

Annual Report

Survey Results

From the 2003 Iowa



Iowa Department of Public Health
Bureau of Health Statistics

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Completed in cooperation with the Centers for Disease Control and Prevention,
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1. INTRODUCTION

History

For quite some time health departments have recorded morbidity and mortality data. However, previously there was not an ongoing attempt to monitor behaviors associated with premature death and disability. In 1981, the Centers for Disease Control and Prevention (CDC) began assisting states in conducting such a risk factor survey. Then in 1984, the CDC launched the Behavioral Risk Factor Surveillance System (BRFSS) working in an ongoing fashion with the states to assess the health status and health risk behaviors of their citizens.

A point-in-time survey was done in Iowa in 1982. In 1988, Iowa began full participation in the BRFSS. The BRFSS is now conducted in all 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Nature of the Survey

The Iowa Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing telephone survey. It is financially and technically supported by the Centers for Disease Control and Prevention (CDC) with further financial support from the state.

The BRFSS is designed to collect information on the health risk behaviors of residents age 18 and over. It also monitors the prevalence of these behaviors over time. The risk factors surveyed are major contributors to illness, disability, and premature death.

The survey consists of three parts: core questions, optional modules, and state-added questions. All states that conduct the BRFSS survey must administer the core questionnaire developed by the CDC. Core questions are asked annually or biannually. The CDC also develops optional module questions. These modules can be individually selected by states. Many states, including Iowa, also administer their own state-added questions to provide more detailed information about specific issues of interest to the state. These are usually topics that other parts of the survey do not cover.

This report focuses on the data collected during calendar year 2003. Some of the risk factors discussed are: general health status; health care coverage; cigarette smoking; alcohol consumption; body weight; hypertension and cholesterol awareness; cancer screening for colorectal cancer; women's health issues (including screening for breast and cervical cancer); diabetes; asthma; oral health; and HIV/AIDS awareness.

Objectives

The objectives of the BRFSS are:

1. To determine the state specific prevalence of personal health behaviors related to the leading causes of premature death.
2. To develop the capacity of state health departments to conduct credible telephone surveys.

3. To advance the understanding that certain health-related behaviors are critical indicators of health.

Use of BRFSS Data

The Centers for Disease Control and Prevention developed the Behavioral Risk Factor Surveillance System to help states assess health risks and monitor trends. Comparable surveillance methods are used in all states. This allows for comparisons among states and for the assessment of geographic patterns of risk factor prevalence.

The BRFSS information is used to design, implement, and support public health activities. These activities are designed to reduce the premature death and disability of Iowa residents. State public health departments are responsible for planning, implementing, and evaluating disease prevention programs. Many of these programs involve health risk behavior modification. Examples of health risk behavior modification programs in Iowa are the Clean Indoor Air Act, healthy baby campaigns, nutrition and physical activity campaigns, tobacco counter-marketing campaigns, and campaigns against problem drinking.

One way to assess program effectiveness is to monitor the prevalence of risk factors in the population. Comparing different times, demographic groups, or geographic areas may be quite useful in developing, implementing, and evaluating intervention programs.

2. Methodology

Questionnaire Design

The BRFSS questionnaire is analyzed and updated each year by the CDC and by BRFSS representatives from each participating state. Discussion of previously telephone-tested questions and current BRFSS questions occurs at the annual BRFSS conference.

The questionnaire consists of three sections: 1) the core questions required of all states participating in BRFSS; 2) a set of standardized modules developed by the CDC which states may opt to include in their survey; and 3) state-added questions which are designed and administered by individual states to address locally identified health problems.

Survey participants are requested to provide such demographic information as age, sex, race, marital and employment status, household income, and educational level. Participation is random, anonymous, voluntary, and confidential.

Sampling Process

Households were selected randomly using list-assisted random digit dialing. This method provides a list of randomly chosen phone numbers from the pool of all existing phone numbers. These numbers are not drawn in a simple random fashion but use what is known as the Disproportionate Stratified Sampling technique (DSS). This sampling methodology was designed to produce a random sample of Iowa telephone numbers, including unlisted numbers and new subscribers in an efficient fashion.

The DSS method divides phone numbers into two strata. The first stratum is residential but unlisted. The second stratum is composed of residential listed numbers. Each stratum is sampled at a different rate. The listed residential numbers are sampled at the highest rate. Some numbers are marked by the list provider as not to be called because they have been predetermined as nonresidential or nonworking. No calls are made to cell phones. There is no set number to be sampled per group.

The sample is also stratified into six geographic regions. These regions are composed of counties whose total populations are approximately equal. The part of the sample from each region is also approximately equal.

Approximately equal numbers of interviews per month were conducted from January through December in 2003 for a total sample size of 5,003. Interviewers made multiple attempts to reach a number to complete an interview before abandoning that number.

One person 18 years or older residing in the home was randomly selected to answer the survey. If the person selected was not available, an appointment was made to complete the interview at another date and time. If the person was not available during the interview period, or if the person refused to participate, no other member of that household was interviewed.

The Interview Process

The interviews were conducted daytime, evenings, and weekends with appointments made as needed to schedule or complete interviews. The average time to complete an interview was 20.8 minutes. The response rate, defined as completed interviews plus partial completes divided by all eligibles called was 48.3%. A partial complete is an interview that was terminated before it was complete, but sufficient data had been collected to use for most measures.

A Computer Aided Telephone Interviewing (CATI) system was used. The CATI system not only assists interviewers in presenting the questionnaire and recording the responses, it also helps keep track of appointments and callback attempts, and reports statistics of call dispositions. Data were then edited for accuracy and completeness using the software (EditFix) provided by the CDC. After editing, monthly data were submitted to the CDC and to the Iowa Department of Public Health.

Advantages and Limitations

Telephone interviews provide a means to conduct affordable surveys to monitor the prevalence of behavioral risk factors. Surveys based on telephone interviews are much faster to complete than surveys based on in-person interviews.

In one hour, an experienced telephone interviewer can handle busy numbers, calls not answered, and refusals to participate, and still successfully complete one and one-half interviews. In contrast, in one day of in-person interviewing, many miles of travel may be required with few interviews completed.

Another advantage of telephone surveys is the much higher response rate compared to self-administered surveys, such as mail surveys.

Supervision and administration are simpler for telephone interviews than for in-person interviews. All calls can be made from one central location, and supervisors can monitor interviewers for quality control.

There is one main limitation to telephone surveys. Because only about 97% of all Iowa households have telephones, approximately three percent of the population cannot be reached. Persons of low socioeconomic status are less likely than persons of higher socioeconomic status to own telephones and are therefore under-sampled. In addition, the percentage of households with a telephone varies by region.

New telephone technology such as caller I.D., cell phones, and call blockers that block telemarketers also pose problems for telephone surveys. Increasingly young people are opting not to use traditional landline telephone service in favor of cell phones.

Despite these limitations, prevalence estimates from the BRFSS correspond well with findings from surveys based on in-person interviews, including studies conducted by the National Center for Health Statistics and the American Heart Association.

Some inaccuracy is expected from any survey based on self-reported information. For example, respondents are known to under-report their weight and inaccurately recall dietary habits. The potential for bias must always be kept in mind when interpreting self-reported data.

Analysis of the data

When analyzing BRFSS data, conclusions are to be drawn about the entire adult population of the state of Iowa. Since only a sample of randomly chosen people are asked the questions, however, some of the factors involved in making such inferences must be considered. First, data were weighted to Iowa's population for age and gender. The state's population estimates were derived from the most currently available census data files. Weighting also took into consideration the facts that the number of adults per household and the number of phones per household influence a person's likelihood of being included in the survey.

An important factor in determining how well we can judge the response of all Iowans from the survey sample is the number of responses to the questions. The smaller the number of responses is, the less well we can draw a conclusion about the whole state. Analyzing the data by such categories as age, sex, income, and educational level means there is a smaller number of interviews in each particular group. Furthermore, many questions are only answered depending on the answers to previous questions. For instance, a person would only be asked at what age they were diagnosed with diabetes if they answer “yes” to whether they have ever been diagnosed with diabetes. These smaller numbers decrease the ability to determine statistically significant differences. Some data may not be reported as significant solely due to small sample sizes. In data analysis, a general rule is that estimates based upon denominators less than 50 are statistically unreliable.

Some people refuse to answer select questions but choose to respond to the majority of the questions. Those interviews will still be used in the final count for the total sample size. However, they will not be counted on the specific questions they refused. Unless otherwise indicated, prevalence measures do not include those who refused to answer a question or said they did not know.

No matter what the sample size is, the judgment of the value of a prevalence in a population such as the state based on the prevalence within a sample always involves an amount of chance. The values from the survey and the real state population values may differ by some unknown amount. However, the probability of the amount of difference can be determined.

Charts and tables in this report will indicate a range of values in which there is a 95% probability of the true Iowa population value falling based on the survey sample value. This range is referred to as a 95% confidence interval (C.I.). One quick way to determine statistical difference without performing a statistical test is to note when the obtained value for one group lies outside the indicated confidence intervals for the other groups.

3. DEMOGRAPHICS OF THE BRFSS RESPONDENTS

The 5,003 respondents in the BRFSS for the year 2003 included 2,048 males and 2,955 females age 18 years and older. The following tables present the distribution of the respondent sample by 1) age and gender, 2) household income, 3) level of education, and 4) race/ethnicity.

Table 3.1: Distribution of Iowa Survey Respondents by Age and Gender for Year 2003

Age	Male		Female		Total	
	#	%	#	%	#	%
18-24	140	6.8	180	6.1	320	6.4
25-34	305	14.9	362	12.3	667	13.3
35-44	421	20.6	541	18.3	962	19.2
45-54	425	20.8	566	19.2	991	19.8
55-64	312	15.2	458	15.5	770	15.4
65+	437	21.3	833	28.2	1,270	25.4
Unk/Ref	8	0.4	15	0.5	23	0.5
Total	2,048	40.9	2,955	59.1	5,003	100.0

Table 3.2: Distribution of Iowa Survey Respondents by Household Income for Year 2003

Household Income	# of Total Respondents	% of Total Respondents
<\$15,000	436	8.7
\$15,000-\$24,999	849	17.0
\$25,000- 34,999	777	15.5
\$35,000-\$49,999	877	17.5
\$50,000-\$74,999	764	15.3
>=\$75,000	743	14.9
Unknown/Refused	557	11.1
Total	5,003	100.0

Table 3.3: Distribution of Iowa Survey Respondents by Level of Education for Year 2003

Level of Education	# of Total Respondents	% of Total Respondents
Less than High School	377	7.5
High School Grad or GED	1,840	36.8
Some College or Technical School	1,340	26.8
College Graduate	1,439	28.8
Unknown/Refused	7	0.1
Total	5,003	100.0

Table 3.4: Distribution of Iowa Survey Respondents by Race/Ethnicity for Year 2003

Race/Ethnicity	# of Total Respondents	% of Total Respondents
White Non-Hispanic	4,761	95.2
Black Non-Hispanic	50	1.0
Other Non-Hispanic¹	86	1.7
Hispanic	91	1.8
Refused	15	0.3
Total	5,003	100.0

¹ Other Non-Hispanic also includes those who chose multiple race categories.

4. GENERAL HEALTH STATUS OF IOWANS

Background

Self-ratings of health, or health-related quality of life, seek to determine how people perceive their own health and how well they function physically and psychologically during their usual daily activities. These indicators are important because they can assess dysfunctions and disabilities that are not measured by standard morbidity and mortality measures.

General health status defined by responses to a single question such as "How is your health, in general?" have been found to be significant predictors of mortality.¹ Additional studies which held constant objective health status, age, sex, life satisfaction, income, residence, and other factors continue to find the risk of mortality two to six times greater for those individuals who had reported earlier that their health was bad or poor compared to those who had reported their health as excellent.^{2,3} The risk associated with poor self-rated health was actually higher than the risk associated with poor health status assessments by a physician.^{1,3}

General Health Status Results

In 2003, when asked how their health was in general, 21.7% of respondents reported excellent. Another 35.4% said very good. While 31.3% reported good health, 11.6% rated their health as fair or poor.

Age, education, and household income all had a significant impact on reported health status (See table 4.1). Respondents who were most likely to report having fair or poor health included those age 65 and over, while the least likely were between ages of 25 and 34. Those with less than a high school education were also most likely to report fair or poor health, while

Table 4.1: Percentage of Self-Reported Fair or Poor General Health Status, 2003

DEMOGRAPHIC GROUPS	General Health Status Fair or Poor	
	%	C.I. (95%)
TOTAL	11.6	(10.6-12.7)
SEX		
Male	10.8	(9.3-12.4)
Female	12.4	(10.9-13.9)
RACE/ETHNICITY		
White/Non-Hisp.	11.6	(10.5-12.7)
Black/Non-Hisp.	11.3	(3.3-19.4)
Oth. Race/Non-Hisp.	8.7	(3.1-14.2)
Hispanic	14.0	(5.2-22.9)
AGE		
18-24	8.3	(4.2-12.5)
25-34	3.7	(2.1-5.4)
35-44	6.8	(5.1-8.5)
45-54	8.6	(6.7-10.5)
55-64	15.1	(12.4-17.9)
65+	25.1	(15.7-22.9)
EDUCATION		
Less Than H.S.	27.7	(22.3-33.1)
H.S. or G.E.D.	13.4	(11.4-15.4)
Some Post-H.S.	10.7	(8.8-12.7)
College Graduate	5.7	(4.4-7)
HOUSEHOLD INCOME		
<\$15,000	26.8	(21.8-31.8)
\$15,000- 24,999	20.3	(16.7-23.9)
\$25,000- 34,999	11.5	(8.9-14.1)
\$35,000- 49,999	7.9	(5.9-9.8)
\$50,000- 74,999	5.0	(3.3-6.6)
\$75,000+	3.8	(2.3-5.2)

Figure 4.1: Percent of Iowans Reporting Their Health as Fair or Poor by Age, 2003

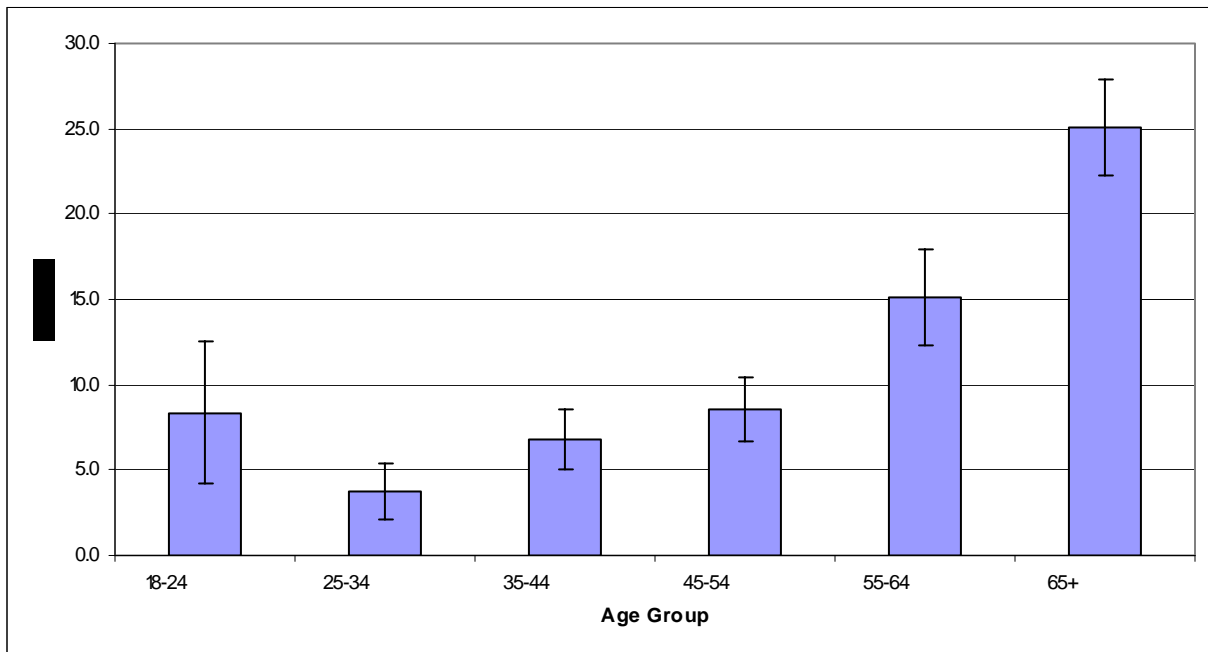
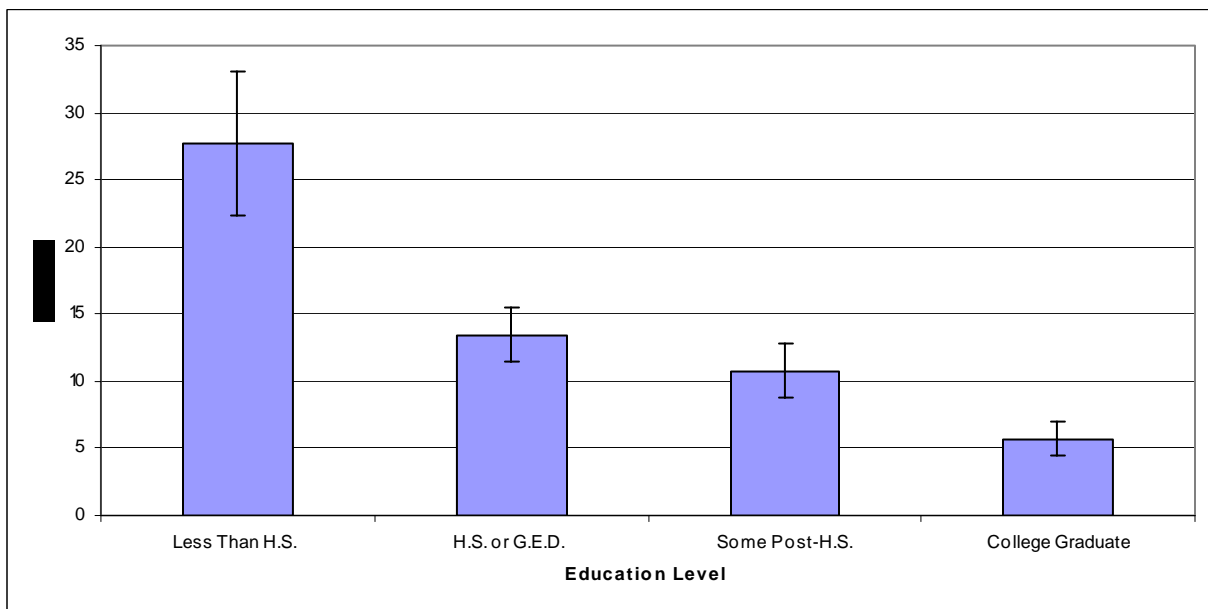


Figure 4.2: Percent of Iowans Reporting Their Health as Fair or Poor by Education 2003



college graduates were least. Those with annual incomes less than \$15,000 per year were most likely to report fair or poor health, while those with incomes of \$75,000 and over were least. The highest percentage reporting fair or poor health from all demographic groups examined was

from those with less than a high school education (27.7%), while the lowest was for those age 25 to 34 years (3.7%).

In answer to the question about how many days during the past 30 days was their physical health not good, 69.5% of respondents reported none of the days, 20.4% reported one to seven days, and 10.1% reported more than seven days. As shown in Table 4.2, males had fewer days of physical health not being good than females. There were also fewer bad physical days with younger age, higher education, and higher income. Hispanics also reported fewer days of bad physical health. People with incomes less than \$15,000 had the lowest percent of no bad physical health days, while Hispanics had the highest. Likewise, people with incomes less than \$15,000 had the highest percent with eight or more bad physical health days in the past 30 days, while Hispanics had the lowest.

When responding to the question of how many days during the past 30 days their mental health was not good, 72.3% of the respondents indicated none of the days, 18.8% reported one to seven days and 8.8% reported more than seven days. Table 4.2 shows the pattern for bad mental health days. The group with the lowest percent of no bad mental health days was age 18 to 24, while those with the highest percent were age 65 and over. On the other hand, those with the lowest percent of eight or more bad mental health days were African Americans, while those with the highest were those with incomes of less than \$15,000.

Comparison with Other States

The percent of people rating their health as fair or poor throughout the 54 states and territories ranged from only 10.7% to 35% with a median value of 14.7%. At 11.7%, Iowa ranked fifth best in the nation for ratings of fair or poor health

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3. Mossey J, Shapiro E, Self-Rated Health: A Predictor of Mortality Among the Elderly. *American Journal of Public Health*, Vol. 72, No. 8. 1982.

Table 4.2: Percentage of Reported Days of Poor Physical or Mental Health in Past 30 Days, 2003

Demographic Group	Days of poor Physical Health			Days of poor Mental Health		
	None	1 - 7 days	8 --30 days	None	1 - 7 days	8 --30 days
TOTAL	69.5	20.4	10.1	72.3	18.8	8.8
SEX						
Male	73.8	18.2	8.0	76.8	16.2	6.9
Female	65.4	22.4	12.2	68.1	21.4	10.6
AGE GROUP						
18-24	67.4	27.2	5.3	53.1	31.6	15.4
25-34	71.1	23.9	5.0	64.1	26.3	9.6
35-44	69.1	23.6	7.4	70.3	21.1	8.6
45-54	72.2	18.7	9.1	72.8	18.4	8.7
55-64	70.9	16.2	12.8	81.2	12.6	6.2
65+	66.4	14.1	19.5	87.8	6.6	5.6
EDUCATION						
Less than H.S.	63.9	17.1	19.0	74.3	13.1	12.6
H.S. or G.E.D.	71.5	17.9	10.7	75.0	14.8	10.2
Some Post-H.S.	66.2	23.0	10.8	68.3	22.2	9.5
College Graduate	71.8	21.9	6.3	72.3	22.4	5.4
HOUSEHOLD INCOME						
Less than \$15,000	56.6	22.7	20.7	63.5	20.5	16.0
\$15,000- 24,999	63.9	22.3	13.8	70.0	17.3	12.7
\$25,000- 34,999	70.6	17.4	12.1	73.0	17.1	10.0
\$35,000- 49,999	68.1	22.9	8.9	72.5	22.2	5.2
\$50,000- 74,999	72.7	20.8	6.6	71.7	19.8	8.4
\$75,000+	74.5	20.9	4.6	73.2	20.8	5.9
RACE/ETHNICITY						
White/Non-Hisp.	69.4	20.2	10.2	72.8	18.7	8.5
Black/Non-Hisp.	70.0	23.2	6.8	77.9	17.9	4.1
Other/Non-Hisp.	60.7	27.3	11.9	59.0	27.4	13.6
Hispanic	76.8	20.8	2.4	60.9	24.3	14.7

5. INSURANCE COVERAGE AND ACCESS TO HEALTH CARE

Background

Access to health care is important for the prevention of disease, the detection of illness through screening, treatment, and management of illness and injuries. Adults who have a usual source of care are much more likely to use the health care system and obtain needed services.¹

For those who lack health insurance, it may be impossible to obtain adequate health care. This not only includes expensive surgery and hospital stays but also preventive care, management of chronic disorders such as diabetes or hypertension, and emergency treatment. Such a lack of access to health care allows small easily treatable problems to become major health problems for many individuals.

Accurate estimates of the uninsured are difficult to obtain. Much of this difficulty is due to the characteristics of the population lacking insurance. Examples include working in small companies that do not provide insurance as an employee benefit, being unemployed, or lacking a permanent residence.

Health care costs are escalating at an ever-increasing rate. This is especially true of particular sectors of costs such as pharmaceuticals. Such increases hit harder on individuals without health insurance and/or those living on fixed incomes.

Health Coverage Results

In 2003, 11.9% of the survey respondents reported they had no health insurance. This is a large increase over the 8.8% with no health insurance found in 2002. The trend in lack of coverage that had been slightly declining until 2001 now seems to be rising precipitously (see figure 5.1).

Table 5.1 shows that in 2003 more males lacked health insurance than females. Furthermore, younger people, less educated people, people with lower incomes, and racial and ethnic minorities were more likely to lack any health care coverage. Respondents between the ages of 18-24 had the highest percentage of individuals without health care coverage (32.8%). Almost everyone age 65 and over had health care coverage due to Medicare. The group with the second lowest percentage of uninsured were those with household incomes of \$75,000 and higher. Although more men than women were without insurance in every age group, this was most pronounced in the 18 to 24 year age group (see figure 5.2).

Two other demographic variables that had a major impact on health care coverage were employment and marital status. Those respondents who were out of work had the highest percentage not covered by health insurance (49.2%). The second highest group was student (19.5%). Only 3.1% of retirees were without health insurance.

Figure 5.1: No Health Insurance Coverage Trend Iowa 1997 – 2003

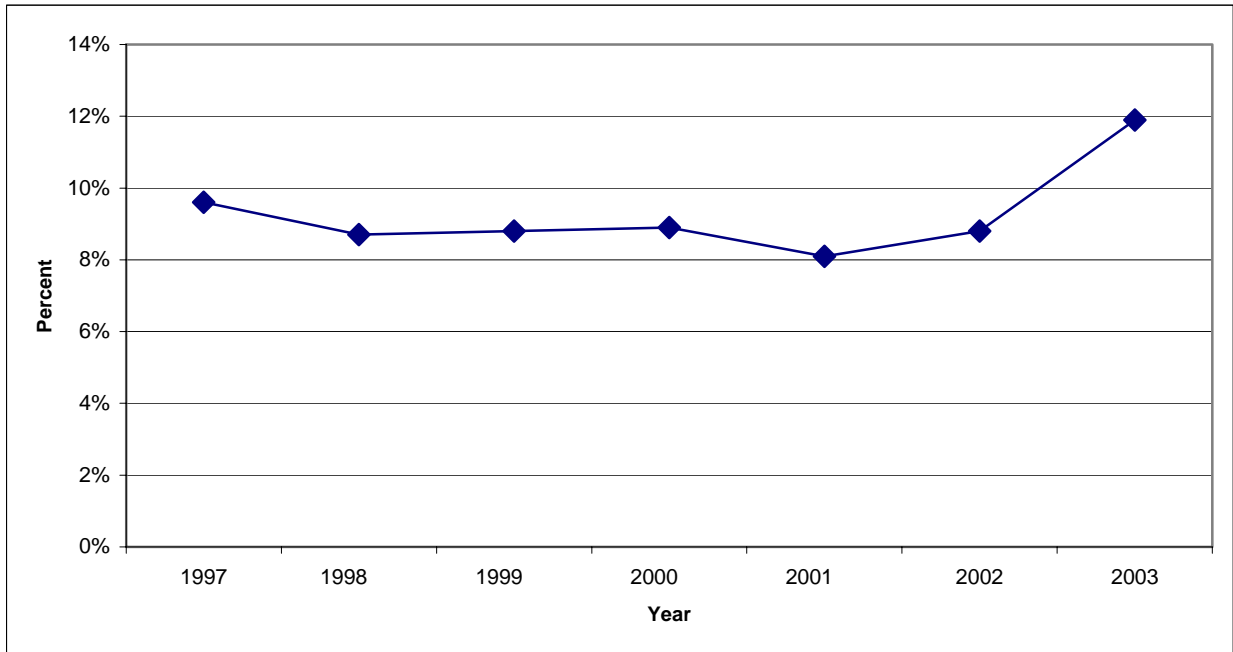


Figure 5.2: Percentage of Iowans Reporting No Health Insurance Coverage by Sex and Age, 2003

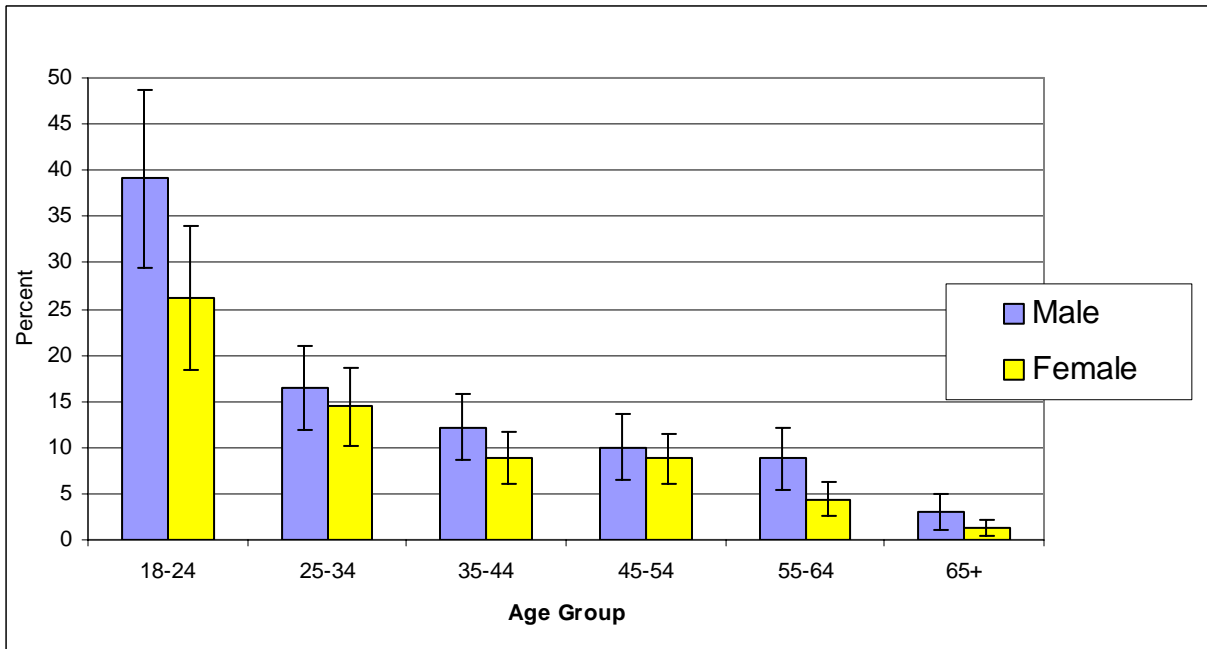


Table 5.1
Percentage of Responses to Health Care Coverage, and Access Questions in Iowa, 2003

Demographic Groups	No Health Insurance Coverage		Time Couldn't Get Help		Have One Person As Health Provider	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	11.9	(10.6-13.2)	7.8	(6.8-8.8)	76.4	(74.9-77.9)
SEX						
Male	14.4	(12.3-16.6)	6.1	(4.7-7.5)	70.1	(67.7-72.6)
Female	9.5	(8-11)	9.4	(7.9-10.9)	82.3	(80.4-84.1)
AGE						
18-24	32.8	(26.5-39.1)	14.7	(9.7-19.7)	63.8	(57.3-70.2)
25-34	15.4	(12.3-18.6)	9.0	(6.6-11.5)	69.6	(65.7-73.5)
35-44	10.5	(8.3-12.8)	8.5	(6.5-10.6)	72.9	(69.6-76.1)
45-54	9.4	(7.2-11.7)	7.5	(5.8-9.4)	80.5	(77.8-83.3)
55-64	6.5	(4.6-8.4)	5.8	(4-7.5)	85.5	(82.7-88.4)
65+	2.0	(1.1-2.9)	3.1	(2-4.1)	84.1	(81.6-86.5)
EDUCATION						
Less than H.S.	22.2	(16.2-28.3)	14.8	(9.2-20.5)	69.1	(62.6-75.6)
H.S. or G.E.D.	14.3	(12-16.6)	8.4	(6.6-10.3)	77.9	(75.4-80.4)
Some Post-H.S.	11.8	(8.3-14.3)	8.9	(7.1-10.8)	75.4	(72.4-78.3)
College Graduate	6.0	(4.4-7.6)	3.9	(2.7-5)	77.6	(75-80.1)
HOUSEHOLD INCOME						
Less than \$15,000	28.0	(22-34.1)	18.0	(13.6-22.5)	63.3	(56.8-69.9)
\$15,000- 24,999	22.9	(18.8-27)	16.7	(13-20.4)	74.3	(70.2-78.4)
\$25,000- 34,999	13.0	(9.8-16.3)	8.0	(5.3-10.7)	74.3	(70.4-78.3)
\$35,000- 49,999	8.5	(6-10.9)	5.4	(3.6-7.2)	76.2	(72.8-79.6)
\$50,000- 74,999	4.2	(2.4-6)	3.6	(2.1-5)	80.5	(77.2-83.7)
\$75,000+	3.9	(1.2-6.6)	2.1	(1-3.2)	81.9	(78.7-85)
RACE/ETHNICITY						
Non-Hispanic White	11.4	(10.1-12.7)	7.2	(6.2-8.2)	77.1	(75.6-78.6)
Non-Hispanic Black	17.6	(4.2-31.1)	15.8	(1.4-30.1)	61.3	(45.1-77.5)
Non-Hispanic Other	22.5	(11.2-33.8)	21.3	(10.7-32)	61.0	(48.4-73.6)
Hispanic	23.4	(8.5-38.2)	17.3	(3.8-30.8)	68.3	(54-82.7)

People who were married were much more likely to have health care coverage than those who were not. Only 5.8% of married respondents were without coverage, while 22.1% of unmarried respondents were without it.

When asked if there was a time in the past 12 months when they needed to see a doctor but could not because of the cost, 7.8% said there was. The percentage was higher for females, younger people, people with less education, people with lower incomes, and racial and ethnic minorities. The lowest percentage (2.1%) was for people earning \$75,000 or more. The highest percentage (21.3%) was for people reporting their race as other.

Since it is important that care be coordinated, respondents were asked if they had one person they thought of as their personal doctor or health care provider. A positive reply was given by 76.4% of respondents. Women, older people, and people with higher household incomes were more likely to report a regular provider. Least likely were those reporting their race as other (61%), while those age 55 to 64 years were most likely (85.5%).

Comparison with Other States

Twenty states had an equal or lower percentage of residents without health insurance when the elderly, who are generally covered by Medicare, were excluded. Iowa had 14.5% of its non-elderly respondents reporting not having any insurance. In 2002, the figure was 10.8%, and Iowa ranked sixth in the nation. The median percentage of uninsured nationwide was 16.2% in 2003. This is not significantly different from the 16.6% found in 2002.

Year 2010 Health Objectives for Iowa and the Nation

The Healthy Iowans and Healthy People 2010 goals for health insurance coverage are to see all people covered by some form of health insurance. In Iowa, only 85.5% of the non-elderly have coverage. This is far short of the goal.

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6. DISABILITY, ARTHRITIS, AND FALLS

Disability

Background

The World Health Organization's *International Classification of Impairments, Disabilities, and Handicaps*, defines disability as "any restriction (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." Impairment is defined as "any loss or abnormality of psychological, physiological, or anatomical structure or function."⁷

The number of people age five and over with a disability, according to Census 2000, was 49.7 million. This is a ratio of nearly 1-in-5 non-institutionalized U.S. residents, or 19.3 percent. Women and girls with disabilities were estimated to number 25.3 million, which is 19.1% of the female population. An estimated 24.4 million men and boys with disabilities made up 19.6% of the male population.⁴

Census 2000 found that 21.3 million people, or 11.9% of the working-age U.S. population (16-64 years old) had a disability that prevented or limited their ability to work at a job.⁴

In 1994, approximately 7.4 million Americans used Assistive Technology Devices (ATDs) to accommodate mobility impairments.¹⁵

Disability Results

In 2003, 17.1% of Iowans responded "yes" to being limited in any way in activities due to an impairment or health problem. This is up sharply from the 13.5% reported in 2002.

As shown in Table 6.1, females were more likely than males to report being limited in their activities. Those age 65 and older were more likely to report being limited in their activities compared to younger respondents. People with less than a high school education and incomes less than \$15,000 also reported higher percentages of limitations. Hispanics and African Americans reported a lower percentage being limited. Of the five demographic variables analyzed, Hispanics reported the lowest percentage limited (4.9%). Both those with household incomes less than \$15,000 and those age 65 and over reported 28.4% with limitations, which was the highest amount.

When asked whether they had a health problem requiring the use of special equipment, 5.3% of adult Iowans said they needed such items as a cane, a wheelchair, a special bed, or a special telephone. This is up from 4.5% in 2002. Interestingly, 31.3% of these respondents said they were not limited by health problems.

Table 6.1
Percent Reporting Being Limited by an Impairment or Health Problems or Needing
Special Equipment, 2003

Demographic Groups	Limitation		Use Equipment	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	17.1	(15.9-18.3)	5.3	(4.7-6)
SEX				
Male	14.9	(13.1-16.7)	4.0	(3.1-4.9)
Female	19.2	(17.5-20.8)	6.6	(5.6-7.6)
AGE				
18-24	9.5	(5.5-13.4)	0.4	(0-1)
25-34	10.9	(8.2-13.6)	1.3	(0.4-2.3)
35-44	11.6	(9.3-13.9)	2.5	(1.3-3.6)
45-54	16.0	(13.5-18.6)	3.1	(2-4.3)
55-64	25.1	(21.6-28.5)	6.8	(4.8-8.8)
65+	28.4	(25.5-31.4)	15.8	(13.4-18.3)
EDUCATION				
Less than H.S.	22.7	(17.5-27.9)	11.3	(7.5-15)
H.S. or G.E.D.	17.3	(15.3-19.3)	5.6	(4.4-6.7)
Some Post-H.S.	16.9	(14.5-19.2)	5.3	(4-6.6)
College Grad.	15.4	(13.2-17.5)	3.4	(2.4-4.4)
HOUSEHOLD INCOME				
<\$15,000	28.4	(23.2-33.5)	15.0	(11.3-18.7)
\$15,000- 24,999	24.0	(20.5-27.5)	8.6	(6.5-10.8)
\$25,000- 34,999	15.6	(12.6-18.7)	4.8	(3.1-6.6)
\$35,000- 49,999	16.1	(13.3-18.8)	3.4	(2.1-4.6)
\$50,000- 74,999	13.5	(10.8-16.3)	2.7	(1.5-3.9)
\$75,000+	11.0	(8.5-13.5)	2.0	(1-3.1)
RACE/ETHNICITY				
White/Non-Hisp.	17.4	(16.2-18.7)	5.5	(4.8-6.2)
Black/Non-Hisp.	9.2	(1.9-16.5)	4.2	(0-9.1)
Other/Non-Hisp.	19.9	(9.8-30.1)	4.1	(0.2-8.1)
Hispanic	4.8	(0-10.3)	0.8	(0-2)

The pattern of impact from the various demographic groups for needing to use special equipment was similar to that for limitation (see table 6.1). Age seemed to have the greatest influence since only 0.4% of those age 18 to 24 years needed special equipment and 15.8% of those 65 years and older needed it.

Arthritis

Background

Arthritis is the name given to a group of over 100 different diseases and conditions that result in pain and reduction of functionality of the joints. The most common are osteoarthritis, rheumatoid arthritis, fibromyalgia, and gout.² Arthritis may be caused by a wearing down of cartilage, a change in bone composition, or inflammation in the joints.

Arthritis is the leading cause of disability in the United States.³ It is surpassed only by heart disease as a cause of work disability. It also limits everyday activities and adversely affects the physical and mental health of those who have it.

Arthritis Results

In 2003, 44.7% of Iowans reported having symptoms of pain, aching, or stiffness in or around a joint in the past 30 days. This condition had persisted for at least three months for 80.3% of these respondents. Both of these conditions together are considered chronic joint pain. This means that 35.8% of all Iowans were considered to be affected by chronic joint pain.

A doctor had told 26.6% of Iowans that they had some form of arthritis. More women than men reported having arthritis. The prevalence also increased markedly with age and decreased with education and income. More African Americans but less of other minorities reported having arthritis than Whites (see table 6.2). Over half (58.4%) of people age 65 and over had been told they had arthritis (see figure 6.1).

People who had not been told they had arthritis but had chronic joint pain may be considered to have possible arthritis. In 2003, 17.6% of Iowans met this criterion.

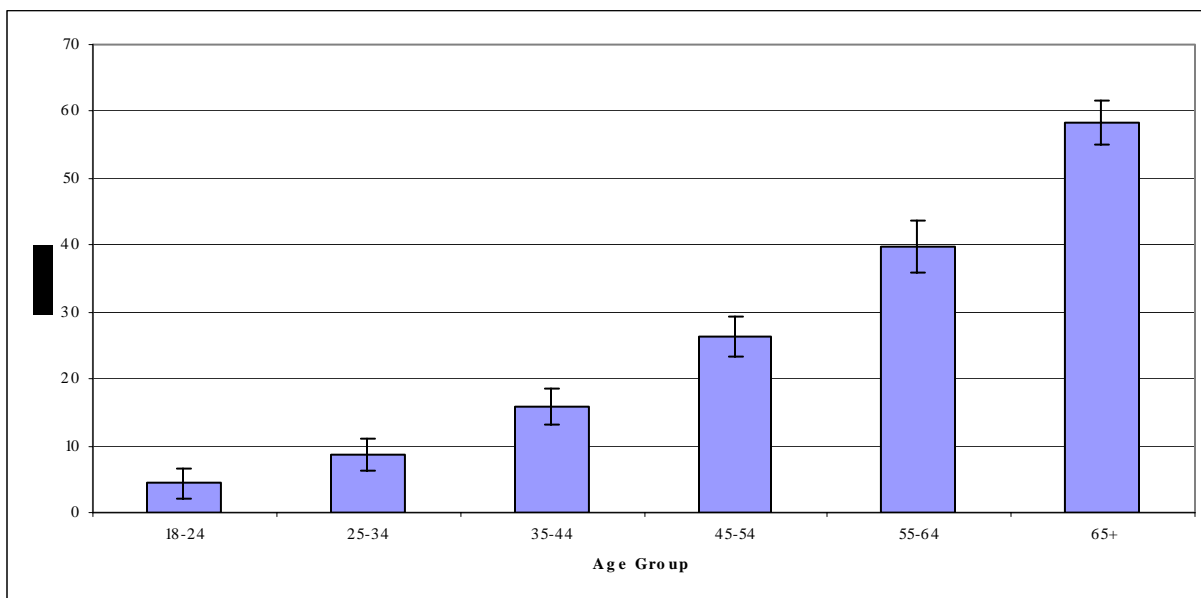
Of people, who had been told they had arthritis or who reported having joint pain in the past 30 days, 25.3% said they were limited in their activities by arthritis.

For those under 65 years old, 20.5% said arthritis limited their ability to work, but most said they could do most things they wanted to do (45.1%). However, 3.7% said they could hardly do anything they wanted to do.

**Table 6.2:
Percent Having Been Told by a Doctor They
Had Some Form of Arthritis, 2003**

DEMOGRAPHIC GROUPS	Told by doctor you have Arthritis	
	%	C.I. (95%)
TOTAL	26.6	(25.3-28)
SEX		
Male	22.0	(20-24)
Female	30.9	(29.1-32.8)
AGE		
18-24	4.4	(2.2-6.7)
25-34	8.8	(6.4-11.1)
35-44	15.8	(13.1-18.4)
45-54	26.3	(23.2-29.4)
55-64	39.7	(35.8-43.6)
65+	58.4	(55.1-61.6)
EDUCATION		
Less Than H.S.	36.7	(30.8-42.5)
H.S. or G.E.D.	30.3	(27.9-32.7)
Some Post-H.S.	25.0	(22.4-27.6)
College Graduate	20.7	(18.5-23)
HOUSEHOLD INCOME		
<\$15,000	41.0	(35.1-46.9)
\$15,000- 24,999	31.6	(27.9-35.3)
\$25,000- 34,999	31.6	(27.8-35.4)
\$35,000- 49,999	23.1	(20.1-26.2)
\$50,000- 74,999	20.1	(17-23.2)
\$75,000+	20.1	(16.9-23.2)
RACE/ETHNICITY		
White/Non-Hisp.	27.2	(25.8-28.6)
Black /Non-Hisp.	32.5	(17.2-47.8)
Oth. Race/Non-Hisp.	9.6	(3.7-15.6)
Hispanic	13.8	(6.5-21.1)

Figure 6.1: Percent of Iowans with Arthritis by Age, 2003



Falls

Background

Unintentional falls are the leading cause of injury deaths and serious injuries among the fastest growing segment of the U.S. population, older adults.^{10,14} They are the seventh leading cause of injury death among people 45 to 54, and fourth among the 55 to 64 age group. From 1990 to 2040, the number of people age 65 years and older is projected to increase from 31.0 million to 68.1 million. For people age 85 years and older, relative growth rates are even faster.¹⁴

In the United States, one of every three people age 65 years and older falls each year,^{12, 13} and one in 20 are hospitalized for a fall-related injury.⁶ About 9,600 people age 65 years and older died in 1998 from unintentional fall-related injuries.¹⁴ In Iowa in 2002, the figure was 263 with 191 being among those 75 years of age or older.⁸ Of those who fall, 20-30% suffer moderate to severe injuries such as fracture or head trauma that reduce mobility and independence, and increase the risk of premature death.^{1,9} The prevalence of falls that result in any injury is not known. The direct cost of fall injuries in 1994 for people age 65 and older was \$20.2 billion.⁵

One of the strongest predictors of a fall is having sustained a previous fall.^{10,12} A fall is often a marker of increasing fragility, functional decline, or neurological impairment, and may indicate the need for a secondary prevention strategy (e.g., hip protectors to prevent hip fractures.)

Falls Results

The BRFSS defines a fall as when a person unintentionally comes to rest on the ground or another lower level. Respondents age 45 years and older were asked if they had experienced a fall in the last three months. About 10.9% said they had. Of those who had fallen, 32.1% said

that it injured them. In this instance, injury was defined as limiting activity for at least a day to see a doctor.

Comparison with Other States

The percent of people affected by limitations ranged from 11.9% to 26.4% with a median of 18.4%. Iowa ranked 11th lowest in people affected by limitations at 17.1%.

For diagnosed arthritis, the range was 16.4% to 37.2% with a median of 27%. Iowa was slightly below the median at 26.6%. This is a good figure considering the high numbers of elderly in Iowa, which state prevalences are not adjusted to reflect.

Year 2010 Health Objectives for the Nation

The Healthy People 2010 goal for people who are limited in their activities by arthritis is 21%. In 2003, Iowa was at 25.3% for this category, which is higher than the Healthy People 2010 goal.

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7. CARDIOVASCULAR DISEASES

Background

Cardiovascular diseases (CVD) refer in principle to any or all of the many disorders that can affect the circulatory system. CVD most often means coronary heart disease, heart failure, and stroke, taken together, which are the circulatory system disorders of greatest public health concern in the United States today. Heart disease most often refers to coronary heart disease, heart attack or heart failure. Other times, this term refers to several conditions or all diseases affecting the heart (e.g., heart disease deaths). Stroke refers to a sudden impairment of brain function, sometimes termed “brain attack,” that results from interruption of circulation to one or another part of the brain. Heart disease and stroke are mainly consequences of atherosclerosis and high blood pressure (hypertension).⁵ Since 1900, CVD has been the No. 1 killer in the United States every year except 1918. Nearly 2,600 Americans die of CVD each day, an average of one death every 34 seconds. According to the CDC/NCHS, if all forms of major CVD were eliminated, life expectancy would rise by almost seven years.¹

Deaths are only part of the picture. Of the 64,400,000 Americans (almost one-fourth of the population) living with one or more types of CVD, 25,300,000 are estimated to be age 65 and older.⁷ Coronary heart disease is the leading cause of premature, permanent disability in the U.S. labor force, accounting for 19 percent of disability allowances by the Social Security Administration.

Each year about 700,000 people experience a new or recurrent stroke. On average, someone in the United States has a stroke every 45 seconds. Fifteen to 30 percent of stroke survivors are permanently disabled.¹ Stroke is a leading cause of serious, long-term disability in the United States, with about 4.7 million stroke survivors alive today.²

The economic impact of CVD on the U.S. health care system continues to grow as the population ages. In 2004, the estimated direct and indirect cost of CVD is \$368.4 billion.¹ Americans will pay about \$54 billion for stroke-related medical costs and disability.⁴

In Iowa, deaths from heart disease have steadily declined. The rate per 100,000 population has gone from 344.9 in 1991 to 265.8 in 2003. The downward trend for deaths from stroke reached a plateau between 2000 through 2002. The rate of deaths from stroke has gone from 74.7 in 1991 to 70.4 in 2003. Deaths from cardiovascular diseases accounted for 38.4% of all Iowa deaths in 2003. Of the CVD deaths, diseases of the heart made up 72.8% and cerebrovascular disease 19.3%.⁶

It is very important to be able to recognize the symptoms of a heart attack or stroke and to know what to do. The American Heart Association and National Heart, Lung, and Blood Institute have launched an “Act in Time” campaign to increase awareness of heart attack and the importance of calling 9-1-1 at the onset of heart attack symptoms.⁸

Ischemic stroke, the most common type, is caused by a blood clot that blocks blood flow to the brain. Giving medication to dissolve the clot helps reduce permanent disability, but it must be delivered **within three hours** of symptom onset to be effective.³

Reducing cardiovascular disease risk requires an integrated strategy that includes:

- 1) Lifestyle behavior change including weight management; increased physical activity; no tobacco use; a low-fat, low-cholesterol diet with moderate sodium, sugar and alcohol intake; and control of high blood cholesterol, elevated blood pressure, and diabetes.
- 2) Community environmental support such as population screening to identify individuals with high levels of blood cholesterol, blood pressure or blood glucose, and other individuals at risk for heart disease. Community support also includes interventions that teach the skills necessary for behavior change that make living a healthier life easier. One popular example is the establishment and upkeep of public bicycle trails.
- 3) Development of public policies that encourage healthy lifestyle behaviors such as smoke-free worksites. These may be implemented in the form of laws, regulations, standards, or guidelines that contribute to setting these and other social and environmental conditions. For example, dietary patterns result from the influences of food production policies, marketing practices, product availability, cost, convenience, knowledge, choices that affect health, and preferences that are often based on early-life habits.⁵

Cardiovascular Diseases Results

The survey examined the respondent's knowledge of the symptoms of a heart attack or a stroke by asking if six different symptoms were true of each condition. Of these symptoms: 56.6% knew that pain or discomfort in the jaw, neck, or back was a symptom; 74.1% thought that feeling faint, light-headed, or weak was a symptom; 95.6% knew that chest pain or discomfort was a symptom; only 32.1% knew that sudden trouble seeing in one or both eyes was not a symptom; 90.6% knew that pain or discomfort in the arm or shoulder was a symptom; and 91.3% knew that shortness of breath was a symptom of a heart attack. Only 12.1% correctly knew all six symptoms of a heart attack.

Table 7.1 shows that knowledge of heart attack symptoms was better in women than men. It was also better with increasing education and income. Knowledge increased with age, but was highest among middle-age respondents. Whites were more knowledgeable of all symptoms than minorities. The group with the highest percent knowledgeable about heart attack symptoms was those earning more than \$75,000 per year (16.6%), while Hispanics were the lowest (3.9%).

Considering stroke symptoms: 90.5% knew that sudden confusion or trouble speaking was a symptom; 94.1% knew that sudden numbness of face, arm, or leg, especially on one side was a symptom; 71.2% knew that sudden trouble seeing in one or both eyes was a symptom; only 32.9% knew that chest pain or discomfort was not a symptom; 90.4% knew that sudden trouble walking, dizziness, or loss of balance was a symptom; and only 65.1% knew that severe head ache with no known cause was a symptom of a stroke. Only 19.7% correctly knew all six symptoms of a stroke.

People who were more educated and had higher incomes were more knowledgeable about stroke symptoms. Knowledge was higher among the middle age groups than the younger or older populations. It was lower for Hispanics and ‘other’ race (see table 7.1). The group with the highest percent of knowledge about stroke symptoms was those with a college education (30.4%), while those with less than a high school education were the lowest (6.7%).

Table 7.1: Percent of Iowans Knowledgeable of Symptoms of Heart Attack and Stroke and What Action to Take, 2003

DEMOGRAPHIC GROUPS	Know all six symptoms of Heart Attack		Know all six symptoms of Stroke		Know to call 911	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	12.1	11.0-13.3	19.7	18.4-21.0	86.0	84.8-87.3
SEX						
Male	10.9	9.1-12.6	19.5	17.4-21.5	86.0	84.1-87.9
Female	13.3	11.9-14.8	19.9	18.2-21.6	86.1	84.4-87.7
AGE						
18-24	8.8	4.9-12.7	15.6	10.8-20.4	81.4	75.8-87.0
25-34	9.2	6.6-11.9	20.5	16.9-24.0	87.0	84.2-89.9
35-44	11.9	9.6-14.2	22.3	19.3-25.3	87.9	85.6-90.2
45-54	15.3	12.7-18.0	24.3	21.3-27.2	86.3	83.8-88.8
55-64	13.8	11.1-16.6	21.6	18.3-24.9	86.1	83.3-88.8
65+	12.9	10.6-15.2	14.1	11.8-16.5	86.6	84.4-88.7
EDUCATION						
Less Than H.S.	10.2	5.2-15.3	6.7	3.5-9.9	82.8	77.6-88.0
H.S. or G.E.D.	9.0	7.5-10.6	13.9	12.0-15.8	85.6	83.5-87.8
Some Post-H.S.	12.4	10.2-14.5	20.2	17.6-22.8	86.8	84.6-89.0
College Graduate	16.4	14.1-18.7	30.4	27.6-33.2	86.8	84.6-88.9
HOUSEHOLD INCOME						
Less than \$15,000	8.8	5.1-12.5	15.8	10.1-21.5	82.8	77.4-88.2
\$15,000- 24,999	10.6	7.8-13.3	12.2	9.5-15.0	86.1	82.7-89.4
\$25,000- 34,999	10.8	7.8-13.7	18.0	14.7-21.3	85.8	82.5-89.0
\$35,000- 49,999	12.0	9.5-14.4	20.6	17.5-23.7	88.1	85.7-90.5
\$50,000- 74,999	13.3	10.6-16.0	24.1	20.8-27.4	86.4	83.6-89.2
\$75,000+	16.6	13.5-19.8	29.2	25.4-32.9	87.8	84.9-90.7
RACE/ETHNICITY						
White/Non-Hisp.	12.5	11.4-13.7	20.2	18.8-21.5	86.1	84.8-87.3
Black/Non-Hisp.	10.3	0-23.5	21.0	7.8-34.1	72.4	58.4-86.4
Other/Non-Hisp.	4.7	0-9.7	9.0	1.4-16.6	88.0	80.3-95.8
Hispanic	3.9	0.2-7.6	10.0	3.7-16.4	89.7	82.5-96.9

When asked the first thing they would do if they thought someone was having a heart attack, 86% said they would call 9-1-1. Responses were fairly constant across demographic groups. The youngest (18-24), least educated (less than high school), poorest (income less than \$15,000 per year), and African-Americans were less likely to know to call 9-1-1. The lowest percent was among African-Americans (72.4%), while the highest percent was among Hispanics (89.7%) (See table 7.1).

In 2003, 66.9% of Iowans reported eating fewer high fat or high cholesterol foods than they had in the past in order to lower their risk of heart disease. Many more women than men were eating fewer of these foods (see table 7.2). The percentage of people eating fewer high fat foods

Table 7.2: Percent of Iowans Involved in Various Actions to Lower Risk of Developing Heart Disease or Stroke, 2003

Demographic Groups	Eating fewer high fat or high cholesterol foods?		Eating more fruits and vegetables?		More physically active?	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	66.9	(65.3-68.6)	69.4	(67.8-71.1)	67.9	(66.4-69.5)
SEX						
Male	59.2	(56.6-61.8)	61.9	(59.3-64.4)	64.9	(62.4-67.4)
Female	74.1	(72.1-76.1)	76.5	(74.5-78.4)	70.7	(68.8-72.7)
AGE						
18-24	49.9	(43.2-56.6)	57.6	(51.1-64.2)	70.1	(64.2-76)
25-34	59.9	(55.7-64.1)	56.6	(52.4-60.9)	65.9	(61.8-70.1)
35-44	64.2	(60.7-67.7)	70.2	(66.9-73.4)	71.0	(67.8-74.3)
45-54	74.1	(70.9-77.2)	73.6	(70.4-76.8)	70.4	(67.1-73.7)
55-64	76.2	(72.7-79.6)	74.6	(71-78.2)	68.3	(64.5-72.1)
65+	74.4	(71.4-77.3)	79.7	(77-82.4)	62.7	(59.5-65.9)
EDUCATION						
Less than H.S.	57.3	(50.4-64.1)	69.0	(62.8-75.3)	63.3	(56.9-69.6)
H.S. or G.E.D.	65.0	(62.2-67.7)	69.1	(66.5-71.8)	65.1	(62.4-67.8)
Some Post-H.S.	66.6	(63.4-69.8)	66.8	(63.6-70)	68.2	(65.2-71.3)
College Graduate	72.3	(69.5-75)	72.7	(69.9-75.4)	72.7	(70-75.3)
HOUSEHOLD INCOME						
< \$15,000	62.1	(55.6-68.6)	72.3	(66.5-78.2)	62.1	(56.1-68)
\$15,000- 24,999	67.3	(63.2-71.4)	72.2	(68.2-76.1)	64.8	(60.7-69)
\$25,000- 34,999	68.2	(63.9-72.4)	69.8	(65.6-74)	67.9	(63.8-72)
\$35,000- 49,999	65.2	(61.4-69)	66.3	(62.6-70.1)	67.4	(63.7-71)
\$50,000- 74,999	65.9	(62-69.9)	66.8	(62.9-70.7)	68.2	(64.3-72.2)
\$75,000+	69.5	(65.5-73.4)	70.3	(66.4-74.2)	75.2	(71.6-78.7)
RACE/ETHNICITY						
White/Non-Hisp.	66.9	(65.3-68.6)	69.1	(67.4-70.8)	67.6	(65.9-69.2)
Black/Non-Hisp.	82.2	(70.8-93.6)	70.1	(56.2-83.9)	73.8	(60.9-86.7)
Other/Non-Hisp.	62.3	(48.8-75.7)	78.6	(67-90.1)	72.8	(60.6-85)
Hispanic	64.5	(51.5-77.5)	76.5	(65.5-87.4)	79.9	(69.6-90.2)

increased with age and education. More African Americans said they were eating fewer high fat and cholesterol foods than any other race. African Americans were also most likely to be doing this overall (82.2%), while the group with the lowest percent was 18 to 24 year olds (49.9%).

In 2003, 69.4% of Iowans were eating more fruits and vegetables to lower their risk of developing heart disease or stroke. More women than men were eating more of these foods (see table 7.2). The percentage of people eating more fruits and vegetables also increased with age. The group with the highest percent trying to eat more fruits and vegetables was those age 65 and over (79.7%), while the lowest percent was in the 25 to 34 year age group (56.6%).

In 2003, 67.9% of Iowans were exercising more to lower their risk of developing heart disease or stroke. Females were exercising more than males. The percentage also increased with education and income. It was also higher for the minority racial and ethnic groups. The highest percentage of respondents reporting that they exercised more were Hispanics (79.9%), while those with household incomes less than \$15,000 per year had the lowest percent (62.1%).

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8. HYPERTENSION AWARENESS

Background

Blood pressure is the force of blood against the walls of arteries. Blood pressure rises and falls during the day. When blood pressure stays elevated over time, it is called high blood pressure or hypertension.⁴

Blood pressure is typically recorded as two numbers — the systolic pressure (as the heart beats) over the diastolic pressure (as the heart relaxes between beats). A consistent blood pressure reading of 140/90 mm Hg or higher is considered high blood pressure. Those with systolic blood pressure of 120-139 mm Hg and/or diastolic blood pressure of 80-89 mm Hg are now classified as pre-hypertensive, requiring health-promoting lifestyle modifications to prevent cardiovascular disease. There is also an exception to the definition of high blood pressure. A blood pressure of 130/80 or higher is considered high blood pressure in persons with diabetes and chronic kidney disease.⁴

This often symptomless disorder is a major risk factor for heart disease and stroke. Lowering of diastolic blood pressure by a mere 2 mm could result in a 17 decrease in the prevalence of hypertension, a 6% decrease in coronary artery disease and a 15% reduction in stroke.¹

About two-thirds of people over age 65 have high blood pressure. Nationally, only 55.4% of adults maintain their blood pressure at an adequate level. Those who do not have high blood pressure at age 55 face a 90 percent chance of developing it during their lifetimes, which means most people have high blood pressure at some point in their lives.⁴

Primary prevention of hypertension can be accomplished through two complementary approaches: 1) a population strategy to lower the incidence of high blood pressure in the entire population by lowering individual blood pressure levels; and 2) a targeted strategy to lower blood pressure among populations at high risk.³

The population-based lifestyle interventions recommendations are: weight loss, dietary sodium restrictions, increased physical activity, moderation in alcohol consumption, and a heart-healthy diet rich in fiber and low in saturated and total fat.²

High Blood Pressure Results

In 2003, 25.1% of all respondents reported ever being told they had high blood pressure. Although this is very similar to the 24.9% reported in 2002 and is not a new high, the long-term trend in high blood pressure has been upward (see figure 8.1). This trend may even be stronger than it appears. In 2002, gestational hypertension was eliminated from consideration which should have lowered the percentage.

Figure 8.1: Percent of Iowans Ever Told Blood Pressure Is High by Year, 1995-2003

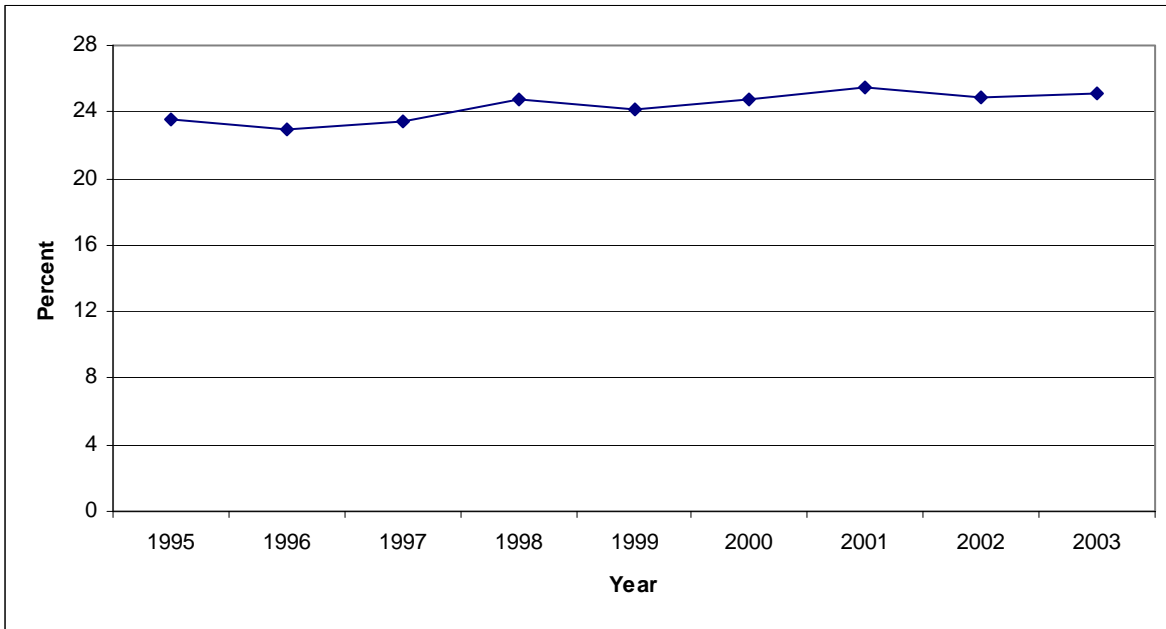
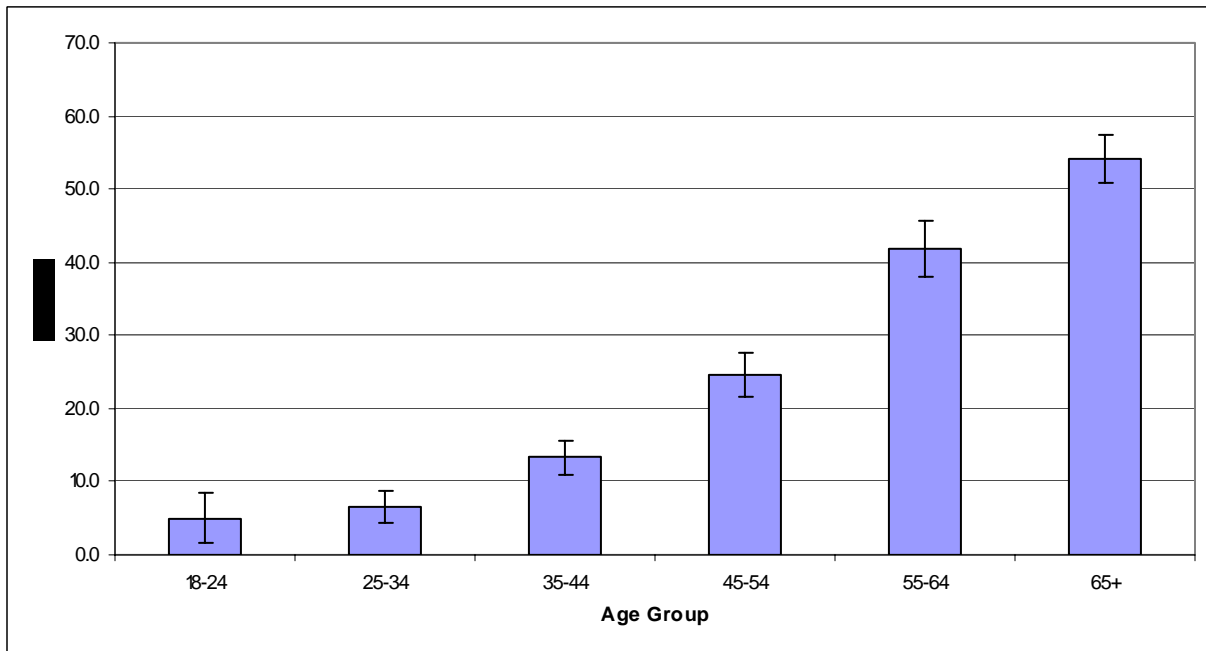


Figure 8.2: Iowans Ever Told Blood Pressure is High by Age, 2003



**Table 8.1:
Percent of Iowans Told Blood
Pressure Is High, 2003**

DEMOGRAPHIC GROUPS	%	C.I. (95%)
TOTAL	25.1	(23.7-26.5)
SEX		
Male	24.9	(22.8-27)
Female	25.3	(23.5-27.2)
AGE		
18-24	5.0	(1.6-8.5)
25-34	6.6	(4.4-8.8)
35-44	13.3	(11-15.7)
45-54	24.6	(21.5-27.7)
55-64	41.8	(37.9-45.8)
65+	54.1	(50.9-57.3)
EDUCATION		
Less than H.S.	34.0	(28.4-39.6)
H.S. or G.E.D.	30.8	(28.3-33.3)
Some Post-H.S.	22.3	(19.8-24.8)
College Graduate	18.0	(15.8-20.3)
HOUSEHOLD INCOME		
Less than \$15,000	36.0	(30.5-41.6)
\$15,000- 24,999	32.9	(29-36.9)
\$25,000- 34,999	26.7	(23.2-30.3)
\$35,000- 49,999	20.9	(18-23.8)
\$50,000- 74,999	19.8	(16.7-22.8)
\$75,000	17.5	(14.3-20.7)
RACE/ETHNICITY		
White/Non-Hisp.	25.5	(24-26.9)
Black/Non-Hisp.	30.3	(17-43.6)
Other/Non-Hisp.	17.9	(9.5-26.4)
Hispanic	11.0	(3.7-18.3)

The highest percentage of respondents with high blood pressure was ages 65 and older (54.1%), while the lowest was age 18 to 24 (5%) (See Figure 8.2). The prevalence of high blood pressure also increased with lower levels of education and household income. Hispanics reported a lower percentage of high blood pressure than other race or ethnic groups, while African Americans were the highest racial group (see table 8.1).

Of those reporting high blood pressure, 77.5% reported taking medication for their condition. Like high blood pressure itself, this percentage increases steadily with age reaching a high of 92.7% for those 65 years and older. More females with high blood pressure took blood pressure medicine than males (84.4% vs. 70%).

Comparison with Other States

Among the states and territories prevalence of reported hypertension ranged from 18.8% to 33.6%. The Iowa prevalence of 25.1% was only slightly above the median of 24.8%.

Year 2010 Health Objectives for the Nation

According to the national health objectives for the year 2010 for high blood pressure, only 16% of the adult population should report having high blood pressure. This is nearly 9% lower than is currently the case in Iowa. Furthermore, the long-term trend is in the wrong direction.

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9. CHOLESTEROL AWARENESS

Background

High blood cholesterol is one of the major risk factors for heart disease. The higher your blood cholesterol level, the greater your risk for developing heart disease or having a heart attack. When there is too much cholesterol (a fat-like substance) in your blood, it builds up in the walls of your arteries. Over time, this buildup causes "hardening of the arteries" so that arteries become narrowed and blood flow to the heart is slowed down or blocked. The blood carries oxygen to the heart, and if enough blood and oxygen cannot reach your heart, you may suffer chest pain. If the blood supply to a portion of the heart is completely cut off by a blockage, the result is a heart attack.³

High blood cholesterol itself does not cause symptoms, so many people are unaware that their cholesterol level is too high. It is important to find out what your cholesterol numbers are because lowering cholesterol levels that are too high lessens the risk for developing heart disease and reduces the chance of a heart attack or dying of heart disease, even if you already have it.

Cholesterol lowering is important for everyone--younger, middle age, and older adults; women and men; and people with or without heart disease. Everyone age 20 and older should have their cholesterol measured at least once every five years.

High cholesterol means a total cholesterol level greater than or equal to (\geq) 200 milligrams per deciliter (mg/dl). Not all cholesterol increases the risk of heart disease. The cholesterol carried by LDL (the so-called bad cholesterol) increases the risk; the cholesterol carried by HDL (the so-called good cholesterol) lowers the risk and is beneficial. A level less than 40 mg/dl of HDL is low and is considered a major risk factor because it increases your risk for developing heart disease. HDL levels of 60 mg/dl or more help to lower your risk for heart disease. Cholesterol standards are more stringent for those people at high risk of heart attack due to other factors such as diabetes or coronary heart disease.²

The main goal of cholesterol-lowering treatment is to lower your LDL (bad) cholesterol level enough to reduce your risk of developing heart disease or having a heart attack. Methods include:

- Therapeutic Lifestyle Changes (TLC)--include a cholesterol-lowering diet (called the TLC diet), physical activity, and weight management. TLC is for anyone whose LDL is above goal.
- Drug Treatment if cholesterol-lowering drugs are needed, they are used together with TLC treatment to help lower your LDL.¹

Blood Cholesterol Awareness Results

In 2003, the percentage of Iowans reporting ever having their blood cholesterol checked was 76.5%. When asked whether they had their blood cholesterol checked by a health professional during the past five years, 71.3% of respondents reported having done so. More females than

males had met this criteria. Respondents in older age groups, people with more education and higher household income were more likely to report having a blood cholesterol test within the last five years. Hispanics and other races were less likely to have a cholesterol test in the past five years if they had a test at all (see table 9.1).

Table 9.1: Blood Cholesterol in Iowans, 2003

Demographic Groups	Had Blood Cholesterol Checked in Past Five Years		Ever Been Told Blood Cholesterol High	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	71.3	(69.6-72.9)	31.7	(30.1-33.4)
SEX				
Male	67.6	(65-70.2)	29.8	(27.3-32.4)
Female	74.7	(72.6-76.8)	33.4	(31.3-35.6)
AGE				
18-24	36.4	(30.3-42.5)	5.6	(2.3-9)
25-34	51.8	(47.6-56)	15.4	(11.4-19.3)
35-44	65.6	(62.2-69.1)	19.6	(16.3-22.9)
45-54	79.6	(76.7-82.5)	33.8	(30.2-37.5)
55-64	92.1	(89.9-94.3)	44.6	(40.5-48.7)
65+	93.2	(91.3-95.2)	45.3	(42-48.5)
EDUCATION				
Less than H.S.	66.2	(59.5-72.9)	27.5	(21.7-33.4)
H.S. or G.E.D.	68.6	(65.7-71.4)	37.9	(35-40.9)
Some Post-H.S.	70.1	(66.8-73.4)	29.6	(26.5-32.7)
College Graduate	77.3	(74.7-80)	27.6	(24.8-30.5)
HOUSEHOLD INCOME				
Less than \$15,000	69.8	(63.5-76.1)	36.0	(29.7-42.3)
\$15,000- 24,999	66.4	(61.9-70.8)	34.4	(30.2-38.6)
\$25,000- 34,999	67.8	(63.6-72.1)	34.2	(29.6-38.8)
\$35,000- 49,999	69.0	(65.2-72.7)	30.2	(26.4-34)
\$50,000- 74,999	73.0	(69.1-76.9)	29.5	(25.5-33.5)
\$75,000+	80.4	(76.5-84.4)	28.2	(24.3-32.1)
RACE/ETHNICITY				
Non-Hispan. White	71.9	(70.2-73.6)	32.2	(30.5-33.9)
Non-White or Hisp.	58.4	(49.9-66.8)	21.4	(14.2-28.6)

Of the respondents who had their cholesterol tested, 31.7% reported that a doctor or other health professional had told them that their blood cholesterol was high. This is a decrease from the 33.2% found in 2002. The long-term trend over the past decade, however, has been an increase in the percent of Iowans told their cholesterol is high (see figure 9.1).

Figure 9.1: Trend in Reporting High Cholesterol in Iowa, 1995-2003

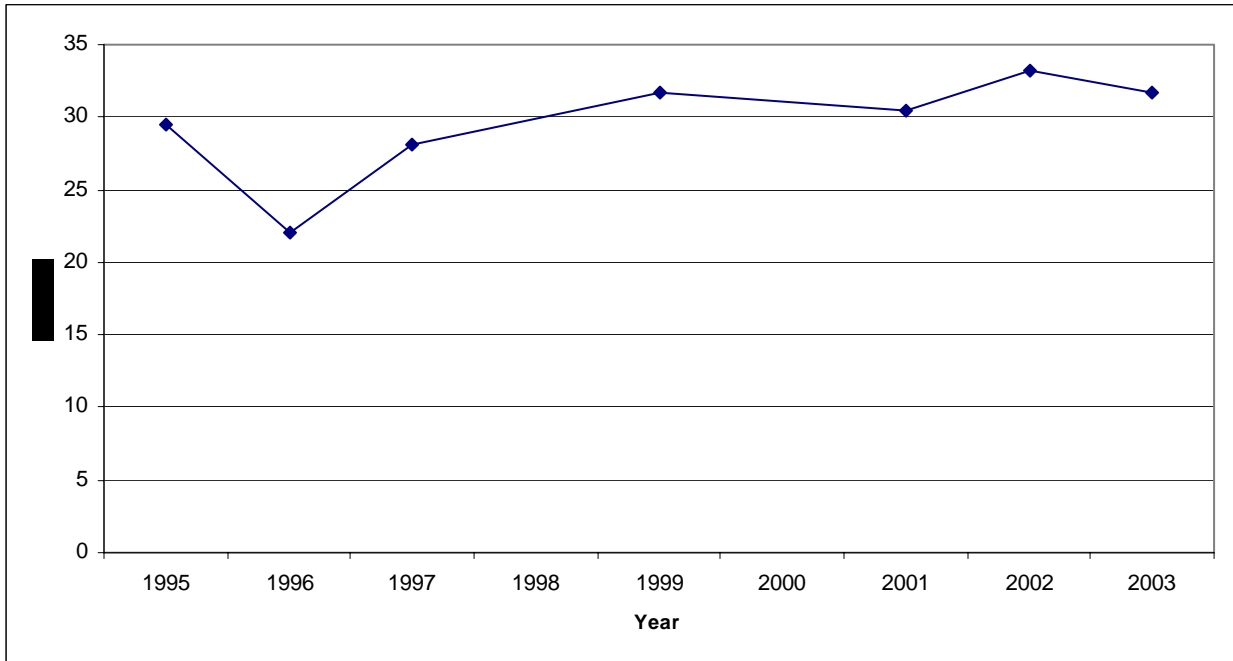
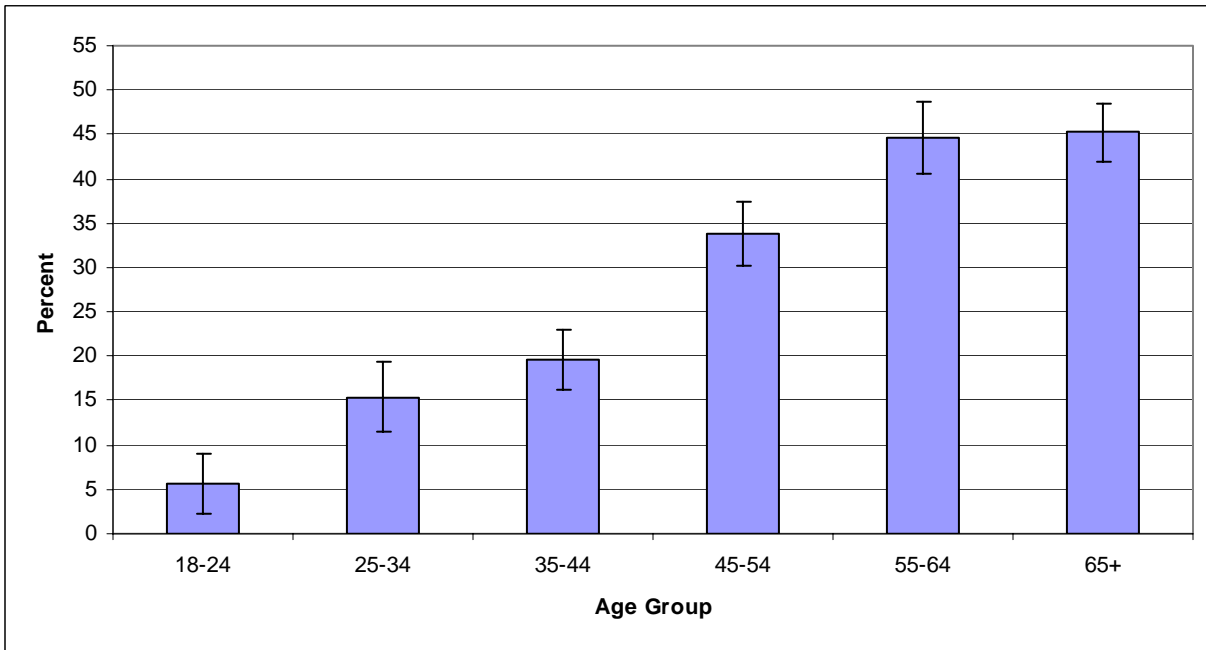


Figure 9.2: Iowans Ever Told Their Cholesterol Was High by Age, 2003



The percentage of males with high cholesterol was higher than the percentage of females. Age made a considerable difference in reporting high cholesterol with the oldest age group reporting more than eight times greater prevalence of high cholesterol than the youngest (see figure 9.2). People with a high school education were more likely to report high cholesterol. Higher income

people were less likely to report high cholesterol. Hispanics and other minorities were less likely to report high cholesterol (see table 9.1).

Comparison with Other States

The percentage of people having their cholesterol checked within the past five years among all the states and territories ranged from 54.7% to 82.5%. Iowa's value of 71.3% was somewhat below the median of 72.8%.

In terms of being told their cholesterol was high, the range was from 27.2% to 38.2%. Iowa's value of 31.7% fell below the median of 33.1%.

Year 2010 Health Objectives for the Nation

Based on the national health objectives for the year 2010, 80% of adults should have their blood cholesterol checked within the past five years. The 2003 BRFSS sample shows that only 76.5% of Iowans age 18 and older have ever had their blood cholesterol checked, and only 71.3% had it checked within the past five years.

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10. EXERCISE AND PHYSICAL ACTIVITY

Background

A lifestyle lacking in regular physical activity has been associated with an increased risk for cardiovascular illness, cancer, osteoporosis, and other debilitating conditions.^{1,2,3} Despite these risks, a large proportion of people remain inactive.

Although the percentage who do not engage in regular physical activity remains high, many efforts are underway to try to increase the physical activity level of Iowans. Interventions to increase physical activity include:

- 1) An increased number of great recreational trails.
- 2) Increased regular media attention to physical activity and related topics.
- 3) Worksite wellness programs.
- 4) Conferences and training on physical fitness.
- 5) Continuous promotion of physical activity by the Iowa Department of Public Health and other organizations.
- 6) Continued development of programs by Parks and Recreation Departments.
- 7) The individual commitment of thousands of Iowans to make healthier choices.

Encouraging people to lead a less sedentary lifestyle by engaging in regular physical activity continues to be a significant step toward a healthier Iowa.

Physical Activity Results

In 2003, 77.3% of respondents reported that they had engaged in some sort of physical activity for exercise during the past month other than their regular job. Although this is a bit lower than in 2002, the trend shows it to be near the high end of its range (see figure 10.1). Only 2002 had a higher percent engaged in some sort of leisure exercise.

More younger respondents reported engaging in leisure physical activity than older respondents. The percentage of respondents who exercised also increased with education and household income. This percentage was lower for Hispanics than for other racial or ethnic groups. The lowest percentage of all examined demographic variables was for those with less than a high school education (58.7%), while the highest was for those with a household income of \$75,000 or more (90.2%) (See table 10.1).

Physical activity may be classified as either moderate or vigorous. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate. The recommended level of physical activity may be either regular and moderate physical activity or regular and vigorous physical activity. Regular and moderate physical activity is defined as moderate activity for 30 or more minutes per day for five or more days per week. Regular and vigorous physical activity is defined as vigorous activity for 20 or more minutes per day, three or more times per week.

Figure 10.1: Trend in Leisure Physical Activity in Iowa 1996-2003

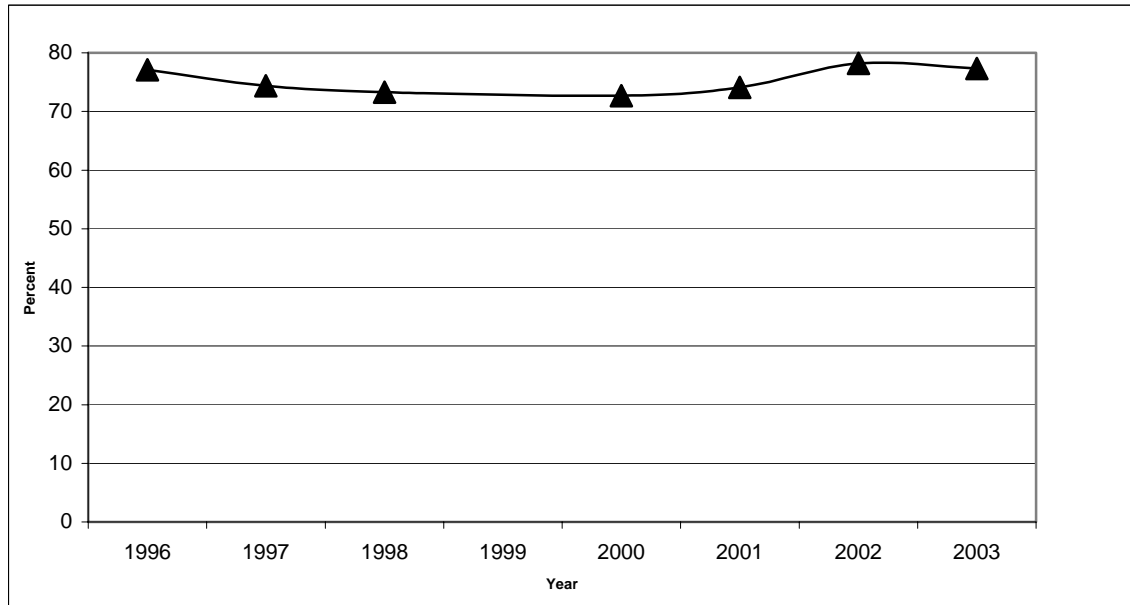


Figure 10.2: Percentage of Iowans Engaging in the Recommended Level of Physical Activity by Age and Sex, 2003

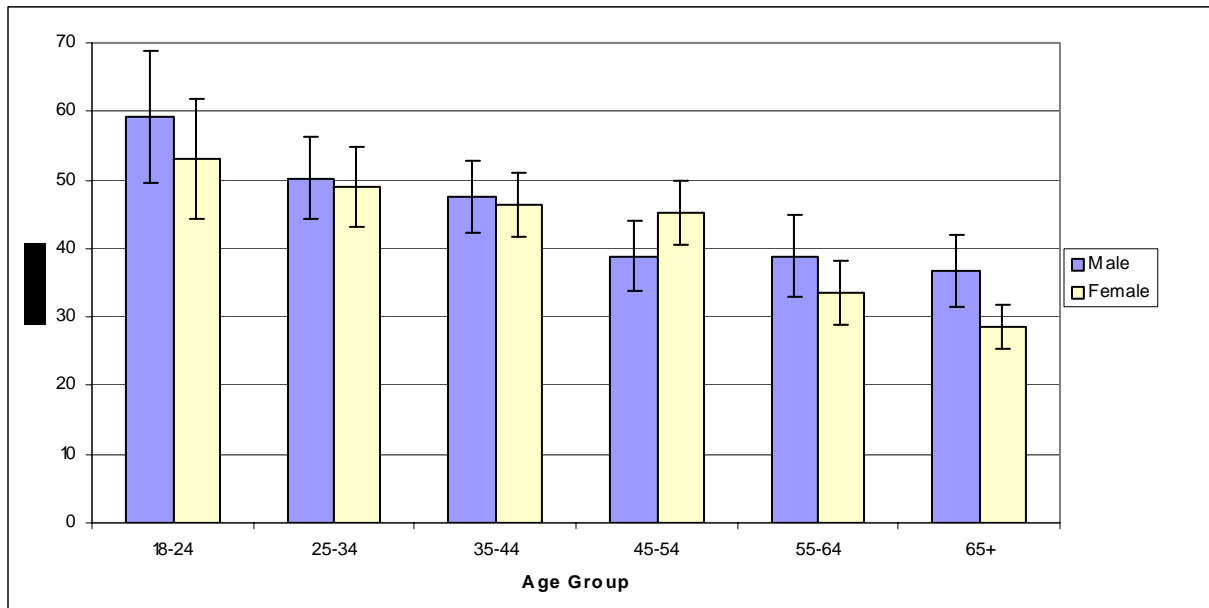


Table 10.1: Physical Activity in Iowans, 2003

Demographic Groups	Any Leisure Physical Exercise in Last Month		Recommended Level of Physical Activity	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	77.3	(76-78.7)	43.6	(41.9-45.3)
SEX				
Male	78.0	(75.9-80.1)	45.4	(42.8-48)
Female	76.7	(74.9-78.4)	41.9	(39.8-44)
AGE				
18-24	85.6	(81.3-89.9)	56.2	(49.7-62.8)
25-34	80.9	(77.4-84.3)	49.6	(45.4-53.9)
35-44	82.5	(79.8-85.3)	47.0	(43.4-50.5)
45-54	79.1	(76.2-82)	42.1	(38.6-45.6)
55-64	72.9	(69.4-76.5)	36.2	(32.4-39.9)
65+	65.2	(62.1-68.2)	32.0	(29.1-34.9)
EDUCATION				
Less than H.S.	58.7	(52.5-64.9)	36.0	(29.3-42.7)
H.S. or G.E.D.	70.5	(68.1-73)	40.2	(37.4-42.9)
Some Post-H.S.	80.5	(78-83.1)	44.2	(40.9-47.5)
College Graduate	88.2	(86.3-90)	49.4	(46.4-52.4)
HOUSEHOLD INCOME				
Less than \$15,000	62.2	(56.5-67.9)	37.9	(31.4-44.5)
\$15,000- 24,999	67.5	(63.6-71.4)	38.6	(34.5-42.8)
\$25,000- 34,999	74.4	(70.8-78.1)	41.8	(37.5-46.1)
\$35,000- 49,999	78.2	(75-81.4)	40.8	(37.1-44.5)
\$50,000- 74,999	83.7	(80.6-86.7)	47.4	(42.8-50.8)
\$75,000+	90.2	(87.7-92.7)	51.2	(46.9-55.4)
RACE/ETHNICITY				
White/Non-Hisp.	77.7	(76.3-79.1)	43.7	(42-45.4)
Black /Non-Hisp.	77.8	(66.4-89.2)	50.0	(34.3-65.8)
Other/Non-Hisp.	74.5	(64-85)	37.4	(24.2-50.6)
Hispanic	65.4	(52.5-78.2)	41.5	(27.5-55.4)

The percentage of respondents who met the recommended level of physical activity was 43.6%. At the other end, 14.4% of respondents reported engaging in no physical activity at all.

The percentage of respondents reporting they had engaged in the recommended amount of physical activity was higher for males than for females. In addition, physical activity decreased with age. There was an interaction of sex and age such that women were less active than men mainly at the extremes of age examined, i.e. 18 to 24 and 65 and over (see figure 10.2).

A larger percentage of those who were better educated and had a higher household income engaged in the recommended amount of physical activity. African Americans were more likely to engage in the recommended amount of physical activity. The lowest percent for all demographic groups considered was for those age 65 and over (32%), while the highest percent was for those age 18 to 24 years (56.2%) (See table 10.1).

In order to gauge how sedentary a person's lifestyle was, a question was asked about how many hours a person spent watching television, playing video games, or at the computer for leisure activity. The mean amount of time engaged in this activity was 2.4 hours per day. The median was two hours. Most people (31.5%) said they spent two hours a day. About 1.6% said they never engaged in such activity, while 0.5% responded with twelve hours or more a day.

Comparison with Other States

Iowa ranked slightly below the median on the measure of not engaging in leisure time physical activity. The median for the nation reported not engaging in any leisure activity was 23.3%, while Iowa reported 22.7%. Values ranged from a low of 15% to a high of 30.6%. This excludes one region with such a greatly higher value that it can be considered an outlier.

Year 2010 Health Objectives for the Nation

The target for objective 22.1, reducing the proportion of adults who engage in no leisure-time physical activity, is 20 percent.⁴ Iowa's level of 22.7% is higher than this target.

The targets for objective 22.2 and 22.3, to increase the proportion of adults engaging in regular moderate or regular vigorous physical activity, are both 30%. Iowa respondents report 43.9% age-adjusted regular moderate physical activity, but report only 21.4% regular vigorous physical activity. Iowa is still above the target for moderate, but below the target for vigorous physical activity.

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11. DIET AND NUTRITION

Fruits & Vegetables

Background

Poor nutrition is an important modifiable risk factor for several chronic diseases, including some cancers and cardiovascular diseases (CVD).¹ A diet rich in fruits and vegetables (five or more servings/day) could prevent at least 20% of all cancer incidence.² It is estimated that fruits and vegetables contain over 100 beneficial substances including vitamins, minerals, and dietary fiber. Antioxidant vitamins and other compounds in fruits and vegetables slow or stop processes in the body that can lead to cancers or CVD. Fruits and vegetables may also play a protective role in the prevention of stroke, and potentially, cataracts, diverticulosis, chronic obstructive pulmonary disease, and hypertension.³

Increased consumption of fruits and vegetables by individuals over age two is a practical and important means for optimizing nutrition to reduce disease risk and maximize good health. The current dietary guidelines set by the federal government encourages five or more servings of fruits and vegetables daily.⁴

Fruit and Vegetable Intake Results

The percentage of Iowans who eat five or more servings of fruits and vegetables per day was 17.2% in 2003. This is substantially lower than the 19.8% found in 2002. Although the current percent is not much different from that seen in the mid 90s, an improving trend has turned into a sharp decline since 2001 (see figure 11.1).

Table 11.1 shows that significantly more females ate five or more servings of fruits and vegetables per day than males. Also, older Iowans were more likely to report meeting the five-a-day standard than younger Iowans. Interestingly, the female dominance at meeting the five-a-day criterion was not true for the 18 to 24 year-old age group (see figure 11.2). While not having the impact of sex or age, respondents with higher education were more likely to eat five or more portions of fruits and vegetables a day.

**Table 11.1:
Iowans Eating 5 or More Portions of
Fruits & Vegetables per Day, 2003**

Demographic Groups	%	C.I. (95%)
TOTAL	17.2	(15.9-18.4)
GENDER		
Male	11.9	(10.3-13.6)
Female	22.0	(20.3-23.8)
AGE		
18 - 24	12.4	(8.1-16.8)
25 - 34	13.7	(11-16.5)
35 - 44	15.2	(12.6-17.8)
45 - 54	17.1	(14.4-19.8)
55 - 64	18.4	(15.4-21.5)
65+	23.7	(21-26.4)
EDUCATION		
Less than H.S.	11.3	(7.2-15.5)
H.S. or G.E.D.	13.9	(12-15.8)
Some Post-H.S.	17.1	(14.7-19.5)
College Graduate	23.1	(20.6-25.6)
HOUSEHOLD INCOME		
Less than \$15,000	19.5	(14.1-25)
\$15,000- 24,999	16.2	(13.2-19.1)
\$25,000- 34,999	16.0	(13-19)
\$35,000- 49,999	14.9	(12.1-17.6)
\$50,000- 74,999	16.9	(13.9-19.9)
\$75,000+	20.9	(17.6-24.3)
RACE/ETHNICITY		
White/Non-Hisp.	17.2	(15.9-18.4)
Black/Non-Hisp.	15.5	(4.6-26.4)
Other/Non-Hisp.	17.9	(7.8-28)
Hispanic	17.9	(7.6-28.2)

Figure 11.1: Trend for Adequate Fruit & Vegetable Consumption in Iowa, 1994-2003

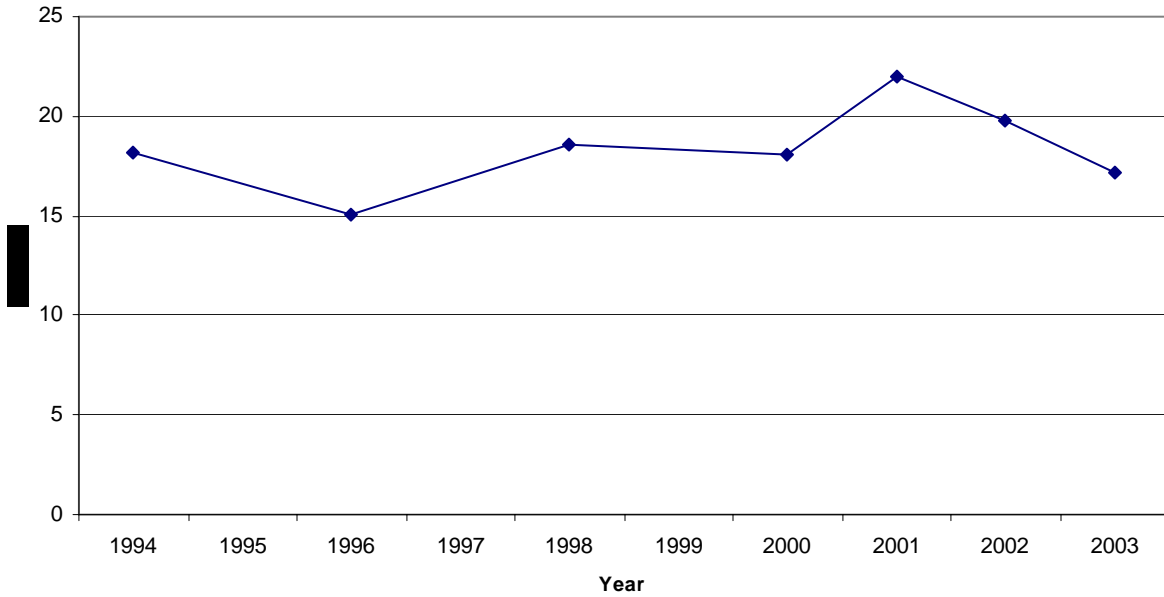
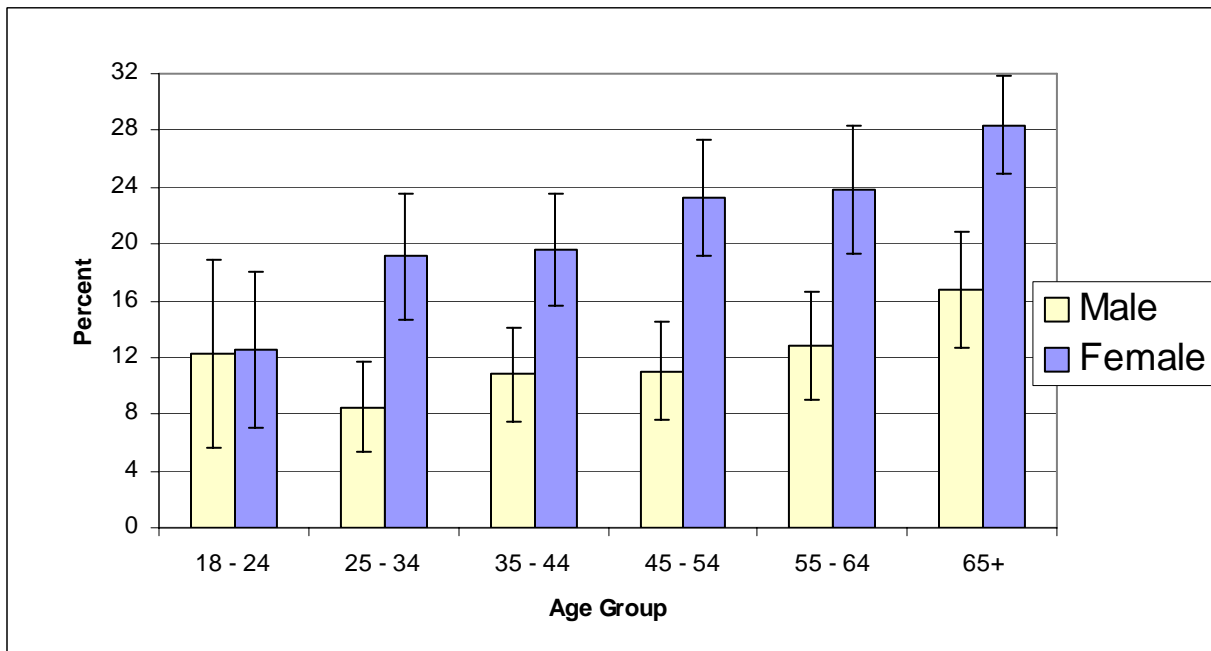


Figure 11.2: Percent of Iowans Who Report Eating 5 or More Portions a Day of Fruits and Vegetables by Age and Gender, 2003



Comparison with Other States

There were only four states or territories with a lower percent of the population eating five or more portions of fruits or vegetables a day than Iowa. Iowa's level of 17.1% is well below the median of 22.4%. The range was from a low of 11.2% to a high of 33.9%.

Year 2010 Health Objectives for Iowa and the Nation

According to the national health objectives for the year 2010, 75% of people over two years old need to consume two helpings of fruit daily and 50% need to consume three helpings of vegetables daily.³ The Healthy Iowans 2010 goal was simpler at 50% of adults eating five helpings a day of fruit or vegetables. The percentage of adult Iowans consuming five or more helpings of fruits or vegetables daily is far below these goals at only 17.2%.

Folic Acid

Background

Even though eating five or more portions a day of fruits and vegetables improves the chances that a person will receive the proper amount of vitamins, it is, nonetheless, recommended that people take vitamin supplements to ensure proper nutrition.²

This is particularly true of folic acid. Folic acid intake is an important issue for women who might become pregnant. Folic acid reduces the risk of neural tube defect development in the fetus when taken at least one month before conception and throughout the first trimester of pregnancy. Neural tube defects include the brain (anencephaly or no brain formation) and spinal cord (spina bifida). Because folic acid consumption is extremely important during the beginning of pregnancy, when many women do not realize that they are pregnant, recommendations for use include all women of childbearing age. The current recommendation from the US Public Health Service is that all women of childbearing age should receive 400 micrograms of folic acid daily before pregnancy.³

Folic Acid Results

In 2003, when respondents were asked if any vitamins or supplements they took contained folic acid, 32.7% said they did. However, 36.1% said they did not take any vitamins, and 15.5% said they didn't know. For women between the ages of 18 and 44 years, 42.8% took a vitamin containing folic acid. In this group, there were still 35.1% who didn't take vitamins at all, but only 8.6% who didn't know.

Of the people saying they took a vitamin containing folic acid, the vast majority (89.2%) said they took it daily.

When people were asked the purpose of taking folic acid, most (45.2%) said that they didn't know. Only 22.6% said it was to prevent birth defects. Women under age 45 were more likely

to know this. In this group, 42.8% knew that it was to prevent birth defects. Still, 31.8% did not know.

For those who knew the proper reason for taking folic acid, 60.7% knew the best time to take it, namely at least one month before pregnancy and during the first trimester of pregnancy. For women under age 45, the figure jumped to 72.5%.

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12. OVERWEIGHT AND WEIGHT CONTROL

Background

Overweight and obesity are probably the most serious health problems in America today. Obesity is a condition linked to risk factors for cardiovascular disease, cancer and stroke, the first, second and third leading causes of death in Iowa. It is associated with Type II diabetes, atherosclerosis (hardening of the arteries), gout, asthma, hypertension, and osteoarthritis.⁶

Obesity is already a significant factor in rising health care costs and is expected to become more substantial. The national cost of obesity in 1998 was \$78.5 billion, half of which was paid by Medicare and Medicaid.¹ Iowa's price tag is \$780 million, of which \$198 million is paid by Medicaid and \$165 million, by Medicare. In 2002, nearly \$149 million was spent on Iowa hospital visits, in which obesity was reported in *Any Discharge Diagnosis*. This was an increase of 18% from the previous year, and an increase of 54% from 1999.³

The origin of overweight involves many factors. It reflects inherited, environmental, cultural and socioeconomic traits.⁵ The increase in the prevalence of being overweight is a result of a shift in energy balance in which energy taken in from food is greater than energy used in physical activity.²

Exact measurements of body fat require sophisticated equipment. To eliminate this problem obesity is often estimated from weight standards that are adjusted for body frame. Carefully measured weight and height remain the most easily performed and useful means to determine nutritional status and to predict mortality for the general population.⁴

Body mass index (BMI) is used to determine the appropriateness of weight for a person's height. BMI is defined as a person's body weight in kilograms divided by their height in meters squared [weight (kg)/height (m²)]. Estimations of the prevalence of overweight and obesity in this report are based on BMI. In adults, overweight is considered to be a BMI value greater than or equal to 25 and less than 30. Obesity is considered to be a BMI greater than or equal to 30.

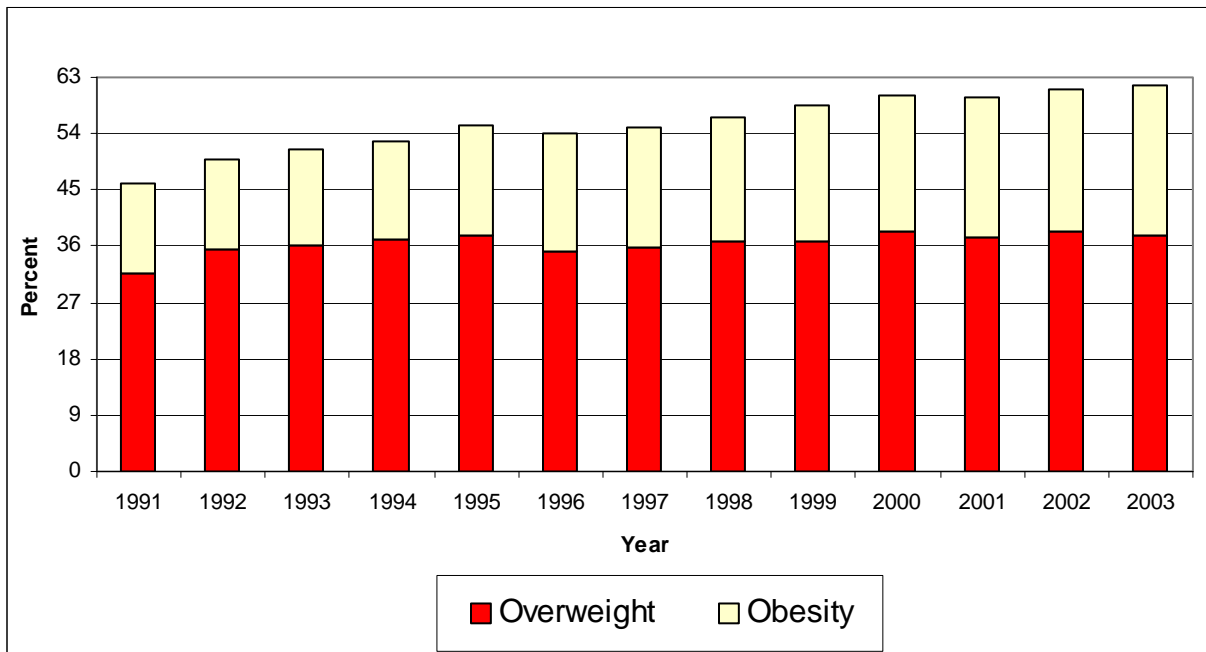
Rigid, calorie-restricted diets are not recommended for weight management. They limit the type, amount, palatability, and variety of food intake. Often, they are nutritionally unbalanced, unsafe, and difficult to follow.

Weight loss and weight maintenance programs should employ a combination of low-calorie diets (but not too low), increased physical activity, and behavior therapy. Behavior strategies include: self-monitoring, stress management, stimulus control, problem-solving, and social support.⁵

Overweight & Weight Control Results

The BRFSS data show that 37.7% of Iowans are overweight and 23.9% are obese based on BMI. The level of overweight and obese combined is 61.6%. This continues a long trend of increasing overweight and obesity (see figure 12.1). This trend shows a 33% increase in combined overweight and obesity since 1991 with over a 60% increase in obesity itself.

Figure 12.1: Overweight/Obese Iowans by Year Based on Body Mass Index (BMI), 1991-2003



Self-reported weights show more males than females are overweight, but show no sex difference in prevalence of obesity. Both overweight and obesity increase with age. However, obesity shows a sharper increase then shows a decrease after age 65.

Education and income are not as consistently related to overweight and obesity as age. Overweight is higher for high school graduates, but about the same for all other education levels. Obesity is also highest for high school graduates but is lower with higher education.

The effects of income are opposite for overweight and obesity. The percent overweight increases with increasing income. On the other hand, the lowest income is most likely to be obese, while the highest income is least likely to be obese. These effects somewhat cancel out when overweight and obesity are combined. The percent of all those over their healthy weight is lower for those with incomes less than \$15,000, but about the same for all the other levels (see table 12.1).

In terms of race and ethnicity, Whites have the highest percent overweight. For obesity, however, African Americans are significantly higher than all other groups. They are also higher for overweight and obesity combined (see table 12.1).

Around 39% of respondents in the 2003 survey reported that they were trying to lose weight. More women than men were trying to lose weight (46.2% vs. 31.3%). More older people were

Table 12.1: Overweight and Obese Iowans Based on BMI, 2003

Demographic Groups	Overweight		Obesity		Combined	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
Total	37.7	(36.1-39.3)	23.9	(22.5-25.3)	61.6	(60-63.3)
SEX						
Male	45.6	(43-48.2)	24.6	(22.4-26.8)	70.2	(67.7-72.7)
Female	29.9	(28-31.8)	23.3	(21.5-25.1)	53.2	(51-55.4)
AGE GROUP						
18 - 24	27.8	(22-33.6)	14.4	(9.4-19.4)	42.2	(35.7-48.7)
25 - 34	32.9	(29.1-36.8)	22.5	(19.1-26)	55.4	(51.2-59.7)
35 - 44	39.3	(35.8-42.8)	24.8	(21.7-27.8)	64.0	(60.6-67.5)
45 - 54	38.8	(35.4-42.3)	26.9	(23.7-30)	65.7	(62.3-69.1)
55 - 64	42.4	(38.5-46.4)	30.8	(27.1-34.5)	73.3	(69.6-76.9)
65+	42.6	(39.4-45.7)	24.3	(21.5-27.1)	66.9	(63.9-69.9)
EDUCATION						
Less than H.S.	36.3	(30.2-42.3)	25.1	(19.6-30.5)	61.3	(54.8-67.8)
H.S. or G.E.D.	39.8	(37.1-42.5)	27.1	(24.6-29.6)	66.9	(64.1-69.6)
Some Post-H.S.	36.9	(33.8-40.1)	22.6	(20-25.2)	59.5	(56.2-62.8)
College Graduate	36.3	(33.4-39.1)	21.0	(18.6-23.4)	57.3	(54.3-60.3)
HOUSEHOLD INCOME						
Less than \$15,000	29.2	(23.6-34.8)	28.2	(22.9-33.4)	57.4	(51.1-63.7)
\$15,000- 24,999	34.2	(30.3-38.1)	26.7	(22.9-30.6)	60.9	(56.6-65.3)
\$25,000- 34,999	38.5	(34.4-42.5)	25.4	(21.7-29.1)	63.9	(59.6-68.2)
\$35,000- 49,999	38.1	(34.4-41.8)	25.2	(21.9-28.4)	63.3	(59.5-67)
\$50,000- 74,999	38.2	(34.3-42.1)	25.4	(21.8-28.9)	63.5	(59.7-67.4)
\$75,000+	43.0	(38.7-47.3)	19.1	(15.8-22.4)	62.1	(58-66.2)
RACE/ETHNICITY						
White/Non-Hisp.	38.2	(36.5-39.8)	23.8	(22.4-25.3)	62.0	(60.3-63.7)
Black/Non-Hisp.	28.3	(13.1-43.6)	39.6	(24.9-54.2)	67.9	(52.9-82.9)
Other/Non-Hisp.	30.0	(18-42.1)	20.4	(9.5-31.3)	50.5	(37.8-63.1)
Hispanic	27.6	(17.3-37.9)	24.4	(13.9-35)	52.0	(38.6-65.4)

trying to lose weight except for those 65 and over. Fewer people with the lowest education and income levels were trying to lose weight. Also, fewer African Americans were trying to lose weight (see table 12.2).

Of those not trying to lose weight, 63.3% were trying to maintain their weight. Again, more women than men were trying to maintain their weight. More people in the middle age groups (45-54 years) were trying to maintain their weight than either extreme. The percent trying to maintain their weight increased with both education and income. Fewer Hispanics were trying to maintain their weight (see table 12.2).

Table 12.2: Percent of Iowans Trying to Lose or Maintain Weight, 2003

Demographic Groups	Trying to lose weight		Trying to maintain weight	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	39.0	37.4-40.6	63.3	61.2-65.5
GENDER				
Male	31.3	28.9-33.7	59.0	55.9-62.2
Female	46.2	44.0-48.4	68.5	65.7-71.3
AGE				
18 - 24	30.2	24.1-36.3	60.1	52.4-67.8
25 - 34	35.0	31.0-39.0	60.4	55.3-65.6
35 - 44	42.0	38.5-45.5	63.7	59.1-68.3
45 - 54	46.1	42.6-49.6	68.4	63.9-72.9
55 - 64	46.1	42.2-50.1	66.5	61.2-71.8
65+	34.5	31.4-37.6	62.2	58.3-66.1
EDUCATION				
Less Than H.S.	31.3	25.4-37.3	52.8	44.8-60.7
H.S. or G.E.D.	38.8	36.0-41.5	57.9	54.2-61.5
Some Post-H.S.	40.4	37.2-43.6	63.2	59.0-67.4
College Graduate	40.1	37.2-43.0	74.3	70.8-77.7
HOUSEHOLD INCOME				
Less than \$15,000	34.9	29.1-40.7	58.8	51.2-66.3
\$15,000- 24,999	37.1	33.0-41.3	58.8	53.3-64.3
\$25,000- 34,999	40.7	36.5-44.9	61.1	55.5-66.7
\$35,000- 49,999	37.3	33.6-41.0	65.5	61.0-70.1
\$50,000- 74,999	42.7	38.7-46.7	68.0	62.9-73.1
\$75,000+	41.8	37.6-45.9	70.5	65.0-76.1
RACE/ETHNICITY				
White/Non-Hisp.	39.2	37.5-40.8	63.8	61.6-65.9
Black/Non-Hisp.	24.8	12.0-37.5	65.1	47.7-82.6
Other/Non-Hisp.	35.2	23.0-47.4	63.0	48.7-77.2
Hispanic	42.1	29.0-55.3	47.5	30.1-65.0

For people trying to lose or maintain their weight 66.4% were eating fewer calories and/or less fat to do so. In addition, 70.4% were doing more physical activity to achieve this goal. Only 9.3% of respondents said they had been advised by a doctor or other health professional to lose weight.

Comparison with Other States

Out of all 54 states and territories, there are only nine who are higher in the percent who were over their healthy weight. Iowa's figure of 61.6% either overweight or obese in 2003 was higher than the median of 60%. The percentage of either overweight or obese ranged from a low of 51.4% to a high of 64.9%.

Looking merely at obesity, Iowa fared a little better. It ranked 38th in percent considered obese. The Iowa value of 23.9% was a full percentage point above the median of 22.9%. Percent of obesity ranged from a low of 15.1% to a high of 28.4%.

Year 2010 Health Objectives for Iowa and the Nation

The health objectives on weight for the nation to be achieved by the year 2010 call for increasing the prevalence of healthy weight (neither overweight nor obese) to 60% among adults age 20 and over. The trend in Iowa is in the opposite direction. In fact, Iowa has more than 60% currently who are above healthy weight. The Healthy People 2010 target for obesity is 15%. Healthy Iowans 2010 also had a target for obesity. It was based on a criterion that is no longer used, however. When this goal is translated into the current BMI criterion, it is 18.7%. Iowa's rate of 23.9% also indicates the state is heading in the wrong direction.

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13. DIABETES

Background

Diabetes rates in the United States are approaching epidemic proportions. An estimated 18.2 million people in the United States – 6.2% of the population – have diabetes. More than 13 million people live with the burden of diabetes daily and another 5.2 million have the disease and don't know it. Skyrocketing costs accompany this epidemic with an estimated total annual cost (direct and indirect) of \$132 billion. This includes direct medical costs of \$92 billion and indirect costs of another \$40 billion related to disability, work loss and premature death.¹

The good news is research studies have found that positive lifestyle changes can prevent or delay the onset of type 2 diabetes among high-risk adults. Lifestyle interventions included diet modification, weight loss and moderate-intensity physical activity (such as walking for 2 ½ hours each week).

Pre-diabetes is a relatively new term used to distinguish people with impaired fasting glucose or impaired glucose tolerance levels or both who are at increased risk of developing diabetes and are also at risk for other adverse health outcomes. Progression to diabetes among those with pre-diabetes is not inevitable. In one large prevention study of people at high risk for diabetes, the development of diabetes was reduced 58% over three years by implementing the positive lifestyle interventions.

The complications of diabetes are many and severe. They can include heart disease, stroke, high blood pressure, kidney disease, blindness, diseases of the nervous system, dental disease, complications of pregnancy, lower extremity amputations, biochemical imbalances such as ketoacidosis and diabetic coma and often cause lower resistance to other diseases. However, complications can be minimized when diabetes is diagnosed early and the patient is taught to self manage their disease through blood glucose control, weight control, taking medications appropriately, decreasing unhealthy lifestyles such as smoking and implementing healthy lifestyle interventions as mentioned earlier.

The Diabetes Prevention and Control Program at the Iowa Department of Public Health acts as a resource for health care professionals regarding the latest guidelines for diabetes care, coordinates a statewide diabetes network, collaborates with local community projects to develop initiatives on public awareness, prevention and other areas of disease management, and certifies programs for Medicaid reimbursement and assists certified programs to maintain quality standards for outpatient education.

Diabetes Results

In 2003, 6.7% of respondents had ever been told by a physician that they have diabetes, excluding women told only during pregnancy. This continues the rapid upward trend. It is the highest level yet seen in Iowa (see figure 13.1). Since 1995, there has been a 24% increase in the rate of diabetes in Iowa. The rate of increase from 1996 is nearly 60%.

Figure 13.1: Percentage of Iowans Who Have Ever Been Told They Have Diabetes by Year, 1995-2003

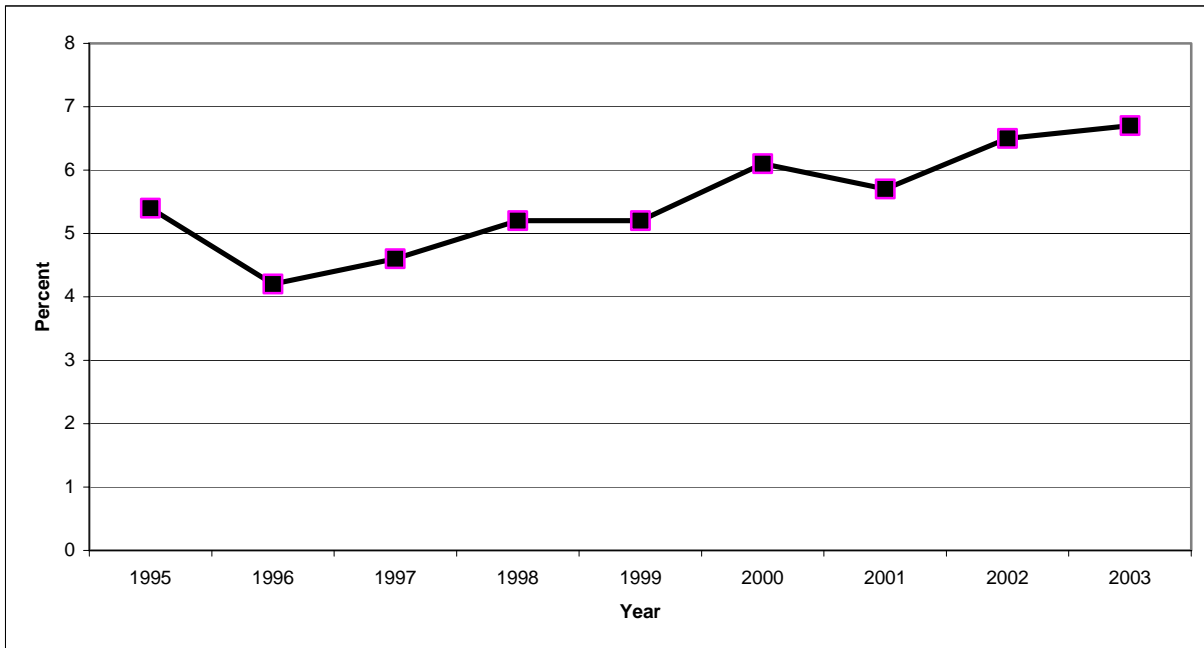


Table 13.1 shows that the rate of diabetes is much higher when respondents are older, lower in education and have a lower household income. It is higher in African Americans, but lower in the other racial and ethnic minority groups considered. Men are a little higher than women in diabetes prevalence.

Among individuals who had been told they had diabetes, most (36%) reported being first diagnosed between ages 46-60 (36%). The age group in which the least reported being first diagnosed was less than age 16 (2.8%).

Of those ever told by a physician that they have diabetes, 28.5% reported currently taking insulin. On the other hand, 64.6% reported currently taking oral medication to control the disease. Both insulin and diabetes pills are used by 10.8% of those with diabetes.

When asked how many times they had seen a health professional for their diabetes in the last year, the most common answer was four (27.5%), while 11.9% said never.

Respondents told by a physician they had diabetes were asked how many times they had their blood sugar checked in the past 12 months. About 62.5% checked their blood sugar at least once a day themselves or with the help of a friend or family member. About 11.4% reported never. Around 90.2% had it checked at least once within the past year by a health professional through a glycosylated hemoglobin test, frequently referred to as an A1C. Around 7.6% reported never when asked about the A1C test. Another 2.2% reported they had never heard of such a test. Although the number who had never heard of the test has gone down considerably over the years, there are still around 10% of all diabetic respondents who answered that they did not know

Table 13.1. Iowans Ever Been Told They Had Diabetes, 2003

Demographic Group	%	C.I. (95%)
TOTAL	6.7	(6-7.5)
SEX		
Male	7.0	(5.8-8.2)
Female	6.4	(5.5-7.4)
AGE GROUP		
18-24	0.5	(0-1.5)
25-34	1.7	(0.8-2.7)
35-44	2.1	(1.1-3.1)
45-54	5.1	(3.6-6.6)
55-64	13.1	(10.3-15.8)
65+	16.6	(14.1-19)
EDUCATION		
Less than H.S.	10.9	(7.2-14.6)
H.S. or G.E.D.	7.6	(6.4-8.9)
Some Post-H.S.	5.7	(4.4-7)
College Graduate	5.4	(4.1-6.8)
HOUSEHOLD INCOME		
Less than \$15,000	10.4	(7.2-13.6)
\$15,000- 24,999	11.1	(8.6-13.5)
\$25,000- 34,999	6.6	(4.6-8.6)
\$35,000- 49,999	5.4	(3.8-7)
\$50,000- 74,999	4.4	(2.8-6)
\$75,000+	4.8	(3.2-6.4)
RACE/ETHNICITY		
White/Non-Hisp.	6.8	(6-7.6)
Black/Non-Hisp.	9.4	(1.6-17.2)
Other/Non-Hisp.	2.3	(0-5.2)
Hispanic	3.2	(0.4-6)

Only 59.4% of those with diabetes in 2003 reported having taken a class on how to manage it.

Comparison with Other States

The median prevalence of diabetes for the 50 states, District of Columbia, Guam, the Virgin Islands, and Puerto Rico was 7.1% in 2003. The figure for Iowa was just below the median at 6.7%. Diabetes prevalence ranged from a low of 4.7% to a high of 11%.

Year 2010 Health Objectives for Iowa

Healthy Iowans 2010 has set many objectives for diabetes. The objective set for prevalence of diabetes was 5%. Iowa is currently at 6.7% and heading in the wrong direction. Appendix 1 shows that Iowans are near or on target for most of the HI 2010 goals for people with diabetes. A few exceptions where Iowa falls short are: at least one annual foot exam by a professional (target 90%, reported 74%), advised to discontinue tobacco use (target 100%, reported 78.2%), and being seen by a health professional for their diabetes within the past year (target 95%, reported 88.1%).

whether they had been checked. It is recommended that this test be done at least twice a year and at least three months apart.

Individuals with diabetes should check their feet daily for sores and irritations and should have them checked at least once a year by their health care provider. When asked how often they check their feet, 70.4% of respondents who were ever diagnosed with diabetes claimed to have checked them at least daily. Another 10.2% said they never checked them. Around 74% of respondents reported they had their feet checked by a health professional at least once within the past twelve months.

Because persons with diabetes are at high risk of eye complications leading to blindness, regular eye examinations, including pupil dilation, are important. Respondents who reported ever having diabetes were asked when they had their last eye exam where their pupils were dilated. About 78.3% reported within the last year, while 2.4% reported never.

Learning how to manage diabetes is very important to those who have the condition to keep it from leading to deteriorating health.

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14. ASTHMA

Background

Asthma, a chronic inflammatory disease of the lungs characterized by recurrent wheezing, breathlessness, coughing and chest tightness, is now one of the most common chronic diseases of children and adults.⁴ Prevalence among adults and children has doubled in the last 15 years and more than 200,000 Iowans now have asthma.^{2,3,6,7}

Asthma is a leading cause of inpatient admission and of unscheduled emergency department and physician office visits. Many of such admissions and visits could be avoided if medical and self management of asthma were carried out according to national guidelines.

The direct medical costs of asthma, including inpatient and outpatient care and medications, are estimated to be about \$85 million and indirect socio-economic costs close to \$64 million each year.^{1,6} Based on national data, it is estimated about 140,000 days of school are missed each year due to asthma by Iowa children,³ and half of all children and a quarter of all adults with asthma miss at least one day of school or work each year.¹⁰

The causes of asthma are not completely understood, but are most likely a combination of personal and environmental risk factors. Those risk factors for asthma include family history of asthma and allergies, acute respiratory infections, exposure to indoor air pollution (tobacco smoke, animal dander, dust mites, cockroaches, and occupational exposures to more than 250 substances), outdoor air pollution (burning leaves, pollen, and air pollutants), obesity and lack of exercise. Diet and early exposure to certain infectious agents may provide some protection. Once someone develops asthma, he/she often becomes especially sensitive to any exposures to the environmental risk factors listed.^{5,8,9}

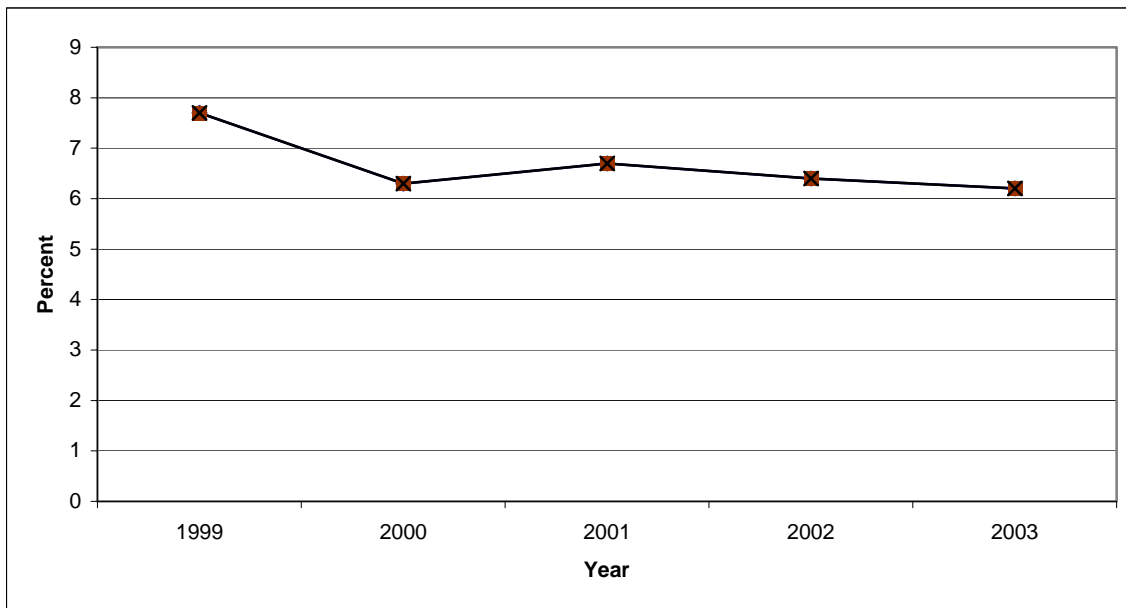
Asthma Results

In 2003, 10.3% of respondents reported ever being diagnosed by a physician with asthma. Among these individuals, 61% currently have asthma while 39% formerly had asthma but reported no current disease. Out of all respondents in Iowa, 6.2% currently have asthma and 4% formerly had asthma. The percent of Iowa adults with current asthma is the lowest reported through the BRFSS in the last five years (see figure 14.1).

In Iowa, more women currently have asthma than men (7.6% vs. 4.8%). Furthermore, people at risk of current asthma tended to be younger, lower in income, and African American. The group with the highest percentage currently having asthma was African Americans (11.8%). The lowest percent of current asthma was seen in those with incomes of \$75,000 and higher (4.1%) (See table 14.1).

Of those respondents who had ever been told they had asthma, 42% were diagnosed with the disorder at age ten or younger.

Figure 14.1: Current Asthma in Iowa by Year, 1999 - 2003



Of those who currently have asthma, 53.2% had an asthma attack in the past twelve months. Fourteen percent had visited an urgent care facility for their asthma at least once in the past twelve months. Twenty-five percent had seen a health professional for urgent care at least once in the past twelve months. However, 42% did not see a health professional at all for a checkup for their asthma in the past twelve months.

Of those who currently have asthma, 20.6% reported one or more days in which their activities were limited due to asthma in the past year. The range reported was anywhere from one to 365 days of limitation.

Of those who currently have asthma, 23.5% took prescription asthma medication more than twice a day in the past 30 days while 25.7% took no asthma medication at all.

There are two types of asthma medication. One treats asthma symptoms when they occur (rescue medication) and the other prevents asthma symptoms from occurring (maintenance or controller medication). For rescue medications, 39.4% reported taking them once a week or less in the past 30 days. On the other hand, 31.8% took maintenance medications once a day with another 24.2% nearly once a day. Even if they did not take any asthma medications in the past 30 days, Iowans with asthma reported that in the last twelve months 19.8% had taken rescue medications. Over the same time period, 20.7% took maintenance medications

Table 14.1: Iowans Currently and Formerly Having Asthma, 2003

Demographic Groups	Current Asthma		Former Asthma	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	6.2	(5.4-7)	4.0	(3.2-4.7)
SEX				
Male	4.8	(3.6-5.9)	4.5	(3.2-5.9)
Female	7.6	(6.4-8.8)	3.5	(2.7-4.2)
AGE				
18-24	7.2	(4-10.3)	6.8	(2.9-10.7)
25-34	8.0	(5.6-10.3)	5.3	(3.3-7.2)
35-44	5.5	(3.9-7)	3.5	(2.2-4.9)
45-54	6.3	(4.5-8.1)	4.0	(2.6-5.5)
55-64	5.6	(3.7-7.5)	2.3	(1.2-3.4)
65+	5.3	(3.9-6.7)	2.5	(1.5-3.6)
EDUCATION				
Less than H.S.	8.7	(5-12.5)	4.5	(0.8-8.2)
H.S. or G.E.D.	5.5	(4.3-6.8)	3.8	(2.4-5.2)
Some Post-H.S.	7.3	(5.5-9)	3.9	(2.8-5)
College Graduate	5.4	(4.1-6.7)	4.2	(2.8-5.6)
HOUSEHOLD INCOME				
Less than \$15,000	9.3	(5.7-13)	4.6	(1.4-7.8)
\$15,000- 24,999	9.9	(7.2-12.6)	4.1	(1.6-6.6)
\$25,000- 34,999	4.6	(3-6.3)	3.2	(1.4-5)
\$35,000- 49,999	6.1	(4.2-8)	3.5	(2.2-4.8)
\$50,000- 74,999	5.6	(3.8-7.4)	2.9	(1.6-4.2)
\$75,000+	4.1	(2.5-5.7)	4.5	(2.8-6.2)
RACE/ETHNICITY				
Non-Hispanic White	6.2	(5.3-7)	3.8	(3-4.6)
Non-Hispanic Black	11.8	(2.8-20.7)	12.1	(1.9-22.3)
Non-Hispanic Other	8.1	(1.2-15)	9.3	(1.4-17.2)
Hispanic	5.1	(0-10.4)	4.1	(0-9.1)

Comparison with Other States

Among the states and territories, there were only four with a lower prevalence of current asthma sufferers. While Iowa reported 6.2% of the entire adult population currently suffering from asthma, the median for the nation was 7.5%. Prevalences ranged from a low of 4.5% to a high of 10.8%.

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15. TOBACCO USE

Background

Tobacco use remains the leading preventable cause of death in the United States. It is responsible for more than 440,000 deaths each year, or one in every five deaths.^{2,3} Over \$75 billion is spent every year on direct medical expenditures, and another \$82 billion on indirect costs such as lost work time, resulting from tobacco use.^{2,3}

Tobacco use is known to cause heart disease, peripheral vascular disease, chronic lung disease, as well as cancers of the lung, larynx, esophagus, pharynx, mouth, and bladder. In addition, cigarette smoking contributes to cancer of the pancreas, kidney, and cervix. In fact, smoking causes diseases in nearly every organ of the body.³

Consequences of smoking during pregnancy include spontaneous abortions, low birth weight babies, and sudden infant death syndrome (SIDS).¹ Secondhand Smoke (SHS) increases the risk of heart disease and lung cancer in adults. SHS also affects children by increasing lower respiratory tract infections and asthma and by decreasing pulmonary functioning.⁸

Exposure to SHS is significant. In one study, 87.9% of children and adult nonusers of tobacco had detectable levels of serum cotinine, a biomarker for cigarette smoke exposure.⁷ Every year, exposure to SHS kills an estimated 53,000 nonsmoking Americans (500 Iowans) and causes up to 300,000 children to suffer from lower respiratory tract infections.⁵

Public health efforts to reduce the prevalence of tobacco use began after the health risks were announced in the first surgeon general report on tobacco in 1964. Smoking prevalence declined from 42.4% in 1965 to 24.7% in 1997.² However, since 1990 these rates have not continued to decline.

Preventing initiation of tobacco use has become a priority in reducing prevalence since more than 90% of current adult tobacco users started smoking cigarettes before the age of 18.⁴

Iowa and 45 other states agreed to a master settlement with the tobacco industry on November 23, 1998. A portion of the settlement provided from this agreement is allocated to reducing tobacco use. Currently funding for tobacco prevention and control programs in Iowa is almost 70% below the Centers for Disease Control and Prevention minimum recommended funding level for Iowa of \$19.35 million.

The key settlement program components include: reducing exposure to environmental tobacco smoke, smoking prevention education, the restriction of minors' access to tobacco, the treatment of nicotine addiction, and working toward changing social norms and environments that support tobacco use. The last component of the settlement involves counter-advertising and promotion, product regulation and economic incentives against tobacco.⁶

Tobacco Use Results

Current smoking was defined as smoking at least 100 cigarettes in a lifetime and smoking some days or everyday during the past 30 days. Of all respondents surveyed in 2003, 21.7% reported being a current smoker. This was a decrease from the 23.2% found in 2002. This is the lowest prevalence of current smoking seen in the last nine years, although the long-term view indicates a level trend (see Figure 15.1).

Figure 15.1: Trend in Percent of Current Smokers in Iowa, 1995-2003

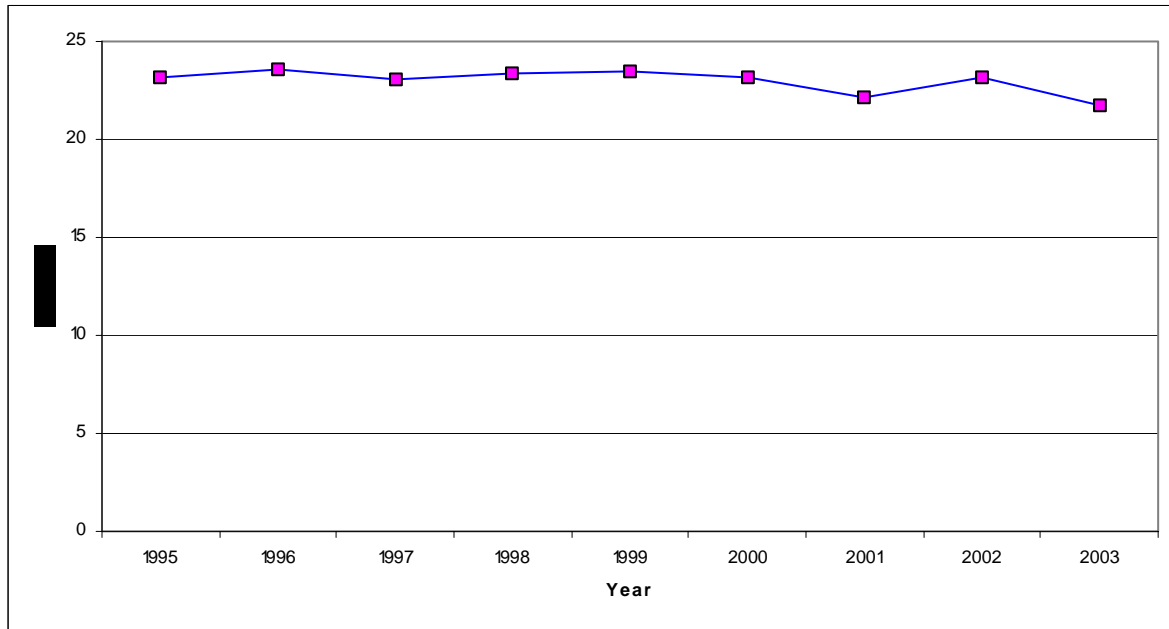


Figure 15.2: Percentage of Current and Former Smokers by Age, 2003

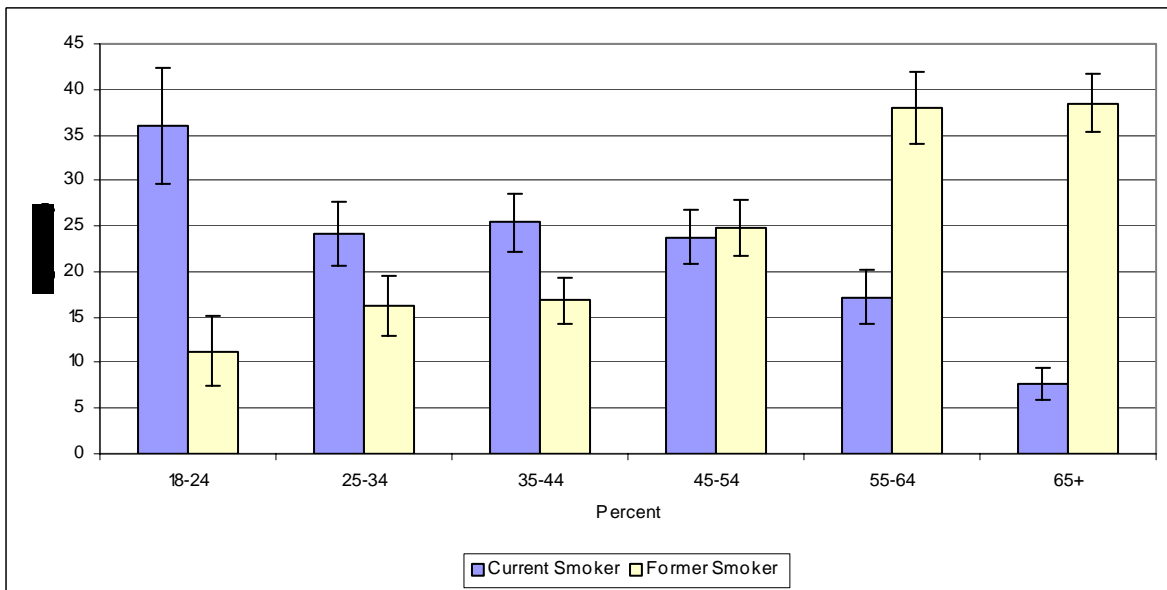


Table 15.1: Percent of Current and Former Smokers in Iowa, 2003

Demographic	Current Smoker		Former Smoker	
Groups	%	C.I. (95%)	%	C.I. (95%)
TOTAL	21.7	20.2-23.1	24.5	23.1-25.9
SEX				
Male	22.8	20.5-25.0	29.5	27.2-31.8
Female	20.6	18.7-22.5	19.9	18.2-21.5
AGE				
18-24	36.0	29.6-42.3	11.3	7.5-15.2
25-34	24.1	20.6-27.7	16.3	13.0-19.5
35-44	25.4	22.2-28.5	16.8	14.2-19.4
45-54	23.8	20.9-26.8	24.8	21.7-27.9
55-64	17.1	14.2-20.1	37.9	34.0-41.9
65+	7.7	6.0-9.4	38.5	35.4-41.6
EDUCATION				
Less than H.S.	34.3	27.9-40.7	20.5	16.0-25.1
H.S. or G.E.D.	26.5	23.9-29.1	27.1	24.7-29.5
Some Post-H.S.	21.9	19.2-24.7	23.6	20.9-26.2
College Graduate	11.5	9.5-13.5	23.4	20.8-25.9
HOUSEHOLD INCOME				
Less than \$15,000	32.1	25.7-38.5	22.2	17.6-26.9
\$15,000- 24,999	27.5	23.4-31.5	25.8	22.2-29.5
\$25,000- 34,999	24.9	21.1-28.8	23.1	19.6-26.6
\$35,000- 49,999	23.4	20.1-26.7	24.8	21.5-28.0
\$50,000- 74,999	17.5	14.5-20.4	26.3	22.8-29.9
\$75,000+	11.2	8.5-13.9	25.3	21.7-28.9
RACE/ETHNICITY				
White/Non-Hisp.	21.3	19.8-22.7	25.1	23.6-26.5
Black/Non-Hisp.	25.8	10.7-40.8	22.0	9.8-34.2
Other/Non-Hisp.	31.6	19.7-43.5	17.0	8.5-25.5
Hispanic	28.7	15.1-42.4	11.0	4.4-17.6

The proportion of current smokers was higher for males than for females. Smoking generally declined with increasing age, education, and income. It was also higher for all racial and ethnic minorities. Age had the greatest impact on current smoking. Respondents age 18 to 24 years reported the highest proportion of current smokers (36%). Only 7.7% of respondents ages 65 and older were current smokers (see table 15.1).

Nearly 24.5% of respondents were former smokers. This means that they had smoked at least 100 cigarettes in their lifetime, but now did not smoke. While more males were former smokers than females, the age trend for former smokers was the opposite of that for current smokers. The 18 to 24 age group had only 11.3% former smokers, while the 65 and older age group had 38.5% (see figure 15.2). While the 65 year and over group had the highest proportion of former smokers, Hispanics actually had a slightly lower percent than 18 to 24 year-olds (11%).

When asked about attempts to quit smoking, 50.5% of Iowa's current smokers reported they quit smoking for a day or more during the past year. A larger percentage of females than males quit for at least one day. Younger smokers were more likely to report trying to quit during the past year. Individuals between ages 18 to 24 reported trying to quit most often (59.9%), compared to 40.7% of persons age 65 years old and older who were least likely. Respondents with moderate incomes were more likely to try to quit than those with more extreme incomes (see table 15.2).

The median age at which smokers reported first smoking cigarettes was 16 years old. Age 18 was the median age for first regular smoking.

Of current smokers who had seen a doctor or health professional in the past 12 months, 66.4% reported having been advised to quit smoking.

Most Iowans (68.7%) said they had rules against smoking in their house. However, 18.1% said they had no rules concerning smoking in the house. Among employed Iowans, 77.2% said no smoking was allowed in public areas at work, and 88.5% said no smoking was allowed in work areas.

Table 15.2: Percentage of Current Smokers in Iowa Trying to Quit, 2003

Demographic	Tried to Quit Smoking	
	%	C.I. (95%)
TOTAL	50.5	(46.6-54.4)
SEX		
Male	49.1	(43.4-54.7)
Female	51.9	(46.6-57.2)
AGE		
18-24	59.9	(49.1-70.7)
25-34	56.0	(47.7-64.3)
35-44	49.0	(41.7-56.3)
45-54	44.2	(37.2-51.2)
55-64	41.3	(32-50.6)
65+	40.7	(28.9-52.4)
EDUCATION		
Less than H.S.	49.3	(37.4-61.1)
H.S. or G.E.D.	50.4	(44.5-56.4)
Some Post-H.S.	48.9	(41.8-56.1)
College Graduate	54.8	(45.8-63.9)
HOUSEHOLD INCOME		
Less than \$15,000	47.6	(34.7-60.5)
\$15,000- 24,999	50.4	(41.4-59.4)
\$25,000- 34,999	50.1	(41.1-59.1)
\$35,000- 49,999	55.2	(47.3-63.1)
\$50,000- 74,999	53.9	(44.9-63)
\$75,000+	42.3	(29.4-55.2)

Comparison with Other States

Iowa reported 21.7% being current smokers compared to the median for the nation of 22%. Iowa ranked just below the median of all states and territories in percent of current smokers. Smoking prevalence ranged from a low of 10% to a high of 34%.

Year 2010 Health Objectives for Iowa and the Nation

The goal for Healthy People 2010 is to reduce the percent of smokers to 12%, while the goal for Healthy Iowans 2010 is 13%. Even though the prevalence of smoking is down in Iowa in 2003 to 21.7%, this is still far from either goal. On the positive side, the Healthy Iowans 2010 goal to have 50% of current smokers attempt to quit for at least a day in the past year was achieved at 50.5%.

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16. ALCOHOL CONSUMPTION

Background

A large number of people get into serious trouble because of their consumption of alcohol. Alcohol consumed on an occasional basis at a rate of no more than one ounce per hour will pose little risk to most people. Although even at this level, factors such as family history, health condition, and use of medications can pose problems.

Currently, nearly 14 million Americans—one in every 13 adults—abuse alcohol or are alcoholic. Several million more adults engage in risky drinking that could lead to alcohol problems. These patterns include binge drinking (drinking too much at one time) and heavy drinking (drinking a large quantity of alcohol on a regular basis). In addition, 53% of men and women in the United States report that one or more of their close relatives have a drinking problem.²

Alcohol dependency and abuse are major public health problems carrying a large economic cost and placing heavy demands on the health care system. The consequences of alcohol misuse are serious—in many cases, life threatening. Heavy drinking can increase the risk for certain cancers, especially those of the liver, esophagus, throat, and larynx (voice box). Chronic heavy drinking can also cause liver cirrhosis, immune system problems, brain damage, and harm to the fetus during pregnancy. Drinking increases the risk of death from automobile crashes as well as recreational and on-the-job injuries. Furthermore, both homicides and suicides are more likely to be committed by persons who have been drinking.

In purely economic terms, alcohol-related problems cost society approximately \$185 billion per year. In human terms, the costs cannot be calculated.

Binge drinking is a serious problem that has been on the increase. It has been a particularly serious problem on college campuses. Students who binge drink are more likely to damage property, have trouble with authorities, miss classes, have hangovers, and experience injuries than those who do not.

Among men, research indicates that greater alcohol use is related to greater sexual aggression. Binge drinkers appear to engage in more unplanned sexual activity and to abandon safe sex techniques more often than students who do not binge.¹

Drinking and driving have been reported by more than 60% of college men and almost 50% of college women who binge drink at least three times in a two-week period. By comparison, 20% of college men and 13% of college women who do not binge drink have reported drinking and driving.

From 1977 through 1998, an average of approximately 45,000 people per year died in traffic crashes. There were 41,501 traffic crash fatalities in 1998. Of these fatalities, the proportion that was alcohol-related was 30.5 percent⁴

Alcohol consumption has been considered to lead to 85,000 deaths, 3.5% of all deaths, in the United States in 2000.³

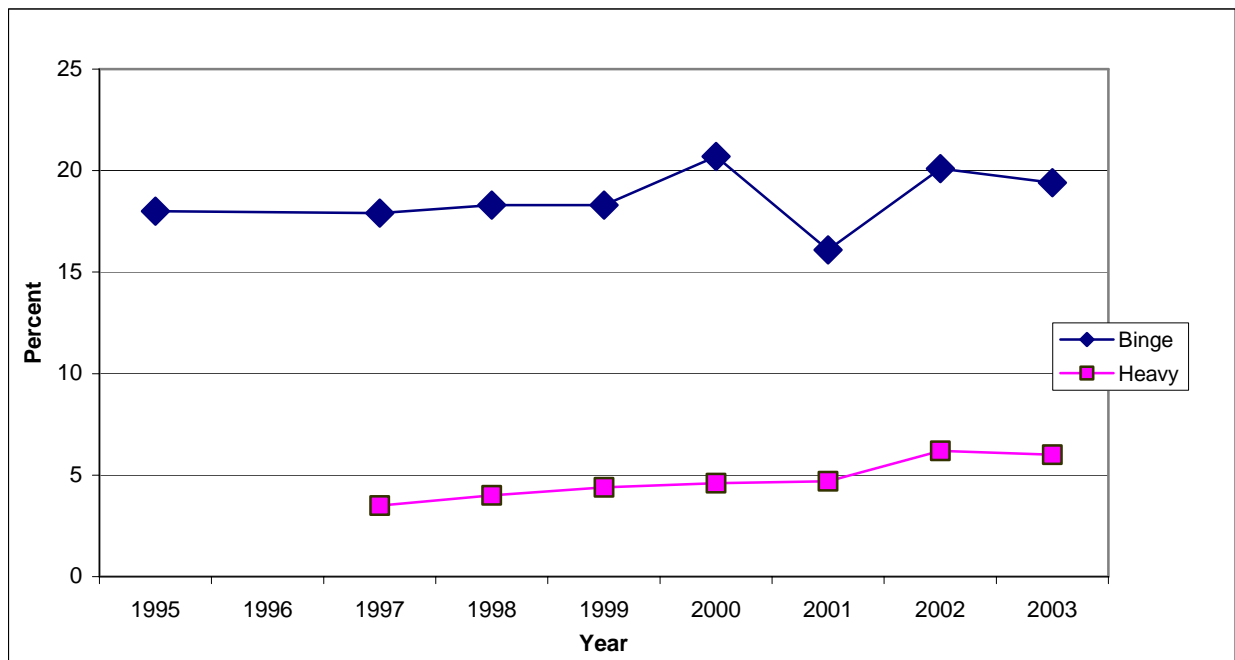
Alcohol Consumption Results

In the BRFSS survey, a standard drink is defined as one 12-ounce bottle or can of either beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled spirits. Although this definition does not always work out to the same quantity of alcohol, results discussed here must be based on the definition given in the questions asked.

In 2003, 60% of Iowans reported that they had at least one drink of alcohol in the past month. On the days when they drank 39.6% had only one drink. The median was two drinks. The median number of drinks during the month was eight for those who drank at all.

In our analysis, heavy drinking was defined to be greater than two drinks per day for men and one drink per day for women. According to this definition, 6% of all respondents were heavy drinkers. This is slightly lower than the 6.2% found in 2002. This reverses an upward trend in percent of heavy drinking seen over the last seven years (see figure 16.1).

Figure 16.1: Trend of Binge and Heavy Drinking in Iowa



In spite of the fact that men had to have a larger number of drinks to be considered heavy drinkers, 7.8% of men were considered heavy drinkers, while only 4.3% of women were considered to be heavy drinkers. The strongest determinant of heavy drinking was age. While 12.6% of 18 - 24 year-olds engaged in heavy drinking, only 1.6% of those age 65 and older did. Another group showing a large rate of heavy drinking was Hispanics (see table 16.1).

Table 16.1: Binge and Heavy Drinking Among Iowans, 2003

Demographic Groups	Binge Drinking		Heavy Drinking	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	19.4	(18-20.9)	6.0	(5.1-6.9)
SEX				
Male	29.2	(26.8-31.7)	7.8	(6.2-9.3)
Female	10.3	(8.8-11.9)	4.3	(3.3-5.3)
AGE				
18-24	40.7	(34.3-47.2)	12.6	(8.2-17.1)
25-34	31.4	(27.5-35.3)	8.8	(6.3-11.2)
35-44	21.1	(18.1-24)	6.1	(4.4-7.8)
45-54	16.4	(13.7-19.1)	4.7	(3.3-6.2)
55-64	10.4	(7.7-13)	3.8	(2.2-5.5)
65+	2.4	(1.4-3.5)	1.6	(0.8-2.4)
EDUCATION				
Less than H.S.	14.3	(8.4-20.1)	5.9	(1.5-10.3)
H.S. or G.E.D.	19.4	(17-21.8)	7.3	(5.7-8.9)
Some Post-H.S.	22.7	(19.7-25.7)	5.9	(4.3-7.6)
College Graduate	17.6	(15.2-20.1)	4.3	(3-5.7)
HOUSEHOLD INCOME				
Less than \$15,000	16.7	(11-22.5)	6.7	(3-10.4)
\$15,000- 24,999	20.2	(16.4-24.1)	7.0	(4.6-9.5)
\$25,000- 34,999	20.2	(16.3-24)	7.4	(4.9-10)
\$35,000- 49,999	19.4	(16.3-22.5)	4.2	(2.6-5.9)
\$50,000- 74,999	23.3	(19.7-27)	6.7	(4.6-8.8)
\$75,000+	21.5	(17.6-25.4)	5.4	(3.6-7.3)
RACE/ETHNICITY				
White/Non-Hisp.	19.4	(17.9-20.9)	5.9	(5-6.8)
Black/Non-Hisp.	20.9	(5.7-36.1)	2.3	(0-6.7)
Other/Non-Hisp.	12.2	(3.3-21.1)	8.3	(0.7-16)
Hispanic	28.8	(14.8-42.7)	10.3	(0-23.3)

A person is considered to binge if he or she drinks more than five drinks on one occasion. Among all adult Iowans, 19.4% reported at least one binge episode in the last month. This is a decrease from the 20.1% found in 2002. Although the trend for binge drinking has been more erratic than for heavy drinking, this also marks a reversal of a generally increasing trend (see figure 16.1).

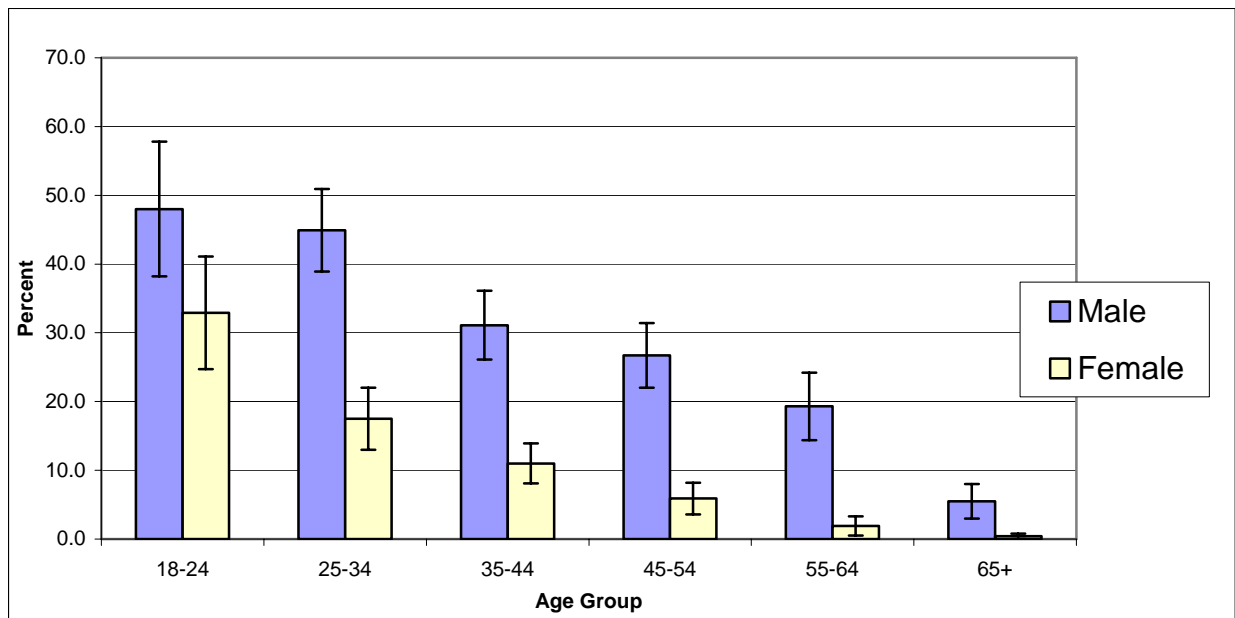
Males binge drink much more than females (29.2% vs. 10.3%). In addition, the likelihood of bingeing decreases with age from 40.7% for 18 to 24 year-olds to only 2.7% for those 65 and over. The large sex difference is true at every age (see figure 16.2). Respondents with some college and those with a household income of \$50,000 to \$75,000 were somewhat more likely to binge drink. Hispanics are also more likely to binge (see table 16.1).

Comparison with Other States

The percent of people reporting heavy drinking in Iowa is a little above the median for the 54 states and territories. Nationally, the percentage ranges from 2.2% to 8.6% with a median of 5.7%. Iowa's figure is 6%.

For binge drinking, however, Iowa is exceeded by only three states. The range is from a low of 6.6% to a high of 24.2% with a median of 16.5%. Iowa's figure of 19.4% is closer to the high end. The top five binge drinking states are all in the upper Midwest.

Figure 16.2: Percentage of Iowans Who Binge by Age and Sex, 2003



Year 2010 Health Objectives for the Nation

The Healthy People 2010 goal for the nation for binge drinking is only 6%. No state has achieved that goal. Iowa exceeds it by more than three times.

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17. PROBLEM GAMBLING

Background

The **Iowa Gambling Treatment Program** located in the Iowa Department of Public Health provides education, referral, and counseling services for persons affected directly or indirectly by problem gambling behavior. The program receives money from the gambling treatment fund, which gets 0.3 percent from the gross lottery revenue, the adjusted gross receipts from the riverboat casinos, and the adjusted gross receipts from casino games at the racetracks. An advisory committee provides advice and guidance on the program structure and services.

A 1-800-BETS-OFF telephone help line assists callers in accessing treatment and education services from providers located throughout the state. Gamblers and concerned persons receive counseling services on an outpatient basis. The <http://www.1800betsoff.org> website provides Internet users with information on the program and problem gambling behavior.

Training sessions using experts on problem gambling are held over the Iowa Communications Network. Sessions reach a variety of interested people including counselors, clergy, human resource personnel, mental health clinicians, social workers, and health care professionals. Statewide multi-media messages educate people about problem gambling behavior and its effects on gamblers, family members, and friends. A resource library and clearinghouse distributes problem gambling videotapes, brochures, curriculum guides, and other materials.

Iowa gambling activities include bingo; raffles; limited social betting; lottery games; ten riverboat casinos and three Indian casinos with table games, slot machines, and video poker, blackjack, and keno; and three pari-mutuel racetracks with slot machines and simulcast wagering. The Iowa Racing and Gaming Commission and the Iowa Lottery address problem gambling behavior, stay informed on the issue, and cooperate with the Iowa Gambling Treatment Program.

Gambling Results

Starting in 1997, three gambling questions were included in the BRFSS's state-added questions. The questions are: "Have you gambled in the last 12 months?", "Has the money you spent gambling led to financial problems?" and "Has the time you spent gambling led to problems in your family, work, or personal life?"

In 2003, 32.4% of all respondents, including those who replied they didn't know or refused to answer, reported they had gambled in the last 12 months. This is lower than the 33.5% figure found in 2002. Self-reported gambling prevalence has declined somewhat from the first years in which data were collected (see figure 17.1).

More men than women reported gambling in the past 12 months. Gambling tended to generally increase with higher income, though not for the highest income level. People with a high school education or some college gambled more than those with more extreme levels of education (see table 17.1). The highest percentage of gambling during the past year was reported for those

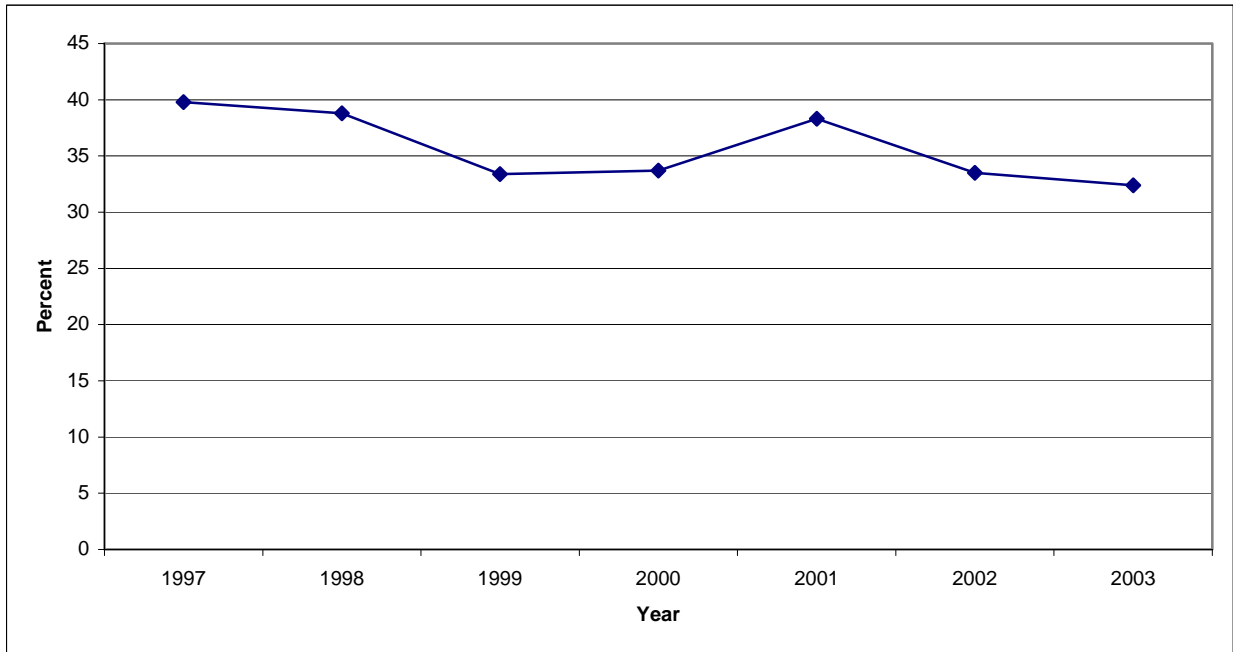
Table 17.1: Percent of Iowans Who Report They Have Gambled in the Past 12 Months, 2003

Demographic Groups	Gambled	
	%	C.I. (95%)
TOTAL	32.4	(30.8-34.0)
SEX		
Male	39.1	(36.5-41.7)
Female	26.2	(24.3-28.2)
AGE		
18-24	29.7	(23.5-35.9)
25-34	37.2	(33-41.3)
35-44	32.0	(28.6-35.4)
45-54	32.2	(28.9-35.6)
55-64	38.8	(34.8-42.7)
65+	26.9	(23.9-29.9)
EDUCATION		
Less than H.S.	29.7	(23.5-35.9)
H.S. or G.E.D.	34.3	(31.7-37.0)
Some Post-H.S.	33.6	(30.4-36.8)
College Graduate	29.4	(26.6-32.2)
HOUSEHOLD INCOME		
Less than \$15,000	29.9	(23.5-36.2)
\$15,000- 24,999	28.4	(24.5-32.2)
\$25,000- 34,999	33.9	(29.7-38.2)
\$35,000- 49,999	30.1	(26.6-33.7)
\$50,000- 74,999	40.0	(35.9-44)
\$75,000+	38.3	(34.1-42.6)
RACE/ETHNICITY		
Non-Hispanic White	32.6	(31-34.3)
Non-Hispanic Black	28.1	(14.1-42)
Non-Hispanic Other	35.3	(22.4-48.3)
Hispanic	25.9	(14.8-37)

earning \$50,000 to \$74,999 per year (40%). The lowest percentage of gambling was reported by Hispanics (25.9%).

In 2003, 98.4% of respondents who had gambled in the past 12 months said the money they spent gambling had not led to financial problems. Likewise, 98.2% reported the time spent gambling had not led to problems in family, work, or personal life.

Figure 17.1: Trend for Prevalence of Gambling in Iowa 1997-2003



18. WOMEN'S HEALTH

Breast Cancer Screening

Background

Breast cancer is the most frequently diagnosed non-skin cancer in women in the United States.¹ It is second only to lung cancer as a cause of cancer-related death.¹ In 2003; an estimated 211,300 new cases of invasive breast cancer were diagnosed among women in the United States. Breast cancer incidence rates have continued to increase since 1980, although the rate of increase slowed in the 1990's compared to the 1980's. An estimated 40,200 deaths to women are anticipated from breast cancer in 2003.¹ In Iowa, 482 women died from breast cancer in 2002.⁵

The risk for developing breast cancer increases with age beginning in the fourth decade of life. The probability of developing invasive breast cancer over the next ten years is 0.4 percent for women aged 30-39, 1.5 percent for women aged 40-49, 2.8 percent for women aged 50-59, and 3.6 percent for women aged 60-69.¹ Individual factors other than age that increase the risk for developing breast cancer include family history or a personal history of breast cancer, biopsy-confirmed atypical hyperplasia, increased breast density, a long menstrual history, obesity after menopause, recent use of oral contraceptives, postmenopausal hormone therapy including both estrogen and progestin, never having children or having a first child after age 30, or consuming one or more alcoholic beverages per day.¹ Detecting breast cancer early is key to surviving the disease and regular screening is key to detecting the disease early.

Among the methods for early detection of breast cancer are clinical breast exam (CBE) and mammography. CBE is a clinical examination that involves a health care provider's physical examination of breast tissue. Mammography involves an x-ray examination of the breast and can detect abnormalities in the breast before they can be felt. Because the risk of developing breast cancer increases as women get older, mammography (with its increased sensitivity) is recommended for older women, while clinical breast exams should be part of the regular health routine for all adult women.

Due to increased survival rates for breast cancer when detected early, the National Cancer Institute recommends:

- Women in their 40's and older should be screened every one to two years with mammography.
- Women at higher than average risk of breast cancer seek expert medical advice about whether they should begin screening before age 40 and the frequency of screening.
- Women should have a clinical breast exam by a health care provider as part of regular, routine care.⁶

Although there is some disagreement among professionals about exactly when screening should begin and how often it should be done, there is no doubt that screening for breast cancer saves lives.³

Breast Cancer Screening Results

In 2003, 90.7% of women surveyed reported ever having a clinical breast examination by a physician. The percentage increased with education and household income. It was most prevalent for women in the middle age groups declining with those both younger and older. In addition, non-Hispanic white women tend to have a higher percentage of having a CBE than non-white or Hispanic women (see table 18.1).

Table 18.1: Breast Examination Measures for Iowa Women, 2003

Demographic Groups	Ever had a mammogram		Had mammogram in last 2 years		Ever had clinical breast exam	
	Age 40 and over					
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL FEMALES	89.1	(86.2-90.3)	76.2	(74.1-78.4)	90.7	(89.2-92.2)
AGE						
18 - 39					90.1	(86.9-93.2)
40 - 49	83.0	(79.3-86.8)	70.4	(66-74.8)	94.5	(92-97)
50 - 59	92.4	(89.6-95.2)	81.2	(77.3-85.2)	96.0	(94.2-97.8)
60 - 69	95.2	(92.9-97.6)	85.4	(81.5-89.4)	92.8	(89.9-95.8)
70 & up	89.3	(86.4-92.2)	73.0	(68.8-77.2)	82.1	(78.7-85.6)
EDUCATION						
Less than H.S.	81.2	(74.4-88.1)	56.8	(48.4-65.2)	77.7	(70.5-84.8)
H.S. or G.E.D.	88.5	(85.8-91.2)	77.1	(73.7-80.4)	87.3	(84.3-90.2)
Some Post-H.S.	91.2	(88.4-94.1)	78.9	(74.9-83)	94.2	(91.9-96.5)
College Graduate	90.9	(88-93.8)	78.9	(74.8-83.1)	94.9	(93.1-96.7)
HOUSEHOLD INCOME						
Less than \$15,000	83.3	(77.9-88.8)	67.7	(60.8-74.6)	82.0	(76.5-87.5)
\$15,000- 24,999	83.1	(78.6-87.7)	67.5	(61.9-73.1)	85.3	(80.3-90.3)
\$25,000- 34,999	92.8	(89.5-96.2)	80.7	(75.8-85.6)	92.9	(90.2-95.7)
\$35,000- 49,999	85.5	(80.6-90.3)	74.6	(68.9-80.2)	94.6	(92-97.2)
\$50,000- 74,999	91.6	(87.4-95.9)	82.8	(77.4-88.3)	97.9	(96.4-99.4)
\$75,000+	94.4	(91.2-97.7)	83.7	(78.6-88.8)	95.5	(92.9-98)
RACE/ETHNICITY						
Non-Hisp. White	89.4	(87.8-91)	76.2	(74-78.4)	91.4	(89.9-92.8)
Non-White or Hisp.	81.4	(67.5-95.4)	77.2	(63.1-91.3)	77.5	(68.2-86.9)

When asked if they had ever had a mammogram, 89.1% of all female Iowa respondents ages 40 and older reported having one. Women in the middle age groups were more likely to have a mammogram than those in younger and older groups. In addition, women with higher education and income were more likely to have a mammogram. (See table 18.1).

When asked if they had a mammogram in the past two years, 76.2% of all Iowa women over age 40 said they had. The percentages for women in the middle groups were higher than those for women in younger and older groups. Also, the women with a high school education or more and with a household income of \$25,000 or more tended to have higher percentages of having a mammogram in

the past two years than those with an education less than high school and a household income of less than \$25,000 (see table 18.1).

Year 2010 Health Objectives for Iowa and the Nation

The national health objectives for the year 2010 include an increase to at least 70% of women age 40 and older who have had a mammogram within the preceding two years. The Healthy Iowans goal is only 65%. Since 76.2% of Iowa women age 40 years and over have had mammograms within the past two years, the goal has already been met.

Cervical Cancer Screening

Background

Approximately 13,000 new cases of invasive cervical cancer and 4,100 cervical cancer-related deaths were projected to occur in 2003 in the United States.¹ Rates in the United States have decreased from 14.2 new cases per 100,000 women in 1973 to 7.8 cases per 100,000 women in 1994. Despite falling incidence, cervical cancer remains the tenth leading cause of cancer death.¹

The principal screening test for cervical cancer is the Papanicolaou (Pap) test. Early detection through Pap tests can dramatically lower the incidence of invasive disease and can nearly eliminate deaths from cervical cancer. Introduction of screening programs to populations naive to screening reduces cervical cancer rates by 60-90 percent within three years of implementation.^{4,7,8} This reduction of mortality and morbidity with introduction of the Pap test is consistent and dramatic across populations.

The American Cancer Society recommends annual Pap tests begin about three years after a woman begins having sexual intercourse, but no later than age 21.¹ At the discretion of the woman's physician, less frequent exams may be necessary after three consecutive normal exams. Pap tests may not be necessary for women who have had a total hysterectomy.¹

Cervical Cancer Screening Results

When asked if they ever had a Pap test, 96.2% of female respondents reported having it. Reported rates for ever having a Pap test ranged from 85.2% for women from ages 18 to 24 to 99.5% for women between the ages of 45 and 54. The proportion of women who ever had a Pap test also increased with education and income. These numbers were so close to maximum of 100% that there was little room to show differences (see table 18.2).

In 2003, 86.6% of respondents reported that they had their last Pap test within the last three years. The percent having a Pap test within three years increased with education and income. Women with less than a high school education had the lowest percent (68.3%), while women with a household income of \$75,000 or more had the highest percent (95.2%) (See table 18.2).

In addition, the percentages for women in the middle age groups are higher than the extremes. In addition, Table 18.2 shows that white non-Hispanic women tend to have a higher percentage of having a Pap test within three years than non-white or Hispanic women (see table 18.2).

Table 18.2: Proportion of Iowa Women Having Cervical Cancer Examinations, 2003

Demographic Groups	Ever had a Pap test		Had Pap test in last 3 years	
	%	C.I. (95%)	%	C.I. (95%)
FEMALES	96.2	(95-97.4)	86.6	(84.7-88.5)
AGE				
18-24	85.2	(77.8-92.6)	84.1	(76.3-91.9)
25-34	98.5	(97-100)	93.5	(90.5-96.5)
35-44	98.4	(97.1-99.6)	90.5	(87.2-93.8)
45-54	99.5	(99-100)	88.5	(84.9-92.1)
55-64	98.9	(97.8-100)	90.3	(86.6-94)
65+	95.2	(93.5-96.8)	72.1	(67.2-76.9)
EDUCATION				
Less than H.S.	90.2	(84.4-95.9)	68.3	(59.1-77.4)
H.S. or G.E.D.	95.8	(93.4-98.2)	84.1	(80.2-87.9)
Some Post-H.S.	96.3	(94.4-98.3)	88.1	(84.8-91.4)
College Graduate	98.2	(97-99.4)	92.2	(89.7-94.6)
HOUSEHOLD INCOME				
Less than \$15,000	94.7	(91.6-97.8)	83.5	(77.8-89.1)
\$15,000- 24,999	91.9	(86.9-96.9)	78.4	(71.6-85.2)
\$25,000- 34,999	98.0	(96.4-99.6)	87.8	(83.7-92)
\$35,000- 49,999	98.3	(97-99.7)	88.1	(84.1-92.2)
\$50,000- 74,999	99.2	(98.1-100)	94.1	(91.4-96.9)
\$75,000+	99.1	(97.7-100)	95.2	(92.2-98.3)
RACE/ETHNICITY				
Non-Hisp. White	96.5	(87.8-91)	87.1	(85.1-89)
Non-White or Hisp.	91.5	(67.5-95.4)	78.8	(68-89.6)

Year 2010 Health Objectives for Iowa and the Nation

The national health objectives for the year 2010 include an increase to at least 97% in the proportion of women over the age of 18 who have ever had a Pap test. The figure for 2003 of 96.2% is close to this goal.

The national health objectives for the year 2010 also include an increase to at least 90% in the proportion of women over the age of 18 who have had a Pap test in the last three years. The figure for 2003 of 86.6% is somewhat short of this goal. However, the obtained result exceeds the Healthy Iowans goal of only 83%.

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19. COLORECTAL CANCER SCREENING

Background

Colorectal cancer is the second leading cause of cancer-related deaths in the United States and in Iowa. In 2004 in the United States, an estimated 146,940 new cases of colorectal cancer will be diagnosed and an estimated 56,730 deaths will occur. In Iowa in 2004, an estimated 2,100 new cases will be diagnosed and an estimated 740 deaths will occur.¹

The one- and five-year relative survival rates for patients with colorectal cancer are 82.8% and 65.9% respectively. When colorectal cancers are detected in an early, localized stage, the five-year relative survival rate is 95%; however, only 39% of colorectal cancers are discovered at an early stage. After the cancer has spread regionally to involve adjacent organs or lymph nodes, the survival rate drops to 70%; another 37% of colorectal cancers are diagnosed at this stage. The survival rate for persons with distant metastases is only 10%, and 18% of colorectal cancers are diagnosed at this stage.¹

Although the exact causes of colorectal cancer are unknown, it appears to be caused by both inherited and lifestyle factors. Genetics may determine a person's susceptibility to the disease, while lifestyle factors, such as diets high in fat and low in fruits and vegetables, smoking, or sedentary lifestyle, may determine which at-risk persons actually develop colorectal cancer.² Risk factors include:

- **Age** – Approximately 93% of colorectal cancer cases occur in people age 50 and older and the risk of developing the disease increases with age.
- **Family History** – Those who have family members diagnosed with colorectal cancer or polyps are at high risk for the disease.
- **Personal History** – Persons who have inflammatory bowel diseases are at increased risk.
- **Race** – African Americans are more likely than whites to be diagnosed at a more advanced disease stage and have lower survival rates.

Colorectal cancer almost always develops from precancerous polyps in the colon and rectum. Screening tests can detect polyps, so they can be removed before they turn into cancer.³

The American Cancer Society recommends that men and women at average risk begin regular screening for colorectal cancer at age 50. Recommended options include the following:

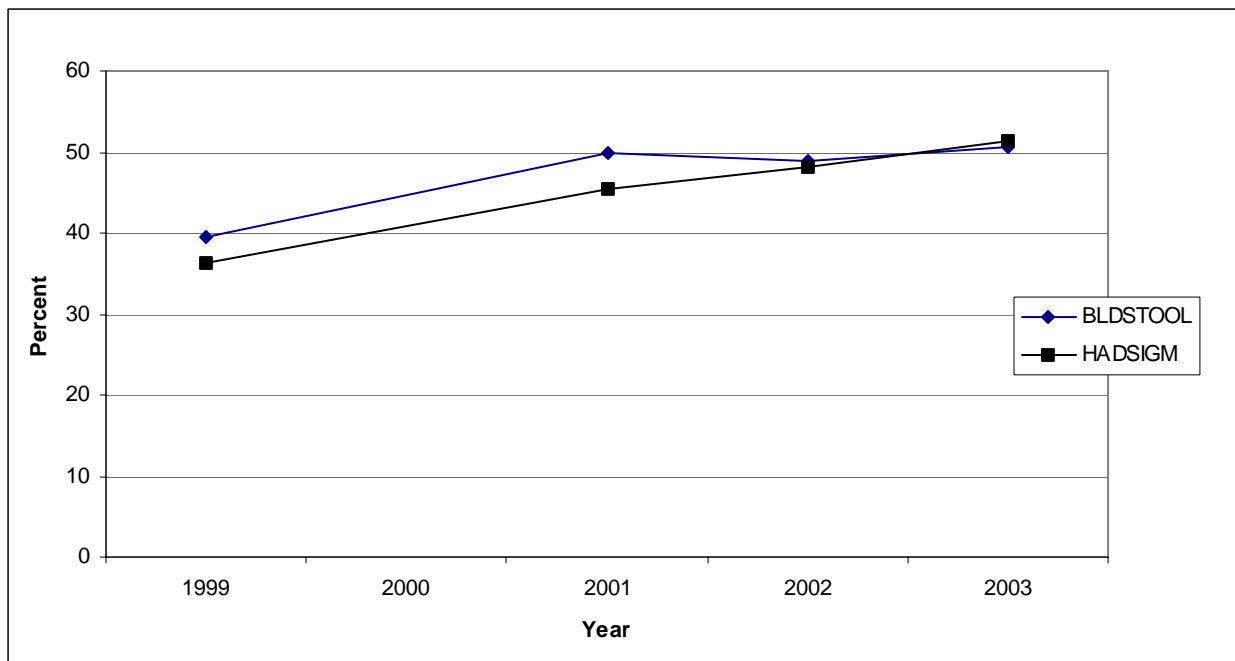
- **A Fecal Occult Blood Test (FOBT)** - An FOBT is a chemical test that detects blood that is not visible in a stool sample. If results are normal, repeat FOBT annually.
- **Flexible Sigmoidoscopy** - Flexible sigmoidoscopy uses a hollow, lighted tube to visually inspect the wall of the rectum and part of the colon. If results are normal, repeat flexible sigmoidoscopy every five years.
- **Colonoscopy** - This is a test that uses a hollow, lighted tube to visually inspect the interior walls of the rectum and the entire colon. If it is normal, the test should be repeated every ten years.

- Double-contrast barium enema - This is a series of X-rays of the colon and rectum. If it is normal, the test should be repeated every five years.
- Digital Rectal Examination (DRE) - The test is a physical examination of the rectum, the last few inches of the bowel. It should be performed at the same time as sigmoidoscopy, colonoscopy, or double-contrast barium enema

Colorectal Cancer Screening Results

In 2003, 50.7% of Iowans 50 years old or older reported ever using a home blood-stool testing kit also known as a Fecal Occult Blood Test (FOBT). This is the highest percent ever found who has used the FOBT (see figure 19.1).

Figure 19.1: Ever Had Colorectal Cancer Screening Test by Year, 1999-2003



Females reported a higher percentage of use than males (55.3% vs. 45.2%). Use of the kit was most influenced by level of education. Only 41.1% of respondents with less than a high school education had the test, while 55.4% of those with some college had it (see table 19.1).

Of respondents who reported ever using a home-blood stool kit, 45.9% reported having taken the test within the last year. Another 22.3% reported using the test one to two years ago. Therefore, 68.2% of those who had ever had the test had it in the last two years. This means that 34.6% of all respondents 50 years old or older had used the blood stool test within the past two years.

Table 19.1: Proportion of Colorectal Cancer screening in Iowans 50 years old or more, 2003

Demographic Groups	Ever had blood stool test		Ever Had Sigmoidoscopy/ Colonoscopy		Had Blood Stool Test in Past Year		Had Sigmoidoscopy/ Colonoscopy in Past 5 Years	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	50.7	(48.4-53)	51.4	(49.1-53.7)	45.9	(42.7-49.1)	85.3	(83.1-87.5)
SEX								
Male	45.2	(41.6-48.9)	53.8	(50.1-57.5)	49.8	(44.3-55.3)	89.6	(86.6-92.5)
Female	55.3	(52.4-58.2)	49.3	(46.4-52.2)	43.2	(39.3-47.1)	81.4	(78.2-84.5)
EDUCATION								
Less than H.S.	41.1	(33.9-48.3)	43.1	(35.9-50.4)	42.3	(30.8-53.8)	83.8	(76-91.6)
H.S. or G.E.D.	48.0	(44.6-51.5)	51.3	(47.8-54.8)	45.6	(40.5-50.6)	85.3	(82.1-88.5)
Some Post-H.S.	55.4	(50.7-60.2)	53.1	(48.3-57.9)	47.2	(41-53.4)	81.4	(76.1-86.7)
College Graduate	55.0	(50.3-59.7)	53.3	(48.5-58)	46.2	(39.8-52.6)	89.8	(86.4-93.2)
HOUSEHOLD INCOME								
Less than \$15,000	45.9	(38.8-53)	51.8	(44.6-58.9)	40.9	(30.6-51.2)	81.1	(73.9-88.2)
\$15,000- 24,999	52.2	(47.1-57.3)	53.3	(48.2-58.4)	47.2	(40.1-54.3)	85.8	(81.4-90.3)
\$25,000- 34,999	44.9	(39.2-50.6)	51.3	(45.5-57.1)	43.9	(35-52.7)	82.1	(75.5-88.7)
\$35,000- 49,999	48.7	(42.9-54.4)	50.5	(44.7-56.3)	41.2	(33.4-49)	89.4	(85-93.7)
\$50,000- 74,999	52.1	(45.6-58.7)	48.6	(42-55.1)	50.1	(41.4-58.7)	86.0	(79.8-92.1)
\$75,000+	54.4	(47.8-61)	52.8	(46.1-59.4)	48.2	(39.1-57.4)	89.4	(84.4-94.3)

In 2003, 51.4% of Iowans 50 years old or older reported **ever** having a sigmoidoscopy or colonoscopy screening test. This is an increase from the 48.1% shown in 2002 continuing a rapid increase over the last five years (see figure 19.1).

Unlike the FOBT, males were more likely than females to have this test. In fact, males showed the highest percent of any group examined (53.8%). As was true with the FOBT, those with higher education were more likely to have the test. Only 43.1% of those with less than a high school education reported they had the test (see table 19.1).

When respondents who had the test were asked how long it had been since their last exam, 85.3% reported within the past five years.

A higher percentage of males than females reported testing within this recommended time period (89.6% vs. 81.4%). Those with low income and less education were less likely to have the test in the prescribed time. The lowest percent (81.1%) was found among those with household income below \$15,000 per year, while the highest percent (89.8%) was found among college graduates (see table 19.1).

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20. ORAL HEALTH

Background

During the last 50 years, there have been dramatic improvements in oral health, and most middle-aged and younger Americans expect to retain their natural teeth over their lifetimes. However, profound disparities remain that affect those without the resources to achieve good oral care or the knowledge of its importance. This fact inspired the first-ever *Surgeon General's Report on Oral Health*, which identified a “silent epidemic” of dental and oral diseases, and called for a national effort to improve Americans’ oral health.¹

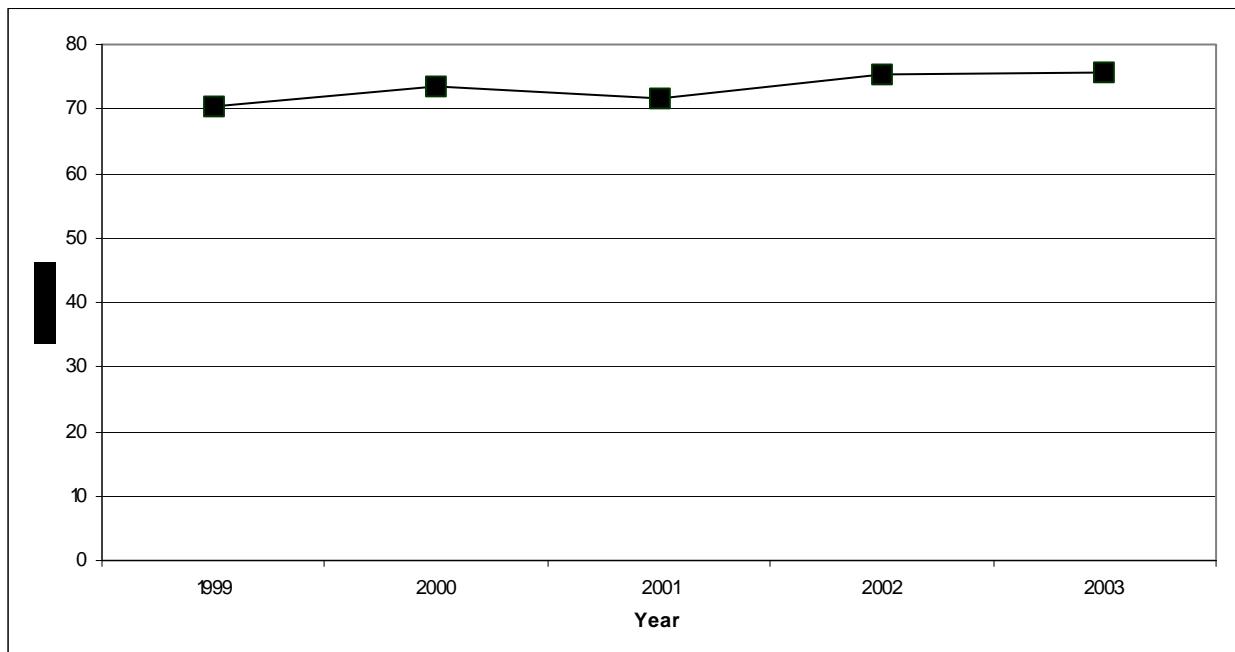
Oral health is integral to overall health. Left untreated, the pain and infection caused by dental disease can lead to problems in eating, speaking, the ability to learn, and the quality of life in general.

Major barriers to oral health include socioeconomic factors, such as lack of dental insurance or the inability to pay for dental care out of pocket, or problems of access that involve transportation and the need to take time off from work for health needs. Many studies have documented poorer dental care among those in poverty, racial minorities, and those in rural areas.^{1,2,3}

Oral Health Results

In 2003, 75.6% of Iowans surveyed reported visiting a dentist within the past year. However, 8.8% reported never having a dental visit or having their last dental visit more than five years ago. The percent having annual dental visits shows a slight increase from the 75.3% found in 2002 and continues an increasing trend (see figure 20.1).

Figure 20.1: Percent of Iowans Having Annual Dental Visits by Year, 1999-2003



Females were more likely than males to report a dental visit during the past 12 months. Both higher education and greater income were related to the likelihood of visiting a dentist. African Americans were less likely to have a dental visit than other race and ethnic groups. Respondents with an income of \$75,000 or more had the highest proportion reporting recent dental visits (89.6%). At the other extreme, 55.3% of those having less than a high school education reported visiting a dentist in the past 12 months (see table 20.1).

Table 20.1: Percentage of Iowans Having Dental Care within the Past 12 Months, 2003

Demographic Groups	Last dental visit within 12 months		Had teeth cleaned within 12 months	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	75.6	(74.1-77.1)	78.0	(76.5-79.5)
SEX				
Male	72.9	(70.5-75.3)	75.1	(72.7-77.6)
Female	78.2	(76.4-80)	80.7	(78.8-82.6)
AGE				
18-24	77.9	(72.3-83.5)	76.5	(70.9-82.2)
25-34	73.6	(69.8-77.5)	71.8	(67.8-75.7)
35-44	77.7	(74.6-80.7)	76.6	(73.4-79.7)
45-54	80.5	(77.6-83.5)	80.9	(77.9-84)
55-64	76.1	(72.6-79.6)	81.4	(77.7-85)
65+	68.9	(65.8-72)	81.3	(78.2-84.5)
EDUCATION				
Less than H.S.	55.3	(48.8-61.7)	61.7	(55.2-68.2)
H.S. or G.E.D.	73.0	(70.4-75.5)	76.8	(74.1-79.4)
Some Post-H.S.	76.5	(73.7-79.3)	77.1	(74.3-80)
College Graduate	83.8	(81.5-86.2)	83.8	(81.5-86.2)
HOUSEHOLD INCOME				
Less than \$15,000	59.4	(53.4-65.5)	66.6	(60.4-72.9)
\$15,000- 24,999	66.1	(62.1-70.2)	68.1	(63.8-72.3)
\$25,000- 34,999	71.4	(67.5-75.4)	76.2	(72.2-80.2)
\$35,000- 49,999	75.0	(71.6-78.5)	75.4	(71.9-79)
\$50,000- 74,999	84.1	(80.9-87.3)	83.1	(79.7-86.5)
\$75,000+	89.6	(87.1-92.1)	89.5	(86.9-92.1)
RACE/ETHNICITY				
White/Non-Hisp.	75.6	(74.1-77.2)	78.0	(76.5-79.6)
Black/Non-Hisp.	69.5	(54.2-84.8)	79.1	(65.9-92.2)
Other/Non-Hisp.	76.3	(65.7-86.8)	77.4	(66.7-88)
Hispanic	77.2	(63.7-90.7)	78.6	(65-92.2)

Of respondents who had visited the dentist in the past year and who had teeth, 78% reported having their teeth cleaned within the past year.

Responses to the question asking when they last had their teeth cleaned were very similar to those for having a dental visit. Income and education were also the most important factors associated with having teeth cleaned. Respondents with an income of \$75,000 or more had the highest proportion reporting having teeth cleaned within the past 12 months (89.5%). The lowest proportion reporting having teeth cleaned was 61.7% of those with less than a high school education. Age played more of a role in having a cleaning than in having a dental visit; more older people reported having their teeth cleaned in the past 12 months. On the other hand, no racial differences were evident (see table 20.1).

Year 2010 Health Objectives for Iowa and the Nation

Healthy Iowans 2010 has a goal that 70% of Iowans 75 years of age or older should have an annual dental visit. In 2003, this was not met, with 66.5% of respondents over 75 reporting an annual visit.

Healthy Iowans 2010 also has a goal of no more than 20% of those age 75 or older who have lost all of their natural teeth. Iowa is over the goal with 26.5% who have lost all of their natural teeth. A *Healthy People 2010* goal is for 42% of people between age 35 and 44 years who have not had permanent teeth extracted due to Caries or Periodontal Disease. Iowa far exceeds this goal with 70.6% with no extractions.

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21. IMMUNIZATION

Background

Influenza is a potentially life-threatening, contagious disease that is caused by a virus. When influenza attacks the lungs, the lining of the respiratory tract is damaged. The tissues temporarily become swollen and inflamed but usually heal within two or more weeks.¹

Influenza and pneumonia combined are the seventh leading cause of death among all Americans and the fifth leading cause of death among all Americans over age 65. Influenza and pneumonia together resulted in 65,313 deaths in 2002 in the U.S. and 940 in Iowa.⁴ Influenza caused 1,765 deaths alone (15 in Iowa).

In 1996, there were more than 95 million estimated cases of influenza nationwide, resulting in 191.9 million bed days. There were an estimated 70.2 million work-loss days attributed to influenza (in employed persons age 18 and over).

For healthy children and adults, influenza is typically a moderately severe illness. For unhealthy or elderly people, influenza can be very dangerous. Adults 65 years and older who contract influenza are much more likely to have serious complications from this illness, which can affect their health and independence.

Influenza can be prevented with the influenza vaccine. This vaccine is produced each year in order to be effective against influenza viruses that are expected to cause illness that year. A yearly influenza vaccination has been reported to be between 67 and 92 percent effective in preventing influenza and reducing the severity of the influenza. The best period to receive the influenza vaccine is soon after the vaccine becomes available in the fall of each year.

Influenza is a very serious illness for anyone at high risk. Certain diseases that place people at high risk include:

- Chronic lung disease such as asthma, emphysema, chronic bronchitis, tuberculosis, or cystic fibrosis;
- Heart disease;
- Chronic kidney disease;
- Diabetes or other chronic metabolic disorder;
- Severe anemia; or
- Diseases or treatments that depress immunity.

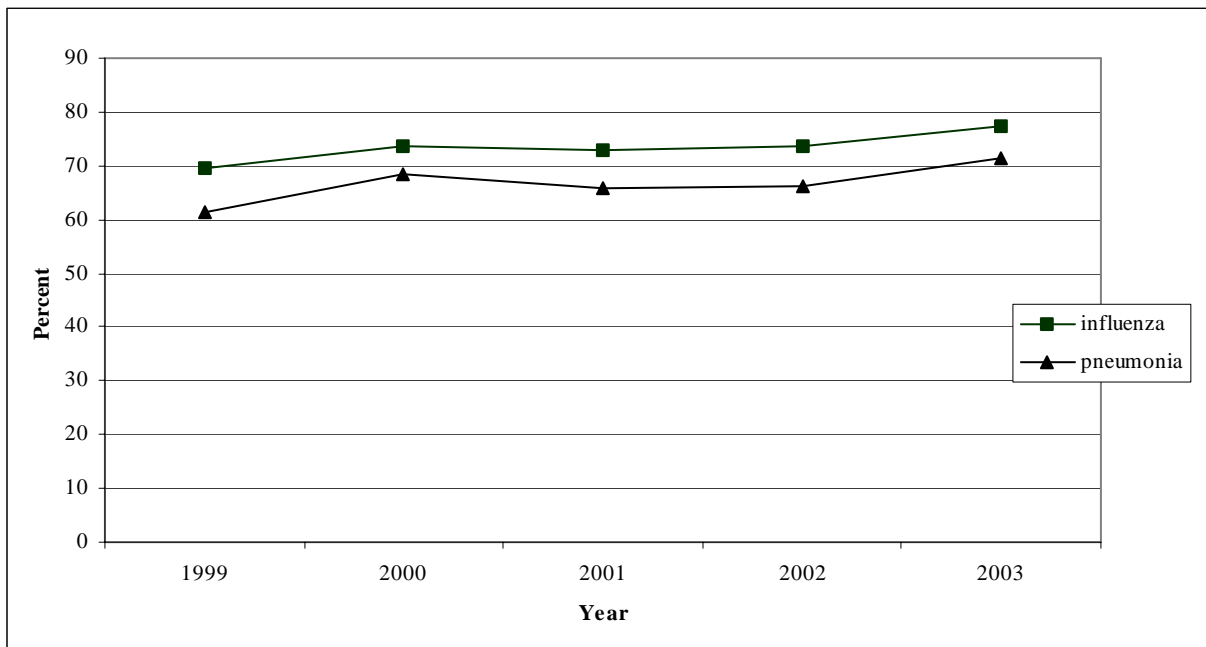
Some of the symptoms associated with influenza are: fever, chills, coughing, weakness, loss of appetite, bodily aches and pains, or sore throat/dry cough.

In the United States, the estimated annual incidence of pneumococcal bacteremia among persons 65 years and over is 50-83 cases per 100,000 persons,² and such infections are associated with a high case-fatality rate. The Advisory Committee on Immunization Practices (ACIP) recommends that persons 65 years and over receive at least one lifetime dose of pneumococcal vaccine² and annual influenza vaccination.³

Immunization Results

In 2003, 77.5% of Iowans age 65 and over reported having a flu shot in the past 12 months. This is significantly higher than the 73.5% found in 2002. It marks the highest level yet recorded in a fairly steady upward trend over the last five years (see figure 21.1).

Figure 21.1: Immunizations in Iowans Age 65 and Over, 1999 – 2003



Among all adults, 38.4% had a flu shot in the past twelve months. Females, older people, people with less education, people with lower incomes, and whites were more likely to have a flu shot. Age had the greatest impact. The lowest percent was found among those ages 18-24 (18.5%), while the highest was for those age 65 and older. (See table 21.1).

In 2003, 71.4% of Iowans age 65 and over reported ever having a pneumonia vaccination. This is significantly higher than the 66.2% found in 2002. It also marks the highest level yet recorded in a fairly steady upward trend over the last five years (see figure 21.1).

Among all adults, 25.4% had ever received a pneumonia vaccination. More females, older people, people with lower education, and people with lower income were more likely to have pneumonia vaccinations. This pattern is similar to the likelihood of having a flu shot. African Americans, on the other hand, were somewhat more likely than any other racial or ethnic group to have a

Table 21.1: Percentage of Immunizations in Iowans, 2003

Demographic Groups	Influenza		Pneumonia	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	38.4	(36.8-40)	25.4	(24-26.8)
SEX				
Male	35.0	(32.6-37.4)	23.4	(21.2-25.5)
Female	41.6	(39.5-43.6)	27.2	(25.4-29.1)
AGE GROUP				
18-24	18.5	(13.5-23.6)	15.8	(11-20.8)
25-34	19.5	(16.2-22.8)	7.4	(5.2-9.6)
35-44	22.6	(19.6-25.5)	7.7	(5.8-9.6)
45-54	34.4	(31-37.7)	12.6	(10.3-15)
55-64	50.0	(46-54)	26.7	(23.2-30.2)
65+	77.5	(74.8-80.1)	71.4	68.5-74.3
EDUCATION				
Less than H.S.	44.2	(37.9-50.5)	39.1	(33.1-45)
H.S. or G.E.D.	39.0	(36.3-41.6)	30.6	(28.2-33.1)
Some Post-H.S.	35.7	(32.6-38.8)	23.0	(20.3-25.8)
College Graduate	38.8	(35.9-41.7)	17.1	(15-19.3)
HOUSEHOLD INCOME				
Less than \$15,000	43.4	(37.3-49.6)	37.5	(32-43.1)
\$15,000- 24,999	42.0	(37.9-46.2)	37.4	(33.5-41.4)
\$25,000- 34,999	39.0	(34.9-43.1)	28.5	(24.7-32.3)
\$35,000- 49,999	33.0	(29.5-36.5)	19.2	(16.3-22)
\$50,000- 74,999	35.5	(31.7-39.4)	16.4	(13.4-19.4)
\$75,000+	38.0	(34-42)	14.5	(11.1-17.8)
RACE/ETHNICITY				
Non-Hispanic White	39.2	(37.6-40.9)	25.8	(24.4-27.3)
Non-Hispanic Black	26.9	(13.9-39.9)	29.3	(16-42.6)
Non-Hispanic Other	23.2	(12.6-33.8)	10.2	(3.3-17.2)
Hispanic	21.3	(12.3-30.3)	14.6	(6-23.2)

pneumonia vaccination. The lowest percentage of pneumonia vaccination occurred among those who were 25 to 34 years old, while those age 65 and over were highest by far (see table 21.1).

It was more likely that someone who had ever been told they had diabetes or asthma had their flu shot and pneumonia vaccinations, than if they had not been told they had these conditions. Of all respondents ever told they had diabetes, 72% had a flu shot and 65.1% had a pneumonia vaccination. The figure for those not told they had diabetes were 35.9% and 22.4% respectively.

Of all those ever told they had asthma 40.2% had a flu shot, while 33.5% had a pneumonia vaccination. For those never told they had asthma, the figures were 38.2% and 24.4% respectively.

Comparison with Other States

In all the states and territories in 2003, a median value of 69.9% of those age 65 and over had a flu shot in the past 12 months. Iowa ranked third in this category. The median percent of the population age 65 and over who ever had a pneumonia vaccination was 64.2%. Again, Iowa ranked third highest in this category.

Year 2010 Health Objectives for Iowa and the Nation

The Healthy Iowa and Healthy People 2010 goals for having both a flu shot in the past 12 months and ever having a pneumonia vaccination for people age 65 and over are 90%. Iowa's 2003 figures of 77.5% for having a flu shot and 71.4% for ever having a pneumonia vaccination, although among the highest in the nation and heading in the right direction, have a long way to go to meet these targets.

Healthy Iowans 2010 also had the goals of 75% of persons with diabetes receiving a flu shot within the past 12 months and 60% of persons with diabetes ever receiving a pneumonia vaccination. In 2003, the Iowa BRFSS found 72% and 65.1% for these goals respectively. Thus, flu shots fell a little short, but pneumonia vaccinations exceeded the goal.

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22. HIV/AIDS

Background

Estimates suggest that 800,000 to 900,000 Americans were living with HIV or AIDS at the end of 1998 and at least 40,000 new infections occur each year in the United States.² HIV infection, the precursor to AIDS, was the fifth leading cause of death among people 25 to 44 years old in 1998. It accounted for 6.6% of deaths from all causes in this age group in the U.S.⁶ AIDS accounted for 174.7 years of potential life lost before the age of 75 per 100,000 population in the United States in 2000. This was 2.3% of all years of potential life lost.¹

While ‘men who have sex with men’ remains the largest exposure group, many of the new diagnoses are occurring among African-Americans, Hispanics, women, and people infected heterosexually. These facts must be used to ensure targeted prevention efforts to reach those in greatest need, with a primary focus on young African-American and Hispanic men and women at risk through sexual and drug-related behaviors.

In Iowa, Black non-Hispanic people constitute only 2.1% of the population, but account for 18% of all Iowans living with HIV/AIDS. The Hispanic population in Iowa is 2.8%, but Hispanics account for 8% of all Iowans living with HIV/AIDS.⁵

The number of persons living with AIDS continues to increase. At the end of 2002, there were 384,906 persons in the United States living with AIDS.³ No reports of the number of persons living with HIV are available because not all states report persons with HIV who have not developed AIDS. Since reporting began 2,038 cases of HIV and AIDS have been reported in Iowa through December 31, 2003.⁵ Approximately 58% of these persons were living on December 31, 2003.

In light of recent advances in HIV diagnostics and therapeutics, the lifetime costs of health care associated with HIV have grown from \$55,000 to \$155,000 or more per person. These figures represent the amount of money saved by preventing just one case of HIV.

HIV/AIDS Results

AIDS questions were only asked of people between the ages of 18 and 64.

Responses indicated that Iowans’ knowledge about AIDS was incomplete. When asked if a pregnant woman with HIV can get treatment to help reduce the chances that she will pass the virus on to her baby, only 50.3% said “yes”. Another 31% said they didn't know. More were aware that there were medical procedures to help a person with HIV to live longer (90.4%). Still, 7.4% said they didn't know.

Although 89.3% of respondents thought it was very important to know your AIDS status, only 32.3% of respondents reported ever being tested for HIV, not including as part of a blood donation. This is slightly higher than the 2002 finding of 31.8%. The largest proportion of

Table 22.1: Percent of Iowans Tested for HIV/AIDS, 2003

Demographic Groups	Had HIV Test	
	%	C.I. (95%)
TOTAL	32.3	(30.5-34.1)
SEX		
Male	30.5	(27.8-33.2)
Female	34.1	(31.6-36.6)
AGE		
18-24	37.2	(30.9-43.5)
25-34	50.1	(45.8-54.3)
35-44	37.9	(34.4-41.4)
45-54	20.2	(17.5-23)
55-64	13.4	(10.7-16.1)
EDUCATION		
Less than H.S.	34.0	(24.6-43.4)
H.S. or G.E.D.	29.6	(26.3-32.9)
Some Post-H.S.	34.0	(30.6-37.4)
College Graduate	33.2	(30.2-36.2)
HOUSEHOLD INCOME		
Less than \$15,000	39.8	(31-48.6)
\$15,000- 24,999	33.6	(28-39.1)
\$25,000- 34,999	35.8	(30.8-40.9)
\$35,000- 49,999	30.7	(26.9-34.6)
\$50,000- 74,999	31.1	(27.2-34.9)
\$75,000+	32.8	(28.8-36.8)

respondents tested was between the ages of 25 and 34 (50.1%). Only 13.4% of those between 55 and 64 reported ever being tested (see table 22.1).

Although overall there was little difference between the sexes in proportion tested, there is an interesting interaction between sex and age. Figure 22.1 shows that in the younger age groups many more women have been tested, while there is little difference in the older age groups.

When asked to give the main reason for their last HIV blood test, respondents gave many answers. The top responses were "It was required" and "It was done as part of a routine medical check-up". These two made up 48.2% of the responses. The next highest reason (16.6%) was, "You were pregnant". Since only women would give this reason, it was the most common response for women. This reason also probably helps explain the pattern of results found in figure 22.1.

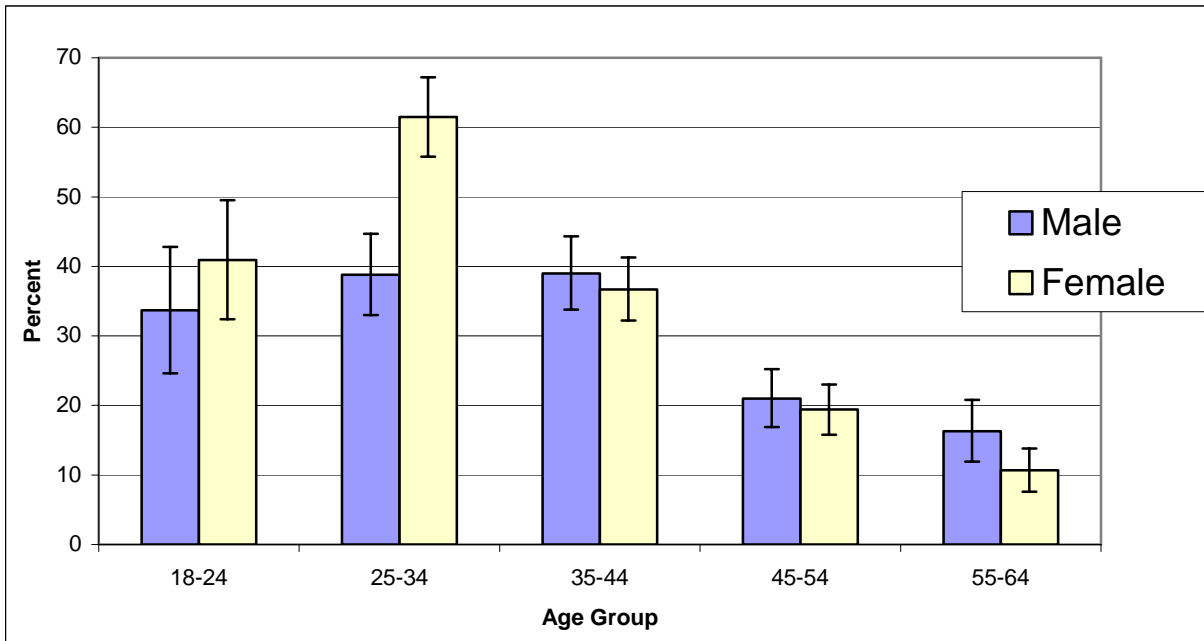
Each of the respondents who had received an AIDS virus blood test was asked to describe where the test occurred. Respondents gave a variety of answers. The most commonly reported place by far was "Private doctor or HMO" (37.6%). The next most common choices were, "clinic" (24.8%) and "hospital" (23.8%).

Survey participants were read a list of conditions that produce a high risk of contracting HIV and asked if any of these conditions applied to them. They did not have to say which. Only 2.6% thought any of these conditions applied to them.

Respondents were asked if they had talked to a doctor or health professional about preventing sexually transmitted diseases other than AIDS through condom use. Only 8.2% reported that they had.

Although it is difficult to analyze racial differences in Iowa due to the small numbers of minorities, an attempt was made in the case of HIV because of its importance in the minority community. It was necessary to collapse race into two groups--White Non-Hispanic and Non-White or Hispanic.

Figure 22.1: Percentage of Iowans Reporting Ever Being Tested for HIV by Age and Gender, 2003



It was found that more of the Non-White or Hispanic population considered knowing their AIDS status very important. They were also more likely to have had an AIDS test, were more likely to have at least one of the risk factors, and were more likely to have been talked to by a doctor concerning condom use to prevent sexually transmitted diseases (see table 22.2).

Table 22.2: Comparison of White and other Race on HIV/AIDS measures in Iowa, 2003

Race/Ethnicity	White Non-Hispanic	Other Race or Hispanic
HIV Testing Very Important	88.9%	96.5%
Ever Tested for HIV	31.3%	47.4%
Any High Risk Situations Apply	2.5%	4.3%
Told by Doctor About STD Prevention by Condoms	7.8%	15.3%

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APPENDIX 1

Year 2010 Health Objectives for Iowa: State Summary of BRFSS¹ Data for 2003

Healthy Iowans 2010 ² Objective ³	Yr 2010 Target	State, 2003
Health Insurance (Objective #1-1) Ages < 65	100%	85.5%
Mammogram, Within Past Two Years (Objective #2-5.2) Women, Ages ≥40	65%	76.2%
Pap Smear, Within Past Three Years (Objective #2-6.1) Women, Ages ≥18	83%	86.6%
Fecal Occult Blood Test (FOBT) Within Past Two Years (Objective #2-7.1) Ages ≥50	55%	34.0%
Sigmoidoscopy, Ever Had (Objective #2-7.1) Ages ≥50	64%	51.4%
Diabetes Prevalence (Objective #3-1)	5%	6.7%
Annual Dilated Eye Exam for People with Diabetes (Objective #3-3.2)	80%	78.3%
At Least One Annual Foot Exam for People with Diabetes (Objective #3-3.3)	90%	74%
At Least One Annual Glycosolated Hemoglobin Exam for People with Diabetes (Objective #3-3.4)	90%	90.2%
Perform Self Blood Glucose monitoring At Least Daily for People with Diabetes (Objective #3-3.9)	60%	62.5%
Persons with Diabetes Who Have Received Formal Diabetes Education (Objective #3-3.10)	60%	59.4%
Persons with diabetes Advised to Discontinue Tobacco Use (Objective #3-3.11)	100%	78.2%
Persons with Diabetes Who Receive an Annual Influenza exam (Objective #3-3.12)	75%	72%
Persons with Diabetes Who Receive a pneumococcal vaccine injection (Objective #3-3.13)	60%	65.1%
Persons with Diabetes Who Have Been Seen by a Health Professional for their Diabetes Within the Past Year (Objective #3-3.16)	95%	88.1%
Influenza Immunization, Within Past Year (Objective #10-2) Ages ≥65	90%	77.5%
Pneumococcal Pneumonia Vaccination, Ever Had (Objective #10-2) Ages ≥65	90%	71.4%
Obese, BMI ≥ 30 (Objective #13-3) Ages >= 18	18.7*	23.9%
Meet the minimum daily average goal of at least five fruits and vegetables (Objective 13-5) Age > 2	50%	17.2%

Healthy Iowans 2010² Objective³	Yr 2010 Target	State, 2003
Extraction of All Natural Teeth (Objective #15.4) Ages \geq 75	20%	26.5%
Had a dental visit within the past year (Objective #15-9) Ages \geq 75	70%	66.5%
Cigarette Smoking (Objective #21-4) Ages \geq 18	13%	21.7%
Cigarette smokers who stopped smoking cigarettes for a day or more (Objective #21-4.7) Ages \geq 18	50%	50.5%

¹Behavioral Risk Factor Surveillance System

²Iowa Department of Public Health. Healthy Iowans 2010, 2000.

³In some cases, BRFSS definitions of objectives differ slightly from those in Healthy Iowans 2010. See Healthy Iowans 2010 for the exact definition of the objective.

* This is the 1996 obesity rate according to the current standard.

**Year 2010 Health Objectives for the Nation:
State Summary of BRFSS¹ Data for 2003**

Healthy People 2010² Objective³	Yr 2010 Target	State, 2003
Health Insurance (Objective #1.1) Ages ≥18	100%	88.1%
Specific Source of Ongoing Primary Care (Objective #1.4c) Ages ≥18	96%	76.4%
Limitation in Activities Due to Arthritis (Objective #2.2) Adults with Chronic Joint Symptoms, Ages >18	21%	25.3%
Pap Smear, Ever Had (Objective #3.11a) Women, Ages >18	97%	96.2%
Pap Smear, Within Past Three Years (Objective #3.11b) Women, Ages >18	90%	86.9%
Fecal Occult Blood Test (FOBT) Within Past Two Years (Objective #3.12a) Ages >50	50%	34.0%
Sigmoidoscopy, Ever Had (Objective #3.12b) Ages >50	50%	51.4%
Mammogram, Within Past Two Years (Objective #3.14) Women, Ages >40	70%	76.2%
Cholesterol Screening, Within Past Five Years (Objective #12.15) Ages >18	80%	71.3%
Influenza Immunization, Within Past Year (Objective #14.29a) Ages >65	90%	77.5%
Pneumococcal Pneumonia Vaccination, Ever Had (Objective #14.29b) Ages >65	90%	71.4%
Obese, BMI > 30 (Objective #19.2) Ages >20	15%	24.5%
(No) Permanent Teeth Extracted Due to Caries or Periodontal Disease (Objective #21.3) Ages 35-44	42%	70.6%
Reduce proportion of adults with high blood pressure	16%	25.1%
Extraction of All Natural Teeth (Objective # 21.4) Ages >65	20%	23.7%
No Leisure Time Physical Activity (Objective # 22.1) Ages >18	20%	22.7%
Regular, Moderate Physical Activity, 5 or more Days/Week for 30 or more Minutes or vigorous physical activity 20 minutes or more per day, three or more days per week (Objective #22.2) Ages >18	30%	43.9%*
Regular, Vigorous Physical Activity, 3 or more Days/Week for 20 or more Minutes (Objective #22.3) Ages ≥18	30%	21.4%*
Binge Drinking, During the Past Month (Objective #26.11c) Ages ≥18	6%	19.4%

Healthy People 2010 ² Objective ³	Yr 2010 Target	State, 2003
Cigarette Smoking (Objective #27.1a) Ages \geq 18	12%	21.7%

¹ Behavioral Risk Factor Surveillance System

² 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.

³ In some cases, BRFSS definitions of objectives differ slightly from those in Healthy People 2010. See Healthy People 2010 for the exact definition of the objective.

- Data is age adjusted

APPENDIX 2

Iowa 2003 Behavioral Risk Factor Surveillance System Questionnaire

Section 1: Health Status

1.1. Would you say that in general your health is:

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

1. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?

___ Number of days
8 8 None

2. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?

___ Number of days
8 8 None **If Q1 also "None", skip to next module**

3. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?

___ Number of days
8 8 None

Section 2: Health Care Access

2.1. 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

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

1. Yes, only one
2. More than one
3. No

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

1. Yes
2. No

Section 3: Exercise

3.1. During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?

1. Yes
2. No

Section 4: Diabetes

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

1. Yes
2. Yes, but female told only during pregnancy
3. No

Module 1: Diabetes

To be asked following core Q4.1 if response is "yes"

1. How old were you when you were told you have diabetes?
___ Code age in years [97 = 97 and older]

2. Are you now taking insulin?

1. Yes
2. No

3. Are you now taking diabetes pills?

1. Yes
2. No

4. About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do not include times when checked by a health professional.

1 ___ Times per day
2 ___ Times per week
3 ___ Times per month
4 ___ Times per year
8 8 8 Never

5. About how often do you check your feet for any sores or irritations? Include times when checked by a family member or friend, but do not include times when checked by a health professional.

1 ___ Times per day
2 ___ Times per week
3 ___ Times per month
4 ___ Times per year
8 8 8 Never
5 5 5 No feet

6. Have you ever had any sores or irritations on your feet that took more than four weeks to heal?

1. Yes
2. No

7. About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes?

___ Number of times [76 = 76 or more]
8 8 None

8. A test for hemoglobin "A one C" measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for hemoglobin "A one C"?

___ Number of times [76 = 76 or more]
8 8 None
9 8 Never heard of hemoglobin "A one C" test

If "no feet" to Q5, go to Q10

9. About how many times in the past 12 months has a health professional checked your feet for any sores or irritations?

___ Number of times [76 = 76 or more]
8 8 None

10. When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light.

1. Within the past month (anytime less than 1 month ago)
2. Within the past year (1 month but less than 12 months ago)
3. Within the past 2 years (1 year but less than 2 years ago)
4. 2 or more years ago
8. Never

11. Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy?

1. Yes
2. No

12. Have you ever taken a course or class in how to manage your diabetes yourself?
1. Yes
 2. No

Section 5: Hypertension Awareness

- 5.1. Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?
1. Yes
 2. Yes, but female told only during pregnancy **Go to next section**
 3. No **Go to next section**
- 5.2. Are you currently taking medicine for your high blood pressure?
1. Yes
 2. No

Section 6: Cholesterol Awareness

- 6.1. Blood cholesterol is a fatty substance found in the blood. Have you ever had your blood cholesterol checked?
1. Yes
 2. No **Go to next section**
- 6.2. About how long has it been since you last had your blood cholesterol checked?
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
- 6.3. Have you ever been told by a doctor, nurse or other health professional that your blood cholesterol is high?
1. Yes
 2. No

Section 7: Fruits and Vegetables

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.

- 7.1. How often do you drink fruit juices such as orange, grapefruit, or tomato?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never
- 7.2. Not counting juice, how often do you eat fruit?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never
- 7.3. How often do you eat green salad?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never
- 7.4. How often do you eat potatoes not including french fries, fried potatoes, or potato chips?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never

- 7.5. How often do you eat carrots?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never

- 7.6. Not counting carrots, potatoes, or salad, how many servings of vegetables do you usually eat?
- 1 ___ Per day
 - 2 ___ Per week
 - 3 ___ Per month
 - 4 ___ Per year
 - 5 5 5 Never

Section 8: Weight Control

- 8.1. Are you now trying to lose weight?
1. Yes **Go to Q8.3**
 2. No
- 8.2. Are you now trying to maintain your current weight, that is to keep from gaining weight?
1. Yes
 2. No **Go to Q8.5**
- 8.3. Are you eating either fewer calories or less fat to... lose weight? [if "Yes" to Q8.1] keep from gaining weight? [if "Yes" to Q8.2]
1. Yes, fewer calories
 2. Yes, less fat
 3. Yes, fewer calories and less fat
 4. No
- 8.4. Are you using physical activity or exercise to... lose weight? [if "Yes" to Q18.] keep from gaining weight? [if "Yes" to Q8.2]
1. Yes
 2. No
- 8.5. In the past 12 months, has a doctor, nurse or other health professional given you advice about your weight?
1. Yes, lose weight
 2. Yes, gain weight
 3. Yes, maintain current weight
 4. No

Section 9: Asthma

- 9.1. Have you ever been told by a doctor, nurse or other health professional that you had asthma?
1. Yes
 2. No **Go to next section**
- 9.2. Do you still have asthma?
1. Yes
 2. No

Section 10: Immunization

- 10.1. During the past 12 months, have you had a flu shot?
1. Yes
 2. No
- 10.2. 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

Section 11: Tobacco Use

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

5 packs = 100 cigarettes

- 1. Yes
- 2. No **Go to next section**

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

- 1. Every day
- 2. Some days
- 3. Not at all **Go to next section**

11.3. 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

Section 12: Alcohol Consumption

12.1. 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 many days per week or per month did you have at least 1 drink of any alcoholic beverage?

- 1 ___ Days per week
- 2 ___ Days in past 30
- 8 8 8 No drinks in past 30 days **Go to Q11.1**

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

___ Number of drinks

12.3. 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 8 None

Section 13: Excess Sun Exposure

The next question is about sunburns including anytime that even a small part of your skin was red for more than 12 hours.

13.1. Have you had a sunburn within the past 12 months?

- 1. Yes
- 2. No [Go to next section]

13.2. Including times when even a small part of your skin was red for more than 12 hours, how many sunburns have you had within the past 12 months?

- 1. One
- 2. Two
- 3. Three
- 4. Four
- 5. Five
- 6. Six or more

Section 14: Demographics

14.1. What is your age?

___ Code age in years

14.2. Are you Hispanic or Latino?

- 1. Yes
- 2. No

14.3. Which one or more of the following would you say is your race?

Mark all that apply

- 1. White
- 2. Black or African American
- 3. Asian
- 4. Native Hawaiian or Other Pacific Islander
- 5. American Indian, Alaska Native or
- 6. Other [specify]
- 8. No additional choices

If more than one response to Q14.3, continue. Otherwise, go to Q14.5

14.4. Which one of these groups would you say best represents your race?

- 1. White
- 2. Black or African American
- 3. Asian
- 4. Native Hawaiian or Other Pacific Islander
- 5. American Indian, Alaska Native
- 6. Other [specify]

14.5. Are you:

- 1. Married
- 2. Divorced
- 3. Widowed
- 4. Separated
- 5. Never married or
- 6. A member of an unmarried couple

14.6. How many children less than 18 years of age live in your household?

- ___ Number of children
- 8 8 None

14.7. What is the highest grade or year of school you completed?

- 1. Never attended school or only attended kindergarten
- 2. Grades 1 through 8 (Elementary)
- 3. Grades 9 through 11 (Some high school)
- 4. Grade 12 or GED (High school graduate)
- 5. College 1 year to 3 years (Some college or technical school)
- 6. College 4 years or more (College graduate)

14.8. Are you currently:

- 1. Employed for wages
- 2. Self-employed
- 3. Out of work for more than 1 year
- 4. Out of work for less than 1 year
- 5. A Homemaker
- 6. A Student
- 7. Retired or
- 8. Unable to work

14.9. Is your annual household income from all sources:

- 04. Less than \$25,000 **If "no," ask 05; if "yes," ask 03**
((\$20,000 to less than \$25,000))
- 03. Less than \$20,000 **If "no," code 04; if "yes," ask 02**
((\$15,000 to less than \$20,000))
- 02. Less than \$15,000 **If "no," code 03; if "yes," ask 01**
((\$10,000 to less than \$15,000))
- 01. Less than \$10,000 **If "no," code 02**
- 05. Less than \$35,000 **If "no," ask 06**
((\$25,000 to less than \$35,000))
- 06. Less than \$50,000 **If "no," ask 07**
((\$35,000 to less than \$50,000))
- 07. Less than \$75,000 **If "no," code 08**
((\$50,000 to less than \$75,000))
- 08. \$75,000 or more

14.10. About how much do you weigh without shoes?

Round fractions up

___ ___ Weight pounds

14.11. How much would you like to weigh?

___ ___ Weight pounds

14.12. About how tall are you without shoes?

Round fractions down

___/___ Height ft/inches

14.13. What county do you live in?

___ FIPS county code

14.14. Do you have more than one telephone number in your household?

Do not include cell phones or numbers that are only used by a computer or fax machine.

1. Yes
2. No **Go to Q14.16**

14.15. How many of these are residential numbers?

___ Residential telephone numbers **[6=6 or more]**

14.16. During the past 12 months, has your household been without telephone service for 1 week or more?

Note: Do not include interruptions of phone service due to weather or natural disasters.

1. Yes
2. No

14.17. Indicate sex of respondent. Ask only if necessary.

1. Male **Go to next section.**
2. Female

If respondent 45 years old or older, go to next section.

14.18. To your knowledge, are you now pregnant?

1. Yes
2. No

Section 15: Arthritis

15.1. The next questions refer to your joints. Please do **NOT** include the back or neck. **DURING THE PAST 30 DAYS**, have you had any symptoms of pain, aching, or stiffness in or around a joint?

1. Yes
2. No **Go to Q15.4**

15.2. Did your joint symptoms **FIRST** begin more than 3 months ago?

1. Yes
2. No **Go to Q15.4**

15.3. Have you ever seen a doctor or other health professional for these joint symptoms?

1. Yes
2. No

15.4. 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?

1. Yes
2. No

IF EITHER Q15.2 = 1 OR Q15.4 = 1 THEN CONTINUE. OTHERWISE, GO TO NEXT SECTION.

15.5. Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms?

1. Yes
2. No

Note: If a respondent question arises about medication, then the interviewer should reply: "Please answer the question based on how you are when you are taking any of the medications or treatments you might use."

If age is between 18-64 continue, otherwise go to next section.

15.6. In this next question we are referring to work for pay. Do arthritis or joint symptoms now affect whether you work, the type of work you do, or the amount of work you do?

1. Yes
2. No

Section 16: Falls

To be asked only of people 45 years or older.

The next question asks about a recent fall. By a fall, we mean when a person unintentionally comes to rest on the ground or another lower level.

16.1. In the past 3 months, have you had a fall?

1. Yes
2. No **[Go to next section]**

16.2. Were you injured? By injured, we mean the fall caused you to limit your regular activities for at least a day or to go see a doctor.

1. Yes
2. No

Section 17: Disability

The following questions are about health problems or impairments you may have.

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

1. Yes
2. No

17.2. 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?

Include occasional use or use in certain circumstances

1. Yes
2. No

Section 18: Physical Activity

If "employed" or "self-employed" to core Q14.8, continue. Otherwise go to Q18.2.

18.1. When you are at work, which of the following best describes what you do? Would you say:

If respondent has multiple jobs, include all jobs

1. Mostly sitting or standing
2. Mostly walking or
3. Mostly heavy labor or physically demanding work

We are interested in two types of physical activity: vigorous and moderate. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.

18.2. Now, thinking about the moderate physical activities you do **[fill in (when you are not working) if "employed" or "self-employed" to core Q14.8]** in a usual week, do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate?

1. Yes
2. No **Go to Q18.5**

18.3. How many days per week do you do these moderate activities for at least 10 minutes at a time?

___ Days per week

8 8 Do not do any moderate physical activity for at least 10 minutes at a time **Go to Q18.5**

18.4. On days when you do moderate activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?

__:__ Hours and minutes per day

18.5. Now thinking about the vigorous physical activities you do [fill in (when you are not working) if "employed" or "self-employed" to core Q14.8] in a usual week, do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?

1. Yes
2. No **Go to next section**

18.6. How many days per week do you do these vigorous activities for at least 10 minutes at a time?

___ Days per week

8 8 Do not do any vigorous physical activity for at least 10 minutes at a time **Go to next section**

18.7. On days when you do vigorous activities for at least 10 minutes at a time, how much total time per day do you spend doing these activities?

__:__ Hours and minutes per day

Section 19: Veteran's Status

The next question relates to military service in the United States Armed Forces, either in the regular military or in a National Guard or Reserve unit.

19.1 Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?

1. Yes
2. No [**Go to next section**]

19.2. Which of the following best describes your service in the United States military?

Please read:

1. Currently on active duty [**Go to next section**]
2. Currently in a National Guard or Reserve unit [**Go to next section**]
3. Retired from military service
4. Medically discharged from military service
5. Discharged from military service

19.3. In the last 12 months have you received some or all of your health care from VA facilities?

If "yes" probe for "all" or "some" of the health care.

1. Yes, all of my health care
2. Yes, some of my health care
3. No, no VA health care received

Section 20: HIV/AIDS

If respondent is 65 years old or older, go to next section

The next few questions are about the national health problem of HIV, the virus that causes AIDS. Please remember that your answers are strictly confidential and that you don't have to answer every question if you don't want to

I'm going to read two statements about HIV, the virus that causes AIDS. After I read each one, please tell me whether you think it is true or false, or if you don't know.

20.1. A pregnant woman with HIV can get treatment to help reduce the chances that she will pass the virus on to her baby.

1. True
2. False
7. Don't know/Not Sure

20.2. There are medical treatments available that are intended to help a person who is infected with HIV to live longer.

1. True
2. False
7. Don't know/Not Sure

20.3. How important do you think it is for people to know their HIV status by getting tested?

Would you say:

1. Very important
2. Somewhat important or
3. Not at all important

20.4. Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation.

Include saliva tests

1. Yes
2. No **Go to Q20.8**

20.5. Not including blood donations, in what month and year was your last HIV test?

Include saliva tests

___/___/___ Code month and year

20.6. I am going to read you a list of reasons why some people have been tested for HIV. Not including blood donations, which of these would you say was the MAIN reason for your last HIV test?

___ Reason code

- 01 It was required
- 02 Someone suggested you should be tested
- 03 You thought you may have gotten HIV through sex or drug use
- 04 You just wanted to find out whether you had HIV
- 05 You were worried that you could give HIV to someone
- 06 IF FEMALE: You were pregnant
- 07 It was done as part of a routine medical check-up
- 08 Or you were tested for some other reason

20.7. Where did you have your last HIV test—at a private doctor or HMO office, at a counseling and testing site, at a hospital, at a clinic, in a jail or prison, at home, or somewhere else?

___ Facility code

- 01 Private doctor or HMO
- 02 Counseling and testing site
- 03 Hospital
- 04 Clinic
- 05 In a jail or prison (or other correctional facility)
- 06 Home
- 07 Somewhere else

20.8. I'm going to read you a list. When I'm done, please tell me if any of the situations apply to you. You don't need to tell me which one.

You have used intravenous drugs in the past year

You have been treated for a sexually transmitted or venereal disease in the past year

You have given or received money or drugs in exchange for sex in the past year

You had anal sex without a condom in the past year

Do any of these situations apply to you?

1. Yes
2. No

The next question is about sexually transmitted diseases other than HIV, such as syphilis, gonorrhea, chlamydia, or genital herpes.

20.9. In the past 12 months has a doctor, nurse or other health professional talked to you about preventing sexually transmitted diseases through condom use?

1. Yes
2. No

Module 2: Oral Health

1. How long has it been since you last visited a dentist or a dental clinic?

NOTE: 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 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
- 8. Never

2. How many of your permanent teeth have been removed because of tooth decay or gum disease? Do not include teeth lost for other reasons, such as injury or orthodontics.

NOTE: If wisdom teeth are removed because of tooth decay or gum disease, they should be included in the count for lost teeth.

Include teeth lost due to infection.

- 1. 1 to 5
- 2. 6 or more but not all
- 3. All
- 4. None

If Q1 = Never or Q2= All, go to next module otherwise continue

3. How long has it been since you had your teeth "cleaned" by a dentist or dental hygienist?

- 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
- 8. Never

STATE ADDED HEALTH INSURANCE

SAHIQ1. Have you heard of Iowa's Child Health Insurance Program, called Hawk-I?

- 1. Yes
- 2. No

Module 3: Women's Health

If respondent is male, go to next section.

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

- 1. Yes
- 2. No Go to Q5

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

- 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 3 years (2 years but less than 3 years ago)
- 4. Within the past 5 years (3 years but less 5 years ago)
- 5. 5 or more years ago

3. You said your most recent mammogram was { INSERT TIME FRAME FROM PREVIOUS QUESTION}. How long before THAT mammogram was the last one?

- 1. Less than 12 months before
- 2. 1 year but less than 2 years before
- 3. 2 years but less than 3 years before
- 4. 3 years but less than 5 years before
- 5. 5 or more years before
- 7. Has had only one mammogram

4. Many mammograms are done as a routine check-up. Sometimes a mammogram is done to check something that might be a problem, such as a lump or discomfort.

If Q3 coded 1-5, 7 or 9 then ask:

a. Were either of your two most recent mammograms done to check a possible problem?

If Q3 coded 6 or Q2 coded 7 or 9 then ask:

b. Was your mammogram done to check a possible problem?

- 1. Yes
- 2. No

5. 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 Go to Q7

6. How long has it been since your last breast exam?

- 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 3 years (2 years but less than 3 years ago)
- 4. Within the past 5 years (3 years but less than 5 years ago)
- 5. 5 or more years ago

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

- 1. Yes
- 2. No Go to Q14.9

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

- 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 3 years (2 years but less than 3 years ago)
- 4. Within the past 5 years (3 years but less than 5 years ago)
- 5. 5 or more years ago

NOTE: If response to core Q14.18 = 1 (is pregnant) then go to next module.

9. Have you had a hysterectomy?

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

- 1. Yes
- 2. No

State Added Asthma

SAAQ1. Next, have you ever been told by a doctor, nurse, or other health professional that you had emphysema, chronic bronchitis, COPD, or chronic obstructive pulmonary disease?

- 1. Yes
- 2. No

Module 6: Adult Asthma History

If "yes" to core Q9.1, continue. .

Previously you said you were told by a doctor, nurse or other health professional that you had asthma.

1. How old were you when you were first told by a doctor, nurse or other health professional that you had asthma?

- ___ Age in years 11 or older [96 = 96 and older]
- 9 7 Age 10 or younger

If "yes" to core Q9.2, continue. .

2. During the past 12 months, have you had an episode of asthma or an asthma attack?

- 1. Yes
- 2. No

3. During the past 12 months, how many times did you visit an emergency room or urgent care center because of your asthma?

- ___ Number of visits [87 = 87 or more]
- 8 8 None

4. [If one or more visits to Q3, fill in (Besides those emergency room visits.)] During the past 12 months, how many times did you see a doctor, nurse or other health professional for urgent treatment of worsening asthma symptoms?

___ ___ Number of visits [**87 = 87 or more**]

8 8 None

5. During the past 12 months, how many times did you see a doctor, nurse or other health professional for a routine checkup for your asthma?

___ ___ Number of visits [**87 = 87 or more**]

8 8 None

6. During the past 12 months, how many days were you unable to work or carry out your usual activities because of your asthma?

___ ___ ___ Number of days

8 8 8 None

7. Symptoms of asthma include cough, wheezing, shortness of breath, chest tightness and phlegm production when you don't have a cold or respiratory infection. During the past 30 days, how often did you have any symptoms of asthma?

Would you say:

8. Not at any time **Go to Q9**

1. Less than once a week

2. Once or twice a week

3. More than 2 times a week, but not every day

4. Every day, but not all the time or

5. Every day, all the time

8. During the past 30 days, how many days did symptoms of asthma make it difficult for you to stay asleep?

Would you say:

8. None

1. One or two

2. Three to four

3. Five

4. Six to ten or

5. More than ten

9. During the past 30 days how often did you take asthma medication that was prescribed or given to you by doctor? This includes using an inhaler.

Would you say:

8. Didn't take any

1. Less than once a week

2. Once or twice a week

3. More than 2 times a week, but not every day

4. Once every day or

5. 2 or more times every day

State Added Asthma

If answer to Q9 in Module 6 is 7, 8 or 9, go to SAAQ4

SAAQ2. Prescription asthma medicines may be taken to either keep you from having asthma symptoms or to treat your symptoms once you start to have them.

In the past 30 days, how often did you take the kind of prescription asthma medications that help to prevent you from having symptoms--- the kind taken before you have symptoms? This includes an inhaler used to prevent you from having an attack.

[Explanation if needed: The kind of medicine that prevents asthma symptoms is sometimes called controller or maintenance medicine and is taken while one is feeling well and to prevent an attack in the future. These medicines may be taken by mouth or inhaled.]

Would you say?

8. Didn't take any

1. Less than once a week

2. Once or twice a week

3. More than 2 times a week, but not every day

4. Once every day **Or**

5. 2 or more times every day

SAAQ3. In the past 30 days, how often did you take prescription asthma medications to treat an asthma attack or symptoms once you started to have problems breathing? This includes inhalers when used to treat or relieve your breathing problems.

[Explanation if needed: These medicines taken to relieve your symptoms are sometimes called reliever or quick relief medicines and may be taken by mouth or inhaled.]

Would you say?

8. Didn't take any

1. Less than once a week

2. Once or twice a week

3. More than 2 times a week, but not every day

4. Once every day

Or

5. 2 or more times every day

If answer to Q9 in Module 6 is 1, 2, 3, 4, or 5, go to SAAQ6

SAAQ4. During the past 12 months did you take prescription asthma medications that help to prevent you from having asthma symptoms – the kind of medication taken BEFORE you have symptoms? This includes an inhaler used to prevent you from having an attack.

1. Yes

2. No

SAAQ5. During the past 12 months did you take prescription asthma medications to treat an asthma attack or asthma symptoms – the kind of medication taken DURING an asthma attack? This includes inhalers when used to treat or relieve your asthma attack or asthma symptoms.

1. Yes

2. No

SAAQ6. During the past 12 months, how many times did you stay overnight in a hospital because of your asthma?

___ ___ Number of overnight hospital stays

8 8 None

Module 7: Childhood Asthma

If "no children" to core Q14.6, go to next module

1. Earlier you said there were [fill in number from core Q12.6] children age 17 or younger living in your household. How many of these children have ever been diagnosed with asthma?

___ ___ Number of children

8 8 None **Go to Next Module**

2. [Fill in (Does this child/How many of these children) from Q1] still have asthma?

___ ___ Number of children

8 8 None

State Added Asthma

SAAQ7. [Fill in (Has this child/How many of these children) from Q1] had an asthma attack or experienced symptoms of asthma during the past 12 months?

If only one child from Q1 and response is "Yes" to Q2 code '01'. If response is "No" code '88'.

___ ___ Number of children

8 8 None

SAAQ8. [Fill in (Has this child/How many of these children) from Q1] had to visit an emergency room or urgent care center during the past 12 months because of their asthma?

If only one child from Q1 and response is "Yes" to Q2 code '01'. If response is "No" code '88'.

___ ___ Number of children

8 8 None

SAAQ9. [Fill in (*Has this child/How many of these children*) from Q1] had to stay overnight in a hospital during the past 12 months because of their asthma?

If only one child from Q1 and response is "Yes" to Q2 code '01'. If response is "No" code '88'.

___ Number of children

8 8 None

Module 8: Heart Attack & Stroke

Now I would like to ask you about your knowledge of the signs and symptoms of a heart attack and stroke.

1 Which of the following do you think is a symptom of a heart attack?

For each, tell me yes, no, or you're not sure.

a. Do you think pain or discomfort in the jaw, neck, or back are symptoms of a heart attack?

- 1. Yes
- 2. No
- 7. Don't know / Not sure

b. Do you think feeling weak, lightheaded, or faint are symptoms of a heart attack?

- 1. Yes Yes
- 2. No No
- 7. Don't know / Not sure Don't know/Not sure

c. (Do you think) chest pain or discomfort (are symptoms of a heart attack?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

d. (Do you think) sudden trouble seeing in one or both eyes (is a symptom of a heart attack?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

e. (Do you think) pain or discomfort in the arms or shoulder (are symptoms of a heart attack?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

f. (Do you think) shortness of breath (is a symptom of a heart attack?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

2. Which of the following do you think is a symptom of a stroke? For each, tell me yes, no, or you're not sure.

a. Do you think sudden confusion or trouble speaking are symptoms of a stroke?

- 1. Yes
- 2. No
- 7. Don't know / Not sure

b. Do you think sudden numbness or weakness of face, arm, or leg, especially on one side, are symptoms of a stroke?

- 1. Yes
- 2. No
- 7. Don't know / Not sure

c. (Do you think) sudden trouble seeing in one or both eyes (is a symptom of a stroke?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

d. (Do you think) sudden chest pain or discomfort (are symptoms of a stroke?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

e. (Do you think) sudden trouble walking, dizziness, or loss of balance (are symptoms of a stroke?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

f. (Do you think) severe headache with no known cause (is a symptom of a stroke?)

- 1. Yes
- 2. No
- 7. Don't know / Not sure

3. If you thought someone was having a heart attack or a stroke, what is the first thing you would do?

- 1. Take them to the hospital
- 2. Tell them to call their doctor
- 3. Call 911
- 4. Call their spouse or a family member

Or

- 5. Do something else

State Added Revised Module 9: Cardiovascular Disease

1. To lower your risk of developing heart disease or stroke, are you....

a. Eating fewer high fat or high cholesterol foods?

- 1. Yes
- 2. No

b. Eating more fruits and vegetables?

- 1. Yes
- 2. No

c. More physically active?

- 1. Yes
- 2. No

STATE ADDED SEDENTARY LIFESTYLE

SASLQ1 How many hours a day do you watch TV or videos or use the computer for leisure activities?

[] 1-24 hours a day

66. Less than daily

88. Does not watch TV/videos/or use the computer for leisure activities

State Added Revised Module 10: Folic Acid

3. Now about vitamins, do any of the vitamin pills or supplements you take contain folic acid?

- 1. Yes
- 2. No **Go to Q5**

3. Don't take vitamin pills or supplements [Go to Q5]

4. How often do you take this vitamin pill or supplement?

1 ___ Times per day

2 ___ Times per week

3 ___ Times per month

4 ___ Times per year

5. Some health experts recommend that women take 400 micrograms of the B vitamin folic acid, for which one of the following reasons...

- 1. To make strong bones (Go to next module.)
- 2. To prevent birth defects
- 3. To prevent high blood pressure or (Go to next module.)
- 4. Some other reason (Go to next module.)

SAFAQ1 to help prevent some birth defects, a woman needs to take a vitamin containing folic acid...?

- 1. During the second trimester of pregnancy,
- 2. At least one month before pregnancy,
- 3. During the first trimester of pregnancy, or
- 4. At least one month before pregnancy and during the first trimester of pregnancy?

Module 11: Tobacco Indicators

If "yes" to core Q11.1, continue. Otherwise, go to Q6

Previously you said you have smoked cigarettes.

1. How old were you the first time you smoked a cigarette, even one or two puffs?
__ __ Code age in years

3. How old were you when you first started smoking cigarettes regularly?

__ __ Code age in years

8 8 Never smoked regularly **Go to Q6**

If "refused to core Q11.2, go to Q6

If "not at all" to core Q11.2, continue. Otherwise, go to Q4.

4. About how long has it been since you last smoked cigarettes regularly?

0 1 Within the past month (anytime less than 1 month ago) **Continue to Q4**

0 2 Within the past 3 months (1 month but less than 3 months ago) **Continue to Q4**

0 3 Within the past 6 months (3 months but less than 6 months ago) **Continue to Q4**

0 4 Within the past year (6 months but less than 1 year ago) **Continue to Q4**

0 5 Within the past 5 years (1 year but less than 5 years ago) **Go to Q6**

0 6 Within the past 10 years (5 years but less than 10 years ago) **Go to Q6**

0 7. 10 or more years ago [**Go to Q6**]

4. In the past 12 months, have you seen a doctor, nurse or other health professional to get any kind of care for yourself?

1. Yes

2. No **Go to Q6**

5. In the past 12 months, has a doctor, nurse or other health professional advised you to quit smoking?

1. Yes

2. No

6. Which statement best describes the rules about smoking inside your home?

1. Smoking is not allowed anywhere inside your home

2. Smoking is allowed in some places or at some times

3. Smoking is allowed anywhere inside the home or

4. There are no rules about smoking inside the home

If "employed" or "self-employed" to core Q14.8, continue.

Otherwise, go to next module.

7. While working at your job, are you indoors most of the time?

1. Yes

2. No **Go to Next Module**

8. Which of the following best describes your place of work's official smoking policy for indoor public or common areas, such as lobbies, rest rooms, and lunch rooms?

1. Not allowed in any public areas

2. Allowed in some public areas

3. Allowed in all public areas or

4. No official policy

9. Which of the following best describes your place of work's official smoking policy for work areas?

1. Not allowed in any work areas

2. Allowed in some work areas

3. Allowed in all work areas or

4. No official policy

STATE ADDED TOBACCO

SATQ1. How often have you seen anything on TV, heard anything on the radio or seen any billboards against smoking? Would you say...

1. A lot,

2. Sometimes,

3. Rarely, or

4. Never?

SATQ2. Now I would like to know if you have heard or seen anything at all about the anti-tobacco advertising campaign called "Just Eliminate Lies", JEL?

1. Yes

2. No

[IF RESPONSE IS NOT 1, SKIP TO THE NEXT MODULE]

SATQ3. How well informed do you think you are about the JEL "Just Eliminate Lies" campaign?

Would you say...

1. Very informed,

2. Somewhat informed,

3. Not very informed, or

4. Not at all informed?

[IF RESPONSE IS GREATER THAN 3, SKIP TO THE NEXT MODULE]

SATQ4. How much do you think you like the JEL, "Just Eliminate Lies" campaign?

Would you say you...

1. Strongly like it,

2. Like it,

3. Dislike it, or

4. Strongly dislike it?

Module 13: Arthritis

NOTE: Only asked to respondents with chronic joint symptoms or doctor diagnosed arthritis

(Core Q15.2=1 OR Core Q15.4=1)

1. "Earlier you indicated that you had arthritis or joint symptoms." Thinking about your arthritis or joint symptoms, which of the following best describes you **TODAY**?

1. I can do everything I would like to do

2. I can do most things I would like to do

3. I can do some things I would like to do

4. I can hardly do anything I would like to do

2. Has a doctor or other health professional **EVER** suggested losing weight to help your arthritis or joint symptoms?

1. Yes

2. No

3. Has a doctor or other health professional **EVER** suggested physical activity or exercise to help your arthritis or joint symptoms?

NOTE: If the respondent is unclear about whether this means an increase or decrease in physical activity, this means increase.

1. Yes

2. No

4. Have you **EVER** taken an educational course or class to teach you how to manage problems related to your arthritis or joint symptoms?

1. Yes

2. No

Module 15: Colorectal Cancer Screening

If respondent 49 years old or younger, go to next module

1. A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood. Have you ever had this test using a home kit?

1. Yes
2. No **Go to Q3**

2. How long has it been since you had your last blood stool test using a home kit?

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

3. 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 **Go to next module**

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

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

STATE ADDED SNACK QUESTIONS

SASNQ1. Next, have you seen or heard of the Pick-A-Better Snack message?

1. Yes
2. No **[Go to SADPQ1]**

SASNQ2 Where did you hear of the Pick-A-Better Snack message?

[SELECT ALL THAT APPLY]

11. School
12. Grocery store
13. Radio
14. Television
15. Newspaper
16. Billboard
17. Health fair
18. Other

STATE ADDED WEIGHT LOSS

The next few questions are about weight and weight loss. For some people, this is a sensitive topic and you do not have to answer any question that you do not want to. However, we would appreciate you answering them to the best of your ability.

SADPQ1. Have you ever tried to lose weight?

1. Yes
2. No **[Go to SADPQ5]**

SADPQ2. We would now like you to think about your most recent weight loss attempt. If you are currently trying to lose weight, please answer about your weight loss so far. [For **Females, say:** Do not include weight loss due to pregnancy.]

How much weight did you intentionally lose?

___ ___ Weight loss
pounds

- 8 8 8 None **[Go to SADPQ4]**

SADPQ3. How much weight have you gained back?

___ ___ Weight gained
pounds

- 8 8 8 None / Still losing

SADPQ4. How long have you been at your current weight?

- 1 ___ Days
- 2 ___ Weeks
- 3 ___ Months
- 4 ___ Years

SADPQ5. The next few questions are about prescription weight loss pills, those pills prescribed by a doctor whose primary purpose is weight control. By weight control we mean either trying to lose weight or to maintain your weight.

In the past 2 years, that is in the past 24 months, have you taken any weight loss pills prescribed by a doctor to control your weight? Do not include water pills or thyroid medications.

Would you say ...

1. Yes, you are currently taking them,
2. Yes, you've taken them in the past 2 years, but are not currently taking them, or
3. No, you have not taken them? **[Go to SADPQ8]**

SADPQ6. What is the name of the prescription weight loss pill you used MOST OFTEN during the past 2 years?

___ ___ Pill code

7 7 Don't know / Not sure

9 9 Refused **[Go to SADPQ8]**

SADPQ7. What is the total number of months or years that you have taken this pill? Do not count any time you were not taking this pill.

1 ___ Months

2 ___ Years

SADPQ8. In the past 2 years, that is in the past 24 months, have you taken any over-the-counter weight loss products to control your weight? This includes dietary supplements and natural or herbal weight loss products. ^(375,390) Would you say...

[Interviewer note: Over-the-counter products are those NOT prescribed by a doctor]

1. Yes, you are currently taking them,
2. Yes, you've taken them in the past 2 years, but are not currently taking them, or
3. No, you have not taken them? **[Go to next module]**

SADPQ9. What is the name of the over-the-counter weight control product you used most often during the past 2 years?

___ ___ Product Code

SADPQ10. If you have taken another over-the-counter weight control product in the past 2 years, what is the name of the second product you took? ⁽³⁹¹⁾

___ ___ Product Code

8 8 Didn't take another product

SADPQ11. Did any of the over-the-counter weight control products you told me about contain ma huang or ephedra?

[Interviewer note: pronounced (ma-whong) and (ah-fed-rah)]

1. Yes, I think so
2. No, I don't think so

STATE ADDED GAMBLING

I have just a few more questions and we'll be finished.

SAGQ1. Have you gambled in the last 12 months?

1. Yes
2. No **[SKIP TO CLOSING]**

SAGQ2. Has the money you spent gambling let to financial problems?

1. Yes
2. No

SAGQ3. Has the time you spent gambling led to problems in your family, work, or personal life?

1. Yes
2. No