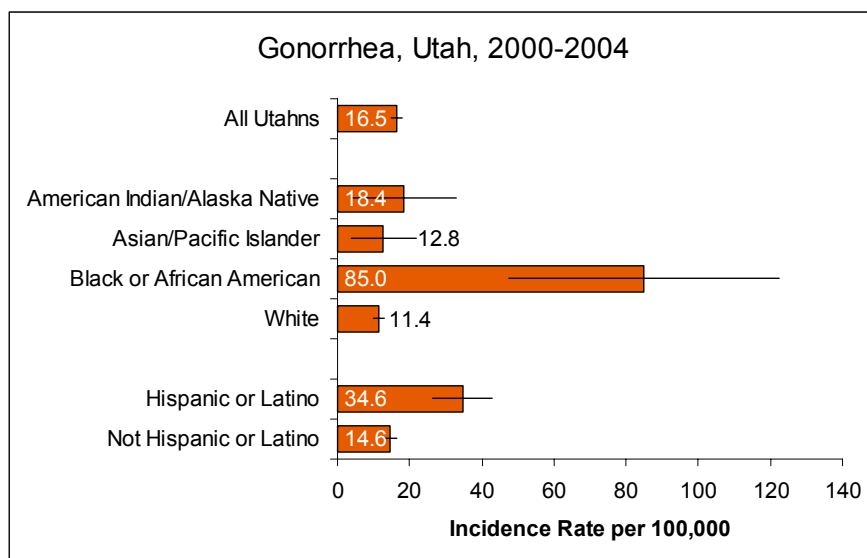
“... data show higher rates of reported STDs among some minority racial or ethnic groups when compared with rates among whites. Race and ethnicity in the United States are risk markers that correlate with other more fundamental determinants of health status such as poverty, access to quality health care, health care seeking behavior, illicit drug use, and living in communities with high prevalence of STDs. In many areas, reporting from public sources, (for example, STD clinics) is more complete than reporting from private sources. Since minority populations may utilize public clinics more than whites, differences in rates between minorities and whites may be increased by this reporting bias.”

### Utah Gonorrhea Incidence, 2000-2004

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	367	2,233,169	16.5 ( 14.8 - 18.1 )	n/a
American Indian/Alaska Native	6	33,733	18.4 ( 3.9 - 32.8 )	
Asian/Pacific Islander	8	59,348	12.8 ( 3.7 - 21.9 )	
Black or African American	20	23,063	85.0 ( 47.4 - 122.6 )	↑
White	241	2,117,025	11.4 ( 10.0 - 12.8 )	↓
Hispanic or Latino	70	201,559	34.6 ( 26.5 - 42.8 )	↑
Not Hispanic or Latino	298	2,031,610	14.6 ( 13.0 - 16.3 )	↓

Source: UDOH, Bureau of Communicable Disease Control

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

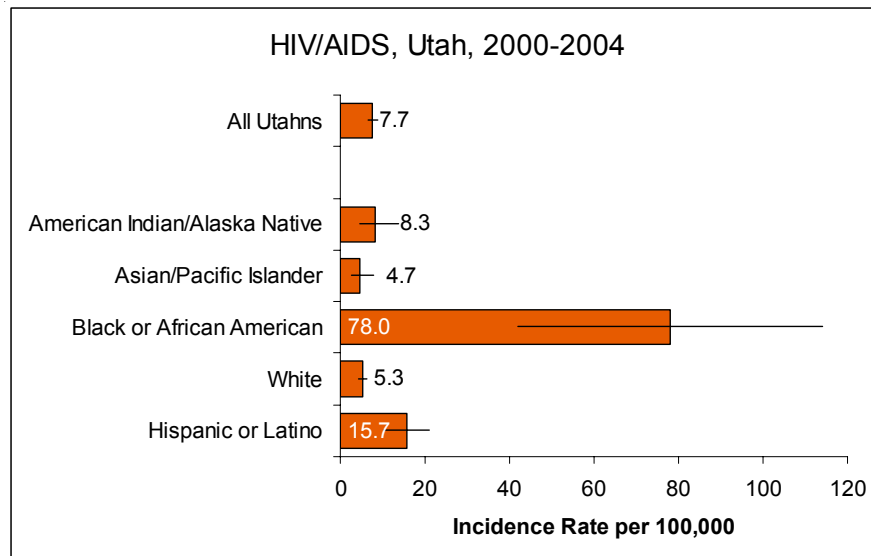


In Utah in an attempt to provide more culturally appropriate health care services to non-English speaking, at-risk populations, a Medical Interpreter Training project, “Bridging the Gap,” course was brought to Utah. It is anticipated that with better medical interpretation, minorities will gain information needed to protect themselves against STDs.

## HIV/AIDS

### *Why Is It Important?*

HIV (human immunodeficiency virus) is a blood-borne virus. Transmission occurs primarily through sexual contact with an infected person, sharing needles for the injection of drugs, or before, during, or after the birth of children of HIV-infected mothers. The Bureau of Communicable Disease Control and the HIV/AIDS Surveillance Program has the responsibility for tracking cases of HIV/AIDS in order to monitor trends in the disease and whenever possible to interrupt the transmission of HIV. This is done by collecting pertinent demographic information on reported AIDS cases and HIV-positive individuals and by conducting follow-up on newly diagnosed individuals and their partners. No treatment is available to cure AIDS, although antimicrobial and antiretroviral treatments now available extend survival among those who are infected with HIV.



### *How Are We Doing?*

- Each year from 2000 through 2004, 172 Utahns were newly diagnosed with HIV or AIDS, for an annual incidence rate of 7.7 per 100,000.
- Incidence of HIV/AIDS was significantly higher among Utah's Black/African American and Hispanic/Latino citizens.

### *How Can We Improve?*

Community-based prevention efforts include:

- Encouraging safer sexual practices.
- Encouraging drug users to get treatment to stop using drugs and teach them harm reduction.
- Encouraging pregnant women or women considering pregnancy to be tested for HIV.

### Utah HIV/AIDS Incidence, 2000-2004

Primary Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Sig.*
All Utahns	172	2,233,169	7.7 ( 6.5 - 8.8 )	n/a
American Indian/Alaska Native	3	33,733	8.3 ( 4.5 - 13.9 )	
Asian/Pacific Islander	3	59,348	4.7 ( 2.6 - 7.9 )	
Black or African American	18	23,063	78.0 ( 42.0 - 114.1 )	↑
White	112	2,117,025	5.3 ( 4.3 - 6.3 )	↓
Hispanic or Latino	32	201,559	15.7 ( 10.2 - 21.1 )	↑

Source: UDOH, HIV/AIDS Surveillance Program, Office of Communicable Disease Control

Note: Individuals were classified into only one race/ethnic category.

\* The rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

I N J U R Y &  
V I O L E N C E







## Injury Incidence

### Why Is It Important?

Most injuries are minor and do not result in death or a hospital stay, but may still be serious enough to impact the victim's usual activities. This measure of injury incidence derives from survey data, and was designed to measure the incidence of all injuries requiring professional medical care.

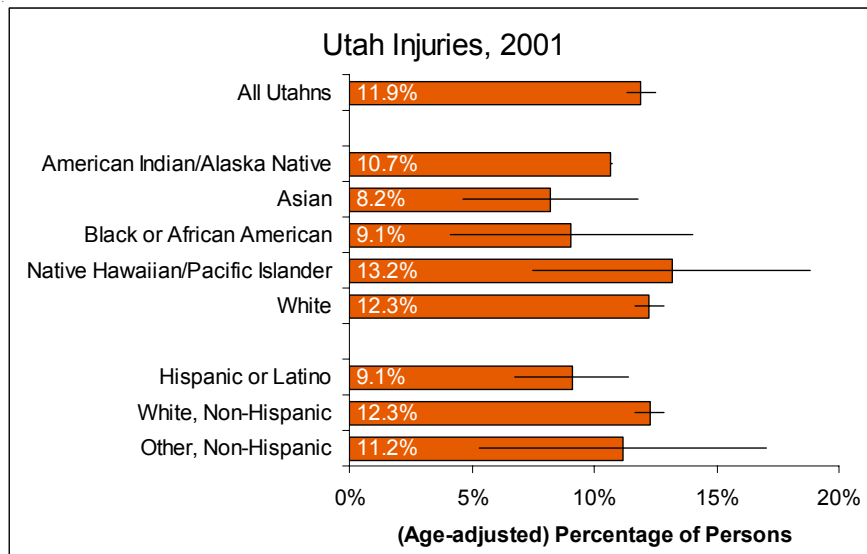
### How Are We Doing?

- About 12% of all Utahns experienced an injury in the 12 months prior to the survey interview.
- Differences by race and ethnicity were generally small; however, Asian, Hispanic/Latino, and American Indian/Alaska Native respondents were less likely to report an incidence of injury.

### How Can We Improve?

Injury prevention is the same for any racial or ethnic population, and involves anticipating injury risks and avoiding or minimizing them. Among the prevention efforts shown to have the most impact are: (1) wearing a seat belt while driving or riding in a motor vehicle; (2) securing children in appropriate car seats; (3) never driving while intoxicated, drowsy, or otherwise impaired; (4) wearing a helmet while riding a bicycle or motorcycle and during snow sports and skateboarding; (5) keeping firearms in a locked location where children can't get to them; (6) having working smoke and carbon monoxide detectors in the home; and (7) teaching children water safety and using flotation devices.

The injury community has long believed injuries are not accidents but are predictable and preventable events. By putting the above principles into practice, Utahns will go a long way toward taking charge of their own health and safety.



Percentage of Utahns Who Sustained One or More Injuries in the Previous 12 Months, 2001

Race/Ethnicity	Sample Size	Total Population	Number With Injuries	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	24,088	2,233,169	268,237	12.0% ( 11.5% - 12.6% )	11.9% ( 11.4% - 12.5% )	n/a
American Indian/Alaska Native	616	33,733	3,798	11.3% ( 7.6% - 14.9% )	10.7% ( 10.7% - 10.7% )	↓
Asian	306	41,866	3,755	9.0% ( 5.3% - 12.6% )	8.2% ( 4.6% - 11.8% )	↓
Black or African American	144	23,063	2,196	9.5% ( 4.7% - 14.4% )	9.1% ( 4.1% - 14.0% )	
Native Hawaiian/Pacific Islander	178	17,482	2,459	14.1% ( 8.1% - 20.0% )	13.2% ( 7.5% - 18.9% )	
White	22,044	2,117,025	262,380	12.4% ( 11.8% - 13.0% )	12.3% ( 11.7% - 12.9% )	
Hispanic or Latino	1,994	201,559	16,293	8.1% ( 6.5% - 9.7% )	9.1% ( 6.8% - 11.4% )	↓
White, Non-Hispanic	21,174	1,925,711	238,983	12.4% ( 11.8% - 13.0% )	12.3% ( 11.7% - 12.9% )	
Other, Non-Hispanic	219	105,899	13,821	13.1% ( 7.3% - 18.8% )	11.2% ( 5.3% - 17.0% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

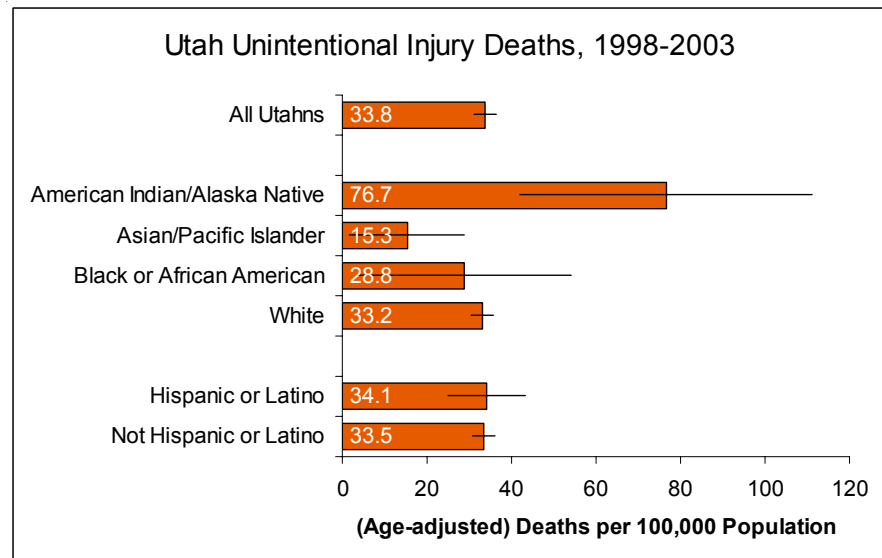
## Unintentional Injury Deaths

### Why Is It Important?

Unintentional injuries are a leading cause of death and disability in Utah, accounting for an average of 850 deaths, 8,800 hospitalizations, and 179,000 emergency department visits each year. The leading causes of unintentional injury death in Utah are motor vehicle crashes, falls, suffocation, poisoning, and drowning.

While unintentional injury is the fourth leading cause of death among all races in Utah, it is the number one cause among the American Indian/Alaska Native population.

According to the Centers for Disease Control and Prevention, motor vehicle crashes account for 74% of all unintentional injury deaths among this group and 48% among all races.



### How Are We Doing?

- Utah's annual rate of unintentional injury deaths has declined from 49.8 per 100,000 persons in 1980 to 35 per 100,000 persons in 2003. Increased efforts in public awareness, prevention, and developing collaborations with state and local agencies have all contributed to the decline.
- Despite the improvement, the rate among Utah's American Indian/Alaska Native population was more than twice as high (76.7 per 100,000 persons) than for all races for 1998–2003. Because of the disparity, at least one local health department is targeting this population with education and free and low-cost car seats.
- Utah's Asian and Pacific Islander populations had the lowest rate of unintentional injury deaths.

### How Can We Improve?

Most injuries can be prevented by choosing safe behaviors, using safety equipment, and obeying safety laws. In addition, local health departments and other agencies must continue their education efforts and reach out to at-risk groups.

Utah Unintentional Injury Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	654	2,233,169	29.3 ( 27.0 - 31.5 )	33.8 ( 31.2 - 36.4 )	n/a
American Indian/Alaska Native	19	33,733	55.7 ( 30.5 - 80.9 )	76.7 ( 42.0 - 111.3 )	↑ ↓
Asian/Pacific Islander	5	59,348	8.2 ( 0.9 - 15.5 )	15.3 ( 1.7 - 28.8 )	
Black or African American	5	23,063	21.8 ( 2.7 - 40.8 )	28.8 ( 3.6 - 54.0 )	
White	613	2,117,025	28.9 ( 26.7 - 31.2 )	33.2 ( 30.5 - 35.8 )	
Hispanic or Latino	54	201,559	26.8 ( 19.7 - 34.0 )	34.1 ( 25.0 - 43.2 )	
Not Hispanic or Latino	600	2,031,610	29.5 ( 27.2 - 31.9 )	33.5 ( 30.8 - 36.1 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes E800-E869, E880-E929; ICD-10 codes V01-X59, Y85-Y86; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Motor Vehicle Traffic Crash Deaths

### Why Is It Important?

Motor vehicle crashes (MVCs) are the leading cause of injury death for all ages, races, and ethnicities in Utah. From 1999 to 2003, MVCs accounted for an average of 317 deaths annually. In addition, each year more than 30,000 people in Utah will be injured and more than \$30 million will be spent on inpatient hospital care due to MVCs.

### How Are We Doing?

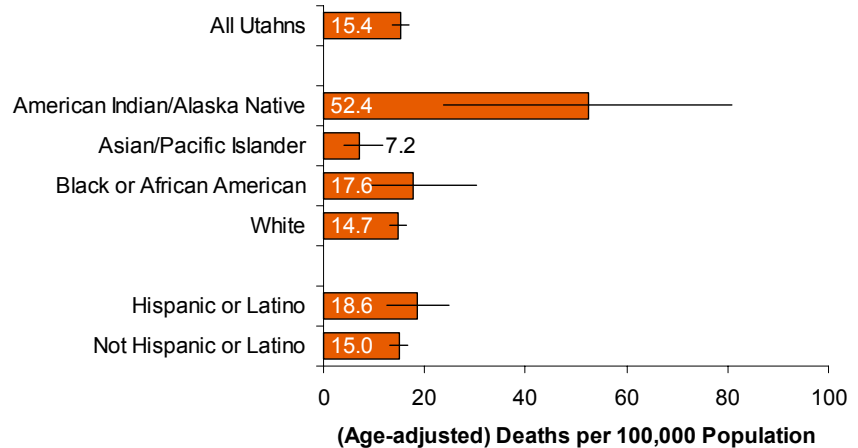
- The MVC death rate has decreased steadily over the last two decades, from 315 persons per 100 million vehicle miles traveled (MVMT) in 1984 to 309 persons per 100 MVMT in 2003. Seat belt and car seat education, seat belt laws, and graduated driver licensing legislation have all contributed to this significant decline.
- Despite this improvement, the MVC death rate from 1998 through 2003 was nearly four times higher (52.4 per 100,000 population) for Utah's American Indian/Alaska Native population than for all races (15.4 per 100,000 population). Alcohol has been found to be a significant contributing factor in this disparity. The fact that many members of this group live in remote areas and have limited access to health care may also play a role.
- Utah's combined Asian and Pacific Islander populations had the lowest rate of MVC deaths.

### How Can We Improve?

The use of seat belts and car seats increases the odds of surviving a motor vehicle crash by 50% and is the single most important factor in reducing the death rate. Agencies must continue to educate all Utahns on the need for seat belts and child restraints, with particular emphasis on high-risk populations such the American Indian/Alaska Native community. Law enforcement can also play an important

role with strict enforcement of traffic and impaired driving laws.

Utah Motor Vehicle Traffic Crash Deaths, 1998-2003



Utah Motor Vehicle Traffic Crash Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	328	2,233,169	14.7 ( 13.1 - 16.3 )	15.4 ( 13.7 - 17.0 )	n/a
American Indian/Alaska Native	13	33,733	38.5 ( 17.6 - 59.5 )	52.4 ( 23.9 - 80.8 )	↑↓
Asian/Pacific Islander	3	59,348	5.6 ( 3.4 - 8.7 )	7.2 ( 4.1 - 11.7 )	
Black or African American	3	23,063	13.7 ( 8.2 - 21.4 )	17.6 ( 9.4 - 30.3 )	
White	300	2,117,025	14.2 ( 12.6 - 15.8 )	14.7 ( 13.1 - 16.4 )	
Hispanic or Latino	36	201,559	17.7 ( 11.9 - 23.5 )	18.6 ( 12.5 - 24.7 )	
Not Hispanic or Latino	292	2,031,610	14.4 ( 12.7 - 16.0 )	15.0 ( 13.3 - 16.7 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes E810-E819; ICD-10 codes V02-04 [1-9], V09.2, V12-14 [3-9], V19 [4-6], V20-28 [3-9], V29-79 [4-9], V80 [3-5], V81-82 [1], V83-86 [0-3], V87 [0-8], V89.2; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Work-related Injury Deaths

### Why Is It Important?

Work-related injuries and illnesses continue to place an enormous burden on U.S. workers and the economy. In 1993, work-related injuries cost \$121 billion in medical care, lost productivity, and wages. Efforts to reduce occupational injuries are often successful and cost-effective.

### How Are We Doing?

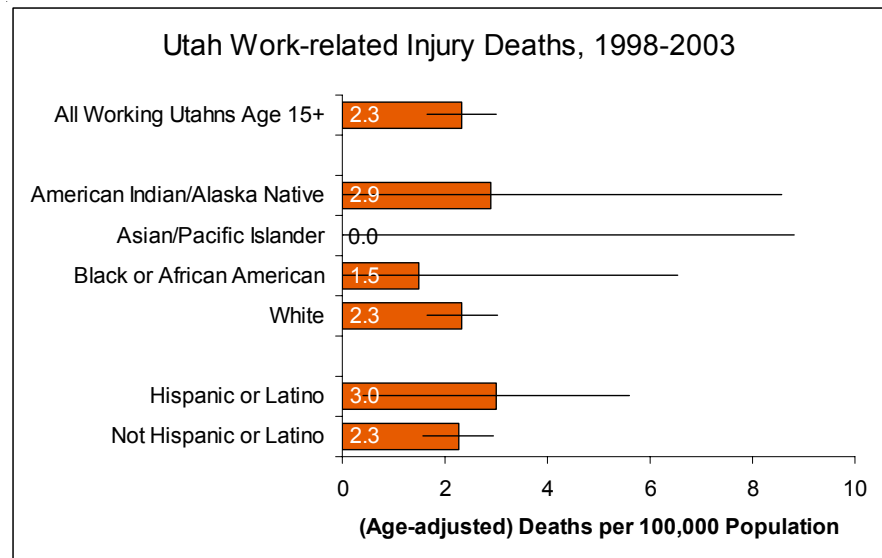
- Work-related injuries are an important cause of unintentional injury deaths. About 46 Utahns die each year from a work-related injury (2.8 per 100,000 population aged 15 or over). The work-related injury death rate has changed little in recent years.
- There was little variation among Utah's racial and ethnic populations.

### How Can We Improve?

"The National Institute for Occupational Safety and Health (NIOSH), the federal agency responsible for conducting research and making recommendations for the prevention of work-related injury and illness, is unveiling the Steps to a Healthier U.S. Workforce initiative to encourage workplace safety and health programs that focus on both:

- Preventing work-related illness, injury, and disability, and
- Promoting healthy living and lifestyles to reduce and prevent chronic disease.

"This initiative supports the view that all illness and injury should be prevented when possible, controlled when necessary, and treated where appropriate."<sup>26</sup>



### Utah Work-related Injury Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total 15+ Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Working Utahns Age 15+	46	1,638,470	2.8 ( 2.0 - 3.6 )	2.3 ( 1.7 - 3.0 )	n/a
American Indian/Alaska Native	1	22,345	4.5 ( 0.8 - 25.3 )	2.9 ( 0.8 - 25.3 <sup>†</sup> )	
Asian/Pacific Islander	0	43,479	0.0 ( 0.0 - 8.8 )	0.0 ( 0.0 - 8.8 <sup>†</sup> )	
Black or African American	<1	14,723	2.3 ( 0.0 - 26.0 )	1.5 ( 0.0 - 26.0 <sup>†</sup> )	
White	44	1,557,923	2.8 ( 2.0 - 3.6 )	2.3 ( 1.6 - 3.0 )	
Hispanic or Latino	5	134,359	3.9 ( 1.6 - 8.7 )	3.0 ( 1.6 - 8.7 <sup>†</sup> )	
Not Hispanic or Latino	41	1,504,111	2.7 ( 1.9 - 3.6 )	2.3 ( 1.6 - 3.0 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

Age 15+ and injury occurred at work.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

† The confidence interval for this age-adjusted rate was assumed to be the same as the confidence interval for the crude rate.

## Suicide

### Why Is It Important?

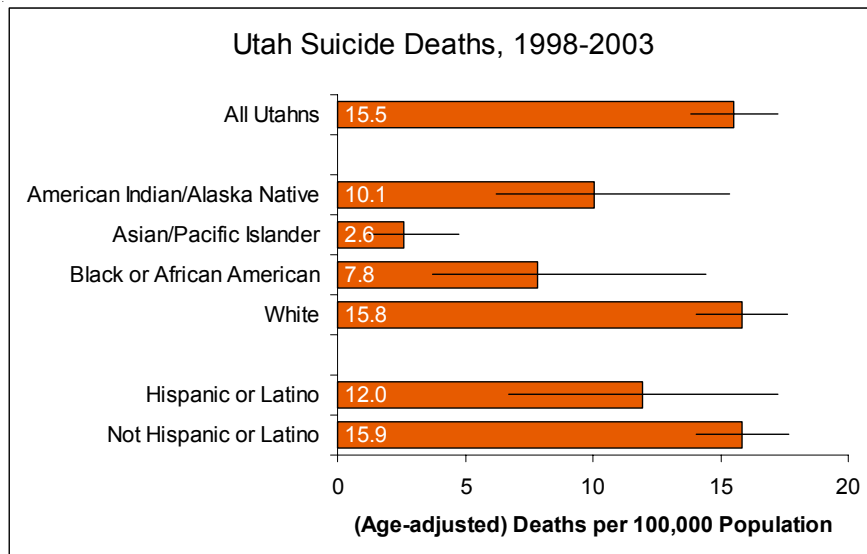
Suicide in Utah accounts for nearly as many deaths as motor vehicle crashes, and Utah's rate is tenth highest in the nation. More teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia, and influenza combined. For the years 1998–2003, 1,894 Utahns committed suicide, making it the second leading cause of injury death for residents aged 10–34, and the third leading cause of death among those aged 35–44.

### How Are We Doing?

- On average, from 1998 through 2003, there were 316 Utah suicide deaths per year. Although males are more likely to complete suicide, the rate of suicide attempts requiring hospitalization is higher for females.
- Utahns in racial groups other than White exhibited lower rates than Utah's combined population.

### How Can We Improve?

More than half (55%) of all Utah suicides are committed with a firearm, and the U.S. Department of Health and Human Services (HHS) estimates that 60% of people who commit suicide have had a mood disorder (e.g., major depression, bipolar disorder, dysthymia). In 2001, HHS published the National Strategy for Suicide Prevention, with the primary objectives of promoting awareness of suicide as a public health problem, reducing the stigma of mental illness, and reducing access to firearms. The Utah Chapter of the National Alliance for the Mentally Ill (NAMI Utah) is just one agency aggressively working toward these goals among all races and ethnicities.



### Utah Suicide Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	316	2,233,169	14.1 ( 12.6 - 15.7 )	15.5 ( 13.8 - 17.3 )	n/a
American Indian/Alaska Native	4	33,733	11.4 ( 7.2 - 17.1 )	10.1 ( 6.2 - 15.4 )	↓
Asian/Pacific Islander	2	59,348	3.1 ( 1.5 - 5.5 )	2.6 ( 1.3 - 4.8 )	↓
Black or African American	2	23,063	7.9 ( 3.9 - 14.1 )	7.8 ( 3.8 - 14.4 )	↓
White	304	2,117,025	14.4 ( 12.8 - 16.0 )	15.8 ( 14.1 - 17.6 )	
Hispanic or Latino	20	201,559	9.8 ( 5.4 - 14.1 )	12.0 ( 6.7 - 17.3 )	
Not Hispanic or Latino	296	2,031,610	14.6 ( 12.9 - 16.2 )	15.9 ( 14.1 - 17.7 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes E950-E959; ICD-10 codes X60-X84, Y87.0; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



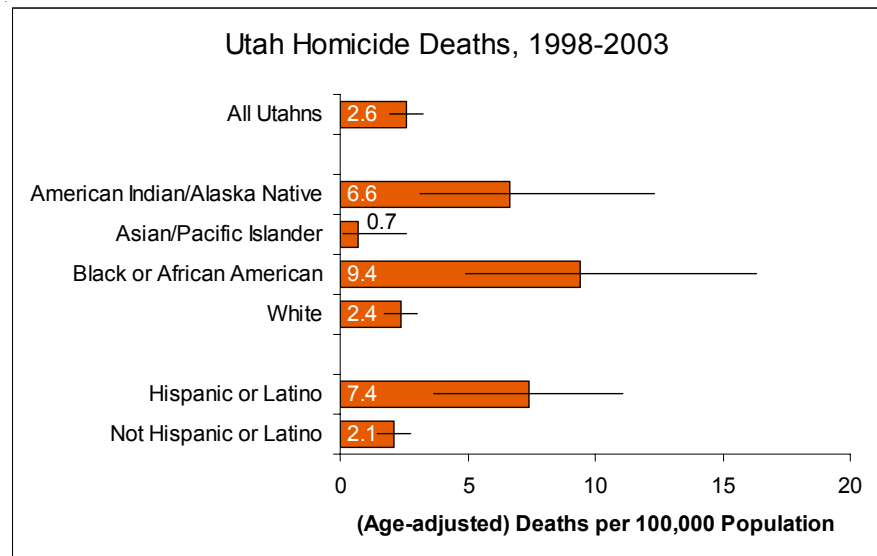
## Homicide

### Why Is It Important?

On average, 57 Utah residents die each year from homicide. More than half of all homicides (52.2%) are committed with a firearm.

However, among children ages birth to 17, the rate of firearm-related homicides is lower (22%). Most children are killed by family members through beatings, suffocation, and maltreatment.

Of the 347 Utahns killed between 1998 and 2003, 232 were male and 115 were female. Most of the female victims were killed as a result of domestic violence.



### How Are We Doing?

- Utah's homicide rate dropped over the last decade from 2.9 deaths per 100,000 population in 1994 to 1.8 per 100,000 in 2003.
- In Utah, the Black/African American, Hispanic/Latino, and American Indian/Alaska Native populations all die by homicide at two to three times the rate found in the general population. While the exact reasons for the higher rates are unknown, risk factors for homicide, alcohol and drugs, domestic violence, lack of economic opportunity, family disruption, exposure to violence, and beliefs supportive of violence, may contribute to racial and ethnic differences.
- The combined Asian and Pacific Islander group had the lowest rate of homicide.

### How Can We Improve?

Because firearms are used in the majority of homicides, teaching gun safety is a crucial first step. When firearms are stored in homes, they should be in a locked location inaccessible to children. Absent a safe location, guns and ammunition should be stored separately. Treatment programs for substance abusers and counseling for child abusers could also help to reduce the homicide rate.

### Utah Homicide Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	58	2,233,169	2.6 ( 1.9 - 3.3 )	2.6 ( 1.9 - 3.3 )	n/a
American Indian/Alaska Native	2	33,733	6.9 ( 3.8 - 11.6 )	6.6 ( 3.1 - 12.4 )	↑
Asian/Pacific Islander	<1	59,348	0.6 ( 0.2 - 1.3 )	0.7 ( 0.1 - 2.6 )	↓
Black or African American	2	23,063	10.1 ( 5.5 - 16.9 )	9.4 ( 4.9 - 16.3 )	↑
White	50	2,117,025	2.4 ( 1.7 - 3.0 )	2.4 ( 1.7 - 3.0 )	
Hispanic or Latino	15	201,559	7.6 ( 3.8 - 11.4 )	7.4 ( 3.7 - 11.1 )	↑
Not Hispanic or Latino	42	2,031,610	2.1 ( 1.5 - 2.7 )	2.1 ( 1.5 - 2.8 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes E960-E969; ICD-10 codes X85-Y09, Y87.1; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

# CHRONIC DISEASES AND CONDITIONS



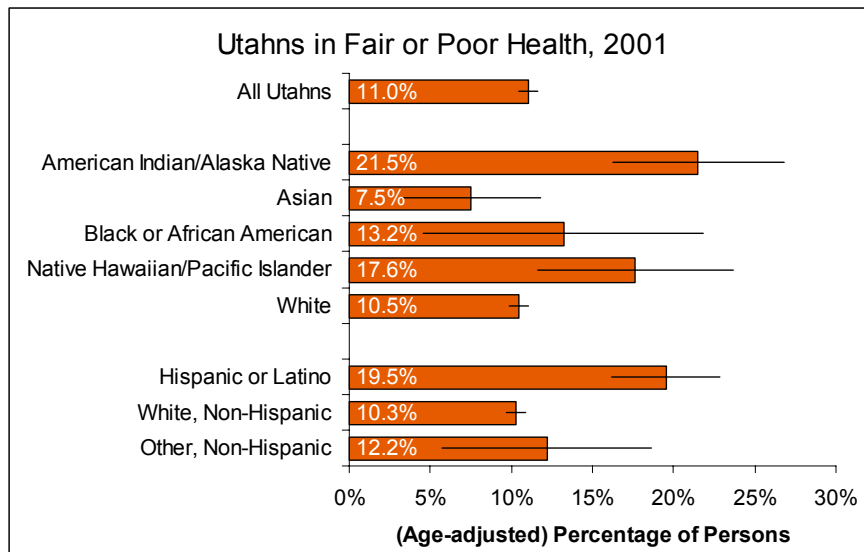




## Fair/Poor Health

### Why Is It Important?

Self-rated health (SRH) has been collected for many years on National Center for Health Statistics surveys and since 1993 on the state-based Behavioral Risk Factor Surveillance System (BRFSS), and in 2001 on the Utah Health Status Survey. SRH is an independent predictor of important health outcomes including mortality, morbidity, and functional status. It is considered to be a reliable indicator of a person's perceived health and is a good global assessment of a person's well-being.



### How Are We Doing?

- In 2001, approximately 11% of Utahns (all ages) reported fair or poor general health status. (A randomly-selected adult reported for all persons living in the household.)
- The percentage of persons who were reported in fair or poor health was higher among American Indian/Alaska Native, Hispanic/Latino, and Native Hawaiian/Pacific Islander Utahns.

### How Can We Improve?

One strength of this measure is its ability to get a snapshot of current health status, independent of interaction with the health care or vital statistics systems. It is a measure of overall “wellness,” and not merely absence of hospitalizations or deaths. Wellness may be enhanced through lifestyle adaptations, as well as through taking care of chronic health problems. Ensuring access to affordable, high-quality health care services, improving economic opportunity and supportive communities, and awareness of lifestyle changes such as stress reduction, nutrition, and physical activity will all contribute to enhanced well-being.

Percentage of Utahns Who Were in Fair or Poor Health, 2001

Race/Ethnicity	Sample Size	Total Population	Number in Fair/Poor Health	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	24,023	2,233,169	202,189	9.1% ( 8.5% - 9.6% )	11.0% ( 10.4% - 11.6% )	n/a
American Indian/Alaska Native	616	33,733	5,866	17.4% ( 12.7% - 22.0% )	21.5% ( 16.2% - 26.8% )	↑
Asian	306	41,866	1,910	4.6% ( 1.7% - 7.5% )	7.5% ( 3.2% - 11.8% )	
Black or African American	144	23,063	1,880	8.2% ( 2.3% - 14.1% )	13.2% ( 4.6% - 21.9% )	
Native Hawaiian/Pacific Islander	178	17,482	1,354	7.7% ( 2.4% - 13.1% )	17.6% ( 11.6% - 23.7% )	↑
White	21,994	2,117,025	184,602	8.7% ( 8.2% - 9.3% )	10.5% ( 9.9% - 11.1% )	
Hispanic or Latino	1,989	201,559	25,651	12.7% ( 10.5% - 15.0% )	19.5% ( 16.2% - 22.8% )	↑↓
White, Non-Hispanic	21,124	1,925,711	167,138	8.7% ( 8.1% - 9.2% )	10.3% ( 9.7% - 10.9% )	
Other, Non-Hispanic	219	105,899	7,643	7.2% ( 3.1% - 11.4% )	12.2% ( 5.7% - 18.6% )	

Source: UDOH, 2001 Utah Health Status Survey

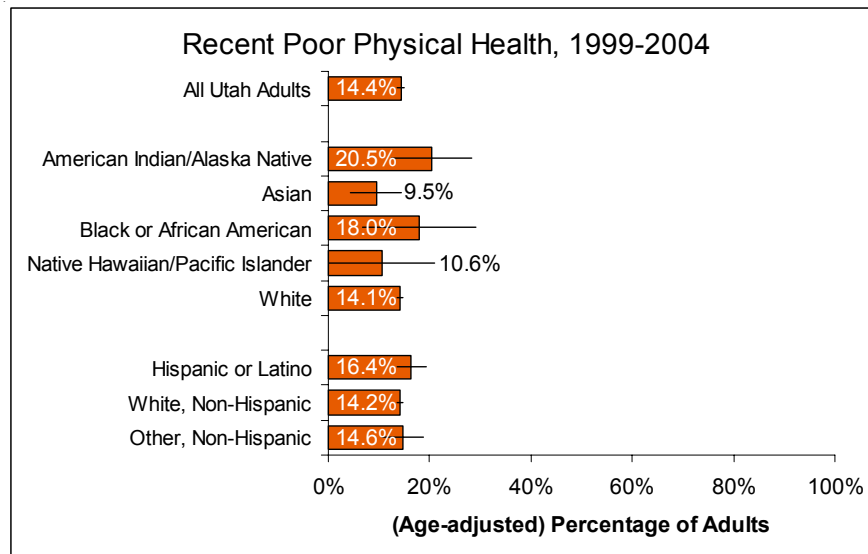
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Physical Health Status

### Why Is It Important?

General physical health status is the culmination of all the things that affect a person's health. A person may have had poor health because of an injury, an acute infection such as a cold or flu, or a chronic health problem. This measure can be used to identify health disparities, track population trends, plan public health programs, and measure progress at the state level toward the two major goals of Healthy People 2010: improving the quality and years of healthy life and eliminating health disparities.



### How Are We Doing?

- From 1999–2004, an estimated 14.4% of Utah adults reported seven or more days in the past 30 days when their physical health was not good. This percentage has remained fairly constant since 1993, fluctuating between 13.2% and 16.6%.
- Differences by race and ethnicity, while evident, were not statistically significant.

### How Can We Improve?

According to the World Health Organization, “Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.”<sup>27</sup> One's health is determined by a combination of genetic and biological processes, individual behaviors and lifestyle, and the environments in which people live.

Percentage of Utah Adults (Age 18 or Over) Who Reported Seven or More Days of Poor Physical Health in the Past Month, 1999-2004

Race/Ethnicity	Sample Size	Total Adult Population	# With Poor Phys Hlth	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	22,624	1,514,471	209,436	13.8% ( 13.2% - 14.4% )	14.4% ( 13.8% - 14.9% )	n/a
American Indian/Alaska Native	237	20,137	3,841	19.1% ( 12.3% - 25.8% )	20.5% ( 12.6% - 28.4% )	
Asian	192	30,694	2,865	9.3% ( 4.3% - 14.4% )	9.5% ( 4.5% - 14.5% )	
Black or African American	98	13,401	2,012	15.0% ( 5.1% - 24.9% )	18.0% ( 6.8% - 29.2% )	
Native Hawaiian/Pacific Islander	70	9,653	883	9.1% ( 2.1% - 16.2% )	10.6% ( 0.1% - 21.1% )	
White	21,156	1,440,586	197,930	13.7% ( 13.1% - 14.3% )	14.1% ( 13.5% - 14.8% )	
Hispanic or Latino	1,241	123,364	16,841	13.7% ( 11.3% - 16.0% )	16.4% ( 13.6% - 19.3% )	
White, Non-Hispanic	20,587	1,322,871	182,853	13.8% ( 13.2% - 14.4% )	14.2% ( 13.6% - 14.8% )	
Other, Non-Hispanic	690	68,236	9,665	14.2% ( 10.7% - 17.6% )	14.6% ( 10.6% - 18.7% )	

Source: Behavioral Risk Factor Surveillance System

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Mental Health Status

### Why Is It Important?

Mental health refers to an individual's ability to negotiate the daily challenges and social interactions of life without experiencing undue emotional or behavioral incapacity. Mental health on the Behavioral Risk Factor Surveillance System (BRFSS) survey is measured by the question, "Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?"

### How Are We Doing?

- From 1999–2004, approximately 15% of Utah adults reported seven or more days in the past 30 days when their mental health was not good. This percentage was higher for adults with lower education and income levels, and lower for older adults.
- Among Utah's racial and ethnic communities, the highest incidence of seven or more days of poor mental health was found among Utah's Black/African American (27.1%) and American Indian/Alaska Native (22.9%) populations; both rates were significantly higher than the overall state rate.
- Asian Utahns were less likely to report recent poor mental health (9.9%).

### How Can We Improve?

The American Indian/Alaska Native population appears to suffer disproportionately from depression and substance abuse. Minorities have less access to, and availability of, mental health services, so they are less likely to receive needed mental health services. Minorities in treatment often receive a poorer quality of mental health care and are also underrepresented in mental health research.<sup>28</sup>

Percentage of Utah Adults (Age 18 or Over) Who Reported Seven or More Days of Poor Mental Health in the Past Month, 1999-2004

Race/Ethnicity	Sample Size	Total Adult Population	# With Poor Ment Hlth	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	22,632	1,514,471	232,734	15.4% ( 14.7% - 16.0% )	15.0% ( 14.3% - 15.6% )	n/a
American Indian/Alaska Native	238	20,137	5,326	26.4% ( 18.9% - 34.0% )	22.9% ( 16.3% - 29.4% )	↑
Asian	190	30,694	3,598	11.7% ( 5.6% - 17.8% )	9.9% ( 5.1% - 14.7% )	↓
Black or African American	97	13,401	3,758	28.0% ( 14.4% - 41.7% )	27.1% ( 15.0% - 39.2% )	↑
Native Hawaiian/Pacific Islander	70	9,653	1,716	17.8% ( 6.8% - 28.8% )	15.9% ( 4.2% - 27.5% )	
White	21,177	1,440,586	216,481	15.0% ( 14.4% - 15.7% )	14.7% ( 14.1% - 15.3% )	
Hispanic or Latino	1,243	123,364	20,457	16.6% ( 13.9% - 19.3% )	16.9% ( 14.0% - 19.8% )	
White, Non-Hispanic	20,600	1,322,871	198,934	15.0% ( 14.4% - 15.7% )	14.7% ( 14.1% - 15.4% )	
Other, Non-Hispanic	688	68,236	14,081	20.6% ( 16.4% - 24.9% )	18.0% ( 14.4% - 21.7% )	

Source: Behavioral Risk Factor Surveillance System

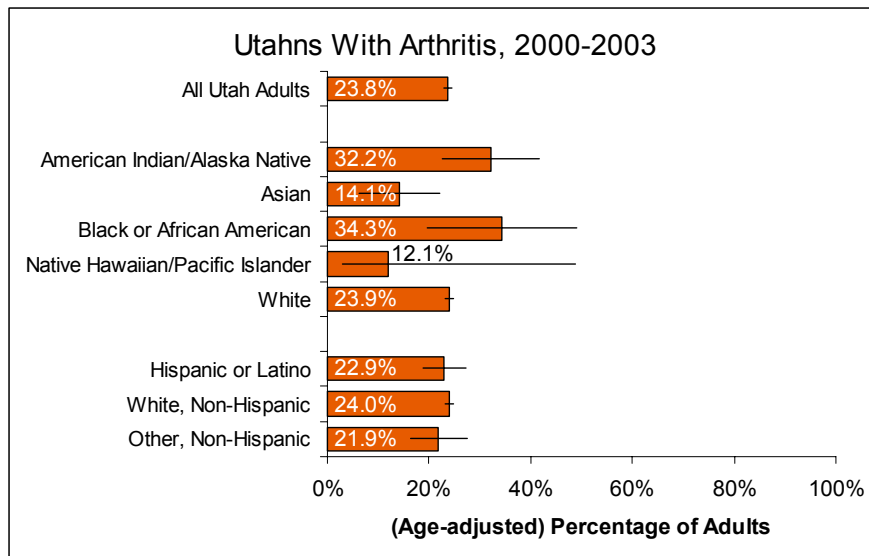
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Arthritis Prevalence

### Why Is It Important?

In 2003, 26.7% of American adults reported doctor-diagnosed arthritis, making arthritis one of the nation's most common health problems. Arthritis also limits everyday activities for 8 million Americans and is the nation's leading cause of disability. Arthritis is not just an old person's disease. Nearly two thirds of people with arthritis are younger than 65. Arthritis affects children and people of all racial and ethnic groups; however, it is more common among women and older adults.



### How Are We Doing?

- From 2000 to 2003 the Utah Behavioral Risk Factor Surveillance System (BRFSS) Survey showed that 23.8% of Utah adults 18 and older reported being told by a doctor or other health care professional that they had arthritis. The rates for doctor-diagnosed arthritis were higher for women in every age group.
- Rates of arthritis were somewhat higher for Utah's Black/African American and American Indian/Alaska Native populations, and lower among Native Hawaiian/Pacific Islander and Asian groups, the latter being significantly higher. Analyses of data from Utah's Hispanic/Latino population indicates that risk factors for arthritis include being female, older, and having hypertension or diabetes.

### How Can We Improve?

These disparities may be reduced by increasing participation in physical activity and in evidenced-based arthritis programs implementing language and culture-appropriate interventions for and establishing partnerships with the Utah's race and ethnic communities.

Percentage of Utah Adults (Age 18 or Over) Who Reported Having Arthritis, 2000-2003

Race/Ethnicity	Sample Size	Total Adult Population	# With Arthritis	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Adults	14,490	1,514,471	326,105	21.5% ( 20.7% - 22.4% )	23.8% ( 22.9% - 24.6% )	n/a
American Indian/Alaska Native	129	20,137	5,046	25.1% ( 15.6% - 34.5% )	32.2% ( 22.5% - 41.8% )	↓
Asian	118	30,694	2,944	9.6% ( 3.9% - 15.3% )	14.1% ( 6.3% - 22.0% )	
Black or African American	65	13,401	3,766	28.1% ( 13.2% - 43.0% )	34.3% ( 19.6% - 49.0% )	
Native Hawaiian/Pacific Islander	46	9,653	410	4.2% ( 1.1% - 16.1% )	12.1% ( 3.0% - 48.8% )	
White	13,546	1,440,586	319,503	22.2% ( 21.3% - 23.1% )	23.9% ( 23.1% - 24.8% )	
Hispanic or Latino	765	123,364	17,729	14.4% ( 11.3% - 17.4% )	22.9% ( 18.7% - 27.1% )	
White, Non-Hispanic	13,225	1,322,871	296,062	22.4% ( 21.5% - 23.3% )	24.0% ( 23.1% - 24.9% )	
Other, Non-Hispanic	424	68,236	10,846	15.9% ( 11.4% - 20.3% )	21.9% ( 16.3% - 27.5% )	

Source: Behavioral Risk Factor Surveillance System

Note: Arthritis was defined as joint symptoms present on most days for at least one month during the past 12 months and/or doctor-diagnosed arthritis. The arthritis questions changed slightly in 2002.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Asthma Prevalence

### Why Is It Important?

Asthma is a serious personal and public health issue that has far reaching medical, economic, and psychosocial implications. The burden of asthma can be seen in the number of asthma-related medical events, including emergency department visits, hospitalizations, and deaths.

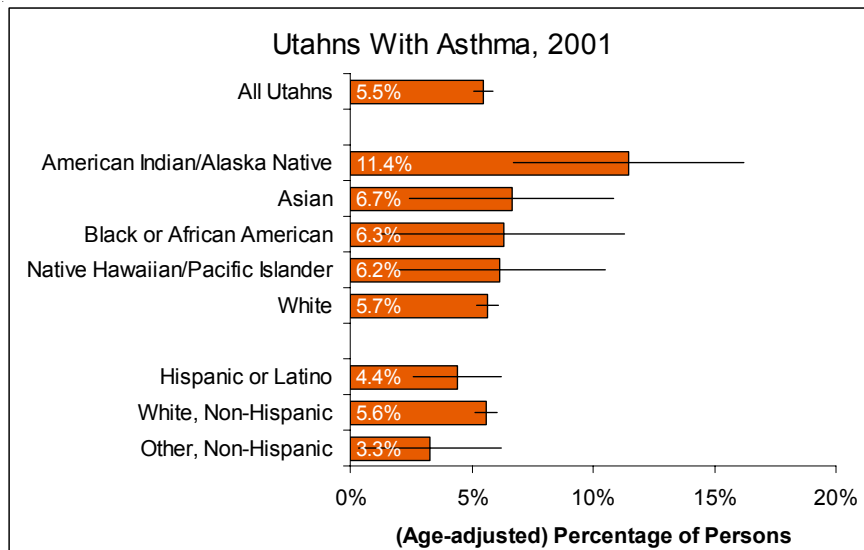
### How Are We Doing?

- According to the 2001 Utah Health Status Survey, 5.5% of Utahns were reported to have had asthma.
- Asthma incidence among Utah's American Indian/Alaska Native (11.4%) population was twice the rate found among Utahns, overall.

### How Can We Improve?

The relationship between prevalence, hospitalization, and mortality rate for ethnic communities is not clear. It is speculated risk factors such as environmental triggers and poor access to health care may be more prevalent among ethnic communities.

The reduction of asthma-related disparities should involve the development of effective intervention programs targeted towards ethnic disparities, including families with asthmatic children, schools, health care organizations, and policy makers. Health educators can implement a culturally relevant model that utilizes research findings and involves community participation in the development of educational approaches to address disparities. The educational approaches should address issues involving equity of medication management according to the National Asthma Education and Prevention Guidelines for the Diagnosis and Management of Asthma.



Percentage of Utahns Who Were Under Medical Care for Asthma, 2001

Race/Ethnicity	Sample Size	Total Population	# With Asthma	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	24,088	2,233,169	117,585	5.3% ( 4.9% - 5.7% )	5.5% ( 5.1% - 5.9% )	n/a
American Indian/Alaska Native	616	33,733	3,478	10.3% ( 6.4% - 14.2% )	11.4% ( 6.7% - 16.2% )	↑
Asian	306	41,866	2,365	5.6% ( 1.9% - 9.4% )	6.7% ( 2.4% - 10.9% )	
Black or African American	144	23,063	1,379	6.0% ( 1.8% - 10.1% )	6.3% ( 1.3% - 11.3% )	
Native Hawaiian/Pacific Islander	178	17,482	835	4.8% ( 1.4% - 8.2% )	6.2% ( 1.9% - 10.5% )	
White	22,044	2,117,025	116,337	5.5% ( 5.1% - 5.9% )	5.7% ( 5.2% - 6.1% )	
Hispanic or Latino	1,994	201,559	6,742	3.3% ( 2.3% - 4.4% )	4.4% ( 2.6% - 6.2% )	
White, Non-Hispanic	21,174	1,925,711	105,107	5.5% ( 5.0% - 5.9% )	5.6% ( 5.2% - 6.1% )	
Other, Non-Hispanic	219	105,899	4,961	4.7% ( 0.7% - 8.7% )	3.3% ( 0.3% - 6.2% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



## Diabetes Prevalence

### *Why Is It Important?*

Diabetes is a disease that can have devastating consequences, such as heart disease, lower-extremity amputations, blindness, and kidney disease. It has reached epidemic levels in the U.S., and about 17 million Americans have diabetes. Unfortunately, many who have diabetes are unaware they have it and are not receiving care for it.

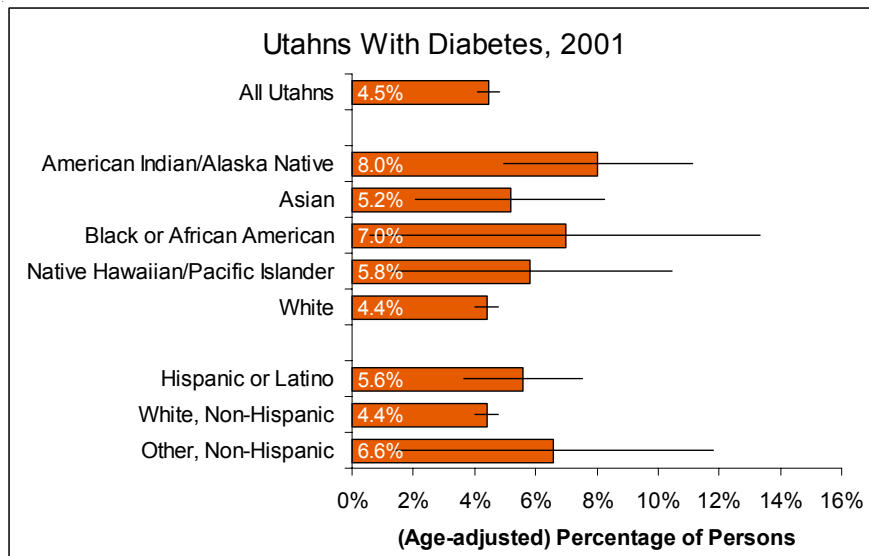
### *How Are We Doing?*

- In 2001, 4.5% of Utahns were estimated to have had diabetes diagnosed by a doctor.
- Diabetes prevalence was nearly double the state rate among Utah's American Indian/Alaska Native population (8.0%), and higher (although not statistically significantly higher) among other racial and ethnic populations as well.

### *How Can We Improve?*

Members of minority racial or ethnic groups have an excess risk of developing diabetes, reduced access to care, and high rates of complications. The disparity in care received by minority members is pronounced in Utah, particularly for the Hispanic/Latino population, where the higher diabetes prevalence was found among adults aged 35 or over.<sup>1</sup>

To improve accessibility to care, the Diabetes Prevention and Control Program developed a manual for health care providers listing resources tailored for minority groups. The program also provides patient manuals for self-care in a number of languages. It works closely with community health centers and Native American clinics to provide support and culturally appropriate education for providers who work with minority populations.



Percentage of Utahns Who Had Been Diagnosed With Diabetes, 2001

Race/Ethnicity	Sample Size	Total Population	# With Diabetes	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	24,088	2,233,169	77,600	3.5% ( 3.2% - 3.8% )	4.5% ( 4.1% - 4.8% )	n/a
American Indian/Alaska Native	616	33,733	2,102	6.2% ( 3.7% - 8.8% )	8.0% ( 5.0% - 11.1% )	↑
Asian	306	41,866	1,434	3.4% ( 1.3% - 5.6% )	5.2% ( 2.1% - 8.3% )	
Black or African American	144	23,063	864	3.7% ( 0.0% - 7.5% )	7.0% ( 0.6% - 13.4% )	
Native Hawaiian/Pacific Islander	178	17,482	787	4.5% ( 1.2% - 7.8% )	5.8% ( 1.2% - 10.4% )	
White	22,044	2,117,025	74,644	3.5% ( 3.2% - 3.8% )	4.4% ( 4.0% - 4.8% )	
Hispanic or Latino	1,994	201,559	4,750	2.4% ( 1.6% - 3.2% )	5.6% ( 3.7% - 7.5% )	
White, Non-Hispanic	21,174	1,925,711	68,944	3.6% ( 3.3% - 3.9% )	4.4% ( 4.0% - 4.8% )	
Other, Non-Hispanic	219	105,899	3,627	3.4% ( 0.5% - 6.4% )	6.6% ( 1.3% - 11.8% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Diabetes Deaths

### Why Is It Important?

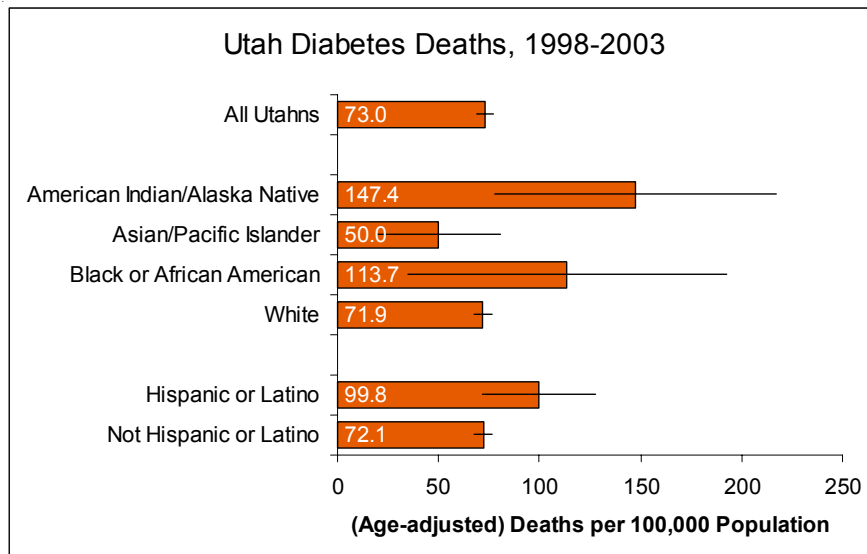
Diabetes is the sixth leading cause of death in the U.S. and in Utah. As diabetes prevalence continues to grow, the death rate for diabetes will increase.

### How Are We Doing?

- Diabetes is often underreported on death certificates. Nevertheless, in 2003, diabetes was listed as the underlying cause for over 500 deaths, or about one of every 26 deaths in Utah. From 1998–2003, Utah's diabetes death rate was 73.0 per 100,000 population.
- The diabetes death rate among Utah's American Indian/Alaska Native population was double the population average, at 147.4 deaths per 100,000 population.

### How Can We Improve?

Death rates could be reduced with aggressive management techniques, including regular routine check-ups, regular screening for complications, consistent self-monitoring of blood sugar, regular exercise, maintaining a healthy weight, and abstaining from tobacco use. It is critical for persons with diabetes to have unrestricted access to effective medical care.



### Utah Diabetes Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	1,111	2,233,169	49.7 ( 46.8 - 52.7 )	73.0 ( 68.7 - 77.3 )	n/a
American Indian/Alaska Native	17	33,733	50.9 ( 26.8 - 75.0 )	147.4 ( 77.7 - 217.1 )	↑
Asian/Pacific Islander	11	59,348	17.7 ( 7.0 - 28.4 )	50.0 ( 19.8 - 80.3 )	
Black or African American	8	23,063	34.8 ( 10.7 - 58.8 )	113.7 ( 35.0 - 192.4 )	
White	1,063	2,117,025	50.2 ( 47.2 - 53.3 )	71.9 ( 67.6 - 76.2 )	
Hispanic or Latino	49	201,559	24.3 ( 17.5 - 31.2 )	99.8 ( 71.9 - 127.7 )	
Not Hispanic or Latino	1,062	2,031,610	52.3 ( 49.1 - 55.4 )	72.1 ( 67.8 - 76.5 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 code 250 or ICD-10 codes E10-E14 as underlying or contributing causes; ICD-9 and ICD-10 adjusted for comparability.

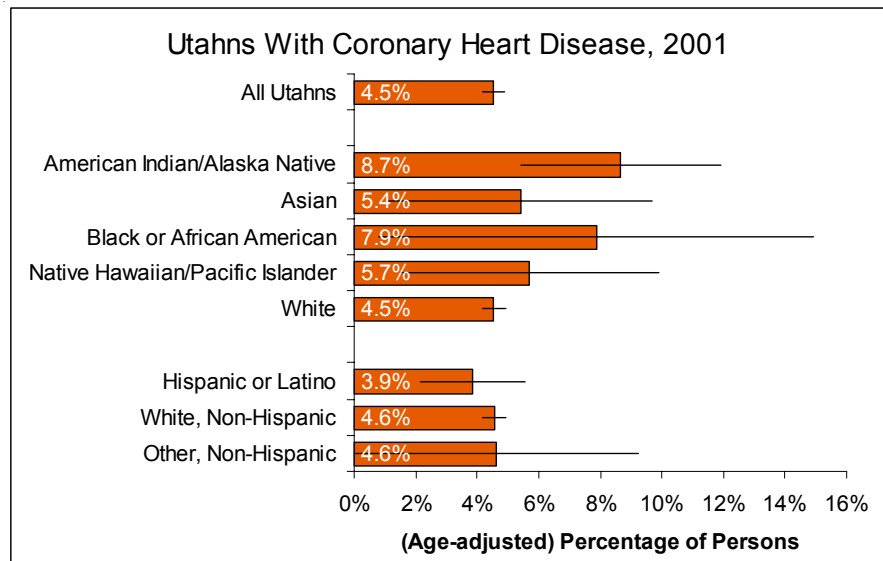
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Coronary Heart Disease Prevalence

### Why Is It Important?

Coronary heart disease is the leading cause of death both in Utah and the U.S. Heart disease often is not diagnosed or recognized until a person has a coronary event, such as a heart attack or chest pain. Many persons living with coronary heart disease have suffered damage to the heart muscle and have limitations to their activities as a result. Most will be required to make lifestyle adjustments to prevent a future heart attack.



### How Are We Doing?

- In 2001, 4.5% of Utahns indicated that they had been diagnosed with coronary heart disease.
- Coronary heart disease prevalence is higher among Utah's American Indian/Alaska Native (8.7%) and Black/African American (7.9%) populations, the former being significantly higher.

### How Can We Improve?

The Alliance for Cardiovascular Health in Utah has developed a plan to prevent or delay onset of heart disease and stroke, and promote heart health. This plan was published in the fall of 2002 and is available upon request from the Heart Disease and Stroke Prevention Program at the Utah Department of Health. Patient education resources and self-management programs are available to providers to assist their patients in reducing their risks for coronary heart disease.

### Percentage of Utahns Who Had Been Diagnosed With Heart Disease, 2001

Race/Ethnicity	Sample Size	Total Population	# With Heart Disease	Crude Rate (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	24,088	2,233,169	73,643	3.3% ( 3.0% - 3.6% )	4.5% ( 4.1% - 4.9% )	n/a
American Indian/Alaska Native	616	33,733	1,939	5.7% ( 3.1% - 8.4% )	8.7% ( 5.4% - 11.9% )	↑
Asian	306	41,866	1,324	3.2% ( 0.5% - 5.8% )	5.4% ( 1.1% - 9.7% )	
Black or African American	144	23,063	1,076	4.7% ( 0.4% - 8.9% )	7.9% ( 0.8% - 14.9% )	
Native Hawaiian/Pacific Islander	178	17,482	323	1.8% ( 0.6% - 6.0% )	5.7% ( 1.5% - 9.9% )	
White	22,044	2,117,025	72,777	3.4% ( 3.1% - 3.8% )	4.5% ( 4.2% - 4.9% )	
Hispanic or Latino	1,994	201,559	3,090	1.5% ( 0.9% - 2.2% )	3.9% ( 2.1% - 5.6% )	
White, Non-Hispanic	21,174	1,925,711	67,571	3.5% ( 3.2% - 3.8% )	4.6% ( 4.2% - 4.9% )	
Other, Non-Hispanic	219	105,899	2,620	2.5% ( 0.8% - 7.9% )	4.6% ( 0.0% - 9.2% )	

Source: UDOH, 2001 Utah Health Status Survey

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



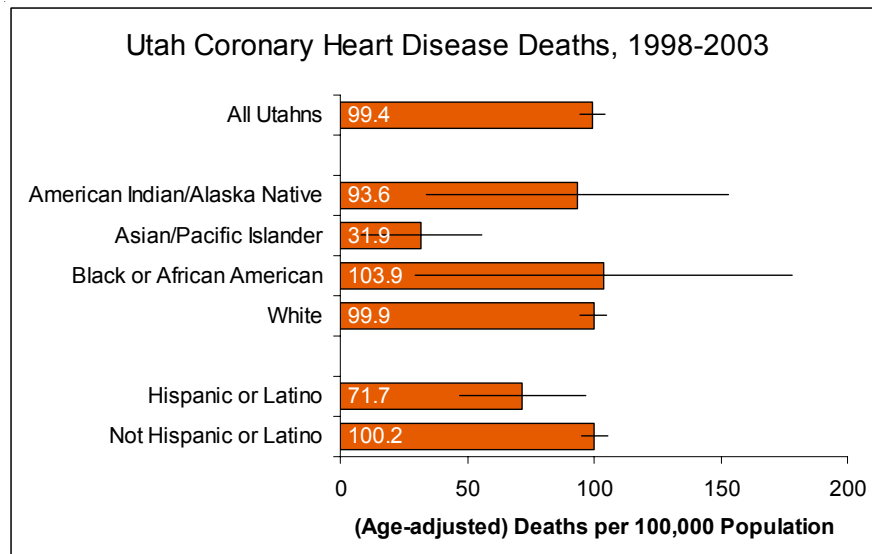
## Coronary Heart Disease Deaths

### Why Is It Important?

Coronary heart disease (CHD), resulting from blockage of the arteries that provide blood to heart muscle, is the leading cause of death in Utah. Prevention of CHD is the key to reducing mortality from heart disease.<sup>29</sup>

### How Are We Doing?

- Utah's 1998–2003 age-adjusted CHD death rate was 99.4 per 100,000 population. Utah's CHD death rate has declined steadily for several decades, but appears to have leveled-off.
- The CHD death rate among Utah's combined Asian and Pacific Islander populations and Hispanic/Latino population were significantly lower than the overall state rate (31.9 and 71.7 per 100,000 population, respectively).



### How Can We Improve?

There is still room for improvements to lifestyle risk factors among Utahns. Quitting smoking is the most important thing an individual can do to prevent coronary heart disease. Maintaining proper body weight, getting regular physical exercise, and regular screening for high blood pressure and cholesterol are also key prevention activities.

Deaths from coronary heart disease may also be prevented by seeking medical help immediately in the event of a heart attack. Individuals should know the warning signs of heart attack and call for emergency medical transport so that prompt medical treatment (on the way to the hospital) may be given.

### Utah Coronary Heart Disease Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	1,490	2,233,169	66.7 ( 63.3 - 70.1 )	99.4 ( 94.3 - 104.4 )	n/a
American Indian/Alaska Native	9	33,733	28.2 ( 10.3 - 46.1 )	93.6 ( 34.1 - 153.0 )	
Asian/Pacific Islander	7	59,348	11.5 ( 2.9 - 20.1 )	31.9 ( 8.0 - 55.8 )	↓
Black or African American	7	23,063	32.5 ( 9.2 - 55.8 )	103.9 ( 29.5 - 178.3 )	
White	1,459	2,117,025	68.9 ( 65.4 - 72.5 )	99.9 ( 94.7 - 105.0 )	
Hispanic or Latino	32	201,559	15.8 ( 10.3 - 21.3 )	71.7 ( 46.8 - 96.6 )	↓
Not Hispanic or Latino	1,458	2,031,610	71.8 ( 68.1 - 75.5 )	100.2 ( 95.1 - 105.4 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes 402, 410-414, 429.2; ICD-10 codes I20-I25, I11; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Stroke Deaths

### Why Is It Important?

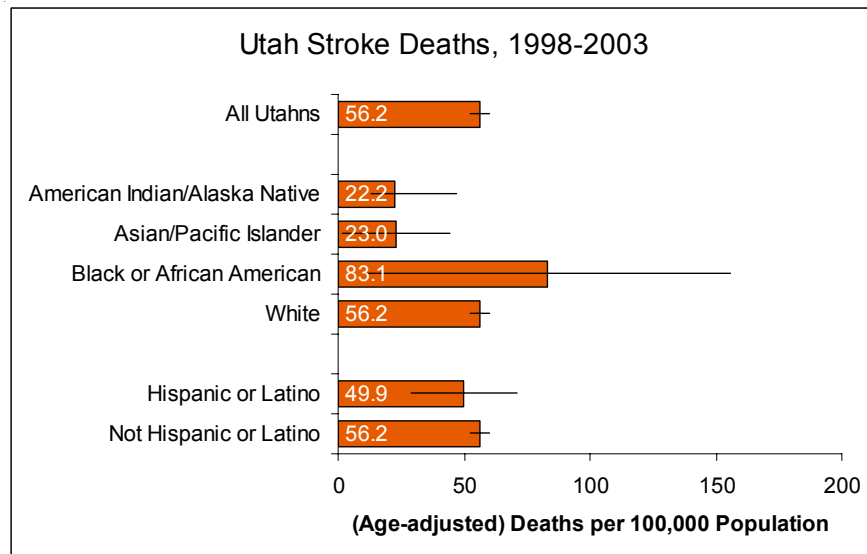
Stroke, the death of brain tissue usually resulting from artery blockage, is the third leading cause of death in Utah, behind heart disease and cancer. About 600,000 people in the U.S. suffer a new or recurrent stroke each year.<sup>30</sup> Stroke is a leading cause of long-term disability.<sup>30</sup>

### How Are We Doing?

- Utah's age-adjusted stroke death rate from 1998–2003 was 56.2 per 100,000 population. Death rates for stroke have generally declined in recent decades. Much of this decline can be attributed to control of high blood pressure.
- Death rates for stroke over the same time period were lower in Utah's American Indian/Alaska Native (22.2 per 100,000) and combined Asian/Pacific Islander (23.0 per 100,000) populations.

### How Can We Improve?

A spring '05 public awareness campaign has been designed to increase Utahns' knowledge of signs and symptoms of stroke and that stroke is a 911 medical emergency. Patient education resources are available to providers as part of the campaign. The Heart Disease and Stroke Prevention Program sponsors 20 Utah hospitals to participate in the American Heart Association "Get with the Guidelines for Stroke" Program<sup>31</sup> to enhance identification and treatment of stroke in hospitals. High blood pressure self-management tools are available to health care facilities to enhance patient control of high blood pressure.



### Utah Stroke Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	829	2,233,169	37.1 ( 34.6 - 39.7 )	56.2 ( 52.3 - 60.0 )	n/a
American Indian/Alaska Native	3	33,733	7.5 ( 4.1 - 12.4 )	22.2 ( 13.2 - 47.0 )	↓
Asian/Pacific Islander	5	59,348	7.7 ( 0.6 - 14.7 )	23.0 ( 1.9 - 44.1 )	↓
Black or African American	5	23,063	21.9 ( 2.8 - 41.1 )	83.1 ( 10.7 - 155.6 )	
White	810	2,117,025	38.3 ( 35.6 - 40.9 )	56.2 ( 52.3 - 60.1 )	
Hispanic or Latino	22	201,559	10.7 ( 6.2 - 15.2 )	49.9 ( 28.8 - 70.9 )	
Not Hispanic or Latino	808	2,031,610	39.8 ( 37.0 - 42.5 )	56.2 ( 52.4 - 60.1 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes 430-434, 436-438; ICD-10 codes I60-I69; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

C A N C E R





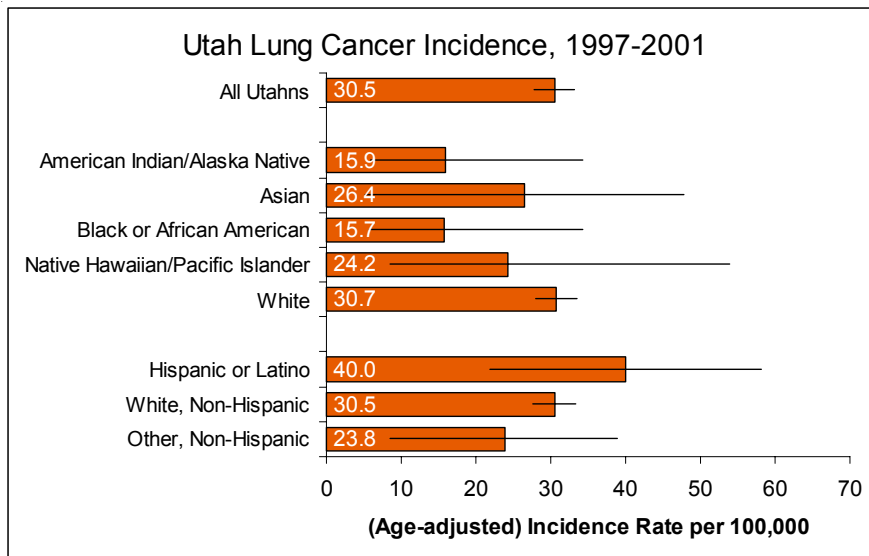
## Lung Cancer Incidence

### *Why Is It Important?*

Because symptoms often do not appear until the disease is advanced, early detection of this cancer is difficult. Tobacco is associated with 87% of all cases of cancer of the lung, trachea, and bronchus.<sup>32</sup>

### *How Are We Doing?*

- Lung cancer incidence in Utah was 30.5 per 100,000 population from 1997 to 2001.
- Incidence of lung cancer was generally lower among Utah's non-White races and higher in the Hispanic/Latino population, but the differences were not statistically significant.



### *How Can We Improve?*

Lung cancer incidence improves as smoking rates decrease. Since the effects of smoking in a population can take decades to manifest in lung cancer incidence, changes in smoking rates in the '70s and '80s are contributing to changes in lung cancer incidence today.

### Utah Lung Cancer Incidence, 1997-2001

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	476	2,233,169	21.3 ( 19.4 - 23.2 )	30.5 ( 27.8 - 33.2 )	n/a
American Indian/Alaska Native	1	33,733	4.2 ( 1.7 - 8.7 )	15.9 ( 6.0 - 34.3 )	
Asian	6	41,866	14.3 ( 2.9 - 25.8 )	26.4 ( 5.1 - 47.8 )	
Black or African American	1	23,063	6.1 ( 2.5 - 12.6 )	15.7 ( 5.7 - 34.2 )	
Native Hawaiian/Pacific Islander	2	17,482	9.2 ( 4.0 - 18.1 )	24.2 ( 8.5 - 54.0 )	
White	466	2,117,025	22.0 ( 20.0 - 24.0 )	30.7 ( 27.9 - 33.5 )	
Hispanic or Latino	21	201,559	10.5 ( 6.0 - 15.0 )	40.0 ( 21.8 - 58.2 )	
White, Non-Hispanic	445	1,925,711	23.1 ( 21.0 - 25.2 )	30.5 ( 27.6 - 33.3 )	
Other, Non-Hispanic	10	105,899	9.8 ( 3.9 - 15.8 )	23.8 ( 8.6 - 38.9 )	

Source: Utah Cancer Registry, SEER

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Lung Cancer Deaths

### *Why Is It Important?*

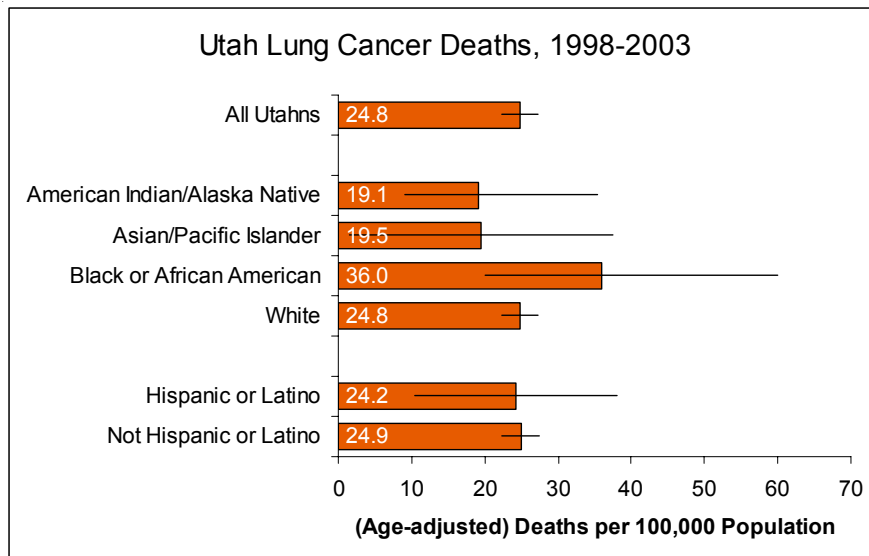
Lung cancer is the leading cause of cancer-related death in Utah and the U.S. It is estimated that lung cancer will be responsible for 28% of all cancer deaths (approximately 160,440 U.S. deaths) in 2004.<sup>33</sup>

### *How Are We Doing?*

- Utah's death rate from lung cancer has changed little over the past 20 years and was 24.8 per 100,000 population from 1998 to 2003.
- Although there was some variability in lung cancer death rates among Utah's racial and ethnic communities, the differences were not statistically significant.

### *How Can We Improve?*

Utah's public health efforts to reduce the adverse health effects of tobacco use have focused on promoting smoking cessation, limiting exposure to secondhand smoke, and reducing youth access to tobacco products. The Tobacco Prevention and Control Program coordinates statewide and local tobacco use cessation services. These services include the Utah Tobacco Quit Line (1-888-567-TRUTH), a web-based cessation service ([www.quitnet.com](http://www.quitnet.com)), and school- and community-based programs for teens, adults, and pregnant women.



### Utah Lung Cancer Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	384	2,233,169	17.2 ( 15.5 - 18.9 )	24.8 ( 22.3 - 27.3 )	n/a
American Indian/Alaska Native	2	33,733	5.4 ( 2.7 - 9.7 )	19.1 ( 9.1 - 35.3 )	
Asian/Pacific Islander	4	59,348	7.6 ( 0.6 - 14.6 )	19.5 ( 1.5 - 37.5 )	
Black or African American	3	23,063	11.5 ( 6.6 - 18.7 )	36.0 ( 20.1 - 60.0 )	
White	372	2,117,025	17.6 ( 15.8 - 19.4 )	24.8 ( 22.3 - 27.3 )	
Hispanic or Latino	12	201,559	5.9 ( 2.5 - 9.2 )	24.2 ( 10.4 - 38.1 )	
Not Hispanic or Latino	372	2,031,610	18.3 ( 16.5 - 20.2 )	24.9 ( 22.4 - 27.5 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 code 162; ICD-10 codes C33-C34; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (▲) or lower (▼) than the state rate.

## Colorectal Cancer Incidence

### Why Is It Important?

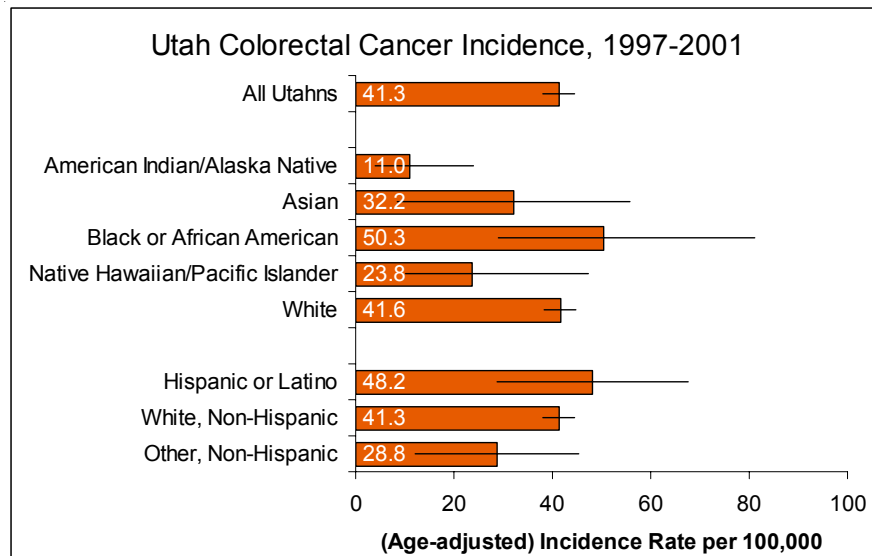
Colorectal cancer is the third leading cause of cancer-related death in the U.S. and Utah. When national cancer-related deaths are estimated separately for males and females, colorectal cancer is the third leading cause of cancer death behind lung and breast cancer for females and behind lung and prostate cancer for males.

### How Are We Doing?

- Between 1997 and 2001, incidence of colorectal cancer in Utah was 41.3 per 100,000 population.
- Incidence was lower among Utah's American Indian/Alaska Native population (11.0 per 100,000 population).

### How Can We Improve?

Routine screening can include either annual fecal occult blood test (FOBT), and/or flexible sigmoidoscopy every five years, or colonoscopy every ten years, or double-contrast barium enema every five to ten years. A randomized clinical trial has demonstrated that annual screening with FOBT can reduce colorectal cancer deaths by 33% in individuals over age 50.<sup>34</sup>



### Utah Colorectal Cancer Incidence, 1997-2001

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	647	2,233,169	29.0 ( 26.7 - 31.2 )	41.3 ( 38.1 - 44.5 )	n/a
American Indian/Alaska Native	2	33,733	4.7 ( 2.0 - 9.3 )	11.0 ( 4.1 - 23.9 )	↓
Asian	8	41,866	19.6 ( 6.2 - 33.0 )	32.2 ( 8.5 - 55.9 )	
Black or African American	4	23,063	15.6 ( 9.3 - 24.7 )	50.3 ( 29.0 - 81.2 )	
Native Hawaiian/Pacific Islander	2	17,482	11.4 ( 5.5 - 21.0 )	23.8 ( 10.2 - 47.3 )	
White	631	2,117,025	29.8 ( 27.5 - 32.1 )	41.6 ( 38.3 - 44.8 )	
Hispanic or Latino	30	201,559	14.7 ( 9.4 - 20.0 )	48.2 ( 28.8 - 67.7 )	
White, Non-Hispanic	603	1,925,711	31.3 ( 28.8 - 33.8 )	41.3 ( 38.0 - 44.6 )	
Other, Non-Hispanic	14	105,899	13.2 ( 6.3 - 20.1 )	28.8 ( 12.2 - 45.3 )	

Source: Utah Cancer Registry, SEER

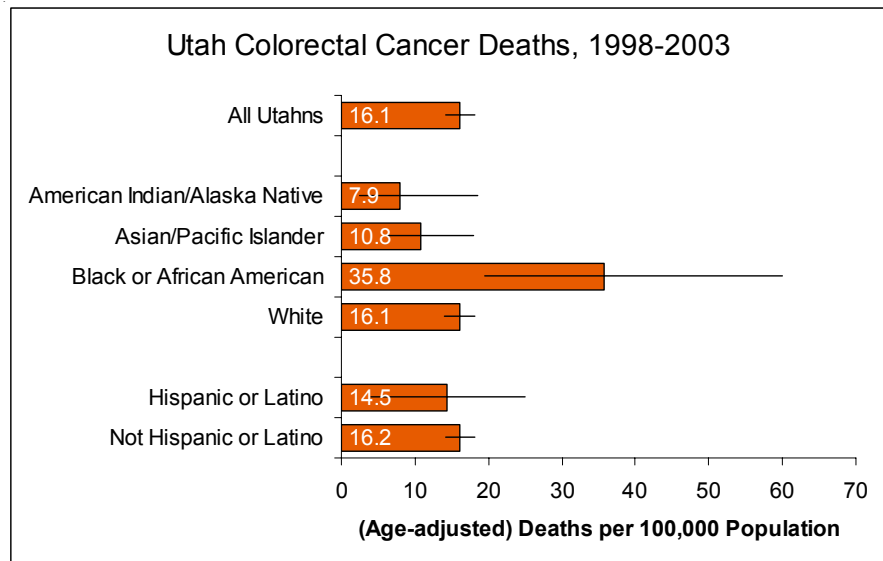
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Colorectal Cancer Deaths

### *Why Is It Important?*

Colorectal cancer is the third leading cause of cancer-related death in the U.S. and Utah. When national cancer-related deaths are estimated separately for males and females, colorectal cancer is the third leading cause of cancer death behind lung and breast cancer for females and behind lung and prostate cancer for males. Deaths from colorectal cancer can be substantially reduced when precancerous polyps are detected early and removed. When colorectal cancer is diagnosed early, 90% of patients survive at least five years.



### *How Are We Doing?*

- Utah's death rate from colorectal cancer was 16.1 per 100,000 population from 1998 to 2003.
- Colorectal cancer death rates were highest among Utah's Black/African American population (35.8 per 100,000).

### *How Can We Improve?*

Several scientific organizations recommend that routine screening for colorectal cancer begin at age 50 for adults at average risk. Persons at high risk may need to begin screening at a younger age. The National Cancer Institute advises each individual to discuss risk factors and screening options with his or her health care provider. Medicare and many insurance plans now help to pay for colorectal cancer screening.

### Utah Colorectal Cancer Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utahns	247	2,233,169	11.0 ( 9.7 - 12.4 )	16.1 ( 14.1 - 18.1 )	n/a
American Indian/Alaska Native	1	33,733	3.0 ( 1.1 - 6.5 )	7.9 ( 2.6 - 18.5 )	↑
Asian/Pacific Islander	3	59,348	4.5 ( 2.6 - 7.3 )	10.8 ( 6.0 - 17.9 )	
Black or African American	2	23,063	10.8 ( 6.0 - 17.8 )	35.8 ( 19.6 - 60.1 )	
White	239	2,117,025	11.3 ( 9.9 - 12.7 )	16.1 ( 14.0 - 18.1 )	
Hispanic or Latino	7	201,559	3.6 ( 1.0 - 6.3 )	14.5 ( 4.0 - 24.9 )	
Not Hispanic or Latino	239	2,031,610	11.8 ( 10.3 - 13.3 )	16.2 ( 14.1 - 18.2 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes 153-154; ICD-10 codes C18-C21; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.



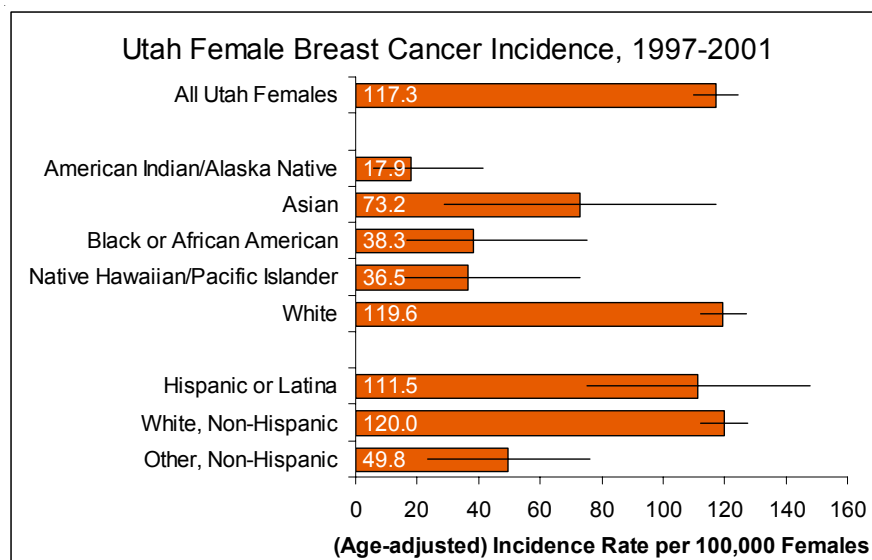
## Breast Cancer Incidence (Females)

### Why Is It Important?

Breast cancer is the leading cause of cancer death among Utah women. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage.

### How Are We Doing?

- Utah's incidence rate from female breast cancer was 117.3 per 100,000 female population from 1997 to 2001.
- Incidence among Utah's non-White women was generally lower, but among Utah's Hispanic and Latina women, the rate was similar to the overall state rate.



### How Can We Improve?

The most important risk factor for breast cancer is increasing age. Other established risk factors include personal or family history of breast cancer, history of abnormal breast biopsy, genetic alterations, early age at onset of menses, late age at onset of menopause, never having children or having a first live birth at age 30 or older, and history of exposure to high dose radiation. Associations have also been suggested between breast cancer and oral contraceptives, long-term use of hormone replacement therapy, obesity (in post-menopausal women), alcohol, and a diet high in fat. Some studies suggest that exercise in youth might give life-long protection against breast cancer and that even moderate physical activity as an adult could lower breast cancer risk. More research is needed to confirm these findings.

### Utah Female Breast Cancer Incidence, 1997-2001

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Females	1,012	1,114,138	90.9 ( 85.3 - 96.5 )	117.3 ( 110.1 - 124.5 )	n/a
American Indian/Alaska Native	1	16,841	8.3 ( 3.3 - 17.1 )	17.9 ( 5.9 - 41.3 )	↓
Asian	12	21,971	53.7 ( 23.1 - 84.3 )	73.2 ( 28.9 - 117.4 )	↓
Black or African American	2	10,097	17.8 ( 8.1 - 33.8 )	38.3 ( 16.6 - 75.1 )	↓
Native Hawaiian/Pacific Islander	2	8,325	19.2 ( 8.3 - 37.8 )	36.5 ( 15.4 - 72.8 )	↓
White	995	1,056,904	94.2 ( 88.3 - 100.0 )	119.6 ( 112.1 - 127.0 )	↓
Hispanic or Latina	44	93,642	46.6 ( 32.7 - 60.4 )	111.5 ( 75.3 - 147.7 )	↓
White, Non-Hispanic	953	968,005	98.5 ( 92.2 - 104.7 )	120.0 ( 112.3 - 127.6 )	↓
Other, Non-Hispanic	15	52,491	29.3 ( 14.7 - 44.0 )	49.8 ( 23.3 - 76.3 )	↓

Source: Utah Cancer Registry, SEER

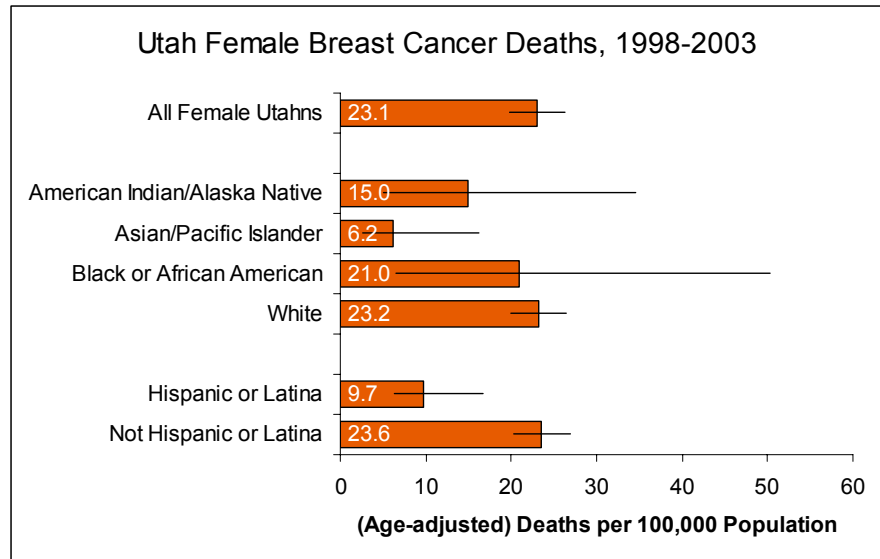
\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Breast Cancer Deaths (Females)

### *Why Is It Important?*

Breast cancer is the most commonly occurring cancer in U.S. women (excluding basal and squamous cell skin cancers) and a leading cause of female cancer deaths in both Utah and the U.S. Nationally, deaths from lung cancer surpass deaths from breast cancer; however, breast cancer is the leading cause of cancer death among Utah women. Deaths from breast cancer can be substantially reduced if the tumor is discovered at an early stage.



### *How Are We Doing?*

- Utah's death rate from breast cancer between 1998 to 2003 was 23.1 per 100,000 females in the population. Utah's rate is lower than that in the U.S., but the U.S. rate has been declining in recent years, where Utah's has leveled-off.
- The female breast cancer mortality rate in Utah in the time period was lower for the combined Asian/Pacific Islander populations (6.2) and also for Utah's Hispanic/Latina women (9.7 per 100,000 women).

### *How Can We Improve?*

Mammography is currently the best method for detecting cancer early. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths by 20% to 30% in women aged 50 to 69 years,<sup>7-12</sup> and by about 17% in women aged 40 to 49 years.<sup>13-14</sup>

### Utah Female Breast Cancer Deaths, 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Female Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Female Utahns	200	1,114,138	17.9 ( 15.5 - 20.4 )	23.1 ( 19.9 - 26.2 )	n/a
American Indian/Alaska Native	1	16,841	5.9 ( 2.2 - 12.8 )	15.0 ( 5.0 - 34.5 )	↓
Asian/Pacific Islander	1	30,296	4.4 ( 1.9 - 8.7 )	6.2 ( 2.6 - 16.2 )	
Black or African American	1	10,097	8.3 ( 2.7 - 19.4 )	21.0 ( 6.4 - 50.3 )	
White	195	1,056,904	18.5 ( 15.9 - 21.0 )	23.2 ( 20.0 - 26.5 )	↓
Hispanic or Latina	4	93,642	4.1 ( 2.5 - 6.2 )	9.7 ( 6.3 - 16.7 )	
Not Hispanic or Latina	196	1,020,496	19.2 ( 16.5 - 21.9 )	23.6 ( 20.3 - 26.9 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 codes 174-175; ICD-10 code C50; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

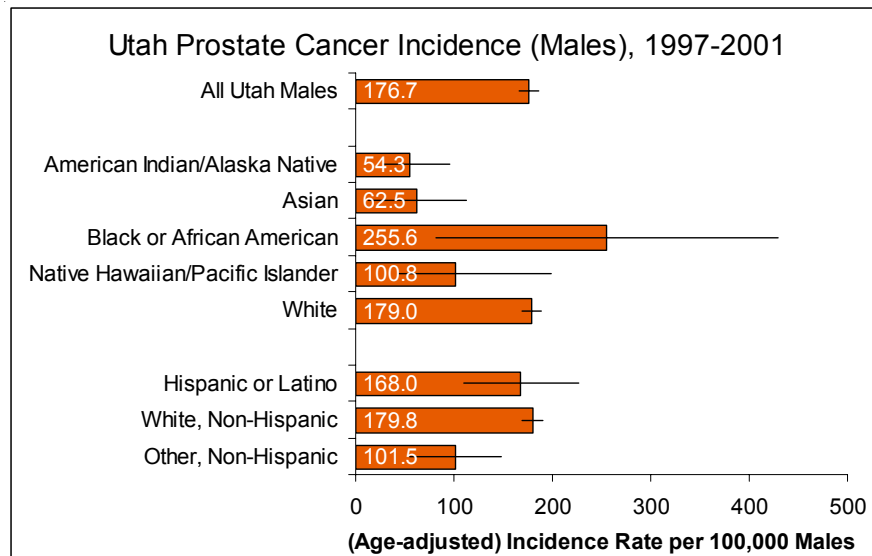
## Prostate Cancer Incidence (Males)

### Why Is It Important?

Prostate cancer is the second most common form of cancer for men, after skin cancer, and is the second leading cause of cancer death for men in Utah and the U.S.

### How Are We Doing?

- Utah's incidence rate from prostate cancer from 1997 to 2001 was 176.7 per 100,000 males.
- Men in Utah's American Indian/Alaska Native and Asian communities had significantly lower incidence rates (54.3 and 62.5 per 100,000 males, respectively).



### How Can We Improve?

The 2000 Utah legislature approved a resolution encouraging private health insurance companies and employers to include insurance coverage for the screening and detection of breast, colorectal, and prostate cancers. The Utah Department of Health (UDOH) is exploring ways to increase the number of men aged 40 or over who make regular visits to a health care provider to receive appropriate preventive services such as prostate-specific antigen screening. The Utah Cancer Action Network (UCAN) provides information on their website ([www.ucan.cc](http://www.ucan.cc)) about prostate cancer screening issues for providers and the general public. In 2004, the Utah Cancer Control Program was awarded federal funds used to launch a statewide media campaign with the goal of increasing prostate cancer awareness. Funding was also used to cosponsor Utah's annual urological cancer conference.

### Utah Prostate Cancer Incidence (Males), 1997-2001

Race/Ethnicity	Avg Annual # of Cases	Total Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Utah Males	1,245	1,119,031	111.3 ( 105.1 - 117.4 )	176.7 ( 166.8 - 186.6 )	n/a
American Indian/Alaska Native	3	16,892	15.4 ( 8.2 - 26.3 )	54.3 ( 27.8 - 95.4 )	↓
Asian	6	19,895	30.2 ( 6.0 - 54.3 )	62.5 ( 12.2 - 112.8 )	↓
Black or African American	9	12,966	72.5 ( 26.2 - 118.8 )	255.6 ( 81.8 - 429.4 )	
Native Hawaiian/Pacific Islander	2	9,157	19.7 ( 9.0 - 37.4 )	100.8 ( 43.6 - 199.0 )	
White	1,225	1,060,121	115.5 ( 109.0 - 122.0 )	179.0 ( 168.9 - 189.1 )	
Hispanic or Latino	40	107,917	36.7 ( 25.3 - 48.1 )	168.0 ( 109.9 - 226.2 )	
White, Non-Hispanic	1,186	957,706	123.8 ( 116.8 - 130.9 )	179.8 ( 169.5 - 190.0 )	
Other, Non-Hispanic	19	53,408	36.3 ( 20.2 - 52.5 )	101.5 ( 54.7 - 148.3 )	↓

Source: Utah Cancer Registry, SEER

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

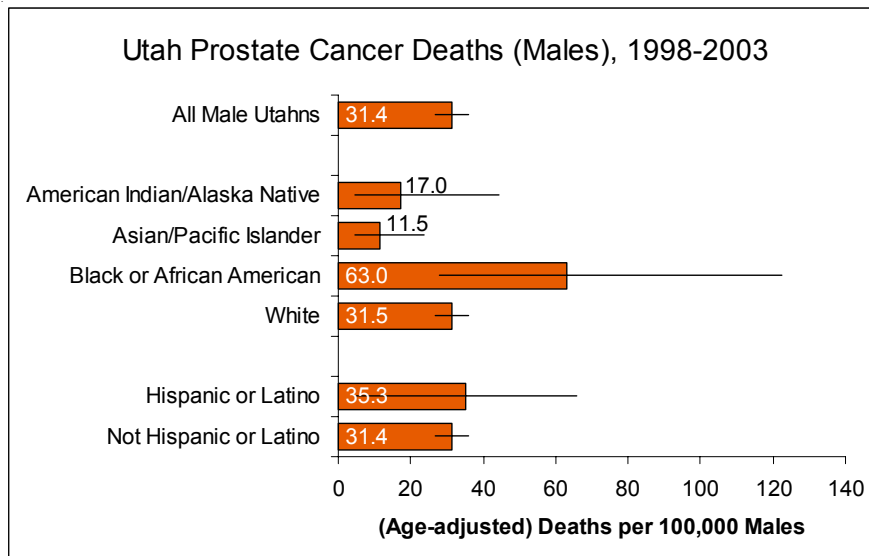
## Prostate Cancer Deaths (Males)

### *Why Is It Important?*

Prostate cancer is the second most common form of cancer for men, after skin cancer, and is the second leading cause of cancer death for men in Utah and the U.S.

### *How Are We Doing?*

- Utah's death rate from prostate cancer from 1998 to 2003 was 31.4 per 100,000 males. The rate saw an increase in the early 1990s but has been on the decline since then in both Utah and the U.S.
- There were large differences in prostate cancer incidence among Utah's racial and ethnic communities. Black/African American men had two times the risk (63.0) compared with the state overall (not statistically significant). Men in Utah's combined Asian and Pacific Islander populations had roughly one-third the risk (11.5 per 100,000 males).



### *How Can We Improve?*

The Utah Department of Health initiated the Utah Cancer Action Network (UCAN), a statewide partnership whose goal is to reduce the burden of cancer. The mission of the UCAN is to lower cancer incidence and mortality in Utah through collaborative efforts directed toward cancer prevention and control. As a result of this planning process, objectives and strategies have been developed by community partners regarding the early detection of cervical, testicular, prostate, skin, breast, and colorectal cancers as well as the promotion of physical activity, healthy eating habits, and smoking cessation. Although screening can detect early-stage prostate cancers, it is not yet known whether early detection results in reduced mortality from this disease.

### Utah Prostate Cancer Deaths (Males), 1998-2003

Race/Ethnicity	Avg Annual # of Deaths	Total Male Population	Crude Rate per 100,000 (95% CI Range)	Age-adjusted Rate* (95% CI Range)	Sig.**
All Male Utahns	186	1,119,031	16.6 ( 14.2 - 19.0 )	31.4 ( 26.9 - 36.0 )	n/a
American Indian/Alaska Native	1	16,892	4.0 ( 1.1 - 10.2 )	17.0 ( 4.5 - 44.4 )	↓
Asian/Pacific Islander	1	29,052	4.0 ( 1.6 - 8.2 )	11.5 ( 4.6 - 23.8 )	
Black or African American	2	12,966	12.9 ( 6.2 - 23.7 )	63.0 ( 27.8 - 122.2 )	
White	181	1,060,121	17.1 ( 14.6 - 19.6 )	31.5 ( 26.9 - 36.1 )	
Hispanic or Latino	5	107,917	4.8 ( 0.7 - 8.9 )	35.3 ( 4.9 - 65.8 )	
Not Hispanic or Latino	180	1,011,114	17.9 ( 15.2 - 20.5 )	31.4 ( 26.8 - 36.0 )	

Source: UDOH, Office of Vital Records and Statistics, Death Certificate Database

ICD-9 code 185; ICD-10 code C61; ICD-9 and ICD-10 adjusted for comparability.

\*Age adjusted to the U.S. 2000 standard population

\*\* The age-adjusted rate for each race/ethnic population has been noted when it was significantly higher (↑) or lower (↓) than the state rate.

## Utah Health Status by Race/Ethnicity, Summary Sheet

- ↑ =significantly higher than state overall  
 =difference not statistically significant  
 ↓ =significantly lower than state overall

Utah, Overall	American Ind./ Alaska Native	Asian	Black	Native HI/ Pacific Islander	White	Hispanic
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### Demographic Context

Age Distribution of the Population, 2000	27.1	23.2	29.6	24.8	21.4	27.8	23.0
* All Cause Death Rates, 1998-2003	797.2	872.0	352.3 <sup>s</sup> ↓	1,016.0 ↑	352.3 <sup>s</sup> ↓	796.3	710.3 ↓
Life Expectancy at Birth, 1998-2003	77.9	74.5	84.9 <sup>s</sup>	74.2	84.9 <sup>s</sup>	78.0	78.2
* Years of Potential Life Lost, 1998-2000	6,248	9,969	5,631 <sup>s</sup>	9,589	5,631 <sup>s</sup>	6144 <sup>†</sup>	6,326
Poverty (All Ages), 2000	9.1%	17.4%	4.6%	8.2%	7.7%	8.7%	12.7%
Child Poverty, 2000	10.1%	37.6%	13.1%	23.9%	18.3%	8.5%	22.2%

### Health Care Services and Systems

* % Utahns With No Health Insurance, 2001	8.2%	12.1%	5.8%	7.3%	7.6%	7.1% ↓	24.8% ↑
* % of Insured Unable to Get Needed Health Care, 2001	12.2%	17.3%	8.7%	10.5%	4.6% ↓	12.2%	14.0%
* % Utahns With No Usual Place of Medical Care, 2001	8.6%	10.9%	7.0%	12.0%	9.3%	7.7% ↓	20.6% ↑
* % Utahns Who Had a Routine Medical Check-up, 2001	71.0%	74.7%	76.5%	72.3%	78.9%	70.3%	80.2% ↑
* Average Number of Medical Visits, 2001	3.8	5.2	3.8	3.7	4.0	3.9	3.7
% Age 50+, Colon Cancer Screening, 1999-2004	37.2%	37.8%	47.3%	57.4%	19.9%	37.2%	27.4% ↓
* % Women, Pap Test, 1999-2000, 2002, 2004	80.7%	71.3%	85.6%	81.8%	71.1%	80.8%	72.7% ↓
* %Women 40+, Mammogram, 1999-2000, 2002, 2004	67.7%	60.9%	78.9%	79.6%	55.5%	67.9%	61.7%
* % Men 40+, PSA Test, 2001-2004	55.2%	43.1% ↓	58.8%	37.4%	69.4%	56.1%	42.1% ↓
* % Adults Had Cholesterol Checked, 1999, 2001, 2003	67.6%	60.7%	70.3%	61.5%	63.3%	68.1%	58.7% ↓
* % Adults With High Cholesterol, 1999, 2001, 2003	21.4%	13.6%	25.0%	17.2%	17.4%	21.6%	20.4%
* % Adults Had Blood Pressure Checked, 1999	92.5%	83.8%	87.0%	100.0%	100.0%	92.7%	92.7%
* % Adults With High Blood Pressure, 1999, 2001, 2003	22.6%	28.4%	24.6%	35.8%	28.6%	22.5%	22.8%
% Mothers Had Early Prenatal Care, 2002	78.0%	53.9% ↓	72.5% ↓	57.2% ↓	48.1% ↓	79.1% ↑	60.4% ↓
* % Adults Had Flu Shot, 1999, 2001-2004	35.2%	38.1%	45.0% ↑	32.1%	36.4%	35.1%	31.3% ↓

### Risk Factors For Illness

* % Adults Overweight or Obese, 1999-2004	55.6%	66.3% ↑	32.1% ↓	71.6% ↑	79.9% ↑	55.2%	64.0% ↑
* % Adults Eating 2+ Fruits Daily, 1999-2000, 2002-2003	32.0%	29.2%	41.1%	34.3%	37.4%	31.7%	32.7%
* % Adults Eating 3+ Veg. Daily, 1999-2000, 2002-2003	22.0%	19.1%	31.0%	15.8%	19.6%	22.1%	16.4% ↓
* % Adults With No Physical Activity, 1999-2004	17.7%	33.4% ↑	19.3%	25.2%	9.1% ↓	17.0% ↓	28.0% ↑





## Utah Health Status by Race/Ethnicity, Summary Sheet (continued)

- ↑ =significantly higher than state overall  
 =difference not statistically significant  
 ↓ =significantly lower than state overall

Utah, Overall	American Ind./ Alaska Native	Asian	Black	Native HI/ Pacific Islander	White	Hispanic
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### Risk Factors For Illness (continued)

* % Adults With Physical Activity, 2001, 2003	54.6%	54.6%	40.3% ↓	58.6%	67.1%	55.5%	47.8% ↓
* % Adults Reported Cigarette Smoking, 1999-2004	12.3%	18.6%	8.4%	28.4% ↑	6.7% ↓	12.0%	14.1%
* % Adults Reported Chronic Drinking, 1999, 2001-04	3.3%	8.6% ↑	0.0% ↓	3.7%	0.0%	3.3%	4.2%
* % Adults Reported Binge Drinking, 1999, 2001-2004	9.4%	18.5% ↑	3.6% ↓	24.9% ↑	3.9%	8.9%	14.5% ↑
* % Adults Reported DUI, 1999, 2002, 2004	0.9%	2.6%	0.0%	1.3%	0.0%	0.9%	1.4%
* % Adults Not Always in Seat Belt	9.3%	11.2%	18.9%	0.0%	10.9%	9.1%	8.4%

### Health Problems of Mothers and Infants

Infant Mortality, 1998-2003	5.2	5.0	4.6 <sup>§</sup>	13.8 ↑	4.6 <sup>§</sup>	5.1	6.4 ↑
Infant Mortality Related to Birth Defects, 1999-2003	1.5	1.3	1.4 <sup>§</sup>	1.3	1.4 <sup>§</sup>	1.5	1.4
% Infants Low Birth Weight, 2002	6.6%	9.2% ↑	8.8% ↑	14.7% ↑	7.1%	6.5%	6.6%
Births to Adolescents (Age 15-17), 2002	17.5	44.0 ↑	23.0	29.2	31.9 ↑	16.8	65.9 ↑
Overall Birth Defects, 1999-2003	20.6	17.7	17.2 <sup>§</sup> ↓	14.3 ↓	17.2 <sup>§</sup> ↓	21.2	18.4 ↓
* % Women 18-44 Taking Folic Acid, 1999-2004	48.3%	36.6%	48.7%	34.9%	25.0% ↓	49.5%	37.7% ↓
Neural Tube Defects, 1994-2003	7.3	9.5	3.8 <sup>§</sup> ↓	0.0	3.8 <sup>§</sup> ↓	7.0	10.5 ↑
Orofacial Clefts, 1995-2003	22.2	36.9	18.2 <sup>§</sup>	12.0	18.2 <sup>§</sup>	22.2	22.4
Congenital Heart Defects, 2003	62.9	66.8	71.6 <sup>§</sup>	0.0	71.6 <sup>§</sup>	61.5	74.4

### Infectious Diseases

Hepatitis A, 1998-2002	4.1	1.8	3.7 <sup>§</sup>	2.6	3.7 <sup>§</sup>	2.9 ↓	6.4
Tuberculosis, 2000-2004	1.7	4.2	15.8 ↑	19.9 ↑	10.3 ↑	1.1 ↓	5.9 ↑
Chlamydia, 2000-2004	147.5	212.3 ↑	158.1 <sup>§</sup>	368.6 ↑	158.1 <sup>§</sup>	92.8 ↓	402.1 ↑
Syphilis, 2000-2004	0.4	3.6 ↑	1.3 <sup>§</sup>	1.7	1.3 <sup>§</sup>	0.2	0.7
Gonorrhea, 2000-2004	16.5	18.4	12.8 <sup>§</sup>	85.0 ↑	12.8 <sup>§</sup>	11.4 ↓	34.6 ↑
HIV/AIDS, 2000-2004	7.7	8.3	4.7 <sup>§</sup>	78.0 ↑	4.7 <sup>§</sup>	5.3 ↓	15.7 ↑

### Injury & Violence

* % Utahns With Injury, 2001	11.9%	10.7% ↓	8.2% ↓	9.1%	13.2%	12.3%	9.1% ↓
* Unintentional Injury Deaths, 1998-2003	33.8	76.7 ↑	15.3 <sup>§</sup> ↓	28.8	15.3 <sup>§</sup> ↓	33.2	34.1
* Motor Vehicle Traffic Crash Deaths, 1998-2003	15.4	52.4 ↑	7.2 <sup>§</sup> ↓	17.6	7.2 <sup>§</sup> ↓	14.7	18.6







## Utah Health Status by Race/Ethnicity, Summary Sheet (continued)

- ↑ =significantly higher than state overall  
 =difference not statistically significant  
 ↓ =significantly lower than state overall

Utah, Overall	American Ind./ Alaska Native	Asian	Black	Native HI/ Pacific Islander	White	Hispanic
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### Injury & Violence (continued)

* Work-related Injury Deaths, 1998-2003	2.3	2.9	0.0 <sup>§</sup>	1.5	0.0 <sup>§</sup>	2.3	3.0
* Suicide, 1998-2003	15.5	10.1 ↓	2.6 <sup>§</sup> ↓	7.8 ↓	2.6 <sup>§</sup> ↓	15.8	12.0
* Homicide, 1998-2003	2.6	6.6 ↑	0.7 <sup>§</sup> ↓	9.4 ↑	0.7 <sup>§</sup> ↓	2.4	7.4 ↑

### Chronic Diseases and Conditions

* % Utahns in Fair/Poor Health (All Ages), 2001	11.0%	21.5% ↑	7.5%	13.2%	17.6% ↑	10.5%	19.5% ↑
* % Adults With Poor Physical Health, 1999-2004	14.4%	20.5%	9.5%	18.0%	10.6%	14.1%	16.4%
* % Adults With Poor Mental Health, 1999-2004	15.0%	22.9% ↑	9.9% ↓	27.1% ↑	15.9%	14.7%	16.9%
* % Adults With Arthritis, 2000-2003	23.8%	32.2%	14.1% ↓	34.3%	12.1%	23.9%	22.9%
* % Utahns With Asthma (All Ages), 2001	5.5%	11.4% ↑	6.7%	6.3%	6.2%	5.7%	4.4%
* % Utahns With Diabetes (All Ages), 2001	4.5%	8.0% ↑	5.2%	7.0%	5.8%	4.4%	5.6%
* Diabetes Deaths, 1998-2003	73.0	147.4 ↑	50.0 <sup>§</sup>	113.7	50.0 <sup>§</sup>	71.9	99.8
* % Utahns With Coronary Heart Disease (All Ages), 2001	4.5%	8.7% ↑	5.4%	7.9%	5.7%	4.5%	3.9%
* Coronary Heart Disease Deaths, 1998-2003	99.4	93.6	31.9 <sup>§</sup> ↓	103.9	31.9 <sup>§</sup> ↓	99.9	71.7 ↓
* Stroke Deaths, 1998-2003	56.2	22.2 ↓	23.0 <sup>§</sup> ↓	83.1	23.0 <sup>§</sup> ↓	56.2	49.9

### Cancer

* Lung Cancer Incidence, 1997-2001	30.5	15.9	26.4	15.7	24.2	30.7	40.0
* Lung Cancer Deaths, 1998-2003	24.8	19.1	19.5 <sup>§</sup>	36.0	19.5 <sup>§</sup>	24.8	24.2
* Colorectal Cancer Incidence, 1997-2001	41.3	11.0 ↓	32.2	50.3	23.8	41.6	48.2
* Colorectal Cancer Deaths, 1998-2003	16.1	7.9	10.8 <sup>§</sup>	35.8 ↑	10.8 <sup>§</sup>	16.1	14.5
* Breast Cancer Incidence (Females), 1997-2001	117.3	17.9 ↓	73.2	38.3 ↓	36.5 ↓	119.6	111.5
* Breast Cancer Deaths (Females), 1998-2003	23.1	15.0	6.2 <sup>§</sup> ↓	21.0	6.2 <sup>§</sup> ↓	23.2	9.7 ↓
* Prostate Cancer Incidence (Males), 1997-2001	176.7	54.3 ↓	62.5 ↓	255.6	100.8	179.0	168.0
* Prostate Cancer Deaths (Males), 1998-2003	31.4	17.0	11.5 <sup>§</sup> ↓	63.0	11.5 <sup>§</sup> ↓	31.5	35.3

\* Age adjusted to 2000 U.S. population

§ Asian and Pacific Islander were grouped together.

† White, non-Hispanic



## Appendix B: Race and Ethnic Groupings

### Appendix B: Race and Ethnic Groupings Used in the Report

We acknowledge that significant diversity exists within each of the race and ethnic categories used in this report, and that the use of broad categories sometimes obfuscates health disparities among smaller subgroups. The category labeled “Asian” combines persons from such diverse cultures as Japan, China, Southeast Asia, and India, and is even more diverse when it has been combined with persons from Native Hawaiian and Pacific Islander cultures. The category for “Black or African American” includes both descendants of persons who were enslaved during the U.S. slave period, as well as more recent immigrants from the African continent and elsewhere. All race and ethnic groups include persons who have recently arrived in the U.S. as well as those whose families have lived here for several generations.

Despite the inherent diversity within each category, this report is evidence that the UDOH believes it is worthwhile to aggregate health status data for persons from similar cultures to ascertain whether health status disparities exist. We have selected to use the race and ethnic categories recommended by the U.S. Office of Management and Budget, wherever possible. The following excerpts from the Federal Register document those categories.

The minimum categories for data on race and ethnicity for Federal statistics, program administrative reporting, and civil rights compliance reporting are defined as follows:

- **American Indian or Alaska Native.** A person having origins in any of the original peoples of North and South America (including Central America), and who maintains tribal affiliation or community attachment.
- **Asian.** A person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- **Black or African American.** A person having origins in any of the black racial groups of Africa. Terms such as “Haitian” or “Negro” can be used in addition to “Black or African American.”
- **Hispanic or Latino.** A person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin, regardless of race. The term, “Spanish origin,” can be used in addition to “Hispanic or Latino.”
- **Native Hawaiian or Other Pacific Islander.** A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
- **White.** A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

Respondents shall be offered the option of selecting one or more racial designations. Recommended forms for the instruction accompanying the multiple response question are “Mark one or more” and “Select one or more.”





## Appendix B: Race and Ethnic Groupings

To provide flexibility and ensure data quality, separate questions shall be used wherever feasible for reporting race and ethnicity. When race and ethnicity are collected separately, ethnicity shall be collected first. If race and ethnicity are collected separately, the minimum designations are:

Race:

- **American Indian or Alaska Native**
- **Asian**
- **Black or African American**
- **Native Hawaiian or Other Pacific Islander**
- **White**

Ethnicity:

- **Hispanic or Latino**
- **Not Hispanic or Latino**

*Federal Register Notice*, October 30, 1997 OFFICE OF MANAGEMENT AND BUDGET:  
Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity.  
<http://www.whitehouse.gov/OMB/fedreg/ombdir15.html>

Readers have probably noticed that the categories used on the data pages throughout the report vary. The above OMB classification scheme was our goal, but several data sources did not allow for data aggregation according to the new standard.

As an example, any measures of mortality found in the report have been reported with the Asian and Native Hawaiian/Pacific Islander categories combined. The mortality data set does currently code those two groups separately, according to the new OMB standard, but it began doing so in only 2002. For mortality measures, we were required to use data from before and after 2002, so we had to leave the Asian and Native Hawaiian/Pacific Islander groups combined.



## Appendix C: Population Count Estimates

### Appendix C: Population Count Estimates Used in the Report

Producing this report using data from 1998 through 2003 has presented a significant challenge because computing rates requires estimates of population size, and the 1997 OMB Standards (see Appendix B) were implemented by the U.S. Census Bureau in 2000, whereas data from our various health data sets converted to the standard at different points in time.

Prior to the 2000 U.S. Decennial Census, the race estimates were reported in a rather simple table (see U.S. Decennial 1990 Census table, below).

U.S. 1990 Decennial Census (April 1990) Utah Population Estimates  
by Race and Hispanic Ethnicity

<b>Utah</b>	Not of Hispanic Origin	Hispanic Origin	Total
White	1,571,254	44,591	1,615,845
Black	10,868	708	11,576
American Indian, Eskimo, or Aleut	22,748	1,535	24,283
Asian or Pacific Islander	32,490	881	33,371
Other Race	893	36,882	37,775
<b>Total</b>	<b>1,638,253</b>	<b>84,597</b>	<b>1,722,850</b>

After the 2000 U.S. Decennial Census, the race estimates were reported in a table that was much more complex (see 2000 Census Table QT: P5, below).

U.S. 2000 Decennial Census (April 2000) Utah Population Estimates  
by Race and Hispanic Ethnicity

<b>Utah</b>	Not Hispanic or Latino	Hispanic or Latino	Total
Persons who reported only one race			
White	1,910,512	189,699	2,100,211
Black or African American	16,572	2,798	19,370
American Indian or Alaskan Native	26,891	4,263	31,154
Asian	37,531	1,093	38,624
Native Hawaiian or Other Pacific Islander	15,230	754	15,984
Total: Persons who only reported one race	2,006,736	198,607	2,205,343
Persons who reported two or more races	24,874	2,952	27,826
Race alone or in combination:(1)			
White	1,933,459	192,430	2,125,889
Black or African American	21,814	3,578	25,392
American Indian or Alaskan Native	35,115	5,887	41,002
Asian	47,197	1,842	49,039
Native Hawaiian or Other Pacific Islander	20,517	1,110	21,627
<b>Total - All persons</b>	<b>2,031,610</b>	<b>201,559</b>	<b>2,233,169</b>

(1) 'In combination' means in combination with one or more other races. The sum of the five race groups adds to more than the total population because individuals may report more than one race.

## Appendix C: Population Count Estimates

To confuse the matter further, a method was derived in which population estimates from later years could be bridged back to the earlier coding scheme. This “bridging method” assumed that if an individual reported only one race, it was their primary race. Individuals who reported more than one race were distributed into their respective presumed primary race categories based on an algorithm developed by the Census Bureau.

Since most of our numerator, or health event, data spanned a period that included the year 2000, it was decided that we could use the year 2000 census data for population estimates for the calculation of rates. Since we typically use mid-year (July 1) population estimates to calculate rates for health events, we selected to use the July 1, 2000 Utah population estimates by race and Hispanic ethnicity.

We preferred the new OMB standard because it separated out our Asian and Native Hawaiian/Pacific Islander populations. But the new method also produced a troublesome “two or more races” category, which was present in virtually none of our numerator data sources. The likelihood of reporting “two or more races” was higher among persons reporting a non-White race. Ignoring that group entirely would underestimate the number of persons in the population denominator, and would underestimate denominators disproportionately more in non-White races compared with White. The resulting statistical artifact would make health disparities appear to be greater.

The selected solution was to use bridged race estimates for July 1, 2000, but to manually separate out the Asian and Native Hawaiian/Pacific Islander populations. This was done using the following logic.

The total bridged number of Asian and Native Hawaiian/Pacific Islanders, according to the 2000 Census Bureau bridged race estimates was 59,348. This included 37,108 Utahns who reported an Asian race and no other race, and 15,145 Utahns who reported Native Hawaiian/Pacific Islander as their sole race. That left 7,095 Utahns who were placed in the “Asian or Native Hawaiian/Pacific Islander” bridged race category because they had reported two or more races on the Census form. We made the assumption that if those 7,095 Utahns had been bridged separately into an Asian versus a Native Hawaiian/Pacific Islander category, that the percentage distribution would be the same as it was for those reporting only one race. Since population data were needed by sex and age, the populations were partitioned by sex and age for 23 different age groups, and the logic was applied to each age/sex group.

The following population estimates for Asian and Native Hawaiian/Pacific Islander groups resulted from the process just described.

	Reported One Race Only	Reported More Than One Race	Total Estimated Population: New Bridged Estimate
Asian	<i>37,108</i>	<i>4,758</i>	<b>41,866</b>
Native Hawaiian/Pacific Islander	<i>15,145</i>	<i>2,337</i>	<b>17,482</b>
Total	<i>52,253</i>	<i>7,095</i>	<b>59,348</b>

Italicized numbers were supplied by the U.S. Census Bureau. Numbers that appear in boldface type were the estimates used in this report.

## Appendix D: Computing Rates

### Appendix D: Computing Rates

According to the Webster's New Collegiate Dictionary, a *Rate* is:

- a quantity, amount, or degree of something
- measured per unit of something else

In public health, we commonly use rates that are the number of health events (such as motor vehicle crash deaths or influenza cases) per some number of persons in the population. Examples of rates commonly used in public health include the following:

- 21.5% of Hispanic or Latino persons had no usual source of medical care (a percent is the quantity per 100)
- 34.8 diabetes deaths per 100,000 Utah Black/African American persons
- 5.0 infant deaths per 1,000 births among American Indian/Alaska Native mothers

In the above examples, the rate has been expressed as the number of events per 100, 1,000 or 100,000 persons in the population. This is done as a convenience, so that we do not have to read and interpret small fractions. For instance, the diabetes deaths per 100,000 Black/African American Utahns in the above example could also be expressed as .000348 risk per person. It is merely easier to read and compare the rate expressed as 34.8 per 100,000 persons.

The following table contains information on the number of coronary heart disease (CHD) deaths by race and ethnicity. The actual number of health events is not very useful because the populations are so different in size. We expect to see many more deaths in the White race group because Utah's White population is much larger than the others. By calculating a rate, we can make a meaningful comparison across race and ethnic groups.

Coronary Heart Disease Deaths by Race and Hispanic Ethnicity,  
Utah 1998-2003

	Average Annual # Deaths	Total 2000 Population	Rate per 100,000 Persons
All Utahns	1,490	2,233,169	66.7
AIAN	9	33,733	28.2
Asian/PI	7	59,348	11.5
Black	7	23,063	32.5
White	1,459	2,117,025	68.9
Hispanic	32	201,559	15.8

Rates are calculated using a simple formula. For instance, for Asian or Native Hawaiian/Pacific Islanders in the above table, there were 41 CHD deaths 1998–2003 (6 years), or an average of 6.833 annual deaths (rounded to 7 for display in table). There were 59,348 persons in the population.

Computation:  $6.833 / 59,348 = .000115$  (risk per person)

We multiply by 100,000 to make it easier to read, and the result is 11.5 per 100,000 persons.

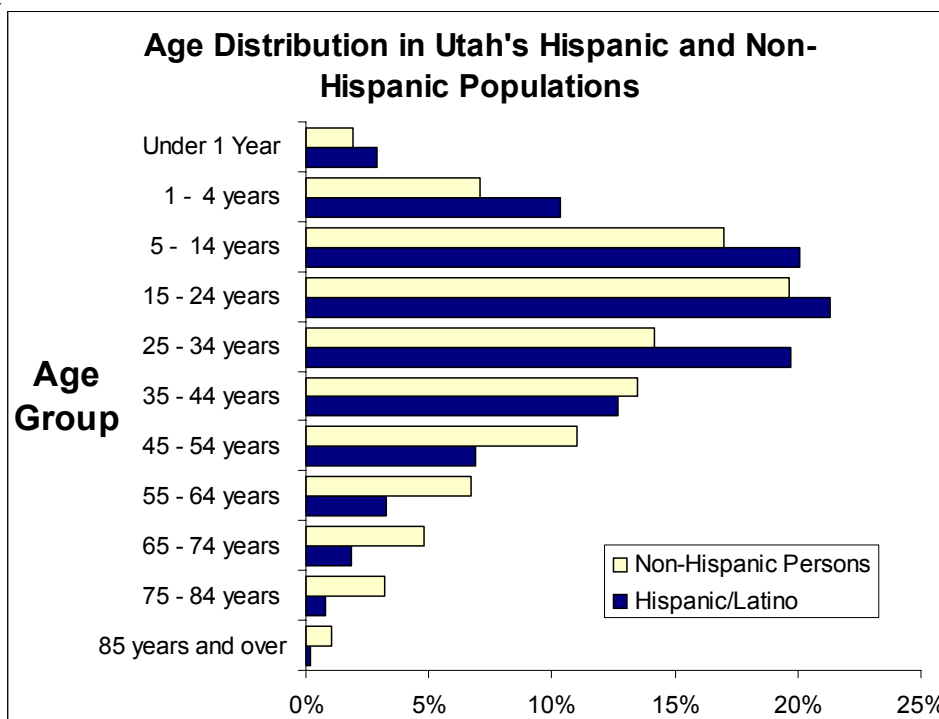
## Appendix E: Age-adjusted Rates

### Appendix E: Age-adjusted Rates

In Appendix D, rates were calculated for coronary heart disease deaths by race and ethnicity. The rates that were calculated are known as “crude” rates because they have not been adjusted in any way. However, a crude rate can be misleading if you want to compare populations that differ in age because the crude rate for most causes of death will be higher in populations with a larger proportion of elderly individuals. For example, Utah’s Hispanic/Latino population is younger than the non-Hispanic or Latino population—it has higher proportions of young persons and lower proportions of elderly persons.

Age Distributions for Utah’s Hispanic/Latino and Non-Hispanic Populations

	Population Counts		Percentage Distributions	
	Hispanic/ Latino Persons	Non-Hispanic Persons	Hispanic/ Latino Persons	Non-Hispanic Persons
Under 1 Year	5,866	38,739	2.9%	1.9%
1 - 4 years	20,895	143,878	10.4%	7.1%
5 - 14 years	40,439	344,882	20.1%	17.0%
15 - 24 years	42,919	398,511	21.3%	19.6%
25 - 34 years	39,674	287,390	19.7%	14.1%
35 - 44 years	25,510	274,026	12.7%	13.5%
45 - 54 years	13,885	223,825	6.9%	11.0%
55 - 64 years	6,610	135,898	3.3%	6.7%
65 - 74 years	3,695	97,853	1.8%	4.8%
75 - 84 years	1,646	65,277	0.8%	3.2%
85 years +	420	21,331	0.2%	1.0%
	201,559	2,031,610	100.0%	100.0%



## Appendix E: Age-adjusted Rates

The following table presents lung cancer incidence rates for Hispanic/Latino and White, non-Hispanic persons. Notice that within the Hispanic/Latino population, the age-specific incidence rates are higher for almost every age group, but the crude rate is lower. The crude rate is lower in the Hispanic/Latino group because there were fewer older persons, and many more younger persons, where the incidence rate is low.

Lung Cancer: Age-specific and Crude Incidence  
Rates per 100,000 Persons

	Hispanic/ Latino	White, Non-Hisp
Age-Specific Rates:		
Under 1 year	0	0
1 - 4 years	0	0.7
5 - 14 years	0	0
15 - 24 years	2.3	0.3
25 - 34 years	2.5	3.3
35 - 44 years	3.9	17.7
45 - 54 years	50.4	89.2
55 - 64 years	438.7	354.6
65 - 74 years	947.2	817.1
75 - 84 years	1701.1	959.5
85 years +	952.4	582.3
Crude Rate, All Ages	10.5	23.1

In this report, we wish to present data on race and ethnic disparities, so we'd like to adjust the data for the different age distributions. The "age-adjusted" rate applies the same population age distribution to the age-specific death rates from both populations. The convention we use in public health for doing this is the year 2000 U.S. population estimates for the eleven age groups listed.

	U.S. 2000 Standard Pop. Distribution	Hispanic/Latino	White, Non- Hispanic
Under 1 Year	1.3818%	0	0
1 - 4 years	5.5317%	0	0.7
5 - 14 years	14.5565%	0	0
15 - 24 years	13.8646%	2.3	0.3
25 - 34 years	13.5573%	2.5	3.3
35 - 44 years	16.2613%	3.9	17.7
45 - 54 years	13.4834%	50.4	89.2
55 - 64 years	8.7247%	438.7	354.6
65 - 74 years	6.6037%	947.2	817.1
75 - 84 years	4.4842%	1701.1	959.5
85 years +	1.5508%	952.4	582.3
Age-adjusted Rates		40.0	30.5

## Appendix E: Age-adjusted Rates

The age-adjusted rate for lung cancer incidence shows that the problem is worse in the Hispanic/Latino population after controlling for age differences.

Most data tables in this report include three indications of the size of the problem: the number of events, the crude rate and the age adjusted rate. Which one should be used? It depends on what question you are asking.

Question: How many people died?

Measure: Number of events

Question: What is the underlying risk in my population?

Measure: Crude rate

Question: Is there a health status disparity between groups?

Measure: Age-adjusted rates





## Appendix F: Confidence Intervals

### Appendix F: Confidence Intervals

Confidence intervals have been reported in the data tables and as error bars in the graphs for all measures in the report. Confidence intervals indicate the reliability of the measure. A more thorough description of statistical reliability may be found in Appendix G of this report.

Although the confidence interval concept draws from the scientific literature on sampling theory, it is also relevant when measures have been calculated from the entire population. In public health, we typically draw on data over a finite time period. Health events do not occur at regularly-spaced intervals. Even though the underlying risk for a health outcome might be stable, the measurable health events, such as infant mortality, occur at random intervals. Thus, when we measure a health event over an arbitrary time period, such as a calendar year, the measurement is taken from a sample in time. Therefore, each calculated rate (whether based upon survey data or count data) is an estimate, and confidence intervals define a range in which the true score (which would represent everyone at all times) would lie.

The 95% confidence interval indicates the range of values within which the statistic would fall 95% of the time if the researcher were to calculate the statistic (e.g., a percentage or rate) from an infinite number of samples of the same size drawn from the same base population. It is typically expressed as the “plus or minus” term, as in the following example:

“The percentage of those polled who said they would vote for George W. Bush was 47%, plus or minus 2%.”

In public health practice, the casual user may think of a confidence interval as the range of probable true scores. The following statements are a logical extension of this thinking.

Observed measure:

- The infant mortality rate for Utah from 1998 to 2003 was 5.2 infant deaths per 1,000 births, with a 95% confidence interval of 0.3.

Logical corollaries:

- This means that the statistic has a 95% confidence interval range from 4.9 to 5.5.
- Thus, if we assume this is a valid measure of infant mortality, there is a very high probability (95%) that the true score lies between 4.9 and 5.5 infant deaths per 1,000 births.
- This means that our best estimate for the underlying risk in the entire Utah population is 5.2 infant deaths per 1,000 births, but that the true risk might lie somewhere between 4.9 and 5.5.

The confidence interval may be used to ascertain whether a measure in a given community is statistically significant, that is, whether the difference is statistically higher or lower than the overall state rate. For example, the motor vehicle crash (MVC) death rate among Utah’s American Indian/Alaska Native population was 52.4 per 100,000 population, with a confidence interval that ranged from 23.9 to 80.8. The lower limit of the 95% confidence range (23.9) is greater than the overall state rate of 15.4 deaths per 100,000 population. Therefore, it can be said that the MVC death rate in Utah’s American Indian/Alaska Native population is higher than the state rate, and that the difference is statistically significant. Please note, however, that a difference can be meaningful without being statistically significant. The point estimate (in this example, 52.4) is still our best estimate of the underlying risk. We need to be mindful of the confidence interval, but we should not be overdependent on it in interpreting the results.

## Appendix F: Confidence Intervals

For most of the measures in this report the 95% confidence intervals are symmetric and centered at the estimated rate (calculated as 1.96 times the standard error). However, in the context of public health measures it makes sense that confidence bounds be equal to or greater than zero, since the rates are nonnegative values. Occasionally when the proportion is close to zero or there are a small number of events, the lower bound is less than zero. Sometimes when the proportion is near 100%, the upper bound is greater than 100%. For these cases we needed to consider asymmetric distributions that constrain the lower and upper bounds to values that lie above zero or below 100%.

The following methods were applied in order to estimate the confidence bounds in these circumstances.

Score Method- applied when estimates were zero or 100%.

Vollset, S.E. (1993). Confidence intervals for a binomial proportion. *Statistics in Medicine* 12, 809-824.

Braner Method- applied to survey data when symmetric confidence bounds were less than zero or greater than 100%.

Braner, M. (2001, January). *Confidence intervals for an age adjusted rate*. Paper presented at the CDC/ATSDR 8th Biennial Symposium on Statistical Methods, Atlanta, GA.

Inverse Gamma Distribution- applied to count data with non-zero counts.

Anderson RN, Rosenberg HM. *Age Standardization of Death Rates: Implementation of the Year 2000 Standard*. National vital statistics reports; vol 47 no. 3. Hyattsville, Maryland: National Center for Health Statistics. 1998.



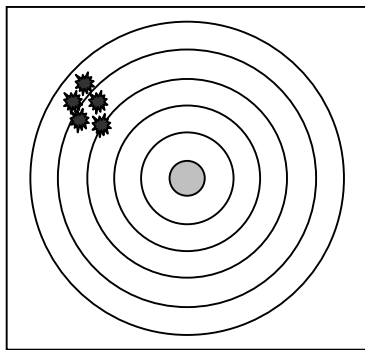
## Appendix G: Statistical Reliability and Validity

### Appendix G: Statistical Reliability and Validity

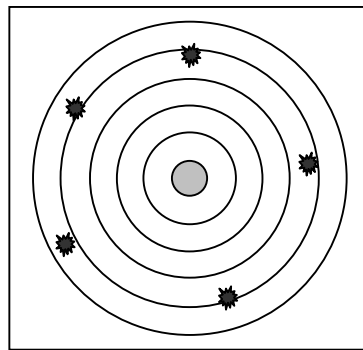
We use measures of health status in an attempt to understand the underlying disease risk in a population. For instance, if a certain city has a consistently high rate of food poisoning, we would want to investigate the food establishments in that city in an attempt to reduce the risk of food poisoning. This report is an exercise in surveillance among Utah's race and ethnic communities. If one community has a consistently high rate of a certain disease, we would want to investigate it further in an attempt to identify and reduce the disease risk in that community.

In practice, public health surveillance uses objective measures, such as rates of death, illness, injury, and hospitalization to indicate a potential problem, one that might merit further investigation. Many objective measures have been presented in this report. To successfully interpret the measures in this report, we need to know something about how well the measure represents the underlying disease risk in the community. There are two important elements involved in the quality of a measure: reliability and validity.

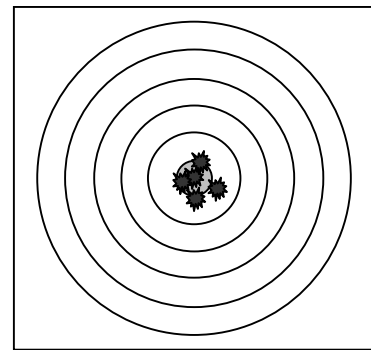
In the three figures, below, the bull's-eye of the target represents the true underlying risk of disease in a population, and the holes in the target represent multiple objective measurements of the risk. In the first figure, the measure is reliable—it measures nearly the same value each time. But the measure in figure 1 is not valid—the average of the scores is not close to the true underlying risk. In the second figure, the scores are not very reliable—there is a lot of variability in the scores, but they center around the true risk value. In the third figure, the measure is both reliable and valid. The term “accuracy” is often used in relation to validity, while the term, “precision” is used to describe reliability.



1. Good reliability, poor validity.



2. Poor reliability, good validity.



3. Good reliability, good validity.

In public health, we are quite lucky that the validity of our measures is really quite good. Cause of death on death certificates is certified by a physician. Survey measures have been tested to maximize validity. Birth weight is reported at the birth hospital. There are some issues with the validity of the measurement of race and ethnic group status (discussed in Appendix H), but on the whole, the measures we use have a high degree of validity.

The underlying population risk for a given health problem will be relatively stable, but our measures of the problem itself will have variability, even when the measurement is drawn from the entire population. That variability indicates poor measure reliability. The reasons for the variability include primarily three factors: (1) the health events are relatively rare, (2) the population size is relatively small, and (3)

## Appendix G: Statistical Reliability and Validity

the health events do not occur at regularly occurring intervals. For instance, infant mortality is an extremely important indicator of health status and access to care in a given population. But it is relatively rare—occurring in only about 5 out of 1,000 births. Measured across all births in Utah, the measure is fairly reliable ( $5.2 \pm 0.3$  infant deaths per 1,000 births between 1998 and 2003). In Utah's Black/African American community, however, the infant mortality rate over the same time period (13.8 infant deaths per 1,000 births to Black/African American women) had a 95% confidence interval of  $\pm 5.3$ . The measure, infant deaths, has virtually the same validity in the Black/African American population as it does in the overall state population. But because infant deaths are relatively rare, the population of Black/African American women giving birth is relatively small, and infant deaths do not occur at regularly-timed intervals, the time sample we have used (1998–2003) produces a measure that is less precise in the Black/African American population than it is in the entire state.



## Appendix H: Validity of Race/Ethnicity Classification

### Appendix H: Validity of the Race/Ethnicity Classification in Public Health Data Sets

The race and classification scheme used in the U.S. was discussed in Appendix B. That classification scheme, however, is only as good as its ability to be accurately applied by the people who report the data to the public health vital statistics and surveillance systems. In general, race and ethnicity are believed to be more valid to the extent that they have been self-reported. The following paragraphs describe the method used to classify an individual into one or more race and ethnic groups. Known validity issues regarding the application of the race and ethnicity classification schemes in public health have been noted.

#### Birth Certificates

The child's mother and father complete a question sheet that includes all the personal information, such as names, street address, race and ethnicity. The race and ethnicity fields are open-ended, meaning the mother and father write in words that describe their race and ethnicity. There is a standard coding system that classifies them according to what they wrote in. The infant's race/ethnicity status is not derived from both the mother's and father's race and ethnicity, it is assumed to be the same as the mother's.

#### Death Certificates

Race and ethnicity on the death certificate are completed by a funeral director. He or she speaks with the family of the deceased. The next of kin is usually considered the "informant" for purposes of completing the death certificate. The decedent is not able to self-report. Studies have shown that light-brown-skinned races and ethnicities, such as Hispanic and American Indian/Alaska Native are sometimes reported to be White and non-Hispanic. This appears to be a widespread problem, affecting death data from most states. However, most decedents of non-White races are reported accurately.

#### Communicable Disease Surveillance

In the most typical scenario, a communicable disease nurse from a local health department completes the disease report with the affected individual on the telephone, and asks the person to self-report on separate race and ethnicity questions. At other times, however, the information may be derived from medical records or physician report, which may be inaccurate or incomplete.

#### Health Surveys

Respondents to health surveys generally, although not always, self-report. The validity of the response is determined primarily by how well the race/ethnic categories used on the survey instrument match what the respondent thinks.

#### Hospital and Emergency Department Data

Hospital discharge and emergency department data derive from hospital billing records. Race and ethnicity are not required fields on the standard billing records. In Utah, the field is completed less than half the time and is currently not used.

## Appendix H: Validity of Race/Ethnicity Classification

### Cancer Incidence

The Cancer Registry derives cancer incidence records from several sources. The primary source is the hospital medical record. In most cases, the attending physician probably records the race and ethnicity information on the medical record, although it might also appear on the hospital admission form that was completed by the patient. Sometimes race and ethnicity information on cancer registry records derive from death certificates, in which case, they would be prone to the same limitations as the death certificate data in general. Hispanic ethnicity for cases with missing data is derived from the New Mexico Spanish surname list.

### Population Estimates

Population estimates derive from the U.S. Census Bureau. We depend on timely updates for Utah population estimates by race and ethnicity. Census Bureau population estimates are generally very good, but do rely on response from individuals. Questions remain about whether certain disenfranchised groups are as likely to complete and return census forms at the time of the decennial censuses.

### Overarching Issues

- Oftentimes, Hispanic persons who may be White by the Census Bureau definition will report their race as “Other.” The Hispanic ethnicity question is asked first on surveys to allow respondents to self-identify as Hispanic ethnicity prior to hearing the race question. But it appears that Hispanic persons often do not embrace the Census Bureau definition of race.
- Classifying persons into standard race categories requires that the Census Bureau race definitions are known and understood. In South Asia (e.g., India), the Middle East and the Philippines, classification errors are probably common.
- Different data systems are moving over to the new Office of Management and Budget standards at different times.

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