



ASSESSING DISABILITY  
and  
SECONDARY HEALTH  
CONDITIONS  
of  
MONTANA ADULTS

Results from the 2001 and 2003

Behavioral Risk Factor Surveillance System Surveys

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The Health Planning Section of the Public Health and Safety Division, within the Montana Department of Public Health and Human Services (DPHHS), administers the **Montana Behavioral Risk Factor Surveillance System (BRFSS)**. The Montana BRFSS is the primary source of information on health risk behaviors among the adult population in the state. The information collected in this statewide survey is used to improve health care and ultimately the health of citizens across Montana. The Behavioral Surveillance Branch of the Centers for Disease Control and Prevention (CDC) provides partial financial support for the Montana BRFSS. Additionally, the CDC provides technical expertise and support for processing and weighting the data.

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**Healthy People 2010 Goal: Promote the health of people with disabilities, prevent secondary conditions, and eliminate disparities between people with and without disabilities in the U.S. population.**

Nearly 54 million Americans nationwide are currently living with disabilities. This equates to about one in five Americans with “disability or limitation in major life activities because of physical, mental, or emotional conditions lasting 6 or more months” (1). Nationally, there has been a dramatic increase of interest in the health and wellness of people with disabilities. With the release of Healthy People 2010, disability secured a prominent place on the national health agenda. This national health initiative has two overarching goals, to:

- “Increase the quality and years of healthy life” and
- “Eliminate health disparities.”

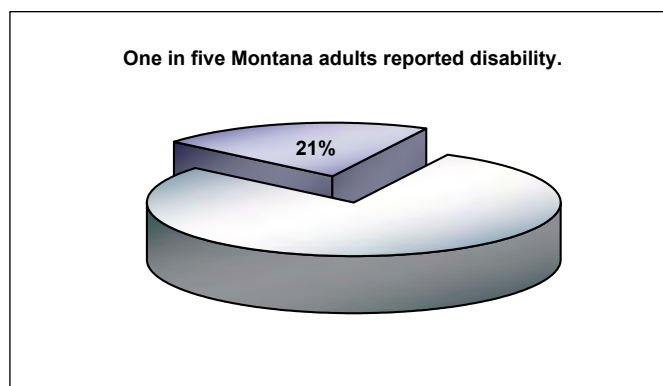
In 2000, for the first time, a separate chapter (Chapter 6) was created within Healthy People 2010 devoted to the health and well being of people with disabilities (2).

As our population ages with chronic health conditions and more young people survive birth- and injury-related limitations, disability increases. But, while people with disabilities make up 17 percent of the national population at any one time, they account for more than 47 percent of the total health care expenditures (3). There is now general agreement that prevention of secondary conditions should be a major component of health promotion for people with disabilities (4, 5). Secondary conditions of health are “those physical, medical, cognitive, emotional or psychosocial consequences to which persons with disabilities are more susceptible by virtue of an underlying condition, including adverse outcomes in health, wellness, participation, and quality of life” (6). More simply, a secondary condition is any condition to which a person is more susceptible by virtue of having a primary disabling condition. Secondary conditions encompass more than additional disease and include (7):

- Non-medical events (e.g. social isolation);
- Conditions that affect the general population, but which more greatly affect people with disabling conditions (e.g. obesity);
- Problems that arise any time during the lifespan (e.g. inaccessible mammography).

It is well recognized that the movement toward removing barriers facing people with disabilities rests on establishing a firm foundation of population surveillance, the measurement of disability prevalence within the population, and obtaining information about the impact of common secondary conditions of health. Of the thirteen objectives in Chapter 6 of Healthy People 2010, the first objective emphasizes the need to include a standard set of questions that identify “people with disabilities” in all data collection sets and surveillance instruments. The other objectives of this chapter of Healthy People 2010 deal mainly with assessing the impact of secondary health conditions of the disabled population and eliminating those disparities.

Figure 1. Prevalence of disability, Montana adults – 2003



### Disability and BRFSS in Montana

The Centers for Disease Control and Prevention, Disability and Health Branch, has worked diligently since the mid-1980's on creating a multi-state disability surveillance system. Epidemiological goals are to assess the magnitude of disability in state populations, using existing survey instruments, with measurement based on the degree of functional limitation, rather than on specific etiology, diagnosis, or life stage characteristics of the disabled.

The Behavioral Risk Factor Surveillance System (BRFSS) has been the main source of state level estimates of health status and health risk behaviors of adults; the BRFSS complements surveys, such as the National Health Interview Survey (NHIS), that typically provide only national level health prevalence estimates. The Montana Behavioral Risk Factor Surveillance System (BRFSS) is partially funded by the Centers for Disease Control and Prevention and is a collaborative effort to provide self-reported health risk behavior data at the state level; this nationwide effort now includes all 50 states, the District of Columbia, and several territories. The Montana BRFSS is an ongoing telephone survey that assesses the health status and health risk behaviors of adults in Montana. The survey monitors the prevalence of health risk behaviors that are linked with the leading causes of death—heart disease, cancer, stroke, diabetes, and injury—and other important health-related issues.

### Definition of Disability

In 2001, two identical disability survey items were included in the Behavioral Risk Factor Surveillance System (BRFSS) survey and the National Health Interview Survey (NHIS) in all fifty states. The two questions in the BRFSS core questionnaire establish the operational definition of disability and identify survey respondents with disability. Disability is defined as a “Yes” response to either or both of the following questions:

- “Are you limited in any way in any activities because of physical, mental, or emotional problems?”
- “Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?”

Since 2003, the Centers for Disease Control and Prevention, Disability and Health Branch, has included the above two-item disability module every year in the core section of the BRFSS questionnaire.

### Purpose of this Report

The purpose of this report is to provide information about Montana adults with disability from the 2001 and 2003 Montana BRFSS. The health indicators highlighted in this report were selected because they were:

- Healthy People 2010 Leading Health Indicators closely related to disability and secondary health conditions (8);
- Primary conditions known to be associated with activity limitation in adults (9);
- Socio-demographic and health status indicators that describe the experience of Montana adults with disability.

This information is presented for the first time and establishes a baseline for future comparison. It is the intent of Montana’s BRFSS to add “disability as a demographic” to all future publications to more adequately explain Montana’s adult population and their health status and health risk behaviors. The disparities that exist between adults with and without disability in Montana speak for themselves in the following pages.



## Survey Methods

All data in this report are from the 2001 and 2003 Montana BRFSS. In each of these years, a representative sample of non-institutionalized Montanans age 18 and older was selected for telephone interview. The total sample size was 3,338 adults in 2001 and 4,024 adults in 2003.

The methods for survey sampling and interviewing followed BRFSS protocol. Briefly, individual respondents were randomly selected from among all adults living in randomly sampled Montana households. The sample was stratified among three regions to ensure adequate representation of rural Montanans and American Indians (10, 11).

Trained, experienced professionals interviewed the selected respondents. Interviews were conducted on weekdays and weekends and at various hours to ensure the selected individual had ample opportunity to participate. The Montana BRFSS was conducted by Northwest Resource Consultants (Helena, MT) in 2001 and by ORC Macro (Burlington, VT) in 2003. Survey response rates were 70.8 percent and 59.0 percent, respectively.

## Data Analysis

SPSS 12.0 for Windows Complex Samples™ was used to compute prevalence estimates and standard errors for this report, using sample weights provided by CDC. Respondents who answered they did not know or refused to answer a question were excluded from the calculation of prevalence estimates.

Each year's data were weighted to account for differences in the probability of selection. Additionally, post-stratification weighting, based on Montana population estimates, was applied to ensure the sample more closely reflected the adult population of Montana. Demographic characteristics of survey respondents with and without disability are described in Table 2.

Weighted prevalence estimates and unweighted counts are tabulated in this report, along with 95% confidence intervals<sup>1</sup>. Where confidence intervals do not overlap, differences between subgroups are statistically significant. A statistical test is needed to determine significant differences when confidence intervals overlap. Chi-square tests were calculated in a few instances where confidence intervals slightly overlapped and significant differences were reported in the text when the test p-value was  $\leq 0.05$ .

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<sup>1</sup> The 95% confidence interval gives a range of values around the estimated prevalence where the actual prevalence in the Montana adult population can be expected to be located, with 95% certainty.

## Survey Limitations

The results in this report should be interpreted with consideration of the following limitations. Survey respondents may have the tendency to under-report behaviors perceived as socially undesirable or unhealthy and over-report those thought to be desirable. The ability of survey participants to recall past behaviors and events may also affect the accuracy of self-reported information.

Telephone surveys exclude households without telephone service<sup>2</sup> and survey bias may result from under-representation of certain segments of the population. The 2.8 percent of households without telephone service in Montana (12) may represent a segment with lower socio-economic status and associated higher risks for certain behaviors and conditions—including disability. However, a recent study suggests that population telephone surveys do not under-represent adults with disabilities (13).

Two additional factors related to the current BRFSS methodology may have contributed to under-representation of adults with disability in the survey samples:

- 1) BRFSS methodology does not include adults with communication or other impairments that affect their ability to answer the telephone or telephone survey questions.
- 2) BRFSS methodology does not include adults who live in institutions in the survey sample. Institutions include nursing homes or other long-term care facilities, state facilities (e.g., Montana Developmental Center, Montana State Hospital), and prisons. The BRFSS methodology also excludes adults who live in residential group homes.

The information presented in this report is necessarily limited by the methodology and questionnaire content of the BRFSS. Telephone surveys are restricted in the type and quantity of information that can be collected. The optional modules included in the Montana questionnaire vary substantially from year to year, and certain core modules are included in alternating years only. In the 2001 and 2003 surveys, data on the Leading Health Indicators were thus limited (e.g. substance abuse, sexual behavior, specific mental health data, violence); also, certain data that describe known areas of health disparities between people with and without disabilities were not collected in these years, when the disability questions were asked (e.g. cancer screening, women's preventive health screening, oral health).

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<sup>2</sup> And do not include cellular phones.

## Other Considerations

Survey respondents with disability were older than those without disability, in both survey years. Older adults tend to have more health-related problems and different risk behavior patterns than younger adults. The data in this report were analyzed and reported by age category to minimize age-associated differences and allow for meaningful comparisons<sup>3</sup>.

Although there may be gender-specific and other associations within the data that could be examined, the analyses required to discern them are beyond the scope of this report. These will be addressed in the future. Also, the sample sizes for specific race/ethnic groups, such as American Indians, were too small to make reliable generalizations about these sub-populations with disability.

Results from both the 2001 and 2003 Montana BRFSS are presented in most tables in this report. The results reported for the two years are similar; however, the 2003 sample size was larger and therefore prevalence estimates were more precise. For simplicity and clarity, the text and figures in the following pages highlight results from the 2003 BRFSS only.

The operational definition of disability used in this report, as explained in the introduction, is activity limitation and/or use of assistive devices. These are generally accepted indicators of disability in established health surveys, including the National Health Interview Survey (NHIS) of the National Center for Health Statistics and the Survey of Income and Program Participation (SIPP) of the U.S. Census Bureau. This definition, now also used in the BRFSS, does not account for the duration and severity of disability, which can vary considerably during an individual's life. Since the BRFSS is cross-sectional data, it does not allow for assessment of this dynamic nature of disability. In addition, these survey questions represent undocumented self-reported data that have not been validated as measures of disability to date. However, questions in surveys such as the BRFSS should allow for more uniform surveillance and public health research at the state and national level.

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<sup>3</sup> We presented age-specific rates as an alternative to age-adjustment, since age adjustment is a method for aggregating age-specific rates into an overall rate that reflects age differences in two or more populations. For further discussion, please see Fleiss (14).

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**Table 1. Prevalence of Disability, Montana Adults, 2001 and 2003**  
(with 95% confidence intervals)

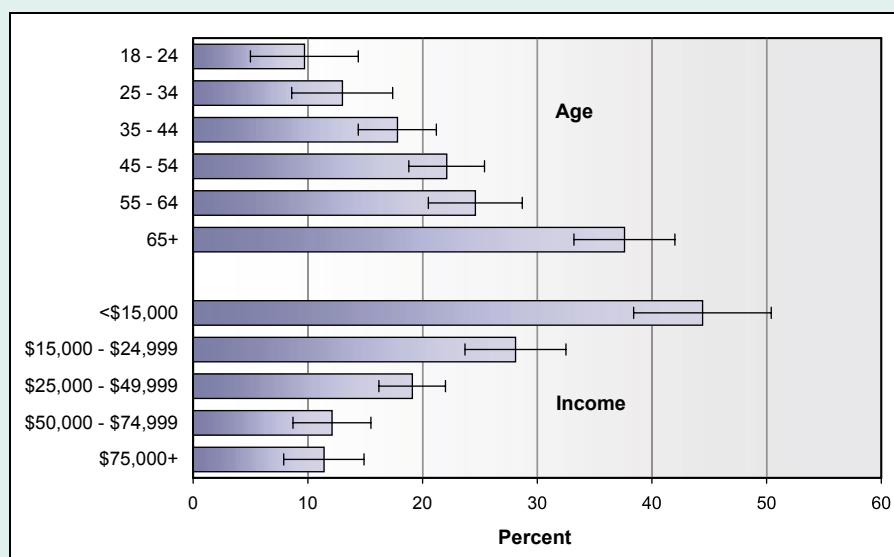
Activities are limited due to a health problem						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3332	19.0	17.2-20.8	3976	19.9	18.3-21.5
Health problem requires use of special equipment						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3337	5.3	4.3-6.2	3993	6.4	5.4-7.4
DISABILITY						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3333	20.2	18.4-22.0	3976	21.4	19.7-23.1
<b>Sex:</b>						
Male	1421	17.4	14.9-19.9	1724	19.4	17.0-21.9
Female	1912	22.8	20.2-25.4	2252	23.4	21.1-25.6
<b>Age:</b>						
18 - 24	245	12.9	7.2-18.6	245	9.7	5.0-14.4
25 - 34	459	10.4	7.0-13.8	502	13.0	8.6-17.4
35 - 44	658	12.4	9.2-15.6	748	17.8	14.4-21.2
45 - 54	752	23.6	19.2-28.0	916	22.1	18.8-25.4
55 - 64	481	30.4	24.9-35.9	664	24.7	20.6-28.8
65+	734	31.7	27.3-36.1	869	37.6	33.2-42.0
<b>Education:</b>						
<High School	363	31.5	24.7-38.3	358	30.9	24.0-37.8
High School	1135	18.8	15.7-21.9	1350	21.9	19.0-24.8
Some College	968	22.3	18.8-25.8	1128	21.6	18.4-24.8
College Degree	861	15.2	12.2-18.2	1136	18.1	15.2-21.0
<b>Income:</b>						
<\$15,000	334	34.3	26.7-41.9	516	44.4	38.4-50.3
\$15,000 - \$24,999	702	20.3	16.1-24.5	837	28.1	23.7-32.5
\$25,000 - \$49,999	970	17.3	14.1-20.5	1270	19.1	16.2-22.0
\$50,000 - \$74,999	321	14.8	9.7-19.9	518	12.1	8.7-15.5
\$75,000+	238	9.8	4.7-14.9	411	11.4	7.9-14.9
<b>Race/Ethnicity:</b>						
White, non-Hispanic	2789	19.4	17.5-21.3	3430	21.2	19.5-22.9
non-White or Hispanic:	523	27.4	21.9-32.9	522	21.5	15.7-27.3
AI/AN*	350	26.5	20.1-32.9	359	21.7	14.3-29.1
Other or Hispanic**	173	28.3	19.4-37.2	163	21.3	12.3-30.3

\* American Indian or Alaska Native only

\*\* All other non-White (including multiracial) or Hispanic

## PREVALENCE OF DISABILITY – 2003

Figure 2. Prevalence of disability by age and income, Montana adults – 2003



### Are you limited in any way in any activities because of physical, mental, or emotional problems?

Twenty percent of Montana adults reported activity limitation in 2003.

### Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?

Six percent of adult Montanans reported using special equipment due to a health problem in 2003.

### DISABILITY — defined as a “Yes” response to one or both of the above questions.

Overall, one in five (21%) Montana adults lived with disability in 2003.

Twenty-three percent of females and 19 percent of males reported disabilities.

Disability increased significantly with increasing age—those 65 and older (38%) were more than twice as likely to have disabilities as those 18-64 years old (18%).

The prevalence of disability in Montana adults was inversely associated with income. Forty-four percent of those with household incomes less than \$15,000 per year reported disabilities compared to 12 percent of those with incomes of \$50,000 or more.

The prevalence of disability was higher among adults who had not completed high school (31%) than those with a college degree (18%).

In 2003, race was not a factor in the prevalence of disability in Montana—21 percent of White, non-Hispanic adults and 22 percent of non-White or Hispanic adults reported disabilities.

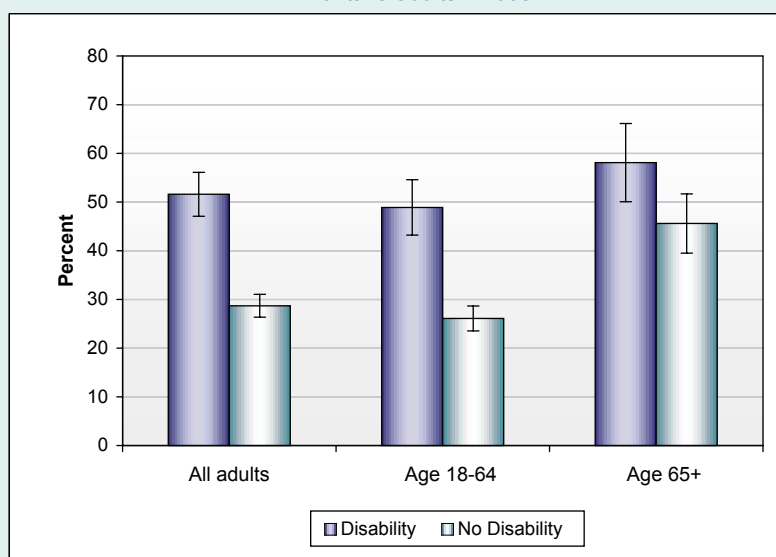
**Table 2. Demographic Characteristics of Montana Adults with and without Disability – 2003**  
(with 95% confidence intervals)

	WITH DISABILITY			WITHOUT DISABILITY		
	Total No.	%	CI	Total No.	%	CI
<b>Sex:</b>	<b>953</b>	<b>100.0</b>	<b>-</b>	<b>3023</b>	<b>100.0</b>	<b>-</b>
Male	393	44.9	40.6-49.2	1331	50.7	48.2-53.2
Female	560	55.1	50.8-59.4	1692	49.3	46.8-51.8
<b>Age:</b>	<b>946</b>	<b>100.0</b>	<b>-</b>	<b>2998</b>	<b>100.0</b>	<b>-</b>
18 - 24	25	6.2	3.3-9.1	220	15.8	13.4-18.2
25 - 34	58	9.0	5.9-12.1	444	16.5	14.7-18.3
35 - 44	143	15.4	12.5-18.3	605	19.4	17.6-21.2
45 - 54	225	21.1	18.0-24.2	691	20.3	18.5-22.1
55 - 64	185	16.0	13.1-18.9	479	13.3	11.7-14.9
65+	310	32.2	28.3-36.1	559	14.6	13.0-16.2
<b>Education:</b>	<b>952</b>	<b>100.0</b>	<b>-</b>	<b>3020</b>	<b>100.0</b>	<b>-</b>
<High School	113	12.1	9.2-15.0	245	7.4	6.0-8.8
High School	334	33.4	29.5-37.3	1016	32.5	30.1-34.9
Some College	280	28.6	24.7-32.5	848	28.3	25.9-30.7
College Degree	225	25.9	22.0-29.8	911	31.8	29.6-34.0
<b>Income:</b>	<b>853</b>	<b>100.0</b>	<b>-</b>	<b>2699</b>	<b>100.0</b>	<b>-</b>
<\$15,000	240	21.9	18.6-25.2	276	7.6	6.4-8.8
\$15,000 - \$24,999	233	29.8	25.3-34.3	604	21.1	18.9-23.3
\$25,000 - \$49,999	254	31.9	27.6-36.2	1016	37.4	34.9-39.9
\$50,000 - \$74,999	71	9.1	6.6-11.6	447	18.3	16.3-20.3
\$75,000+	55	7.3	4.9-9.7	356	15.7	13.7-17.7
<b>Race/Ethnicity:</b>	<b>943</b>	<b>100.0</b>	<b>-</b>	<b>3009</b>	<b>100.0</b>	<b>-</b>
White, non-Hispanic	826	90.5	87.8-93.2	2604	90.7	89.3-92.1
non-White or Hispanic:	117	9.5	6.8-12.2	405	9.3	7.9-10.7
AI/AN*	80	5.1	3.1-7.1	279	5.0	4.0-6.0
Other or Hispanic**	37	4.4	2.4-6.4	126	4.4	3.2-5.6

\* American Indian or Alaska Native only

\*\* All other non-White (including multiracial) or Hispanic

Figure 3. Percent reporting annual household income less than \$25,000, Montana adults – 2003



## Adults with disability were more likely to be female than adults without disability:

Fifty-five percent of Montana adults with disability were female, compared to 49 percent of those without disability.

## Adults with disability were significantly older than adults without disability:

One in three (32%) adults with disability were age 65 or older. Among adults without disability, fewer than one in six (15%) were in this age category.

Conversely, just 15 percent of adults with disability were 18-34 years of age, compared to 32 percent of those without disability.

The median age of adults with disability was 54 years, ten years older than the median age of 44 for those without disability.

## Adults with disability reported a lower level of educational attainment than those without disability:

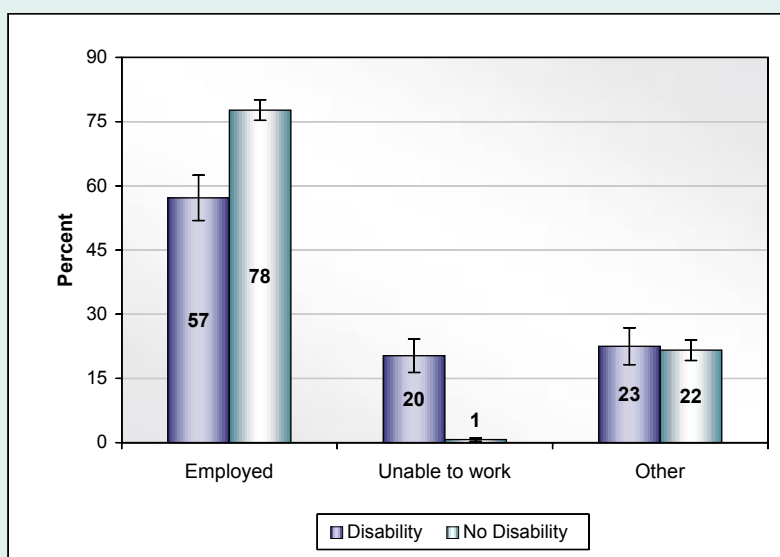
A significantly higher percentage of adults with disability (12%) reported they had not completed high school than adults without disability (7%).

Those without disability were more likely to have a college degree (32% vs. 26% of those with disability).

Differences in educational attainment between adults with and without disability were attributable to those aged 18-64; among older adults, there were no differences in the level of educational attainment between those with and without disability.



Figure 4. Employment status, Montana adults age 18-64 years – 2003



"Other" includes those who were out of work, homemakers, students, or retired.

## Adults with disability reported lower annual household incomes than those without disability:

Over half (52%) of those with disability reported incomes less than \$25,000 per year, compared to less than one-third (29%) of those without disability.

Adults without disability (34%) were more than twice as likely to have incomes of \$50,000 or more than adults with disability (16%).

## Adults with disability were more likely to be unemployed than those without disability:

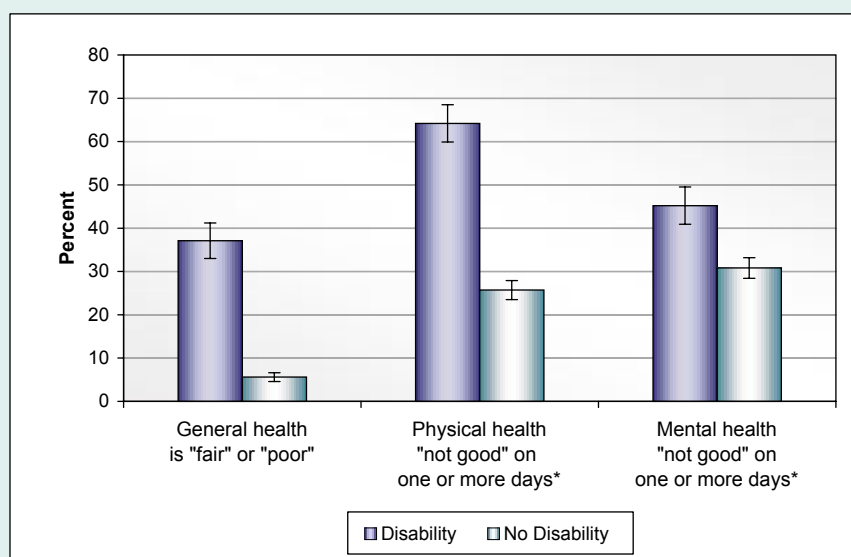
Working age adults (age 18-64) with disability were significantly more likely to be unemployed (43%) or unable to work (20%) than their counterparts without disability (22% and 1% respectively).

However, 57 percent of working age adults with disability *were* employed or self-employed (Figure 4).

**Table 3. Health Status, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

General health is "fair" or "poor"						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3333	14.4	12.8-16.0	4013	12.3	11.1-13.5
Adults with Disability	741	43.9	39.0-48.8	947	37.1	33.0-41.2
Age 18-64	499	41.3	35.2-47.4	630	32.4	27.7-37.1
Age 65+	242	50.3	41.7-58.9	310	46.5	39.1-53.9
Adults without Disability	2587	7.0	5.8-8.2	3018	5.6	4.6-6.6
Age 18-64	2094	5.6	4.4-6.8	2435	4.4	3.4-5.4
Age 65+	489	14.8	10.9-18.7	558	12.8	9.3-16.3
Physical health not good on one or more of the past 30 days						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3304	30.9	28.7-33.1	3972	33.8	31.8-35.8
Adults with Disability	723	56.1	51.0-61.2	925	64.2	59.9-68.5
Age 18-64	492	57.4	51.3-63.5	624	67.2	62.1-72.3
Age 65+	231	52.9	44.3-61.5	294	58.3	50.7-65.9
Adults without Disability	2576	24.7	22.3-27.1	3000	25.7	23.5-27.9
Age 18-64	2086	25.7	23.0-28.4	2428	25.3	22.9-27.7
Age 65+	486	19.3	14.6-24.0	547	28.7	23.8-33.6
Mental health not good on one or more of the past 30 days						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3298	22.8	20.8-24.8	3962	33.9	31.7-36.1
Adults with Disability	728	35.4	30.5-40.3	927	45.3	41.0-49.6
Age 18-64	493	41.8	35.7-47.9	617	55.2	49.7-60.7
Age 65+	235	19.4	12.1-26.7	304	25.0	18.5-31.5
Adults without Disability	2565	19.7	17.5-21.9	2990	30.8	28.4-33.2
Age 18-64	2079	21.8	19.4-24.2	2414	33.7	31.0-36.4
Age 65+	482	8.3	5.2-11.4	551	13.9	10.0-17.8
Poor health prevented usual activities one or more of the past 30 days						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3318	18.5	16.7-20.3	3991	19.5	17.9-21.1
Adults with Disability	729	44.0	38.9-49.1	934	43.6	39.3-47.9
Age 18-64	494	45.3	39.2-51.4	623	49.6	44.1-55.1
Age 65+	235	40.6	31.8-49.4	305	31.2	24.3-38.1
Adults without Disability	2584	12.2	10.4-14.0	3009	13.1	11.5-14.7
Age 18-64	2092	12.8	10.8-14.8	2434	13.6	11.8-15.4
Age 65+	488	9.5	6.0-13.0	550	10.8	7.3-14.3

Figure 5. Self-reported health status, Montana adults – 2003



\* In the past month

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

Thirty-seven percent of Montana adults with disability described their general health as fair or poor.

Six times as many adults with disability (37%) as adults without disability (6%) reported fair or poor general health.

Older adults were more likely to describe their health status as fair or poor than their younger counterparts. Among adults with disability, almost half (47%) of those age 65 and older reported fair or poor health, compared to one-third (32%) of those younger than 65.

#### How many days during the past 30 days was your physical health not good?

Two in three (64%) Montana adults with disability indicated their physical health was not good on one or more of the previous 30 days.

More than twice as many adults with disability (64%), as adults without disability (26%), responded they had one or more days of poor physical health in the past month.

One in three (34%) adults with disability reported *14 or more* days of poor physical health in the past month—compared to just 4 percent of adults without disability.

Montana adults with disability reported an average 10.0 days of poor physical health in the past month—six times the average 1.6 days reported by adult without disability (Table 3-b).

**Table 3-b. Average Number of Poor Health Days (past 30 days),  
Montana Adults with and without Disability – 2003**

		Disability	No Disability
		Average number of days*	
<b>Physical health "not good"</b>	All Adults	10.0 (9.0-11.0)	1.6 (1.4-1.9)
	Age 18-64	9.7 (8.6-10.9)	1.3 (1.1-1.5)
	Age 65+	10.7 (8.8-12.7)	3.6 (2.7-4.6)
<b>Mental health "not good"</b>	All Adults	6.0 (5.1-6.8)	2.3 (2.0-2.6)
	Age 18-64	7.3 (6.2-8.4)	2.5 (2.2-2.8)
	Age 65+	3.3 (2.0-4.5)	1.1 (0.6-1.5)
<b>Poor health prevented usual activities</b>	All Adults	6.1 (5.3-6.9)	0.7 (0.6-0.8)
	Age 18-64	6.4 (5.5-7.4)	0.6 (0.5-0.7)
	Age 65+	5.4 (3.9-7.0)	1.3 (0.7-1.9)

\* with 95% confidence intervals

### How many days during the past 30 days was your mental health not good?

Forty-five percent of Montana adults with disability—compared to 31 percent of adults without disability—reported their mental health was not good on one or more of the past 30 days.

Four times as many adults with disability (20%), as adults without disability (5%), indicated *14 or more* days of poor mental health in the past month.

Older adults (age 65 and older) were significantly less likely to report poor mental health than younger adults, regardless of disability status. Among adults with disability, the percentage of older adults reporting one or more days of poor mental health (25%) was about half that of younger adults (55%).

Adults with disability reported an average 6.0 days of poor mental health during the past 30 days—significantly higher than the average 2.3 days reported by those without disability.

### During the past 30 days, about how many days did poor physical or mental health keep you from doing your usual activities?

Forty-four percent of adults with disability reported that poor health kept them from doing their usual activities on one or more of the past 30 days—three times as many as adults without disability (13%).

Among Montanans with disability, younger adults (50%) were more likely to report one or more days of activity limitation in the past month than those age 65 and older (31%).

One in five adults with disability (21%) said poor health interfered with their usual activities on *14 or more* of the past 30 days—ten times as many as those without disability (2%).

Adults with disability reported that poor health prevented their usual activities an average 6.1 days during the past month—compared to less than one day for adults without disability.

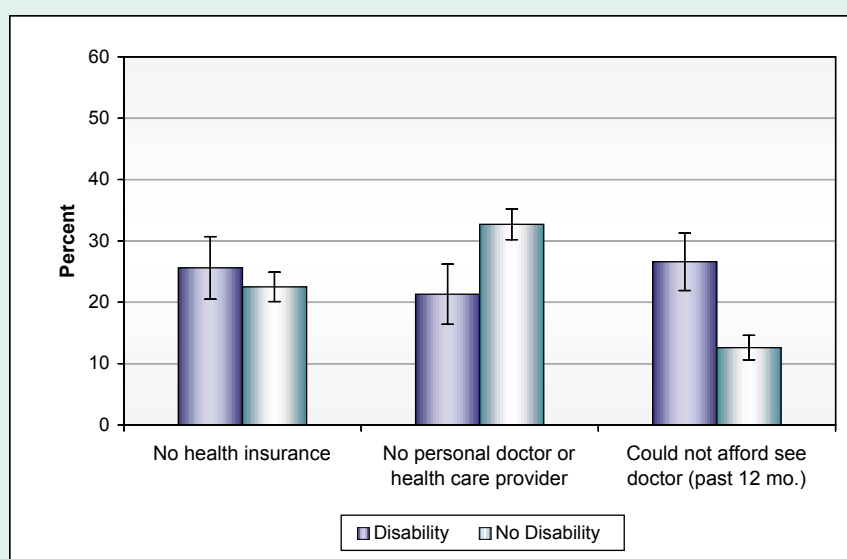
**Table 4. Health Care Access, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

No health insurance						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3331	16.9	15.1-18.7	4013	19.1	17.3-20.9
Adults with Disability	744	16.7	12.8-20.6	950	18.2	14.5-21.9
Age 18-64	500	23.1	17.8-28.4	635	25.7	20.6-30.8
Age 65+	244	0.9	0.1-1.7	308	2.2	0.2-4.2
Adults without Disability	2582	17.0	15.0-19.0	3016	19.5	17.5-21.5
Age 18-64	2088	19.9	17.5-22.3	2434	22.5	20.1-24.9
Age 65+	490	1.7	0.5-2.9	559	2.6	0.8-4.4
No personal doctor or health care provider						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3333	27.7	25.5-29.9	4012	26.7	24.7-28.7
Adults with Disability	743	16.9	13.4-20.4	952	17.2	13.5-20.9
Age 18-64	499	20.0	15.5-24.5	636	21.3	16.4-26.2
Age 65+	244	9.4	4.9-13.9	309	8.5	4.4-12.6
Adults without Disability	2585	30.5	28.0-33.0	3012	29.3	26.9-31.7
Age 18-64	2093	33.6	30.7-36.5	2432	32.7	30.2-35.2
Age 65+	488	13.7	9.8-17.6	557	9.9	7.0-12.8
Could not see doctor because of cost (past 12 mo.)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults				4008	12.9	11.5-14.3
Adults with Disability				944	19.9	16.4-23.4
Age 18-64	NOT ASKED IN 2001			630	26.7	22.0-31.4
Age 65+				307	5.6	2.3-8.9
Adults without Disability				3017	11.1	9.5-12.7
Age 18-64				2433	12.6	10.6-14.6
Age 65+				559	2.8	1.2-4.4

#### Healthy People 2010 Objective(s):

- 1-1. Increase the proportion of persons with health insurance to 100 percent.
- 1-5. Increase the proportion of persons with a usual primary care provider to 85 percent.

Figure 6. Access to health care, Montana adults age 18-64 years – 2003



### Do you have any kind of health care coverage?

Eighteen percent of Montana adults with disability reported they were uninsured in 2003.

There were no differences in the level of health care coverage between those with and without disability.

Adults age 18-64 (>22%) were more likely to report being uninsured than those 65 and older (<3%, most likely due to Medicare coverage)—both those with and without disability.

### Do you have one person you think of as your personal doctor or health care provider?

Seventeen percent of adults with disability in Montana did not have a personal doctor or health care provider.

Among adults age 18-64 years, those with disability were more likely to have a personal doctor or health care provider than those without disability—eight in ten (79%) compared to seven in ten (67%).

Among adults age 65 and older, there was no difference between those with and without disability—nine in ten reported having a personal doctor or health care provider.

### Was there a time in the past 12 months when you needed to see a doctor but could not because of the cost?

A significantly larger percentage of Montana adults with disability (20%) reported they could not afford to see a doctor in the past 12 months than adults without disability (11%).

Regardless of disability status, older Montanans (<6%) were less likely to delay a visit to the doctor because of cost than their younger counterparts (>12%). This is most likely due to Medicare coverage in the 65 and older population.

Among adults age 18-64 years, those with disability (27%) were twice as likely to report being unable to afford a doctor visit in the past 12 months as those without disability (13%).

**Table 5. Physical Activity, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

No leisure-time physical activity						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3337	21.9	20.1-23.7	4020	20.2	18.6-21.8
Adults with Disability	744	34.5	30.0-39.0	951	34.0	29.9-38.1
Age 18-64	500	27.9	22.8-33.0	635	29.6	24.9-34.3
Age 65+	244	50.5	42.1-58.9	309	42.7	35.3-50.1
Adults without Disability	2588	18.7	16.7-20.7	3021	16.6	14.8-18.4
Age 18-64	2094	18.2	16.0-20.4	2439	15.2	13.2-17.2
Age 65+	490	21.4	17.1-25.7	557	24.7	20.0-29.4
Meets recommendations for moderate physical activity*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3129	51.2	48.8-53.6	3750	58.5	56.3-60.7
Adults with Disability	691	36.9	31.8-42.0	881	48.8	44.3-53.3
Age 18-64	467	40.6	34.3-46.9	595	51.3	45.8-56.8
Age 65+	224	27.6	19.8-35.4	281	44.0	36.2-51.8
Adults without Disability	2434	54.7	52.0-57.4	2852	61.1	58.7-63.5
Age 18-64	1995	55.8	52.9-58.7	2344	62.2	59.5-64.9
Age 65+	435	47.9	41.8-54.0	487	54.6	48.9-60.3

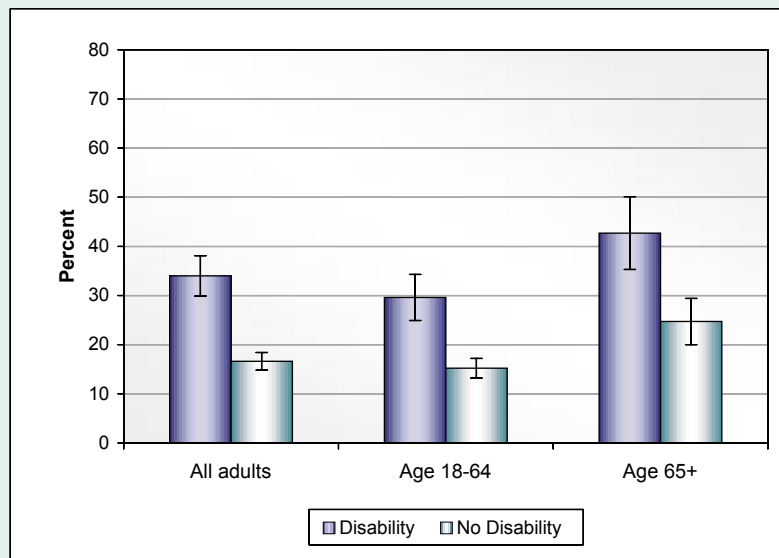
\* 30 cumulative minutes per day, 5 or more days per week

## Healthy People 2010 Objective(s):

- 22-1. Reduce the proportion of adults who engage in no leisure-time physical activity to 20 percent.
- 22-2. Increase the proportion of adults who engage in regular, moderate physical activity to 30 percent.

## PHYSICAL ACTIVITY – 2003

Figure 7. Prevalence of no leisure-time physical activity, Montana adults – 2003



### No leisure-time physical activity:

One in three (34%) Montana adults with disability did not engage in leisure-time physical activity.

Twice as many adults with disability (34%), as without disability (17%) reported not engaging in leisure-time physical activity.

Among adults with disability, those age 65 and older (43%) were significantly more likely to report no leisure-time physical activity than younger adults (30%). This relationship, between age category and no leisure-time physical activity, was also found among adults without disability (25% vs. 15% respectively).

### Meets recommendations for moderate physical activity:

One half (49%) of adults with disability reported engaging in moderate physical activity.

Adults with disability (49%) were significantly less likely than adults without disability (61%) to meet moderate physical activity recommendations.

Among Montanans with disability, those age 65 and older (44%) were as likely to engage in moderate physical activity as their younger counterparts (51%).

**Note: Moderate physical activity is defined as engaging in moderate activities (such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes some increase in breathing or heart rate) at least ten minutes at a time for a total of at least 30 minutes per day, on 5 or more days per week.**



**Table 6. Overweight and Obesity, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

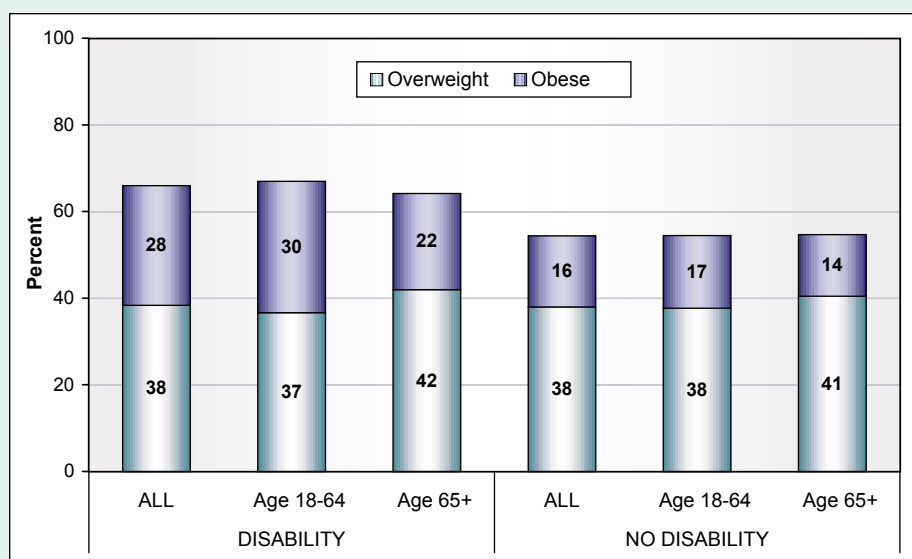
Overweight*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3202	38.0	35.6-40.4	3854	38.1	35.9-40.3
Adults with Disability	711	36.1	31.2-41.0	921	38.4	34.1-42.7
Age 18-64	479	31.5	25.8-37.2	613	36.7	31.4-42.0
Age 65+	232	47.4	38.6-56.2	303	42.0	34.6-49.4
Adults without Disability	2487	38.5	35.8-41.2	2887	38.0	35.6-40.4
Age 18-64	2006	38.6	35.7-41.5	2333	37.7	35.0-40.4
Age 65+	477	37.8	32.1-43.5	539	40.5	35.0-46.0
* Overweight: $25 \leq \text{BMI} < 30$						
Obese*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3202	18.8	17.0-20.6	3854	18.8	17.2-20.4
Adults with Disability	711	30.1	25.6-34.6	921	27.6	23.7-31.5
Age 18-64	479	33.7	27.8-39.6	613	30.3	25.4-35.2
Age 65+	232	21.5	14.4-28.6	303	22.2	16.1-28.3
Adults without Disability	2487	15.9	13.9-17.9	2887	16.4	14.6-18.2
Age 18-64	2006	16.0	14.0-18.0	2333	16.8	14.8-18.8
Age 65+	477	15.5	11.0-20.0	539	14.2	10.3-18.1
* Obese: $\text{BMI} \geq 30$						

#### Healthy People 2010 Objective(s):

- 19-1. Increase the proportion of adults who are at a healthy weight to 60 percent.
- 19-2. Reduce the proportion of adults who are obese to 15 percent.

# OVERWEIGHT AND OBESITY – 2003

Figure 8. Prevalence of overweight and obesity, Montana adults – 2003



Obese: BMI  $\geq 30$   
Overweight:  $25 \leq \text{BMI} < 30$

## Overall:

Two in three (66%) Montana adults with disability were overweight or obese. Among adults without disability, just over half (54%) were overweight or obese.

**NOTE:** Overweight and obesity are measured by calculating Body Mass Index (BMI) from the respondent's self-reported weight and height. BMI is a ratio of weight to height [ $\text{kg/m}^2$  or  $(\text{lbs} \times 700)/\text{in}^2$ ]. See NOTES below.

## Overweight adults:

The prevalence of overweight did not differ between adults with and without disability—38 percent of Montana adults were overweight.

The prevalence of overweight did not differ substantially by age category.

**NOTE:** “Overweight” is defined as BMI greater than or equal to 25 and less than 30.

## Obese adults:

Montana adults with disability (28%) were significantly more likely to be obese than those without disability (16%).

Similarly, more adults with disability (4%), than without disability (1%), indicated they were morbidly obese (see NOTE below).

Younger adults with disability were somewhat more likely to report obesity than their older counterparts—30 percent compared to 22 percent respectively.

**NOTE:** “Obese” is defined as BMI greater than or equal to 30.

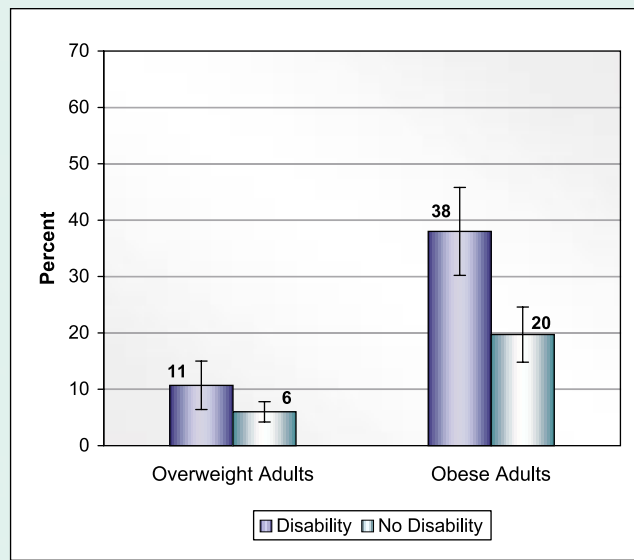
“Morbidly obese” is defined as BMI greater than or equal to 40.

**Table 7. Weight Control, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Trying to lose weight (adults who were overweight/obese)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	1894	50.4	47.3-53.5	2297	50.8	48.1-53.5
Adults with Disability	476	55.5	49.4-61.6	608	59.1	53.8-64.4
Age 18-64	329	61.9	54.8-69.0	412	65.1	58.6-71.6
Age 65+	147	40.5	29.9-51.1	194	46.6	37.2-56.0
Adults without Disability	1415	48.8	45.3-52.3	1664	48.2	44.9-51.5
Age 18-64	1171	49.2	45.1-53.3	1363	49.1	45.6-52.6
Age 65+	242	46.2	38.2-54.2	297	42.9	35.5-50.3
Health professional advice to lose weight (past 12 mo.) (adults who were overweight/obese)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	1897	18.9	16.5-21.3	2296	13.0	11.2-14.8
Adults with Disability	477	31.5	25.6-37.4	608	22.1	17.8-26.4
Age 18-64	329	36.4	29.1-43.7	413	27.2	21.5-32.9
Age 65+	148	20.0	11.2-28.8	193	11.2	5.9-16.5
Adults without Disability	1417	15.1	12.6-17.6	1663	10.1	8.1-12.1
Age 18-64	1173	14.5	11.8-17.2	1362	10.0	7.8-12.2
Age 65+	242	18.4	11.9-24.9	297	10.4	6.1-14.7

## WEIGHT CONTROL – 2003

Figure 9. Received health professional advice to lose weight in the past year, Montana adults – 2003



Overweight:  $25 \leq \text{BMI} < 30$

Obese:  $\text{BMI} \geq 30$

### (Those who were overweight or obese)

#### Are you now trying to lose weight?

More overweight or obese adults with disability (59%), than without disability (48%), reported they were trying to lose weight.

Among those with disability, adults age 18-64 (65%) were more likely to report they were trying to lose weight than older adults (47%).

#### In the past 12 months, has a doctor, nurse or other health professional advised you to lose weight?

Twice as many overweight or obese adults with disability (22%), as without disability (10%), received advice from a health professional to lose weight. However, this may be due, all or in part, to differences in the frequency of health care visits between the two groups (not assessed in this survey).

Among those with disability, younger adults (27%) were significantly more likely to have received health professional advice to lose weight than those age 65 and older (11%).

Regardless of disability status, respondents who were obese were three times as likely to have been advised to lose weight as those who were overweight (Figure 9).

**NOTE: "Overweight" is defined as BMI greater than or equal to 25 and less than 30.**

**"Obese" is defined as BMI greater than or equal to 30.**

**Table 8. Cigarette Smoking, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

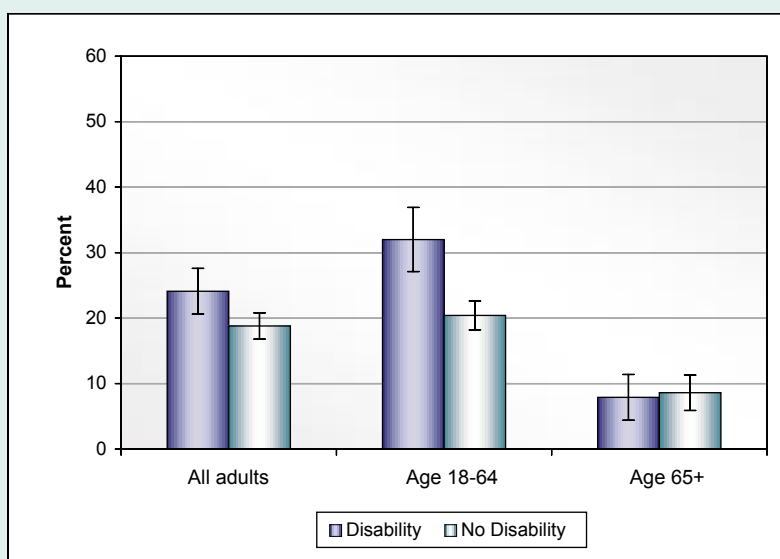
Current cigarette smoking						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3330	21.9	19.9-23.9	4017	20.0	18.4-21.6
Adults with Disability	741	27.8	23.3-32.3	950	24.1	20.6-27.6
Age 18-64	498	35.0	29.1-40.9	634	31.9	27.0-36.8
Age 65+	243	10.0	5.7-14.3	309	7.9	4.4-11.4
Adults without Disability	2584	20.5	18.3-22.7	3019	18.8	16.8-20.8
Age 18-64	2092	22.1	19.6-24.6	2437	20.4	18.2-22.6
Age 65+	489	11.9	8.2-15.6	557	8.6	5.9-11.3

**Healthy People 2010 Objective(s):**

27-1a. Reduce cigarette smoking by adults to 12 percent.

## CIGARETTE SMOKING – 2003

Figure 10. Prevalence of current cigarette smoking\*, Montana adults – 2003



\* A current smoker is someone who has smoked 100+ lifetime cigarettes and now smokes every day or some days.

### Current cigarette smoking:

One in four (24%) Montana adults with disability reported current cigarette smoking, while one in five (19%) adults without disability were current smokers.

Among adults age 18-64, significantly more of those with disability (32%), than those without disability (20%), reported current cigarette smoking.

Among adults age 65 and older, there was no difference in the prevalence of current cigarette smoking between those with (8%) and without disability (9%).

Among those with disability, younger adults (32%) reported current cigarette smoking at four times the rate of adults age 65 and older (8%).

**NOTE: A current cigarette smoker is defined as someone who has smoked at least 100 lifetime cigarettes and now smokes every day or some days.**

**Table 9. Alcohol Consumption, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

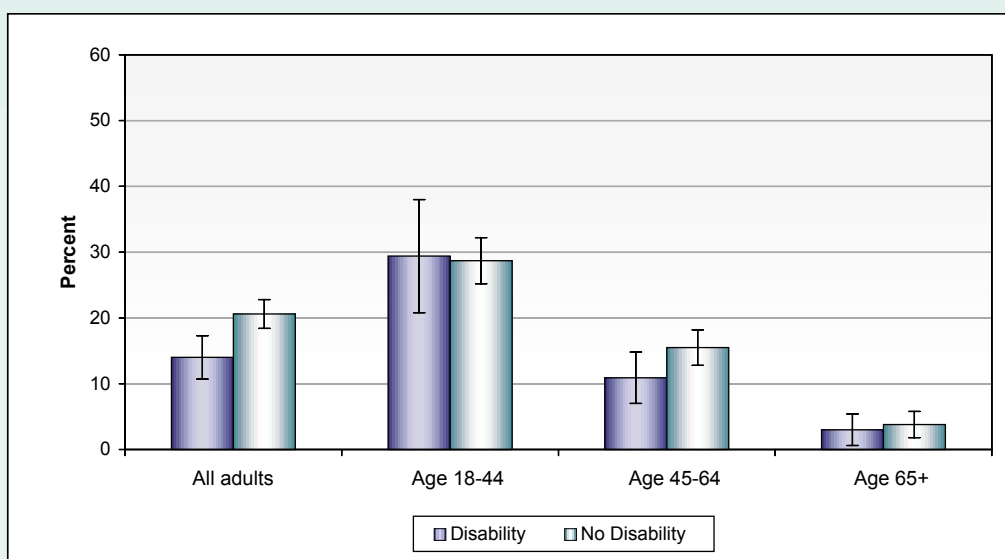
Binge drinking*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3264	16.7	14.7-18.7	4004	19.1	17.3-20.9
Adults with Disability	731	12.9	9.2-16.6	946	14.0	10.7-17.3
Age 18-44	174	26.2	16.6-35.8	225	29.4	20.8-38.0
Age 45-64	316	11.1	6.0-16.2	406	10.8	6.9-14.7
Age 65+	241	2.3	0.0-4.8	308	3.0	0.6-5.4
Adults without Disability	2528	17.7	15.3-20.1	3012	20.6	18.4-22.8
Age 18-44	1159	25.5	21.8-29.2	1266	28.7	25.2-32.2
Age 45-64	889	11.5	9.0-14.0	1169	15.5	12.8-18.2
Age 65+	476	2.5	0.7-4.3	553	3.8	1.8-5.8
* 5+ drinks on an occasion (past 30 days)						
Heavy drinking*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3270	4.4	3.4-5.4	4001	6.7	5.5-7.9
Adults with Disability	735	3.9	1.9-5.9	947	7.1	4.6-9.6
Age 18-44	175	5.1	0.6-9.6	224	12.7	5.6-19.8
Age 45-64	318	5.5	2.0-9.0	408	6.4	3.3-9.5
Age 65+	242	0.4	0.0-1.0	308	2.5	0.1-4.9
Adults without Disability	2530	4.6	3.4-5.8	3007	6.6	5.4-7.8
Age 18-44	1157	6.2	4.2-8.2	1261	7.5	5.5-9.5
Age 45-64	892	2.9	1.7-4.1	1168	5.7	3.9-7.5
Age 65+	477	2.2	0.4-4.0	554	5.4	2.9-7.9
* >2 drinks/day for men; >1 drink/day for women						

### Healthy People 2010 Objective(s):

- 26-11c. Reduce the proportion of adults engaging in binge drinking in the past month to 6 percent.

## ALCOHOL CONSUMPTION – 2003

Figure 11. Prevalence of binge drinking\* in the past 30 days, Montana adults – 2003



\* Binge drinking is defined as consuming 5 or more alcoholic drinks on an occasion.

### Binge drinking in the past 30 days:

Overall, 14 percent of adults with disability in Montana were at risk for binge drinking.

Fewer Montana adults with disability (14%) reported binge drinking in the past 30 days than adults without disability (21%). However, this difference is at least partially due to the older age, overall, of adults with disability in Montana.

The risk for binge drinking decreased significantly with increasing age category. Among adults with disability, three in ten (29%) of those 18-44 years old reported binge drinking—compared to one in ten (11%) age 45-64 years and 3 percent of those 65 and older.

**NOTE:** Binge drinking is defined as consuming 5 or more alcoholic drinks on an occasion.

### Heavy drinking in the past 30 days:

Seven percent of Montana adults with disability reported heavy drinking in 2003. This did not differ from heavy drinking among adults without disability (7%).

Among those with disability, adults age 18-44 (13%) were more likely to report heavy drinking than those age 65 and older (3%).

**NOTE:** Heavy drinking is defined as consuming more than 2 drinks/day for men or more than 1 drink/day for women.



**Table 10. Fall-related Injury, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

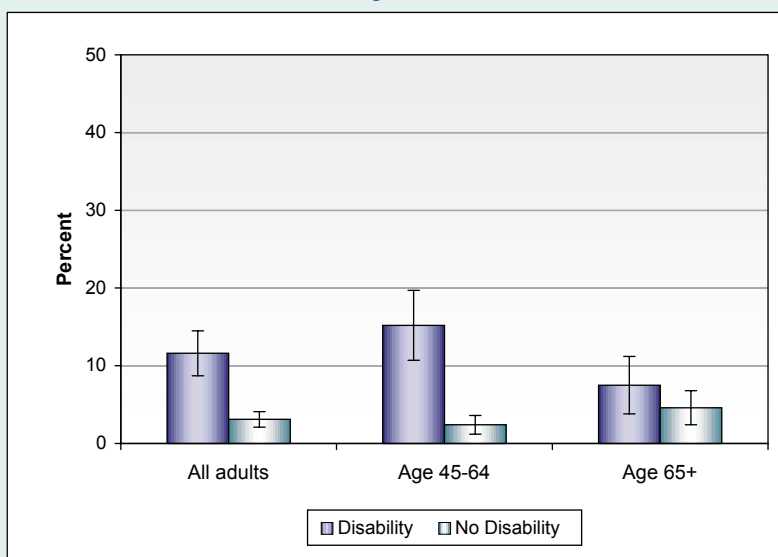
Fell and was injured in the past 3 months (adults age 45 and older)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults				2466	5.6	4.4-6.8
Adults with Disability	NOT ASKED IN 2001			718	11.6	8.7-14.5
Age 45-64				409	15.2	10.9-19.5
Age 65+				309	7.5	3.8-11.2
Adults without Disability				1728	3.1	2.1-4.1
Age 45-64				1169	2.4	1.2-3.6
Age 65+				559	4.6	2.4-6.8

**Healthy People 2010 Objective(s):**

15-14. (Developmental) Reduce non-fatal unintentional injuries.

## FALLS AND INJURY – 2003

Figure 12. Prevalence of fall-related injury in the past 3 months, Montana adults age 45 and older – 2003



### (Age 45 and older)

#### Fall-related injury in the past 3 months:

Twenty-seven percent of Montana adults with disability reported they had fallen in the past three months—twice as many as those without disability (14%).

Adults with disability (12%) were four times as likely to report fall-related injuries as adults without disability (3%).

Among younger adults (45-64 years), those with disability (15%) sustained fall-related injuries at six times the rate of those without disability (2%).

Among older adults (65 and older), there was essentially no difference in the prevalence of fall-related injury between those with and without disability—overall 6 percent of older adults reported fall-related injuries.

Among those with disability, younger adults were significantly more likely to report fall-related injuries than older adults (15% vs. 8%). Among adults without disability, the difference between younger and older adults (2% vs. 5%) was not statistically significant.

**NOTE: Fall-related injury means a fall caused the respondent to limit their regular activities for at least a day or to go see a doctor.**

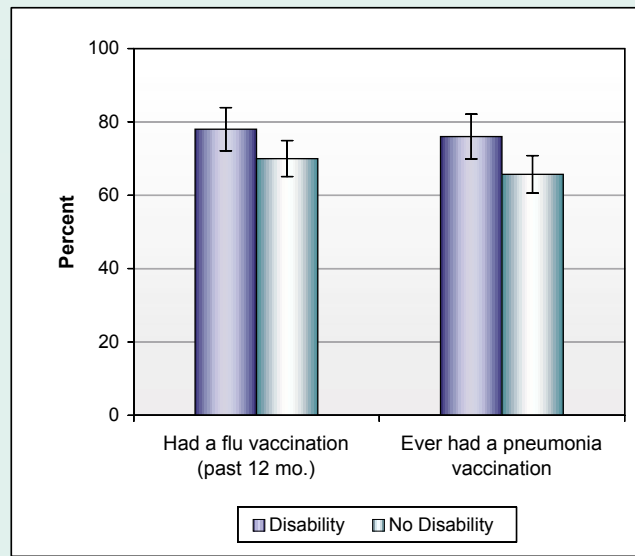
**Table 11 . Immunization, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Had a flu vaccination (past 12 mo.) (adults age 65 and older)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	738	73.1	69.0-77.2	881	72.8	69.1-76.5
Adults with Disability	244	74.8	67.5-82.1	309	78.0	72.1-83.9
Adults without Disability	490	72.2	67.1-77.3	558	70.0	65.1-74.9
Ever had a pneumonia vaccination (adults age 65 and older)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	731	67.9	63.4-72.4	873	69.1	65.2-73.0
Adults with Disability	241	74.7	67.4-82.0	306	76.0	69.9-82.1
Adults without Disability	486	64.3	58.6-70.0	552	65.7	60.6-70.8

**Healthy People 2010 Objective(s):**

- 14-29a. Increase the proportion of adults who are vaccinated annually against influenza to 90 percent (age 65 and older).
- 14-29b. Increase the proportion of adults ever vaccinated against pneumococcal disease to 90 percent (age 65 and older).

Figure 13. Immunization rates among Montana adults age 65 and older – 2003



## (Age 65 and Older)

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

Seventy-eight percent of adults with disability age 65 and older reported they had a flu shot in the past 12 months.

Adults with disability age 65 and older (78%) were significantly more likely to report immunization against flu than the same age group without disability (70%).

### Have you ever had a pneumonia shot?

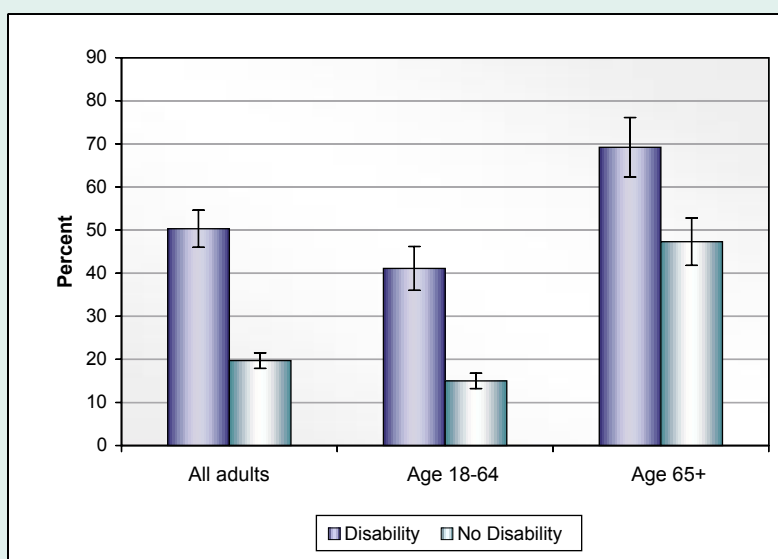
Seventy-six percent of adults with disability age 65 and older reported they had ever received a pneumonia shot.

Adults with disability age 65 and older (76%) were significantly more likely to report immunization against pneumonia than their counterparts without disability (66%).

**Table 12. Arthritis, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Chronic joint symptoms*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults				3995	38.5	36.5-40.5
Adults with Disability				949	65.1	60.8-69.4
Age 18-64	NOT COMPARABLE TO 2003			632	63.1	57.6-68.6
Age 65+				310	69.2	62.3-76.1
Adults without Disability				3013	31.2	29.0-33.4
Age 18-64				2434	30.3	27.9-32.7
Age 65+				555	36.7	31.4-42.0
* Had joint symptoms (past 30 days) with onset > 3 months ago						
Ever told you have arthritis*						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3332	24.2	22.2-26.2	3992	26.3	24.5-28.1
Adults with Disability	739	51.9	46.8-57.0	948	50.3	46.0-54.6
Age 18-64	498	46.0	39.9-52.1	632	41.1	36.0-46.2
Age 65+	241	66.2	58.2-74.2	309	69.2	62.3-76.1
Adults without Disability	2588	17.1	15.1-19.1	3014	19.7	17.9-21.5
Age 18-64	2094	12.5	10.5-14.5	2433	15.0	13.2-16.8
Age 65+	490	41.3	35.6-47.0	557	47.3	41.8-52.8
* In 2003, arthritis also included gout, lupus, and fibromyalgia						

Figure 14. Arthritis prevalence, Montana adults – 2003



## Chronic joint symptoms:

Sixty-five percent of Montana adults with disability reported the presence of chronic joint symptoms—more than twice as many as adults without disability (31%).

The reported prevalence of chronic joint symptoms did not differ significantly between age categories within the same disability status group.

**NOTE: Chronic joint symptoms are defined as a “Yes” response to: “During the past 30 days, have you had any symptoms of pain, aching, or stiffness in or around a joint (excluding the back or neck)?” and “Did your joint symptoms first begin more than three months ago?”**

## Have you ever been told by a doctor or other health professional that you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia?

Among Montana adults with disability, one in two (50%) reported they had been told they had arthritis—compared to one in five (20%) of those without disability.

Significant differences in the reported prevalence of arthritis between those with and without disability persisted within each age category. Among adults age 18-64 years, those with disability (41%) were almost three times as likely to report arthritis as those without disability (15%).

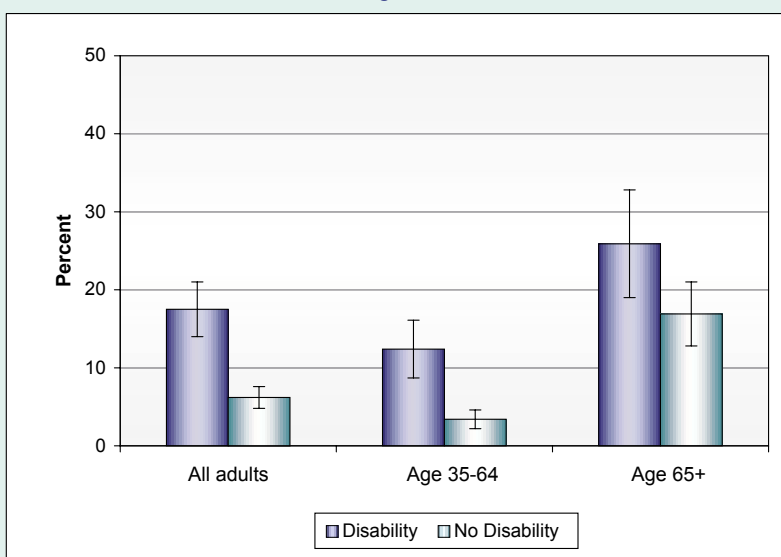
The prevalence of self-reported arthritis increased with age, regardless of disability status. Among adults with disability, those 18-64 years old were less likely to report arthritis than those age 65 and older (41% and 69% respectively).

**Table 13. Cardiovascular Disease, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Ever told you had cardiovascular disease* (adults age 35 and older)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	2616	11.7	9.9-13.5	3109	9.1	7.7-10.5
Adults with Disability	660	24.6	20.1-29.1	839	17.5	14.0-21.0
Age 35-64	418	21.1	15.6-26.6	540	12.4	8.7-16.1
Age 65+	242	31.2	23.4-39.0	299	25.9	19.0-32.8
Adults without Disability	1952	7.6	6.0-9.2	2252	6.2	4.8-7.6
Age 35-64	1465	4.5	2.9-6.1	1719	3.4	2.2-4.6
Age 65+	487	17.8	13.5-22.1	533	16.9	12.8-21.0

\*One or more of: heart attack, angina (coronary heart disease), stroke

Figure 15. Cardiovascular disease\* prevalence, Montana adults age 35 and older – 2003



\*One or more of: heart attack, angina (coronary heart disease), stroke

## (Age 35 and Older)

### Has a doctor, nurse, or other health professional ever told you that you had cardiovascular disease?

Eighteen percent of adults with disability indicated they had been told they had cardiovascular disease.

The prevalence of self-reported cardiovascular disease among adults with disability (18%) was three times as high as that among adults without disability (6%).

Differences in the prevalence of cardiovascular disease between those with and without disability were found primarily among those 35-64 years old. In this age group, those with disability (12%) were four times as likely to report cardiovascular disease as those without disability (3%).

The prevalence of self-reported cardiovascular disease increased with age. Among adults with disability, those 35-64 years old (12%) were half as likely to have cardiovascular disease as those 65 and older (26%).

**NOTE: Cardiovascular disease includes heart attack (myocardial infarction), angina or other coronary heart disease, and stroke.**



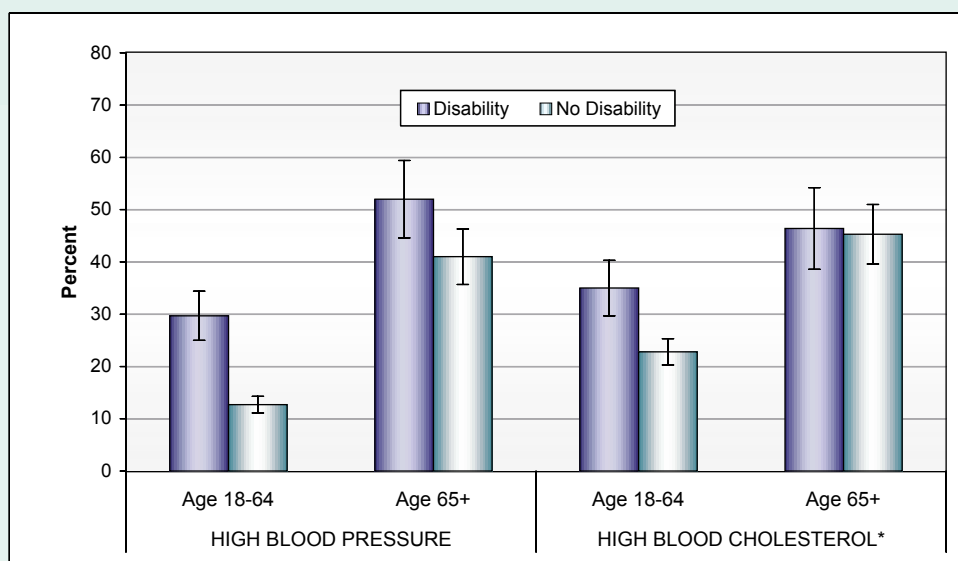
**Table 14. Cardiovascular Disease Risk Factors, Montana Adults with and without Disability, 2001 and 2003** (with 95% confidence intervals)

Ever told you have high blood pressure						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3335	26.8	24.8-28.8	4021	21.3	19.7-22.9
Adults with Disability	743	40.6	35.7-45.5	951	36.9	32.8-41.0
Age 18-64	499	36.5	30.6-42.4	634	29.8	25.1-34.5
Age 65+	244	50.6	42.2-59.0	310	52.0	44.6-59.4
Adults without Disability	2587	23.2	21.0-25.4	3022	16.9	15.3-18.5
Age 18-64	2094	17.6	15.4-19.8	2439	12.7	11.1-14.3
Age 65+	490	53.1	47.4-58.8	559	41.0	35.7-46.3
Ever told your blood cholesterol is high (adults who have ever had their blood cholesterol checked)						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	2477	29.0	26.6-31.4	3094	29.8	27.7-31.9
Adults with Disability	603	38.2	32.7-43.7	784	38.9	34.4-43.4
Age 18-64	383	37.4	30.5-44.3	497	34.9	29.6-40.2
Age 65+	220	39.9	30.9-48.9	282	46.4	38.6-54.2
Adults without Disability	1869	26.5	24.0-29.0	2274	26.9	24.5-29.3
Age 18-64	1433	22.5	19.6-25.4	1749	22.8	20.3-25.3
Age 65+	434	41.5	35.4-47.6	505	45.3	39.6-51.0
Blood cholesterol was checked in the past 5 years						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3257	69.9	67.7-72.1	3914	70.1	67.9-72.3
Adults with Disability	722	77.7	73.4-82.0	928	75.3	71.2-79.4
Age 18-64	487	72.7	67.2-78.2	623	68.7	63.4-74.0
Age 65+	235	90.3	85.0-95.6	298	89.5	84.6-94.4
Adults without Disability	2530	67.9	65.4-70.4	2941	68.5	66.1-70.9
Age 18-64	2050	64.1	61.2-67.0	2373	64.4	61.7-67.1
Age 65+	477	87.5	83.8-91.2	544	91.0	88.1-93.9

**Healthy People 2010 Objective(s):**

- 12-9. Reduce the proportion of adults with high blood pressure to 16 percent.
- 12-14. Reduce the proportion of adults with high total blood cholesterol levels to 17 percent.
- 12-15. Increase the proportion of adults who have had their blood cholesterol checked within the preceding five years to 80 percent.

Figure 16. Prevalence of cardiovascular disease risk factors, Montana adults – 2003



\* Those who have ever had their blood cholesterol checked

## Have you ever been told by a health professional that you have high blood pressure?

Thirty-seven percent of adults with disability reported they had been told they have high blood pressure—compared to 17 percent of those without disability.

More than twice as many younger adults with disability (30%), as younger adults without disability (13%), reported they have high blood pressure.

Among adults age 65 and older, 52 percent of those with disability were told they have high blood pressure—compared to 41 percent of those without disability.

## Have you ever been told by a health professional that your blood cholesterol is high?

### (Those who have ever had their blood cholesterol checked)

Overall, 39 percent of adults with disability and 27 percent of adults without disability indicated they had been told their blood cholesterol was high.

Among adults age 18-64 years, those with disability were more likely to report they had ever been told their blood cholesterol was high than those without disability—one in three (35%) compared to one in four (23%).

Among older adults, those with and without disability were equally likely to have been told their blood cholesterol was high—46 percent and 45 percent respectively.

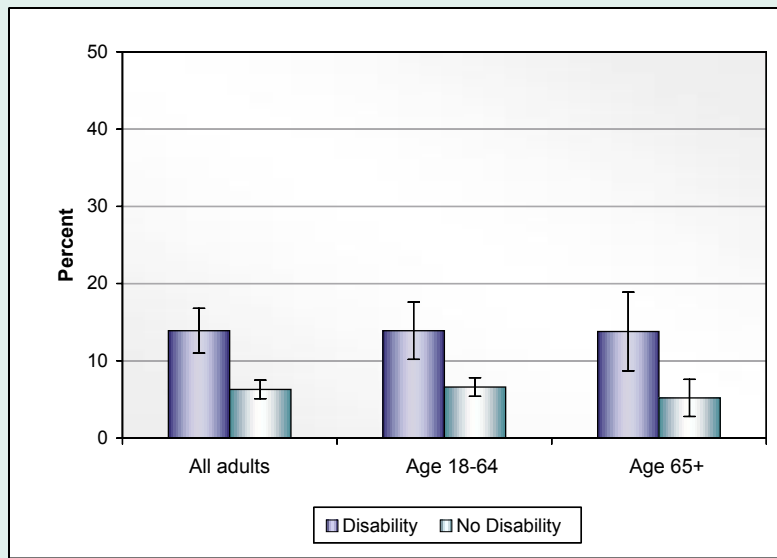
## Blood cholesterol was checked in the past five years:

Seventy-five percent of adults with disability reported their blood cholesterol was checked within the past five years, significantly more than those without disability (69%).

**Table 15. Asthma, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Current asthma						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3329	8.0	6.6-9.4	4009	7.9	6.7-9.1
Adults with Disability	737	12.9	9.2-16.6	947	13.9	11.0-16.8
Age 18-64	494	13.7	9.2-18.2	631	13.8	10.1-17.5
Age 65+	243	11.1	5.2-17.0	309	13.8	8.7-18.9
Adults without Disability	2587	6.8	5.4-8.2	3016	6.3	5.1-7.5
Age 18-64	2093	6.4	5.0-7.8	2433	6.6	5.4-7.8
Age 65+	490	8.4	4.9-11.9	558	5.2	2.8-7.6

Figure 17. Current asthma prevalence, Montana adults – 2003



## Do you currently have asthma?

Fourteen percent of adult Montanans with disability reported they currently had asthma, significantly more than adults without disability (6%).

The prevalence of current asthma among Montana adults, both with and without disability, did not differ by age category.

**NOTE:** Current asthma is defined as a “Yes” response to: “Have you ever been told by a doctor, nurse or other health professional that you had asthma?” and “Do you still have asthma?”

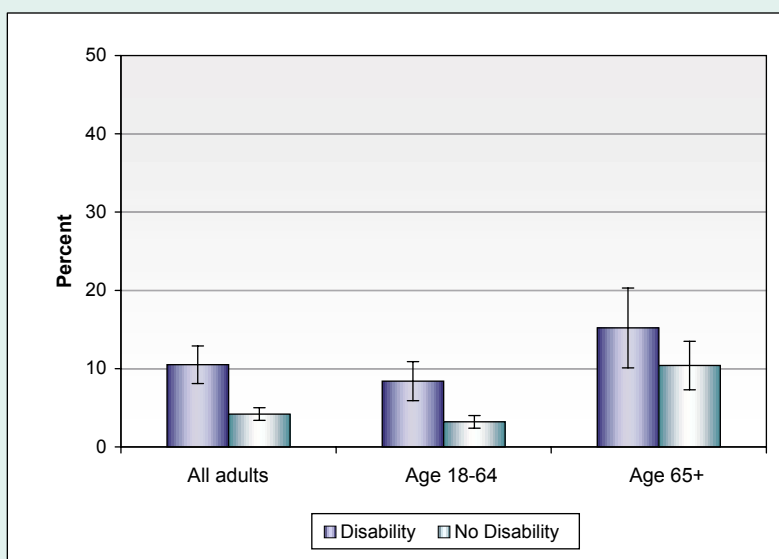
**Table 16. Diabetes, Montana Adults with and without Disability, 2001 and 2003**  
(with 95% confidence intervals)

Ever told you have diabetes						
	Total No.	2001 %	CI	Total No.	2003 %	CI
All Adults	3335	5.6	4.6-6.6	4020	5.5	4.7-6.3
Adults with Disability	743	12.2	9.1-15.3	951	10.6	8.2-13.0
Age 18-64	499	9.2	5.9-12.5	635	8.5	6.0-11.0
Age 65+	244	19.5	12.8-26.2	309	15.2	10.1-20.3
Adults without Disability	2587	3.9	2.9-4.9	3021	4.2	3.4-5.0
Age 18-64	2093	2.7	1.7-3.7	2437	3.2	2.4-4.0
Age 65+	490	10.2	6.9-13.5	559	10.4	7.3-13.5

## Healthy People 2010 Objective(s):

- 5-3. Reduce the overall rate of diabetes that is clinically diagnosed to 25 cases per 1000 population (2.5 percent).

Figure 18. Diabetes\* prevalence, Montana adults – 2003



\* Excludes gestational diabetes

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

Eleven percent of adults with disability in Montana reported that a doctor had ever told them that they had diabetes.

More than twice as many adults with disability (11%) had been told they had diabetes than adults without disability (4%).

Among adults age 18-64, those with disability (9%) had a significantly higher self-reported prevalence of diabetes than those without disability (3%). Among adults 65 and older, the difference between those with and without disability (15% and 10% respectively) was not statistically significant.

Among adults with disability, those age 65 and older (15%) were more likely to have been told they had diabetes than those who were younger (8%).

**NOTE: Diabetes as reported here excludes gestational diabetes.**

**Year 2010 Health Objectives for the Nation:  
Summary of 2003 BRFSS<sup>1</sup> Data for Montana Adults with and without Disability**

Healthy People 2010 <sup>2</sup> Objective and Year 2010 Target		Montana Adults	– with Disability	– without Disability
1-1.	Increase the proportion of persons with health insurance to 100 percent.	81%	82%	81%
1-5.	Increase the proportion of persons with a usual primary care provider to 85 percent.	73%	83%	71%
2-2.	Reduce the proportion of adults with chronic joint symptoms who experience a limitation in activity due to arthritis to 21 percent.	28%	61%	12%
2-5.	Increase the employment rate among adults with arthritis in the working-aged population (age 18-64) to 78 percent.	63%	44%	73%
5-3.	Reduce the overall rate of diabetes that is clinically diagnosed to 25 cases per 1000 population.	55 per 1000	106 per 1000	42 per 1000
12-9.	Reduce the proportion of adults with high blood pressure to 16 percent.	21%	37%	17%
12-14.	Reduce the proportion of adults with high total blood cholesterol levels to 17 percent.	30%	39%	27%
12-15.	Increase the proportion of adults who have had their blood cholesterol checked within the past five years to 80 percent.	70%	75%	69%
14-29a.	Increase the proportion of adults who are vaccinated annually against influenza to 90 percent (age 65 and older).	73%	78%	70%
14-29b.	Increase the proportion of adults ever vaccinated against pneumococcal disease to 90 percent (age 65 and older).	69%	76%	66%
19-1.	Increase the proportion of adults who are at a healthy weight to 60 percent.	43%	34%	46%
19-2.	Reduce the proportion of adults who are obese to 15 percent.	19%	28%	16%
22-1.	Reduce the proportion of adults who engage in no leisure-time physical activity to 20 percent.	20%	34%	17%
22-2.	Increase the proportion of adults who engage in regular, moderate physical activity to 30 percent.	59%	49%	61%
26-11c.	Reduce the proportion of adults engaging in binge drinking in the past month to 6 percent.	19%	14%	21%
27-1a.	Reduce cigarette smoking by adults to 12 percent.	20%	24%	19%

<sup>1</sup> Behavioral Risk Factor Surveillance System

<sup>2</sup> Public Health Service. Healthy People 2010: National Health Promotion and Disease Prevention Objectives – full report with commentary. Washington, DC: U.S. Department of Health and Human Services, 2000.

## Summary and Highlights

Montana adults with disability compared positively to those without disability in attaining *certain* Healthy People 2010 objectives. Adults with disability were more likely to have:

- A usual primary health care provider;
- Regular blood cholesterol screening;
- Immunizations against influenza and pneumococcal disease;
- A lower overall prevalence of binge drinking.

Conversely, Montana adults with disability reported significant health gaps and disparities in the attainment of other Healthy People 2010 objectives—particularly those related to chronic joint symptoms and diabetes. In summary, adults with disability in Montana were more likely to:

- Have chronic joint symptoms and arthritis;
- Report clinically diagnosed diabetes;
- Have high blood pressure or blood cholesterol;
- Be obese;
- Not engage in leisure-time physical activity;
- Sustain fall-related injuries;
- Smoke cigarettes.

Focusing on reducing these gaps and disparities could contribute substantially to achieving Healthy People 2010 objectives in Montana, and more importantly, to improving the health and well-being of Montana adults with disability.

The table on the preceding page—*Year 2010 Health Objectives for the Nation: Summary of 2003 BRFSS Data for Montana Adults with and without Disability*—highlights and augments the Healthy People 2010 information presented in this report.



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The Montana Behavioral Risk Factor Surveillance System (BRFSS) website:  
<http://www.brfss.mt.gov/>

The University of Montana Rural Institute website:  
<http://mtdh.ruralinstitute.umt.edu>

The Centers for Disease Control and Prevention BRFSS website:  
<http://www.cdc.gov/brfss/>

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