ANNUAL REPORT

SURVEY RESULTS

from the

2001 IOWA

Behavioral Risk Factor Surveillance System

Iowa Department of Public Health

State Center for Health Statistics

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TABLE OF CONTENTS

INTRODUCTION

History

For quite some time health departments have recorded morbidity and mortality data. However, previously there was not an ongoing attempt to monitor behaviors associated with premature death and disability. In 1981, the Centers for Disease Control and Prevention (CDC) began assisting states in conducting such a risk factor survey.

A point-in-time survey was done in Iowa in 1982. In 1988, Iowa began full participation in CDC's Behavioral Risk Factor Surveillance System (BRFSS). The BRFSS is now conducted in all 50 states, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands.

Nature of the Survey

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

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

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

This report focuses on the data collected during calendar year 2001. Some of the risk factors discussed are: general health status; health care coverage; cigarette smoking; alcohol consumption; body weight; hypertension and cholesterol awareness, cancer screening for prostate, and colorectal cancer; diabetes; asthma; oral health; and HIV/AIDS awareness.

Objectives

The objectives of the BRFSS are:

1.   To determine the state specific prevalence of personal health behaviors related to the leading causes of premature death.

2.   To develop the capacity of state health departments to conduct credible telephone surveys.

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

Use of BRFSS Data

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

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

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

METHODOLOGY

Questionnaire Design

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

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

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

Sampling Process

Households were selected randomly using 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.

The DSS method establishes groups of 100 numbers and divides these groups into two strata based on whether or not the first call is residential. If it is, this stratum is sampled at a much higher rate than if it is not. There is no set number to be sampled per group, and completed interviews are not thrown out.

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

Approximately 300 interviews per month were conducted from January through December in 2001 for a total sample size of 3,635. Interviewers made multiple attempts to reach a number to complete an interview before replacing that number.

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

The Interview Process

The interviews were conducted daytime, evenings, and weekends with appointments made as needed to schedule or complete interviews. The average time to complete an interview was 19.7 minutes.

A Computer Aided Telephone Interviewing (CATI) system was used. The CATI system not only assists interviewers present the questionnaire and record the responses, it also helps keep track of appointments and call-back attempts, and reports statistics of call dispositions.

Data then were edited for accuracy and completeness using the software (PC-Edits) provided by CDC. After editing, monthly data were submitted to the CDC.

Advantages and Limitations

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

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

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

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

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

New telephone technology such as caller I.D., cell phones, and call blockers that block telemarketers also pose problems for telephone surveys.

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

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

Analysis of the data

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

consideration the facts that the number of adults per household and the number of phones per household influence a person's likelihood of being included in the survey.

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

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

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

Charts in this report will indicate a range of values in which there is a 95% chance of the true Iowa population value falling based on the survey. This range is referred to as a 95% confidence interval. Values can be considered significantly different from one group to another when the indicated confidence intervals for these groups do not overlap.

DEMOGRAPHICS OF THE BRFSS RESPONDENTS

The 3,635 respondents in the BRFSS for the year 2001 included 1,485 males and 2,150 females age 18 years and older. The following tables present the distribution of the respondent population by 1) age and gender, 2) household income, and 3) level of education.

Table 1: Distribution by Age and Gender for Year 2001 Iowa Survey Respondents

Age	Male		Female		Total	
	#	%	#	%	#	%
18-24	145	9.8	166	7.7	311	8.6
25-34	245	16.5	283	13.2	528	14.5
35-44	309	20.8	408	19.0	717	19.7
45-54	291	19.6	402	18.7	693	19.1
55-64	210	14.1	292	13.6	502	13.8
65+	285	19.2	599	27.9	884	24.3
Total	1,485	40.8	2,150	59.2	3,635	100.0

Table 2: Distribution by Household Income for Year 2001 Iowa Survey Respondents

Household Income	# of Total Respondents	% of Total Respondents
<$15,000	339	9.3
$15,000-$24,999	611	16.8
$25,000-$49,999	1233	33.9
$50,000-$74,999	521	14.3
>=$75,000	438	12.0
Unknown/Refused	493	13.6
Total	3,635	100.0

Table 3: Distribution by Level of Education for Year 2001 Iowa Survey Respondents

Level of Education	# of Total Respondents	% of Total Respondents
Never Attended School	1	0.0
Elementary	105	2.9
Some High School	208	5.7
High School Grad or GED	1,375	37.8
Some College or Technical School	1,027	28.2
College Graduate	903	24.8
Unknown/Refused	16	0.4
Total	3,635	100.0

GENERAL HEALTH STATUS OF IOWANS

Background

Self-ratings of health, defined by responses to a single question such as "How is your health, in general?" have been found to be significant predictors of mortality.[1] Additional studies which controlled for objective health status, age, sex, life satisfaction, income, residence, and other factors continue to find the risk of mortality two to six times greater for those individuals who had reported earlier that their health was bad or poor compared to those who had reported their health as excellent.[2,4]

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

General Health Status in Iowa

In 2001, when asked how their health was in general, 22.1% of respondents reported excellent. Another 36.8% said very good. While 30.2% reported good health, 10.9% rated their health as fair or poor. The percentage of males reporting their health as excellent was 21.20%, with 20.5% of females reporting their health was excellent.

Table 1: Self-Reported General Health Status by Age, 2001

Age Group	General Health Status				
	Excellent	**Very good**	**Good**	**Fair**	**Poor**
18 - 24	19.5	46.6	29.5	3.6	0.8
25 - 34	28.9	41.7	26.2	2.8	0.5
35 - 44	25.2	38.9	27.2	6.1	2.7
45 - 54	24.1	37.2	28.2	8.0	2.5
55 - 64	17.9	34.6	32.0	10.7	4.8
65 & Over	9.9	23.5	40.7	18.5	7.4

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

Table 2: Self-Reported General Health Status by Income, 2001

Income	General Health Status				
	Excellent	**Very good**	**Good**	**Fair**	**Poor**
< $15,000	11.8	23.3	38.4	17.6	9.0
$15-$24,999	12.7	29.3	37.9	14.1	6.0
$25-$49,999	19.3	40.0	31.1	7.6	2.0
$50-$74,999	28.6	42.8	24.2	4.2	0.2
>=$75,000	36.2	39.8	19.3	3.0	1.7

In answer to the question about how many days during the past 30 days was their physical health not good, 66% of respondents reported none of the days, 18.7% reported one to five days, and 6.4% reported between five and ten days. About 8.9% of respondents reported more than 10 days. The mean number of days of physical health not being good during the past 30 days was 2.7 for males and 3.4 for females.

When responding to the question of how many days during the past 30 days their mental health was not good, 68.4% of the respondents indicated none of the days, 15.1% reported one to five days and 8.5% reported five to ten days. About 8.1% of respondents said more than ten days.

The age group reporting the lowest percentage of respondents with no days of mental health not good (i.e. no days of bad mental health) during the past 30 days was between the ages of 18-24 (58%). The second lowest percentage of respondents was between the ages of 25-34 (63.8%). BRFSS respondents ages 65 and older had the greatest percentage of individuals reporting no days of bad mental health during the last 30 days. The mean number of days reported by males and females was 2.0 and 3.3 days, respectively.

Table 3: Percentage of Iowans Reporting Poor Physical Health by Number of Days in Past 30 by Age of Respondent, 2001

Age group	Days of poor Physical Health				
	None	1 - 4 days	5 - 10 days	11 - 20 days	21 - 30 days
18-24	55.2	32.3	9.5	1.8	1.1
25-34	65.9	25.4	4.1	2.4	2.3
35-44	64.8	19.9	6.6	3.4	5.3
45-54	68.2	16.0	7.5	2.9	5.6
55-64	70.2	13.2	4.5	3.4	8.7
65+	69.9	8.5	6.4	3.1	12.2
Total	66.0	18.7	6.4	2.8	6.1

Table 4: Percentage of Iowans Reporting Poor Mental Health by Number of Days in Past 30 by Age of Respondent, 2001

Age group	Days of poor Mental Health				
	None	1 - 4 days	5 - 10 days	11 - 20 days	21 - 30 days
18-24	49.1	24.0	14.9	8.9	3.0
25-34	58.0	22.4	10.7	4.5	4.5
35-44	63.8	18.1	9.8	4.9	3.5
45-54	68.7	13.2	8.9	4.5	4.7
55-64	79.5	8.9	5.1	1.7	4.7
65+	86.8	5.7	3.0	1.8	2.6
Total	68.4	15.1	8.5	4.3	3.8

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QUALITY OF LIFE AND DISABILITY

Background

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

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

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

The World Health Organization's *International Classification of Impairments, Disabilities, and Handicaps*, defines disability as "any restriction (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being." Impairment is defined as "any loss or abnormality of psychological, physiological, or anatomical structure or function."[2]

The number of people age 5 and over with a disability, according to Census 2000 was 49.7 million. This is a ratio of nearly 1-in-5 U.S. residents, or 19 percent. In 1995, an estimated 20.6% of non-institutionalized civilians (53.9 million people) met the criteria for disability as measured by the Survey of Income and Program Participation (SIPP). Women and girls with disabilities were estimated to number 28.6 million, which is 21.3% of the female population. An estimated 25.3 million men and boys with disabilities made up 19.8% of the male population.

The Current Population Survey (CPS) includes questions about work disability (a condition that limits the kind or amount of work they can do) or a severe work disability (a condition preventing them from working at all). According to this definition, 17.2 million people, or 9.9% of the 1998 working-age U.S. population (16-64 years old) had a disability that prevented or limited work.[1]

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

The percent of non-institutionalized persons reporting disability increases with age for every level of disability severity. Among the disabled, 5.2 million were between the ages of 5 and 20. This was 8 percent of people in this age group. Around 14 million were 65 and over. Those with disabilities comprised 42 percent of people in this age group.

Quality of Life and Disability in Iowa

In 2001, 14.3% responded "yes" to being limited in any way in activities due to an impairment or health problem. Females were more likely than males to report being limited in their activities (15.2% vs. 13.4%). Those age 65 and older were more likely to report being limited in their

activities compared to younger respondents. Around 25.5% of this group reported being limited. People with less than a high school education (24.6%) and incomes less than $15,000 (26.8%) also reported higher percentages of limitations.

Figure 1: Self-Reported Limitation Due to an Impairment or Health Problem by Income, 2001
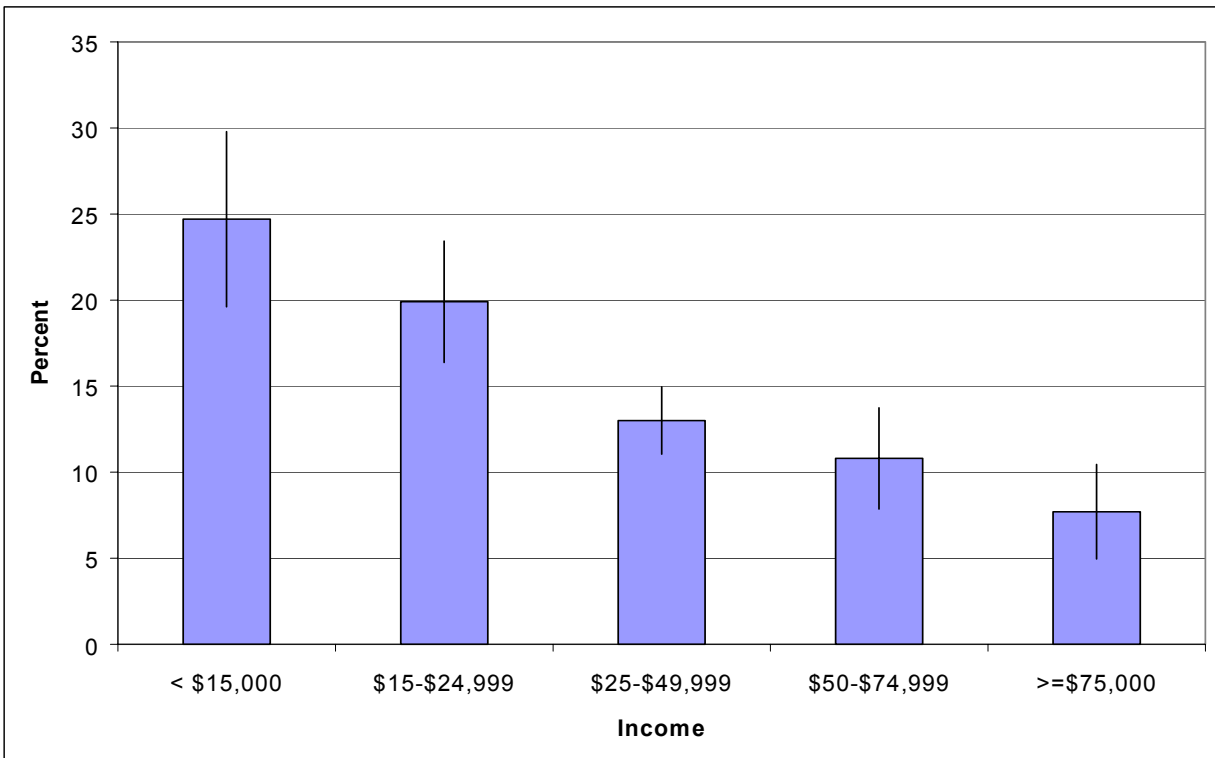
The types of major impairment or health problem listed for people who are limited in activities most commonly were arthritis or rheumatism (13.2%), fractures and/or bone or joint injuries (12.3%), and back and neck problems (10.2%). Almost 21.8% listed 'other impairment' indicating that the list of choices may not be as comprehensive as would be desirable.

The rate of arthritis or rheumatism was higher for women (14.6%) than men (11.2%). Fractures were actually reported as a problem more frequently by men than arthritis. The most extreme sex difference of any limiting health problem occurred with heart problems where 11.6% of men but only 6.8% of women listed it as a problem. The age group mentioning arthritis most frequently as a limiting problem was those who were between age 55 and 64 (18.9%).

About 4.7% of persons limited in their activities reported needing the help of others with their personal care needs. Females (5.5%) were more likely than males (3.6%) to report needing assistance.

A greater proportion, 17.4%, needed the help of others in handling their routine needs. Again, females (21.4%) were more likely than males 11.9%) to report these needs.

When asked how many days in the past 30 days pain made it hard for them to do their usual activities, 21.7% of all respondents reported at least one day in the past 30 days. Of these, 34.3% said 1-2 days, 27.8% said 3-7 days, 7.7% said 8-14 days, and 30.2% indicated 15-30 days of pain that restricted usual activities.

Around 43.5% of the respondents also reported feeling sad, blue, or depressed for at least one day of the past 30 days. Of those 45.5% of people were sad, blue, or depressed for 1-2 days. For 30.8% this feeling lasted for 3-7 days, 8.9% lasted 8-14 days, and 14.7% lasted 15-30 days. Women tended to indicate having more sad, blue, or depressed days than men. Of all respondents 7.9% of women were sad, blue or depressed for 15 or more days, while only 4.9% of men were.

Within the past 30 days, 60.1% reported feeling worried, tense, or anxious for at least one day. Of those respondents, 34.3% reported these feelings one to two days during the past month, 35.1% reported 3-7 days, 10% reported 8-14 days, and 20.7% reported 15-30 days.

Of the respondents asked how many days they felt they did not get enough rest or sleep, 70% reported not getting enough sleep for at least one day of the past 30 days. The number of days without enough rest decreased steadily with age from a mean of 12 days for 18-24 year-olds to 3.3 for 65 and up. It was highest when the educational level was some college or technical school (mean = 9.3 days).

The proportion of people who said they felt very healthy and full of energy 15-30 days during the past 30 days was 73.9%. People of older age, those with less education, and persons with lower incomes were most likely to report feeling very healthy and full of energy for none of the past 30 days.

Objectives

While increasing perceived quality of life for all individuals is important, a very individualistic approach is often necessary, since one's quality of life depends on his or her unique values and the total environment. Objectives for people with disabilities include the prevention of secondary conditions related to their disabilities that negatively impact their quality of life.

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HEALTH 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 access the health care system and obtain needed services. [1]

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

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

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

Health Coverage in Iowa

In 2001, 8.1% of the survey respondents reported they had no health insurance. About 7.9% of males and 8.2% of females responded that they were uninsured. Respondents between the ages of 18-24 had the highest percentage of individuals without health care coverage (21%). Almost everyone age 65 and over has health care coverage due to Medicare.

Respondents who reported lower household incomes were more likely to not have health insurance. For those respondents who reported an annual income of less than $15,000, 20.1% reported no health insurance coverage. Only 1.5% of respondents who reported an annual income of $75,000 or more did not have any coverage.

Of individuals who responded that they did not have health insurance coverage, those with less than a high school education were the most likely to not have health insurance coverage (14%). Only 3.3% of college graduates reported not having health care coverage.

Figure 1: Percentage of Iowans Reporting No Health Insurance Coverage by Age, 2001
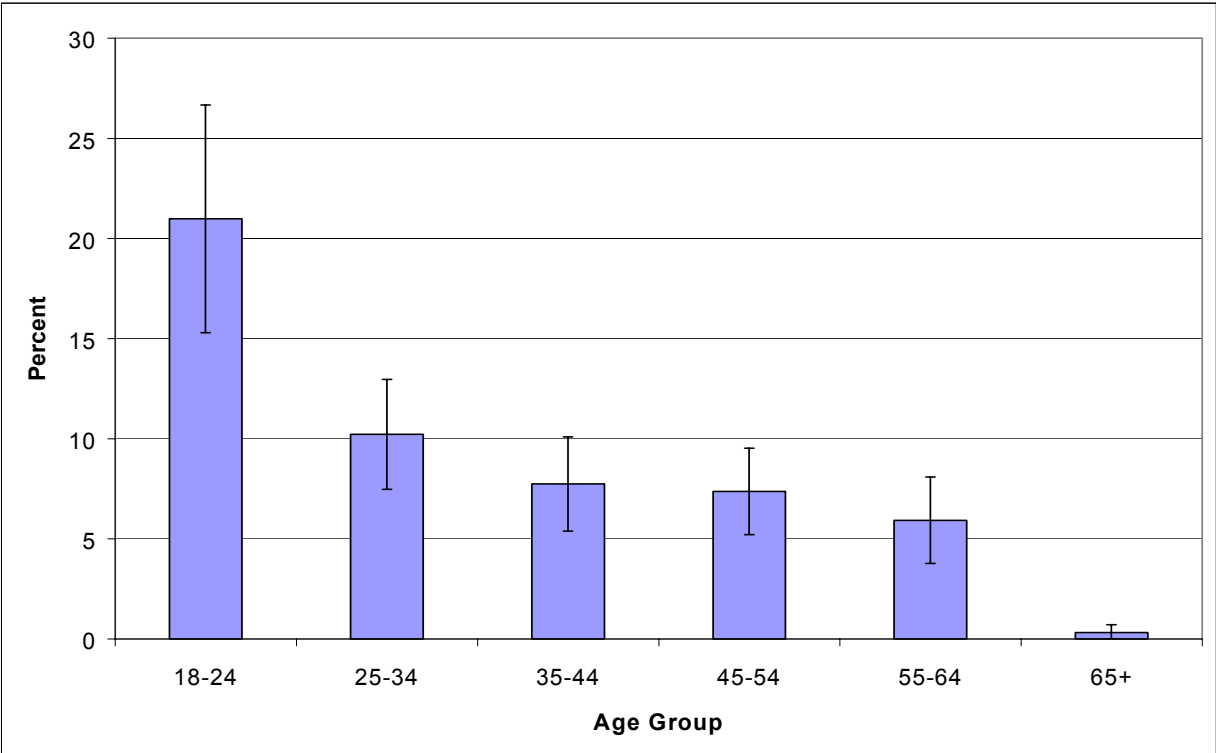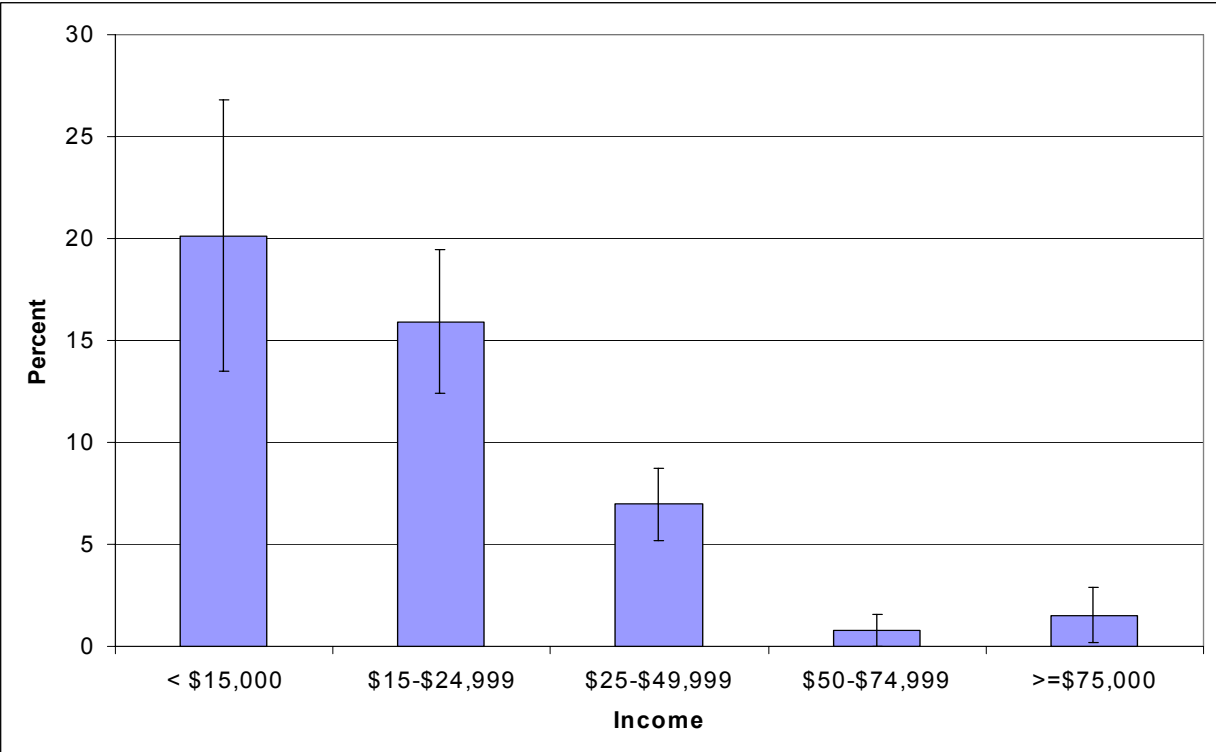

Figure 2: Percentage of Iowans Reporting No Health Insurance Coverage by Income, 2001

Respondents were also asked whether there was ever a time they could not afford to see a doctor because of cost. Of all respondents surveyed, 5.4% reported having a time when they could not afford to see a doctor. Approximately 3.4% of males and 7.6% of females reported experiencing such a time. Individuals between the ages of 18 and 24 were most likely to report not being able to afford to see a physician (9.5%). Individuals reporting a household income of $15,000 or less reported the highest percentage of all income groups (15.8%) while those reporting an income of $75,000 and over reported the lowest rate (0.7%).

Over 9.7% of respondents who reported attending some high school reported being unable to see a physician because of cost, while only 2.7% of college graduates reported such a time.

Around 73.6% of respondents reported having a routine medical checkup during the last year, including 83.1% of females and 63.2% of males. Respondents over age 65 were most likely to report having a routine checkup in the past 12 months (89.3%) compared to those between the ages of 25 and 34, who were the least likely to report having a routine checkup (63.8%). People having incomes between $15,000 and $24,999 per year had the highest percentage of routine checkups within the past year at 77.6%. This compares to 70.8% for those with incomes between $25,000 and $49,999. Respondents with less than a high school education had the highest percentage receiving a checkup (76.9%), while those with a college education had the lowest (71.2%).

Comparison With Other States

Five states had an equal or lower percentage of residents without health insurance when the elderly who are generally covered by Medicare are excluded. Iowa had 10.1% of its non-elderly respondents reporting not having any insurance. In 2000, the figure was 10.9%. The median percentage of uninsured nationwide was 15.6%.

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CARDIOVASCULAR DISEASE

Background

Since 1950, age-adjusted death rates from cardiovascular disease (CVD) have declined 60%, representing one of the most important public health achievements of the 20th century. Age-adjusted death rates for stroke have declined steadily since the beginning of the century. Since 1950, stroke rates have declined 70%, from 88.8% in 1950 to 26.5% in 1996. The decline in the total age-adjusted CVD death rates accounted for approximately 73% of the decline in all causes of death during the same period. [1,3]

Even so, cardiovascular diseases, primarily coronary heart disease and stroke, kill nearly as many Americans as all other diseases combined. Cardiovascular disease is one of the leading causes of disability. Major modifiable cardiovascular risk factors are high blood pressure, high blood cholesterol, tobacco use, obesity, and physical inactivity.[2]

Reducing cardiovascular disease risk requires an integrated strategy that includes:

1) Lifestyle behavior change -- weight management; increased physical activity; no tobacco use; and a low-fat, low-cholesterol diet with moderate sodium, sugar and alcohol intake.

2) Community environmental support such as population screening to identify individuals with high levels of blood cholesterol, blood pressure or blood glucose, and other individuals at risk for heart disease. Community support also includes interventions that teach the skills necessary for behavior change that make living a healthier life easier. One popular example is the establishment and upkeep of bicycle trails for use by the public.

3) Development of public policies that encourage healthy lifestyle behaviors such as smoke-free worksites.[2]

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

Cardiovascular Disease in Iowa

In 2001, 63.5% of Iowans reported eating fewer high fat or high cholesterol foods than they had in order to lower their risk of heart disease. Estimated percentages in each age group ranged from 74.2% in respondents between the ages of 55-64 and 46.4% for those between 18-24 years. About 71.1% of females compared to 55.1% of males reported eating fewer high fat or high cholesterol foods.

About 18.7% of respondents reported that within the past 12 months their doctor advised them to eat fewer high fat and cholesterol calories. Respondents between the ages of 55 and 64 were most likely to have their doctor advise them to eat fewer of these foods (27.9 %) compared to only 5.8 % of those ages 18-24. For males, 18.4% were advised to eat fewer fatty foods, while for females it was 19.1%.

Figure 1: Percent of Iowans Eating Fewer High Fat or High Cholesterol Foods to Lower Risk of Developing Heart Disease or Stroke, 2001
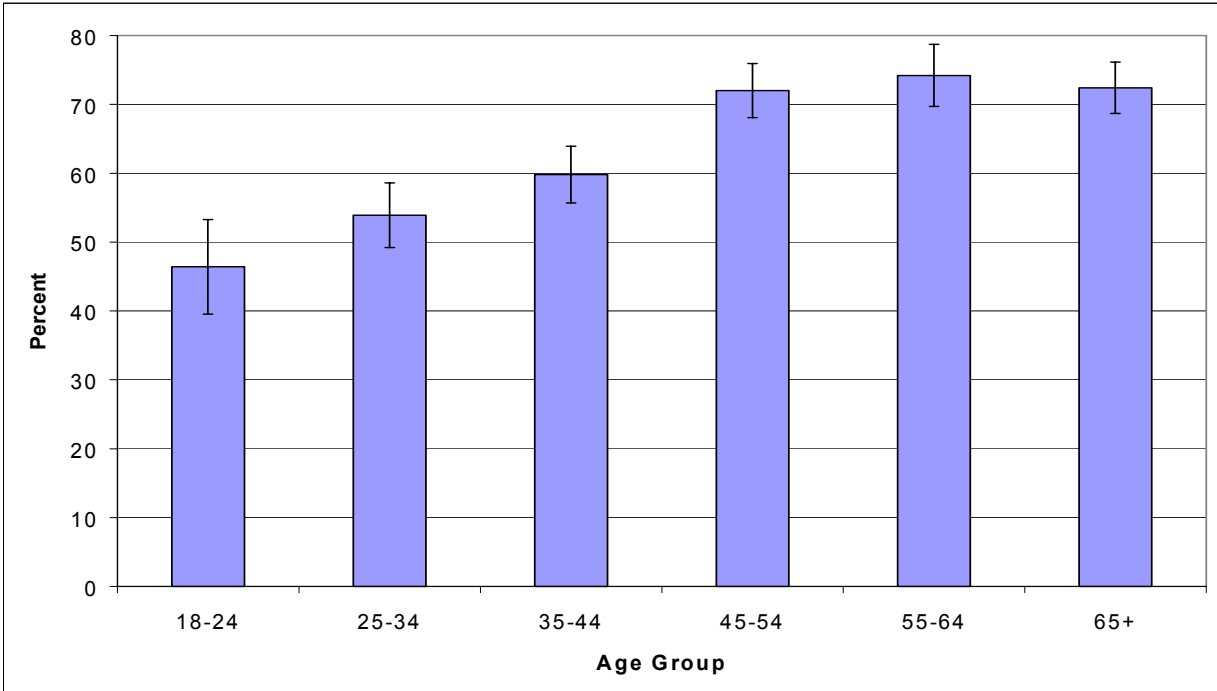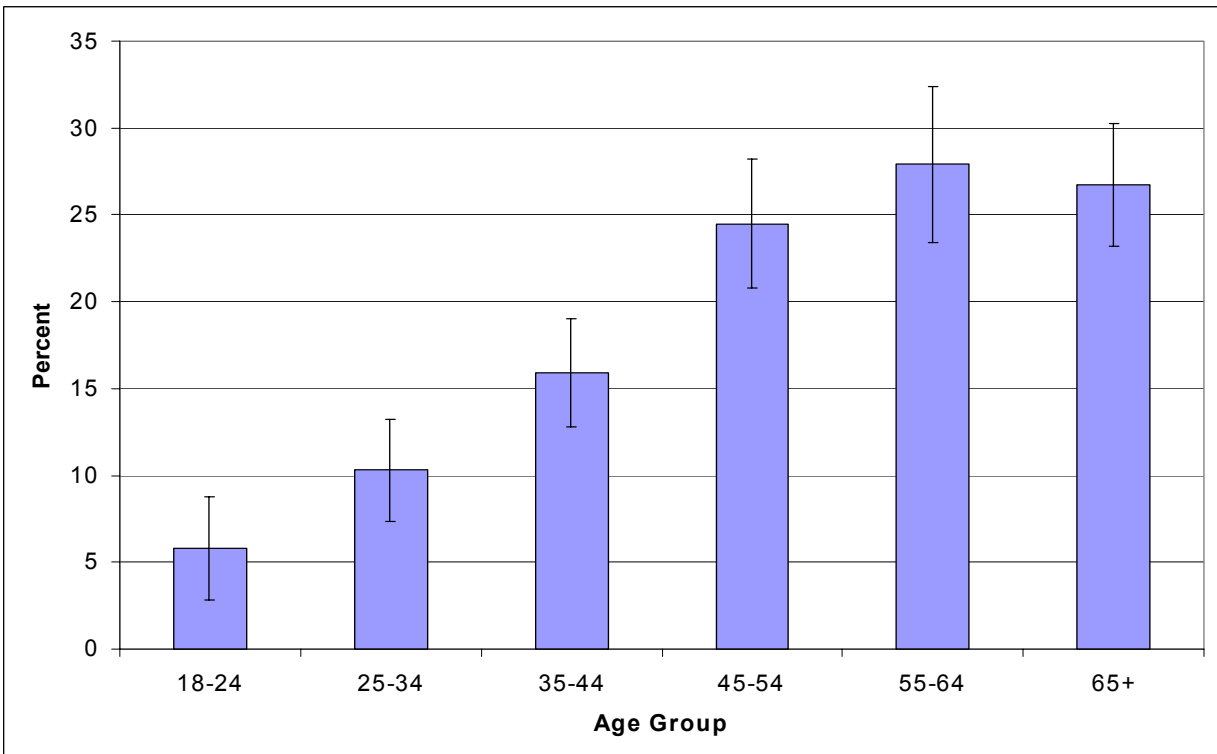

Figure 2: Percent of Iowans Advised by Doctor to Eat Fewer High Fat Foods to Prevent Heart Disease, 2001

Approximately 64.7 % of Iowans are exercising more to lower their risk of developing heart disease or stroke. The highest percentage of respondents reporting that they exercised more was aged 18-24 (74.2%), while the 65+ age group had the lowest (57.8%). About 66.2% of females compared to 63.1% of males were exercising more.

Figure 3: Percentage of Iowans Exercising More to Lower their Risk of Heart Disease or Stroke, 2001
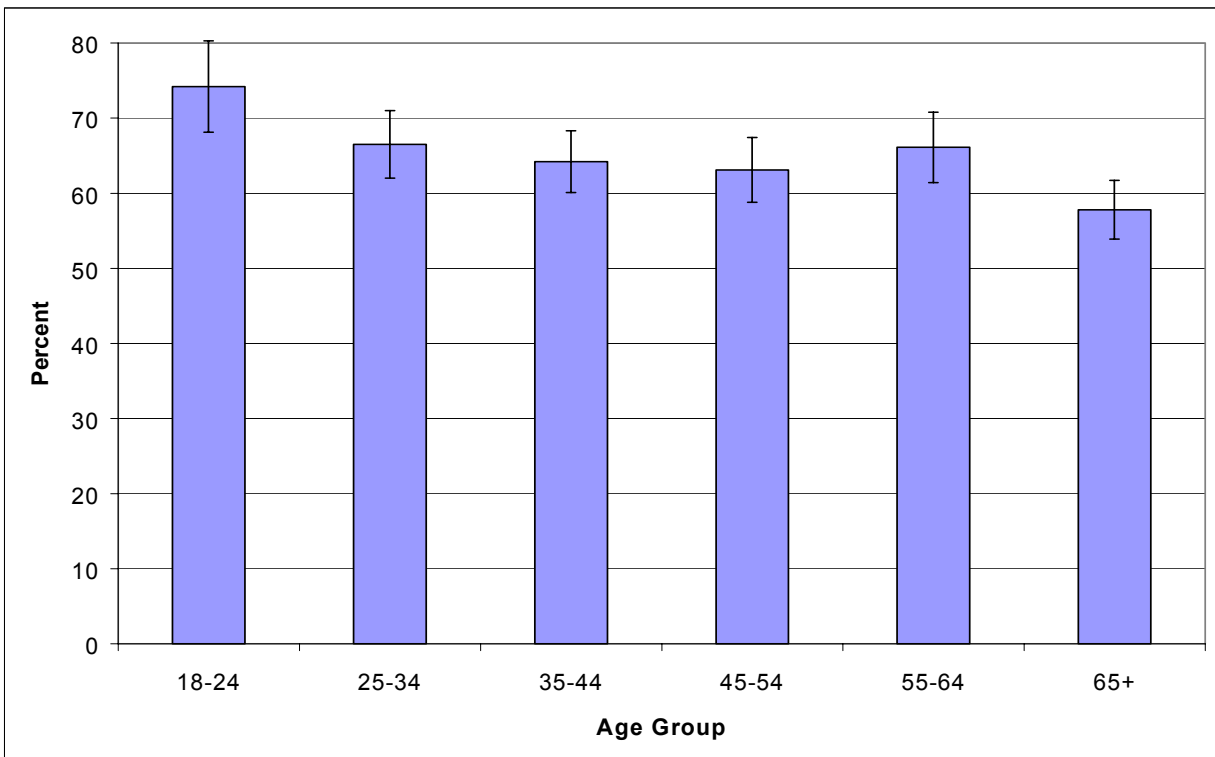
Of those surveyed, 24.1% reported that their doctor advised them to exercise more. The age group with the highest percentage told to exercise more was 55-64 (33.1%). On the other hand, only 11.7% of respondents between 18-24 were given similar advice. Females were more likely to be advised to exercise compared to their male counterparts (25.7% vs. 22.4%, respectively).

Respondents were asked if they were ever told by a doctor that they had a heart attack. Approximately 3.6% reported that they had. The majority of these respondents were male and over age 65 (20.2%). Less than 1.5% of respondents less than age 45 reported having a heart attack. Iowans surveyed also were asked whether a doctor ever told them they had coronary heart disease and 3.4% said yes. Again, a greater percentage of males age 65 and over reported ever being told they have coronary heart disease (17.6%).

When respondents were asked if they were ever told by a doctor that they had a stroke, 2.7% said they had. The majority of these respondents were female and over age 65 (7.9%).

Taking aspirin daily has been recommended as a preventive measure to reduce the risk of cardiovascular disease for people over age 35. Around 30.9% of respondents 35 and over

reported taking aspirin daily or every other day.. Percentages of use directly increased with age. Only 11.2% of respondents between 35 and 44 reported daily use compared to 51.6% of respondents ages 65 and older. Over 34.3% of males compared to 28% of females reported daily or every other day use. When asked why they take aspirin, 83.6% said it was to reduce the risk of heart attack, and 79.2% said to reduce the risk of stroke.

Figure 4: Percentage of Iowans Advised by a Doctor to Exercise More, 2001
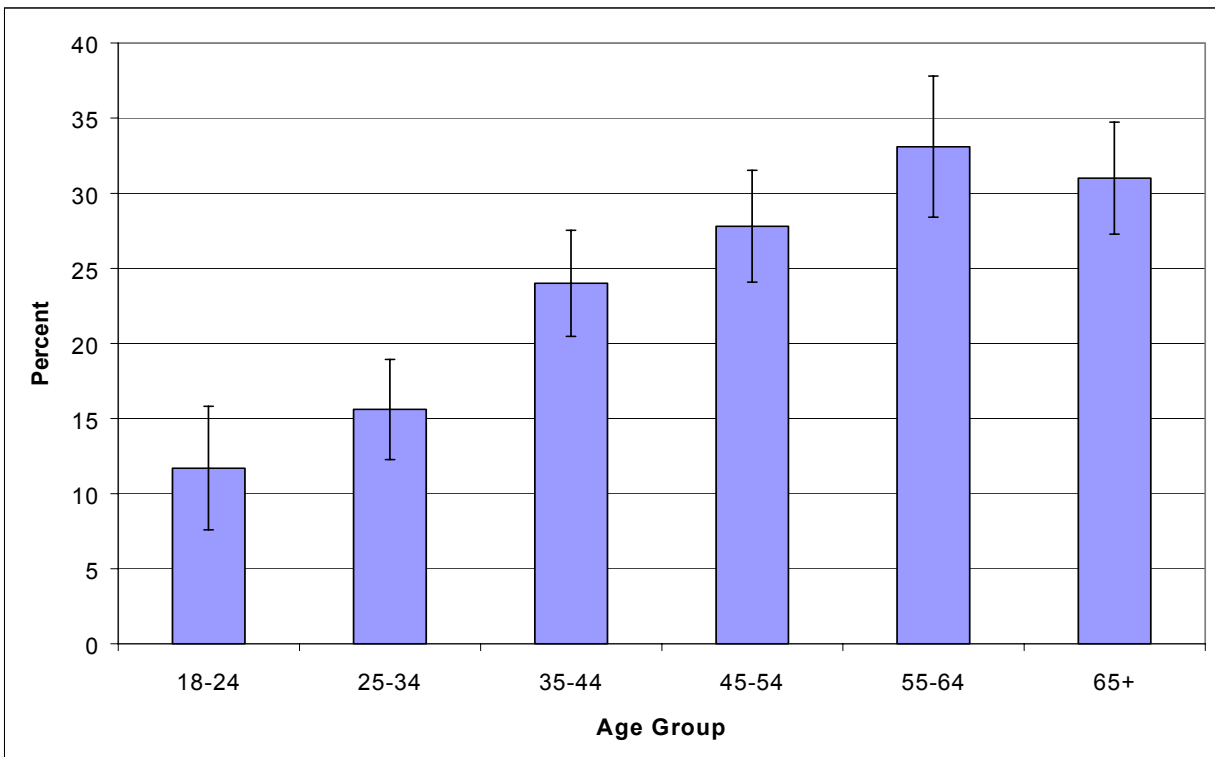
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HYPERTENSION AWARENESS

Background

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, another term for hypertension.[3] This symptomless disorder is a major risk factor for cardiovascular disease such as stroke.

Average adult American blood pressure levels and the prevalence of high blood pressure declined between 1976 and 1991.[2] Nearly one-fourth of adults--as many as 50 million Americans--have elevated blood pressure or take antihypertensive medication.[4] High blood pressure is most prevalent in older individuals, African-Americans, and in individuals with less education and low socioeconomic status.[1] In young adulthood and early middle age, men are more likely to have high blood pressure than women; after that, the reverse is true.[1]

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

High Blood Pressure in Iowa

Of all respondents, 25.5% reported ever being told they had high blood pressure. The highest percentage of respondents was ages 65 and older (55.1%). More females reported having high blood pressure than males (26.1% vs. 24.9%).

Lower income also appeared to be associated with having high blood pressure. An estimated 33% of respondents who indicated an income from $15,000 to $24,999 reported ever having high blood pressure compared to only 18.1% of respondents with an income of $75,000 and up.

Of those reporting high blood pressure only 74.2% reported taking medication for their condition. Like high blood pressure itself, this percentage increases steadily with age reaching a high of 89.6% for those 65 years and older. More females with high blood pressure took blood pressure medicine than males (79.7% vs. 67.9%).

Year 2010 Health Objectives for the Nation

According to the national health objectives for the year 2010 for high blood pressure only 16% of the adult population should report having high blood pressure. This is nearly 10% lower than is currently the case in Iowa.

Figure 1: Iowans Ever Told Blood Pressure is High by Age, 2001
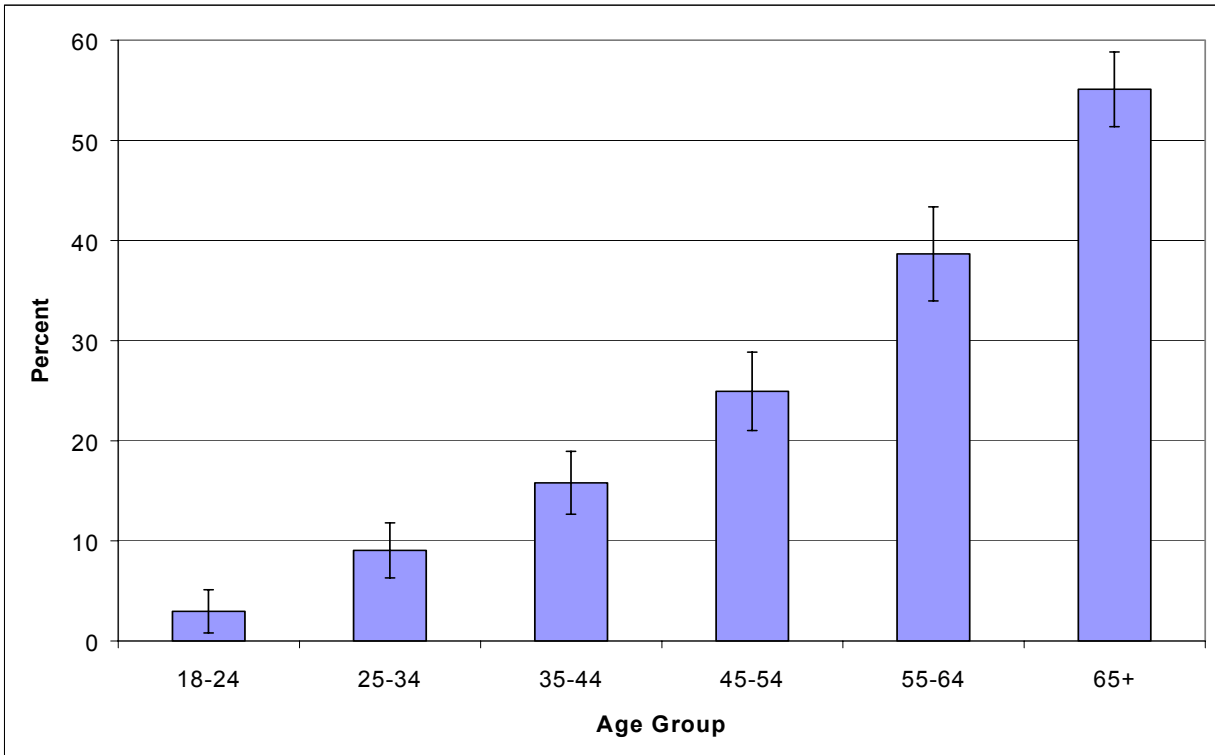
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CHOLESTEROL AWARENESS

Background

High blood cholesterol levels are associated with increased incidence of coronary heart disease. High cholesterol means a concentration of cholesterol in the blood of greater than or equal to ($\geq$) 240 milligrams per deciliter (mg/dl). Reducing high levels of blood cholesterol helps to decrease a person's risk for heart disease.[4]

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

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

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

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

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

Blood Cholesterol Awareness in Iowa

In 2001, the percentage of Iowans reporting ever having their blood cholesterol checked was 77%. More females than males reported having their blood cholesterol checked (80.1% vs. 73.6%).

The proportion of respondents reporting ever having their blood cholesterol checked increased with age. Over 92.3% of respondents 65 and over reported ever having their blood cholesterol checked. Only 46.1% of those 18 to 24 had done so.

About 70% of respondents reported having their blood cholesterol checked by a health professional during the past year. Similar responses were reported for both males and females. Respondents in older age groups were more likely than younger respondents to report having a more recent blood cholesterol test.

Figure 1: Iowans Ever Having Their Blood Cholesterol Checked by Age, 2001
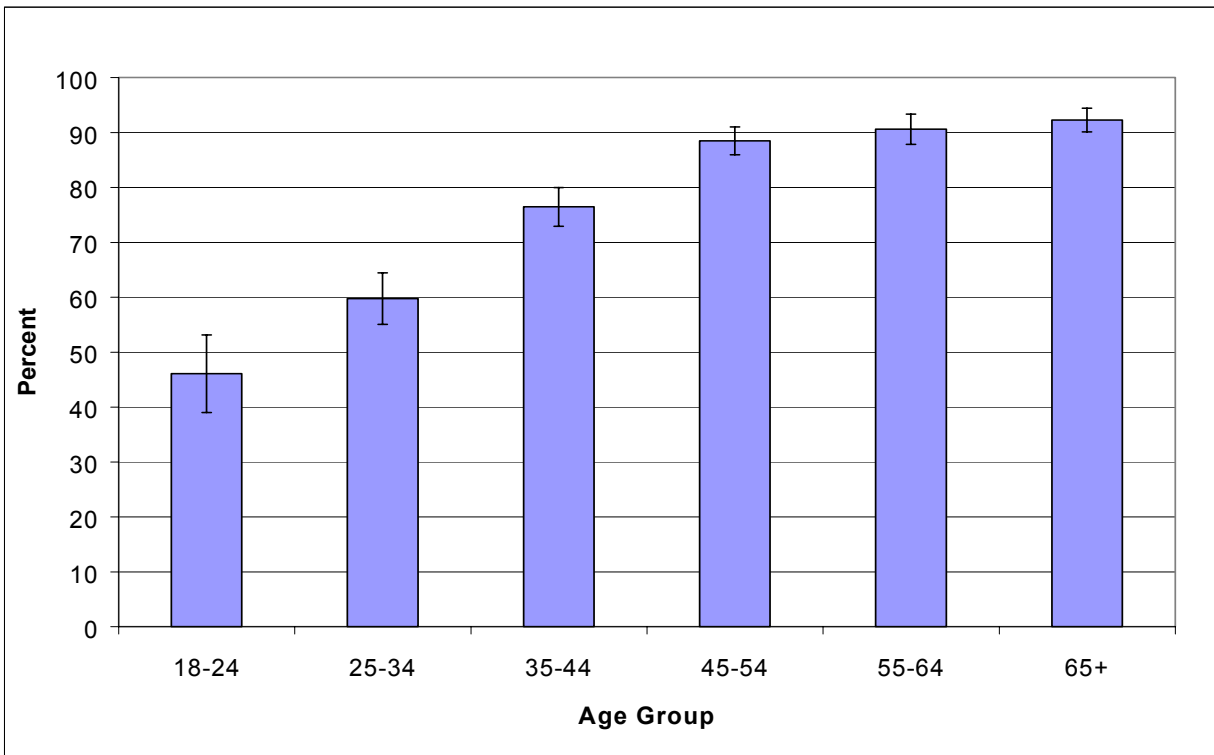
Of the respondents who had their cholesterol tested, 30.4% reported that they had ever been told by a doctor or other health professional that their blood cholesterol was high. The percentage of males was higher than the percentage of females who had ever been told their cholesterol was high (33.4% vs. 27.8%). Most respondents reporting high cholesterol were in the older age groups. This included approximately 45.3% of respondents 65 and over.

Comparison With Other States

The median percentage of respondents in all the states and territories who had not had their blood cholesterol checked in the past five years was 27.6%. In Iowa the figure was 28.8%. Iowa ranked 38th of all the states and the four territories on this measure tying with North Dakota. This is down from the 32.7% figure for 2000, although the median is down about the same amount.

Year 2010 Health Objectives for the Nation

Based on the national health objectives for the year 2010, 80% of adults should have their blood cholesterol checked within the past five years. The year 2001 BRFSS sample shows that only 77% of Iowans age 18 and older have had their blood cholesterol checked at least once in their lifetime. Only 71.2% of respondents had their blood cholesterol checked within the past five years.

Figure 2: Iowans Ever Told Their Cholesterol Was High by Age, 2001
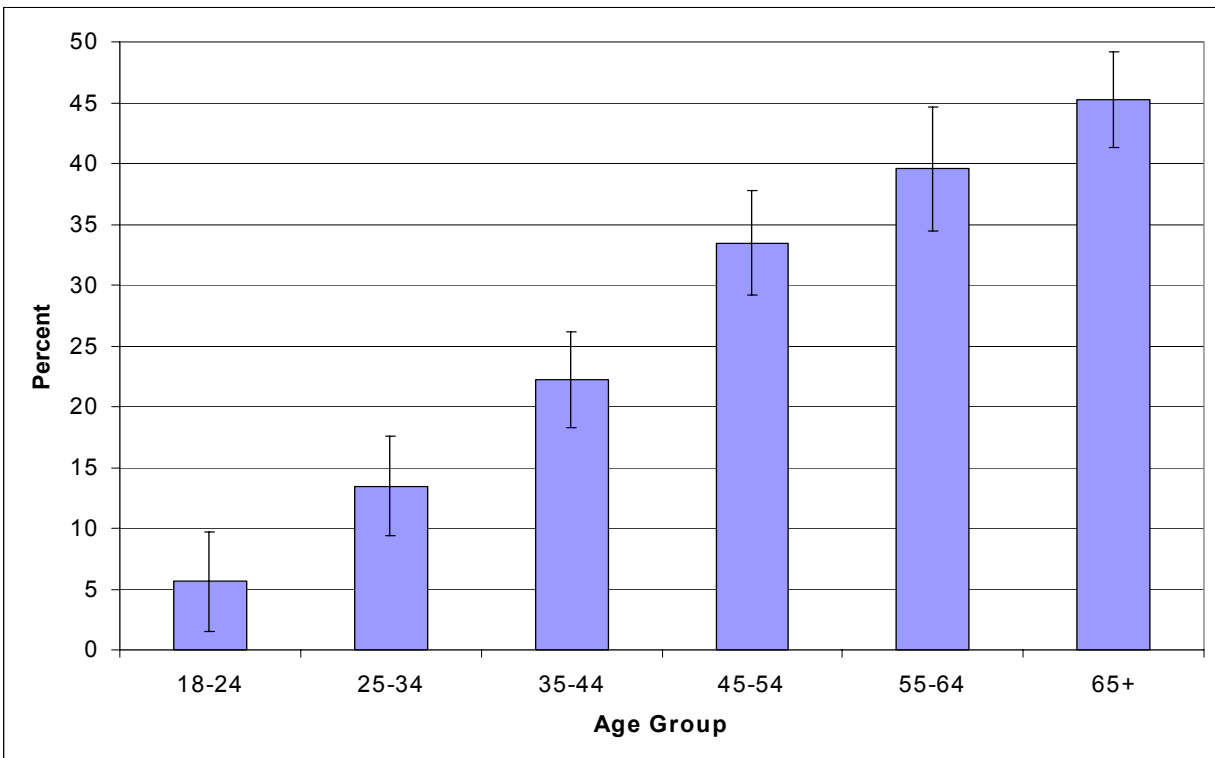
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EXERCISE AND PHYSICAL ACTIVITY

Background

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

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

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

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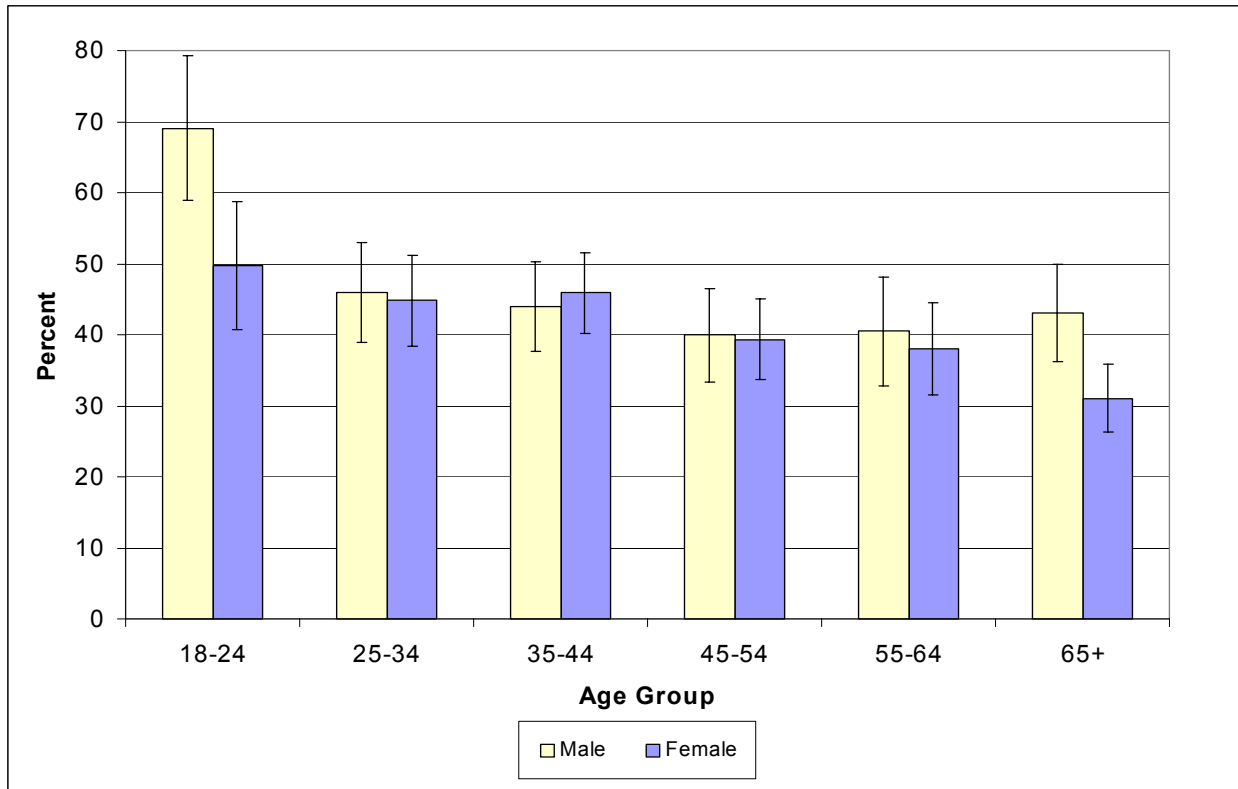
Physical Activity in Iowa

In 2001, 74.1% of respondents reported that they had engaged in some sort of physical activity for exercise during the past month. More younger respondents reported engaging in physical activity than older respondents. The percentage for 18 to 24 year olds was 82.6%, while the percentage for those over 65 years old was 62.9%.

Physical activity may be classified as either moderate or vigorous. Vigorous activities cause large increases in breathing or heart rate while moderate activities cause small increases in breathing or heart rate.

The recommended level of physical activity may be either regular and moderate physical activity or regular and vigorous physical activity. Regular and moderate physical activity is defined as moderate activity for 30 or more minutes per day for 5 or more days per week. Regular and vigorous physical activity is defined as vigorous activity for 20 or more minutes per day, 3 or more times per week. Only 19.5% of all respondents said they had engaged in regular and vigorous physical activity. This is an increase from the previous year when the figure was 12.3%. The percentage of respondents who met the recommended level of physical activity was 43.7%. Around 14% of respondents reported engaging in no physical activity at all.

The percentage of respondents reporting they had engaged in the recommended amount of physical activity decreased with age. Around 59.5% of 18 -24 year-olds reported engaging in the desired level of physical activity, while this applied to only 36.1% of those 65 years and over.

Figure 1: Percentage of Iowans Engaging in the Recommended Level of Physical Activity by Age and Sex, 2001

More men than women engaged in the recommended amount of physical activity ((46.6% vs. 41%). This was particularly true within the two extreme age groups as is shown in Figure 1.

A larger percentage of those who were better educated (47% for college graduates vs. 40.1% for high school graduates), engaged in the recommended amount of physical activity.

Comparison With Other States

Iowa ranked 29th on the measure of not engaging in leisure time physical activity. Approximately 25.9% of Iowa respondents reported not engaging in any leisure activity, while the median for the nation was 25.8%. In 2000, the figure was 27.3%, but the ranking was nearly identical.

Year 2010 Health Objectives for the Nation

The target for objective 22.1, reducing the proportion of adults who engage in no leisure-time physical activity, is 20 percent.[4] Iowa's level of 25.9% is higher than this target. The target for objective 22.3, to increase the proportion of adults engaging in regular and vigorous physical activity, is 30%. Iowa respondents report only 20.1%. Although this is up substantially from the 12.3% reported last year, it is still far below the target.

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DIET AND WEIGHT CONTROL

Fruits & Vegetables

Background

Poor nutrition is an important modifiable risk factor for several chronic diseases, including some cancers and cardiovascular diseases (CVD).[1] A diet rich in fruits and vegetables may protect against cancer. Antioxidant vitamins and other compounds in fruits and vegetables slow or stop processes in the body that can lead to cancers or CVD.[8]

People who eat more fruits, vegetables and whole grains have significantly lower rates of cancer of the colon, breast, prostate, ovary, lining of the uterus, esophagus, stomach, and liver. Fruits and vegetables may protect against these cancers because eating more of them: increases fiber intake, decreases calorie intake, increases antioxidant vitamin intake, decreases fat intake, and reduces the actions of some cancer-causing compounds.[1,8]

Individuals over age 2 can reduce chronic disease risk by eating more vegetables, fruits, whole grains, seeds, and nuts. They should be encouraged to eat five or more servings of fruits and vegetables daily to meet current dietary guidelines set by the federal government.[5]

Fruit and Vegetable Intake in Iowa

The percentage of Iowans who eat five or more servings of fruits and vegetables per day was 22% in 2001. More females ate five or more servings of fruit and vegetables per day than males (26.6% vs. 17% respectively).

Older Iowans were more likely to report meeting the five-a-day standard than younger. People 65 and over met the criterion at the rate of 31%, while the 25-44 age groups only obtained a rate of 16.9%. Interestingly, the female superiority at meeting the five-a-day criterion was not true for the 25-34 age group.

Year 2010 Health Objectives for the Nation

According to the national health objectives for the year 2010 75% of people over two years old need to consume two helpings of fruit daily and 50% need to consume three helpings of vegetables daily. Although this goal cannot be directly assessed by the BRFSS, the percentage of adult Iowans consuming five or more helpings of fruits or vegetables daily has fallen far below this goal at only 22%.

Figure 1: Percentage of Iowans Who Eat 5 Portions A Day of Fruits and Vegetables by Age and Gender, 2001
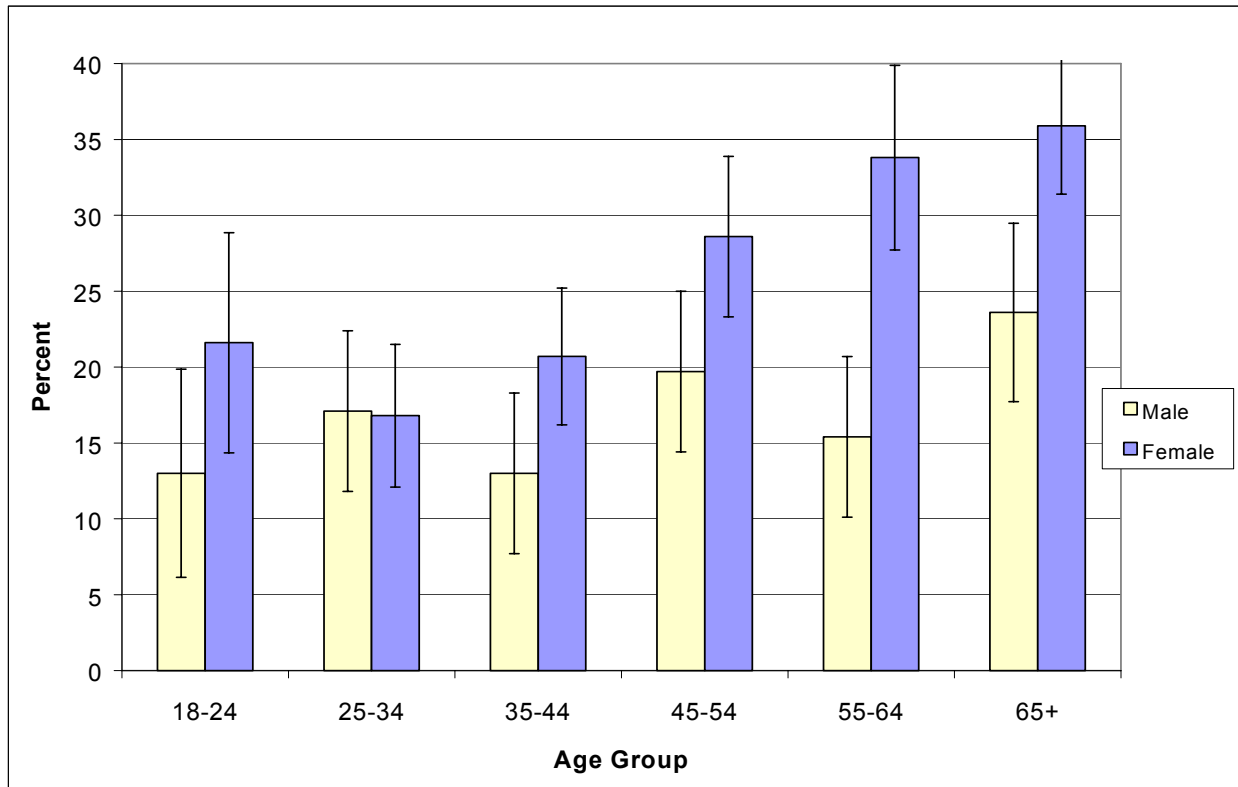
Vitamins & Folic Acid

Background

Even though eating five or more portions a day of fruit and vegetables improves the chances that a person will receive the proper amount of vitamins, it is, nonetheless, recommended that people take vitamin supplements to ensure proper nutrition.[5]

This is particularly true of folic acid. Folic acid intake is an important issue for women who might become pregnant. Folic acid reduces the risk of neural tube defect development in the fetus when taken at least one month before conception and throughout the first trimester of pregnancy. Neural tube defects include the brain (anencephaly or no brain formation) and spinal cord (spina bifida). Because folic acid consumption is extremely important during the beginning of pregnancy, when many women do not realize that they are pregnant, recommendations for use include all women of childbearing age. The current recommendation from the US Public Health Service is that all women of childbearing age should receive 400 micrograms of folic acid daily before pregnancy.[6]

Vitamins & Folic Acid in Iowa

In 2001 52.6% of respondents said they currently took vitamin pills or supplements. Of these people 83% took a multivitamin. Of those who did not take a multivitamin, an additional 28.1% said that their vitamin contained folic acid. For women between the ages of 18 and 44 (childbearing age) 54.2% currently took vitamin pills or supplements. Of these 88.5% took a multivitamin. However, of those who did not take a multivitamin, an additional 50.9% took a vitamin that contained folic acid.

Overweight & Obesity

Background

Overweight and obesity are probably the most serious nutrition problems in America today. Health experts agree that being overweight is a risk factor for many diseases. Obesity is associated with the onset and progression of high blood pressure, diabetes, and atherosclerosis (hardening of the arteries).[6] Overweight and obese adults are also at increased risk for gallbladder disease, respiratory disease, some types of cancer, gout, and arthritis.[4]

The origin of overweight involves many factors. It reflects inherited, environmental, cultural and socioeconomic traits.[6] Findings from the Third National Health Examination Surveys (NHANES III 1988-1994) conducted by the Centers for Disease Control and Prevention, indicate that substantial proportions of children, adolescents, and adults in the United States were overweight.[3]

The prevalence of being overweight among adults has not declined for 20 years.[6] Being overweight tends to increase with age until about age 50 for men and age 70 for women.[7] Exact measurements of body fat require sophisticated equipment. To eliminate this, problem obesity is often estimated from weight standards that are adjusted for body frame. Carefully measured weight and height remain the most easily performed and useful means to determine nutritional status and to predict mortality for the general population.[2]

Body mass index (BMI) is used to determine the appropriateness of weight for a person's height. BMI is defined as a person's body weight in kilograms divided by their height in meters squared [weight (kg)/height (m^2)]. Estimations of the prevalence of overweight and obesity in this report are based on BMI. Overweight is considered to be a BMI value >= 25 and < 30, and obesity is considered to be a BMI >= 30.

The increase in the prevalence of being overweight is a result of a shift in energy balance in which energy taken in from food is greater than energy used in physical activity.[3]

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

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

Overweight in Iowa

The BRFSS data show that 37.3% of Iowans are overweight and 22.5% are obese based on BMI. The level of overweight and obese combined is 59.8%, which is essentially unchanged from the figure shown last year. It is possible that the steady trend in increasing overweight and obesity shown since 1990 is leveling out.

Figure 2: Overweight Iowans by Year Based on Body Mass Index (BMI), 1991-2001
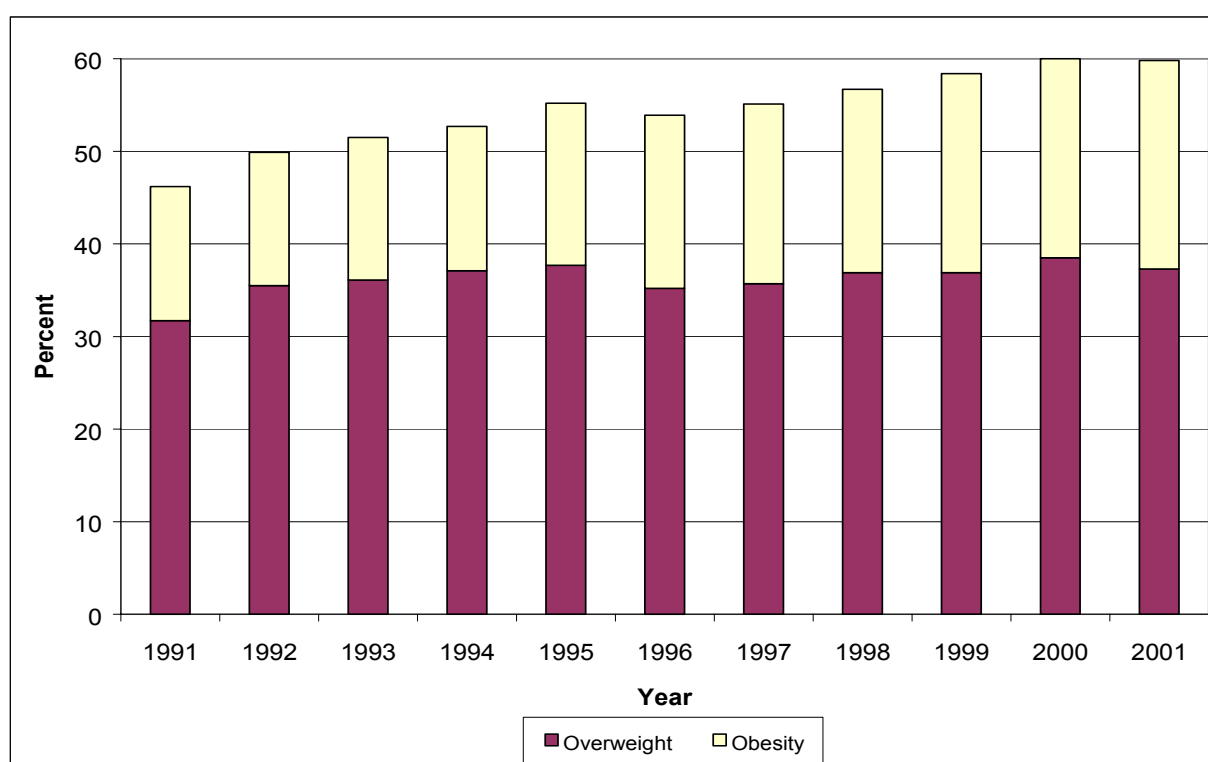
The self-reported weights show 44.1% of males and 30.5% of females are overweight, while 23.9% of males and 21.2% of females are obese based on BMI. The 18-to-24-year-old group had the lowest percentage of overweight individuals (males 30.4% and females 17.2%). The 65-year-old and over age category was at highest risk for being overweight (males 51.3% and females 36.4%).   Obesity did not follow exactly the same pattern. It was also lowest in the 18-to-24-year-old group (males 11.5% and females 10.7%), but it was highest in the 55-to-64 age group (males 31.1% and females 29.1%). There was also a much less consistent sex difference for obesity among the different age groups.

Other categories showing the highest risk for overweight or obesity include married people, those in the $25,000-49,999 income category, and those who were high school graduates.

Table 1: Overweight and Obese Iowans Based on BMI by Age and Sex, 2000

	Overweight		Obese	
Age Group	Male	Female	Male	Female
18-24	30.4	17.2	11.5	10.7
25-34	42.6	29.3	21.0	18.1
35-44	42.5	29.1	29.6	18.6
45-54	47.5	30.8	30.8	26.8
55-64	49.5	36.0	31.1	29.1
65 & Up	51.3	36.4	18.2	22.8

Around 42% of respondents in the 2001 survey reported that they were trying to lose weight. More women than men were trying to lose weight (49.9% vs. 33.2%).

Comparison with Other States

Approximately 22.5% of Iowans were obese (BMI >= 30) in 2001. This was higher than the median of 21.1%. It was tied in ranking with South Carolina at 39th most prevalent. The percentage is up from 21.5% in 2000, but the median has also risen by a full percent.

Year 2010 Health Objectives for the Nation

The health objectives on weight for the nation to be achieved by the year 2010 call for increasing the prevalence of healthy weight (neither overweight nor obese) to 60% among adults age 20 and over. The trend in Iowa is in the opposite direction. In fact, Iowa has 60% currently who are above healthy weight. The Healthy People 2010 target for obesity is 15%. Iowa's percentage of 21.6% indicates the state has a major obstacle to overcome if it is to achieve the national target by 2010.

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

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DIABETES

Background

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

An alarming new trend is the growing number of children and adolescents who are being diagnosed with type 2 (adult-onset) diabetes. This is attributed to overweight and inactivity among youth.

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

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

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

Diabetes in Iowa

In 2001, 5.7% of respondents had ever been told by a physician that they have diabetes, excluding women told only during pregnancy. Of respondents 65 years and over, 13.9% had ever been told they had diabetes. Among individuals who had been told they had diabetes, most (24%) reported being first diagnosed between ages 55-64. The age group in which the least reported being first diagnosed was less than age 18 (4.3%).

Of those ever told by a physician that they have diabetes, 23.4% reported currently taking insulin. On the other hand, 68.6% reported currently taking oral medication to control the disease.

Figure 1: Percentage of Iowans Who Have Ever Been Told They Have Diabetes by Year
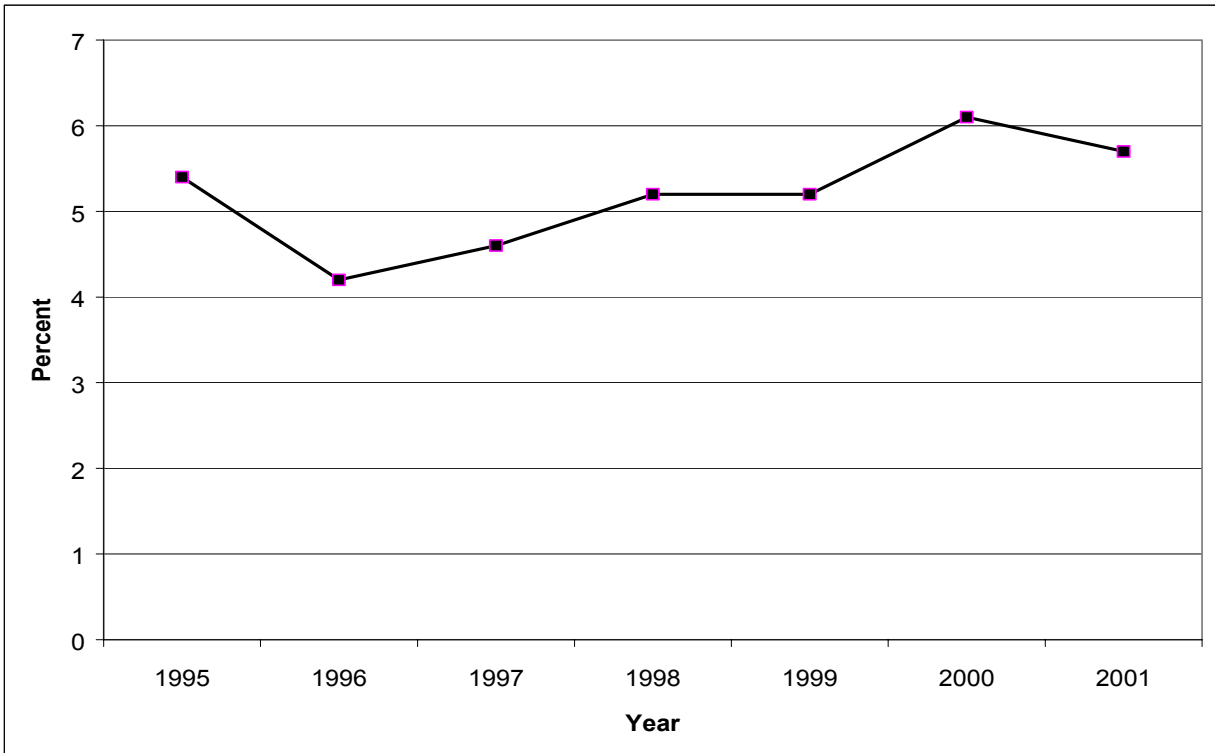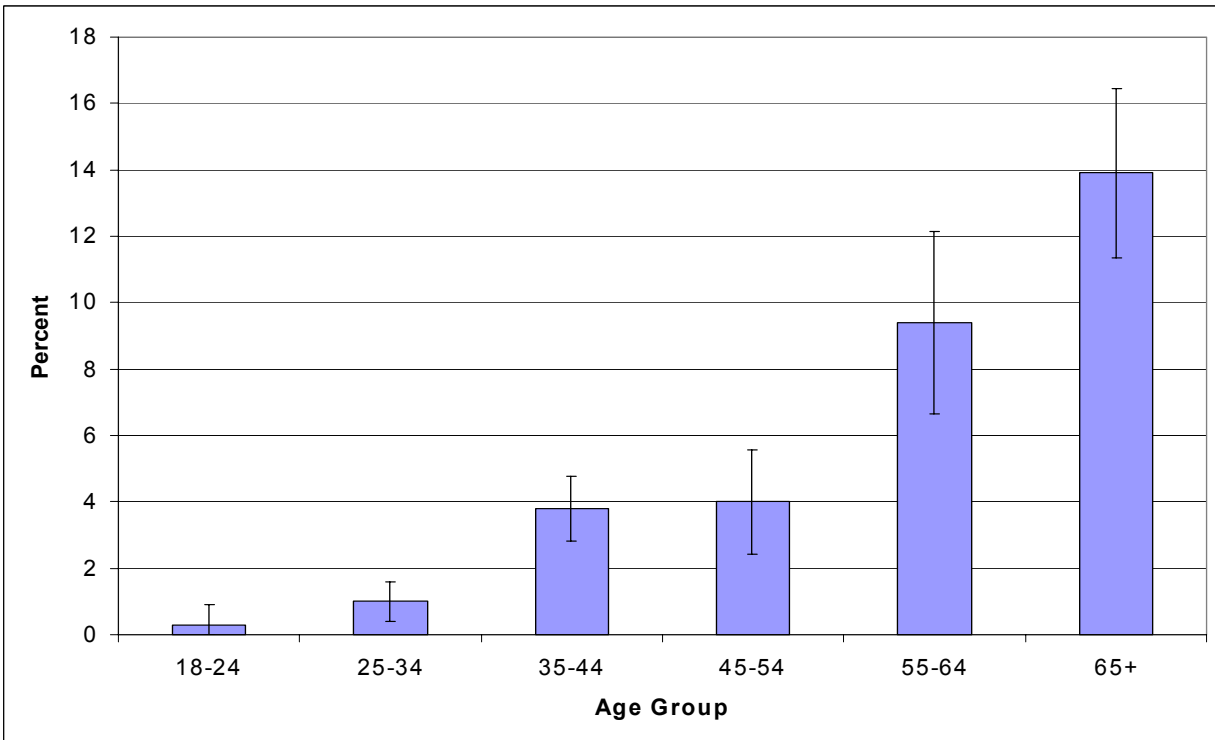

Figure 2: Prevalence of Diabetes in Iowa by Age, 2001

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 39.7% checked their blood sugar once or twice a day themselves or with the help of a friend or family member. About 9.9% reported never. Around 74.2% had it checked at least four times within the past year by a health professional through a glycosylated hemoglobin test. Around 5% reported never when asked about the glycosylated hemoglobin test. Another 9.6% reported they were unsure and 4.9% had never heard of such a test. It is recommended that this test be done at least twice a year and at least three months apart.

Individuals with diabetes should have their feet checked for sores and irritations. When asked how many times they checked their feet, 65.6% of respondents who were ever diagnosed with diabetes claimed to have checked them daily. Another 11.1% said they never checked them. Around 26.6% of respondents reported they had their feet checked by a health professional once within the past twelve months, while 23.4% reported never having done so.

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 75.9% reported within the last year, while 2.3% reported never.

Comparison with Other States

The median prevalence of diabetes for the 50 states, District of Columbia, Guam, the Virgin Islands, and Puerto Rico is 6.6%. The figure for Iowa is 5.7%. Iowa ranks 14th but is tied with three other states in diabetes prevalence.

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ASTHMA

Background

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

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

The causes of asthma are not known for certain but are most likely a combination of genetic and environmental risk factors. Those risk factors for asthma include family history of asthma and allergies, exposure to indoor air pollution (tobacco smoke, animal dander, dust mites, cockroaches, occupational exposures to more than 250 substances), outdoor air pollution (burning leaves, pollen, air pollutants), obesity and lack of exercise. Diet and early exposure to certain infectious agents may provide some protection. Once someone develops asthma, he/she often becomes especially sensitive to any exposures to the environmental risk factors listed.[4,7,8]

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

Asthma in Iowa

In 2001, 9.7% of respondents reported ever being diagnosed by a physician with asthma. Among these individuals, 71% currently have asthma, including a greater proportion of females (77.6%) than males (61.2%).

Individuals reporting lower incomes had a higher proportion of respondents who currently have asthma. Of those with an income of $15,000 or less 78.8% have asthma compared to 61.5% of respondents with an income of $75,000 or more.

Lower levels of education were also associated with a higher percentage of respondents reporting currently having asthma. Of those respondents with less than a high school education 81.3% reported currently having asthma, while only 64.4% of college graduates reported currently having asthma.

Of those respondents who had ever been told they had asthma 35.8% were diagnosed with the disorder at age 10 or before.

Of those who currently have asthma 41.7% did not see a health professional for a checkup for their asthma within the past year. Of those who currently have asthma, 69.2% reported no days in which their activities were limited due to asthma in the past year.   The remainder reported anywhere from 1 to 365 days of limitation.

Figure 1: Percentage of Iowans Ever Having Asthma Who Reported They Currently Have Asthma by Income, 2001
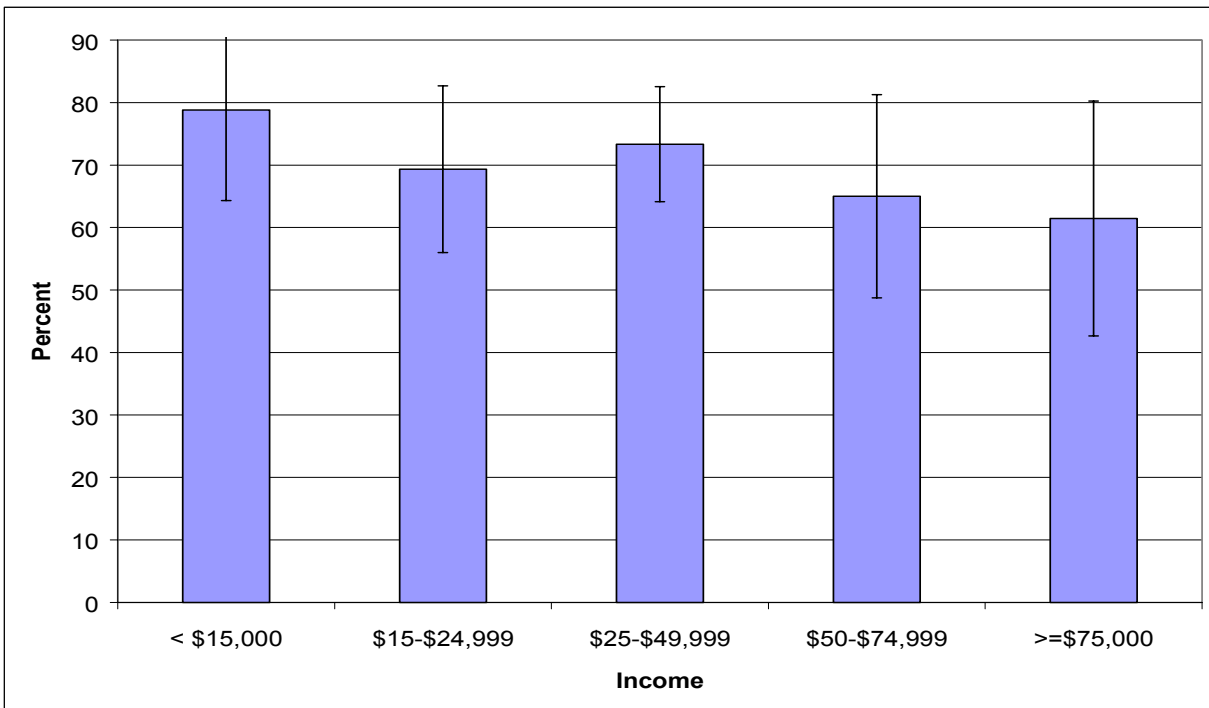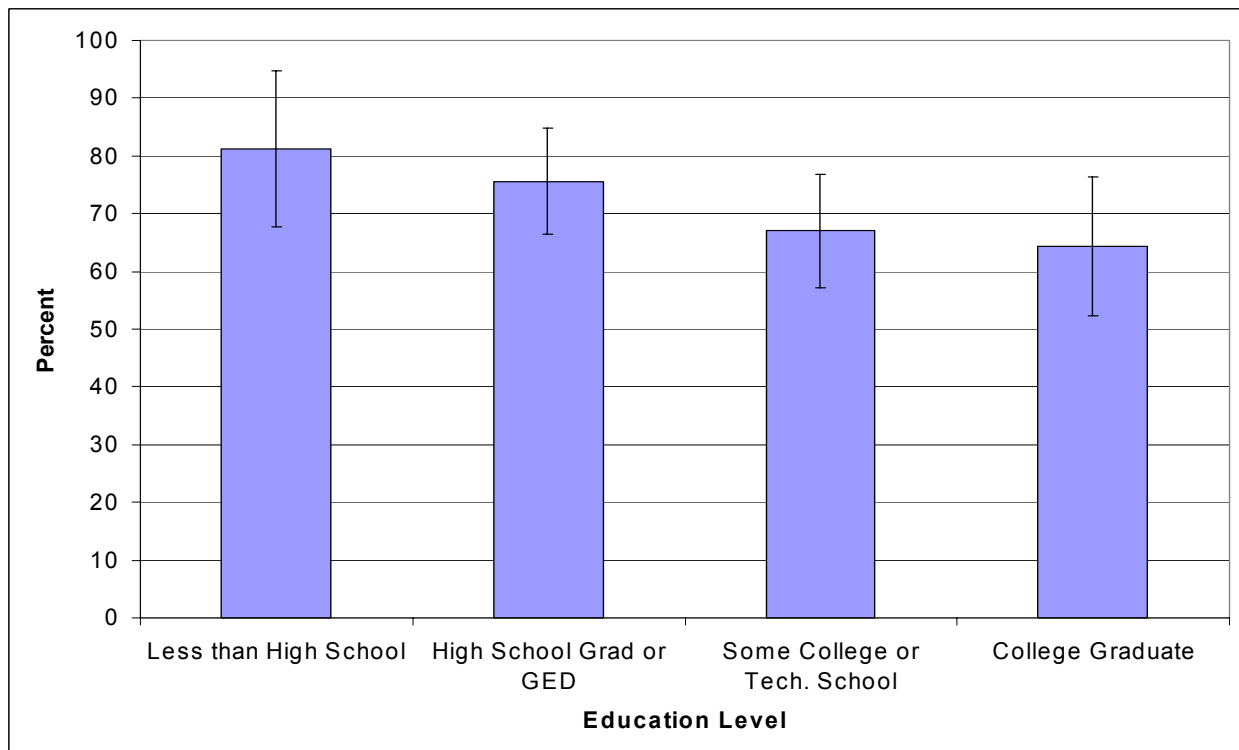

Figure 2: Percentage of Iowans Who Reported Ever Having Asthma Who Currently Have Asthma by Education 2001

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TOBACCO USE

Background

Tobacco use remains the leading preventable cause of death in the United States. It is responsible for more than 430,000 deaths each year, or one in every five deaths.[1] Over $50 billion is spent every year on direct medical expenditures, and another $50 billion on indirect costs such as lost work time, resulting from tobacco use.[1]

Tobacco use is known to cause heart disease, peripheral vascular disease, chronic lung disease, as well as cancers of the lung, larynx, esophagus, pharynx, mouth, and bladder. In addition, cigarette smoking contributes to cancer of the pancreas, kidney, and cervix.

Consequences of smoking during pregnancy include spontaneous abortions, low birthweight babies, and sudden infant death syndrome (SIDS).[5] Environmental tobacco smoke (ETS) increases the risk of heart disease and lung cancer in adults. ETS also affects children by increasing lower respiratory tract infections and asthma, and by decreasing pulmonary functioning.[7]

Exposure to ETS is significant. In one study, 87.9% of children and adult nonusers of tobacco had detectable levels of serum cotinine, a biomarker for cigarette smoke exposure.[6] Every year, exposure to ETS causes an estimated 3,000 nonsmoking Americans to die of lung cancer and causes up to 300,000 children to suffer from lower respiratory tract infections.[3]

Public health efforts to reduce the prevalence of tobacco use began after the health risks were announced in the first surgeon general report on tobacco in 1964. Smoking prevalence declined from 42.4% in 1965, to 24.7% in 1997.[1] However, since 1990, these rates have not continued to decline. Prevalence has remained constant for adults, and has increased among high school students (now at a prevalence rate of 36.5%).[1]

Preventing initiation of tobacco use has become a priority in reducing prevalence since more than 80% of current adult tobacco users started smoking cigarettes before the age of 18.[2]

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.

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.[4]

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

There are large disparities in tobacco use and health outcomes across racial and ethnic groups and socioeconomic status.[1] American Indians and Alaska Natives had the highest smoking prevalence in 1998, with Black and Southeast Asian men second.[1]

A dramatic increase in tobacco use worldwide prompted the World Health Organization and the World Health Assembly to launch global tobacco control strategies.[1]

Tobacco Use in Iowa

Of all respondents surveyed in 2001, 22.1% reported being a current smoker. Current smoking was defined as smoking some days or everyday during the past 30 days and smoking at least 100 cigarettes in a lifetime. The proportion of current smokers generally declined with age. Respondents between ages 18 and 24 reported the greatest percentage of smokers (30.8%). Only 8.6% of respondents ages 65 and older were current smokers.

**Figure 1: Percentage of Current Smoker by Age, 2001**
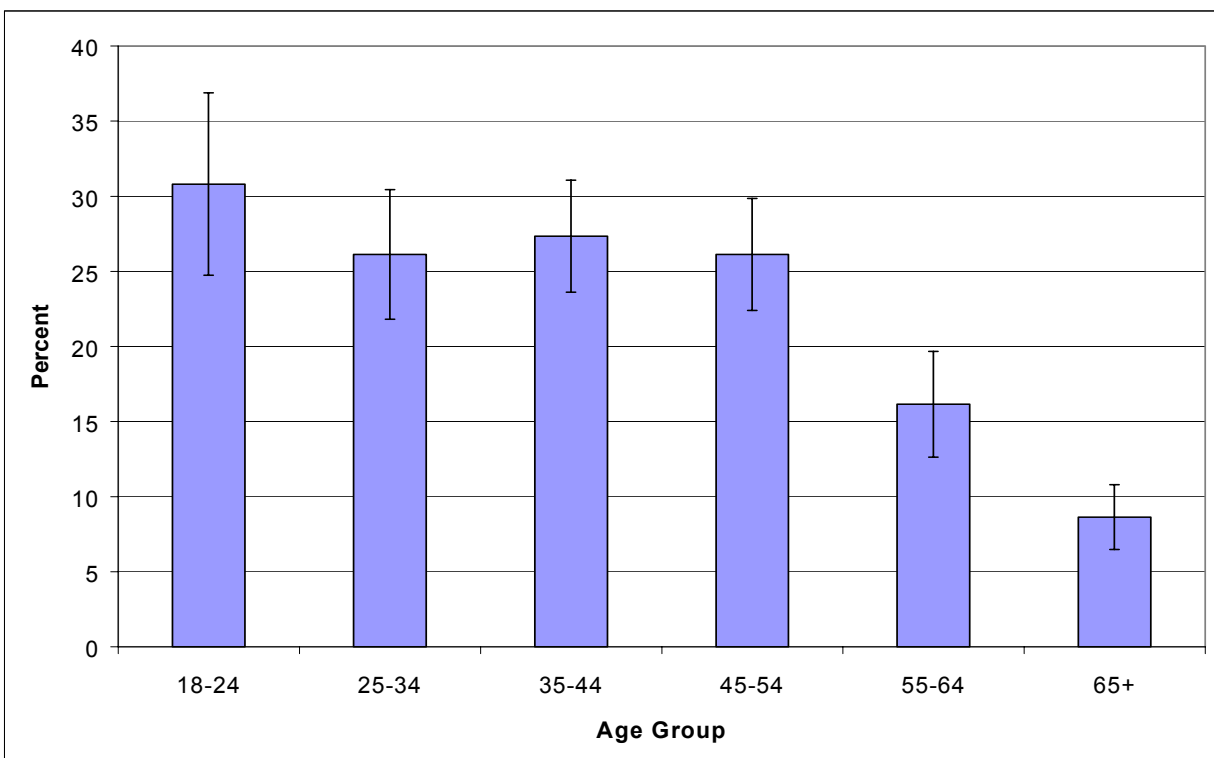
Males were more likely to be current smokers than females. Around 24.2% of males reported being current smokers compared to 20.3% of females.

Respondents with an income of $75,000 or greater were significantly less likely than lower income groups to smoke. Around 18% of respondents who reported an income of $75,000 or greater were current smokers compared to 29.4% for individuals reporting an income from $15,000 to $24,999.

Nearly 24.6% of respondents were former smokers. This means that they had smoked at least 100 cigarettes in their lifetime, but now smoked on no days. The age trend for former smoker was the opposite of current smoker. The 18 to 24 age group had only 8.7% former smokers, while the 55 to 64 age group had 39.8%.

Males were still more likely to be former smokers. Around 30.2% of males were former smokers, while 19.5% of females were former smokers.

**Figure 2: Percentage of Current Smokers by Income, 2001**
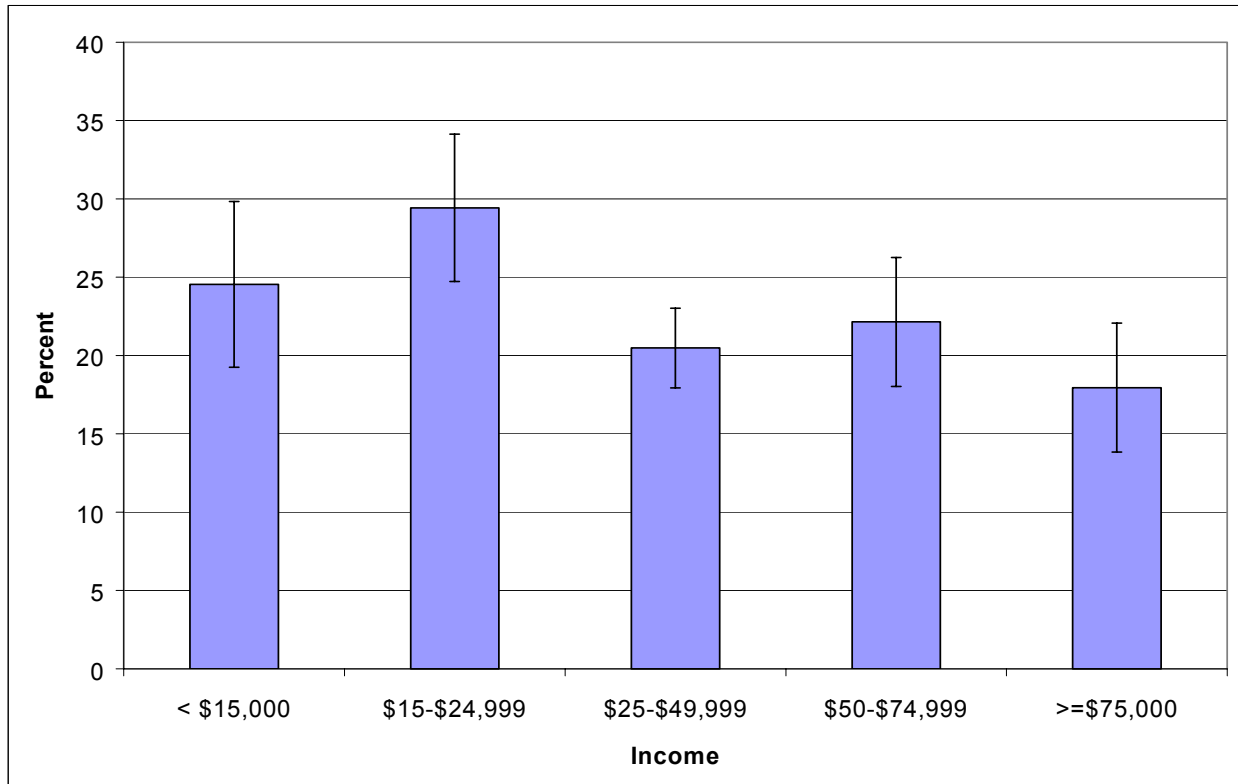
Almost 51.3% of Iowa's current smokers quit smoking for a day or more during the past year. A larger percentage of females than males quit for at least one day (54% vs. 48.8%). Younger smokers were more likely to report trying to quit during the past year. Close to 74.6% of individuals surveyed between ages 18-24 reported trying to quit compared to 45.5% of persons age 65 and older. Smokers between the ages of 45 and 54 were least likely to report trying to quit. Only 40.8% reported quitting for a day or more during the past year.

Comparison With Other States

Approximately 22.1% of Iowans reported being current smokers compared to the median for the nation of 22.9%. Iowa ranked 16th of all states and territories in percent of current smokers and was tied with North Dakota.

Figure 3: Percentage of Current Smokers Who Quit At Least One Day in the Past Year by Age, 2001
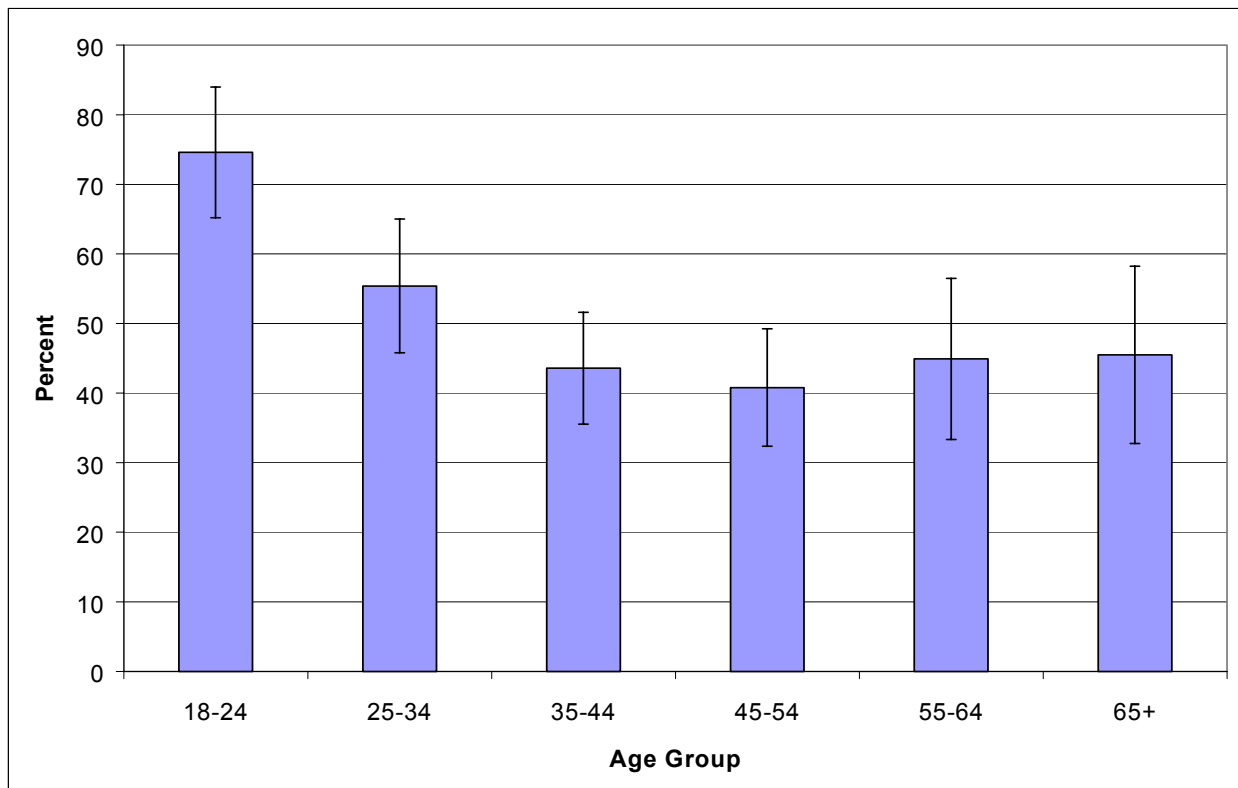
2010 Health Objectives for Iowa and the Nation

The current smoking prevalence rate for Iowa of 22.1% is down from the 23.2% rate reported in 2000, but is still far above the 12% goal set by Healthy People 2010.

The Healthy People 2010 goal for those trying to quit smoking was 75%. Only 51.3% of Iowa's current smokers quit smoking for a day or more during the past year. Since these are current smokers they did not succeed. Added to that would be 8.9% of the 24.6% of former smokers who said they last smoked in the past year. This would amount to an additional 2.2%. This is far short of the Healthy People 2010 objective. .

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ALCOHOL CONSUMPTION

Background

For most people who drink, alcohol is a pleasant accompaniment to social activities. Moderate alcohol use—up to two drinks per day for men and one drink per day for women and older people—is not harmful for most adults. (A standard drink is one 12-ounce bottle or can of either beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of 80-proof distilled spirits.) Nonetheless, a large number of people get into serious trouble because of their drinking. Currently, nearly 14 million Americans—1 in every 13 adults—abuse alcohol or are alcoholic. Several million more adults engage in risky drinking that could lead to alcohol problems. These patterns include binge drinking and heavy drinking on a regular basis. In addition, 53% of men and women in the United States report that one or more of their close relatives have a drinking problem.[2]

Alcohol dependency and abuse are major public health problems carrying a large economic cost and placing heavy demands on the health care system. Alcoholism, also known as alcohol dependence, is a disease that includes the following four symptoms:

- Craving--A strong need, or urge, to drink.
- Loss of control--Not being able to stop drinking once drinking has begun.
- Physical dependence--Withdrawal symptoms, such as nausea, sweating, shakiness, and anxiety after stopping drinking.
- Tolerance--The need to drink greater amounts of alcohol to get "high."

This chronic disease is dependent on both heredity and lifestyle. Alcoholism cannot be cured at this time. Even if an alcoholic hasn't been drinking for a long time, he or she can still suffer a relapse. To guard against a relapse, an alcoholic must continue to avoid all alcoholic beverages.

Alcohol abuse differs from alcoholism in that it does not include an extremely strong craving for alcohol, loss of control over drinking, or physical dependence. Alcohol abuse is defined as a pattern of drinking that results in one or more of the following situations within a 12-month period:

- failure to fulfill major work, school, or home responsibilities;
- drinking in situations that are physically dangerous, such as while driving a car or operating machinery;
- having recurring alcohol-related legal problems, such as being arrested for driving under the influence of alcohol or for physically hurting someone while drunk; and
- continued drinking despite having ongoing relationship problems that are caused or worsened by the drinking.

Although alcohol abuse is basically different from alcoholism, alcoholics also experience many effects of alcohol abuse.

The consequences of alcohol misuse are serious—in many cases, life threatening. Heavy drinking can increase the risk for certain cancers, especially those of the liver, esophagus, throat, and larynx (voice box). Heavy drinking can also cause liver cirrhosis, immune system problems, brain damage, and harm to the fetus during pregnancy. Drinking increases the risk of death from

automobile crashes as well as recreational and on-the-job injuries. Furthermore, both homicides and suicides are more likely to be committed by persons who have been drinking. In purely economic terms, alcohol-related problems cost society approximately $185 billion per year. In human terms, the costs cannot be calculated.

There were 19,515 alcohol-induced deaths in the United States each year, not including motor vehicle fatalities. There were 25,192 deaths in the United States from chronic liver disease and cirrhosis. Chronic liver disease and cirrhosis is the 10th leading cause of death in the United States.[3]

Binge drinking is a serious problem that has been on the increase. It has been a particularly serious problem on college campuses. Students who binge drink are more likely to damage property, have trouble with authorities, miss classes, have hangovers, and experience injuries than those who do not. Alcohol-related problems of this nature increased between the early and late 1980's. Interestingly, frequent binge drinkers and those who report experiencing specific alcohol-related problems do not perceive themselves as problem drinkers.[2]

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

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

From 1977 through 1998 an average of approximately 45,000 people per year died in traffic crashes. There were 41,501 traffic crash fatalities in 1998, a decrease of 1.2 percent from the 1997 total of 42,013. Of these fatalities, the proportion that was alcohol-related was 30.5 percent in 1998, the lowest point since 1977.[4]

Alcohol Consumption in Iowa

In 2001, 57.8% of Iowans sampled reported that they had at least one drink of alcohol in the past month. On the days when they drank they reported drinking an average of 2.4 drinks per day. The range was from 1 to 30 with 10% reporting an average of more than five drinks per day. The average person drank 11.6 drinks during the month. However, 1.4% reported drinking over 100 drinks during the month. 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, 4.7% of respondents were heavy drinkers. In spite of the fact that men had to have a larger number of drinks to be considered heavy drinkers, 6.7% of men were considered to be heavy drinkers, while only 3% of women were considered to be heavy drinkers.

Figure 1:   Percent of Iowans who Engaged in Heavy drinking by Age and Sex, 2001
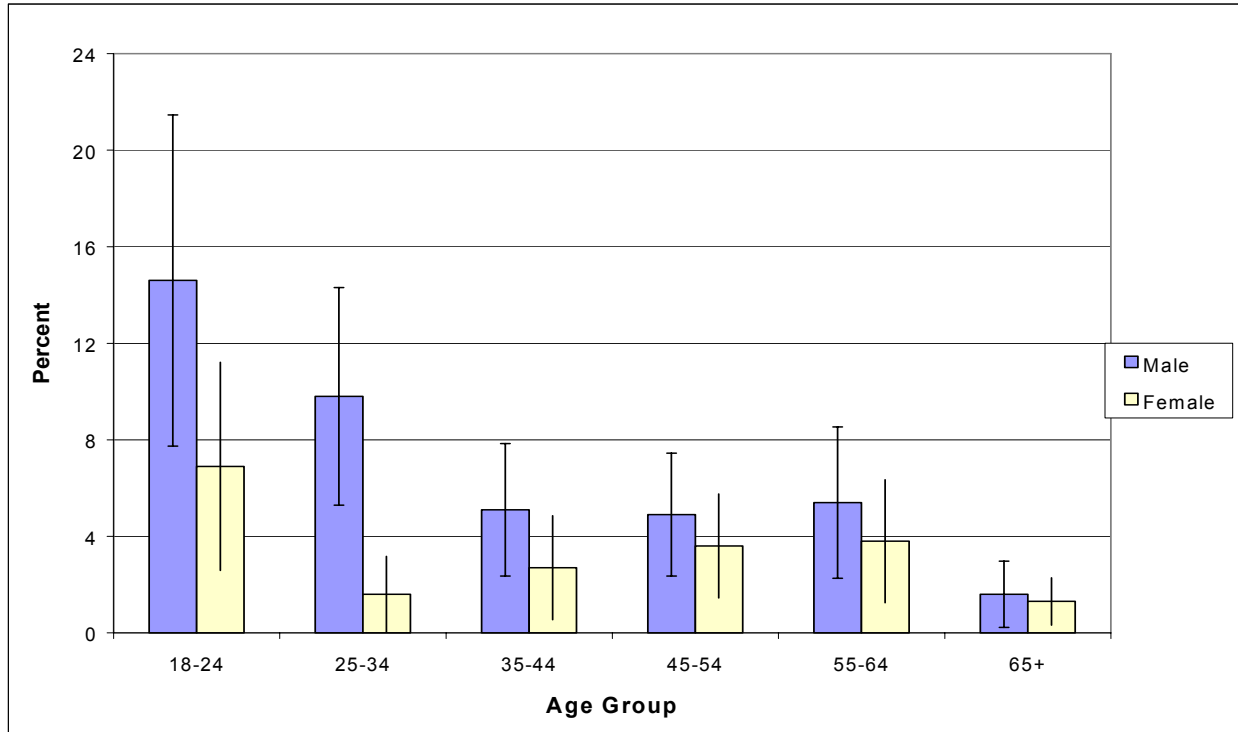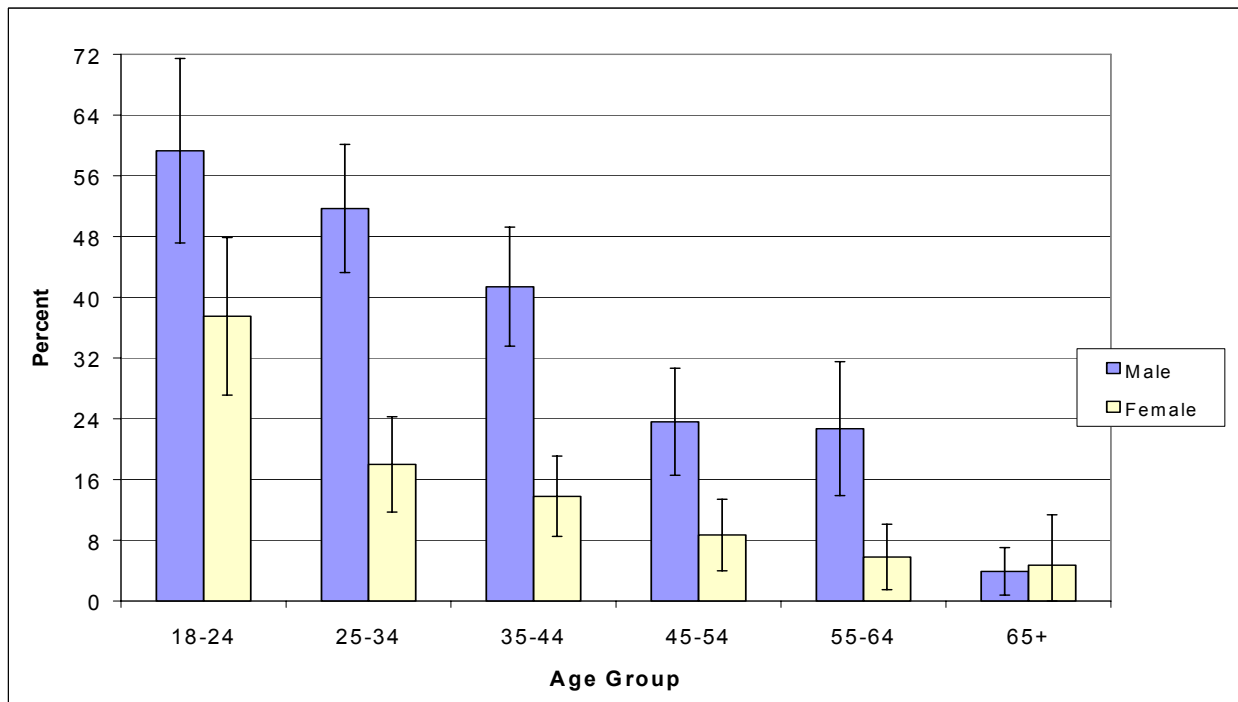

Figure 2: Percentage of Iowa Drinkers Who Have Had Five or More Drinks on One Occasion (Binge) by Age and Sex, 2001

A person is considered to binge if he or she drinks more than five drinks on one occasion. Of the people who reported drinking at all in the past month 26.6% reported at least one binge episode. This is a decrease from 34.7% in 2000. Males binge much more than females (36.2% vs. 15.4%). In addition, the likelihood of bingeing decreases with age from 49.2% for 18-24 year-olds to only 4.3% for those 65 and over. The percentage of people who binge out of the entire population including nondrinkers is 16.1%.

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PROBLEM GAMBLING

Background

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

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

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

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

Gambling in Iowa

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

In Iowa, 38.3% of respondents reported they had gambled in the last 12 months while 55.2% said no. In 2000, 33.7% said they had gambled and 63.6% said they had not. This indicates that gambling is becoming more popular. Almost 6.4% of respondents refused to answer this question. The highest prevalence of gambling was among those ages 45 to 54 (42.4%), although ages 25 to 34 were virtually identical (42.3%). The lowest percentage of gambling during the past year was reported for those ages 65 and older (28.6%). This age group also had the largest percentage that refused to answer the question.

Figure 1: Percentage of Respondents Who Reported Gambling During the Past 12 Months by Age, 2001
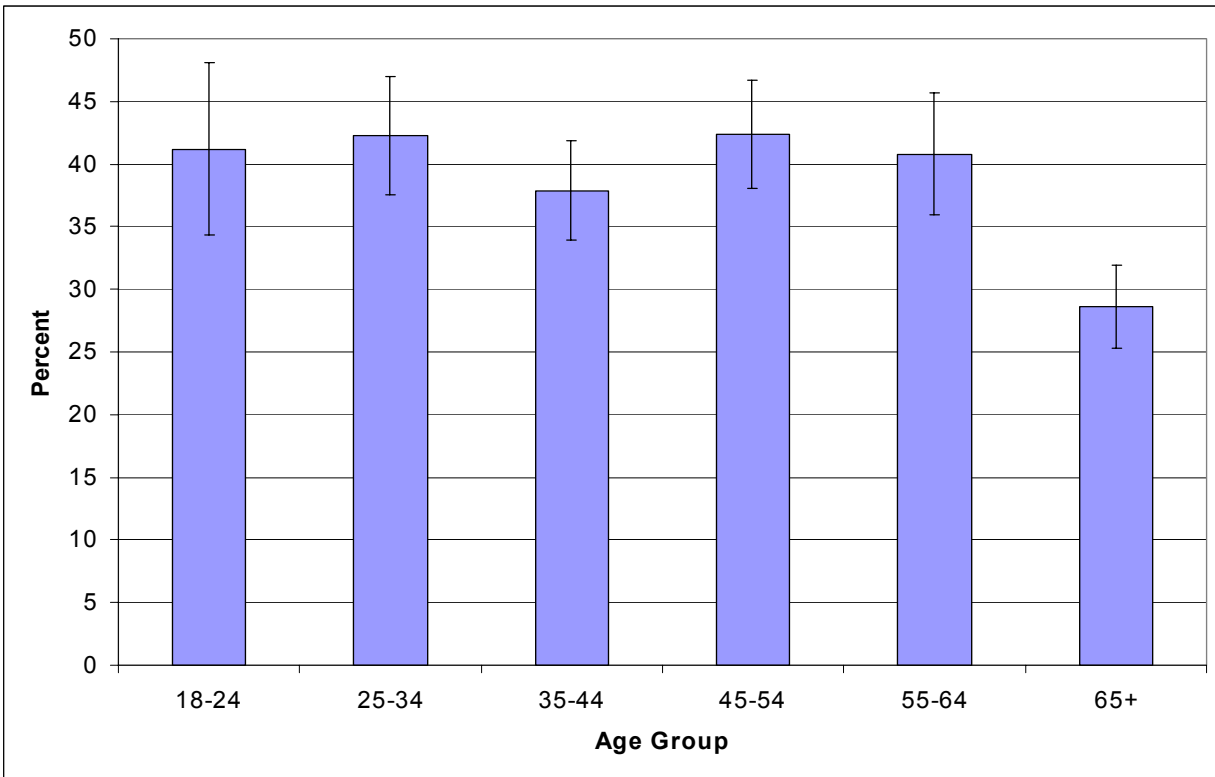

Among the respondents who reported gambling during the past year, those employed for wages (44.7%) were the most likely to gamble. The self-employed were close behind (43.1%). Those least likely to gamble were homemakers (25.4%).

The percentage of respondents who gambled increased with level of income. Individuals with an annual income of $75,000 or more were the most likely to report gambling compared to respondents at other income levels (47.1%). Respondents with incomes less than $15,000 were the least likely to report gambling during the past year (29.7%) and also more likely to refuse to answer the question.

Finally, males (47.3%) were more likely to gamble than their female (35.2%) counterparts.

In 2001, 98.7% of respondents who had gambled in the past 12 months said the money they spent gambling had not led to financial problems. Likewise, 99.2% reported the time spent gambling had not led to problems in family, work, or personal life.

Figure 2: Percentage of Respondents Who Reported Gambling During the Past 12 Months by Income, 2001
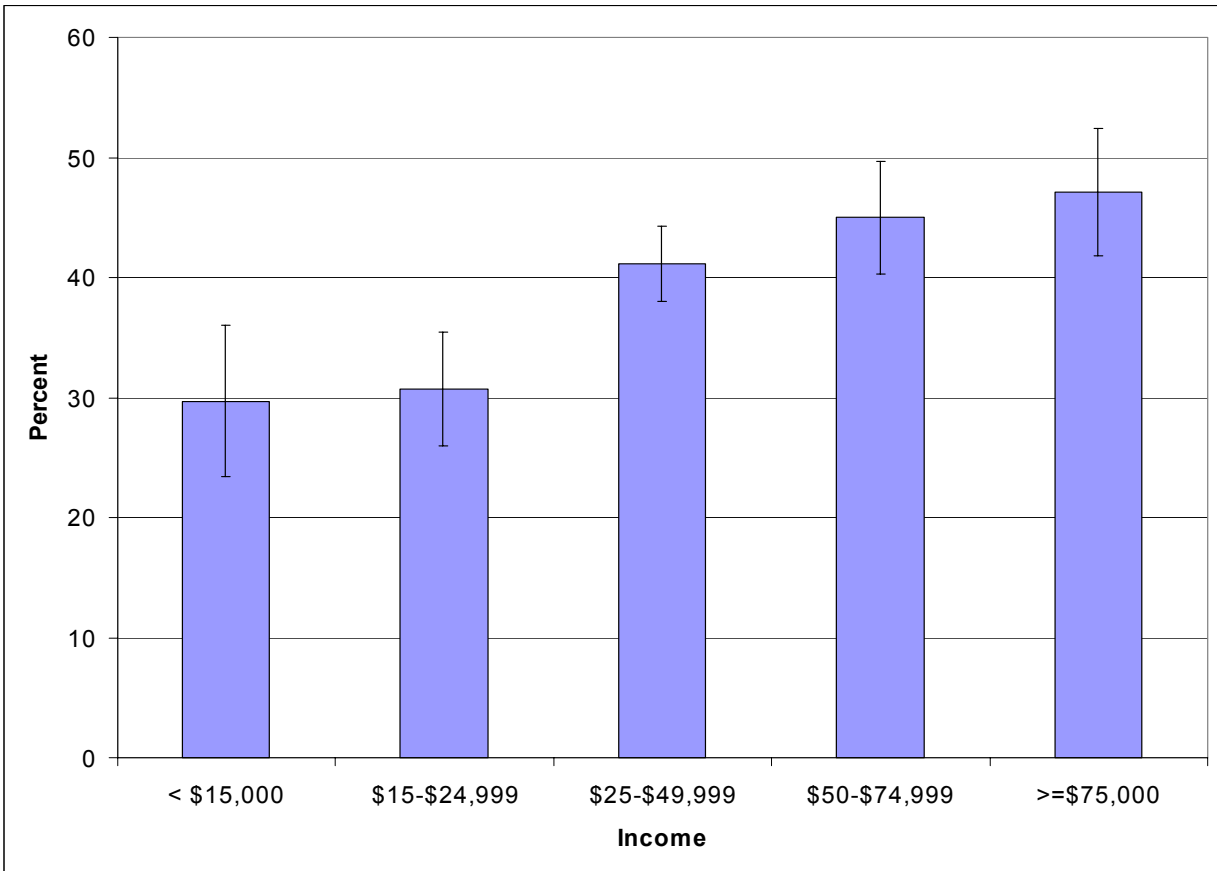
PROSTATE SCREENING

Background

Prostate cancer is the most common type of cancer in men in the United States (other than skin cancer).[3] Prostate cancer is a major health concern for older men. The annual number of deaths from prostate cancer in the United States in 2000 was 31,225.[2]

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

- **Age.** In the United States, prostate cancer is found mainly in men over age 55. The average age of patients at the time of diagnosis is 70.
- **Family history of prostate cancer.** A man's risk for developing prostate cancer is higher if his father or brother has had the disease.
- **Race.** This disease is much more common in African American men than in white men. It is less common in Asian and American Indian men.
- **Diet and dietary factors.** Some evidence suggests that a diet high in animal fat may increase the risk of prostate cancer and a diet high in fruits and vegetables may decrease the risk. Studies are in progress to learn whether men can reduce their risk of prostate cancer by taking certain dietary supplements.[3]

According to medical experts, prostate cancer usually has no early symptoms. When warning signs like frequent or painful urination, blood in the urine or a decrease in the force of the urine stream occur, the cancer has probably already advanced.[1]

"At the early stages, it is 90 to 95 percent curable. In its later stages, those numbers go down dramatically," says Dr. Allen Shanberg, clinical professor of Surgery and Urology at The University of California - Irvine Medical Center, and an expert in the diagnosis and treatment of prostate cancer.[1]

But thanks to research, screening programs that detect the early stages of prostate cancer are significantly better today than in the past. The proof is that of the approximately 300,000 American men diagnosed this year, 85 percent will survive.

The two main methods for screening for prostate cancer are the prostate Specific Antigen (PSA) test and the digital rectal exam (DRE). The PSA test looks for elevated levels of this chemical in the blood. Elevated levels of PSA indicate that the prostate is under some kind of stress. The DRE is where a physician using a gloved finger checks the physical state of the prostate gland through the rectum.

While different doctors may approach prostate cancer differently, on one thing they all seem to agree: early detection opens the door to more treatment options and a far greater chance of survival.

Prostate Screening in Iowa

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

Of these respondents to the 2001 survey 56.1% said they had ever had a PSA test. Education level was weakly related to having the PSA test. The lowest percentage was 53.1% for high school graduates, compared to 61.1 % for college graduates. Except for the lowest income levels, income had little bearing on whether a man had a PSA test. For those making less than $15,000 only 44.7% had the test. All other income levels were between 55.1% and 59.1%. Of those who had the test 72.6% had it in the past twelve months.

Figure 1: Percentage of Iowans Who Had PSA Test by Income, 2001
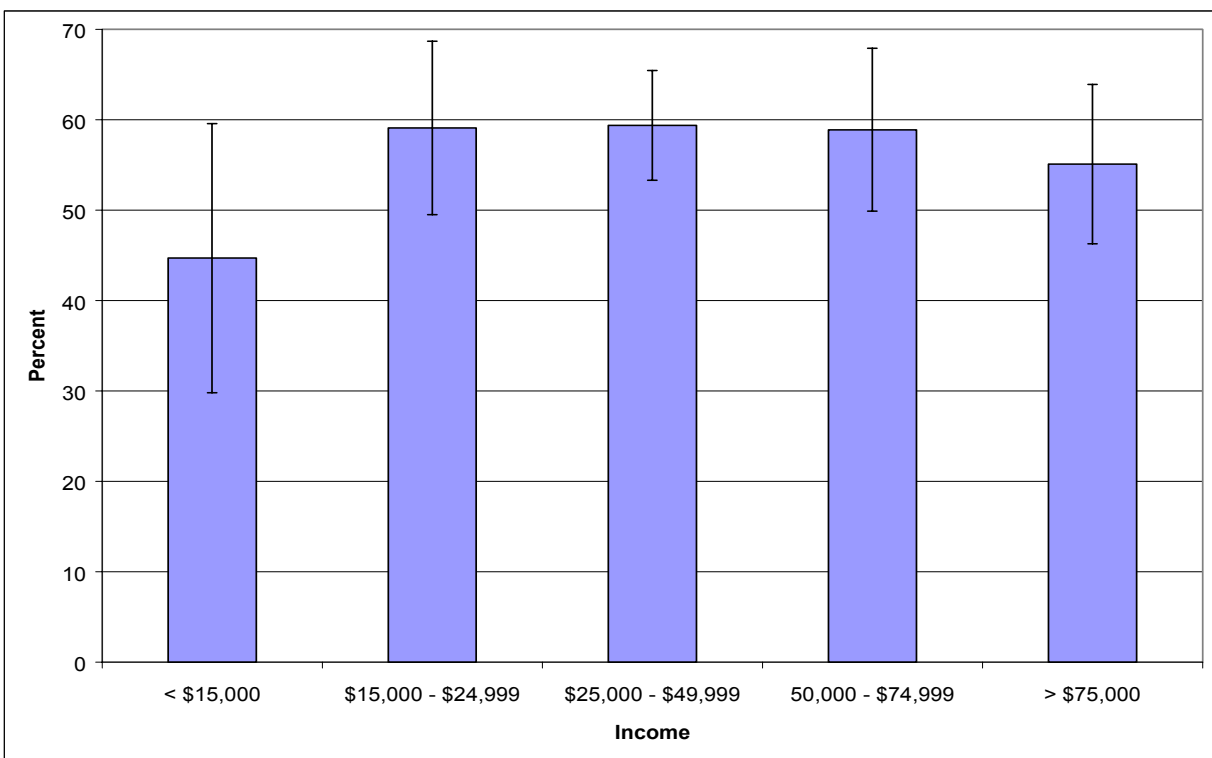
Around 78.9% of the respondents to the prostate questions said they had the digital rectal exam (DRE). For this test education level made more difference than income. Only 68.5% of those with less than a high school education had the DRE, while 86.3% of college graduates had it. On the other hand, the $15,000 to $24,999 income group had the lowest percentage of men having the DRE (73%), while 83% of those making $75,000 or more had it. About 59.9% of those who had the test had it in the past twelve months.

When asked if they had ever been told that they had prostate cancer 3.7% of the respondents said they had. This would be the equivalent of 21,955 men 40 years of age and older in the Iowa population.

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COLORECTAL CANCER SCREENING

Background

Colorectal cancer (cancer of the colon and rectum) is the second leading cause of cancer-related death in the United States.[1] The American Cancer Society estimated that in 2001, 135,400 people were diagnosed with colorectal cancer and 56,700 died of the disease.

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 fruit and vegetables, smoking, or sedentary lifestyle, may determine which at-risk persons actually go on to develop colorectal cancer.[2]

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

- Age – Colorectal cancer is most common in persons 50 years and older and the risk increases with age.
- Family History –Those who have family members diagnosed with colorectal cancer or polyps are at high risk for the disease.
- Personal History – Persons who have inflammatory bowel diseases are at increased risk.
- Race – African Americans are more likely than whites to be diagnosed at a more advanced disease stage and have lower survival rates.

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

More than 33 percent of deaths from colorectal cancer could be avoided if people over the age of 50 had regular screening.[3] Two tests have been shown to be beneficial in screening for the disease:

- The **fecal occult blood test** (FOBT) is a chemical test that detects blood that is not visible in a stool sample. One U.S. clinical trial showed a 33 percent reduction in colorectal cancer deaths and a 20% reduction in colorectal cancer incidence among people offered an annual FOBT.[1]
- **Flexible sigmoidoscopy** is a screening procedure that uses a hollow, lighted tube to visually inspect the wall of the rectum and part of the colon. In case-control studies, deaths from colorectal cancer within reach of the sigmoidoscope were 59% lower among people who had undergone a sigmoidoscopy than among those who had not undergone the procedure.

Physicians commonly use two recommended tests for colorectal cancer screening

- **Colonoscopy** – a screening procedure that uses a hollow, lighted tube to visually inspect the internal wall of the rectum and the entire colon. Samples of tissue or cells may be collected for closer examination, or polyps may be removed during this procedure.

- **Double-contrast barium enema** – a series of X-rays of the colon and rectum taken after the patient is given an enema containing barium dye, followed by an injection of air.

These two tests are used to examine the interior wall of the entire colon and can be used as screening tests or as follow-up diagnostic tools when the results of another screening test are positive.[4]

Colorectal Cancer Screening in Iowa

In 2001, 49.9% of respondents reported ever using a home blood-stool testing kit. This was a considerable increase from the 38.5% reported in 1999.

Females reported a higher percentage of use than males. Around 53.1% of females but only 45.8% of males reported ever using a home blood stool kit. Income did not appear to be related to use of the blood stool kit, except for the lowest income level. Only 38% of respondents making less than $15,000 reported having ever used it. Use of the kit did increase steadily with increasing education.

Figure 1: Ever Had Blood Stool Test by Education, 2001
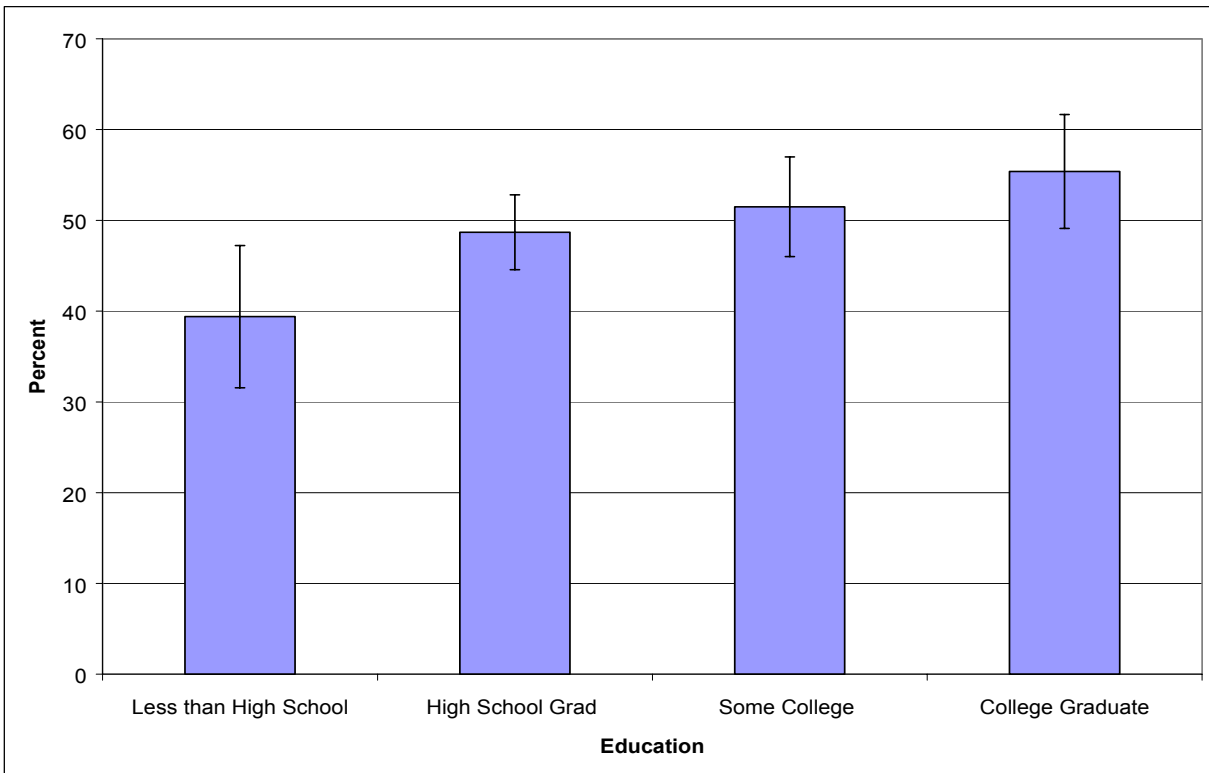
Of respondents who reported ever using a home-blood stool kit, 49.7% reported having the test within the last year. Another 18.8% reported using the test one to two years ago.

Approximately 45.2 percent of respondents reported **ever** having a sigmoidoscopy or

colonoscopy screening test.. This figure is also sharply higher than the 35.2% reported in 1999.

Overall, females were somewhat more likely than males to have this test (46.4% vs. 43.7%). No systematic association with income was observed. However, those with higher education were somewhat more likely to have the test. Around 43.1% of those with a high school education or less reported they had the test, while 47.6% of those with a college education reported having it.

When respondents who had the test were asked how long it had been since their last exam, 78.3% reported within the past five years.

A higher percentage of males than females reported testing within this recommended time period (81.6% vs. 76.3%).

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ORAL HEALTH

Background

Despite the fact that during the last 50 years there have been dramatic improvements in oral health, and most middle-aged and younger Americans expect to retain their natural teeth over their lifetimes, there remain profound disparities that affect those without the knowledge or resources to achieve good oral care. This fact inspired the first-ever *Surgeon General's Report on Oral Health*, which identified a "silent epidemic" of dental and oral diseases, and called for a national effort to improve oral health among Americans.[2]

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

Major barriers to oral health include socioeconomic factors, such as lack of dental insurance or the inability to pay out of pocket, or problems of access that involve transportation and the need to take time off from work for health needs. Many studies have documented poorer dental care among those in poverty, racial minorities, and those in rural areas.[2,3,4]

While 44 million Americans lack medical insurance, about 108 million lack dental insurance. Only 60 percent of baby boomers receive dental insurance through their employers, and most older workers lose their dental insurance at retirement.

Meanwhile, uninsured children are 2.5 times less likely to receive dental care than insured children, and children from families without dental insurance are 3 times as likely to have dental needs as compared to their insured peers.

Beginning in 1999, the Iowa BRFSS survey has included five dental health questions. The goal of including these questions was two-fold. The first was to determine how frequently Iowans utilize dental services. The second was to determine the number of Iowans reporting dental insurance coverage.

It has been established that self-reported use of dental care is a valid measure of actual use. One study concluded that there are few differences in conclusions made about predictors of dental care use had chart data been available.[1]

Oral Health in Iowa

In 2001, 71.6% of Iowans surveyed reported visiting a dentist within the past year. However, 11.5% reported their last dental visit more than 5 years ago or never. Overall, females were more likely than males to report a dental visit during the past 12 months (74% vs. 68.5%). A greater percentage of males reported their last dental visit more than 5 years ago or never (12.7% vs. 10.4%).

Greater income was related to the likelihood of visiting a dentist. About 87.2% of respondents reporting an income of $75,000 or more reported a dental visit in the last year compared to 54.8% of those making less than $15,000.

Figure 1: Percentage of Respondents Having A Dental Visit Within the Past 12 Months by Income, 2001
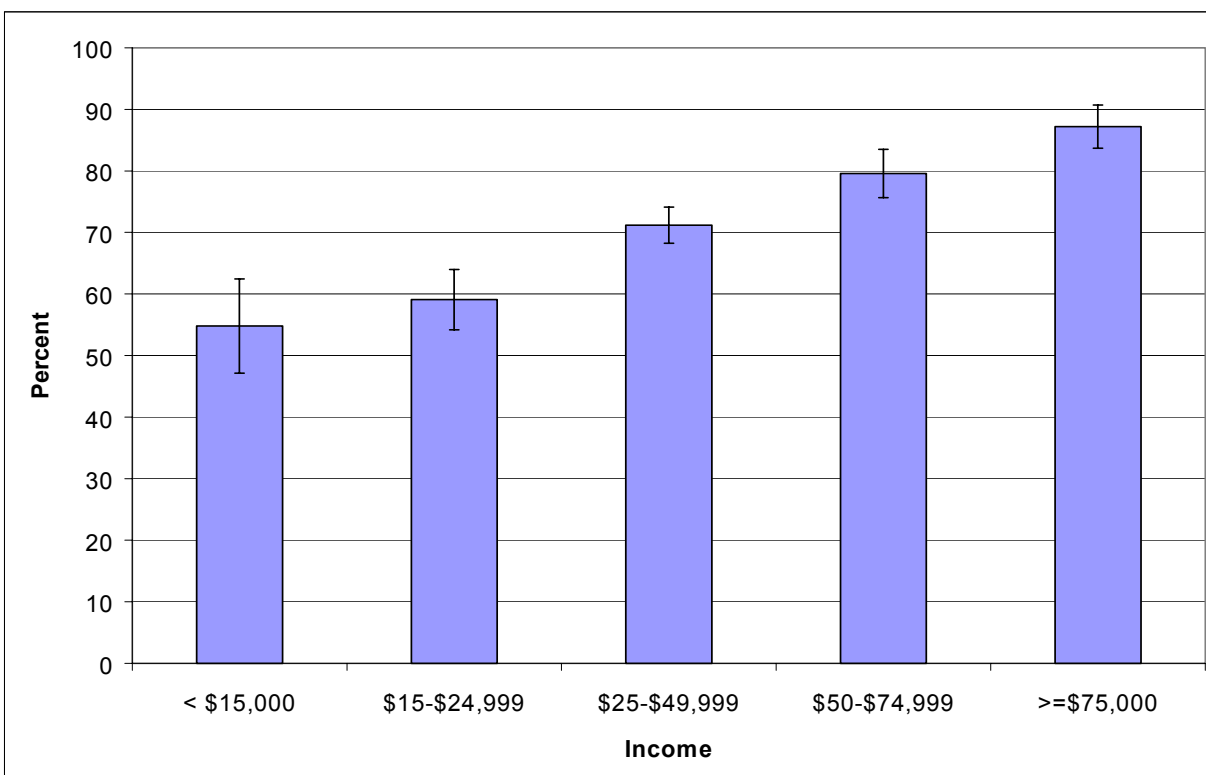
Almost 72.5% of respondents who had visited the dentist and who had teeth reported having their teeth cleaned within the past year. More female respondents reported having their teeth cleaned during the past year than male respondents (75.4% vs. 69.4%).

Income was also an important factor associated with having teeth cleaned. Around 86.7% of those respondents reporting an income of $75,000 or more had their teeth cleaned within the past 12 months. For those with an income of less than $15,000 only 59.7% had their teeth cleaned.

In 2001 56.7% of respondents reported having any kind of insurance coverage that pays for some or all of their routine dental care. Of these 58.4% were male and 55.1% were female. The age pattern for dental insurance was the reverse of that for health insurance in general. Respondents age 65 years and over fell far short in reported dental insurance coverage at only 17.1%. The highest percentage of coverage was among the 25 to 34 year-olds (69.3%).

Dental insurance coverage also varied directly by income and education. Only 36.7% of respondents with an income of $15,000 to $24,999 had dental coverage, while 78.1% of those with an income of $75,000 or above did. For those with less than a high school education only 38.9% had dental coverage, while 65.8% of college graduates had it.

Figure 2: Percentage of Respondents who Had Their Last Teeth Cleaning within 12 Months by income, 2001
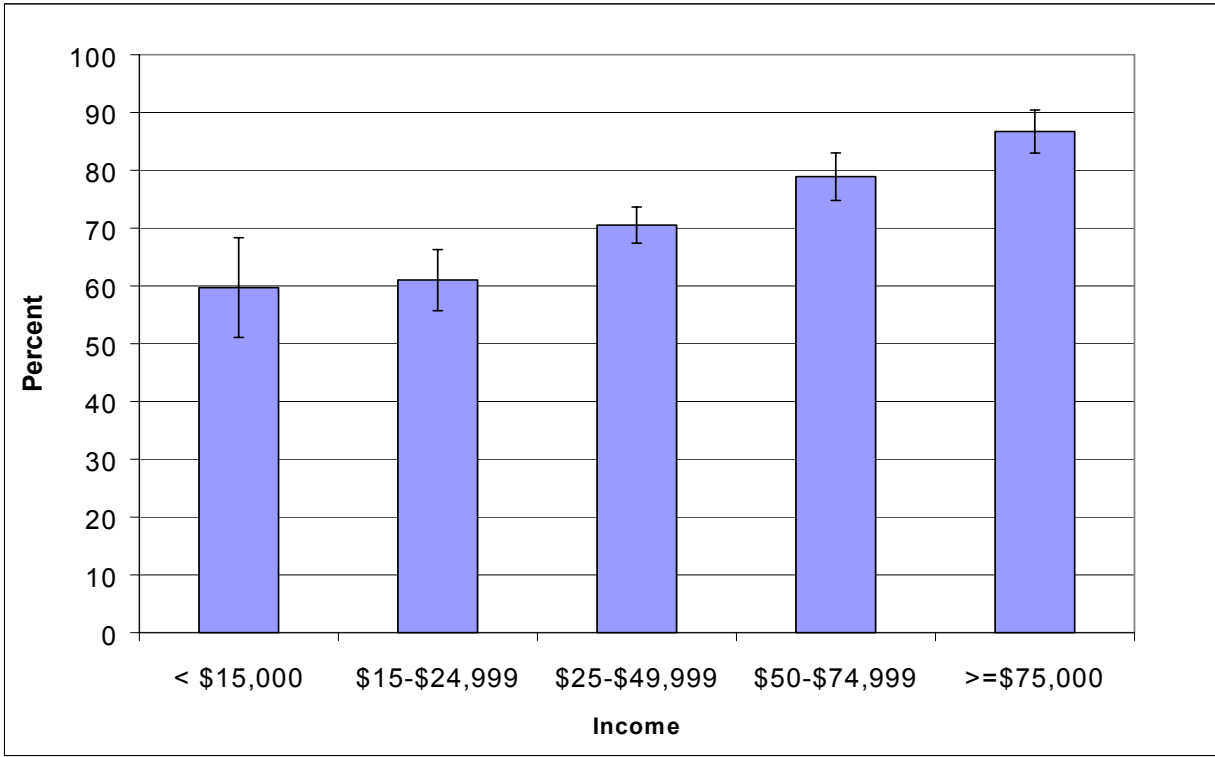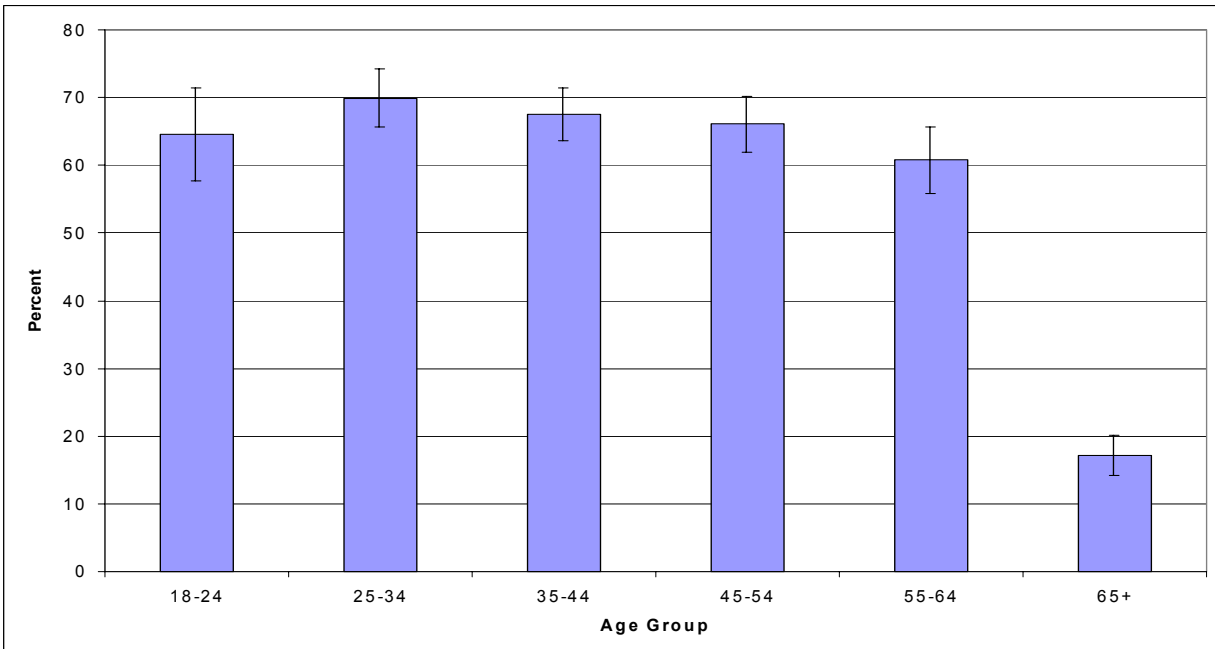

Figure 3: Percentage of Dental Insurance Coverage by Age, 2001

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HIV/AIDS

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

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

The number of persons living with AIDS continues to increase. At the end of 1997 there were 269,777 persons in the United States living with AIDS. By the end of 1998, there were 297,137 persons living with AIDS, a 10 % increase. In 1999 the number was around 320,000. Since reporting began, 1,196 cases of AIDS have been reported in Iowa through December 31, 1999.[3]

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

Many of the new diagnoses are occurring among African-Americans, women, and people infected heterosexually, with an increase observed among Hispanics. These data must be used to ensure targeted prevention efforts to reach those in greatest need, with a primary focus on young African-American and Hispanic men and women at risk through sexual and drug-related behaviors.

In Iowa, Black non-Hispanic people constitute only 1.7% of the population, but account for 10% of all Iowa AIDS cases. The Hispanic population in Iowa is 1.2% but Hispanic AIDS cases are now at 3%.[3]

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

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

AIDS in Iowa

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

Responses indicated that Iowans' knowledge about AIDS had some holes. When asked if a pregnant woman with HIV can get treatment to help reduce the chances that she will pass the virus on to her baby, only 48.4% said "yes". Almost 32% said they didn't know. More were aware that there were medical procedures to help a person with HIV to live longer (89.9%). Still, 6.5% said they didn't know. Only 15.7% of the people who knew of these procedures thought they were very effective, and 13.2% said they didn't know how effective they were.

Although 85.4% of respondents thought it was very important to know your AIDS status, only 33.3% of respondents reported ever being tested for HIV. The largest proportion of respondents tested was between the ages of 25-34 (53.9%). Only 10.8% of those between 55-64 reported ever being tested. Almost 30.9% of males compared to 35.5% of females had been tested.

Figure 1: Percentage of Iowans Reporting Ever Being Tested for HIV by Age and Gender, 2001
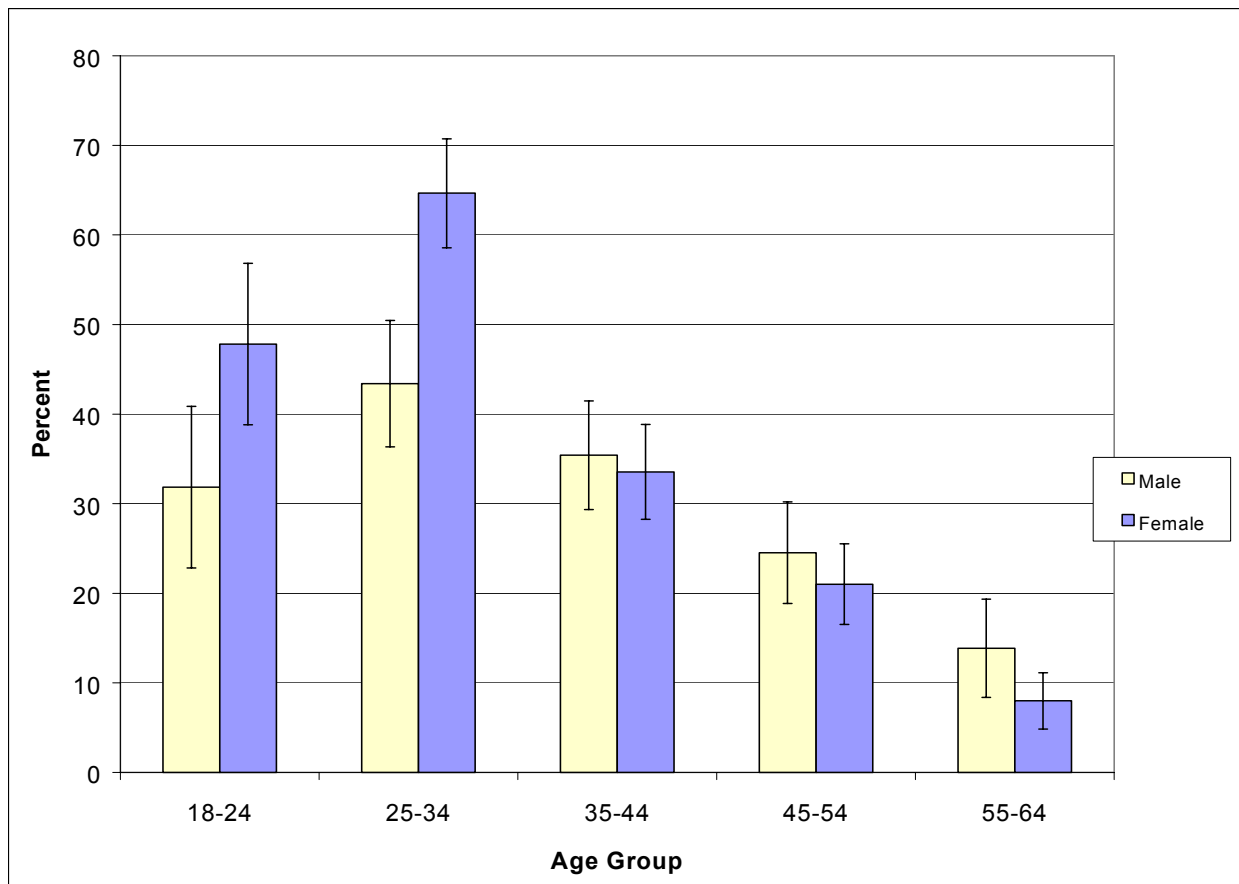
When asked to give the main reason for their last HIV blood test, respondents gave many answers. The top responses were "Just to find out if you were infected", "pregnancy", and "to apply for life insurance". These three made up 46.9% of the responses.

Each of the respondents who had received an AIDS virus blood test was asked the place for the test site. Respondents gave a variety of answers. The two most commonly reported places were "Private doctor, HMO" (26.8%) and "Hospital, emergency room, outpatient clinic" (24.7%).

Respondents were asked if they had talked to a doctor or health professional about preventing sexually transmitted diseases other than AIDS through condom use. Around 12.1% reported that they had.

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