



# Health in Iowa 2017 BRFSS Annual Report

From the Iowa 2017 Annual Behavioral Risk Factor Survey

## Authorship

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Protecting and Improving the Health of Iowans



## Iowa Behavioral Risk Factor Surveillance System

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# Executive Summary

The Iowa Behavioral Risk Factor Surveillance System (BRFSS) is an ongoing telephone survey conducted in partnership with the State of Iowa and the Centers for Disease Control and Prevention (CDC). In 2017, BRFSS collected 7,699 telephone interviews from residents aged 18 and older living in private residences or college housing. The interview included questions regarding health conditions, health-related behaviors, attitudes and awareness of major contributors to illness, disability and premature death over an average of 27 minutes.

BRFSS also monitors the prevalence of these indicators over time statewide. Health-related issues including general health status, health care access, tobacco use, alcohol consumption, body weight, physical activity, nutrition, diabetes, respiratory conditions, immunizations, cancer screening and HIV/AIDS testing are tracked over time. Comparisons to other states, as well as to Healthy People 2020 and Healthy Iowans goals are important ways the Iowa BRFSS is used to evaluate progress towards the attainment of health across the state.

## FACT

BRFSS is the nation's premier state-based system of health-related telephone surveys.



### Significant findings for 2017 include:

- The downward trend in the percentage of people without health care coverage leveled off.
- Only four states had a lower rate of current asthma.
- Although the percentage of obese Iowans was steady, the percentage of Iowans above a healthy weight was the highest in six years.
- Cigarette smoking showed a decline, especially in the youngest age group. This is likely due, in part, to a switch to e-cigarettes.
- There were only four states with a higher prevalence of reported binge drinking, and only two states that had a higher percentage reporting driving while intoxicated.
- The percentage of Iowans age 65 and older who received a flu vaccination ranked second among states.
- Prevalence of people receiving a pneumonia shot was the highest in six years for the second year in a row.
- There were only two states with a lower percentage than Iowa for people being tested for HIV.
- The percentage of adults reporting being diagnosed with depression was the lowest level found in the past six years, and was a major reversal of the trend from previous years.

# Glossary

**95% confidence interval:** a range of values in which there is a 95% chance of the true value.

**Anxiety:** excessive worry about everyday events.

**Arthritis:** A group of over 100 different rheumatic diseases and conditions that result in pain and reduction of functionality in and around the joints.

**Asthma:** a chronic inflammatory disease of the lungs in which the airways become blocked or narrowed, causing breathing difficulty.

**Binge Drinking:** drinking too much at one time; five drinks for men or four drinks for women.

**Cancer:** a group of cells that grows out of control and has the ability to invade normal tissue.

**Cervix:** the lower part of the uterus (womb).

**Coefficient of Variability:** a standardized measure of dispersion defined as the ratio of the standard deviation to the mean.

**Colonoscopy:** a test that uses a hollow, lighted tube to inspect the interior walls of the rectum and the entire colon.

**Depression:** a state of low mood and an aversion to activity.

**Diabetes Mellitus:** a group of diseases characterized by high levels of blood glucose resulting from defects in insulin production, insulin action or both.

**Disability:** an umbrella term for impairments, activity limitations and participation restrictions.

**Frequent Mental Distress:** having 14 or more of the last 30 days in which mental health was not good.

**Health-Related Quality of Life:** an individual's or group's perceived physical and mental health over time.

**Influenza or "flu":** a contagious respiratory illness caused by viruses that infect the nose, throat and lungs.

**Impairment:** any loss or abnormality of psychological, physiological or anatomical structure or function.

**Mammography:** an x-ray examination of the breast to detect abnormalities.

**Papanicolaou (Pap) test:** The principal screening test for cervical cancer.

**Partial Complete:** an interview that was terminated before it was complete, but sufficient data had been collected to use for most measures.

**Pneumonia:** a lung disease caused by bacteria, viruses and other infectious agents such as fungi.

**Population:** the complete set of objects of interest; for instance, all adult lowans would be a population.

**Precancerous Polyps:** abnormal growths in the colon and rectum that can develop into colorectal cancer.

**Prevalence:** the degree to which a characteristic or condition exists.

**Sample:** a set of observations used to represent a larger set of things.

**Sampling Frame:** a list of all those within a population who can be sampled.

**Sigmoidoscopy:** a test that uses a hollow, lighted tube to inspect a segment of the colon.

**Standard Deviation:** a measure of the variability of observations around their mean.

**Stratum:** a set of things into which a larger set can be divided based on some common characteristic.

## FACT

BRFSS collects data on health-related risk behaviors, use of clinical preventive practices and health care access related to chronic health conditions and injury.

# List of Acronyms

**ACEs:** Adverse Childhood Experiences  
**ADLs:** Activities of Daily Living  
**AIDS:** Acquired Immunodeficiency Syndrome  
**ATDs:** Assistive Technology Devices  
**BMI:** Body Mass Index  
**BRFSS:** Behavioral Risk Factor Surveillance System  
**CATI:** Computer-Aided Telephone Interviewing  
**CDC:** Centers for Disease Control and Prevention  
**CHC:** Coronary Heart Disease  
**CI:** Confidence Interval  
**COPD:** Chronic Obstructive Pulmonary Disease  
**CVD:** Cardiovascular Disease  
**DSS:** Disproportionate Stratified Sampling  
**FMD:** Frequent Mental Distress  
**FOBT:** Fecal Occult Blood Test  
**HIV:** Human Immunodeficiency Virus  
**HPV:** Human Papilloma Virus  
**HRQOL:** Health-Related Quality Of Life  
**IDPH:** Iowa Department of Public Health  
**MI:** Myocardial Infarction  
**NRT:** Nicotine Replacement Therapy  
**PSA:** Prostate Specific Antigen  
**SHS:** Secondhand Smoke  
**SIDS:** Sudden Infant Death Syndrome  
**TLC:** Therapeutic Lifestyle Changes

## FACT

Adults 18 years or older are randomly selected to participate in the survey and participation is voluntary.



# Introduction

## History

In 1984, the Centers for Disease Control and Prevention (CDC) launched the Behavioral Risk Factor Surveillance System (BRFSS), working in an ongoing fashion with several states to assess the health status and health risk behaviors of their citizens. In 1988, Iowa began full participation in BRFSS. The BRFSS is now conducted in all 50 states, the District of Columbia and a few American territories.

## Nature of the Survey

The Iowa BRFSS is an ongoing telephone survey. It is financially and technically supported by the CDC with further financial support from public and private sources.

The BRFSS is designed to collect information from residents age 18 and over living in private residences or college housing on health conditions, health-related behaviors, attitudes and awareness. It also monitors the prevalence of these indicators over time. The indicators surveyed are major contributors to illness, disability and premature death.

This report focuses on the data collected during calendar year 2017. Some of the health-related issues discussed are general health status, health care access, cancer screening, tobacco use, alcohol consumption, body weight, physical activity, oral health, diabetes, respiratory conditions, immunizations 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 CDC developed the BRFSS to help states assess health risks and monitor trends. Comparable surveillance methods are used in all states. This allows for comparisons among states and for the assessment of geographic patterns of risk factor prevalence.

The BRFSS information is used to design, implement and support public health activities. These activities are designed to reduce the premature death and disability of Iowa residents. State public health departments are responsible for planning, implementing and evaluating disease prevention programs.

Many of these programs involve health risk behavior modification. Examples of health risk behavior modification programs in Iowa are the Diabetes Prevention and Control program, nutrition and physical activity campaigns, tobacco cessation and counter-marketing campaigns, campaigns encouraging flu vaccination, and campaigns to increase health screenings and checkups.

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

## FACT

The BRFSS information is used to design, implement and support public health activities to reduce the premature death and disability of Iowa residents.

# Methodology

## Questionnaire Design

The BRFSS questionnaire is updated each calendar year by the CDC and by each participating state. The questionnaire consists of three sections: 1) the core questions required of all states participating in BRFSS; 2) a set of standardized modules developed by the CDC which states may opt to include in their survey; and 3) state-added questions which are designed and administered by individual states to address locally identified health problems. Changes in core and optional module questions were discussed and determinations were made whether to offer them at an annual national BRFSS meeting. They have been previously tested. A group of interested individuals from the Iowa Department of Public Health, guided by the state coordinator, met to discuss which optional modules and state-added questions to include in the coming year. The emerging survey plan was reviewed by the Iowa BRFSS Advisory Committee.

Participation by Iowans in the BRFSS survey is random, anonymous, voluntary and confidential. Survey participants are requested to provide such demographic information as age, sex, race, marital and employment status, annual household income, educational level, and location of residence by county and ZIP code. Information that could possibly be used to identify the respondent, such as location, is suppressed in public use data.

## Sampling Process

Two sampling frames are used in the BRFSS. One is for landline telephones, while the other is for cell phones. Only adults age 18 years and older were interviewed in both samples. People residing in group homes or institutions were not sampled.

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

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

The landline sample was also stratified into six geographic regions. These regions are the same regions used by health resource and emergency planning groups within the state.

Geographic regions were represented at the same proportion as their population within the state. A seventh stratum was drawn from census tracts throughout the state containing a relatively high percentage of African American or Hispanic residents in an effort to better represent minority groups in Iowa. There was also an eighth stratum that oversampled counties of special interest to the diabetes program.

Increasingly, many people, including the young, single, ethnic minorities and renters, are opting not to use traditional landline telephone service in favor of cell phones (AAPOR Cell Phone Task Force 2010; Blumberg & Luke 2017). Therefore, another sampling frame was added devoted to households having cell phones. Iowans were interviewed on whichever phone type they were reached. The number of cell phone interviews was set large enough that more than 25% of the sample should be users of cell phones only. The cell phone sample was also geographically stratified into the six regions. The oversample strata were not done, since it is not possible to determine such specific geography for cell phones. Since the cell phone is more an individual appliance than a household appliance, the selection of one person per household was not done. College housing was included in the cell phone sample. These respondents were also asked some extra questions; for instance, they were asked if they were doing anything that would make it unsafe to conduct

**All information collected through BRFSS interviews is confidential. No names or addresses are collected during the interview.**

the interview, and not interviewed if they were. Because of mobility of cell phone use, there were occasions when cell phone interviews were done involving people living in other states. The number of cell phone interviews in our sample is, therefore, larger than the number called by our data collection contractor. Cell phone interviews from other states only contained responses to the core questions, since there was no way for them to know which modules we were using or our state added questions.

Approximately equal numbers of interviews per month were conducted from January through December in 2017 for a total sample size of 7,699. Of these, 3,728 were landline and 3,529 were cell phone. Interviews were conducted in both English and Spanish.

Interviewers made multiple attempts to reach a number to complete an interview before replacing that number. If the person selected to take the survey 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 person was interviewed at that number. Attempts were made to convert initial refusals into participants.

## The Interview Process

The interviews were conducted daytime, evenings and weekends with appointments as needed to schedule or complete interviews. The average time to complete an interview was 25.8 minutes for landline and 23.5 minutes for cell phone. The response rate, defined as completed interviews + partial completes divided by all eligible households called, was 53% for landline and 55% for cell phones. Although the response rates seem rather low and have been declining in recent years, they are better than most states produce.

Not all interviews were fully completed. A partial complete is an interview that was terminated before it was complete, but sufficient data had been collected to use for most measures. This means that results from questions later in the questionnaire are determined from a somewhat smaller sample than earlier questions, even when not restricted to some sub-sample such as a particular age group. See Appendix for the questions and their order.

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

Iowa had a **70%** landline and **90%** cell phone interview completion rate among eligible respondents in 2017.

## 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.

One main limitation to telephone surveys is that all Iowans are not reachable by telephone. Some do not live in households, but are in institutions such as nursing homes or prisons. Some households do not have telephones. Persons of low socioeconomic status are less likely than persons of higher socioeconomic status to have uninterrupted telephone service and are therefore under-sampled. Furthermore, the percentage of households with a telephone varies by region. New telephone technology such as caller I.D. and call blockers that block telemarketers also pose problems for telephone surveys.

Furthermore, 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 socially undesirable habits. People's memories may also fail or play tricks on them. The potential for bias must always be kept in mind when interpreting self-reported data.

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

## Analysis of the data

Unless everyone in the state was asked questions about his or her health, there would be no way to know exactly what these answers would be. When analyzing BRFSS data, conclusions are to be drawn about the entire adult population of the state of Iowa based on only a sample of randomly chosen people. The true prevalence in the population can only be estimated.

The judgment of the value of prevalence in a population, such as the state based on the prevalence within a sample, always involves educated guesswork. The prevalence values from the survey and the true state population prevalence values may differ by some amount, but a range of state values that are probably true can be determined with a high degree of confidence from the prevalence in the sample.

Most charts and tables in this report will indicate a range of values in which there is a 95% chance of the true Iowa value falling. This range is referred to as a 95% confidence interval (CI). Charts will indicate this by use of a black line at the end of the bars in the chart.

The end of the bar is the sample value, while the value in the population is probably somewhere in the range represented by the line. When the CIs of two or more groups do not overlap, their population values can be considered truly or significantly different.

**The data collected in the BRFSS are obtained through a complex sample design. The direct application of standard statistical analysis methods for variance estimation and hypothesis testing may yield misleading results.**

An important factor in determining how well we can judge the response of all Iowans from the survey sample is the number of responses to the questions. The smaller the number of responses, the poorer is our ability to draw a conclusion about the whole state. Analyzing the data by such categories as age, sex, income, educational level and especially race/ethnicity means there are a smaller number of interviews in each particular group than in the whole survey. Furthermore, many questions are only answered depending on the answer to previous questions. For instance, a person would only be asked at what age they were diagnosed with diabetes if they answer "yes" to whether they have ever been told they had 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 general, data in which the number of responses is less than 50 or the variability is too large (coefficient of variability greater than 30%) will not be reported since this data is considered highly unreliable.

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

## Weighting of the Data

Generally, the best guess for how many Iowa adults would answer a question a certain way would be the same as how many adults in the sample answer that way. This is true, however, only if everyone in the state had an equal chance of being in the sample. This is not the case. The number of adults per household and the number of phone numbers per household influence a person's likelihood of being included in the survey. Furthermore, certain demographic groups may be over or under-represented in the sample based on their ease of being reached and willingness to respond. For instance, about half the adult Iowa population is male, but typically only about 40% of the sample interviewed is male. To solve these problems, the data in the sample is weighted to the state population. That means several of the above factors are used to give each interview a weight that represents a certain distinct number of people in the state population.

A landline telephone is seen as a household appliance, while a cell phone is more frequently seen as an individual possession. This means adults per household and phone numbers per household become irrelevant for cell phones. These two factors are not used in determining weights for cell phone interviews.

A large number of factors are considered in the weighting process. Age, gender, race/ethnicity, marital status, education level, home ownership, geographic region and cell vs. landline telephone are all considered. Preliminary weights from the ratio of sampled phone numbers to all numbers are adjusted recursively by these factors until a stable weight is produced.

This weighting method has been in place since 2011. Five-year trend information in this report will only be determined from 2012 forward. Comparisons of pre-2011 data against post-2011 may be unsound data due to the change in data collection methodology for Core section of the questionnaire. For optional module and state added questions, 2012 was the first year cell phone interviews were included in the research design.

### References:

1. AAPOR Cell Phone Task Force. New Considerations for Survey Researchers When Planning and Conducting RDD Telephone Surveys in the U.S. with Respondents Reached via Cell Phone Numbers. 2010.
2. Blumberg SJ. and Luke JV. Wireless Substitution: Early Release of Estimates from the National Health Interview Survey: July–December 2016. 2017.

## FACT

Since 2011, the BRFSS has used iterative proportional fitting (IPF), also known as raking, to weight data.



# Demographics

## Demographics of the BRFSS Respondents

In 2017, 7,699 respondents including 3,650 males and 4,043 females of ages 18 years or older completed the BRFSS survey interview. The following tables present the distribution of this respondent sample by

- 1) age and gender;
- 2) race/ethnicity;
- 3) level of education; and
- 4) annual household income.

**Table 3.1: Distribution of Iowa survey respondents by age and gender for survey year 2017**

Age	Male		Female		Total	
	#	%	#	%	#	%
18 - 24	295	3.8	210	2.7	505	6.6
25 - 34	464	6.0	397	5.2	862	11.2
35 - 44	450	5.8	483	6.3	933	12.1
45 - 54	618	8.0	558	7.3	1,177	15.3
55 - 64	740	9.6	823	10.7	1,564	20.3
65 - 74	672	8.7	839	10.9	1,514	19.7
75+	378	4.9	676	8.8	1,054	13.7
Unknown <sup>1</sup>	33	0.4	57	0.7	90	1.2
<b>Total</b>	<b>3,650</b>	<b>47.4</b>	<b>4,043</b>	<b>52.7</b>	<b>7,699</b>	<b>100.0</b>

<sup>1</sup> Unknown includes participants who responded with "Don't Know" or refused to answer

**Table 3.2: Distribution of Iowa survey respondents by race/ethnicity for survey year 2017**

Race/Ethnicity <sup>2</sup>	# of Total Respondents	% of Total Respondents
White/Non-Hispanic	6,937	90.1
Black/Non-Hispanic	122	1.6
Other/Non-Hispanic <sup>3</sup>	225	2.9
Hispanic	295	3.8
Unknown/Refused	120	1.6
<b>Total</b>	<b>7,699</b>	<b>100.0</b>

<sup>2</sup> Since 2013, the race and ethnicity class was broken down into much finer categories for use in the BRFSS. Due to small numbers in various racial and ethnic groups in Iowa, we continue to display the same categories used in the past.

<sup>3</sup> Multiracial is combined with Other/Non-Hispanic.

**Table 3.3: Distribution of Iowa survey respondents by level of education for survey year 2017**

Level of Education	# of Total Respondents	% of Total Respondents
Less than High School	369	4.8
High School Grad. or GED	2,451	31.8
Some College/Tech. School	2,264	29.4
College Graduate	2,586	33.6
Unknown/Refused	29	0.4
<b>Total</b>	<b>7,699</b>	<b>100.0</b>

**Table 3.4: Distribution of Iowa survey respondents by annual household income for survey year 2017**

Household Income	# of Total Respondents	% of Total Respondents <sup>2</sup>
Less than \$15,000	480	6.26
\$15,000 - \$24,999	951	12.41
\$25,000 - \$34,999	691	9.02
\$35,000 - \$49,999	1,036	13.52
\$50,000 - \$74,999	1,178	15.37
\$75,000+	2,210	28.84
Unknown/Refused	1,153	14.57
<b>Total</b>	<b>7,699</b>	<b>100.0</b>



# General Health Status and Health-Related Quality of Life

## Background

General health status defined by responses to a single question such as “How is your health, in general?” have been found to be significant predictors of mortality. Additional studies that controlled for objective health status, age, sex, life satisfaction, income, residence and other factors continue to find that the risk of mortality is two to six times greater for those individuals who had reported earlier that their health was bad or poor, compared to those who had reported their health as excellent (DeSalvo, Bloser, Reynolds, He, & Muntner, 2006). The risk associated with poor self-rated health was actually higher than the risks associated with poor health status assessments by a physician.

The Centers for Disease Control and Prevention (CDC) has defined health-related quality of life (HRQOL) as “an individual’s or group’s perceived physical and mental health over time” (Centers for Disease Control, 2016). Tracking health-related quality of life in different populations can identify subgroups with poor physical or mental health, and can help guide policies or interventions to improve their health.

## General Health Status Results

In 2017, when asked how their health was in general, 16% of Iowans reported that it was excellent, which was a decline from the previous year’s rate of 17.8%. Another 35.2% rated their health as very good. Additionally, 33.5% of Iowans reported their health to be good, while 15.4% rated their health as fair or poor, an increase from 2016, when 13% of Iowans rated their health as fair or poor (see figure 4.1).

Age, education, household income and race/ethnicity all had a significant impact on reported health status (see table 4.1). While only 5.8% of those from households earning \$75,000 or more per year reported fair or poor health, 40.4% of those from households earning less than \$15,000 per year did so. Other respondents who were more likely to report having fair or poor health were those with less than a high school education. Hispanics reported the highest rates of fair to poor general health status at 24.5%.

**Table 4.1: Percentage of Self-Reported General Health Status, 2017**

General Health Status				
Demographic Groups	Good or Better		Fair or Poor	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>TOTAL</b>	84.6	(83.6-85.6)	15.4	(14.4-16.4)
<b>Sex</b>				
Male	85.9	(84.5-87.3)	14.1	(12.7-15.5)
Female	83.4	(82.0-84.8)	16.6	(15.2-18)
<b>Race/Ethnicity</b>				
White/Non-Hisp.	85.4	(84.4-86.4)	14.6	(13.6 -15.6)
Black/Non-Hisp.	79.7	(71.4-88.1)	20.3	(12.0-28.6)
Other/Non-Hisp.	84.4	(78.3-90.4)	15.6	(9.6-21.7)
Hispanic	75.5	(69.7-81.3)	24.5	(18.6 -30.3)
<b>Age</b>				
18 - 24	88.9	(85.6-92.2)	11.1	(7.8-14.4)
25 - 34	90.5	(88.3-92.7)	9.5	(7.3-11.7)
35 - 44	87.6	(85.2-90.0)	12.4	(10-14.8)
45 - 54	85.3	(82.9-87.7)	14.7	(12.3-17.1)
55 - 64	81.3	(79.1-83.5)	18.7	(16.5-20.9)
65 - 74	81.2	(79-83.4)	18.8	(16.6-21.0)
75+	73.1	(69.8-76.4)	26.9	(23.6-30.2)
<b>Education</b>				
Less than H.S.	66.0	(60.5-71.5)	34.0	(24.6-36)
H.S. or G.E.D.	81.7	(79.9-83.5)	18.3	(15.8-19.4)
Some Post-H.S.	85.4	(83.8-87.0)	14.6	(10-13.2)
College Graduate	93.6	(92.6-94.6)	6.4	(5.2-7.2)
<b>Household Income</b>				
Less than \$15,000	59.6	(54.1-65.1)	40.4	(33.4-45.6)
\$15,000 - 24,999	72.7	(69.4-76.0)	27.3	(21.6-29)
\$25,000 - 34,999	81.4	(77.9-84.9)	18.6	(13.7-21.5)
\$35,000 - 49,999	86.8	(84.4-89.2)	13.2	(8.8-13.6)
\$50,000 - 74,999	89.9	(87.9-91.9)	10.1	(5.6-9.2)
\$75,000+	94.2	(93.0-95.4)	5.8	(4.2-7)

# General Health Status and Health-Related Quality of Life *continued*

**Figure 4.1: Iowans reporting Fair or Poor Health Status, 2017**



## Poor Self-Reported Health

Since January 1993, the BRFSS questionnaire has included four health-related quality-of-life (HRQOL) questions. Four measures of poor health – low general health, frequent physical distress, frequent mental distress and frequent activity limitation are derived from data collected through these questions.

In answer to the question asking how many out of the past 30 days their physical health was not good, 10.3% of Iowans reported experiencing 14 or more days of poor physical health. 27.1% of Iowans with household incomes less than \$15,000 reported having 14 or more bad physical health days, while only 5.1% of those with household incomes of \$75,000 or more reported experiencing 14 or more days of bad physical health in the 30 days preceding the interview. As shown in Table 4.2, more females, Iowans over 65, those with lower education, and those with lower income reported 14 or more bad physical health days.

In answer to the general mental health question, “Now thinking about your mental health, which includes stress, depression and problems with emotions, for how many days during the past 30 days was your mental health not good?”, persons who reported that their mental health was not good for greater than or equal to 14 of the preceding 30 days were defined as having frequent mental distress (FMD). In 2017, 10.8% of Iowans reported experiencing FMD, which was similar to the 2016 rate of 10%. Men, older people, those with high education and those with high income had a lower prevalence of FMD.

**Table 4.2: Percentage of Self-Reported days of Poor Physical and Mental Health in past 30 days, 2017**

Demographic Groups	14 - 30 Days of Poor Physical Health		14 - 30 Days of Poor Mental Health	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	10.3	(9.5-11.1)	10.8	(10.0-11.6)
<b>Sex</b>				
Male	8.8	(7.8-9.8)	8.1	(6.9- 9.3)
Female	11.8	(10.6-13.0)	13.4	(12.0-14.8)
<b>Race/Ethnicity</b>				
White/Non-Hisp.	10.0	(9.2-10.8)	10.5	(9.5-11.5)
Black/Non-Hisp.	9.0	(2.3-15.7)	10.4	(3.1-17.7)
Other/Non-Hisp.	15.6	(9.0 - 22.3)	9.9	(5.7 - 14.0)
Hispanic	10.5	(5.9 - 15.0)	15.5	(10.4-20.6)
<b>Age Group</b>				
18 - 24	5.8	(3.1- 8.5)	17.5	(13.8-21.2)
25 - 34	5.2	(3.4- 7.0)	11.1	(8.7-13.5)
35 - 44	8.8	(6.8-10.8)	11.3	(9.1-13.5)
45 - 54	12.5	(10.3-14.7)	12.1	(9.9-14.3)
55 - 64	13.5	(11.5-15.5)	10.5	(8.7-12.3)
65 - 74	12.4	(10.5 - 14.2)	6.1	(4.7 - 7.5)
75+	15.7	(12.9 - 18.4)	4.3	(2.9 - 5.7)
<b>Education</b>				
Less than H.S.	19.4	(14.9-23.9)	18.0	(13.3-22.7)
H.S. or G.E.D.	10.7	(9.3-12.1)	9.7	(8.3-11.1)
Some Post-H.S.	11.1	(9.5-12.7)	12.8	(11.2-14.4)
College Grad.	5.6	(4.6- 6.6)	6.8	(5.6- 8.0)
<b>Household Income</b>				
Less than \$15,000	27.1	(22.2-32.0)	28.1	(23.0-33.2)
\$15,000 - 24,999	16.5	(13.4-19.6)	18.6	(15.5-21.7)
\$25,000 - 34,999	11.3	(8.6-14.0)	12.5	(9.6-15.4)
\$35,000 - 49,999	10.5	(8.3-12.7)	10.2	(7.8-12.6)
\$50,000 - 74,999	5.8	(4.2- 7.4)	6.6	(4.8- 8.4)
\$75,000+	5.1	(4.1- 6.1)	5.5	(4.3- 6.7)

## References

- Centers for Disease Control and Prevention. Health Related Quality of Life (HRQOL). 2017. Available at <http://www.cdc.gov/hrqol/>.
- DeSalvo KB, Bloser N, Reynolds K, He J, and Muntner P. Mortality Prediction with A Single General Self-Rated Health Question: A Meta-Analysis. *Journal of General Internal Medicine*. Springer, New York: Vol. 21, Number 3, March, 2006, 267-275.

# Overweight and Obesity

## Background

Overweight and obesity status reflect both individual and society-level aspects that consist of inherited, environmental, cultural and socioeconomic factors. Contributing individual factors include behavior and genetics, as well as dietary patterns, physical activity and inactivity, medication use and other exposures. Community level factors such as food and physical activity environment; education and skills; and food marketing and promotion play an important role in overweight and obesity prevalence rates (Centers for Disease Control and Prevention, 2017).

Obesity is a serious public health concern as it is linked to an increase in risk factors for heart disease, cancer and stroke, which are all leading causes of death. It is also associated with Type II diabetes, atherosclerosis (hardening of the arteries), gout, asthma, hypertension, sleep apnea and osteoarthritis (U. S. Department of Health and Human Services, 2001,) as well as poorer mental health outcomes and reduced quality of life (Centers for Disease Control and Prevention, 2017).

### Strategies to combat obesity would seek to advance policies that:

- Increase the availability of affordable healthy foods in all communities;
- Increase the frequency, intensity and duration of physical activity;
- Improve access to safe and healthy places to live, work, learn and play;
- Limit screen time; and
- Encourage employers to provide workplace wellness programs.

Overweight and obesity status are 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 (Centers for Disease Control and Prevention, 2017).

Body mass index (BMI) is the most frequently used measure 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<sup>2</sup>)]. Estimations of the prevalence of overweight and obesity in this report are based on BMI determined from self-reported weight and height. In adults,

overweight is considered to be a BMI value greater than or equal to 25 and less than 30, while obesity is considered to be a BMI greater than or equal to 30. This self-report method is likely to result in an underestimation of the actual extent of obesity. However, comparisons among demographic groups, states and years are likely to be valid. Furthermore, this is the only measure of overweight and obesity available on the state level.

## Overweight and Obesity Results

In 2017, 33.7% of non-pregnant adult lowans were overweight and 36.4% were obese, based on BMI. The combined percentage of individuals who were overweight or obese was 70.1%, which was higher than the combined prevalence in 2016 at 68.7%. Likewise, the rate of obesity in the state of Iowa significantly increased over the 2016 rate of 32%, and was the highest reported rate in the last six years (see figure 5.1).

Figure 5.1: Overweight and Obesity by Year, 2012-2017



An analysis by demographic factors shows an increase in obesity rates in females over males based on self-reported weights from 2016 to 2017. Prevalence of overweight increases steadily with age, while a decline is seen in obesity rates after age 65. In 2017, rates of obesity for females surpassed those of males between the ages of 18 and 34. From the age of 35, males had higher rates of obesity than females, especially from ages 75 and older (see figure 5.2).

The effects of education and income are different for overweight and obesity as well. Obesity prevalence was lowest for college graduates. Adults without a high school diploma and those with a high school diploma or equivalent had the

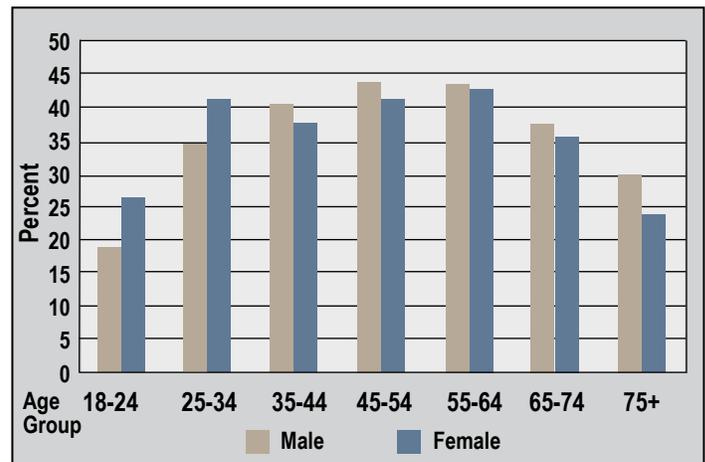
# Overweight and Obesity *continued*

highest self-reported obesity at 39.5% and 39.9% respectively. Adults with some college (38.0%) and college graduates (28.9%) reported slightly lower rates. For overweight, education seemed to have little systematic effect on overweight rates. If anything, college graduates were more likely to be overweight. Likewise, the percentage of overweight tended to be lower for those who reported lower incomes while the opposite is true for obesity, which was highest in households with an annual income of \$25,000 and under (see table 5.1).

**Table 5.1: Overweight and Obesity based on BMI, 2017**

Demographic Groups	Overweight		Obese	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	33.7	(32.3 - 35.1)	36.4	(35.0 - 37.8)
<b>Sex</b>				
Male	38.2	(36.4 - 40.0)	36.4	(34.6 - 38.2)
Female	29.0	(27.2 - 30.8)	36.4	(34.4 - 38.4)
<b>Race/Ethnicity</b>				
White/Non-Hisp.	34.2	(32.8 - 35.6)	36.6	(35.2 - 38.0)
Black/Non-Hisp.	27.8	(18.6 - 37.0)	43.7	(32.9 - 54.5)
Other/Non-Hisp.	28.5	(21.3 - 35.7)	27.0	(19.2 - 34.8)
Hispanic	30.8	(24.1 - 37.5)	38.1	(31.0 - 45.2)
<b>Age Group</b>				
18 - 24	25.7	(21.4 - 30.0)	22.6	(18.3 - 26.9)
25 - 34	32.3	(28.8 - 35.8)	37.8	(34.1 - 41.5)
35 - 44	33.2	(29.9 - 36.5)	39.1	(35.6 - 42.6)
45 - 54	34.5	(31.6 - 37.4)	42.4	(39.3 - 45.5)
55 - 64	34.4	(31.7 - 37.1)	43.2	(40.5 - 45.9)
65 - 74	37.5	(34.7 - 40.3)	37.4	(34.6 - 40.2)
75+	40.9	(37.3 - 44.5)	26.5	(23.3 - 29.8)
<b>Education</b>				
Less than H.S.	26.9	(21.2 - 32.6)	39.5	(33.4 - 45.6)
H.S. or G.E.D.	32.7	(30.5 - 34.9)	39.9	(37.5 - 42.3)
Some Post-H.S.	33.5	(31.1 - 35.9)	38	(35.6 - 40.4)
College Grad.	37.7	(35.5 - 39.9)	28.9	(26.9 - 30.9)
<b>Household Income</b>				
Less than \$15,000	22.6	(18.1 - 27.1)	50.3	(44.6 - 56.0)
\$15,000 - 24,999	28.4	(24.9 - 31.9)	39.8	(35.9 - 43.7)
\$25,000 - 34,999	30.7	(26.6 - 34.8)	36.3	(32.0 - 40.6)
\$35,000 - 49,999	32.3	(28.8 - 35.8)	40	(36.3 - 43.7)
\$50,000 - 74,999	34.1	(31.0 - 37.2)	39.8	(36.5 - 43.1)
\$75,000+	39.9	(37.5 - 42.3)	30.7	(28.5 - 32.9)

**Figure 5.2: Obesity by Age and Sex, 2017**



## Comparison to other states

Iowa's obesity prevalence rate of 36.4% was well above the 2017 U.S. median rate of 31.3%, with a range from 22.6% to 38.1% with seven states reporting obesity rates at or above 35%. For obesity and overweight combined, the Iowa rate of 70.1% was also higher than the U.S. median of 66.6% in 2017.

## Health Objectives for Iowa and the nation

The Healthy People 2020 objectives for the nation to be achieved on weight call for increasing the prevalence of healthy weight (neither overweight nor obese) to 33.9% among adults age 20 years and older. Iowa is slightly below this target, having 33.4% of its adult population at healthy weight. The Healthy People 2020 goal for obesity is 30.6%. With an adult obesity prevalence of 36.4%, Iowa fails to achieve that goal.

**In 2012, all states had obesity prevalence rates lower than 35%. In 2017, 7 states across the country reported obesity rates at or above 35%**

## References

- Centers for Disease Control and Prevention. Adult Obesity: Causes and Consequences, 2016. Available at <http://www.cdc.gov/obesity/adult/causes.html>.
- U. S. Department of Health and Human Services. The Surgeon General's call to action to prevent and decrease overweight and obesity, Rockville, MD.: Public Health Service, Office of the Surgeon General; 2001.

# Diabetes

## Background

Diabetes mellitus is a group of diseases characterized by high levels of blood glucose resulting from defects in insulin production, insulin action or both. The most common type is Type 2 diabetes, a condition that occurs when your body does not use insulin properly, resulting in insulin resistance (American Diabetes Association, 2017).

The rate of new cases of diagnosed diabetes in the United States has begun to fall, but the numbers are still very high (Centers for Disease Control and Prevention, 2016). More than 29 million people have diabetes and 86 million have pre-diabetes. In many cases, pre-diabetes develops into full diabetes.

The good news is that research studies have found that positive lifestyle changes can prevent or delay the onset of Type 2 diabetes among high-risk adults. Lifestyle interventions including diet modification, weight loss and moderate-intensity physical activity, such as walking for 2 1/2 hours each week, are recommended to delay diabetes onset in high-risk populations.

The complications of diabetes are many and severe, and can include heart disease, stroke, high blood pressure, kidney disease, blindness, diseases of the nervous system, dental disease, complications during pregnancy, lower-limb amputations and lower resistance to other diseases. However, complications can be minimized when diabetes is diagnosed early and patients are taught to self-manage their disease through blood glucose control, weight control, taking medications appropriately, decreasing unhealthy lifestyles such as smoking, and implementing healthy lifestyle interventions (Centers for Disease Control and Prevention, 2017).



Iowa Department of Public Health provides a resource for health care professionals regarding the latest guidelines for diabetes care, coordinates a statewide diabetes network, and collaborates with local community projects to develop initiatives on public awareness, prevention and other areas of disease management. It also certifies programs for Medicaid reimbursement and assists certified programs in maintaining quality standards for outpatient education.

## Diabetes Results

In 2017, 9.6% of lowans had ever been told by a physician that they have diabetes, excluding women told only during pregnancy. This is somewhat higher than the figure in 2016, when 9.3% of lowans had ever been told that they have diabetes (see figure 6.1).

Diabetes may affect persons of all ages, although prevalence increases with age. Table 6.1 below shows that the rate of diabetes is much higher for lowans who are older, lower in education and have a lower household income. In 2017, the demographic group with the highest percentage of diagnosed diabetics was those over 75 years of age, at 22.6%. 18-24 year olds had the lowest diabetes prevalence at 1.6% in 2017. However, that was a 0.3% increase over the 2016 rate within this group.

## FACT

In 2017, approximately  
**231,984** adult lowans  
had diabetes.



**Table 6.1: Iowans Ever Told They Had Diabetes, 2017**

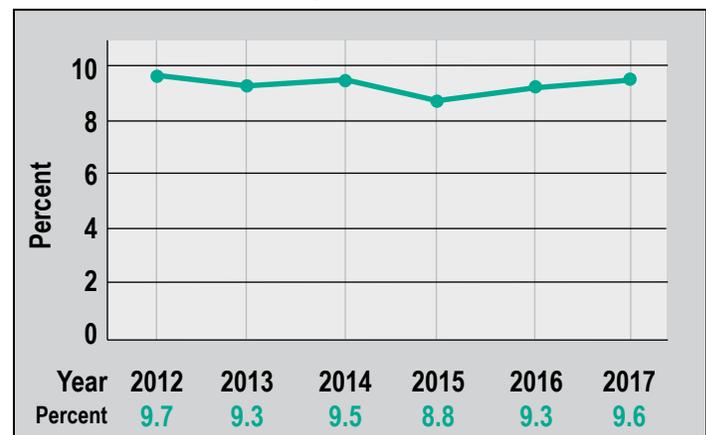
Demographic Characteristics	Prevalence Rate	C.I. (95%)
<b>Total</b>	9.6	(8.8-10.4)
<b>Sex</b>		
Male	9.4	(8.4-10.4)
Female	9.7	(8.7-10.7)
<b>Race/Ethnicity</b>		
White/Non-Hispanic	9.9	(9.1-10.7)
Black/Non-Hispanic	11.8	(6.1-17.5)
Other/Non-Hispanic	3.7	(0.8-6.6)
Hispanic	6.8	(3.9-9.7)
<b>Age Group</b>		
18 - 24	1.6	(0.4-2.8)
25 - 34	1.4	(0.4-2.4)
35 - 44	3.5	(2.3-4.7)
45 - 54	8.3	(6.5-10.1)
55 - 64	15.4	(13.4-17.4)
65 - 74	19.8	(17.6-22.1)
75+	22.6	(19.5-25.7)
<b>Education</b>		
Less than H.S.	13.7	(10-17.4)
H.S. or G.E.D.	10.9	(9.7-12.1)
Some Post-H.S.	9.5	(8.3-10.7)
College Graduate	6.4	(5.4-7.4)
<b>Household Income</b>		
Less than \$15,000	16.1	(12.4-19.8)
\$15,000 - 24,999	14.5	(12-17)
\$25,000 - 34,999	9.6	(7.4-11.8)
\$35,000 - 49,999	9.9	(7.9-11.9)
\$50,000 - 74,999	8.3	(6.7-9.9)
\$75,000+	5.1	(0.3-1.1)
<b>Age diabetes diagnosed</b>		
1 - 15 years old	4.2	(2-6.4)
16 - 30 years old	6	(3.8-8.2)
31 - 45 years old	22.4	(18.8-19.1)
46 - 60 years old	44.2	(40.3-48.1)
61+ years old	23.1	(20-26.2)

Among individuals who had been told they had diabetes, 44.2% reported being first diagnosed at age 46 to 60 years old. Just over 4% of those ever diagnosed with diabetes reported their age of first diagnosis at under 16 years of age.

When asked if they had a test for diabetes in the past three years, 53.4% of Iowans affirmed that they had, with the highest response being from Iowans between 65 to 74 years of age (75.5%).

More attention is being given to pre or borderline diabetes. If left untreated, 15-30% of those with prediabetes will develop Type 2 diabetes. In 2017, 7.2%, or an estimated 74,621 Iowa adults, were told by their doctor that they have prediabetes. The highest percentage of these were among Black/Non-Hispanic and Other/Non-Hispanic populations, at 9.3 and 9.1 respectively. When analyzed by age group, Iowans between 64 and 75 years-old reported the highest prediabetes rates (14.4%).

**Figure 6.1: Percent of Iowans diagnosed with Diabetes per Year, 2012-2017**



# Diabetes *continued*

## Comparison to other states

The median prevalence of diagnosed diabetes for the 50 states and District of Columbia was 10.5% in 2017, with Iowa's prevalence of 9.6 being slightly better than the median. Prevalence across the U.S ranged from 7.1% to 17.2%.

## FACT

You may be able to prevent or delay diabetes by losing **5% to 7%** of your starting weight, getting at least **30** minutes of physical activity **5** times a week and eating smaller portions to reduce the amount of calories consumed.



## References

1. American Diabetes Association, Diabetes Basics. 2017. Available at <http://www.diabetes.org/diabetes-basics/?loc=db-slabnav>.
2. Centers for Disease Control and Prevention, Diabetes: Working to Reverse the US Epidemic at a glance 2017. Available at <http://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>.

## Resources

- Iowa Department of Public Health - Diabetes Management: <http://www.idph.iowa.gov/Diabetes/Diabetes-Management>.
- Iowa Diabetes Statewide Strategy: [http://www.idph.iowa.gov/Portals/1/userfiles/187/Diabetes%20Statewide%20Strategy%20Final\\_05\\_2017.pdf](http://www.idph.iowa.gov/Portals/1/userfiles/187/Diabetes%20Statewide%20Strategy%20Final_05_2017.pdf).
- American Association of Diabetes Educators: <https://www.diabeteseducator.org/>.
- American Diabetes Association: <http://www.diabetes.org/>.
- Centers for Diabetes Control and Prevention: <https://www.cdc.gov/diabetes/home/index.html>.
- JDRF (The former Juvenile Diabetes Research Foundation International): <https://www.jdrf.org/>.
- National Diabetes Education Program: <https://www.cdc.gov/diabetes/ndep/index.html>.

## FACT

Race and ethnicity are a factor in developing diabetes. African Americans, Hispanic/Latino Americans, American Indians, Pacific Islanders and some Asian Americans are at higher risk of developing diabetes.

# Tobacco

## Background

Tobacco use remains the leading cause of preventable disease and death in the United States. An estimated 34 million or 14% of all American adults currently smoke cigarettes (Centers for Disease Control and Prevention, 2017).

Tobacco use is known to cause heart disease, stroke, peripheral vascular disease, respiratory diseases such as COPD and asthma attacks, as well as cancers of the lung, larynx, esophagus, pharynx, mouth, bladder, pancreas, kidney and cervix. In fact, smoking causes diseases in nearly every organ of the body (Centers for Disease Control and Prevention, 2017).

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

Secondhand smoke (SHS) increases the risk of heart disease and lung cancer in adults. SHS also affects children by increasing lower respiratory tract infections and asthma, and by decreasing pulmonary function. According to the Surgeon General, there is no safe level of exposure to secondhand smoke (U. S. Department of Health and Human Services, 2006).

Many steps are being taken to prevent use of tobacco. Some of these include reducing exposure to environmental tobacco smoke, smoking prevention education, the restriction of minors' access to tobacco, the treatment of nicotine addiction (cessation), and working toward changing social norms and environments that support tobacco use. Efforts to shift social norms surrounding smoking include counter-advertising and promotion, product regulation and economic incentives against tobacco. In Iowa, smoking cessation programs such as Quitline Iowa offer free nicotine replacement therapy (NRT).

## Tobacco Results

Current smoking is defined as smoking at least 100 cigarettes in a lifetime and smoking every day or some days during the past 30 days. Among adult Iowans in 2017, 17.1% reported being a current smoker, which was a change from the 2016 smoking rate of 16.7% (see figure 7.1). In 2017, the proportion of current smokers was higher for males than for

females, as well as higher for Iowans with less than high school education and among Black/Non-Hispanic populations. Smoking declined with increasing age after age 65, but was also lower for people age 18 to 24 than older age groups. Respondents with household incomes less than \$15,000 reported the highest proportion of current smokers at 31.6% (see table 7.1).

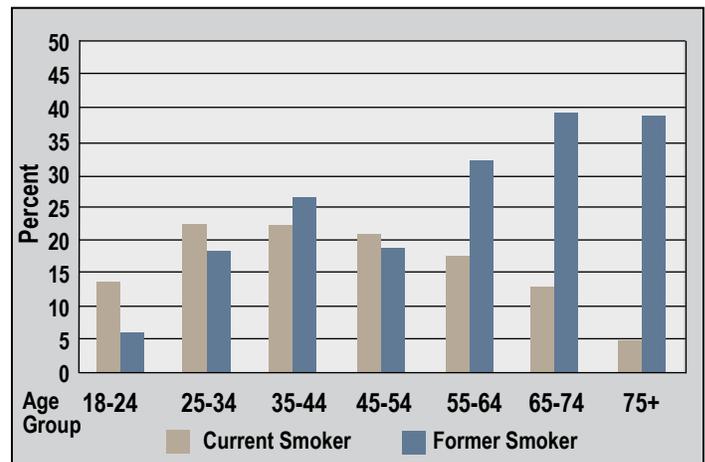
**Table 7.1: Current Smoking in Iowa, 2017**

Demographic Groups	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	17.1	(16.1 - 18.1)
<b>Sex</b>		
Male	18.5	(16.9 - 20.1)
Female	15.8	(14.4 - 17.2)
<b>Race/Ethnicity</b>		
White/Non-Hispanic	16.3	(15.3 - 17.3)
Black/Non-Hispanic	36.0	(25.4 - 46.6)
Other/Non-Hispanic	24.1	(16.4 - 31.7)
Hispanic	13.8	(9.3 - 18.3)
<b>Age Group</b>		
18 - 24	13.7	(10.2 - 17.2)
25 - 34	22.0	(18.7 - 25.3)
35 - 44	21.9	(19 - 24.8)
45 - 54	20.8	(18.3 - 23.3)
55 - 64	17.5	(15.3 - 19.7)
65 - 74	13.0	(11 - 15.1)
75+	4.8	(3.1 - 6.6)
<b>Education</b>		
Less than H.S.	30.8	(25.1 - 36.5)
H.S. or G.E.D.	21.5	(19.5 - 23.5)
Some Post-H.S.	16.4	(14.6 - 18.2)
College Graduate	7.8	(6.6 - 9)
<b>Household Income</b>		
Less than \$15,000	31.6	(26.3 - 36.9)
\$15,000 - 24,999	28.7	(25 - 32.4)
\$25,000 - 34,999	21.8	(18.1 - 25.5)
\$35,000 - 49,999	18.1	(15.2 - 21)
\$50,000 - 74,999	14.9	(12.5 - 17.3)
\$75,000+	9.7	(8.1 - 11.3)

**Figure 7.1: Current Smoking in Iowa by Year 2012-2017**



**Figure 7.2: Percentage of Current and Former Smokers by Age, 2017**



About 24.6% of respondents were former smokers. This means that they had smoked at least 100 cigarettes in their lifetime, but do not smoke now. More males than females were former smokers and the percent of former smokers tended to increase with age. The 18 to 24-year age group had only 5.2% former smokers, while those 65 and older had over 38.7% (Figure 7.2). Black/Non-Hispanics had significantly lower percent of former smokers than other race/ethnicity groups. When asked how long it had been since they last smoked cigarettes regularly, the majority of former smokers (58.6%) said 10 or more years.

When asked about attempts to quit smoking, 52.7% of current smokers reported they quit smoking for a day or more during the past year. Quit attempts were higher among younger smokers, lowans with less than high school education and those with household incomes under \$35,000. lowans with the highest education and incomes reported lower rates of quit attempts.

## FACT

**Cigarette smoking is the leading cause of preventable disease and death in the United States, accounting for more than 480,000, or every 1 in 5, deaths every year.**

To assess use of other tobacco products besides cigarettes, all respondents were asked if they currently use chewing tobacco, snuff or snus. Only 5.5% said they used either chewing tobacco, snuff or snus every day or some days.

When asked whether they had tried hookah, even one or two puffs, 14.5% of lowans in 2017 said they had tried smoking a hookah. Other tobacco products used every day or some days by lowans were cigars (1.7%) and a pipe (0.8%).

In 2017, 19.4% of lowans said they had ever used an e-cigarette or other electronic vaping products, with 4.0% currently using e-cigarettes every day or some days. Use of e-cigarettes is particularly common among males, young adult lowans and those with household incomes under \$25,000 (see table 7.2).

Of smokers who had seen a doctor in the past year, 69.1% of them reported that the doctor had advised them to quit smoking. The most common forms of assistance offered by doctors were medical resources (24.4%) or a quitline (25%).

Of smokers who had seen a dentist in the past year, 39.6% reported that the dentist had advised them to quit smoking.

With respect to rules against smoking in their house, 85.4% of lowans said they never allowed it.

**Table 7.2: Percentage of E-Cigarette users in Iowa, 2017**

Demographic Groups	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	<b>4.0</b>	<b>(3.4 - 4.6)</b>
<b>Sex</b>		
Male	5.2	(4.2 - 6.2)
Female	2.9	(2.1 - 3.7)
<b>Race/Ethnicity</b>		
White/Non-Hispanic	3.5	(2.9 - 4.1)
Black/Non-Hispanic	4.3	(0 - 10.4)
Other/Non-Hispanic	15.1	(7.9 - 22.3)
Hispanic	4.1	(1.4 - 6.8)
<b>Age Group</b>		
18 - 24	10.6	(7.5 - 13.7)
25 - 34	5.7	(3.9 - 7.5)
35 - 44	3.7	(2.3 - 5.1)
45 - 54	2.4	(1.4 - 3.4)
55 - 64	3.2	(2.2 - 4.2)
65+	0.8	(0.4 - 1.2)
<b>Education</b>		
Less than H.S.	4.1	(1.4 - 6.8)
H.S. or G.E.D.	4.8	(3.6 - 6)
Some Post-H.S.	5.1	(3.9 - 6.3)
College Graduate	1.5	(0.9 - 2.1)
<b>Household Income</b>		
Less than \$15,000	10.2	(6.3 - 14.1)
\$15,000 - 24,999	5.3	(2.9 - 7.7)
\$25,000 - 34,999	3.8	(2 - 5.6)
\$35,000 - 49,999	3.9	(2.3 - 5.5)
\$50,000 - 74,999	3.8	(2.4 - 5.2)
\$75,000+	2.6	(1.8 - 3.4)

## FACT

Current smoking has declined from nearly **21** out of every **100** adults in 2005 to **14** out of every **100** adults in 2017.

## Comparison to other states

Across all states and District of Columbia, smoking prevalence ranged from a low of 8.9% to a high of 26.4%. Iowa's current smoking rate of 17.1% was similar to the national median of 17.1% for all states. Regionally, the Midwest had the highest smoking rate, with 17 out of every 100 adults (16.9%) being current smokers (Centers for Disease Control, Smoking and Tobacco Use, 2017).

## Health Objectives for Iowa and the nation

As a nation, smoking rates continue to decline, with the national mean rate in 2017 being 14%. However, with 34 million adult Americans still currently smoking, the Healthy People 2020 goal to reduce the percentage of smokers to 12% has still not been achieved. As a state, the current smoking prevalence of 17.1% in Iowa is still above both the Healthy People 2020 target and the Healthy Iowans goal of reducing the state cigarette smoking rate to 15%.

The Healthy People 2020 goal of having 80% of current smokers attempting to quit in the past year was not met by Iowan adults. Nearly 30 percentage points below the goal, Iowa had a rate of 52.7% of current smokers attempting to quit in the past year.

## References

1. Centers for Disease Control and Prevention. Smoking & Tobacco Use: Health Effects of Cigarette Smoking, Atlanta: Office on Smoking and Health, 2017. Available at: [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/index.htm).
2. Centers for Disease Control and Prevention. Smoking & Tobacco Use: Current Cigarette Smoking Among Adults in the United States, Office on Smoking and Health, 2017. Available at: [https://www.cdc.gov/tobacco/data\\_statistics/fact\\_sheets/adult\\_data/cig\\_smoking/index.htm](https://www.cdc.gov/tobacco/data_statistics/fact_sheets/adult_data/cig_smoking/index.htm).
3. U. S. Department of Health and Human Services. The Health Consequences of Involuntary Exposure to Tobacco Smoke: a report of the Surgeon General. Atlanta, GA., June, 2006.

# Cardiovascular Diseases

## Background

Cardiovascular disease (CVD) refers to any or all of the many disorders that can affect the circulatory system. CVD most often means heart disease, heart failure or stroke. Heart disease includes coronary heart disease (CHD) or heart attack, also known as myocardial infarction (MI). Stroke refers to a sudden impairment of brain function, sometimes termed “brain attack,” which results from interruption of circulation to one or another part of the brain. Heart disease and stroke are mainly consequences of clogged arteries (atherosclerosis) and high blood pressure (hypertension).

More than 80 million Americans currently live with a cardiovascular disease (Centers for Disease Control and Prevention, 2019). Coronary heart disease is a leading cause of premature, permanent disability in the U.S. Stroke alone accounts for disability in nearly 1 million Americans. Each year, 15 to 30% of stroke survivors are permanently disabled. Suffering a stroke may lead to paralysis, speech difficulties and emotional problems (Centers for Disease Control and Prevention, 2019). Following a heart attack, individuals frequently suffer fatigue and depression, and may find it more difficult to engage in physical activities. More than 7 million hospitalizations each year are because of cardiovascular disease (Go et al, 2013).

The economic impact of cardiovascular disease on our nation’s health care system continues to grow as the population ages. About 1 in 6 health care dollars is devoted to cardiovascular disease. Heart disease and stroke cost the nation an estimated \$316.6 billion in health care costs and lost productivity in 2011—and these costs are rising (Centers for Disease Control and Prevention, 2019).

## FACT

Each year, 15-30% of stroke survivors are permanently disabled.

On a personal level, families who experience heart disease or stroke not only have to deal with medical bills, but also lost wages and the real potential of a decreased standard of living.

### Reducing cardiovascular disease risk requires an integrated strategy that includes:

- Lifestyle behavior change - weight management; increased physical activity; no tobacco use; a low fat, low-cholesterol diet with moderate sodium, sugar and alcohol intake; and control of high blood cholesterol, elevated blood pressure and diabetes.
- Community environmental support such as population screening to identify individuals with high levels of blood cholesterol, blood pressure, 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.
- Development of public policies that encourage healthy lifestyle behaviors. These may be implemented in the form of laws, regulations, standards or guidelines that contribute to setting these and other social and environmental conditions. For example, dietary patterns result from the influences of food production policies, marketing practices, product availability, cost, convenience, knowledge and choices that affect health, and preferences that are often based on early-life habits.



# Cardiovascular Diseases *continued*

## Cardiovascular Disease Results

In 2017, 4.0% of adult lowans had been told by a doctor that they had a heart attack or myocardial infarction; 4.1% had been told they had coronary heart disease or angina, and 3.1% had been told they had a stroke (Table 8.1). Prevalence of cardiovascular disease increased with age and was highest for lowans with annual household incomes less than \$15,000.

**Table 8.1: Prevalence of heart attack and stroke in Iowa adults, 2017**

Demographic Characteristics	Ever told you had a heart attack, also called Myocardial Infarction (MI)?		Ever told you had a stroke?	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	4	(3.6-4.4)	3.1	(2.7-3.5)
<b>Sex</b>				
Male	5.2	(4.4-6)	3.3	(2.7-3.9)
Female	2.9	(2.3-3.5)	2.8	(2.2-3.4)
<b>Race/Ethnicity</b>				
White/Non-Hispanic	4.3	(3.7-4.9)	3	(2.6-3.4)
Black/Non-Hispanic	1.2	(0-2.8)	2.1	(0-4.6)
Other/Non-Hispanic	2.2	(0.4-4.1)	4.9	(1.7-7.9)
Hispanic	2.6	(0-5.7)	1.9	(0.3-3.5)
<b>Age Group</b>				
18 - 24	0.9	(0-2.1)	-	-
25-34	0.8	(0.2-1.4)	0.9	(0.3-1.5)
35-44	0.9	(0.3-1.5)	1.3	(0.3-2.3)
45-54	3	(2-4)	2.6	(1.6-3.6)
55-64	5.3	(4.1-6.5)	4.4	(3.2-5.6)
65-74	8.9	(7.2-10.5)	5.9	(4.5-7.3)
75+	12.2	(9.9-14.6)	8.6	(6.4-10.7)
<b>Education</b>				
Less than H.S.	7.4	(4.5-10.3)	6.6	(4.1-9.1)
H.S. or G.E.D.	5.5	(4.5-6.5)	3.6	(2.8-4.4)
Some Post-H.S.	3.3	(2.7-3.9)	2.8	(2.2-3.4)
College Graduate	2.1	(1.5-2.7)	1.5	(1.1-1.9)
<b>Household Income</b>				
Less than \$15,000	10.1	(6.8-13.4)	8.7	(6-11.4)
\$15,000- 24,999	6	(4.4-7.6)	6.8	(4.8-8.8)
\$25,000- 34,999	4.4	(2.8-6)	2.9	(1.5-4.3)
\$35,000- 49,999	4.5	(3.1-5.9)	2.2	(1.2-3.2)
\$50,000- 74,999	3.1	(2.1-4.1)	1.7	(0.9-2.5)
\$75,000+	1.4	(1-1.8)	1.1	(0.7-1.5)

Table 8.2 shows the distribution of cardiovascular disease by demographic groups. 6.3% of lowans reported having ever being told by a doctor that they had either a heart attack/myocardial infarction or coronary heart disease/angina in 2017. Although these values may appear small, they represent around 150,000 lowans who have experienced a heart attack or coronary heart disease. About 8.2%, or over 198,590 lowans, reported being told they had any of the three conditions (heart attack, coronary heart disease or stroke).

**Table 8.2: Combined prevalence of heart attack and coronary heart disease and combined prevalence of heart attack, coronary heart disease and stroke, 2017**

Demographic Characteristics	Had any Heart Disease (MI or CHD)?		Had any Cardiovascular Disease?	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	6.3	(5.7-6.9)	8.2	(7.5-8.8)
<b>Sex</b>				
Male	7.6	(6.8-8.4)	9.6	(8.6-10.6)
Female	5	(4.2-5.8)	6.8	(6-7.7)
<b>Race/Ethnicity</b>				
White/Non-Hispanic	6.6	(6-7.2)	8.5	(7.8-9.2)
Black/Non-Hispanic	3.3	(0.2-6.4)	4.9	(1.1-8.7)
Other/Non-Hispanic	3.1	(0.3-7.6)	6.7	(3.2-10.2)
Hispanic	4	(0.3-7.7)	5.9	(1.9-9.8)
<b>Age Group</b>				
18-24	1.1	(0-2.3)	1.1	(0-2.4)
25-34	1.3	(0.5-2.1)	1.8	(0.8-2.7)
35-44	1.7	(0.7-2.7)	2.9	(1.6-4.2)
45-54	3.9	(2.7-5.1)	5.2	(3.8-6.5)
55-64	8.9	(7.3-10.5)	11.2	(9.5-13)
65-74	13.2	(11.2-15.1)	17.5	(15.3-19.7)
75+	19.6	(16.7-22.5)	23.7	(20.6-26.8)
<b>Education</b>				
Less Than H.S.	11.7	(8.2-15.2)	14.9	(10.9-18.9)
H.S. or G.E.D.	8.1	(6.9-9.3)	10.4	(9.2-11.7)
Some Post-H.S.	5.4	(4.6-6.2)	7.2	(6.2-8.3)
College Graduate	3.4	(2.8-4)	4.4	(3.6-5.1)
<b>Household Income</b>				
Less than \$15,000	13.5	(9.8-17.2)	17.6	(13.5-21.7)
\$15,000- 24,999	9.2	(7.2-11.2)	13.5	(11.1-15.9)
\$25,000- 34,999	7.9	(5.9-9.9)	9.6	(7.4-11.8)
\$35,000- 49,999	7.2	(5.6-8.8)	8.3	(6.5-10)
\$50,000- 74,999	4.6	(3.4-5.8)	5.9	(4.6-7.4)
\$75,000+	3	(2.2-3.8)	9.1	(7.3-10.9)

# Cardiovascular Diseases *continued*

More men than women reported having experienced heart attacks or coronary heart disease in 2017, similar to the trend observed in 2016. White/Non-Hispanic lowans experienced cardiovascular disease at higher rates than other racial/ethnic groups. Age is the variable with the most impact on having had these conditions, with 19.6% and 23.7% of those 75 years and older reporting having had a heart condition or having experienced any of the three cardiovascular conditions respectively. There was no difference in stroke prevalence by sex.

These results represent those who have survived these cardiovascular events and they may not match the actual prevalence of these conditions. Events ending in death on their first occurrence could not be considered here. Mortality data is required to complement the information from this survey.



## FACT

**198, 590** lowans have had at least one of the three forms of cardiovascular disease in their lifetime.

### References

1. Centers for Disease Control and Prevention. About Heart Disease & Stroke: Consequences & Costs. Million Hearts Initiative, 2019. Available at <http://millionhearts.hhs.gov/abouthds/cost-consequences.html> Last accessed on March 18, 2019.
2. Centers for Disease Control and Prevention. Stroke, 2019. Available at <https://www.cdc.gov/stroke/> Last accessed on March 18, 2019.
3. Go AS., et al. Heart Disease and Stroke Statistics—2013 Update: A Report from the American Heart Association, 2013
4. Iowa Department of Public Health. *2015 Vital Statistics of Iowa*, 2017.



# Alcohol Consumption

## Background

The National Institute of Alcohol Abuse and Alcoholism (NIAAA) defines binge drinking as a pattern of drinking that brings a person's blood alcohol concentration (BAC) to 0.08 grams percent or above. This typically happens when men consume five or more drinks or women consume four or more drinks in about two hours (NIAAA, 2018). The Substance Abuse and Mental Health Services Administration (SAMHSA) defines binge drinking as five or more alcoholic drinks for males or four or more alcoholic drinks for females on the same occasion (i.e., at the same time or within a couple of hours of each other) on at least one day in the past month (NIAAA, 2018). Heavy drinking is defined as heavy alcohol use on five or more days in the past month.

Alcohol dependency and abuse are major public health problems carrying a large economic cost and placing heavy demands on the health care system. Chronic alcohol use affects every organ and system of the body. It can lead to medical disorders (e.g., fetal alcohol syndrome, liver disease, cardiomyopathy and pancreatitis). Heavy drinking can increase the risk for certain cancers. Drinking lowers inhibitory control and disrupts decision-making abilities, rational thought and attention, and increases the risk of death from automobile crashes, as well as recreational and on-the-job injuries (Centers for Disease Control and Prevention, 2018; American Addiction Centers, 2018).

## Alcohol Consumption Results

The BRFSS survey defines a standard drink as one 12-ounce beer, one 5-ounce glass of wine, or a drink with one shot of hard liquor. In 2017, 59.7% of Iowans reported that they had at least one drink of alcohol in the past 30 days. On the days when they drank, 37.1% had an average of only one drink. About 11.9% reported drinking five or more drinks per day on average.

## FACT

**59.7%** of Iowans reported that they had at least one drink of alcohol in the past **30** days.

**Table 9.1: Binge Drinking and Heavy Drinking among Iowa adults, 2017**

Demographic Characteristics	Binge Drinking		Heavy Drinking	
	Prevalence Rate (%)	C.I. (95%)	Prevalence Rate (%)	C.I. (95%)
<b>Total</b>	21.1	(19.9 - 22.3)	7.2	(6.4-8)
<b>Sex</b>				
Male	27.6	(25.8 - 29.4)	8.8	(7.6-10)
Female	14.8	(13.2 - 16.4)	5.7	(4.7-6.7)
<b>Race/Ethnicity</b>				
White/Non-Hispanic	21.1	(19.9 - 22.3)	7.3	(6.5-8.1)
Black/Non-Hispanic	16.2	(8.8 - 23.6)	4.1	(0.4-7.8)
Other/Non-Hispanic	20.9	(13.2 - 28.7)	5.6	(1.8-9.4)
Hispanic	24.4	(17.9 - 30.9)	10.2	(5.3-15.1)
<b>Age Group</b>				
18 - 24	32.7	(28 - 37.4)	9.8	(6.9-12.7)
25 - 34	31.7	(28.2 - 35.2)	7.4	(5.4-9.4)
35 - 44	28.4	(25.1 - 31.7)	8	(6-10)
45 - 54	23.9	(21.2 - 26.6)	9.7	(7.7-11.7)
55 - 64	14.2	(12.2 - 16.2)	6.9	(5.5-8.3)
65-74	6.2	(4.8 - 7.6)	4.6	(3.4-5.7)
75+	2.4	(1.1 - 3.6)	2.3	(1.3-3.3)
<b>Education</b>				
Less than H.S.	17.3	(12.2 - 22.4)	5.1	(2.2-8)
H.S. or G.E.D.	19.2	(17.2 - 21.2)	7.6	(6.2-9)
Some Post-H.S.	23.4	(21.2 - 25.6)	8	(6.6-9.4)
College Graduate	21.4	(19.4 - 23.4)	6.5	(5.3-7.7)
<b>Household Income</b>				
Less than \$15,000	17	(12.3 - 21.7)	7.3	(3.8-10.8)
\$15,000- 24,999	18.4	(14.9 - 21.9)	6.1	(4.3-7.9)
\$25,000- 34,999	15.3	(12 - 18.6)	5.2	(3.2-7.2)
\$35,000- 49,999	22.3	(19 - 25.6)	8.8	(6.6-11)
\$50,000- 74,999	23.7	(20.8 - 26.6)	7.4	(5.6-9.2)
\$75,000+	27.1	(24.9 - 29.3)	9.2	(7.8-10.6)



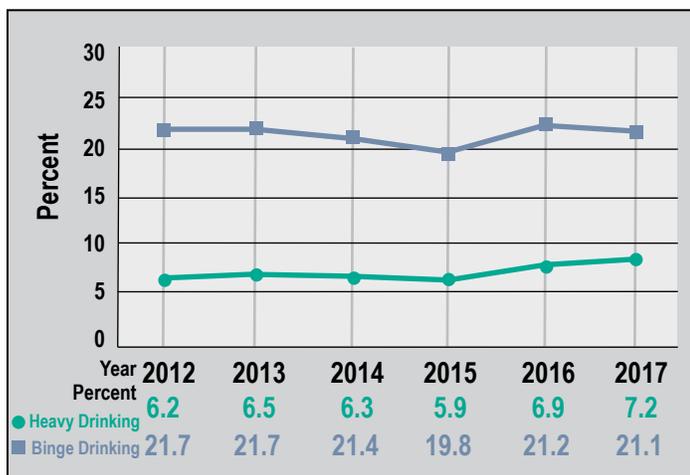
# Alcohol Consumption *continued*

In our analysis, heavy drinking was defined as an average of greater than 14 drinks per week for men and seven drinks per week for women. According to this definition, 7.2% of all lowans were heavy drinkers. The trend has been steadily increasing over the last few years, with 2017 prevalence rates being higher than 2015, when 5.9% of lowans were heavy drinkers (Figure 9.1).

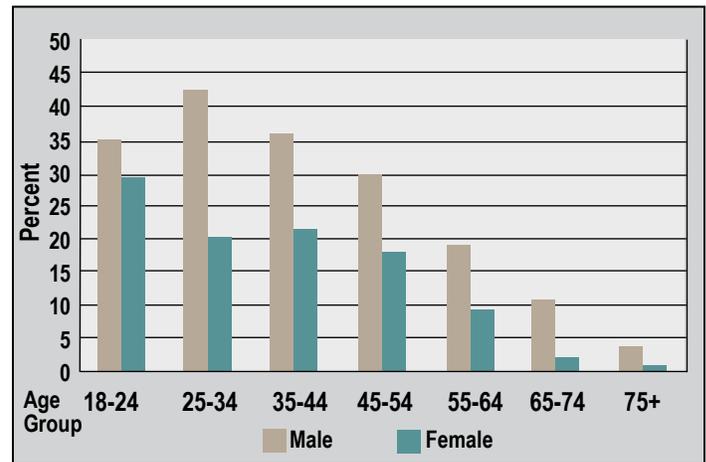
Heavy drinking among men is significantly higher than in women. In 2017, 8.8% of men were considered to be heavy drinkers, while only 5.7% of women reported being heavy drinkers. In Iowa, older people, those with less than a high school education, and people with household incomes between \$25,000 and \$34,999 reported a lower prevalence of heavy drinking (Table 9.1).

Among adult lowans, 12.3% reported at least one binge drinking episode in the 30 days prior to participating in the survey. More than twice as many males binge drink than females, with 27.6% and 14.8% respectively. Men binged more than women at all ages, with the likelihood of binge drinking decreasing with age from 42.5% for 25 to 34 year olds to 4.8% for those 75 years old and older (Figure 9.2). In 2017, a higher percentage of Hispanic and Non-Hispanic Whites binged than other racial and ethnic groups. lowans with some college or college graduates and those with higher incomes were more likely to engage in binge drinking (see table 9.1).

**Figure 9.1: Binge and Heavy Drinking by Year, 2012-2017**



**Figure 9.2: Binge Drinking Among Iowa adults by Age and Sex, 2017**



## Comparison with Other States

The prevalence of people reporting heavy drinking in the 50 states and District of Columbia ranged from 3.6% to 9.5%. Iowa's rate of 7.2% is above the median of 6.3% in 2017.

The median level of binge drinking was 17.4% and ranged from 11.5% to 25.6% across all 50 states and the District of Columbia. Iowa's figure of 21.1% is well above the median. There were only three states (District of Columbia, North Dakota and Wisconsin) with a higher prevalence of reported binge drinking in 2017.

## References

1. National Institute of Alcohol Abuse and Alcoholism, Alcohol Facts and Statistics, 2018. Available at <https://www.niaaa.nih.gov/alcohol-health/overview-alcohol-consumption/alcohol-facts-and-statistics> Last accessed March 19, 2019.
2. American Addiction Centers, Lowered Inhibitions and Bad Decisions from Alcohol, 2018. Available at <https://www.alcohol.org/effects/inhibitions/>. Last accessed March 19, 2019.
3. Go AS., et al. Heart Disease and Stroke Statistics—2013 Update: A Report from the American Heart Association, 2013.
4. Iowa Department of Public Health. 2015 Vital Statistics of Iowa, 2017.

# Appendix – Iowa 2017 BRFSS Questionnaire

## Section 1: Health Status

1.1 Would you say that in general your health is — (90)

Please read:

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

Do not read:

- 7 Don't know / Not sure
- 9 Refused

## Section 2: Healthy Days – Health-Related Quality of Life

2.1 Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good? (91-92)

- Number of days
- 88 None
  - 77 Don't know / Not sure
  - 99 Refused

2.2 Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good? (93-94)

- Number of days
- 88 None [CATI NOTE: IF Q2.1 AND Q2.2 = 88 (NONE), GO TO NEXT SECTION]
  - 77 Don't know / Not sure
  - 99 Refused

2.3 During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation? (95-96)

- Number of days
- 88 None
  - 77 Don't know / Not sure
  - 99 Refused

## Section 3: Health Care Access

3.1 Do you have any kind of health care coverage, including health insurance, prepaid plans such as HMOs, government plans such as Medicare, or Indian Health Service? (97)

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

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

If “No” ask: “Is there more than one, or is there no person who you think of as your personal doctor or health care provider?” (98)

- 1 Yes, only one
- 2 More than one
- 3 No
- 7 Don't know / Not sure
- 9 Refused

3.3 Was there a time in the past 12 months when you needed to see a doctor but could not because of cost? (99)

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

3.4 A routine checkup is a general physical exam, not an exam for a specific injury, illness, or condition. About how long has it been since you last visited a doctor for a routine checkup? (100)

Read only if necessary:

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

Do not read:

- 7 Don't know / Not sure
- 8 Never
- 9 Refused

## Section 4: Hypertension Awareness

4.1 Have you EVER been told by a doctor, nurse, or other health professional that you have high blood pressure? (101)

Read only if necessary: By “other health professional” we mean a nurse practitioner, a physician's assistant, or some other licensed health professional. If “Yes” and respondent is female, ask: “Was this only when you were pregnant?”

- 1 Yes
- 2 Yes, but female told only during pregnancy [GO TO NEXT SECTION]
- 3 No [GO TO NEXT SECTION]
- 4 Told borderline high or pre-hypertensive [GO TO NEXT SECTION]
- 7 Don't know / Not sure [GO TO NEXT SECTION]
- 9 Refused [GO TO NEXT SECTION]

4.2 Are you currently taking medicine for your high blood pressure? (102)

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

## Section 5: Cholesterol Awareness

5.1 Blood cholesterol is a fatty substance found in the blood. About how long has it been since you last had your blood cholesterol checked?(103)

Read only if necessary:

- 1 Never [GO TO NEXT SECTION]
- 2 Within the past year (anytime less than 12 months ago)
- 3 Within the past 2 years (1 year but less than 2 years ago)
- 4 Within the past 5 years (2 years but less than 5 years ago)
- 5 5 or more years ago

Do not read:

- 7 Don't know / Not sure
- 9 Refused [GO TO NEXT SECTION]

5.2 Have you EVER been told by a doctor, nurse or other health professional that your blood cholesterol is high? (104)

- 1 Yes
- 2 No [GO TO NEXT SECTION]
- 7 Don't know / Not sure [GO TO NEXT SECTION]
- 9 Refused [GO TO NEXT SECTION]

5.3 Are you currently taking medicine prescribed by a doctor or other health professional for your blood cholesterol? (105)

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

## Section 6: Chronic Health Conditions

Has a doctor, nurse, or other health professional EVER told you that you had any of the following? For each, tell me “Yes,” “No,” or you're “Not sure.”

6.1 (Ever told) you that you had a heart attack also called a myocardial infarction? (106)

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

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

6.2 (Ever told) you had angina or coronary heart disease? (107)

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

6.3 (Ever told) you had a stroke? (108)

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

6.4 (Ever told) you had asthma? (109)

- 1 Yes
- 2 No [GO TO Q6.6]
- 7 Don't know / Not sure [GO TO Q6.6]
- 9 Refused [GO TO Q6.6]

6.5 Do you still have asthma? (110)

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

6.6 (Ever told) you had skin cancer? (111)

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

6.7 (Ever told) you had any other types of cancer? (112)

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

6.8 (Ever told) you have Chronic Obstructive Pulmonary Disease or COPD, emphysema or chronic bronchitis? (113)

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

6.9 (Ever told) you have some form of arthritis, rheumatoid arthritis, gout, lupus, or fibromyalgia? (114)

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

**INTERVIEWER NOTE: ARTHRITIS DIAGNOSES INCLUDE:**

- RHEUMATISM, POLYMYALGIA RHEUMATICA
- OSTEOARTHRITIS (NOT OSTEOPOROSIS)
- TENDONITIS, BURSITIS, BUNION, TENNIS ELBOW
- CARPAL TUNNEL SYNDROME, TARSAL TUNNEL SYNDROME
- JOINT INFECTION, REITER'S SYNDROME
- ANKYLOSING SPONDYLITIS; SPONDYLOSIS
- ROTATOR CUFF SYNDROME
- CONNECTIVE TISSUE DISEASE, SCLERODERMA, POLYMYOSITIS, RAYNAUD'S SYNDROME
- VASCULITIS (GIANT CELL ARTERITIS, HENOCH-SCHONLEIN PURPURA, WEGENER'S GRANULOMATOSIS,
- POLYARTERITIS NODOSA)

6.10 (Ever told) you have a depressive disorder, (including depression, major depression, dysthymia), or minor depression? (115)

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

6.11 (Ever told) you have kidney disease? Do NOT include kidney stones, bladder infection or incontinence. (116)

**INTERVIEWER NOTE: INCONTINENCE IS NOT BEING ABLE TO CONTROL URINE FLOW.**

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

6.12 (Ever told) you have diabetes? (117)

**[INTERVIEWER NOTE: If "Yes" and respondent is female, ask: "Was this only when you were pregnant?"]**

**[INTERVIEWER NOTE: If respondent says pre-diabetes or borderline diabetes, use response code 4.]**

- 1 Yes
- 2 Yes, but female told only during pregnancy
- 3 No
- 4 No, pre-diabetes or borderline diabetes
- 7 Don't know / Not sure
- 9 Refused

**[CATI NOTE: IF Q6.12 = 1 (YES), GO TO NEXT QUESTION. IF ANY OTHER RESPONSE TO Q6.12, GO TO PRE-DIABETES OPTIONAL MODULE]**

6.13 How old were you when you were told you have diabetes? (118-119)

- \_\_ Code age in years [97 = 97 and older]
- 98 Don't know / Not sure
  - 99 Refused

**[CATI NOTE: GO TO DIABETES OPTIONAL MODULE]**

**Module 1: Pre-Diabetes [FORM B ONLY]**

1. Have you had a test for high blood sugar or diabetes within the past three years? (290)

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

**[CATI NOTE: IF CORE Q6.12 = 4 (NO, PRE-DIABETES OR BORDERLINE DIABETES); ANSWER Q2 "YES" (CODE = 1).]**

2. Have you ever been told by a doctor or other health professional that you have pre-diabetes or borderline diabetes?

**INTERVIEWER INSTRUCTIONS: IF "YES" AND RESPONDENT IS FEMALE, ASK: "WAS THIS ONLY WHEN YOU WERE PREGNANT?" (291)**

- 1 Yes
- 2 Yes, during pregnancy
- 3 No
- 7 Don't know / Not sure
- 9 Refused

**Module 2: Diabetes**

**[CATI NOTE: TO BE ASKED FOLLOWING CORE Q6.13; IF RESPONSE TO Q6.12 IS "YES" (1)] (292)**

1. Are you now taking insulin?

- 1 Yes
- 2 No
- 9 Refused

2. About how often do you check your blood for glucose or sugar? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional. (293-295)

**INTERVIEWER NOTE: ENTER QUANTITY PER DAY, WEEK, OR MONTH**

- 1 \_\_ Times per day
- 2 \_\_ Times per week
- 3 \_\_ Times per month
- 4 \_\_ Times per year
- 888 Never
- 777 Don't know / Not sure
- 999 Refused

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

[INTERVIEWER NOTE: IF THE RESPONDENT USES A CONTINUOUS GLUCOSE MONITORING SYSTEM (A SENSOR INSERTED UNDER THE SKIN TO CHECK GLUCOSE LEVELS CONTINUOUSLY), FILL IN '98 TIMES PER DAY']

3. About how often do you check your feet for any sores or irritations? Include times when checked by a family member or friend, but do NOT include times when checked by a health professional. (296-298)

**INTERVIEWER NOTE: ENTER QUANTITY PER DAY, WEEK, OR MONTH**

- 1 \_\_ Times per day
- 2 \_\_ Times per week
- 3 \_\_ Times per month
- 4 \_\_ Times per year
- 555 No feet
- 888 Never
- 777 Don't know / Not sure
- 999 Refused

4. About how many times in the past 12 months have you seen a doctor, nurse, or other health professional for your diabetes? (299-300)

- \_\_ Number of times [76 = 76 or more]
- 88 None
- 77 Don't know / Not sure
- 99 Refused

5. A test for "A one C" measures the average level of blood sugar over the past three months. About how many times in the past 12 months has a doctor, nurse, or other health professional checked you for "A one C"? (301-302)

- \_\_ Number of times [76 = 76 or more]
- 88 None
- 98 Never heard of "A one C" test
- 77 Don't know / Not sure
- 99 Refused

[CATI NOTE: IF Q3 = 555 (NO FEET), GO TO Q7.]

6. About how many times in the past 12 months has a health professional checked your feet for any sores or irritations? (303-304)

- \_\_ Number of times [76 = 76 or more]
- 88 None
- 77 Don't know / Not sure
- 99 Refused

7. When was the last time you had an eye exam in which the pupils were dilated? This would have made you temporarily sensitive to bright light. (305)

**Read only if necessary:**

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

**Do not read:**

- 7 Don't know / Not sure
- 8 Never
- 9 Refused

8. Has a doctor ever told you that diabetes has affected your eyes or that you had retinopathy? (306)

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

9. Have you ever taken a course or class in how to manage your diabetes yourself? (307)

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

## Section 7: Arthritis Burden

[CATI NOTE: IF Q6.9 = 1 (YES) THEN CONTINUE, ELSE GO TO NEXT SECTION.]

Next, I will ask you about your arthritis.

Arthritis can cause symptoms like pain, aching, or stiffness in or around a joint.

7.1 Are you now limited in any way in any of your usual activities because of arthritis or joint symptoms? (120)

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

**INTERVIEWER INSTRUCTION: IF A QUESTION ARISES ABOUT MEDICATIONS OR TREATMENT, THEN THE INTERVIEWER SHOULD SAY: "PLEASE ANSWER THE QUESTION BASED ON YOUR CURRENT EXPERIENCE, REGARDLESS OF WHETHER YOU ARE TAKING ANY MEDICATION OR TREATMENT."**

**INTERVIEWER NOTE: Q7.2 SHOULD BE ASKED OF ALL RESPONDENTS REGARDLESS OF EMPLOYMENT STATUS.**

7.2 In this next question, we are referring to work for pay. Do arthritis or joint symptoms now affect whether you work, the type of work you do, or the amount of work you do? (121)

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

**INTERVIEWER INSTRUCTION: IF RESPONDENT GIVES AN ANSWER TO EACH ISSUE (WHETHER RESPONDENT WORKS, TYPE OF WORK, OR AMOUNT OF WORK), THEN IF ANY ISSUE IS "YES" MARK THE OVERALL RESPONSE AS "YES."**

**IF A QUESTION ARISES ABOUT MEDICATIONS OR TREATMENT, THEN THE INTERVIEWER SHOULD SAY: "PLEASE ANSWER THE QUESTION BASED ON YOUR CURRENT EXPERIENCE, REGARDLESS OF WHETHER YOU ARE TAKING ANY MEDICATION OR TREATMENT."**

7.3 During the past 30 days, to what extent has your arthritis or joint symptoms interfered with your normal social activities, such as going shopping, to the movies, or to religious or social gatherings? (122)

**Please read [1-3]:**

- 1 A lot
- 2 A little
- 3 Not at all

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**INTERVIEWER INSTRUCTION: IF A QUESTION ARISES ABOUT MEDICATIONS OR TREATMENT, THEN THE INTERVIEWER SHOULD SAY: "PLEASE ANSWER THE QUESTION BASED ON YOUR CURRENT EXPERIENCE, REGARDLESS OF WHETHER YOU ARE TAKING ANY MEDICATION OR TREATMENT."**

7.4 Please think about the past 30 days, keeping in mind all of your joint pain or aching and whether or not you have taken medication. On a scale of 0 to 10 where 0 is no pain or aching and 10 is pain or aching as bad as it can be, DURING THE PAST 30 DAYS, how bad was your joint pain ON AVERAGE? (123-124)

- \_\_ Enter number [00-10]
- 77 Don't know / Not sure
- 99 Refused

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

## Section 8: Demographics

### 8.1 Are you ... (125)

- 1 Male
- 2 Female
- 9 Refused

**INTERVIEWER NOTE:** ASK THIS QUESTION EVEN IF RESPONDENT'S SEX HAD BEEN IDENTIFIED DURING LANDLINE HOUSEHOLD ENUMERATION OR CELL PHONE SCREENING QUESTIONS.

### 8.2 What is your age? (126-127)

- \_\_ Code age in years
- 07 Don't know / Not sure
- 09 Refused

### 8.3 Are you Hispanic, Latino/a, or Spanish origin? (128-131)

If yes, ask: Are you...

**INTERVIEWER NOTE:** One Or More Categories May Be Selected.

- 1 Mexican, Mexican American, Chicano/a
- 2 Puerto Rican
- 3 Cuban
- 4 Another Hispanic, Latino/a, or Spanish origin

**Do not read:**

- 5 No
- 7 Don't know / Not sure
- 9 Refused

### 8.4 Which one or more of the following would you say is your race? (132-159)

**INTERVIEWER NOTE: SELECT ALL THAT APPLY.**

**INTERVIEWER NOTE:** IF 40 (ASIAN) OR 50 (PACIFIC ISLANDER) IS SELECTED READ AND CODE SUBCATEGORIES UNDERNEATH MAJOR HEADING.

**Please read:**

- 10 White
- 20 Black or African American
- 30 American Indian or Alaska Native
- 40 Asian
- 41 Asian Indian
- 42 Chinese
- 43 Filipino
- 44 Japanese
- 45 Korean
- 46 Vietnamese
- 47 Other Asian
- 50 Pacific Islander
- 51 Native Hawaiian
- 52 Guamanian or Chamorro
- 53 Samoan
- 54 Other Pacific Islander

**Do not read:**

- 60 Other
- 88 No additional choices
- 77 Don't know / Not sure
- 99 Refused

**[CATI NOTE: IF MORE THAN ONE RESPONSE TO Q8.4; CONTINUE. OTHERWISE, GO TO Q8.6.]**

### 8.5 Which one of these groups would you say best represents your race?

**INTERVIEWER NOTE:** IF 40 (ASIAN) OR 50 (PACIFIC ISLANDER) IS SELECTED READ AND CODE SUBCATEGORY UNDERNEATH MAJOR HEADING. IF RESPONDENT HAS SELECTED MULTIPLE RACES IN PREVIOUS AND REFUSES TO SELECT A SINGLE RACE, CODE "REFUSED." (160-161)

- 10 White
- 20 Black or African American
- 30 American Indian or Alaska Native

- 40 Asian
- 41 Asian Indian
- 42 Chinese
- 43 Filipino
- 44 Japanese
- 45 Korean
- 46 Vietnamese
- 47 Other Asian
- 50 Pacific Islander
- 51 Native Hawaiian
- 52 Guamanian or Chamorro
- 53 Samoan
- 54 Other Pacific Islander

**Do not read:**

- 60 Other
- 77 Don't know / Not sure
- 99 Refused

### 8.6 Are you...?

**Please read:**

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

**Do not read:**

- 9 Refused

### 8.7 What is the highest grade or year of school you completed?(163)

**Read only if necessary:**

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

**Do not read:**

- 9 Refused

### 8.8 Do you own or rent your home?

**Read only if necessary:**

- 1 Own
- 2 Rent
- 3 Other arrangement

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**INTERVIEWER NOTE:** "OTHER ARRANGEMENT" MAY INCLUDE GROUP HOME, STAYING WITH FRIENDS OR FAMILY WITHOUT PAYING RENT.

**INTERVIEWER NOTE:** HOME IS DEFINED AS THE PLACE WHERE YOU LIVE MOST OF THE TIME/THE MAJORITY OF THE YEAR.

**INTERVIEWER NOTE:** WE ASK THIS QUESTION IN ORDER TO COMPARE HEALTH INDICATORS AMONG PEOPLE WITH DIFFERENT HOUSING SITUATIONS.

### 8.9 In what county do you currently live? (165-167)

- \_\_\_ ANSI County Code (formerly FIPS county code)
- 777 Don't know / Not sure
- 999 Refused

### 8.10 What is the ZIP Code where you currently live? (168-172)

- \_\_\_\_\_ ZIP Code
- 77777 Don't know / Not sure
- 99999 Refused

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

**[CATI NOTE: IF CELL TELEPHONE INTERVIEW SKIP TO 8.14 (QSTVER GE 20)]**

**8.11** Do you have more than one telephone number in your household? Do not include cell phones or numbers that are only used by a computer or fax machine. (173)

- 1 Yes
- 2 No [GO TO Q8.13]
- 7 Don't know / Not sure [GO TO Q8.13]
- 9 Refused [GO TO Q8.13]

**8.12** How many of these telephone numbers are residential numbers? (174)

- Residential telephone numbers [6 = 6 or more]
- 7 Don't know / Not sure
- 9 Refused

**8.13** Including phones for business and personal use, do you have a cell phone for personal use? (175)

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

**8.14** Have you ever served on active duty in the United States Armed Forces, either in the regular military or in a National Guard or military reserve unit? **INTERVIEWER NOTE:** Active duty does not include training for the Reserves or National Guard, but DOES include activation, for example, for the Persian Gulf War. (176)

- 1 Yes
- 2 No

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

**8.15** Are you currently...?

**INTERVIEWER NOTE: IF MORE THAN ONE: SAY "SELECT THE CATEGORY WHICH BEST DESCRIBES YOU".**

**Please read:** (177)

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

**Do not read:**

- 9 Refused

**INTERVIEWER NOTE: DO NOT CODE 7 FOR "DON'T KNOW" ON THIS QUESTION.**

**8.16** How many children less than 18 years of age live in your household? (178-179)

- Number of children
- 88 None
- 99 Refused

**[INTERVIEW IS CONSIDERED A PARTIAL AT THIS POINT]**

**8.17** Is your annual household income from all sources—

**INTERVIEWER NOTE: IF RESPONDENT REFUSES AT ANY INCOME LEVEL, CODE '99' (REFUSED) (180-181)**

- 04 Less than \$25,000 If "no," ask 05; if "yes," ask 03 (\$20,000 to less than \$25,000)
- 03 Less than \$20,000 If "no," code 04; if "yes," ask 02 (\$15,000 to less than \$20,000)
- 02 Less than \$15,000 If "no," code 03; if "yes," ask 01 (\$10,000 to less than \$15,000)
- 01 Less than \$10,000 If "no," code 02

- 05 Less than \$35,000 If "no," ask 06 (\$25,000 to less than \$35,000)
- 06 Less than \$50,000 If "no," ask 07 (\$35,000 to less than \$50,000)
- 07 Less than \$75,000 If "no," code 08 (\$50,000 to less than \$75,000)
- 08 \$75,000 or more

**Do not read:**

- 77 Don't know / Not sure
- 99 Refused

**8.18** Have you used the internet in the past 30 days? (182)

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

**8.19** About how much do you weigh without shoes?

**INTERVIEWER NOTE: IF RESPONDENT ANSWERS IN METRICS, PUT "9" IN COLUMN 183. ROUND FRACTIONS UP (183-186)**

- / — Weight (pounds/kilograms)
- 7777 Don't know / Not sure
- 9999 Refused

**8.20** About how tall are you without shoes?

**INTERVIEWER NOTE: IF RESPONDENT ANSWERS IN METRICS, PUT "9" IN COLUMN 187. ROUND FRACTIONS DOWN (187-190)**

- / — Height (ft/inches/meters/centimeters)
- 77/ 77 Don't know / Not sure
- 99/ 99 Refused

**[CATI NOTE: IF MALE, GO TO 8.22, IF FEMALE RESPONDENT IS 50 YEARS OLD OR OLDER, GO TO Q8.22]**

**8.21** To your knowledge, are you now pregnant? (191)

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

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

**Some people who are deaf or have serious difficulty hearing may or may not use equipment to communicate by phone.**

**8.22** Are you deaf or do you have serious difficulty hearing? (192)

- 1 Yes
- 2 No
- 7 Don't know / Not Sure
- 9 Refused

**8.23** Are you blind or do you have serious difficulty seeing, even when wearing glasses? (193)

- 1 Yes
- 2 No
- 7 Don't know / Not Sure
- 9 Refused

**8.24** Because of a physical, mental, or emotional condition, do you have serious difficulty concentrating, remembering, or making decisions? (194)

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

**8.25** Do you have serious difficulty walking or climbing stairs? (195)

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

**8.26** Do you have difficulty dressing or bathing? (196)

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

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

**8.27** Because of a physical, mental, or emotional condition, do you have difficulty doing errands alone such as visiting a doctor's office or shopping? (197)

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

## Section 9: Tobacco Use

**9.1** Have you smoked at least 100 cigarettes in your entire life? (198)

**INTERVIEWER NOTE:** 5 PACKS = 100 CIGARETTES

- 1 Yes
- 2 No [GO TO Q9.5]
- 7 Don't know / Not sure [GO TO Q9.5]
- 9 Refused [GO TO Q9.5]

**INTERVIEWER NOTE:** "FOR CIGARETTES, DO NOT INCLUDE: ELECTRONIC CIGARETTES (E-CIGARETTES, NJOY, BLUETIP), HERBAL CIGARETTES, CIGARS, CIGARILLOS, LITTLE CIGARS, PIPES, BIDIS, KRETEKS, WATER PIPES (HOOKAHS), OR MARIJUANA."

**9.2** Do you now smoke cigarettes every day, some days, or not at all? (199)

**Do not read:**

- 1 Every day
- 2 Some days
- 3 Not at all [GO TO Q9.4]
- 7 Don't know / Not sure [GO TO Q9.5]
- 9 Refused [GO TO Q9.5]

**9.3** During the past 12 months, have you stopped smoking for one day or longer because you were trying to quit smoking? (200)

- 1 Yes [GO TO Q9.5]
- 2 No [GO TO Q9.5]
- 7 Don't know / Not sure [GO TO Q9.5]
- 9 Refused [GO TO Q9.5]

**9.4** How long has it been since you last smoked a cigarette, even one or two puffs? (201-202)

**Read only if necessary:**

- 01 Within the past month (less than 1 month ago)
- 02 Within the past 3 months (1 month but less than 3 months ago)
- 03 Within the past 6 months (3 months but less than 6 months ago)
- 04 Within the past year (6 months but less than 1 year ago)
- 05 Within the past 5 years (1 year but less than 5 years ago)
- 06 Within the past 10 years (5 years but less than 10 years ago)
- 07 10 years or more
- 08 Never smoked regularly

**Do not read:**

- 77 Don't know / Not sure
- 99 Refused

**9.5** Do you currently use chewing tobacco, snuff, or snus every day, some days, or not at all? (203)

**INTERVIEWER NOTE:** SNUS (RHYMES WITH 'GOOSE')/ SNUS (SWEDISH FOR SNUFF) IS A MOIST SMOKELESS TOBACCO, USUALLY SOLD IN SMALL POUCHES THAT ARE PLACED UNDER THE LIP AGAINST THE GUM.

**Do not read:**

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

**Do not read:**

- 7 Don't know / Not sure
- 9 Refused

## Section 10: E-Cigarettes

The next questions are about electronic cigarettes and other electronic "vaping" products. These products typically contain nicotine, flavors, and other ingredients. Do not include products used only for marijuana.

**INTERVIEWER NOTE:** THESE QUESTIONS CONCERN ELECTRONIC VAPING PRODUCTS FOR NICOTINE USE. THE USE OF ELECTRONIC VAPING PRODUCTS FOR MARIJUANA USE IS NOT INCLUDED IN THESE QUESTIONS.

**10.1** Have you ever used an e-cigarette or other electronic "vaping" product, even just one time, in your entire life? (204)

- 1 Yes
- 2 No [GO TO NEXT SECTION]
- 7 Don't know / Not Sure [GO TO NEXT SECTION]
- 9 Refused [GO TO NEXT SECTION]

**Read if necessary:** Electronic cigarettes (e-cigarettes) and other electronic "vaping" products include electronic hookahs (e-hookahs), vape pens, e-cigs, and others. These products are battery-powered and usually contain nicotine and flavors such as fruit, mint, or candy.

**10.2** Do you now use e-cigarettes or other electronic "vaping" products every day, some days, or not at all? (205)

- 1 Every day
- 2 Some days
- 3 Not at all
- 7 Don't know / Not sure
- 9 Refused

## Section 11: Alcohol Consumption

**11.1** During the past 30 days, how many days per week or per month did you have at least one drink of any alcoholic beverage such as beer, wine, a malt beverage or liquor? (206-208)

- 1 \_\_ Days per week
- 2 \_\_ Days in past 30 days
- 888 No drinks in past 30 days [GO TO NEXT SECTION]
- 777 Don't know / Not sure [GO TO NEXT SECTION]
- 999 Refused [GO TO NEXT SECTION]

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

**INTERVIEWER NOTE:** A 40-ounce beer would count as 3 drinks, or a cocktail drink with 2 shots would count as 2 drinks. (209-210)

- \_\_ Number of drinks
- 77 Don't know / Not sure
- 99 Refused

**11.3** Considering all types of alcoholic beverages, how many times during the past 30 days did you have [CATI NOTE: 5 FOR MEN, 4 FOR WOMEN] or more drinks on an occasion? (211-212)

- \_\_ Number of times
- 88 None
- 77 Don't know / Not sure
- 99 Refused

**11.4** During the past 30 days, what is the largest number of drinks you had on any occasion? (213-214)

- \_\_ Number of drinks
- 77 Don't know / Not sure
- 99 Refused

## Section 12: Fruits and Vegetables

Now think about the foods you ate or drank during the past month, that is, the past 30 days, including meals and snacks.

**INTERVIEWER INSTRUCTIONS:** IF A RESPONDENT INDICATES THAT THEY CONSUME A FOOD ITEM EVERY DAY THEN ENTER THE NUMBER OF TIMES PER DAY. IF THE RESPONDENT INDICATES THAT THEY EAT A

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

FOOD LESS THAN DAILY, THEN ENTER TIMES PER WEEK OR TIMES PER MONTH. **DO NOT ENTER TIMES PER DAY UNLESS THE RESPONDENT REPORTS THAT HE/SHE CONSUMED THAT FOOD ITEM EACH DAY DURING THE PAST MONTH.**

**12.1** Not including juices, how often did you eat fruit? You can tell me times per day, times per week or times per month. (215-217)

**INTERVIEWER NOTE:** ENTER QUANTITY TIMES PER DAY, WEEK, OR MONTH.

**IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”**

**IF RESPONDENT ASKS WHAT TO INCLUDE OR SAYS “I DON’T KNOW”, SAY:** INCLUDE FRESH, FROZEN OR CANNED FRUIT. DO NOT INCLUDE DRIED FRUITS.

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

**12.2** Not including fruit-flavored drinks or fruit juices with added sugar, how often did you drink 100% fruit juice such as apple or orange juice? (218-220)

**INTERVIEWER NOTE:** ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH

**INTERVIEWER NOTE:** IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”

**IF RESPONDENT ASKS ABOUT EXAMPLES OF FRUIT-FLAVORED DRINKS, SAY:** “DO NOT INCLUDE FRUIT-FLAVORED DRINKS WITH ADDED SUGAR LIKE CRANBERRY COCKTAIL, HI-C, LEMONADE, KOOL-AID, GATORADE, TAMPICO, AND SUNNY DELIGHT. INCLUDE ONLY 100% PURE JUICES OR 100% JUICE BLENDS.”

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

**12.3** How often did you eat a green leafy or lettuce salad, with or without other vegetables? (221-223)

**INTERVIEWER NOTE:** ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH

**INTERVIEWER NOTE:** IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”

**IF RESPONDENT ASKS ABOUT SPINACH, SAY:** “INCLUDE SPINACH SALADS.”

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

**12.4** How often did you eat any kind of fried potatoes, including french fries, home fries, or hash browns? (224-226)

**INTERVIEWER NOTE:** ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH

**INTERVIEWER NOTE:** IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”

**IF RESPONDENT ASKS ABOUT POTATO CHIPS, SAY:** “DO NOT INCLUDE POTATO CHIPS.”

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

**12.5** How often did you eat any other kind of potatoes, or sweet potatoes, such as baked, boiled, mashed potatoes, or potato salad? (227-229)

**INTERVIEWER NOTE:** ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH

**INTERVIEWER NOTE:** IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”

**IF RESPONDENT ASKS ABOUT WHAT TYPES OF POTATOES TO INCLUDE, SAY:** “INCLUDE ALL TYPES OF POTATOES EXCEPT FRIED. INCLUDE POTATOES AU GRATIN, SCALLOPED POTATOES.”

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

**12.6** Not including lettuce salads and potatoes, how often did you eat other vegetables? (230-232)

**INTERVIEWER NOTE:** ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH.

**INTERVIEWER NOTE:** IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK “WAS THAT PER DAY, WEEK, OR MONTH?”

**IF RESPONDENT ASKS ABOUT WHAT TO INCLUDE, SAY:** “INCLUDE TOMATOES, GREEN BEANS, CARROTS, CORN, CABBAGE, BEAN SPROUTS, COLLARD GREENS, AND BROCCOLI. INCLUDE RAW, COOKED, CANNED, OR FROZEN VEGETABLES. DO NOT INCLUDE RICE.”

- 1\_\_ Day
- 2\_\_ Week
- 3\_\_ Month
- 300 Less than once a month
- 555 Never
- 777 Don't Know
- 999 Refused

## Section 13: Exercise (Physical Activity)

The next few questions are about exercise, recreation, or physical activities other than your regular job duties.

**INTERVIEWER INSTRUCTION:** If respondent does not have a “regular job duty” or is retired, they may count the physical activity or exercise they spend the most time doing in a regular month.

**13.1** During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise? (233)

- 1 Yes
- 2 No [GO TO Q13.8]
- 7 Don't know / Not sure [GO TO Q13.8]
- 9 Refused[GO TO Q13.8]

**13.2** What type of physical activity or exercise did you spend the most time doing during the past month? (234-235)

- \_\_ [Specify] [See Physical Activity Coding List]
- 77 Don't know / Not Sure [GO TO Q13.8]
- 99 Refused [GO TO Q13.8]

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

**INTERVIEWER INSTRUCTION:** IF THE RESPONDENT'S ACTIVITY IS NOT INCLUDED IN THE PHYSICAL ACTIVITY CODING LIST, CHOOSE THE OPTION LISTED AS "OTHER".

**13.3** How many times per week or per month did you take part in this activity during the past month? (236-238)

- 1\_\_ Times per week
- 2\_\_ Times per month
- 777 Don't know / Not sure
- 999 Refused

**13.4** And when you took part in this activity, for how many minutes or hours did you usually keep at it? (239-241)

- \_:\_\_ Hours and minutes
- 777 Don't know / Not sure
- 999 Refused

**13.5** What other type of physical activity gave you the next most exercise during the past month? (242-243)

- \_\_ [Specify] [See Physical Activity Coding List]
- 88 No other activity [GO TO Q13.8]
- 77 Don't know / Not Sure [GO TO Q13.8]
- 99 Refused [GO TO Q13.8]

**INTERVIEWER INSTRUCTION:** IF THE RESPONDENT'S ACTIVITY IS NOT INCLUDED IN THE CODING PHYSICAL ACTIVITY LIST, CHOOSE THE OPTION LISTED AS "OTHER".

**13.6** How many times per week or per month did you take part in this activity during the past month? (244-246)

- 1\_\_ Times per week
- 2\_\_ Times per month
- 777 Don't know / Not sure
- 999 Refused

**13.7** And when you took part in this activity, for how many minutes or hours did you usually keep at it? (247-249)

- \_:\_\_ Hours and minutes
- 777 Don't know / Not sure
- 999 Refused

**13.8** During the past month, how many times per week or per month did you do physical activities or exercises to STRENGTHEN your muscles? Do NOT count aerobic activities like walking, running, or bicycling. Count activities using your own body weight like yoga, sit-ups or push-ups and those using weight machines, free weights, or elastic bands. (250-252)

- 1\_\_ Times per week
- 2\_\_ Times per month
- 888 Never
- 777 Don't know / Not sure
- 999 Refused

## Section 14: Seatbelt Use

**14.1** How often do you use seat belts when you drive or ride in a car? Would you say — (253)

**Please read:**

- 1 Always
- 2 Nearly always
- 3 Sometimes
- 4 Seldom
- 5 Never

**Do not read:**

- 7 Don't know / Not sure
- 8 Never drive or ride in a car
- 9 Refused

## Section 15: Immunization

Now I will ask you questions about the flu vaccine. There are two ways to get the flu vaccine, one is a shot in the arm and the other is a spray, mist, or drop in the nose called FluMist™.

**15.1** During the past 12 months, have you had either a flu shot or a flu vaccine that was sprayed in your nose? (254)

**Read only if necessary:** A new flu shot came out in 2011 that injects vaccine into the skin with a very small needle. It is called Fluzone Intradermal vaccine. This is also considered a flu shot.

- 1 Yes
- 2 No [GO TO Q15.3]
- 7 Don't know / Not sure [GO TO Q15.3]
- 9 Refused [GO TO Q15.3]

**15.2** During what month and year did you receive your most recent flu shot injected into your arm or flu vaccine that was sprayed in your nose? (255-260)

- \_\_ / \_\_\_\_ Month / Year
- 77 / 7777 Don't know / Not sure
- 99 / 9999 Refused

**15.3** A pneumonia shot or pneumococcal vaccine is usually given only once or twice in a person's lifetime and is different from the flu shot. Have you ever had a pneumonia shot? (261)

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

**[CATI NOTE: IF RESPONDENT IS LESS THAN 50 YEARS OF AGE, GO TO NEXT SECTION.]**

**15.4** Have you ever had the shingles or zoster vaccine? (262)

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

**INTERVIEWER NOTE (READ IF NECESSARY):** SHINGLES IS CAUSED BY THE CHICKEN POX VIRUS. IT IS AN OUTBREAK OF RASH OR BLISTERS ON THE SKIN THAT MAY BE ASSOCIATED WITH SEVERE PAIN. A VACCINE FOR SHINGLES HAS BEEN AVAILABLE SINCE MAY 2006; IT IS CALLED ZOSTAVAX®, THE ZOSTER VACCINE, OR THE SHINGLES VACCINE.

## Section 16: HIV/AIDS

The next few questions are about the national health problem of HIV, the virus that causes AIDS. Please remember that your answers are strictly confidential and that you don't have to answer every question if you do not want to. Although we will ask you about testing, we will not ask you about the results of any test you may have had.

**16.1** Have you ever been tested for HIV? Do not count tests you may have had as part of a blood donation. Include testing fluid from your mouth. (263)

- 1 Yes
- 2 No [GO TO Q16.3]
- 7 Don't know / Not sure [GO TO Q16.3]
- 9 Refused [GO TO Q16.3]

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

**INTERVIEWER INSTRUCTIONS:** IF RESPONSE IS BEFORE JANUARY 1985, CODE "DON'T KNOW." IF THE RESPONDENT REMEMBERS THE YEAR BUT CANNOT REMEMBER THE MONTH, CODE THE FIRST TWO DIGITS 77 AND THE LAST FOUR DIGITS FOR THE YEAR. (264-269)

- \_\_ / \_\_\_\_ Code month and year
- 77/7777 Don't know / Not sure
- 99/9999 Refused / Not sure

**16.3** I am going to read you a list. When I am done, please tell me if any of the situations apply to you. You do not need to tell me which one. (270)

You have injected any drug other than those prescribed for you in the past year.

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

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

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

You had anal sex without a condom in the past year.

You had four or more sex partners in the past year.

Do any of these situations apply to you?

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

## Optional Modules

### Module 3: Respiratory Health (COPD) [FORM A ONLY]

The next few questions are about breathing problems you may have.

1 During the past 3 months, did you have a cough on most days? (308)

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

2 During the past 3 months, did you cough up phlegm [FLEM] or mucus on most days? (309)

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

3 Do you have shortness of breath either when hurrying on level ground or when walking up a slight hill or stairs? (310)

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

4 Have you ever been given a breathing test to diagnose breathing problems? (311)

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

5 Over your lifetime, how many years have you smoked tobacco products? (312-313)

- \_\_ Number of years (01-76)
- 88 Never smoked or smoked less than one year
- 77 Don't know/Not sure
- 99 Refused

### Module 4: Cardiovascular Health

I would like to ask you a few more questions about your cardiovascular or heart health.

[CATI NOTE: IF CORE Q6.1 = 1 (YES), ASK Q1. IF CORE Q6.1 = 2, 7, or 9 (NO, DON'T KNOW, or REFUSED), SKIP Q1.]

1 Following your heart attack, did you go to any kind of outpatient rehabilitation? (This is sometimes called "rehab.") (314)

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

[CATI NOTE: IF CORE Q6.3 = 1 (YES), ASK Q2. IF CORE Q6.3 = 2, 7, or 9 (NO, DON'T KNOW, or REFUSED), SKIP Q2.]

2 Following your stroke, did you go to any kind of outpatient rehabilitation? (This is sometimes called "rehab.") (315)

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

**INTERVIEWER NOTE:** QUESTION 3 IS ASKED OF ALL RESPONDENTS

3 Do you take aspirin daily or every other day? (316)

**INTERVIEWER NOTE:** ASPIRIN CAN BE PRESCRIBED BY A HEALTH CARE PROVIDER OR OBTAINED AS AN OVER-THE-COUNTER (OTC) MEDICATION.

- 1 Yes [GO TO QUESTION 5]
- 2 No
- 7 Don't know / Not sure
- 9 Refused

4 Do you have a health problem or condition that makes taking aspirin unsafe for you? (317)

If "Yes," ask "Is this a stomach condition?" Code upset stomach as stomach problems.

- 1 Yes, not stomach related [GO TO NEXT MODULE]
- 2 Yes, stomach problems [GO TO NEXT MODULE]
- 3 No [GO TO NEXT MODULE]
- 7 Don't know / Not sure [GO TO NEXT MODULE]
- 9 Refused [GO TO NEXT MODULE]

5 Do you take aspirin to relieve pain? (318)

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

6 Do you take aspirin to reduce the chance of a heart attack? (319)

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

7 Do you take aspirin to reduce the chance of a stroke? (320)

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

### Module 13: Sugar Sweetened Beverages [FORM B ONLY]

1 During the past 30 days, how often did you drink regular soda or pop that contains sugar? Do not include diet soda or diet pop. (431-433)

**Please read:** You can answer times per day, week, or month: for example, twice a day, once a week, and so forth.

- 1 \_\_ Times per day
- 2 \_\_ Times per week
- 3 \_\_ Times per month

**Do not read:**

- 888 None
- 777 Don't know / Not sure
- 999 Refused

2 During the past 30 days, how often did you drink sugar-sweetened fruit drinks (such as Kool-aid™ and lemonade), sweet tea, and sports or energy drinks (such as Gatorade™ and Red Bull™)? Do not include 100% fruit juice, diet drinks, or artificially sweetened drinks. (434-436)

**Please read:** You can answer times per day, week, or month: for example, twice a day, once a week, and so forth.

- 1 \_\_ Times per day
- 2 \_\_ Times per week
- 3 \_\_ Times per month

**Do not read:**

- 888 None
- 777 Don't know / Not sure
- 999 Refused

### Module 14: Sodium or Salt-Related Behavior [FORM B ONLY]

Most of the sodium or salt we eat comes from processed foods and foods prepared in restaurants. Salt also can be added in cooking or at the table.

1 Are you currently watching or reducing your sodium or salt intake? (430)

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

- 1 Yes
- 2 No
- 7 Don't know/not sure
- 9 Refused

**2** Has a doctor or other health professional ever advised you to reduce sodium or salt intake? (431)

- 1 Yes
- 2 No
- 7 Don't know/not sure
- 9 Refused

## State Added: Nutrition [FORM B ONLY]

**SANQ1** During the past 30 days, about how often did you have milk, either to drink or on cereal? Include cow's milk and soy milk, but NOT rice, goat, coconut, and almond milk.

**[INTERVIEWER NOTE: LACTOSE-FREE MILK COUNTS, BUT NOT SMALL AMOUNTS OF MILK OF ANY KIND IN COFFEE OR TEA.]**

**INTERVIEWER NOTE: ENTER QUANTITY IN TIMES PER DAY, WEEK, OR MONTH**

**INTERVIEWER NOTE: IF RESPONDENT GIVES A NUMBER WITHOUT A TIME FRAME, ASK "WAS THAT PER DAY, WEEK, OR MONTH?"**

- 1\_\_ Days
- 2\_\_ Weeks
- 3\_\_ Months
- 300 Less than once a month [GO TO NEXT MODULE]
- 555 Never [GO TO NEXT MODULE]
- 777 Don't Know [GO TO NEXT MODULE]
- 999 Refused [GO TO NEXT MODULE]

**SANQ2** If you drink cow's milk, was the milk you typically drank or used; whole milk, reduced-fat 2%, low-fat 1%, or fat-free, skim milk?

**[INTERVIEWER NOTE: IF MORE THAN ONE KIND MENTIONED, ASK "WHICH KIND DID YOU DRINK OR USE MOST OFTEN?"]**

**[INTERVIEWER NOTE: IF RESPONDENT SAYS "VITAMIN D MILK", PROBE BY REPEATING RESPONSE OPTIONS.]**

- 1 Whole milk
- 2 Reduced Fat (2%)
- 3 Low fat (1%)
- 4 Fat free (skim)
- 5 I drink soy milk
- 7 Don't know/not sure
- 9 Refused

## Module 16: Preconception Health/Family Planning

**[CATI NOTE: IF RESPONDENT IS FEMALE AND GREATER THAN 49 YEARS OF AGE, HAS HAD A HYSTERECTOMY, IS PREGNANT, OR IF RESPONDENT IS MALE GO TO THE NEXT MODULE.]**

The next set of questions asks you about your thoughts and experiences with family planning. Please remember that all of your answers will be kept confidential.

**1** Did you or your partner do anything the last time you had sex to keep you from getting pregnant? (436)

- 1 Yes
- 2 No [GO TO Q3]
- 3 No partner/not sexually active [GO TO NEXT MODULE]
- 4 Same sex partner [GO TO NEXT MODULE]
- 5 Has had a Hysterectomy [GO TO NEXT MODULE]
- 7 Don't know/Not sure [GO TO Q3]
- 9 Refused [GO TO Q3]

**2** What did you or your partner do the last time you had sex to keep you from getting pregnant?

**INTERVIEWER NOTE: IF RESPONDENT REPORTS USING MORE THAN ONE METHOD, PLEASE CODE THE METHOD THAT OCCURS FIRST ON THE LIST.**

**INTERVIEWER NOTE: IF RESPONDENT REPORTS USING "CONDOMS," PROBE TO DETERMINE IF "FEMALE CONDOMS" OR MALE CONDOMS."**

**INTERVIEWER NOTE: IF RESPONDENT REPORTS USING AN "IUD" PROBE TO DETERMINE IF "LEVONORGESTREL IUD" OR "COPPER-BEARING IUD."**

**INTERVIEWER NOTE: IF RESPONDENT REPORTS "OTHER METHOD," ASK RESPONDENT TO "PLEASE BE SPECIFIC" AND ENSURE THAT THEIR RESPONSE DOES NOT FIT INTO ANOTHER CATEGORY. IF RESPONSE DOES FIT INTO ANOTHER CATEGORY, PLEASE MARK APPROPRIATELY.**

**Read only if necessary: (437-438)**

- 01 Female sterilization (ex. Tubal ligation, Essure, Adiana) [GO TO NEXT MODULE]
- 02 Male sterilization (vasectomy) [GO TO NEXT MODULE]
- 03 Contraceptive implant (ex. Implanon) [GO TO NEXT MODULE]
- 04 Levonorgestrel (LEE-voe-nor-JES-trel) (LNG) or hormonal IUD (ex. Mirena) [GO TO NEXT MODULE]
- 05 Copper-bearing IUD (ex. ParaGard) [GO TO NEXT MODULE]
- 06 IUD, type unknown [GO TO NEXT MODULE]
- 07 Shots (ex. Depo-Provera) [GO TO NEXT MODULE]
- 08 Birth control pills, any kind [GO TO NEXT MODULE]
- 09 Contraceptive patch (ex. Ortho Evra) [GO TO NEXT MODULE]
- 10 Contraceptive ring (ex. NuvaRing) [GO TO NEXT MODULE]
- 11 Male condoms [GO TO NEXT MODULE]
- 12 Diaphragm, cervical cap, sponge [GO TO NEXT MODULE]
- 13 Female condoms [GO TO NEXT MODULE]
- 14 Not having sex at certain times (rhythm or natural family planning) [GO TO NEXT MODULE]
- 15 Withdrawal (or pulling out) [GO TO NEXT MODULE]
- 16 Foam, jelly, film, or cream [GO TO NEXT MODULE]
- 17 Emergency contraception (morning after pill) [GO TO NEXT MODULE]
- 18 Other method [GO TO NEXT MODULE]

**Do not read:**

- 77 Don't know/Not sure
- 99 Refused

Some reasons for not doing anything to keep you from getting pregnant the last time you had sex might include wanting a pregnancy, not being able to pay for birth control, or not thinking that you can get pregnant.

**3** What was your main reason for not doing anything the last time you had sex to keep you from getting pregnant? (439-440)

**INTERVIEWER NOTE: IF RESPONDENT REPORTS "OTHER REASON," ASK RESPONDENT TO "PLEASE SPECIFY" AND ENSURE THAT THEIR RESPONSE DOES NOT FIT INTO ANOTHER CATEGORY. IF RESPONSE DOES FIT INTO ANOTHER CATEGORY, PLEASE MARK APPROPRIATELY.**

**Read only if necessary:**

- 01 You didn't think you were going to have sex/no regular partner
- 02 You just didn't think about it
- 03 Don't care if you get pregnant
- 04 You want a pregnancy
- 05 You or your partner don't want to use birth control
- 06 You or your partner don't like birth control/side effects
- 07 You couldn't pay for birth control
- 08 You had a problem getting birth control when you needed it
- 09 Religious reasons
- 10 Lapse in use of a method
- 11 Don't think you or your partner can get pregnant (infertile or too old)
- 12 You had tubes tied (sterilization)
- 13 You had a hysterectomy
- 14 Your partner had a vasectomy (sterilization)
- 15 You are currently breast-feeding
- 16 You just had a baby/postpartum

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

- 17 You are pregnant now
- 18 Same sex partner
- 19 Other reasons
- 77 Don't know/Not sure
- 99 Refused

## Module 24: Social Determinants of Health

1 During the last 12 months, was there a time when you were not able to pay your mortgage, rent or utility bills? (476)

- 1 Yes
- 2 No
- 7 Don't know/not sure
- 9 Refused

2 In the last 12 months, how many times have you moved from one home to another? (477-478)

- \_\_\_ Number of moves in past 12 months [01-52]
- 88 None (Did not move in past 12 months)
- 77 Don't know/Not sure
- 99 Refused

3 How safe from crime do you consider your neighborhood to be? Would you say... (479)

**Please read:**

- 1 Extremely safe
- 2 Safe
- 3 Unsafe
- 4 Extremely unsafe

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

4 For the next two statements, please tell me whether the statement was often true, sometimes true, or never true for you in the last 12 months (that is, since last [CATI NOTE: NAME OF CURRENT MONTH]). The first statement is, "The food that I bought just didn't last, and I didn't have money to get more."

Was that often, sometimes, or never true for you in the last 12 months? (480)

**Please read:**

- 1 Often true,
- 2 Sometimes true, or
- 3 Never true

**Do not read:**

- 7 Don't Know/Not sure
- 9 Refused

5 I couldn't afford to eat balanced meals. Was that often, sometimes, or never true for you in the last 12 months? (481)

**Please read:**

- 1 Often true,
- 2 Sometimes true, or
- 3 Never true

**Do not read:**

- 7 Don't Know /Not sure
- 9 Refused

6 In general, how do your finances usually work out at the end of the month? Do you find that you usually: (482)

**Please read:**

- 1 End up with some money left over,
- 2 Have just enough money to make ends meet, or
- 3 Do not have enough money to make ends meet

**Do not read:**

- 7 Don't Know/Not sure
- 9 Refused

7 Stress means a situation in which a person feels tense, restless, nervous, or anxious, or is unable to sleep at night because his/her mind is troubled all the time. Within the last 30 days, how often have you felt this kind of stress? (483)

**Please read:**

- 1 None of the time,
- 2 A little of the time,
- 3 Some of the time,
- 4 Most of the time, or
- 5 All of the time

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

## Module 26: Sexual Orientation and Gender Identity

The next two questions are about sexual orientation and gender identity.

**INTERVIEWER NOTE:** WE ASK THIS QUESTION IN ORDER TO BETTER UNDERSTAND THE HEALTH AND HEALTH CARE NEEDS OF PEOPLE WITH DIFFERENT SEXUAL ORIENTATIONS.

**INTERVIEWER NOTE:** PLEASE SAY THE NUMBER BEFORE THE TEXT RESPONSE. RESPONDENT CAN ANSWER WITH EITHER THE NUMBER OR THE TEXT/WORD.

1 Do you consider yourself to be: (684)

**Please read:**

- 1 1 Straight
- 2 2 - Lesbian or gay
- 3 3 - Bisexual

**Do not read:**

- 4 Other
- 7 Don't know/Not sure
- 9 Refused

2 Do you consider yourself to be transgender? (685)

**IF YES, ASK "DO YOU CONSIDER YOURSELF TO BE 1. MALE-TO-FEMALE, 2. FEMALE-TO-MALE, OR 3. GENDER NON-CONFORMING?"**

**INTERVIEWER NOTE:** PLEASE SAY THE NUMBER BEFORE THE TEXT RESPONSE. RESPONDENT CAN ANSWER WITH EITHER THE NUMBER OR THE TEXT/WORD.

**Please read:**

- 1 Yes, Transgender, male-to-female
- 2 Yes, Transgender, female to male
- 3 Yes, Transgender, gender nonconforming
- 4 No

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**INTERVIEWER NOTE: IF ASKED ABOUT DEFINITION OF**

**TRANSGENDER:** SOME PEOPLE DESCRIBE THEMSELVES AS TRANSGENDER WHEN THEY EXPERIENCE A DIFFERENT GENDER IDENTITY FROM THEIR SEX AT BIRTH. FOR EXAMPLE, A PERSON BORN INTO A MALE BODY, BUT WHO FEELS FEMALE OR LIVES AS A WOMAN WOULD BE TRANSGENDER. SOME TRANSGENDER PEOPLE CHANGE THEIR PHYSICAL APPEARANCE SO THAT IT MATCHES THEIR INTERNAL GENDER IDENTITY. SOME TRANSGENDER PEOPLE TAKE HORMONES AND SOME HAVE SURGERY. A TRANSGENDER PERSON MAY BE OF ANY SEXUAL ORIENTATION – STRAIGHT, GAY, LESBIAN, OR BISEXUAL.

**INTERVIEWER NOTE: IF ASKED ABOUT DEFINITION OF GENDER NON-CONFORMING:** SOME PEOPLE THINK OF THEMSELVES AS GENDER NON-CONFORMING WHEN THEY DO NOT IDENTIFY ONLY AS A MAN OR ONLY AS A WOMAN.

## State Added: Neighborhood Physical Activity [FORM B ONLY]

**SANPAQ1** Overall, how would you rate your neighborhood as a place to walk? Would you say...

- 1 Very pleasant
- 2 Somewhat pleasant

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

- 3 Not very pleasant
- 4 Not at all pleasant
- 7 Don't Know/Not Sure
- 9 Refused

**SANPAQ2** Does your neighborhood have any sidewalks?

- 1 Yes
- 2 No
- 7 Don't Know/Not Sure
- 9 Refused

**SANPAQ3** Do you use schools that are open in your community for public recreation activities?

- 1 Yes
- 2 No
- 3 Schools in my community are not open for the public to use
- 7 Don't Know/Not Sure
- 9 Refused

**SANPAQ4** Do you use walking trails, parks, playgrounds, sports fields in your community for physical activity?

- 1 Yes
- 2 No
- 3 My community does not have these facilities
- 7 Don't Know/Not Sure
- 9 Refused

## State Added: Tobacco

[Ask if Q9.1 = 1 AND Q9.2 = 1 or 2]

**SATQ1** Currently, when you smoke cigarettes, how often do you smoke menthol cigarettes? Would you say...

- 1 All of the time,
- 2 Most of the time,
- 3 Some of the time,
- 4 Rarely, or
- 5 Never?
- 7 Don't know/Not sure
- 9 Refused:

Ask if Q9.1 = 1 AND (Q9.2 = 1 or 2 OR Q9.4 = 1)

**SATQ2** During the past 30 days, what brand of cigarettes did you buy MOST often?

[DO NOT READ]

- 01 American Spirit
- 02 Basic (Branded Discount)
- 03 Camel
- 04 Benson and Hedges
- 05 Capri
- 06 Carlton
- 07 Doral (Branded Discount)
- 08 GPC
- 09 Kent
- 10 Kool
- 11 Liggett
- 12 Marlboro Gold
- 13 Marlboro Menthol
- 14 Marlboro Red
- 15 Marlboro (Other)
- 16 Maverick
- 17 Merit
- 18 Misty
- 19 Monarch
- 20 Newport Box
- 21 Newport Menthol Blue
- 22 Newport Menthol Gold
- 23 Newport (Other)
- 24 Pall Mall

- 25 Parliament
- 26 Pyramid
- 27 Salem
- 28 Santa Fe
- 29 U.S.A. Gold
- 30 Viceroy
- 31 Virginia Slims
- 32 Winston
- 55 Other Specified Brand
- 66 Did Not Buy One Brand Most Often During Past 30 Days
- 88 Did Not Buy Any Cigarette During Past 30 Days
- 77 Don't know/Not sure
- 99 Refused

[FOR EVERYONE]

**SATQ3** Do you now smoke cigars, cigarillos, or little filtered cigars every day, some days, rarely or not at all?

- 1 Every day
- 2 Some days
- 3 Rarely
- 4 Not at all
- 7 Don't know / Not sure
- 9 Refused

**SATQ4** Do you now smoke a regular pipe filled with tobacco every day, some days, rarely or not at all?

- 1 Every day
- 2 Some days
- 3 Rarely
- 4 Not at all
- 7 Don't know / Not sure
- 9 Refused

**SATQ5** Have you ever tried smoking tobacco in a water pipe or hookah in your entire life, even one or two puffs?

- 1 Yes
- 2 No [Go to SATQ7]
- 7 Don't know/Not sure [Go to SATQ7]
- 9 Refused [Go to SATQ7]

**SATQ6** Do you now smoke tobacco in a water pipe or hookah every day, some days, rarely or not at all?

- 1 Every day
- 2 Some days
- 3 Rarely
- 4 Not at all
- 7 Don't know / Not sure
- 9 Refused

**SATQ7** If you have ever smoked part or all of a cigarette, even just one time in your entire life, how old were you that first time?

- \_\_\_ AGE IN YEARS
- 888 Never
- 777 Don't know/Not sure
- 999 Refused [IF Q10.1 > 1, SKIP SATQ9]

**SATQ8** How old were you the first time you used an e-cigarette, even one or two puffs?

- \_\_\_ AGE IN YEARS
- 777 Don't know/Not sure
- 999 Refused

**SATQ9** Quit lines are telephone or internet/web-based services that help people quit smoking or quit tobacco use. Have you ever heard of Quitline Iowa?

- 1 Yes
- 2 No [Go to SATQ11]
- 7 Don't know/Not sure [Go to SATQ11]
- 9 Refused [Go to SATQ11]

**SATQ10** Have you ever used Quitline Iowa?

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

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

**INTERVIEWER NOTE:** QUITLINE IOWA SERVICES MAY HAVE BEEN USED THROUGH A PHONE CALL TO QUITLINE IOWA OR THROUGH THE QUITLINE IOWA WEB SITE OR THE QUITLINE IOWA CELL PHONE APPLICATION. [SKIP IF (Q9.1 >= 2) OR (Q9.2 >= 3) OR (Q9.3 = 1)]

**SATQ11** During the past 12 months, have you made a serious attempt to stop smoking cigarettes because you were TRYING to quit – even if you stopped for less than a day?

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

**[ASK IF Q9.5 < 3 OR SATQ3 < 3 OR SATQ4 < 3 OR SATQ6 < 3]**

**SATQ12** During the past 12 months, have you made a serious attempt to stop using smokeless tobacco, cigars or pipe tobacco because you were TRYING to quit – even if you stopped for less than a day?

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

**[ASK IF Q9.3 = 1 OR Q9.4 < 5 OR SATQ11 = 1 OR SATQ12 = 1]**

**SATQ13** Thinking back to the (LAST TIME/time) you tried to QUIT smoking or quit using tobacco in the past 12 months. Did you do ANY of the following...

- a Call a telephone help line or quit line?
  - b Use an internet or web-based program, app, smartphone or tool?
  - c Try to quit by SWITCHING to electronic or E-cigarettes?
  - d Try to quit by SWITCHING to some other form of tobacco?
  - e Try to stop by setting a specific date to stop smoking or using tobacco?
  - f Try to quit cold turkey?
  - g Try to quit with the support of family or friends?
  - h Try to quit using medications that help people stop using tobacco?
- 1 Yes
  - 2 No
  - 7 Don't know/Not sure
  - 9 Refused

**[ASK IF (SATQ13a OR SATQ13b = 1) AND SATQ9 = 1]**

**SATQ14** Earlier you said you called a quit line or used a web-based or smartphone tool the last time you tried to quit using cigarettes or other tobacco. Was the service you used Quitline Iowa?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused [ASK IF SATQ13h = 1]

**SATQ15** Which medications did you use when you tried to quit?

**Did you use...**

- a Nicotine patches?
  - b Nicotine gum?
  - c Nicotine lozenges?
  - d Nicotine spray?
  - e Nicotine inhaler?
  - f Zyban, also called Wellbutrin or bupropion?
  - g Chantix, also called varenicline?
  - h Other medications to help you quit?
- 1 Yes
  - 2 No
  - 7 Don't know/Not sure
  - 9 Refused [ASK IF Q10.2 = 1 or 2]

**SATQ16** The next question is about the reasons people use e-cigarettes.

Please tell me which reasons apply to you.

**[INTERVIEWER NOTE:** Say about E-cigarettes if required: You may also know them as vape pens, hookah-pens, e-hookahs, e-vaporizers, e-cigars, or e-pipes]

- a I can use e-cigarettes at times or in places where smoking cigarettes isn't allowed.
- b They might be less harmful to me than cigarettes.
- c They might be less harmful to people around me than cigarettes.
- d Using e-cigarettes helps people to quit smoking cigarettes.
- e They seem cheaper than cigarettes.

- 1 Yes
- 2 No
- 7 Don't know/Not sure
- 9 Refused [Skip to SATQ18A if Q3.4 = 1]

**SATQ17** Excluding visits to a dentist or dental hygienist, in the past 12 months, have you seen a doctor, nurse or other health care professional?

**[INTERVIEWER NOTE:** Answer is "YES" if they visited doctor, nurse practitioner or physician's assistant for ANY reason, not just smoking.]

- 1 Yes
- 2 No [GO TO NEXT MODULE]
- 7 Don't Know/Not sure [GO TO NEXT MODULE]
- 9 Refused [GO TO NEXT MODULE]

**[ASK IF Q9.2 = 1 or 2 OR Q9.4 < 5 OR Q9.5 = 1 or 2 OR SATQ3 = 1 or 2 OR SATQ4 = 1 or 2 OR SATQ6 = 1 or 2]**

**CATI/INTERVIEWER NOTE:** E-cigarette users not asked and those who rarely use cigars, pipes, water pipes not asked.

**SATQ18A** In the PAST 12 MONTHS, when you visited your health care provider, did they ask about your tobacco use?

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

**SATQ18B** In the PAST 12 MONTHS, when you visited your health care provider, did they advise you to stop smoking or using tobacco?

- 1 Yes
- 2 No [GO TO NEXT MODULE]
- 7 Don't know/Not sure [GO TO NEXT MODULE]
- 9 Refused [GO TO NEXT MODULE]

**SATQ19** Which method, if any, did they advise you to use?

**[DO NOT READ – SELECT ALL THAT APPLY]**

- 1 Suggest you call or use a telephone or web-based quit line
- 2 Suggest you use a smoking or tobacco use cessation class, program, or counseling
- 3 Recommend or prescribe a medicine to help you quit
- 4 Suggest you set a specific date to stop smoking or using tobacco
- 5 Suggest you stop cold turkey
- 6 Suggest some other method to quit
- 8 Did NOT suggest a method to quit
- 7 Don't know/Not sure
- 9 Refused [Ask if SATQ19 = 1 and SATQ9 = 1]

**SATQ20** Earlier you said that a health care provider suggested you use a telephone or web-based quit line to help you stop using cigarettes or other tobacco. Was the service your provider recommended Quitline Iowa?

- 1 Yes
- 2 No
- 7 Don't know
- 9 Refused

**State Added: Secondhand Smoke [FORM B ONLY]**

**SASSQ1** Not counting decks, porches, or garages, during the past 7 days, that is since last [TODAY'S DAY OF WEEK], on how many days did someone other than you smoke tobacco inside your home while you were at home?

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

\_\_\_\_ NUMBER OF DAYS [1-7]

88 NONE

77 DON'T KNOW/NOT SURE

99 REFUSED

**SASSQ2** Not counting decks, porches, or garages, inside your home, is smoking ...

**[CATI/INTERVIEWER NOTE:** The order of the response categories for this question is being randomly reversed.]

1 Always Allowed

2 Allowed only at some times or in some places, or

3 Never allowed

**Do not read:**

6 Family does not have a smoking policy

7 Don't know/Not sure

9 Refused

## State Added: Marijuana [FORM B ONLY]

**SAMQ1** During the past 30 days, on how many days did you use marijuana or hashish?

\_\_ (1-30) Number of Days

88 None (0 days)

77 Don't know/Not sure

99 Refused

## State Added: Mental Health [FORM A ONLY]

Now, I am going to ask you some questions about how you have been feeling lately.

**SAMHQ1** About how often during the past 30 days did you feel nervous — would you say all of the time, most of the time, some of the time, a little of the time, or none of the time?

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

**SAMHQ2** During the past 30 days, about how often did you feel hopeless — all of the time, most of the time, some of the time, a little of the time, or none of the time?

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

**SAMHQ3** During the past 30 days, about how often did you feel restless or fidgety? [If necessary: all, most, some, a little, or none of the time?]

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

**SAMHQ4** During the past 30 days, about how often did you feel so depressed that nothing could cheer you up? [If necessary: all, most, some, a little, or none of the time?]

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

**SAMHQ5** During the past 30 days, about how often did you feel that everything was an effort?

**INTERVIEWER NOTE:** If respondent asks what does "everything was an effort" mean say, "Whatever it means to you" [If necessary: all, most, some, a little, or none of the time?]

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

**SAMHQ6** During the past 30 days, about how often did you feel worthless? [If necessary: all, most, some, a little, or none of the time?]

1 All

2 Most

3 Some

4 A little

5 None

7 Don't know/Not sure

9 Refused

## State Added: Physical and Emotional Neglect [FORM A ONLY]

I'd like to ask you some questions about events that happened during your childhood. This information will allow us to better understand problems that may occur early in life, and may help others in the future. This is a sensitive topic and some people may feel uncomfortable with these questions. At the end of this section, I will give you a phone number for an organization that can provide information and referral for these issues. Please keep in mind that you can ask me to skip any question you do not want to answer.

All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age, how true were each of the following statements:

**SAPENQ1** You knew there was someone to take care of you and protect you. Was this never true, rarely true, often true, or very often true?

1 never true,

2 rarely true,

3 often true, or

4 very often true?

7 Don't know/Not sure

9 Refused

**SAPENQ2** Your parents were too drunk or high to take care of the family. Was this never true, rarely true, often true, or very often true?

1 never true,

2 rarely true,

3 often true, or

4 very often true?

7 Don't know/Not sure

9 Refused

**SAPENQ3** There was someone in your family who helped you feel important or special. Was this never true, rarely true, often true, or very often true?

1 never true,

2 rarely true,

3 often true, or

4 very often true?

7 Don't know/Not sure

9 Refused

**SAPENQ4** You felt loved? Was this never true, rarely true, often true, or very often true?

# Appendix – Iowa 2017 BRFFS Questionnaire *continued*

- 1 never true,
- 2 rarely true,
- 3 often true, or
- 4 very often true?
- 7 Don't know/Not sure
- 9 Refused

**SAPENQ5** There was someone to take you to the doctor if you needed it. Was this never true, rarely true, often true, or very often true?

- 1 never true,
- 2 rarely true,
- 3 often true, or
- 4 very often true?
- 7 Don't know/Not sure
- 9 Refused

**SAPENQ6** Your family was a source of strength and support. Was this never true, rarely true, often true, or very often true?

- 1 never true,
- 2 rarely true,
- 3 often true, or
- 4 very often true?
- 7 Don't know/Not sure
- 9 Refused

## State Added: Adverse Childhood Experiences

### [ONLY SAY IF FORM B]

I'd like to ask you some questions about events that happened during your childhood. This information will allow us to better understand problems that may occur early in life, and may help others in the future. This is a sensitive topic and some people may feel uncomfortable with these questions. At the end of this section, I will give you a phone number for an organization that can provide information and referral for these issues. Please keep in mind that you can ask me to skip any question you do not want to answer.

All questions refer to the time period before you were 18 years of age. Now, looking back before you were 18 years of age—

### [ONLY SAY IF FORM A]

Again, we are still talking about before you were 18 years of age.

**SAASEQ1** Did you live with anyone who was depressed, mentally ill, or suicidal?

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

**SAACEQ2** Did you live with anyone who was a problem drinker or alcoholic?

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

**SAACEQ3** Did you live with anyone who used illegal street drugs or who abused prescription medications?

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

**SAACEQ4** Did you live with anyone who served time or was sentenced to serve time in a prison, jail, or other correctional facility?

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

**SAACEQ5** Were your parents separated or divorced?

- 1 Yes

- 2 No
- 8 Parents not married
- 7 Don't know/Not sure
- 9 Refused

**SAACEQ6** How often did your parents or adults in your home ever slap, hit, kick, punch or beat each other up? Would you say...

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**SAACEQ7** Before age 18, how often did a parent or adult in your home ever hit, beat, kick, or physically hurt you in any way? Do not include spanking. Would you say...

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**SAACEQ8** How often did a parent or adult in your home ever swear at you, insult you, or put you down? Would you say...

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**SAACEQ9** How often did anyone at least 5 years older than you, or an adult, touch you sexually? Would you say...

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**SAACEQ10** How often did anyone at least 5 years older than you, or an adult, try to make you touch them sexually? Would you say...

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

**SAACEQ11** How often did anyone at least 5 years older than you, or an adult, force you to have sex?

- 1 Never,
- 2 Once, or
- 3 More than once?

**Do not read:**

- 7 Don't know/Not sure
- 9 Refused

As I mentioned when we started this section, I would give you a phone number for an organization that can provide information and referral for these issues. Would you like that number? You can dial 1-800-422-4453 to reach the National Hotline for child abuse.

# Appendix – Iowa 2017 BRFSS Questionnaire *continued*

## State Added: Gambling

**SAGQ1** Have you gambled or bet for money or possessions in the past 12 months?

- 1 Yes
- 2 No [FORM A: SKIP TO ASTHMA CALLBACK PERMISSION]  
[FORM B: SKIP TO STATE ADDED HEALTH LITERACY]
- 7 Don't know/Not sure  
[FORM A: SKIP TO ASTHMA CALLBACK PERMISSION]  
[FORM B: SKIP TO STATE ADDED HEALTH LITERACY]
- 9 Refused [FORM A: SKIP TO ASTHMA CALLBACK PERMISSION]  
[FORM B: SKIP TO STATE ADDED HEALTH LITERACY]

**SAGQ2** During the past 12 months, have you become restless, irritable or anxious when trying to stop or cut down on gambling?

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

**SAGQ3** During the past 12 months, have you tried to keep your family or friends from knowing how much you gamble?

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

**SAGQ4** During the past 12 months, did you have such financial trouble as a result of your gambling that you had to get help with living expenses from family, friends, or welfare?

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

## State Added: Health Literacy [FORM B ONLY]

**SAHLQ1** How difficult is it for you to get advice or information about health or medical topics if you need it? Would you say it is...

- 1 Very easy,
- 2 Somewhat easy,
- 3 Somewhat difficult,
- 4 Very difficult, or
- 5 I don't look for health information?

**Do not read**

7. Don't know/not sure
9. Refused

**INTERVIEWER NOTE:** Respondent can answer based on any source of health or medical advice or information. If the respondent asks what is meant by advice or information, interviewer re-reads the question to the respondent. If the respondent still doesn't understand, interviewer can say, "You can think about any source of health or medical advice or information."

**SAHLQ2** How difficult is it for you to understand information that doctors, nurses and other health professionals tell you? Would you say it is...

- 1 Very easy
- 2 Somewhat easy
- 3 Somewhat difficult
- 4 Very difficult

**Do not read**

7. Don't know/not sure
9. Refused

**SAHLQ3** You can find written information about health on the Internet, in newspapers and magazines, and in brochures in the doctor's office and clinic. In general, how difficult is it for you to understand written health information? Would you say it is...

- 1 Very easy
- 2 Somewhat easy

- 3 Somewhat difficult
- 4 Very difficult
- 5 I don't pay attention to written health information

**Do not read**

- 7 Don't know/not sure
- 9 Refused

## Asthma Call-Back Permission Script

We would like to call you again within the next 2 weeks to talk in more detail about your experiences with asthma. The information will be used to help develop and improve the asthma programs in Iowa. The information you gave us today and any you give us in the future will be kept confidential. If you agree to this, we will keep your first name or initials and phone number on file, separate from the answers collected today. Even if you agree now, you or others may refuse to participate in the future. Would it be okay if we called you back to ask additional asthma-related questions at a later time?

- 1 Yes
- 2 No

Can I please have your first name or initials, so we will know who to ask for when we call back?

\_\_\_\_\_ Enter first name or initials.

What is a good time to call you back? For example, evenings, days, or weekends?

## CLOSING STATEMENT

### Landline

That was my last question. Everyone's answers will be combined to help us provide information about the health practices of people in Iowa. Also, I want to let you know that my supervisor will be checking my work and may be calling you back in a few weeks just to see how the interview went. Thank you very much for your time and cooperation.

### Cell Phone: In state

That was my last question. Everyone's answers will be combined to help us provide information about the health practices of people in Iowa. Thank you very much for your time and cooperation.

### Cell Phone: Out of state

That was my last question. Everyone's answers will be combined to help us provide information about the health practices of people in your state. Thank you very much for your time and cooperation.

## Activity List for Common Leisure Activities

(To be used for Section 12: Physical Activity)

**Code Description (Physical Activity, Questions 12.2 and 12.5 above)**

- 01 Active Gaming Devices (Wii Fit, Dance, Dance revolution)
- 02 Aerobics video or class
- 03 Backpacking
- 04 Badminton
- 05 Basketball
- 06 Bicycling machine exercise
- 07 Bicycling
- 08 Boating (Canoeing, rowing, kayaking, sailing for pleasure or camping)
- 09 Bowling
- 10 Boxing
- 11 Calisthenics
- 12 Canoeing/rowing in competition
- 13 Carpentry
- 14 Dancing-ballet, ballroom, Latin, hip hop, Zumba, etc.
- 15 Elliptical/EFX machine exercise
- 16 Fishing from river bank or boat
- 17 Frisbee
- 18 Gardening (spading, weeding, digging, filling)
- 19 Golf (with motorized cart)

## Appendix – Iowa 2017 BRFSS Questionnaire *continued*

- 20 Golf (without motorized cart)
- 21 Handball
- 22 Hiking – cross-country
- 23 Hockey
- 24 Horseback riding
- 25 Hunting large game – deer, elk
- 26 Hunting small game – quail
- 27 Inline Skating
- 28 Jogging
- 29 Lacrosse
- 30 Mountain climbing
- 31 Mowing lawn
- 32 Paddleball
- 33 Painting/papering house
- 34 Pilates
- 35 Racquetball
- 36 Raking lawn/trimming hedges
- 37 Running
- 38 Rock climbing
- 39 Rope skipping
- 40 Rowing machine exercises
- 41 Rugby
- 42 Scuba diving
- 43 Skateboarding
- 44 Skating – ice or roller
- 45 Sledding, tobogganing
- 46 Snorkeling
- 47 Snow blowing
- 48 Snow shoveling by hand
- 49 Snow skiing
- 50 Snowshoeing
- 51 Soccer
- 52 Softball/Baseball
- 53 Squash
- 54 Stair climbing/Stair master
- 55 Stream fishing in waders
- 56 Surfing
- 57 Swimming
- 58 Swimming in laps
- 59 Table tennis
- 60 Tai Chi
- 61 Tennis
- 62 Touch football
- 63 Volleyball
- 64 Walking
- 66 Waterskiing
- 67 Weight lifting
- 68 Wrestling
- 69 Yoga
- 71 Childcare
- 72 Farm/Ranch Work (caring for livestock, stacking hay, etc.)
- 73 Household Activities (vacuuming, dusting, home repair, etc.)
- 74 Karate/Martial Arts
- 75 Upper Body Cycle (wheelchair sports, ergometer)
- 76 Yard work (cutting/gathering wood, trimming, etc.)
- 98 Other\_\_\_\_\_
- 99 Refused



**Iowa Department of Public Health**  
Protecting and Improving the Health of Iowans

