Annual Report

Survey Results

From the 2005 Iowa BRFSS

OBRFSS

Behavioral Risk Factor Surveillance System

Iowa Department of Public Health
Bureau of Health Statistics

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Acknowledgements

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1. INTRODUCTION

History

In 1981, the Centers for Disease Control and Prevention (CDC) began assisting states in conducting a risk factor survey to monitor behaviors associated with premature death and disability. Then, in 1984, the CDC launched the Behavioral Risk Factor Surveillance System (BRFSS) working in an ongoing fashion with several 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 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 with further financial support from public and private sources within the state.

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

The survey consists of three parts: core questions, optional modules and state-added questions. All states that conduct the BRFSS survey must administer the core questionnaire developed by CDC. Most 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 2005. Some of the risk factors discussed are: general health status; health care coverage; cigarette smoking; alcohol consumption; body weight; hypertension and cholesterol awareness; cancer screening for colorectal cancer; women's health issues (including screening for breast and cervical cancer); diabetes; asthma; 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 such as Pick a **better** snack™ or Lighten Up Iowa, tobacco counter-marketing campaigns, and campaigns against problem drinking.

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

2. Methodology

Questionnaire Design

The BRFSS questionnaire is updated each year by the CDC and by each participating state.

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. Core and optional module questions were previously tested. Any changes in them were discussed and determinations were made whether to include them at the annual BRFSS conference. A group of interested individuals from the Iowa Department of Public Health guided by the state coordinator met to discuss which optional modules and state-added questions to include in the coming year.

Participation by Iowans in the BRFSS survey is random, anonymous, voluntary and confidential. Survey participants are requested to provide such demographic information as age, sex, race, marital and employment status, household income, educational level, and location of residence by county and zip code. This location information is suppressed in public use data when the numbers are so small that the respondent might be identified.

Sampling Process

Only adults residing in households were interviewed. People residing in group homes or institutions were not sampled. Interviews were also not performed with people over cell phones. Households were selected using list-assisted random random-digit dialing. This method provides a list of randomly chosen phone numbers from the pool of all existing phone numbers. These numbers are not drawn in a simple random fashion, but use what is known as the disproportionate stratified sampling technique (DSS). This sampling methodology was designed to produce a random sample of Iowa telephone numbers, including unlisted numbers and new subscribers in an efficient fashion.

The DSS method divides phone numbers into two strata. The first stratum is residential but unlisted. The second stratum is composed of residential listed numbers. Each stratum was sampled at a different rate. The listed residential numbers were sampled at the highest rate. Some numbers were marked by the list provider as not to be called because they have been predetermined to be nonresidential or nonworking. There was no set number to be sampled per group, and completed interviews were not thrown out.

The sample was also stratified into six geographic regions. These regions are the same regions used by health resource and emergency planning groups within the state. Geographic regions were represented at the same proportion as their population within the state. Four of these regions were further subdivided into counties having a relatively high minority population and counties having low or no minority population based on the most recent census estimates and past survey experience. The minority counties were sampled at a higher rate than the non-minority counties in an effort to better represent minority groups in the Iowa sample.

Approximately equal numbers of interviews per month were conducted from January through December in 2005 for a total sample size of 5,051. Interviews were conducted in both English and Spanish. There were 5,003 English interviews and 48 Spanish interviews. 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. Attempts were made to convert initial refusals into participants.

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 23.6 minutes. Spanish interviews took much longer. The response rate, defined as completed interviews + partial completes divided by all eligibles called, was 47.5%. A partial complete is an interview that was terminated before it was complete, but sufficient data had been collected to use for most measures.

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

Advantages and Limitations

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

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

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

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

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

New telephone technology such as caller I.D., cell phones, and call blockers that block telemarketers also pose problems for telephone surveys. Increasingly young people are opting not to use traditional landline telephone service in favor of cell phones.[12]

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. However, since only a sample of randomly chosen people is asked the questions, the true prevalence in the population can only be estimated. Some of the factors involved in making such estimates must be considered. First, data were weighted to Iowa's population. Weighting 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. Next weights were adjusted to match Iowa's age and gender. The state's population estimates were derived from the most currently available census data files.

The judgment of the value of prevalence in a population, such as the state based on the prevalence within a sample, always involves educated guesswork. The prevalence values from the survey and the real state prevalence 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 based on the survey in which there is a 95% chance of the true Iowa value falling This range is referred to as a 95% confidence interval (CI). Charts will indicate this by use of a black line at the end of the bars in the chart. The end of the bar is the sample value, while the value in the population is probably somewhere in the range represented by the line. It is usually the case that when the CIs of two or more groups do not overlap, their population values are truly different.

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, the poorer is our ability to draw a conclusion about the whole state. Analyzing the data by such categories as age, sex, income, and educational level means there are a smaller number of interviews in each particular group than in the whole survey. 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 less than 50 individuals are statistically unreliable.

Some people refuse to answer select questions but choose to respond to the majority of the questions. Those interviews were still used in the final count for the total sample size. However, they were not 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.

3. DEMOGRAPHICS OF THE BRFSS RESPONDENTS

The 5,051 respondents in the BRFSS for the year 2005 included 1,985 males and 3,066 females age 18 years and older. The following tables present the distribution of the respondent sample by 1) age and gender, 2) race/ethnicity, 3) level of education, and 4) household income

Table 3.1: Distribution of Iowa Survey Respondents by Age and Gender for Year 2005

Age	Male		Female		Total	
	#	%	#	%	#	%
18-24	103	5.2	123	4.0	226	4.5
25-34	268	13.5	407	13.3	675	13.4
35-44	367	18.5	456	14.9	823	16.3
45-54	418	21.1	621	20.2	1,039	20.6
55-64	352	17.7	526	17.2	878	17.4
65-74	252	12.7	398	13.0	650	12.9
75+	215	10.8	507	16.5	722	14.3
Unk/Ref	10	0.5	28	0.9	38	0.8
Total	1,985	39.3	3,066	60.7	5,051	100.0

Table 3.2: Distribution of Iowa Survey Respondents by Race/Ethnicity for Year 2005

Race/Ethnicity	# of Total Respondents	% of Total Respondents
White Non-Hispanic	4,754	94.1
Black Non-Hispanic	65	1.3
Other Non-Hispanic[1]	80	1.6
Hispanic	130	2.6
Refused	22	0.4
Total	5,051	100.0

Table 3.3: Distribution of Iowa Survey Respondents by Level of Education for Year 2005

Level of Education	# of Total Respondents	% of Total Respondents
Less than High School	423	8.4
High School Grad or GED	1,834	36.3
Some College or Technical School	1,329	26.3
College Graduate	1,454	28.8
Unknown/Refused	11	0.2
Total	5,051	100.0

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

Table 3.4: Distribution of Iowa Survey Respondents by Household Income for Year 2005

Household Income	# of Total Respondents	% of Total Respondents
<$15,000	452	8.9
$15,000-$24,999	779	15.4
$25,000- 34,999	633	12.5
$35,000-$49,999	817	16.2
$50,000-$74,999	824	16.3
>=$75,000	918	18.2
Unknown/Refused	628	12.4
Total	5,051	100.0

4. GENERAL HEALTH STATUS OF IOWANS

Background

In public health and in medicine, the concept of health-related quality of life refers to a person's or group's perceived physical and mental health over time. Physicians have often used health-related quality of life (HRQOL) to measure the effects of chronic illness in their patients to understand better how an illness interferes with a person's day-to-day life. Similarly, public health professionals use health-related quality of life to measure the effects of numerous disorders, short- and long-term disabilities, and diseases in different populations. Tracking health-related quality of life in different populations can identify subgroups with poor physical or mental health and can help guide policies or interventions to improve their health.[19]

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

General health status defined by responses to a single question such as "How is your health, in general?" have been found to be significant predictors of mortality.[48] Additional studies that controlled for objective health status, age, sex, life satisfaction, income, residence, and other factors continue to find that the risk of mortality is 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.[40,50] The risk associated with poor self-rated health was actually higher than the risks associated with poor health status assessments by a physician.[50]

General Health Status Results

In 2005, when asked how their health was in general, 19.9% of respondents reported that it was excellent. Another 37% said it was very good. While 30.9% reported good health, 12.2% rated their health as fair or poor. This figure for fair or poor health is about the same as the 12.4% figure found in 2004. Figure 4.1 shows that the trend in prevalence of fair or poor health has been mildly upward in recent years.

Age, education, household income, and race/ethnicity all had a significant impact on reported health status (see table 4.1). Household income had the most impact on reporting fair or poor health. While only 3.9% of those with incomes of $75,000 or over reported fair or poor health, 37.9% of those with incomes below $15,000 did so (see figure 4.2). Other respondents who were likely to report having fair or poor health were those with less than a high school education, Hispanics and African Americans and those 75 years old and older. Those with a college education and those with household incomes between $50,000 and $75,000 all reported less than 6% with fair or poor health.

In answer to the question about how many days during the past 30 days was their physical health not good, 65.1% of respondents reported none of the days, 23.5% reported one to seven days,

Figure 4.1: Percentage of Iowans Reporting Their Health as Fair or Poor 2000-2005

Figure 4.2: Percent of Iowans Reporting Their Health as Fair or Poor by Household Income 2005

3.2% reported eight to 14 days, and 8.3% reported more than 14 days. As shown in Table 4.2, males had fewer days of physical health not being good than females. There were also fewer days of bad physical health with younger age, higher education, and higher income. African Americans also reported fewer days of bad physical health. Once again, household income had the greatest impact. Only 47.2% of people with household incomes less than $15,000 reported

Table 4.1: Percentage of Self-Reported Fair or Poor General Health Status, 2005

DEMOGRAPHIC GROUPS	General Health Status Fair or Poor	
	%	C.I. (95%)
TOTAL	12.2	(11.1-13.2)
SEX		
Male	12.7	(11-14.5)
Female	11.7	(10.4-12.9)
RACE/ETHNICITY		
White/Non-Hisp.	11.4	(10.4-12.5)
Black/Non-Hisp.	23.3	(8.1-38.6)
Oth. Race/Non-Hisp.	14.2	(5.8-22.7)
Hispanic	27.0	(17.1-36.9)
AGE		
18-24	7.7	(3.9-11.5)
25-34	6.9	(4.6-9.3)
35-44	8.1	(5.8-10.4)
45-54	11.3	(9-13.6)
55-64	15.5	(12.9-18.2)
65-74	16.6	(13.5-19.6)
75+	26.9	(23.3-30.5)
EDUCATION		
Less Than H.S.	30.8	(25-36.7)
H.S. or G.E.D.	14.3	(12.5-16.2)
Some Post-H.S.	10.8	(8.9-12.7)
College Graduate	5.1	(3.9-6.2)
HOUSEHOLD INCOME		
<$15,000	37.9	(32.1-43.7)
$15,000- 24,999	20.9	(17.4-24.3)
$25,000- 34,999	12.1	(8.9-15.4)
$35,000- 49,999	9.0	(6.8-11.3)
$50,000- 74,999	5.5	(3.7-7.2)
$75,000+	3.9	(2.5-5.4)

no bad physical health days, while people with household incomes of $75,000 or more had the highest (73.6%). People age 18 to 24 years old actually had the lowest percent reporting more than 14 bad physical health days (3.3%), but they also had a fairly small percent reporting no bad physical health days.

When responding to the question of how many days during the past 30 days their mental health was not good, 68.5% of the respondents indicated none of the days, 19.9% reported one to seven days 3.3% reported eight to 14 days, and 8.3% reported more than 14 days. Table 4.2 shows the pattern for bad mental health days. The group with the lowest percentage of no bad mental health days was age 18 to 24 (53.1%), while those with the highest percentage were age 65 to 74 (88.5%). On the other hand, those with the lowest percentage of 15 or more bad mental health days were those age 65 to 74 years (3.5%), while those with the highest were those with household incomes of less than $15,000 (20.1%).

When asked how many days poor physical or mental health kept them from performing their usual activities, 63.6% of those with some days of either bad physical or mental health said none. On the other hand, 9.1% said 15 days or more. This level increased with increasing age, decreasing education, and decreasing income. Only 3% of 18 to 24 year olds reported greater than 15 days of such poor health, while 22.3% of those with household incomes less than $15,000 reported it

When asked how often they got the emotional support they needed 45.7% responded always and another 35.9% responded usually. Never was reported by 2.6%.

When asked in general how satisfied they were with their lives, 94.9% of Iowans reported either very satisfied or satisfied.

Table 4.2: Percentage of Reported Days of Poor Physical or Mental Health in Past 30 Days, 2005

DEMOGRAPHIC GROUP	Days of Poor Physical Health		Days of Poor Mental Health		Days Poor Health Kept from Usual Activities	
	None	15 --30 days	None	15 --30 days	None	15 --30 days
TOTAL	65.1	8.3	68.5	8.3	63.6	9.1
SEX						
Male	67.0	7.6	73.0	7.3	62.2	10.1
Female	63.3	8.9	64.3	9.1	64.8	8.3
AGE GROUP						
18-24	54.5	3.3	53.1	11.0	64.9	3.0
25-34	66.6	3.6	59.7	7.6	66.9	4.3
35-44	66.4	6.5	65.2	9.6	61.3	8.5
45-54	65.4	9.5	67.1	11.0	60.7	12.5
55-64	68.6	11.8	74.2	7.5	63.0	15.3
65-74	70.1	10.8	88.5	3.5	62.7	10.1
75+	64.0	16.5	87.1	3.6	65.6	16.0
EDUCATION						
Less than H.S.	57.9	16.2	70.3	14.2	67.0	14.9
H.S. or G.E.D.	65.5	9.4	71.8	8.5	61.6	9.6
Some Post-H.S.	62.2	8.3	64.1	10.0	63.5	10.6
College Graduate	69.4	4.3	68.3	4.5	65.1	4.5
HOUSEHOLD INCOME						
Less than $15,000	47.2	27.7	57.1	20.1	54.1	22.3
$15,000- 24,999	57.6	12.0	62.9	11.4	63.9	11.2
$25,000- 34,999	64.9	8.7	69.6	7.7	63.4	8.6
$35,000- 49,999	67.0	5.2	68.3	8.6	64.5	6.7
$50,000- 74,999	69.3	4.1	70.8	4.9	69.5	5.1
$75,000+	73.6	3.4	53.1	4.9	63.6	5.1
RACE/ETHNICITY						
White/Non-Hisp.	65.1	8.3	68.8	8.1		
Black/Non-Hisp.	60.5	5.2	69.2	6.2		
Other/Non-Hisp.	62.1	10.5	53.6	13.9		
Hispanic	66.0	7.1	67.9	10.9		

Comparison with Other States

The percentage of people rating their health as fair or poor throughout the states and territories ranged from 11.1% to 34.1%, with a median value of 14.9%. Iowa ranked 8th best in the nation in ratings of fair or poor health at 12.2%.

5. INSURANCE COVERAGE AND ACCESS TO HEALTH CARE

Background

Access to health care is important for the prevention of disease, the detection of illness through screening, treatment, and management of illness and injuries. Adults who have a usual source of care are much more likely to use the health care system and obtain needed services.[16]

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 have a more negative impact on individuals without health insurance and/or those living on fixed incomes.

Health Coverage Results

In 2005, 10.7% of the survey respondents reported they had no health insurance. This is about the same as that found in 2004 (10.6%). The 2005 figure is much higher than those seen in the years before 2003 (see figure 5.1).

Table 5.1 shows that more males lacked health insurance than females. Furthermore, younger people, less educated people, people with lower incomes, and racial and ethnic minorities were more likely to lack any health care coverage. Hispanic respondents had the highest percentage of individuals without health care coverage (37%). Almost everyone age 65 years and older had health care coverage due to Medicare. The group with the second lowest percentage of uninsured was those with household incomes of $75,000 and higher (3.1%). The difference between men and women in the percentage that did not have health insurance was most pronounced in the 18 to 24 year age group (see figure 5.2). The difference between the sexes lessened as age increased.

Two other demographic variables that 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 (46.5%). Only 1.9% of retirees were without health insurance.

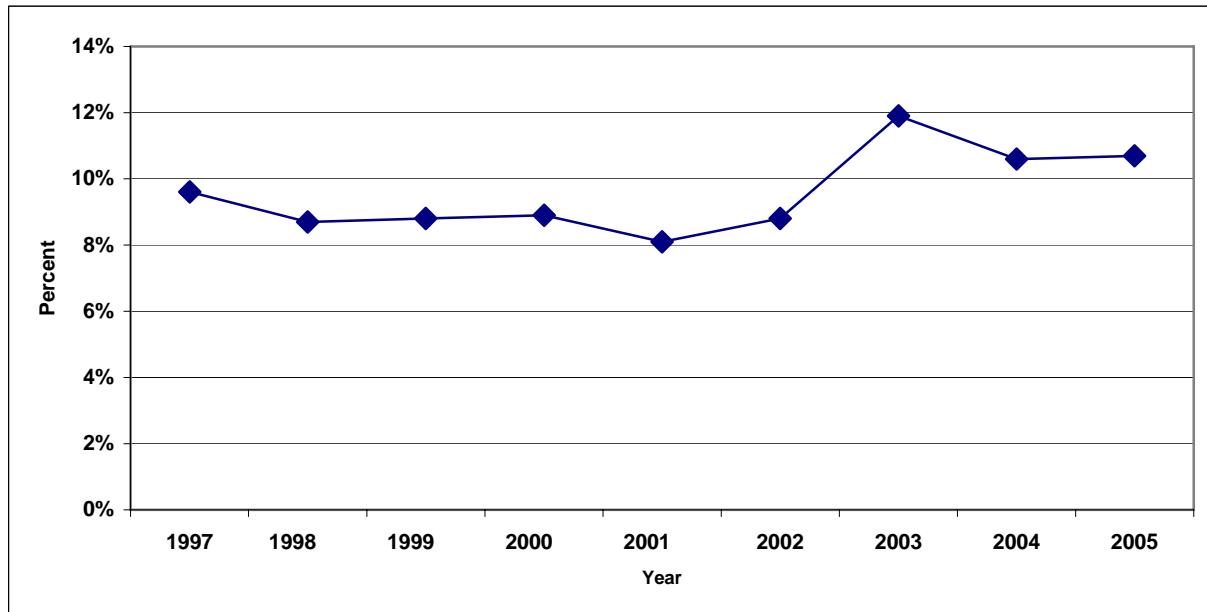**Figure 5.1: No Health Insurance Coverage Trend Iowa 1997 – 2005**

Figure 5.2: Percentage of Iowans Reporting No Health Insurance Coverage by Sex and Age, 2005
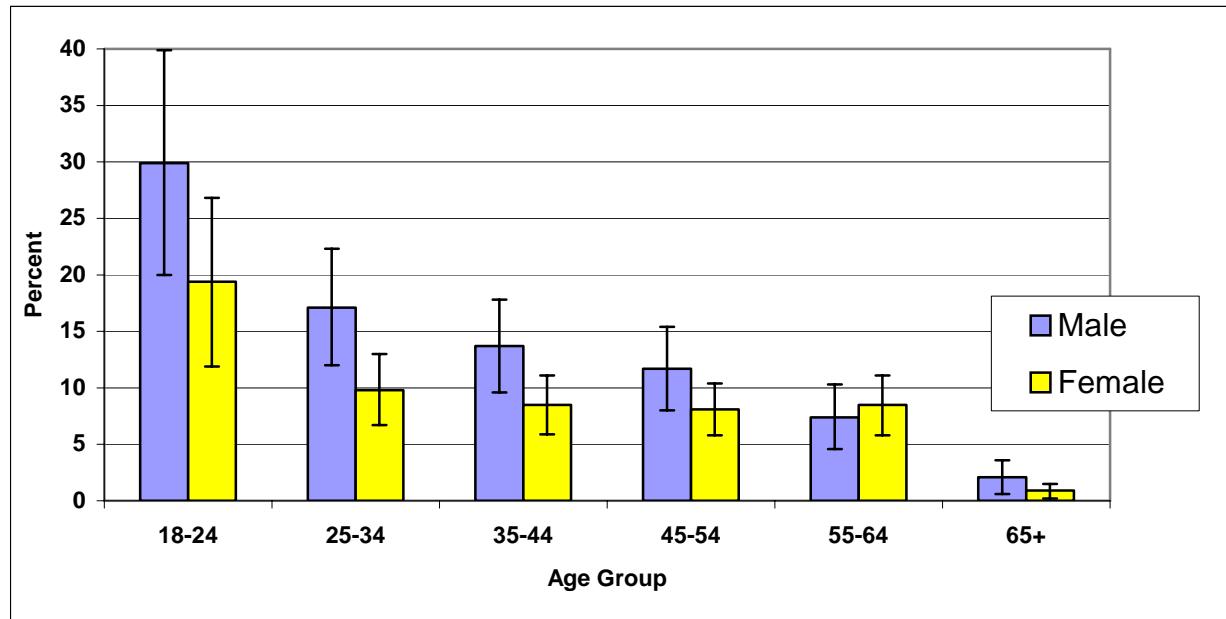
Table 5.1
Percentage of Responses to Health Care Coverage and Access Questions in Iowa, 2005

DEMOGRAPHIC GROUPS	No Health Insurance Coverage		Time Couldn't Afford Help		Have One Person As Health Provider	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	10.7	(9.5-11.9)	9.2	(8.2-10.2)	78.8	(77.4-80.3)
SEX						
Male	13.3	(11.2-15.3)	8.8	(7.2-10.4)	72.9	(70.5-75.3)
Female	8.3	(7-9.6)	9.5	(8.2-10.9)	84.5	(82.8-86.1)
RACE/ETHNICITY						
Non-Hispanic White	9.2	(8-10.3)	8.7	(7.6-9.8)	80.0	(78.5-81.5)
Non-Hispanic Black	26.7	(11.1-42.3)	17.7	(6.2-29.1)	77.7	(65.9-89.6)
Non-Hispanic Other	26.8	(15-38.7)	17.7	(7.7-27.7)	65.0	(52-77.9)
Hispanic	37.0	(26.5-47.6)	14.3	(7.3-21.2)	58.4	(47.5-69.3)
AGE						
18-24	24.8	(18.5-31.1)	11.2	(6.4-15.9)	69.4	(62.6-76.3)
25-34	13.6	(10.5-16.7)	12.1	(9.3-14.9)	68.6	(64.7-72.6)
35-44	11.1	(8.7-13.6)	11.0	(8.5-13.5)	77.9	(74.7-81)
45-54	9.9	(7.8-12.1)	9.5	(7.5-11.6)	82.7	(80-85.4)
55-64	8.0	(6-9.9)	8.3	(6.3-10.3)	86.0	(83.6-88.5)
65+	1.4	(0.7-2.1)	3.7	(2.6-4.8)	86.5	(84.5-88.6)
EDUCATION						
Less than H.S.	20.4	(15-25.8)	16.8	(11.4-22.1)	69.5	(63.4-75.7)
H.S. or G.E.D.	12.9	(10.7-15.1)	9.7	(7.9-11.5)	79.0	(76.5-81.4)
Some Post-H.S.	11.3	(9.1-13.6)	10.4	(8.5-12.4)	80.7	(77.9-83.6)
College Graduate	4.5	(3.1-5.9)	4.9	(3.5-6.2)	79.9	(77.4-82.4)
HOUSEHOLD INCOME						
Less than $15,000	25.6	(19.9-31.2)	23.8	(18.8-28.8)	68.4	(62.2-74.7)
$15,000- 24,999	22.5	(18.4-26.5)	19.2	(15.6-22.8)	74.5	(70.3-78.6)
$25,000- 34,999	11.5	(7.8-15.2)	9.7	(6.7-12.6)	76.3	(71.9-80.7)
$35,000- 49,999	8.4	(5.6-11.1)	7.3	(5.2-9.4)	78.7	(75.2-82.3)
$50,000- 74,999	5.4	(3.4-7.5)	3.8	(2.2-5.4)	82.2	(79-85.5)
$75,000+	3.1	(1.4-4.7)	2.3	(1.1-3.4)	85.5	(82.9-88.2)

People who were married were much more likely to have health care coverage than those who were not. Only 6.4% of married respondents were without coverage, while 18.6% of unmarried respondents were without it.

When asked if there was a time in the past 12 months when they needed to see a doctor but could not because of the cost, 9.2% said that there was. The percentage was higher for females, younger people, people with less education, people with lower incomes, and racial and ethnic minorities. The lowest percentage (2.3%) was for people with household incomes of $75,000 or

more. The highest percentage (23.8%) was for people with household incomes less than $15,000.

Since it is important that care be coordinated, respondents were asked if they had one person they thought of as their personal doctor or health care provider. A positive reply was given by 78.8% of respondents. Women, non-Hispanics, older people, people with more education, and people with higher household incomes were more likely to report a regular provider. Least likely were those reporting Hispanic ethnicity (58.4%), while those age 65 years old and older were most likely (86.5%).

When asked how long it had been since their last regular checkup, 69% said less than one year. An additional 14% said one to two years. On the other end, 1.5% said they had never had a checkup. Among Hispanics this figure reached 10%.

Comparison with Other States

Twelve 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 13% of its non-elderly respondents reporting not having any insurance. The median for states and territories was 17.1%. These figures are nearly identical to those obtained in 2004 for both Iowa and the nation. Because of Iowa's high elderly population, it ranks tenth best when the elderly are included.

Year 2010 Health Objectives for Iowa and the Nation

The *Healthy Iowans 2010* and *Healthy People 2010* goals for health insurance coverage are to see all people be covered by some form of health insurance. In Iowa, only 87% of the non-elderly have coverage. This is far short of the goal.

6. CARDIOVASCULAR DISEASES

Background

"Cardiovascular diseases" (CVD) refer in principle to any or all of the many disorders that can affect the circulatory system. CVD most often means coronary heart disease, heart failure, and stroke, taken together, which are the circulatory system disorders of greatest public health concern in the United States today. "Heart disease" most often refers to coronary heart disease, heart attack or to heart failure. "Stroke" refers to a sudden impairment of brain function, sometimes termed "brain attack," that results from interruption of circulation to one or another part of the brain. Heart disease and stroke are mainly consequences of atherosclerosis and high blood pressure (hypertension).[13]

Since 1900, CVD has been the No. 1 killer in the United States every year except 1918. Nearly 2,600 Americans die of CVD each day, an average of 1 death every 34 seconds. According to the CDC/NCHS, if all forms of major CVD were eliminated, life expectancy would rise by almost seven years.[6]

Deaths are only part of the picture. There are estimated to be 24.7 million non-institutionalized Americans living with heart disease and 5.5 million who have had a stroke.[36] Coronary heart disease is the leading cause of premature, permanent disability in the U.S. labor force, accounting for 19% of disability allowances by the Social Security Administration.

Each year about 700,000 people experience a new or recurrent stroke. On average, every 45 seconds someone in the United States has a stroke. Fifteen to 30 per cent of stroke survivors are permanently disabled.[42] Stroke is a leading cause of serious, long-term disability in the United States.

The economic impact of CVD on the U.S. health care system continues to grow as the population ages. In 2004, the estimated direct and indirect cost of CVD is $368.4 billion.[6] In addition, Americans will pay about $54 billion for stroke-related medical costs and disability.[8]

In Iowa deaths from heart disease have steadily declined. The rate per 100,000 population has gone from 344.9 in 1991 to 250.3 in 2005. The rate of deaths from stroke has gone from 74.7 in 1991 to 64.0 in 2005. Deaths from cardiovascular diseases were 36.7% of all deaths in 2005 in Iowa. Diseases of the heart made up 73% and cerebrovascular disease 19% of the CVD deaths.[42]

It is very important to be able to recognize the symptoms of a heart attack or stroke and to know what to do. The American Heart Association and National Heart, Lung, and Blood Institute have launched an "Act in Time" campaign to increase awareness of heart attack and the importance of calling 9-1-1 at the onset of heart attack symptoms.[54]

Ischemic stroke, the most common type, is caused by a blood clot that blocks blood flow to the brain. Giving medication to dissolve the clot helps reduce permanent disability, but it must be delivered **within three hours** of symptom onset to be effective.[7]

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. These may be implemented in the form of laws, regulations, standards, or guidelines that contribute to setting these and other social and environmental conditions. For example, dietary patterns result from the influences of food production policies, marketing practices, product availability, cost, convenience, knowledge, choices that affect health, and preferences that are often based on early-life habits.[13]

<u>Cardiovascular Diseases Results</u>

In 2005, 4.4% of adult Iowans had ever been told by a doctor that they had had a heart attack or myocardial infarction, 4.6% had been told they had angina or coronary heart disease, and 2.9% had been told they had a stroke. Although these percents may seem small, they represent around 90,000 Iowans with a heart attack or heart disease and 60,000 with a stroke.

Table 6.1 shows the distribution of these conditions by demographic groups. Age is the variable with the most impact on having had these conditions. However, lower education, lower income, and being male also increase their prevalences. Race/ethnicity also had an impact, but it was inconsistent across the three conditions. Other non-Hispanics showed the highest prevalence of heart attack and angina, while African Americans showed the highest prevalence of stroke. These results may not exactly match the prevalence of these conditions, since to participate in the survey the person had to survive them. Conditions ending in death on their first occurrence, therefore, could not be considered here.

The survey also examined the respondent's knowledge of the symptoms of a heart attack or a stroke. It asked if six different symptoms were true of each condition. Some of these were true, and some were not. Of heart attack symptoms: 54.6% knew that pain or discomfort in the jaw, neck, or back was a symptom; 69.7% thought that feeling faint, light-headed, or weak was a symptom; 95.1% knew that chest pain or discomfort was a symptom; only 34.1% knew that sudden trouble seeing in one or both eyes was not a symptom; 89.4% knew that pain or discomfort in the arm or shoulder was a symptom; and 89.3% knew that shortness of breath was a symptom of a heart attack. Only 13.5% correctly knew all six symptoms of a heart attack.

Table 6.1: Prevalence Among Iowans of Heart Attack, Heart Disease, and stroke, 2005

DEMOGRAPHIC GROUPS	Had Heart Attack		Had Angina or Heart Disease		Had Stroke	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	4.4	(3.8-5)	4.6	(4-5.2)	2.9	(2.5-3.4)
SEX						
Male	5.8	(4.7-6.8)	5.8	(4.7-6.9)	3.3	(2.5-4.1)
Female	3.1	(2.5-3.7)	3.5	(2.8-4.1)	2.6	(2.1-3.1)
RACE/ETHNICITY						
White/Non-Hisp	4.4	(3.8-5)	4.5	(3.9-5.1)	3.0	(2.5-3.5)
Black/Non-Hisp	3.5	(0-7.1)	1.8	(0-4.5)	4.2	(0-8.6)
Other/Non-Hisp.	9.2	(1.6-16.8)	10.8	(2.9-18.7)	2.5	(0-5.6)
Hispanic	1.2	(0-2.9)	4.7	(0-10.1)	0.3	(0-0.8)
AGE						
18-24	0.6	(0-1.7)	0.6	(0-1.7)	0.6	(0-1.7)
25-34	0.5	(0-1.3)	0.5	(0-1.2)	0.6	(0-1.2)
35-44	0.9	(0-1.8)	0.8	(0.1-1.5)	1.5	(0.7-2.4)
45-54	2.3	(1.3-3.4)	3.9	(2.3-5.6)	0.9	(0.4-1.4)
55-64	7.5	(5.4-9.6)	8.3	(6.1-10.4)	2.0	(1-3.1)
65-74	11.4	(8.7-14.1)	11.2	(8.4-13.9)	7.6	(5.3-9.8)
75+	15.3	(12.4-18.3)	14.1	(11.3-16.9)	12.7	(10.1-15.3)
EDUCATION						
Less Than H.S.	7.4	(5-9.8)	7.9	(4.9-10.9)	5.4	(3.5-7.3)
H.S. or G.E.D.	4.8	(3.8-5.9)	5.3	(4.3-6.4)	3.6	(2.7-4.4)
Some Post-H.S.	4.6	(3.3-5.9)	4.1	(2.9-5.3)	2.9	(1.9-3.9)
College Graduate	2.7	(1.9-3.6)	3.2	(2.2-4.1)	1.5	(0.9-2.1)
HOUSEHOLD INCOME						
Less than $15,000	8.9	(6.1-11.7)	10.4	(6.8-14)	7.9	(5.4-10.5)
$15,000- 24,999	7.0	(5.1-8.9)	7.2	(5.2-9.1)	4.8	(3.3-6.3)
$25,000- 34,999	5.1	(3.4-6.8)	4.5	(2.9-6.2)	2.9	(1.6-4.2)
$35,000- 49,999	4.8	(3.2-6.5)	4.9	(3.3-6.5)	2.4	(1.3-3.4)
$50,000- 74,999	2.5	(1.4-3.6)	2.5	(1.4-3.6)	1.0	(0.4-1.6)
$75,000+	2.1	(1-3.2)	2.5	(1.5-3.5)	0.5	(0.1-1)

Table 6.2 shows that knowledge of heart attack symptoms was better in women than men. It was also better with increasing education and income. It was better with age, but at its best in middle age. Whites were more knowledgeable of all symptoms than minorities. The group with the highest percent knowledgeable of heart attack symptoms was those between 55 and 64 years old (21.1%), while African Americans were the lowest (2.5%).

Considering stroke symptoms: 90.2% knew that sudden confusion or trouble speaking was a symptom; 94.4% knew that sudden numbness of face, arm, or leg, especially on one side was a symptom; 70.9% knew that sudden trouble seeing in one or both eyes was a symptom; only 38.1% knew that chest pain or discomfort was not a symptom; 88.4% knew that sudden trouble

walking, dizziness, or loss of balance was a symptom; and only 61.6% knew that severe head ache with no known cause was a symptom of a stroke. Only 21.5% correctly knew all six symptoms of a stroke.

Table 6.2: Percent of Iowans Knowledgeable of Symptoms of Heart Attack and Stroke and What Action to Take, 2005

DEMOGRAPHIC GROUPS	Know all six symptoms of Heart Attack		Know all six symptoms of Stroke		Know to call 911	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	13.5	12.4-14.6	21.5	20.1-22.9	86.8	85.6-88.0
SEX						
Male	11.3	9.8-12.9	19.3	17.2-21.3	85.2	83.3-87.2
Female	15.5	14.0-17.0	23.6	21.7-25.4	88.3	86.9-89.7
RACE/ETHNICITY						
White/Non-Hisp	14.1	13.0-15.3	22.5	21.0-23.9	87.0	85.8-88.2
Black/Non-Hisp	2.5	0.0-6.0	2.3	0.0-5.7	80.9	69.3-92.6
Other/Non-Hisp.	6.1	0.6-11.6	10.2	2.7-17.8	90.9	83.6-98.2
Hispanic	3.6	0.5-6.7	7.3	2.3-12.3	80.9	72.4-89.3
AGE						
18-24	6.0	2.9-8.1	13.8	8.5-19.0	84.7	79.1-90.3
25-34	11.1	8.4-13.8	25.0	21.4-28.6	89.5	86.9-92.1
35-44	15.2	12.4-18.0	21.3	18.3-24.4	87.0	84.3-89.7
45-54	15.8	13.3-18.3	28.5	25.3-31.6	89.0	86.8-91.1
55-64	21.1	18.1-24.1	25.2	22.1-28.4	87.9	85.5-90.2
65-75	13.9	11.0-16.8	18.5	15.2-21.7	85.4	82.4-88.4
75+	9.4	6.9-11.9	9.7	7.2-12.3	80.5	77.1-83.9
EDUCATION						
Less Than H.S.	8.8	5.1-12.5	7.8	4.3-11.3	80.0	74.6-85.5
H.S. or G.E.D.	10.7	9.1-12.3	15.7	13.7-17.7	86.3	84.4-88.3
Some Post-H.S.	13.8	11.7-15.9	24.2	21.4-27.0	86.8	84.5-89.2
College Graduate	17.9	15.7-20.2	30.0	27.3-32.6	89.4	87.5-91.2
HOUSEHOLD INCOME						
Less than $15,000	7.5	4.7-10.3	11.3	6.4-16.3	86.6	82.8-90.3
$15,000- 24,999	10.1	7.6-12.5	14.2	11.3-17.1	86.7	83.6-89.9
$25,000- 34,999	9.8	7.3-12.3	16.8	13.5-20.1	87.0	83.9-90.2
$35,000- 49,999	12.4	9.9-14.9	20.2	17.2-23.3	88.4	85.8-90.9
$50,000- 74,999	17.6	14.8-20.5	30.7	27.1-34.3	87.0	84.3-89.6
$75,000+	19.5	16.5-22.4	30.0	26.7-33.4	88.6	85.9-91.3

Knowledge of stroke symptoms was better in women, more educated, and higher income people. It was higher in the middle age groups than either extreme. It was lower for racial and ethnic minorities. The group with the highest percent knowledge of stroke symptoms was those with

household incomes between $50,000 and $75,000 (30.7%), while African Americans were the lowest (2.3%).

When asked the first thing they would do if they thought someone was having a heart attack, 86.8% said to call 9-1-1. Like knowledge of symptoms, men, the extreme age groups, least educated, the poorest, and African-Americans and Hispanics were less likely to know to call 9-1-1. The lowest percent was among African-Americans (69.3%), while the highest percent was among other non-Hispanics (90.9%) (see table 6.2). This value for other non-Hispanics did not follow the knowledge of symptoms pattern.

7. 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.[55]

Blood pressure is typically recorded as two numbers — the systolic pressure (as the heart beats) over the diastolic pressure (as the heart relaxes between beats). A consistent blood pressure reading of 140/90 mm Hg or higher is considered high blood pressure. Those with systolic blood pressure of 120-139 mm Hg and/or diastolic blood pressure of 80-89 mm Hg are now classified as pre-hypertensive, requiring health-promoting lifestyle modifications to prevent cardiovascular disease. There is also an exception to the definition of high blood pressure. A blood pressure of 130/80 or higher is considered high blood pressure in persons with diabetes and chronic kidney disease.[55]

This disorder, which is often symptomless, is a major risk factor for heart disease and stroke. Lowering of diastolic blood pressure by a mere 2 mm could result in a 17% decrease in the prevalence of hypertension, a 6% decrease in coronary artery disease, and a 15% reduction in stroke.[32]

Nationally, only 55.4% of adults maintain their blood pressure at an adequate level. Those who do not have high blood pressure at age 55 face a 90% chance of developing it during their lifetimes. Therefore, high blood pressure is a condition that most people have at some point in their lives.[55]

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.[62]

The population-based lifestyle intervention recommendations are weight loss, dietary sodium restrictions, increased physical activity, moderation in alcohol consumption, and a heart-healthy diet rich in fiber and low in saturated and total fat.[53]

Hypertension Awareness Results

In 2005, 24.5% of all respondents reported ever being told they had high blood pressure. This is a decrease from the 26.1% reported in 2004. This reverses the long-term upward trend in high blood pressure (see figure 7.1). It is the lowest prevalence of high blood pressure reported since 1999.

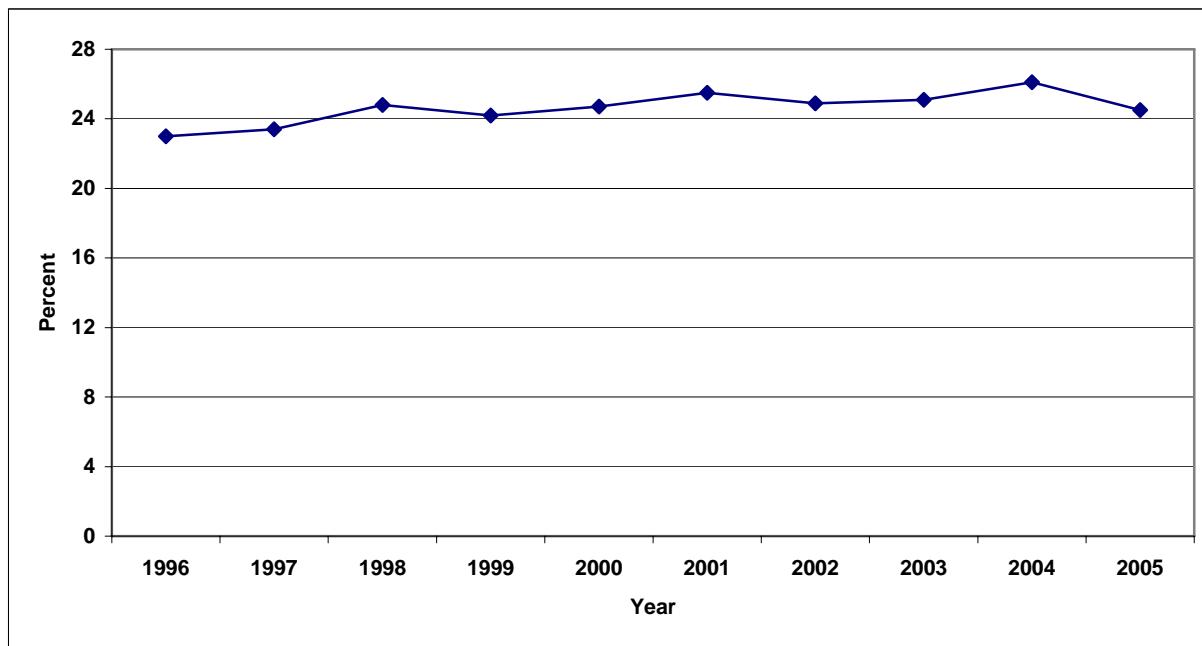**Figure 7.1: Percentage of Iowans Ever Told Blood Pressure is High by Year, 1996-2005**

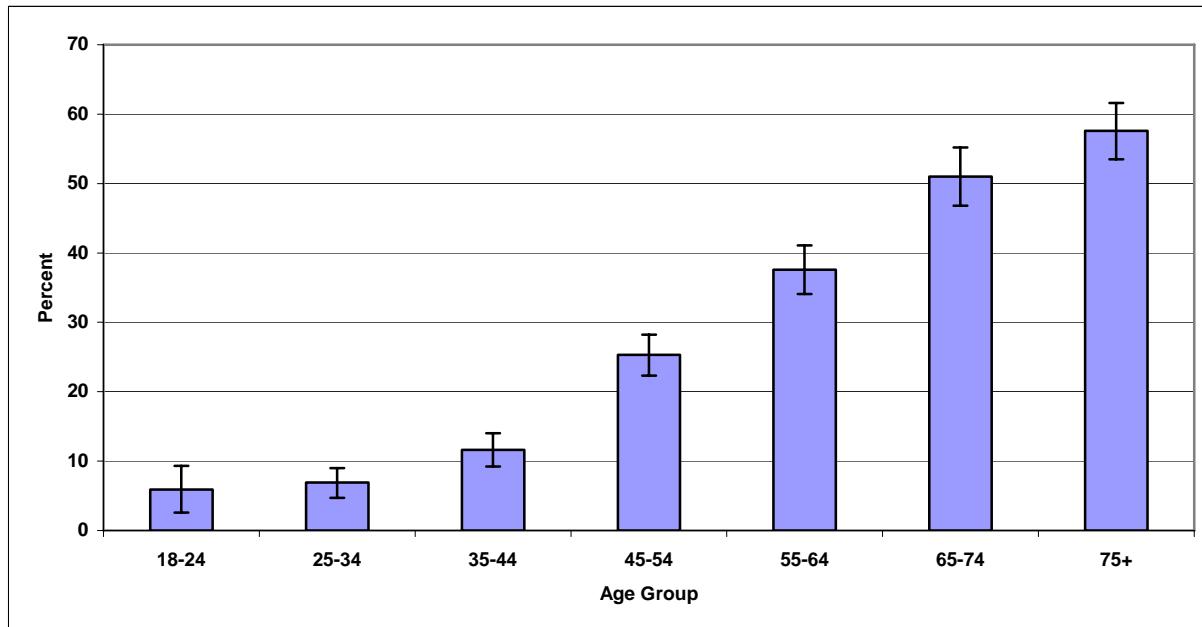**Figure 7.2: Iowans Ever Told Blood Pressure is High by Age, 2005**

**Table 7.1: Percentage of Iowans
Told Blood Pressure Is High, 2005**

DEMOGRAPHIC GROUPS	%	C.I. (95%)
TOTAL	24.5	(23.2-25.8)
SEX		
Male	24.8	(22.8-26.9)
Female	24.2	(22.6-25.8)
RACE/ETHNICITY		
White/Non-Hisp.	25.0	(23.6-26.3)
Black/Non-Hisp.	40.1	(26.2-54)
Other/Non-Hisp.	14.6	(6.1-23.2)
Hispanic	12.2	(5.6-18.9)
AGE		
18-24	5.9	(2.6-9.3)
25-34	6.9	(4.7-9)
35-44	11.6	(9.2-14)
45-54	25.3	(22.3-28.2)
55-64	37.6	(34.1-41.1)
65-74	51.0	(46.8-55.2)
75+	57.6	(53.5-61.6)
EDUCATION		
Less than H.S.	29.1	(23.9-34.3)
H.S. or G.E.D.	30.8	(28.4-33.2)
Some Post-H.S.	23.4	(21-25.9)
College Graduate	16.4	(14.4-18.3)
HOUSEHOLD INCOME		
Less than $15,000	35.6	(30.2-40.9)
$15,000- 24,999	35.3	(31.3-39.3)
$25,000- 34,999	26.3	(22.4-30.2)
$35,000- 49,999	22.9	(19.8-26)
$50,000- 74,999	17.4	(14.7-20.1)
$75,000	18.4	(15.7-21)

Age had the greatest impact on the percentage of respondents reporting high blood pressure. The highest percentage was ages 75 and older (57.6%), while the lowest was age 18 to 24 (5.9%) (see figure 7.2). The prevalence of high blood pressure also increased with lower levels of education and household income. Hispanics and other races reported a low percentage of being told they had high blood pressure, while a high percentage of African Americans reported being told this (see table 7.1).

Of those reporting high blood pressure, 78.6% reported taking medication for their condition. Like high blood pressure itself, this percentage increases steadily with age reaching a high of 93.3% for those 75 years old and over. More females with high blood pressure took blood pressure medicine than males (86.6% versus 70.3%). Other demographic variables showed no systematic variation in use of blood pressure medication.

Comparison with Other States

Among the states and territories prevalence of reported hypertension ranged from 18.4% to 33.3%. The median value was 25.5%. Iowa's prevalence of 24.5% was somewhat better than the median.

Year 2010 Health Objectives for Iowa and the Nation

According to *Healthy People 2010*, the objective for high blood pressure is that only 16% of the adult population should report having high blood pressure. This is less than two thirds of what is currently the case in Iowa. The *Healthy Iowans 2010* goal is even stricter at 14.9%.

8. CHOLESTEROL AWARENESS

Background

High blood cholesterol is one of the major risk factors for heart disease. The higher your blood cholesterol level, the greater your risk for developing heart disease or having a heart attack. When there is too much cholesterol (a fat-like substance) in your blood, it builds up in the walls of your arteries. Over time, this buildup causes "hardening of the arteries" so that arteries become narrowed and blood flow to the heart is slowed down or blocked. The blood carries oxygen to the heart, and if enough blood and oxygen cannot reach your heart, you may suffer chest pain. If the blood supply to a portion of the heart is completely cut off by a blockage, the result is a heart attack.[57]

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

Lowering Cholesterol is important for everyone-younger, middle age, and older adults; women and men; and people with or without heart disease. Everyone age 20 and older should have their cholesterol measured at least once every 5 years.

High cholesterol means a total cholesterol level greater than or equal to ($\geq$) 200 milligrams per deciliter (mg/dl). Not all cholesterol increases the risk of heart disease. The cholesterol carried by LDL (the so-called bad cholesterol) increases the risk; the cholesterol carried by HDL (the so-called good cholesterol) lowers the risk and is beneficial. A level less than 40 mg/dL of HDL is low and is considered a major risk factor because it increases your risk for developing heart disease. HDL levels of 60 mg/dL or more help to lower your risk for heart disease. Cholesterol standards are more stringent for those people at high risk of heart attack due to other factors such as diabetes or coronary heart disease.[58]

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

- Therapeutic Lifestyle Changes (TLC)includes a cholesterol-lowering diet (called the TLC diet), physical activity, and weight management. TLC is for anyone whose LDL is above goal.
- Drug Treatment, if cholesterol-lowering drugs are needed, they are used together with TLC treatment to help lower your LDL.[44]

Blood Cholesterol Awareness Results

In 2005, the percentage of Iowans reporting ever having their blood cholesterol checked was 77%. When asked whether they had their blood cholesterol checked by a health professional during the past five years, 72.2% of respondents reported having it checked. Respondents in
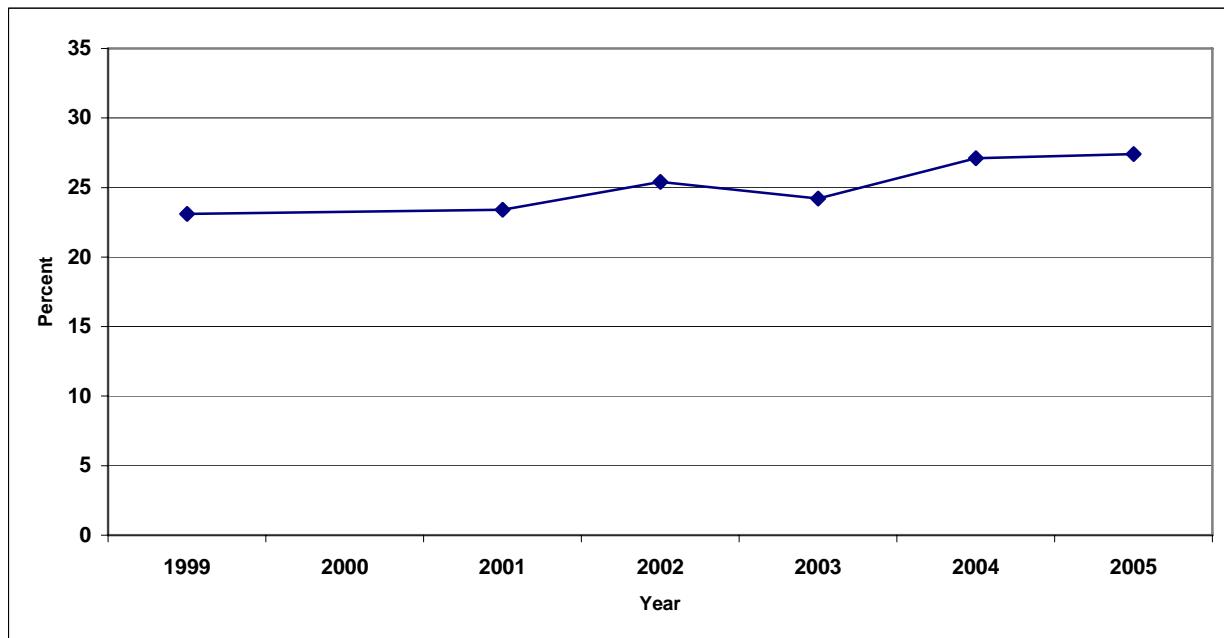
Table 8.1: Blood Cholesterol in Iowans, 2005

Demographic Groups	Had Blood Cholesterol Checked in Past Five Years		Ever Been Told Blood Cholesterol High	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	72.2	(70.5-73.9)	35.6	(33.9-37.3)
SEX				
Male	70.6	(68-73.2)	37.3	(34.6-40)
Female	73.6	(71.5-75.8)	34.1	(32-36.1)
RACE/ETHNICITY				
White/Non-Hisp.	73.4	(71.8-75.1)	36.1	(34.3-37.8)
Black/Non-Hisp.	74.7	(58.9-90.4)	32.2	(18.5-46)
Other/Non-Hisp.	61.1	(47.7-74.5)	36.4	(22-50.9)
Hispanic	45.2	(34.3-56.1)	20.4	(10.6-30.2)
AGE				
18-24	39.7	(32.1-47.3)	11.6	(3.8-19.4)
25-34	52.3	(48-56.5)	14.5	(10.8-18.3)
35-44	72.2	(68.8-75.5)	25.3	(21.5-29)
45-54	79.5	(76.7-82.2)	34.2	(30.7-37.7)
55-64	88.5	(86-90.9)	50.9	(47.1-54.6)
65-74	91.5	(89.1-93.8)	55.7	(51.4-59.9)
75+	90.9	(88.4-93.3)	49.0	(44.8-53.3)
EDUCATION				
Less than H.S.	59.8	(53.2-66.4)	45.3	(38.3-52.3)
H.S. or G.E.D.	72.4	(69.7-75.2)	39.8	(36.9-42.8)
Some Post-H.S.	69.8	(66.4-73.3)	33.5	(30.3-36.7)
College Graduate	78.0	(75.3-80.6)	30.4	(27.6-33.2)
HOUSEHOLD INCOME				
Less than $15,000	65.1	(58.6-71.5)	42.3	(35.9-48.7)
$15,000- 24,999	66.0	(61.5-70.5)	42.2	(37.5-47)
$25,000- 34,999	68.7	(63.7-73.8)	40.6	(35.6-45.6)
$35,000- 49,999	72.2	(68.3-76.1)	33.0	(29-37)
$50,000- 74,999	71.2	(67.2-75.1)	31.2	(27.4-35)
$75,000+	82.9	(79.9-85.9)	31.2	(27.7-34.7)

older age groups, people with more education and higher household income were more likely to report having a blood cholesterol test within the last five years. Hispanics and other races were less likely to have a cholesterol test in the past five years (see table 8.1).

Of the respondents who had their cholesterol tested, 35.6% reported that they had ever been told by a doctor or other health professional that their blood cholesterol was high. This is an increase from the 31.7% found in 2003. The long-term trend in high cholesterol shown in figure 8.1 is based on the percentage of the entire adult population. This was done to accommodate some years in which the questions about testing were not asked, so that the population could not be

Figure 8.1: Trend in Reporting High Cholesterol in All Adult Iowans, 1999-2005

limited to those tested. The overall trend has been an increase in the percent of Iowans who were told their cholesterol is high.

Age made a considerable difference in reporting high cholesterol with the 65 to 74 year old age group reporting nearly five times greater prevalence of high cholesterol than the 18 to 24 year-olds. However, the relationship did not hold for the 75 year-old and older age group (see figure 8.2). Males, people with less education, and lower income people were more likely to report high cholesterol, while Hispanics were less likely to report high cholesterol (see table 8.1).
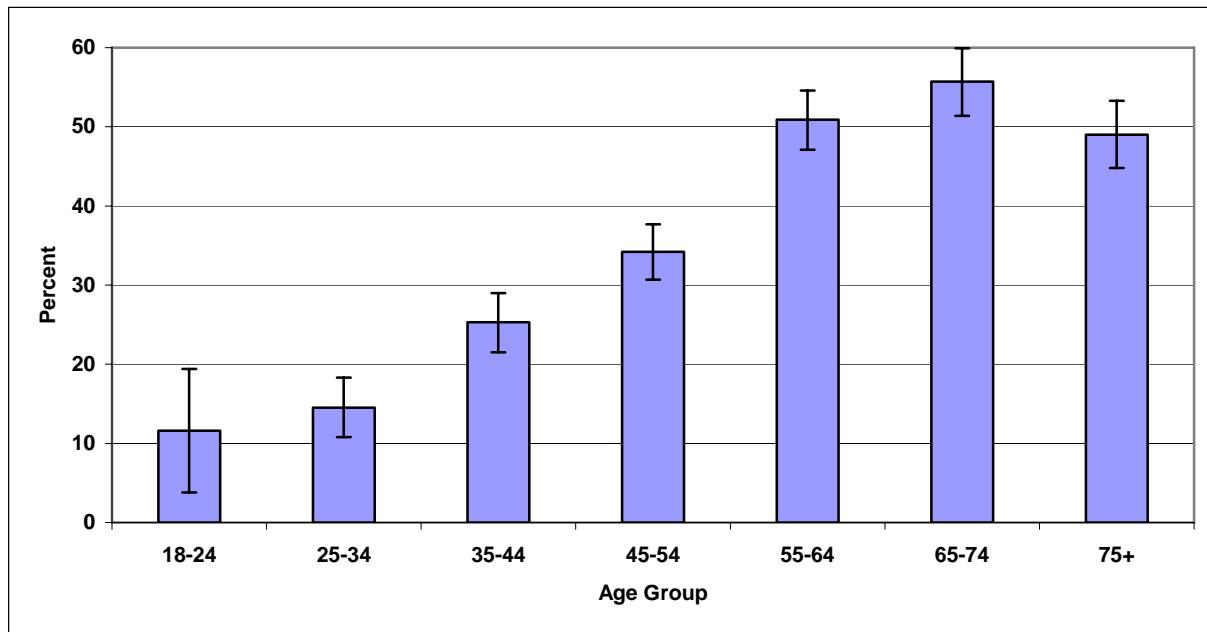
Comparison with Other States

The percentage of people having their cholesterol checked within the past five years among all the states and territories ranged from 62.8% to 81%. Iowa's value of 72.2% was somewhat below the median of 73%.

In terms of those tested being told their cholesterol was high, the range was from 30.6% to 39.9%. Iowa's value of 35.6% fell exactly on the median.

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. In 2005, only 77% of Iowans age 18 and older have had their blood cholesterol checked at least once in their lifetime, and only 72.2% had their blood cholesterol checked within the past five years.

Figure 8.2: `Tested` **Iowans Ever Told Their Cholesterol Was High by Age, 2005**

9. 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.[27,49,64] 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.

Exercise & Physical Activity Results

In 2005, 75.3% of respondents reported that they had engaged in some sort of physical activity for exercise during the past month other than their regular job. This is a sharp decline from the 78.7% found in 2004. This is the lowest percent who reported engaging in physical activity since 2001 (see figure 9.1).

More younger respondents reported engaging in leisure physical activity than older respondents. The percentage of respondents who exercised also increased with education and household income. This percentage was higher for White non-Hispanics than for other racial or ethnic groups. The lowest percentage of all examined demographic variables was for those with less than a high school education (53.5%), while the highest was for those with a college education or beyond (88.2%) (see table 9.1).

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

The percentage of respondents who met the recommended level of physical activity in 2005 was 46.2%. At the other end, 13.3% of respondents reported engaging in no physical activity at all.

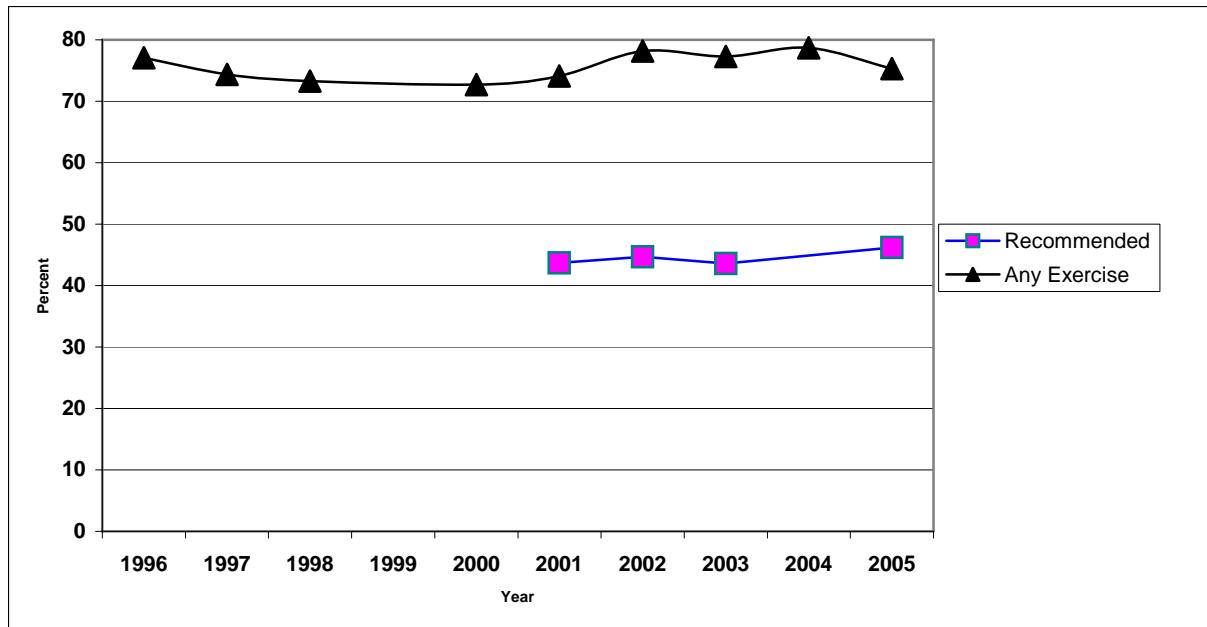**Figure 9.1: Trend in Physical Activity in Iowa by Year**

Figure 9.2: Percentage of Iowans Engaging in the Recommended Level of Physical Activity by Age and Sex, 2005
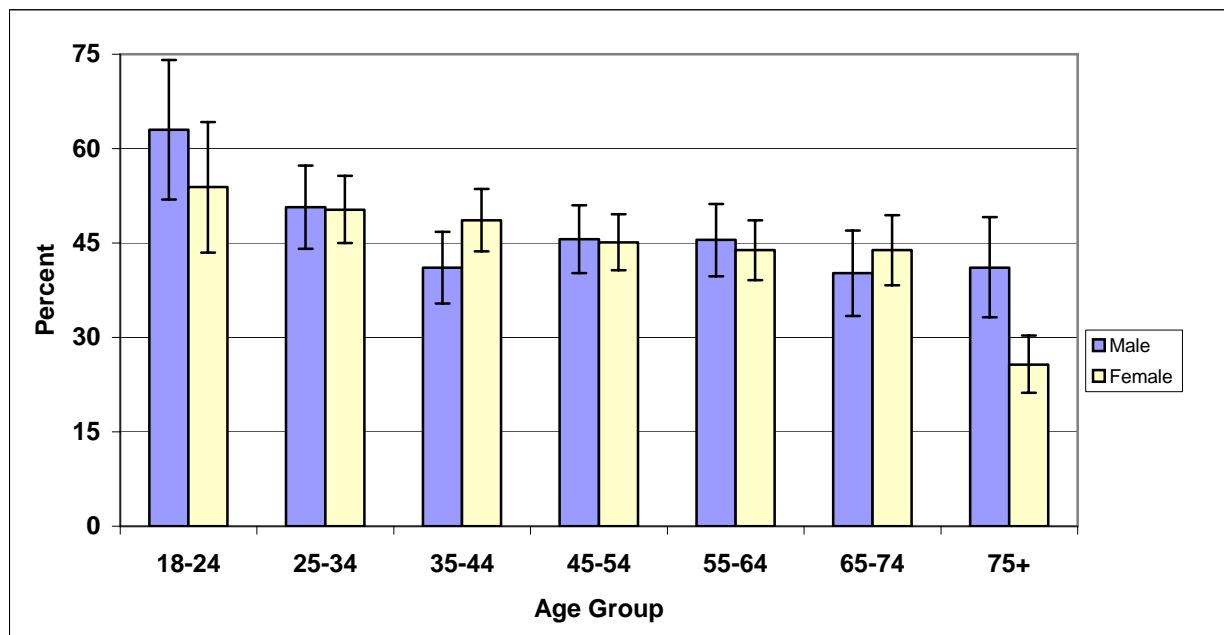
Table 9.1: Physical Activity in Iowans, 2005

Demographic Groups	Any Leisure Physical Exercise in Last Month		Recommended Level of Physical Activity	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	75.3	(73.8-76.7)	46.2	(44.4-47.9)
SEX				
Male	76.1	(73.9-78.4)	47.3	(44.6-50)
Female	74.4	(72.6-76.3)	45.1	(42.9-47.4)
RACE/ETHNICITY				
White/Non-Hisp	76.0	(74.5-77.4)	46.6	(44.8-48.3)
Black./Non-Hisp	66.1	(51.1-81.2)	34.1	(19.5-48.7)
Other/Non-Hisp.	71.7	(60.1-83.4)	45.2	(31.9-58.4)
Hispanic	63.4	(53.1-73.8)	39.7	27.5-55.4
AGE				
18-24	78.6	(72.4-84.8)	58.4	(50.9-65.9)
25-34	82.6	(79.4-85.9)	50.5	(46.3-54.8)
35-44	78.7	(75.5-81.9)	44.9	(41.1-48.7)
45-54	75.4	(72.4-78.4)	45.4	(41.9-48.8)
55-64	72.3	(68.9-75.7)	44.7	(41-48.4)
65-74	72.6	(68.9-76.3)	42.2	(37.9-46.5)
75+	58.9	(54.9-62.9)	31.5	(27.4-35.6)
EDUCATION				
Less than H.S.	53.5	(47.3-59.7)	36.4	(30-42.9)
H.S. or G.E.D.	68.9	(66.3-71.5)	43.5	(40.6-46.5)
Some Post-H.S.	77.2	(74.4-80)	46.3	(42.9-49.7)
College Graduate	88.2	(86.4-89.9)	52.0	(49.1-55)
HOUSEHOLD INCOME				
Less than $15,000	54.9	(48.9-60.8)	43.0	(36.4-49.5)
$15,000- 24,999	63.0	(58.6-67.3)	38.8	(34.2-43.4)
$25,000- 34,999	70.2	(65.6-74.8)	43.8	(38.8-48.7)
$35,000- 49,999	76.9	(73.5-80.2)	42.9	(38.8-46.9)
$50,000- 74,999	85.8	(83.2-88.5)	49.8	(45.9-53.8)
$75,000+	86.5	(83.9-89.1)	54.7	(51-58.5)

The percentage of respondents reporting they had engaged in the recommended amount of physical activity was slightly higher for males than for females. In addition, physical activity decreased with age. However, fewer women were active than men mainly at the extremes of age examined, i.e. 18 to 24 and 75 and over (see figure 9.2).

A larger percentage of those who were better educated and had a higher household income engaged in the recommended amount of physical activity. White non-Hispanics were more likely to engage in the recommended amount of physical activity. The lowest percent for all demographic groups considered was for those age 75 and over (31.1%), while the highest percent was for those age 18 to 24 years (58.4%) (see table 9.1).

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. The median was two hours. Most people (29.9%) said they spent two hours a day. About 5.8% said they engaged in such activity never or less than daily, while 0.8% responded with twelve hours or more a day.

Another question asked how often the respondent took a walk for exercise. Nearly a third (33%) said they walked every day or nearly every day. On the other hand, 14.4% said they never walked for exercise.

Comparison With Other States

Iowa ranked slightly above the median on the measure of not engaging in leisure time physical activity. The median for the nation reported not engaging in any leisure activity was 23.8%, while Iowa reported 24.7%. Values ranged from a low of 16.2% to a high of 33.4%. This excludes one region with such a high value that it can be considered unusually extreme.

Year 2010 Health Objectives for Iowa and the Nation

The target for reducing the proportion of adults who engage in no leisure-time physical activity, Healthy People 2010 objective 22.1, is 20 percent.[71] Iowa's level of 24.7% is higher than this target.

The targets for objective 22.2 and 22.3, to increase the proportion of adults engaging in regular moderate or regular vigorous physical activity, are both 30%. Iowa respondents report 46.2% regular moderate physical activity, but only 22.8% regular vigorous physical activity. Iowa is still above the target for moderate, but below the target for vigorous physical activity.

Healthy Iowans 2010 had a goal that the BRFSS should be able to measure the prevalence of attaining the recommended level of moderate physical activity. This ability has existed for the past few years, although the questions are asked only in odd numbered years.

10. 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).[37] A diet rich in fruits and vegetables (5 or more servings/day) could prevent at least 20% of all cancer incidence.[74] It is estimated that fruits and vegetables contain over 100 beneficial substances including vitamins, minerals, and dietary fiber. Antioxidant vitamins and other compounds in fruits and vegetables slow or stop processes in the body that can lead to cancers or CVD. Fruits and vegetables may also play a protective role in the prevention of stroke, and potentially, cataracts, diverticulosis, chronic obstructive pulmonary disease, and hypertension.[73]

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 encourage people to:

- consume a sufficient amount of fruits and vegetables while staying within energy needs. Two cups of fruit and 2½ cups of vegetables per day are recommended for a reference 2,000-calorie intake, with higher or lower amounts depending on the calorie level.
- choose a variety of fruits and vegetables each day. In particular, select from all five vegetable subgroups (dark green, orange, legumes, starchy vegetables, and other vegetables) several times a week.
- consume 3 or more ounce-equivalents of whole-grain products per day, with the rest of the recommended grains coming from enriched or whole-grain products. In general, at least half the grains should come from whole grains.
- consume 3 cups per day of fat-free or low-fat milk or equivalent milk products.[70]

Fruit and Vegetable Intake Results

Iowans consumed 3.5 servings of fruit or vegetables per day on the average. The percentage of Iowans who eat five or more servings of fruits and vegetables per day was 19.5% in 2005. This is substantially higher than the 17.2% found in 2003. It is, however, quite similar to the figure found in 2002. The recent trend seems to be one of erratic fluctuation (see figure 10.1).

Table 10.1 shows that significantly more females ate five or more servings of fruits and vegetables per day than males. Also, older Iowans were more likely to report meeting the five-a-day standard than younger Iowans. This was also true for those with more education. Hispanics were less likely to meet the fruit and vegetable recommendation. The demographic group most likely to eat five or more fruit and vegetable portions a day was those 75 years old or older (32.9%), while those least likely were those with less than a high school education (10.2%).

Comparison with Other States

There were only four states or territories with a lower percent of the population eating five or more servings of fruits or vegetables a day than Iowa. Iowa's level of 19.5% is well below the median of 23.2%. The range was from a low of 14.3% to a high of 32.3%. Although the nation has increased the percentage of its population meeting the recommended level of fruit and vegetable consumption since 2003, Iowa's relative standing is nearly identical.
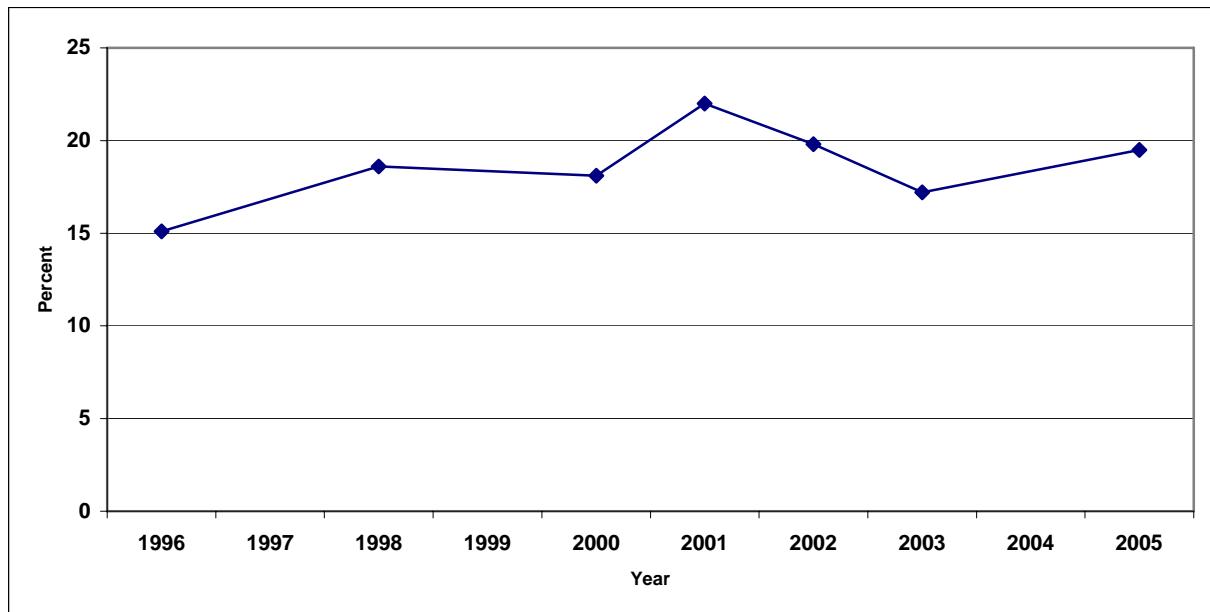
Year 2010 Health Objectives for Iowa and the Nation

According to the national health objectives for the year 2010, 75% of people over two years old need to consume two servings of fruit daily and 50% need to consume threeservings of vegetables daily.[71] The Healthy Iowans 2010 goal was simpler at 50% of adults eating five servings a day of fruit or vegetables. The percentage of adult Iowans consuming five or more helpings of fruits or vegetables daily is far below these goals at only 19.5%.

Table 10.1: Iowans Eating 5 or More Portions of Fruits & Vegetables per Day, 2005

Demographic Groups	%	C.I. (95%)
TOTAL	19.5	(18.2-20.8)
GENDER		
Male	14.3	(12.5-16)
Female	24.4	(22.5-26.2)
RACE/ETHNICITY		
White/Non-Hisp	19.5	(18.2-20.8)
Black/Non-Hisp	21.8	(6.9-36.8)
Other/Non-Hisp.	24.0	(13.3-34.8)
Hispanic	14.1	(7.3-21)
AGE		
18 - 24	13.7	(8.5-18.8)
25 - 34	16.2	(13.1-19.4)
35 - 44	16.8	(14.1-19.5)
45 - 54	19.6	(16.9-22.2)
55 - 64	20.5	(17.6-23.4)
65-74	22.9	(19.4-26.5)
75+	32.9	(28.9-36.8)
EDUCATION		
Less than H.S.	10.2	(7-13.4)
H.S. or G.E.D.	16.5	(14.4-18.6)
Some Post-H.S.	20.1	(17.6-22.7)
College Graduate	25.3	(22.8-27.8)
HOUSEHOLD INCOME		
Less than $15,000	20.2	(15.3-25.1)
$15,000- 24,999	15.7	(12.8-18.7)
$25,000- 34,999	18.1	(14.7-21.5)
$35,000- 49,999	16.7	(13.8-19.5)
$50,000- 74,999	23.0	(19.8-26.2)
$75,000+	21.8	(18.6-24.9)

Figure 10.1: Trend for Adequate Fruit & Vegetable Consumption in Iowa, 1996-2005

11. OVERWEIGHT AND OBESITY

Background

Overweight and obesity are probably the most serious health problems in America today. Obesity is a condition linked to risk factors for cardiovascular disease, cancer, and stroke, which are the first, second and third leading causes of death in Iowa. It is associated with Type II diabetes, atherosclerosis (hardening of the arteries), gout, asthma, hypertension and osteoarthritis.[68]

Obesity is already a significant factor in rising health care costs. Increase in it's prevalence is driving these costs even higher. The national cost of obesity in 1998 was $78.5 billion, half of which was paid by Medicare and Medicaid.[33] Iowa's direct costs attributable to obesity were estimated from data from the late 1990s to be $783 million, of which $198 million is paid by Medicaid and $165 million, by Medicare.[34]

The origin of overweight involves many factors. It reflects inherited, environmental, cultural, and socioeconomic traits.[61] 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.[35]

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.[47]

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 (m^2)]. Estimations of the prevalence of overweight and obesity in this report are based on BMI. In adults, overweight is considered to be a BMI value greater than or equal to 25 and less than 30. Obesity is considered to be a BMI greater than or equal to 30.

Overweight & Obesity Results

The BRFSS data show that in 2005 37.1% of Iowans are overweight and 25.4% are obese, based on BMI. The combined percentage of individuals who are overweight or obese is 62.5%. This is higher than the 60.9% reported in 2004. This resumes a long trend of increasing overweight and obesity (see figure 11.1).

The self-reported weights show many more males than females are overweight, while the sex difference in prevalence of obesity, though still present, is much less. Both overweight and obesity increase with age, although the trend reverses for the oldest respondents. Obesity shows a very sharp decrease after age 65.

Figure 11.1: Overweight/Obese Iowans by Year Based on Body Mass Index (BMI), 1996-2005
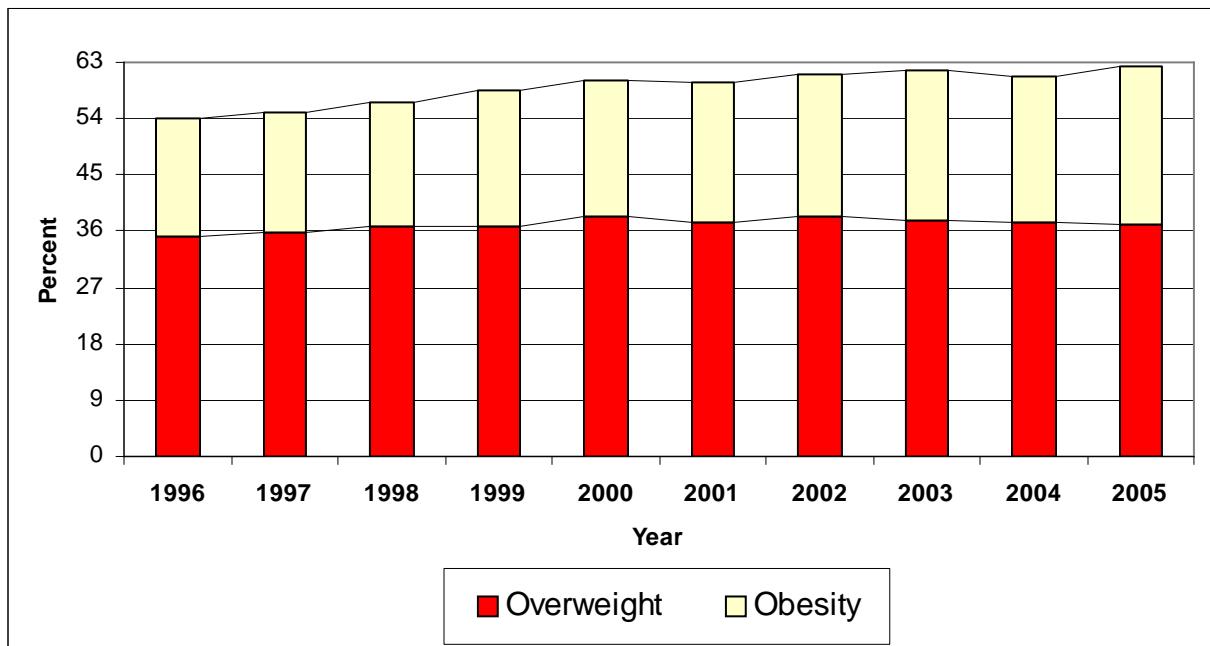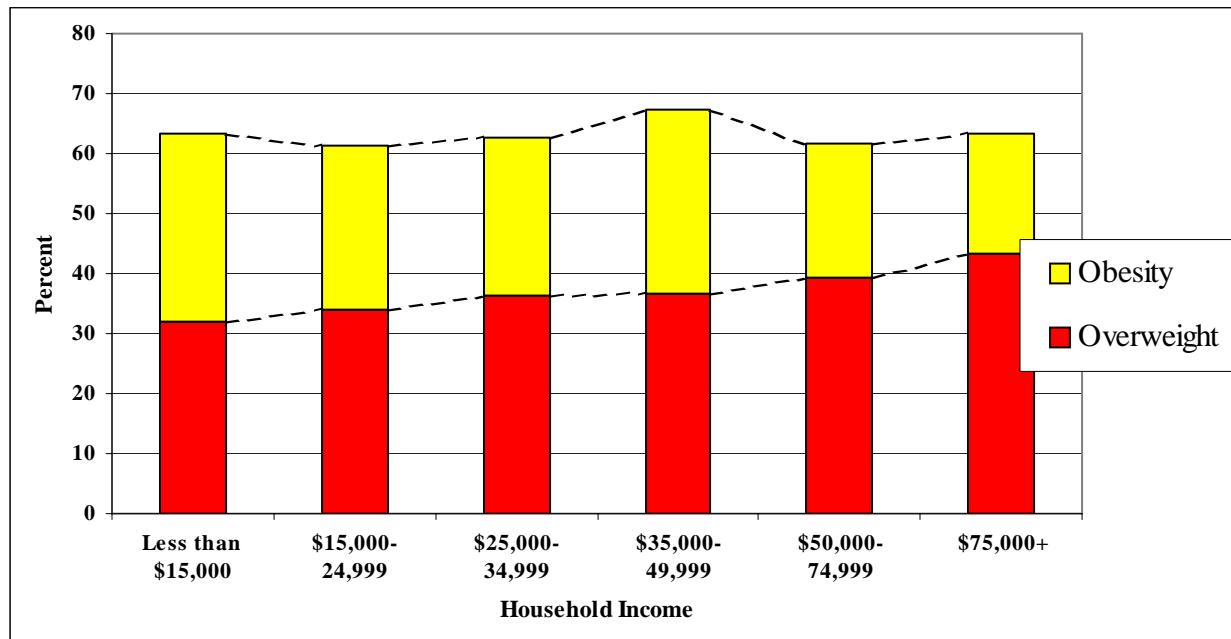

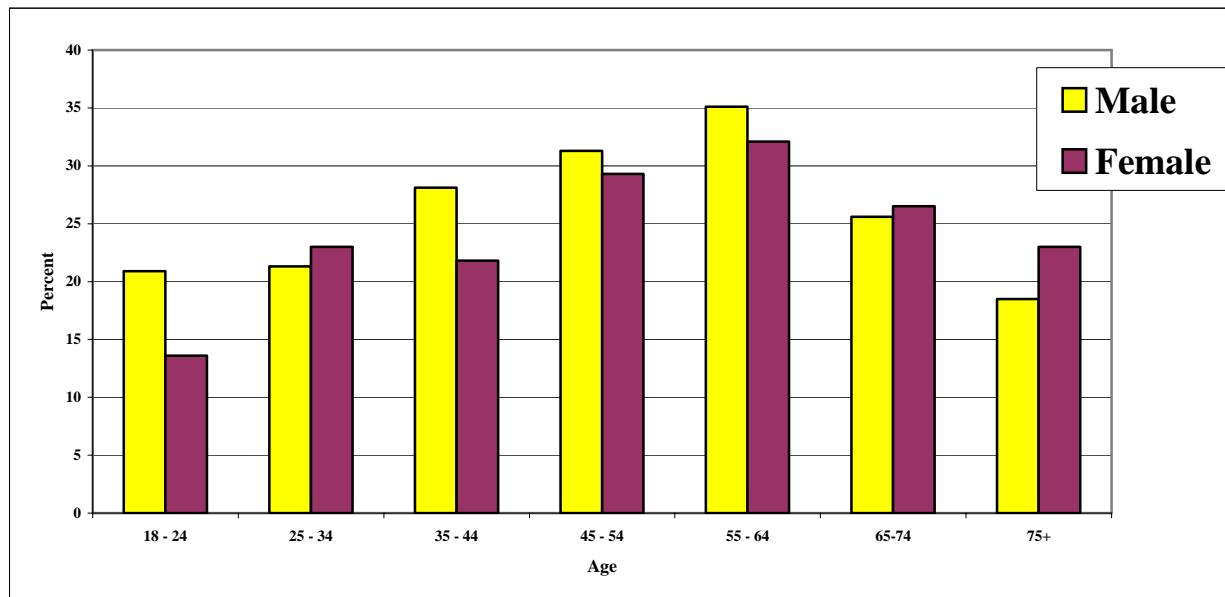**Figure 11.2: Overweight and Obesity by Income, Iowa 2005**

The effects of income are opposite for overweight and obesity. The percentage of overweight increases with increasing income. On the other hand, obesity tends to decrease with higher income levels. These effects somewhat cancel each other when overweight and obesity are combined (see table 11.1 and figure 11.2).

In terms of race and ethnicity, Hispanics have the highest percentage of overweight, while African Americans have a higher percentage of obesity. For overweight and obesity combined Hispanics are higher than the other racial and ethnic groups (see table 11.1).

Table 11.1: Overweight and Obese Iowans Based on BMI, 2005

DEMOGRAPHIC GROUPS	Overweight		Obesity		Combined	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	37.1	(35.4-38.7)	25.4	(23.9-26.9)	62.5	(60.8-64.2)
SEX						
Male	44.1	(41.5-46.7)	26.5	(24.2-28.8)	70.6	(68.1-73.1)
Female	30.0	(28.1-32)	24.3	(22.5-26.1)	54.3	(52.1-56.6)
RACE/ETHNICITY						
White/Non-Hisp	36.8	(35.2-38.5)	25.6	(24.1-27.1)	62.4	(60.6-64.1)
Black/Non-Hisp	33.7	(19.5-58.4)	28.9	(15.1-42.7)	62.5	(45.6-79.5)
Other/Non-Hisp	27.0	(16-37.9)	24.8	(14.2-35.4)	51.8	(38.4-65.1)
Hispanic	51.0	(39.6-62.4)	21.0	(12-30)	72.0	(62.2-81.8)
AGE GROUP						
18 - 24	21.6	(15.7-27.5)	17.4	(11.5-23.2)	39.0	(31.7-46.2)
25 - 34	35.5	(31.4-39.6)	22.1	(18.6-25.6)	57.6	(53.4-61.7)
35 - 44	38.7	(34.9-42.5)	25.1	(21.7-28.4)	63.8	(60.2-67.4)
45 - 54	39.3	(35.8-42.7)	30.3	(27.2-33.5)	69.6	(66.5-72.7)
55 - 64	39.9	(36.2-43.5)	33.6	(30.1-37.2)	73.5	(70.2-75.6)
65-74	45.9	(41.7-50.2)	26.1	(22.4-29.8)	72.0	(68.3-75.8)
75+	40.5	(36.4-44.5)	21.3	(17.9-24.8)	61.8	(57.9-65.8)
EDUCATION						
Less than H.S.	39.1	(32.8-45.4)	27.0	19.3-28.6	66.1	(59.8-72.3)
H.S. or G.E.D.	34.1	(31.5-36.7)	29.6	24.2-28.9	63.7	(60.8-66.6)
Some Post-H.S.	37.3	(34-40.6)	27.5	21.8-26.9	64.8	(61.5-68.2)
College Graduate	39.8	(36.9-42.8)	17.8	16.6-21.4	57.6	(54.6-60.6)
HOUSEHOLD INCOME						
Less than $15,000	31.9	(26.2-37.7)	31.3	23.5-33.0	63.3	(57-69.6)
$15,000- 24,999	33.9	(29.7-38.1)	27.5	21.6-28.9	61.4	(56.9-66)
$25,000- 34,999	36.3	(31.6-41)	26.3	21.5-28.7	62.6	(57.7-67.4)
$35,000- 49,999	36.7	(32.8-40.6)	30.6	22.8-29.3	67.3	(63.4-71.1)
$50,000- 74,999	39.3	(35.4-43.1)	22.5	21.0-27.8	61.8	(57.8-65.7)
$75,000+	43.3	(39.6-47.1)	19.9	16.2-22.0	63.3	(59.6-67)

Figure 11.3: Obesity in Iowa by Age and Sex, 2005

The demographic group with the highest prevalence of people over their healthy weight (combined overweight and obesity) is people age 55 to 64 years with 73.5%. The group with the lowest prevalence over their healthy weight is those 18 to 24 years old (39%). There is an interaction between sex and age with respect to obesity such that the drop off in percent obese after age 65 is more pronounced for men than for women, so that more women are obese than men in the upper age groups (see figure 11.3.

Comparison with Other States

Iowa's figure of 62.5% either overweight or obese in 2005 was higher than the median of 61.5%. The range of prevalence among the states and territories was from a low of 53% to a high of 67.3%. The prevalence of overweight and obesity increased from 2004 in both Iowa and the nation.

Year 2010 Health Objectives for Iowa and the Nation

The health objectives on weight for the nation to be achieved by the year 2010 call for increasing the prevalence of healthy weight (neither overweight nor obese) to 60% among adults age 20 years and older. In Iowa, more than 60% of the population is above healthy weight. The *Healthy People 2010* target for obesity is 15%. Iowa exceeds that by more than two thirds at 25.4%. The *Healthy Iowans 2010* goals for overweight and obesity are to halt the increasing prevalence. The Prevalence did not increase from 2003 to 2004, but in 2005 the upward trend has resumed.3

12. DIABETES

Background

Diabetes rates in the United States are approaching epidemic proportions. An estimated 18.2 million people in the United States, 9.4% of the adult population, have diabetes. More than 13 million people (6.6%) live with the burden of diabetes daily, and another 5.2 million (2.9%) have the disease and do not know it. Skyrocketing costs accompany this epidemic with an estimated total annual cost (direct and indirect) of $132 billion. This includes direct medical costs of $92 billion and indirect costs of another $40 billion related to disability, work loss, and premature death.[26]

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

The complications of diabetes are many and severe. They can include heart disease, stroke, high blood pressure, kidney disease, blindness, diseases of the nervous system, dental disease, complications of pregnancy, lower extremity amputations, biochemical imbalances such as ketoacidosis and diabetic coma, and lower resistance to other diseases. However, complications can be minimized when diabetes is diagnosed early and the patient is taught to self manage their disease through blood glucose control, weight control, taking medications appropriately, decreasing unhealthy lifestyles such as smoking, and implementing healthy lifestyle interventions as mentioned earlier.
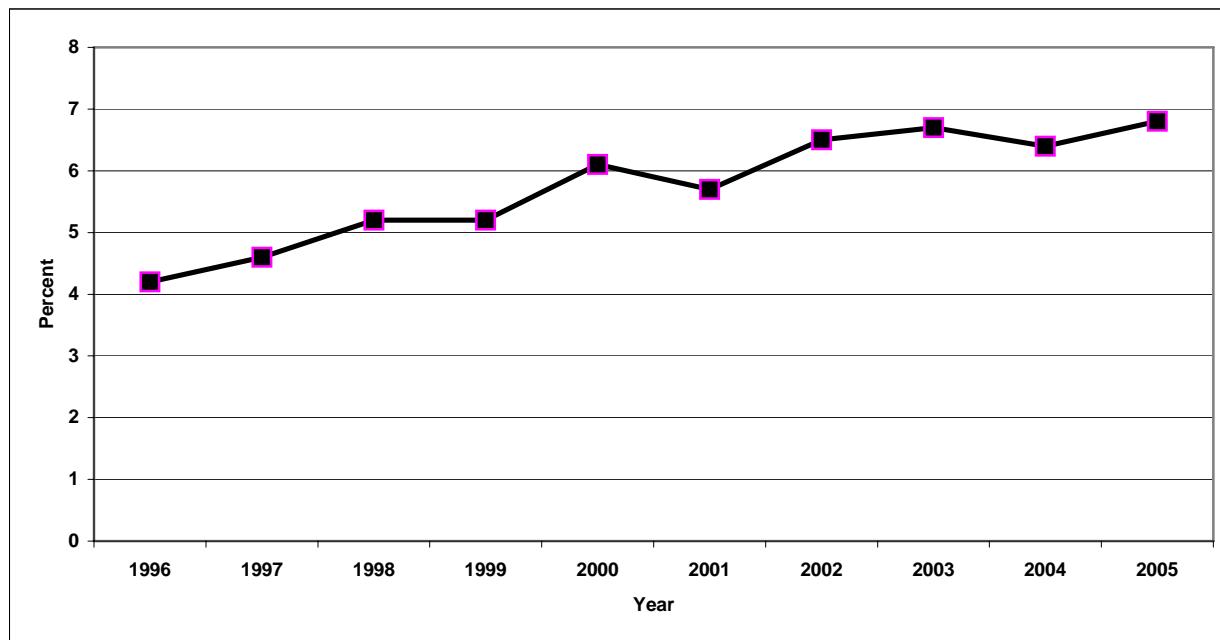
The Diabetes Prevention and Control Program at the Iowa Department of Public Health acts as a resource for health care professionals regarding the latest guidelines for diabetes care, coordinates a statewide diabetes network, and collaborates with local community projects to develop initiatives on public awareness, prevention, and other areas of disease management. It also certifies programs for Medicaid reimbursement and assists certified programs in maintaining quality standards for outpatient education.

Diabetes Results

In 2005, 6.8% of respondents had ever been told by a physician that they have diabetes, excluding women told only during pregnancy. This figure is higher than the 6.4% found in 2004. In fact, this is the highest percentage that has ever been reported for Iowa (see figure 12.1). Since 1996, there has been more than a 60% increase in the rate of diabetes.

Table 12.1 shows that the rate of diabetes is much higher when respondents are male, older, lower in education, and have a lower household income. It is higher in African Americans, but lower in the other racial and ethnic minority groups considered. The demographic group with the highest percentage is people 75 years old or older (16.6%), while the group with the lowest percentage is people age 18 to 24 years (0.9%).

Figure 12.1: Percentage of Iowans Who Have Ever Been Told They Have Diabetes by Year, 1996-2005

Among individuals who had been told they had diabetes, the highest percentage reported being first diagnosed at age 46 to 60 years old (40%). The age group in which the least reported being first diagnosed was less than age 16 years (5%). This indicates an earlier age of diagnosis than in previous years.

Of those ever told by a physician that they have diabetes, 29% reported currently taking insulin. At the same time, 68% 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 (33%), while 9% said never.

Respondents told by a physician they had diabetes were asked how many times they had their blood sugar checked in the past 12 months. About 65% checked their blood sugar at least once a day themselves or with the help of a friend or family member. About 7% reported never testing their blood sugar. Around 81% had it checked at least once within the past year by a health professional through a glycosylated hemoglobin test, frequently referred to as an A1C. Around 11% reported not having had the A1C test. Another 8% 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.

Table 12.1: Iowans Ever Ben Told They Had Diabetes, 2005

DEMOGRAPHIC GROUP	%	C.I. (95%)
TOTAL	6.8	(6.1-7.5)
SEX		
Male	8.0	(6.8-9.2)
Female	5.7	(4.8-6.5)
RACE/ETHNICITY		
White/Non-Hisp	6.9	(6.2-7.7)
Black/Non-Hisp	14.8	(5-24.7)
Other/Non-Hisp	4.8	(0.5-9.1)
Hispanic	1.7	(0.2-3.1)
AGE GROUP		
18-24	0.9	(0-1.9)
25-34	1.5	(0.5-2.5)
35-44	3.0	(1.6-4.5)
45-54	6.1	(4.4-7.7)
55-64	12.5	(10.1-14.9)
65-74	14.8	(11.8-17.8)
75+	16.6	(13.5-19.7)
EDUCATION		
Less than H.S.	10.8	(7.9-13.6)
H.S. or G.E.D.	8.4	(7.1-9.7)
Some Post-H.S.	6.2	(4.8-7.6)
College Graduate	4.2	(3.2-5.3)
HOUSEHOLDINCOME		
Less than $15,000	15.0	8.13-14.0
$15,000- 24,999	10.7	5.47-9.27
$25,000- 34,999	8.4	6.17-10.8
$35,000- 49,999	4.7	4.15-7.45
$50,000- 74,999	5.1	2.23-4.85
$75,000+	4.0	2.79-6.05

Individuals with diabetes should check their feet daily for sores and irritations and should have them checked at least once a year by their health care provider. When asked how often they check their feet, 68% of respondents who were ever diagnosed with diabetes claimed to have checked them at least daily. Another 11% said they never checked them. Around 72% of diabetic respondents with feet reported they had their feet checked by a health professional at least once within the past 12 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 80% reported within the last year, while 3% reported never having such an examination.

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 2005 reported having taken a class on how to manage it.

Comparison with Other States

The median prevalence of diabetes for the states and territories was 7.3% in 2005. The figure for Iowa was below the median at 6.8%. Diabetes prevalence ranged from a low of 4.4% to a high of 12.5%. This maximum may be an extreme case since the second highest percent is 10.4%.

Year 2010 Health Objectives for Iowa

The *Healthy Iowans 2010* objective set for prevalence of diabetes was 6.7% with an increase of no more than 0.2% per year. Iowa is currently at 6.8%, which is lower than the objective.

13. ASTHMA

Background

Asthma, a chronic inflammatory disease of the lungs characterized by recurrent wheezing, breathlessness, coughing, and chest tightness, is now one of the most common chronic diseases of children and adults.[31] Prevalence among adults and children has doubled in the last 15 years, and more than 200,000 Iowans now have asthma.[22,28,43]

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

The direct medical costs of asthma, including inpatient and outpatient care and medications, are estimated to be about $85 million, and indirect socio-economic costs are close to $64 million each year.[11,43] Based on national data, it is estimated about 140,000 days of school are missed each year due to asthma by Iowa children,[28] and half of all children and a quarter of all adults with asthma miss at least one day of school or work each year.[65]

The causes of asthma are not completely understood, but are most likely a combination of personal and environmental risk factors. Those risk factors for asthma include family history of asthma and allergies, acute respiratory infections, exposure to indoor air pollution (tobacco smoke, animal dander, dust mites, cockroaches, 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. After developing asthma, a person often becomes especially sensitive to any exposures to the environmental risk factors listed.[56,59,60]
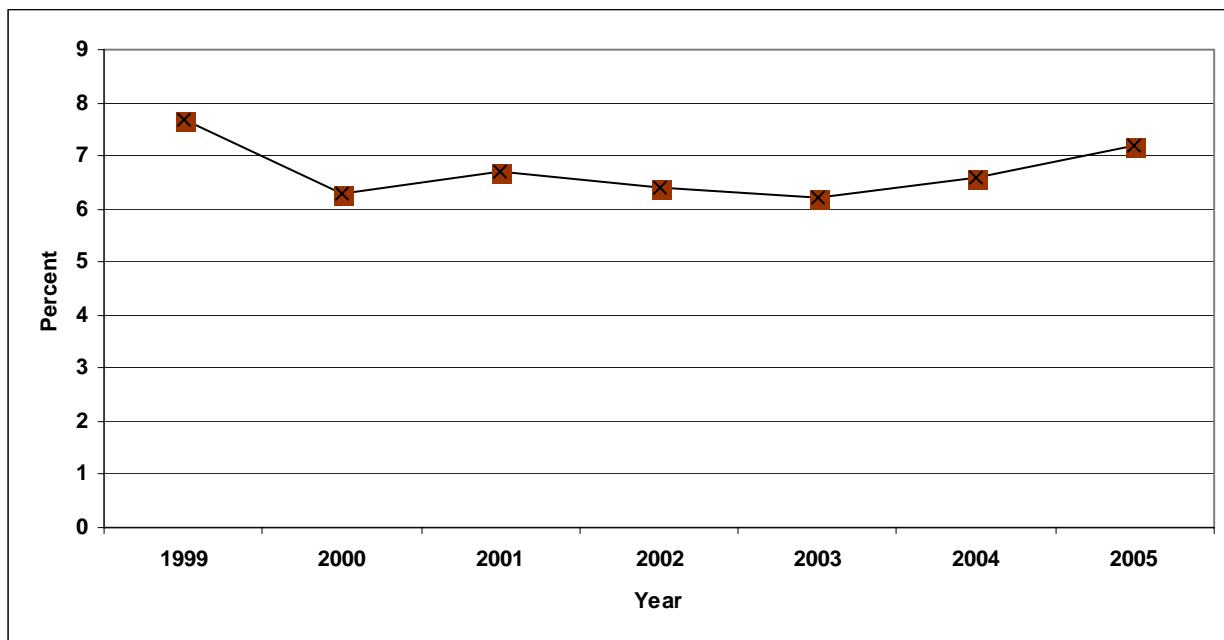
Asthma Results

In 2005, 11.6% of respondents reported ever being diagnosed by a physician with asthma. Out of all respondents in Iowa, 7.2% currently have asthma, and 4.2% formerly had asthma.[*] The percentage of Iowa adults with either current or former asthma is up from 2004. In that year the percent of current asthma was 6.6%. (This continues an upward trend begun last year. See figure 13.1).

In Iowa, more women currently have asthma than do men (8.1% vs. 6.4%). Household income and race/ethnicity seemed to be the most powerful factors in determining asthma prevalence. The group with the highest percentage currently having asthma were non-Hispanics of other or multiple race (19.8%). The lowest percentage of current asthma was seen in people with household incomes between $50,000 and $75,000 per year (4.8%) (see table 13.1).

Of those respondents who had ever been told they had asthma, 35% were diagnosed with the disorder at age 10 years or younger.

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[*] For some who had ever had asthma, their current status could not be determined.

Figure 13.1: Current Asthma in Iowa by Year, 1999 - 2005

Of those who currently have asthma, 46% had an asthma attack in the past 12 months. About 15% had visited an emergency room or urgent care facility for their asthma at least once in the past 12 months. About 28% had seen a health professional for urgent care at least once in the past 12 months. However, 51% had not seen a health professional at all for even a routine checkup for their asthma in the past 12 months.

Of those who currently have asthma, 20% reported one or more days in which their activities were limited for a day or more due to asthma in the past year. The range reported was from one to 365 days of limitation with a median of seven days.

There are two types of asthma medication. One treats asthma symptoms when they occur (rescue medication), and the other prevents asthma symptoms from occurring (maintenance or controller medication). In the case of rescue medications, 42% reported taking them one or more times in the past 30 days. Around 2% reported having taken them 100 times or more. On the other hand, 63% took maintenance medications one or more times. A large number (39%) had taken preventive medication on 25 to 30 of the past 30 days. Even if they had not taken any asthma medications in the past 30 days, 59% of Iowans with asthma reported that they had taken rescue medications in the last 12 months.

Even though an adult is interviewed in the BRFSS survey, two questions about asthma are asked for a randomly determined child in the household. It was reported that 9.8% of the children had ever been told they had asthma and that 68.8% of those still have asthma.

Table 13.1: Iowans Currently and Formerly Having Asthma, 2005

DEMOGRAPHIC GROUPS	Current Asthma %	C.I. (95%)	Former Asthma %	C.I. (95%)
TOTAL	7.2	(6.3-8.1)	4.2	(3.4-5)
SEX				
Male	6.4	(5-7.7)	4.3	(3.1-5.6)
Female	8.1	(6.8-9.3)	4.0	(3.1-5)
RACE/ETHNICITY				
Non-Hispanic White	6.9	(6-7.8)	4.3	(3.5-5.1)
Non-Hispanic Black	16.0	(4.6-27.4)	5.3	(0-11.7)
Non-Hispanic Other	19.8	(7-32.5)	0.0	(0-0)
Hispanic	6.8	(2.1-11.5)	3.0	(0-6)
AGE				
18-24	9.7	(5.6-13.8)	10.1	(5.4-14.7)
25-34	7.1	(5-9.2)	6.0	(4.2-7.9)
35-44	7.2	(5.1-9.4)	2.9	(1.7-4)
45-54	6.6	(4.8-8.4)	3.0	(1.8-4.2)
55-64	7.2	(5.2-9.2)	2.8	(1.7-4)
65-74	7.3	(5.2-9.5)	2.0	(0.9-3.2)
75+	5.9	(3.8-7.9)	1.8	(0.7-2.9)
EDUCATION				
Less than H.S.	11.4	(6.7-16)	6.0	(2-10)
H.S. or G.E.D.	7.2	(5.8-8.7)	3.2	(2-4.3)
Some Post-H.S.	7.6	(5.9-9.4)	4.7	(3-6.4)
College Graduate	5.5	(4.2-6.8)	4.3	(3.2-5.5)
HOUSEHOLD INCOME				
Less than $15,000	14.3	(10.2-18.3)	2.1	(0.7-3.5)
$15,000- 24,999	9.7	(6.8-12.6)	4.9	(2.7-7.2)
$25,000- 34,999	6.1	(4-8.2)	4.0	(1.9-6.1)
$35,000- 49,999	8.1	(5.9-10.4)	3.8	(2.1-5.6)
$50,000- 74,999	4.8	(3.1-6.5)	5.4	(3.6-7.1)
$75,000+	5.3	(3.6-7)	3.4	(1.5-5.3)

For more information about asthma in Iowa see the web site
http://www.idph.state.ia.us/hpcdp/asthma.asp.

Comparison with Other States

While Iowa reported 7.2% of the entire adult population currently suffering from asthma, the median for the nation was 8%. Prevalence ranged from a low of 4.4% to a high of 10.7%. Although the prevalence of asthma increased in both the nation and Iowa, Iowa's increase was more pronounced. Iowa now ranks 13th lowest in terms of asthma prevalence. It has ranked much lower relative to the other states and territories in the past. Iowa ranked 5th lowest in 2004.

14. TOBACCO USE

Background

Tobacco use remains the leading preventable cause of death in the United States. It is responsible for more than 440,000 deaths each year, or one in every five deaths.[14,28] 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.[14,29]

Tobacco use is known to cause heart disease, peripheral vascular disease, and chronic lung disease, as well as cancers of the lung, larynx, esophagus, pharynx, mouth, and bladder. In addition, cigarette smoking contributes to cancer of the pancreas, kidney, and cervix. In fact, smoking causes diseases in nearly every organ of the body.[29]

Consequences of smoking during pregnancy include spontaneous abortions, low birth weight babies, and sudden infant death syndrome (SIDS).[1]

Secondhand Smoke (SHS) increases the risk of heart disease and lung cancer in adults. SHS also affects children by increasing lower respiratory tract infections and asthma and by decreasing pulmonary function. According to the surgeon general there is no safe level of exposure to secondhand smoke.[72]

Public health efforts to reduce the prevalence of tobacco use began after the health risks were announced in the first surgeon general's report on tobacco in 1964. Smoking prevalence declined from 42.4% in 1965 to 24.7% in 1997.[14] After a leveling off in the 1990s, these rates have recently begun to decline further.

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.[23]

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 66% of 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.[44]

Tobacco Use Results

Current smoking was defined as smoking at least 100 cigarettes in a lifetime and smoking some days or everyday during the past 30 days. Of all respondents surveyed in 2005, 20.4% reported being a current smoker. This was a decrease from the 20.8% found in 2004. This is the lowest prevalence of current smoking seen in the last ten years and continues a downward trend in recent years (see Figure 14.1).

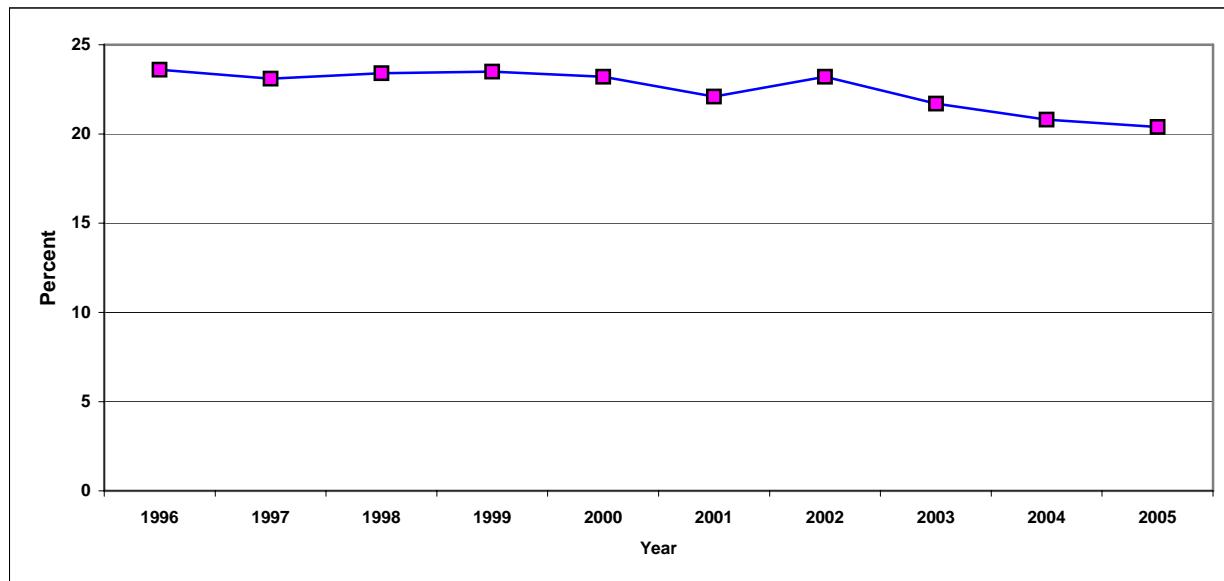**Figure 14.1: Trend in Percentage of Current Smokers in Iowa, 1996-2005**

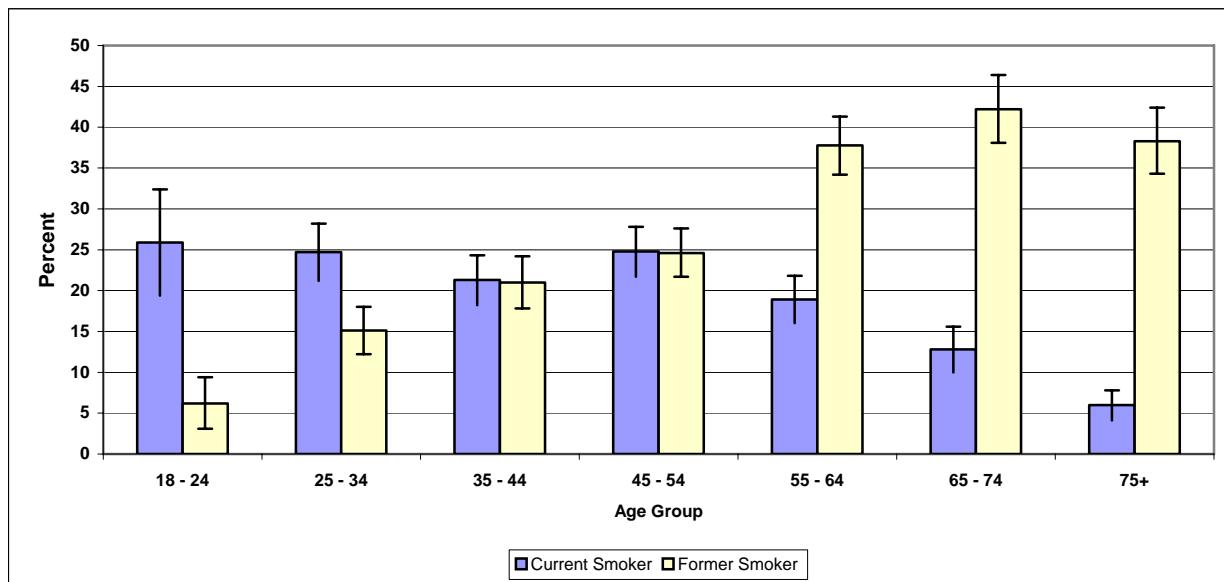**Figure 14.2: Percentage of Current and Former Smokers by Age, 2005**

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Table 14.1: Percentage of Current and Former Smokers in Iowa, 2005

DEMOGRAPHIC GROUPS	Current Smoker		Former Smoker	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	20.4	(19-21.8)	24.8	(23.4-26.1)
SEX				
Male	21.8	(19.5-24)	29.5	(27.3-31.7)
Female	19.1	(17.4-20.8)	20.3	(18.7-21.9)
RACE/ETHNICITY				
White/Non-Hisp.	20.3	(18.9-21.8)	25.3	(23.9-26.7)
Black/Non-Hisp.	29.8	(16.3-43.3)	18.8	(8.5-29)
Other/Non-Hisp.	23.5	(12.5-34.4)	17.3	(8.3-26.3)
Hispanic	17.8	(9.9-25.7)	15.9	(8.5-23.4)
AGE				
18-24	25.9	(19.4-32.4)	6.2	(3.1-9.4)
25-34	24.7	(21.2-28.2)	15.1	(12.2-18)
35-44	21.3	(18.2-24.3)	21.0	(17.8-24.2)
45-54	24.8	(21.7-27.8)	24.6	(21.7-27.6)
55-64	18.9	(16-21.8)	37.8	(34.2-41.3)
65-74	12.8	(10-15.6)	42.2	(38.1-46.4)
75+	6.0	(4.1-7.8)	38.3	(34.3-42.4)
EDUCATION				
Less than H.S.	29.0	(23.1-34.8)	27.1	(21.9-32.2)
H.S. or G.E.D.	24.4	(21.9-26.9)	27.1	(24.8-29.4)
Some Post-H.S.	24.0	(21.1-26.9)	24.5	(21.9-27.2)
College Graduate	9.3	(7.6-11)	21.2	(18.9-23.4)
HOUSEHOLD INCOME				
Less than $15,000	32.0	(25.9-38.1)	22.6	(18.2-27)
$15,000- 24,999	28.3	(24.2-32.5)	25.7	(22.2-29.3)
$25,000- 34,999	24.0	(19.7-28.4)	26.8	(22.8-30.8)
$35,000- 49,999	22.2	(18.8-25.7)	24.4	(21.2-27.6)
$50,000- 74,999	16.5	(13.7-19.3)	24.9	(21.7-28.2)
$75,000+	13.2	(10.6-15.7)	25	(21.9-28.1)

The proportion of current smokers was higher for males than for females. Smoking generally declined with increasing age, education, and income. People of African American race/ethnicity had a higher proportion of smokers. Hispanics reported a lower prevalence of smoking. Respondents with less than $15,000 annual household income reported the highest proportion of current smokers (32%). Only 6% of respondents age 75 years and older were current smokers (see table 14.1).

Nearly 24.8% of respondents were former smokers. This means that they had smoked at least 100 cigarettes in their lifetime, but did not smoke now. 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 6.2% former smokers, while the 65 to 74 year age group had 42.2% (see figure 14.2).

When asked about attempts to quit smoking, 53.1% of Iowa's current smokers reported they quit smoking for a day or more during the past year. Younger smokers were more likely to report trying to quit during the past year. Individuals 18 to 24 years old reported trying to quit most often (69.1%), compared to 45.7% of persons age 65 and older who were least likely. Respondents with a college education and respondents with a household income of $75,000 or higher were more likely to try to quit than those with less education or income (see table 14.2).

Of current smokers who had seen a doctor or health professional in the past 12 months, 63.4% reported having been advised to quit smoking on at least one occasion. Of these health professionals, 31.6% advised using aids such as the nicotine patch or gum, and 23.8% advised some non-medical approach to help quit smoking.

Most Iowans (71.9%) said they had rules against any smoking in their house. However, 19% said they allowed smoking anywhere in the house or had no rules concerning smoking in the house. Among employed Iowans, 80% said no smoking

Table 14.2: Percentage of Current Smokers in Iowa Trying to Quit, 2005

DEMOGRAPHIC GROUPS	Tried to Quit Smoking	
	%	C.I. (95%)
TOTAL	53.1	(49.1-57)
SEX		
Male	52.9	(46.9-58.8)
Female	53.3	(48.3-58.3)
AGE GROUP		
18-24	69.1	(56-82.2)
25-34	54.9	(46.7-63)
35-44	51.5	(43.5-59.6)
45-54	44.8	(37.7-52)
55-64	49.3	(40.7-57.8)
65+	49.8	(38.1-61.5)
EDUCATION	45.7	(29.4-62)
Less than H.S.		
H.S. or G.E.D.	50.5	(38.3-62.7)
Some Post-H.S.	49.5	(43.4-54.7)
College Graduate	54.5	(47.6-61.4)
HOUSEHOLD INCOME		
Less than $15,000	50.2	(37.9-62.6)
$15,000- 24,999	50.6	(42-59.2)
$25,000- 34,999	53.2	(42.9-63.5)
$35,000- 49,999	57.0	(48.2-65.8)
$50,000- 74,999	50.9	(41.6-60.1)
$75,000+	61.1	(51.2-70.9)

was allowed in public areas at work, and 87.3% said no smoking was allowed in work areas.

Comparison with Other States

In all the states and territories, smoking prevalence ranged from a low of 8.1% to a high of 28.7%.Iowa's current smoking prevalence of 20.4% was just below the median of 20.5% for all reporting states and territories.

Year 2010 Health Objectives for Iowa and the Nation

The goal for *Healthy People 2010* is to reduce the percentage of smokers to 12%, while the goal for *Healthy Iowans 2010* is 18%. *Healthy Iowans 2010* also has a goal of reducing to 28% the proportion of smokers between the ages of 18 to 24 years and to 25% the proportion of smokers with a household income of less than $25,000. The prevalence of smoking is down in Iowa again in 2005 to 20.4%. For ages 18 to 24 years, it is 25.9%. For household incomes less than $25,000, it is 29.6%. This does not achieve either the state or national overall goal or the state goal for income. It does achieve the state goal for ages 18 to 24 years.

Iowa fell far short of the revised *Healthy Iowans 2010* goal to have 75% of current smokers attempt to quit in the past year. At 53.1%, although the proportion trying to quit has increased, it still falls more than 20 percentage points short of the goal.

Healthy Iowans 2010 has a goal of no more than 10% of people exposed to secondhand smoke at work. This goal has not been met since Iowa workers report that 20% do not have rules against smoking in public areas at work and 12.7% do not have rules against smoking in work areas.

The *Healthy Iowans 2010* goal was 69% for people having rules against smoking in their home. This goal was surpassed with 71.6% saying they had such rules. The Healthy Iowans 2010 goal was 65% for people having rules against smoking in their vehicles. In fact, 67.4% reported having such rules.

15. ALCOHOL CONSUMPTION

Background

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

Currently, nearly 14 million Americans abuse alcohol or are alcoholic. Several million more adults engage in risky drinking that could lead to alcohol problems. These patterns include binge drinking (drinking too much at one time) and heavy drinking (drinking a large quantity of alcohol on a regular basis). In addition, 53% of men and women in the United States report that one or more of their close relatives have a drinking problem.[3]

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 and in many cases, life threatening. Heavy drinking can increase the risk for certain cancers, especially those of the liver, esophagus, throat and larynx (voice box). Chronic heavy drinking can also cause liver cirrhosis, immune system problems, brain damage and harm to the fetus during pregnancy. Drinking increases the risk of death from automobile crashes as well as recreational and on-the-job injuries. Furthermore, both homicides and suicides are more likely to be committed by persons who have been drinking.

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

Binge drinking is a serious problem. 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.[2]

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.

Since 1982 the percent of traffic fatalities that are alcohol related has fallen from 60% to 39%. However, in 2004 16,694 traffic deaths in the United States were attributable to alcohol.[51]

Alcohol consumption has been considered to lead to 85,000 deaths (3.5% of all deaths) in the United States in 2000.[49]
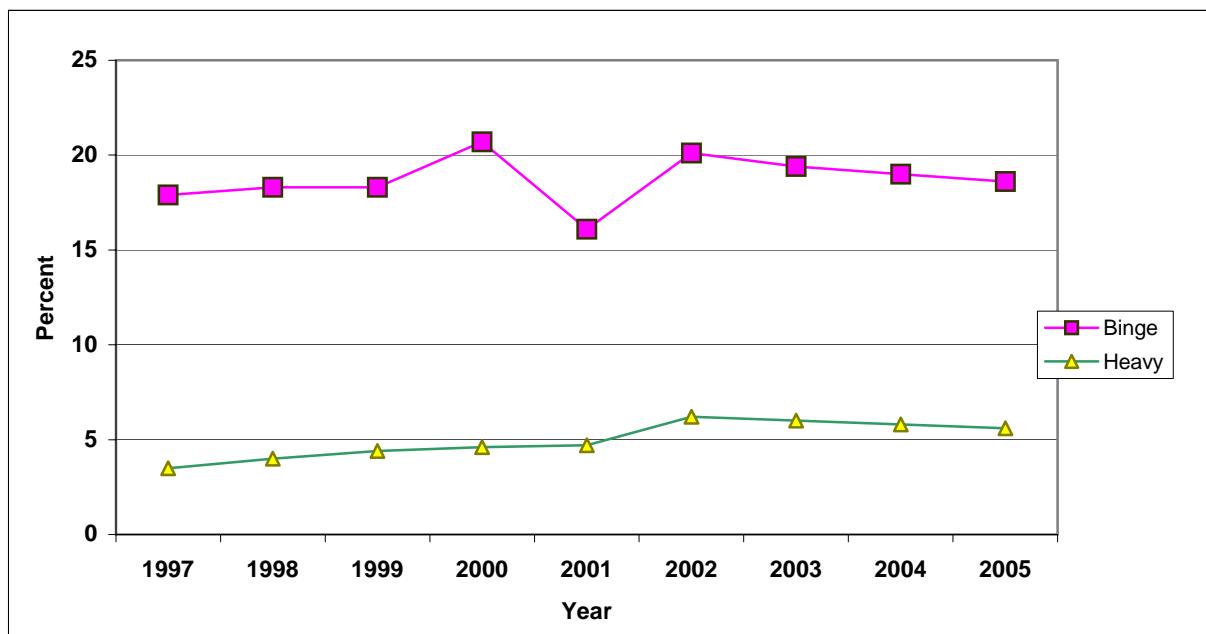
Alcohol Consumption Results

In the BRFSS survey, a standard drink is defined as one 12-ounce beer, one 4-ounce glass of wine, or a drink with one shot of hard liquor.

In 2005, 55.5% of Iowans reported that they had at least one drink of alcohol in the past 30 days. On the days when they drank, 36.9% had only one drink. The median was two drinks. About 14.5% reported drinking more than five drinks per day on the average.

In our analysis, heavy drinking was defined to be greater than two drinks per day for men and one drink per day for women. According to this definition, 5.6% of all respondents were heavy drinkers. This is slightly lower than the 5.8% found in 2004. This continues a mild downward trend in the percentage of heavy drinking seen over the last four years (See figure 15.1).

Figure 15.1: Trend of Binge and Heavy Drinking in Iowa, 1997-2005

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 3.3% of women were considered to be heavy drinkers. The strongest determinant of heavy drinking was age. While 10.8% of those 18to 24 years old engaged in heavy drinking, only 1.9% of those 75 years old and older did. (see table 15.1).

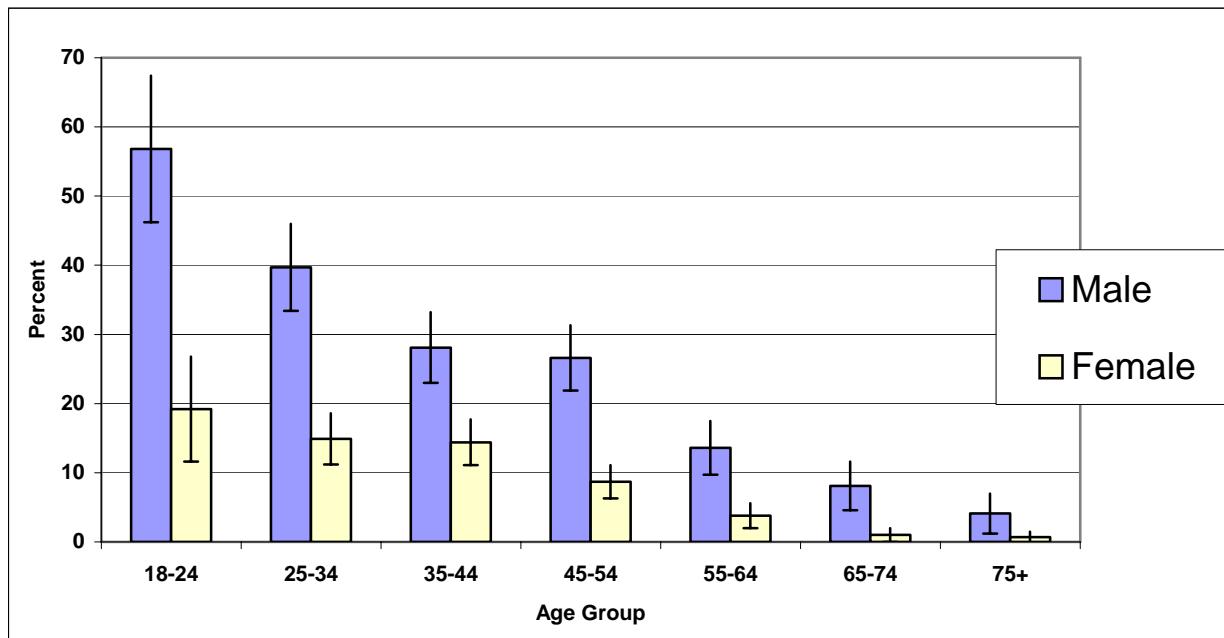A person is considered to binge if he or she drinks more than five drinks on one occasion. Among all adult Iowans, 18.6% reported at least one binge episode in the last 30 days. This is a small decrease from the 19% found in 2004. Although the trend for binge drinking has been more erratic than for heavy drinking, this also marks a mildly decreasing trend over the past four years (see figure 15.1).

Table 15.1: Binge and Heavy Drinking Among Iowans, 2005

DEMOGRAPHIC GROUPS	Binge Drinking		Heavy Drinking	
	%	C.I. (95%)	%	C.I. (95%)
TOTAL	18.6	(17.1-20)	5.6	(4.7-6.5)
SEX				
Male	28.1	(25.6-30.7)	8.0	(6.4-9.7)
Female	9.6	(8.2-11)	3.3	(2.6-4)
RACE/ETHNICITY				
White/Non-Hisp.	18.8	(17.3-20.3)	5.6	(4.7-6.5)
Black/Non-Hisp.	7.1	(0-14.9)	5.7	(0-13.2)
Other/Non-Hisp.	12.7	(3.8-21.7)	2.5	(0-6.5)
Hispanic	21.7	(12.7-30.8)	8.0	(1.5-14.5)
AGE				
18-24	38.4	(31.2-45.6)	10.8	(6-15.6)
25-34	27.5	(23.7-31.3)	6.7	(4.5-8.8)
35-44	21.3	(18.2-24.4)	6.0	(4.2-7.8)
45-54	17.6	(14.9-20.3)	5.3	(3.8-6.8)
55-64	8.6	(6.5-10.8)	3.9	(2.4-5.4)
65-74	4.3	(2.6-6)	3.1	(1.7-4.5)
75+	1.9	(0.7-3.1)	1.9	(0.9-2.9)
EDUCATION				
Less than H.S.	14.0	(8.9-19.2)	7.8	(3.4-12.2)
H.S. or G.E.D.	17.4	(15.1-19.7)	4.9	(3.7-6.2)
Some Post-H.S.	22.3	(19.1-25.5)	7.0	(5-9)
College Graduate	17.8	(15.3-20.3)	4.4	(3.1-5.6)
HOUSEHOLD INCOME				
Less than $15,000	14.0	(8-20)	7.1	(2.3-11.9)
$15,000- 24,999	16.2	(12.3-20.1)	6.4	(3.5-9.4)
$25,000- 34,999	17.6	(13.7-21.5)	4.7	(2.8-6.7)
$35,000- 49,999	15.9	(12.8-19)	5.0	(3.3-6.7)
$50,000- 74,999	24.3	(20.6-28)	6.7	(4.5-8.8)
$75,000+	23.5	(20-27.1)	6.1	(4.3-7.8)

Males binge much more than females (28.1% versus 9.6%). In addition, the likelihood of bingeing decreases with age from 38.4% for 18 to 24 years old to only 1.9% for those 75 years old and older. The large sex difference is true at every age (see figure 15.2). Unlike most risky behaviors, respondents with higher education and those with a higher household income were somewhat more likely to binge drink. Hispanics are also somewhat more likely to binge (see table 15.1).

Figure 15.2: Percentage of Iowans Who Binge by Age and Sex, 2005

Comparison with Other States

The percentage of people reporting heavy drinking in Iowa is above the median for the states and territories. Iowa's figure is 5.6% compared to the median of 4.9%. The percentage ranges from 2.7% to 7.5%.

For binge drinking, however, Iowa's figure of 18.6% is exceeded by only three states. The range is from a low of 8.3% to a high of 22.1% with a median of 14.9%. The top five binge drinking states are all in the upper Midwest.

Year 2010 Health Objectives for the Nation

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

16. PROBLEM GAMBLING

Background

The **Iowa Gambling Treatment Program,** which is 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% 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; 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, table games and simulcast wagering. The Iowa Racing and Gaming Commission and the Iowa Lottery address problem gambling behavior, stay informed on the issue, and cooperate with the Iowa Gambling Treatment Program.

Gambling Results

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

In 2005, 33.7% of all respondents, including those who replied they did not know or refused to answer, reported they had gambled in the last 12 months. This is higher than the 27.1% figure found in 2004. This is the first increase in the prevalence of self-reported gambling since 2001 (see figure 16.1).

More men than women reported gambling in the past 12 months. Gambling tended to be more prevalent for people with higher income. People with a high school education or some college gambled more than those with more extreme levels of education. Fewer Hispanics reported

Table 16.1: Percentage of Iowans Who Report They Have Gambled in the Past 12 Months, 2005

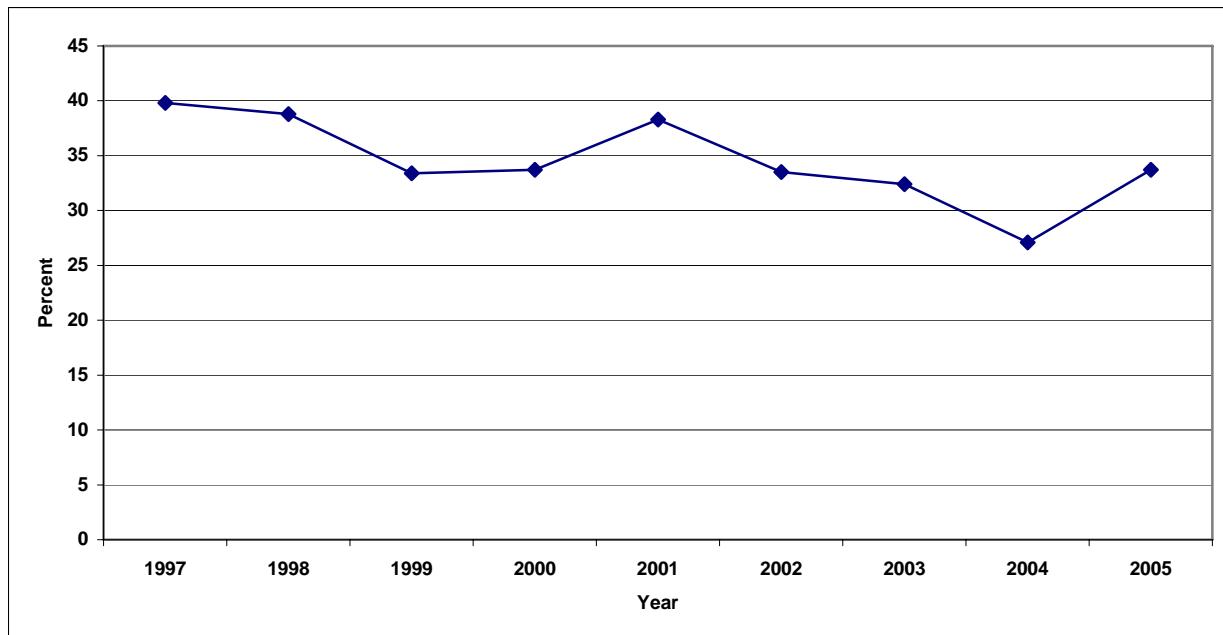| DEMOGRAPHIC GROUPS	Gambled %	C.I. (95%)
TOTAL	33.7	(32.1-35.3)
SEX		
Male	40.0	(37.4-42.7)
Female	27.8	(25.9-29.7)
RACE/ETHNICITY		
Non-Hispanic White	34.5	(32.8-36.2)
Non-Hispanic Black	30.2	(15.9-44.6)
Non-Hispanic Other	28.7	(17-40.5)
Hispanic	17.3	(9.2-25.3)
AGE		
18-24	35.8	(28.5-43.1)
25-34	38.0	(33.9-42)
35-44	31.7	(28.3-35.2)
45-54	34.5	(31.2-37.8)
55-64	34.2	(30.7-37.7)
65-74	34.1	(30-38.2)
75+	25.0	(21.3-28.8)
EDUCATION		
Less than H.S.	28.7	(22.7-34.7)
H.S. or G.E.D.	33.9	(31.2-36.6)
Some Post-H.S.	37.0	(33.7-40.3)
College Graduate	31.9	(29.1-34.7)
HOUSEHOLD INCOME		
Less than $15,000	26.1	(20-32.2)
$15,000- 24,999	31.6	(27.2-36.1)
$25,000- 34,999	33.0	(28.5-37.6)
$35,000- 49,999	34.3	(30.5-38.1)
$50,000- 74,999	37.7	(33.8-41.6)
$75,000+	38.6	(34.9-42.3)

gambling than did other race or ethnic groups (see table 16.1). The highest percentage of gambling during the past year was reported for men (40%), The lowest was reported for Hispanics (17.3%).

In 2005, 98.6% 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.

Year 2010 Health Objectives for Iowa

The goals in *Healthy Iowans 2010* for problem gambling are that no more than 1.6% of gamblers should report financial problems and no more than 1.7% should report personal problems caused by their gambling. In 2005, Iowa respondents reported levels better than both goals.

Figure 16.1: Trend for Prevalence of Gambling in Iowa 1997-2005

17. WOMEN'S HEALTH

Breast Cancer Screening

Background

Breast cancer is a malignant (cancerous) tumor that starts from cells of the breast. The disease occurs mostly in women, but men can get breast cancer as well.[52]

Other than skin cancer, breast cancer is the most common cancer among women. After lung cancer, it is the second leading cause of cancer death in women. About 214,640 women in the United States will be found to have invasive breast cancer in 2006. About 41,430 women will die from the disease this year. Currently, there are slightly over 2 million women living in the U.S. who have been treated for breast cancer.[4]

The chance of a woman having invasive breast cancer some time during her life is about 1 in 7. The chance of dying from breast cancer is about 1 in 33. Breast cancer death rates are going down. This decline is probably the result of earlier detection and improved treatment. In Iowa, 2,230 new cases of female breast cancer are projected to be diagnosed in 2006.[4] Four hundred thirty-three women died from breast cancer in 2004.[42]

The chance of getting breast cancer increases as a woman gets older. Nearly 8 out of 10 breast cancers are found in women over age 50.[4] Individual factors other than age that increase the risk for developing breast cancer include family history, a personal history of breast cancer, race, earlier abnormal breast biopsy, a long menstrual history, obesity after menopause, recent use of oral contraceptives, postmenopausal hormone therapy, never having children or having a first child after age 30, consuming one or more alcoholic beverages per day, and lack of exercise.[4]

Detecting breast cancer early is key to surviving the disease, and regular screening is key to detecting the disease early. There may be no detectable symptoms apart from screening until the disease is quite advanced.

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 age 40 years and older should be screened every one to two years with mammography.
- Women at higher than average risk of breast cancer should seek expert medical advice about whether they should begin screening before age 40 and the frequency of screening.

Most cancer organizations also believe that women should have a clinical breast exam by a health care provider as part of regular, routine care.

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.[39]

Breast Cancer Screening Results

In 2005, 92.2% of women surveyed reported ever having a clinical breast examination by a physician. The percentage increased with education and household income. It was most prevalent for women in the middle age groups, declining for those both younger and older. Also, non-Hispanic white women tend to have a higher percentage of having a CBE than non-white or Hispanic women (see table 17.1).

Table 17.1: Breast Examination Measures for Iowa Women, 2005

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	90.8	(89.4-92.2)	75.5	(73.5-77.5)	92.2	(90.8-93.6)
RACE/ETHNICITY						
Non-Hisp. White	90.9	(89.5-92.3)	75.4	(73.4-77.4)	93.2	(91.9-94.5)
Non-White or Hisp.	89.6	(80.4-98.9)	78.7	(67.8-89.6)	78.1	(67.8-88.3)
AGE						
18 - 39					88.1	(84.8-91.4)
40 - 49	84.8	(81.4-88.1)	72.1	(68-76.2)	96.9	(95.4-98.4)
50 - 59	94.4	(92.4-96.5)	77.1	(73.3-80.8)	97.0	(95.6-98.4)
60 - 69	95.4	(93.3-97.5)	79.2	(75-83.5)	96.2	(94.4-98)
70 & up	91.1	(88.7-93.5)	75.4	(71.8-79)	88.8	(86.1-91.4)
EDUCATION						
Less than H.S.	87.8	(82.7-93)	65.9	(57.9-73.9)	82.1	64.1-79.9
H.S. or G.E.D.	89.8	(87.6-92.1)	74.2	(71.1-77.3)	89.6	87.6-92.1
Some Post-H.S.	90.0	(87.2-92.7)	72.8	(68.8-76.8)	94.5	92.1-95.7
College Graduate	94.3	(91.9-96.7)	83.4	(79.9-86.9)	95.6	94.5-97.5
HOUSEHOLD INCOME						
Less than $15,000	81.5	(75.5-87.5)	63.1	(56-70.2)	84.1	73.6-84.9
$15,000- 24,999	88.0	(84.3-91.6)	65.7	(60.5-71)	87.7	82.5-90.7
$25,000- 34,999	90.8	(87-94.7)	75.9	(70.1-81.6)	92.5	89.2-95.4
$35,000- 49,999	91.2	(87.6-94.7)	74.8	(69.4-80.1)	96.5	95.8-98.9
$50,000- 74,999	91.6	(88.1-95.1)	78.2	(72.1-82.2)	96.2	95.2-99.0
$75,000+	95.6	(93.1-98)	86.5	(82.5-90.5)	97.3	92.4-97.9

When asked if they had ever had a mammogram, 90.8% of all female Iowa respondents ages 40 and older reported having one. Women in the middle age groups were more likely to have a

mammogram than those in younger and older groups. Also, women with higher education and income were more likely to have a mammogram (see table 17.1).

When asked if they had a mammogram in the past two years, 75.5% of all Iowa women over age 40 said they had. The percentages for women in the middle age groups were higher than those for women in younger and older groups. In addition, the women with a higher education level and with a higher household income tended to have higher percentages of having a mammogram in the past two years (see table 17.1).

Year 2010 Health Objectives for Iowa and the Nation

The national health objectives for the year 2010 include an increase to at least 70% of women age 40 and older who have had a mammogram within the preceding two years. The *Healthy Iowans 2010* goal is 85%. Since 75.5% of Iowa women age 40 years old and older have had mammograms within the past two years, the goal has been met for the nation but not for Iowa.

Cervical Cancer Screening

Background

Approximately 9,710 new cases of invasive cervical cancer and 3,700 cervical cancer-related deaths were projected to occur in 2006 in the United States.[4] Rates in the United States have decreased from 14.2 new cases per 100,000 women in 1973 to 7.5 cases per 100,000 women in 2002.[4]

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 to 90% within three years of implementation.[66] This reduction of mortality and morbidity, with introduction of the Pap test, is consistent and dramatic across populations.

The American Cancer Society recommends annual Pap tests begin about three years after a woman begins having sexual intercourse, but no later than age 21 years.[4] At the discretion of the woman's physician, less frequent exams may be necessary after three consecutive normal exams. More frequent tests are recommended if the immune system is weakened. Pap tests may not be necessary for women who have had a total hysterectomy.[4]

Cervical Cancer Screening Results

When asked if they ever had a Pap test, 95.3% of female respondents reported having it. Reported rates for ever having a Pap test ranged from 74% for women from ages 18 to 24 years old to 99.6% for women between age 35 and 44 years. The proportion of women who ever had a Pap test also increased with level of education. These numbers were so nearly at the maximum of 100% that there was little room to show differences (see table 17.2).

In 2005, 84.6% of female respondents reported that they had their last Pap test within the last three years. The percentage having a Pap test within three years increased with education and income. It was also higher for Whites than non-Whites or Hispanics. Women age 75 years and older had the lowest percentage (66.3%), while women who were college graduates had the highest percentage (93.7%) (see table 17.2).

Year 2010 Health Objectives for Iowa and the Nation

The national health objectives for the year 2010 include an increase to at least 97% in the proportion of women over the age of 18 who have ever had a Pap test. The figure for 2005 of 95.3% is close to this goal but falls slightly short.

Table 17.2: Proportion of Iowa Women Having Cervical Cancer Examinations, 2005

DEMOGRAPHIC GROUPS	Ever had a Pap test		Had Pap test in last 3 years	
	%	C.I. (95%)	%	C.I. (95%)
FEMALES	95.3	(93.9-96.7)	84.6	(82.6-86.7)
RACE/ETHNICITY				
Non-Hisp. White	95.8	(94.4-97.1)	85.0	(82.9-87.1)
Non-White or Hisp.	88.1	(78.7-97.5)	80.7	(68.8-92.5)
AGE				
18-24	74.0	(64.2-83.8)	71.6	(61.1-82.1)
25-34	98.6	(97.6-99.7)	92.7	(89.9-95.6)
35-44	99.6	(99-100)	91.2	(88.2-94.3)
45-54	99.1	(98.4-99.8)	88.0	(84.9-91.1)
55-64	98.6	(97.5-99.8)	85.2	(81-89.4)
65-74	98.5	(97.2-99.9)	82.7	(77.3-88.1)
75+	92.6	(89.8-95.4)	66.3	(59.7-72.8)
EDUCATION				
Less than H.S.	84.5	(75.2-93.8)	68.6	(56.5-80.6)
H.S. or G.E.D.	92.5	(89.6-95.5)	76.6	(72.4-80.9)
Some Post-H.S.	98.1	(96.4-99.8)	87.3	(84-90.7)
College Graduate	98.2	(96.8-99.6)	93.7	(91.5-95.8)
HOUSEHOLD INCOME				
Less than $15,000	94.2	(91.4-97.1)	75.2	(68.1-82.3)
$15,000- 24,999	92.4	(88-96.7)	73.2	(66.7-79.7)
$25,000- 34,999	96.5	(93.5-99.4)	82.4	(76.8-88)
$35,000- 49,999	98.6	(97.6-99.7)	90.9	(87.8-93.9)
$50,000- 74,999	97.9	(95.5-100)	92.3	(88.6-96)
$75,000+	96.8	(92.9-100)	91.1	(86-96.1)

Both the national and Iowa 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 2005 of 84.6% is somewhat short of this goal.

18. COLORECTAL CANCER SCREENING

Background

Colorectal cancer is the second leading cause of cancer-related deaths in the United States and in Iowa. In the United States in 2004, an estimated 146,940 new cases of colorectal cancer were diagnosed, and an estimated 56,730 deaths occurred. In Iowa in 2004, an estimated 2,100 new cases were diagnosed, and an estimated 740 deaths occurred.[44]

The one- and five-year relative survival rates for patients with colorectal cancer are 82.8% and 65.9% respectively. When colorectal cancers are detected in an early, localized stage, the five-year relative survival rate is 95%; however, only 39% of colorectal cancers are discovered at an early stage. After the cancer has spread regionally to involve adjacent organs or lymph nodes, the survival rate drops to 70%. Another 37% of colorectal cancers are diagnosed at this stage. The survival rate for persons with distant metastases is only 10%, and 18% of colorectal cancers are diagnosed at this stage.[44]

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.[5] Risk factors include:

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

Colorectal cancer usually develops from precancerous polyps in the colon and rectum. Screening tests can detect polyps so they can be removed before they turn into cancer.[17]

The American Cancer Society recommends that men and women at average risk begin regular screening for colorectal cancer at age 50 years. Recommended options include the following:
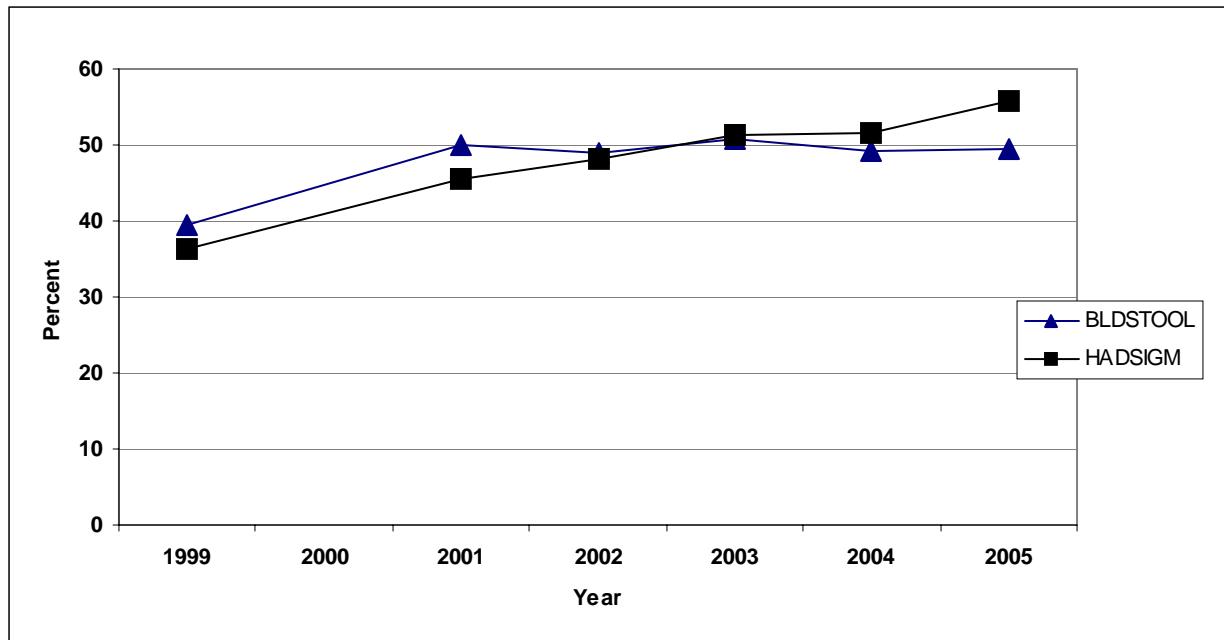
- A fecal occult blood test (FOBT). An FOBT is a chemical test that detects blood that is not visible in a stool sample. If results are normal, repeat FOBT annually.

- Flexible Sigmoidoscopy. Flexible sigmoidoscopy uses a hollow, lighted tube to visually inspect the wall of the rectum and part of the colon. If results are normal, repeat flexible sigmoidoscopy every five years.

- Colonoscopy. This is a test that uses a hollow, lighted tube to inspect the interior walls of the rectum and the entire colon visually. If it is normal, the test should be repeated every 10 years.

- Double-contrast barium enema. This is a series of x-rays of the colon and rectum. If it is normal, the test should be repeated every five years.[4]

Colorectal Cancer Screening Results

In 2005, 49.4% of Iowans 50 years old or older reported ever using a home blood-stool testing kit (FOBT). This is about the same as the 49.4% found in 2002 (see figure 18.1).

Figure 18.1: Ever Had Colorectal Cancer Screening Test by Year, 1999-2005

Females reported a higher percentage of use than males (56.8% versus 40.5%). In fact, females reported the highest prevalence of having the test. They were very closely followed by respondents with a college education (56.7%). Respondents with less than a high school education were least likely to use it (35.6%).

Of all respondents 50 years old or older, 27.5% had used the blood stool test within the past two years. This ranged from 16.8% among those with less than a high school education less to 33.7% among college graduates (see table 18.1).

In 2005, 55.9% of Iowans 50 years old or older reported ever having a sigmoidoscopy or colonoscopy screening test. This was an increase from the 51.6% found in 2004. This continues an upward trend seen over the last few years (see figure 18.1).

Table 18.1: Proportion of Colorectal Cancer screening in Iowans 50 Years Old or More, 2005

DEMOGRAPHIC GROUPS	Ever had blood stool test		Had Blood Stool Test in Past Two Year		Ever Had Sigmoidoscopy/ Colonoscopy		Had Sigmoidoscopy/ Colonoscopy in Past 5 Years	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	49.4	(47.3-51.5)	27.5	(25.7-29.4)	55.9	(53.8-58)	46.6	(44.5-48.7)
SEX								
Male	40.5	(37.1-43.8)	23.7	(20.8-26.6)	56.0	(52.6-59.4)	47.3	(43.9-47.7)
Female	56.8	(54.2-59.4)	30.7	(28.2-33.1)	55.8	(53.1-58.4)	46.0	(43.4-48.6)
EDUCATION								
Less than H.S.	35.6	(29-42.3)	16.8	(11.8-21.8)	49.5	(42.5-56.5)	40.3	(33.4-47.1)
H.S. or G.E.D.	48.3	(45.1-51.6)	25.6	(22.7-28.4)	55.4	(52.1-58.6)	47.1	(43.8-50.4)
Some Post-H.S.	48.8	(44.4-53.2)	28.4	(24.5-32.2)	55.0	(50.6-59.4)	45.5	(41.1-49.8)
College Graduate	56.7	(52.5-61)	33.7	(29.7-37.7)	59.8	(55.5-64)	49.0	(44.8-53.3)
HOUSEHOLD INCOME								
Less than $15,000	44.0	(37.7-50.3)	22.6	(17.4-27.8)	53.2	(46.8-59.7)	43.6	(37.3-49.9)
$15,000- 24,999	51.9	(46.9-56.8)	27.7	(23.3-32.1)	53.1	(48.1-58.1)	42.9	(38-47.8)
$25,000- 34,999	48.4	(42.6-54.1)	26.5	(21.3-31.7)	57.9	(52.1-63.7)	50.7	(44.8-56.5)
$35,000- 49,999	48.9	(43.4-54.4)	26.1	(21.4-30.8)	56.1	(50.6-61.6)	46.9	(41.4-52.3)
$50,000- 74,999	51.9	(46.1-57.8)	31.2	(25.9-36.6)	58.2	(52.4-64)	50.3	(44.4-56.1)
$75,000+	50.0	(44.6-55.4)	29.6	(24.7-34.4)	53.2	(47.9-58.6)	42.9	(37.6-48.2)

As was true with FOBT, education made the most difference in who was more likely to have the test. College graduates were most likely (59.8%), while those who had less than a high school education were least likely to have the test (49.5%). Unlike FOBT, there was no sex difference in prevalence of ever having a sigmoidoscopy or colonoscopy (see table 18.1).

Of all respondents 50 years old or older, 46.6% had a sigmoidoscopy or colonoscopy within the past five years.

Those with less education were less likely to have the test in the prescribed time. The lowest percentage (40.3%) was found among those with less than a high school education, while the highest percentage (50.7%) was found among those with incomes of $25,000 to $35,000 a year (see table 18.1). The relationship with income was not simple as middle income levels were higher than the extremes.

Starting in 2004, a number of additional questions were included in the survey concerning colorectal cancer screening.

A few findings from these are given here. A health care professional had talked to a respondent 50 years old or older about colorectal screening in 54.3% of the cases. When the health care professional talked about screening, 71.9% recommended having a sigmoidoscopy or colonoscopy. Of the respondents who had a test recommended, 78.8% then had the test. Even

more had a recommended test when the doctor recommended more than one, but the respondent did not have them all.

Out of all respondents 50 years old and older, 70.9% reported seeing any articles or advertising in the past six months about the risks of colorectal cancer. Television was the main medium of exposure to this advertising (41.3%).

Almost half of the respondents (47%) considered their own risk of colorectal cancer low. Only 4.7% considered it high.

19. DISABILITY AND ARTHRITIS

Disability

Background

The World Health Organization's *International Classification of Impairments, Disabilities, and Handicaps*, defines disability as "any restriction (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." Impairment is defined as "any loss or abnormality of psychological, physiological, or anatomical structure or function."[41]

The number of non-institutionalized people with limitations in usual activities due to chronic conditions was 34.3 million in 2003.[41] This is 12.2% of U.S. residents.[20,26]

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.[41]

In 1994, approximately 7.4 million Americans used Assistive Technology Devices (ATDs) to accommodate mobility impairments in the United States[26] Many other forms of assistive technology are used by those with various sensory and mental impairments.
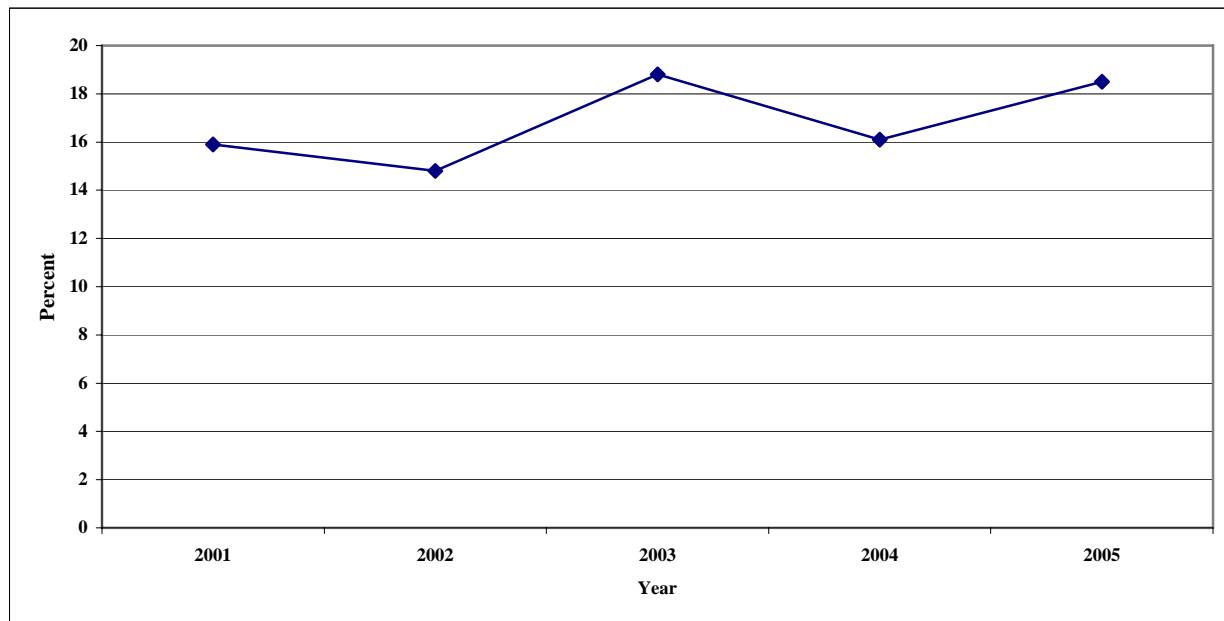
Disability Results

In 2005, 16.9% of Iowans responded "yes" to being limited in any way in activities due to an impairment or health problem. This is up from the 14.5% reported in 2004.

When asked whether they had a health problem requiring the use of special equipment, 5.9% of adult Iowans said they needed such items as a cane, a wheelchair, a special bed, or a special telephone. This is up from 5.1% in 2004.

Whether someone is considered to have a disability in this analysis is based on a positive response to either of these two questions. In 2005, 18.5% of respondents were considered to have a disability. This is up from 16.1% in 2004 (see figure 19.1). Although somewhat erratic, the trend in disability has been generally upward.

As shown in Table 19.1, older people, people with less education, and people with lower household incomes reported higher percentages of disability. Hispanics reported a lower percentage of disability than other race or ethnic groups. Of the five demographic variables analyzed, people age 18 to 24 years reported the lowest percentage (7.6%). Those with household incomes less than $15,000 reported 45.5% disability, which was the highest amount. The second highest reporting group was those age 75 and over (42.3%). This group is the most rapidly growing group in the population.

Figure 19.1: Disability Trend by Year, 2001 – 2005

Arthritis

Background

Arthritis is the name given to a group of over 100 different diseases and conditions that result in pain and reduction of functionality of the joints. The most common are osteoarthritis, rheumatoid arthritis, fibromyalgia, and gout.[18] Arthritis may be caused by a wearing down of cartilage, a change in bone composition, or inflammation in the joints.

Arthritis is the leading cause of disability in the United States.[69] It is surpassed only by heart disease as a cause of work disability. It also limits everyday activities and adversely affects the physical and mental health of those who are affected by it.

Arthritis Results

In 2005, 41.1% of Iowans reported having symptoms of pain, aching, or stiffness in or around a joint in the past 30 days. This condition had persisted for at least three months for 82.3% of these respondents. Both of these conditions together is considered to be chronic joint pain. This means that 33.8% of all Iowans were considered to be affected by chronic joint pain.

Table 19.1
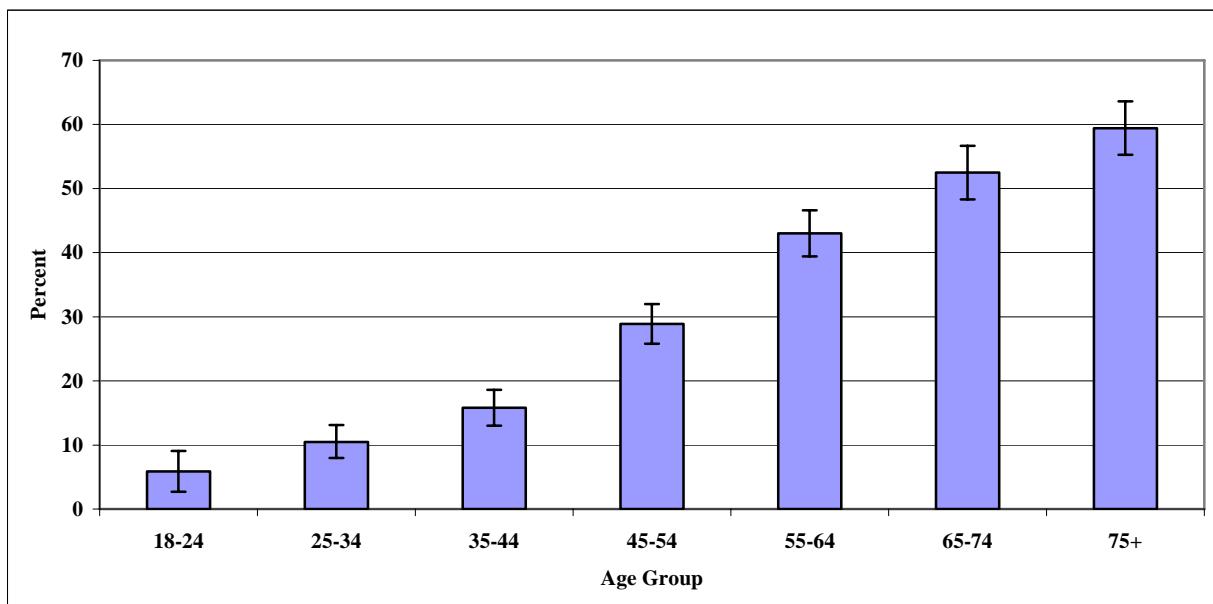### Percent Reporting Being Disabled, 2005

Demographic Groups	Disability	
	%	C.I. (95%)
TOTAL	18.5	(17.3-19.7)
SEX		
Male	17.7	(15.8-19.6)
Female	19.2	(17.7-20.7)
RACE/ETHNICITY		
White/Non-Hisp	18.7	(17.5-19.9)
Black/Non-Hisp	20.4	(9.6-31.1)
Other/Non-Hisp.	21.9	(10.9-32.8)
Hispanic	10.7	(5-16.4)
AGE		
18-24	7.6	(3.8-11.4)
25-34	11.1	(8.5-13.8)
35-44	11.6	(9.1-14.2)
45-54	18.6	(15.9-21.2)
55-64	25.4	(22.3-28.5)
65-74	24.8	(21.2-28.3)
75+	42.3	(38.2-46.4)
EDUCATION		
Less than H.S.	28.2	(22.7-33.8)
H.S. or G.E.D.	21.1	(19-23.3)
Some Post-H.S.	17.9	(15.6-20.2)
College Grad.	12.7	(11-14.5)
HOUSEHOLD INCOME		
<$15,000	45.5	(39.5-51.6)
$15,000- 24,999	28.0	(24.3-31.8)
$25,000- 34,999	19.1	(15.5-22.6)
$35,000- 49,999	15.8	(13-18.6)
$50,000- 74,999	11.9	(9.6-14.2)
$75,000+	8.3	(6.4-10.1)

Table 19.2:
Percent Having Been Told by a Doctor They Had Some Form of Arthritis, 2005

DEMOGRAPHIC GROUPS	Told by doctor you have Arthritis	
	%	C.I. (95%)
TOTAL	27.4	(26-28.8)
SEX		
Male	23.2	(21.2-25.2)
Female	31.4	(29.5-33.2)
RACE/ETHNICITY		
White/Non-Hisp	28.1	(26.6-29.5)
Black ./Non-Hisp	27.6	(15-40.2)
Oth. Race/Non-Hisp.	31.8	(19.6-44)
Hispanic	7.4	(3.4-11.4)
AGE		
18-24	5.9	(2.7-9.1)
25-34	10.5	(8-13.1)
35-44	15.8	(13-18.6)
45-54	28.9	(25.8-32)
55-64	43.0	(39.4-46.6)
65-74	52.5	(48.3-56.7)
75+	59.4	(55.3-63.6)
EDUCATION		
Less Than H.S.	35.1	(29.4-40.8)
H.S. or G.E.D.	31.9	(29.4-34.3)
Some Post-H.S.	26.7	(24.1-29.4)
College Graduate	20.2	(18-22.4)
HOUSEHOLD INCOME		
<$15,000	44.6	(38.6-50.6)
$15,000- 24,999	36.8	(32.9-40.8)
$25,000- 34,999	31.3	(27-35.5)
$35,000- 49,999	24.2	(21-27.4)
$50,000- 74,999	21.8	(18.9-24.7)
$75,000+	18.9	(16.2-21.7)

A doctor had told 27.4% of Iowans that they had some form of arthritis. More women than men reported having arthritis. The prevalence decreased with education and income. Far fewer Hispanics reported having arthritis than other race or ethnic groups (see table 19.2). Age was the strongest demographic factor in determining having arthritis, however. Over half (59.4%) of people age 75 and over had been told they had arthritis, while only 5.9% of those age 18 to 24 years had been told this (see figure 19.2).

Figure 19.2: Percent of Iowans with Arthritis by Age, 2005

People who had not been told they had arthritis but had chronic joint pain may be considered to have possible arthritis. In 2005 15.3% of Iowans met this criterion.

Of people who had been told they had arthritis or who reported having joint pain in the past 30 days 28.9% said they were limited in their activities by arthritis. Of the people with arthritis or possible arthritis, most said they could do most things they wanted to do (47.7%). However, 5.1% said they could hardly do anything they wanted to do

For people with arthritis or possible arthritis, 24.9% had been told by a doctor to lose weight to control their arthritis, while 50.1% had been told by a doctor to get more physical activity to improve their arthritis. Only 10% reported having taken a class to learn to manage problems related to their arthritis.

Comparison with Other States

The percent of people reporting being disabled ranged from 10.9% to 28.6% with a median of 20.1%. Iowa ranked 14th from the least people affected by disability at 18.5%.

For diagnosed arthritis the range was from 16.6% to 34.9% with a median of 27%. Here Iowa was a little above the median at 27.4% with arthritis. This is not too bad of figure considering the high numbers of elderly in Iowa and that the state prevalences are not adjusted to control for differences in age.

Year 2010 Health Objectives for the Nation

The Healthy People 2010 goal for people who are limited in their activities by arthritis is 21%. In Iowa, the percent of those with doctor diagnosed arthritis or possible arthritis (chronic joint symptoms) who report being limited is 28.9%. This is much higher than the HP 2010 goal.

20. VISUAL IMPAIRMENT AND ACCESS TO EYE CARE

Background

The sense of vision is relied upon most for information about the environment around us. Visual impairment is one of the four most significant contributors to the loss of independence among older Americans. Loss of vision can pose difficulties in managing household tasks, and getting to places outside the home. It can interfere with work and leisure activities.

Visual impairment can involve a large range of ability. Someone can be totally unable to see anything or they may have light perception. To be legally blind someone must have a visual acuity of 20/200 or less in the better eye after correction or a visual angle of less than 20 degrees in diameter. Someone may be considered visually impaired if they have a corrected acuity of 20/40 or less in the best eye. Some visual impairment may only apply at particular distances such as near-sightedness or far-sightedness.

As the population ages, the number of people at risk for age-related eye diseases increase. The number of Americans with age-related eye disease and resulting vision impairment is projected to double within the next three decades.[44]

The leading causes of vision impairment in the United States are:

- cataracts,
- glaucoma,
- macular degeneration, and
- diabetic retinopathy.[67]

A cataract is a clouding of the eye's lens. Glaucoma is a progressive eye disease where pressure within the eye damages the optic nerve. It has no symptoms in the early stages, and occurs so slowly that the sufferer may not notice the deterioration until it is quite advanced. Age-related macular degeneration affects the part of the eye that allows a sharp image of objects directly focused upon. Diabetic retinopathy is a deterioration of the blood vessels of the retina of the eye as a complication of diabetes.

Early intervention and regular eye exams are crucial in maintaining good vision. Between 40% and 50% of all blindness is preventable. For those already visually impaired, corrective action can often be taken either through treatment or rehabilitation.

Visual Impairment and Access to Eye Care Results

The BRFSS survey asked respondents 50 years old and older 12 questions about their vision and eye care.

Most respondents reported no difficulty seeing. No difficulty identifying someone from across the street was reported by 87.8%, while 93.5% reported no difficulty watching TV. A lower percentage of 75.7% reported no difficulty reading print such as the newspaper.

Around 15.1% of Iowans reported not visiting an eye care specialist in the past two years. When asked the reason for not visiting an eye care specialist most (65.6%) reported no reason to go, i.e. no symptom or problem. When asked how long it had been since they had a dilated eye exam, respondents reported 23.4% had not had such a visit in the past two years.

Less than half of respondents, 48.2%, reported having health insurance that covered vision care.

The prevalence of three conditions affecting vision was determined. When asked if they had cataracts, 19% said they did. Another 15.3% said they had them but had them removed. Glaucoma was reported by 5.9% of respondents. Macular degeneration was reported by 5.4% of respondents.

Table 20.1: Prevalence of Conditions Affecting Vision in Iowa, 2005

DEMOGRAPHIC GROUPS	Have Cataracts		Have Glaucoma		Have Macular Degeneration	
	%	C.I. (95%)	%	C.I. (95%)	%	C.I. (95%)
TOTAL	19.0	(17.4-20.6)	5.9	(4.9-6.9)	5.4	(4.5-6.3)
SEX						
Male	16.3	(13.8-18.7)	4.3	(2.9-5.8)	4.4	(3.1-5.7)
Female	21.2	(19.1-23.4)	7.2	(5.8-8.6)	6.2	(4.9-7.4)
RACE/ETHNICITY						
White/Non-Hisp	18.9	(17.2-20.5)	5.8	(4.9-6.8)	5.4	(4.5-6.4)
Non-White or Hisp.	22.1	(12.2-32.1)	7.2	(0-14.4)	3.7	(0-8.2)
AGE						
50-64	8.6	(7.1-10.2)	2.8	(1.9-3.8)	1.6	(0.9-2.2)
65-74	32.9	(28.9-36.8)	4.8	(3-6.7)	5.2	(3.3-7.1)
75+	29.7	(25.7-33.6)	14.0	(11-16.9)	14.2	(11.3-17.1)
EDUCATION						
Less Than H.S.	25.8	(19.7-31.9)	8.4	(5-11.8)	7.1	(3.8-10.4)
H.S. or G.E.D.	20.6	(18.1-23.1)	6.5	(4.9-8.1)	5.8	(4.2-7.3)
Some Post-H.S.	19.6	(16.2-23)	6.4	(4.2-8.6)	5.8	(4-7.6)
College Graduate	13.3	(10.5-16)	3.4	(2-4.8)	3.7	(2.3-5)
HOUSEHOLD INCOME						
Less than $15,000	24.8	(19.4-30.2)	11.6	(7.6-15.6)	10.5	(6.5-14.6)
$15,000- 24,999	24.7	(20.4-29)	9.2	(6.4-12.1)	8.8	(6-11.6)
$25,000- 34,999	23.3	(18.5-28.2)	5.4	(3-7.9)	5.7	(3.1-8.4)
$35,000- 49,999	17.4	(13.4-21.4)	4.7	(2.3-7.1)	3.0	(1.2-4.9)
$50,000- 74,999	13.2	(9.5-176)	1.2	(0.2-2.1)	2.3	(0.8-3.8)
$75,000+	9.5	(6.5-12.4)	3.7	(1.6-5.8)	2.8	(1.4-4.3)

Table 20.1 shows that prevalence of these conditions vary with the demographics of the respondent. Nine percent of respondents reported they had a workplace eye injury at some time. However, 56.5% reported missing no days of work due to this injury.

21. IMMUNIZATION

Background

Influenza is a potentially life-threatening, contagious disease that is caused by a virus. When influenza attacks the lungs, the lining of the respiratory tract is damaged. The tissues temporarily become swollen and inflamed, but usually heal within two or more weeks.[9]

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 64,098 deaths in 2002 in the U.S. and 884 in Iowa in 2004.[42] Influenza caused 727 deaths alone, with 42 in Iowa.[46]

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 old 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% effective in preventing influenza and reducing the severity of the influenza. The best time 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
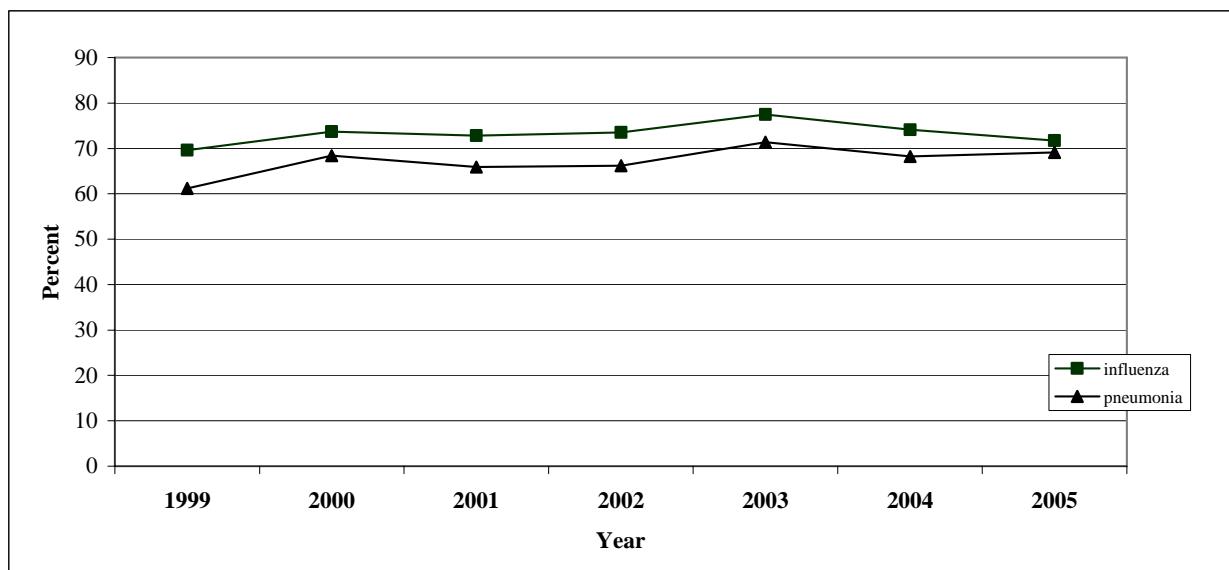- diseases or treatments that depress immunity.

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

In the United States, the estimated annual incidence of pneumococcal bacteremia among persons 65 years old and older is 50 to 83 cases per 100,000 persons,[25] and such infections are associated with a high case-fatality rate. The Advisory Committee on Immunization Practices (ACIP) recommends that persons aged 65 years old or older receive at least one lifetime dose of pneumococcal vaccine[25] and annual influenza vaccination.[24]

Immunization Results

In 2005, 71.7% of Iowans age 65 and over reported having a flu shot in the past 12 months. This is lower than the 74.1% found in 2004. There was a fairly steady upward trend until 2003. Since then the prevalence of immunization has fallen off (see figure 21.1). This may possibly be due to the negative effect of the shortage of flu vaccine in the 2004-2005 flu season.

Figure 21.1: Immunizations in Iowans Age 65 and Over, 1999 – 2005

Among all adults, 31.7% had a flu immunization in the past 12 months. This was either in the form of a flu shot or Flumist[TM] nasal spray. Females, older people, and Whites were more likely to have a flu immunization. The lowest percentage was found among Hispanics 121.4%), while the highest was for those age 75 and older (78.7%) (see table 21.1).

In 2005, 69.1% of Iowans age 65 and over reported ever having a pneumonia vaccination. This is slightly higher than the 68.2% found in 2004. The trend for pneumonia vaccination has closely mirrored that for influenza vaccination until this year (see figure 21.1). The fact that pneumonia vaccination showed a small increase, while influenza showed a decline further supports the decline being due to the vaccine shortage.

Among all adults, 24.4% had ever received a pneumonia vaccination. Older people, people with lower education, and people with lower income, were more likely to have pneumonia vaccinations. Hispanics were less likely to have a pneumonia vaccination. Age made the greatest difference in whether someone had a pneumonia vaccination. The lowest percentage of pneumonia vaccination occurred among those who were 25 to 34 years old (5.9%), while those 75 years old and older were highest by far (77.6%) (see table 21.1).

Table 21.1: Percentage of Immunizations in Adult Iowans, 2005

DEMOGRAPHIC GROUPS	Influenza		Pneumonia	
	%	**C.I. (95%)**	**%**	**C.I. (95%)**
TOTAL	31.7	(30.2-33.2)	24.4	(23.1-25.8)
SEX				
Male	28.0	(25.7-30.2)	23.4	(21.3-25.6)
Female	35.3	(33.3-37.3)	25.4	(23.6-27.1)
RACE/ETHNICITY				
White/Non-Hispanic	32.7	(31.2-34.3)	24.9	(23.5-26.3)
Black/Non-Hispanic	24.3	(12.5-36.1)	25.5	(12.7-38.3)
Oth. Race/ Non-Hisp.	25.4	(13.8-37.1)	27.0	(14.6-39.3)
Hispanic	11.4	(5.1-17.8)	9.8	(4.7-14.9)
AGE GROUP				
18-24	22.6	(16.3-28.9)	16.5	(10.7-22.4)
25-34	16.8	(13.9-19.7)	5.9	(3.9-7.9)
35-44	17.9	(14.9-20.8)	7.7	(5.7-9.7)
45-54	21.3	(18.5-24.1)	13.0	(10.7-15.2)
55-64	35.0	(31.5-38.4)	25.7	(22.5-28.9)
65-74	63.7	(59.6-67.7)	59.6	(55.5-63.8)
75+	78.7	(75.4-82.1)	77.6	(74.2-81.1)
EDUCATION				
Less than H.S.	30.7	(25.6-35.8)	30.7	29.7-40.7
H.S. or G.E.D.	34.4	(31.9-37)	29.1	25.7-30.3
Some Post-H.S.	30.0	(35.2-41.1)	23.3	18.5-23.1
College Graduate	30.4	(27.8-33)	17.8	13.9-17.8
HOUSEHOLD INCOME				
Less than $15,000	36.1	(30.8-41.4)	36.3	30.9-41.0
$15,000- 24,999	39.3	(35.1-43.5)	36.3	28.7-36.0
$25,000- 34,999	34.8	(30.3-39.4)	28.7	24.4-31.9
$35,000- 49,999	27.8	(24.4-31.3)	19.5	16.5-22.0
$50,000- 74,999	25.2	(21.9-28.6)	14.0	10.5-15.7
$75,000+	28.6	(25.6-32.1)	16.2	9.97-14.9

Those who had ever been told they had diabetes or asthma were more likely to receive their flu and pneumonia vaccinations than those who had not been told they had these conditions. Of all respondents ever told they had diabetes, 62.9% had a flu vaccination and 64% had a pneumonia vaccination. The figures for those not told they had diabetes were 29.3% and 21.3% respectively.

Of all those ever told they had asthma, 32.8% had their flu vaccination, while 34.6% had a pneumonia vaccination. For those never told they had asthma, the figures were 31.6% and 23.1% respectively.

Comparison with Other States

The median percentage 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 65.5% in 2005. Iowa ranked ninth highest in the proportion age 65 and over who had a flu shot.

The median percentage of the population age 65 years old and older who ever had a pneumonia vaccination was 65.7%. Here, Iowa ranked very similarly to how it did with influenza vaccination. Iowa ranked thirteenth highest of all reporting states and territories.

Year 2010 Health Objectives for Iowa and the Nation

The *Healthy Iowans 2010* and *Healthy People 2010* goals for having both a flu shot in the past 12 months and ever having a pneumonia vaccination for people age 65 and over are 90%. Iowa's 2005 figures of 71.7% for having a flu shot and 69.1% for ever having a pneumonia vaccination, although among the highest in the nation, have a long way to go to meet these targets.

22. HIV/AIDS

Background

The HIV epidemic has now been with us for twenty-five years.[30] Estimates suggest that 462,792 Americans were living with HIV or AIDS at the end of 2004, and at least 40,000 new infections occur each year in the United States.[36] HIV infection, the precursor to AIDS, was the sixth leading cause of death among people 25 to 44 years old in 2002.[10] It accounted for 5.7% of deaths from all causes in this age group in the United States. AIDS accounted for 174.7 years of potential life lost before the age of 75 years per 100,000 population in the United States in 2000. This was 2.3% of all years of potential life lost.[21]

While "men who have sex with men" remains the largest exposure group, many of the new diagnoses are occurring among African Americans, Hispanics, women and people infected heterosexually. These 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 2.1% of the population, but account for 21% of all Iowans living with HIV/AIDS. The Hispanic population in Iowa is 2.8%, but Hispanics account for 6% of all Iowans living with HIV/AIDS. Nearly 80% of HIV cases are among men.[45]

The number of persons living with HIV/AIDS continues to increase. In 2005 there were more new HIV cases diagnosed in Iowa than in any other year since records have been kept. Approximately 1,342 persons in Iowa were living with HIV/AIDS on December 31, 2005.[45]

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.[38]

It is important that people who may be at risk of catching HIV be tested. This can prevent them from unknowingly spreading the disease and permit early treatment before the disease advances to AIDS.

HIV/AIDS Results

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

Only 28.5% of respondents reported ever being tested for HIV, not including as part of a blood donation. This is a bit lower than the 2004 finding of 29% and is the lowest figure ever reported. The trend in having an HIV test has been downward for the past several years (see figure 22.1).

The largest proportion of respondents tested was among non-White non-Hispanics (51.1%). The smallest proportion reporting ever being tested was 12% of those between ages 55 to 64 years old (see table 22.1). People of higher education, but of lower income, were more likely tested.

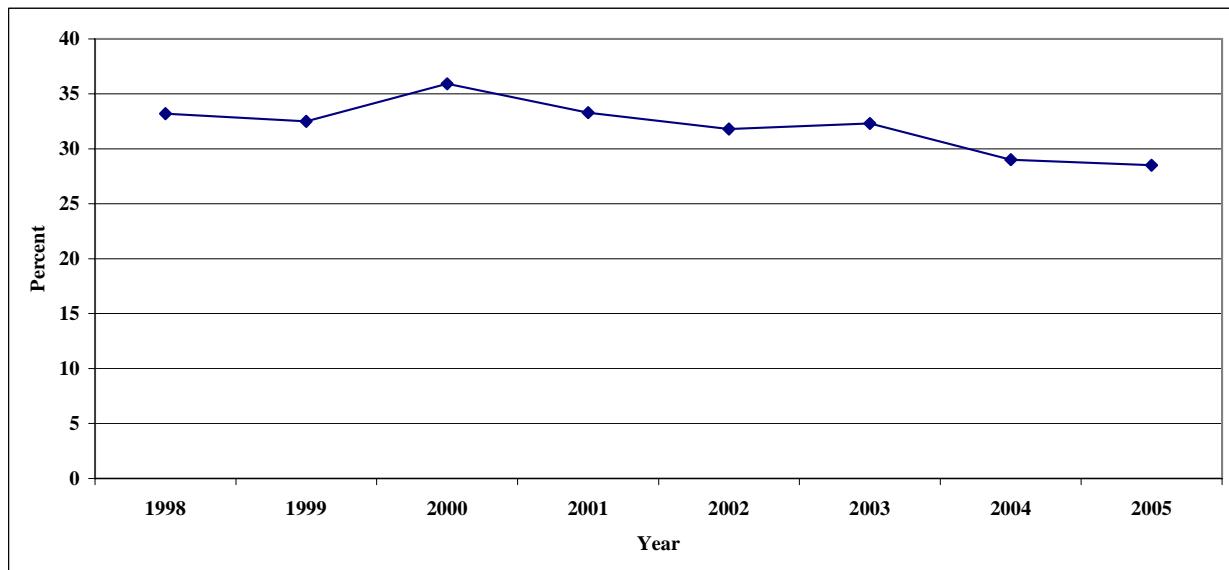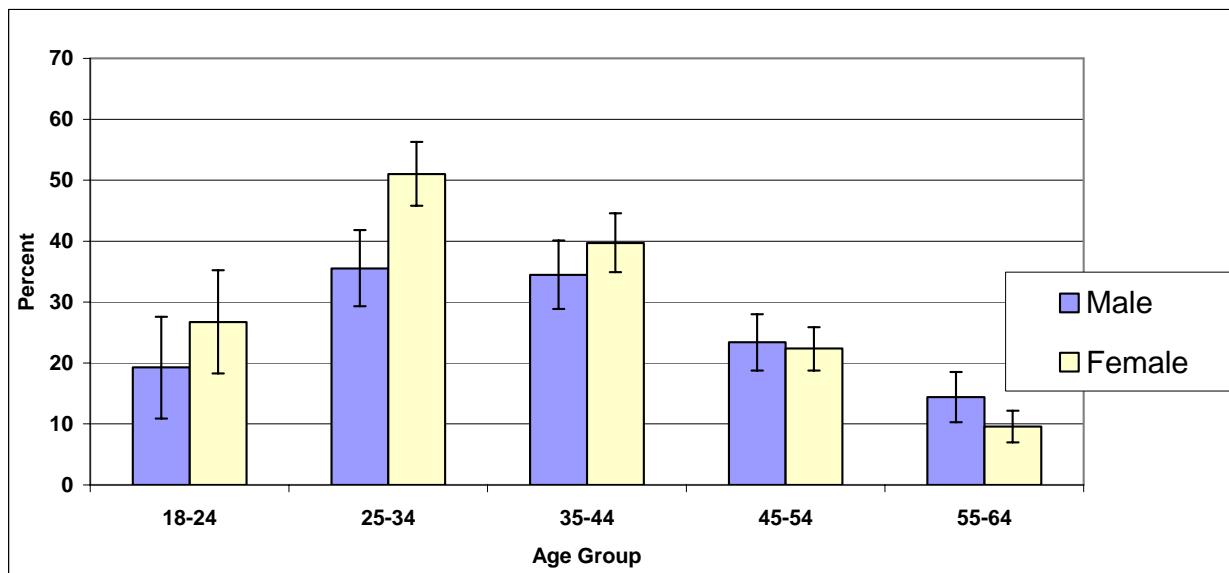**Figure 22.1: Percentage of Iowans Reporting Ever Being Tested for HIV 1998-2005**

Figure 22.2: Percentage of Iowans Reporting Ever Being Tested for HIV by Age and Gender, 2005

Females were somewhat more likely to have an HIV test than males. There is an interesting interaction between sex and age, however. Figure 22.2 shows that in the younger age groups, many more women have been tested, while there is little difference in the older age groups.

Table 22.1: Percentage of Iowans Tested for HIV/AIDS, 2005

DEMOGRAPHIC GROUPS	Had HIV Test %	C.I. (95%)
TOTAL	28.5	(26.7-30.2)
SEX		
Male	26.3	(23.6-28.9)
Female	30.7	(28.4-33)
RACE/ETHNICITY		
Non-Hispanic White	27.5	(25.7-29.3)
Non-Hispanic Other	51.1	(39.9-62.4)
Hispanic	29.5	(19.6-39.4)
AGE		
18-24	22.8	(16.9-28.8)
25-34	43.2	(39-47.4)
35-44	37.1	(33.4-40.8)
45-54	22.9	(20-25.8)
55-64	12.0	(9.5-14.4)
EDUCATION		
Less than H.S.	26.4	(19-33.9)
H.S. or G.E.D.	23.3	(20.3-26.4)
Some Post-H.S.	31.4	(28-34.9)
College Graduate	31.2	(28.2-34.1)
HOUSEHOLD INCOME		
Less than $15,000	34.2	(26.8-41.7)
$15,000- 24,999	33.7	(27.6-39.9)
$25,000- 34,999	33.6	(27.8-39.3)
$35,000- 49,999	30.7	(26.5-35)
$50,000- 74,999	24.8	(21.4-28.3)
$75,000+	28.1	(24.6-31.7)

Each of the respondents who had received an HIV test was asked to describe where the test occurred. Respondents gave a variety of answers. The most commonly reported place was "hospital and clinic" (49.9%).

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. These conditions involved sexual activity and drug use. Only 2.7% thought any of these conditions applied to them.

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.

Table 22.1 shows that all minority groups were more likely to have had an AIDS test. Table 22.2 shows that all minority groups were more likely to have at least one of the risk factors.

Table 22.2: Comparison of Race and Ethnic Groups on HIV/AIDS Measures in Iowa, 2005

Race/Ethnicity	Any High Risk Situations Apply
White non-Hispanic	2.7
Other non-Hispanic	3.4
Hispanic	3.7

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APPENDIX 1

Year 2010 Health Objectives for the Nation: State Summary of BRFSS[1] Data for 2005

Healthy People 2010[2] Objective[3]	Yr 2010 Target	Iowa, 2005
Health Insurance (Objective #1.1) Ages ≥18	100%	89.3%
Specific Source of Ongoing Primary Care (Objective #1.4c) Ages ≥18	96%	78.8%
Limitation in Activities Due to Arthritis (Objective #2.2) Adults with Chronic Joint Symptoms, Ages ≥18	21%	28.9%
Pap Test, Ever Had (Objective #3.11a) Women, Ages ≥18	97%	95.3%
Pap Test, Within Past Three Years (Objective #3.11b) Women, Ages ≥18	90%	84.6%
Fecal Occult Blood Test (FOBT) Within Past Two Years (Objective #3.12a) Ages ≥50	50%	27.5%
Sigmoidoscopy, Ever Had (Objective #3.12b) Ages ≥50	50%	55.9%
Mammogram, Within Past Two Years (Objective #3.14) Women, Ages ≥40	70%	75.5%
Cholesterol Screening, Within Past Five Years (Objective #12.15) Ages ≥18	80%	72.2%
Influenza Immunization, Within Past Year (Objective #14.29a) Ages ≥65	90%	71.7%
Pneumococcal Pneumonia Vaccination, Ever Had (Objective #14.29b) Ages ≥65	90%	69.1%
Obese, BMI ≥ 30 (Objective #19.2) Ages ≥20	15%	26.1%
Reduce proportion of adults with high blood pressure	16%	**24.5%**
No Leisure Time Physical Activity (Objective # 22.1) Ages ≥18	20%	24.7%
Regular, Moderate Physical Activity, , 5 or more Days/Week for 30 or more Minutes or vigorous physical activity 20 minutes or more per day, three or more days per week (Objective #22.2) Ages ≥18	30%	46.2%

Healthy People 2010[2] Objective[3]	Yr 2010 Target	Iowa, 2005
Regular, Vigorous Physical Activity, 3 or more Days/Week for 20 or more Minutes (Objective #22.3) Ages ≥18	30%	22.8%
Binge Drinking, During the Past Month (Objective #26.11c) Ages ≥18	6%	18.6%
Cigarette Smoking (Objective #27.1a) Ages ≥18	12%	20.4%

[1] Behavioral Risk Factor Surveillance System

[2] Public Health Service. Healthy People 2010: National Health Promotion and Disease Prevention Objectives--full report with commentary. Washington, DC: U.S. Department of Health and Human Services, 2000.

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

Year 2010 Health Objectives for Iowa:
State Summary of BRFSS[1] Data for 2005

Healthy Iowans 2010[2] Objective[3]	Yr 2010 Target	Iowa, 2005
Health Insurance (Objective #1-1) Ages < 65	100%	87.0%
Mammogram, Within Past Two Years (Objective #2-5.1) Women, Ages $\geq$ 40	85%	75.5%
Pap Test, Within Past Three Years (Objective #2-6.1) Women, Ages $\geq$ 18	90%	84.6%
Fecal Occult Blood Test (FOBT) Within Past Two Years **(Objective #2-7.1)** Ages $\geq$ 50	55%	27.5%
Sigmoidoscopy, Ever Had (Objective #2-7.1) Ages $\geq$50	64%	55.9%
Diabetes Prevalence (Objective #3-1)	7.1%	6.8%
Achieve identification and control of high blood pressure (Objective 9.3)	14.9%	24.5%
Reduce adult population with high blood cholesterol (Objective 9.4)	28.5%	35.6%
Influenza Immunization, Within Past Year (Objective #10-2) Ages $\geq=$ 65	90%	71.7%
Pneumococcal Pneumonia Vaccination, Ever Had (Objective #10-2) Ages $\geq=$ 65	90%	69.1%
Prevent a further rise in the percent of Iowans who are overweight (Objective 13.3)	38.3%	37.1%
Prevent a further rise in the percent of Iowans who are obese (Objective 13.3)	22.9%	25.4%
Meet the minimum daily average goal of at least five fruits and vegetables (Objective 13-5)	50%	19.5%
Meet the minimum recommendation of at least 30 minutes of moderate physical activity 5 days a week (Objective 16-9)	---	46.2%
Adults with asthma having asthma-related emergency or urgent care visits (Objective 18-1) Ages $\geq=$ 18	12.6%	12.6%
Do not increase percent of gamblers where gambling led to financial problems (Objective 20-7)	1.6%	1.1%
Do not increase percent of gamblers where gambling led to personal problems (Objective 20-7)	1.7%	1.2%
Exposure to secondhand Smoke at Work (Objective 21-4)	10%	12.7%
Not allowing smoking anywhere in the home (Objective 21.6)	69%	71.9%
Not allowing smoking anywhere inside vehicles (Objective 21.6)	65%	67.4%

Healthy Iowans 2010[2] Objective[3]	Yr 2010 Target	Iowa, 2005
Cigarette Smoking (Objective 21.7) Ages $\geq$ 18	18%	20.4%
Cigarette Smoking (Objective 21.7) Ages 18-24	28%	25.9%
Cigarette Smoking (Objective 21.7) Household Income < $25,000	25%	29.6%
Cigarette smokers who stopped smoking cigarettes for a day or more (Objective #21-7)	75%	53.1%

[1]Behavioral Risk Factor Surveillance System

[2]Iowa Department of Public Health. Healthy Iowans 2010 Mid-Course Revision, 2005.

[3]In some cases, BRFSS definitions of objectives differ slightly from those in Healthy Iowans2010. See Healthy Iowans2010 for the exact definition of the objective.

APPENDIX 2

Iowa 2005 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: Healthy Days - Health-related Quality of Life

2.1. 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

2.2. 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 Q2.1 also "None", skip to next module**

If Q2.1 and Q2.2=88 (None), ⇨ Go to next section.

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

__ __ Number of days
8 8 None

Section 3: Health Care Access

3.1. 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

3.2. 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

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

1 Yes
2 No

3.4. 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 past yr (anytime less than 12 months ago)
2 Within past 2 yrs (one year but less than 2 years ago)
3 Within past 5 yrs (two years but less than 5 years ago)
4 5 or more years ago
8 Never

Section 4: Exercise

4.1. 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 5: Diabetes

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

(If "Yes" and respondent is female, ask: "Was this only when you were pregnant?")
(If Respondent says pre-diabetes or borderline diabetes, use response code 4.)

1 Yes
2 Yes, but female told only during pregnancy
3 No
4 No, pre-diabetes or borderline diabetes

Module 1: Diabetes

To be asked following core Q5.1 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 "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 "A one C"?
___ ___ Number of times [76 = 76 or more]
8 8 None
9 8 Never heard of "A one C" test

If 5 5 5 "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 6: Hypertension Awareness
6.1. Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure?
1 Yes
2 Yes, but female told only during pregnancy ⇨**Go to next section**
3 No ⇨**Go to next section**
4 Told borderline high or pre-hypertensive ⇨Go to next section

6.2. Are you currently taking medicine for your high blood pressure?
1 Yes
2 No

Section 7: Cholesterol Awareness
7.1. Blood cholesterol is a fatty substance found in the blood. Have you EVER had your blood cholesterol checked?
1 Yes
2 No ⇨**Go to next section**

7.2. 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

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

Section 8: Cardiovascular Disease Prevalence
Now I would like to ask you some questions about cardiovascular disease.
Has a doctor, nurse, or other health professional EVER told you that you had any of the following?
For each, tell me **"Yes"**, **"No"**, or you're **"Not sure"**:
8.1. (Ever told) you had a heart attack, also called a myocardial infarction?
1 Yes
2 No

8.2. (Ever told) you had angina or coronary heart disease?
1 Yes
2 No

8.3. (Ever told) you had a stroke?
1 Yes
2 No

Section 9: Asthma
9.1. Have you ever been told by a doctor, nurse or other health professional that you had asthma?
1 Yes
2 No ⇨**Go to next section**

9.2. Do you still have asthma?
1 Yes
2 No

Section 10: Immunization
10.1. A flu shot is an influenza vaccine injected in your arm. During the past 12 months, have you had a flu shot?
1 Yes
2 No

10.2. During the past 12 months, have you had a flu vaccine that was sprayed in your nose? The flu vaccine that is sprayed in the nose is also called FluMist™.
1 Yes
2 No

10.3. A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot?.
1 Yes
2 No

Section 11: Tobacco Use
11.1. Have you smoked at least 100 cigarettes in your entire life?
5 packs = 100 cigarettes
1 Yes
2 No ⇨**Go to next section**

11.2. Do you now smoke cigarettes every day, some days, or not at all?
1 Every day
2 Some days
3 Not at all **Go to next section**

11.3. During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking?
1 Yes
2 No

Section 12: Alcohol Consumption
12.1. During the past 30 days, have you had at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor?
1 Yes
2 No ⇨**Go to next section**

12.2. 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 next section**

12.3. One drink is equivalent to a 12 ounce beer, a 5 ounce glass of wine, or a drink with one shot of liquor. During the past 30 days, on the days when you drank, about how many drinks did you drink on the average?
__ __ Number of drinks

12.4. Considering all types of alcoholic beverages, how many times during the past 30 days did you have 5 or more drinks on one occasion?
__ __ Number of times
8 8 None

12.5. During the past 30 days, what is the largest number of drinks you had on any occasion?
_ _ Number

Section 13: Demographics
13.1. What is your age?
__ __ Code age in years

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

13.3. 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]**

If more than one response to Q13.3, continue. Otherwise, go to Q13.5

13.4. 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]

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

13.6. How many children less than 18 years of age live in your household?
__ __ Number of children
8 8 None

13.7. 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)

13.8. **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

13.9. Is your annual household income from all sources:
01 Less than $10,000
02 $10,000 to less than $15,000
03 $15,000 to less than $20,000
04 $20,000 to less than $25,000
05 $25,000 to less than $35,000
06 $35,000 to less than $50,000
07 $50,000 to less than $75,000
08 $75,000 or more

13.10. About how much do you weigh without shoes?
    If respondent answers in metric, put "9" in the first position, Round fractions up
__ __ __ Weight pounds/kilograms

13.11. About how tall are you without shoes?

If respondent answers in metric, put "9" in the first position, Round fractions down

__/__ __ Height ft/inches/meters/centimeters

13.12. What county do you live in?
__ __ __ County name

13.13. What is your ZIP Code where you live?
_ _ _ _ _ **ZIP Code**

13.14 Do you have more than one telephone number in your household?
Do not include cell phones or numbers that are only used by a computer or fax machine.
1 Yes
2 No ⇨ **Go to Q13.16**

13.15. How many of these are residential numbers?
__   Residential telephone numbers **[6=6 or more]**

13.16. During the past 12 months, has your household been without telephone service for 1 week or more?
Note: Do not include interruptions of phone service due to weather or natural disasters.
1 Yes
2 No

13.17. Indicate sex of respondent. **Ask only if necessary**.
1 Male ⇨ **Go to next section.**
2 Female

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

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

Section 14: Veteran's Status
14.1 The next question relates to military service. Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit?
1 Yes
2 No

Section 15: Disability
The following questions are about health problems or impairments you may have.
15.1. Are you limited in any way in any activities because of physical, mental, or emotional problems ?
1 Yes
2 No

15.2. Do you now have any health problem that requires you to use special equipment, such as a cane, a wheelchair, a special bed, or a special telephone?
Include occasional use or use in certain circumstances
1 Yes
2 No

Section 16: Arthritis Burden
The next questions refer to the joints in your body. Please do NOT include the back or neck.
16.1. During the past 30 days, have you had symptoms of pain, aching, or stiffness in or around a joint?
1 Yes
2 No ⇨**Go to Q16.4**

16.2. Did your joint symptoms FIRST begin more than 3 months ago?
1 Yes
2 No ⇨**Go to Q16.4**

16.3. Have you EVER seen a doctor or other health professional for these joint symptoms?
1 Yes
2 No

16.4. 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 Q16.2=1 (Yes) or Q16.4=1 (Yes); continue. Otherwise, ⇨**Go to next section.**

16.5. 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."*

Section 17: Fruits & 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.

17.1. 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

17.2. 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

17.3. How often do you eat green salad?
1 _ _ Per day
2 _ _ Per week
3 _ _ Per month
4 _ _ Per year
5 5 5 Never

17.4. 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

17.5. How often do you eat carrots?
1 _ _ Per day
2 _ _ Per week
3 _ _ Per month
4 _ _ Per year
5 5 5 Never

17.6. 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 18: Physical Activity
If "employed" or "self-employed" to core Q13.8, continue. Otherwise go to Q18.2.
18.1. When you are at work, which of the following best describes what you do? Would you say:

If respondent has multiple jobs, include all jobs
1. Mostly sitting or standing
2. Mostly walking or
3. Mostly heavy labor or physically demanding work

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

18.2. Now, thinking about the moderate physical activities you do **[fill in (when you are not working) if "employed" or "self- employed" to core Q13.8]** in a usual week, do you do moderate activities for at least 10 minutes at a time, such as brisk walking, bicycling, vacuuming, gardening, or anything else that causes small increases in breathing or heart rate?
1. Yes
2. No ⇨ **Go to Q18.5**

18.3. How many days per week do you do these moderate activities for at least 10 minutes at a time?
__ __ Days per week
8 8 Do not do any moderate physical activity for at least 10 minutes at a time ⇨ **Go to Q18.5**

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

18.5. Now thinking about the vigorous physical activities you do **[fill in (when you are not working) if "employed" or "self-employed" to core Q13.8]** in a usual week, do you do vigorous activities for at least 10 minutes at a time, such as running, aerobics, heavy yard work, or anything else that causes large increases in breathing or heart rate?
1. Yes
2. No ⇨ **Go to next section**

18.6. How many days per week do you do these vigorous activities for at least 10 minutes at a time?
__ __ Days per week
8 8 Do not do any vigorous physical activity for at least 10 minutes at a time ⇨ **Go to next section**

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

Section 19: 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. Although we will ask you about
testing, we will not ask you about the results of any test you may **have had.**

19.1. Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation.
Include tests using fluid from your mouth.
1 Yes
2 No ⇨ Go to Q19.4

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

Note: If response is before January 1985, code "Don't know".
Include saliva tests
__ __ / __ __ __ __ Code month and year

19.3. Where did you have your last HIV test–at a private doctor or HMO, at a counseling and testing site, at a hospital, at a clinic, in a jail or prison, **in a drug treatment facility,** at home, or somewhere else?
01 Private doctor or HMO office
02 Counseling and testing site
03 Hospital
04 Clinic
05 In a jail or prison (or other correctional facility)
06 Home
07 Somewhere else
08 Drug treatment facility

19.4. 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

Section 20: Emotional Support & Life Satisfaction
The next two questions are about emotional support and your satisfaction with life.
20.1. How often do you get the social and emotional support you need?
1 Always
2 Usually
3 Sometimes
4 Rarely
5 Never

20.2. In general, how satisfied are you with your life?
1 Very satisfied
2 Satisfied
3 Dissatisfied
4 Very dissatisfied

Module 10: Random Child Selection
If response to core Q13.6 is '88' (none) or '99' (refused) go to Module 3.
If Core Q13.6= 1; INTERVIEWER: "Previously, you indicated there was one child age 17 or younger in your household. I would like to ask you some questions about that child." ⇨**Go to Q1**.
If Core 13.6 is > 1 and Core Q13.6 does not equal to 88 or 99; INTERVIEWER: "Previously, you indicated there were [number] children age 17 or younger in your household. Think about those [number] children in order of their birth, from oldest to youngest. The oldest child is the first child and the youngest child is the last. Please include children with the same birth date, including twins, in the order of their birth."

CATI INSTRUCTION: RANDOMLY SELECT ONE OF THE CHILDREN. This is the "Xth" child. Please substitute "Xth" child's number in all questions below.

I

NTERVIEWER: "I have some additional questions about one specific child. The child I will be referring to is the "Xth child in your household. All following questions about children will be about the "Xth" child."

1. What is the birth month and year of the "**Xth**" child?
 _ _/_ _ _ _ Code month and year

2. Is the child a boy or a girl?
1 Boy
2 Girl

3. Is the child Hispanic or Latino?
1 Yes
2 No

4. Which one or more of the following would you say is the race of the child?
[Check all that apply]
1 White
2 Black or African American
3 Asian
4 Native Hawaiian or Other Pacific Islander
5 American Indian, Alaska Native
6 Other [specify] _____

If more than one response to Q4; continue. Otherwise, ⇨Go to Q6.
5. Which one of these groups would you say best represents the child's race?
1 White
2 Black or African American
3 Asian
4 Native Hawaiian or Other Pacific Islander
5 American Indian, Alaska Native
6 Other

6. How are you related to the child?
1 Parent (mother or father) include biologic, step or adoptive parent
2 Grandparent
3 Foster parent or guardian [other than parent or grandparent]
4 Sibling (brother or sister) include biologic, step and adoptive sibling
5 Other relative
6 Not related in any way

Module 11: Childhood Asthma Prevalence
If response to core Q13.6 is '88' (none) or '99' (refused) go to Module 3.

The next two questions are about the "Xth" child.

1. Has a doctor, nurse or other health professional EVER said that the child has asthma
1 Yes
2 No ⇨**Go to next module**
2. Does the child still have asthma?
1 Yes
2 No

State Added Childhood Asthma
[to be asked after Childhood Asthma module if M11.1 = 'Yes']
[**if M11.2 Not = Yes then Go to SACAQ4**]
SACAQ1. Has this child had an asthma attack or experienced symptoms of asthma during the past 12 months?
1 Yes
2 No

SACAQ2 Has this child had to visit an emergency room or urgent care center during the past 12 months, because of their asthma?
1 Yes
2 No

SACAQ3 Has this child had to stay overnight in a hospital during the past 12 months, because of their asthma?
1 Yes
2 No

SACAQ4 An asthma management plan, or asthma action plan, is a printed form that tells when to change the amount or type of medicine, when to call the doctor for advice, and when to go to the emergency room.
Has a doctor or other health professional EVER given this child an asthma management or action plan?
1 Yes
2 No

Module 12: Child Immunization
[Ask Module 12 only if child ≥ 6 months of age; Otherwise; ⇨ Go to Module 3.]

I have 2 additional questions about the "Xth" child
1. During the past 12 months, has the child had a flu shot? A flu shot is an influenza vaccine injected in [his/her] arm or thigh.
1 Yes
2 No

2. During the past 12 months, has the child had an influenza vaccine sprayed in [his/her] nose? **The influenza vaccine that is sprayed in the nose is FluMist™**.
1 Yes
2 No

Module 3: **Visual Impairment and Access to Eye Care**
If respondent is < 50 years of age; ⇨Go to next module
I would like to ask you questions about how much difficulty, if any, you have doing certain activities. If you usually wear glasses or contact lenses, please rate your ability to do them while wearing glasses or contact lenses.
1. How much difficulty, if any, do you have in recognizing a friend across the street? Would you say:
1 No difficulty
2 A little difficulty
3 Moderate difficulty
4 Extreme difficulty
5 Unable to do because of eyesight
6 Unable to do for other reasons

2. How much difficulty, if any, do you have watching television? Would you say:
1 No difficulty
2 A little difficulty
3 Moderate difficulty
4 Extreme difficulty
5 Unable to do because of eyesight
6 Unable to do for other reasons

3. How much difficulty, if any, do you have reading print in newspaper, magazine, recipe, menu, or numbers on the telephone? Would you say:
1 No difficulty
2 A little difficulty
3 Moderate difficulty
4 Extreme difficulty
5 Unable to do because of eyesight
6 Unable to do for other reasons

4. When was the last time you visited ANY eye care professional?
1 Within the past month (anytime less than 1 month ago) ➡**Go to Q6.**
2 Within the past year (1 month but less than 12 months ago) ➡**Go to Q6.**
3 Within the past 2 years (more than 1 year but less than 2 years ago)
4 2 or more years ago
5 Never

5. What is the main reason you have not visited an eye care professional in the past 12 months?

0 1 Cost/insurance
0 2 Do not have/know an eye doctor
0 3 Cannot get to the office/clinic (too far away, no transportation)
0 4 Could not get an appointment
0 5 No reason to go (no problem)
0 6 Have not thought of it
0 7 Other
0 8 Not Applicable (Blind) ➡**Go to next module**

[Skip Q6, if response to Module 1.Q10=1, 2, 3, 4, 7, 8, or 9]
6. 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 (more than 1 year but less than 2 years ago)
4 2 or more years ago
5 Never

7. Do you have any kind of health insurance coverage for eye care?
1 Yes
2 No

8. Have you been told by an eye doctor or other health care professional that you NOW have cataracts?
1 Yes
2 Yes, but had them removed
3 No

9. Have you EVER been told by an eye doctor or other health care professional that you had glaucoma?
1 Yes
2 No

10. Macular Degeneration (MD) is a disease that blurs the sharp, central vision you need for "straight-ahead" activities such as reading, sewing, and driving. MD affects the macula, the part of the eye that allows you to see fine detail.
Have you EVER been told by an eye doctor or other health care professional that you had macular degeneration
1 Yes
2 No

11. Have you EVER had an eye injury that occurred at your workplace while you were doing your work?
1 Yes
2 No ➡**Go to next module**

12. About how many days did this injury cause you to miss work?
_ _ _ Number of days
5 5 5 None

Module 7: Heart Attack & Stroke
Now I would like to ask you about your knowledge of the signs and symptoms of a heart attack and stroke.
Which of the following do you think is a symptom of a heart attack? For each, tell me "Yes", "No", or you're "Not sure":

1. (Do you think) pain or discomfort in the jaw, neck, or back (are symptoms of a heart attack)?
1 Yes
2 No
7 Don't know / Not sure

2. (Do you think) feeling weak, lightheaded, or faint (are symptoms of a heart attack)?
1 Yes
2 No
7 Don't know / Not sure

3. (Do you think) chest pain or discomfort (are symptoms of a heart attack?)
1 Yes
2 No
7 Don't know / Not sure

4. (Do you think) sudden trouble seeing in one or both eyes (is a symptom of a heart attack)?
1 Yes
2 No
7 Don't know / Not sure

5. (Do you think) pain or discomfort in the arms or shoulder (are symptoms of a heart attack)?
1 Yes
2 No
7 Don't know / Not sure

6. (Do you think) shortness of breath (is a symptom of a heart attack)?
1 Yes
2 No
7 Don't know / Not sure

Which of the following do you think is a symptom of a stroke?
For each, tell me "Yes", "No", or you're "Not sure":

7. (Do you think) sudden confusion or trouble speaking (are symptoms of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

8. (Do you think) sudden numbness or weakness of face, arm, leg, especially on one side, (are symptoms of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

9. (Do you think) sudden trouble seeing in one or both eyes (is a symptom of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

10. (Do you think) sudden chest pain or discomfort (are symptoms of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

11. (Do you think) sudden trouble walking, dizziness, or loss of balance (are symptoms of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

12. (Do you think) severe headache with no known cause (is a symptom of a stroke)?
1 Yes
2 No
7 Don't know / Not sure

13. If you thought someone was having a heart attack or stroke, what is the first thing you would do?
1 Take them to the hospital
2 Tell them to call their doctor
3 Call 911
4 Call their spouse or a family member or
5 Do something else

Module 9: Adult Asthma History
If "Yes" to Core Q9.1; continue. Otherwise, ⇨Go to next module.
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 or other health professional that you had asthma?
_ _ Age in years 11 or older **[96=96 and older]**
9 7 Age 10 or younger

If "Yes" to Core Q9.2; continue. Otherwise, ⇨Go to next module.
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 many days did you take a prescription asthma medication **to prevent** an asthma attack from occurring?
8 Never
1 1 to 14 days
2 15 to 24 days
3 25 to 30 days

10. During the past 30 days, how often did you use a prescription asthma inhaler **during an asthma attack** to stop it? (278-279)
INTERVIEWER INSTRUCTION: How often (number of times) does NOT equal number of puffs. Two to three puffs are usually taken each time the inhaler is used.
8 Never (include no attack in past 30 days)
1 One to four times (in the past 30 days)
2 Five to fourteen times (in the past 30 days)
3 Fifteen to twenty-nine time (in the past 30 days)
4 Thirty to fifty-nine times (in the past 30 days)
5 Sixty to ninety-nine times (in the past 30 days)

6 More than 100 times (in the past 30 days)

State Added Adult Asthma
[To be asked after Adult Asthma History module]
[if M9.2 Not = Yes then Go to SAAAQ4]
Prescription asthma medicines may be taken to either keep you
from having asthma symptoms or to treat your symptoms or attack
once you start to have them.
[Explanation if needed: The kind of medicine that prevents asthma
symptoms is sometimes called controller or maintenance medicine
and is taken while one is feeling well and to prevent an attack in
the future. These medicines may be taken by mouth or inhaled.]
[Explanation if needed: These medicines taken to relieve your
symptoms are sometimes called reliever or quick relief medicines
and may be taken by mouth or inhaled.]
If answer to Q9 in Asthma History Module is 1, 2, or 3, go to
SAAAQ2
SAAAQ1 During the past 12 months did you take prescription
asthma medications that help **to prevent** you from having
asthma symptoms – the kind of medication taken BEFORE
you have an asthma attack? This includes an inhaler used to
prevent you from having an attack or symptoms.
1 Yes
2 No

If answer to Q10 in Asthma History Module is 1, 2, 3, 4, 5 or 6,
go to SAAAQ3
SAAAQ2 During the past 12 months did you take prescription
asthma medications <u>to treat an asthma attack or asthma</u>
<u>symptoms</u> – the kind of medication taken DURING an asthma
attack? This includes inhalers when used to treat or relieve
your asthma attack or symptoms.
1 Yes
2 No

SAAAQ3 During the past 12 months, how many times did you
stay overnight in a hospital because of your asthma?
__ __   Number of overnight hospital stays
8   8   None

SAAAQ4 An asthma management plan, or asthma action plan, is
a printed form that tells when to change the amount or type
of medicine, when to call the doctor for advice, and when to
go to the emergency room.
Has a doctor or other health professional EVER given you an
asthma management or action plan?
1 Yes
2 No

SAAAQ5 Was your asthma caused by or made worse by
chemicals, smoke, fumes or dust in any job you ever had?
1 Yes
2 No
3 Never worked outside the home **[Go to Module 10]**

SAAAQ6 Did you ever tell a doctor or other medical person that
your asthma was related to any job you ever had?
1 Yes
2 No

SAAAQ7 Were you ever told by a doctor or other medical person
that your asthma was related to any job you ever had?
1 Yes
2 No

STATE ADDED HEALTH INSURANCE
SAHIQ1. Have you heard of Iowa's Child Health Insurance
Program, called Hawk-I?
1 Yes
2 No

Module 13: Women's Health
If respondent is male, go to next module.
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 Q3**

2. How long has it been since you had your last mammogram?
1 Within the past year (anytime less than 12 months ago)
2 Within the past 2 years (1 year but less than 2 years ago)
3 Within the past 3 years (2 years but less than 3 years ago)
4 Within the past 5 years (3 years but less 5 years ago)
5 5 or more years ago

3. 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 Q5**

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

5. A Pap test is a test for cancer of the cervix. Have you ever had
a Pap test?
1Yes
2 No **Go to Q7**

6. How long has it been since you had your last Pap 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 ago)
3 Within the past 3 years (2 years but less than 3 years ago)
4 Within the past 5 years (3 years but less than 5 years ago)
5 5 or more years ago

NOTE: If response to core Q13.18 = 1 (is pregnant) then go to next
module.

7. Have you had a hysterectomy?

A hysterectomy is an operation to remove the uterus
(womb)
1 Yes
2 No

Module 15: Colorectal Cancer Screening

If respondent 49 years old or younger, go to SACCAQ1 (State Added Colorectal Cancer Advertising.

1. A blood stool test is a test that may use a special kit at home to determine whether the stool contains blood.   Have you ever had this test using a home kit?
1 Yes
2 No **Go to Q3**

2. How long has it been since you had your last blood stool test using a home kit?
1 Within the past year (anytime less than 12 months ago)
2 Within the past 2 years (1 year but less than 2 years ago)
3 Within the past 5 years (2 years but less than 5 years ago)
4 5 or more years ago

3. Sigmoidoscopy and colonoscopy are exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems. Have you ever had either of these exams?
1 Yes
2 No **Go to next module**

4. How long has it been since you had your last sigmoidoscopy or colonoscopy?
1 Within the past year (anytime less than 12 months ago)
2 Within the past 2 years (1 year but less than 2 years ago)
3 Within the past 5 years (2 years but less than 5 years ago)
4 Within the past 10 years (5 years but less than10 years ago)
5 10 or more years ago

State Added Colorectal Cancer Screening
[to be asked after Colorectal Cancer module]
SACCSQ1. Has a health care provider ever talked to you about being tested for colorectal or colon cancer?
1 Yes
2 No   **Go to SACCAQ1**

SACCSQ2. What test did your health care provider recommend?
1 Blood Stool Kit
2 Sigmoidoscopy or colonoscopy (exams in which a tube is inserted in the rectum to view the colon for signs of cancer or other health problems)
3 Other test
4 Recommended both Blood Stool Kit and sigmoidoscopy or Colonoscopy **[Go to SACCSQ3b]**
5 Did not recommend a test **Go to SACCAQ1**

SACCSQ3a. Did you have the test your health care provider recommended?
1 Yes **Go to SACCAQ1**
2 No **[If SACCSQ2=1 then GO TO SACCSQ4**
      If SACCSQ2=2 then GO TO SACCSQ5
      If SACCSQ2=3, go to SACCAQ1]

SACCSQ3b. Did you have the tests your health care provider recommended?
1 Yes Go to SACCAQ1
2 No did not have either **[GO TO SACCSQ4]**
3 No, but only did not have blood stool kit **[GO TO SACCSQ4]**
4 No, but only did not have sigmoidoscopy/colonoscopy **[GO TO SACCSQ5]**

SACCSQ4. What is the main reason you did not have a blood stool test using a home kit?
11 No symptoms
12 No family history of colorectal cancer
13 Cost/Not covered by insurance
14 Too old to have test
15 Too young to have test
16 No time
17 Test is distasteful
18 Embarrassment
19 Fear of finding cancer
20 Don't want to do the prep
21 Don't know where to get the test
22 Don't know how to do the test
23 Other

If SACCSQ3b = 2, continue; else go to SACCAQ1
SACCSQ5. What is the main reason you did not have a sigmoidoscopy or colonoscopy?
11 No symptoms
12 No family history of colorectal cancer
13 Cost/Not covered by insurance
14 Too old to have test
15 Too young to have test
16 No time
17 Test is distasteful
18 Embarrassment
19 Fear of finding cancer
20 Don't know where to get the exam
21 Don't want to do the bowel/colon prep
22 Distance to travel for the test
23 No transportation available
24 Too long a wait for an appointment
25 Other

State Added Colorectal Cancer Advertising
[Remaining colorectal questions are asked of all respondents]
SACCAQ1. In the past 6 months, have you seen any articles or advertising about the risks of colorectal cancer?
1 Yes
2 No   **Go to SACCAQ3**

SACCAQ2. Where did you see this article or advertisement about the risks of colorectal cancer?
 [IF MORE THAN ONE, SELECT MOST FREQUENTLY SEEN]
1 Magazine
2 Doctor's Office
3 Television
4 Radio
5 Health Newsletter
6 Other

SACCAQ3. In the past 6 months, have you seen any articles or advertising about the potential benefits of early detection of colorectal cancer?
1 Yes
2 No   **Go to SACCKQ1**

SACCAQ4. Where did you see this article or advertisement about the potential benefits of early detection of colorectal cancer?
[IF MORE THAN ONE, SELECT MOST FREQUENTLY SEEN]
1 Magazine
2 Doctor's Office
3 Television
4 Radio
5 Health Newsletter
6 Other

State Added Colorectal Cancer Knowledge

SACCKQ1. Next, I'm going to read you several statements about colorectal cancer. After I read each one, please tell me if you strongly agree, somewhat agree, somewhat disagree or

strongly disagree.

A person's age is considered a risk factor for developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ2. A person's race or ethnicity is considered a risk factor for developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ3. A person's gender is considered a risk factor for developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ4. Colorectal cancer in a blood relative is considered a risk factor for developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ5. A person's use of tobacco is considered a risk factor for developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ6. A person's diet is considered a risk factor in developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ7. A person's weight is considered a risk factor in developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

SACCKQ8. A person's alcohol intake is considered a risk factor in developing colorectal cancer. Would you say...
1 Strongly agree,
2 Somewhat agree,
3 Neither agree nor disagree,
4 Somewhat disagree, or
5 Strongly disagree?

State Added Colorectal Cancer Risk

SACCRQ1. In terms of your own risk, what would you say your chances are of developing colorectal cancer? Would you say ...
1 High,
2 Medium,
3 Low, or
4 None?

Module 17: **Arthritis Management**
[If Core Q16.2 or Q16.4= 1 (Yes); continue. Otherwise, ⇨Go to next module.]
1. Earlier you indicated that you had arthritis or joint symptoms. Thinking about your arthritis or joint symptoms, which of the following best describes you TODAY?
1 I can do everything I would like to do
2 I can do most things I would like to do
3 I can do some things I would like to do
4 I can hardly do anything I would like to do

2. Has a doctor or other health professional EVER suggested losing weight to help your arthritis or joint symptoms?
1 Yes
2 No

3. Has a doctor or other health professional EVER suggested physical activity or exercise to help your arthritis or joint symptoms?
Note: If the respondent is unclear about whether this means an increase or decrease in physical activity, this means increase.
1 Yes
2 No

4. Have you EVER taken an educational course or class to teach you how to manage problems related to your arthritis or joint symptoms?
1 Yes
2 No

Module 21: Smoking Cessation
If response to core Q11.2 is '3' continue, else if response to core Q11.2 is '1' or '2' go to Q2. If response to Q11.2 is "Don't know" or "Refuse" go to next module.
Previously you said you have smoked cigarettes.
1. About how long has it been since you last smoked cigarettes ?
0 1 Within the past month (anytime less than 1 month ago)
0 2 Within the past 3 months (1 month but less than 3 months ago)
0 3 Within the past 6 months (3 months but less than 6 months ago)
0 4 Within the past year (6 months but less than 1 year ago)
0 5 Within the past 5 years (1 year but less than 5 years ago) ⇨ **Go to next module**
0 6 Within the past 10 years (5 years but less than 10 years ago) ⇨ **Go to next module**
0 7 10 or more years ago ⇨ **Go to** next module

If response to Q1 is "01, 02, 03, or 04" OR if core Q11.2 is "1 or 2," continue.
The next questions are about interactions you might have had with a doctor, nurse, or other health professional.
2. In the past 12 months, how many times have you seen a doctor, nurse or other health professional to get any kind of care for yourself?
__ __ Number of times (01-76)
8 8 None ⇨ **Go to next module**

3. In the past 12 months on how many visits were you advised to quit smoking by a doctor or other health provider?

__ __ Number of times (01-76)

  8 8 None ⇨ **Go to next module**

4. On how many visits did your doctor, nurse or other health professional recommend or discuss medication to assist you with quitting smoking, such as nicotine gum, patch, nasal spray, inhaler, lozenge, or prescription medication such as Wellbutrin / Zyban/ Buproprion?
   (Pronunciation: Well BYOU trin/ZEYE ban/byou PRO pee on)

__ __ Number of visits (01-76)

  8 8 None

5. On how many visits did your doctor or health provider recommend or discuss methods and strategies other than medication to assist you with quitting smoking?

__ __ Number of visits (01-76)

  8 8 None

Module 22: Secondhand Smoke Policy
1. 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 Q13.8, continue. Otherwise, go to next module.
2. While working at your job, are you indoors most of the time?
1 Yes

2 No ⇨ **Go to Next Module**

3. Which of the following best describes your place of work's official smoking policy for indoor public or common areas, such as lobbies, rest rooms, and lunch rooms?
Note: For workers who visit clients or work at home, "place of work" means their base location. For self-employed persons who work at home, the official smoking policy means the home smoking policy.
1 Not allowed in any public areas
2 Allowed in some public areas
3 Allowed in all public areas or
4 No official policy

4. Which of the following best describes your place of work's official smoking policy for work areas?
1 Not allowed in any work areas
2 Allowed in some work areas
3 Allowed in all work areas or
4 No official policy

STATE ADDED TOBACCO

[to be asked after Secondhand Smoke module]
SATQ1. Which statement best describes the rules about smoking in your car or vehicle? Would you say...
1 Smoking is **not** allowed in your vehicle,
2 Smoking is allowed in your vehicle sometimes,
3 Smoking **is** allowed in your car or vehicle, or
4 There are no rules about smoking in your vehicle?
5 Do not have a vehicle

SATQ2. Now, 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?

STATE ADDED SNACK QUESTIONS
I am going to ask you a series of questions about a fruit and vegetable campaign that has been used in different parts of Iowa

SASNQ1. Have you heard of or seen the message "Pick-A-Better Snack how easy is that"?
1 Yes

2 No ⇨ **Go to Next Module**

SASNQ2. Where did you hear or see the Pick-A-Better Snack messages?
[SELECT ALL THAT APPLY]
11 School
12 Grocery store
13 Radio
14 Television
15 Newspaper/Newsletter article
16 Billboard
17 Community center
18 Congregate meal site (senior meal program)
19 WIC (Women, Infant, Children)
20 Other

SASNQ3. Pick a *better* snack™ has influenced me to increase the number of fruits and vegetables I eat as snacks.
1 yes
2 no

STATE ADDED PHYSICAL ACTIVITY
SAPAQ1. How many hours a day do you watch TV or videos or use the computer for leisure activities?
01-24 hours per day
66. Less than daily
88. Does not use TV/videos/computer

SAPAQ2. How often do you take a walk to get exercise?
11 Every day or almost every day
12 3-5 times a week
13 2 times a week
14 Once a week
15 Less than once a week
16 Once a month
17 Hardly ever
18 Never
19 Unable to walk

Module 26: Intimate Partner Violence
I'd like to ask you some questions about physical and / or sexual violence or other unwanted sexual experiences. This information will allow us to better understand the problem of violence and unwanted sexual contact, and may help others in the future. This is a sensitive topic. Some people may feel uncomfortable with these questions. Remember that your phone number has been chosen randomly and your answers are strictly confidential. At the end of this section I will give you phone numbers for organizations that can provide information and referral for both of these issues.

Please keep in mind that you can ask me to skip any question that you do not want to answer. If you are not in a safe place to answer these questions I can skip to the next topic area.

1.Continue to first question
2. Skip to the next topic area

The next questions are about violence in relationships with an intimate partner. By an intimate partner I mean any current or former spouse, boyfriend, or girlfriend. Someone you dated would also be considered an intimate partner.

1. Has an intimate partner EVER THREATENED you with physical violence? This includes threatening to hit, slap, push, kick, or physically hurt you in any way.
1 Yes
2 No

2. Has an intimate partner EVER hit, slapped, pushed, kicked, or physically hurt you in any way?
1 Yes
2 No

INTERVIEWER NOTE: **Read the underlined portion of Q3; only if Q2=1 (Yes).**
3. "Other than what you have already told me about" Has an intimate partner EVER ATTEMPTED physical violence against you? This includes times when they tried to hit, slap, push, kick, or otherwise physically hurt you, but they were not able to.
1 Yes
2 No

Now I am going to ask you about unwanted sex. Unwanted sex includes things like putting anything into your vagina [*if female*], anus, or mouth or making you do these things to them after you said or showed that you didn't want to. It includes times when you were unable to consent, for example, you were drunk or asleep, or you thought you would be hurt or punished if you refused.
4. Have you EVER experienced any unwanted sex by a current or former intimate partner?
1 Yes
2 No ⇨ **Go to next section**

If Q2 or Q4=1 (Yes), continue. Otherwise, skip Q5, 6, & 7.
5. In the past 12 months, have you experienced any physical violence or had unwanted sex with an intimate partner?
1 Yes
2 No ⇨ **Go to next section**

6. In the past 12 months, have you had any injuries, such as bruises, cuts, scrapes, black eyes, vaginal or anal tears, or broken bones, as a result of this physical violence or unwanted sex?
1 Yes
2 No

7. At the time of the most recent incident, what was your relationship to the intimate partner who was physically violent or had unwanted sex with you?
0 1 Boyfriend
0 2 Girlfriend
0 3 Former boyfriend
0 4 Former girlfriend
0 5 Male you were dating
0 6 Female you were dating
0 7 Husband or male live-in partner
0 8 Former husband or former male live-in partner
0 9 Wife or female live-in partner
1 0 Former wife or former female live-in partner
1 1 Other

Closing Statement: We realize that this topic may bring up past experiences that some people may wish to talk about further. If you or someone you know would like to talk to a trained counselor, there is a toll-free and confidential intimate partner violence telephone hotline you can call. The number is **1- 800-799-SAFE (7233).** Would you like me to repeat this number? The number is **1- 800-799-SAFE (7233).**

STATE ADDED GAMBLING
I have just a few more questions and we'll be finished.
SAGQ1. Have you gambled in the last 12 months?
1 Yes
2 No   **[SKIP TO CLOSING]**

SAGQ2. Has the money you spent gambling let to financial problems?
1 Yes
2 No

SAGQ3. Has the time you spent gambling led to problems in your family, work, or personal life?
1 Yes
2 No