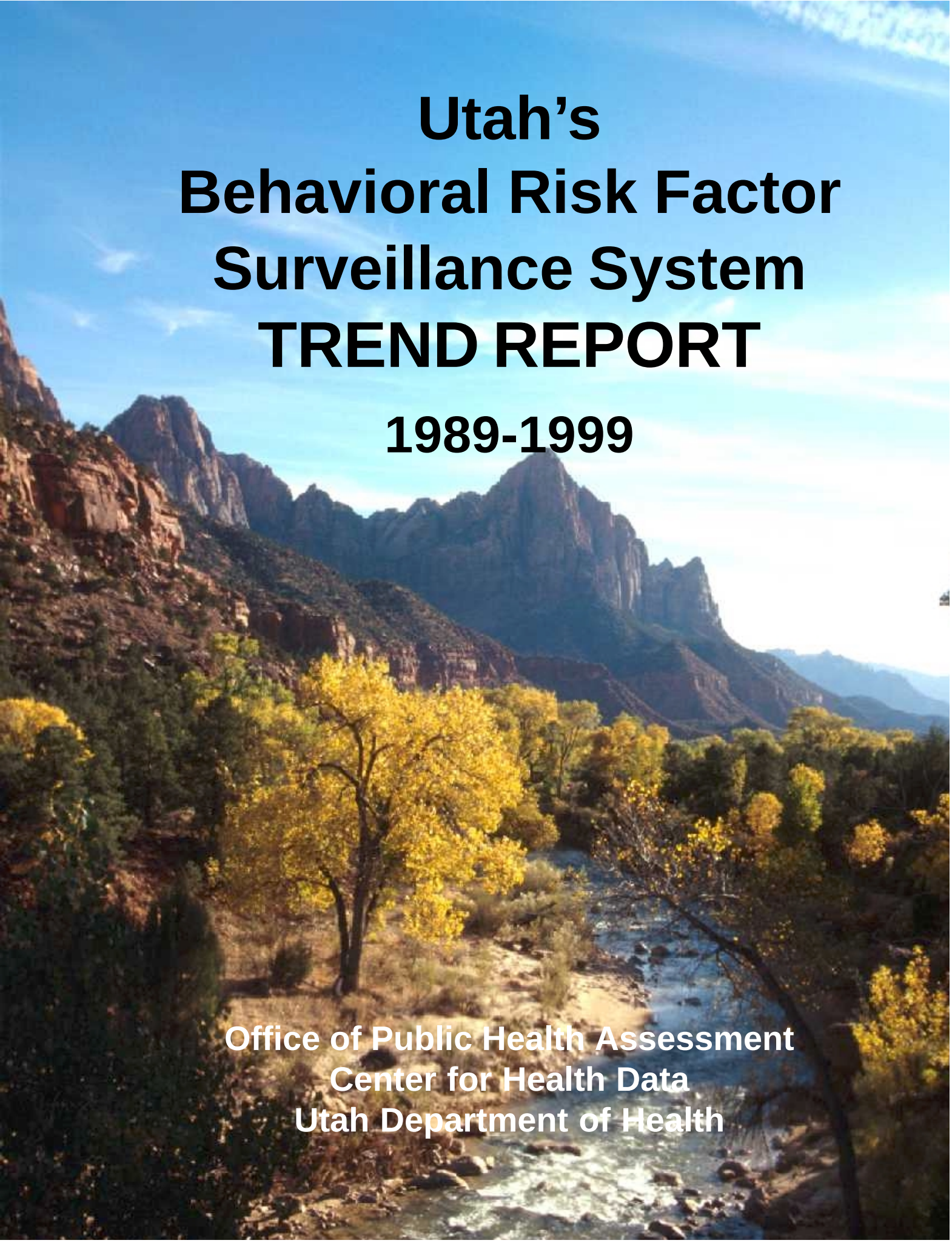
Utah's Behavioral Risk Factor Surveillance System TREND REPORT

1989-1999



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Utah's Behavioral Risk Factor Surveillance System

TREND REPORT, 1989-1999

Office of Public Health Assessment
Center for Health Data

July 2001

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The Utah Department of Health would like to thank the citizens of Utah who have participated in the Behavioral Risk Factor Surveillance System.

On our cover:
"The Watchman, Zion National Park"
Over 6,500 feet high, The Watchman Peak presides over the entrance to Lower Zion Canyon in Zion National Park.

Photo courtesy of the Utah Travel Council/Frank Jensen, photographer

Executive Summary

Utah has participated in the Behavioral Risk Factor Surveillance System (BRFSS) since it began in 1984 and when only 14 other states participated. This report examines trends for selected BRFSS measures over 11 years from 1989 to 1999. The Utah statewide rates are compared to the rates for states bordering Utah (the Region) and the rates for all states and territories (the U.S.) for each year that data were available. The Region and the U.S. include Utah.

The report also examines differences between various demographic groups in Utah by combining four years of Utah data from 1996-1999. Data from four years were combined to increase the precision of the subgroup-specific rates. However, for some groups the sample sizes remained small and apparently large differences were not statistically significant; that is, even those large differences could have occurred due to chance alone.

The following text is a summary of the findings of this report including trends, a comparison of Utah data to the U.S., demographics, and progress towards the Healthy People 2000 objectives.

Utah Trends, 1989-1999

Utah improved on 9 of the 21 measures over the 11-year period presented in this report. They include:

- Screening mammography in the past two years (women age 40 and older) increased from 51.8% in 1989 to 67.1% in 1999
- Cholesterol checked in the past five years increased from 50.3% in 1989 to 63.6% in 1999
- Influenza vaccination in the past year (adults age 65 and older) increased from 54.8% in 1993 to 75.1% in 1999
- Pneumococcal vaccination ever (adults age 65 and older) increased from 35.7% in 1993 to 61.3% in 1999
- No leisure time physical activity decreased from 22.1% in 1989 to 17.4% in 1999
- Five or more servings of fruits or vegetables daily increased from 21.4% in 1993 to 24.5% in 1999
- Current cigarette smoking decreased from 16.4% in 1989 to 14.0% in 1999
- Binge drinking in the past month decreased from 12.0% in 1989 to 10.2% in 1999
- Using seatbelts always or nearly always increased from 65.4% in 1989 to 86.8% in 1997

Utah's rates worsened on only one of the measures:

- Overweight or obese increased from 35.9% in 1989 to 50.9% in 1999

The remaining 11 measures did not increase or decrease significantly from 1989 to 1999.

How Utah Compared to the U.S., 1999

Utah compared favorably with the U.S. on 11 of the 21 measures summarized in this report:

- Fair or poor general health status 10.0% in Utah vs. 14.9% in the U.S.
- Doctor-diagnosed diabetes, 4.2% in Utah vs. 5.9% in the U.S.
- Dental visit in the past year, 73.1% in Utah vs. 68.0% in the U.S.
- Influenza vaccination in the past year (adults age 65 and older), 75.1% in Utah vs. 66.6% in the U.S.
- Pneumococcal vaccination ever (adults age 65 and older) 61.3% in Utah vs.53.8% in the U.S.
- No leisure time physical activity, 17.4% in Utah vs. 29.1% in the U.S.
- Regular physical activity, 27.2% in Utah vs. 20.7% in the U.S. (1998 data)
- Overweight or obese 50.9%, in Utah vs. 56.2% in the U.S.

- Current cigarette smoking, 14.0% in Utah vs. 22.5% in the U.S.
- Binge drinking in the past month, 10.2% in Utah vs. 14.7% in the U.S.
- Chronic drinking in the past month, 3.7% in Utah vs. 5.3% in the U.S.

There were only four measures where Utah did not do as well as the U.S.:
- Screening mammography in the past two years (women age 40 and older), 67.1% in Utah vs. 74.4% in the U.S.
- Pap test in the past three years (adult women), 80.7% in Utah vs.85.2% in the U.S.
- Blood pressure check in the past two years, 92.4% in Utah vs. 94.0% in the U.S.
- Cholesterol checked in the past five years, 63.6% in Utah vs. 70.6% in the U.S.

There were no significant differences between Utah and the U.S. on the other 6 measures.

Demographic Differences in Utah (1996-1999)

Differences by sex:

The lifestyles of Utah women were better than men on 8 of the 18 measures that applied to both sexes:
- Dental visit in the past year; 73.9% of women vs. 68.9% of men
- Blood pressure check in the past two years, 94.7% of women vs. 89.7% of men
- Eating 5 or more servings of fruits and vegetables daily; 29.1% of women vs. 20.4% of men
- Using a seatbelt always or nearly always; 91.8% of women vs. 81.6% of men
- Current smoking; 12.2% of women vs. 16.8% of men
- Being overweight or obese; 40.0% of women vs. 58.1% of men
- Binge drinking in the past month; 4.2% of women vs. 14.1% of men
- Chronic drinking in the past month; 1.9% of women vs. 4.2% of men

Men in Utah did better than women on two behaviors or practices:
- Colonoscopy or sigmoidoscopy in the past 5 years adults age 50 and over; 35.5% for men vs. 26.9% for women
- No leisure time physical activity; 15.5% for men vs. 18.8% for women

Differences by age groups:

Persons differed in their behavioral risk factors depending on their age. Eleven of the 21 measures improved with increasing age:
- Health care coverage
- Screening mammography in the past 2 years (women age 40 and over)
- Sigmoidoscopy or colonoscopy in the past 5 years (adults age 50 and over)
- Blood pressure screening in the past 2 years
- Cholesterol screening in the past 5 years
- Five or more servings of fruits and vegetables daily
- Current cigarette smoking
- Binge drinking in the past month
- Chronic drinking in the past month

- Flu vaccination in the past year
- Pneumococcal vaccination ever

There were six measures that worsened with increasing age:
- Fair or poor general health status
- Doctor-diagnosed diabetes
- Dental visit in the past year
- Clinical breast exam in the past year (women age 40 and older)
- Overweight or obese
- No leisure time physical activity

Differences by race/ethnicity:

Utahns who were non-Hispanic Whites fared better than Utahns of all other racial/ethnic groups combined on the following measures:
- Health insurance coverage; 89.1% for non-Hispanic Whites vs. 78.5% for all other racial/ethnic groups combined
- Dental visit in the past year; 71.9% for non-Hispanic Whites vs. 67.0% for all other racial/ethnic groups combined
- Influenza vaccination in the past 12 months persons age 65 and older; 72.1% for non-Hispanic Whites vs. 36.3% for all other racial/ethnic groups combined
- Cholesterol screening in the past 5 years; 65.5% for non-Hispanic Whites vs. 54.8% vs. for all other racial/ethnic groups combined
- Binge drinking in the past month; 8.3% for non-Hispanic Whites vs. 16.1% for all other racial/ethnic groups combined

Utahns who were Hispanic fared worse than Utahns of all other racial/ethnic groups combined on the following measures:
- No leisure time physical activity; 25.2% for Hispanics vs. 16.8% for all other racial/ethnic groups combined
- Being overweight or obese; 53.6% for Hispanics vs. 48.8% for all other racial/ethnic groups combined
- Current cigarette smoking; 21.7% for Hispanics vs. 14.0% for all other racial/ethnic groups combined
- Routine physical activity; 23.0% for Hispanics vs. 27.3% for all other racial/ethnic groups combined
- Health care insurance coverage; 77.2% for Hispanics vs. 88.8% for all other racial/ethnic groups combined

Differences by income and education:

Comparisons on income and educational attainment showed that for almost every measure, Utahns with higher incomes and higher educational attainment were more likely to get clinical screening services, have better health status and practice healthy behaviors. Measures that improved with increasing income and education were:
- Fair or poor health status
- No leisure time physical activity
- Current cigarette smoking
- Health care coverage
- Dental visit in the past year

- Screening mammography in the past 2 years (women age 40 and older)
- Clinical breast exam in the past 2 years (women age 40 and older)
- Pap test in the past 3 years (adult women)
- Cholesterol screening in the past 5 years
- Regular physical activity
- Five or more servings of fruits and vegetables daily

Healthy People 2000 objectives addressed by measures included in this report

Healthy People 2000 objectives that were met in Utah by 1999:

- 13.14: Increase to at least 70% the proportion of people aged 35 and older using the oral health care system during each year (72.1%).
- 16.11: Increase to at least 60% those women aged 50 and older who have received a clinical breast examination and mammogram within the proceeding 1 to 2 years (66.4%).
- 16.13: Increase to at least 40% the proportion of people aged 50 and older who have ever received proctosigmoidoscopy (44.1%).
- 15.13: Increase to at least 90% the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high (92.4%). (Note: the BRFSS does not asked the respondent to state whether their blood pressure was normal or high when checked.)
- 3.4: Reduce cigarette smoking to a prevalence of no more than 15% among people aged 18 and older (14.0%).
- 3.6: Increase to at least 50% the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year (52.3%).
- 9.12: Increase the use of safety belts and child safety seats to at least 85% of motor vehicle occupants (86.8% in 1997 for adults age 18 and older).
- 20.11: Increase immunization levels as follows: pneumococcal pneumonia and influenza immunization among noninstitutionalized people 65 years and over to at least 60% (75.1% for influenza, age 65 and older and 61.3% for pneumococcal, age 65 and older).

Healthy People 2000 objections that were not met in Utah by the year 1999:

- 16.12: Increase to at least 85% the proportion of women aged 18 and older who have received a Pap test within the preceding 1 to 3 years (80.7%).
- 15.14: Increase to at least 75% the proportion of adults who have had their blood cholesterol checked within the preceding 5 years (63.6%).
- 1.5: Reduce to no more than 15% the proportion of people aged 6 and older who engage in no leisure time physical activity (17.4% for adults age 18 and older).
- 1.3: Increase to at least 30% the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day (27.0% for adults age 18 and older).
- 2.6: Increase to at least 50% the proportion of people aged 2 and older who meet the *Dietary Guidelines'* average daily goal of five or more servings of fruits/vegetables (24.5% for adults age 18 and older).
- 2.3: Reduce overweight to a prevalence of no more than 20% among people aged 20 and older (29% for adults age 18 and older, based on females with Body Mass Index (BMI) $\geq$ 27.3 and males with BMI $\geq$ 27.8).

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Introduction

The Behavioral Risk Factor Surveillance System (BRFSS) is a collaborative project of the Centers for Disease Control and Prevention (CDC), and U.S. states and territories. The BRFSS collects uniform, state-specific data on preventive health practices and risk behaviors that are linked to chronic diseases, injuries, and preventable infectious diseases in the adult population. The BRFSS was initiated in 1984, with 15 states collecting data through monthly telephone interviews. By 1996, all 50 States and the District of Columbia, Puerto Rico, Guam, and the Virgin Islands were participating in the BRFSS. Utah has participated in the BRFSS since 1984.

The data are used for a variety of purposes including identification of demographic variations in health-related behaviors, health program planning and evaluation, addressing emergent and critical health issues, proposing legislation for health initiatives and measuring progress toward state and national health objectives.

The BRFSS is conducted as a random telephone survey of the non-institutionalized adult population. Utah's annual sample has grown in size from 612 respondents in 1984 to 3,092 respondents in 1999. Since 1995 Utah's sample has been selected by local health district and is large enough in order to make estimates by Utah's 12 local health districts approximately every three years. The first report of the Utah BRFSS data by local health district combined data from 1995 through 1998 and was completed in December, 1999. The *Utah Behavioral Risk Factor Surveillance System Local Health District Report* is available on-line at http:\\hlunix.hl.state.ut.us/action2000/reports.html.

This report examined 11 years of Utah BRFSS data from 1989 through 1999 in order to assess trends in many of the same questions that were presented in the *Utah Behavioral Risk Factor Surveillance System Local Health District Report*. Instead of analyzing the information by local health district, this report looks at the data for the entire state by year. It is an opportunity to measure Utah's progress towards the Healthy People 2000 objectives and look ahead to the Healthy People 2010 objectives.

For comparison with the Utah data, trends were also analyzed for the states bordering Utah (Region) and for the nation as a whole (U.S.). The states included in the Region were Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming. The U.S. includes all states and territories. Both the Region and the U.S. include Utah. To determine exactly which states in the Region and the U.S. participated in the BRFSS for a particular year, see the table in Appendix A.

By combining four years of data from 1996-1999, the sample size was usually large enough to be able to look at the data for various demographic subgroups such as by educational level and income categories. Due to the small numbers of many racial and ethnic groups in Utah, questions were analyzed by three groups only: White/non-Hispanic, Hispanic, and non-White/non-Hispanic. The non-White/non-Hispanic group includes Black or African American, Native Hawaiian or Other Pacific Islander, American Indian or Alaska Native, Asian, and "Others."

Guide to This Document

Four pages of the report are devoted to each measure. This "Guide" outlines what is covered on each page.

This label describes the risk factor being addressed.

General Health Status

Question: *Would you say that in general your health is: excellent, very good, good, fair, or poor?*

This text contains the question(s) asked from the BRFSS survey that were used in the tables and figures.

This text defines and further describes the measure being addressed.

Four health-related quality of life (HRQOL) measures have been included on the BRFSS since 1993. The above question is the first of the set of four questions. It is considered to be a reliable indicator of a person's perceived health and such is a good global assessment of a person's well being. The Centers for Disease Control and Prevention has defined HRQOL as "an individual's or group's perceived physical and mental health over time." This measure is directly related to Healthy People 2010's overarching goal to increase quality and years of healthy life. The Institute of Medicine Committee on Using Performance Monitoring to Improve Community Health proposed that the proportion of adults reporting that their general health is good to excellent be included as one of 25 Community Health Profile indicators.

This graph shows the most recent year of data for Utah, the Region, and the U.S. in bar graphs.

For this report, we looked at the percentage of persons who reported fair or poor health in order to be consistent with the *Utah Behavioral Risk Factor Surveillance System Local Health District Report*. Also, percentage of adults who report fair or poor health in used by the federal Health Resources and Services Administration (HRSA) in their Community Health Status Indicators (CHSI) effort (see Appendix C).

- The estimated proportion of adults who reported fair or poor health was lower in Utah for all years than that for the Region or the U.S.
- There was no significant change in the proportion of adults reporting fair or poor health from 1993 to 1999 for Utah and the Region.
- There was an increase in the percentage of persons reporting fair or poor health for the U.S. from 13.4% in 1993 to 14.9% in 1999.

This bulleted text summarizes findings from the trend graph and trend tests for Utah, the Region, and the U.S., and discusses Utah's progress towards Healthy People 2000 objectives.

Utah Objective: No objective listed.
HP2000: No objective listed.
HP2010: Overarching: Increase quality and years of healthy life.
ICDS: Not used.
CHSI: Percent of adults who report fair or poor health.

This text box contains a list of objectives and indicators that utilize the particular BRFSS measure. For a complete explanation of these, see Appendix C.

This label describes the risk factor being addressed.

General Health Status

Not all states participated in the BRFSS until 1994 (see appendix)

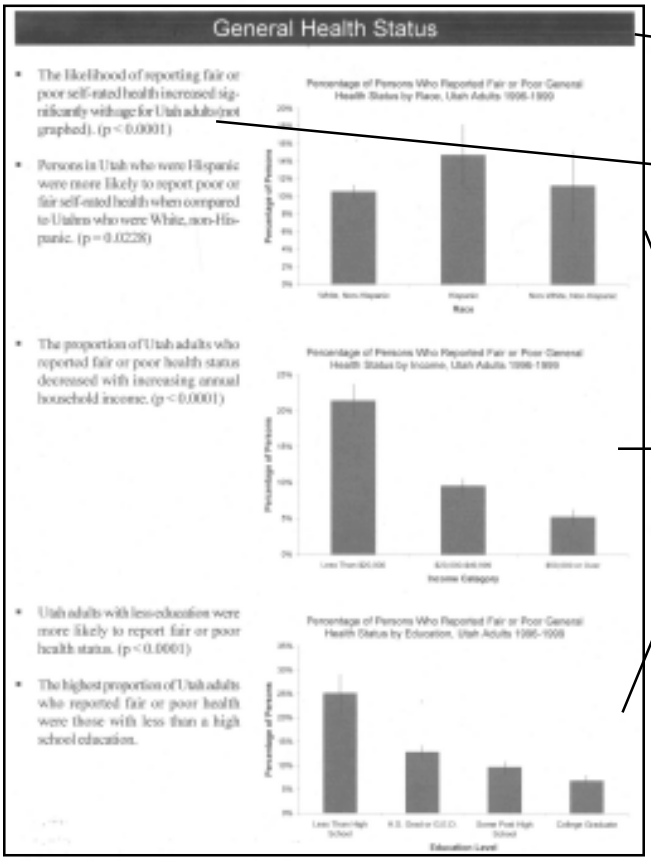
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Persons	Lower	Upper	Percentage of Persons	Lower	Upper	Percentage of Persons	Lower	Upper
1993	11.6%	10.0%	13.2%	12.0%	11.1%	12.9%	13.4%	13.1%	13.7%
1994	10.9%	9.3%	12.4%	11.8%	10.9%	12.6%	13.7%	13.4%	14.0%
1995	11.8%	10.2%	13.4%	12.8%	11.9%	13.6%	13.8%	13.5%	14.2%
1996	11.3%	9.8%	12.7%	11.6%	10.8%	12.4%	14.5%	14.2%	14.8%
1997	11.2%	9.6%	12.7%	11.7%	10.9%	12.5%	14.4%	14.1%	14.7%
1998	10.8%	9.4%	12.2%	11.6%	10.8%	12.4%	14.8%	14.5%	15.1%
1999	10.0%	8.7%	11.4%	11.3%	10.5%	12.1%	14.9%	14.6%	15.2%

upward linear trend

This is the trend graph with a line for Utah, the Region, and the U.S. It includes symbols for each line indicating when the line showed a linear upward, linear downward, or non-linear trend.

This table contains the data that were used to construct the trend graphs. It includes 95% confidence intervals for the measure.

Guide to This Document



General Health Status

- The likelihood of reporting fair or poor self-rated health increased significantly with age for Utah adults (not graphed). ($p < 0.0001$)
- Persons in Utah who were Hispanic were more likely to report poor or fair self-rated health when compared to Utahns who were White, non-Hispanic. ($p = 0.0228$)

Percentage of Persons Who Reported Fair or Poor General Health Status by Race, Utah Adults 1996-1999

Percentage of Persons

Race

- The proportion of Utah adults who reported fair or poor health status decreased with increasing annual household income. ($p < 0.0001$)

Percentage of Persons Who Reported Fair or Poor General Health Status by Income, Utah Adults 1996-1999

Percentage of Persons

Income Category

- Utah adults with less education were more likely to report fair or poor health status. ($p < 0.0001$)
- The highest proportion of Utah adults who reported fair or poor health were those with less than a high school education.

Percentage of Persons Who Reported Fair or Poor General Health Status by Education, Utah Adults 1996-1999

Percentage of Persons

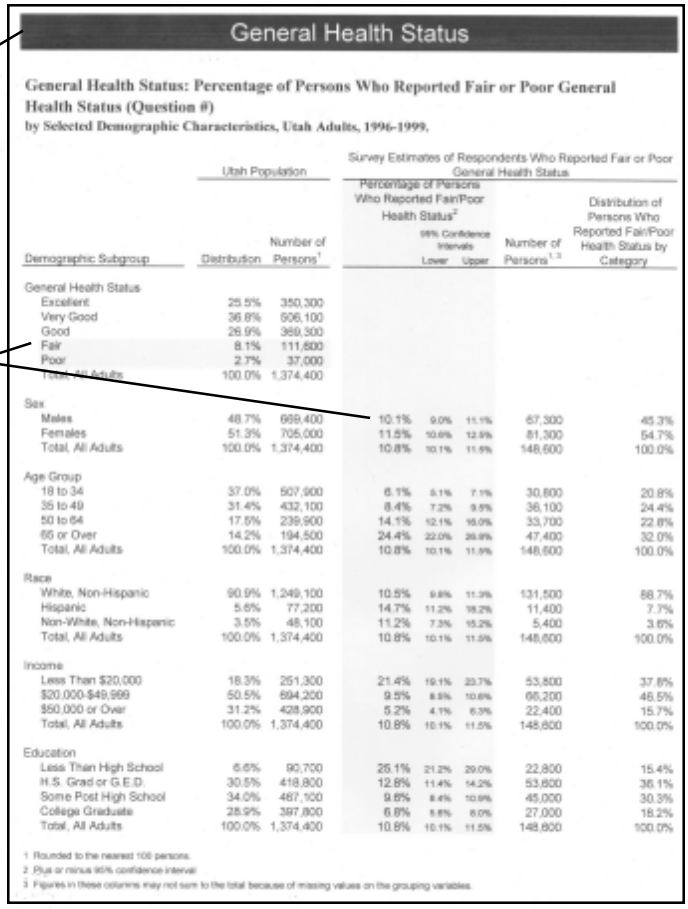
Education Level

This label describes the risk factor being addressed.

This text summarizes demographic differences for the measure.

The three bar graphs on this side of the page present the measure for a variety of demographic groups, using combined Utah data from years 1996-1999.

This label describes the risk factor being addressed.



General Health Status

General Health Status: Percentage of Persons Who Reported Fair or Poor General Health Status (Question #)
by Selected Demographic Characteristics, Utah Adults, 1996-1999.

	Utah Population		Survey Estimates of Respondents Who Reported Fair or Poor General Health Status				
			Percentage of Persons Who Reported Fair/Poor Health Status[2]				
				95% Confidence Intervals			
Demographic Subgroup	Distribution	Number of Persons[1]		Lower	Upper	Number of Persons[1,3]	Distribution of Persons Who Reported Fair/Poor Health Status by Category
General Health Status							
Excellent	25.5%	350,300					
Very Good	36.8%	506,100					
Good	26.9%	369,300					
Fair	8.1%	111,600					
Poor	2.7%	37,000					
Total, All Adults	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	10.1%	9.0%	11.1%	67,300	45.3%
Females	51.3%	705,000	11.5%	10.6%	12.5%	81,300	54.7%
Total, All Adults	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Age Group							
18 to 34	37.0%	507,900	6.1%	5.1%	7.1%	30,800	20.8%
35 to 49	31.4%	432,100	8.4%	7.2%	9.5%	36,100	24.4%
50 to 64	17.5%	239,900	14.1%	12.1%	16.0%	33,700	22.8%
65 or Over	14.2%	194,500	24.4%	22.0%	26.9%	47,400	32.0%
Total, All Adults	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	10.5%	9.8%	11.3%	131,500	88.7%
Hispanic	5.6%	77,200	14.7%	11.2%	18.2%	11,400	7.7%
Non-White, Non-Hispanic	3.5%	48,100	11.2%	7.3%	15.2%	5,400	3.6%
Total, All Adults	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Income							
Less Than $20,000	18.3%	251,300	21.4%	19.1%	23.7%	53,800	37.8%
$20,000-$49,999	50.5%	694,200	9.5%	8.5%	10.6%	66,200	46.5%
$50,000 or Over	31.2%	428,900	5.2%	4.1%	6.3%	22,400	15.7%
Total, All Adults	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Education							
Less Than High School	6.6%	90,700	25.1%	21.2%	29.0%	22,800	15.4%
H.S. Grad or G.E.D.	30.5%	418,800	12.8%	11.4%	14.2%	53,600	36.1%
Some Post High School	34.0%	467,100	9.6%	8.4%	10.9%	45,000	30.3%
College Graduate	28.9%	397,800	6.8%	5.6%	8.0%	27,000	18.2%
Total, All Adults	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%

1 Rounded to the nearest 100 persons.
2 Plus or minus 95% confidence interval.
3 Figures in these columns may not sum to the total because of missing values on the grouping variables.

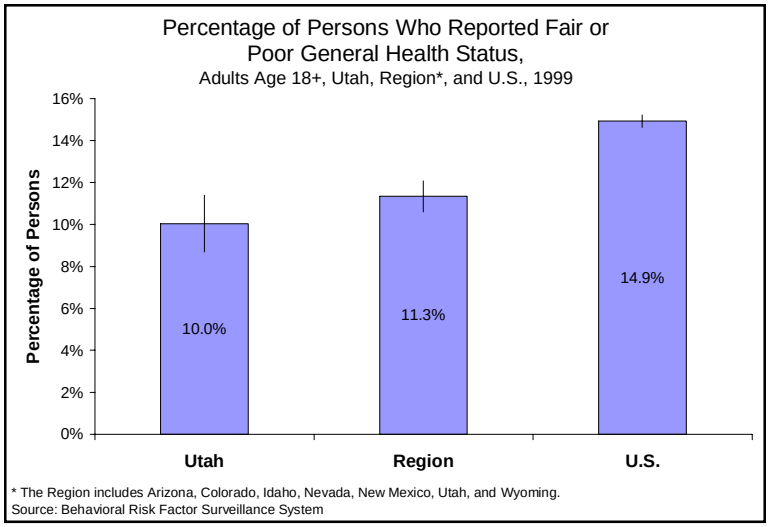
The last page for the measure is a table of the combined 1996-1999 data for the demographic subgroups. It includes the 95% confidence intervals. The shaded column shows the percentage of people who reported the measure. The response category row(s) is/are also shaded.

Utah BRFSS

Trend Findings, 1989-1999

General Health Status

Question: *Would you say that in general your health is: excellent, very good, good, fair, or poor?*



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- There was an increase in the percentage of persons reporting fair or poor health for the U.S. from 13.4% in 1993 to 14.9% in 1999.

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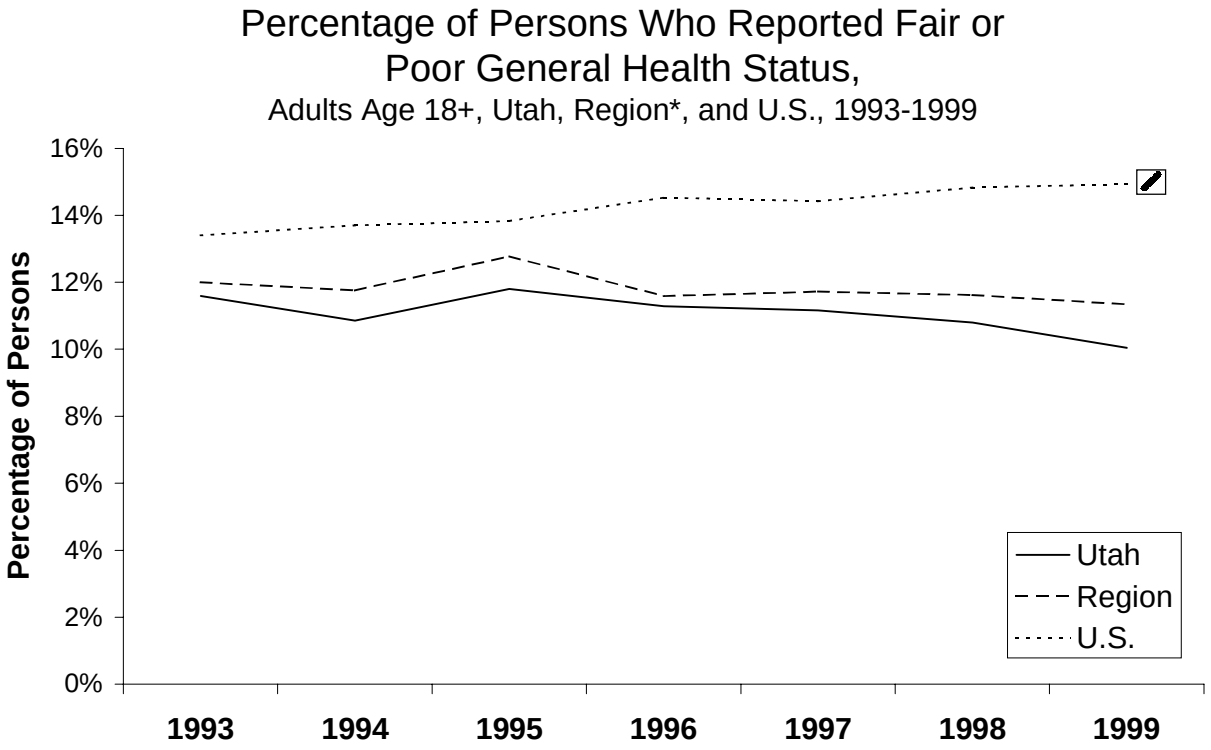
CHSI: Percent of adults who report fair or poor health.

General Health Status



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

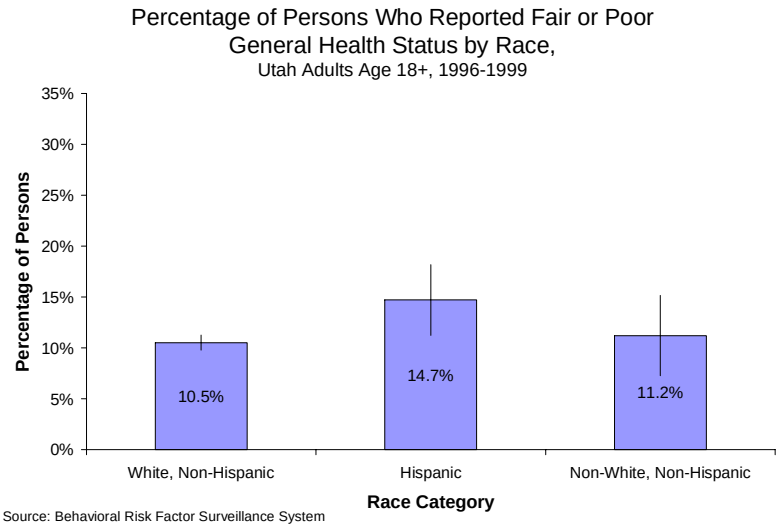
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1993	11.6%	10.0%	13.2%	12.0%	11.1%	12.9%	13.4%	13.1%	13.7%
1994	10.9%	9.3%	12.4%	11.8%	10.9%	12.6%	13.7%	13.4%	14.0%
1995	11.8%	10.2%	13.4%	12.8%	11.9%	13.6%	13.8%	13.5%	14.2%
1996	11.3%	9.8%	12.7%	11.6%	10.8%	12.4%	14.5%	14.2%	14.8%
1997	11.2%	9.6%	12.7%	11.7%	10.9%	12.5%	14.4%	14.1%	14.7%
1998	10.8%	9.4%	12.2%	11.6%	10.8%	12.4%	14.8%	14.5%	15.1%
1999	10.0%	8.7%	11.4%	11.3%	10.6%	12.1%	14.9%	14.6%	15.2%

upward linear trend

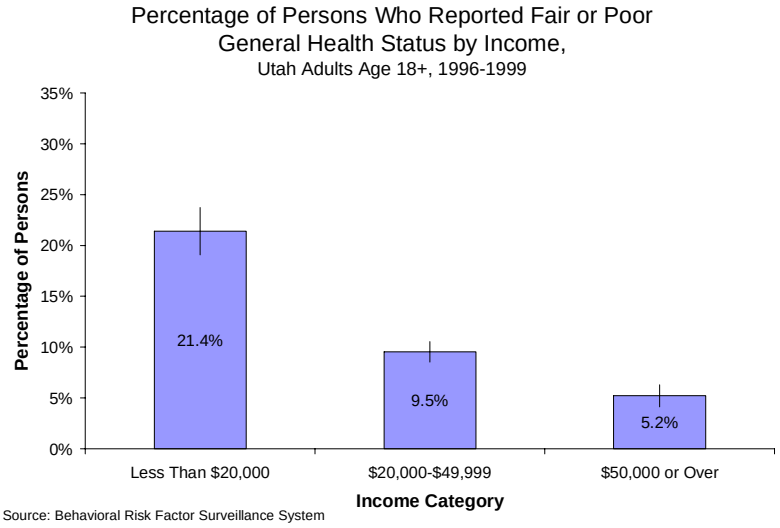
General Health Status

- Older adults in Utah were more likely to report fair or poor self-rated health (not graphed). ($p < 0.0001$)

- Hispanic persons in Utah were more likely to report poor or fair self-rated health when compared to Utahns who were White, non-Hispanic. ($p = 0.0228$)

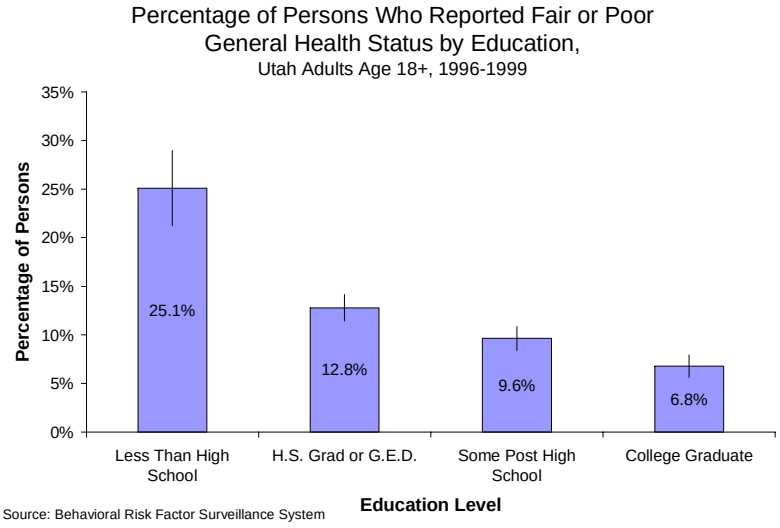


- The proportion of Utah adults who reported fair or poor health status decreased with increasing annual household income. ($p < 0.0001$)



- Utah adults with less education were more likely to report fair or poor health status. ($p < 0.0001$)

- The highest proportion of Utah adults who reported fair or poor health were those with less than a high school education.



General Health Status

Percentage of Persons Who Reported Fair or Poor General Health Status
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

	Utah Population		Survey Estimates of Respondents Who Reported Fair or Poor General Health Status				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Fair or Poor General Health Status	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Fair or Poor General Health Status by Category
General Health Status							
Excellent	25.5%	350,300					
Very Good	36.8%	506,100					
Good	26.9%	369,300					
Fair	8.1%	111,600					
Poor	2.7%	37,000					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	10.1%	9.0%	11.1%	67,300	45.3%
Females	51.3%	705,000	11.5%	10.6%	12.5%	81,300	54.7%
Total, All Adults Age 18+	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Age Group							
18 to 34	37.0%	507,900	6.1%	5.1%	7.1%	30,800	20.8%
35 to 49	31.4%	432,100	8.4%	7.2%	9.5%	36,100	24.4%
50 to 64	17.5%	239,900	14.1%	12.1%	16.0%	33,700	22.8%
65 or Over	14.2%	194,500	24.4%	22.0%	26.8%	47,400	32.0%
Total, All Adults Age 18+	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	10.5%	9.8%	11.3%	131,500	88.7%
Hispanic	5.6%	77,200	14.7%	11.2%	18.2%	11,400	7.7%
Non-White, Non-Hispanic	3.5%	48,100	11.2%	7.3%	15.2%	5,400	3.6%
Total, All Adults Age 18+	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Income							
Less Than $20,000	18.3%	251,300	21.4%	19.1%	23.7%	53,800	37.8%
$20,000-$49,999	50.5%	694,200	9.5%	8.5%	10.6%	66,200	46.5%
$50,000 or Over	31.2%	428,900	5.2%	4.1%	6.3%	22,400	15.7%
Total, All Adults Age 18+	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%
Education							
Less Than High School	6.6%	90,700	25.1%	21.2%	29.0%	22,800	15.4%
H.S. Grad or G.E.D.	30.5%	418,800	12.8%	11.4%	14.2%	53,600	36.1%
Some Post High School	34.0%	467,100	9.6%	8.4%	10.9%	45,000	30.3%
College Graduate	28.9%	397,800	6.8%	5.6%	8.0%	27,000	18.2%
Total, All Adults Age 18+	100.0%	1,374,400	10.8%	10.1%	11.5%	148,600	100.0%

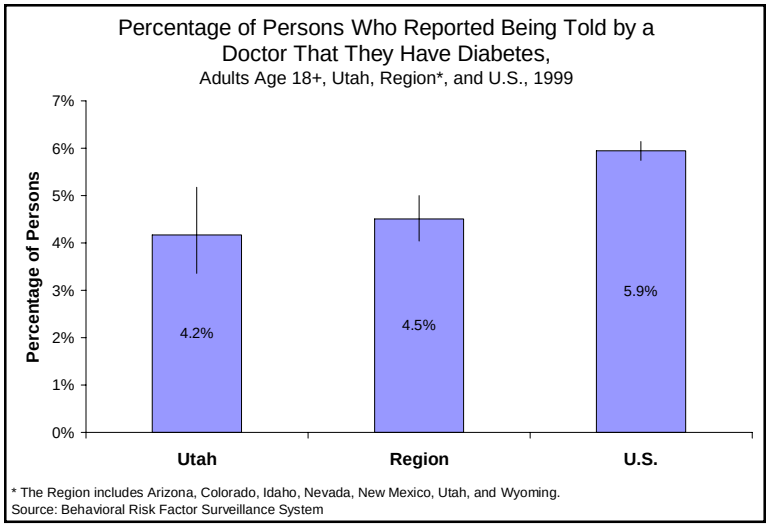
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Diabetes

Question: *Have you ever been told by a doctor that you have diabetes?*

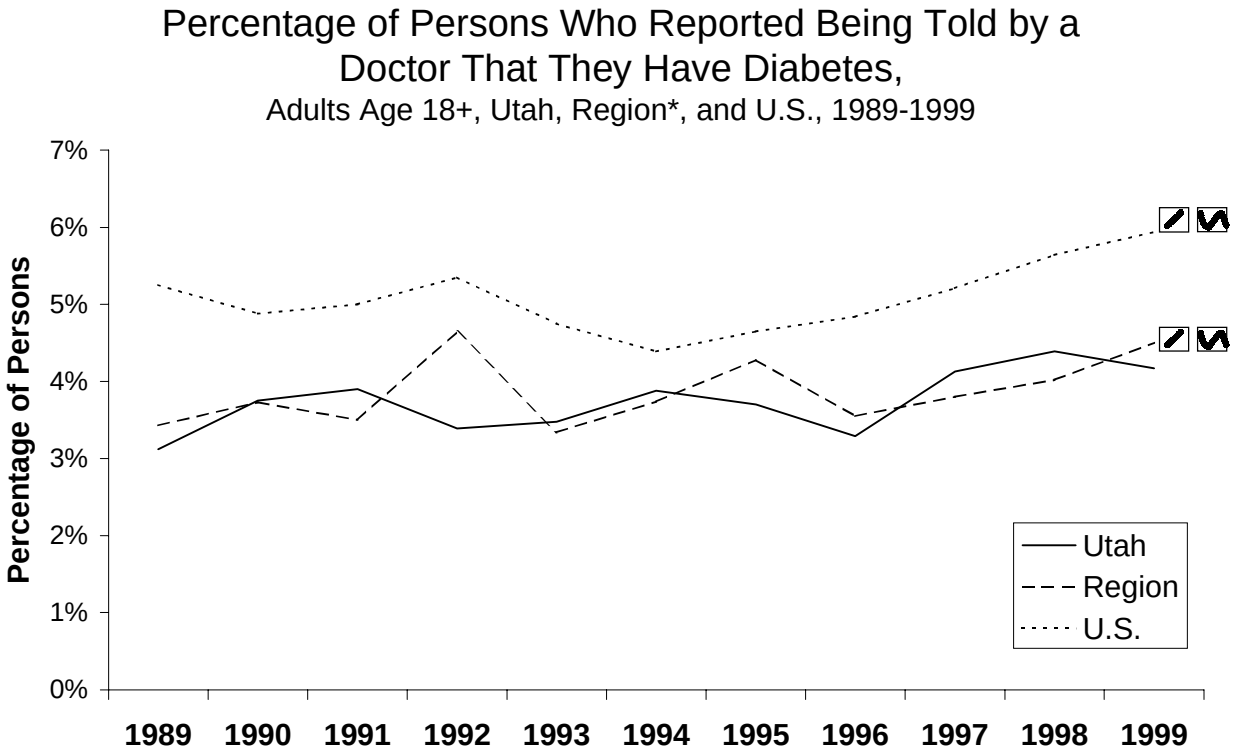


Diabetes is a chronic metabolic disease and is the seventh leading cause of death in the United States. It takes two forms: Type 1 and Type 2. Type 1 occurs when the pancreas does not produce any insulin. Type 2 occurs when the body cannot effectively use insulin to process glucose for energy and is strongly related to family history, lack of exercise, and being overweight. Diabetes is increasingly common in the United States and the world. The BRFSS only reports prevalence based on self-reported diagnosis by a physician. It is estimated that between 30-50% of those people with diabetes are not aware that they have it. It must be kept in mind that the BRFSS reports data for those 18 years and older while the Healthy People objectives include all age groups.

- The estimated percentage of Utah adults who reported doctor-diagnosed diabetes increased from 3.1% in 1989 to 4.2% in 1999. This was not a statistically significant change.
- For the Region and the U.S., there was a significant overall linear increase in the percentage of adults who reported doctor-diagnosed diabetes. However, there also was a significant non-linear trend which is consistent with the change in direction of the trends over the 11 year period.
- From 1989 through 1999, Utah adult diabetes prevalence was similar to the Region and lower than the U.S.

Utah Objective: Reduce diabetes to a prevalence of no more than 25 per 1,000 people.
HP2000 Goal 17.11: Reduce diabetes to an incidence of no more than 2.5 per 1,000 people and a prevalence of no more than 25 per 1,000 people (includes all ages).
HP2010 Goal 5-3: Reduce the overall rate of diabetes that is clinically diagnosed to 25 overall cases per 1,000 population (includes all ages).
CDI 43: Diabetes prevalence among adults (proportion of respondents age 18 years or older who report ever having physician-diagnosed diabetes other that diabetes during pregnancy).
CHSI: Diabetes prevalence among adults.

Diabetes



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

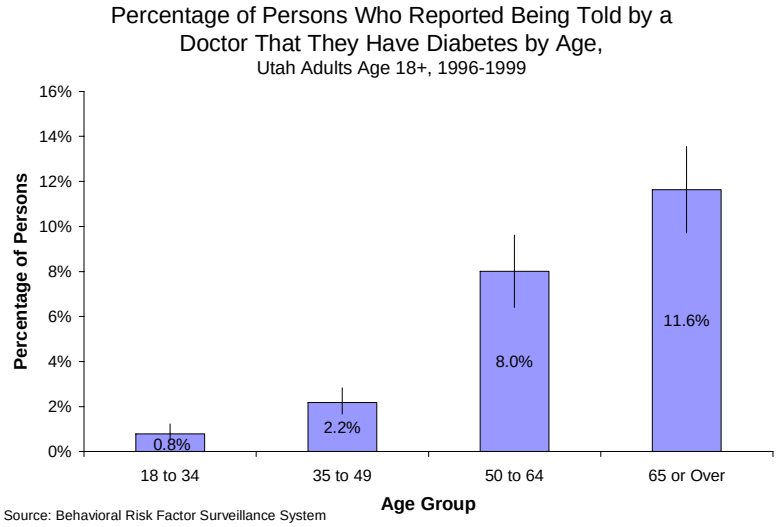
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	3.1%	2.4%	4.1%	3.4%	2.9%	4.0%	5.3%	5.0%	5.5%
1990	3.8%	2.9%	4.8%	3.7%	3.3%	4.3%	4.9%	4.7%	5.1%
1991	3.9%	3.1%	5.0%	3.5%	3.1%	4.0%	5.0%	4.8%	5.2%
1992	3.4%	2.6%	4.5%	4.7%	4.1%	5.2%	5.4%	5.1%	5.6%
1993	3.5%	2.7%	4.6%	3.3%	2.9%	3.9%	4.8%	4.6%	5.0%
1994	3.9%	3.0%	4.9%	3.7%	3.3%	4.3%	4.4%	4.2%	4.6%
1995	3.7%	2.9%	4.7%	4.3%	3.8%	4.9%	4.7%	4.4%	4.9%
1996	3.3%	2.6%	4.1%	3.6%	3.1%	4.0%	4.8%	4.7%	5.0%
1997	4.1%	3.2%	5.3%	3.8%	3.3%	4.3%	5.2%	5.0%	5.4%
1998	4.4%	3.5%	5.5%	4.0%	3.6%	4.5%	5.6%	5.5%	5.8%
1999	4.2%	3.4%	5.2%	4.5%	4.0%	5.0%	5.9%	5.7%	6.1%

upward linear trend

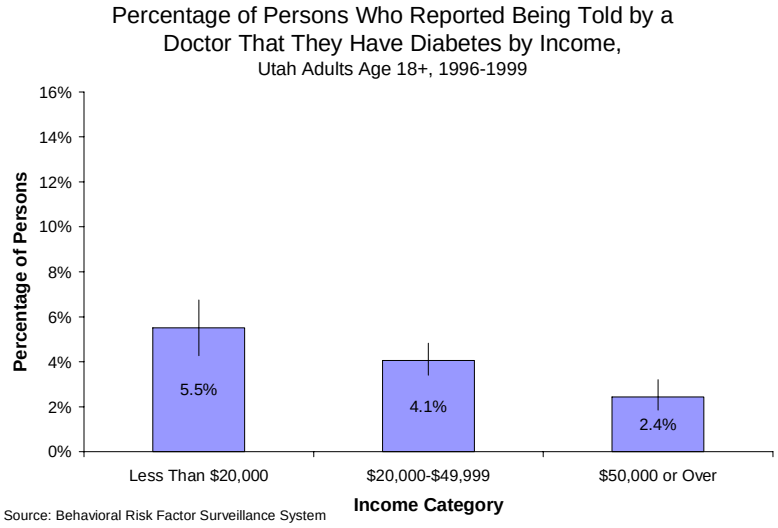
non-linear trend

Diabetes

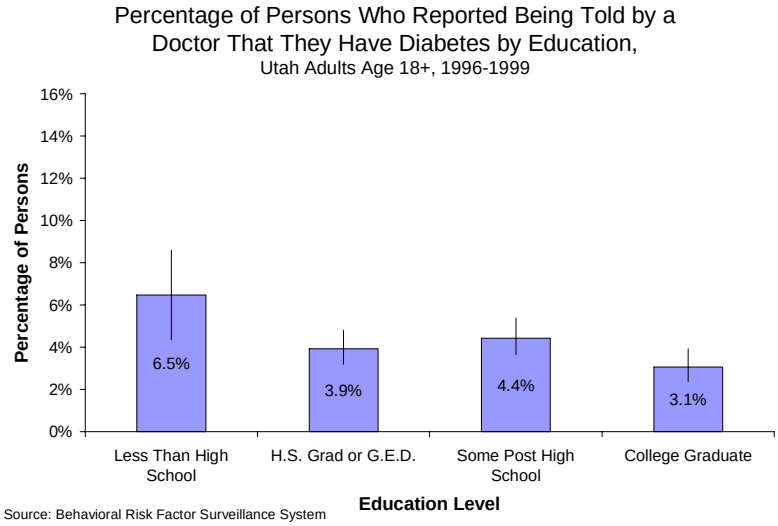
- The estimated proportion of Utah adults with diabetes increased significantly with age. ($p < 0.0001$)



- Diabetes prevalence was higher for those Utah adults with annual household incomes less than $20,000. ($p < 0.0001$)



- The percentage of Utah adults who reported doctor-diagnosed diabetes was higher for those without a high school education when compared to those with a high school education or more. ($p = 0.0151$)



Diabetes

Percentage of Persons Who Reported Being Told by a Doctor That They Have Diabetes

by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

	Utah Population		Survey Estimates of Respondents Who Reported Being Told by a Doctor That They Have Diabetes				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Being Told by a Doctor That They Have Diabetes	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Being Told by a Doctor That They Have Diabetes by Category
Diagnosed With Diabetes							
Yes	4.0%	55,100					
Yes - During Pregnancy	0.8%	11,000					
No	95.2%	1,308,300					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	4.4%	3.7%	5.1%	29,300	53.2%
Females	51.3%	705,000	3.7%	3.1%	4.3%	25,800	46.8%
Total, All Adults Age 18+	100.0%	1,374,400	4.0%	3.6%	4.5%	55,100	100.0%
Age Group							
18 to 34	37.0%	507,900	0.8%	0.5%	1.2%	4,000	7.2%
35 to 49	31.4%	432,100	2.2%	1.7%	2.8%	9,400	17.0%
50 to 64	17.5%	239,900	8.0%	6.4%	9.6%	19,200	34.8%
65 or Over	14.2%	194,500	11.6%	9.7%	13.6%	22,600	40.9%
Total, All Adults Age 18+	100.0%	1,374,400	4.0%	3.6%	4.5%	55,100	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	4.1%	3.6%	4.6%	50,600	91.5%
Hispanic	5.6%	77,200	4.5%	2.8%	7.2%	3,500	6.3%
Non-White, Non-Hispanic	3.5%	48,100	2.5%	1.2%	5.2%	1,200	2.2%
Total, All Adults Age 18+	100.0%	1,374,400	4.0%	3.6%	4.5%	55,100	100.0%
Income							
Less Than $20,000	18.3%	251,300	5.5%	4.3%	6.8%	13,800	26.3%
$20,000-$49,999	50.5%	694,200	4.1%	3.4%	4.8%	28,200	53.8%
$50,000 or Over	31.2%	428,900	2.4%	1.9%	3.2%	10,400	19.8%
Total, All Adults Age 18+	100.0%	1,374,400	4.0%	3.6%	4.5%	55,100	100.0%
Education							
Less Than High School	6.6%	90,700	6.5%	4.4%	8.6%	5,900	10.7%
H.S. Grad or G.E.D.	30.5%	418,800	3.9%	3.2%	4.8%	16,400	29.7%
Some Post High School	34.0%	467,100	4.4%	3.7%	5.4%	20,700	37.5%
College Graduate	28.9%	397,800	3.1%	2.4%	3.9%	12,200	22.1%
Total, All Adults Age 18+	100.0%	1,374,400	4.0%	3.6%	4.5%	55,100	100.0%

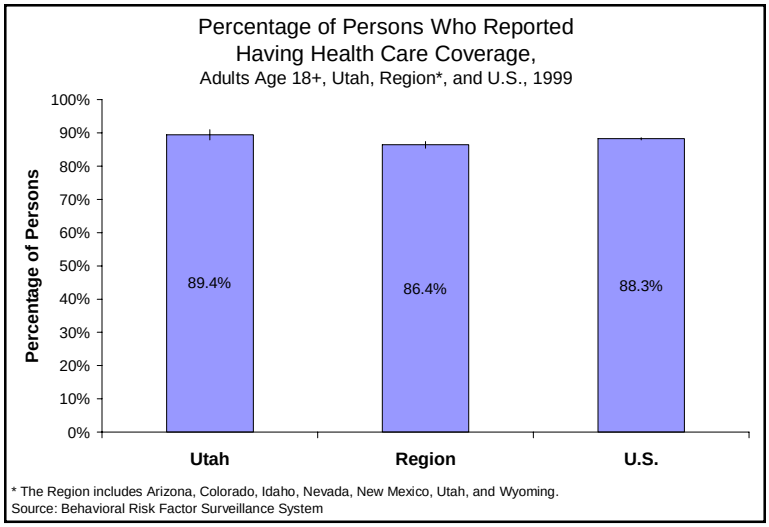
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Health Care Coverage

Questions: *Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?*

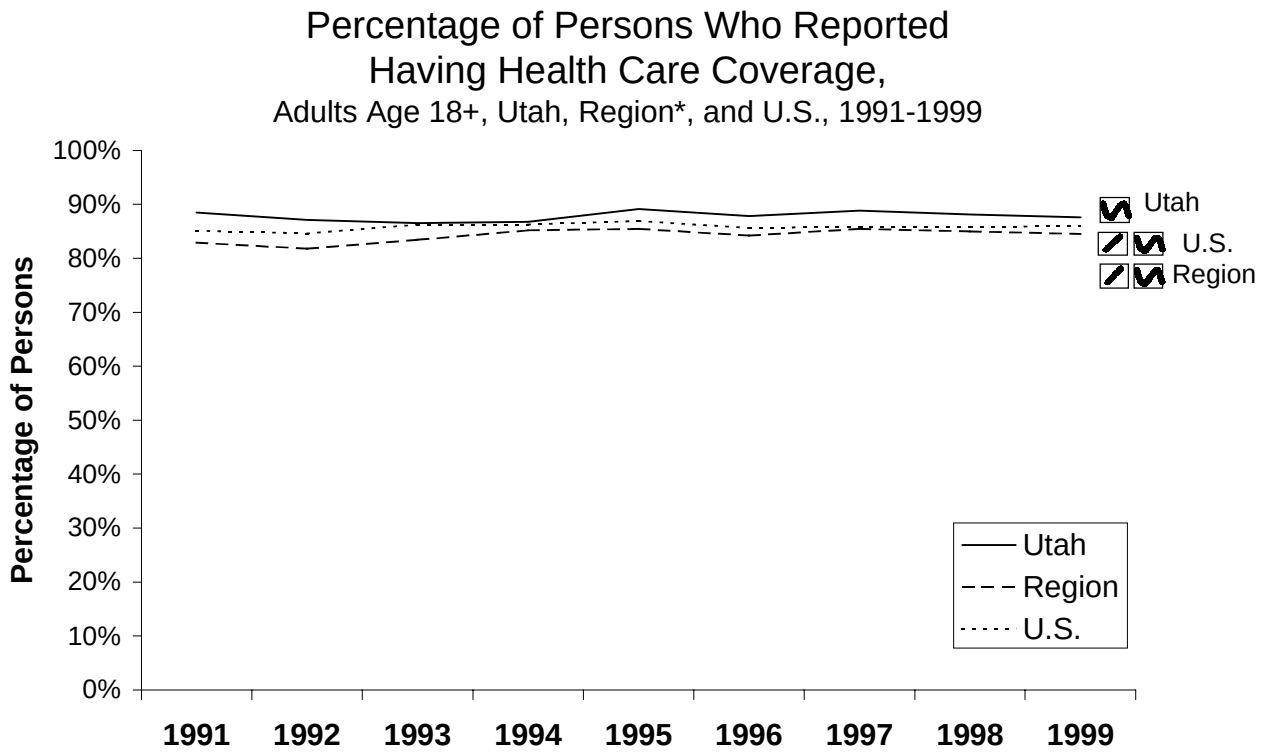


Assuring adequate health insurance for Utahns continues to be a major political and public health initiative. Adults with insurance are twice as likely to receive a routine checkup as are adults without health insurance. In Utah, persons with health insurance are more likely than persons without health insurance to have a regular and accessible source of health care. The BRFSS has asked about health insurance coverage since 1984. In 1996, the BRFSS added a follow-up insurance question that asked respondents who answered 'No' to the above question to go through a check list of possible health insurance categories. Between 11% to 23% of respondents who initially indicated that they had no insurance coverage were then able to identify a source of insurance coverage. This increased the estimated percentage of Utah adults with insurance by 1.4% to 2.7% in the years it was asked. In order to be consistent in reporting health care coverage, since 1991, we are only reporting the responses to the above first question. This is the same way the data was reported in the Local Health District report.

- There has been no overall change in the estimated percentage of adults with medical insurance coverage in Utah over the past 11 years. However, a significant non-linear trend suggests variation in this measure over time.
- There were slight increases in the percentage of adults with health insurance coverage for the Region and U.S. over the same time period also with significant variation over time.
- The estimated percentage of adults with health care insurance coverage was consistently slightly higher in Utah as compared to both the Region and the U.S., but Utah's lead decreased over the years reported here.

Utah Objective: No objective listed.
HP2000: No objective listed.
HP2010 Goal 1-1: Increase the proportion of persons with health insurance to 100%.
CDI 59: Current Lack of Health Insurance (respondents who report having no current health insurance coverage).
CHSI: Number of uninsured individuals estimated from the U.S. Census Bureau, Current Population Survey, 1998.

Health Care Coverage



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

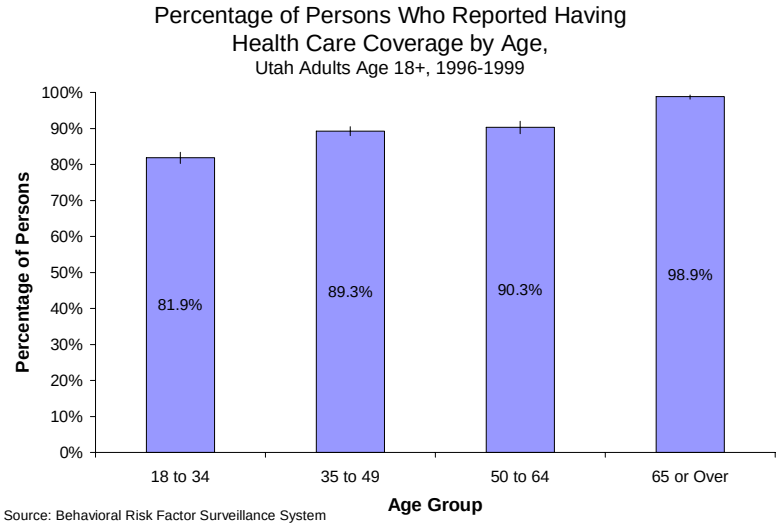
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1991	88.5%	86.8%	90.2%	82.9%	81.8%	84.1%	85.1%	84.7%	85.5%
1992	87.1%	85.4%	88.8%	81.8%	80.6%	82.9%	84.6%	84.2%	85.0%
1993	86.5%	84.7%	88.3%	83.4%	82.3%	84.6%	86.2%	85.9%	86.6%
1994	86.8%	84.9%	88.6%	85.2%	84.2%	86.2%	86.3%	85.9%	86.6%
1995	89.2%	87.6%	90.7%	85.5%	84.5%	86.4%	86.9%	86.6%	87.3%
1996	87.8%	86.3%	89.3%	84.2%	83.2%	85.2%	85.6%	85.3%	86.0%
1997	88.9%	87.3%	90.4%	85.4%	84.5%	86.4%	85.9%	85.6%	86.2%
1998	88.1%	86.5%	89.7%	85.0%	84.0%	86.0%	85.9%	85.5%	86.2%
1999	87.6%	86.0%	89.2%	84.5%	83.6%	85.5%	85.9%	85.6%	86.2%

upward linear trend

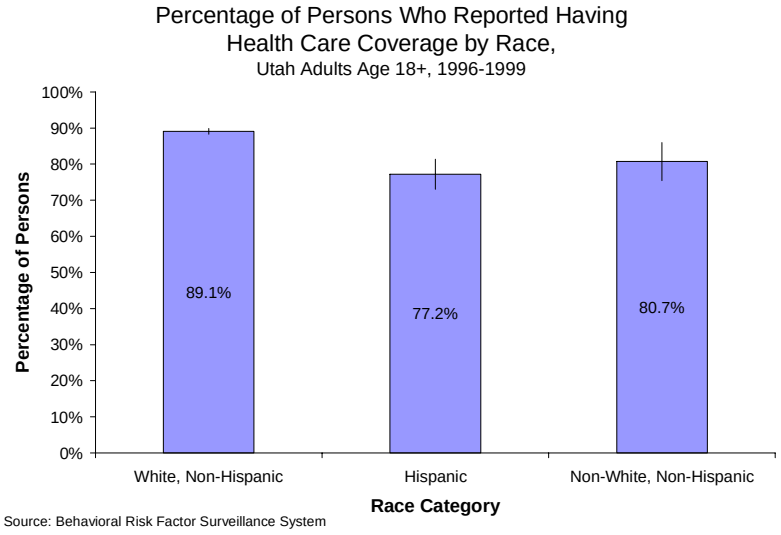
non-linear trend

Health Care Coverage

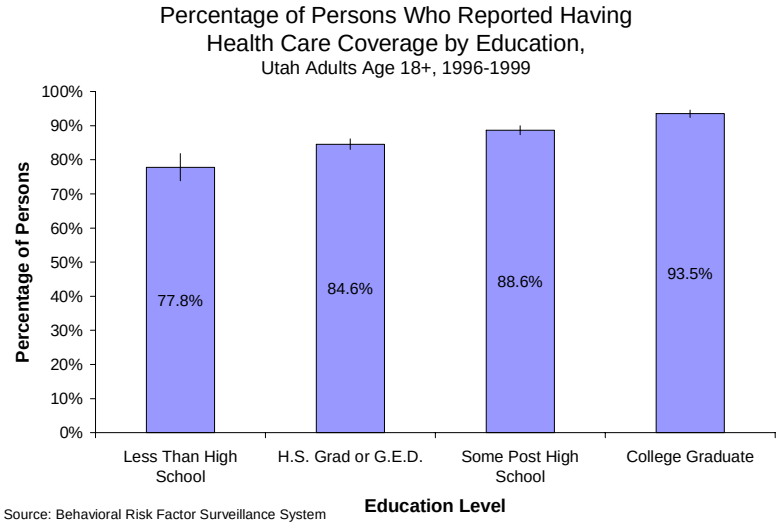
- The percentage of Utah adults who reported having health insurance increased with increasing age. ($p < 0.0001$)
- Utah adults age 18-34 years old were least likely to have health insurance compared to all the other age groups.



- Utahns who were Hispanic or non-White, non-Hispanic were less likely to have insurance than those who were White, non-Hispanic. ($p < 0.0001$)



- The higher a person's income and education, the more likely they were to report having health care insurance coverage. ($p < 0.0001$)



Health Care Coverage

Percentage of Persons Who Reported Having Health Care Coverage
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

	Utah Population		Survey Estimates of Respondents Who Reported Having Health Care Coverage				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Having Health Care Coverage	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Having Health Care Coverage by Category
Health Care Coverage							
Yes	88.1%	1,210,800					
No	11.9%	163,600					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	88.0%	86.8%	89.1%	588,900	48.6%
Females	51.3%	705,000	88.2%	87.2%	89.3%	622,000	51.4%
Total, All Adults Age 18+	100.0%	1,374,400	88.1%	87.3%	88.9%	1,210,800	100.0%
Age Group							
18 to 34	37.0%	507,900	81.9%	80.3%	83.4%	415,800	34.3%
35 to 49	31.4%	432,100	89.3%	88.0%	90.5%	385,700	31.9%
50 to 64	17.5%	239,900	90.3%	88.6%	92.0%	216,700	17.9%
65 or Over	14.2%	194,500	98.9%	98.2%	99.3%	192,400	15.9%
Total, All Adults Age 18+	100.0%	1,374,400	88.1%	87.3%	88.9%	1,210,800	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	89.1%	88.3%	89.9%	1,112,600	91.9%
Hispanic	5.6%	77,200	77.2%	73.1%	81.4%	59,600	4.9%
Non-White, Non-Hispanic	3.5%	48,100	80.7%	75.5%	86.0%	38,800	3.2%
Total, All Adults Age 18+	100.0%	1,374,400	88.1%	87.3%	88.9%	1,211,100	100.0%
Income							
Less Than $20,000	18.3%	251,300	74.2%	71.5%	76.9%	186,500	15.4%
$20,000-$49,999	50.5%	694,200	88.1%	87.0%	89.2%	611,800	50.4%
$50,000 or Over	31.2%	428,900	96.7%	95.8%	97.4%	414,800	34.2%
Total, All Adults Age 18+	100.0%	1,374,400	88.3%	87.5%	89.1%	1,213,200	100.2%
Education							
Less Than High School	6.6%	90,700	77.8%	73.9%	81.8%	70,600	5.8%
H.S. Grad or G.E.D.	30.5%	418,800	84.6%	83.0%	86.1%	354,100	29.2%
Some Post High School	34.0%	467,100	88.6%	87.3%	89.9%	414,000	34.2%
College Graduate	28.9%	397,800	93.5%	92.4%	94.6%	372,000	30.7%
Total, All Adults Age 18+	100.0%	1,374,400	88.1%	87.3%	88.9%	1,210,800	100.0%

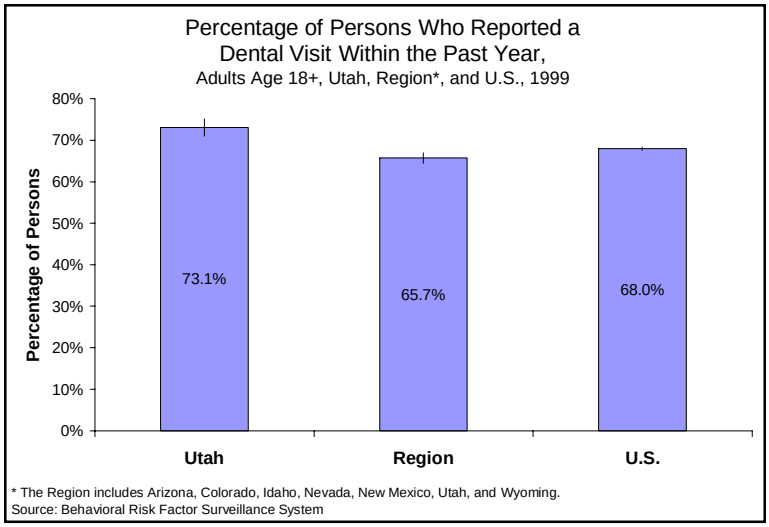
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Routine Dental Health Care

Question: *How long has it been since you last visited the dentist or a dental clinic?*



Regular dental visits are important in the prevention, early detection and treatment of oral and craniofacial diseases and conditions for all ages. Adults need regular professional care to avoid the need for complex restorative treatment, tooth loss and even systemic health problems. Even people without teeth need to be monitored regularly for oral health which may be affected by systemic conditions, medications, prosthetic devices and exposure to tobacco.

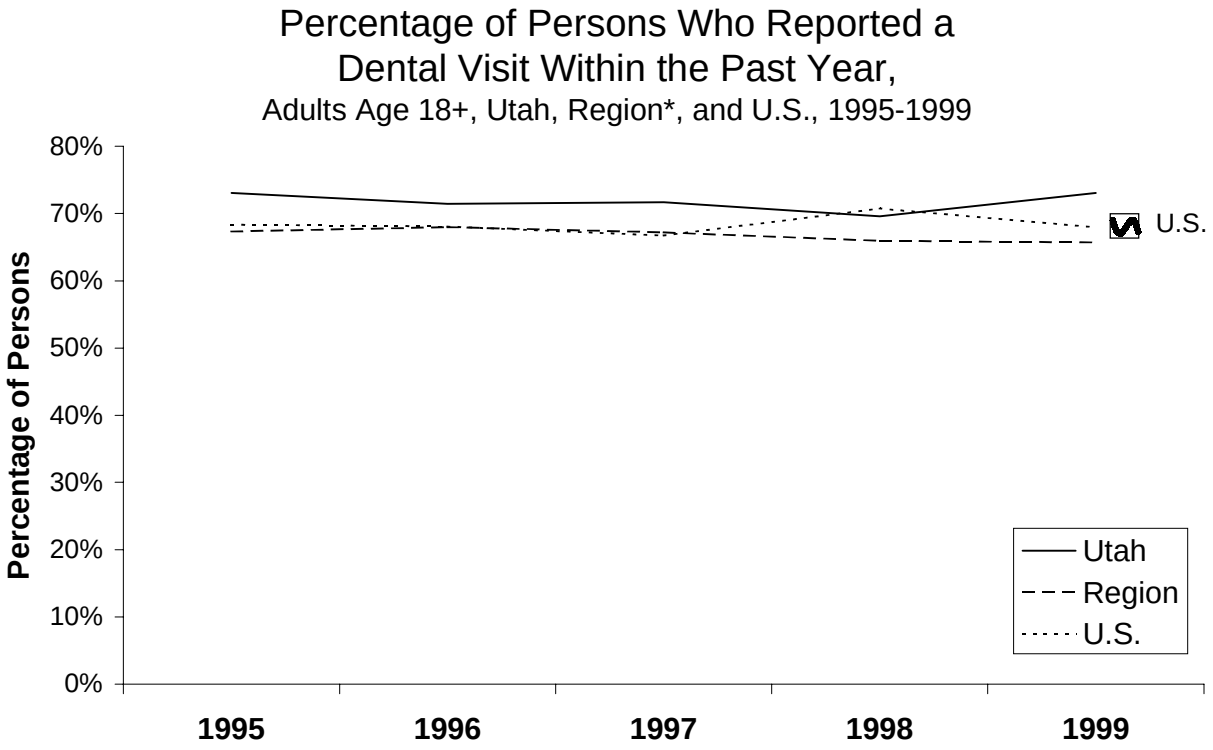
People who have many missing teeth face a diminished quality of life. Not only do they have to limit food choices because of chewing problems which may result in nutritionally poor diets, but many feel a degree of embarrassment and self-consciousness that limits social interaction and communication.

Forty-eight percent of adults 35 through 44 years of age have gingivitis and 22 percent have destructive gum disease. Gum infections have been called the "sixth complication of diabetes," because people with diabetes are more likely to have periodontal disease. Mouth and throat cancers are the sixth most common cancers in U.S. males and the fourth most common in African American men. In the U.S., 30,000 people are diagnosed with mouth and throat cancers each year.

- There was no significant change in the estimated percentage of adults who reported visiting a dentist or dental clinic in the past year for Utah or the Region between 1995 and 1999.
- The U.S. experienced some fluctuation in this measure between 1995 and 1999, but the 1995 and 1999 rates were almost equal at about 68%.
- Utah reached the Healthy People 2000 objective with 72.1% of adults 35 and older reporting a dental visit in the past year in 1999.

Utah Objective: By 2000, increase the proportion of Utah adults, age 18 years and over, who report having a routine dental visit in the past year to 71% or more.
HP2000 Goal 13.14: Increase to at least 70% the proportion of people aged 35 and older using the oral health care system during each year.
HP2010 Goal 21-10: Increase the proportion of children and adults who use the oral health care system each year to 83%.
CDI: Not used.
HRSA: Not used.

Routine Dental Health Care



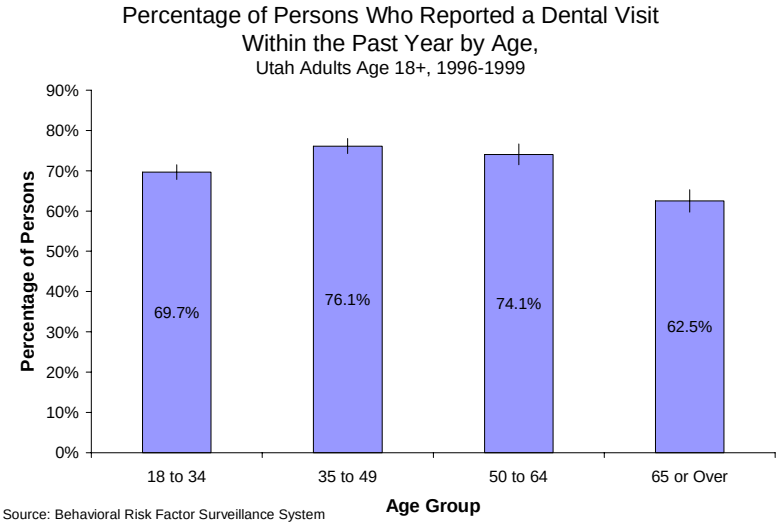
* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1995	73.1%	70.9%	75.3%	67.3%	65.4%	69.3%	68.3%	67.6%	69.1%
1996	71.5%	69.3%	73.6%	68.0%	66.1%	69.8%	68.1%	67.4%	68.8%
1997	71.7%	69.5%	73.9%	67.2%	65.9%	68.5%	66.7%	66.1%	67.4%
1998	69.6%	67.3%	71.9%	66.0%	63.4%	68.5%	70.8%	70.0%	71.6%
1999	73.1%	71.0%	75.1%	65.7%	64.5%	67.0%	68.0%	67.6%	68.3%

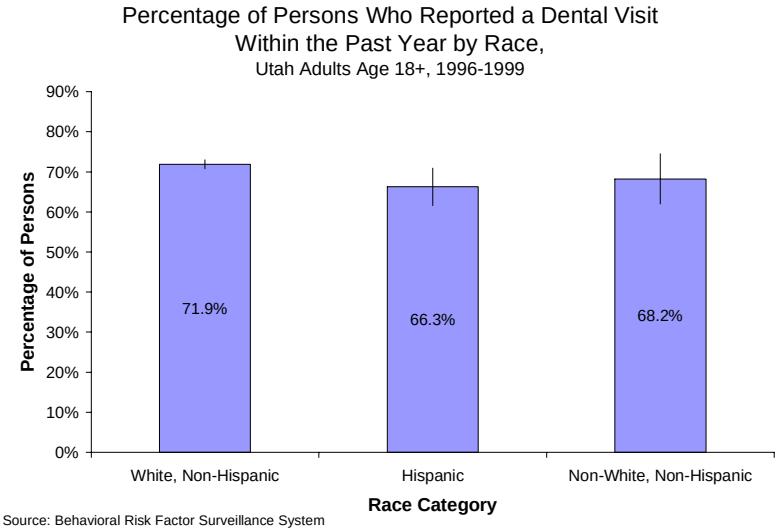
non-linear trend

Routine Dental Health Care

- Utahns 65 or older were less likely than all other age groups to report a dental visit in the past year. ($p < 0.0001$)

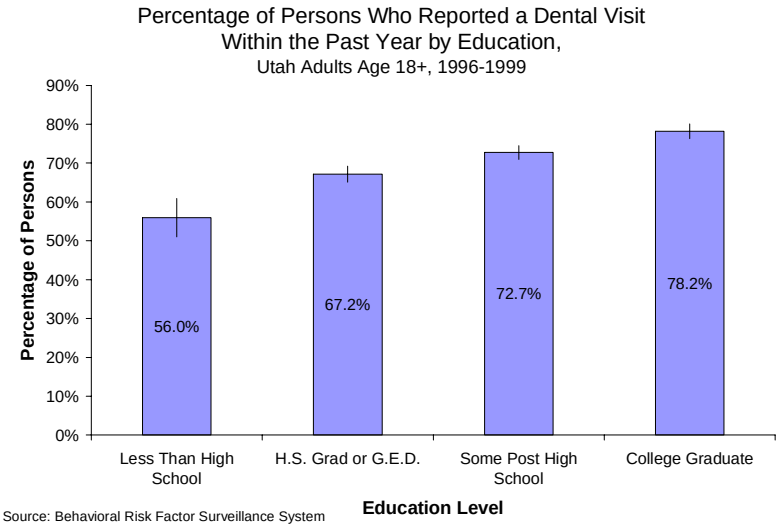


- Utahns who were White, non-Hispanic were more likely than other racial/ethnic groups in Utah to report having had routine dental care in the past year. ($p = 0.0235$)



- Women were more likely than men to report having had routine dental care in the past year, as were people with higher incomes and education. ($p < 0.0001$)

- The least likely groups in Utah to report having had routine dental care in the past year were those with less than a high school education and those with annual household incomes less than $20,000 per year.



Routine Dental Health Care

Percentage of Persons Who Reported a Dental Visit Within the Past Year
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

Demographic Subgroup	Utah Population: Distribution	Utah Population: Number of Adults[1]	Survey Estimates of Respondents Who Reported a Dental Visit Within the Past Year: Percentage of Adults Who Reported a Dental Visit Within the Past Year	95% Confidence Intervals: Lower	95% Confidence Intervals: Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported a Dental Visit Within the Past Year by Category
Visited a Dentist							
Within the Past Year	71.4%	981,700					
1 to 2 Years Ago	13.0%	178,900					
2 to 5 Years Ago	7.6%	103,800					
5 or More Years Ago	7.9%	108,000					
Never	0.1%	1,800					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	68.9%	67.2%	70.6%	461,000	47.0%
Females	51.3%	705,000	73.9%	72.5%	75.3%	520,800	53.0%
Total, All Adults Age 18+	100.0%	1,374,400	71.4%	70.3%	72.5%	981,700	100.0%
Age Group							
18 to 34	37.0%	507,900	69.7%	67.8%	71.5%	353,800	36.0%
35 to 49	31.4%	432,100	76.1%	74.3%	78.0%	328,900	33.5%
50 to 64	17.5%	239,900	74.1%	71.5%	76.6%	177,700	18.1%
65 or Over	14.2%	194,500	62.5%	59.7%	65.3%	121,600	12.4%
Total, All Adults Age 18+	100.0%	1,374,400	71.4%	70.3%	72.5%	981,700	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	71.9%	70.8%	73.0%	897,900	91.4%
Hispanic	5.6%	77,200	66.3%	61.6%	71.0%	51,200	5.2%
Non-White, Non-Hispanic	3.5%	48,100	68.2%	62.0%	74.5%	32,800	3.3%
Total, All Adults Age 18+	100.0%	1,374,400	71.4%	70.3%	72.5%	981,700	100.0%
Income							
Less Than $20,000	18.3%	251,300	57.4%	54.3%	60.4%	144,200	14.7%
$20,000-$49,999	50.5%	694,200	70.8%	69.3%	72.4%	491,600	50.0%
$50,000 or Over	31.2%	428,900	80.8%	78.9%	82.7%	346,600	35.3%
Total, All Adults Age 18+	100.0%	1,374,400	71.4%	70.3%	72.5%	981,700	100.0%
Education							
Less Than High School	6.6%	90,700	56.0%	51.1%	60.9%	50,800	5.2%
H.S. Grad or G.E.D.	30.5%	418,800	67.2%	65.1%	69.2%	281,200	28.6%
Some Post High School	34.0%	467,100	72.7%	70.9%	74.5%	339,700	34.6%
College Graduate	28.9%	397,800	78.2%	76.3%	80.1%	311,100	31.7%
Total, All Adults Age 18+	100.0%	1,374,400	71.4%	70.3%	72.5%	981,700	100.0%

1 Rounded to the nearest 100 persons.

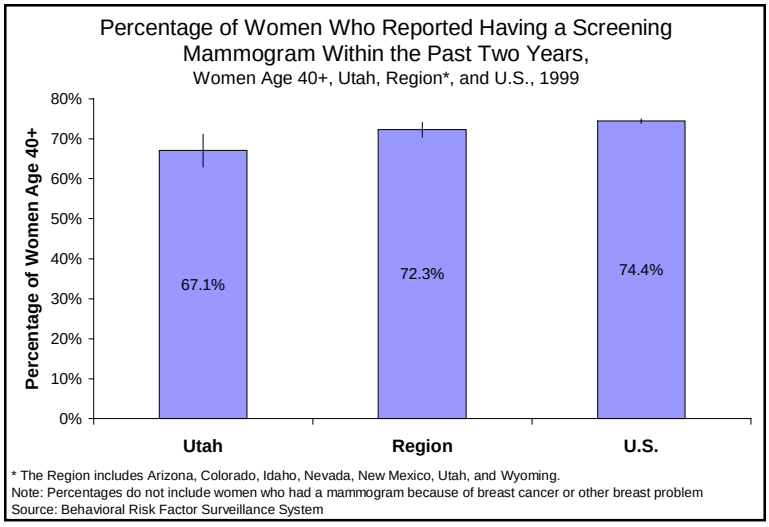
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Screening Mammography

Questions: *A mammogram is an x-ray of each breast to look for cancer. Have you ever had a mammogram? How long has it been since you had your last mammogram?*

Breast cancer is the most common cancer among U.S. women 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 early. Mammography is currently the best method for early detection of malignancies. Clinical trials have demonstrated that routine screening with mammography can reduce breast cancer deaths.[i] During the 2000 Utah legislative session a resolution was passed encouraging private health insurance companies and employers to cover screening for breast cancer. Many states, however, have mandated that private insurers cover screening mammography.



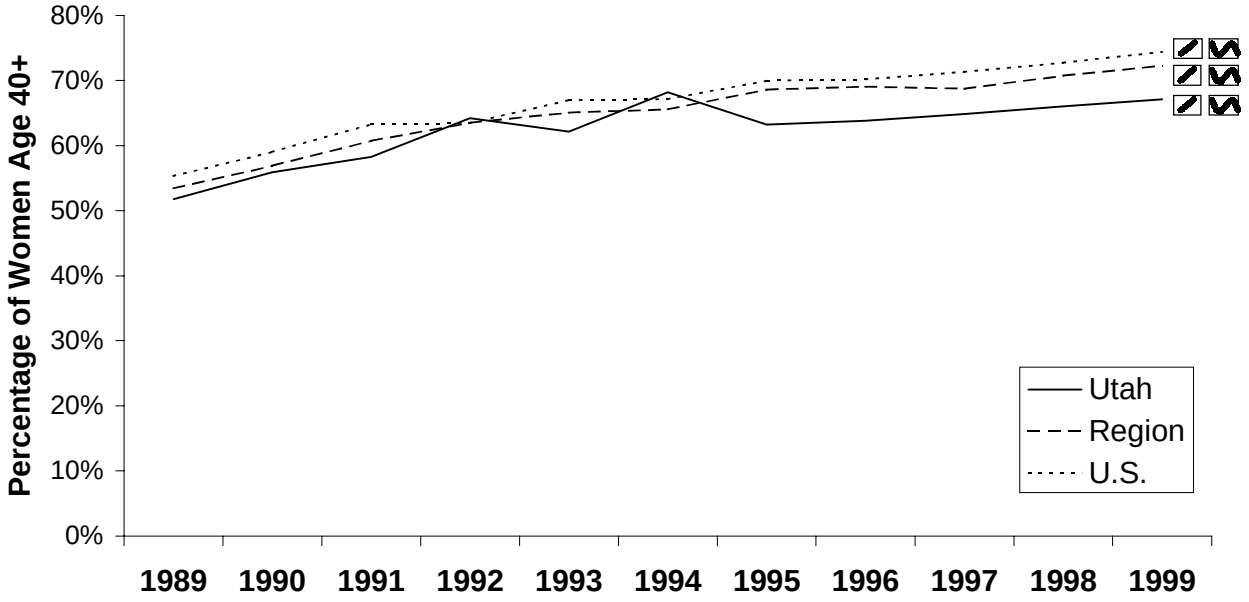
- There was a significant increase in the percentage of Utah women age 40 and older who reported a mammogram within the preceding 2 years from 51.8% in 1989 to 67.1% in 1999.
- The percentage of women age 40 and older who reported a screening mammogram within the preceding 2 years increased significantly for the Region and U.S.
- All trend lines include a significant non-linear component, which suggests a leveling off in the upward linear trend in recent years.
- Since 1994, Utah has fallen behind the Region and the U.S. in the estimated percentage of women age 40 and older who reported a screening mammogram within the preceding 2 years.
- In 1999, in Utah, 66.4% of women aged 50 and over reported having a mammogram and clinical breast exam in the past 2 years, which surpassed the Healthy People 2000 goal of 60%.

Utah Objective: By 2010, increase the proportion of Utah women aged 40 years and older who have received a mammogram in the preceding two years to 85%.
HP2000 Goal 16.11: Increase to at least 60% those women aged 50 and older who have received a clinical breast examination and mammogram within the preceding 1 to 2 years.
HP2010 Goal 3-13: Increase the proportion of women aged 40 years and older who received a mammogram within the preceding 2 years to 70%.
CDI 26: Mammography utilization among women 50 years of age and older (percentage of women 50+ who report having a mammogram within the past 2 years).
CDI 27: Mammography utilization among women 40-49 years of age (percentage of women 40-49 years of age who report having a mammogram within the past two years).
CHSI: Mammography screening among women 50+, past 2 years.

Screening Mammography

Percentage of Women Who Reported Having a Screening Mammogram Within the Past Two Years,

Women Age 40+, Utah, Region*, and U.S., 1989-1999



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Percentages do not include women who had a mammogram because of breast cancer or other breast problem
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
	Percentage of Women	95% Confidence Intervals		Percentage of Women	95% Confidence Intervals		Percentage of Women	95% Confidence Intervals	
Year	Age 40+	Lower	Upper	Age 40+	Lower	Upper	Age 40+	Lower	Upper
1989	51.8%	46.8%	56.7%	53.4%	50.5%	56.3%	55.3%	54.2%	56.4%
1990	55.9%	51.2%	60.6%	56.9%	54.4%	59.4%	59.0%	58.0%	60.0%
1991	58.3%	53.4%	63.1%	60.7%	58.3%	63.2%	63.3%	62.4%	64.2%
1992	64.2%	59.9%	68.6%	63.5%	61.3%	65.8%	63.5%	62.7%	64.3%
1993	62.2%	57.4%	66.9%	65.1%	62.9%	67.3%	67.0%	66.2%	67.7%
1994	68.2%	63.5%	72.8%	65.5%	63.4%	67.7%	67.1%	66.4%	67.9%
1995	63.2%	59.0%	67.5%	68.6%	66.6%	70.6%	70.0%	69.2%	70.7%
1996	63.8%	59.9%	67.8%	69.1%	67.0%	71.1%	70.2%	69.5%	70.8%
1997	64.9%	60.5%	69.2%	68.7%	66.6%	70.8%	71.3%	70.7%	72.0%
1998	66.0%	61.9%	70.1%	70.7%	68.2%	73.2%	72.7%	72.1%	73.3%
1999	67.1%	63.0%	71.2%	72.3%	70.4%	74.2%	74.4%	73.8%	75.0%

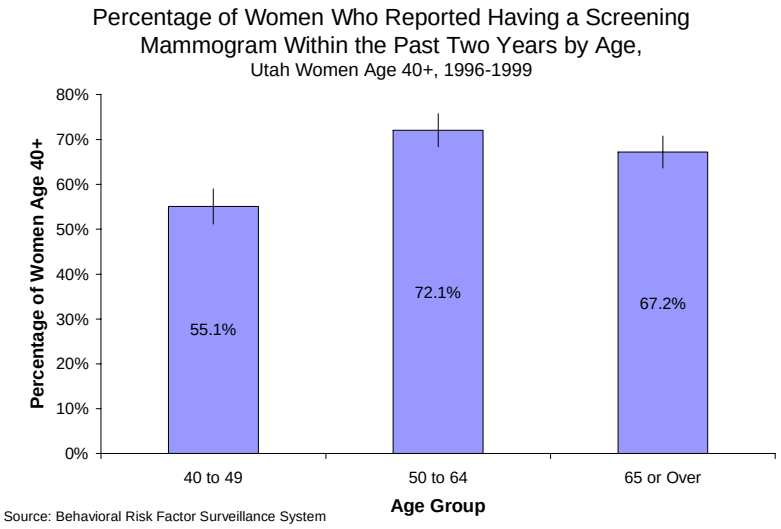
*Percentages do not include women who had a mammogram because of breast cancer or other breast problem.

upward linear trend

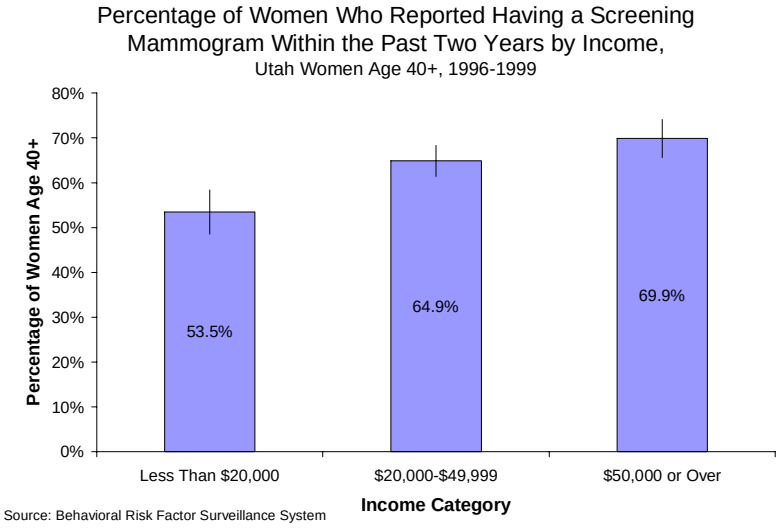
non-linear trend

Screening Mammography

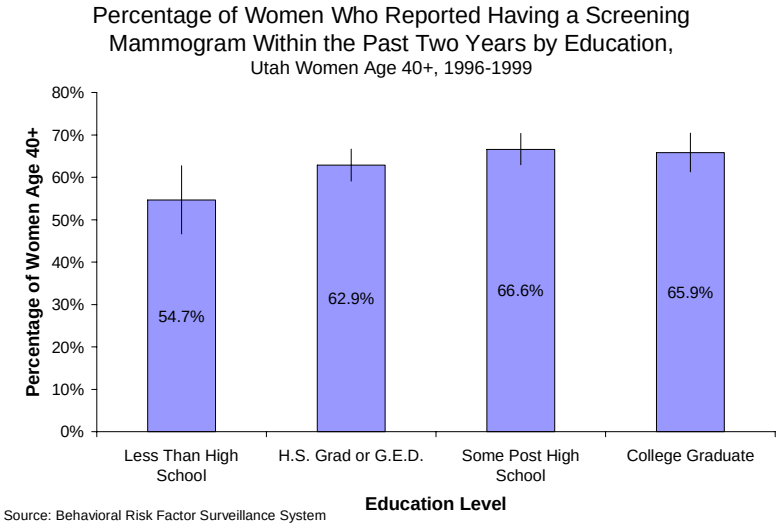
- Utah women in the 40 to 49 year age range were less likely than those 50 years and older to report having a screening mammogram in the past two years. ($p < 0.0001$)



- Utah women with annual household incomes less than $20,000 were less likely to report having a screening mammogram in the past two years compared to higher income groups. ($p < 0.0001$)



- The estimated percentage of Utah women age 40 and over who reported a screening mammogram in the past two years increased with increasing education. ($p = 0.0097$)



Screening Mammography

Percentage of Women Who Reported Having a Screening Mammogram* Within the Past Two Years

by Selected Demographic Characteristics, Utah Women Age 40+, 1996-1999.

	Utah Population		Survey Estimates of Women Age 40+ Who Reported Having a Screening Mammogram Within the Past Two Years				
Demographic Subgroup	Distribution	Number of Women Age 40+[1]	Percentage of Women Age 40+ Who Reported Having a Screening Mammogram Within the Past Two Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Women Age 40+[1, 2]	Distribution of Women Age 40+ Who Reported Having a Screening Mammogram Within the Past Two Years by Category
Had Mammogram							
Within the Past Year	48.6%	164,700					
1 to 2 Years Ago	15.7%	53,300					
2 to 3 Years Ago	7.6%	25,900					
3 to 5 Years Ago	5.1%	17,200					
5 or More Years Ago	4.9%	16,600					
Never	18.1%	61,300					
Total, All Women Age 40+	100.0%	339,100					
Age Group							
40 to 49	37.1%	125,600	55.1%	51.2%	59.0%	69,200	31.7%
50 to 64	33.7%	114,100	72.1%	68.4%	75.8%	82,200	37.7%
65 or Over	29.3%	99,300	67.2%	63.6%	70.8%	66,700	30.6%
Total, All Women Age 40+	100.0%	339,100	64.3%	62.1%	66.5%	218,000	100.0%
Race							
White, Non-Hispanic	93.7%	317,600	64.7%	62.5%	66.9%	205,500	94.2%
Hispanic	4.2%	14,300	58.7%	47.6%	69.7%	8,400	3.8%
Non-White, Non-Hispanic	2.1%	7,200	59.6%	43.7%	75.6%	4,300	2.0%
Total, All Women Age 40+	100.0%	339,100	64.3%	62.1%	66.5%	218,000	100.0%
Income							
Less Than $20,000	21.5%	72,700	53.5%	48.5%	58.4%	38,900	17.9%
$20,000-$49,999	46.6%	157,900	64.9%	61.4%	68.3%	102,400	47.2%
$50,000 or Over	32.0%	108,500	69.9%	65.6%	74.1%	75,800	34.9%
Total, All Women Age 40+	100.0%	339,100	64.3%	62.1%	66.5%	218,000	100.0%
Education							
Less Than High School	7.2%	24,400	54.7%	46.7%	62.7%	13,300	6.1%
H.S. Grad or G.E.D.	34.3%	116,400	62.9%	59.1%	66.7%	73,200	33.6%
Some Post High School	35.6%	120,800	66.6%	63.0%	70.3%	80,500	36.9%
College Graduate	22.9%	77,500	65.9%	61.3%	70.5%	51,100	23.4%
Total, All Women Age 40+	100.0%	339,100	64.3%	62.1%	66.5%	218,000	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

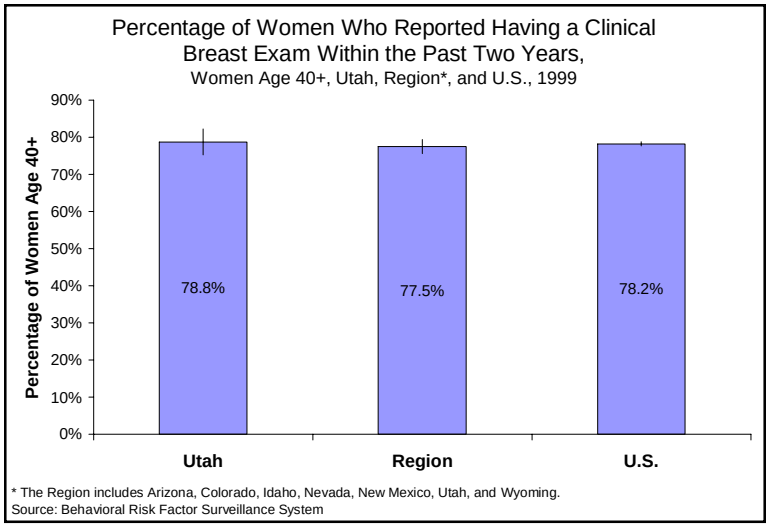
*Percentages do not include women who had a mammogram because of breast cancer or other breast problem.

Source: Utah Behavioral Risk Factor Surveillance System

Clinical Breast Examination

Questions: *A clinical breast exam is when a doctor, nurse, or other health professional feels the breast for lumps. Have you ever had a clinical breast exam? How long has it been since your last breast exam?*

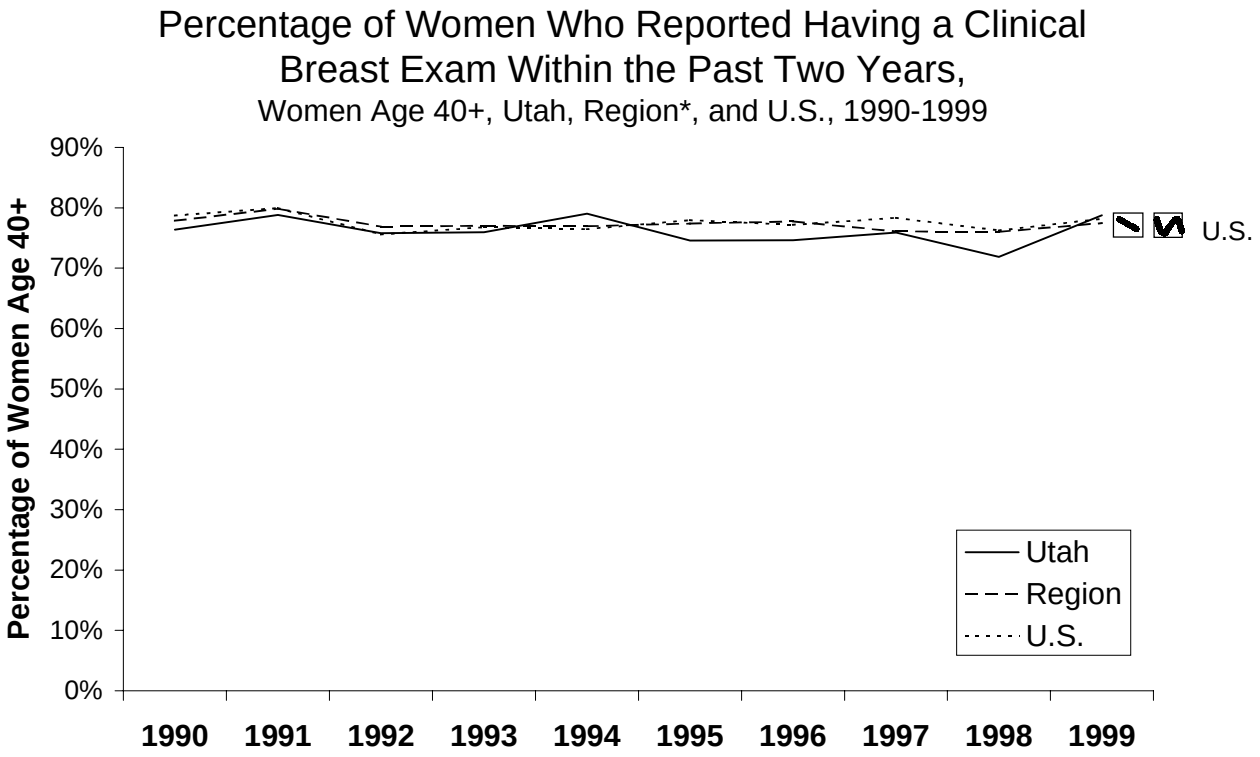
While there remains scientific controversy regarding the benefits versus the risks of screening mammography for women in their 40's, a clinical breast exam (CBE) is widely recommended for this age group. The American Cancer Society recommends a clinical breast exam every 3 years for women age 20-40 years and every year for women age 40 years and older.[ii]



- There was no significant change in the estimated percentage of women age 40 or over who reported having a clinical breast exam in the past two years for Utah and the Region between 1989 and 1999.
- The percentage of women in the U.S. age 40 and older who reported a CBE in the past two years decreased linearly, but also had a significant non-linear trend suggesting substantial fluctuation in this measure over time.
- The estimated percentage of Utah women who reported having a clinical breast exam in the past two years did not differ substantially from that for the Region or U.S.
- These trend lines illustrate how sample size affects significance tests. Even though the lines are quite similar, only the U.S. trend was statistically significant, probably due to the larger sample size (see Appendix A).

Utah Objective: No objective listed.
HP2000 Goal 16.11: Increase to at least 60% those women aged 50 and older who have received a clinical breast examination and mammogram within the preceding 1 to 2 years.
HP2010: No objective listed.
CDI 28: Clinical breast examination among women 40 years of age or older (percentage of female respondents age 40 years or older who report having a clinical breast exam within the past two years).
CHSI: Not used.

Clinical Breast Examination



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
	Percentage of Women	95% Confidence Intervals		Percentage of Women	95% Confidence Intervals		Percentage of Women	95% Confidence Intervals	
Year	Age 40+	Lower	Upper	Age 40+	Lower	Upper	Age 40+	Lower	Upper
1990	76.4%	72.4%	80.4%	77.9%	75.8%	79.9%	78.7%	77.9%	79.6%
1991	78.8%	75.0%	82.6%	79.9%	77.9%	81.8%	80.0%	79.3%	80.7%
1992	75.8%	71.9%	79.8%	76.9%	74.7%	79.1%	75.6%	74.9%	76.3%
1993	75.9%	71.7%	80.1%	77.0%	75.1%	79.0%	76.8%	76.2%	77.5%
1994	79.0%	75.1%	83.0%	77.0%	75.1%	78.8%	76.5%	75.8%	77.1%
1995	74.6%	70.6%	78.5%	77.4%	75.6%	79.2%	78.0%	77.3%	78.6%
1996	74.7%	71.0%	78.3%	77.8%	76.1%	79.5%	77.2%	76.6%	77.8%
1997	75.9%	72.1%	79.7%	76.1%	74.1%	78.1%	78.4%	77.8%	78.9%
1998	71.9%	68.0%	75.8%	76.0%	73.5%	78.5%	76.2%	75.6%	76.8%
1999	78.8%	75.3%	82.2%	77.5%	75.6%	79.4%	78.2%	77.6%	78.8%

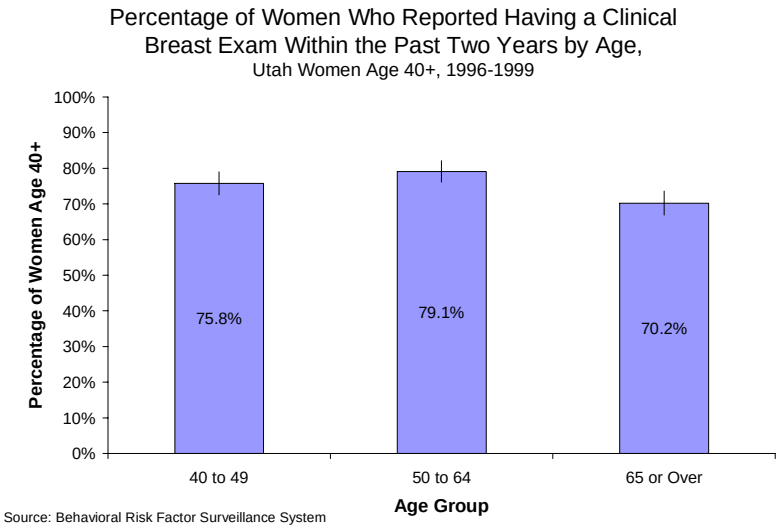
downward linear trend

non-linear trend

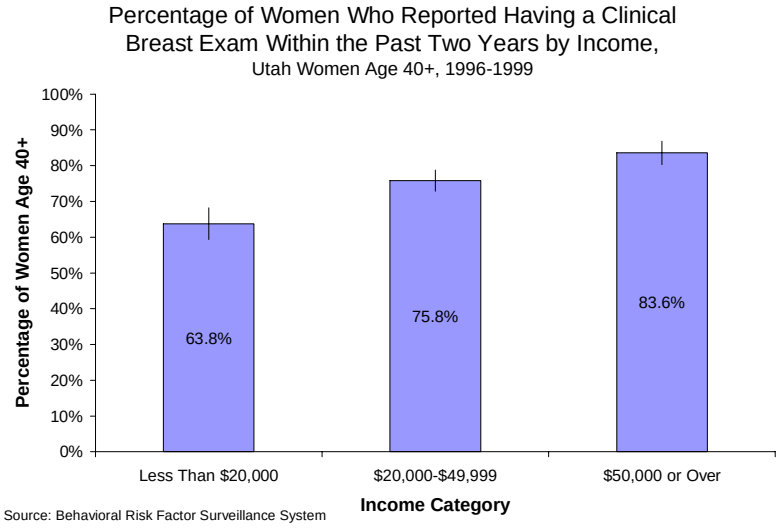
Clinical Breast Examination

- Unlike screening mammography, there was no difference between women age 40 through 49 years and those age 50 and older in the estimated percentage who reported having a clinical breast examination within the past two years in Utah.

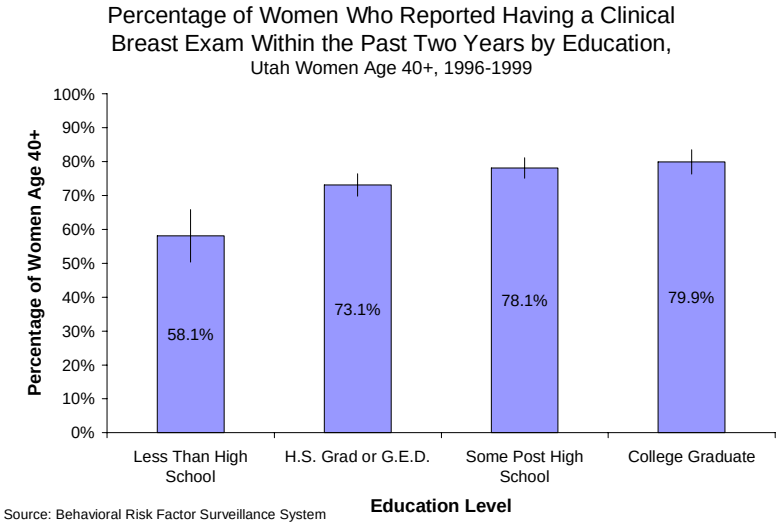
- However, women age 65 or over were less likely to report a clinical breast examination than women 40-64. ($p = 0.0004$)



- The estimated percentage of Utah women age 40 or over who reported having a clinical breast exam in the past two years increased with increasing income. ($p < 0.0001$)



- The percentage of Utah women age 40 and older who reported a CBE in the past two years increased significantly with increasing education. ($p < 0.0001$)



Clinical Breast Examination

Percentage of Women Who Reported Having a Clinical Breast Exam Within the Past Two Years

by Selected Demographic Characteristics, Utah Women Age 40+, 1996-1999

	Utah Population		Survey Estimates of Women Age 40+ Who Reported Having a Clinical Breast Exam Within the Past Two Years				
Demographic Subgroup	Distribution	Number of Women Age 40+[1]	Percentage of Women Age 40+ Who Reported Having a Clinical Breast Exam Within the Past Two Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Women Age 40+[1, 2]	Distribution of Women Age 40+ Who Reported Having a Clinical Breast Exam Within the Past Two Years by Category
Had Clinical Breast Exam							
Within the Past Year	61.0%	206,900					
1 to 2 Years Ago	14.3%	48,500					
2 to 3 Years Ago	5.7%	19,200					
3 to 5 Years Ago	3.6%	12,300					
5 or More Years Ago	8.8%	29,800					
Never	6.7%	22,600					
Total, All Women Age 40+	100.0%	339,100					
Age Group							
40 to 49	37.1%	125,600	75.8%	72.6%	79.0%	95,200	37.3%
50 to 64	33.7%	114,100	79.1%	76.1%	82.1%	90,200	35.4%
65 or Over	29.3%	99,300	70.2%	66.9%	73.6%	69,700	27.3%
Total, All Women Age 40+	100.0%	339,100	75.3%	73.4%	77.2%	255,300	100.0%
Race							
White, Non-Hispanic	93.7%	317,600	75.3%	73.4%	77.2%	239,200	93.7%
Hispanic	4.2%	14,300	76.5%	67.8%	85.1%	10,900	4.3%
Non-White, Non-Hispanic	2.1%	7,200	71.7%	57.4%	86.0%	5,200	2.0%
Total, All Women Age 40+	100.0%	339,100	75.3%	73.4%	77.2%	255,300	100.0%
Income							
Less Than $20,000	21.5%	72,700	63.8%	59.3%	68.2%	46,400	18.1%
$20,000-$49,999	46.6%	157,900	75.8%	72.9%	78.8%	119,700	46.6%
$50,000 or Over	32.0%	108,500	83.6%	80.3%	86.8%	90,700	35.3%
Total, All Women Age 40+	100.0%	339,100	75.3%	73.4%	77.2%	255,300	100.0%
Education							
Less Than High School	7.2%	24,400	58.1%	50.4%	65.8%	14,200	5.6%
H.S. Grad or G.E.D.	34.3%	116,400	73.1%	69.8%	76.4%	85,100	33.3%
Some Post High School	35.6%	120,800	78.1%	75.1%	81.1%	94,300	36.9%
College Graduate	22.9%	77,500	79.9%	76.3%	83.5%	61,900	24.2%
Total, All Women Age 40+	100.0%	339,100	75.3%	73.4%	77.2%	255,300	100.0%

1 Rounded to the nearest 100 persons.

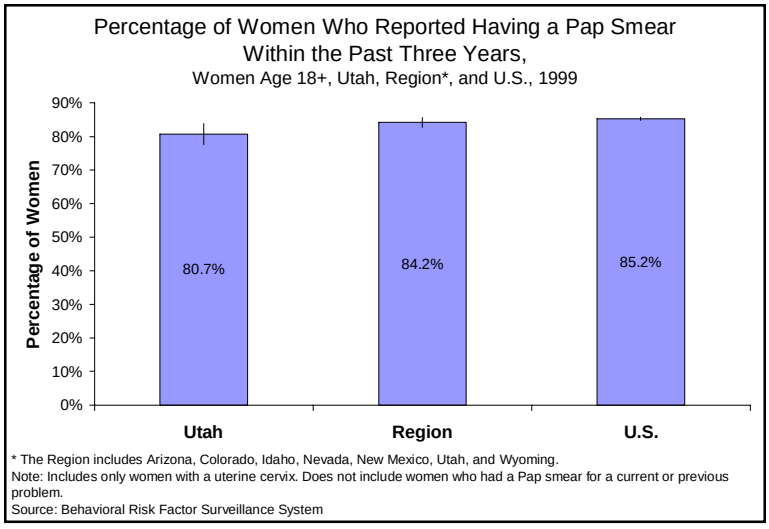
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Pap Test

Questions: *A Pap smear is a test for cancer of the cervix. Have you ever had a Pap smear? How long has it been since you had your last Pap smear?*

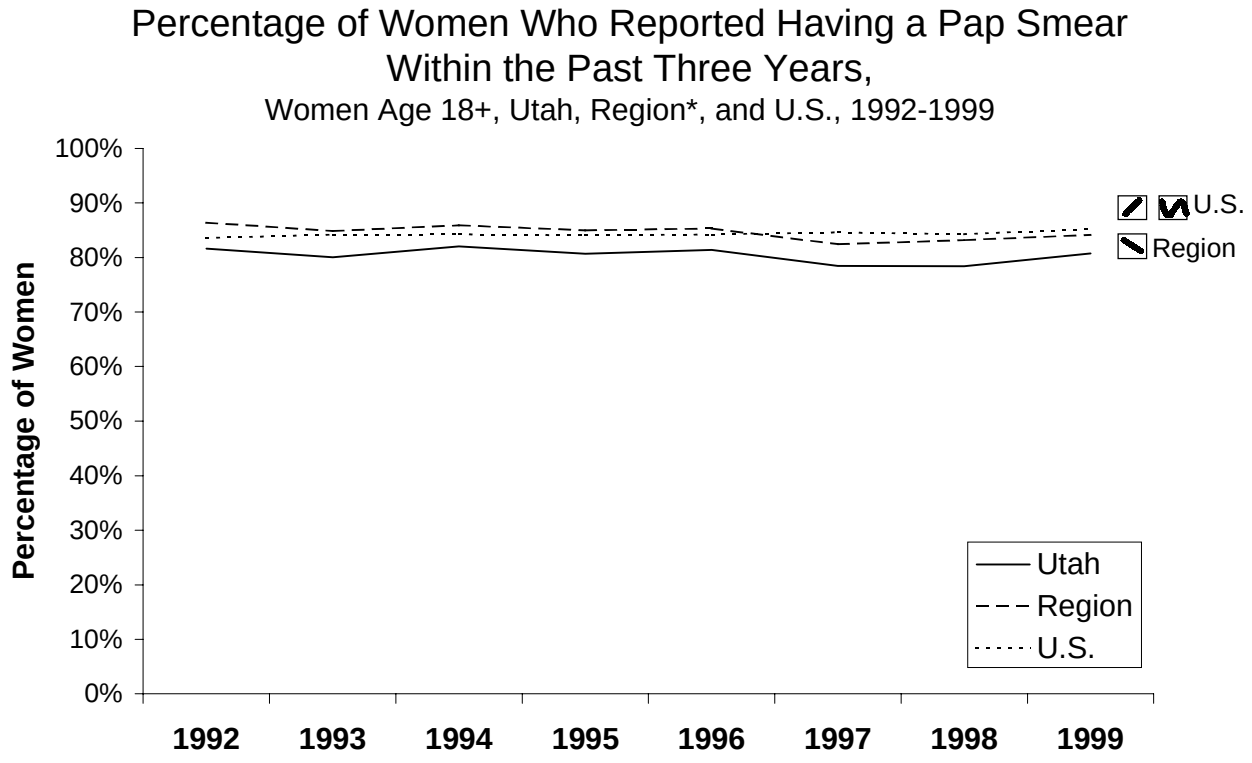
Cervical cancer is one of the most curable cancers in women if caught early through routine screening. Risk factors include early onset of sexual intercourse, a history of multiple sex partners, human papilloma virus infection, lower socioeconomic status and non-White race.[iii] Many of these risk factors are behavioral and therefore modifiable. Efforts are needed to increase the number of women screened regardless of specific risk factors. The American Cancer Society recommends a Pap test every year for women 18 and over who are or have been sexually active. The Pap test may be performed less frequently after three or more consecutive, satisfactory, normal annual exams at the discretion of the woman's health care provider.



- The estimated percentage of women who reported having a Pap smear within the past three years was consistently slightly lower for Utah than for the Region and the U.S. for all years from 1989 through 1999.
- There was no significant change in Utah in the estimated percentage of women who reported having a Pap smear within the past three years from 81.6% in 1989 to 80.7% in 1999.
- The estimated percentage of women who reported having a Pap smear within the past three years decreased slightly for the Region and increased slightly for the U.S. between 1989 and 1999.
- The U.S. data also indicated a significant non-linear trend suggesting a leveling off of the upward trend for many years (from 1993-1998) with a recent steeper increase between 1998-1999.
- Utah has not yet reached the Healthy People 2000 objective of 85% for the percentage of women who reported having a Pap smear within the past three years.

Utah Objective: By 2010, increase the proportion of Utah women aged 18 years and older who received a Pap test within the preceding three years to 90%.
HP2000 Goal 16.12: Increase to at least 85% the proportion of women aged 18 and older who have ever received a Pap test within the preceding 1 to 3 years.
HP2010 Goal 3-11: Increase the proportion of women aged 18 years and older who received a Pap test within the preceding 3 years to 90%.
CDI 29: Pap smear utilization among adult women (the proportion of females 18 years and older who do not report a hysterectomy and who report having a Pap smear within the past 3 years).
CHSI: Pap smears among women 18+, past three years.

Pap Test



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Women	Lower	Upper	Percentage of Women	Lower	Upper	Percentage of Women	Lower	Upper
1992	81.6%	78.1%	85.2%	86.4%	85.0%	87.8%	83.5%	83.0%	84.1%
1993	80.1%	76.8%	83.3%	84.9%	83.3%	86.4%	84.2%	83.6%	84.7%
1994	82.0%	78.7%	85.3%	85.9%	84.5%	87.3%	84.3%	83.7%	84.8%
1995	80.7%	77.4%	84.0%	85.0%	83.6%	86.3%	84.1%	83.5%	84.6%
1996	81.4%	78.5%	84.2%	85.3%	83.9%	86.7%	84.2%	83.7%	84.7%
1997	78.5%	75.1%	81.8%	82.4%	80.8%	84.1%	84.6%	84.1%	85.1%
1998	78.4%	75.1%	81.6%	83.2%	81.4%	85.0%	84.3%	83.8%	84.7%
1999	80.7%	77.6%	83.8%	84.2%	82.7%	85.6%	85.2%	84.8%	85.7%

*Includes only women with a uterine cervix. Does not include women who had a Pap smear for a current or previous problem.

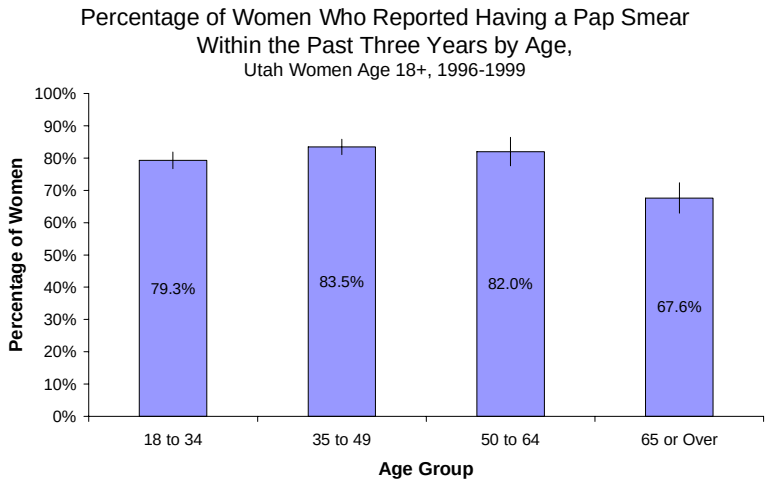
upward linear trend

downward linear trend

non-linear trend

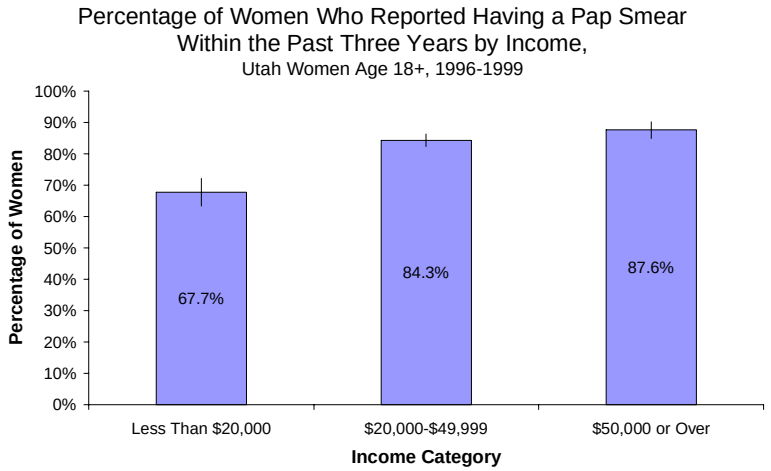
Pap Test

- In Utah, women age 65 and older were less likely than younger women to report having a Pap smear within the past three years. ($p < 0.0001$)



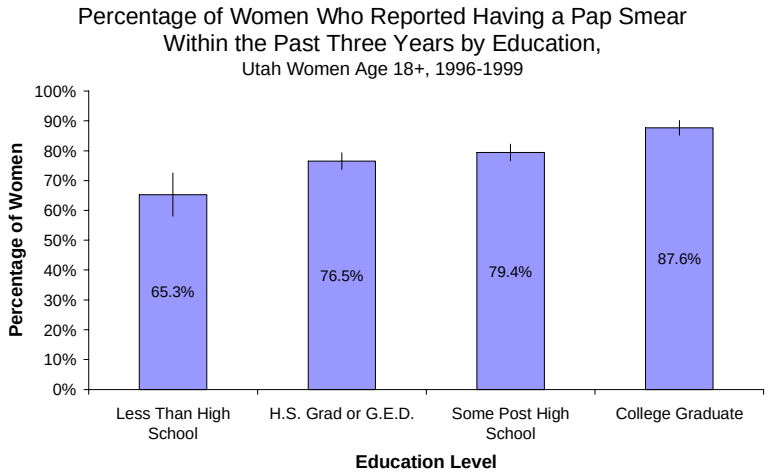
*Includes only women with a uterine cervix. Does not include women who had a Pap smear for a current or previous problem.
Source: Behavioral Risk Factor Surveillance System

- Women with annual household incomes less than $20,000 were less likely to report having a Pap smear in the past three years compared to women in higher income groups. ($p < 0.0001$)



*Includes only women with a uterine cervix. Does not include women who had a Pap smear for a current or previous problem.
Source: Behavioral Risk Factor Surveillance System

- The estimated percentage of Utah women who reported having a Pap smear within the past three years increased in a straight line with increasing education level. ($p < 0.0001$)



*Includes only women with a uterine cervix. Does not include women who had a Pap smear for a current or previous problem.
Source: Behavioral Risk Factor Surveillance System

Pap Test

Percentage of Women Who Reported Having a Pap Smear* Within the Past Three Years

by Selected Demographic Characteristics, Utah Women Age 18+, 1996-1999

	Utah Population Distribution		Survey Estimates of Women Who Reported Having a Pap Smear Within the Past Three Years				
Demographic Subgroup	Distribution	Number of Women[1]	Percentage of Women Who Reported Having a Pap Smear Within the Past Three Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Women[1, 2]	Distribution of Women Who Reported Having a Pap Smear Within the Past Three Years by Category
Had Pap Smear							
Within the Past Year	60.5%	423,300					
1 to 2 Years Ago	14.0%	97,900					
2 to 3 Years Ago	5.2%	36,400					
3 to 5 Years Ago	4.0%	27,900					
5 or More Years Ago	7.2%	50,600					
Never	9.1%	63,500					
Total, All Women Age 18+	100.0%	699,500					
Age Group							
18 to 34	35.8%	250,700	79.3%	76.7%	81.9%	198,900	35.9%
35 to 49	30.7%	214,700	83.5%	81.1%	85.9%	179,200	32.3%
50 to 64	17.9%	125,100	82.0%	77.6%	86.4%	102,600	18.5%
65 or Over	15.6%	108,900	67.6%	62.9%	72.3%	73,600	13.3%
Total, All Women Age 18+	100.0%	699,500	79.7%	78.1%	81.3%	557,500	100.0%
Race							
White, Non-Hispanic	91.2%	638,000	79.9%	78.3%	81.6%	509,800	91.4%
Hispanic	5.9%	41,100	80.9%	75.2%	86.6%	33,200	6.0%
Non-White, Non-Hispanic	2.9%	20,400	72.2%	62.3%	82.2%	14,700	2.6%
Total, All Women Age 18+	100.0%	699,500	79.7%	78.1%	81.3%	557,500	100.0%
Income							
Less Than $20,000	21.2%	148,400	67.7%	63.4%	72.1%	100,500	17.6%
$20,000-$49,999	50.6%	353,900	84.3%	82.3%	86.3%	298,400	52.2%
$50,000 or Over	28.2%	197,300	87.6%	85.0%	90.3%	172,800	30.2%
Total, All Women Age 18+	100.0%	699,500	79.7%	78.1%	81.3%	557,500	100.0%
Education							
Less Than High School	7.0%	48,800	65.3%	58.1%	72.5%	31,900	5.7%
H.S. Grad or G.E.D.	32.5%	227,400	76.5%	73.7%	79.3%	174,100	31.3%
Some Post High School	37.0%	258,800	79.4%	76.6%	82.2%	205,400	37.0%
College Graduate	23.5%	164,400	87.6%	85.2%	90.1%	144,100	25.9%
Total, All Women Age 18+	100.0%	699,500	79.7%	78.1%	81.3%	557,500	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

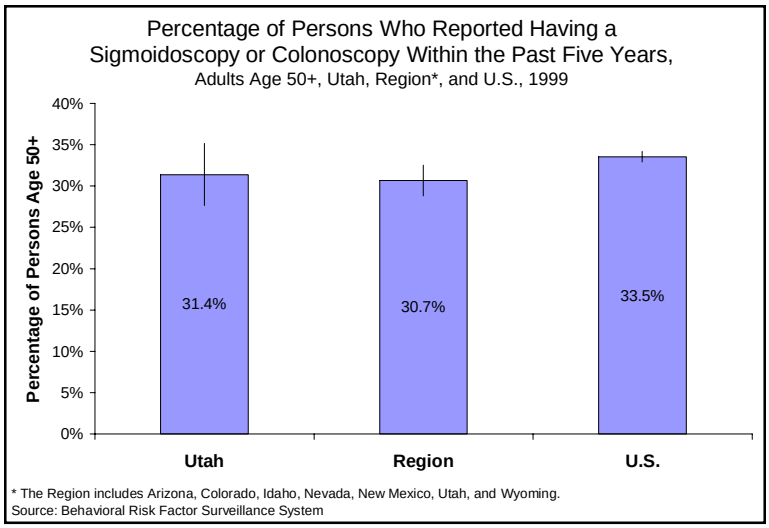
* Includes only women with a uterine cervix. Does not include women who had a Pap smear for a current or previous problem.

Source: Utah Behavioral Risk Factor Surveillance System

Sigmoidoscopy or Colonoscopy

Questions: *A (proctoscopy), sigmoidoscopy, or colonoscopy is when a tube is inserted in the rectum to view the bowel for signs of cancer and other health problems. Have you ever had this exam? When did you have your last (proctoscopy), sigmoidoscopy, or colonoscopy?*

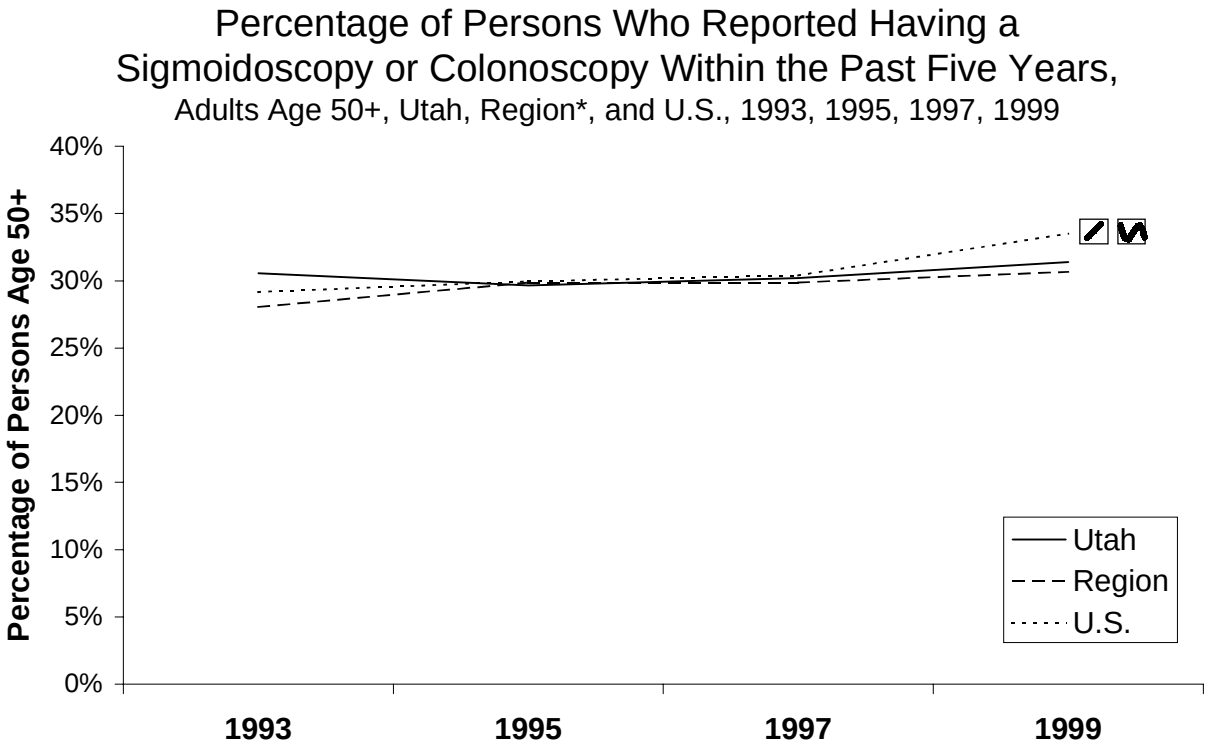
Colorectal cancer is the second leading cause of cancer-related deaths in the U.S. and Utah. Deaths from colorectal cancer can be substantially reduced when pre-cancerous polyps are detected early and removed. The chance of surviving colon and rectal cancer exceeds 90 percent when the cancer is diagnosed before it has extended beyond the intestinal wall. The American Cancer Society recommends that people 50 years and older have a fecal occult blood test every year and flexible sigmoidoscopy every 5 years.



- There was no change in the estimated percentage of persons age 50 or over who reported having a sigmoidoscopy or colonoscopy within the past five years in Utah or the Region between 1989 and 1999.
- The percentage of persons age 50 or over who reported having a sigmoidoscopy or colonoscopy within the past five years significantly increased for the U.S. from 29.2% in 1989 to 33.5% in 1999. The U.S. trend also showed a significant non-linear trend which suggests some leveling of the trend between 1995 and 1997.
- Since 1995, the percentage of persons age 50 or over who reported having a sigmoidoscopy or colonoscopy within the past five years was slightly lower in Utah than for the U.S.
- In 1999, the estimated percentage of Utah adults age 50 years or older who ever had a sigmoidoscopy or colonoscopy was 44.1%. This percentage surpasses the Healthy People 2000 goal of 40%, but is below the Healthy People 2010 goal of 50%.

Utah Objective: Increase the proportion of Utah adults aged 50 years and older who have ever received a sigmoidoscopy to 50%.
HP2000 Goal 16.13: Increase to at least 50% the proportion of people aged 50 and older who have received fecal occult blood testing within the preceding 1 to 2 years, and to at least 40% those who have ever received proctosigmoidoscopy.
HP2010 Goal 3-12b: Increase the proportion of adults aged 50 years and older who have ever received a sigmoidoscopy to 50%.
CDI 31: Sigmoidoscopy/Proctoscopy among persons 50 years of age or older (percent of respondents age 50 years or older who report having either a sigmoidoscopy or proctoscopy within the past five years).
CHSI: Sigmoidoscopy screening among adults 50+, past five years.

Sigmoidoscopy or Colonoscopy



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

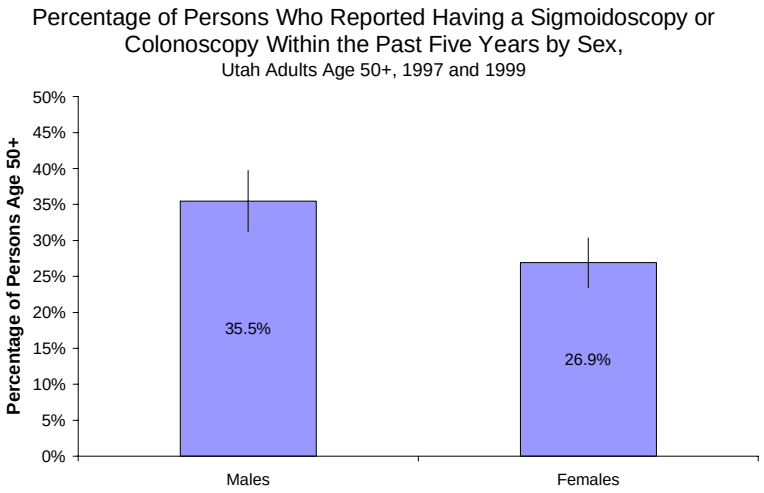
	Utah			Region			U.S.		
	Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals	
Year	Age 50+	Lower	Upper	Age 50+	Lower	Upper	Age 50+	Lower	Upper
1993	30.6%	26.1%	35.0%	28.0%	26.0%	30.1%	29.2%	28.5%	29.9%
1995	29.7%	26.0%	33.4%	29.9%	28.0%	31.8%	30.0%	29.2%	30.7%
1997	30.2%	26.2%	34.2%	29.9%	27.9%	31.8%	30.4%	29.8%	31.0%
1999	31.4%	27.7%	35.1%	30.7%	28.8%	32.5%	33.5%	32.9%	34.2%

upward linear trend

non-linear trend

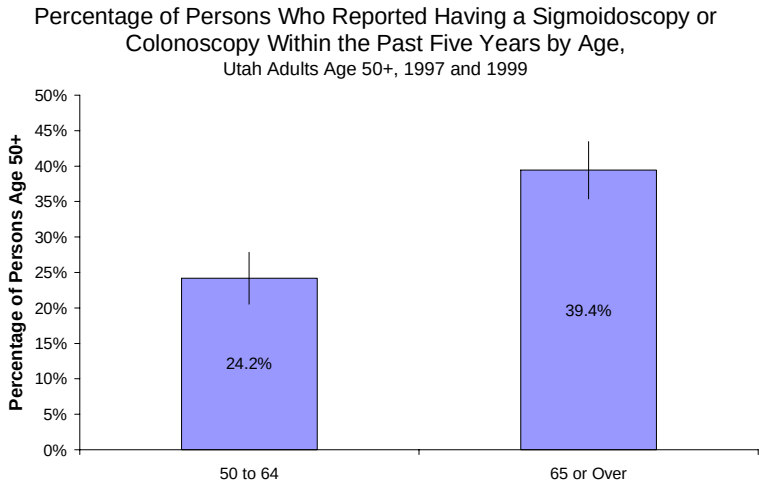
Sigmoidoscopy or Colonoscopy

- In Utah, men age 50 or over were more likely to report having a sigmoidoscopy or colonoscopy within the past five years than were women of the same age. ($p = 0.0020$)



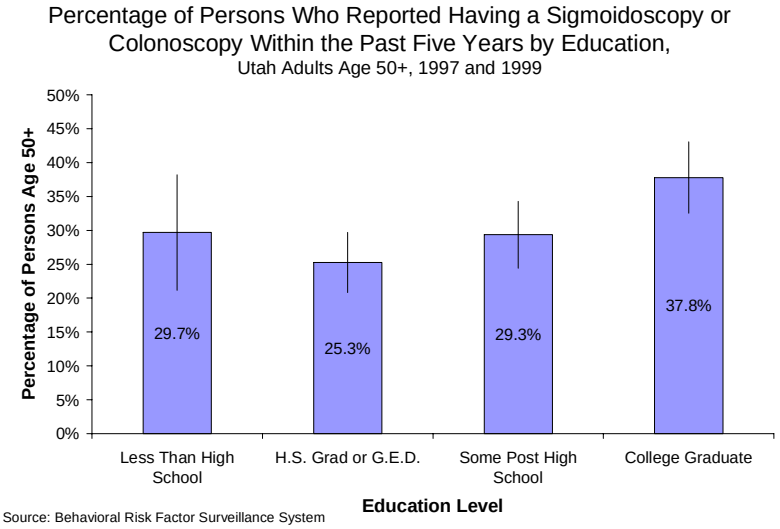
Source: Behavioral Risk Factor Surveillance System

- Persons age 65 or older in Utah were more likely to report having a sigmoidoscopy or colonoscopy in the past 5 years than were persons in the 50-64 year age group. ($p < 0.0001$)



Source: Behavioral Risk Factor Surveillance System

- Those Utahns age 50 or older with a college education were more likely to report a sigmoidoscopy or colonoscopy in the past five years than were those with less than a college education. ($p = 0.0029$)



Source: Behavioral Risk Factor Surveillance System

Sigmoidoscopy or Colonoscopy

Percentage of Persons Who Reported Having a Sigmoidoscopy or Colonoscopy Within the Past Five Years

by Selected Demographic Characteristics, Utah Adults Age 50+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Age 50+ Who Reported Having a Sigmoidoscopy or Colonoscopy in Past Five Years				
Demographic Subgroup	Distribution	Number of Adults Age 50+[1]	Percentage of Adults Age 50+ Who Had a Sigmoidoscopy or Colonoscopy Within the Past Five Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults Age 50+[1, 2]	Distribution of Adults Age 50+ Who Reported Having a Sigmoidoscopy or Colonoscopy Within the Past Five Years by Category
Had Sigmoidoscopy or Colonoscopy							
Within the Past Year	13.3%	52,900					
1 to 2 Years Ago	8.3%	33,000					
2 to 5 Years Ago	9.2%	36,800					
5 or More Years Ago	13.5%	53,700					
Never	55.7%	221,700					
Total, Adults Age 50+	100.0%	398,000					
Sex							
Males	45.6%	181,500	35.5%	31.2%	39.7%	64,400	52.5%
Females	54.4%	216,500	26.9%	23.5%	30.4%	58,300	47.5%
Total, Adults Age 50+	100.0%	398,000	30.8%	28.1%	33.6%	122,700	100.0%
Age Group							
50 to 64	56.1%	223,300	24.2%	20.5%	27.9%	54,000	43.9%
65 or Over	43.9%	174,700	39.4%	35.4%	43.5%	68,900	56.1%
Total, Adults Age 50+	100.0%	398,000	30.8%	28.1%	33.6%	122,700	100.0%
Race							
White, Non-Hispanic	95.6%	380,500	30.9%	28.0%	33.7%	117,400	95.7%
Hispanic	2.8%	11,100	22.9%	8.9%	36.9%	2,500	2.0%
Non-White, Non-Hispanic	1.6%	6,400	43.7%	23.3%	64.2%	2,800	2.3%
Total, Adults Age 50+	100.0%	398,000	30.8%	28.1%	33.6%	122,700	100.0%
Income							
Less Than $20,000	20.3%	81,000	30.8%	25.1%	36.5%	24,900	20.7%
$20,000-$49,999	48.9%	194,800	28.6%	24.5%	32.8%	55,800	46.5%
$50,000 or Over	30.7%	122,300	32.2%	26.3%	38.1%	39,400	32.8%
Total, Adults Age 50+	100.0%	398,000	30.8%	28.1%	33.6%	122,700	100.0%
Education							
Less Than High School	7.8%	31,200	29.7%	21.1%	38.2%	9,300	7.6%
H.S. Grad or G.E.D.	29.6%	117,800	25.3%	20.8%	29.7%	29,700	24.3%
Some Post High School	31.6%	125,900	29.3%	24.4%	34.3%	36,900	30.1%
College Graduate	30.9%	123,100	37.8%	32.5%	43.1%	46,500	38.0%
Total, Adults Age 50+	100.0%	398,000	30.8%	28.1%	33.6%	122,700	100.0%

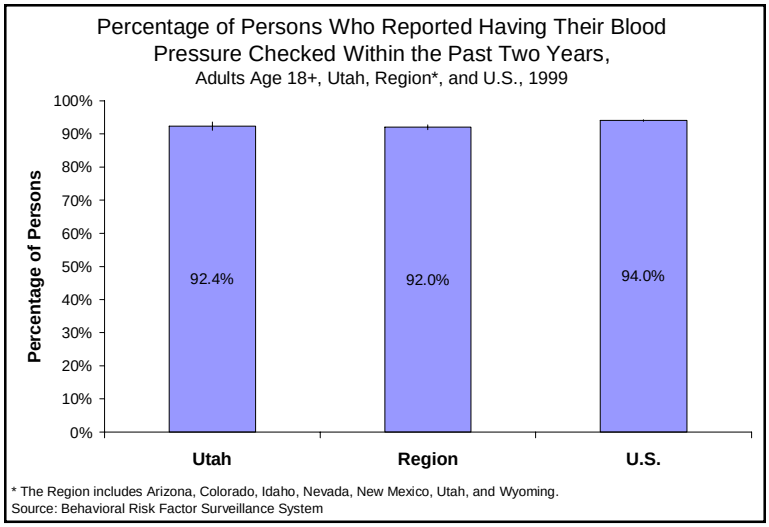
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Blood Pressure Screening

Question: *How long has it been since you last had your blood pressure taken by a doctor, nurse or other health professional?*



Untreated high blood pressure increases the risk of stroke, coronary heart disease and heart failure. Early detection of high blood pressure allows treatment that can prevent these complications. Despite recent increases in the proportion of Americans who are aware that they have high blood pressure, a large proportion of Americans with high blood pressure still are unaware that they have this disorder.[iv v] Therefore, frequent blood pressure screening is vital for people of all ages. While there remains a Healthy People 2010 objective regarding blood pressure screening every two years, the BRFSS data suggest that screening rates are high in all states and have remained high for some time. Therefore, the above blood pressure screening question was eliminated from the BRFSS in 2001. The 2001 BRFSS does include two hypertension questions about whether or not a person has ever been told they have high blood pressure and whether or not they are currently taking medication for their high blood pressure.

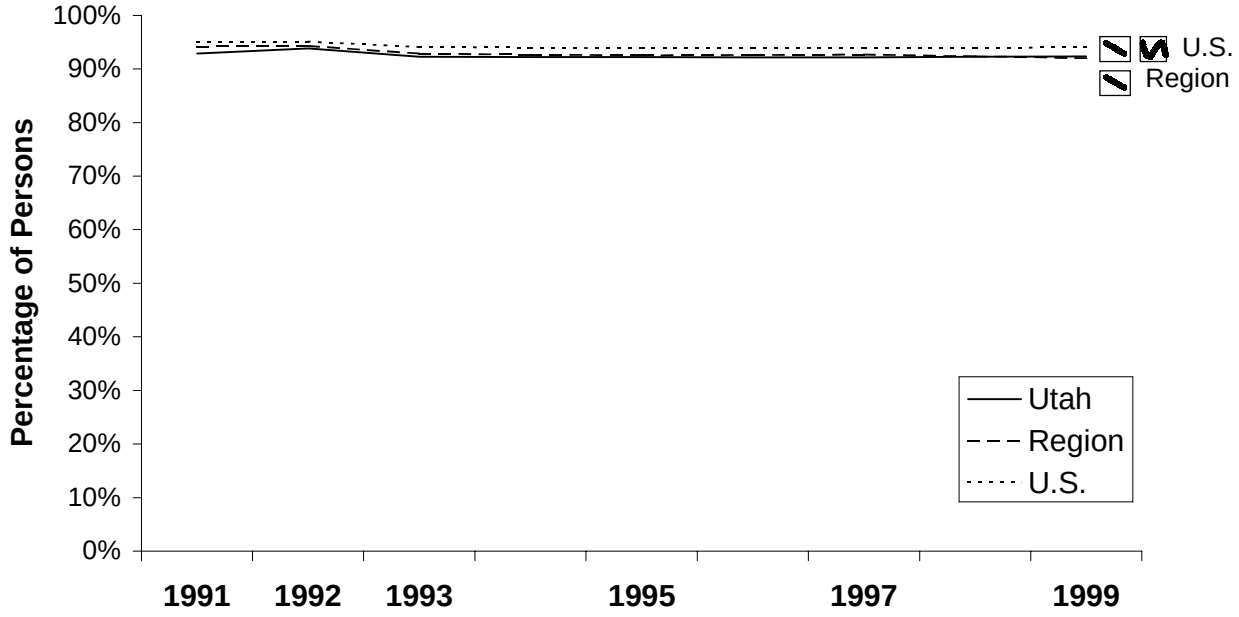
- The estimated percentage of Utah adults who reported having their blood pressure checked within the past two years did not change significantly from 92.9% in 1991 to 92.4% in 1999.
- The Region and U.S., however, experienced a slight downward linear trend in the percentage of persons who reported having their blood pressure checked within the past two years. The U.S. data also indicated a significant non-linear trend which suggests a leveling since 1993.
- Utah has reached the Healthy People 2000 objective for blood pressure screening within the past two years. However, the BRFSS does not ask the respondent to state whether the blood pressure was normal or high when checked.

Utah Objective: By 2010, increase the proportion of Utah adults age 18 years and older who have had their blood pressure measured in the preceding two years to 95%.
HP2000 Goal 15.13: Increase to at least 90% the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high.
HP2010 Goal 12-12: Increase the proportion of adults who have had their blood pressure measured within the preceding 2 years and can state whether their blood pressure was normal or high to 95%.
CDI 40: Blood pressure screening among adults (percent of respondents age 18 years or older who report having their blood pressure checked within the past year).
CHSI: Not used.

Blood Pressure Screening

Percentage of Persons Who Reported Having Their Blood Pressure Checked Within the Past Two Years,

Adults Age 18+, Utah, Region*, and U.S., 1991-1993, 1995, 1997, 1999



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1991	92.9%	91.6%	94.2%	94.2%	93.5%	94.8%	95.1%	94.9%	95.3%
1992	93.9%	92.6%	95.1%	94.3%	93.6%	95.0%	95.1%	94.9%	95.3%
1993	92.3%	90.8%	93.7%	92.9%	92.2%	93.6%	94.1%	93.8%	94.3%
1995	92.2%	90.9%	93.5%	92.5%	91.8%	93.2%	93.9%	93.6%	94.1%
1997	92.1%	90.8%	93.5%	92.7%	92.0%	93.4%	93.8%	93.6%	94.1%
1999	92.4%	91.1%	93.7%	92.0%	91.3%	92.8%	94.0%	93.8%	94.3%

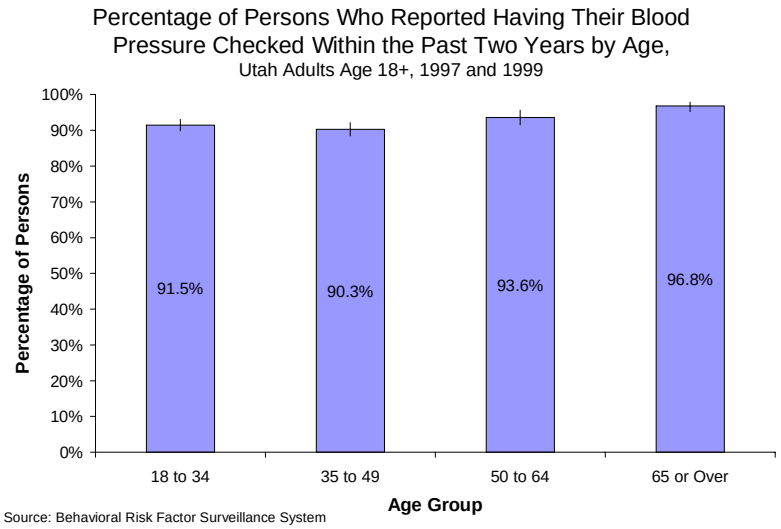
downward linear trend

non-linear trend

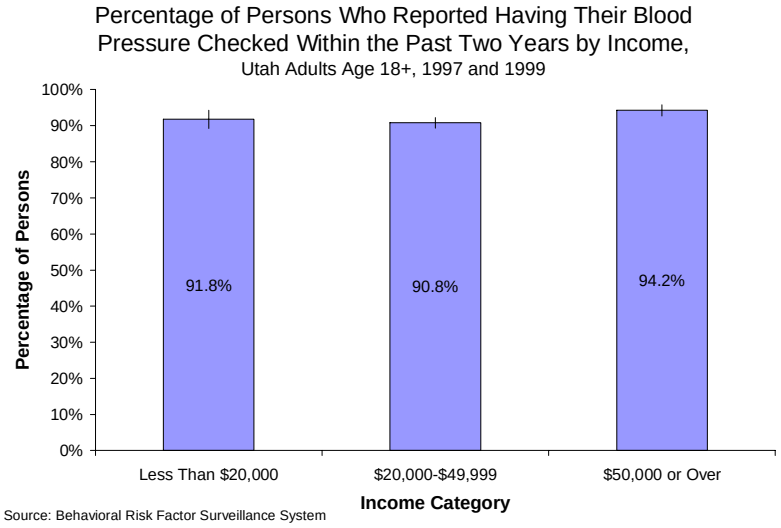
Blood Pressure Screening

- In Utah, women were more likely than men to report having their blood pressure checked within the past 2 years. (not graphed) ($p < 0.0001$)

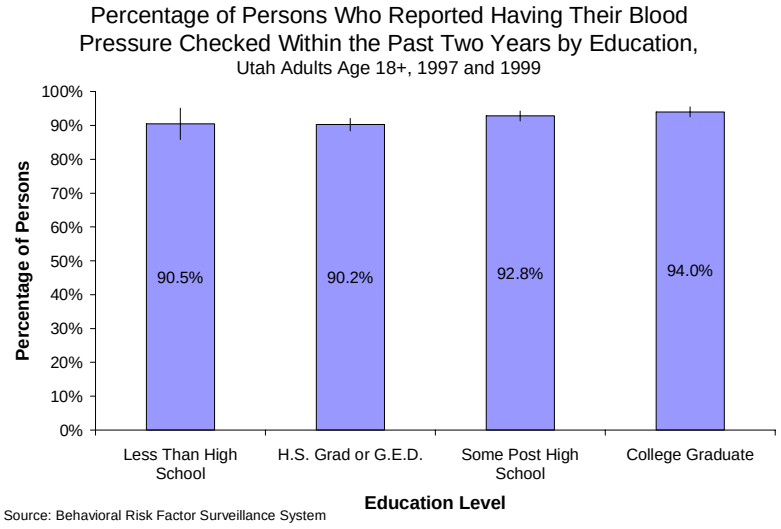
- The percentage of Utah adults who reported having their blood pressure checked within the past 2 years increased with age to a high of 96.8% in the 65 or over age group. ($p < 0.0001$)



- Utah adults with an annual household income of $50,000 or over were more likely to report having their blood pressure checked within the past two years than those with annual household incomes less than $50,000. ($p = 0.0060$)



- Utah adults with some college or more education were more likely to report having their blood pressure checked within the past two years than those with a high school education or less. ($p = 0.0272$)



Blood Pressure Screening

Percentage of Persons Who Reported Having Their Blood Pressure Checked Within the Past Two Years

by Selected Demographic Characteristics, Utah Adults Age 18+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported Having Their Blood Pressure Checked Within the Past Two Years				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Having Their Blood Pressure Checked Within the Past Two Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Having Their Blood Pressure Checked Within the Past Two Years by Category
Had Blood Pressure Checked							
Within the Past 6 Months	68.3%	950,800					
6 Months to 1 Year Ago	15.9%	222,000					
1 to 2 Years Ago	8.0%	111,800					
2 to 5 Years Ago	4.7%	65,900					
5 or More Years Ago	2.8%	38,900					
Never	0.2%	3,200					
Total, All Adults Age 18+	100.0%	1,392,500					
Sex							
Males	48.7%	678,200	89.7%	88.1%	91.3%	608,300	47.4%
Females	51.3%	714,300	94.7%	93.6%	95.7%	676,200	52.6%
Total, All Adults Age 18+	100.0%	1,392,500	92.2%	91.3%	93.2%	1,284,400	100.0%
Age Group							
18 to 34	37.0%	514,600	91.5%	89.9%	93.1%	470,700	36.6%
35 to 49	31.4%	437,800	90.3%	88.5%	92.1%	395,300	30.8%
50 to 64	17.5%	243,100	93.6%	91.5%	95.7%	227,500	17.7%
65 or Over	14.2%	197,100	96.8%	95.3%	97.9%	190,900	14.9%
Total, All Adults Age 18+	100.0%	1,392,500	92.2%	91.3%	93.2%	1,284,400	100.0%
Race							
White, Non-Hispanic	90.9%	1,265,600	92.4%	91.5%	93.4%	1,169,800	91.1%
Hispanic	5.6%	78,200	93.6%	90.4%	96.9%	73,200	5.7%
Non-White, Non-Hispanic	3.5%	48,700	84.3%	75.6%	93.0%	41,000	3.2%
Total, All Adults Age 18+	100.0%	1,392,500	92.2%	91.3%	93.2%	1,284,400	100.0%
Income							
Less Than $20,000	18.3%	254,600	91.8%	89.2%	94.3%	233,600	18.2%
$20,000-$49,999	50.5%	703,400	90.8%	89.3%	92.3%	638,700	49.8%
$50,000 or Over	31.2%	434,500	94.2%	92.7%	95.8%	409,500	31.9%
Total, All Adults Age 18+	100.0%	1,392,500	92.2%	91.1%	93.1%	1,284,400	100.0%
Education							
Less Than High School	6.6%	91,900	90.5%	85.9%	95.1%	83,200	6.5%
H.S. Grad or G.E.D.	30.5%	424,300	90.2%	88.4%	92.1%	382,900	29.8%
Some Post High School	34.0%	473,200	92.8%	91.3%	94.3%	439,100	34.2%
College Graduate	28.9%	403,100	94.0%	92.5%	95.5%	379,000	29.5%
Total, All Adults Age 18+	100.0%	1,392,500	92.2%	91.3%	93.2%	1,284,400	100.0%

1 Rounded to the nearest 100 persons.

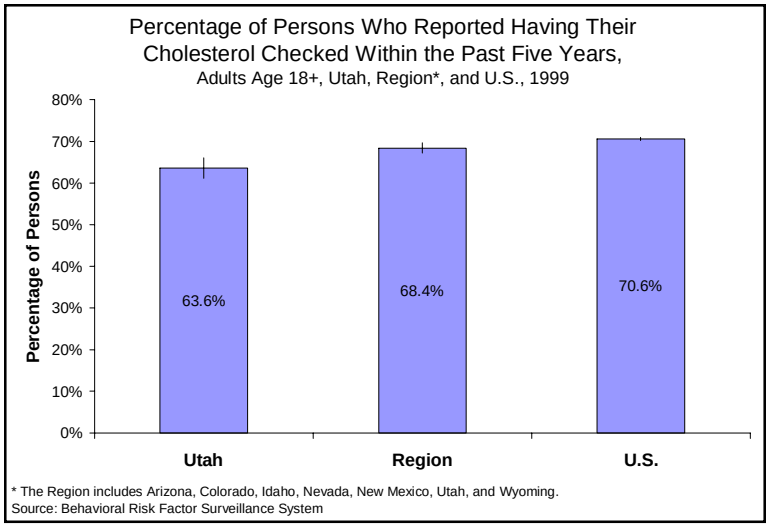
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Cholesterol Screening

Questions: *Have you ever had your blood cholesterol checked? About how long has it been since you last had your blood cholesterol checked?*

High blood cholesterol is a major risk factor for coronary heart disease (CHD) that can be modified. The National Heart, Lung, and Blood Institute (NHLBI) recommends that adults age 20 and over be screened for high blood cholesterol at least every five years. More than 50 million American adults have blood cholesterol levels that require medical advice and treatment. Behaviors that prevent or lower high 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.[vi]



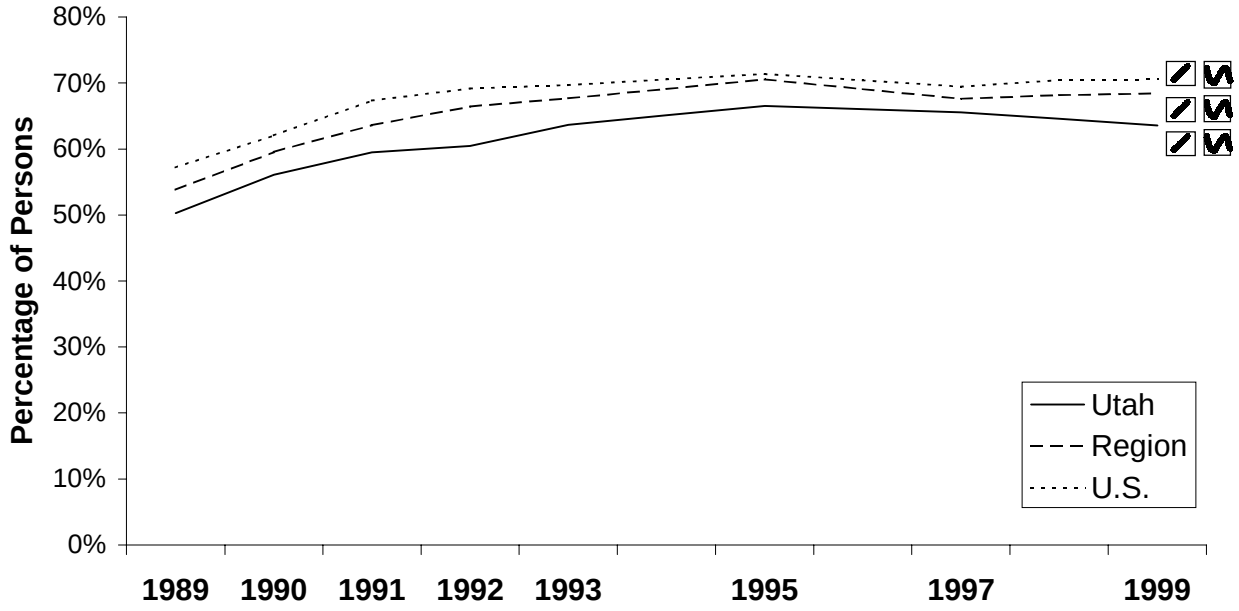
- There was a significant increase in the estimated percentage of Utah adults who reported having their cholesterol checked within the past 5 years between 1989 (50.3%) to 1999 (63.6%). This upward trend in Utah leveled off after reaching a high of 66.5% in 1995, as indicated by a positive non-linear trend.
- Both the Region and the U.S. also experienced a significant increase in the percentage of persons who reported having their cholesterol checked within the past five years from 1989 through 1995. The positive non-linear trends for the Region and U.S. suggest a leveling or even decrease in this measure since 1995.
- The percentage of persons who reported having their cholesterol checked within the past five years was lower in Utah than in the Region and the U.S. for all years reported between 1989 through 1999.
- Utah still has a way to go to reach both the Healthy People 2000 and Healthy People 2010 objectives.

Utah Objective: By 2010, increase to at least 80% the proportion of adults who have had their cholesterol measured within the preceding five years.
HP2000 Goal 15.14: Increase to at least 75% the proportion of adults who have had their blood cholesterol checked within the preceding 5 years.
HP2010 Goal 12-15: Increase the proportion of adults who have had their blood cholesterol checked within the preceding 5 years to 80%.
CDI 39: Cholesterol screening among persons 35 years of age or older (percent of respondents age 35 years or older who report having their cholesterol checked within the past 5 years).
CHSI: Not used.

Cholesterol Screening

Percentage of Persons Who Reported Having Their Cholesterol Checked Within the Past Five Years,

Adults Age 18+, Utah, Region*, and U.S., 1989-1993, 1995, 1997, 1999



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

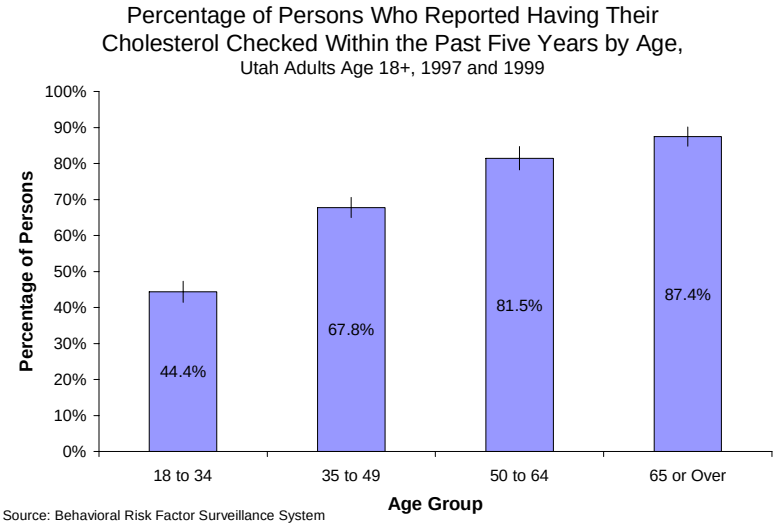
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	50.3%	47.5%	53.0%	53.8%	52.1%	55.5%	57.2%	56.6%	57.8%
1990	56.1%	53.5%	58.7%	59.5%	58.1%	61.0%	62.1%	61.5%	62.6%
1991	59.5%	56.9%	62.2%	63.6%	62.2%	65.0%	67.4%	66.8%	67.9%
1992	60.5%	57.8%	63.2%	66.4%	65.1%	67.8%	69.2%	68.7%	69.6%
1993	63.7%	61.2%	66.2%	67.7%	66.3%	69.0%	69.7%	69.2%	70.2%
1995	66.5%	64.2%	68.9%	70.5%	69.4%	71.7%	71.4%	70.9%	71.9%
1997	65.6%	63.3%	67.9%	67.6%	66.3%	68.9%	69.5%	69.1%	69.9%
1999	63.6%	61.1%	66.0%	68.4%	67.2%	69.6%	70.6%	70.2%	70.9%

upward linear trend

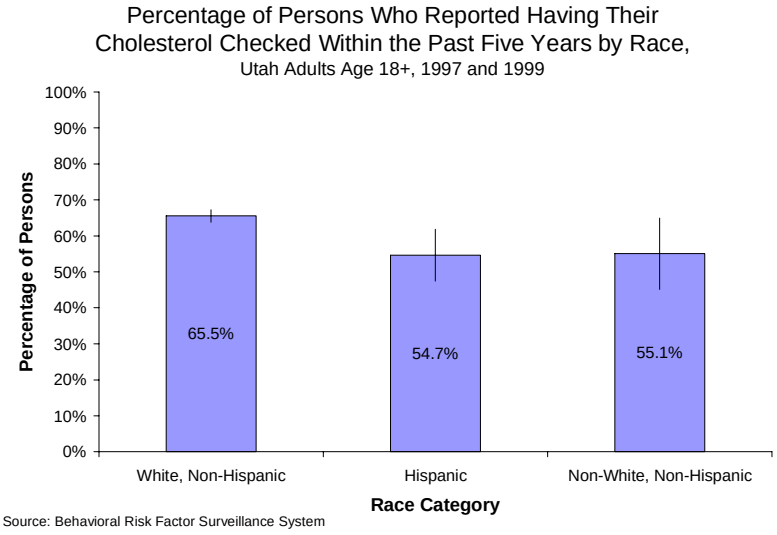
non-linear trend

Cholesterol Screening

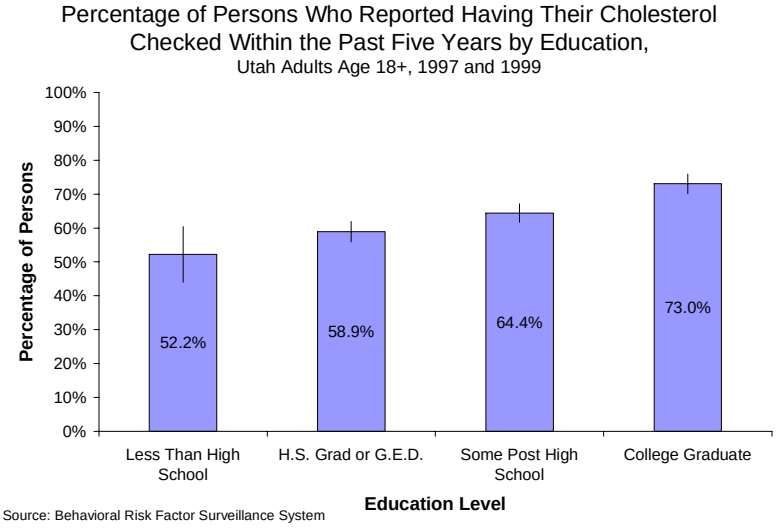
- The percentage of Utah adults who reported having their cholesterol checked within the past 5 years increased with age from 44.4% for those adults age 18-34 to 87.4% for those 65 years and older. ($p < 0.0001$)



- Utah adults who were White, non-Hispanic were more likely to report having their cholesterol checked within the past five years than Utah adults of all other racial/ethnic groups. ($p = 0.0010$)



- The percentage of Utah adults who reported having their cholesterol checked within the past 5 years increased in a straight line fashion with increasing education. ($p < 0.0001$)



Cholesterol Screening

Percentage of Persons Who Reported Having Their Cholesterol Checked Within the Past Five Years

by Selected Demographic Characteristics, Utah Adults Age 18+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported Having Their Cholesterol Checked Within the Past Five Years				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Having Their Cholesterol Checked Within the Past Five Years	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Having Their Cholesterol Checked Within the Past Five Years by Category
Had Cholesterol Checked							
Within the Past Year	43.1%	600,400					
1 to 2 Years Ago	12.4%	173,100					
2 to 5 Years Ago	9.0%	125,200					
5 or More Years Ago	6.1%	84,900					
Never	29.4%	408,800					
Total, All Adults Age 18+	100.0%	1,392,500					
Sex							
Males	48.8%	679,000	63.4%	60.8%	66.0%	430,300	47.9%
Females	51.2%	713,500	65.7%	63.5%	67.9%	468,500	52.1%
Total, All Adults Age 18+	100.0%	1,392,500	64.5%	62.9%	66.2%	898,700	100.0%
Age Group							
18 to 34	36.7%	510,600	44.4%	41.4%	47.3%	226,500	25.3%
35 to 49	31.3%	436,100	67.8%	65.0%	70.6%	295,500	33.0%
50 to 64	18.0%	250,100	81.5%	78.2%	84.7%	203,700	22.7%
65 or Over	14.1%	195,600	87.4%	84.8%	90.1%	171,000	19.1%
Total, All Adults Age 18+	100.0%	1,392,500	64.5%	62.9%	66.2%	898,700	100.0%
Race							
White, Non-Hispanic	91.2%	1,270,000	65.5%	63.8%	67.3%	832,400	92.5%
Hispanic	5.6%	78,100	54.7%	47.4%	61.9%	42,700	4.7%
Non-White, Non-Hispanic	3.2%	44,400	55.1%	45.2%	65.0%	24,400	2.7%
Total, All Adults Age 18+	100.0%	1,392,500	64.5%	62.9%	66.2%	898,700	100.0%
Income							
Less Than $20,000	17.9%	249,500	55.7%	50.9%	60.6%	139,100	15.4%
$20,000-$49,999	49.3%	686,800	62.4%	60.0%	64.8%	428,500	47.4%
$50,000 or Over	32.8%	456,200	73.6%	70.7%	76.4%	335,600	37.2%
Total, All Adults Age 18+	100.0%	1,392,500	64.5%	62.9%	66.2%	898,700	100.0%
Education							
Less Than High School	6.5%	90,700	52.2%	44.0%	60.4%	47,300	5.3%
H.S. Grad or G.E.D.	29.3%	407,900	58.9%	55.9%	61.9%	240,400	26.8%
Some Post High School	35.0%	487,200	64.4%	61.7%	67.2%	313,800	34.9%
College Graduate	29.2%	406,700	73.0%	70.1%	75.9%	297,100	33.1%
Total, All Adults Age 18+	100.0%	1,392,500	64.5%	62.9%	66.2%	898,700	100.0%

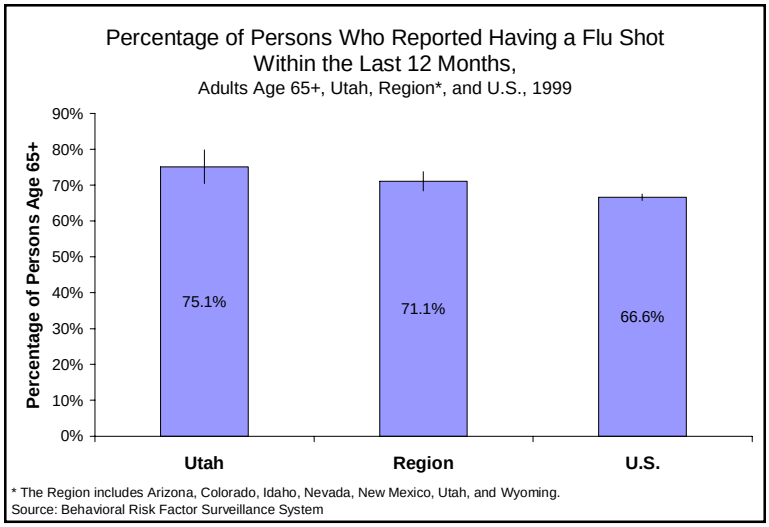
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Influenza Vaccination

Questions: *Have you had a flu shot in the last 12 months?*

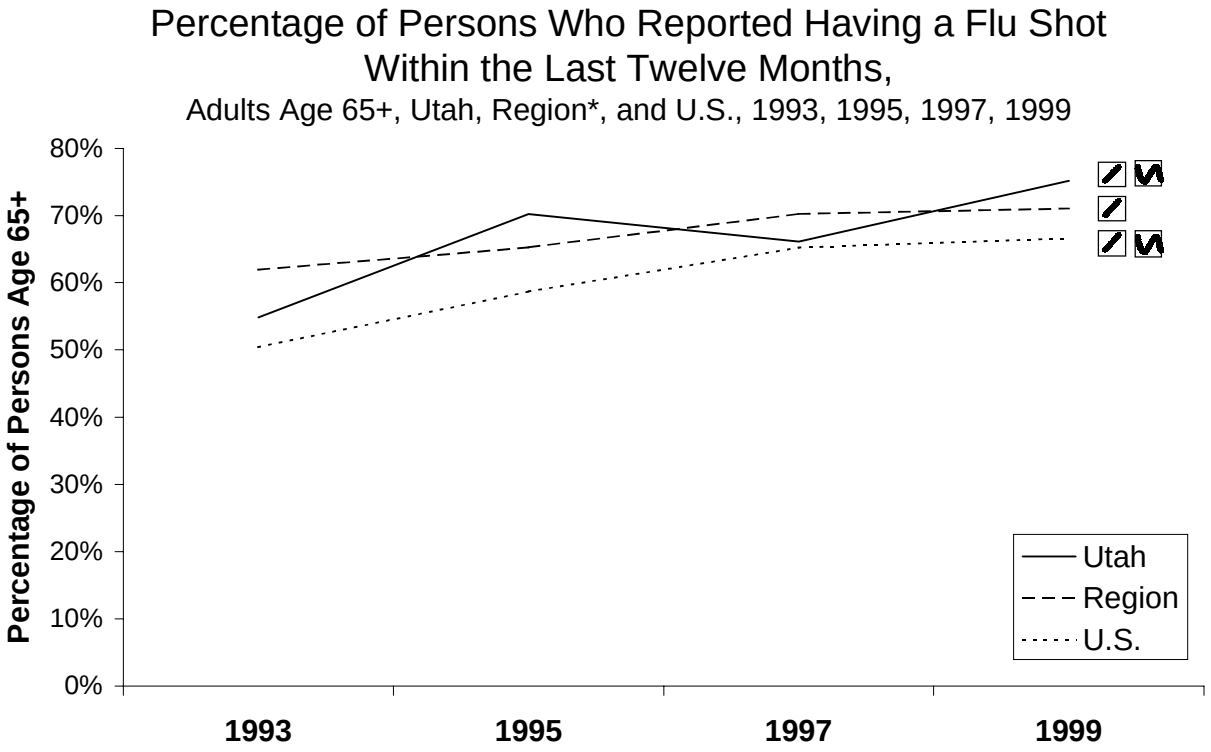


Immunization against influenza is known to prevent serious illness and death, and can also help control the spread of flu within the community. The vast majority of deaths attributed to this illness occurred among persons 65 years of age or older, particularly those with chronic medical conditions. The Utah Department of Health supports national recommendations of the Advisory Committee on Immunization Practices (ACIP) to improve influenza and pneumococcal immunization levels, especially among high risk adults. The Institute of Medicine Committee on Using Performance Monitoring to Improve Community Health proposed that the proportion of adults aged 65 or older who have been immunized in the past 12 months for influenza be included as one of 25 Community Health Profile indicators.

- In Utah, the estimated percentage of persons age 65 or over who reported having a flu shot within the past 12 months increased substantially from 54.8% in 1993 to 75.1% in 1999. However, there was a significant change downward in this trend from 1995 to 1997.
- The Region and U.S. also experienced a significant increase in the estimated percentage of persons age 65 or over who reported having a flu shot within the past 12 months. The U.S. data also showed a significant non-linear trend which suggests a leveling off between 1997 and 1999.
- In 1999, the estimated percentage of persons age 65 or over in Utah who reported having a flu shot within the past 12 months was not significantly different than that for the Region, but was greater than that for the U.S.
- Utah attained the Healthy People 2000 objective of 60% for the percentage of older people who are immunized annually against influenza.

Utah Objective: By 2010, increase immunization levels to 60% for pneumococcal and influenza vaccines among adults age 50 and over.
HP2000 Goal 20.11: Increase immunization levels as follows: Pneumococcal pneumonia and influenza immunization among noninstitutionalized people 65 years and older to at least 60%.
HP2010 Goal 14-29: Increase the proportion of adults who are vaccinated annually against influenza and ever vaccinated against pneumococcal disease to 90% for non-institutionalized adults aged 65 years and older.
CDI 67: Influenza vaccination among older adults (percent of respondents age 65 years or older who report having received a influenza vaccination within the past year).
CHSI: Flu vaccine among adults 65+, past year.

Influenza Vaccination



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

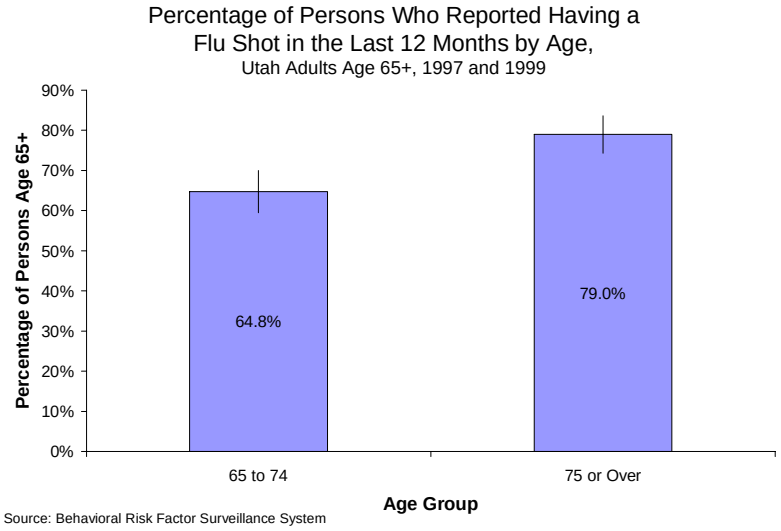
	Utah			Region			U.S.		
	Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals	
Year	Age 65+	Lower	Upper	Age 65+	Lower	Upper	Age 65+	Lower	Upper
1993	54.8%	48.1%	61.5%	61.9%	58.9%	65.0%	50.4%	49.4%	51.4%
1995	70.2%	65.4%	75.0%	65.3%	62.6%	67.9%	58.7%	57.6%	59.8%
1997	66.2%	60.5%	71.8%	70.2%	67.6%	72.9%	65.2%	64.3%	66.1%
1999	75.1%	70.4%	79.9%	71.1%	68.4%	73.8%	66.6%	65.7%	67.5%

upward linear trend

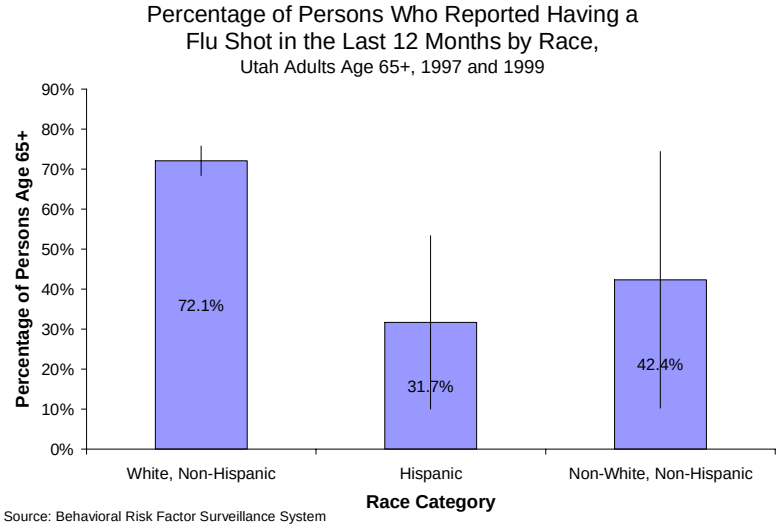
non-linear trend

Influenza Vaccination

- Utah adults 75 years or over were more likely to report having an influenza vaccination in the past 12 months than those 65 through 74 years old. (p = 0.0001)

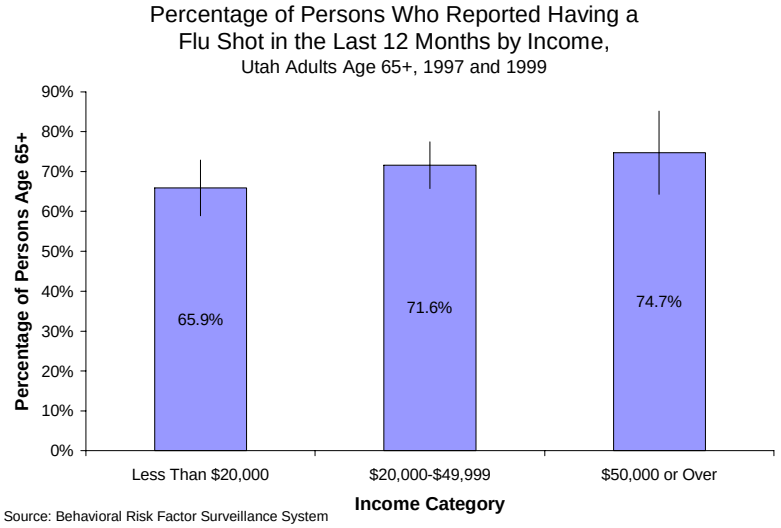


- Utah adults age 65 or over who were White, non-Hispanic were more likely than those who were Hispanic or non-White, non-Hispanic to report having a flu shot within the past 12 months. (p = 0.0005)



- Sample sizes for Utahns 65 years or over were too small to be able to say anything about differences between income or educational subgroups in Utah regarding flu vaccination rates.

- Though the percentage of Utahns age 65 or over who reported having a flu shot within the past 12 months appears to have increased with both educational and income levels, these trends were not statistically significant due to small sample sizes.



Influenza Vaccination

Percentage of Persons Who Reported Having a Flu Shot in the Last 12 Months
by Selected Demographic Characteristics, Utah Adults Age 65+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Age 65+ Who Reported Having a Flu Shot in Last 12 Months				
Demographic Subgroup	Distribution	Number of Adults Age 65+[1]	Percentage of Adults 65+ Who Reported Having a Flu Shot in Last 12 Months	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults Age 65+[1, 2]	Distribution of Adults Age 65+ Who Reported Having a Flu Shot in Last 12 Months by Category
Had Flu Shot in Last 12 Months							
Yes	70.9%	126,100					
No	29.1%	51,700					
Total, Adults Age 65+	100.0%	177,800					
Sex							
Males	43.6%	77,600	71.1%	65.4%	76.7%	55,100	43.7%
Females	56.4%	100,200	70.8%	66.1%	75.6%	71,000	56.3%
Total, Adults Age 65+	100.0%	177,800	70.9%	67.3%	74.5%	126,100	100.0%
Age Group							
65 to 74	56.8%	43,600	64.8%	59.5%	70.0%	28,200	31.8%
75 or Over	43.2%	76,800	79.0%	74.3%	83.6%	60,600	68.2%
Total, Adults Age 65+	100.0%	177,800	70.9%	67.3%	74.5%	126,100	100.0%
Race							
White, Non-Hispanic	96.7%	171,900	72.1%	68.4%	75.7%	123,900	98.3%
Hispanic	1.9%	3,300	31.7%	10.0%	53.4%	1,000	0.8%
Non-White, Non-Hispanic	1.4%	2,500	42.4%	10.3%	74.5%	1,100	0.9%
Total, Adults Age 65+	100.0%	177,800	70.9%	67.3%	74.5%	126,100	100.0%
Income							
Less Than $20,000	34.2%	60,800	65.9%	58.9%	72.9%	40,100	32.1%
$20,000-$49,999	50.8%	90,300	71.6%	65.8%	77.4%	64,700	51.8%
$50,000 or Over	15.0%	26,700	74.7%	64.3%	85.2%	20,000	16.0%
Total, Adults Age 65+	100.0%	177,800	70.9%	67.3%	74.5%	126,100	100.0%
Education							
Less Than High School	10.8%	19,300	66.5%	55.7%	77.3%	12,800	10.2%
H.S. Grad or G.E.D.	31.3%	55,600	70.3%	64.0%	76.6%	39,100	31.0%
Some Post High School	31.5%	56,000	68.7%	61.7%	75.7%	38,500	30.5%
College Graduate	26.4%	47,000	75.9%	69.2%	82.7%	35,700	28.3%
Total, Adults Age 65+	100.0%	177,800	70.9%	67.3%	74.5%	126,100	100.0%

1 Rounded to the nearest 100 persons.

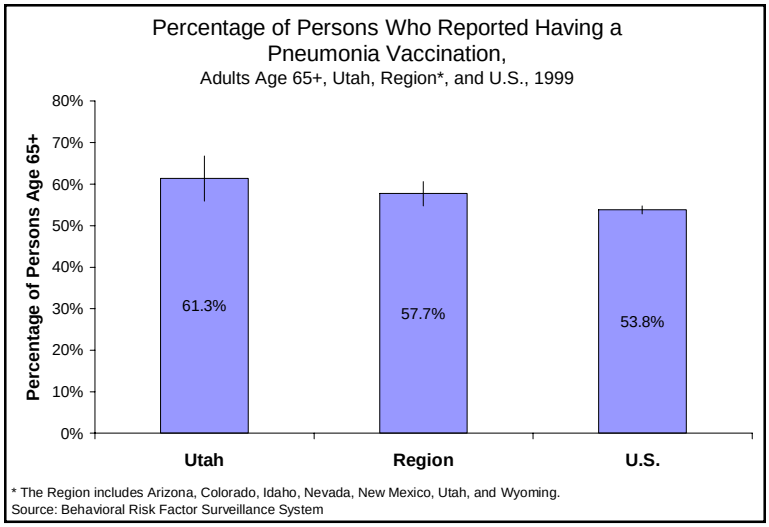
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Pneumococcal Vaccination

Question: *Have you ever had a pneumonia vaccination?*

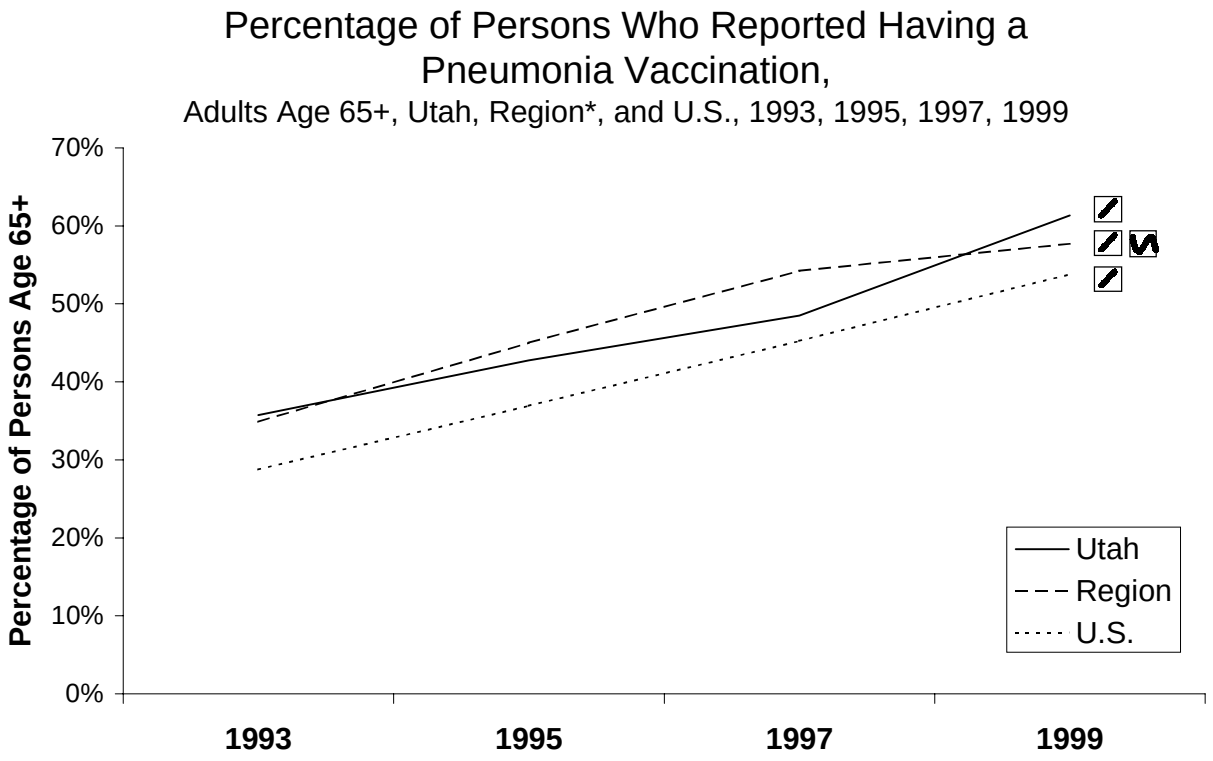
Infections due to Streptococcus pneumoniae are a major cause of hospitalization and death in the U.S. Nationally, pneumococcal pneumonia alone has been estimated to cost up to eighteen billion dollars per year and up to 40,000 deaths per year have been attributed to pneumococcal disease.[vii] It has been estimated that approximately half of all deaths from pneumococcal disease in the U.S. could be prevented by use of the vaccine.[viii] The Institute of Medicine Committee on Using Performance Monitoring to Improve Community Health proposed that the proportion of adults aged 65 or older who have ever been immunized for pneumococcal pneumonia be included as one of 25 Community Health Profile indicators.



- In Utah, the estimated percentage of persons age 65 or over who reported ever having a pneumonia vaccination increased substantially from 35.7% in 1993 to 61.3% in 1999.
- The percentage of persons age 65 or over who reported ever having a pneumonia vaccination increased in the Region and U.S. from 1993 to 1999. The Region was also significant for a non-linear trend which indicates a leveling off between 1997 and 1999.
- In 1999, the estimated percentage of persons age 65 or over in Utah who reported ever having a pneumonia vaccination was not different than that for the Region, but was significantly greater than that for the U.S.
- Utah reached the Healthy People 2000 objective of 60% for percentage of persons 65 years or over who have ever received a pneumococcal vaccination.

Utah Objective: By 2010, increase immunization levels to 60% for pneumococcal and influenza vaccines among adults age 50 and over.
HP2000 Goal 20.11: Increase immunization levels as follows: Pneumococcal pneumonia and influenza immunization among noninstitutionalized people 65 years and older to at least 60%.
HP2010 Goal 14-29: Increase the proportion of adults who are ever vaccinated annually against influenza and ever vaccinated against pneumococcal disease to 90% for non-institutionalized adults aged 65 years and older.
CDI 66: Pneumococcal vaccination among older adults (percent of respondents age 65 years or older who report having ever received a pneumococcal vaccination).
CHSI: Pneumonia vaccine among adults 65+, ever.

Pneumococcal Vaccination



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

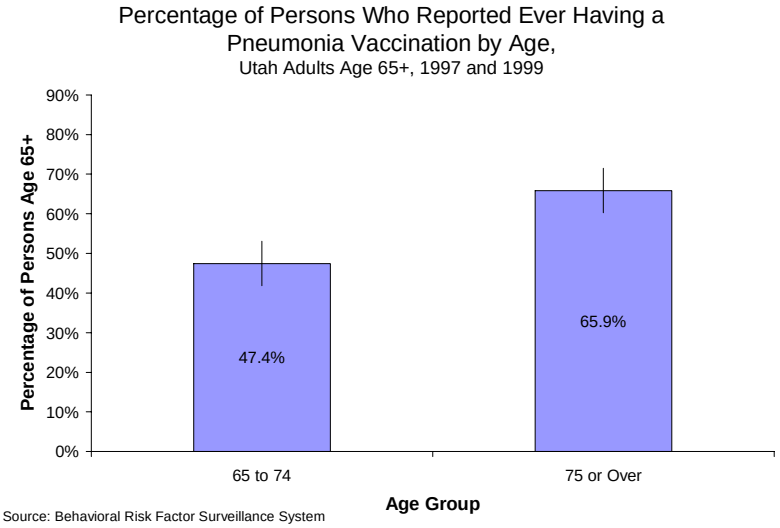
	Utah			Region			U.S.		
	Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals		Percentage of Adults	95% Confidence Intervals	
Year	Age 65+	Lower	Upper	Age 65+	Lower	Upper	Age 65+	Lower	Upper
1993	35.7%	29.3%	42.1%	34.9%	31.9%	37.9%	28.7%	27.8%	29.7%
1995	42.7%	37.2%	48.3%	45.0%	42.2%	47.8%	36.9%	35.9%	38.0%
1997	48.5%	42.3%	54.8%	54.2%	51.3%	57.2%	45.3%	44.3%	46.2%
1999	61.3%	55.9%	66.7%	57.7%	54.8%	60.7%	53.8%	52.8%	54.8%

upward linear trend

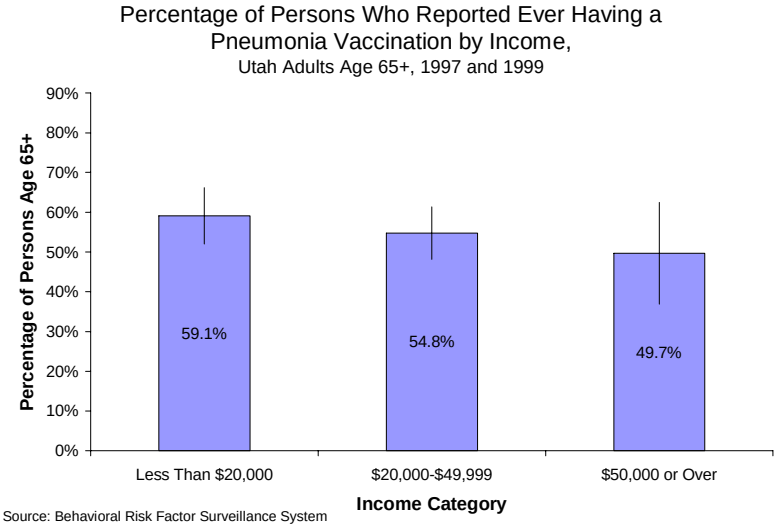
non-linear trend

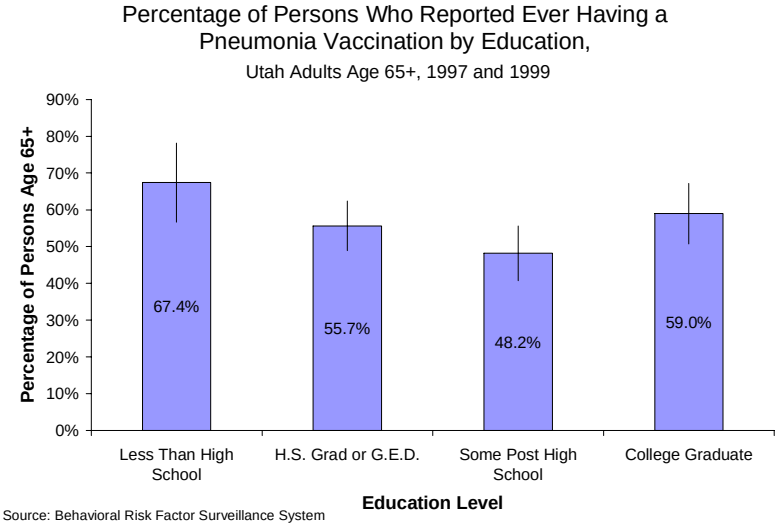
Pneumococcal Vaccination

- Utah adults 75 years or over were more likely to report ever having a pneumococcal vaccination than those 65 through 74 years old. ($p < 0.0001$)



- Sample sizes for Utahns 65 years or over were too small to be able to say anything about differences between income, educational and ethnic subgroups in Utah in regards to pneumococcal vaccination.





Pneumococcal Vaccination

Percentage of Persons Who Reported Ever Having a Pneumonia Vaccination
by Selected Demographic Characteristics, Utah Adults Age 65+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Age 65+ Who Reported Ever Having a Pneumonia Vaccination				
Demographic Subgroup	Distribution	Number of Adults Age 65+[1]	Percentage of Adults Age 65+ Who Reported Ever Having a Pneumonia Vaccination	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults Age 65+[1, 2]	Distribution of Adults Age 65+ Who Reported Ever Having a Pneumonia Vaccination by Category
Ever Had Pneumonia Vaccination							
Yes	55.4%	98,400					
No	44.6%	79,400					
Total, Adults Age 65+	100.0%	177,800					
Sex							
Males	43.6%	77,600	52.7%	46.0%	59.4%	40,900	41.6%
Females	56.4%	100,200	57.4%	52.3%	62.4%	57,500	58.4%
Total, Adults Age 65+	100.0%	177,800	55.4%	51.3%	59.4%	98,400	100.0%
Age Group							
65 to 74	56.8%	43,600	47.4%	41.9%	53.0%	20,700	29.0%
75 or Over	43.2%	76,800	65.9%	60.3%	71.5%	50,600	71.0%
Total, Adults Age 65+	100.0%	177,800	55.4%	51.3%	59.4%	98,400	100.0%
Race							
White, Non-Hispanic	96.7%	171,900	55.6%	51.5%	59.8%	95,600	97.2%
Hispanic	1.9%	3,300	51.9%	27.1%	76.7%	1,700	1.7%
Non-White, Non-Hispanic	1.4%	2,500	42.4%	10.3%	74.5%	1,100	1.1%
Total, Adults Age 65+	100.0%	177,800	55.4%	51.3%	59.4%	98,400	100.0%
Income							
Less Than $20,000	34.2%	60,800	59.1%	52.0%	66.2%	35,900	36.4%
$20,000-$49,999	50.8%	90,300	54.8%	48.1%	61.4%	49,500	50.2%
$50,000 or Over	15.0%	26,700	49.7%	36.8%	62.5%	13,300	13.5%
Total, Adults Age 65+	100.0%	177,800	55.4%	51.3%	59.4%	98,400	100.0%
Education							
Less Than High School	10.8%	19,300	67.4%	56.7%	78.1%	13,000	13.2%
H.S. Grad or G.E.D.	31.3%	55,600	55.7%	48.9%	62.4%	30,900	31.3%
Some Post High School	31.5%	56,000	48.2%	40.8%	55.6%	27,000	27.4%
College Graduate	26.4%	47,000	59.0%	50.7%	67.2%	27,700	28.1%
Total, Adults Age 65+	100.0%	177,800	55.4%	51.3%	59.4%	98,400	100.0%

1 Rounded to the nearest 100 persons.

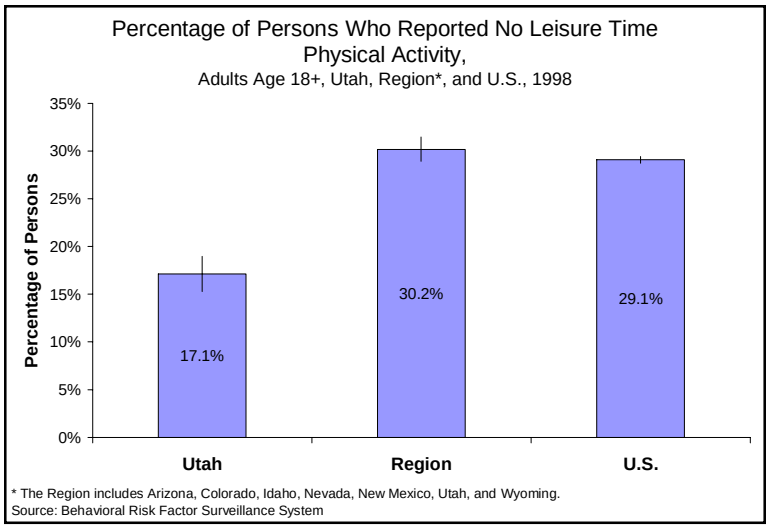
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Physical Inactivity

Question: *The next questions are about exercise, recreation, or physical activities other than your regular job duties. During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?*

For this report, physical inactivity is defined as no leisure time physical activity. Approximately 300,000 deaths each year in the U.S. are attributable to the combined effect of physical inactivity and poor nutrition. The public health burden of physical inactivity has been highlighted in several recent reports, including the 1996 Surgeon General's Report on Physical Activity and Health.



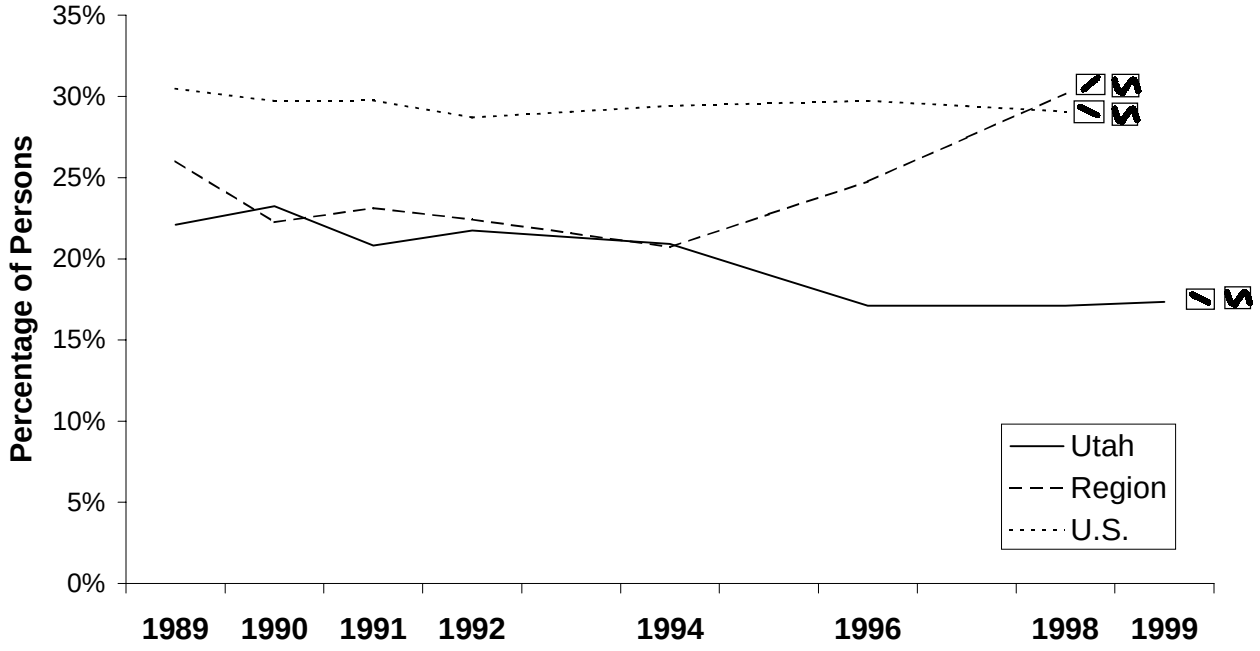
- In Utah, the percentage of persons who reported no leisure time physical activity decreased from 22.1% in 1989 to 17.4% in 1999. This was a statistically significant downward linear trend for Utah. There was also a significant non-linear trend in Utah reflected in the changes in direction for this measure over the years reported.
- In the Region, there was an overall increase in the percentage of persons who reported no leisure time physical activity from 26.0% in 1989 to 30.2% in 1998. The magnitude of this trend was greater from 1994 to 1999 than for earlier years.
- The U.S. showed a slight but significant decrease in the percentage of persons who reported no leisure time physical activity between 1989 and 1998. However, there were some significant changes in the direction of this trend and leveling since 1994.
- For all years, a significantly smaller percentage of Utahns reported no leisure time physical activity than did adults in the U.S. as a whole.
- Utah did not reach the Healthy People 2000 objective of 15% for the percentage of persons who reported no leisure time physical activity.

Utah Objective: No objective listed.
HP2000 Goal 1.5: Reduce to no more than 15% the proportion of people aged 6 and older who engage in no leisure time physical activity.
HP2010 Goal 22-1: Reduce the proportion of adults who engage in no leisure time physical activity to 20%.
CDI 63: Leisure time physical inactivity among adults (percent of respondents age 18 years or older who report no leisure time physical activity within the past month).
CHSI: Sedentary Lifestyle: No regular or sustained physical activity in the past month.

Physical Inactivity

Percentage of Persons Who Reported No Leisure Time Physical Activity,

Adults Age 18+, Utah, Region*, and U.S., 1989-1992, 1994, 1996, 1998, Utah only 1999



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	22.1%	19.9%	24.3%	26.0%	24.6%	27.4%	30.5%	29.9%	31.1%
1990	23.2%	21.1%	25.4%	22.3%	21.1%	23.4%	29.7%	29.2%	30.2%
1991	20.8%	18.7%	22.9%	23.1%	22.0%	24.3%	29.8%	29.3%	30.3%
1992	21.7%	19.6%	23.9%	22.4%	21.3%	23.5%	28.7%	28.3%	29.1%
1994	20.9%	18.8%	23.0%	20.7%	19.7%	21.8%	29.4%	29.0%	29.9%
1996	17.1%	15.4%	18.8%	24.8%	23.6%	25.9%	29.7%	29.3%	30.1%
1998	17.1%	15.3%	19.0%	30.2%	28.9%	31.5%	29.1%	28.7%	29.5%
1999	17.4%	15.5%	19.2%						

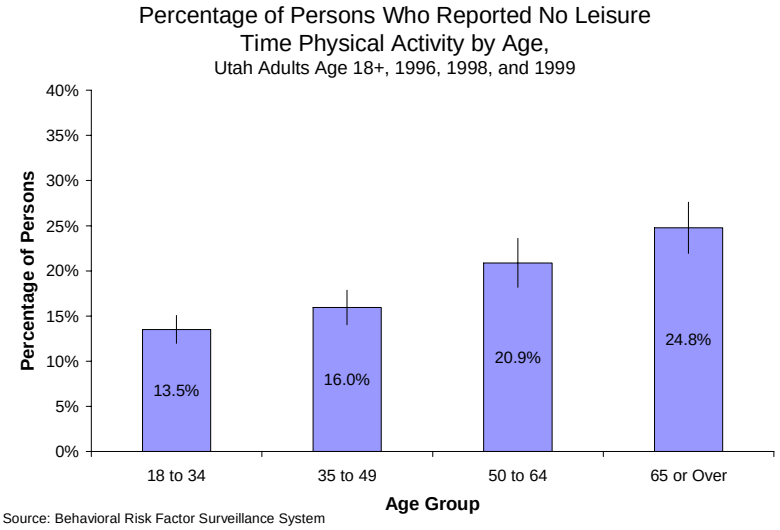
upward linear trend

downward linear trend

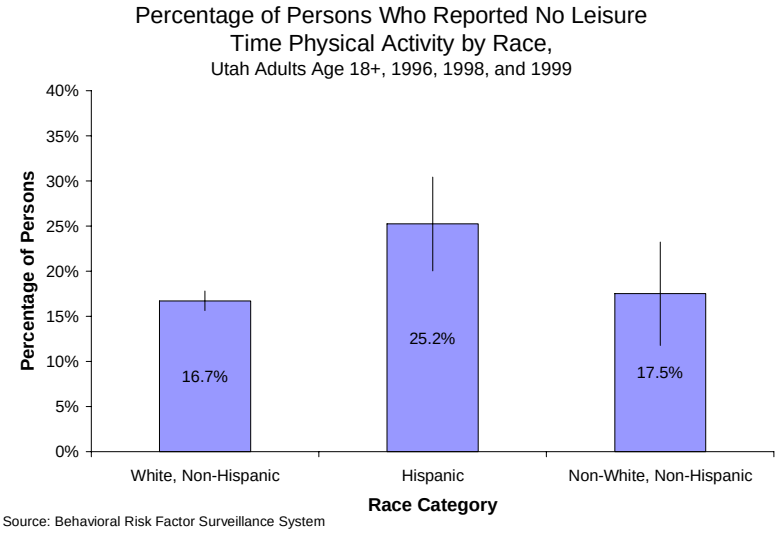
non-linear trend

Physical Inactivity

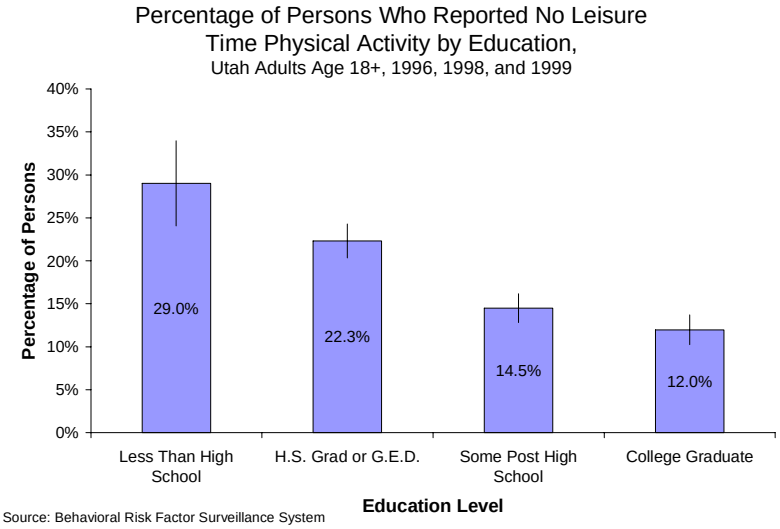
- The estimated percentage of Utah adults who reported no leisure time physical activity increased with increasing age. ($p < 0.0001$)



- Persons in Utah who were Hispanic were more likely to report no leisure time physical activity than Utahns who were White, non-Hispanic. ($p = 0.0074$)



- The percentage of persons in Utah who reported no leisure time physical activity decreased with increasing educational attainment. ($p < 0.0001$)



Physical Inactivity

Percentage of Persons Who Reported No Leisure Time Physical Activity
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996, 1998 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported No Leisure Time Physical Activity				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported No Leisure Time Physical Activity	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported No Leisure Time Physical Activity by Category
Physical Activity Pattern							
Inactive*	17.2%	237,100					
Irregular**	31.2%	429,800					
Regular/Not Vigorous***	36.0%	496,900					
Regular/Vigorous****	15.6%	215,300					
Total, All Adults Age 18+	100.0%	1,379,000					
Sex							
Males	48.8%	673,000	15.5%	14.0%	17.0%	104,300	44.0%
Females	51.2%	706,000	18.8%	17.4%	20.2%	132,700	56.0%
Total, All Adults Age 18+	100.0%	1,379,000	17.2%	16.2%	18.2%	237,100	100.0%
Age Group							
18 to 34	36.8%	508,000	13.5%	12.0%	15.1%	68,700	29.0%
35 to 49	31.5%	434,700	16.0%	14.1%	17.9%	69,400	29.3%
50 to 64	17.3%	238,600	20.9%	18.2%	23.6%	49,800	21.0%
65 or Over	14.3%	197,700	24.8%	21.9%	27.6%	49,000	20.7%
Total, All Adults Age 18+	100.0%	1,379,000	17.2%	16.2%	18.2%	237,100	100.0%
Race							
White, Non-Hispanic	90.8%	1,251,600	16.7%	15.6%	17.8%	209,100	88.1%
Hispanic	5.6%	76,700	25.2%	20.1%	30.4%	19,400	8.2%
Non-White, Non-Hispanic	3.7%	50,700	17.5%	11.8%	23.2%	8,900	3.7%
Total, All Adults Age 18+	100.0%	1,379,000	17.2%	16.2%	18.2%	237,100	100.0%
Income							
Less Than $20,000	17.9%	247,300	23.0%	20.1%	25.9%	56,900	24.4%
$20,000-$49,999	50.7%	698,900	18.0%	16.5%	19.5%	125,700	54.0%
$50,000 or Over	31.4%	432,900	11.6%	9.8%	13.4%	50,300	21.6%
Total, All Adults Age 18+	100.0%	1,379,000	17.2%	16.2%	18.2%	237,100	100.0%
Education							
Less Than High School	6.5%	89,500	29.0%	24.1%	34.0%	26,000	11.0%
H.S. Grad or G.E.D.	31.2%	430,800	22.3%	20.4%	24.3%	96,200	40.6%
Some Post High School	33.5%	461,400	14.5%	12.8%	16.2%	66,900	28.3%
College Graduate	28.8%	397,300	12.0%	10.3%	13.7%	47,600	20.1%
Total, All Adults Age 18+	100.0%	1,379,000	17.2%	16.2%	18.2%	237,100	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

* No Leisure-Time Physical Activity

** Some Activity, but <3 times/week or <20 minutes/session.

*** 3+ times/week, 20+ minutes/session, <50% of capacity.

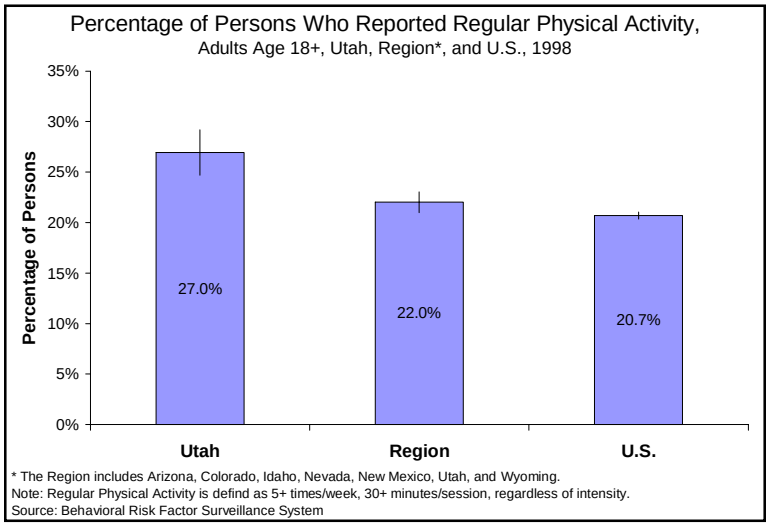
**** 3+ times/week, 20+ minutes/session, 50+% of capacity.

Source: Utah Behavioral Risk Factor Surveillance System

Regular Physical Activity

Question: *The next questions are about exercise, recreation, or physical activities other than your regular job duties. During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? (This measure is based on a group of questions asked of respondents who answer 'yes' to the above question.)*

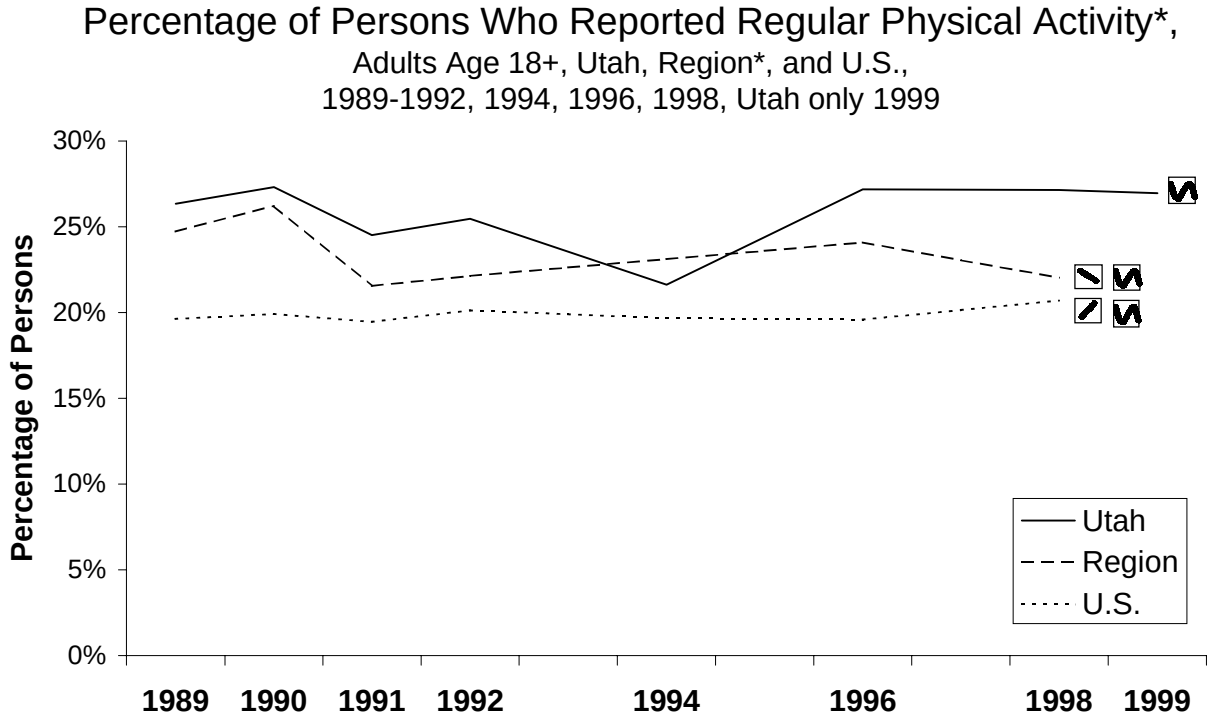
Physical activity is one of the leading health indicators for Healthy People 2010. The benefits of regular physical activity are numerous and well-documented and extend to all age groups. The BRFSS defines regular and sustained physical activity as five or more sessions per week of 30 minutes or more duration per session regardless of intensity. The Utah Department of Health, Cardiovascular Health Program promotes physical activity among Utahns by working collaboratively with communities, work sites, schools, and local health departments.



- In Utah, the estimated percentage of adults who reported regular physical activity decreased from 26.3% in 1989 to a low of 21.6% in 1994 and then increased to 27% in 1999, resulting in no significant linear trend. The significant non-linear trend for Utah is reflected in many changes in the direction of the trend line for the years reported.
- In the Region, the percentage of adults reporting regular physical activity decreased linearly, but also showed a significant non-linear trend due to the changes in direction of the trend line.
- The U.S. trend showed a slight overall linear increase with significant leveling and changes in direction along the way.
- Compared to the Region and the U.S., a higher percentage of Utahns reported regular physical activity for most years looked at in this report.
- Utah did not quite reach the Healthy People 2000 objective (see below).

Utah Objective: By 2010, increase the percentage of adult Utahns who engage in 30 minutes of moderate intensity physical activity on most days of the week to 30%.
HP2000 Goal 1.3: Increase to at least 30% the proportion of people aged 6 and older who engage regularly, preferably daily, in light to moderate physical activity for at least 30 minutes per day.
HP2010 Goal 22-2: Increase the proportion of adults who engage regularly, preferably daily, in moderate physical activity for at least 30 minutes per day to 30%.
CDI: Not used.
CHSI: Not used.

Regular Physical Activity



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Regular Physical Activity is defind as 5+ times/week, 30+ minutes/session, regardless of intensity.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	26.3%	23.9%	28.8%	24.7%	23.3%	26.1%	19.6%	19.1%	20.1%
1990	27.3%	25.1%	29.6%	26.2%	25.0%	27.5%	19.9%	19.5%	20.4%
1991	24.5%	22.2%	26.8%	21.6%	20.4%	22.7%	19.5%	19.0%	19.9%
1992	25.5%	23.2%	27.7%	22.1%	21.1%	23.2%	20.1%	19.8%	20.5%
1994	21.6%	19.5%	23.7%	23.1%	22.0%	24.2%	19.7%	19.3%	20.1%
1996	27.2%	25.0%	29.3%	24.1%	23.0%	25.2%	19.6%	19.2%	19.9%
1998	27.2%	24.9%	29.4%	22.0%	21.0%	23.0%	20.7%	20.4%	21.0%
1999	27.0%	24.8%	29.1%						

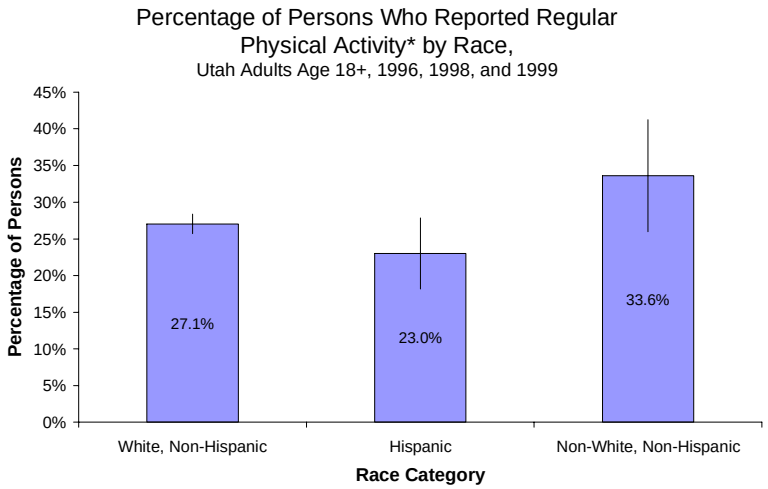
upward linear trend

downward linear trend

non-linear trend

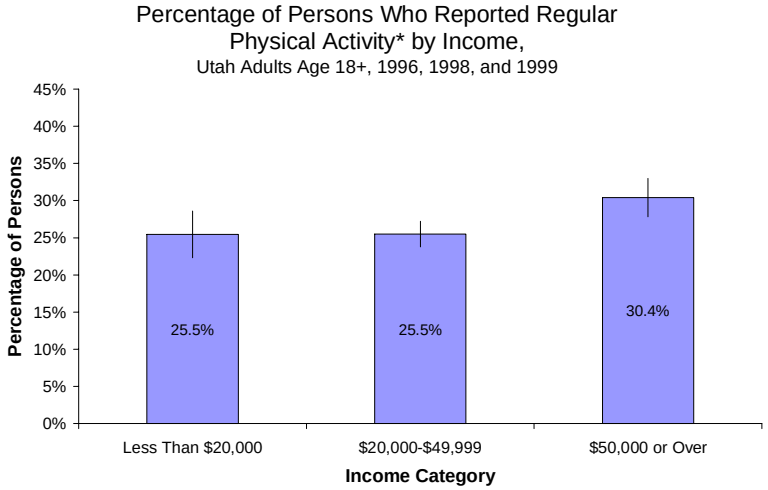
Regular Physical Activity

- Utahns who were Hispanic were less likely to report regular physical activity than Utahns who were non-Hispanic (both White and non-White). (p = 0.0214)



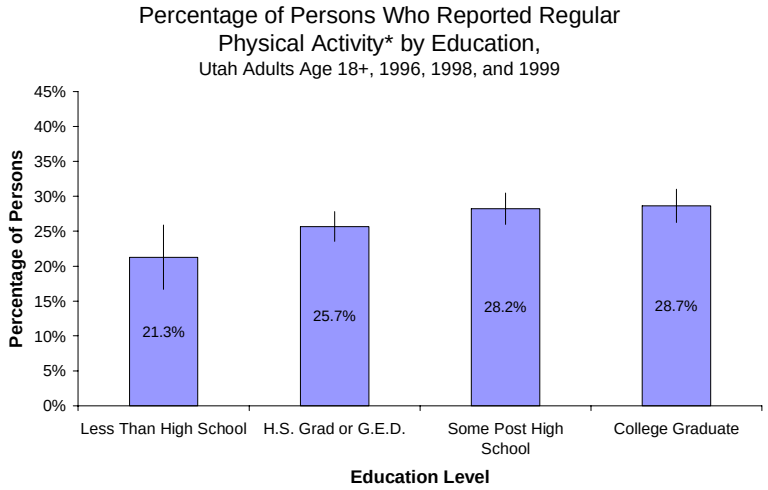
*Regular Physical Activity is defined as 5+ times/week, 30+ minutes/session, regardless of intensity.
Source: Behavioral Risk Factor Surveillance System

- Utah adults with an annual household income of $50,000 or greater were more likely to report regular physical activity than those with an annual household income less than $50,000. (p = 0.0020)



*Regular Physical Activity is defined as 5+ times/week, 30+ minutes/session, regardless of intensity.
Source: Behavioral Risk Factor Surveillance System

The percentage of Utahns who reported regular physical activity increased with increasing education level. (p = 0.0021)



*Regular Physical Activity is defined as 5+ times/week, 30+ minutes/session, regardless of intensity.
Source: Behavioral Risk Factor Surveillance System

Regular Physical Activity

Percentage of Persons Who Reported Regular Physical Activity*
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996, 1998 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported Regular Physical Activity				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Regular Physical Activity	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Regular Physical Activity by Category
Regular Physical Activity							
Yes	27.1%	373,400					
No	72.9%	1,005,600					
Total, All Adults Age 18+	100.0%	1,379,000					
Sex							
Males	48.8%	673,000	27.1%	25.2%	29.0%	182,500	48.9%
Females	51.2%	706,000	27.1%	25.4%	28.7%	191,000	51.1%
Total, All Adults Age 18+	100.0%	1,379,000	27.1%	25.8%	28.4%	373,400	100.0%
Age Group							
18 to 34	36.8%	508,000	26.6%	24.5%	28.7%	135,100	36.2%
35 to 49	31.5%	434,700	27.1%	24.8%	29.4%	117,800	31.6%
50 to 64	17.3%	238,600	26.4%	23.4%	29.3%	62,900	16.9%
65 or Over	14.3%	197,700	28.8%	25.9%	31.8%	57,000	15.3%
Total, All Adults Age 18+	100.0%	1,379,000	27.1%	25.8%	28.4%	373,400	100.0%
Race							
White, Non-Hispanic	90.8%	1,251,600	27.1%	25.7%	28.4%	338,600	90.7%
Hispanic	5.6%	76,700	23.0%	18.2%	27.9%	17,700	4.7%
Non-White, Non-Hispanic	3.7%	50,700	33.6%	26.0%	41.2%	17,000	4.6%
Total, All Adults Age 18+	100.0%	1,379,000	27.1%	25.8%	28.4%	373,400	100.0%
Income							
Less Than $20,000	17.9%	247,300	25.5%	22.3%	28.6%	63,000	16.9%
$20,000-$49,999	50.7%	698,900	25.5%	23.8%	27.2%	178,200	47.8%
$50,000 or Over	31.4%	432,900	30.4%	27.8%	33.0%	131,600	35.3%
Total, All Adults Age 18+	100.0%	1,379,000	27.1%	25.8%	28.4%	373,400	100.0%
Education							
Less Than High School	6.5%	89,500	21.3%	16.7%	25.9%	19,000	5.1%
H.S. Grad or G.E.D.	31.2%	430,800	25.7%	23.6%	27.8%	110,700	29.6%
Some Post High School	33.5%	461,400	28.2%	26.0%	30.5%	130,300	34.9%
College Graduate	28.8%	397,300	28.7%	26.3%	31.0%	113,800	30.4%
Total, All Adults Age 18+	100.0%	1,379,000	27.1%	25.8%	28.4%	373,400	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

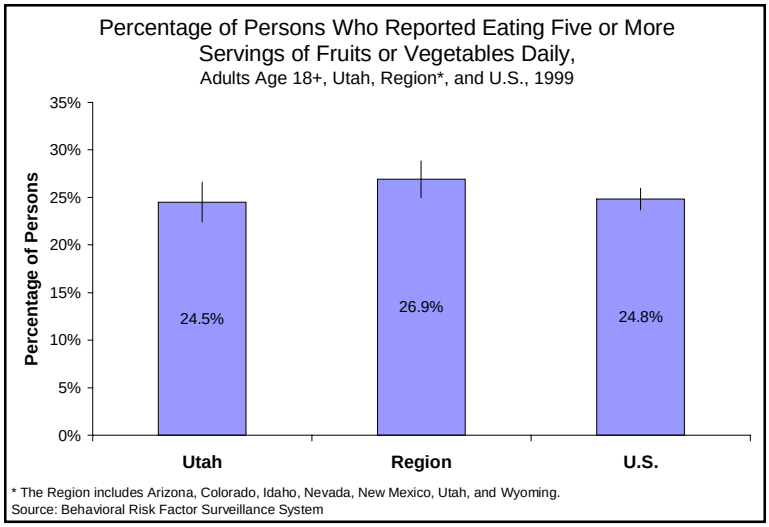
*Regular Physical Activity is defined as 5+ times/week, 30+ minutes/session, regardless of intensity.

Source: Utah Behavioral Risk Factor Surveillance System

5 a Day

Question: *How often do you drink fruit juices, eat fruit, green salad, potatoes, carrots, or other vegetables? (This measure is based on a group of questions about an individual's eating habits.)*

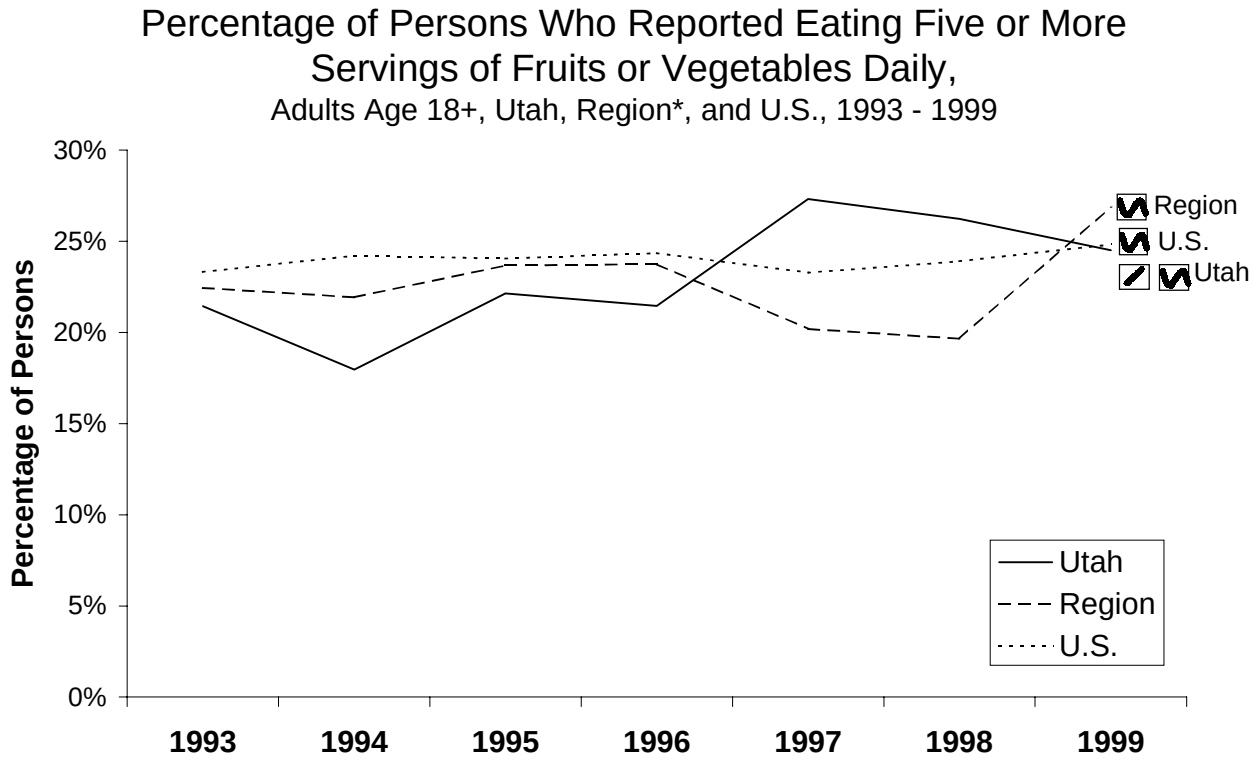
Research suggests that a diet of five or more servings of fruits or vegetables each day is associated with reduced risk for some types of cancers, coronary heart disease, diabetes, and other chronic diseases. Additionally, fruits and vegetables are low in calories and fat, improve your eyesight, reduce blood pressure, taste good and are high in vitamins, minerals and fiber. The Utah Department of Health's Cardiovascular Program is the home of the 5 a Day Program for the state of Utah.



- In Utah, the percentage of adults who reported eating five or more servings of fruits or vegetables daily increased from 21.4% in 1993 to 24.5% in 1999. However, this overall upward trend was marked by significant changes in direction along the way.
- There was no overall change in the percentage of adults who reported eating 5 a Day for the Region. However, there was a significant non-linear trend which indicates both a change in direction for the trend and some years of leveling.
- The U.S. trend line for adults who reported eating 5 a Day was only significant for a non-linear trend indicating a change of direction over the years reported.
- The percentage of adults who reported eating five or more servings of fruits or vegetables daily was less in Utah than in both the U.S. and the Region until 1997 when Utah's percentage surpassed both the U.S. and Region. By 1999, there was no significant difference in this percentage for the three areas.
- According to the BRFSS data, Utah, the Region, and the U.S. remain far below the Healthy People 2000 objective (see below).

Utah Objective: By 2010, increase the proportion of persons aged 2 years and older who consume at least 2 daily servings of fruit to 50% and those who consume 3 daily servings of vegetables to 40%.
HP2000 Goal 2.6: Increase to at least 50% the proportion of people aged 2 and older who meet the *Dietary Guidelines*' average daily goal of five or more servings of vegetables/fruits.
HP2010 Goal 19-5: Increase the proportion of persons aged 2 years and older who consume at least two daily servings of fruit to 75%.
HP2010 Goal 19-6: Increase the proportion of persons aged 2 years and older who consume at least three daily servings of vegetables, with at least one-third being dark green or deep yellow vegetables to 50%.
CDI 55: Fruit and vegetable consumption among adults (percent of respondents age 18 years or older who report eating five or more servings of fruits and vegetables per day).
CHSI: Few fruits/vegetables; percent of respondents not eating 5 servings of fruits and vegetables per day.

5 a Day



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1993	21.4%	19.3%	23.6%	22.5%	20.7%	24.2%	23.3%	22.5%	24.2%
1994	18.0%	16.0%	19.9%	21.9%	20.8%	23.0%	24.2%	23.8%	24.6%
1995	22.2%	20.2%	24.1%	23.7%	21.8%	25.6%	24.1%	23.2%	24.9%
1996	21.5%	19.6%	23.4%	23.7%	22.7%	24.8%	24.4%	24.0%	24.7%
1997	27.3%	25.3%	29.4%	20.2%	18.6%	21.8%	23.3%	22.6%	24.0%
1998	26.2%	24.1%	28.3%	19.7%	18.7%	20.6%	23.9%	23.6%	24.3%
1999	24.5%	22.4%	26.6%	26.9%	25.0%	28.8%	24.8%	23.7%	26.0%

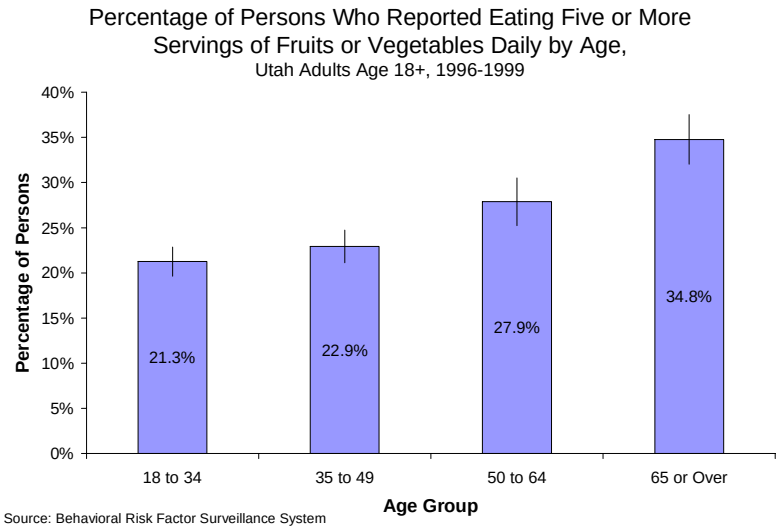
* In the odd years, the Region and U.S. estimates only include states or territories that asked the 'Fruit and Vegetable' module.

upward linear trend

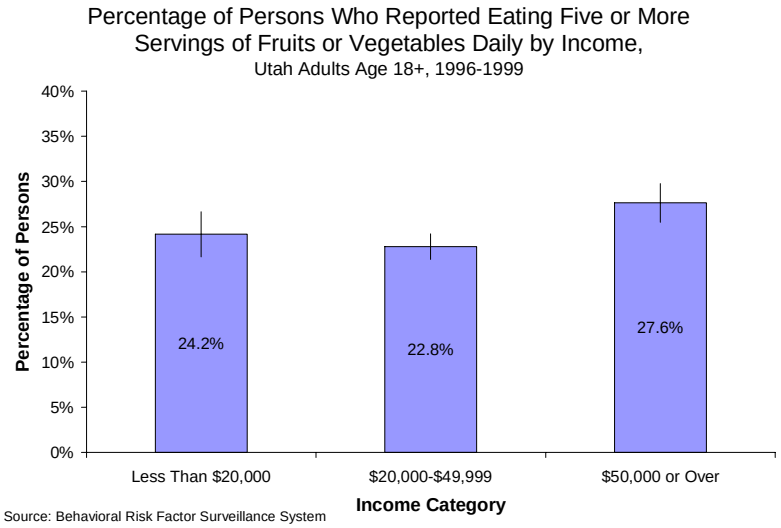
non-linear trend

5 a Day

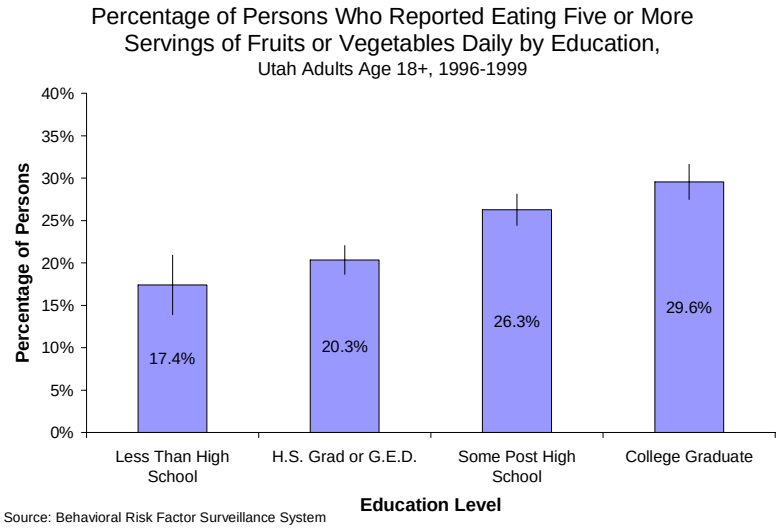
- The percentage of Utah adults who reported eating five or more servings of fruits or vegetables daily increased with age. ($p < 0.0001$)



- Utahns with a household annual income of $50,000 or greater reported eating five or more servings of fruits or vegetables daily more often than those with household incomes less than $50,000/year. ($p = 0.0017$)



- The percentage of Utah adults who reported eating five or more servings of fruits or vegetables daily increased with increasing education level. ($p < 0.0001$)



5 a Day

Percentage of Persons Who Reported Eating Five or More Servings of Fruits or Vegetables Daily

by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

Demographic Subgroup	Utah Population: Distribution	Utah Population: Number of Adults[1]	Survey Estimates of Respondents Who Reported Eating Five or More Servings of Fruits and Vegetables Daily: Percentage of Adults Who Reported Eating Five or More Servings of Fruits and Vegetables Daily	95% Confidence Intervals: Lower	95% Confidence Intervals: Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Eating Five or More Servings of Fruits and Vegetables Daily by Category
Fruit and Vegetable Servings							
Less Than 1 per Day or Never	3.5%	48,200					
1 to 2 Times per Day	34.8%	477,700					
3 to 4 Times per Day	36.9%	506,700					
5 or More Times per Day	24.9%	341,700					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	20.4%	19.0%	21.9%	136,800	40.0%
Females	51.3%	705,000	29.1%	27.6%	30.5%	204,900	60.0%
Total, All Adults Age 18+	100.0%	1,374,400	24.9%	23.8%	25.9%	341,700	100.0%
Age Group							
18 to 34	37.0%	507,900	21.3%	19.7%	22.9%	108,000	31.6%
35 to 49	31.4%	432,100	22.9%	21.1%	24.7%	99,100	29.0%
50 to 64	17.5%	239,900	27.9%	25.2%	30.5%	66,900	19.6%
65 or Over	14.2%	194,500	34.8%	32.0%	37.5%	67,600	19.8%
Total, All Adults Age 18+	100.0%	1,374,400	24.9%	23.8%	25.9%	341,700	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	24.6%	23.5%	25.6%	306,700	89.7%
Hispanic	5.6%	77,200	26.1%	21.6%	30.6%	20,100	5.9%
Non-White, Non-Hispanic	3.5%	48,100	31.3%	24.5%	38.2%	15,100	4.4%
Total, All Adults Age 18+	100.0%	1,374,400	24.9%	23.8%	25.9%	341,700	100.0%
Income							
Less Than $20,000	18.3%	251,300	24.2%	21.7%	26.7%	60,700	18.0%
$20,000-$49,999	50.5%	694,200	22.8%	21.4%	24.2%	158,100	46.9%
$50,000 or Over	31.2%	428,900	27.6%	25.5%	29.8%	118,500	35.1%
Total, All Adults Age 18+	100.0%	1,374,400	24.9%	23.8%	25.9%	341,700	100.0%
Education							
Less Than High School	6.6%	90,700	17.4%	13.9%	20.9%	15,800	4.6%
H.S. Grad or G.E.D.	30.5%	418,800	20.3%	18.6%	22.1%	85,200	25.0%
Some Post High School	34.0%	467,100	26.3%	24.4%	28.1%	122,800	36.0%
College Graduate	28.9%	397,800	29.6%	27.5%	31.6%	117,500	34.4%
Total, All Adults Age 18+	100.0%	1,374,400	24.9%	23.8%	25.9%	341,700	100.0%

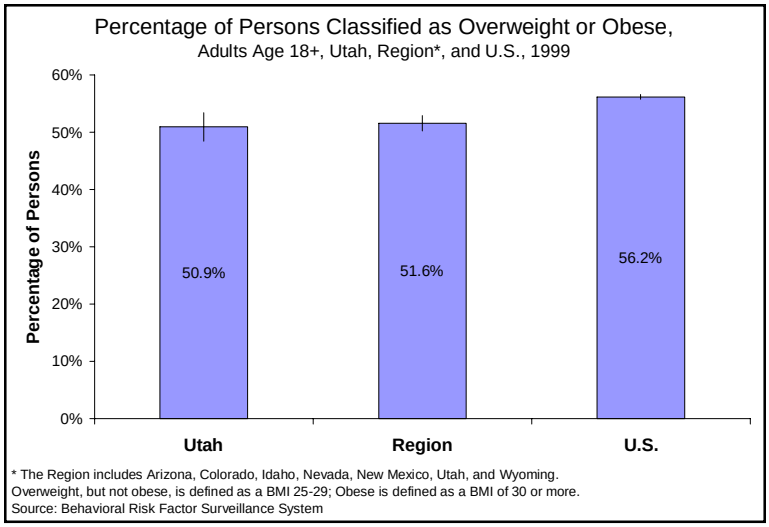
1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Overweight or Obese

Question: *About how much do you weigh without shoes? About how tall are you without shoes?*

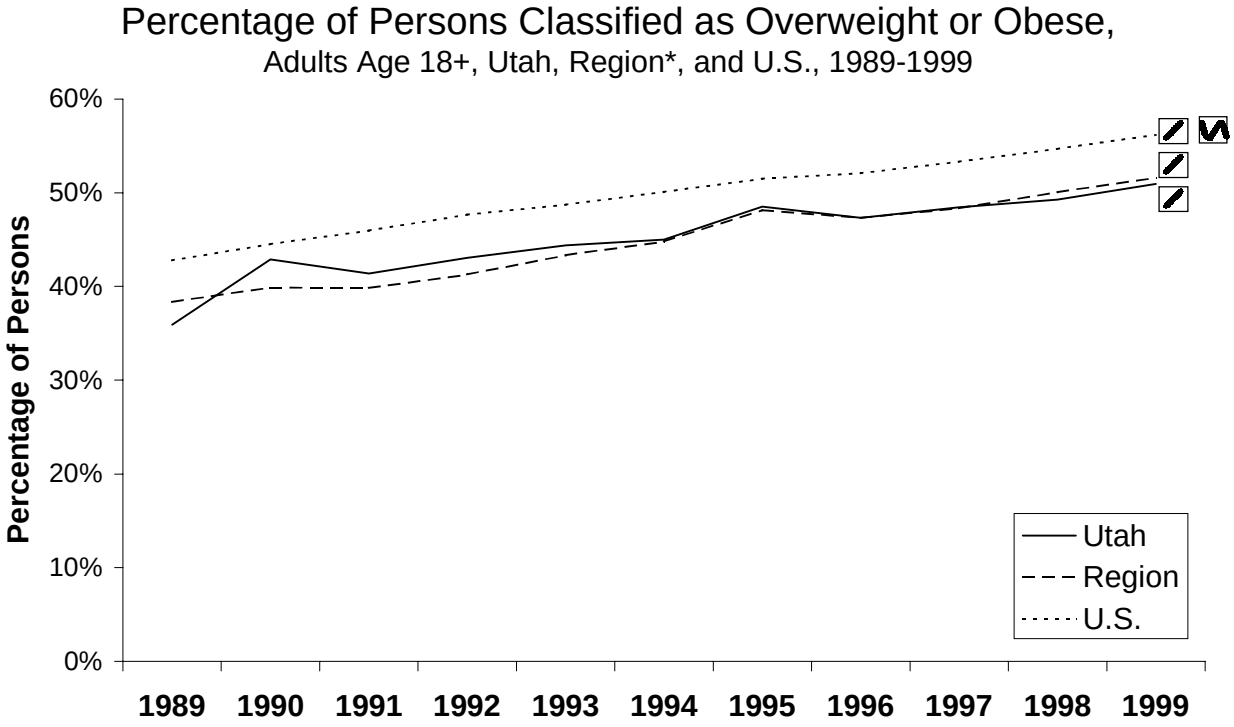


Being overweight increases the risk of many chronic diseases, including heart disease, stroke, hypertension, Type 2 diabetes, osteoarthritis and some cancers. Obesity is a leading cause of preventable death in the U.S. The BRFSS uses self-reported weight and height to calculate the Body Mass Index (BMI), which is defined as weight in kilograms divided by the square of height in meters. In 1998, the National Heart, Lung and Blood Institute defined overweight as a BMI of 25 or more and less than 30, and obesity as a BMI greater than or equal to 30. The Institute of Medicine Committee on Using Performance Monitoring to Improve Community Health proposed that the proportion of the population aged 18 and older who are obese be included as one of 25 Community Health Profile indicators.

- The percentage of adults who were overweight or obese increased steadily and significantly in Utah, the Region and the U.S. from 1989 to 1999. Due to its large sample size, only the U.S. showed a significant non-linear trend suggesting slight changes in the magnitude of this upward trend over the years reported.
- The estimated percentage of adults who were overweight or obese was consistently lower in Utah and the Region as compared to the U.S. as a whole.
- The percentage of adults in Utah who were overweight or obese increased from 35.9% in 1989 to a staggering 50.9% in 1999. This represents roughly a 48% increase in the percentage of Utah adults who were overweight or obese.
- Utah, the Region, and the U.S. have all moved away from the Healthy People 2000 objective to reduce overweight to a prevalence of 20% for people 20 years or older. In Utah, in 1999, 29% of adults were overweight (based on the older definition of overweight as a BMI $\geq$ 27.8 for men and 27.3 for women).

Utah Objective: By 2010, reduce the proportion of adult Utahns who are obese (BMI $\geq$ 30) to 15%.
HP2000 Goal 2.3: Reduce overweight to a prevalence of no more than 20% among people aged 20 and older (overweight is defined as BMI $\geq$ 27.8 for men and $\geq$ 27.3 for women).
HP2010 Goal 9-1: Increase the proportion of adults who are at a healthy weight to 60% (18.5 $\leq$ BMI $\leq$ 25).
HP2010 Goal 9-2: Reduce the proportion of adults who are obese (BMI $\geq$ 30) to 15%.
CDI 53: Overweight prevalence among adults (percent of respondents age 18 years or older who have a BMI > 25.0 kg/m2 calculated from self-reported weight and height).
CHSI: Obesity: The measure used is really 'overweight': defined as BMI > 27.8 for males and 27.3 for females.

Overweight or Obese



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Overweight, but not obese, is defined as a BMI 25-29; Obese is defined as a BMI of 30 or more.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

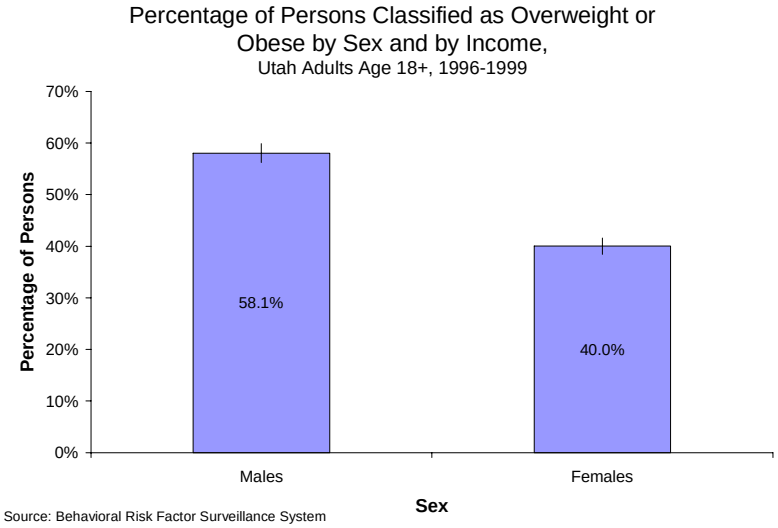
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	35.9%	33.3%	38.6%	38.4%	36.7%	40.0%	42.8%	42.2%	43.4%
1990	42.9%	40.3%	45.5%	39.9%	38.5%	41.3%	44.5%	44.0%	45.1%
1991	41.4%	38.8%	43.9%	39.9%	38.5%	41.2%	46.0%	45.4%	46.5%
1992	43.1%	40.5%	45.6%	41.3%	39.9%	42.6%	47.7%	47.2%	48.1%
1993	44.4%	41.8%	47.0%	43.3%	41.9%	44.8%	48.7%	48.2%	49.2%
1994	45.0%	42.4%	47.6%	44.8%	43.5%	46.1%	50.1%	49.6%	50.6%
1995	48.5%	46.1%	51.0%	48.2%	46.8%	49.5%	51.5%	51.0%	52.0%
1996	47.3%	44.9%	49.8%	47.3%	46.0%	48.7%	52.1%	51.6%	52.5%
1997	48.4%	46.1%	50.8%	48.4%	47.0%	49.7%	53.3%	52.9%	53.7%
1998	49.3%	46.7%	51.8%	50.1%	48.7%	51.4%	54.7%	54.3%	55.1%
1999	50.9%	48.4%	53.4%	51.6%	50.3%	52.9%	56.2%	55.8%	56.6%

upward linear trend

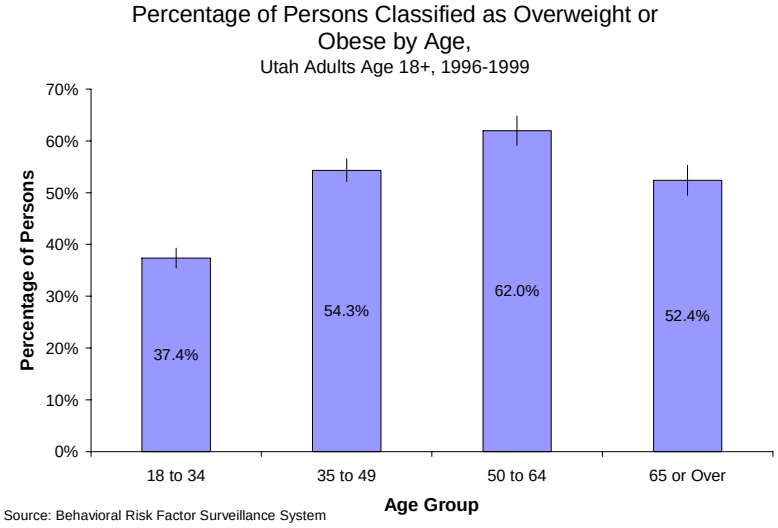
non-linear trend

Overweight or Obese

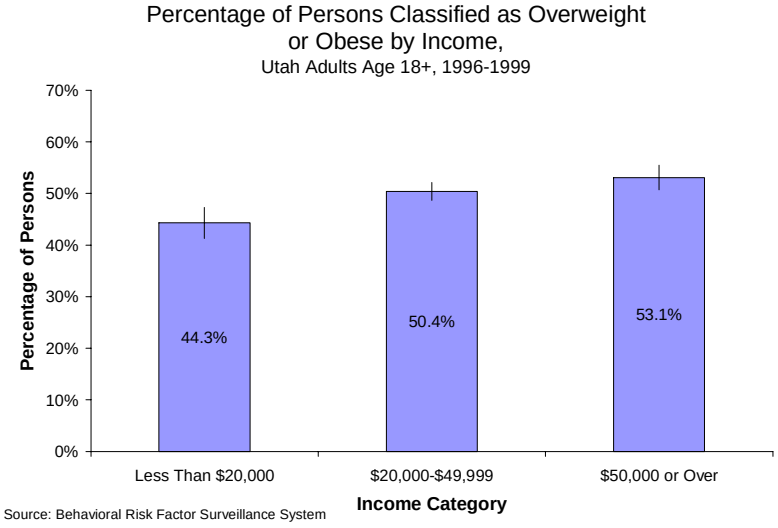
- In Utah, adult males were significantly more likely to be overweight or obese than females. ($p < 0.0001$)



- The prevalence of overweight or obese in Utah adults increased with age through 64 years and then decreased for those 65 years and older. ($p < 0.0001$)



- The percentage of Utah adults who were overweight or obese increased with increasing annual household income level. ($p < 0.0001$)



Overweight or Obese

Percentage of Persons Classified as Overweight* or Obese**
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999.

	Utah Population		Survey Estimates of Respondents Classified as Overweight or Obese				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Classified as Overweight or Obese	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Classified as Overweight or Obese by Category
Overweight or Obese							
Not Overweight or Obese	51.0%	700,700					
Overweight but Not Obese	33.6%	461,700					
Obese	15.4%	212,200					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	58.1%	56.2%	59.9%	388,700	57.9%
Females	51.3%	705,000	40.0%	38.4%	41.6%	282,100	42.1%
Total, All Adults Age 18+	100.0%	1,374,400	49.0%	47.8%	50.3%	673,700	100.0%
Age Group							
18 to 34	37.0%	507,900	37.4%	35.4%	39.3%	189,800	28.1%
35 to 49	31.4%	432,100	54.3%	52.2%	56.5%	234,800	34.8%
50 to 64	17.5%	239,900	62.0%	59.1%	64.9%	148,700	22.0%
65 or Over	14.2%	194,500	52.4%	49.5%	55.3%	101,900	15.1%
Total, All Adults Age 18+	100.0%	1,374,400	49.0%	47.8%	50.3%	673,700	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	48.9%	47.7%	50.2%	611,300	90.7%
Hispanic	5.6%	77,200	53.6%	48.3%	58.8%	41,300	6.1%
Non-White, Non-Hispanic	3.5%	48,100	44.7%	37.8%	51.6%	21,500	3.2%
Total, All Adults Age 18+	100.0%	1,374,400	49.0%	47.8%	50.3%	673,700	100.0%
Income							
Less Than $20,000	18.3%	251,300	44.3%	41.3%	47.3%	111,300	16.2%
$20,000-$49,999	50.5%	694,200	50.4%	48.7%	52.2%	350,000	50.8%
$50,000 or Over	31.2%	428,900	53.1%	50.7%	55.5%	227,600	33.0%
Total, All Adults Age 18+	100.0%	1,374,400	49.0%	47.8%	50.3%	673,700	100.0%
Education							
Less Than High School	6.6%	90,700	49.4%	44.3%	54.5%	44,800	6.7%
H.S. Grad or G.E.D.	30.5%	418,800	47.6%	45.4%	49.7%	199,200	29.6%
Some Post High School	34.0%	467,100	48.7%	46.6%	50.8%	227,500	33.8%
College Graduate	28.9%	397,800	50.8%	48.5%	53.1%	202,100	30.0%
Total, All Adults Age 18+	100.0%	1,374,400	49.0%	47.8%	50.3%	673,700	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

*Overweight, but not obese, is defined as a BMI 25-29.

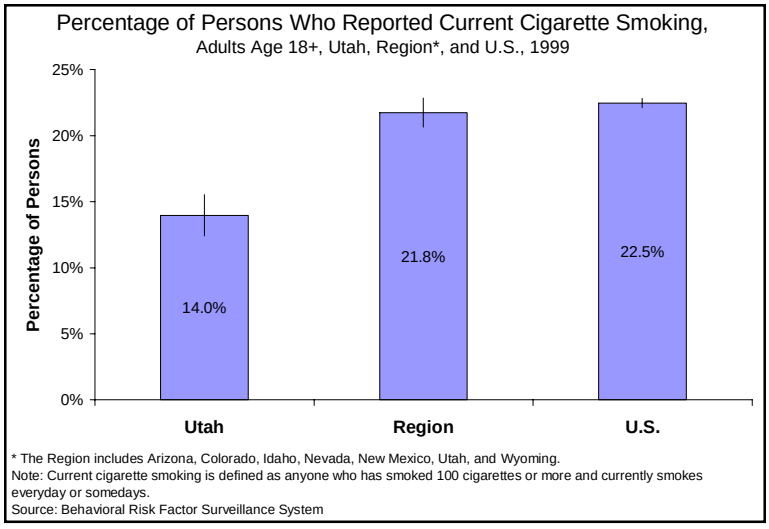
**Obese is defined as a BMI of 30 or more.

Source: Utah Behavioral Risk Factor Surveillance System

Current Cigarette Smoking

Questions: *Have you smoked at least 100 cigarettes in your entire life? Do you smoke cigarettes now? Do you smoke cigarettes everyday, some days, or not at all?*

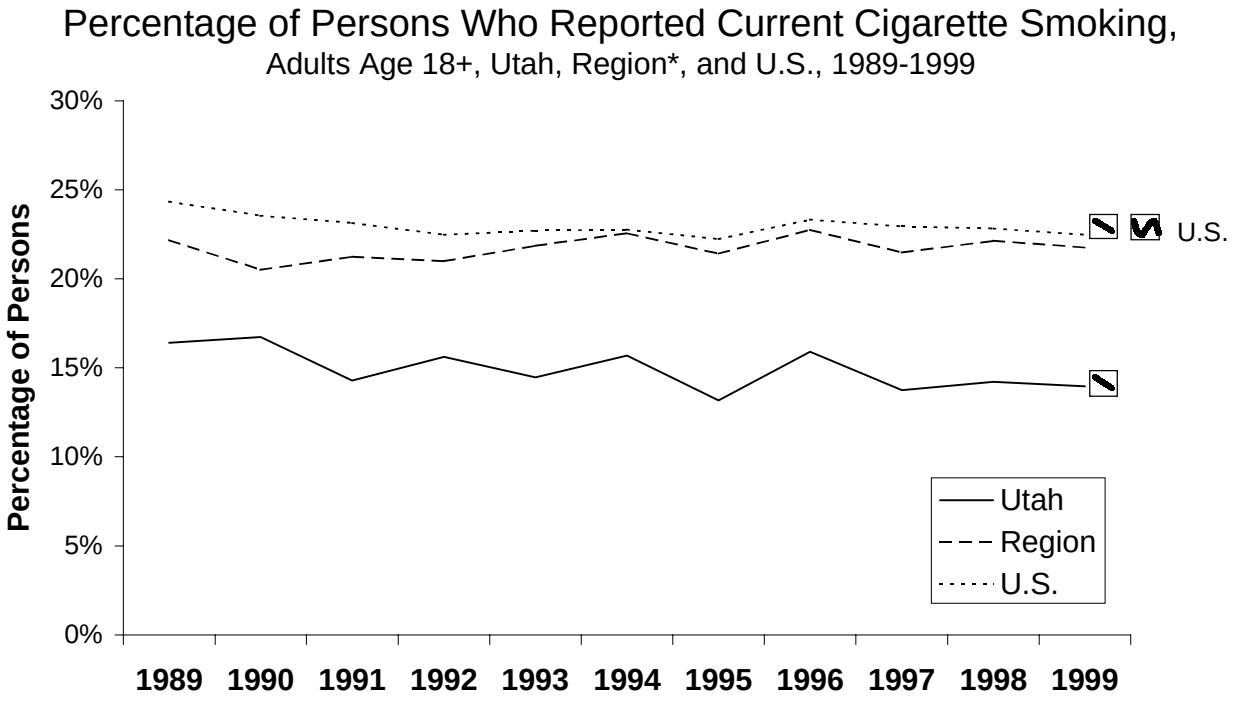
Cigarette smoking causes heart disease, several kinds of cancer and chronic lung disease. Smoking during pregnancy causes miscarriage, low birth weight, and sudden infant death syndrome. Exposure to secondhand smoke has serious health effects, too. The nicotine in tobacco is known to be addictive. The BRFSS defines current smokers as anyone who has ever smoked 100 cigarettes or more and currently smokes every day or some days. The Institute of Medicine Committee on Using Performance Monitoring to Improve Community Health proposed that the proportion of the population who smoke, by age, race and gender as appropriate be included as one of 25 Community Health Profile indicators.



- In Utah the prevalence of current cigarette smoking decreased from 16.4% in 1989 to 14.0% in 1999.
- For the U.S. there was a significant downward trend in the percentage of adults who reported current cigarette smoking over the 11 years reported. For the Region, however, this percentage did not change.
- The U.S. trend for current cigarette smoking was also significant for non-linear trends indicating some years of leveling with changes in direction for other years.
- The prevalence of current cigarette smoking among adults in Utah was significantly lower than that for the Region and the U.S. for all years reported here.
- Utah reached the Healthy People 2000 objective to reduce cigarette smoking to a prevalence of no more than 15% among people aged 18 or older.

Utah Objective: same as HP2010.
HP2000 Goal 3.4: Reduce cigarette smoking to a prevalence of no more than 15% among people aged 18 and older.
HP2010 Goal 27-1: Reduce cigarette smoking by adults to 12%.
CDI 68: Cigarette smoking among adults (percent of respondents age 18 years or older who report having smoked 100 cigarettes in their lifetime and are current smokers on every day or some days).
CHSI: Smoker (prevalence of current cigarettes smoking among adults).

Current Cigarette Smoking



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Current cigarette smoking is defined as anyone who has smoked 100 cigarettes or more and currently smokes everyday or somedays.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

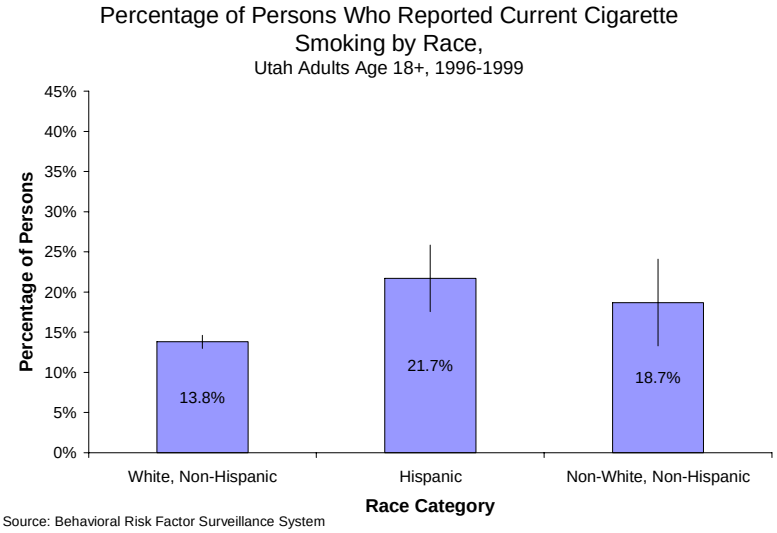
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	16.4%	14.3%	18.6%	22.2%	20.8%	23.6%	24.3%	23.8%	24.9%
1990	16.7%	14.7%	18.8%	20.5%	19.4%	21.6%	23.5%	23.1%	24.0%
1991	14.3%	12.5%	16.1%	21.2%	20.1%	22.4%	23.1%	22.7%	23.6%
1992	15.6%	13.7%	17.5%	21.0%	19.9%	22.1%	22.5%	22.1%	22.9%
1993	14.5%	12.7%	16.3%	21.9%	20.7%	23.0%	22.7%	22.3%	23.1%
1994	15.7%	13.9%	17.5%	22.6%	21.5%	23.7%	22.8%	22.4%	23.2%
1995	13.2%	11.5%	14.9%	21.4%	20.4%	22.5%	22.2%	21.8%	22.6%
1996	15.9%	14.2%	17.6%	22.8%	21.7%	23.8%	23.3%	23.0%	23.7%
1997	13.8%	12.1%	15.4%	21.5%	20.4%	22.5%	22.9%	22.6%	23.3%
1998	14.2%	12.6%	15.8%	22.1%	21.1%	23.2%	22.8%	22.5%	23.2%
1999	14.0%	12.4%	15.5%	21.8%	20.7%	22.9%	22.5%	22.1%	22.8%

downward linear trend

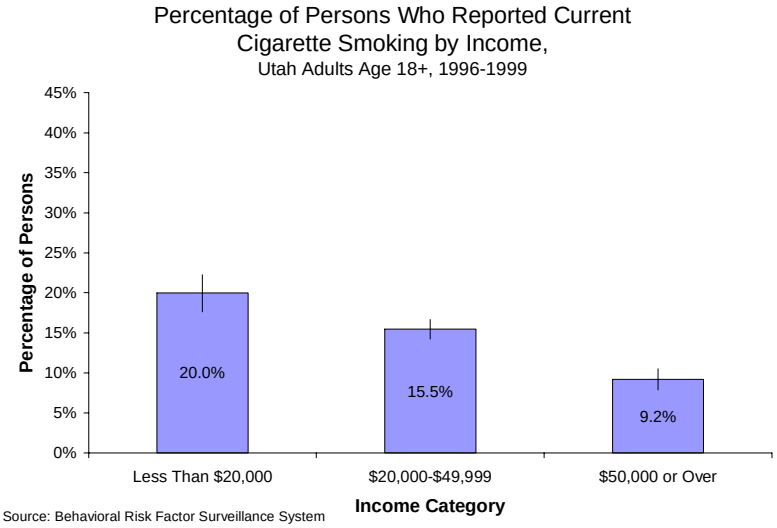
non-linear trend

Current Cigarette Smoking

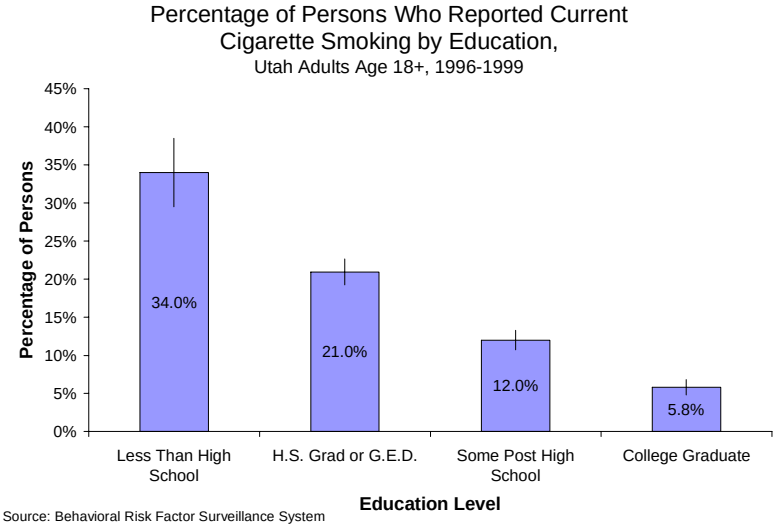
- Utahns who were Hispanic were more likely to report current cigarette smoking than were Utahns who were non-Hispanic (White, or non-White). ($p = 0.0349$)



- The percentage of Utah adults who reported current cigarette smoking decreased substantially with increasing income and education levels. ($p < 0.0001$)



- The highest smoking prevalence in Utah was among those adults with less than a high school education. ($p < 0.0001$)



Current Cigarette Smoking

Percentage of Persons Who Reported Current Cigarette Smoking*
by Selected Demographic Characteristics, Utah Adults Age 18+, 1996-1999

	Utah Population		Survey Estimates of Respondents Who Reported Current Cigarette Smoking				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Current Cigarette Smoking	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Current Cigarette Smoking by Category
Cigarette Smoking Status							
Current	14.4%	198,500					
Former	17.4%	239,600					
Never	68.1%	936,400					
Total, All Adults Age 18+	100.0%	1,374,400					
Sex							
Males	48.7%	669,400	16.8%	15.5%	18.1%	112,600	56.7%
Females	51.3%	705,000	12.2%	11.2%	13.2%	85,900	43.3%
Total, All Adults Age 18+	100.0%	1,374,400	14.4%	13.6%	15.3%	198,500	100.0%
Age Group							
18 to 34	37.0%	507,900	16.6%	15.1%	18.1%	84,400	42.6%
35 to 49	31.4%	432,100	16.5%	14.9%	18.0%	71,100	35.9%
50 to 64	17.5%	239,900	13.4%	11.6%	15.2%	32,100	16.2%
65 or Over	14.2%	194,500	5.5%	4.2%	6.8%	10,700	5.4%
Total, All Adults Age 18+	100.0%	1,374,400	14.4%	13.6%	15.3%	198,500	100.0%
Race							
White, Non-Hispanic	90.9%	1,249,100	13.8%	13.0%	14.6%	172,400	87.0%
Hispanic	5.6%	77,200	21.7%	17.6%	25.9%	16,800	8.5%
Non-White, Non-Hispanic	3.5%	48,100	18.7%	13.3%	24.1%	9,000	4.5%
Total, All Adults Age 18+	100.0%	1,374,400	14.4%	13.6%	15.3%	198,500	100.0%
Income							
Less Than $20,000	18.3%	251,300	20.0%	17.6%	22.3%	50,200	25.5%
$20,000-$49,999	50.5%	694,200	15.5%	14.2%	16.7%	107,300	54.5%
$50,000 or Over	31.2%	428,900	9.2%	7.9%	10.5%	39,300	20.0%
Total, All Adults Age 18+	100.0%	1,374,400	14.4%	13.6%	15.3%	198,500	100.0%
Education							
Less Than High School	6.6%	90,700	34.0%	29.5%	38.5%	30,800	15.6%
H.S. Grad or G.E.D.	30.5%	418,800	21.0%	19.2%	22.7%	87,700	44.3%
Some Post High School	34.0%	467,100	12.0%	10.7%	13.3%	56,100	28.4%
College Graduate	28.9%	397,800	5.8%	4.8%	6.8%	23,200	11.7%
Total, All Adults Age 18+	100.0%	1,374,400	14.4%	13.6%	15.3%	198,500	100.0%

1 Rounded to the nearest 100 persons.

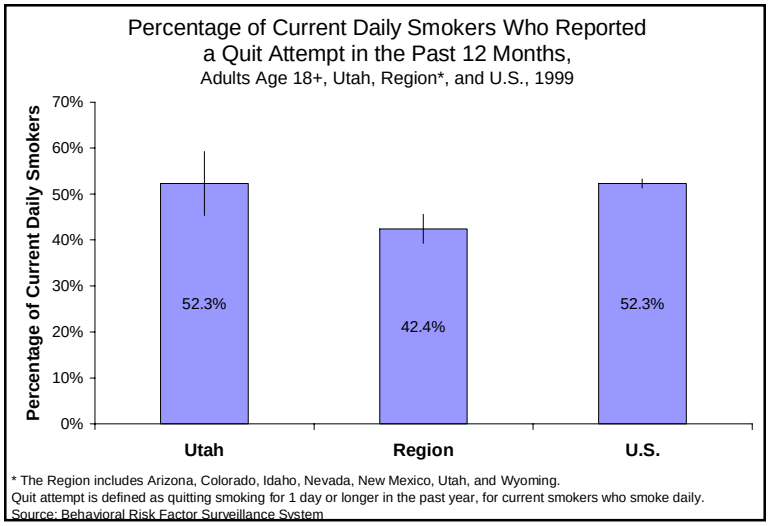
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

* Current cigarette smoking is defined as anyone who has smoked 100 cigarettes or more and currently smokes everyday or somedays.

Source: Utah Behavioral Risk Factor Surveillance System

Quit Attempt

Question: *During the past 12 months, have you quit smoking for 1 day or longer?*

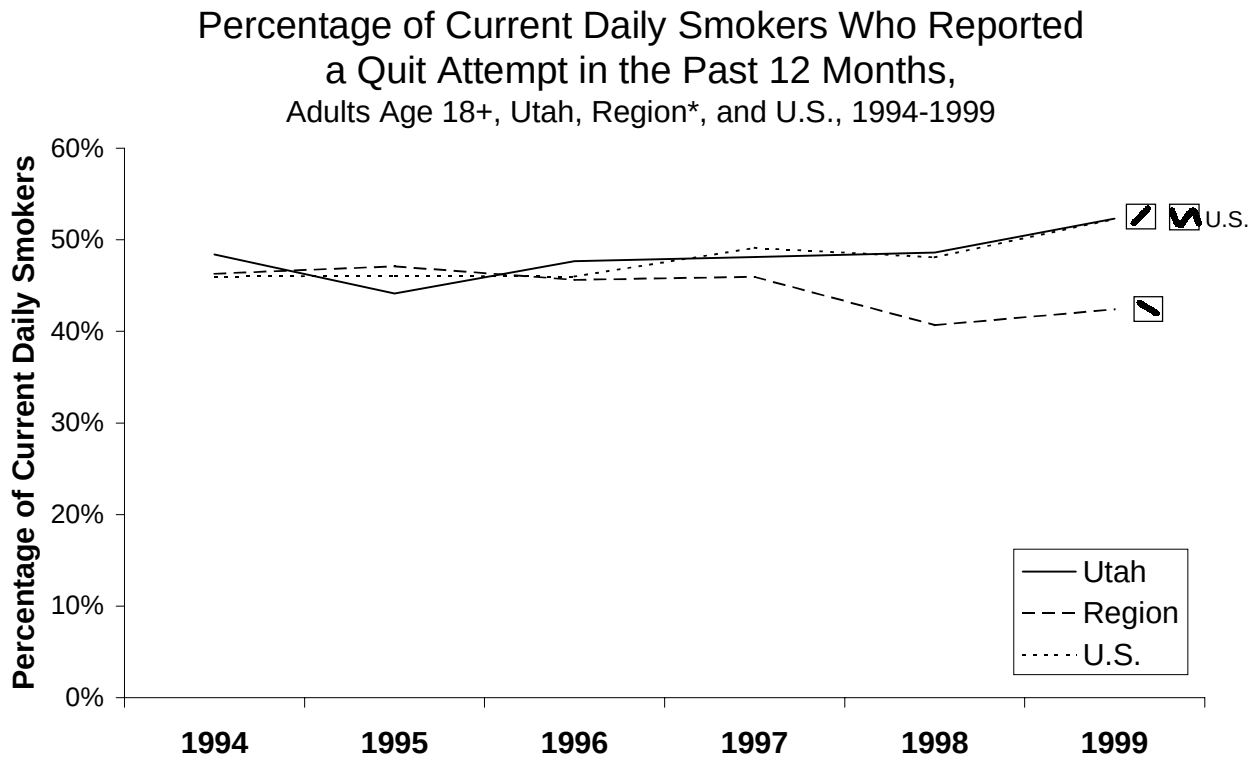


Quitting smoking carries major and immediate health benefits for men and women of all ages, even those in the older age groups who have smoked for many years. Tobacco addiction is so powerful that millions of tobacco users have been unable to overcome their dependence. Since 1977, the American Cancer Society (ACS) has sponsored the annual Great American Smokeout to encourage smokers to stop smoking for at least 24 hours in the hopes that they will then be able to quit completely. From 1991 to 1993 the BRFSS asked this question of all current smokers (those who smoked everyday and somedays). However, since 1994 the BRFSS asked this question of only a subset of current smokers, those who reported smoking everyday. Due to the change in who was asked the question, this report looks at the data from 1994 to 1999 only. One shortcoming of this question is that it doesn't measure the percentage of persons who actually were successful at quitting smoking in the past 12 months.

- In Utah, the estimated percentage of current daily smokers who reported quitting smoking for one day or longer in the past 12 months did not change significantly from 48.4% in 1994 to 52.3% in 1999.
- In the Region the percentage of current daily smokers who reported quitting smoking for one day or longer in the past 12 months decreased significantly from 46.3% in 1994 to 42.4% in 1999.
- There was a significant increase in the percentage of current daily smokers who reported quitting smoking for one day or longer in the past 12 months in the U.S. from 44.9% in 1994 to 52.3% in 1999. This overall increase occurred primarily between 1996 and 1999 as indicated by a significant non-linear trend.
- Utah and the U.S. reached the Healthy People 2000 objective to increase to at least 50% the proportion of cigarette smokers who stopped smoking for at least one day during the preceding year.

Utah Objective: No objective listed.
HP2000 Goal 3.6: Increase to at least 50% the proportion of cigarette smokers aged 18 and older who stopped smoking cigarettes for at least one day during the preceding year.
HP2010 Goal 27-5: Increase smoking cessation attempts by adult smokers to 75% (cigarette smokers aged 18 years and older who stopped smoking for a day or longer because they were trying to quit).
CDI: Not used.
CHSI: Not used.

Quit Attempt



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Quit attempt is defined as quitting smoking for 1 day or longer in the past year, for current smokers who smoke daily.
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Smokers	Lower	Upper	Percentage of Smokers	Lower	Upper	Percentage of Smokers	Lower	Upper
1994	48.4%	41.4%	55.4%	46.3%	43.1%	49.5%	46.0%	44.9%	47.1%
1995	44.2%	37.3%	51.0%	47.1%	44.2%	50.1%	46.1%	45.0%	47.1%
1996	47.7%	41.3%	54.0%	45.6%	42.6%	48.7%	46.0%	45.0%	47.0%
1997	48.1%	41.4%	54.8%	46.0%	42.8%	49.1%	49.1%	48.2%	50.1%
1998	48.6%	41.4%	55.8%	40.7%	37.7%	43.6%	48.1%	47.1%	49.1%
1999	52.3%	45.4%	59.3%	42.4%	39.2%	45.6%	52.3%	51.3%	53.3%

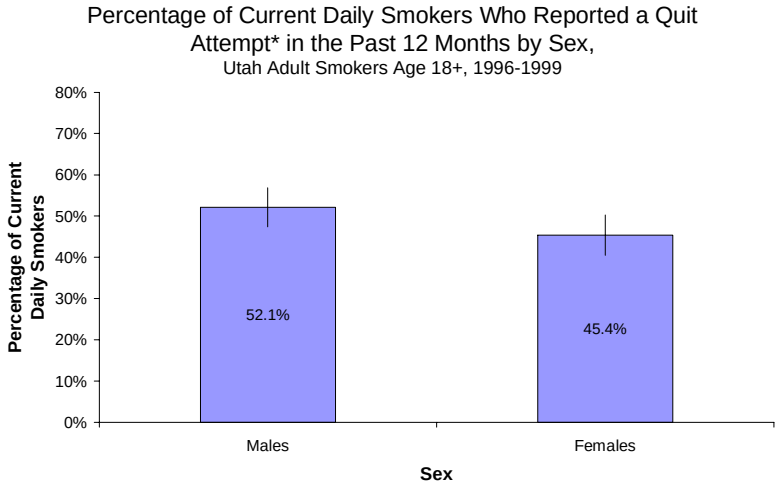
upward linear trend

downward linear trend

non-linear trend

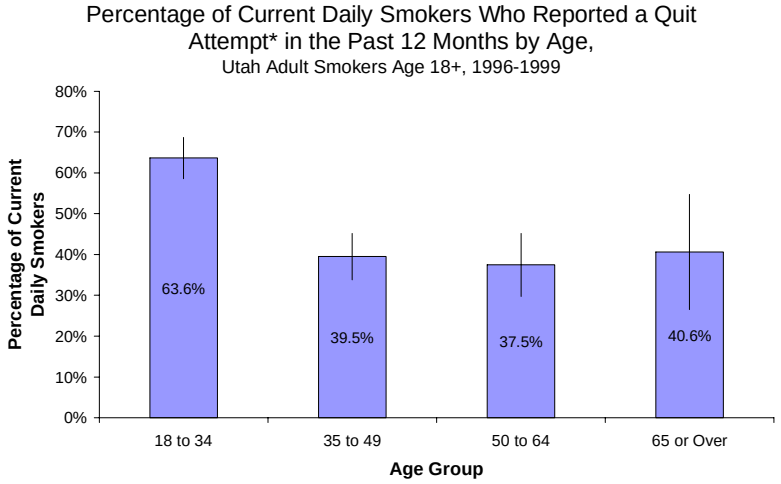
Quit Attempt

- There was no significant difference in the percentage of current daily smokers who reported a quit attempt in the past 12 months between males and females.



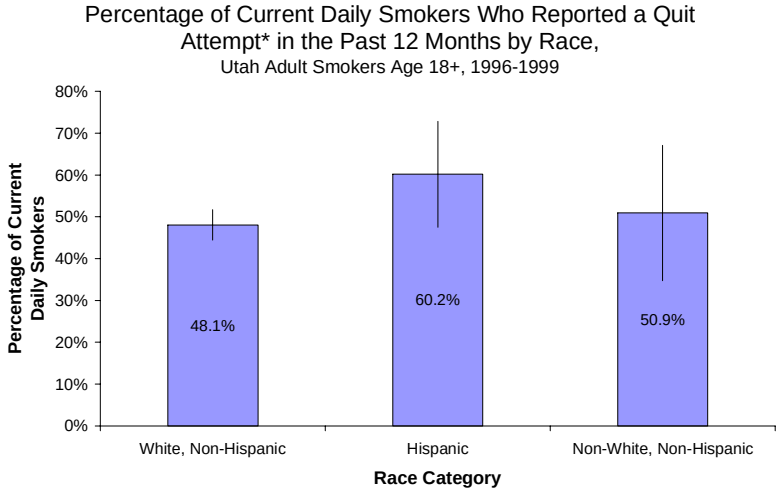
*Quit attempt is defined as quitting smoking for 1 day or longer in the past year, for current smokers who smoke daily.
Source: Behavioral Risk Factor Surveillance System

- Utah current daily smokers 18 through 34 years old were much more likely to report quitting smoking for one day or longer during the past 12 months than older smokers. ($p < 0.0001$)



*Quit attempt is defined as quitting smoking for 1 day or longer in the past year, for current smokers who smoke daily.
Source: Behavioral Risk Factor Surveillance System

- Because of the small numbers of current daily smokers in Utah, even with four years of combined data, nothing can be said about differences between racial, income and educational groups regarding the percentage who reported quitting smoking for one day or longer during the past 12 months.



*Quit attempt is defined as quitting smoking for 1 day or longer in the past year, for current smokers who smoke daily.
Source: Behavioral Risk Factor Surveillance System

Quit Attempt

Percentage of Current Daily Smokers Who Reported a Quit Attempt* in the Past 12 Months

by Selected Demographic Characteristics, Utah Adult Current Daily Smokers Age 18+, 1996-1999.

	Utah Population		Survey Estimates of Current Daily Smokers Who Reported a Quit Attempt in Past 12 Months				
Demographic Subgroup	Distribution	Number of Current Daily Smokers[1]	Percentage of Adult Current Daily Smokers Who Reported Quit Attempt in Past 12 Months	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Current Daily Smokers[1, 2]	Distribution of Adult Current Daily Smokers Who Reported Quit Attempt in Past 12 Months by Category
Quit Attempt							
Yes	49.1%	74,300					
No	50.9%	77,000					
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300					
Sex							
Males	55.1%	83,300	52.1%	47.4%	56.9%	43,400	58.4%
Females	44.9%	68,000	45.4%	40.5%	50.2%	30,900	41.6%
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300	49.1%	45.7%	52.5%	74,300	100.0%
Age Group							
18 to 34	40.4%	61,100	63.6%	58.6%	68.7%	38,900	52.5%
35 to 49	36.7%	55,600	39.5%	33.8%	45.2%	22,000	29.7%
50 to 64	17.1%	25,900	37.5%	29.7%	45.2%	9,700	13.1%
65 or Over	5.8%	8,700	40.6%	26.5%	54.7%	3,500	4.7%
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300	49.1%	45.7%	52.5%	74,300	100.0%
Race							
White, Non-Hispanic	88.5%	133,900	48.1%	44.5%	51.7%	64,400	86.7%
Hispanic	7.4%	11,200	60.2%	47.5%	72.9%	6,700	9.0%
Non-White, Non-Hispanic	4.1%	6,200	50.9%	34.7%	67.1%	3,200	4.3%
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300	49.1%	45.7%	52.5%	74,300	100.0%
Income							
Less Than $20,000	25.8%	39,000	53.0%	46.5%	59.5%	20,700	28.1%
$20,000-$49,999	54.0%	81,700	48.2%	43.3%	53.1%	39,300	53.4%
$50,000 or Over	20.2%	30,600	44.6%	36.1%	53.1%	13,600	18.5%
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300	49.1%	45.7%	52.5%	74,300	100.0%
Education							
Less Than High School	17.2%	26,100	52.9%	44.8%	61.0%	13,800	18.6%
H.S. Grad or G.E.D.	46.1%	69,700	46.2%	41.1%	51.3%	32,200	43.4%
Some Post High School	26.2%	39,700	48.8%	42.3%	55.3%	19,400	26.1%
College Graduate	10.5%	15,900	55.1%	43.8%	66.3%	8,800	11.9%
Total, All Adult Current Daily Smokers Age 18+	100.0%	151,300	49.1%	45.7%	52.5%	74,300	100.0%

1 Rounded to the nearest 100 persons.

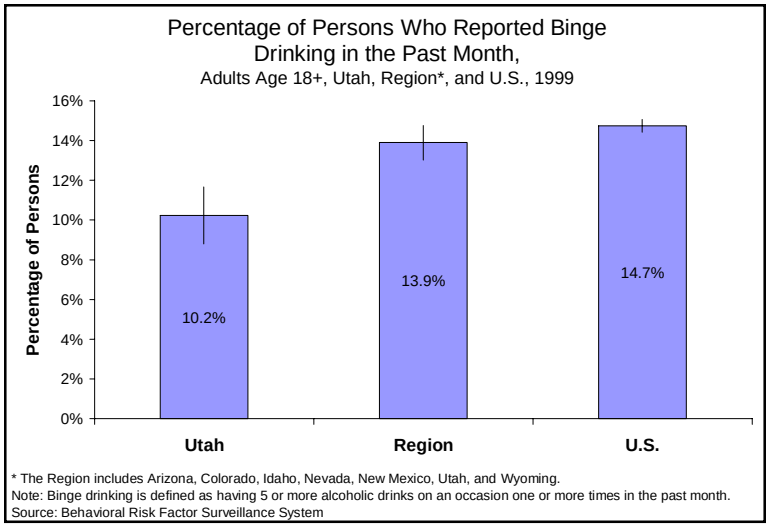
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

*Quit attempt is defined as quitting smoking for 1 day or longer in the past year, for current smokers who smoke daily.

Source: Utah Behavioral Risk Factor Surveillance System

Binge Drinking

Question: *Considering all types of alcoholic beverages, how many times during the past month did you have 5 or more drinks on an occasion?*

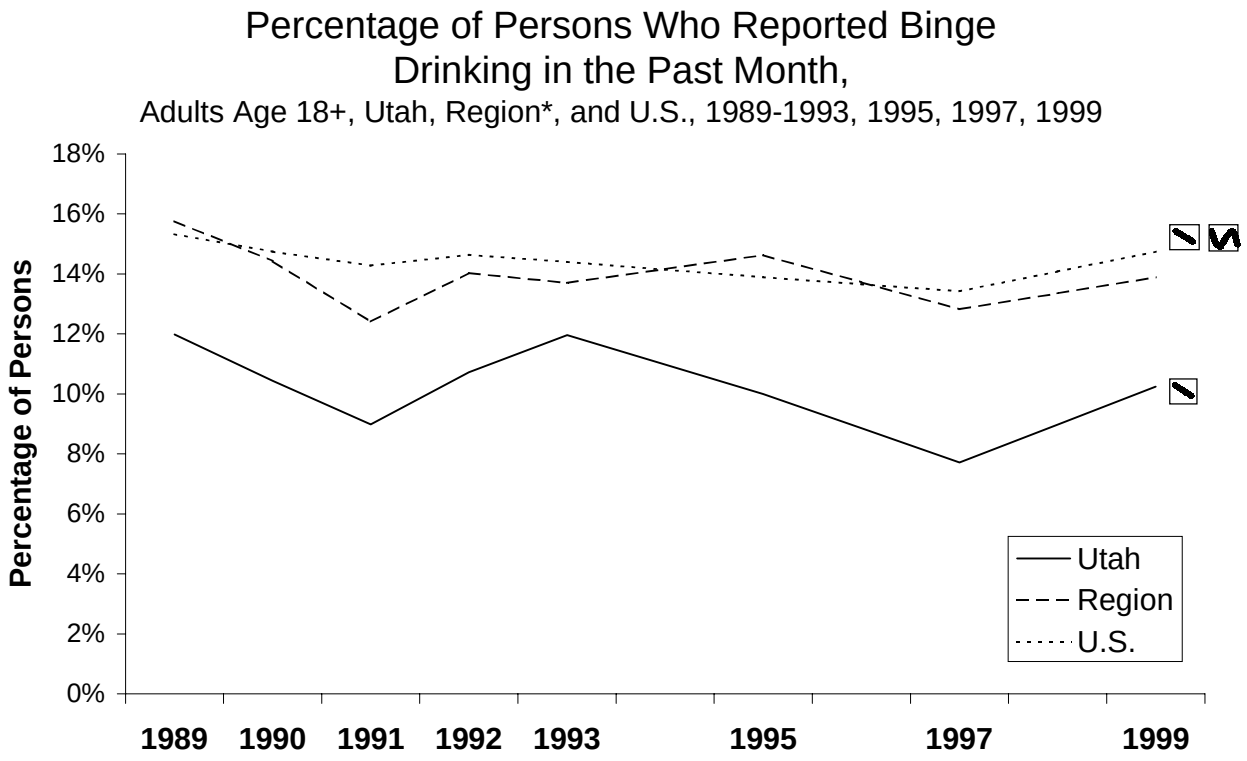


Binge drinking is a problem nationally especially among males and young adults. Alcohol abuse is strongly associated with injuries and violence, chronic liver disease, fetal alcohol syndrome, and risk of other acute and chronic health conditions. Binge drinking among women of childbearing age is a problem because of the risk for prenatal alcohol exposures, especially exposures occurring before a woman is aware she is pregnant. Binge drinking is defined as consuming five or more drinks of alcohol on an occasion one or more times in the past 30 days. A drink is defined as one can or bottle of beer (12 ounces), one glass of wine (5 ounces), one can or bottle of wine cooler, one cocktail or one shot of liquor (1.5 ounces of 80-proof distilled spirits).

- In Utah, the percentage of persons who reported binge drinking in the past 30 days decreased significantly from 12% in 1989 to 10.2% in 1999.
- For the Region, the change in the percentage of persons who reported binge drinking in the past 30 days was not quite statistically significant even though the magnitude of the change was greater for the Region than that for the U.S. This result is due to the fact that the sample size is much larger for the U.S. than the Region.
- For the U.S., there was a significant linear trend downward in the percentage of adults reporting binge drinking. There was also a significant non-linear trend suggesting leveling from 1990 to 1994 and a change in direction due to an increase between 1997 and 1999.
- The estimated percentage of adults who reported binge drinking in the past 30 days was substantially lower in Utah than in the Region or U.S. for all years looked at in this report.
- Despite the fact that reported prevalence of binge drinking for adults is lower in Utah than for the Region or the U.S., Utah still has a way to go to reach the Healthy People 2010 objective of 6%.

Utah Objective: No objective listed.
HP2000: No objective listed.
HP2010 Goal 26-11: Reduce the proportion of adults aged 18 years and older engaging in binge drinking of alcoholic beverages to 6%.
CDI 1: Binge drinking among adults (percent of respondents age 18 years or older who report having five or more drinks on one or more occasions during the past month).
CHSI: Not used.

Binge Drinking



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	12.0%	10.1%	13.9%	15.8%	14.5%	17.1%	15.3%	14.9%	15.8%
1990	10.4%	8.7%	12.2%	14.4%	13.4%	15.5%	14.7%	14.3%	15.2%
1991	9.0%	7.5%	10.4%	12.4%	11.4%	13.4%	14.3%	13.9%	14.7%
1992	10.7%	9.1%	12.3%	14.0%	13.1%	15.0%	14.6%	14.3%	15.0%
1993	12.0%	10.3%	13.6%	13.7%	12.7%	14.7%	14.4%	14.0%	14.8%
1995	10.0%	8.5%	11.5%	14.6%	13.7%	15.6%	13.9%	13.5%	14.3%
1997	7.7%	6.5%	8.9%	12.8%	11.9%	13.7%	13.4%	13.1%	13.7%
1999	10.2%	8.8%	11.7%	13.9%	13.0%	14.8%	14.7%	14.4%	15.1%

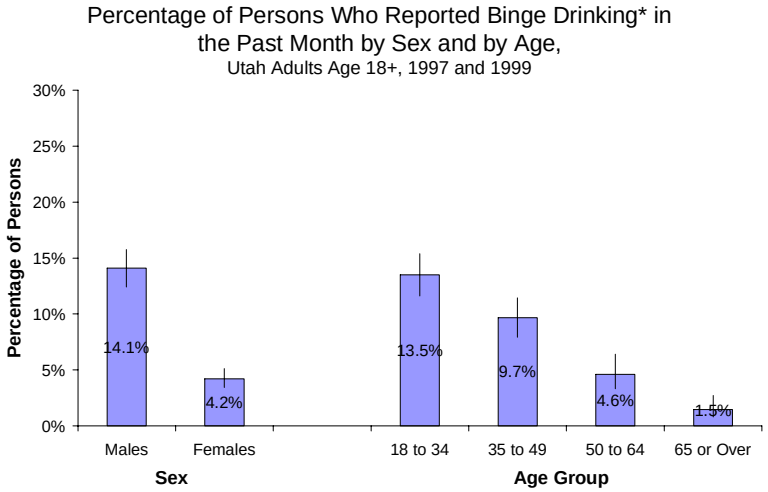
downward linear trend

non-linear trend

Binge Drinking

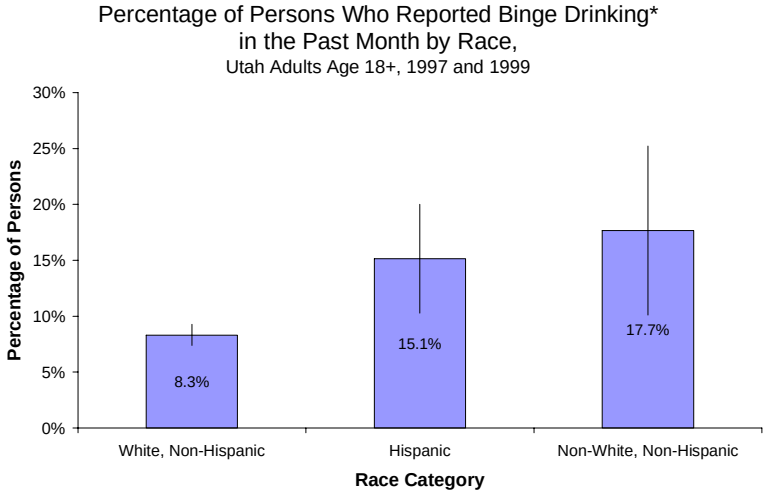
- Males in Utah were far more likely to report binge drinking than were females. ($p < 0.0001$)

- Utah adults in the 18-34 age group were much more likely to report binge drinking than all other age groups. The percentage of Utah adults who reported binge drinking in the past 30 days decreased with increasing age. ($p < 0.0001$)



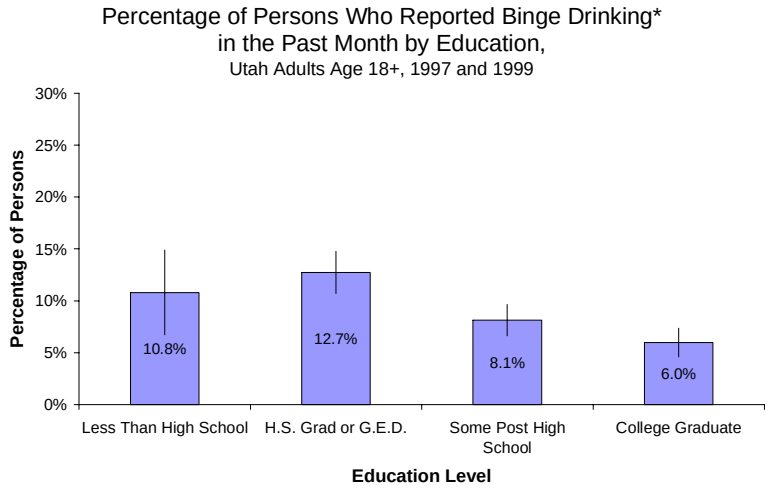
*Binge drinking is defined as having 5 or more alcoholic drinks on an occassion one or more times in the past month.
Source: Behavioral Risk Factor Surveillance System

- Utahns who were White, non-Hispanic were less likely to report binge drinking than Utahns who were Hispanic or non-White, non-Hispanic. ($p = 0.0006$)



*Binge drinking is defined as having 5 or more alcoholic drinks on an occassion one or more times in the past month.
Source: Behavioral Risk Factor Surveillance System

- The percentage of Utah adults who reported binge drinking in the past 30 days decreased with increasing educational level. ($p = 0.0045$)



*Binge drinking is defined as having 5 or more alcoholic drinks on an occassion one or more times in the past month.
Source: Behavioral Risk Factor Surveillance System

Binge Drinking

Percentage of Persons Who Reported Binge Drinking* in the Past Month
by Selected Demographic Characteristics, Utah Adults Age 18+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported Binge Drinking				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Binge Drinking	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Binge Drinking by Category
Binge Drinking							
Yes	9.0%	125,500					
No	91.0%	1,267,000					
Total, All Adults Age 18+	100.0%	1,392,500					
Sex							
Males	48.8%	679,000	14.1%	12.4%	15.8%	95,700	76.1%
Females	51.2%	713,500	4.2%	3.5%	5.1%	30,000	23.9%
Total, All Adults Age 18+	100.0%	1,392,500	9.0%	8.1%	9.9%	125,500	100.0%
Age Group							
18 to 34	36.7%	510,600	13.5%	11.6%	15.4%	68,900	54.9%
35 to 49	31.3%	436,100	9.7%	7.9%	11.4%	42,200	33.6%
50 to 64	18.0%	250,100	4.6%	3.3%	6.4%	11,500	9.2%
65 or Over	14.1%	195,600	1.5%	0.8%	2.7%	2,900	2.3%
Total, All Adults Age 18+	100.0%	1,392,500	9.0%	8.1%	9.9%	125,500	100.0%
Race							
White, Non-Hispanic	91.2%	1,270,000	8.3%	7.4%	9.3%	105,700	84.4%
Hispanic	5.6%	78,100	15.1%	10.3%	20.0%	11,800	9.4%
Non-White, Non-Hispanic	3.2%	44,400	17.7%	10.1%	25.2%	7,800	6.2%
Total, All Adults Age 18+	100.0%	1,392,500	9.0%	8.1%	9.9%	125,500	100.0%
Income							
Less Than $20,000	17.9%	249,500	10.2%	7.6%	12.7%	25,300	19.5%
$20,000-$49,999	49.3%	686,800	8.9%	7.6%	10.3%	61,300	47.2%
$50,000 or Over	32.8%	456,200	9.5%	7.7%	11.3%	43,300	33.3%
Total, All Adults Age 18+	100.0%	1,392,500	9.0%	8.1%	9.9%	125,500	100.0%
Education							
Less Than High School	6.5%	90,700	10.8%	6.7%	14.9%	9,800	7.8%
H.S. Grad or G.E.D.	29.3%	407,900	12.7%	10.7%	14.8%	51,900	41.3%
Some Post High School	35.0%	487,200	8.1%	6.6%	9.7%	39,700	31.6%
College Graduate	29.2%	406,700	6.0%	4.6%	7.4%	24,300	19.3%
Total, All Adults Age 18+	100.0%	1,392,500	9.0%	8.1%	9.9%	125,500	100.0%

1 Rounded to the nearest 100 persons.

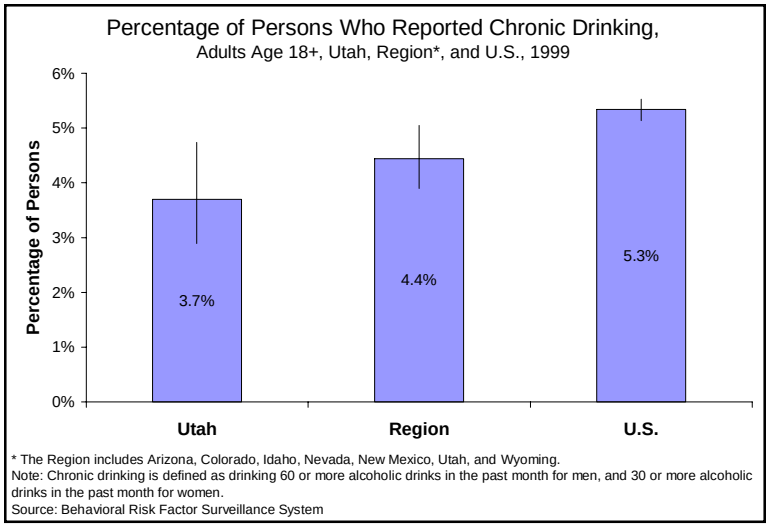
2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

*Binge drinking is defined as having 5 or more alcoholic drinks on an occassion one or more times in the past month.

Source: Utah Behavioral Risk Factor Surveillance System

Chronic Drinking

Questions: *During the past month, how many days per week or per month did you drink any alcoholic beverages, on the average? On the days when you drank, about how many drinks did you drink on the average?*

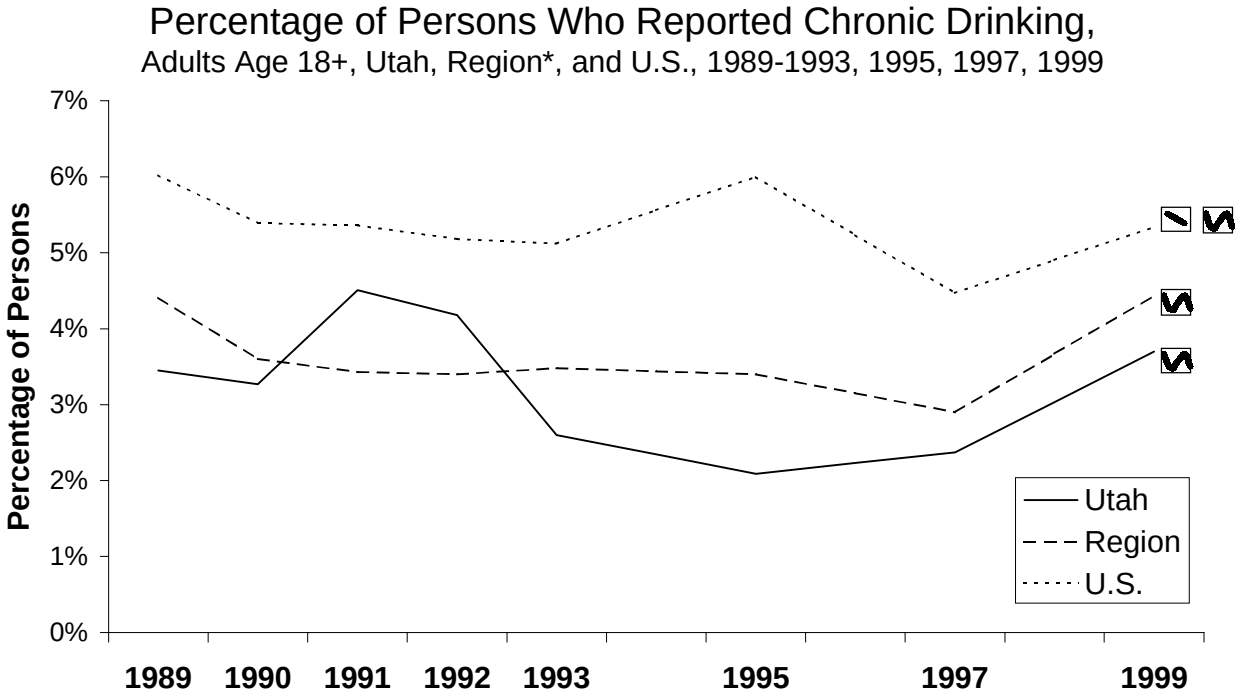


Males may be at risk for alcohol-related problems if they drink more than 14 drinks per week or more than four drinks per occasion. Females may be at risk if they drink more than seven drinks per week or more than three drinks per occasion. Guidelines for males and females differ in part because females metabolize alcohol less efficiently than males. Females also have less body water than males, so they become more intoxicated than males after drinking the same amount of alcohol.[ix] Men and women who consume one or two alcoholic drinks per day have a lower death rate from coronary heart disease (e.g., heart attacks) than do heavier drinkers and abstainers.[x] A drink is defined as one can or bottle of beer (12 ounces), one glass of wine (5 ounces), one can or bottle of wine cooler, one cocktail or one shot of liquor (1.5 ounces of 80-proof distilled spirits).

- There was no overall change in the percentage of Utah adults who reported chronic drinking from 3.5% in 1989 to 3.7% in 1999. There was, however, a significant non-linear trend indicating changes in direction as can be seen on the graph.
- The Region also had no overall change in the percentage of adults who reported chronic drinking. The significant non-linear trend for the Region suggests a substantial dip in this measure despite the fact that the percentages were equal at 4.4% in 1989 and 1999.
- The U.S. showed a slight but significant overall decrease in the percentage of adults who reported chronic drinking from 6.0% in 1989 to 5.1% in 1999. The downward trend exhibited some non-linear variation as seen on the graph.
- The estimated percentage of Utah adults who reported chronic drinking was consistently lower than that for the U.S. for all years reported. It was also slightly lower than that for the Region except for years 1991 and 1992.

Utah Objective: No objective listed.
HP2000: No objective listed.
HP2010 Goal 26-13: Reduce the proportion of adults who exceed guidelines for low-risk drinking to 5%.
CDI 4: Heavy drinking among adult men (percent of male respondents age 18 years or older who report an average daily alcohol consumption greater than two drinks).
CDI 5: Heavy drinking among adult women (percent of female respondents age 18 years or older who report an average daily alcohol consumption greater than one drinks).
CHSI: Not used.

Chronic Drinking



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Note: Chronic drinking is defined as drinking 60 or more alcoholic drinks in the past month for men, and 30 or more alcoholic drinks in the past month for women.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

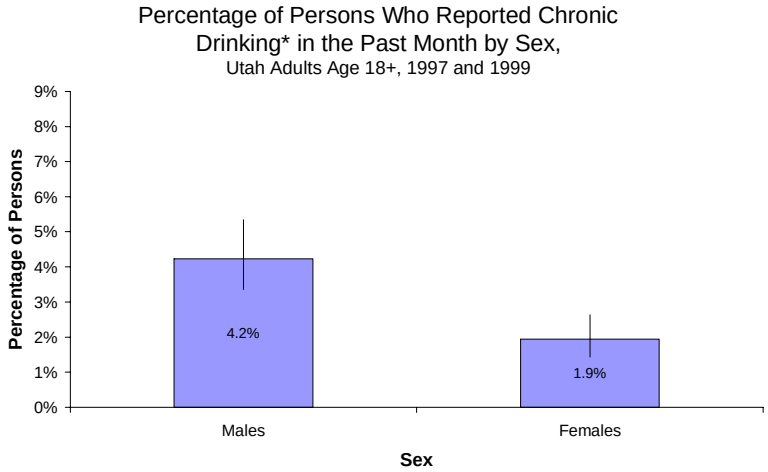
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	3.5%	2.6%	4.6%	4.4%	3.7%	5.3%	6.0%	5.7%	6.3%
1990	3.3%	2.5%	4.4%	3.6%	3.1%	4.2%	5.4%	5.1%	5.7%
1991	4.5%	3.5%	5.8%	3.4%	2.9%	4.1%	5.4%	5.1%	5.6%
1992	4.2%	3.3%	5.4%	3.4%	3.0%	3.9%	5.2%	5.0%	5.4%
1993	2.6%	1.9%	3.5%	3.5%	3.0%	4.0%	5.1%	4.9%	5.3%
1995	2.1%	1.5%	2.9%	3.4%	3.0%	3.9%	6.0%	5.7%	6.3%
1997	2.4%	1.8%	3.2%	2.9%	2.5%	3.4%	4.5%	4.3%	4.7%
1999	3.7%	2.9%	4.7%	4.4%	3.9%	5.1%	5.3%	5.1%	5.5%

downward linear trend

non-linear trend

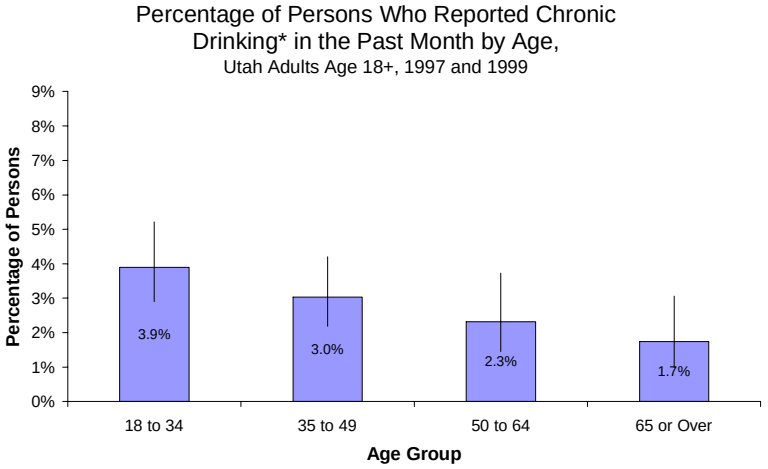
Chronic Drinking

- Utah males were more likely than females to report chronic drinking. ($p < 0.0001$)



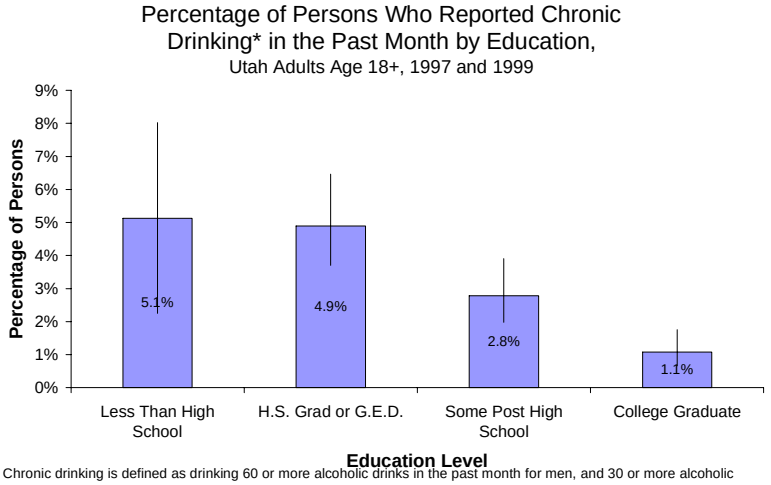
* Chronic drinking is defined as drinking 60 or more alcoholic drinks in the past month for men, and 30 or more alcoholic drinks in the past month for women.
Source: Behavioral Risk Factor Surveillance System

- The percentage of Utah adults reporting chronic drinking decreased with increasing age. ($p = 0.0033$)



* Chronic drinking is defined as drinking 60 or more alcoholic drinks in the past month for men, and 30 or more alcoholic drinks in the past month for women.
Source: Behavioral Risk Factor Surveillance System

- Utahns with more education were less likely to report chronic drinking. ($p = 0.0018$)
- Sample sizes were inadequate to say anything about differences in reported chronic drinking among racial or income groups in Utah.



* Chronic drinking is defined as drinking 60 or more alcoholic drinks in the past month for men, and 30 or more alcoholic drinks in the past month for women.
Source: Behavioral Risk Factor Surveillance System

Chronic Drinking

Percentage of Persons Who Reported Chronic Drinking* in the Past Month
by Selected Demographic Characteristics, Utah Adults Age 18+, 1997 & 1999.

	Utah Population		Survey Estimates of Respondents Who Reported Chronic Drinking				
Demographic Subgroup	Distribution	Number of Adults[1]	Percentage of Adults Who Reported Chronic Drinking	95% Confidence Intervals Lower	95% Confidence Intervals Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Chronic Drinking by Category
Chronic Drinking							
Yes	3.1%	42,500					
No	97.0%	1,350,000					
Total, All Adults Age 18+	100.0%	1,392,500					
Sex							
Males	48.8%	679,000	4.2%	3.4%	5.3%	28,700	67.5%
Females	51.2%	713,500	1.9%	1.4%	2.6%	13,800	32.5%
Total, All Adults Age 18+	100.0%	1,392,500	3.1%	2.5%	3.7%	42,500	100.0%
Age Group							
18 to 34	36.7%	510,600	3.9%	2.9%	5.2%	19,900	47.0%
35 to 49	31.3%	436,100	3.0%	2.2%	4.2%	13,200	31.2%
50 to 64	18.0%	250,100	2.3%	1.5%	3.7%	5,800	13.7%
65 or Over	14.1%	195,600	1.7%	1.0%	3.1%	3,400	8.0%
Total, All Adults Age 18+	100.0%	1,392,500	3.1%	2.5%	3.7%	42,500	100.0%
Race							
White, Non-Hispanic	91.2%	1,270,000	2.9%	2.4%	3.5%	36,700	86.2%
Hispanic	5.6%	78,100	4.4%	2.5%	7.9%	3,500	8.2%
Non-White, Non-Hispanic	3.2%	44,400	5.4%	0.3%	10.5%	2,400	5.6%
Total, All Adults Age 18+	100.0%	1,392,500	3.1%	2.5%	3.7%	42,500	100.0%
Income							
Less Than $20,000	17.9%	249,500	4.5%	3.0%	6.8%	11,200	25.2%
$20,000-$49,999	49.3%	686,800	2.9%	2.2%	3.9%	19,900	44.7%
$50,000 or Over	32.8%	456,200	2.9%	2.1%	4.1%	13,400	30.1%
Total, All Adults Age 18+	100.0%	1,392,500	3.1%	2.5%	3.7%	42,500	100.0%
Education							
Less Than High School	6.5%	90,700	5.1%	2.3%	8.0%	4,700	11.1%
H.S. Grad or G.E.D.	29.3%	407,900	4.9%	3.7%	6.5%	19,900	46.8%
Some Post High School	35.0%	487,200	2.8%	2.0%	3.9%	13,500	31.8%
College Graduate	29.2%	406,700	1.1%	0.7%	1.8%	4,400	10.4%
Total, All Adults Age 18+	100.0%	1,392,500	3.1%	2.5%	3.7%	42,500	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

*Chronic drinking if defined as drinking 60 or more alcoholic drinks in the past month for men, and 30 or more alcoholic drinks in the past month for women.

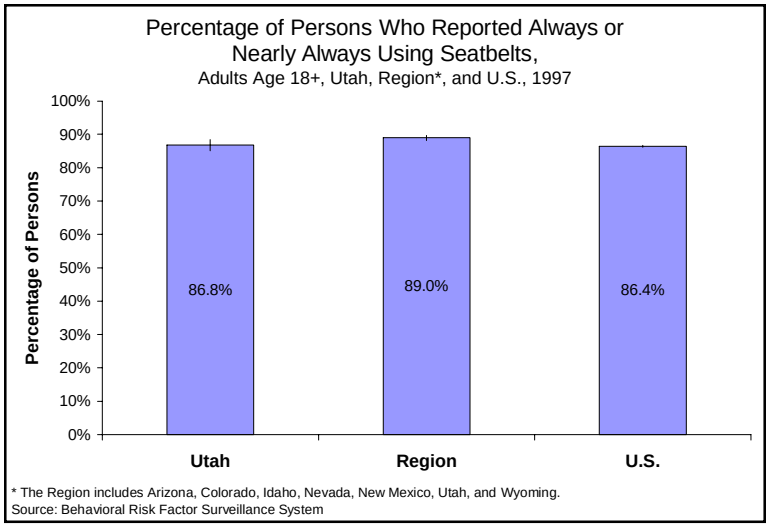
Source: Utah Behavioral Risk Factor Surveillance System

Seatbelt Use

Question: *How often do you use seatbelts when you drive or ride in a car: always, nearly always, sometimes, seldom, or never?*

Motor vehicle crashes account for approximately half the deaths from unintentional injuries. Seatbelt use dramatically reduces the risk of death or injury in the event of a crash. Alaska Natives and American Indians have disproportionately higher death rates from motor vehicle crashes. Much of the progress made toward the unintentional injury objectives for Healthy People 2000 were with motor vehicle fatalities and use of vehicle occupant restraints.

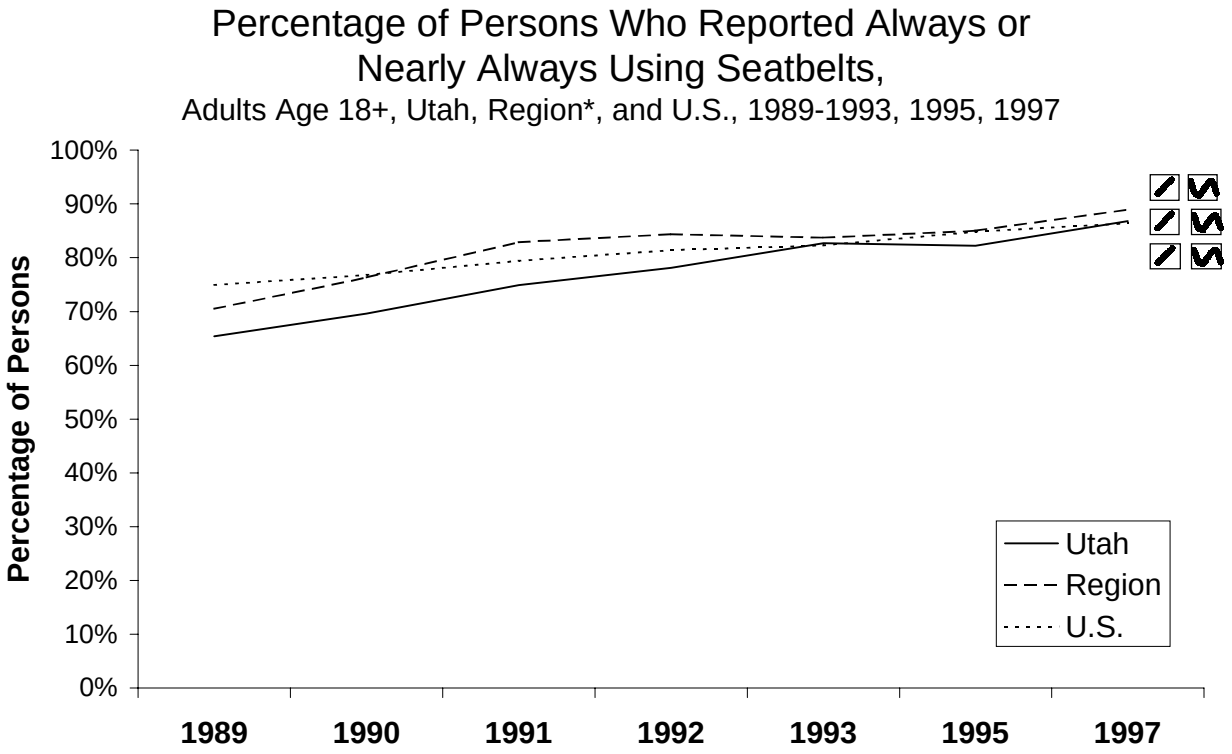
For this report, seatbelt use is defined as always or nearly always using seatbelts.



- Utah, the Region and the U.S. have all experienced a significant increase in this measure since 1989, with some leveling of the upward trend since 1993. The non-linear trend for all areas suggests a leveling of the upward trend in recent years.
- Before 1993, the estimated percentage of adults who reported using seatbelts always or nearly always was lower in Utah than in both the Region and the U.S. Since 1993, there was only a slight difference in this percentage between the three areas.
- For adults, Utah reached the Healthy People 2000 objective to increase safety belt usage to at least 85% of motor vehicle occupants.

Utah Objective: By 2000, increase the use of vehicle safety restraints among adult occupants to at least 70%.
HP2000 Goal 9.12: Increase use of safety belts and child safety seats to at least 85% of motor vehicle occupants.
HP2010 Goal 15-19: Increase use of safety belts to 92%.
CDI: Not used.
CHSI: Not used.

Seatbelt Use



* The Region includes Arizona, Colorado, Idaho, Nevada, New Mexico, Utah, and Wyoming.
Not all states participated in the BRFSS until 1994 (see Appendix A)
Source: Behavioral Risk Factor Surveillance System

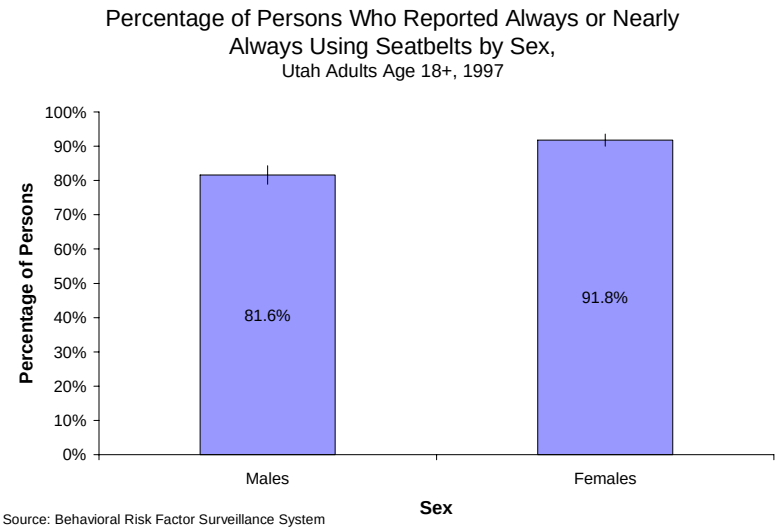
	Utah			Region			U.S.		
		95% Confidence Intervals			95% Confidence Intervals			95% Confidence Intervals	
Year	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper	Percentage of Adults	Lower	Upper
1989	65.4%	62.8%	68.1%	70.5%	68.9%	72.1%	74.9%	74.4%	75.5%
1990	69.6%	67.2%	72.0%	76.3%	75.1%	77.6%	76.8%	76.4%	77.3%
1991	74.9%	72.7%	77.1%	82.9%	81.9%	83.9%	79.4%	79.0%	79.8%
1992	78.2%	76.0%	80.3%	84.4%	83.4%	85.4%	81.4%	81.1%	81.8%
1993	82.7%	80.9%	84.6%	83.8%	82.7%	84.8%	82.3%	81.9%	82.6%
1995	82.2%	80.4%	84.1%	85.0%	84.1%	86.0%	84.9%	84.5%	85.2%
1997	86.8%	85.2%	88.4%	89.0%	88.2%	89.7%	86.4%	86.1%	86.7%

upward linear trend

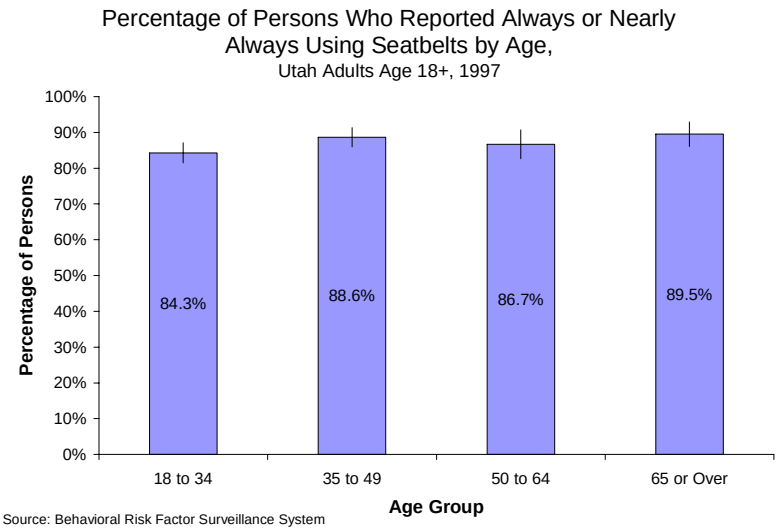
non-linear trend

Seatbelt Use

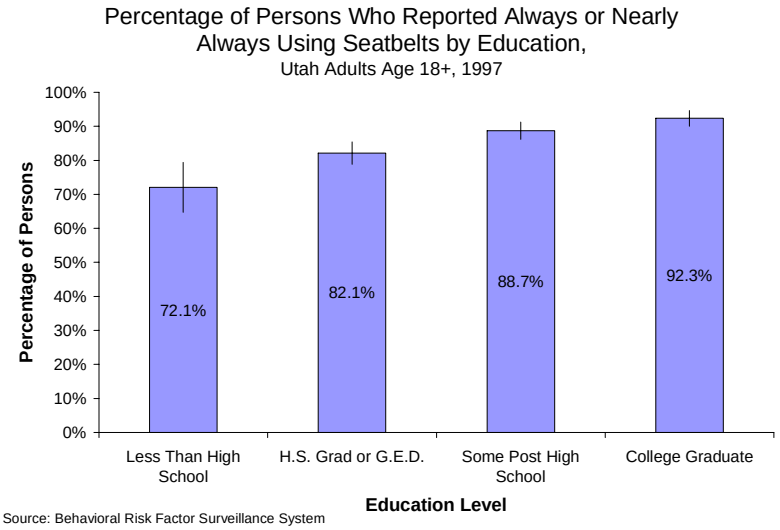
- In Utah, females were more likely than males to report using a seatbelt always or nearly always. ($p < 0.0001$)



- Utah adults age 18-34 were less likely to report using a seatbelt always or nearly always as compared to Utah adults 35 or older. ($p = 0.0191$)



- The estimated percentage of Utah adults who reported using a seatbelt always or nearly always increased with increasing educational attainment. ($p < 0.0001$)



Seatbelt Use

Percentage of Persons Who Reported Always or Nearly Always Using Seatbelts
by Selected Demographic Characteristics, Utah Adults Age 18+, 1997

Demographic Subgroup	Utah Population: Distribution	Utah Population: Number of Adults[1]	Survey Estimates of Respondents Who Reported Always or Nearly Always Using Seatbelts: Percentage of Adults Who Reported Always or Nearly Always Using Seatbelts	95% Confidence Intervals: Lower	95% Confidence Intervals: Upper	Number of Adults[1, 2]	Distribution of Adults Who Reported Always or Nearly Always Using Seatbelts by Category
Seatbelt Use							
Always	65.0%	884,100					
Nearly Always	21.8%	296,700					
Sometimes	6.9%	93,700					
Seldom	3.0%	40,800					
Never	3.3%	45,300					
Total, All Adults Age 18+	100.0%	1,360,600					
Sex							
Males	48.7%	663,000	81.6%	78.9%	84.3%	540,900	45.8%
Females	51.3%	697,600	91.8%	90.0%	93.5%	640,000	54.2%
Total, All Adults Age 18+	100.0%	1,360,600	86.8%	85.2%	88.4%	1,181,000	100.0%
Age Group							
18 to 34	37.3%	507,400	84.3%	81.4%	87.1%	427,500	36.2%
35 to 49	31.2%	424,400	88.6%	85.9%	91.4%	376,200	31.9%
50 to 64	17.9%	244,100	86.7%	82.7%	90.7%	211,500	17.9%
65 or Over	13.6%	184,900	89.5%	86.1%	93.0%	165,500	14.0%
Total, All Adults Age 18+	100.0%	1,360,600	86.8%	85.2%	88.4%	1,181,000	100.0%
Race							
White, Non-Hispanic	91.3%	1,241,800	87.1%	85.4%	88.8%	1,081,500	91.6%
Hispanic	5.8%	78,900	84.4%	77.6%	91.3%	66,600	5.6%
Non-White, Non-Hispanic	2.9%	39,900	82.4%	69.0%	95.8%	32,900	2.8%
Total, All Adults Age 18+	100.0%	1,360,600	86.8%	85.2%	88.4%	1,181,000	100.0%
Income							
Less Than $20,000	19.2%	261,600	85.0%	81.2%	88.8%	222,400	18.8%
$20,000-$49,999	50.1%	681,900	85.9%	83.6%	88.2%	585,500	49.5%
$50,000 or Over	30.7%	417,000	89.6%	86.7%	92.6%	373,800	31.6%
Total, All Adults Age 18+	100.0%	1,360,600	86.8%	85.2%	88.4%	1,181,000	100.0%
Education							
Less Than High School	7.0%	94,700	72.1%	64.8%	79.4%	68,300	5.8%
H.S. Grad or G.E.D.	28.0%	381,500	82.1%	78.8%	85.4%	313,300	26.5%
Some Post High School	35.5%	482,300	88.7%	86.2%	91.3%	427,900	36.2%
College Graduate	29.6%	402,200	92.3%	90.1%	94.6%	371,400	31.5%
Total, All Adults Age 18+	100.0%	1,360,600	86.8%	85.2%	88.4%	1,181,000	100.0%

1 Rounded to the nearest 100 persons.

2 Figures in these columns may not sum to the total because of missing values on the grouping variables.

Source: Utah Behavioral Risk Factor Surveillance System

Trend Tests

Eleven years of Behavioral Risk Factor Surveillance System (BRFSS) data (1989-1999) were analyzed using the BRFSS CD ROM. Rates for selected behaviors were calculated for Utah, for the Region which included Utah and the states bordering Utah (Arizona, Colorado, Idaho, Nevada, New Mexico, and Wyoming), and for the U.S. as a whole, which also included Utah. Standard errors were calculated using SUDAAN statistical software. The table on the last page of this Appendix A shows which states and territories participated in the survey in a given year. The states in the Region are highlighted.

When comparing the rates of behavioral risk factor data over time, one is often interested in the existence and nature of trends. Does the risk factor increase or decrease over time? Is the increase or decrease occurring at a constant rate? Does the risk factor increase or decrease over the entire eleven years? Orthogonal contrast coefficients were used in SUDAAN statistical software to formally test for linear and non-linear trends.

With the initiation of the rotating core in 1993, data was collected in unequally spaced time intervals. Orthogonal contrast coefficients were obtained by using SAS interactive matrix language (IML) software. The orthogonal coefficients took into account the unequally spaced time intervals and ensured that the linear and non-linear tests were independent; a significant linear trend did not influence the existence of non-linear trends. These coefficients were used in SUDAAN statistical software to calculate the statistical probability that linear and non-linear trends existed for each risk factor in the report.

A linear trend indicates that the risk factor increased or decreased at a constant rate over the time period. A non-linear trend indicates that the trend has changed over time. The increase or decrease may have occurred only for some of the eleven years or the rate of increase or decrease may have changed over the time period. For this report only linear, quadratic and cubic trends were considered. When the trend includes both significant linear and non-linear components, the data demonstrate certain non-linear variation (e.g., leveling off or change of direction) in addition to an overall linear trend.

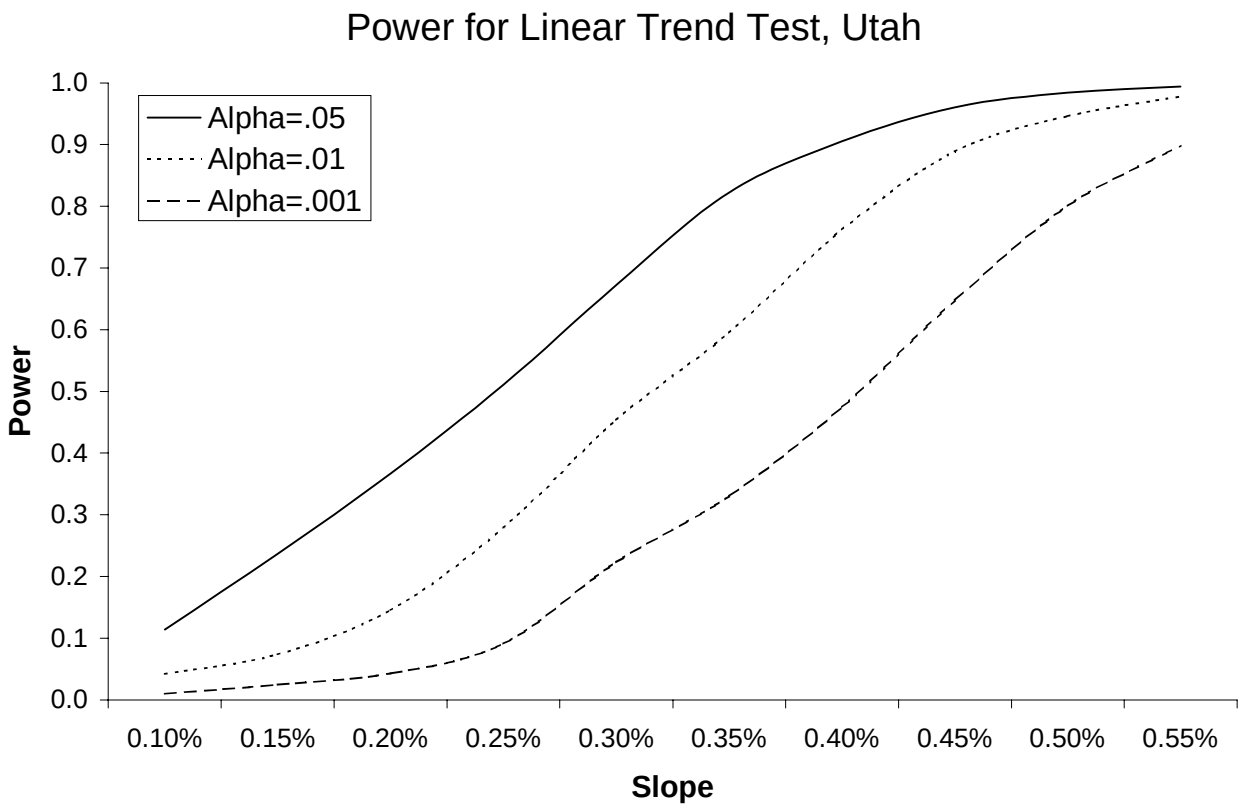
Statistical Power

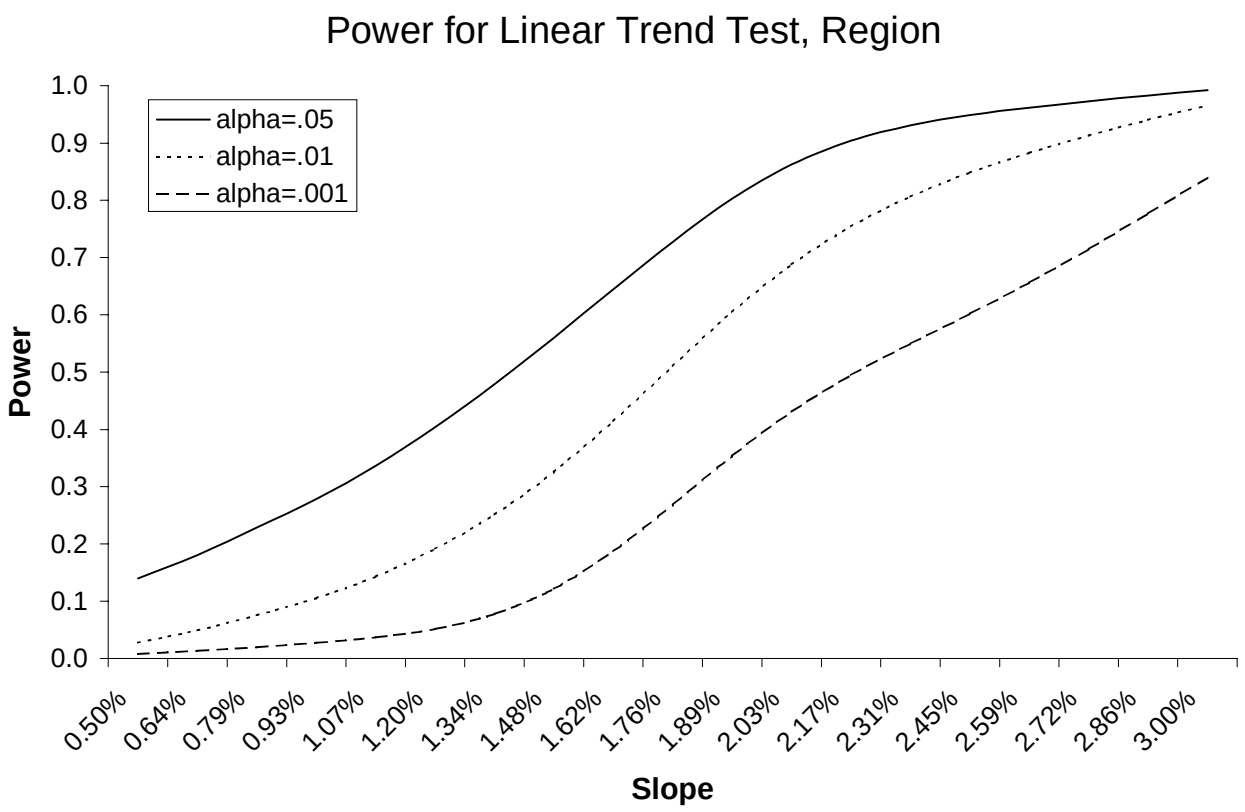
The statistical tests for trends are related to the size of the sample. The U.S. has a very large sample size over the period (1,223,413 records) in comparison to the region (143,391 records) and Utah (25,485 records). Accordingly, a much smaller change over time will result in a statistically significant trend for the United States than a similar change in the region or State. Computer simulation studies were performed to determine just how much change would be required for statistically significant trends to be observed.

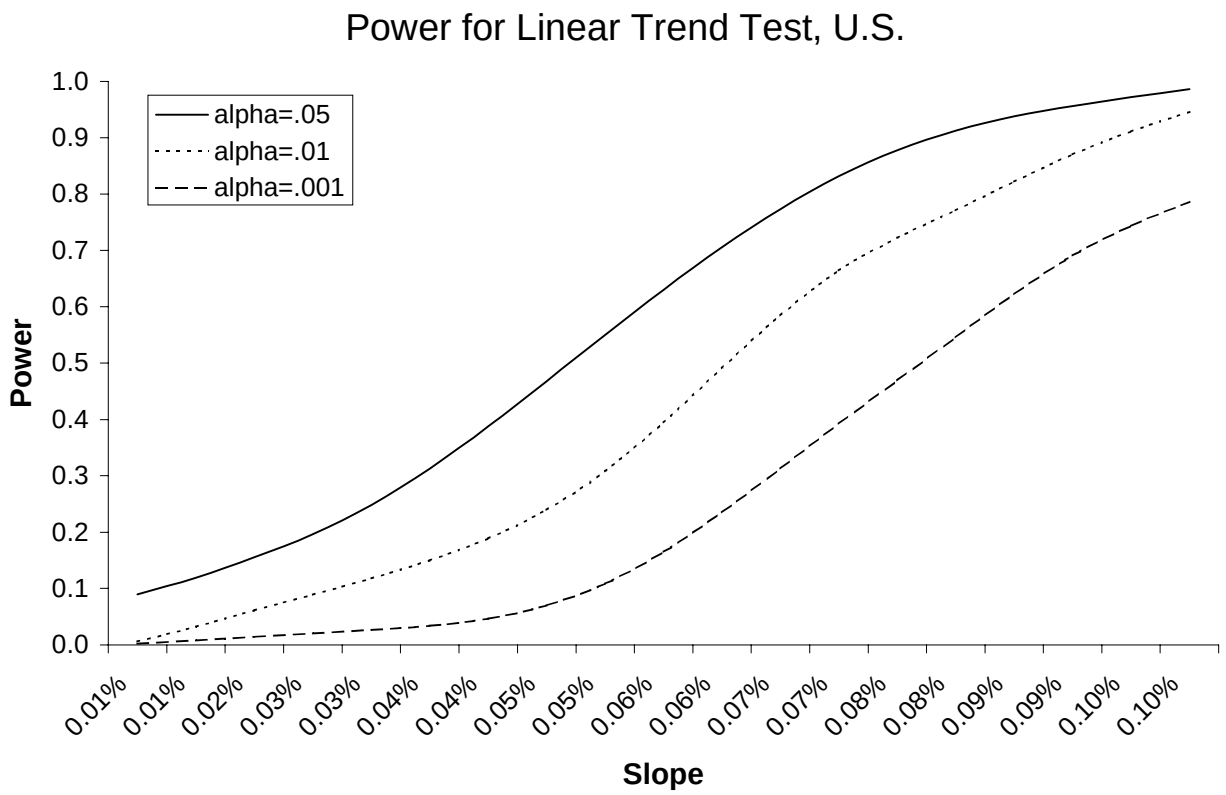
For the United States, it was found that a change of about .08% per year would result in a statistically significant linear trend about 90 percent of the time. For the region, a change of about .2% per year resulted in a statistically significant linear trend about 90 percent of the time. In Utah, a change of about .4% per year resulted in a statistically significant linear trend around 90 percent of the time. Power graphs were prepared from the simulations and are included in the appendix. For the purposes of this report, an alpha of .05 was used to identify statistically significant trends.

Demographic Comparison Tests

Four years of BRFSS data (1996-1999) were combined in order to be able to test for differences in the responses for demographic groupings of age, race/ethnicity, annual household income, educational attainment, and sex. SUDAAN Proc Descript was used to formally test for differences within the demographic groupings. Differences between the nominal variables sex and race/ethnicity were tested using Pairwise or Contrast in SUDAAN Proc Descript. For the ordinal variables of age, income and education, if there appeared to be a linear relationship, SUDAAN Proc Descript Poly was used to test for a possible linear relationship.


Power for Linear Trend Test, Utah
Alpha=.05
Alpha=.01
Alpha=.001
Power
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.10%
0.15%
0.20%
0.25%
0.30%
0.35%
0.40%
0.45%
0.50%
0.55%
Slope


Power for Linear Trend Test, Region
alpha=.05
alpha=.01
alpha=.001
Power
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.50%
0.64%
0.79%
0.93%
1.07%
1.20%
1.34%
1.48%
1.62%
1.76%
1.89%
2.03%
2.17%
2.31%
2.45%
2.59%
2.72%
2.86%
3.00%
Slope


Power for Linear Trend Test, U.S.
alpha=.05
alpha=.01
alpha=.001
Power
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
0.01%
0.01%
0.02%
0.03%
0.03%
0.04%
0.04%
0.05%
0.05%
0.06%
0.06%
0.07%
0.07%
0.08%
0.08%
0.09%
0.09%
0.10%
0.10%
Slope

Appendix A: Methods

States Participating in the BRFSS, 1989-1999

State	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Alabama	■	■	■	■	■	■	■	■	■	■	■
Alaska			■	■	■	■	■	■	■	■	■
Arizona	■	■	■	■	■	■	■	■	■	■	■
Arkansas			■		■	■	■	■	■	■	■
California	■	■	■	■	■	■	■	■	■	■	■
Colorado		■	■	■	■	■	■	■	■	■	■
Connecticut	■	■	■	■	■	■	■	■	■	■	■
Delaware		■	■	■	■	■	■	■	■	■	■
Dist. Of Col.	■	■	■	■	■	■		■	■	■	■
Florida	■	■	■	■	■	■	■	■	■	■	■
Georgia	■	■	■	■	■	■	■	■	■	■	■
Guam											■
Hawaii	■	■	■	■	■	■	■	■	■	■	■
Idaho	■	■	■	■	■	■	■	■	■	■	■
Illinois	■	■	■	■	■	■	■	■	■	■	■
Indiana	■	■	■	■	■	■	■	■	■	■	■
Iowa	■	■	■	■	■	■	■	■	■	■	■
Kansas				■	■	■	■	■	■	■	■
Kentucky	■	■	■	■	■	■	■	■	■	■	■
Louisiana		■	■	■	■	■	■	■	■	■	■
Maine	■	■	■	■	■	■	■	■	■	■	■
Maryland	■	■	■	■	■	■	■	■	■	■	■
Massachusetts	■	■	■	■	■	■	■	■	■	■	■
Michigan	■	■	■	■	■	■	■	■	■	■	■
Minnesota	■	■	■	■	■	■	■	■	■	■	■
Mississippi		■	■	■	■	■	■	■	■	■	■
Missouri	■	■	■	■	■	■	■	■	■	■	■
Montana	■	■	■	■	■	■	■	■	■	■	■
Nebraska	■	■	■	■	■	■	■	■	■	■	■
Nevada				■	■	■	■	■	■	■	■
New Hampshire	■	■	■	■	■	■	■	■	■	■	■
New Jersey			■	■	■	■	■	■	■	■	■
New Mexico	■	■	■	■	■	■	■	■	■	■	■
New York	■	■	■	■	■	■	■	■	■	■	■
North Carolina	■	■	■	■	■	■	■	■	■	■	■
North Dakota	■	■	■	■	■	■	■	■	■	■	■
Ohio	■	■	■	■	■	■	■	■	■	■	■
Oklahoma	■	■	■	■	■	■	■	■	■	■	■
Oregon	■	■	■	■	■	■	■	■	■	■	■
Pennsylvania	■	■	■	■	■	■	■	■	■	■	■
Puerto Rico								■	■	■	■
Rhode Island	■	■	■	■	■		■	■	■	■	■
South Carolina	■	■	■	■	■	■	■	■	■	■	■
South Dakota	■	■	■	■	■	■	■	■	■	■	■
Tennessee	■	■	■	■	■	■	■	■	■	■	■
Texas	■	■	■	■	■	■	■	■	■	■	■
Utah	■	■	■	■	■	■	■	■	■	■	■
Vermont		■	■	■	■	■	■	■	■	■	■
Virginia	■	■	■	■	■	■	■	■	■	■	■
Washington	■	■	■	■	■	■	■	■	■	■	■
West Virginia	■	■	■	■	■	■	■	■	■	■	■
Wisconsin	■	■	■	■	■	■	■	■	■	■	■
Wyoming						■	■	■	■	■	■

Highlighted states are included in "region."

Appendix B: BRFSS Questions Used in This Report

GENERAL HEALTH STATUS

Would you say that in general your health is:

Please Read

1 Excellent
2 Very good
3 Good
4 Fair, or
5 Poor

Do not read these responses
7 Don't know/Not sure
9 Refused

DIABETES

Have you ever been told by a doctor that you have diabetes?

If "Yes" and female, ask "Was this only when you were pregnant?"
1 Yes
2 Yes, but female told only during pregnancy
3 No
7 Don't know/Not sure
9 Refused

HEALTH CARE INSURANCE COVERAGE

Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, or government plans such as Medicare?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

There are some types of coverage you may not have considered. Please tell me if you have any of the following:

Coverage through: Coverage Code __ __

Please Read

If more than one, ask "Which type do you use to pay for most of your medical care?"
01 Your employer
02 Someone else's employer
03 A plan that you or someone else buys on your own
04 Medicare
05 Medicaid or Medical Assistance **[or substitute state program name]**
06 The military, CHAMPUS, TriCare, or the VA **[or CHAMP-VA]**
07 The Indian Health Service **[or the Alaska Native Health Service]**, or
08 Some other source

Do not read these responses
88 None
77 Don't know/Not sure
99 Refused

ROUTINE DENTAL HEALTH CARE

How long has it been since you last visited a dentist or a dental clinic for any reason?

Read Only if Necessary

Include visits to dental specialists, such as orthodontists
1 Within the past year (Anytime less than 12 months ago)
2 Within the past 2 years (1 year to less than 2 years ago)
3 Within the past 5 years (2 years to less than 5 years ago)
4 5 or more years ago
7 Don't know/Not sure
8 Never
9 Refused

SCREENING MAMMOGRAPHY

A mammogram is an x-ray of each breast to look for breast cancer. Have you ever had a mammogram?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

How long has it been since you had your last mammogram?

Read only if Necessary

1 Within the past year (1 to 12 months ago)
2 Within the past 2 years (1 to 2 years ago)
3 Within the past 3 years (2 to 3 years ago)
4 Within the past 5 years (3 to 5 years ago)
5 5 or more years ago
7 Don't know/Not sure
9 Refused

Was your last mammogram done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?

1 Routine checkup
2 Breast problem other than cancer
3 Had breast cancer
7 Don't know/Not sure
9 Refused

Appendix B: BRFSS Questions Used in This Report

CLINICAL BREAST EXAMINATION

A clinical breast exam is when a doctor, nurse, or other health professional feels the breast for lumps. Have you ever had a clinical breast exam?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

How long has it been since your last breast exam?

Read Only if Necessary

1 Within the past year (1 to 12 months ago)
2 Within the past 2 years (1 to 2 years ago)
3 Within the past 3 years (2 to 3 years ago)
4 Within the past 5 years (3 to 5 years ago)
5 5 or more years ago
7 Don't know/Not sure
9 Refused

Was your last breast exam done as part of a routine checkup, because of a breast problem other than cancer, or because you've already had breast cancer?

1 Routine Checkup
2 Breast problem other than cancer
3 Had breast cancer
7 Don't know/Not sure
9 Refused

PAP TEST

A Pap smear is a test for cancer of the cervix. Have you ever had a Pap smear?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

How long has it been since you had your last Pap smear?

Read Only if Necessary

1 Within the past year (1 to 12 months ago)
2 Within the past 2 years (1 to 2 years ago)
3 Within the past 3 years (2 to 3 years ago)
4 Within the past 5 years (3 to 5 years ago)
5 5 or more years ago
7 Don't know/Not sure
9 Refused

Was your last Pap smear done as part of a routine exam, or to check a current or previous problem?

1 Routine exam
2 Check current or previous problem
3 Other
7 Don't know/Not sure
9 Refused

Have you had a hysterectomy?

A hysterectomy is an operation to remove the uterus (womb)

1 Yes
2 No
7 Don't know/Not sure
9 Refused

SIGMOIDOSCOPY OR COLONOSCOPY

Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the bowel for signs of cancer or other health problems. Have you ever had either of these exams?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

How long has it been since you had your last sigmoidoscopy or colonoscopy?

Read Only if Necessary

1 Within the past year (Anytime less than 12 months ago)
2 Within the past 2 years (1 year but less than 2 years ago)
3 Within the past 5 years (2 years but less than 5 years ago)
4 Within the past 10 years (5 years but less than 10 years ago)
5 10 or more years ago
7 Don't know/Not sure
9 Refused

Appendix B: BRFSS Questions Used in This Report

BLOOD PRESSURE SCREENING

How long has it been since you last had your blood pressure taken by a doctor, nurse, or other health professional?

1 Within the past 6 months (1 to 6 months ago)
2 Within the past year (6 to 12 months ago)
3 Within the past 2 years (1 to 2 years ago)
4 Within the past 5 years (2 to 5 years ago)
5 5 or more years ago
7 Don't know/Not sure
8 Never
9 Refused

CHOLESTEROL SCREENING

Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

About how long has it been since you last had your blood cholesterol checked?

Read Only if Necessary

1 Within the past year (anytime less than 12 months ago)
2 Within the past 2 years (1 year but less than 2 years ago)
3 Within the past 5 years (2 years but less than 5 years ago)
4 5 or more years ago
7 Don't know/Not sure
9 Refused

INFLUENZA VACCINATION

During the past 12 months, have you had a flu shot?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

PNEUMOCOCCAL VACCINATION

Have you ever had a pneumonia shot? This shot is usually given only once or twice in a person's lifetime and is different from the flu shot. It is also called the pneumococcal vaccine.

1 Yes
2 No
7 Don't know/Not sure
9 Refused

PHYSICAL INACTIVITY

During the past month, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

REGULAR PHYSICAL ACTIVITY

What type of physical activity or exercise did you spend the most time doing during the past month?

Activity **[specify]**:
See coding list A
99 Refused

How far did you usually walk/run/jog/swim? (This question is only asked of respondents who answered running, jogging, walking or swimming to the previous question)

See coding list B if response is not in miles and tenths

Miles and tenths __ __:__ __
777 Don't know/Not sure
999 Refused

How many times per week or per month did you take part in this activity during the past month?

Times per week 1 __ __
Times per month 2 __ __
777 Don't know/Not sure
999 Refused

And when you took part in this activity, for how many minutes or hours did you usually keep at it?

Hours and minutes: __ : ___
777 Don't know/Not sure
999 Refused

Was there another physical activity or exercise that you participated in during the last month?

1 Yes
2 No
7 Don't know/Not sure
9 Refused

What other type of physical activity gave you the next most exercise during the past month?

Activity **[specify]**:
See coding list A
99 Refused

How far did you usually walk/run/jog/swim? (Only ask if respondent answered running, jogging, walking or swimming to previous question)

See coding list B if response is not in miles and tenths

Miles and tenths __ __:__ __
777 Don't know/Not sure
999 Refused

How many times per week or per month did you take part in this activity?

Times per week 1 __ __
Times per month 2 __ __
777 Don't know/Not sure
999 Refused

And when you took part in this activity, for how many minutes or hours did you usually keep at it?

Hours and minutes: __ : ___
777 Don't know/Not sure
999 Refused

5 a DAY

These next questions are about the foods you usually eat or drink. Please tell me how often you eat or drink each one, for example, twice a week, three times a month, and so forth. Remember, I am only interested in the foods you eat. Include all foods you eat, both at home and away from home.

How often do you drink fruit juices such as orange, grapefruit, or tomato?

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

Not counting juice, how often do you eat fruit?

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

How often do you eat green salad?

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

How often do you eat potatoes not including french fries, fried potatoes, or potato chips?

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

How often do you eat carrots?

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

Not counting carrots, potatoes, or salad, how many servings of vegetables do you usually eat? (Example: a serving of vegetables at both lunch and dinner would be two servings)

Per day 1 __ __
Per week 2 __ __
Per month 3 __ __
Per year 4 __ __
555 Never
777 Don't know/Not sure
999 Refused

Appendix B: BRFSS Questions Used in This Report

OVERWEIGHT OR OBESE

About how much do you weigh without shoes?

Round fractions up	__ __ __ pounds	Weight
	7 7 7	Don't know/Not sure
	9 9 9	Refused

About how tall are you without shoes?

Round fractions down	__/__ __ ft/inches	Height
	7 7 7	Don't know/Not sure
	9 9 9	Refused

CURRENT CIGARETTE SMOKING

Have you smoked at least 100 cigarettes in your entire life?

5 packs = 100 cigarettes	1	Yes
	2	No
	7	Don't know/Not sure
	9	Refused

Do you now smoke cigarettes every day, some days, or not at all?

1	Every day
2	Some days
3	Not at all
9	Refused

QUIT ATTEMPT

During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?

1	Yes
2	No
7	Don-t know/Not sure
9	Refused

BINGE DRINKING AND CHRONIC DRINKING

A drink of alcohol is 1 can or bottle of beer, 1 glass of wine, 1 can or bottle of wine cooler, 1 cocktail, or 1 shot of liquor. During the past 30 days, how often have you had at least one drink of any alcoholic beverage?

1 __ __	Days per week
2 __ __	Days in past 30
8 8 8	No drinks in past 30 days
7 7 7	Don't know/Not sure
9 9 9	Refused

On the days when you drank, about how many drinks did you drink on the average?

__ __	Number of drinks
7 7	Don't know/Not sure
9 9	Refused

Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on an occasion?

__ __	Number of times
8 8	None
7 7	Don't know/Not sure
9 9	Refused

SEATBELT USE

How often do you use seatbelts when you drive or ride in a car? Would you say:

1	Always
2	Nearly Always
3	Sometimes
4	Seldom
5	Never
7	Don't know/Not sure
8	Never drive or ride in a car
9	Refused

Appendix C: Objectives and Indicators That Utilize BRFSS Data

Utah Objectives: Utah objectives are listed in the 2001 Division Plan and Report for the Utah Department of Health, Division of Community and Family Health Services (CFHS). This report was designed to be an integrated and comprehensive reporting system of the objectives and outcome measures for the programs within the Division of Community and Family Health Services. It highlights indicators for chronic disease, maternal and infant health, vaccine-preventable diseases and violence and injury prevention. The goals of CFHS are to reduce preventable illness, disability, and death from adverse pregnancy outcomes, chronic diseases, disabling conditions, injury and violence and vaccine-preventable infections. CFHS programs that regularly use BRFSS data include Cancer Control, Cardiovascular Disease, Diabetes Control, Oral Health, Violence and Injury Prevention, Arthritis, Pregnancy RiskLine, and Tobacco Prevention and Control.

HP2000 (Healthy People 2000): Healthy People 2000 objectives were developed through a national process in which people from across the country helped to define a disease prevention and health promotion agenda for the Nation using the best scientific knowledge and designed to measure programs over time. The year 2000 objectives were built upon the 1990 objectives effort which was initiated in 1979 with the publication of *Healthy People: The Surgeon General's Report on Health Promotion and Disease Prevention*. The Healthy People 2000 objectives emphasized prevention of disability and morbidity; greater attention to improvements in the health status of definable population groups at highest risk of premature death, disease, and disability; and inclusion of more screening interventions to detect asymptomatic diseases and conditions early enough to prevent early death or chronic illness.

HP2010 (Healthy People 2010): Healthy People 2010 builds on the 1979 Surgeon General's report and the Healthy People 2000 objectives. Healthy People 2010 is designed to achieve two overarching goals: Goal 1: Increase Quality and Years of Healthy Life, and Goal 2: Eliminate Health Disparities. Each of the 28 focus area chapters also contains a concise goal statement. This statement frames the overall purpose of the focus area.

CDI (Chronic Disease Indicator): The Council of State and Territorial Epidemiologists (CSTE), the Association of State and Territorial Chronic Disease Program Directors (ASTCDPD), and the National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention (NCCDPHP, CDC) partnered to manage and direct the process to identify 73 indicators for chronic disease surveillance. This effort resulted in the publication in November, 1999, of *Indicators for Chronic Disease Surveillance: Consensus of CSTE, ASTCDPD, and CDC.* This publication outlines the process that was used to select the indicators and defines a data source for each indicator. Twenty four of the indicators use BRFSS data.

CHSI (Community Health Status Indicators): In response to requests for health assessment information at the local level, the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA) funded a collaboration among the Association of State and Territorial Health Officials (ASTHO), the Association of County and City Health Officials (NACCHO), and the Public Health Foundation (PHF) to publish reports for all 3,082 U.S. counties. The CHSI Reports provide a profile of each county's overall health status using a broad spectrum of health indicators. Already-existing data resources were used, including the BRFSS. For certain health indicators, no county-level data were available, and state-level data were used instead. Counties can compare their health indicators to Healthy People 2010 targets, 1997 U.S. rates, and peer counties – counties which share characteristics of population size, density, age distribution, and poverty.

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Utah's Behavioral Risk Factor Surveillance System TREND REPORT 1989-1999 -- Feedback Form

We welcome your opinions of this report. Please help us by completing this page and returning it to:

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1. Why were you interested in this report? *(CHECK ALL THAT APPLY)*
   - ° POLICY SETTING AND STRATEGIC PLANNING (ALLOCATION OF RESOURCES, SETTING PRIORITIES, ETC.)
   - ° PROGRAM PLANNING AND MONITORING (TRACKING PROGRESS ON PROGRAM OBJECTIVES, ETC.)
   - ° BACKGROUND INFORMATION FOR RESEARCH, FUNDING PROPOSALS, ETC.
   - ° ADVOCACY FOR SPECIAL POPULATION GROUP(S)
   - ° SATISFYING REQUESTS FOR INFORMATION FROM OTHERS WHO CONTACT YOU
   - ° OTHER (SPECIFY):_____

2. For what specific activities did you use the information in this report?

3. Which information in this report did you find most useful?

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5. a. Was the purpose clearly stated? ..... ° YES ° NO
   b. Was it organized so that you could find information easily? ..... ° YES ° NO
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   f. Did the text contain sufficient explanations? ..... ° YES ° NO
   g. Did it have a professional appearance? ..... ° YES ° NO
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