

**IOWA**

**HEALTH RISK BEHAVIORS**

**1995**

**FINAL REPORT**

**FROM THE**

**Behavioral  
Risk  
Factor  
Surveillance  
System**



Governor of Iowa  
Terry E. Branstad

Iowa Department of Public Health  
Christopher G. Atchison, Director

Division of Substance Abuse and Health Promotion  
Janet K. Zwick, Director  
Ronald D. Eckoff, M.D., Medical Director

Bureau of Health Promotion  
Lorrie Graaf R.N., Chief

BRFSS Coordinator  
A. J. Wineski

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Office of Surveillance and Analysis, Behavioral Surveillance Branch.

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### Report Preparation

A. J. Wineski, BRFSS Coordinator (515) 281-3763  
[awineski@idph.state.ia.us](mailto:awineski@idph.state.ia.us)

Questions concerning this report should be directed to:

Iowa Department of Public Health  
Division of Substance Abuse and Health Promotion  
321 East 12th  
Lucas State Office Building  
Des Moines, IA 50319-0075  
(515) 281-3763  
Fax (515) 281-4535

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## INTRODUCTION

Morbidity and mortality data have been recorded by health departments for quite some time, but there had not been an ongoing attempt to monitor those behaviors that are associated with premature death and disability. In 1981, the then Centers for Disease Control began assisting states in conducting risk factor surveys. 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 Iowa Behavioral Risk Factor Surveillance System is an ongoing telephone survey which is financially and technically supported by the Centers for Disease Control and Prevention (CDC).

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

The BRFSS information is used to design, implement, and support public health activities to reduce premature death and disability of Iowa residents. Comparable surveillance methods are used in other states which allow comparisons and assessment of geographic patterns of risk factor prevalence. All states use a core questionnaire developed at CDC, containing questions asked annually and questions asked on a rotating (usually every other year) basis. Many states, including Iowa, also add questions of their own to provide more detailed information on issues of special interest.

This report focuses on the data collected during calendar year 1995; six year trends for some risk factors are also presented. The risk factors discussed are health care coverage; health status; cigarette smoking; alcohol consumption; body weight; hypertension and cholesterol awareness; injury control; women's health issues including screening for breast and cervical cancer; diabetes; immunization; colorectal cancer screening; dental health; and HIV/AIDS awareness and behaviors.

Approximately 300 telephone interviews were conducted each month from January through December 1995 for a total sample size of 3,600. In 1995, the Division of Substance Abuse and Health Promotion, Iowa Department of Public Health, contracted with the Center for Social and Behavioral Research, University of Northern Iowa, to conduct the interviews. Telephone numbers were randomly generated by the CDC.

Data were weighted to Iowa's population data for age and gender, thus providing estimates of the risk factor prevalence among Iowa adults age 18 and older. The state's population estimates were derived from the most currently available census data files (the 1993 postcensal population estimates secured from Demo-Detail).

Standard telephone survey procedures were employed, and interviews were conducted weekends and evenings. The interviews were conducted throughout the 1995 calendar year to assure that data were seasonally adjusted.

## GOAL AND OBJECTIVES OF THE BEHAVIORAL RISK FACTOR SURVEILLANCE SYSTEM

State public health departments are responsible for planning, implementing, and evaluating disease prevention programs. Many of these programs deal with health risk behavior modification. Some examples of health risk behavior modification programs in Iowa are seat belt legislation; 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. The Centers for Disease Control and Prevention developed the Behavioral Risk Factor Surveillance System to help states assess health risks and monitor trends.

### Goal

To provide data to initiate and guide health promotion and disease prevention programs.

### Objectives

1. To determine 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 health-related behaviors are critical indices of health.

## METHODOLOGY

### Questionnaire Design

The BRFSS questionnaire is analyzed and updated each year by CDC and 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 CDC which states may opt to include in their survey; and 3) optional state questions which are designed and administered by individual states to address locally identified health problems.

In addition to the series of health behavior questions, participants are requested to provide demographic information such as age, sex, race, marital and employment status, household income, and educational level. Participation is random, anonymous, voluntary and confidential.

### Sampling Process

Households are selected randomly using the modified Waksberg three-stage cluster sampling technique. The sampling methodology is designed to produce a random sample of Iowa telephone numbers, including unlisted and new subscribers. This method generates telephone numbers by using the first eight digits (area code, prefix, first two suffix numbers) of the ten-digit telephone numbers. From that number a "cluster" of 100 numbers are further generated using the last two telephone suffix digits. These clusters are then screened by calling only the first telephone number generated in the cluster. If the number is residential, the entire cluster of 100 numbers is accepted. Business and non-working numbers are rejected. When the first number in a cluster is residential, there is a high probability the cluster will contain a majority of residential numbers. This screening mechanism improves survey efficiency by 10 to 20 percentage points.

Once a cluster is screened and accepted, the 100 randomly ordered phone numbers are called until three interviews are completed within each cluster for a total of approximately 300 interviews per month. Interviewers make multiple attempts to reach a number to complete an interview before replacing that number.

A kish table is used to randomly select one person, 18 years or older residing in the home. If the person selected is not available, an appointment is made to complete the interview at another date and time. If the person is not available during the interview period, or if they refuse to participate, no other member of that household is interviewed. Then the next randomly ordered telephone number from the same cluster is attempted. If three interviews are not attained, interviews from that cluster are destroyed and a new cluster is substituted.

#### 1995 Interview Process

In 1995, the Division of Substance Abuse and Health Promotion, Iowa Department of Public Health, contracted with the Center for Social and Behavioral Research, University of Northern Iowa, to conduct the interviews. The interviews were conducted daytime, evenings, and weekends with appointments made as needed to schedule or complete interviews. The phone calls started the second Wednesday of the month and continued for seven days or until the necessary interviews were completed. The average time to complete an interview in 1995 was 12 minutes.

The contractor used a Computer Aided Telephone Interviewing (CATI) system. A computer program (CI3) was used in conjunction with the CATI system to automate the process of data collection. Data were edited for accuracy and completeness using software provided through CDC. After the conversion, monthly data were submitted to CDC through WONDER PC, a computerized information system that provides on-line access.

#### 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 might be required, and few interviews may be completed. Another advantage is the much higher response rate compared to self-administered 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.

One main limitation applies to telephone surveys. Because about 97 percent of all Iowa households have telephones, about 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 undersampled. Also, the percentage of households with a telephone varies by region. However, 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.

Finally, breaking down the data into age, sex, income, and educational level categories decreases the sample size of the individual stratum and decreases the statistical power to determine statistically significant differences. Some data may not be reported as significant

due to small sample sizes. In data analysis, a general rule to remember is that estimates based upon denominators less than 50 are statistically unreliable. Further, denominators less than 500 should be reported as whole percents.

In addition, some people refuse to answer select questions but choose to complete 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.

## DEMOGRAPHICS OF THE 1995 BRFSS RESPONDENTS

The 3,600 respondents to the 1995 BRFSS included 1,477 adult males and 2,123 adult females. A breakdown by gender, age, income and education follow.

|              | Male        |              | Female      |              | Total       |              |
|--------------|-------------|--------------|-------------|--------------|-------------|--------------|
|              | N           | %            | N           | %            | N           | %            |
| 18-24        | 150         | 13.0         | 187         | 11.6         | 337         | 12.3         |
| 25-34        | 322         | 19.5         | 375         | 17.9         | 697         | 18.7         |
| 35-44        | 329         | 21.8         | 427         | 19.6         | 756         | 20.6         |
| 45-54        | 248         | 16.2         | 309         | 15.1         | 557         | 15/6         |
| 55-64        | 156         | 11.6         | 266         | 11.4         | 422         | 11.5         |
| 65-74        | 160         | 10.9         | 269         | 12.9         | 429         | 11/9         |
| 75+          | 111         | 7.0          | 286         | 11.4         | 397         | 9.3          |
| Unk/Ref      | 1           | 0.0          | 4           | 0.2          | 5           | 0.1          |
| <b>TOTAL</b> | <b>1477</b> | <b>100.0</b> | <b>2123</b> | <b>100.0</b> | <b>3600</b> | <b>100.0</b> |

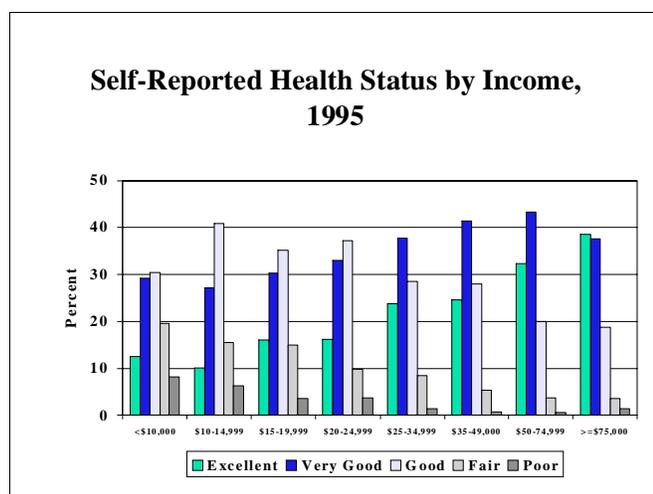
### INCOME AND EDUCATIONAL BREAKDOWNS OF 1995 BRFSS RESPONDENTS

| Income        |             |              | Education Level  |             |              |
|---------------|-------------|--------------|------------------|-------------|--------------|
|               | N           | %            |                  | N           | %            |
| < \$10,000    | 250         | 5.9          | Never Attended   |             |              |
| \$10-\$14,999 | 287         | 6.5          | School           | 8           | 0.2          |
| \$15-\$19,999 | 392         | 10.1         | Elementary       | 167         | 4.6          |
| \$20-\$24,999 | 413         | 10.9         | Some High School | 236         | 6.6          |
| \$25-\$34,999 | 709         | 21.1         | High School      |             |              |
| \$35-\$49,999 | 702         | 21.1         | Grad or GED      | 1386        | 38.8         |
| \$50-\$74,999 | 439         | 13.4         | Some College or  |             |              |
| ≥\$75,000     | 205         | 5.9          | Tech School      | 975         | 27.4         |
| Unk/Ref       | 203         | 5.8          | College Graduate | 823         | 22.3         |
| <b>TOTAL</b>  | <b>3600</b> | <b>100.0</b> | Unk/Ref          | 5           | 0.1          |
|               |             |              | <b>Total</b>     | <b>3600</b> | <b>100.0</b> |

# 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.<sup>1</sup> Additional studies which control 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 earlier had reported their health as bad or poor compared to those who had reported their health as excellent.<sup>2,3</sup>

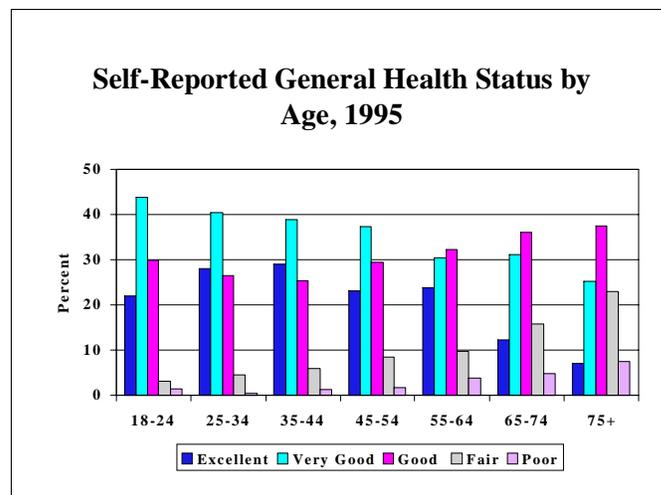


Respondents reporting “fair” and “good” health also show elevated risks of mortality in a dose response fashion.<sup>4</sup> The risk associated with poor self-rated health was actually higher than the risks associated with objective assessments by a physician of poor health status.<sup>1,2</sup>

## Health Status in Iowa

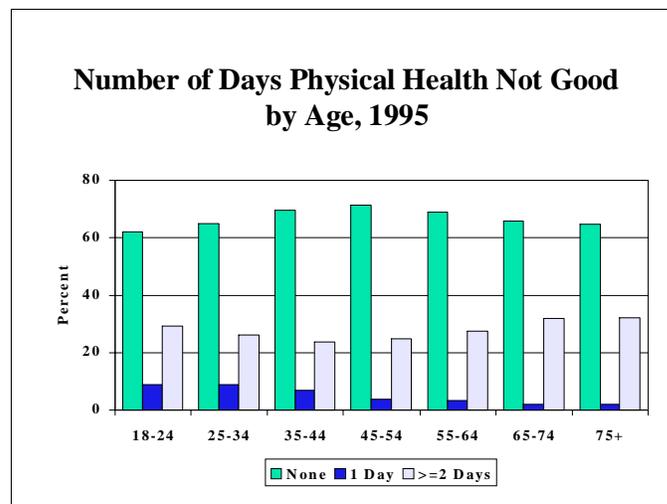
In 1995, when asked how their health is in general, 22.4% of respondents reported excellent, 36.4% very good, 29.9% good, 8.9% fair and 2.4% poor. The percentage of males reporting their health as excellent was 22.9%, with 21.9% of females reporting their health was excellent.

Respondents who were most likely to report “excellent” or “very good” health included those aged 25-34 (68.6%), those with annual income



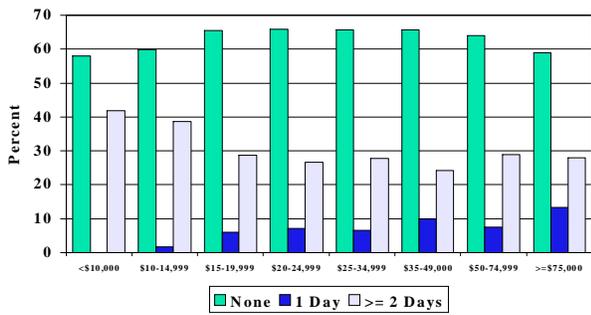
≥\$75,000 (76.2%), and college graduates (76.0%).

In answer to the question how many days was their physical health not good in the last 30 days, 67.1% of respondents reported none, 5.5% reported one day, and 27.1% reported two or more days. When asked the number of days physical health was not good the mean was 3.22



days, with males reporting 2.93 days and females 3.49 days. Those Iowans in the \$10-14,999 income group (39.7%), 75 and over (32.1%) and those with some high school (35.7%) were most likely to report they had two or more days in the last 30 days when their physical health was not good.

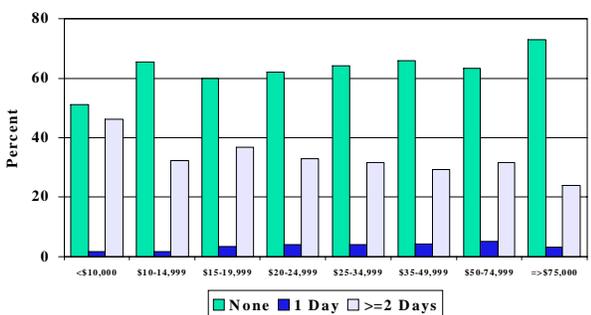
**Number of Days Limited in Usual Activities by Income, 1995**



When responding to the question of how many days during the past 30 days was their mental health not good, 64.2% of the respondents indicated none, 3.7% one day, and 31.8% two or more. The mean number of days respondents mental health was not good was 3.17 days, with males at 2.5 days and females 3.77 days.

Groups with the highest risk in this category included those aged 18-24 with 51.5% reporting that they had 2 or more days in the last 30 that their mental health was not good (this was significantly higher than any other age group); females with 37.6%; those with some college or technical school (40.2%); and, those with income under \$10,000 (46.2%).

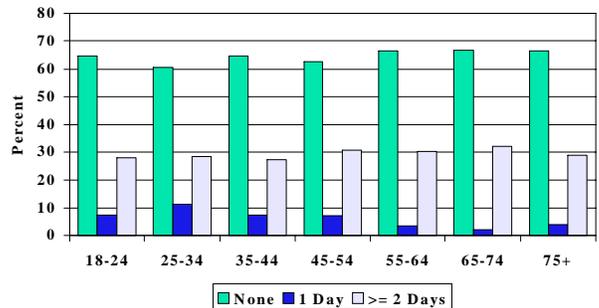
**Number of Days Mental Health Not Good by Income, 1995**



Respondents were also asked, how many days during the past 30 days were they limited in their usual activities showed that 64.1 percent (67.4% in 1994) of respondents reported none, 6.8 percent reported one day, 28.9% reported two or more. The mean number of days activities were

limited for Iowans was 1.68, with the mean for males at 1.48 days and females at 1.88 days.

**Number of Days Limited in Usual Activities by Age, 1995**



Comparison With Other States

In 1995, 14 states had higher rates than Iowa of respondents reporting health status as fair or poor. The national median was 12.82%, with Iowa at 11.34% (1994 - 11.3%).

Twenty-one of the 50 states had a higher reported mean number of days respondents' physical health was not good in the past 30 days. The national average was 3.05 days, with Iowa at 3.22 days (1994 - 2.3 days).

Sixteen of the 50 states had a higher mean number of reported days in the past 30 days that the mental health of respondents was not good. The average for the nation was 2.94, with Iowa at 3.17 days (2.1 days in 1994).

Twenty-four of the 50 states had a higher mean number of days in the past 30 days where physical activities were limited because of physical or mental stresses. The median for the nation was 1.67 days, with Iowa at 1.68 days (2.9 days - 1993).

It should be noted that when compared to all 50 states, Iowa has the highest percentage of residents over the age of 85 and the 4th highest percentage of those over 65. Despite this, the 1995 data would indicate that residents in Iowa are experiencing less physical health problems than some other states.

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# HEALTH INSURANCE COVERAGE AND ACCESS TO HEALTH CARE

## Background<sup>1</sup>

Despite recent federal initiatives that have expanded health insurance coverage for low-income children, the number of Americans without health insurance remains high. Accurate current estimates of the number of Americans without health insurance are not available.

In addition, rapidly increasing health care costs are having large impacts on employers providing coverage to workers, on state and federal governments funding public insurance, and on individuals buying private policies. Increases in health care costs have led to recent declines in employment-based coverage and to some employers scaling back the extent of their coverage. Federal and state governments already confronted with budget problems must find funds to provide public insurance to the poor and elderly. The private sector, the public sector, and individuals all bear the cost of providing uncompensated care to individuals without health insurance.

About 64% of the non-elderly population in the United States are insured through employer group plans. Thirty-two percent have coverage through their employers, and 32% have coverage as dependents on another family member's employer group policy. The extent of employer group coverage varies geographically. In general, persons in the New England, Middle Atlantic and East North Central regions are more likely to have coverage through an employer group plan than persons living elsewhere in the country. This probably reflects the higher concentration of large manufacturing employers in these areas, which are more likely to provide insurance.

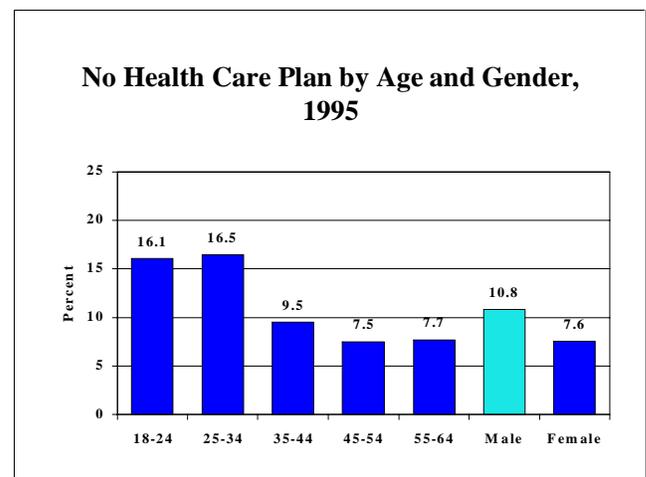
Medicaid coverage of the non-elderly population is more common in the East, South Central, and Pacific regions than elsewhere. In addition, the percentage of the population

insured through Medicaid varies considerably across the states. New Hampshire was lowest at 4.8%. West Virginia at 16.0% and the District of Columbia at 19.6% were the highest. Iowa had 7.2% with Medicaid coverage compared to 10.9% of the United States non-elderly population.

About 16% of the U.S. non-elderly population are without health insurance. The extent of uninsured varies widely across states, however, and not surprisingly, it varies inversely with the extent of employer group coverage. The New England, Middle Atlantic, and North Central regions have the lowest rates of uninsured (about 11-13%), and the Southern, Mountain, and Pacific regions have the highest rates of uninsured (16-23%).

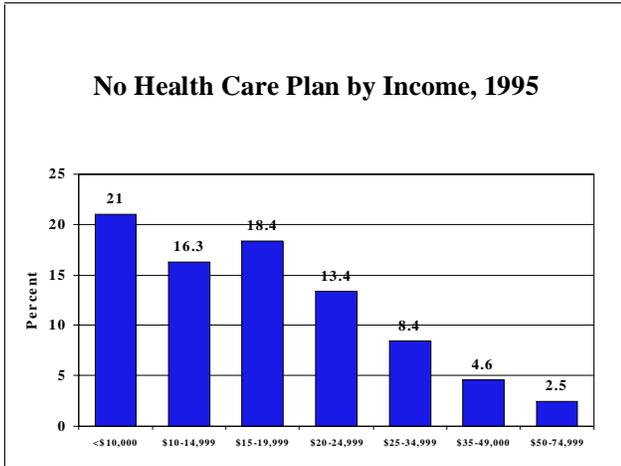
## Health Coverage in Iowa

In 1995, 9.1% (8.8% in 1994) of the survey respondents reported they had no health care plan (insurance). This number included 10.8% of the male respondents and 7.6% of the female respondents.



Of all age groups, those between ages 25-34 were least likely to have health insurance at 16.5 percent. Those Iowans in the income group of \$15,000-19,999 (18.4%), those who had been out of work for less than a year

(46.2%), those who were part of an unmarried couple (47.7%), and those who had some high school (15.7%) were also least likely to have insurance.

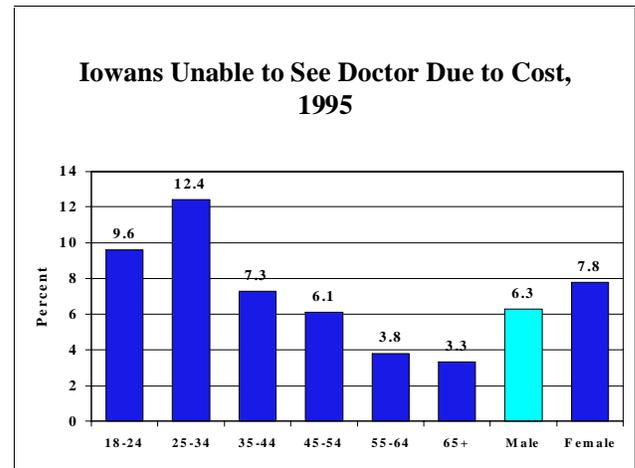


When those who did not have insurance were asked how long it had been since they had health coverage, 30.1% of respondents said less than one year, 15.4% said one to two years, 18.7% two to less than five years, 24.5% over five years 1.3% said they didn't know and 10.1% said they had never had insurance.

In conjunction with the question about insurance, respondents were asked if they could not afford to see a doctor in the last year on at least one occasion. Approximately 7.1% of the respondents answered yes to that question. Those respondents in the age group 25-34 had the highest rate with 12.4% responding yes to the question. Also those in the income category <\$10,000 at 18%. Of those over age 65, 3.3% responded yes to the question.

When respondents were asked how long since you visited a doctor for a routine checkup, 65.9% said less than one year, 12.5% said one

to less than two years, 10.2% said two to less than five years, 10.3% said more than five years.



Females were much more likely to have had a routine checkup within the last year (76.9% as opposed to 53.9% of males). Those respondents over 65 were more likely to have had a routine checkup in the last year (83.1%) than others. Only 55.8% of those in the 25-34 age group reported they had a routine checkup in the last year. When looking at income, there was relatively little variation. The under \$10,000 income group was most likely to have had a routine checkup in the last year (69.6%). Those in the \$20-24,999 income group were the least likely to have had a routine checkup in the last year (61.8%).

#### Comparison With Other States

Only seven states had a lower percentage of residents who did not have health insurance. Iowa has 9.13% of its non-elderly population reporting that they have no insurance. The median percentage for no health insurance in the 50 states was 11.93%.

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# HIGH BLOOD PRESSURE

## Background

Over the past 20 years, the death rate for cardiovascular disease has declined dramatically: 46% for all cardiovascular disease, 51% for coronary heart disease, and 60% for stroke. Even so, cardiovascular diseases, primarily coronary heart diseases and stroke, kill nearly as many Americans as all other diseases combined. Cardiovascular disease is also among the leading causes of disability. The major modifiable risk factors for cardiovascular disease are high blood pressure, high blood cholesterol, cigarette smoking, obesity, and physical inactivity. High blood pressure is one of the most important modifiable risk factors for cardiovascular disease.<sup>3</sup>

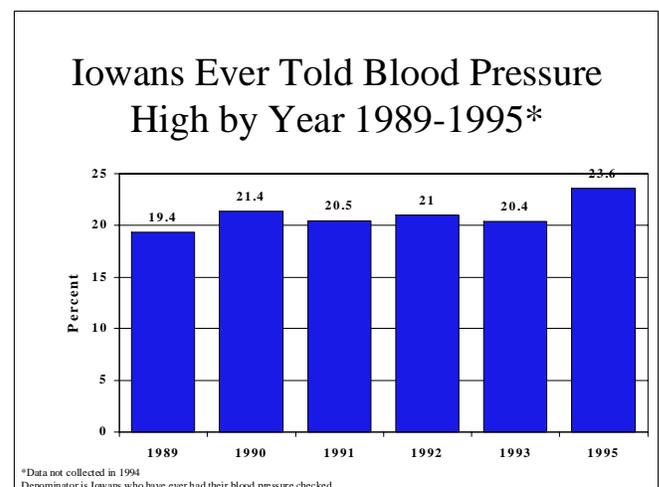
The average blood pressure levels have dropped and the prevalence of high blood pressure has declined for 30% of adults (1976-80) to 24% (1988-91) over the past decade.<sup>3</sup> Despite the progress that has been made over the past 20 years, as many as 50 million Americans have elevated blood pressure (systolic blood pressure 140 mm/hg or greater and/or diastolic blood pressure 90 mm/hg or greater) or are taking anti-hypertensive medication.<sup>1</sup> Translated, this means one in every four Americans has high blood pressure.

The prevalence of high blood pressure increases with age, is greater for blacks than for whites, and in both races is greater in less educated than more educated people.<sup>1</sup> It is especially prevalent and devastating in lower socioeconomic groups. In young adulthood and early middle age, high blood pressure prevalence is greater for men than for women; thereafter, the reverse is true.<sup>1</sup>

The goal of treating persons with hypertension is to prevent morbidity and mortality associated with high blood pressure and to control blood pressure by the least intrusive means possible. This can be accomplished by achieving and maintaining a blood pressure below 140/90 while concurrently controlling other modifiable cardiovascular risk

factors.<sup>1</sup> Lifestyle modifications—which include weight reduction, increased physical activity, and moderation of dietary sodium and alcohol intake—are effective in reducing risks and lowering blood pressure.

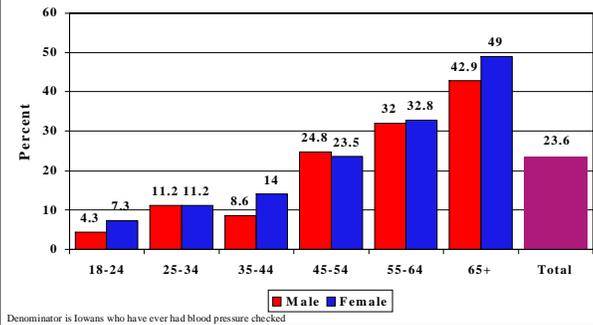
Primary prevention of hypertension is a natural extension of hypertension treatment and can be accomplished through two complementary disease prevention approaches.<sup>2</sup> In the first approach—a population strategy—interventions to lower blood pressure are applied to the general population with the objective of achieving a downward shift in the entire distribution of blood pressure.<sup>2</sup> To complement this approach, a targeted strategy can be used to lower blood pressure among populations that are most likely to develop the disease.



## High Blood Pressure in Iowa

In 1995, 87% respondents reported they had their blood pressure taken by a professional in the last year. Of those, 23.6% reported they had been told their blood pressure was high. For males, the prevalence was 22.3%, while it was 24.8% for females. Of those who had been told their blood pressure was high, 71% reported they had been told that more than once.

## Iowans Ever Told Blood Pressure High by Age and Gender



It is important to keep in mind the limitations of interpreting self-reported data. Validity of the survey results depends on the accuracy of responses by the participants. In terms of hypertension, the participants must understand the definition of hypertension and must be followed

by a health professional who is working with them to lower high blood pressure.

### Comparison With Other States

In 1995, Iowa ranked 12<sup>th</sup> in the 50 states for respondents reporting they had been told they have high blood pressure. The national median was 22% while Iowa reported 23.6% of the adult population who had their blood pressure checked having high blood pressure.

### Year 2000 Health Objectives for the Nation

The Year 2000 Health Objectives for high blood pressure state that at least 90% of the people with high blood pressure should take action to help control (at or below 140/90) their blood pressure. No conclusions based upon BRFSS questions can be drawn to determine if 90% of Iowans are taking action to control blood pressure.

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# DIET AND OVERWEIGHT

## Background

Obesity is probably the most serious nutrition problem 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.<sup>1</sup> Overweight and obese adults are also at increased risk for gallbladder disease, respiratory disease, some types of cancer, gout, and arthritis.<sup>2</sup>

The origin of overweight is multifactorial. It reflects inherited, environmental, cultural and socioeconomic traits.<sup>1</sup> Findings from the CDC's Third National Health Examination Surveys (NHANES III 1988-1994) indicate that substantial proportions of children, adolescents and adults in the United States were overweight.<sup>3</sup> The prevalence of overweight among adults has not declined for 20 years.<sup>1</sup> Overweight tends to increase with age until about age 50 for men and age 70 for women.<sup>4</sup>

Exact measurements of body fat require sophisticated equipment. To circumvent this, 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 determinate of nutritional status and predictors of mortality for the general population.<sup>5</sup> Body mass index (BMI) is used to determine the appropriateness of weight for height. BMI is defined as a person's body weight in kilograms divided by their height in meters squared [weight (kg)/height (m<sup>2</sup>)]. The estimation of the prevalence of overweight in this report is based on BMI.

The increase in the prevalence of overweight is a result of a positive shift in energy balance in which energy taken in from food is greater than energy used in physical activity.<sup>3</sup> Health experts recommend a well-balanced, low-fat, high-fiber diet which offers a wide variety of foods as the best way to control weight. Such a diet enables the individual to maintain good

lifelong dietary habits. Regular physical activity, too, is important to successful weight management; physical activity burns excess calories and improves the body's overall fitness.

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

Given that weight management is difficult for most people, the *Healthy People 2000* goals set for adults are ambitious. However, any reduction in the prevalence of overweight provides considerable public health benefits and deserves attention and emphasis.

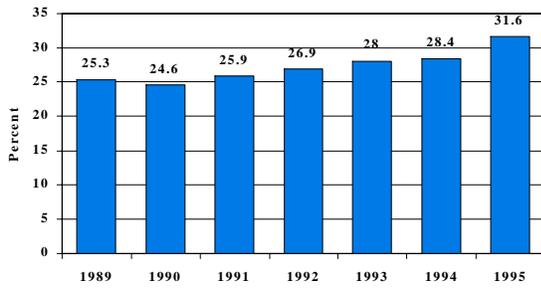
Strategies to achieve this objective include (1) improved accessibility of culturally relevant nutrition information and education to the general public, (2) a strong national program of basic and applied nutrition research, (3) development of the scope and magnitude of the National Nutrition Monitoring System, and (4) development of a sustained program to implement and evaluate the nutrition objectives.<sup>1</sup>

## Overweight in Iowa

Definition: Overweight based on body mass index (BMI) is defined as weight in kilograms divided by height in meters squared [weight (kg)/height (m<sup>2</sup>)]. For females, overweight is defined as BMI  $\geq$  27.3, and for males it is defined as BMI  $\geq$  27.8.

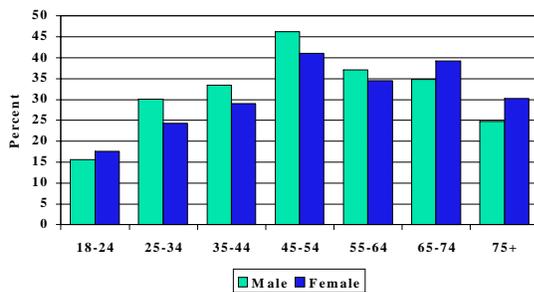
The BRFSS data show that 31.6% of Iowans are overweight based on BMI. More importantly, the percentage of Iowans who are overweight has steadily increased since 1989.

**Population Overweight: Based on Body Mass Index (BMI) 1989-1995**



The self-reported weights show 32.5% of males and 30.7% of females are overweight based on BMI. The percentage of 18 to 24-year old females overweight (17.5%) was significantly lower than in any other age group of women, although the percentage overweight in this category was up 4.9 percentage points from 1994. Women in the 45-54 year old category were at highest risk for being overweight at 41.0%, a decrease of 1.7 percentage points from 1994.

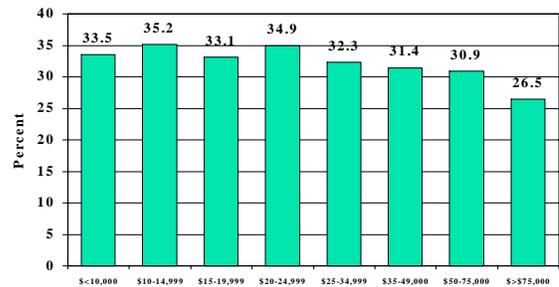
**Population Overweight Based on Body Mass Index by Age, 1995**



The highest risk category for men was in the 45-54 age category at 46.3%. There were more men overweight than women in four age groups and more women overweight than men in three age groups. In general, the percentage of overweight men and women was more similar at each age group than in 1994.

Married Iowans were more apt to be overweight than their single counterparts (34.2% as opposed to a range of 20.1%-33.1%; - includes divorced, widowed, separated, never married and unmarried couples). Other categories showing high risk for overweight included those in \$10,000-14,999 income category, and those who had only attended elementary school.

**Iowans Overweight by Income Based on Body Mass Index, 1995**



Year 2000 Health Objectives for the Nation

The Year 2000 Health Objectives state the prevalence of overweight should be reduced to 20% among people ages 20 through 74 years. The 1995 prevalence of overweight for men (32.5%) and women (30.7%) needs to be decreased by approximately 12.5 percentage points for males and 10.7 percentage points for females to achieve this objective for Iowa.

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# CHOLESTEROL

## Background

Blood cholesterol levels of 240 mg/dl or greater are associated with a higher incidence of coronary heart disease. Therefore, reducing the number of adults with high blood cholesterol ( $\geq 240$ ) will help decrease the risk of heart disease.<sup>1</sup>

Average blood cholesterol levels in the United States have dropped significantly in the last 12 years. In addition, there has been a substantial reduction in the proportion of adults with high blood cholesterol. Between 1976 and 1994, the average cholesterol dropped from 213 mg/dl to 203 mg/dl. During the same time period, the proportion of adults with blood cholesterol levels  $\geq 240$  mg/dl fell from 27% to 19%.<sup>4</sup> Almost half of all Americans (49%) have a blood cholesterol reading in the desirable range ( $< 200$  mg/dl).<sup>2</sup>

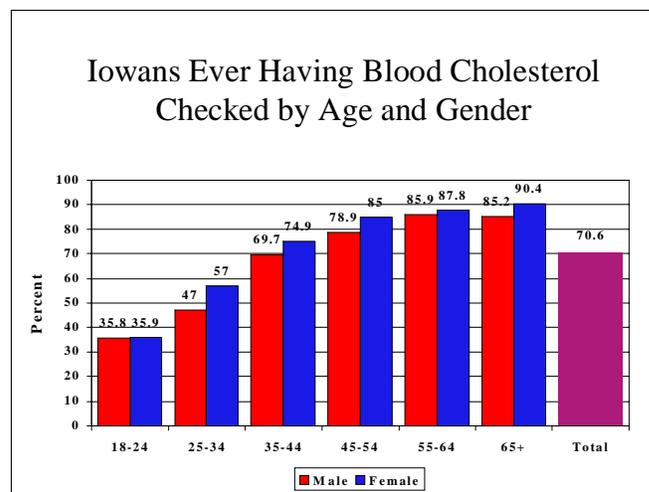
Despite the progress that has been made, half of the population in the United States have cholesterol levels at or above 200 mg/dl. Because of this, two kinds of approaches need to be taken to help lower blood cholesterol levels. One is a clinical approach that identifies individuals at high risk who need intensive intervention efforts. The second is a population strategy that seeks to reach all Americans by lowering the blood cholesterol levels of individuals and reducing the average cholesterol level throughout the population. When both approaches are used, the effects are complementary and represent a coordinated strategy for reducing coronary risk.<sup>3</sup>

To help healthy Americans lower their blood cholesterol levels, the Population Panel of the National Cholesterol Education Program has developed a set of recommendations. Included in the recommendations are strategies to encourage all adults 20 years of age and older to have their blood cholesterol levels measured at least every five years and to help them adopt more healthful eating patterns. If the average blood cholesterol level in the U.S. population can be reduced approximately 10% or more, this will lead to an

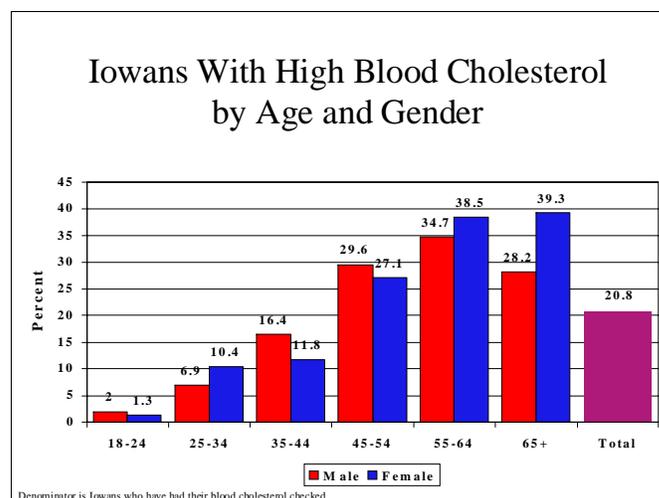
approximate reduction of 20% or more in deaths from coronary heart disease.<sup>3</sup>

## High Blood Cholesterol in Iowa

Of the survey respondents, 70.6% had ever had their blood cholesterol checked and 65.3% of adult



Iowans reported having their blood cholesterol checked within the past five years. Of the Iowans who have had their blood cholesterol checked, 20.8% reported it to be high ( $\geq 240$  mg/dl). Of the men who had their blood cholesterol checked, 19% reported high blood cholesterol and of the women, 22.3% had high blood cholesterol.



## Comparison With Other States

In 1995, Iowa ranked 19<sup>th</sup> among the 50 states participating for adults having their blood cholesterol checked. Iowa had 70.6% of the population checked for blood cholesterol levels while the median was 69%.

Also, Iowa ranked 25<sup>th</sup> among the 50 states participating for adults having their blood cholesterol checked within the past 5 years. The median for this category was 65.3% with Iowa at 65.3%.

Year 2000 Health Objectives for the Nation  
The Year 2000 Health Objectives state that no more than 20% of adults aged 20 through 74 should have a blood cholesterol level of 240 mg/dl or greater. The 1995 BRFSS sample reported 20.2% of Iowans age 18 and older, who had their blood pressure checked, as having blood cholesterol levels greater than or equal to 240

mg/dl. Since 29.8% of Iowa's adult population has not had their blood cholesterol checked, it is not possible to state that Iowa has effectively met this objective.

Another Year 2000 Health Objective states that the proportion of adults age 18 and older who have had their blood cholesterol checked within the last five years should increase to at least 90%. The 1995 BRFSS sample showed 65.3% of Iowans have had their blood cholesterol checked within the past 5 years. This does not meet the Year 2000 Health Objectives. Of the respondents who have had their cholesterol checked, 63.5% had it checked within the past year.

The Year 2000 Health Objectives state that the proportion of adults 18 and older who can report their blood cholesterol level increase to 75%. No conclusions concerning this objective can be made since BRFSS data does not give that information.

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# ALCOHOL USE

## Background

Alcohol is responsible for more than 100,000 deaths each year and is the leading cause of death for persons under 21.<sup>1</sup> It is a contributing factor in cirrhosis of the liver, motor vehicle crashes and fatalities, home injuries, drowning, fire fatalities, work-related injuries, and certain cancers. Alcohol is implicated in nearly half of all intentional suicides and homicides.<sup>1</sup>

Alcohol dependency and abuse is a major public health problem carrying a large economic cost and placing heavy demands on the health care system. The Robert Wood Johnson Foundation reports that in 1990, alcohol abuse cost the nation an estimated \$99 billion.<sup>1</sup> This cost includes the expense of treating substance abuse, the productivity loss caused by premature death and inability to perform usual activities, and costs related to crime, destruction of property and other losses. It also includes special conditions such fetal alcohol syndrome. Based upon the figures in the Robert Wood Johnson report, the cost for alcohol abuse in Iowa is \$1,081,749,366 or \$387 per person.

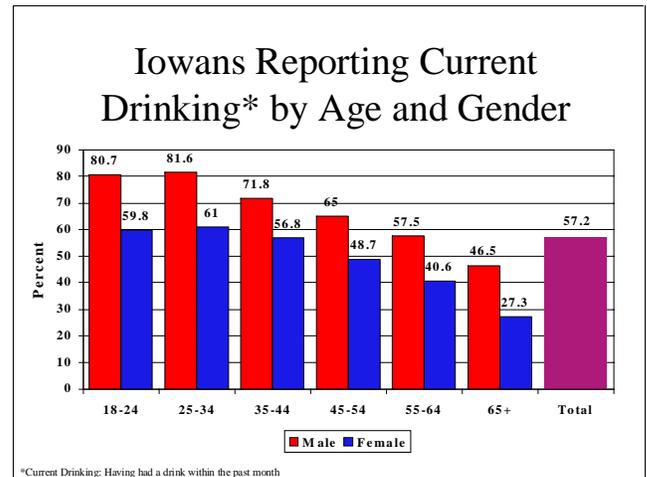
The minimum drinking age has been changed to 21 in all states. This limits consumption of alcoholic beverages, but does not address access to alcohol. Studies show that higher prices on alcoholic beverages will reduce the number of young people (age 16-21) who drink, the incidence of heavy drinking and frequent drinking.<sup>2</sup> Prevention programs addressing risk factors concerning amount and frequency of use of alcohol have also been shown to reduce the incidence of heavy drinking and frequent drinking.

Strategic plans to limit alcohol consumption include 1) increased taxes imposed on alcohol, 2) restrict or control the serving of alcoholic beverages in settings where young people comprise the majority of the audience, 3) set limits on the advertising and promotion of alcohol, 4)

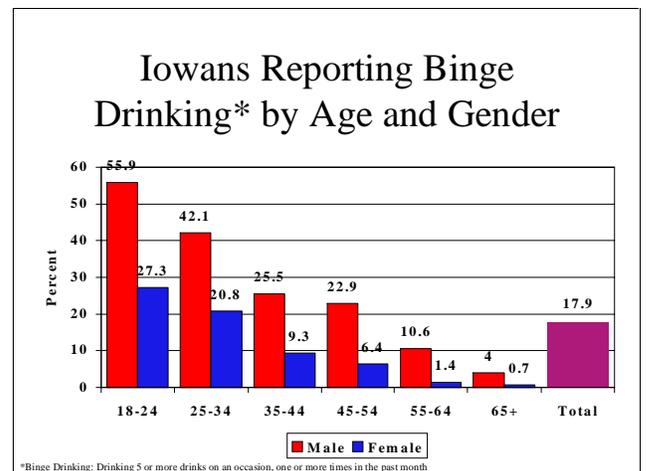
surveillance of the consequences of alcohol, and 5) early education and interventions for youth.

## Alcohol Abuse in Iowa

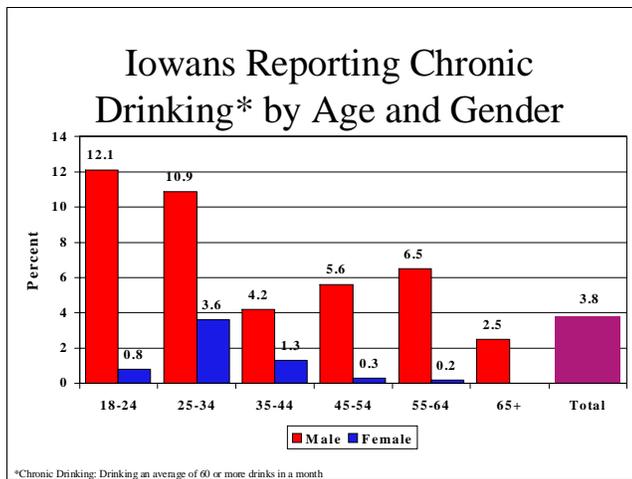
An estimated 57.2% of adult Iowans (up from 51.3% in 1993) consumed alcohol in the past month (current drinking). Of males, 67.6% were current drinkers while 47.7% of females, drank alcohol in the past month.



In 1995, an estimated 17.9% of adult Iowans (up from 12.5% in 1993) were engaged in binge drinking (having five or more drinks on an occasion, one or more times in the past month). Of males, 26.7% were binge drinkers. Of females, 10% were binge drinkers.



An estimated 3.8% of adult Iowans (up from 2.4% in 1993) were at risk for chronic drinking (having an average of 60 or more drinks a month). Of males, 6.7% were at risk for chronic drinking. Of females, 1.1 % were at risk for chronic drinking.



Of Iowans, 5.7% reported driving after having had too much to drink. Too much to drink is self defined; therefore, these numbers may be under-reported because people use different definitions of too much to drink.

### Comparison With Other States

Of the 50 states participating in BRFSS, Iowa ranked 15<sup>th</sup> in prevalence of current drinkers (having had alcoholic beverages during the past month). The prevalence of current drinking in

Iowa was 57%, while the median for participating states was 52.2%.

Of the 50 states participating in BRFSS, Iowa ranked 8<sup>th</sup> in prevalence of binge drinking (having five or more drinks on an occasion one or more times during the past month). The prevalence of binge drinking in Iowa was 17.9%, while the median for participating states was 13.9%.

Of the 50 states participating in BRFSS, Iowa ranked 11<sup>th</sup> in prevalence of chronic drinkers (having 60 or more drinks during the past month). The prevalence of chronic drinking in Iowa was 3.8%, while the median for participating states was 2.8%.

Of the 50 states participating in BRFSS, Iowa ranked 11<sup>th</sup> in prevalence of drinking and driving (driving after having too much to drink, one or more times during the past month). The prevalence of drinking and driving in Iowa was 3.3%, while the median for participating states was 2.3%.

Year 2000 Health Objectives For the Nation  
The Year 2000 Health Objectives relate to health status, risk reduction, and service and protection to reduce alcohol and other drug problems. They do not include objectives related to alcohol consumption as defined by the 1995 BRFSS.

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# TOBACCO USE

## Background

Use of tobacco products is the leading preventable cause of death in the United States. It is a major risk factor for heart and blood vessel disease; cancers of the lung, larynx, pharynx, oral cavity, esophagus, pancreas, and bladder; respiratory infections; stomach ulcers; and low birth weight.<sup>1</sup> Each year an estimated 419,000 deaths in the U.S. are associated with cigarette smoking. Smoking accounts for about 30 percent of all cancer deaths. Furthermore, exposure to environmental tobacco smoke (ETS) is responsible for approximately 3,000 lung cancer deaths per year among non-smokers.<sup>2</sup> Each year, smoking costs Americans \$50 billion dollars in direct medical costs.<sup>3</sup>

Tobacco use in the United States has been dramatically reduced during the 30 years following the first Surgeon General's Report on Smoking and Health. The decrease in the national smoking prevalence from 40% in 1965 to 25% in 1993<sup>3</sup> has prevented or postponed an estimated 789,200 smoking-related deaths.<sup>1</sup> Each of these prevented or postponed deaths represents an average of 21 years gained in life expectancy.<sup>1</sup> The decline has been substantially slower among women than among men.

Tobacco use is currently responsible for one of every five deaths in the United States.<sup>2</sup> One quarter of all adults in the United States still smoke; that is an estimated 47 million adult smokers. The prevalence of smoking is particularly high among African Americans (26%), blue-collar workers (31%), American Indian/Alaska Natives (38.7%) and people with few years of education (29.7%).<sup>1</sup>

Cigarette smoking is the major cause of lung cancer. Lung cancer risk increases with the number of cigarettes smoked daily and the number of years an individual has smoked. There is currently no effective treatment for lung cancer.

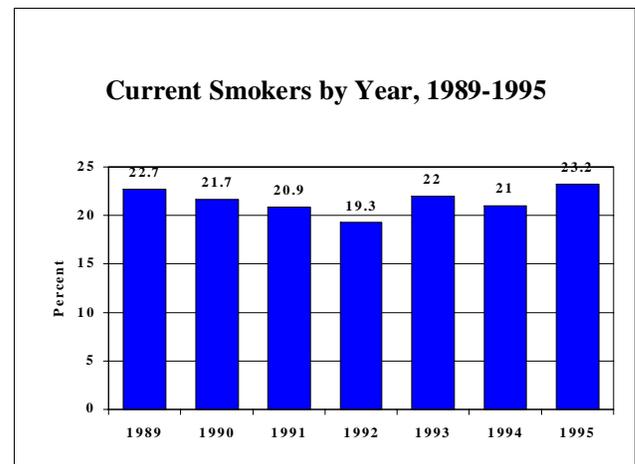
The overwhelming evidence of the addictive nature of nicotine necessitates a continued commitment to preventing tobacco use among young people through enforcement of youth access laws, effective prevention education programs in the schools and community, and media campaigns targeted at youth.<sup>2</sup>

Currently in Iowa there are ½ million adult smokers; however ½ million adults have successfully quit smoking. Each year over 5,000 Iowans die from smoking related causes. Smoking costs Iowans over \$319 million dollars each year in direct medical costs.<sup>3</sup>

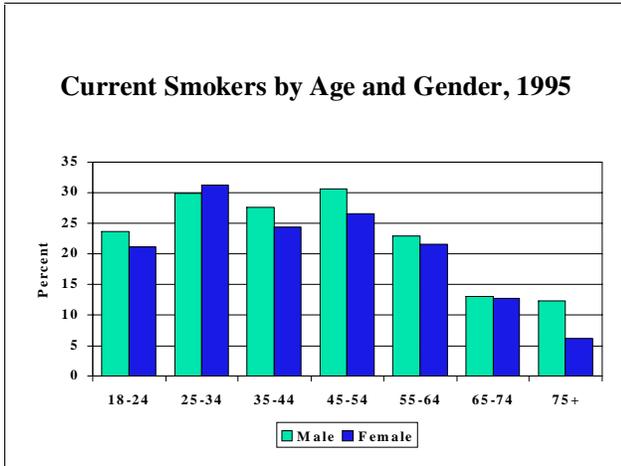
Two strategies to reduce the prevalence of cigarette smoking are (1) intensified efforts to discourage young people from starting to smoke, and (2) increasing the number of smokers who quit.

While the rate of cigarette smoking has declined, the use of smokeless tobacco by adolescent males has increased by 40% over the past 20 years.<sup>1</sup> Strategies to impact the increasing rate of smokeless tobacco use will be a challenge, but may include the adoption of a comprehensive health education curriculum in grades K-12 with objectives for prevention of tobacco use.

## Tobacco Use in Iowa



In 1995, 23.2% of adult Iowans (the highest of the past 7 years) reported they were current smokers.



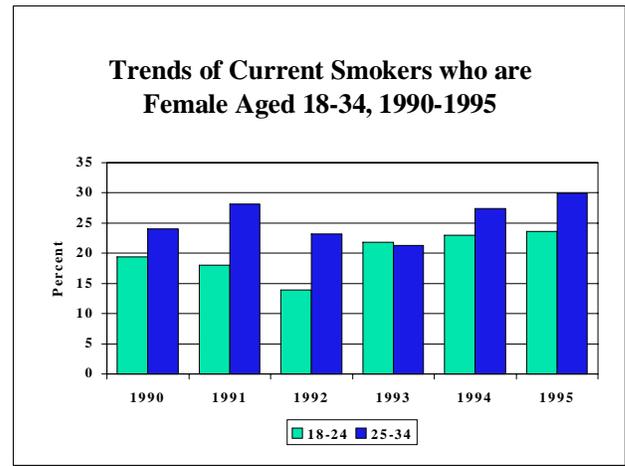
Approximately 24.8% of males reported to be current smokers, while 21.7% of females were current smokers. Females aged 25-34 showed a higher risk than their male counterparts for current smoking. Tobacco prevention professionals recognize the need to target prevention activities to reduce smoking among young women.

Groups at highest risk for current smoking were 25-34 females (31.2%), those with some high school education (38%), and those in the <\$10,000 income category (31.7%).

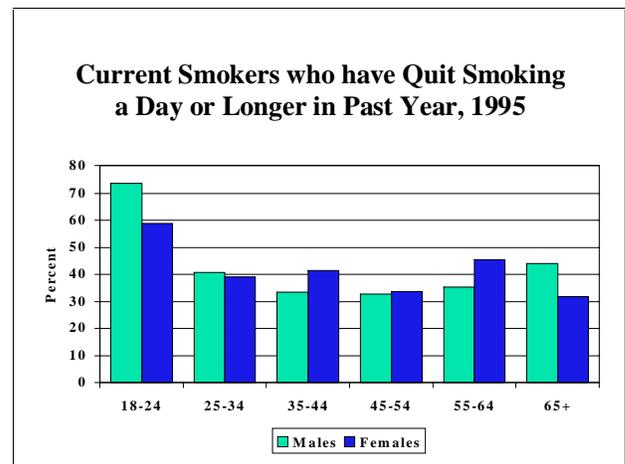
Of those smokers who reported they smoked every day in the last 30 days, 23.9% had smoked less than a half pack a day, 49.7% smoked one-half to one pack a day, 23.8% smoked 1-2 packs a day, and 2.1% smoked more than 2 packs a day. The 1-2 packs a day increased from 22.1% in 1994 to 23.8% in 1995.

Of the current smokers 40.5% reported quitting for one day or longer in the past year.

Those groups who were least likely to report quitting at least once in the last year were females aged 65+.



Of persons who have smoked at least 100 cigarettes in their lifetime and do not currently smoke, 70.2% had their last cigarette five or more years ago, 17.3% had their last between one and five years ago, 3.8% between six to 12 months, 2.5% between three to six months, 1.9% between one to three months, and 1.4% less than one month ago.



#### Year 2000 Health Objectives for the Nation

The Year 2000 Health Objectives include reducing the prevalence of cigarette smoking to no more than 15% among people age 20 and older. The 1995 BRFSS sample reported 23.2% of Iowans age 18 and older as current smokers. Although the age groups are not the same as the Year 2000 Health objectives, the trend of increasing smoking in the 18-34 age group makes it very unlikely that this objective will be achieved.

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# MAMMOGRAPHY

## Background

It was estimated that in Iowa in 1994, 2,100 new breast cancers were diagnosed with 595 deaths resulting from this disease.<sup>1</sup> Breast cancer is the second leading cause of cancer deaths in women after lung cancer.

Approximately one woman in nine will develop breast cancer sometime during her lifetime.

The American Cancer Society (ACS) recommends monthly breast self-examination and a yearly clinical breast exam for all women. In addition, the organization recommends a baseline mammogram for women aged 35-39 years of age. Asymptomatic women aged 40 to 49 should have mammograms every one to two years. (Note: The effectiveness of screening women under 50 years of age is still being debated).<sup>7</sup>

Asymptomatic women 50 years of age and older are recommended to have a mammogram every year.<sup>2</sup> Through yearly mammograms among women aged 50 and older, breast cancer mortality may be reduced by 30.0%.<sup>3,4,5</sup>

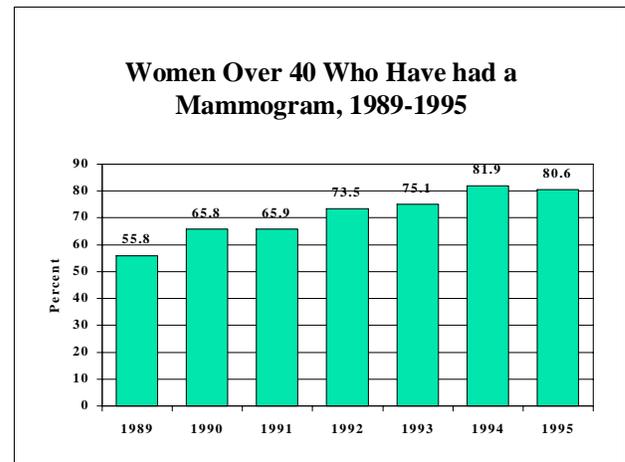
Despite the known advantage of early breast cancer detection from mammography, nationally only 36.0% of women aged 40 and older had ever received a clinical breast exam and mammography in 1987.<sup>1</sup> The good news is that in 1994, those numbers had raised to 89.4% of women aged 40 and older ever having received a clinical breast examination and 79.6% ever having mammography.<sup>8</sup>

The two reasons women cite most often for not having a mammogram is that they did not know they needed it and that their doctor did not recommend it.<sup>5</sup> Barriers mentioned by physicians for recommending mammograms include high cost, belief the examination is unnecessary, and concern about the risk of

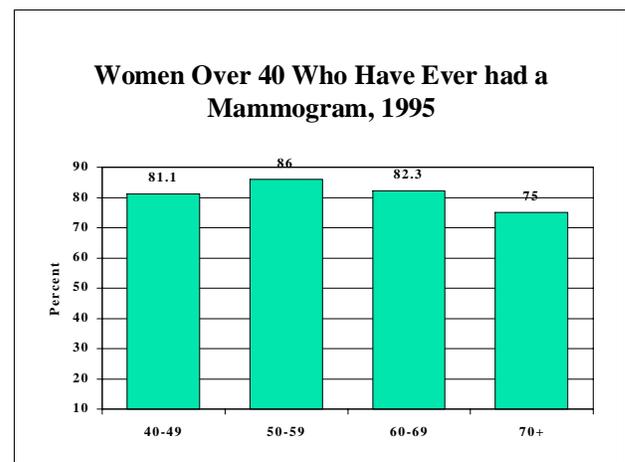
radiation exposure.<sup>6</sup> Other factors associated with barriers to mammography include low income, Hispanic ethnicity, low educational attainment, age greater than 65, and residence in a rural area.<sup>7</sup>

## Mammography in Iowa

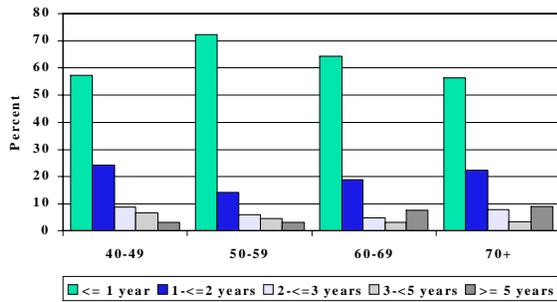
In 1995, 80.6% of Iowa women age 40 and older reported they had a mammogram.



Those groups who were at highest risk for not having had a mammogram were women who have never married (31.8%), and women whose annual income was <\$10,000 (28.6%), \$10-\$14,999 (26.5%), or \$15-19,999 (27.0%).



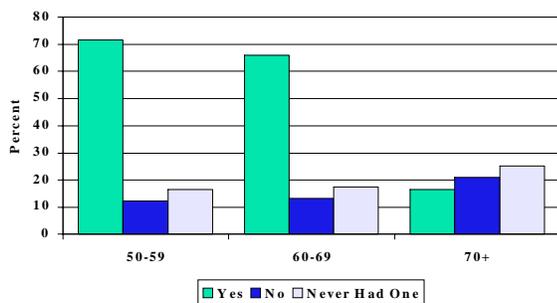
**Women Over 40 Who Have Had a Mammogram, Number of Years Since Last Mammogram, 1995**



In 1995, 58.4% of Iowa women age 50 and older reported they had a mammogram and breast exam done in the past two years (62.9% in 1994).

At highest risk of women over 50 of not having had a mammogram in the last two years were women who were divorced or widowed, and those who had an annual income of <\$14,999.

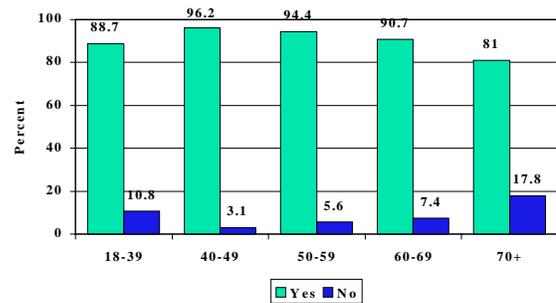
**Women 50 and Older Who Have Had a Mammogram and Breast Exam within Last 2 Years, 1995**



The most common reason for having had a mammogram for women over 50 was that it was done as part of a routine checkup (85.2%); the second most common reason cited was a breast problem (11.7%).

When asked if they had ever had a breast physical exam by a doctor, 89.6% of the female respondents said yes. When asked how long it had been since they had such an exam, 70.3% indicated less than a year, 14.6% one to less than two years, 5.5% two to less than three years, 3.2% three to less than five years and 6.0% five years or over.

**Women Who Have Had A Physical Breast Exam By A Doctor, 1995**



A cross-analysis of those who were unable to afford a visit to a doctor in the last year and the questions concerning mammograms, clinical breast exams, and breast self-examination was done. It showed that only 47.6% of those over 50 who reported they could not afford a doctor visit at least once in the last year had a mammogram in the last year; 69.2% had a clinical breast exam in the last year; and, 85.1% had done monthly breast exams. Those over 50 who were not married were more likely to not have had a mammogram (44.7% as opposed to 56.2% of those married), and more likely to not have had a clinical breast exam (68.8% as opposed to 73.8% of those married). They were more likely to have done monthly breast self-exams (74.8% as opposed 68.8% of those married).

Comparison With Other States

Of all the 50 states, Iowa ranked 32<sup>nd</sup> in the percentage of women 40 and over having ever had a mammogram. The national median was 81.8%, while Iowa reported 80.5% of adult women in this category having had a mammogram.

Iowa ranked 35<sup>th</sup> in the 50 states for the percentage of women over 50 having had a mammogram in the last two years. The national median was 69.21%, with Iowa reporting 66.14%.

Year 2000 Health Objectives for the Nation

The *Year 2000* Health Objective states that the proportion of women age 40 and older who have had a clinical breast exam and a

mammogram increase to at least 80%. The 1995 Iowa BRFSS sample reports 76.55% of women age 40 and older have had a mammogram and breast exam. The 1994 Iowa BRFSS sample report was 77.69%; we have moved away from this objective.

Another *Year 2000* Health Objective states that the proportion of women age 50 and older who

have had a clinical breast examination and a mammogram within the preceding one to two years increase to at least 60.0%. The 1995 Iowa BRFSS sample reports 58.38% of women age 50 and older had a mammogram and clinical breast exam within the past two years. The 1994 Iowa BRFSS sample report was 62.95%; we remain below the objective.

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# PAP SMEARS

## Background

From 1991-1993, 2,289 *in situ* cases of cervical cancer were identified in Iowa women for an average of 763 cases per year. For the same period, 441 cases of malignant cervical cancers were diagnosed for an average of 147 cases each year. From 1991-1993, 127 women died as a result of cervical cancer.<sup>1</sup> Although 90 percent of women with localized cervical cancer are still alive after five years, only about 40 percent are alive of those diagnosed with advanced disease.<sup>2</sup> Although all sexually active women are at risk for cervical cancer, the disease is more common among women of low socioeconomic status and those with a history of multiple sexual partners or early onset of sexual intercourse.<sup>3,4,5</sup>

The principal screening test for cervical cancer is the Papanicolaou (Pap) smear. Early detection through Pap smears can dramatically lower the incidence of invasive disease and nearly eliminate deaths from cervical cancer.<sup>6,7,8</sup> It has been suggested that Pap smear screening programs need to reach older, high risk women to be maximally effective in decreasing morbidity and mortality of cervical cancer.<sup>9</sup>

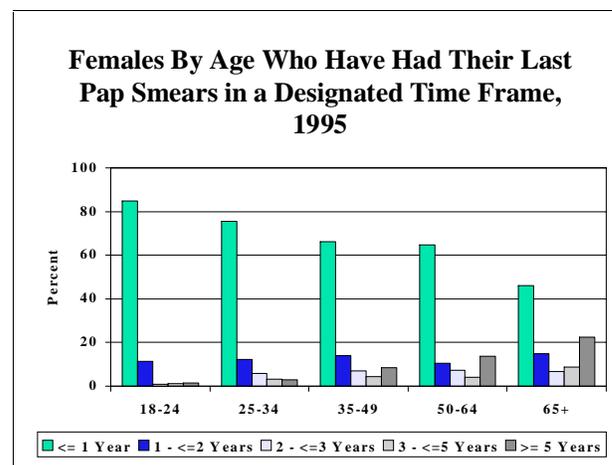
The American Cancer Society recommends annual Pap tests starting at age 18 or with the onset of sexual activity, and less frequent exams after three consecutive normal exams at the discretion of the woman's physician.

Educational programs need to target unscreened women who forego the test due to underestimating its importance, procrastination, or because their medical care provider does not suggest the procedure.<sup>10</sup>

## Pap Smears in Iowa

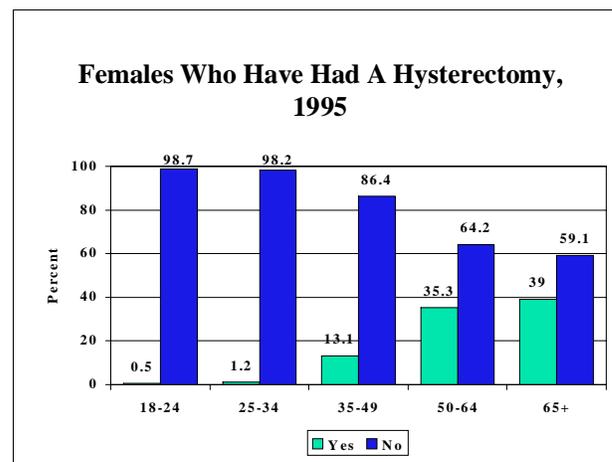
In 1995, 93.6% (95.5% in 1994) of women age 18 or older who were surveyed reported they had a Pap smear at some time during their lives. The highest risk group for not having had a Pap smear were women 18-24 (21.8% had not ever

had a Pap smear) and those in the annual income category of under \$10,000 (12.5%).

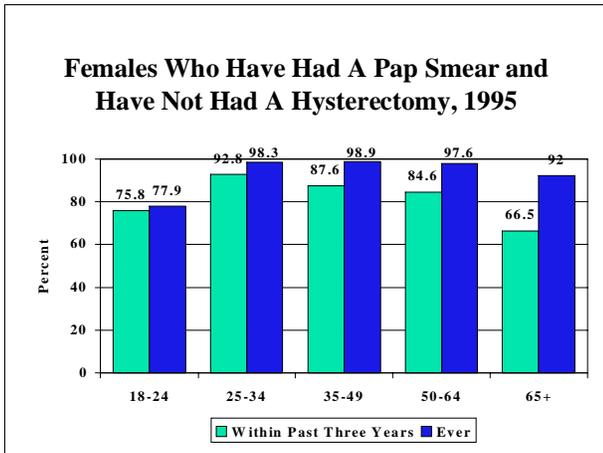


When adult female respondents who have had a Pap smear were asked when they had their last Pap smear, 64.7% of the respondents said in the last year, 13.1% one to less than two years, 6.2% two to less than three years, 4.8% three to under five years and 10.9% five years or more.

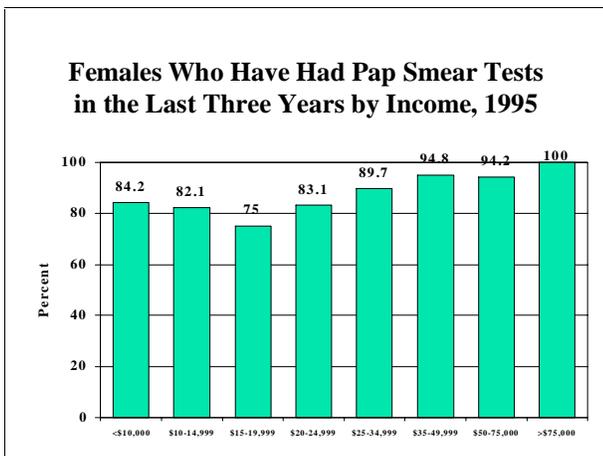
In order to separate those respondents who would not be at risk for uterine cancer, female respondents were asked if they had a hysterectomy. Twenty percent of the women surveyed responded yes to the question.



Of those females who had not had a hysterectomy, 94.3% had ever had a Pap smear. The same population were asked if they had a Pap smear within the last three years, with 82.7% responding yes.



Those who were the least likely to have had a Pap smear in the last three years were those aged 65+ (31.3%), 18-24 (24.2%), and those who were students (32.9%). As income decreased, so did the percentage of women who had a Pap smear in the last three years. Of those whose annual income was under \$10,000, 30.3% reported they had not done so. Of those whose income was \$10,000 - \$14,999, 32.6% had not had a Pap smear in the last three years.



When asked why their last Pap smear was done, 93.3% of the females reported it was part of a routine exam, 6.3% said it was done because of a current or previous problem, and 0.1% said because of another reason besides these first two.

Female respondents were asked if they were pregnant at time of pap smear. Only 4.1% of the sample age 18-24 responded yes.

### Comparison With Other States

In 1995, Iowa ranked 24<sup>th</sup> highest in the 50 states for the number of women reporting they had ever had a Pap smear. The median was 93.2%, while Iowa reported 93.6% women over the age of 18 had ever had a Pap smear.

Iowa also ranked 17<sup>th</sup> in the 50 states for the percent of women with uterine cervix reporting they had ever had a Pap smear. The median was 93.6%, while Iowa reported 94.3%.

Iowa ranked 30<sup>th</sup> in the 50 states for women reporting their last Pap smear was in the last three years. The median was 83.6%, with Iowa at 82.7%.

### Year 2000 Health Objectives for the Nation

The *Year 2000* Health Objectives state that the proportion of women over the age of 18 with an intact uterine cervix (have not had a hysterectomy) who have ever had a Pap smear increase to at least 95%. The 1995 Iowa BRFSS sample reports 94.3% of women over the age of 18 and having an intact uterine cervix had ever had a Pap smear. The *Year 2000* Health Objective had been met in the 1994 Iowa BRFSS but is not met in 1995.

The *Year 2000* Health Objective for Pap smears states that the proportion of women over 18 with an intact uterine cervix who have had a Pap smear in the last two years increase to at least 85.0%. The 1995 Iowa BRFSS sample reports that 77.6% of the above group have had a Pap smear in the last two years, not meeting the *Year 2000* Health Objective. This is down from the 79.9% reported in 1994.

The *Year 2000* Health Objective on Pap smears states that women over the age of 70 with an intact uterine cervix who have had a Pap smear in the last two years increase to at least 70%. The 1995 Iowa BRFSS sample reports 53.9% of women over the age of 70 and having an intact uterine cervix had a Pap smear in the last two years, therefore not meeting the *Year 2000* Health Objective.

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# AIDS

## Background

The human immunodeficiency virus (HIV) attacks cells in the immune system.

In 1996, for the first time, deaths among persons with AIDS decreased substantially in the U.S. This decrease in AIDS deaths reflects both the leveling of AIDS opportunistic infection (OI) incidence and improved clinical survival among persons with AIDS. At the same time, there has been a substantial increase in AIDS prevalence. Prevalence is a function of both the rate of new infections and the duration of illness. The increased prevalence of AIDS indicates the need for medical and other services for persons with HIV infection and for prevention programs to reduce the number of persons becoming infected with HIV.<sup>1</sup>

An estimated one million people are infected with HIV with more than 581,429 cases of AIDS having been reported in the United States; 62% of those who had AIDS have died.<sup>5</sup> Since reporting began, 968 cases of AIDS have been reported in Iowa as of December 31, 1996.<sup>5</sup> Currently there is no cure for AIDS.

HIV-related illnesses and death now have the greatest impact on young adults, particularly racial and ethnic minorities. In Iowa, Black non-Hispanics constitute only 1.7% of the population, but 8.4% of all Iowa AIDS cases. The Hispanic population is 1.2% and Hispanic AIDS cases are 2%.<sup>5</sup>

The average age of those infected is now estimated to be 25 years of age, with one in four new infections occurring in individuals under 22. The proportion of cases attributed to heterosexual contact decreased from 10.3% in 1994 to 9.4% in 1996. At the same time, the proportion of cases reported among homosexual/bisexual men increased from 43.3% to 5%. Women account for 15% of all AIDS cases reported.<sup>5</sup>

Recent national surveys show that 72% of all high school seniors have had sexual intercourse. Nearly one-fifth have had four or more sex partners. More than two-thirds of the 12 million cases of other sexually transmitted diseases reported each year are in young adults under 25 years of age with three million of them teenagers.<sup>5</sup>

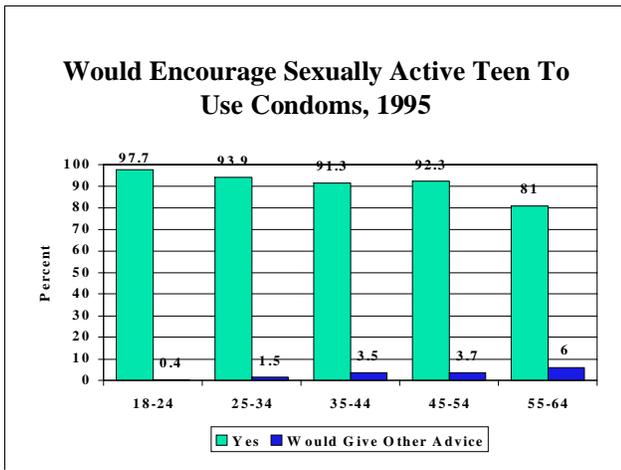
HIV infection is the leading cause of death among people 25-44 years old, accounting for 19% of deaths from all causes in this age group in the U.S.<sup>1</sup> Every fifteen minutes someone dies of AIDS in the United States; every nine minutes someone is diagnosed with AIDS; and every 13 minutes someone is diagnosed with HIV infection.<sup>3</sup> AIDS is the tenth leading cause of years of potential life lost before the age of 65 in the United States.<sup>5</sup>

AIDS will continue to make major demands on the health care and the social service systems for many years to come. Estimated annual cost of treating a person with AIDS is \$69,100; treating a person with HIV, \$50,174; and the life time cost of treating a person with AIDS from diagnosis until death is \$119,274. Treatment cost for all persons in the United States with HIV, including those diagnosed with AIDS in 1996, will reach \$21.6 billion in 1996.<sup>1</sup>

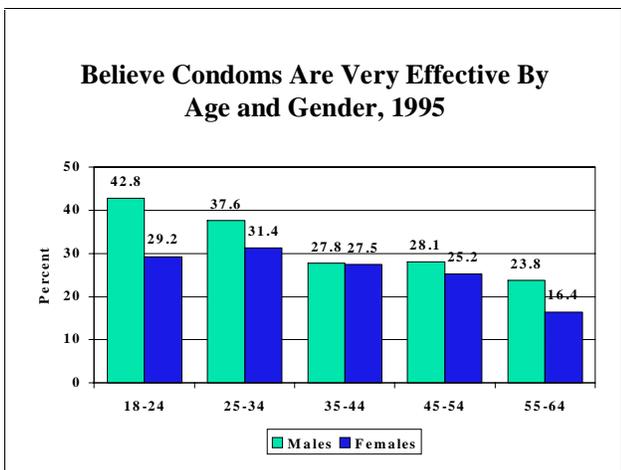
## Iowans and AIDS

When asked in what grade AIDS education should start, 41% said fourth to sixth grade, 23.9% first to third grade, 15.4% seventh to ninth grade, 11.3% kindergarten, 1.3% tenth to twelfth grade, and 2% said never.

Respondents were asked if they had a sexually active teenager would they encourage him or her to use a condom. Of the respondents, 91.7% said yes, 3.0% said no, and 2.9% said they would give other advice.

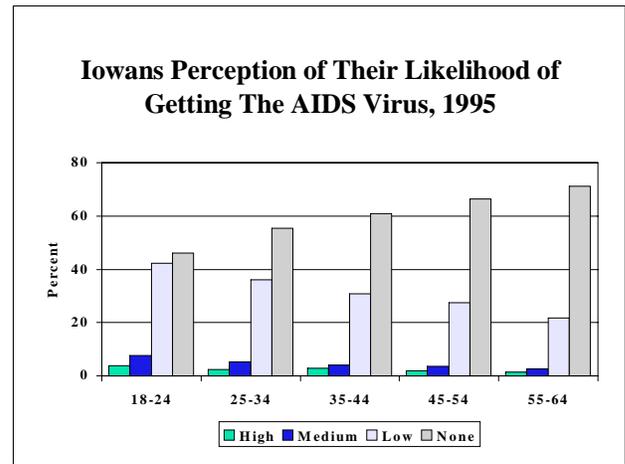


When asked if they thought condoms were effective in preventing AIDS, 29.2% said they

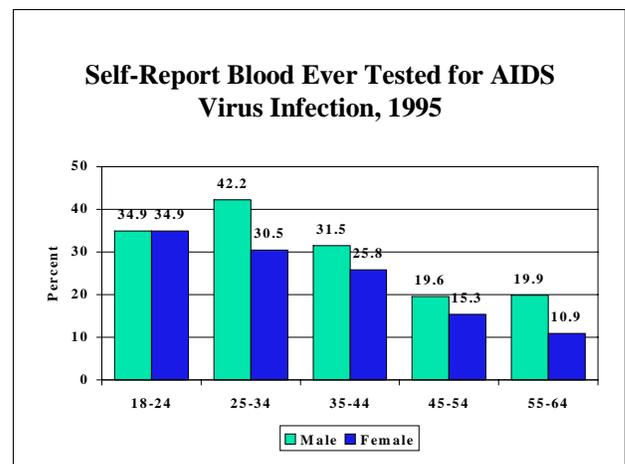


were very effective, 59.8% said they were somewhat effective, 4.7% were said they were not at all effective, and 4.8% were not sure how effective they were.

Respondents aged 18-64 were asked to indicate their likelihood of getting the AIDS virus. They reported their chance for getting the AIDS virus was high (2.5%), medium (4.6%), low (40.1%) and no chance (51.2%).



The group with the highest percentage of those who had their blood tested for the AIDS virus infection were males 25-34 (42.2%) and college graduates (34.9%). Of those who reported they had been tested, 69.1% had been tested between January 1993 - December 1995.



When asked the main reason for their last AIDS blood test, respondents gave the following answers:

| Reason                 | Percent |
|------------------------|---------|
| To see if infected     | 20.2%   |
| Blood Donation Process | 17.0%   |
| Life Insurance         | 11.4%   |
| Military Induction     | 8.4%    |
| Routine Checkup        | 7.9%    |
| Hospitalization        | 7.0%    |
| Pregnancy Test         | 6.7%    |
| Occupational Exposure  | 4.1%    |
| Health Insurance       | 3.7%    |
| Employment             | 2.2%    |

The 18-24 age respondents were more apt to say they had the test to see if they were infected (male 32.4% and female 36.6%).

Each of the respondents who indicated they had received an AIDS virus blood test was asked the test site.

| <b>Where Test Was Done</b>      | <b>Percent</b> |
|---------------------------------|----------------|
| Hospital or Emergency Room      | 24.1%          |
| Private Dr. or HMO              | 19.8%          |
| Blood Bank or Plasma Center     | 16.0%          |
| At Home, Nurse or Health Worker | 9.9%           |
| Military Site                   | 8.6%           |
| Health Department               | 4.8%           |
| Community Health Clinic         | 4.6%           |
| Insurance company Clinic        | 2.7%           |
| Family Planning Clinic          | 1.1%           |
| AIDS Clinic or Test Site        | 0.6%           |

The respondents who had an AIDS virus blood test were also asked if they had received the results of their last AIDS test. A majority of these respondents answered yes (76.2%).

Of those who received the results of their tests, 32.7% indicated they had received counseling with those results.

If respondents were aged 18-64 and had indicated they had never had their blood tested for the AIDS virus, they were asked if they had donated blood since March 1985. (All donated blood has been tested for the virus since that date. If the blood is tested positive for the virus, the donor is contacted and told they should see their doctor for further testing.)

Of the 2,000 people who were asked this question, 22.2% indicated they had donated blood since that date. College graduates (32.6%) were most apt to have donated blood. Of those who indicated they had donated blood, 40.8% said they had donated between January, 1994 and December, 1995.

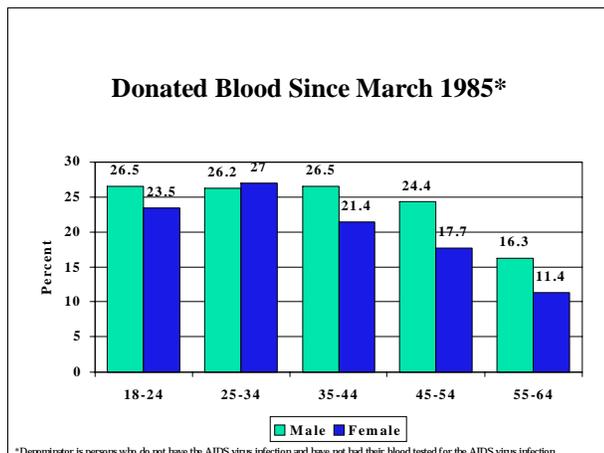
Comparison With Other States

The percentage of respondents who said they would encourage a sexually active teenager to use condoms was higher in 3 of 49 states. The national median was 86.76% with Iowa at 91.75%.

When asked how effective condoms were for preventing transmission of the AIDS virus, the percentage of respondents in 31 of 49 states was higher. The national median for this response was 31.79%, with Iowa at 29.24%.

Iowa ranked 45<sup>th</sup> of 49 states for respondents reporting they had ever had their blood tested for the AIDS virus infection. The median was 36.35%, with Iowa at 27.25% (in 1993 15.1% and 1994 21.79%).

The percentage of respondents in Iowa who responded that they saw their chances of getting the AIDS virus as high ranked 15<sup>th</sup> of 49 states. The national median was 6.33%, with Iowa at 7.11%.



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# DISABILITY

## Background

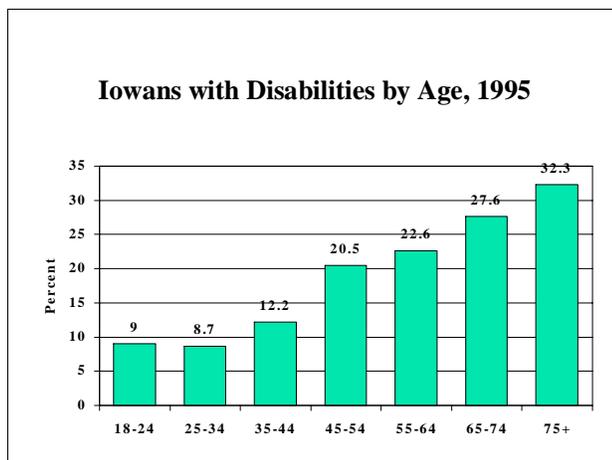
Disability is an issue that affects every individual, community, neighborhood, and family in Iowa. It is more than a medical issue. It is a costly social, public health, and moral issue.<sup>1</sup>

Disability is the expression of a physical or mental limitation in a social context; the gap between a person's capabilities and the demands of the environment. Most disability is preventable, which will not only improve the quality of life for millions of Americans, but also could save many billions of dollars in costs resulting from dependence, lost productivity, and medical care.

Six questions were added to the 1995 BRFSS data collection. They identify the presence of disability, existing impairments underlying the disability, and pain as a cause of disability. A person was considered disabled when an affirmative answer was given to the question "Are you limited in any way in any activities because of impairment or health problem?"

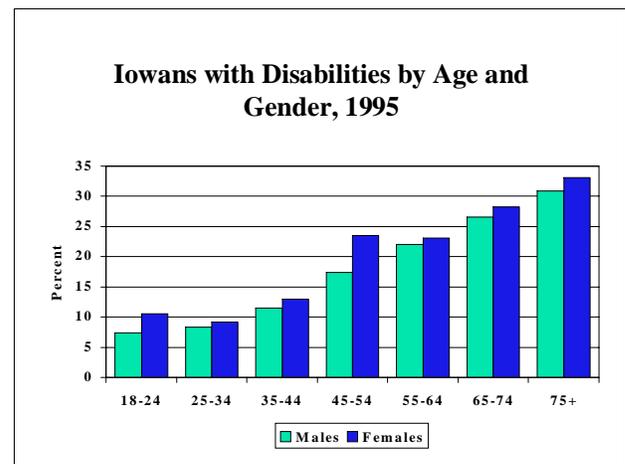
## Disability in Iowa

A total of 17.3 percent, reflective of almost 360,000 Iowans aged 18 and older, reported limitations in one or more activities due to an impairment or health problem.

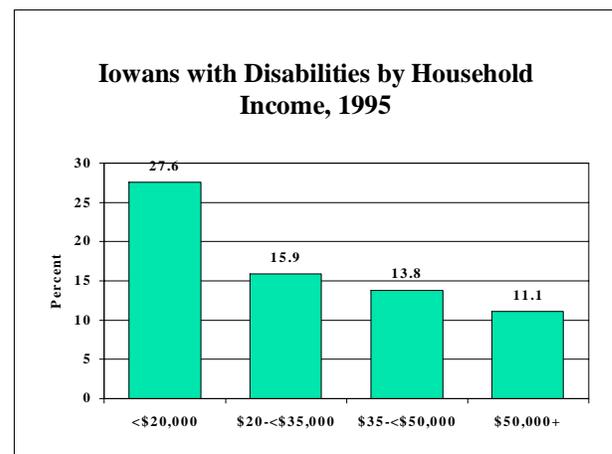


This percentage increased with age from 9.0 percent of those aged 18-24 reporting a disability to almost one of every three Iowans aged 75 and older.

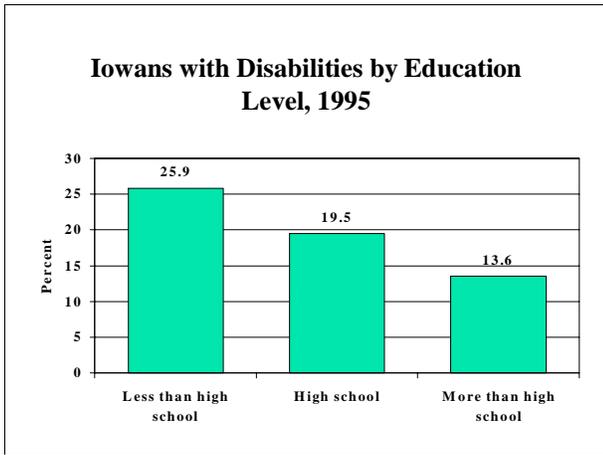
Females and unmarried Iowans of both sexes were more likely to report being disabled than their counterparts (females: 18.9%, males: 15.5%; unmarried: 18.9%, married 16.5%). For every age group, females were slightly more likely to report disabilities.



Iowans with annual household incomes of less than \$20,000 were substantially more likely to report disabilities (27.6%) than those earning more.

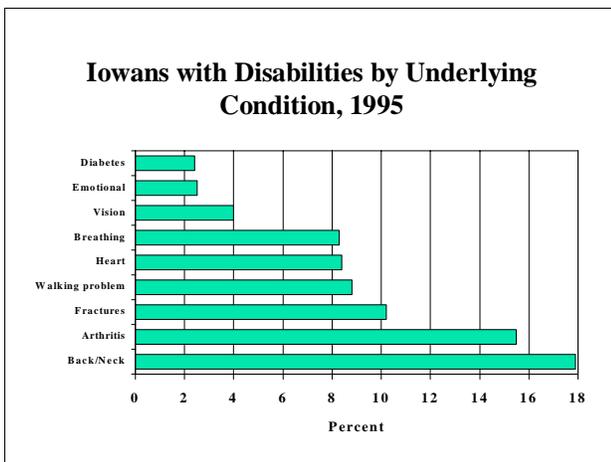


Additionally, Iowans with less than a high school education were most likely to be disabled (25.9%). About 14 percent of those with more than a high school education reported disabilities.



The most frequently reported impairment underlying the disabilities were back and neck problems (17.9% among those with disabilities), followed by arthritis (15.5%).

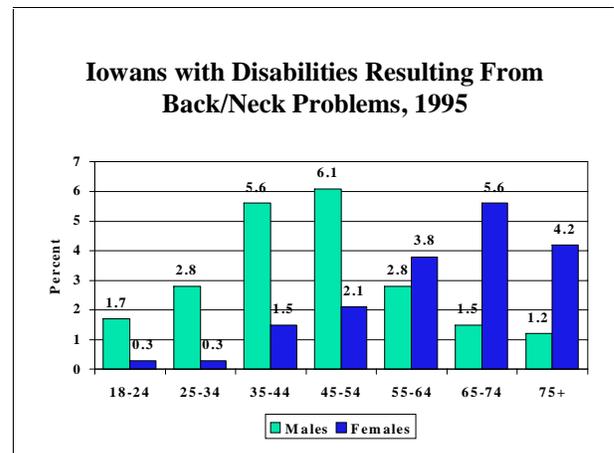
Separating both impairments by age and sex showed that older females and younger males were more likely to report back and neck problems as underlying condition. This difference in distribution of back/neck problems may indicate a difference in type of pathology leading to disability.



For younger males, low back pain is a significant contributor to back/neck problems. Nation-wide, low back pain is the leading cause of disability for persons under age 45 years<sup>2</sup> and is the second leading cause of industrial absenteeism.<sup>3</sup> Improved ergonomic or engineering design of the workplace and vehicles, including improved lifting techniques and conditioning for those who must lift, may prevent back injuries and back pain.<sup>4</sup> Other

strategies to prevent low back pain include back flexion, back extension, and general fitness exercises; improved back mechanic and ergonomic techniques; mechanical back supports; and risk factor modification.<sup>5</sup>

For older females, osteoporosis and accompanying vertebral deformities may be the underlying conditions leading to disability. Several risk factors for osteoporosis have been identified, although little is known about specific risk factors for vertebral fractures.<sup>6</sup> One of the avenues by which traditional public health techniques may make a difference is by increasing participation in physical activity. Some studies have indicated that three sessions per week of 50 to 60 minutes of walking, jogging, stair climbing, and light resistance training can increase lumbar spine bone mineral content.<sup>7</sup>

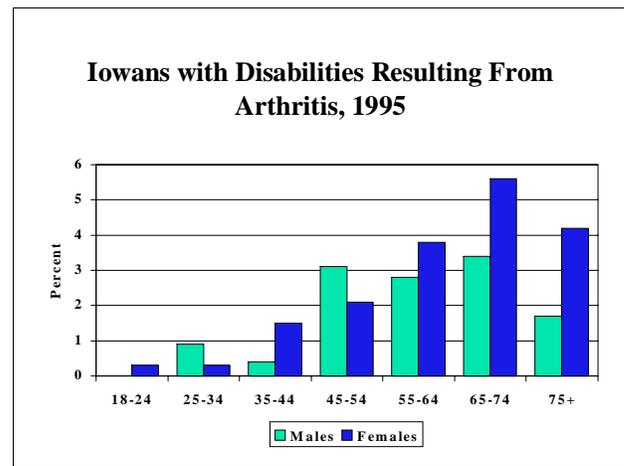


At the same time, the prevalence of arthritis increased for both sexes when analyzed by age. On average, Iowans with disabilities resulting from arthritis were limited in their usual activities for 14.6 days out of 30 days. This was the highest average number of days of all limitations resulting in disabilities.

Arthritis is a leading cause of work-related disability and the leading cause of disability among persons aged 65 and older in Iowa as well as nation-wide.<sup>1</sup> Clinical studies have shown that medical care, including medications, can offer a 20-50 percent improvement in reporting arthritis symptoms. Studies further suggest that an additional improvement of 15-30 percent is attainable through patient education

interventions.<sup>8</sup> In general, health education for patients with chronic arthritis may add significant and sustained benefits to conventional therapy while reducing cost.

Another strategy to reduce disability and increase quality of life among those with arthritis is to implement aerobic or resistance exercise programs among older persons with knee osteoarthritis.<sup>9</sup> These types of physical activity can significantly reduce self-reported disability and pain.



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## OTHER AREAS OF INTEREST

### Flu Shots

Of the 1995 respondents over the age of 65, 62.7% reported they had a flu shot in the past 12 months (64% of males and 61.9% of females). Iowa ranked 17<sup>th</sup> in the 50 states for those over 65 reporting they had a flu shot in the last year. The national median was 59.2%, with Iowa at 62.7%.

### Pneumonia Vaccination

Of the 1995 respondents over the age of 65, 43.6% reported they had ever had a pneumonia vaccination (41.9% of males and 44.7% of females). Iowa ranked 5<sup>th</sup> in the 50 states for those over age 65 reporting they had ever had a pneumonia vaccination. The national median was 36.9%, with Iowa at 43.6%.

### Proctoscopic Exam

Of the 1995 respondents over the age of 40, 30.9% reported they had ever had a proctoscopic exam (29.2% of males and 32.4% of females). For those over 50, 38% reported they had ever had a proctoscopic exam (35.8% of males and 39% of females). Iowa rated 19<sup>th</sup> in the 50 states for those over 50 reporting they had ever had a proctoscopic exam. The national median was 37.1%, with Iowa at 38%.

### Digital Rectal Exam

Of the 1995 respondents over the age of 40, 45.8% had an exam in the last year, 11.5% from one-less than two years, 8.7% from two-less than five years ago, and 10.2% more than five years ago. Iowa ranked 8<sup>th</sup> of the 50 states in those over 40 reporting they had a rectal exam within the past year. The median for the nation was 40.1%, with Iowa 45.8%.

### Diabetes

Of the 1995 respondents, 5.4% reported they had ever been told by a doctor they have diabetes. Iowa ranked 6<sup>th</sup> in the 50 states with respondents reporting they had been told by a doctor they had diabetes. The median for the 50 states was 4.4%, with Iowa at 5.4%.