

ANNUAL REPORT

SURVEY RESULTS

From the
2002 IOWA



Iowa Department of Public Health

State Center for Health Statistics

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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 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.

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 CDC. Core questions are asked annually or biannually. 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 2002. 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 prostate and 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 drinking and driving campaigns.

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 three strata. The first stratum is most likely nonresidential. The second stratum is residential but unlisted. The third 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. The probable nonresidential numbers are sampled at the lowest rate. There is no set number to be sampled per group, and completed interviews are not thrown out.

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 300 interviews per month were conducted from January through December in 2002 for a total sample size of 3,662. Interviewers made multiple attempts to reach a number to complete an interview before replacing that number.

One person residing in the home, 18 years or older, 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 21.7 minutes.

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

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.

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 answer 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 amount, but 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% chance of the true Iowa population value falling based on the survey. This range is referred to as a 95% confidence interval. Values can be considered significantly different from one group to another when the indicated confidence intervals for these groups do not overlap.

3. DEMOGRAPHICS OF THE BRFSS RESPONDENTS

The 3,662 respondents in the BRFSS for the year 2002 included 1,471 males and 2,191 females age 18 years and older. The following tables present the distribution of the respondent sample by 1) age and gender, 2) household income, and 3) level of education.

Table 3.1: Distribution of Iowa Survey Respondents by Age and Gender for Year 2002

Age	Male		Female		Total	
	#	%	#	%	#	%
18-24	140	9.5	141	6.4	281	7.7
25-34	239	16.2	293	13.4	532	14.5
35-44	282	19.2	389	17.8	671	18.3
45-54	306	20.8	412	18.8	718	19.6
55-64	208	14.1	311	14.2	519	14.2
65+	291	19.8	630	28.8	921	25.2
Unk/Ref	5	0.3	15	0.7	20	0.5
Total	1,471	40.2	2,191	59.8	3,662	100.0

Table 3.2: Distribution of Iowa Survey Respondents by Household Income for Year 2002

Household Income	# of Total Respondents	% of Total Respondents
<\$15,000	328	9.0
\$15,000-\$24,999	632	17.3
\$25,000- 34,999	554	15.1
\$35,000-\$49,999	704	19.2
\$50,000-\$74,999	587	16.0
>=\$75,000	460	12.6
Unknown/Refused	397	10.8
Total	3,662	100.0

Table 3.3: Distribution of Iowa Survey Respondents by Level of Education for Year 2002

Level of Education	# of Total Respondents	% of Total Respondents
Less than High School	283	7.7
High School Grad or GED	1,354	37.0
Some College or Technical School	1,059	28.9
College Graduate	956	26.1
Unknown/Refused	10	0.3
Total	3,662	100.0

4. GENERAL HEALTH STATUS OF IOWANS

Background

Self-ratings of health, 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 controlled for 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.^{2,4}

Respondents reporting "fair" and "good" health also show elevated risks of mortality in a dose response fashion.³ That is, each successively lower rating of general health meant a higher risk of mortality. The risk associated with poor self-rated health was actually higher than the risks associated with poor health status assessments by a physician.^{1,4}

General Health Status in Iowa

In 2002, when asked how their health was in general, 23.3% of respondents reported excellent. Another 34.6% said very good. While 30.6% reported good health, 11.5% rated their health as fair or poor. The percentage of males reporting their health as excellent was 24.30%, with 22.4% of females reporting their health was excellent.

Table 4.1: Self-Reported General Health Status by Age, 2002

Age Group	General Health Status				
	Excellent	Very good	Good	Fair	Poor
18 - 24	26.7	40.3	28.2	3.8	1.0
25 - 34	26.4	42.3	26.3	4.5	0.6
35 - 44	29.7	36.0	25.7	6.4	2.2
45 - 54	25.2	29.7	33.6	9.1	2.5
55 - 64	19.1	33.6	33.6	10.5	3.2
65 & Over	13.0	27.9	36.4	17.1	5.6

Respondents who were most likely to report having "excellent" or "very good" health included those between the ages of 25-34, college graduates, and those with annual incomes of \$75,000 and over.

Table 4.2: Self-Reported General Health Status by Education, 2002

Education	General Health Status				
	Excellent	Very good	Good	Fair	Poor
Less than H.S.	10.7	21.4	41.5	18.2	8.3
H.S. or G.E.D.	17.6	32.7	35.2	11.3	3.1
Some Post-H.S.	23.7	35.5	31.0	7.7	2.1
College Grad.	34.2	39.6	20.7	4.5	1.1

Table 4.3: Self-Reported General Health Status by Income, 2002

Income	General Health Status				
	Excellent	Very good	Good	Fair	Poor
< \$15,000	12.8	26.6	33.3	16.8	10.4
\$15-\$24,999	15.3	28.6	38.2	13.4	4.6
\$25-\$34,999	22.0	31.5	34.5	10.1	1.9
\$35-\$49,999	21.6	38.6	30.6	7.5	1.7
\$50-\$74,999	27.6	39.2	26.1	6.3	0.9
>=\$75,000	37.8	39.7	18.9	3.4	0.1

In answer to the question about how many days during the past 30 days was their physical health not good, 70.3% of respondents reported none of the days, 21.3% reported one to seven days, and 8.4% reported more than seven days. As shown in Table 4.4, males had fewer days of physical health not being good than females. There were also fewer bad physical days with higher education and income. People with incomes less than \$15,000 had the lowest percent with no bad physical health days, while those with incomes between \$50,000 and \$74,999 had the highest. On the other hand, people with incomes less than \$15,000 had the highest percent with eight or more bad physical health days in the past 30, while those with incomes of \$75,000 or higher had the lowest.

When responding to the question of how many days during the past 30 days their mental health was not good, 71.1% of the respondents indicated none of the days, 19.2% reported one to seven days and 8.8% reported more than seven days. Table 4.4 shows the pattern for bad mental health days was similar to bad physical health days. Gender showed more impact for mental health days, while education showed less. 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 age 65 and over, while those with the highest were those with incomes of less than \$15,000.

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Table 4.4: Percentage of Reported Days of Poor Physical or Mental Health in Past 30 Days, 2002

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	70.3	21.3	8.4	71.1	19.2	9.8
SEX						
Male	73.7	19.3	7.0	77.7	15.3	6.9
Female	67.1	23.2	9.7	64.9	22.7	12.5
AGE GROUP						
18-24	65.1	29.7	5.2	57.3	30.6	12.2
25-34	68.7	25.9	5.5	62.3	25.2	12.5
35-44	68.7	24.9	6.4	67.3	23.9	8.7
45-54	71.0	20.0	9.0	71.4	17.3	11.4
55-64	73.4	14.4	12.2	78.2	10.5	11.3
65+	74.6	12.9	12.5	87.4	8.2	4.4
EDUCATION						
Less than H.S.	58.4	24.4	17.1	73.8	15.4	10.9
H.S. or G.E.D.	70.6	19.3	10.1	71.5	17.7	10.8
Some Post-H.S.	69.7	22.1	8.2	70.2	19.3	10.5
College Graduate	73.4	22.5	4.1	70.9	21.7	7.3
HOUSEHOLD INCOME						
Less than \$15,000	56.2	23.7	20.0	61.9	20.7	17.5
\$15,000- 24,999	67.3	19.7	13.0	65.8	22.9	11.2
\$25,000- 34,999	71.7	20.5	7.8	72.3	17.0	10.7
\$35,000- 49,999	70.4	22.4	7.2	70.1	20.2	9.8
\$50,000- 74,999	74.7	21.0	4.3	71.8	21.3	7.0
\$75,000+	73.6	22.8	3.6	75.5	18.0	6.5

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5. QUALITY OF LIFE AND DISABILITY

Background

Quality of life may be defined as an individual's satisfaction or happiness with life in areas he or she considers important.³ Quality of life is also known as life satisfaction, subjective well being, overall quality of life, or global quality of life.

It is a broad concept that includes many dimensions of life that contribute to its richness, pleasure, and pain. One such dimension is health (physical and mental well-being).³ But many other areas play a role such as relationships; social, community and civic activities; personal development; fulfillment; and recreation.³

One's assessment of quality of life involves considerations of both how important a particular area of life is for that person, and how satisfied the person is with it. Most of the questions asked in this survey involved just the latter consideration, but they are related to concepts that are generally important to most people.

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."²

The number of people age 5 and over with a disability, according to Census 2000 was 49.7 million. This is a ratio of nearly 1-in-5 noninstitutionalized 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.¹

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 or business.¹

In 1994, approximately 7.4 million Americans used Assistive Technology Devices (ATDs) to accommodate mobility impairments in the United States.⁴

Quality of Life and Disability in Iowa

In 2002, 13.5% responded "yes" to being limited in any way in activities due to an impairment or health problem. As shown in Table 5.1, 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. Of the four demographic variables analyzed, household income had the greatest impact on prevalence of limitation (see also figure 5.1).

**Table 5.1
Percent Reporting Being Limited
by an Impairment or Health
Problems**

Demographic Groups	%	C.I. (95%)
TOTAL	13.5	(12.3-14.8)
SEX		
Male	12.4	(10.7-14.4)
Female	14.5	(12.9-16.2)
AGE		
18-24	8.8	(5.6-13.6)
25-34	7.4	(5.4-10.2)
35-44	7.5	(5.7- 9.9)
45-54	15.9	(13.0-19.4)
55-64	19.8	(16.2-23.8)
65+	22.0	(19.0-25.2)
EDUCATION		
Less than H.S.	17.9	(13.4-23.4)
H.S. or G.E.D.	14.6	(12.5-16.9)
Some Post-H.S.	13.5	(11.3-16.1)
College Grad.	10.6	(8.8-12.8)
HOUSEHOLD INCOME		
<\$15,000	29.7	(23.8-36.3)
\$15,000- 24,999	19.8	(16.4-23.6)
\$25,000- 34,999	11.8	(8.6-15.9)
\$35,000- 49,999	11.8	(9.4-14.7)
\$50,000- 74,999	9.7	(7.5-12.6)
\$75,000+	6.3	(4.3- 9.0)

The types of major impairment or health problem listed for people who are limited in activities most commonly were back and neck problems (18.4%), arthritis or rheumatism (13.2%), and fractures and/or bone or joint injuries (10%). Around 25.4% listed 'other impairment' indicating that the list of choices may not be as comprehensive as would be desirable. Still, out of thirteen options, ten had a response of more than one percent.

The rate of arthritis or rheumatism was higher for women (16%) than men (9.5%). The most extreme sex difference of any limiting health problem occurred with heart problems where 11.7% of men, but only 3.2% of women, listed it as a problem. A heart problem was actually the second most frequent limitation listed by men, surpassing arthritis.

When asked about needing special equipment, 4.5% of adult Iowans said they needed such items as a cane, a wheelchair, a special bed, or a special telephone. Interestingly, 30.1% of these respondents said they were not limited by health problems.

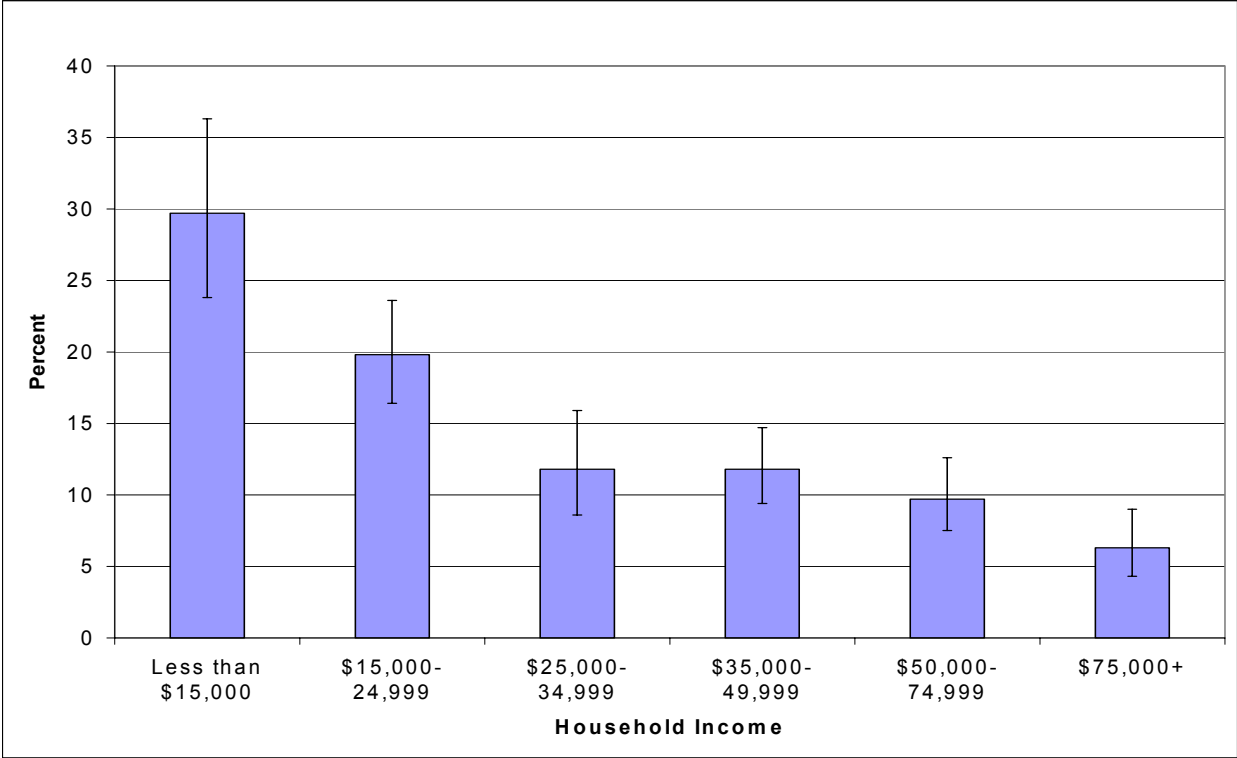
When asked about needing the help of others with their personal care needs, 10.7% of persons limited in their activities or needing special equipment

reported doing so. Males (12.9%) were more likely than females (9.1%) to report needing assistance. A greater proportion, 27.8%, needed the help of others in handling their routine needs. Females (35.6%) were more likely than males (17.2%) to report this need.

When asked how many days in the past 30 days pain made it hard for them to do their usual activities, 22.8% of all respondents reported at least one day in the past 30 days, 7.1% said 1-2 days, 6.5% said 3-7 days, 2.3% said 8-14 days, and 6.8% indicated 15-30 days of pain that restricted usual activities. The group with the lowest percent of respondents reporting 15 or more days of pain was age 18 to 24 having only 2.1%, while the group with the highest percent was 17.7% of those with incomes of less than \$15,000 (see Table 5.2).

Out of the past 30 days, 47.2% of the respondents reported feeling sad, blue, or depressed for at least one day; 16.9% of people were sad, blue, or depressed for 1-2 days. For 11.7% this feeling lasted for 3-7 day, 2.9% lasted 8-14 days, and 5.7% lasted 15-30 days. People with less education and lower household incomes reported having more sad, blue, or depressed days (see Table 5.2). Around 12.5% of respondents with incomes less than \$15,000 reported having 15 or

Figure 5.1: Self-Reported Limitation Due to an Impairment or Health Problem by Income, 2002



more sad, blue, or depressed days, while only 1.9% of those with incomes of \$75,000 or more reported such days.

Within the past 30 days, 54.2% reported feeling worried, tense, or anxious for at least one day, 19.3% reported these feelings one to two days during the past month, 17.4% reported 3-7 days, 5.6% reported 8-14 days, and 12% reported 15-30 days. The number of worried days decreased with age, with education and with income. Table 5.2 shows that the lowest percent of respondents worried for 15 or more days occurred in those of age 65 and over, while the most occurred in those with a household income less than \$15,000.

Of the respondents asked how many days they felt they did not get enough rest or sleep, 69.3% reported not getting enough sleep for at least one day of the past 30 days. As shown in table 5.2 the number of days without enough rest decreased steadily with age. It was somewhat lower for college graduates and somewhat higher for people from households earning \$25,000 to \$34,999.

The proportion of people who said they felt very healthy and full of energy 15-30 days during the past 30 days was 71.3%. People under age 35 and people with lower education were somewhat less likely to report 15 or more days of feeling energetic in the past 30. Persons with higher incomes were most likely to report feeling very healthy and full of energy for 15 or more of the past 30 days (see table 5.2).

An important and easy way to lower the risk of death or disability from a motor vehicle accident is to wear a seatbelt. In 2002, when respondents were asked how often they wore a seatbelt when driving or riding in a car, 90% said always or nearly always. This was more common among females than males (94.6% vs. 85.2%).

**Table 5.2:
Percentage of Iowans Reporting 15 or More of Various Quality of Life Days Out of the Last 30 Days, 2002**

Demographic Groups	Pain Days	Sad, Days	Worried Days	Not Enough Rest Days	Energy Days
TOTAL	6.8	5.7	12.0	23.8	71.3
SEX					
Male	5.6	4.6	10.4	20.8	73.3
Female	7.8	6.8	13.5	26.6	69.5
AGE					
18-24	2.1	5.8	15.4	35.6	67.9
25-34	3.0	4.9	16.6	36.0	67.0
35-44	4.9	6.0	12.5	26.3	74.0
45-54	9.1	6.2	11.9	20.2	71.0
55-64	11.3	7.4	11.5	14.8	75.1
65+	10.3	4.4	5.6	11.0	72.8
EDUCATION					
Less than H.S.	10.2	10.7	18.9	26.2	66.9
H.S. or G.E.D.	8.5	6.9	13.1	23.3	69.6
Some Post-H.S.	6.6	5.8	11.7	27.0	71.7
College Graduate	3.6	2.5	9.1	20.3	74.1
HOUSEHOLD INCOME					
Less than \$15,000	17.7	12.5	23.9	27.7	58.9
\$15,000- 24,999	9.7	8.6	12.9	22.0	66.2
\$25,000- 34,999	7.0	6.8	13.9	30.2	69.5
\$35,000- 49,999	5.5	5.1	11.2	23.8	73.6
\$50,000- 74,999	3.9	2.5	8.6	21.4	71.7
\$75,000+	2.6	1.9	8.6	20.3	79.6

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6. 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 in Iowa

In 2002, 8.8% of the survey respondents reported they had no health insurance. Table 6.1 shows that more males lacked health insurance than females. Furthermore younger people, less educated people, and people with lower incomes 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 (21.9%). 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. Age and sex tended to interact so that more men were without coverage at the younger ages, while more women were without coverage at the older ages (see figure 6.1).

Two other demographic variables which had a major impact on health care coverage were employment status and marital status. Those respondents who were out of work had the highest percentage not covered by health insurance (41.1%). The second highest group was student (21.2%). Only 1.4% of retirees were without health insurance.

People who were married were much more likely to have health care coverage than those who were not. Only 4% of married respondents were without coverage, while 17.2% of unmarried respondents were.

The main reason given for not having healthcare coverage was that they could not afford the premiums (45.7%).

Table 6.1
Percentage of Responses to Health Care Coverage, Access, and Utilization Questions in Iowa, 2002

Demographic Groups	No Health Insurance Coverage		Time couldn't get help		Have one person as health provider		Had regular checkup within past 12 months	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	8.8	(7.7-10.1)	2.9	(2.3-3.7)	75.9	(74.1-77.6)	75.5	(73.8-77.3)
SEX								
Male	9.5	(7.9-11.5)	2.1	(1.3-3.2)	70.7	(67.9-73.3)	65.8	(62.9-68.6)
Female	8.1	(6.8-9.8)	3.7	(2.8-4.8)	80.8	(78.6-82.8)	84.5	(82.6-86.4)
AGE								
18-24	21.9	(16.9-27.9)	6.0	(3.4-10.3)	61.0	(54.3-67.3)	72.0	(65.7-78.3)
25-34	11.9	(9.0-15.6)	3.7	(2.2-6.1)	68.1	(63.5-72.5)	67.0	(62.4-71.5)
35-44	9.3	(7.1-12.1)	3.7	(2.4-5.8)	74.4	(70.3-78.2)	67.5	(63.4-71.6)
45-54	6.9	(5.0-9.4)	2.1	(1.3-3.3)	81.2	(77.7-84.3)	74.2	(70.3-78)
55-64	4.9	(3.4-7.2)	1.8	(0.9-3.3)	83.2	(79.2-86.5)	84.9	(81.3-88.6)
65+	1.0	(0.5-1.8)	0.7	(0.4-1.3)	84.3	(81.3-86.9)	88.6	(85.8-91.4)
EDUCATION								
Less than H.S.	21.0	(15.5-27.9)	9.6	(5.6-16.0)	71.9	(65.0-77.9)	83.3	(78.1-88.4)
H.S. or G.E.D.	10.0	(8.1-12.3)	2.7	(1.7-4.1)	77.5	(74.7-80.1)	75.1	(72.1-78)
Some Post-H.S.	8.6	(6.7-10.9)	2.5	(1.7-3.9)	74.2	(70.7-77.5)	74.9	(71.6-78.2)
College Graduate	4.3	(3.0-6.1)	1.9	(1.1-3.1)	76.6	(73.3-79.6)	74.9	(71.7-78.1)
HOUSEHOLD INCOME								
Less than \$15,000	19.4	(14.4-25.5)	8.5	(5.3-13.3)	67.8	(60.1-74.6)	77.9	(71.1-84.7)
\$15,000- 24,999	14.9	(11.5-19.1)	3.7	(2.2-5.9)	72.5	(67.8-76.7)	78.8	(74.5-83.2)
\$25,000- 34,999	12.3	(9.1-16.4)	4.0	(2.3-7.0)	73.4	(68.5-77.8)	72.1	(67.5-76.8)
\$35,000- 49,999	6.1	(4.1-8.8)	1.9	(0.9-4.1)	77.1	(73.2-80.6)	75.5	(71.8-79.3)
\$50,000- 74,999	3.1	(1.9-4.9)	1.5	(0.8-3.0)	74.5	(70.3-78.3)	73.9	(69.9-77.9)
\$75,000+	2.3	(1.2-4.5)	0.6	(0.2-1.8)	85.6	(81.7-88.8)	71.6	(66.8-76.4)

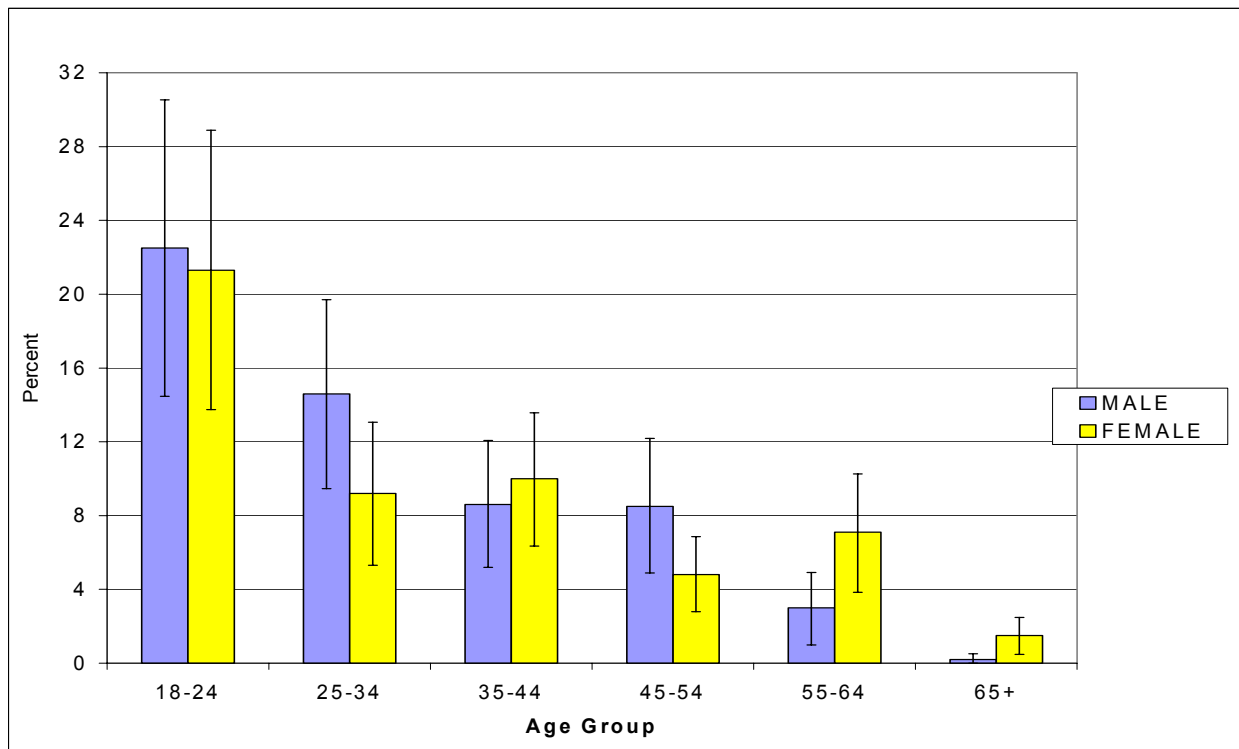
When asked if there was a time in the past 12 months when they needed medical care but could not get it, 2.9% said there was. The percentage was higher for females, younger people, people with less education, and people with lower incomes. The lowest percentage (0.6%) was for people earning \$75,000 or more. The highest percentage (9.6%) was for people with less than a high school education.

More than two thirds of the respondents (68.5%) said the reason they did not get care was the cost.

Since it is important that care be coordinated, respondents were asked if they had one person they considered as their health provider. This reply was given by 75.9% of respondents. Women, older people, and people with higher household incomes were more likely to report a regular provider. Least likely were those age 18 to 24 (61%), while those with incomes of \$75,000 or higher were most likely (85.6%).

When asked if they had a routine medical checkup during the last year, 75.5% of respondents reported they had, including 84.5% of females and 65.8% of males. Respondents age 65 and over were most likely to report having a routine checkup in the past 12 months (88.6%). The age group with the lowest percentage was actually age 25 to 34. Respondents with less than a high school education had a higher percentage receiving a checkup than other levels of education.

Figure 6.1: Percentage of Iowans Reporting No Health Insurance Coverage by Sex and Age, 2002



Comparison With Other States

Five states had an equal or lower percentage of residents without health insurance when the elderly who are generally covered by Medicare are excluded. Iowa had 10.8% of its non-elderly respondents reporting not having any insurance. In 2001, the figure was 10.1%. The median percentage of uninsured nationwide was 16.6%.

Year 2010 Health Objectives for the Nation

The Healthy People 2010 goal for health insurance coverage is to see all people be covered by some form of health insurance. In Iowa only 89.2% of the non-elderly have coverage. This is far short of the goal.

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7. CARDIOVASCULAR DISEASE

Background

Cardiovascular disease is a condition that includes high blood pressure, coronary heart disease, stroke, congestive heart failure, and other conditions. Heart disease and stroke—the principal components of cardiovascular disease—are the first and third leading causes of death in the United States, accounting for nearly 40% of all deaths. About 950,000 Americans die of cardiovascular disease each year, which amounts to one death every 33 seconds.³

Moreover, deaths are only part of the picture. About 61 million Americans (almost one-fourth of the population) live with cardiovascular disease. Coronary heart disease is a leading cause of premature, permanent disability in the U.S. workforce. Stroke alone accounts for disability among more than 1 million Americans. It is the leading cause of disability in older Americans.¹ Almost 6 million hospitalizations each year are due to cardiovascular disease.³

The economic impact of cardiovascular disease on the U.S. health care system continues to grow as the population ages. The cost of heart disease and stroke in the United States is projected to be \$351 billion in 2003, including health care expenditures and lost productivity from death and disability.³

In Iowa deaths from heart disease have steadily declined. The rate per 100,000 population has gone from 344.9 in 1991 to 278.3 in 2002. The downward trend for deaths from stroke reversed course around year 2000. The rate of deaths from stroke has gone from 74.7 in 1991 to 74.1 in 2001 and reached a rate of 75.6 in 2002.^{4,5} Deaths from cardiovascular disease were 40.6% of all deaths in 2001 in Iowa. Diseases of the heart made up 29.6% and cerebrovascular disease 8% (up from 7.8 in 2000).⁴

Reducing cardiovascular disease risk requires an integrated strategy that includes:

- 1) Lifestyle behavior change -- 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 bicycle trails for use by the public.
- 3) Development of public policies that encourage healthy lifestyle behaviors such as smoke-free worksites.²

Clinical preventive measures can reduce cardiovascular disease risk. The measures include taking a small daily dose of aspirin (75 milligrams per day) after age 35 and increasing dietary folate intake to reduce homocysteine levels. All clinical approaches to cardiovascular risk reduction should be supervised by a physician.

Cardiovascular Disease in Iowa

In 2002, 64.4% of Iowans reported eating fewer high fat or high cholesterol foods than they had in order to lower their risk of heart disease. Many more women than men were eating fewer of these foods (see table 7.1). The percentage of people eating fewer high fat foods increased with age and education. Income did not have much impact except for the highest income level of \$75,000 or more. A lower percentage of these people ate fewer high fat foods

Only 16.6% of respondents reported that within the past 12 months their doctor advised them to eat fewer high fat and cholesterol calories. Interestingly, except for age, the demographic pattern for those receiving this advice did not correspond well to those taking it. Slightly more men than women were advised to eat less fat. More people with less education were advised to eat less fat, but fewer did so.

In 2002, 70.4% 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 7.1). The percentage of people eating more fruits and vegetables also increased with age. Education and income did not have much impact except for college graduates and the highest income level of \$75,000 or more. A higher percentage of these people ate more fruits and vegetables.

Only 24% of respondents reported that within the past 12 months their doctor advised them to eat more fruits and vegetables. As with high fat and cholesterol foods more people with less education were advised to eat more fruits and vegetables, but they did not do so.

In 2002, 66.5% of Iowans were exercising more to lower their risk of developing heart disease or stroke. The highest percentage of respondents reporting that they exercised more was aged 18-24, while those with household incomes less than \$15,000 per year had the lowest. More females than males were exercising more.

Of those surveyed, 25.2% reported that their doctor advised them to exercise more. Here also the people advised to exercise were not necessarily the ones doing so. The age group with the highest percentage told to exercise more was 45-54. The 18 to 24 age group had the lowest percentage of all told to exercise more.

Respondents were asked if they were ever told by a doctor that they had experienced a heart attack. In 2002, 4.2% reported that they had. The majority of these respondents were male and over age 65 (20.1%). Less than 0.6% of respondents less than age 45 reported having experienced a heart attack. Iowans surveyed also were asked whether a doctor ever told them they had coronary heart disease and 3.3% said yes. Again, a greater percentage of males age 65 and over reported ever being told they have coronary heart disease (16.7%).

When respondents were asked if they were ever told by a doctor that they had experienced a stroke, 1.9% said they had. The group of respondents with the highest prevalence was female and over age 65 (5.5%).

Table 7.1: Percent of Iowans Involved in Various Actions to Lower Risk of Developing Heart Disease or Stroke, 2002

Demographic Groups	Eating fewer high fat or high cholesterol foods?.		Advised to eat fewer high fat or high cholesterol foods?.		Eating more fruits and vegetables?		Advised to eat more fruits and vegetables?		More physically active?		Advised to be more physically active?	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	64.4	(62.4-66.2)	16.6	(15.2-18.1)	70.4	(68.5-72.2)	24.0	(22.4-25.8)	66.5	(64.7-68.3)	25.2	(23.5-26.9)
SEX												
Male	55.3	(52.2-58.3)	17.4	(15.3-19.7)	62.8	(59.8-65.7)	22.5	(20.1-25.1)	63.0	(60.1-65.8)	24.8	(22.3-27.4)
Female	72.6	(70.3-74.9)	15.9	(14.1-17.9)	77.3	(75.1-79.4)	25.4	(23.2-27.8)	69.8	(67.4-72.0)	25.5	(23.3-27.8)
AGE												
18-24	52.4	(45.4-59.2)	6.9	(4.4-10.6)	59.5	(52.6-66.1)	17.1	(12.7-22.7)	74.9	(68.7-80.2)	15.2	(11.1-20.4)
25-34	52.0	(47.2-56.9)	10.6	(8.0-13.9)	63.5	(58.8-68.0)	19.5	(16.0-23.5)	66.4	(61.6-70.8)	21.1	(17.4-25.2)
35-44	66.6	(62.3-70.7)	15.1	(12.0-18.9)	70.8	(66.7-74.6)	23.6	(19.7-28.0)	71.2	(67.2-74.9)	25.8	(22.0-30.0)
45-54	69.5	(65.3-73.3)	22.6	(19.2-26.4)	71.6	(67.5-75.4)	27.3	(23.7-31.3)	64.2	(59.9-68.2)	31.7	(27.8-35.8)
55-64	72.1	(67.4-76.3)	23.9	(19.8-28.5)	76.7	(72.1-80.6)	26.1	(22.1-30.7)	60.9	(55.9-65.7)	28.6	(24.4-33.2)
65+	71.8	(68.1-75.2)	19.1	(16.1-22.4)	78.0	(74.6-81.1)	28.2	(24.8-31.9)	61.1	(57.2-64.9)	26.3	(22.9-29.9)
EDUCATION												
Less than H.S.	58.7	(51.3-65.8)	19.0	(14.0-25.1)	67.8	(60.7-74.1)	34.3	(28.0-41.3)	66.6	(59.6-73.0)	32.0	(25.8-38.8)
H.S. or G.E.D.	61.2	(57.9-64.4)	17.1	(14.8-19.6)	70.9	(67.8-73.7)	24.7	(21.9-27.7)	65.9	(62.8-68.8)	24.8	(22.1-27.7)
Some Post-H.S.	63.4	(59.7-66.9)	16.3	(13.6-19.3)	66.0	(62.2-69.5)	23.2	(20.2-26.5)	64.4	(60.9-67.9)	23.9	(20.9-27.1)
College Graduate	70.8	(67.2-74.2)	15.9	(13.4-18.7)	75.1	(71.7-78.2)	21.5	(18.6-24.7)	69.4	(65.9-72.7)	25.1	(22.1-28.4)
HOUSEHOLD INCOME												
< \$15,000	60.1	(52.6-67.1)	17.5	(12.8-23.5)	70.5	(63.4-76.8)	30.5	(24.1-37.6)	59.9	(52.6-66.7)	27.5	(21.6-34.2)
\$15,000- 24,999	58.9	(53.8-63.8)	17.5	(14.2-21.5)	68.8	(63.7-73.4)	30.5	(26.2-35.2)	66.9	(62.3-71.3)	30.8	(26.4-35.5)
\$25,000- 34,999	63.4	(58.1-68.4)	15.3	(11.9-19.5)	70.1	(65.2-74.6)	21.2	(17.2-25.8)	65.5	(60.5-70.2)	22.5	(18.5-27.1)
\$35,000- 49,999	66.3	(62.0-70.3)	15.3	(12.6-18.5)	69.5	(65.3-73.3)	21.7	(18.1-25.7)	66.8	(62.6-70.7)	22.2	(18.9-25.8)
\$50,000- 74,999	63.3	(58.6-67.7)	17.0	(13.8-20.7)	70.1	(65.6-74.1)	23.4	(19.8-27.5)	69.0	(64.6-73.1)	26.6	(22.8-30.9)
\$75,000+	72.2	(67.3-76.7)	16.7	(13.1-21.0)	74.6	(69.7-78.9)	20.8	(16.9-25.2)	69.1	(64.1-73.7)	25.3	(21.1-30.1)

Taking aspirin daily has been recommended as a preventive measure to reduce the risk of cardiovascular disease for people over age 35. When asked about aspirin, 32.8% of respondents 35 and over reported taking aspirin daily or every other day.. Percentages of use directly increased with age. Only 15.2% of respondents between 35 and 44 reported daily use compared to 50.8% of respondents ages 65 and older. Over 34.7% of males compared to 31% of females reported daily or every other day use.

When asked why they take aspirin, respondents could choose any or all of three possible reasons. Of these, 79.5% said it was to reduce the risk of heart attack, and 74.9% said to reduce the risk of stroke. Only 23% said they took aspirin to relieve pain.

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Figure 7.1: Percent of Iowans Eating and Advised to Eat Fewer High Fat or High Cholesterol Foods to Lower Risk of Developing Heart Disease or Stroke by Age, 2002

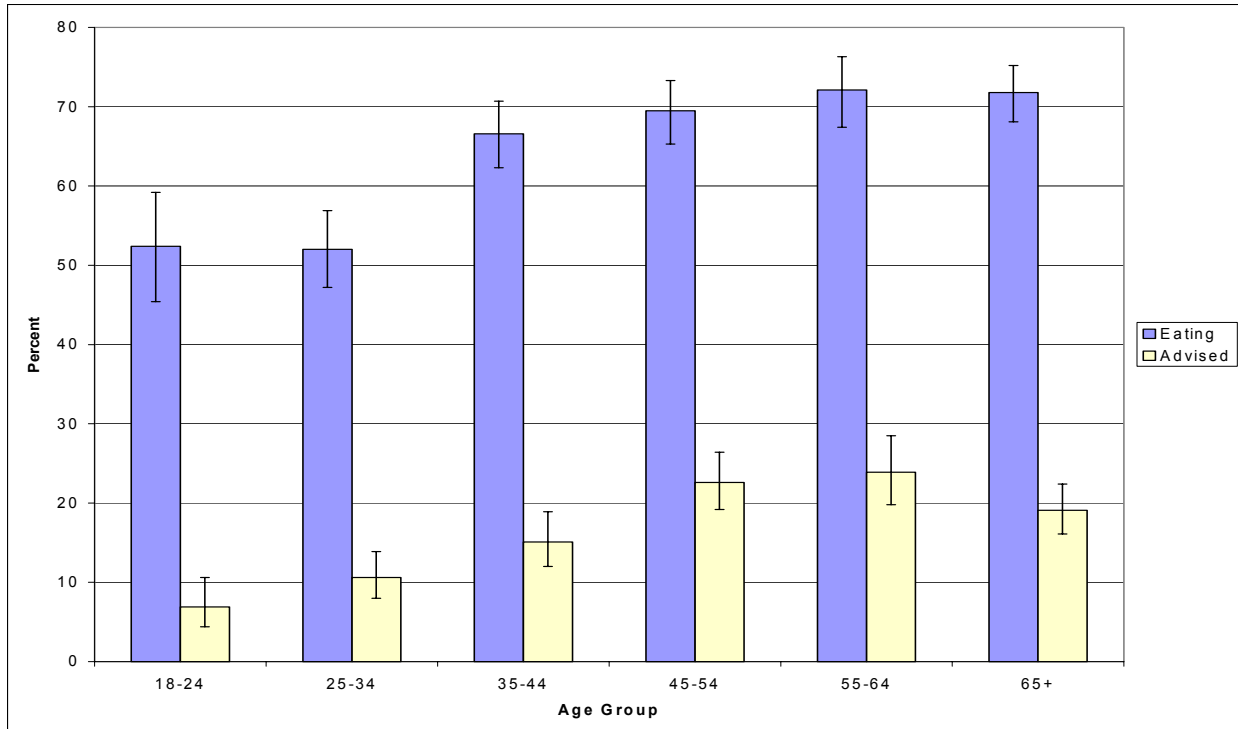
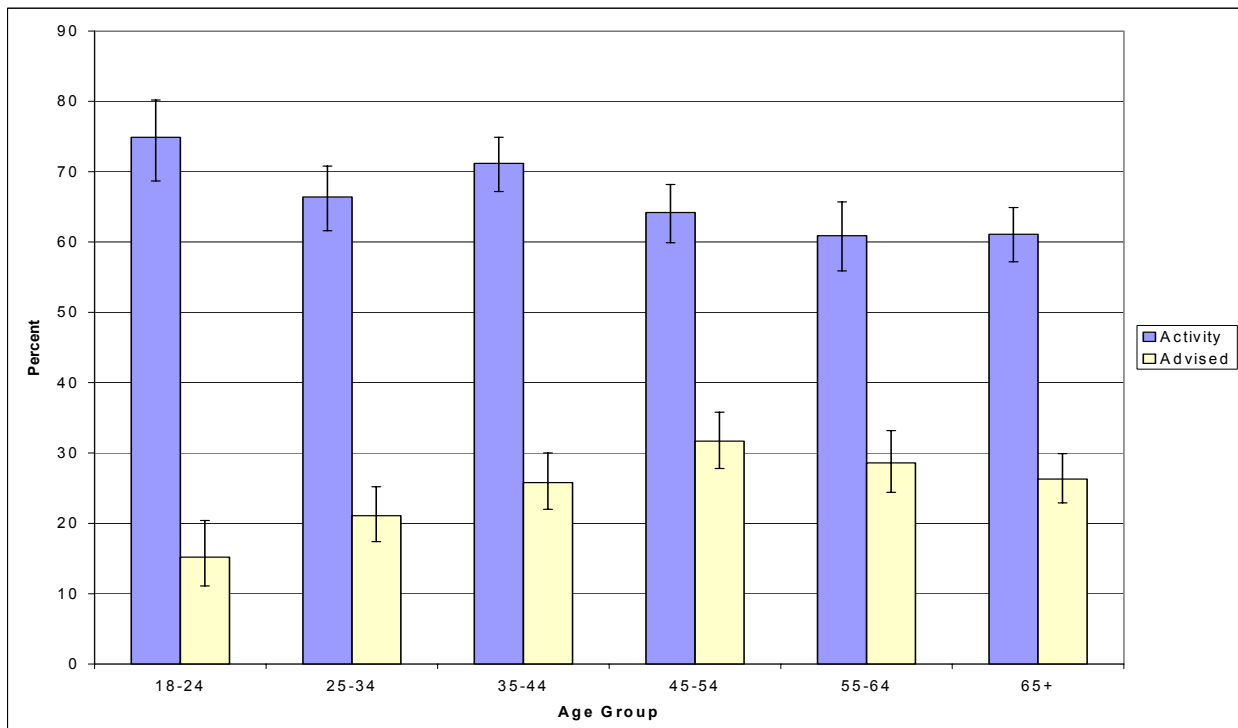


Figure 7.2: Percentage of Iowans Exercising More or Advised to Exercise More to Lower their Risk of Heart Disease or Stroke by Age, 2002



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*.²

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. This often symptomless disorder is a major risk factor for heart disease and stroke. Those with systolic blood pressure of 120-139 mm Hg and/or diastolic blood pressure of 80-89 mm Hg are now classified as prehypertensive, requiring health-promoting lifestyle modifications to prevent CVD.²

About two-thirds of people over age 65 have high blood pressure. Those who do not have high blood pressure at age 55 face a 90 percent chance of developing it during their lifetimes. So high blood pressure is a condition that *most people have at some point in their lives*.²

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.²

High Blood Pressure in Iowa

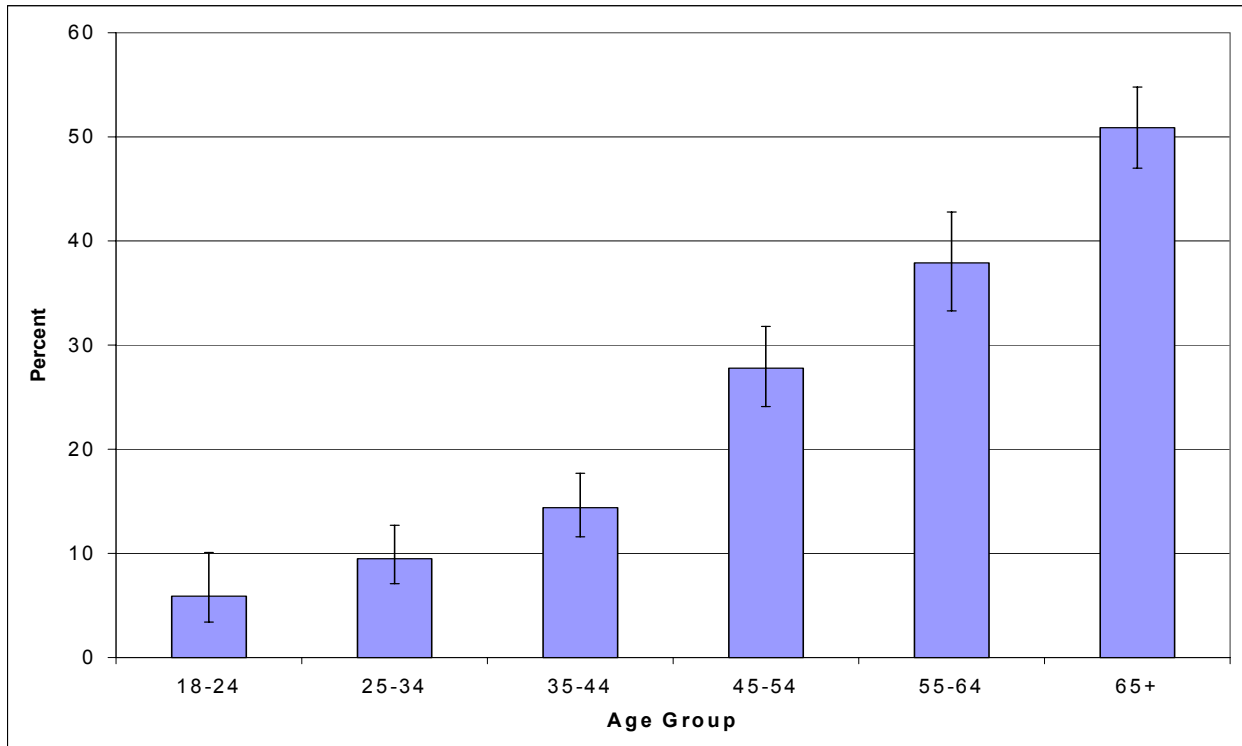
Of all respondents, 24.9% reported ever being told they had high blood pressure. The highest percentage of respondents was ages 65 and older, while the lowest was age 18 to 24. More females reported having high blood pressure than males. The prevalence of high blood pressure also increased with lower levels of education and household income. White Non-Hispanics reported a higher percentage of high blood pressure than Hispanics or other race.

Of those reporting high blood pressure only 71.4% reported taking medication for their condition. Like high blood pressure itself, this percentage increases steadily with age reaching a high of 89.2% for those 65 years and older. More females with high blood pressure took blood pressure medicine than males (78.5% vs. 63.3%).

Table 8.1: Percent of Iowans Told Blood Pressure Is High

DEMOGRAPHIC GROUPS	%	C.I. (95%)
TOTAL	24.9	(23.4-26.6)
SEX		
Male	24.3	(21.9-26.8)
Female	25.5	(23.5-27.7)
AGE		
18-24	5.9	(3.4-10.1)
25-34	9.5	(7.1-12.7)
35-44	14.4	(11.6-17.7)
45-54	27.8	(24.1-31.8)
55-64	37.9	(33.3-42.8)
65+	50.9	(47.0-54.8)
EDUCATION		
Less than H.S.	36.1	(30.0-42.8)
H.S. or G.E.D.	28.7	(26.0-31.5)
Some Post-H.S.	21.3	(18.6-24.2)
College Graduate	20.8	(18.0-23.9)
HOUSEHOLD INCOME		
Less than \$15,000	37.6	(31.1-44.5)
\$15,000- 24,999	33.9	(29.7-38.4)
\$25,000- 34,999	23.3	(19.6-27.5)
\$35,000- 49,999	24.8	(21.3-28.6)
\$50,000- 74,999	19.7	(16.3-23.5)
\$75,000	16.1	(12.7-20.2)
RACE/ETHNICITY		
Non-Hisp. White	24.9	(23.3-26.5)
Non-White or Hisp.	23.1	(15.9-30.6)

Figure 8.1: Iowans Ever Told Blood Pressure is High by Age, 2002



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.

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9. CHOLESTEROL AWARENESS

Background

High blood cholesterol levels are associated with increased incidence of coronary heart disease. 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. Ideally, LDL cholesterol levels should be below 130 mg/dL, and HDL cholesterol levels should be above 40 mg/dL. The HDL level should account for more than 25 percent of the total cholesterol.¹ Reducing high levels of blood cholesterol helps to decrease a person's risk for heart disease.⁵

For nearly three decades, average blood cholesterol levels in the United States have fallen. Between the early 1960s and 1993, average adult cholesterol dropped from 222 mg/dl to 203 mg/dl. During the same time period, the proportion of adults with high blood cholesterol (\geq 240 mg/dl) dropped substantially, from 33.3% to 19%.^{2,3} Despite this progress, half of the U.S. population has blood cholesterol levels \geq 200 mg/dl, defined as high levels.

Activities using two different approaches can help lower blood cholesterol levels:

- 1) a clinical approach to identify and treat at-risk individuals; and
- 2) a population based strategy to reduce the population's average cholesterol level by lowering individual blood cholesterol levels.

These approaches complement one another and represent a coordinated strategy for reducing the risk of coronary heart disease.¹

Healthy American adults over age 20 can lower their blood cholesterol levels by adopting a low-fat, low-cholesterol diet and by having blood cholesterol measured every five years. Each 10% reduction in the U.S. population's average blood cholesterol level can reduce deaths from coronary heart disease by 20%.¹

Blood Cholesterol Awareness in Iowa

In 2002, the percentage of Iowans reporting ever having their blood cholesterol checked was 76.4%. More females than males reported having their blood cholesterol checked (see table 9.1).

The proportion of respondents reporting ever having their blood cholesterol checked increased with age until age 55 and over. Over 90% of respondents 55 and over reported ever having their blood cholesterol checked. Only 44.2% of those 18 to 24 had done so. The age variable had the strongest impact on whether respondents had their blood cholesterol checked of all demographic variables investigated. Prevalence of ever having blood cholesterol checked also rose with levels of education and household income. More Non-Hispanic Whites had their blood cholesterol checked than Hispanics or members of other races.

When asked whether they had their blood cholesterol checked by a health professional during the past year, 67.5% of respondents who had ever had their blood cholesterol checked reported having it. Similar responses were reported for both males and females. Respondents in older

age groups were more likely than younger respondents to report having a more recent blood cholesterol test. One exception was the 18 to 24 age group who was more likely to have had a blood cholesterol test within the past year than the 25 to 34-year-olds. People with less education and household income were more likely to have had a more recent blood cholesterol test. Hispanics and other races were more likely to have a cholesterol test in the past year if they had a test at all.

Of the respondents who had their cholesterol tested, 33.2% reported that they had ever been told by a doctor or other health professional that their blood cholesterol was high. The percentage of males was higher than the percentage of females. Age made a considerable difference in reporting high cholesterol with the oldest age group reporting more than six times greater prevalence of high cholesterol than the youngest. People with a higher education were less likely to report high cholesterol. Middle income people were less likely to report high cholesterol than either high or low income. The \$35,000 to \$49,999 household income level reported a lower percentage of high cholesterol than any other income level (see table 9.1).

Table 9.1: Blood Cholesterol In Iowans, 2002

Demographic Groups	Ever had blood cholesterol tested		Had blood cholesterol checked in last year		Ever been told blood cholesterol high	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	76.4	(74.7-78.2)	67.5	(65.4-69.6)	33.2	(31.2-35.3)
SEX						
Male	73.3	(70.5-76.1)	67.8	(64.5-71.1)	35.0	(31.8-38.3)
Female	79.4	(77.2-81.5)	67.2	(64.5-69.9)	31.7	(29.1-34.3)
AGE						
18-24	44.2	(37.2-51.1)	69.3	(59.2-79.3)	7.2	(2.1-12.3)
25-34	55.9	(51.1-60.7)	50.5	(44-57)	15.8	(11.2-20.3)
35-44	76.0	(72.4-79.7)	53.7	(48.4-59.1)	26.9	(22.1-31.7)
45-54	86.5	(83.5-89.6)	66.8	(62.4-71.2)	36.5	(32-40.9)
55-64	94.5	(92.3-96.8)	77.8	(73.6-82)	42.0	(37-47.1)
65+	93.7	(91.9-95.5)	80.2	(77.1-83.3)	46.4	(42.5-50.4)
EDUCATION						
Less than H.S.	71.5	(64.6-78.3)	80.9	(74.5-87.4)	37.1	(29.1-45)
H.S. or G.E.D.	74.7	(71.8-77.6)	67.7	(64.2-71.2)	34.6	(31.2-38.1)
Some Post-H.S.	74.3	(70.8-77.8)	67.1	(63.1-71.2)	32.2	(28.3-36.1)
College Graduate	82.4	(79.5-85.2)	64.4	(60.5-68.3)	31.5	(27.7-35.2)
HOUSEHOLD INCOME						
Less than \$15,000	69.7	(62.4-77.1)	72.2	(64.7-79.8)	35.2	(27.6-42.7)
\$15,000- 24,999	75.7	(71.1-80.4)	73.8	(69.2-78.4)	37.7	(32.5-42.8)
\$25,000- 34,999	71.6	(66.8-76.4)	67.8	(61.8-73.8)	31.7	(26.1-37.3)
\$35,000- 49,999	75.7	(71.9-79.6)	64.7	(59.8-69.5)	29.4	(25-33.8)
\$50,000- 74,999	78.4	(74.6-82.2)	62.8	(57.7-67.8)	32.2	(27.3-37.1)
\$75,000+	86.8	(83.1-90.6)	62.9	(57.5-68.4)	34.5	(29.1-39.8)
RACE/ETHNICITY						
Non-Hispan. White	77.2	(75.5-79)	66.8	(64.6-69)	33.2	(31.1-35.3)
Non-White or Hisp.	61.7	(51.2-72.1)	81.8	(73.4-90.3)	31.0	(21.2-40.9)

Figure 9.1: Iowans Ever Had Their Blood Cholesterol Checked by Age, 2002

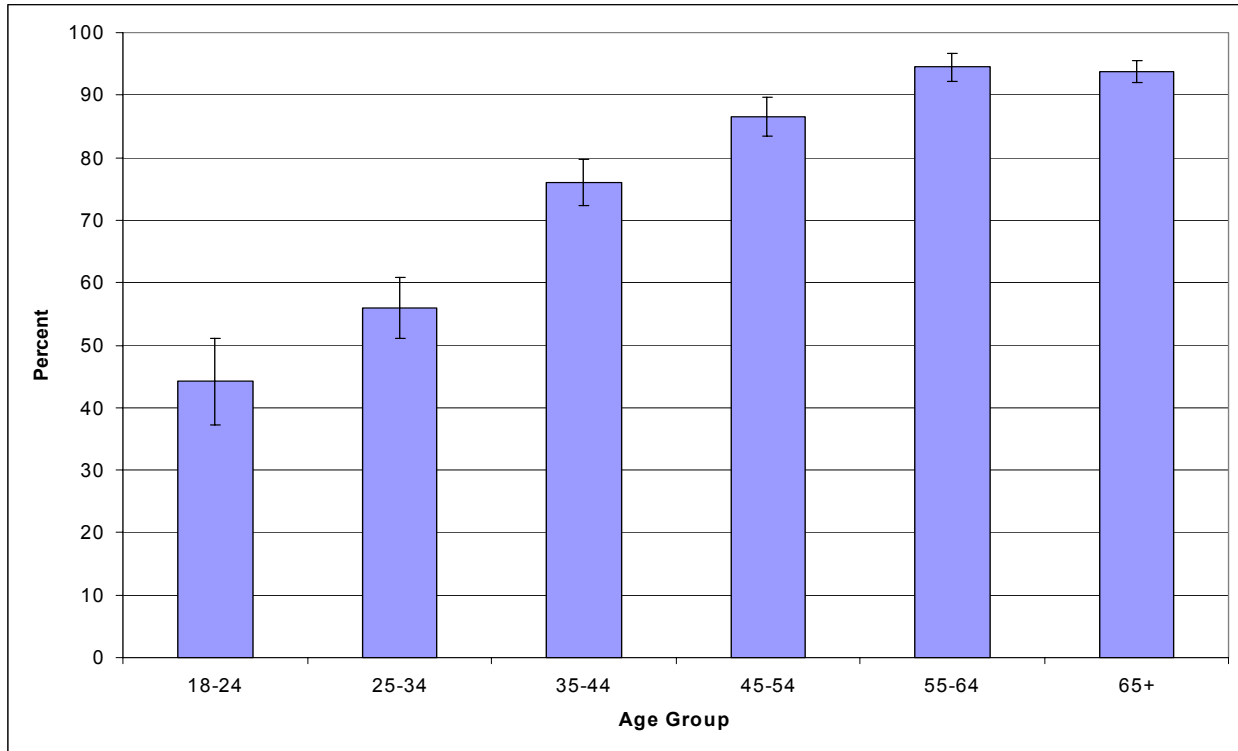
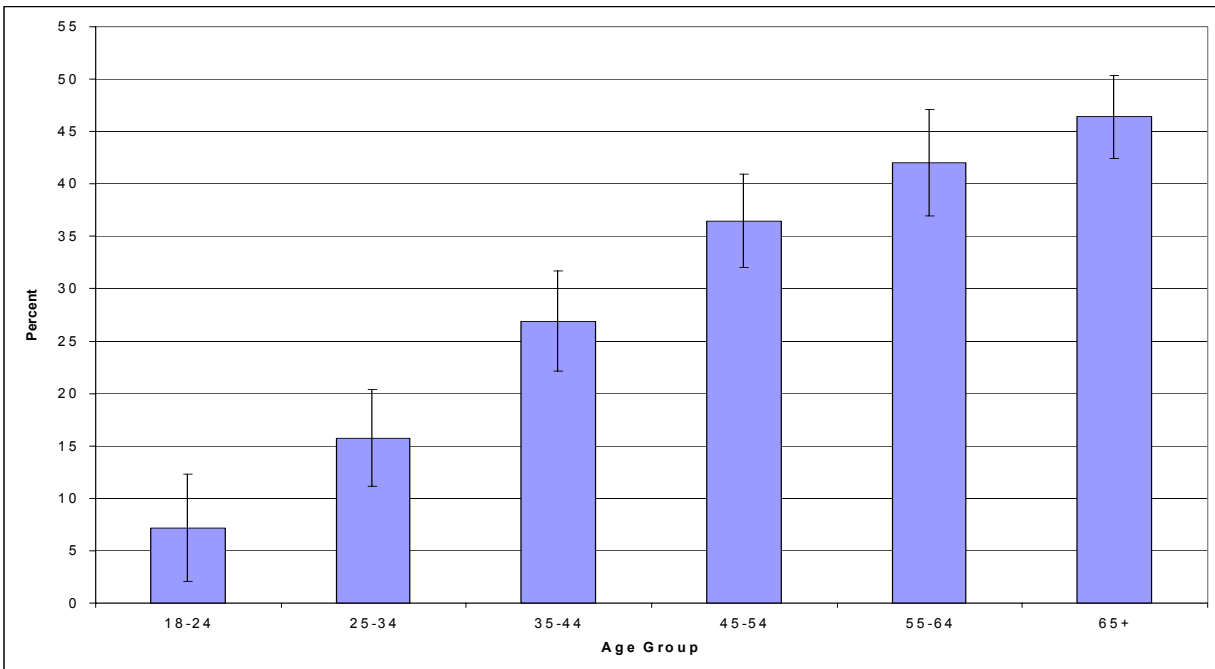


Figure 9.2: Iowans Ever Told Their Cholesterol Was High by Age, 2002



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 year 2002 BRFSS sample shows that only 76.4% of Iowans age 18 and older have had their blood cholesterol checked at least once in their lifetime. Of these, 93.5% had their blood cholesterol 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 its 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 have a less sedentary lifestyle by engaging in regular physical activity continues to be a significant step toward a healthier Iowa.

Physical Activity in Iowa

In 2002, 78.2% of respondents reported that they had engaged in some sort of physical activity for exercise during the past month. Men reported exercising more often than women. More younger respondents reported engaging in physical activity than older respondents. The percentage for 18 to 24 year olds was 87.6%, while the percentage for those 65 years old and over was 66.7%. The percentage of respondents who exercised also increased with education and household income. The lowest

Table 10.1: Physical Activity in Iowans, 2002

Demographic Groups	Any Leisure Physical Exercise in Last Month		Recommended Level of Physical Activity	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	78.2	(76.7-79.7)	44.7	(42.7-46.7)
SEX				
Male	79.6	(77.3-81.8)	48.1	(45.1-51.2)
Female	76.9	(74.9-79)	41.4	(39-44)
AGE				
18-24	87.6	(83.4-91.8)	53.0	(46.2-59.7)
25-34	82.2	(78.6-85.8)	51.6	(46.8-56.3)
35-44	83.5	(80.4-86.6)	45.0	(40.5-49.6)
45-54	77.8	(74.2-81.4)	41.6	(37.4-45.9)
55-64	74.7	(70.5-78.9)	45.4	(40.3-50.4)
65+	65.7	(62.1-69.2)	34.8	(30.9-38.6)
EDUCATION				
Less than H.S.	61.3	(54.7-67.9)	32.6	(25.6-39.6)
H.S. or G.E.D.	71.6	(68.8-74.4)	43.3	(40-46.6)
Some Post-H.S.	81.2	(78.5-83.9)	46.1	(42.3-49.8)
College Graduate	88.6	(86.4-90.8)	48.0	(44.4-51.7)
HOUSEHOLD INCOME				
Less than \$15,000	65.2	(58.6-71.7)	36.0	(28.5-43.6)
\$15,000- 24,999	68.3	(64-72.5)	40.5	(35.4-45.7)
\$25,000- 34,999	77.3	(73.2-81.4)	42.8	(37.5-48)
\$35,000- 49,999	81.5	(78.3-84.8)	45.9	(41.5-50.3)
\$50,000- 74,999	84.5	(81.2-87.8)	48.3	(43.7-52.8)
\$75,000+	89.6	(86.6-92.6)	51.8	(46.5-57.1)
RACE/ETHNICITY				
Non-Hispan. White	78.3	(76.8-79.9)	44.8	(42.8-46.8)
Non-White or Hisp.	75.0	(67-83)	47.2	(36.8-57.6)

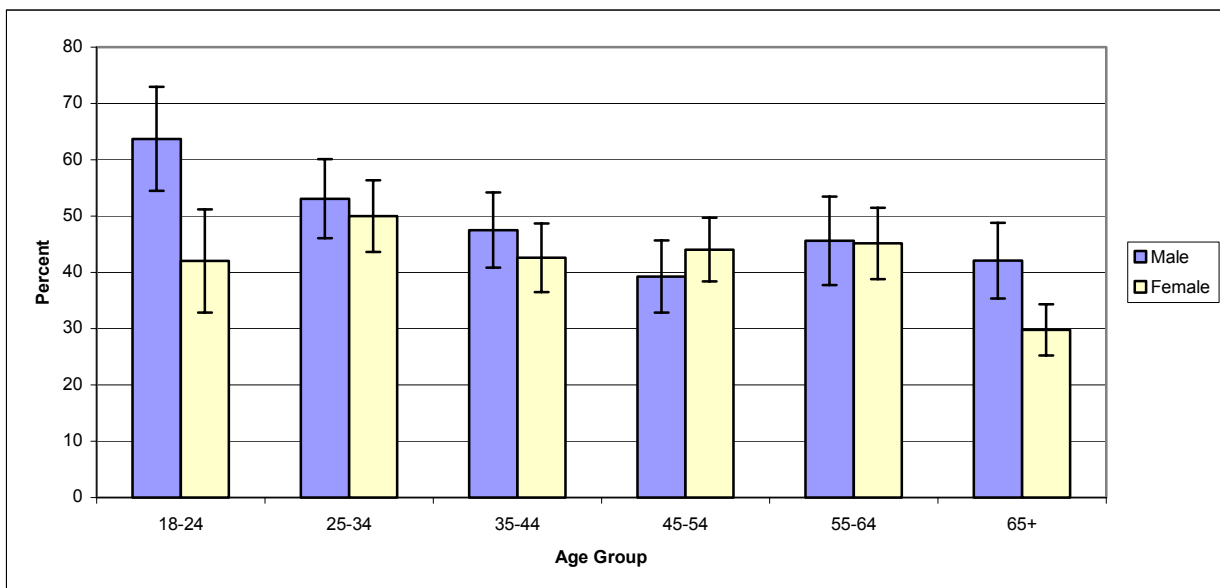
percentage of all examined demographic variables was for those with less than a high school education, while the highest was for those with a household income of \$75,000 or more (see table 10.1).

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 5 or more days per week. Regular and vigorous physical activity is defined as vigorous activity for 20 or more minutes per day, 3 or more times per week.

The percentage of respondents who met the recommended level of physical activity was 44.7%. At the other end, 11.2% 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. Around 59.5% of 18-24 year-olds reported engaging in the desired level of physical activity, while this applied to only 36.1% of those 65 years and over. 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 10.1).

Figure 10.1: Percentage of Iowans Engaging in the Recommended Level of Physical Activity by Age and Sex, 2002



A larger percentage of those who were better educated and had a higher household income engaged in the recommended amount of physical activity. The lowest percent for all demographic groups considered was for those with less than a high school education, while the highest percent was for those age 18 to 24 years (see table 10.1).

Comparison With Other States

Iowa ranked 16th on the measure of not engaging in leisure time physical activity. The median for the nation reported not engaging in any leisure activity was 24.4%, while Iowa reported only 21.8%.

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 21.8% is higher than this target. This is an improvement from 2001 when 25.9% of Iowans reported no leisure-time physical activity. The target for objective 22.3, to increase the proportion of adults engaging in regular and vigorous physical activity, is 30%. Iowa respondents report only 23.2%. In 2001 the percentage was 20.1%. Although 2002 shows positive trends, Iowa is still below the target.

A question was asked about how many hours a person spent watching television, playing video games, or at the computer for leisure activity. This question could gauge how sedentary the person's lifestyle was. The mean amount of time engaged in this activity was 2.7 hours per day. Most people (29.2%) 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.

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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 (5 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, several types of dietary fiber, flavonoids, saponins, phenols, carotenoids, and isothiocyanates. 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 2 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 in Iowa

The percentage of Iowans who eat five or more servings of fruits and vegetables per day was 19.8% in 2002. More females ate five or more servings of fruits and vegetables per day than males.

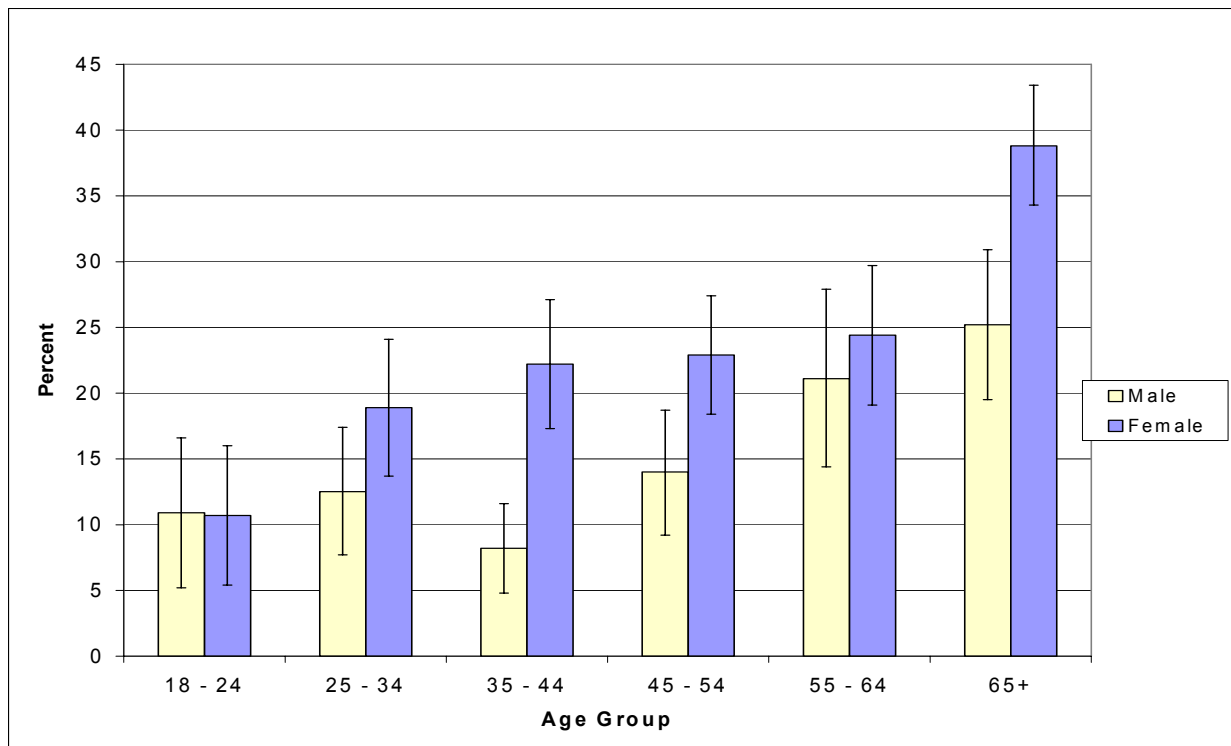
Older Iowans were more likely to report meeting the five-a-day standard than younger Iowans. People 65 and over met the criterion at the rate of 33.4%, while only 10.8% obtained that standard for the 18 to 24 year age group. Interestingly, the female dominance at meeting the five-a-day criterion was not true for the 18 to 24 age group.

While not having the impact of sex or age, respondents with a college education were more likely to eat five or more portions of fruits and vegetables a day. Furthermore, respondents with a household income of less than \$15,000 were less likely to do so. In addition, White Non-Hispanics were more likely to eat sufficient fruits and vegetables than Hispanics or members of other races.

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

Demographic Groups	%	C.I. (95%)
TOTAL	19.8	(18.3-21.3)
GENDER		
Male	14.8	(12.7-17.0)
Female	24.3	(22.2-26.5)
AGE		
18 - 24	10.8	(6.9-14.7)
25 - 34	15.7	(12.1-19.2)
35 - 44	15.2	(12.2-18.3)
45 - 54	18.4	(15.2-21.7)
55 - 64	22.8	(18.6-27.1)
65+	33.4	(29.7-37.0)
EDUCATION		
Less than H.S.	20.5	(14.7-26.3)
H.S. or G.E.D.	18.0	(15.6-20.4)
Some Post-H.S.	17.0	(14.5-19.5)
College Graduate	25.2	(22.0-28.4)
HOUSEHOLD INCOME		
Less than \$15,000	17.1	(12.2-21.9)
\$15,000- 24,999	20.4	(16.4-24.4)
\$25,000- 34,999	19.3	(15.4-23.2)
\$35,000- 49,999	19.9	(16.6-23.3)
\$50,000- 74,999	18.4	(15.0-21.8)
\$75,000+	21.2	(16.9-25.6)
RACE/ETHNICITY		
Non-Hispan. White	20.0	(18.5-21.6)
Non-White or Hisp.	16.2	(10.1-22.4)

Figure 11.1: Percent of Iowans Who Report Eating 5 or More Portions A Day of Fruits and Vegetables by Age and Gender, 2002



Comparison with Other States

There were only eight 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 19.8% is well below the median of 21.6%. The range was from a low of 14.4% in Oklahoma to a high of 35.7% in the Virgin Islands.

Year 2010 Health Objectives for 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 Although this goal cannot be directly assessed by the BRFSS, the percentage of adult Iowans consuming five or more helpings of fruits or vegetables daily has fallen far below this goal at only 19.8%.

Vitamins and 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

Vitamins and Folic Acid in Iowa

In 2002, 51.1% of Iowans took some kind of vitamin pill or supplement. Many more women than men did this (60.9% vs. 40.4%). Of those who took a vitamin, 82.6% took a multivitamin. For those who took a vitamin that was not a multivitamin, 34.4% took folic acid. Women were more likely to do this (38.7% vs. 26.8%).

When people under age 45 were asked the purpose of taking folic acid, most (34.3%) said that they didn't know. Only 30.8% said it was to prevent birth defects. Women were more likely to know this than men (41.2% vs. 20.3%).

Other Nutrition Issues

The 2002 survey contained several state-added questions related to nutrition.

When asked how often they used whole-grain products such as whole-wheat bread or oatmeal, less than one-third (29.6%) said once a day. On the other hand, 3.3% said they never used these products.

Less than one-third of Iowans (30.6%) said they never add salt to their food. At the other extreme, 14% said they do so two or more times a day.

Twenty-nine percent of Iowans said they used canned soups or frozen meals less than once a week. While 12.6% said they never used canned soups or frozen meals, 0.8% said they used them two or more times a day.

When asked how often they used low-fat or fat-free dairy products, the most common response was once a day (33.4%). However, 12.6% said they never used them.

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12. OVERWEIGHT AND WEIGHT CONTROL

Overweight & Obesity

Background

Overweight and obesity are probably the most serious health problems in America today. Health experts agree that being overweight is a risk factor for many diseases. Obesity is associated with the onset and progression of high blood pressure, diabetes, and atherosclerosis (hardening of the arteries).⁴ Overweight and obese adults are also at increased risk for gallbladder disease, respiratory disease, some types of cancer, gout, and arthritis.³

The origin of overweight involves many factors. It reflects inherited, environmental, cultural and socioeconomic traits.⁴ Findings from the National Health and Nutrition Examination Surveys (NHANES 1999-2000 conducted by the Centers for Disease Control and Prevention, indicate that substantial proportions of children, adolescents, and adults in the United States were overweight.¹

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.²

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. 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.

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.¹

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.

Appropriate strategies to achieve nutrition and weight control objectives include (1) improved accessibility of culturally relevant nutrition information and education to the general public, and (2) a strong national program of basic and applied nutrition research.

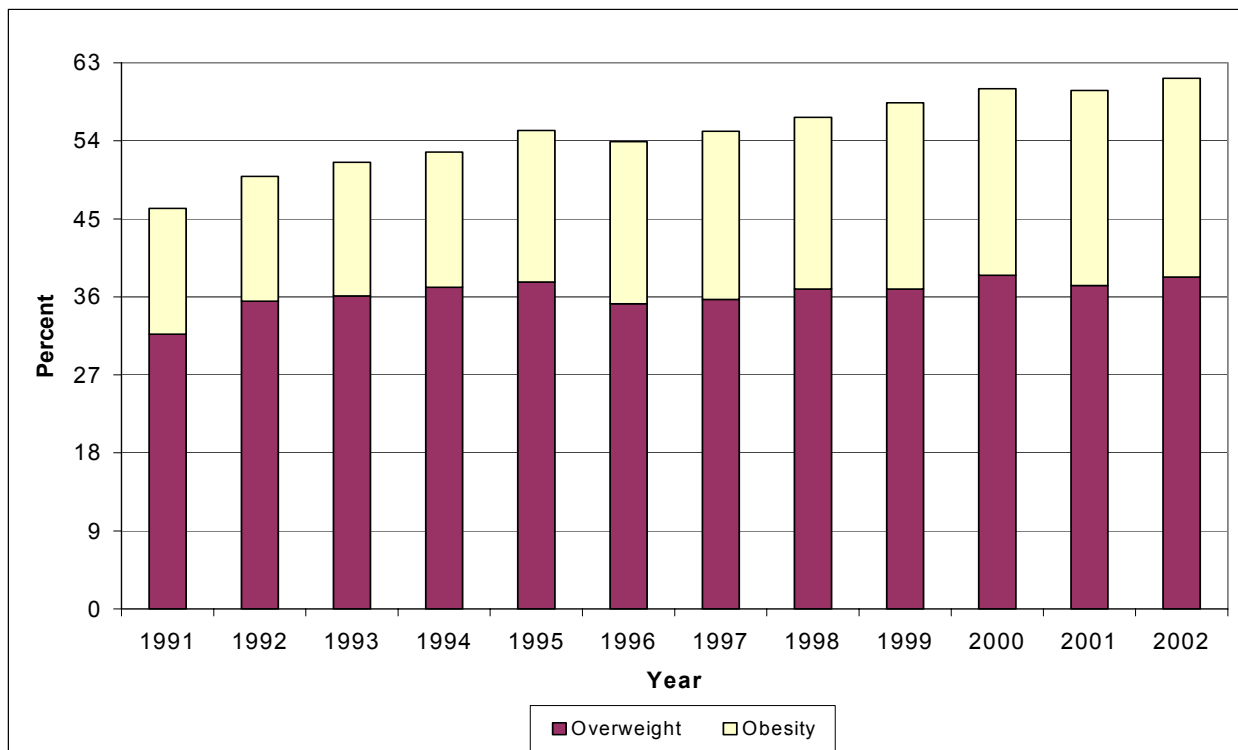
Overweight in Iowa

The BRFSS data show that 38.3% of Iowans are overweight and 22.9% are obese based on BMI. The level of overweight and obese combined is 61.2%. This is an increase from 2001 and continues a long trend of increasing overweight and obesity (see figure 12.1).

The self-reported weights show more males than females are overweight, while there is no sex difference in prevalence of obesity based on BMI. The 18-to-24-year-old group had the lowest percentage of overweight individuals (males 33.8% and females 22.4%). The 55 to 64 year-old age category was at highest risk for being overweight. Obesity mirrors overweight in relation to age with the 18 to 24 year olds being less obese by far (males 9.9% and females 8.8%).

Education and income are not as consistently related to overweight and obesity as age. Overweight shows a general increase with level of education. On the other hand, obesity is lower among college graduates. When combined, those with less than a high school education are least overweight or obese. However, those with only a high school education are the most overweight or obese).

Figure 12.1: Overweight/Obese Iowans by Year Based on Body Mass Index (BMI), 1991-2002



Income only shows consistent effects at the extreme values. These are opposite for overweight and obesity. Those with income less than \$15,000 are least likely to be overweight, while those with income of \$75,000 or more are most likely to be overweight. On the other hand, the lowest income is most likely to be obese, while the highest income is least likely to be obese (see table 12.1).

Around 45% of respondents in the 2002 survey reported that they were trying to lose weight. More women than men were trying to lose weight (52.9% vs. 36.4%).

Table 12.1: Overweight and Obese Iowans Based on BMI, 2002

Demographic Groups	Overweight		Obesity		Combined	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
Total	38.3	(36.4-40.2)	22.9	(21.2-24.5)	61.2	(59.2-63.1)
SEX						
Male	47.0	(44.1-50)	22.8	(20.4-20.4)	69.9	(67.1-72.6)
Female	29.8	(27.4-32.1)	22.9	(20.7-25)	52.6	(50-55.3)
AGE GROUP						
18 - 24	28.3	(22.2-34.3)	9.4	(5.5-13.2)	37.6	(31.1-44.2)
25 - 34	35.5	(31-40.1)	22.4	(18.3-26.5)	57.9	(53.2-62.6)
35 - 44	38.8	(34.4-43.2)	23.0	(19-27.1)	61.9	(57.5-66.3)
45 - 54	42.4	(38-46.7)	28.7	(24.7-32.7)	71.1	(67.2-74.9)
55 - 64	43.2	(38.3-48.1)	29.1	(24.6-33.7)	72.4	(68-76.8)
65+	40.4	(36.6-44.2)	23.3	(20-26.6)	63.7	(60.1-67.4)
EDUCATION						
Less than H.S.	31.1	(24.7-37.5)	23.6	(17.9-29.4)	54.8	(47.7-61.8)
H.S. or G.E.D.	39.4	(36.2-42.5)	25.1	(22.3-28)	64.5	(61.4-67.6)
Some Post-H.S.	35.5	(31.9-39)	24.8	(21.6-28.1)	60.3	(56.6-64)
College Graduate	42.2	(38.6-45.9)	17.2	(14.4-19.9)	59.4	(55.7-63)
HOUSEHOLD INCOME						
Less than \$15,000	27.9	(21.4-34.3)	28.5	(22.2-34.7)	56.3	(48.8-63.8)
\$15,000- 24,999	40.6	(35.7-45.4)	23.1	(19.1-27.1)	63.7	(58.9-68.5)
\$25,000- 34,999	34.5	(29.6-39.4)	23.9	(19.4-28.4)	58.4	(53.2-63.6)
\$35,000- 49,999	38.3	(34-42.5)	25.3	(21.5-29.2)	63.6	(59.4-67.8)
\$50,000- 74,999	42.3	(37.8-46.8)	22.3	(18.5-26.2)	64.7	(60.3-69.1)
\$75,000+	48.4	(43.1-53.7)	16.3	(12.4-20.1)	64.6	(59.6-69.7)
RACE/ETHNICITY						
Non-Hisp. White	38.9	(36.9-40.9)	23.0	(21.3-24.7)	61.9	(59.9-63.9)
Non-White or Hisp.	30.4	(21.9-38.9)	19.2	(12.2-26.1)	49.6	(39.6-59.6)

For people trying to lose or maintain their weight 74.4% were eating fewer calories and/or less fat to do so. In addition, 71.1% were doing more physical activity to achieve this goal. Only 11.9% of respondents said they had been advised by a doctor to lose weight.

Comparison with Other States

Iowa ranked 41st out of all 54 states and territories in the percent who were over their healthy weight with 61.2% either overweight or obese in 2002. This was higher than the median of . 58.9%. The percentage either overweight or obese ranged from a low of 52.7% in the District of Columbia to a high of 63.7% in West Virginia.

Year 2010 Health Objectives for 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%. Iowa's rate

of 22.9% indicates the state has a major obstacle to overcome if it is to achieve the national target by 2010.⁴

Since weight management is difficult for most people, the *Healthy People 2010* goals set for adults are ambitious. However, any reduction in the prevalence of overweight individuals provides considerable public health benefits and deserves attention and emphasis.

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13. DIABETES

Background

Diabetes rates in the United States are approaching epidemic proportions. More than 10 million people in the United States live with the burden of diabetes daily and another 5 million have the disease and don't know it. The number of persons diagnosed with diabetes increased fivefold between 1958 and 1997, at a direct cost of over \$40 billion and an indirect cost of another \$50 billion annually from absenteeism, disability, and premature death.¹

Those at highest risk include older Americans, low-income people, physically inactive people, those with a family history of diabetes, and overweight individuals.² Hispanic, African American and Native Americans have a significantly higher risk of the disease and its ensuing complications. Preventive measures to avoid or delay onset of the disease include maintaining a recommended weight and being physically active.

The complications of diabetes are severe and include cardiovascular disease, hypertension, renal disease, blindness, and lower extremity amputations. However, complications can be minimized when diabetes is diagnosed early and the patient is taught to manage the disease through blood glucose control, weight control, taking medications appropriately, stopping smoking and being physically active.

The Diabetes Control Program in the Iowa Department of Public Health provides health updates for professionals on the latest guidelines for diabetes care, coordinates a statewide diabetes network, collaborates with local community projects to develop initiatives on public awareness and prevention of complications, and assists certified programs to maintain quality standards for outpatient education.

Diabetes in Iowa

In 2002, 6.5% 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 substantially higher than the 5.7% reported in 2001 and is the highest level yet seen in Iowa.

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. There is no difference between the sexes in diabetes prevalence.

Among individuals who had been told they had diabetes, most (38%) reported being first diagnosed between ages 45-60. The age group in which the least reported being first diagnosed was less than age 16 (4%).

Of those ever told by a physician that they have diabetes, 29% reported currently taking insulin. Sixty-eight percent reported currently taking oral medication to control the disease.

When asked how many times they had seen a health professional for their diabetes in the last year, the most common answer was four (34.3%), while 7.7% said never.

Table 13.1. Iowans Ever Been Told They Had Diabetes, 2002

Demographic Group	%	C.I. (95%)
TOTAL	6.5	(5.7- 7.5)
SEX		
Male	6.4	(5.2- 7.9)
Female	6.6	(5.5- 8.0)
AGE GROUP		
18-24	0.7	(0.1 - 3.3)
25-34	1.1	(0.5 - 2.3)
35-44	3.4	(1.8 - 6.3)
45-54	5.1	(3.5 - 7.4)
55-64	12.6	(9.7 - 16.3)
65+	15.8	(13.3 - 18.7)
EDUCATION		
Less than H.S.	13.6	(10.0 - 18.3)
H.S. or G.E.D.	7.1	(5.8 - 8.7)
Some Post-H.S.	6.2	(4.5 - 8.4)
College Graduate	4.2	(3.1 - 5.8)
HOUSEHOLD INCOME		
Less than \$15,000	13.0	(9.2 - 18.0)
\$15,000- 24,999	9.1	(6.9 - 12.0)
\$25,000- 34,999	5.6	(3.4 - 9.2)
\$35,000- 49,999	4.7	(3.4 - 6.5)
\$50,000- 74,999	4.5	(2.9 - 6.8)
\$75,000+	3.8	(2.4 - 5.9)
RACE/ETHNICITY		
Non-Hisp. White	6.4	(5.5 - 7.3)
Non-White or Hisp.	6.8	(3.2 - 10.5)

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 60% checked their blood sugar at least once a day themselves or with the help of a friend or family member. About 12% reported never. Around 92% had it checked at least once within the past year by a health professional through a glycosylated hemoglobin test. Around 5% reported never when asked about the glycosylated hemoglobin test. Another 36% reported they had never heard of such a test. It is recommended that this test be done at least twice a year and at least three months apart.

Individuals with diabetes should have their feet checked for sores and irritations. When asked how many times they checked their feet, 76% of respondents who were ever diagnosed with diabetes claimed to have checked them daily. Another 7% said they never checked them. Around 68% of respondents reported they had their feet checked by a health professional at least once within the past twelve months.

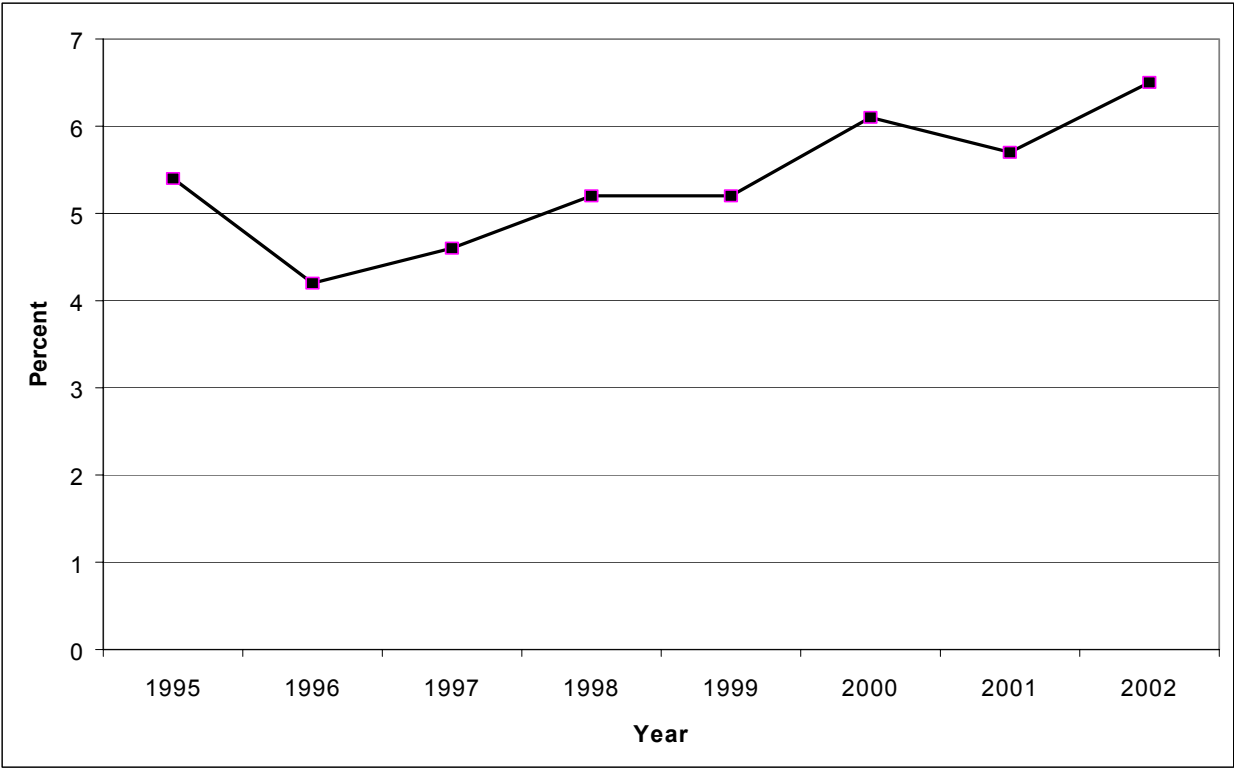
Because persons with diabetes are at high risk of eye complications leading to blindness, regular eye examinations, including pupil dilation, are important. Respondents who reported ever having diabetes were asked when they had their last eye exam where their pupils were dilated. About 78% reported within the last year, while 2% reported never.

Learning how to manage diabetes is very important to those who have the condition to keep it from leading to deteriorating health. Only 61% of those with diabetes in 2002 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 6.8% in 2002. The figure for Iowa was just below the median at 6.5%. Diabetes prevalence ranged from a low of 3.5% in Alaska to a high of 10.5% in Puerto Rico.

Figure 13.1: Percentage of Iowans Who Have Ever Been Told They Have Diabetes by Year



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14. ASTHMA

Background

Asthma, a chronic inflammatory airway disease of the lungs, is now the most common chronic disease of childhood. Prevalence among adults and children has doubled in the last 15 years^{2,3} More than 200,000 Iowans experienced at least one asthmatic episode in the last year.⁵

Asthma is a leading cause of inpatient admission and of unscheduled emergency department and physician office visits. The direct medical costs of asthma, including inpatient and outpatient care and medications, are estimated to be about \$60 million and indirect socio-economic costs close to \$40 million each year.¹ Based on national data, it is estimated about 100,000 days of school are missed each year due to asthma by Iowa children and half of all children and a quarter of all adults with asthma miss at least one day of school or work each year.⁹

The causes of asthma are not known for certain but are most likely a combination of genetic and environmental risk factors. Those risk factors for asthma include family history of asthma and allergies, exposure to indoor air pollution (tobacco smoke, animal dander, dust mites, cockroaches, occupational exposures to more than 250 substances), outdoor air pollution (burning leaves, pollen, 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.^{4,7,8}

Symptoms of asthma include repeated episodes of wheezing, coughing, and shortness of breath.⁶

Asthma in Iowa

In 2002, 9% of respondents reported ever being diagnosed by a physician with asthma. Among these individuals, 72.3% currently have asthma. Out of all respondents in Iowa 6.4% currently have asthma.

Almost twice as many women currently have asthma as men. Although there were differences among the other demographic groups examined, they did not follow a simple linear pattern. The group with the highest percentage currently having asthma was those with less than a high school education (9.3%). The lowest percent of current asthma was seen in both males and those with incomes between \$35,000 and \$49,999 (4.3%). Somewhat more current asthma was reported among Hispanics and non-Whites (see table 14.1).

The percent of Iowans reporting formerly having asthma was higher for the younger age groups. It was also higher for those with higher education levels. Age had the most extreme effect with the highest percent of former asthma being for age 25 to 34 years old and the lowest being for age 65 years and up (see table 14.1).

Of those respondents who had ever been told they had asthma 37% were diagnosed with the disorder at age 10 or before.

Of those who currently have asthma 40% 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. Nineteen percent had seen a health professional for urgent care at least once in

Table 14.1: Iowans Currently and Formerly Having Asthma, 2002

<i>Demographic Groups</i>	Current Asthma		Former Asthma	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	6.4	(5.4- 7.5)	2.5	(1.9- 3.1)
SEX				
Male	4.3	(3.2- 5.3)	2.6	(1.6- 3.7)
Female	8.5	(6.8-10.1)	2.3	(1.6- 3.1)
AGE				
18-24	6.0	(2.8- 9.1)	3.8	(1.3- 6.4)
25-34	5.2	(3.7- 7.2)	4.9	(2.7- 7.1)
35-44	8.8	(5.7-12.0)	2.1	(0.8- 3.3)
45-54	5.9	(4.1- 7.8)	1.7	(0.8- 2.5)
55-64	6.3	(3.9- 8.7)	1.7	(0.6- 2.8)
65+	6.0	(4.0- 7.9)	1.2	(0.5- 1.9)
EDUCATION				
Less than H.S.	9.3	(4.9-13.6)	1.7	(0.2- 3.3)
H.S. or G.E.D.	4.8	(3.4- 6.2)	1.8	(1.0- 2.7)
Some Post-H.S.	7.3	(5.1- 9.4)	2.8	(1.6- 4.1)
College Graduate	6.8	(4.9- 8.7)	3.2	(1.8- 4.5)
HOUSEHOLD INCOME				
Less than \$15,000	6.7	(3.9- 9.9)	2.0	(0.0- 4.5)
\$15,000- 24,999	9.0	(6.2-12.0)	2.5	(1.1- 3.9)
\$25,000- 34,999	8.4	(4.6-12.0)	2.5	(1.0- 4.0)
\$35,000- 49,999	4.3	(2.5- 6.0)	2.4	(1.1- 3.6)
\$50,000- 74,999	5.4	(3.4- 7.3)	2.5	(0.9- 4.0)
\$75,000+	6.7	(4.1- 9.4)	3.1	(1.2- 5.0)
RACE/ETHNICITY				
Non-Hisp. White	6.3	(5.3-7.4)	2.6	(1.9-3.2)
Non-White or Hisp.	9.3	(4.3-14.2)	1.4	(0-3.2)

the past twelve months. However, 45% 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, 23% reported one or more days in which their activities were limited due to asthma in the past year. The remainder reported anywhere from 1 to 365 days of limitation.

Most respondents who currently have asthma (26%) reported having an episode once or twice a week within the past 30 days, while 25% reported no episodes within that time period. Of those who currently have asthma, 25% took prescription asthma medication more than twice a day in the past 30 days. On the other hand, 35% took no asthma medication at all.

Comparison with Other States

Among the states and territories there were only seven with the same or lower prevalence of current asthma sufferers. While Iowa reported 6.4% of the entire adult population currently suffering from asthma, the median for the nation was 7.6%.

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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 430,000 deaths each year, or one in every five deaths.² 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

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.

Consequences of smoking during pregnancy include spontaneous abortions, low birthweight 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. Prevalence has remained constant for adults. After a pause, current past 30 day cigarette usage has decreased among high school students (now at a prevalence rate of 27%).²

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 18.³

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

In the past 20 years, the use of smokeless tobacco such as chewing tobacco has increased by 40% for adolescent males. Furthermore, new forms of tobacco in the United States have also grown in popularity among youth, including such formerly exotic items as bidis, and kreteks. Use of these substances among high school users is now at almost the same percentage rate as users of smokeless tobacco -- 5 to 7 percent.⁴

Tobacco Use in Iowa

Of all respondents surveyed in 2002, 23.2% reported being a current smoker. This was an increase from the 22.1% found in 2001. However a view over several years indicates a continuing level trend (see Figure 15.1). Current smoking was defined as smoking some days or everyday during the past 30 days and smoking at least 100 cigarettes in a lifetime.

The proportion of current smokers was higher for males than for females. Smoking generally declined with increasing age, education, and income. The highest category in each of these dimensions had a considerably lower proportion of current smokers than the rest. Respondents with less than a high school education reported the highest proportion of current smokers (35.7%). Only 7.1% of respondents ages 65 and older were current smokers (see table 15.1).

Nearly 23.4% 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 8.8% former smokers, while the 65 and older age group had 39.8% (see figure 15.2).

**Table 15.1: Percent of Current and Former Smokers in Iowa, 2002
And Those Who Tried to Quit**

Demographic Groups	Current Smoker		Former Smoker		Tried to Quit Smoking	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	23.2	(21.5-24.8)	23.4	(21.8-25.0)	51.6	(47.5-55.7)
SEX						
Male	26.3	(23.7-28.9)	27.7	(25.2-30.3)	48.8	(42.9-54.6)
Female	20.3	(18.2-22.3)	19.4	(17.4-21.5)	54.9	(49.2-60.7)
AGE						
18-24	32.3	(26.2-38.5)	8.8	(5.7-13.3)	63.4	(52.4-74.3)
25-34	28.0	(23.7-32.2)	11.5	(8.8-14.7)	54.3	(45.1-64.3)
35-44	28.1	(24.1-32.0)	14.9	(11.9-18.4)	51.7	(43.5-59.8)
45-54	27.4	(23.5-31.2)	27.3	(23.6-31.4)	45.4	(37.1-53.7)
55-64	18.2	(14.5-21.9)	36.9	(32.3-41.8)	40.8	(30.1-51.5)
65+	7.1	(5.2- 8.9)	39.8	(36.0-43.7)	44.9	(31.6-58.2)
EDUCATION						
Less than H.S.	35.7	(28.8-42.6)	24.8	(19.6-30.9)	56.0	(43.3-68.8)
H.S. or G.E.D.	28.9	(25.9-31.8)	25.0	(22.3-27.8)	49.6	(43.3-55.9)
Some Post-H.S.	24.6	(21.5-27.8)	20.4	(17.7-23.4)	52.2	(45.1-59.3)
College Graduate	10.6	(8.4-12.8)	24.2	(21.2-27.5)	52.6	(41.8-63.5)
HOUSEHOLD INCOME						
Less than \$15,000	32.0	*25.3-38.8)	20.1	(15.4-25.7)	62.5	(50.5-74.5)
\$15,000- 24,999	26.1	(22.0-30.2)	23.9	(19.9-28.4)	58.6	(49.9-67.3)
\$25,000- 34,999	30.2	(25.2-35.1)	20.1	(16.3-24.5)	49.4	(39.3-59.4)
\$35,000- 49,999	24.4	(20.7-28.1)	25.3	(21.8-29.1)	45.8	(37.1-54.6)
\$50,000- 74,999	19.6	(15.9-23.3)	23.9	(20.3-27.9)	47.6	(36.9-58.3)
\$75,000+	14.6	(10.9-18.2)	25.3	(21.0-30.1)	49.7	(36.2-63.3)

Figure 15.1: Trend in Percent of Current Smokers in Iowa, 1995-2002

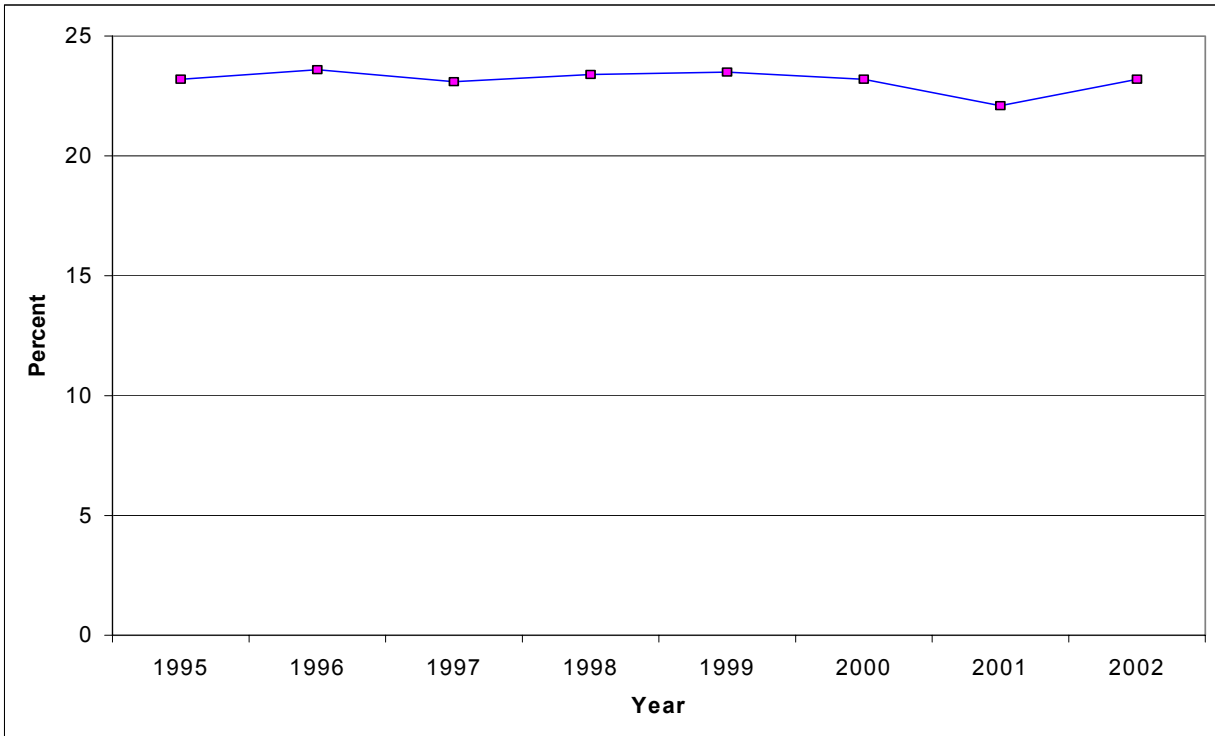
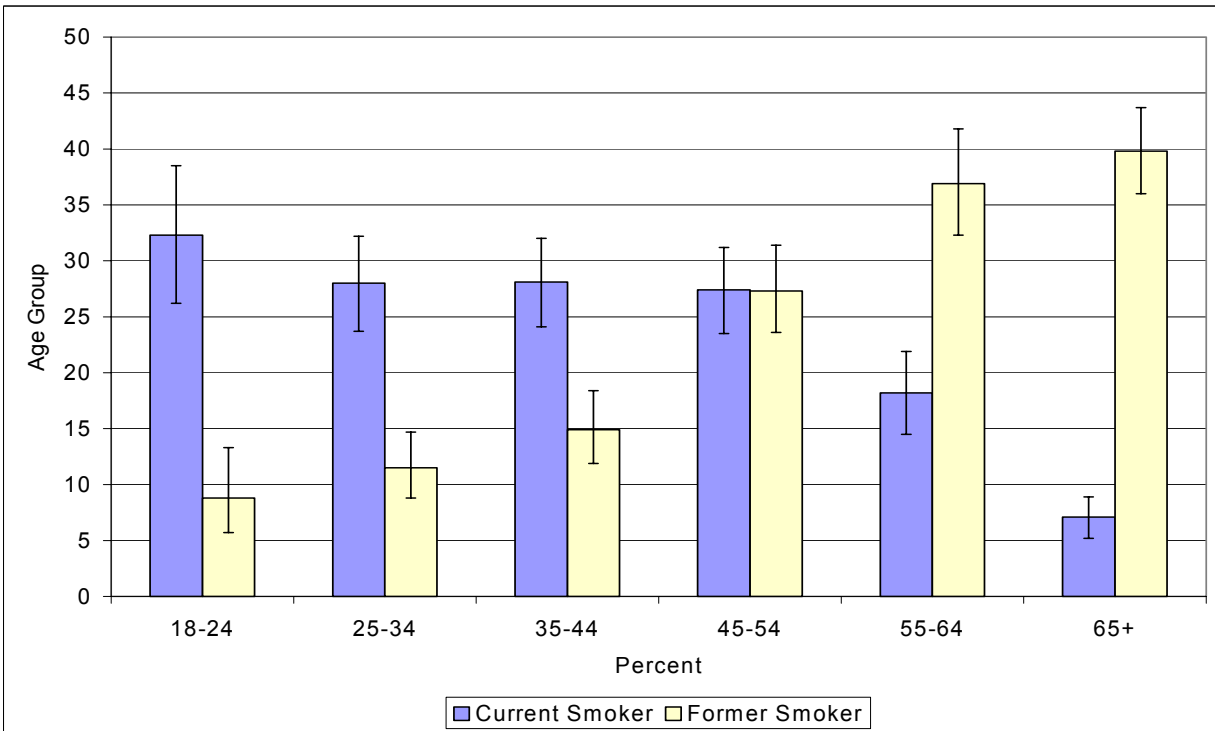


Figure 15.2: Percentage of Current and Former Smokers by Age, 2002



When asked about attempts to quit smoking, 51.6% 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. Close to 63.4% of individuals surveyed between ages 18-24 reported trying to quit compared to 40.8% of persons age 55 to 64 years old. Respondents with incomes of less than \$25,000 were more likely to try to quit than those with higher incomes (see table 15.1).

When asked about smokeless tobacco products, 19.8% of adult Iowans reported ever trying them. The prevalence was 37.8% among males, but only 3.2% for females. Of those who had tried smokeless tobacco products, 20.8% still used them every day or some days. No female reported still using them. When asked about cigars, 46.6% of adult Iowans reported they had ever smoked one (71.6% male, and 21.1% female). Only 11.8% of people who had ever smoked a cigar still did so everyday or some days (14.9% males, 2% females). When asked about pipe smoking, 20.7% of adult Iowans reported ever smoking one. Only 3.6% still do so. Only 3% of adult Iowans had ever tried smoking a bidi.

Of current smokers who had seen a doctor or health professional in the past 12 months, 68% reported having been advised to quit smoking.

Most Iowans (65.5%) said they had rules against smoking in their house. Among employed Iowans, 79.6% said no smoking was allowed in public areas at work, and 87.6% said no smoking was allowed in work areas.

Comparison with Other States

Iowa reported 23.2% being current smokers compared to the median for the nation of 23%. Iowa ranked just above the median of all states and territories in percent of current smokers. Smoking prevalence ranged from a low of 9.4% in the Virgin Islands to a high of 32.6% in Kentucky.

2010 Health Objectives for Iowa and the Nation

The current smoking prevalence rate for Iowa of 23.2% is still far above the 12% goal set by Healthy People 2010. There has been no sign of progress toward this goal.

The Healthy People 2010 goal for those trying to quit smoking was 75%. Only 51.6% of Iowa's current smokers quit smoking for a day or more during the past year. Since these are current smokers they did not succeed. Added to that would be 8.9% of the 24.6% of former smokers who said they last smoked in the past year. This would amount to an additional 2.2%. This is far short of the Healthy People 2010 objective.

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16. ALCOHOL CONSUMPTION

Background

For most people who drink, alcohol is a pleasant accompaniment to social activities. Moderate alcohol use—up to two drinks per day for men and one drink per day for women—is not harmful for most adults. (A standard drink is 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.) Nonetheless, a large number of people get into serious trouble because of their drinking. Currently, nearly 14 million Americans—1 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 and heavy drinking 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). 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 in Iowa

In 2002, 58.4% of Iowans reported that they had at least one drink of alcohol in the past month. On the days when they drank they reported drinking an average of 2.6 drinks per day. The range was from 1 to 24 with 9.4% reporting an average of more than five drinks per day. The average person drank 13.2 drinks during the month. However, 1% reported drinking over 120 drinks during the month. This is an average of more than four drinks everyday.

Figure 16.1: Percentage of Iowans Who Binge by Age and Sex, 2002

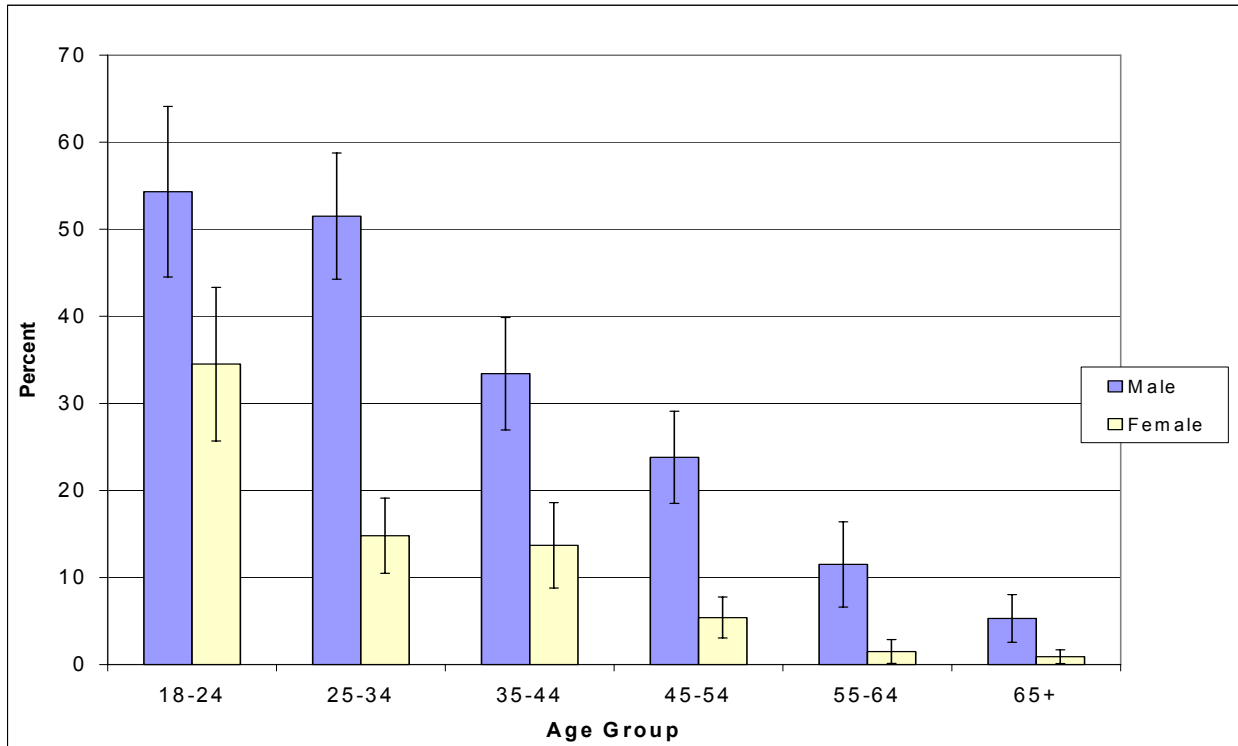


Figure 16.2: Trend of Binge Drinking and Driving Under Influence in Iowa, 1995 - 2002

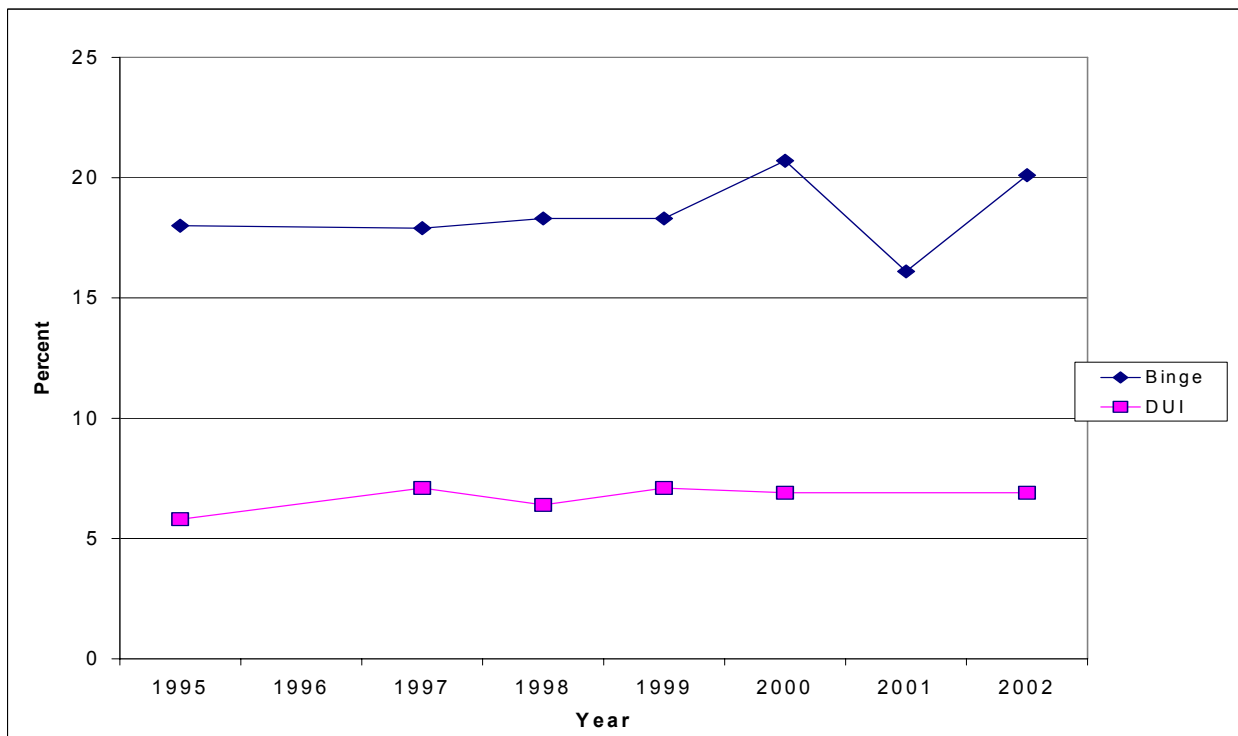


Table 16.1: Alcohol Abuse Among Iowans, 2002

Demographic Groups	Binge Drinking		Heavy Drinking		Drinking & Driving	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	20.1	(18.5-21.9)	6.2	(5.1- 7.2)	4.0	(3.2-4.9)
SEX						
Male	30.3	(27.5-33.2)	8.0	(6.2- 9.8)	6.3	(4.7-7.8)
Female	10.7	(9.0-12.7)	4.5	(3.3- 5.7)	1.9	(1.2-2.7)
AGE						
18-24	44.4	(37.9-51.2)	18.4	(12.8-24.0)	7.9	(4.3-11.4)
25-34	33.4	(28.9-38.2)	7.6	(5.0-10.3)	7.3	(4.6-10)
35-44	23.5	(19.6-27.9)	6.3	(4.2- 8.4)	5.7	(3.7-7.8)
45-54	14.8	(12.0-18.2)	4.0	(2.5- 5.6)	2.1	(1-3.2)
55-64	6.3	(4.3- 9.3)	1.6	(0.7- 2.5)	1.2	(0-2.8)
65+	2.7	(1.7- 4.1)	1.2	(0.5- 2.0)	0.5	(0-1.1)
EDUCATION						
Less than H.S.	15.8	(10.9-22.4)	4.8	(1.7- 8.0)	2.1	(0-4.3)
H.S. or G.E.D.	18.6	(16.0-21.4)	6.8	(5.0- 8.6)	3.5	(2.2-4.9)
Some Post-H.S.	24.4	(21.1-28.1)	7.6	(5.2-10.1)	4.5	(3-5.9)
College Graduate	18.4	(15.5-21.7)	4.0	(2.6- 5.4)	4.7	(2.9-6.5)
HOUSEHOLD INCOME						
Less than \$15,000	26.2	(19.4-34.3)	12.8	(6.0-19.6)	7.6	(2.7-12.6)
\$15,000- 24,999	17.8	(14.1-22.1)	5.5	(3.1- 7.9)	3.1	(1.4-4.8)
\$25,000- 34,999	20.1	(15.9-25.1)	6.2	(3.5- 8.8)	3.1	(1.2-5)
\$35,000- 49,999	19.8	(16.2-24.0)	6.0	(3.8- 8.3)	4.0	(2.4-5.5)
\$50,000- 74,999	19.5	(16.1-23.4)	5.1	(3.0- 7.1)	2.4	(1-3.8)
\$75,000+	26.2	(21.6-31.5)	6.4	(3.8- 8.9)	7.5	(4.3-10.7)
RACE/ETHNICITY						
Non-Hisp. White			6.0	(4.9-7.1)	4.1	(3.2-4.9)
Non-White or Hisp.			9.3	(3.3-15.2)	3.8	(0.4-7.2)

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, 6.2% of respondents were heavy drinkers. In spite of the fact that men had to have a larger number of drinks to be considered heavy drinkers, 8% of men were considered to be heavy drinkers, while only 4.5% of women were considered to be heavy drinkers. The strongest determinant of heavy drinking was age. While 18.4% of 18 - 24 year-olds engaged in heavy drinking, only 1.2% of those age 65 and older did. People who were high school graduates or had some college were somewhat more likely to be heavy drinkers than those with less than high school or college graduates. People with household incomes of less than \$15,000 were more likely to be heavy drinkers than those at all other income levels (see table 16.1).

A person is considered to binge if he or she drinks more than five drinks on one occasion. Among all adult Iowans, 20.1% reported at least one binge episode in the last month. This is an increase from 2001, which appeared to be unusually low. It is the second highest proportion in recent years (see Figure 16.2). Males binge much more than females (30.3% vs. 10.7%). In addition, the likelihood of bingeing decreases with age from 44.4% for 18-24 year-olds to only 2.7% for those 65 and over (see figure 16.1). Respondents with some college and those at the extremes of household income were somewhat more likely to binge drink (see table 16.1).

Four percent of respondents reported driving when they had had too much to drink at least once in the past month. Males, young people, and those at the extremes of income were the most likely to drive under the influence. Age again showed the most extreme effect with 7.9% of those age 18 to 24 driving drunk vs. only 0.5% of those age 65 and over (see table 16.1).

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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 in Iowa

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 Iowa, 33.6% of respondents reported they had gambled in the last 12 months. In 2001, 38.3% said they had gambled. The 2002 figure is very similar to the 2000 figure of 33.7%. Although gambling prevalence has declined somewhat from the first years in which data were collected, no trend has been evident over the past four years (see figure 17.2).

More men than women reported gambling in the past 12 months. In fact, the highest proportion who gambled of any demographic group examined was for men (39.1%). The prevalence of gambling tended to increase with income (see figure 17.1). Gambling was more prevalent among the White non-Hispanic population. The lowest percentage of gambling during the past year was reported by those who had not completed high school (25%) (see table 17.1).

Figure 17.1: Percentage of Iowans Who Reported Gambling During the Previous 12 Months by Income, 2002

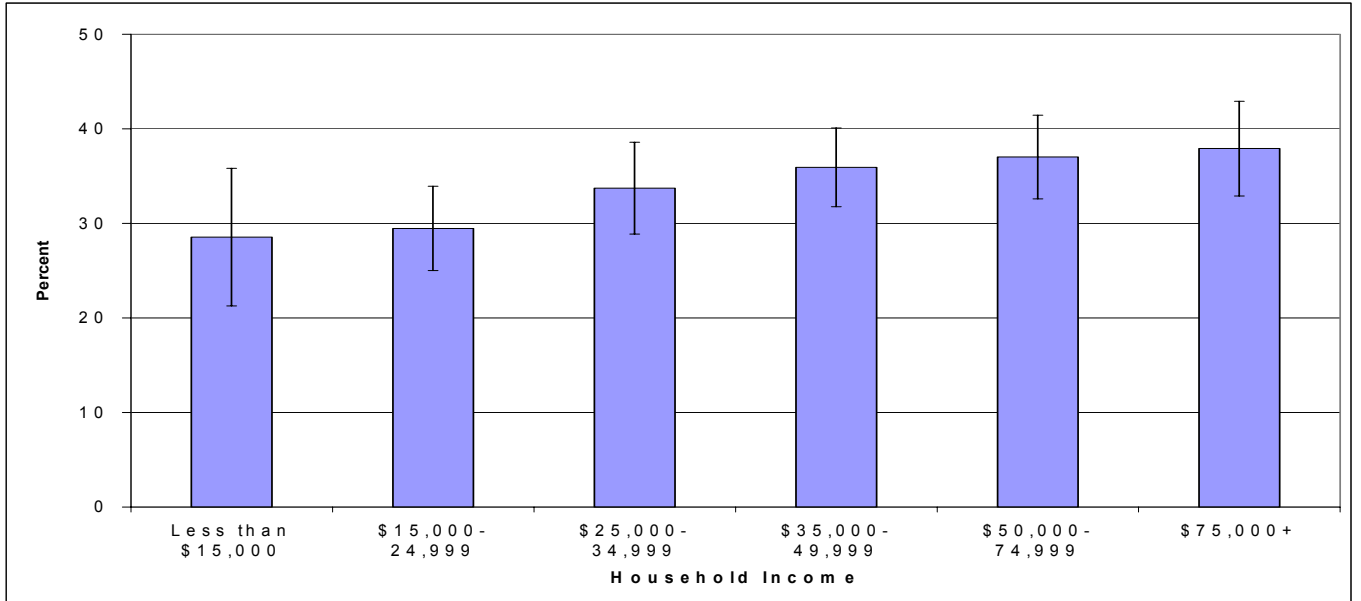


Figure 17.2: Trend for Prevalence of Gambling in Iowa 1997-2002

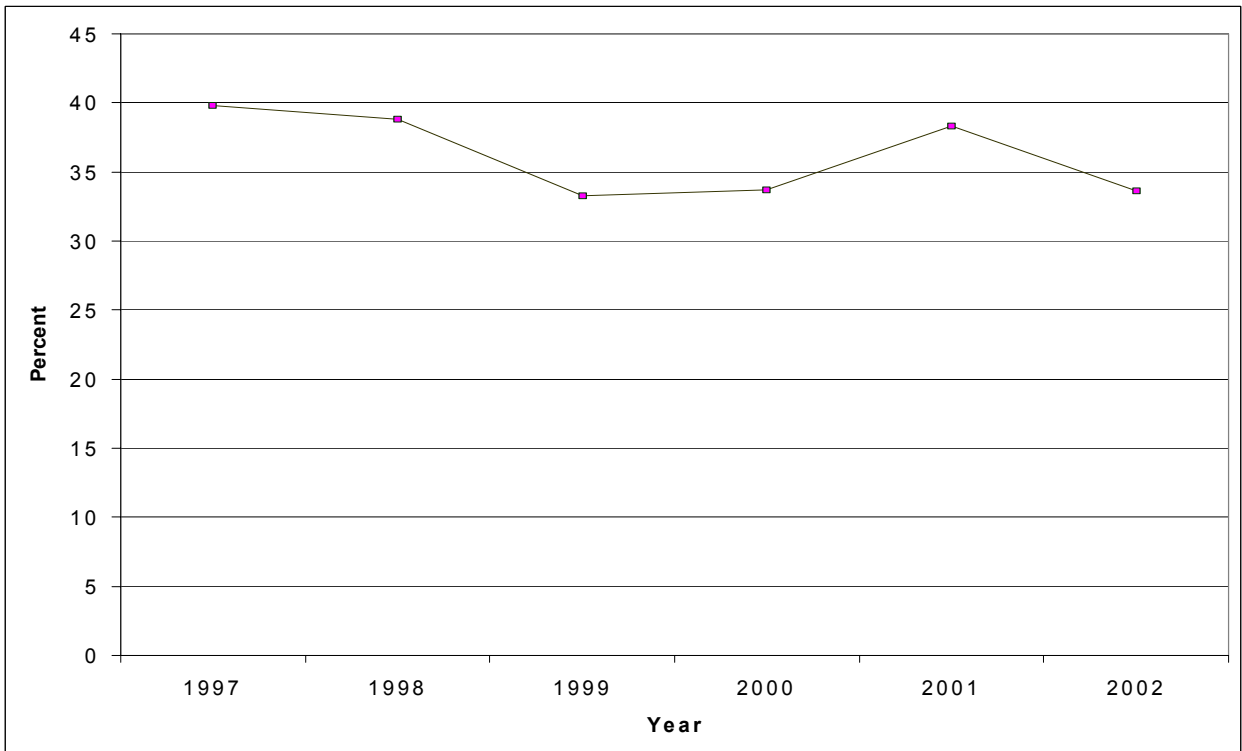


Table 17.1: Have You Gambled in the Past 12 Months, 2002

Demographic Groups	Gambled	
	%	C.I. (95%)
TOTAL	33.6	(31.7-35.4)
SEX		
Male	39.1	(36.2-42.1)
Female	28.5	(26.3-30.8)
AGE		
18-24	33.0	(26.5-39.4)
25-34	37.6	(33-42.1)
35-44	30.6	(26.6-34.6)
45-54	36.2	(31.9-40.4)
55-64	33.3	(28.6-38)
65+	31.4	(27.8-35.1)
EDUCATION		
Less than H.S.	25.0	(18.9-31.1)
H.S. or G.E.D.	33.9	(30.8-36.9)
Some Post-H.S.	36.7	(33.1-40.3)
College Graduate	31.8	(28.4-35.3)
HOUSEHOLD INCOME		
Less than \$15,000	28.5	(21.3-35.8)
\$15,000- 24,999	29.5	(25-33.9)
\$25,000- 34,999	33.7	(28.9-38.6)
\$35,000- 49,999	35.9	(31.8-40.1)
\$50,000- 74,999	37.0	(32.6-41.4)
\$75,000+	37.9	(32.9-42.9)
RACE/ETHNICITY		
Non-Hisp. White	34.1	(32.1-36)
Non-White or Hisp.	25.9	(18-33.8)

Among the respondents who reported gambling during the past year, those employed for wages (35.3%) were the most likely to gamble. The self-employed were close behind (34.2%). Those least likely to gamble were the unemployed (28.6%).

In 2002, 99.1% of respondents who had gambled in the past 12 months said the money they spent gambling had not led to financial problems. Likewise, 98.9% reported the time spent gambling had not led to problems in family, work, or personal life.

18. WOMEN'S HEALTH

Breast Cancer Screening

Background

Breast cancer is the most common non-skin malignancy among women in the United States and second only to lung cancer as a cause of cancer-related death.² In 2001, an estimated 192,200 new cases of breast cancer were diagnosed in American women, and 40,200 women died of the disease.¹ 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 10 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, and having a first child after age 30.⁵ 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.⁵

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 in Iowa

In 2002, 93.3% 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 age 50 to 59 declining with those both younger and older (see table 18.1).

Table 18.1: Breast Examination Measures for Iowa Women, 2002

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	88.3	(86.2-90.3)	76.8	(74.3-79.4)	93.3	(92-94.6)
AGE						
18 - 39					91.8	(89.1-94.5)
40 - 49	81.5	(76.6-86.4)	70.2	(64.8-75.6)	96.0	(93.7-98.4)
50 - 59	91.7	(88.4-95)	83.3	(78.9-87.7)	98.5	(97.2-99.8)
60 - 69	91.2	(87.8-94.7)	81.1	(76.3-86)	92.8	(89.4-96.1)
70 & up	91.2	(88.4-94)	75.8	(71.5-80.1)	88.8	(85.9-91.6)
EDUCATION						
Less than H.S.	83.9	(75.9-91.9)	69.3	(60-78.7)	86.7	(80.7-92.7)
H.S. or G.E.D.	87.7	(84.7-90.7)	75.2	(71.4-79)	90.9	(88.4-93.3)
Some Post-H.S.	90.2	(86.1-94.3)	79.1	(74.3-84)	94.5	(92.4-96.7)
College Graduate	88.8	(84.7-92.8)	79.9	(74.9-84.9)	97.3	(95.6-99)
HOUSEHOLD INCOME						
Less than \$15,000	84.0	(77-91)	67.5	(58.9-76.2)	86.4	(81-91.8)
\$15,000- 24,999	86.0	(81.6-90.5)	74.7	(69.3-80)	92.2	(89.5-95)
\$25,000- 34,999	87.2	(79.8-94.6)	76.8	(68.8-84.8)	93.4	(89.7-97.1)
\$35,000- 49,999	87.7	(83-92.5)	75.6	(69.7-81.5)	97.1	(95-99.2)
\$50,000- 74,999	88.8	(83.9-93.7)	79.4	(73-85.9)	98.1	(96.5-99.8)
\$75,000+	93.7	(89.4-98)	87.3	(81.2-93.4)	97.3	(94.4-100)

When asked if they had ever had a mammogram, 88.3% of all female Iowa respondents ages 40 and older reported having one. The lowest percentage was reported for women between the ages of 40 and 49. The highest percentage was reported for women with a household income of \$75,000 or more. Women with less than a high school education had a somewhat lower percentage receiving a mammogram than those at other levels of education.

When asked if they had a mammogram in the past two years, 76.8% of all Iowa women over age 40 said they had. Income made the greatest difference. The lowest percent (67.5%) was for women with household incomes of \$15,000 or less, while the highest percent (87.3%) was in households with incomes of \$75,000 or more (see table 18.1).

Comparison With Other States

Among Iowa women age 40 years and older 76.8% had a mammogram in the past two years. Iowa ranked 35th most prevalent among the states and territories on this measure. The national median was 75.8%. The range was from a low of 60.3% in Guam to a high of 85.4% in Rhode Island.

Year 2010 Health Objectives for 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.⁸ Since 76.8% 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 cervical cancer and 4,100 cervical cancer-related deaths were projected to occur in 2002 in the United States. 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 3 years of implementation.^{4,6} 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 starting at age 18 or with the onset of sexual activity. At the discretion of the woman's physician, less frequent exams may be necessary after three consecutive normal exams. Tests are also not necessary for women who have had hysterectomies.

Cervical Cancer Screening in Iowa

When asked if they ever had a Pap test, 96.7% of female respondents reported having it. Reported rates for ever having a Pap test ranged from 87.6% for women from ages 18 to 24 to 99.6% 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 nearly at the maximum of 100% that there was little room to show differences (see table 18.2).

In 2002, 11.9% of respondents reported that they had their last Pap test more than three years ago. The demographic factor with the greatest impact on this measure was age. Only 3.3% of women age 25 to 34 years old did not have a Pap test in the past three years. On the other hand, 24.6% of women 65 years and over had not had their Pap test in the past three years. The proportion having the test in a timely fashion also increased with income and education (see table 18.2).

Table 18.2: Proportion of Iowa Women Having Cervical Cancer Examinations, 2002

Demographic Groups	Ever had a Pap test		Had Pap test in last 3 years	
	%	C.I. (95%)	%	C.I. (95%)
FEMALES	96.7	(95.7-97.5)	88.1	(86.3-89.9)
AGE				
18-24	87.6	(80.6-92.4)	87.6	(81.8-93.4)
25-34	98.9	(97.5-99.5)	96.7	(94.7-98.6)
35-44	99.2	(97.6-99.8)	91.5	(88-95)
45-54	99.6	(98.3-99.9)	87.1	(82.6-91.6)
55-64	99.2	(97.5-99.7)	87.7	(82.5-92.9)
65+	94.8	(92.8-96.3)	75.4	(70.1-80.6)
EDUCATION				
Less than H.S.	92.3	(85.2-96.2)	79.7	(70-89.4)
H.S. or G.E.D.	96.4	(94.5-97.6)	83.6	(80-87.1)
Some Post-H.S.	97.1	(94.8-98.4)	90.8	(87.9-93.6)
College Graduate	98.1	(96.1-99.1)	92.9	(90.2-95.6)
HOUSEHOLD INCOME				
Less than \$15,000	94.4	(88.5-97.3)	78.4	(70.1-86.7)
\$15,000- 24,999	95.2	(92.3-97.0)	81.6	(76.4-86.8)
\$25,000- 34,999	97.5	(94.8-98.9)	89.1	(85-93.1)
\$35,000- 49,999	97.9	(94.9-99.2)	92.4	(88.7-96)
\$50,000- 74,999	98.8	(96.5-99.6)	93.9	(90.5-97.2)
\$75,000+	98.7	(91.4-99.8)	94.0	(89.6-98.5)

Comparison With Other States

The median proportion of women in the nation having a Pap test in the last three years was 86.8%. Iowa ranked a little higher at 88.1%. This was 33rd most prevalent among all states and territories. This proportion was the same as Wisconsin.

Year 2010 Health Objectives for the Nation

The *Healthy People 2010* target for cervical cancer is a reduction in mortality to 2.0 deaths per 100,000 women. Since 1998, the rate remains near 3.0 deaths per 100,000 women.¹

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 2002 of 96.7% is very 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 2002 of 88.1% is somewhat short of this goal.

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19. PROSTATE SCREENING

Background

Prostate cancer is the most common type of cancer in men in the United States (other than skin cancer).⁴ Prostate cancer is a major health concern for older men. The annual number of deaths from prostate cancer in the United States in 2000 was 31,225.³ In Iowa in 2001 there were 397 deaths from prostate cancer.²

The causes of prostate cancer are not well understood. Doctors cannot explain why one man gets prostate cancer and another does not. Researchers are studying factors that may increase the risk of this disease. Studies have found that the following risk factors are associated with prostate cancer:

- **Age.** In the United States, prostate cancer is found mainly in men over age 55. The average age of patients at the time of diagnosis is 70.
- **Family history of prostate cancer.** A man's risk for developing prostate cancer is higher if his father or brother has had the disease.
- **Race.** This disease is much more common in African American men than in white men. It is less common in Asian and American Indian men.
- **Diet and dietary factors.** Some evidence suggests that a diet high in animal fat may increase the risk of prostate cancer and a diet high in fruits and vegetables may decrease the risk. Studies are in progress to learn whether men can reduce their risk of prostate cancer by taking certain dietary supplements.⁴

Many men with prostate cancer often have no symptoms. If symptoms appear, they can include frequent or painful urination, blood in the urine or a decrease in the force of the urine stream, or constant pain in the lower back, pelvis, or upper thighs. Although these symptoms are also caused by other prostate problems that are not cancer, men who experience such problems should see a health care provider as soon as possible.¹

Prostate cancer screening is testing for signs of the disease in men who have no symptoms. The two main methods for screening for prostate cancer are the prostate Specific Antigen (PSA) test and the digital rectal exam (DRE). The PSA test looks for elevated levels of this chemical in the blood. Elevated levels of PSA indicate that the prostate is under some kind of stress. The DRE is where a physician using a gloved finger checks the physical state of the prostate gland through the rectum. These tests cannot tell if a man has cancer; they can only suggest the need for further tests.

At the early stages, prostate cancer is 90 to 95 percent curable. In its later stages, those numbers go down dramatically.¹ But thanks to research, screening programs that detect the early stages of prostate cancer are significantly better today than in the past. The proof is that of the approximately 300,000 American men diagnosed this year, 85 percent will survive.

Medical experts agree that every man needs balanced information on the pros and cons of prostate cancer screening to help him make an informed decision. While different clinicians may approach prostate cancer differently, on one thing they all seem to agree: early detection opens the door to more treatment options and a far greater chance of survival.

Prostate Screening in Iowa

The respondents to the prostate screening questions were only men age 40 and above.

Of these respondents to the 2002 survey 58.7% said they had ever had a PSA test. Education level was related to having the PSA test. The lowest percentage was 52.3% for less than high school graduates, compared to 67.1% for college graduates. Household income was less strongly related to having a PSA test. Respondents were more likely to have had a PSA test in the high or low income levels than in the middle income levels. The confidence intervals are quite large, however, with only this subpopulation being considered (see table 19.1).

Table 19.1: Prevalence of Prostate Screening in Iowa, 2002

Demographic Groups	Had PSA Test		Had DRE	
	%	C.I. (95%)	%	C.I. (95%)
Men age 40 & up	58.7	(55.1-62.3)	76.6	(73.5-79.6)
EDUCATION				
Less than H.S.	52.3	(39.6-64.9)	65.6	(54.2-77)
H.S. or G.E.D.	56.4	(50.6-62.3)	70.0	(64.7-75.3)
Some Post-H.S.	54.2	(46.7-61.6)	79.3	(73.3-85.3)
College Graduate	67.1	(60.6-73.6)	86.6	(82.2-91.1)
HOUSEHOLD INCOME				
Less than \$15,000	61.4	(47.8-75.1)	72.3	(59.6-85)
\$15,000- 24,999	60.8	(51.5-70)	71.3	(63-79.7)
\$25,000- 34,999	55.3	(45-65.7)	70.6	(60.7-80.5)
\$35,000- 49,999	54.5	(46.2-62.7)	74.5	(67.4-81.5)
\$50,000- 74,999	62.5	(54.8-70.3)	83.0	(77.2-88.7)
\$75,000+	61.6	(53.2-70)	82.2	(76.1-88.3)

When asked if they had the digital rectal exam (DRE), 76.6% of the respondents to the prostate questions said they had. For this test as well education level made more difference than income. Only 65.6% of those with less than a high school education had the DRE, while 86.6% of college graduates had it. Men with higher income were more likely to have the DRE (see table 19.1).

When asked if they had ever been told that they had prostate cancer 3.2% of the respondents said they had. This would be the equivalent of 19,911 men 40 years of age and older in the Iowa population.

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20. COLORECTAL CANCER SCREENING

Background

Colorectal cancer (cancer of the colon and rectum) is the second leading cause of cancer-related deaths in the United States.¹ The American Cancer Society estimates that in 2003, 57,100 Americans will die of the disease. It is the third most common cancer in men and women.

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 go on to develop colorectal cancer.²

Approximately 25 percent of the U.S. population is considered to be at risk for the disease.² Risk factors include:

- **Age** – Colorectal cancer is most common in persons 50 years and older and the risk 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.

Prevention and early detection, through screening, are the keys to reducing deaths from colorectal cancer. The disease is *preventable* if precancerous polyps are detected and removed. And if colorectal cancer is found and treated early enough, a person has a 90 percent chance of survival.²

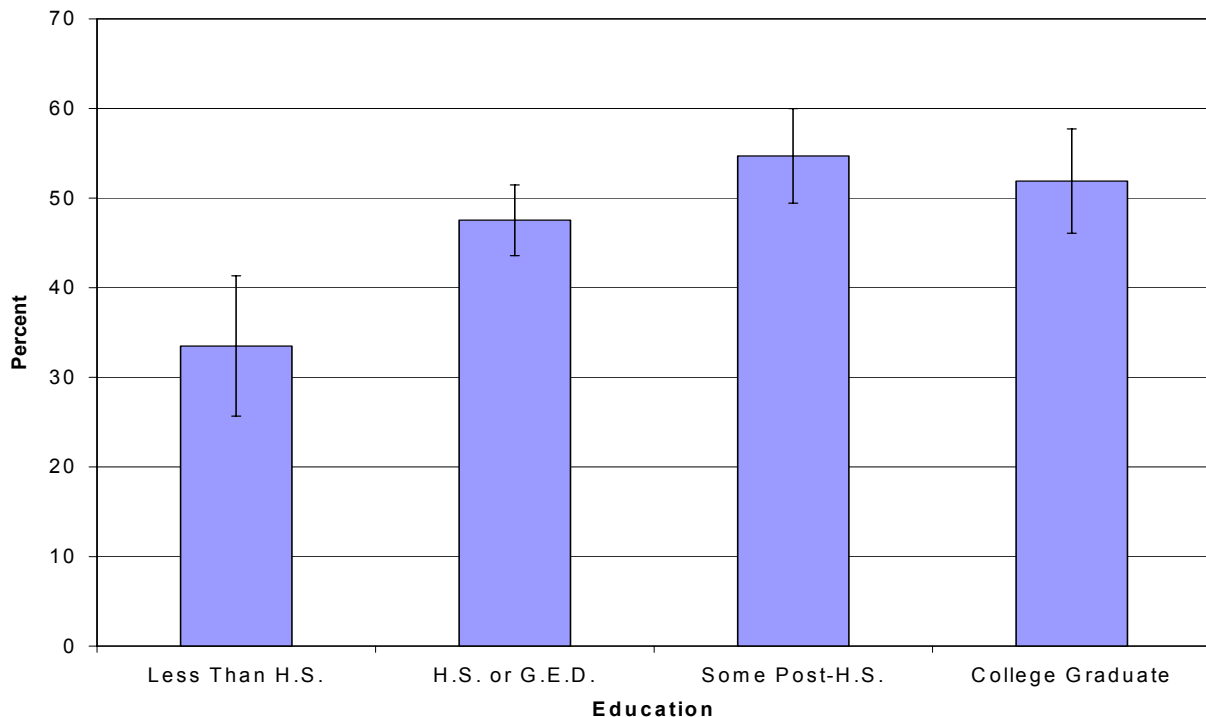
More than 33 percent of deaths from colorectal cancer could be avoided if people over the age of 50 had regular screening.³ Several scientific organizations recommend regular screening for all adults 50 years and older. Recommended screening procedures and intervals are as follows:

- **Fecal occult blood test (FOBT)** every year is a chemical test that detects blood that is not visible in a stool sample.
- **Flexible sigmoidoscopy** every five years is a screening procedure that uses a hollow, lighted tube to visually inspect the wall of the rectum and part of the colon. Samples of tissue or cells may be collected for closer examination, or polyps may be removed during this procedure.
- **Double-contrast barium enema** every five years is comprised of a series of X-rays of the colon and rectum.
- **Colonoscopy** every 10 years – During this exam, physicians use a hollow, lighted tube to visually inspect the interior walls of the rectum and the entire colon.

Colorectal Cancer Screening in Iowa

In 2002, 48.8% of Iowans 50 years old or older reported ever using a home blood-stool testing kit. Females reported a higher percentage of use than males (51.8% vs. 45%). Income did not have a simple relationship to use of the blood stool kit. The \$50,000 to \$74,999 income group had a higher proportion who had used the home stool kit than other income levels. The others were all about the same. Use of the kit was most influenced by level of education. Only 33.5% of respondents with less than a high school education had the test, while 54.7% of those with some college had it (see table 20.1 and figure 20.1).

Figure 20.1: Ever Had Blood Stool Test by Education, 2002



Of respondents who reported ever using a home-blood stool kit, 50.4% reported having the test within the last year. Another 20.2% reported using the test one to two years ago. This meant that 34% of all respondents 50 years old or older had used the blood stool test within the past two years.

In 2002, 48.1 percent of Iowans 50 years old or older reported **ever** having a sigmoidoscopy or colonoscopy screening test. Overall, females were somewhat more likely than males to have this test (49.4% vs. 46.3%). No systematic association with income was observed. As was true with FOBT, those with higher education were more likely to have the test. Only 40.6% of those with a high school education or less reported they had the test, while 53.2% of those with a college education reported having it (see table 20.1).

Table 20.1: Proportion of Colorectal Cancer screening in Iowans 50 years old or More, 2002

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	48.8	(46.2-51.5)	48.1	(45.4-50.7)	50.4	(46.7-54.2)	80.8	(77.9-83.7)
SEX								
Male	45.0	(40.7-49.4)	46.3	(41.9-50.7)	54.8	(48.3-61.4)	83.9	(79.2-88.6)
Female	51.8	(48.5-55)	49.4	(46.2-52.6)	47.4	(43-51.8)	78.6	(75-82.2)
EDUCATION								
Less than H.S.	33.5	(25.6-41.3)	40.6	(32.4-48.9)	52.7	(38-67.4)	76.9	(66.8-86.9)
H.S. or G.E.D.	47.5	(43.6-51.5)	45.8	(41.9-49.7)	51.2	(45.6-56.8)	79.6	(75.4-83.8)
Some Post-H.S.	54.7	(49.4-60)	50.2	(44.9-55.6)	51.0	(43.8-58.3)	80.5	(74.4-86.7)
College Graduate	51.9	(46.1-57.7)	53.2	(47.4-59)	48.0	(40-55.9)	84.2	(78.3-90.2)
HOUSEHOLD INCOME								
Less than \$15,000	46.8	(38.8-54.9)	45.7	(37.5-53.8)	54.6	(43.1-66.1)	68.3	(57.4-79.2)
\$15,000- 24,999	48.3	(42.7-53.9)	46.0	(40.5-51.5)	49.3	(41.7-57)	84.7	(80.2-89.3)
\$25,000- 34,999	45.7	(38.9-52.6)	46.3	(39.4-53.3)	52.8	(42.8-62.7)	81.4	(73.7-89)
\$35,000- 49,999	49.7	(43.3-56.2)	49.8	(43.3-56.3)	49.3	(40.1-58.5)	84.7	(78.5-90.9)
\$50,000- 74,999	53.9	(46.6-61.2)	51.7	(44.3-59.1)	52.8	(42.4-63.2)	78.9	(70-87.9)
\$75,000+	46.8	(38.3-55.3)	46.5	(37.9-55)	49.2	(37.2-61.2)	85.2	(76-94.3)

When respondents who had the test were asked how long it had been since their last exam, 80.8% reported within the past five years.

A higher percentage of males than females reported testing within this recommended time period (83.9% vs. 78.6%). Income did not make much difference except for less than \$15,000. Only 68.3% of this group had a sigmoidoscopy/colonoscopy within the past five years (see table 20.1).

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21. 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. Still 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 oral health among Americans.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}

Table 21.1: Percentage of Iowans Having Dental Care Within the Past 12 Months, 2002

Oral Health in Iowa

In 2002, 75.3% of Iowans surveyed reported visiting a dentist within the past year. However, 9.7% reported their last dental visit more than 5 years ago or never. Overall, females were more likely than males to report a dental visit during the past 12 months (77.6% vs. 72.8%).

Both higher education and greater income were related to the likelihood of visiting a dentist. The highest proportion of recent dental visits was 87.8% of respondents reporting an income of \$75,000 or more. At the other extreme, 55.4% of those having less than a high school education reported visiting a dentist in the past 12 months (see table 21.1).

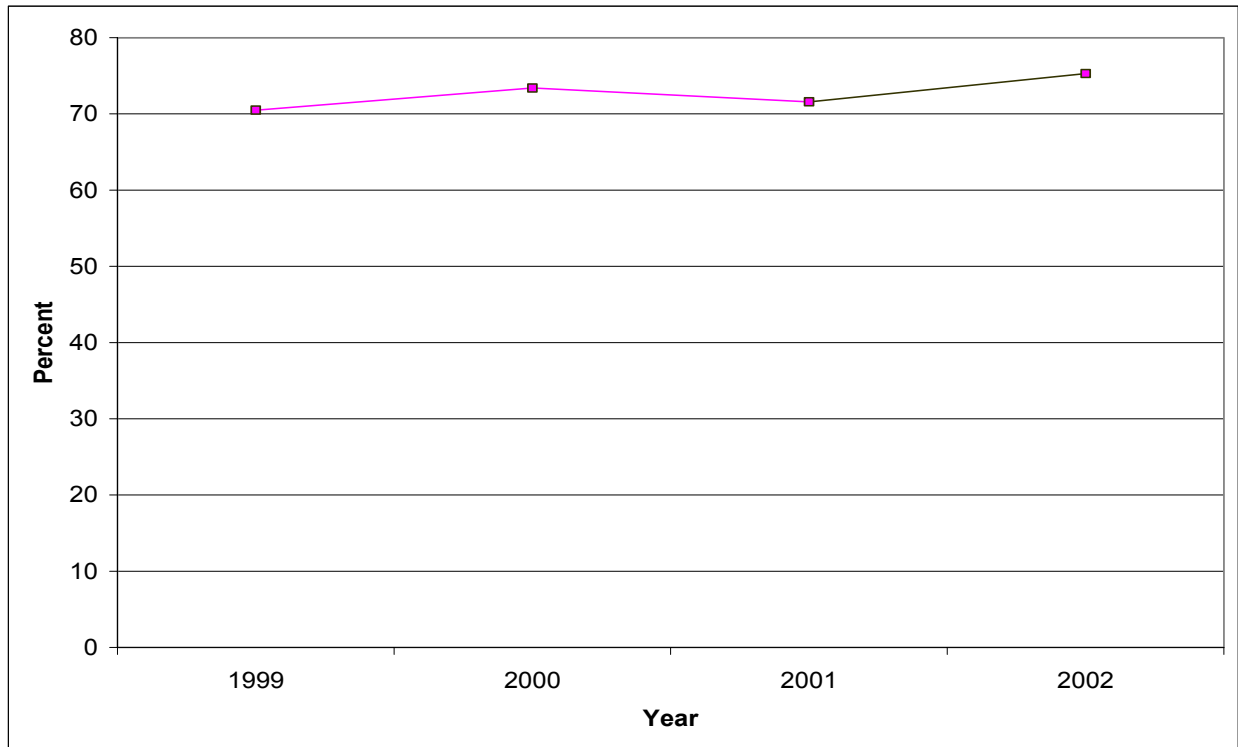
Demographic Groups	Last dental visit within 12 months		Had teeth cleaned within 12 months	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	75.3	(73.6-76.9)	76.1	(74.4-77.8)
SEX				
Male	72.8	(70.2-75.4)	71.6	(68.9-74.4)
Female	77.6	(75.5-79.6)	80.4	(78.4-82.5)
AGE				
18-24	73.5	(67.6-79.3)	72.6	(66.7-78.6)
25-34	72.3	(68-76.6)	70.3	(65.9-74.7)
35-44	79.6	(76.1-83.2)	78.6	(75-82.2)
45-54	76.8	(73.2-80.4)	76.5	(72.9-80.1)
55-64	75.7	(71.7-79.8)	78.5	(74.2-82.8)
65+	72.9	(69.7-76.1)	80.1	(76.8-83.5)
EDUCATION				
Less than H.S.	55.4	(48.4-62.3)	55.2	(46.7-63.6)
H.S. or G.E.D.	68.6	(65.7-71.6)	69.4	(66.3-72.6)
Some Post-H.S.	78.2	(75.2-81.2)	78.7	(75.7-81.7)
College Graduate	86.4	(84-88.8)	85.7	(83.1-88.2)
HOUSEHOLD INCOME				
Less than \$15,000	58.8	(51.7-65.8)	63.1	(55.5-70.7)
\$15,000- 24,999	70.2	(65.9-74.6)	71.9	(67.1-76.6)
\$25,000- 34,999	69.6	(64.9-74.3)	70.2	(65.3-75.1)
\$35,000- 49,999	77.7	(74.2-81.2)	77.0	(73.3-80.7)
\$50,000- 74,999	81.1	(77.4-84.8)	79.7	(75.9-83.5)
\$75,000+	87.8	(84.5-91.1)	87.2	(83.8-90.7)
RACE/ETHNICITY				
Non-Hisp. White	75.3	(73.7-77)	76.1	(74.4-77.9)
Non-White or Hisp.	74.7	(66.5-82.8)	75.1	(66.5-83.7)

Of respondents who had visited the dentist and who had teeth, 76.1% 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. The highest proportion having teeth cleaned within the past 12 months was 87.2% of those respondents reporting an income of \$75,000 or more. The lowest proportion was 55.2% of those with less than a high school education. Age played more of a role in cleaning than in having a visit with more older people having their teeth cleaned in the past 12 months (see table 21.1).

Oral health questions have been asked on the BRFSS since 1999. In that time the percent of Iowans reporting having a dental visit in the past year has shown a small increase (see figure 21.1).

Figure 21.1: Percent of Iowans Having an Annual Dental Visit by Year, 1999-2002



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22. 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 the age of 65. Influenza and pneumonia together resulted in 65,313 deaths in 2002. Influenza caused 1,765 deaths alone.

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 of age 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 so that it can 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 aged greater than or equal to 65 years 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 aged greater than or equal to 65 years receive at least one lifetime dose of pneumococcal vaccine² and annual influenza vaccination³.

Immunization in Iowa

In 2002, 73.5% of Iowans age 65 and over reported having a flu shot in the past 12 months. The only demographic variable which was examined that showed any impact on having a flu shot was household income. People with higher incomes were more likely to have a flu shot in the past 12 months. The highest income level of \$75,000 per year or more was an exception to this. It actually had the lowest percentage of people having a flu shot. The numbers in this group are too small to make this result meaningful (see table 22.1).

When people who had received a flu shot were asked where they received it, the most common response was a doctor's office (42.5%). This was nearly twice as high as the next most common choice of workplace (22.7%). When only people age 65 and over were asked where they received their flu shot, doctor's office was even more common (56.4%). The only other choice that was mentioned by more than ten percent of these respondents was 'Another type of clinic or health center' (15.3%). Workplace was the least often mentioned place for this group (0.9%).

When asked when they had their last flu shot, the vast majority (82.6%) said they had it last fall or winter (September-December, 2001). Of the few remaining, more said they had it later than last fall than before last fall.

Table 22.1: Percentage of Immunizations in Iowans Age 65 and Over, 2002

Demographic Groups	Influenza			Pneumonia	
	N	%	C.I. (95%)	%	C.I. (95%)
TOTAL	915	73.5	(70.0-76.6)	66.2	(62.4-69.7)
SEX					
Male	290	73.4	(67.3-78.7)	65.2	(58.7-71.1)
Female	625	73.5	(69.3-77.3)	66.8	(62.2-71.2)
EDUCATION					
Less than H.S.	148	73.3	(64.9-80.3)	67.0	(57.7-75.1)
H.S. or G.E.D.	423	73.6	(68.3-78.3)	62.7	(56.8-68.2)
Some Post-H.S.	201	71.5	(63.8-78.1)	68.7	(60.8-75.6)
College Graduate	140	75.3	(66.1-82.6)	71.5	(62.4-79.1)
HOUSEHOLD INCOME					
Less than \$15,000	147	65.0	(55.2-73.8)	68.2	(58.7-76.4)
\$15,000- 24,999	277	75.0	(68.4-80.6)	65.7	(58.0-72.6)
\$25,000- 34,999	137	77.7	(68.9-84.6)	68.7	(59.6-76.6)
\$35,000- 49,999	102	77.7	(67.2-85.6)	65.9	(54.7-75.5)
\$50,000- 74,999	60	80.7	(67.1-89.6)	63.2	(48.7-75.6)
\$75,000+	30	62.4	(41.8-79.2)	69.2	(48.1-84.5)

When those who did not get a flu shot in the past 12 months were asked the main reason they did not, the majority (57.4%) said they did not believe they were necessary. Although this answer was given somewhat less often by older respondents, 46.4% of those 65 years and older still said they did not believe flu shots were necessary. More men than women (63.5% vs. 51%) said they did not believe flu shots were necessary.

In 2002, 66.2% of Iowans reported ever having a pneumonia vaccination. There was no clear pattern of relation to demographic factors. The lowest percentage of pneumonia vaccination occurred among high school graduates (62.7%), while the highest percent was among college graduates (71.5%) (see table 22.1).

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 those ever told they had diabetes 65.9% had a flu shot and 53.8% had a pneumonia vaccination. The figure for those not told they had diabetes were 34.1% and 20.3% respectively.

Of all those ever told they had asthma 42.9% had their flu shot, while 28.5% had a pneumonia vaccination. For those never told they had asthma the figures were 35.4% and 21.7% respectively.

Comparison With Other States

The median percent of the population age 65 and over who have had a flu shot in the past 12 months from all the states and territories was 68.4% in 2002. There were only eight states which had a higher proportion of this population having a flu shot than Iowa.

The median percent of the population age 65 and over who ever had a pneumonia vaccination was 63%. There were only 12 states with a higher proportion of this age group having had a pneumonia vaccination than Iowa.

Year 2010 Health Objectives for the Nation

The Healthy People 2010 goals for both having a flu shot in the past 12 months and ever having a pneumonia vaccination for people age 65 and over are 90%. Iowa's 2002 figures of 73.5% for having a flu shot and 66.2% for ever having a pneumonia vaccination have a long way to go to meet these targets.

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23. HIV/AIDS

Background

As of December 2000, 774,467 Americans have been diagnosed with AIDS. At least 448,060 of them have died.¹ In 1998 alone 13,426 people in the United States died of AIDS and there were 46,247 new cases. New cases of AIDS decreased 18% between 1996 and 1997. From 1997 to 1998, AIDS incidence decreased by only 11%, suggesting that the decrease in AIDS incidence is slowing. This same pattern held true in 1999.

A slowing in the decrease of AIDS incidence is paralleled by a slowing in the decrease in the number of AIDS deaths. Deaths decreased 42% from 1996 to 1997, but by only 20% from 1997 to 1998. Again, a similar decrease was seen from 1998 to 1999.

The number of persons living with AIDS continues to increase. At the end of 1997 there were 269,777 persons in the United States living with AIDS. By the end of 1998, there were 297,137 persons living with AIDS, a 10% increase. In 1999 the number was around 320,000. Since reporting began, 1,196 cases of AIDS have been reported in Iowa through December 31, 1999.³

The decreases in AIDS incidence and the number of AIDS deaths, first noted in 1996, are thought to be the result of new treatments. Although a substantial decline in AIDS incidence continues, the slowing rate of the decline may indicate that much of the benefit of new therapies has been realized.

Many of the new diagnoses are occurring among African-Americans, women, and people infected heterosexually, with an increase observed among Hispanics. These data 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 1.7% of the population, but account for 10% of all Iowa AIDS cases. The Hispanic population in Iowa is 1.2% but Hispanic AIDS cases are now at 3%.³

Estimates suggest that 650,000 to 900,000 Americans are now living with HIV, and at least 40,000 new infections occur each year. HIV infection, the precursor to AIDS, was the fifth leading cause of death among people 25-44 years old in 1998. It accounted for 6.6% of deaths from all causes in this age group in the U.S.⁴ AIDS was the sixth leading cause of years of potential life lost before the age of 65 in the United States in 1990 accounting for 5.4%.²

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.

AIDS in Iowa

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

Responses indicated that Iowans' knowledge about AIDS had some holes. 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 49.6% said "yes". Another 30.7% said they didn't know. More were aware that there were medical procedures to help a person with HIV to live longer (89.8%). Still, 8% said they didn't know.

Although 88.6% of respondents thought it was very important to know your AIDS status, only 31.8% of respondents reported ever being tested for HIV, not including as part of a blood donation. The largest proportion of respondents tested was between the ages of 25-34 (50.4%). Only 11.6% of those between 55-64 reported ever being tested (see table 23.1).

Although overall there was little difference between the sexes in proportion tested, there is an interesting interaction between sex and age. Figure 23.1 shows that in the younger age groups many more women have been tested, while the situation is reversed 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 47.9% of the responses.

Each of the respondents who had received an AIDS virus blood test was asked the place for the test site. Respondents gave a variety of answers. The most commonly reported place by far was "Private doctor or HMO" (45.5%). This option was chosen more than twice as often as the next most common choice, "clinic" (20.8%).

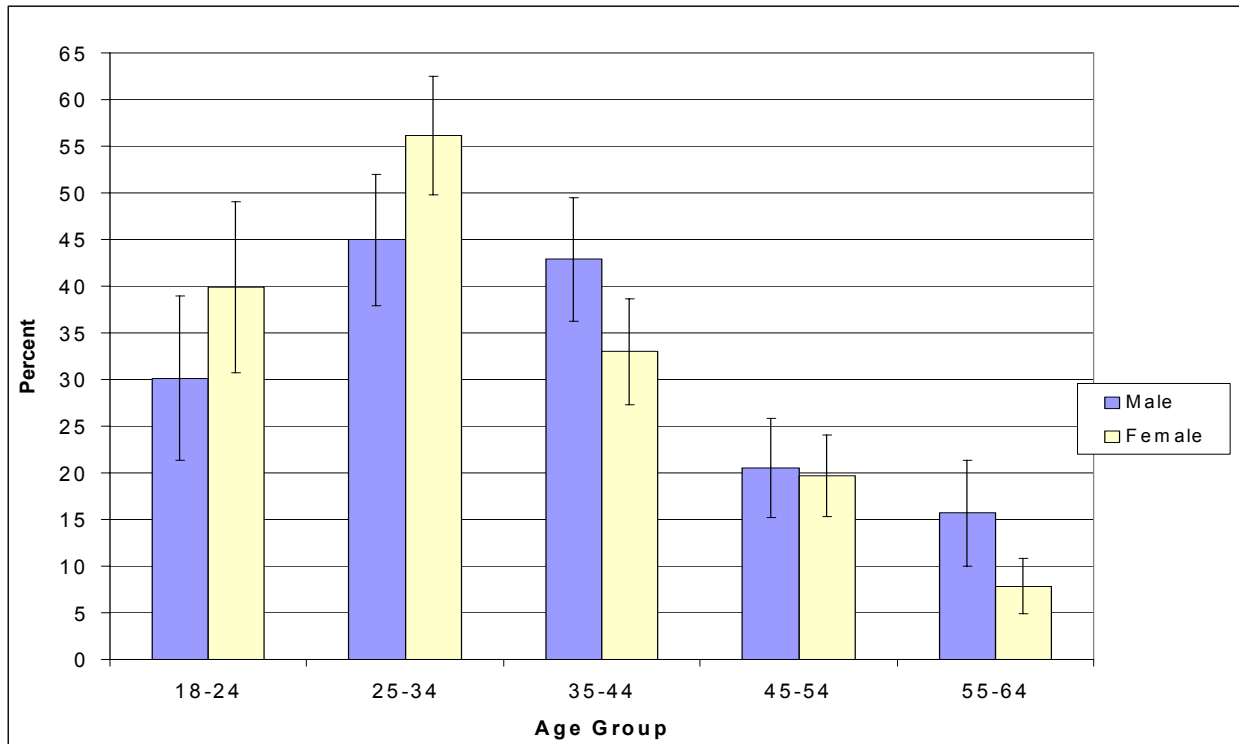
Survey participants were read a list of conditions that produce a high risk of contracting HIV and asked if any of these conditions applied to them. They did not have to say which. Only 2.9% thought any of these conditions applied to them.

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 9.9% reported that they had.

Table 23.1: Percent of Iowans Tested for HIV/AIDS, 2002

<i>Demographic Groups</i>	Had HIV test	
	%	C.I. (95%)
TOTAL	31.8	(29.7-33.9)
SEX		
Male	32.0	(28.9-35.2)
Female	31.6	(28.8-34.4)
AGE		
18-24	34.9	(28.5-41.4)
25-34	50.4	(45.7-55.2)
35-44	38.0	(33.6-42.4)
45-54	20.1	(16.7-23.6)
55-64	11.6	(8.4-14.7)
EDUCATION		
Less than H.S.	36.2	(26.5-45.9)
H.S. or G.E.D.	29.2	(25.6-32.9)
Some Post-H.S.	33.6	(29.8-37.5)
College Graduate	32.0	(28.3-35.8)
HOUSEHOLD INCOME		
Less than \$15,000	38.6	(29.4-47.9)
\$15,000- 24,999	32.9	(26.8-39)
\$25,000- 34,999	35.4	(29.7-41.1)
\$35,000- 49,999	31.3	(26.7-36)
\$50,000- 74,999	29.0	(24.6-33.4)
\$75,000+	34.1	(29-39.2)

Figure 23.1: Percentage of Iowans Reporting Ever Being Tested for HIV by Age and Gender, 2002



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.

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 much more likely to have been talked to by a doctor concerning condom use to prevent sexually transmitted diseases (see table 23.2).

Table 23.2: Comparison of White and other Race on HIV/AIDS measures in Iowa, 2002

Race/Ethnicity	White nonHispanic	Other Race or Hispanic
HIV Testing Important	88.3%	97.1%
Ever Tested for HIV	31.0%	47.9%
Any High Risk Situations Apply	2.7%	6.6%
Told by Doctor About STD Prevention by Condoms	9.0%	28.0%

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Appendix 1

Iowa 2002 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

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. When you are sick or need advice about your health, to which one of the following places do you usually go?

Would you say:

1. A doctor's office
2. A public health clinic or community health center
3. A hospital outpatient department
4. A hospital emergency room
5. Urgent care center
6. Some other kind of place
8. No usual place

2.4. Was there a time in the past 12 months when you needed medical care, but could not get it?

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

2.5. What is the main reason you did not get medical care?

Note: if more than one instance ask about the most recent.

Would you say:

01. Cost [**Include no insurance**]
02. Distance
03. Office wasn't open when I could get there.
04. Too long a wait for an appointment
05. Too long a wait in waiting room
06. No child care
07. No transportation
08. No access for people with disabilities
09. The medical provider didn't speak my language.
10. Other

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: 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.

4.1. 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

4.2. 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

4.3. How often do you eat green salad?

- 1 ___ Per day
- 2 ___ Per week
- 3 ___ Per month
- 4 ___ Per year
- 5 5 5 Never

4.4. 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

4.5. How often do you eat carrots?

- 1 ___ Per day
- 2 ___ Per week
- 3 ___ Per month
- 4 ___ Per year
- 5 5 5 Never

4.6. 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 5: Asthma

5.1. Have you ever been told by a doctor, nurse or other health professional that you had asthma?

1. Yes
2. No **Go to Q6.1**

5.2. Do you still have asthma?

1. Yes
2. No

Section 6: Diabetes

- 6.1. 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 Q6.1 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 7: Oral Health

- 7.1. How long has it been since you last visited a dentist or a dental clinic for any reason?
 - 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
- 7.2. 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.
 - 1. 1 to 5
 - 2. 6 or more but not all
 - 3. All
 - 8. None

IF Q7.1 = 8/NEVER OR Q7.2 = 3/ALL, SKIP TO NEXT SECTION

- 7.3. 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

Section 8: Immunization

- 8.1. During the past 12 months, have you had a flu shot?
 - 1. Yes
 - 2. No **Go to Q8.3**
- 8.2. At what kind of place did you get your last flu shot?
 - 01. A doctor's office or health maintenance organization
 - 02. A health department
 - 03. Another type of clinic or health center
 [Example: a community health center]
 - 04. A senior, recreation, or community center
 - 05. A store [Examples: supermarket, drug store]
 - 06. A hospital or emergency room
 - 07. Workplace or
 - 08. Some other kind of place
- 8.3. 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 9: Tobacco Use

- 9.1. Have you smoked at least 100 cigarettes in your entire life?
5 packs = 100 cigarettes
 - 1. Yes
 - 2. No **Go to Q10.1**
- 9.2. 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 Q10.1**

9.3. 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 10: Alcohol Consumption

10.1. 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**

10.2. On the days when you drank, about how many drinks did you drink on the average?
 ___ Number of drinks

10.3. 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 None

10.4. During the past 30 days, how many times have you driven when you've had perhaps too much to drink?
 ___ Number of times
 8 8 None

Section 11: Use of Seatbelts

11.1. How often do you use seatbelts when you drive or ride in a car?

1. Always
2. Nearly always
3. Sometimes
4. Seldom
5. Never
8. Never drive or ride in a car

Section 12: Demographics

12.1. What is your age?
 ___ Code age in years

12.2. Are you Hispanic or Latino?
 1. Yes
 2. No

12.3. 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 Q12.3, continue. Otherwise, go to Q12.5

12.4. 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]

12.5. Are you:

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

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

- ___ Number of children
 8 8 None

12.7. 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)

12.8. 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

12.9. 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

12.10. About how much do you weigh without shoes?

Round fractions up
 ___ ___ Weight pounds

12.11. About how tall are you without shoes?

Round fractions down
 ___/___ Height ft/inches

12.12. What county do you live in?

___ ___ FIPS county code

12.13. 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 Q12.15**

12.14. How many of these are residential numbers?

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

12.15. Indicate sex of respondent.

1. Male **Go to Q13.1**
2. Female

If respondent 45 years old or older, go to Q13.1.

- 12.16. To your knowledge, are you now pregnant?
1. Yes
 2. No

Section 13: Family Planning

If respondent is female and 45 years of age or older, or pregnant, or male 60 years or older, go to next section.

Questions are asked of females 18-44 years of age and males 18-59 years of age. The next few questions ask about pregnancy and ways to prevent pregnancy.

13.1. Are you or your [if female, insert husband/partner; if male, insert wife/partner] doing anything now to keep [if female, insert "you"; insert "her" if male] from getting pregnant? Some things people do to keep from getting pregnant include not having sex at certain times, using birth control methods such as the pill, Norplant, shots or Depo-provera, condoms, diaphragm, foam, IUD, having their tubes tied, or having a vasectomy.

(If multiple partners, consider usual method.)

1. Yes
2. No **Go to Q13.4**
3. No partner/not sexually active **Go to 14.1**
4. Same sex partner **Go to 14.1**

13.2. What are you or your [if female, insert husband/partner; if male, insert wife/partner] doing now to keep [if female, insert "you"; insert "her" if male] from getting pregnant?

01. Tubes tied (sterilization) **Go to 14.1**
02. Vasectomy (sterilization) **Go to 14.1**
03. Pill
04. Condoms
05. Foam, jelly, cream
06. Diaphragm
07. Norplant
08. IUD
09. Shots (Depo-Provera)
10. Withdrawal
11. Not having sex at certain times (rhythm)
12. No partner/Not sexually active **Go to 14.1**
13. Other method(s)

13.3. What other method are you also using to prevent pregnancy?

01. Tubes tied (sterilization) **Go to 14.1**
02. Vasectomy (sterilization) **Go to 14.1**
03. Pill **Go to 14.1**
04. Condoms **Go to 14.1**
05. Foam, jelly, cream **Go to 14.1**
06. Diaphragm **Go to 14.1**
07. Norplant **Go to 14.1**
08. IUD **Go to 14.1**
09. Shots (Depo-Provera) **Go to 14.1**
10. Withdrawal **Go to 14.1**
11. Not having sex at certain times (rhythm) **Go to 14.1**
12. No partner/Not sexually active **Go to 14.1**
13. Other methods(s) **Go to 14.1**
87. **NO** other method(s) **Go to 14.1**

Go to next section

13.4. **[FEMALES]** What is your main reason for not doing anything to keep you from getting pregnant?

[MALES] What is your main reason for not doing anything to keep your partner from getting pregnant?

01. Not sexually active/no partner
02. Didn't think was going to have sex/no regular partner
03. You want a pregnancy
04. You or your partner don't want to use birth control
05. You or your partner don't like birth control/fear side effects
06. You can't pay for birth control
07. Lapse in use of a method
08. Don't think you or your partner can get pregnant
09. You or your partner had tubes tied (sterilization)
10. You or your partner had a vasectomy (sterilization)
11. You or your partner had a hysterectomy
12. You or your partner are too old
13. You or your partner are currently breast-feeding
14. You or your partner just had a baby/postpartum
15. Other reason
16. Don't care if get pregnant
18. Partner is pregnant now

If respondent is male, go to next section.

Section 14: Women's Health

14.1. 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 Q14.3**

14.2. 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 than 5 years ago)
5. 5 or more years ago

14.3. 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 Q14.5**

14.4. 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

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

1. Yes
2. No **Go to Q14.7**

14.6. 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

If response to Q 13.4 is 11 (had hysterectomy) or Q 12.16 is 1 (is pregnant) then go to next section.

14.7. Have you had a hysterectomy?

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

1. Yes
2. No

Section 15: Prostate Cancer Screening**If respondent is 39 years old or younger, or is female, go to Q16.1**

15.1. A Prostate-Specific Antigen test, also called a PSA test, is a blood test used to check men for prostate cancer. Have you ever had a PSA test?

1. Yes
2. No **Go to Q15.3**

15.2. How long has it been since you had your last PSA test?

1. Within the past year (anytime less than 12 months ago)
2. Within the past 2 years (1 year but less than 2 years)
3. Within the past 3 years (2 years but less than 3 years)
4. Within the past 5 years (3 years but less than 5 years)
5. 5 or more years ago

15.3. A digital rectal exam is an exam in which a doctor, nurse or other health professional places a gloved finger into the rectum to feel the size, shape, and hardness of the prostate gland. Have you ever had a digital rectal exam?

1. Yes
2. No **Go to Q15.5**

15.4. How long has it been since your last digital rectal 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)
3. Within the past 3 years (2 years but less than 3 years)
4. Within the past 5 years (3 years but less than 5 years)
5. 5 or more years ago

15.5. Have you ever been told by a doctor, nurse or other health professional that you had prostate cancer?

1. Yes
2. No

Section 16: Colorectal Cancer Screening**If respondent 49 years old or younger, go to Q17.1**

16.1. 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 Q16.3**

16.2. 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

16.3. 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 17.1**

16.4. 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

Section 17: 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.

17.1. 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

17.2. 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

17.3. 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

17.4. 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 Q17.8**

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

Include saliva tests

___/___/___ Code month and year

17.6. 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 |

17.7. 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 |

17.8. 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.

17.9. 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

Section 18: Firearms

The next three questions are about firearms. We are asking these in a health survey because of our interest in firearm-related injuries.

Please include weapons such as pistols, shotguns, and rifles; but not BB guns, starter pistols, or guns that cannot fire. Include those kept in a garage, outdoor storage area, or motor vehicle.

18.1. Are any firearms kept in or around your home?

- 1. Yes
- 2. No Go to **STATE ADDED CARBON MONOXIDE**

18.2. Are any of these firearms now loaded?

- 1. Yes
- 2. No Go to **STATE ADDED CARBON MONOXIDE**

18.3. Are any of these loaded firearms also unlocked? By "unlocked" we mean you do not need a key or combination to get the gun or to fire it. We don't count a safety as a lock.

- 1. Yes
- 2. No

STATE ADDED CARBON MONOXIDE

Q:SACM1 Since 1998 have you or any member of your family ever been unintentionally poisoned, made ill or died, from exposure to carbon monoxide in Iowa?

- 1. Yes
- 2. No SKIP TO STATE ADDED IMMUNIZATION]

Q:SACM2 Was the incident ...

[SELECT ALL THAT APPLY]

- 1. at home,
- 2. in the workplace,
- 3. from a heating unit,
- 4. from auto exhaust, or
- 5. from something else? [SPECIFY]

STATE ADDED IMMUNIZATION QUESTIONS

[TO BE ASKED IF "YES" TO Q:8.1]

Q:SAI1a Earlier you said you had a flu shot. When did you receive your last flu shot? Was it...

- 1. Last Fall or Winter (September - December 2001) or
- 2. Before last Fall?

[TO BE ASKED IF "NO" TO Q:8.1]

Q:SAI1b Earlier you said you did not have a flu shot in the past 12 months. What is the main reason that you did not get a flu shot in the past 12 months?

- 11. Don't believe they are necessary
- 12. Bad reaction/allergic to vaccine
- 13. Can't have because of other health problems
- 14. Didn't know where to get it
- 15. Tried, were out of vaccine
- 16. Couldn't afford it/no insurance
- 17. Don't like needles/shots
- 18. Goes against religious beliefs
- 19. Got the flu after the last one
- 20. Other: [OPEN]

Module 2: Hypertension Awareness

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 module**
- 3. No **Go to next module**
- 2. Are you currently taking medicine for your high blood pressure?
- 1. Yes
- 2. No

Module 3: Cholesterol Awareness

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 module**
- 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
- 3. Have you ever been told by a doctor, nurse or other health professional that your blood cholesterol is high?
- 1. Yes
- 2. No

Module 4: Physical Activity

If "employed" or "self-employed" to core Q12.8, continue. Otherwise go to Q2.

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

- 2. Now, thinking about the moderate physical activities you do [fill in (when you are not working) if "employed" or "self-employed" to core Q12.8] 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 Q5**

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 Q5**

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

5. Now thinking about the vigorous physical activities you do [fill in (when you are not working) if "employed" or "self-employed" to core Q12.8] 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 module**

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 module**

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

STATE ADDED SEDENTARY LIFESTYLE

Q:SASL1 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

Module 5: Healthy Days - Health-Related Quality of Life
 Earlier, I asked you to rate your general health as excellent, very good, good, fair, or 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

Module 6: Quality of Life

1. Are you limited in any way in any activities because of physical, mental, or emotional problems?
 1. Yes
 2. No

2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheel chair, a special bed, or a special telephone?

Include occasional use or use in certain circumstances

- 1. Yes
- 2. No

If "yes" to Q1 or "yes" to Q2, continue. Otherwise go to Q7.

3. What is your major impairment or health problem?

- ___ Reason code
- 0 1 Arthritis/rheumatism
- 0 2 Back or neck problem
- 0 3 Fractures, bone/joint injury
- 0 4 Walking problem
- 0 5 Lung/breathing problem
- 0 6 Hearing problem
- 0 7 Eye/vision problem
- 0 8 Heart problem
- 0 9 Stroke problem
- 1 0 Hypertension/high blood pressure
- 1 1 Diabetes
- 1 2 Cancer
- 1 3 Depression/anxiety/emotional problem
- 1 4 Other impairment/problem

4. For how long have your activities been limited because of your major impairment or health problem?

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

5. Because of any impairment or health problem, do you need the help of other persons with your PERSONAL CARE needs, such as eating, bathing, dressing, or getting around the house?

- 1. Yes
- 2. No

6. Because of any impairment or health problem, do you need the help of other persons in handling your ROUTINE needs, such as everyday household chores, doing necessary business, shopping, or getting around for other purposes?

- 1. Yes
- 2. No

7. During the past 30 days, for about how many days did pain make it hard for you to do your usual activities, such as self-care, work, or recreation?

___ Number of days
 8 None

8. During the past 30 days, for about how many days have you felt sad, blue, or depressed?

___ Number of days
 8 8 None

9. During the past 30 days, for about how many days have you felt worried, tense, or anxious?

___ Number of days
 8 8 None

10. During the past 30 days, for about how many days have you felt you did not get enough rest or sleep?

___ Number of days
 8 8 None

11. During the past 30 days, for about how many days have you felt very healthy and full of energy?

___ Number of days
 8 8 None

Module 7: Health Care Coverage and Utilization

1. About how long has it been since you last visited a doctor for a routine checkup?

A routine checkup is a general physical exam, not an exam for a specific injury, illness or condition

- 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

If "no" to Q2.1 continue, else go to next module

Previously you said that you did not have any kind of health care coverage.

2. What is the main reason you are without health care coverage?

___ Reason code

- 0 1 Lost job or changed employers
- 0 2 Spouse or parent lost job or changed employers **[includes any person who had been providing insurance prior to job loss or change]**
- 0 3 Became divorced or separated
- 0 4 Spouse or parent died
- 0 5 Became ineligible because of age or because left school
- 0 6 Employer doesn't offer or stopped offering coverage
- 0 7 Cut back to part time or became temporary employee
- 0 8 Benefits from employer or former employer ran out
- 0 9 Couldn't afford to pay the premiums
- 1 0 Insurance company refused coverage
- 1 1 Lost Medicaid or Medical Assistance eligibility
- 8 7 Other

3. About how long has it been since you had health care coverage?

- 1. Within the past 6 months (anytime less than 6 months ago)
- 2. Within the past year (6 months but less than 12 months ago)
- 3. Within the past 2 years (1 year but less than 2 years ago)
- 4. Within the past 5 years (2 years but less than 5 years ago)
- 5. 5 or more years ago
- 8. Never

STATE ADDED HEALTH INSURANCE

Q:SAHI1 Have you heard of Iowa's Child Health Insurance Program, called Hawk-1?

- 1. Yes
- 2. No

Module 8: Adult Asthma History

If "yes" to core Q5.1, 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 Q5.2, 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

Module 9: Childhood Asthma

If "no children" to core Q12.6, 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

Module 11: 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

2. Within the past 12 months, has a doctor, nurse, or other health professional told you to...

a. Eat fewer high fat or high cholesterol foods?

- 1. Yes
- 2. No

b. Eat more fruits and vegetables?

- 1. Yes
- 2. No

c. Be more physically active?

- 1. Yes
- 2. No

3. Has a doctor, nurse or other health professional ever told you that you had any of the following?

a. A heart attack, also called a myocardial infarction

- 1. Yes
- 2. No

b. Angina or coronary heart disease

- 1. Yes
- 2. No

c. A stroke

- 1. Yes
- 2. No

If "yes" to Q3a continue. Otherwise, go to Q 5.

4. At what age did you have your first heart attack?

___ Code age in years

If "yes" to Q3c, continue. Otherwise, go to Q6.

5. At what age did you have your first stroke?

___ Code age in years

If "yes" to question 3a or 3c, continue. Otherwise, go to Q7.

6. After you left the hospital following your [fill in (heart attack) if "yes" to Q3a or to Q3a and Q3c; fill in (stroke) if "yes" to Q3c and "no" to Q3a], did you go to any kind of outpatient rehabilitation? This is sometimes called rehab."

- 1. Yes
- 2. No

If respondent is aged 35 years or older continue with Q7 otherwise go to the next module.

7. Do you take aspirin daily or every other day?

- 1. Yes **Go to Q9**
- 2. No

8. Do you have a health problem or condition that makes taking aspirin unsafe for you?

- 1. Yes, not stomach related **Go to Next Module**
- 2. Yes, stomach problems **Go to Next Module**
- 3. No **Go to Next Module**

9. Why do you take aspirin...

a. To relieve pain?

- 1. Yes
- 2. No

b. To reduce the chance of a heart attack?

- 1. Yes
- 2. No

c. To reduce the chance of a stroke?

- 1. Yes
- 2. No

Module 12: Weight Control

1. Are you now trying to lose weight?

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

2. Are you now trying to maintain your current weight, that is to keep from gaining weight?

- 1. Yes
- 2. No **Go to Q6**

3. Are you eating either fewer calories or less fat to... lose weight? [if "Yes" on Q1] keep from gaining weight? [if "Yes" on Q2]

- 1. Yes, fewer calories
- 2. Yes, less fat
- 3. Yes, fewer calories and less fat
- 4. No

4. Are you using physical activity or exercise to... lose weight? [if "Yes" on Q1] keep from gaining weight? [if "Yes" on Q2]

- 1. Yes
- 2. No

5. How much would you like to weigh?

___ ___ Weight pounds

6. 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

STATE ADDED NUTRITION QUESTIONS

Q:SAN1 How often do you use whole-grain products, such as, whole-wheat bread or pasta, oatmeal, or bran cereal? Would you say...

- 1. Less than once a week
- 2. Once a week
- 3. 2-3 times a week
- 4. 4-6 times a week
- 5. Once a day
- 6. 2 or more times a day

Q:SAN2 How often do you add salt to your food?

Would you say...

1. Less than once a week
2. Once a week
3. 2-3 times a week
4. 4-6 times a week
5. Once a day
6. 2 or more times a day

Q:SAN3 How often do you use canned soups or frozen meals?

Would you say...

1. Less than once a week
2. Once a week
3. 2-3 times a week
4. 4-6 times a week
5. Once a day
6. 2 or more times a day

Q:SAN4 How often do you use low-fat or fat-free dairy products such as milk, yogurt or cheese?

Would you say...

1. Less than once a week
2. Once a week
3. 2-3 times a week
4. 4-6 times a week
5. Once a day
6. 2 or more times a day

Module 13: Folic Acid

1. Do you currently take any vitamin pills or supplements?

Include liquid supplements

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

2. Are any of these a multivitamin?

1. Yes **Go to Q4**
2. No

3. Do any of the vitamin pills or supplements you take contain folic acid?

1. Yes
2. No **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

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

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
2. To prevent birth defects
3. To prevent high blood pressure or
4. Some other reason

STATE ADDED FOLIC ACID

Q:SAFA1 In order to help prevent some birth defects, when is the best time for a woman to take a vitamin containing folic acid?

Would you say...

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 14: Tobacco Indicators

If "yes" to core Q9.1, 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

2. 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 Q9.2, go to Q6

If "not at all" to core Q9.2, continue. Otherwise, go to Q4.

3. 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**

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 Q12.8, 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 lunchrooms?

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

Module 15: Other Tobacco Products

1. Have you ever used or tried any smokeless tobacco products such as chewing tobacco or snuff?

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

2. Do you currently use chewing tobacco or snuff every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all

3. Have you ever smoked a cigar, even one or two puffs?

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

4. Do you now smoke cigars every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all

5. Have you ever smoked tobacco in a pipe, even one or two puffs?

1. Yes
2. No **Go to Q7**

6. Do you now smoke a pipe every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all

7. A bidi is a flavored cigarette from India.. Have you ever smoked a bidi, even one or two puffs?

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

8. Do you now smoke bidis every day, some days, or not at all?

1. Every day
2. Some days
3. Not at all

STATE ADDED TOBACCO

Q:SATO B1 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?

Q:SATO B2 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]

Q:SATO B3 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]

Q:SATO B4 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 16: Arthritis Module

1. The next questions refer to your hip, knee, ankle, shoulder, elbow, hands and feet. **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 Q4**

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

1. Yes
2. No

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

1. Yes
2. No

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 Q1 = 1 OR Q4 = 1 THEN CONTINUE. OTHERWISE, GO TO NEXT SECTION.

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.

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

STATE ADDED GAMBLING

I have a couple of questions left and we'll be finished.

Q:SAG1 Have you gambled in the last 12 months?

1. Yes
2. No [SKIP TO CLOSING]

Q:SAG2 Has the money you spent gambling led to financial problems?

1. Yes
2. No

Q:SAG3 Has the time you spent gambling led to problems in your family, work, or personal life?

1. Yes
2. No