# Early Release of Selected Estimates Based on Data From the National Health Interview Survey

Tainya C. Clarke, Ph.D., Tina Norris Ph.D., and Jeannine S. Schiller, M.P.H. Division of Health Interview Statistics, National Center for Health Statistics

# About This Early Release

In this release, the National Center for Health Statistics (NCHS) updates estimates for selected health measures based on the latest data from the National Health Interview Survey (NHIS) and presents earlier estimates for comparison. The Early Release measures are being published prior to final data editing and final weighting to provide access to the most recent information from NHIS. The estimates will be updated as each new quarter of NHIS data becomes available. Starting with the June 2018 release, the format of this report has changed from separate static quarterly reports (produced from April 2001 through February 2018) to a single online dynamic report. The online dynamic report format provides a single location that will be updated quarterly with the latest estimates based on the NHIS, allowing readers to compare estimates spanning eleven years in a single data visualization. This format uses intuitive controls to easily create interactive charts and tables with contents summarized in dynamically generated bullet points. Each set of figures, tables, and bullets from the online dynamic report can be exported to PDF format for download, sharing, and printing. More information about the new format can be found below.

Two additional periodical reports are published through the Early Release Program. *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey* (1) is published quarterly and provides additional estimates of health insurance coverage. *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey* (2) is published twice a year and provides selected estimates of telephone coverage. Other Early Release reports and tabulations on special topics are released as needed. In addition to these reports, preliminary microdata files containing selected NHIS variables are produced as part of the Early Release Program. For each data collection year (January through December), these variables are made available in four files approximately 5 to 6 months following the completion of data collection for the quarter. NHIS data users can analyze these files through the NCHS Research Data Center without having to wait for the final annual NHIS microdata files to be released about June following the end of the data collection year.

The measures presented in this report include: having a usual place to go for medical care, obtaining needed medical care, receipt of influenza vaccination, receipt of pneumococcal vaccination, obesity, leisure-time physical activity, current cigarette smoking, alcohol consumption, human immunodeficiency virus (HIV) testing, general health status, personal care needs, serious psychological distress, diagnosed diabetes, and asthma episodes and current asthma. The previous static reports also included lack of health insurance coverage and type of coverage. Estimates of health insurance can now be found exclusively in *Health Insurance Coverage: Early Release of Estimates From the National Health Interview Survey* (1). Lack of health insurance coverage, leisure-time physical activity, and current cigarette smoking are directly related to Healthy People 2020 (3) Leading Health Indicators. The NHIS questions used to define the selected health measures in this report are provided in the Appendix at the end of these Technical Notes.

For each selected health measure, a figure is presented showing the trend over time from 2006 through the latest available NHIS data for the total population. Figures showing estimates by age group and sex, race and ethnicity, and metropolitan statistical area (MSA) status are also provided for single years from 2006 through the latest NHIS data available. Estimates in these figures may be adjusted by age, sex, or both age and sex, where appropriate. The three race and ethnicity groups shown are: Hispanic; non-Hispanic white, single race; and non-Hispanic black, single race. The three MSA categories shown are: large MSA, small MSA, and not in MSA. Some measures may include additional tables or figures. Key findings are highlighted by bullets and data tables containing the values displayed in the figures. Additionally, age-adjusted estimates are included following each figure. Due to the automation used in creating the online dynamic report, different wording may be used to describe results presented in the online dynamic report compared to wording in the previous static reports. For estimates based on

the 1997–2005 NHIS, readers should refer to the previous static reports available at: https://www.cdc.gov/nchs/nhis/releases.htm.

#### Data source

Data used to produce this Early Release are derived from the three main NHIS components from 2006 through the latest available NHIS: (a) the Family Core, which collects information on all family members in each household; (b) the Sample Child Core, which collects information on one randomly selected child ("sample child") in each family with a child; and (c) the Sample Adult Core, which collects information from one randomly selected adult ("sample adult") aged 18 or over in each family. Annual sample sizes based on a full year of NHIS data are approximately 74,000–113,000 persons for the Family Core, 21,000–37,000 adults in the Sample Adult Core, and 8,000–14,000 children in the Sample Child Core. The NHIS is transitioning to a redesigned questionnaire in 2019. The sample size for the fourth quarter of 2018 was reduced to facilitate this transition. Visit the NHIS website at https://www.cdc.gov/nchs/nhis.htm for more information on the design, content, and use of NHIS.

### Calibration of weights to independent population estimates

NCHS creates weights for each calendar quarter of the NHIS sample. Beginning with the 2012 NHIS data, estimates were calculated using NHIS sample weights calibrated to 2010 census-based population estimates for sex, age, and race and ethnicity of the U.S. civilian noninstitutionalized population. NHIS weights were calibrated to 2000 census-based population estimates for NHIS data between 2006 and 2011. The NHIS data weighting procedure for the 2006–2015 NHIS is described in more detail at: https://www.cdc.gov/nchs/data/series/sr\_02/sr02\_165.pdf.

# Implementation of a new sample design

A new sample design was implemented with the 2016 NHIS. Sample areas were reselected to take account of changes in the distribution of the U.S. population since 2006, when the previous sample design was first implemented; commercial address lists were used as the main source of addresses, rather than field listing; and the oversampling procedures for black, Hispanic, and Asian persons that were a feature of the previous sample design were not implemented in 2016. Some of the differences between estimates for 2016 and later and estimates for earlier years may be attributable to the new sample design. Visit the NCHS website at <a href="https://www.cdc.gov/nchs/nhis.htm">https://www.cdc.gov/nchs/nhis.htm</a> for more information on the design, content, and use of NHIS.

#### **Estimation procedures**

The NHIS data weighting procedures are described in more detail at: <a href="https://www.cdc.gov/nchs/data/series/sr\_02/sr02\_165.pdf">https://www.cdc.gov/nchs/data/series/sr\_02/sr02\_165.pdf</a> (2006–2015 NHIS). Because all Early Release estimates are released prior to final data editing and final weighting, they should be considered preliminary and may differ slightly from estimates that will be made later using the final data files. Differences between estimates calculated using preliminary data files and final data files are typically less than 0.1 percentage point. For 2008, differences may be as high as 1.5 percentage points because a larger-than-usual number of records were removed for insufficient quality in the final data files.

Point estimates and estimates of their variances were calculated using the SUDAAN software package (RTI International, Research Triangle Park, NC) to account for the complex sample design of NHIS. The Taylor series linearization method was chosen for variance estimation. Full-year 2007 Early Release estimates are based on final in-house design variables for estimating variance. All other Early Release estimates use Early Release interim design variables to estimate variance.

Beginning with the 2017 NHIS, all estimates shown meet the NCHS standards of reliability as specified in *National Center for Health Statistics Data Presentation Standards for Proportions* (4), unless otherwise noted. Estimates based on the 2016 and earlier NHIS meet the former NCHS standard of having less than or equal to 30% relative standard error, unless otherwise noted. Point estimates in some figures and tables are accompanied by 95% confidence intervals. Starting with the 2017 NHIS, two-sided 95% confidence intervals are calculated using the Clopper-Pearson method adapted for complex surveys by Korn and Graubard (4). For the 2016 and earlier NHIS, two-sided 95% confidence intervals are calculated using the Wald method.

Estimates in this online dynamic report are based on analyses that exclude persons with unknown responses to questions used to define selected health measures. For each of the health measures, rates of unknown responses were less than 7%.

# Significance testing

Trends were first assessed by using default specifications in Joinpoint regression, which characterizes trends as joined linear segments (5). A joinpoint is the year at which two segments with different slopes meet. Joinpoint software uses statistical criteria to determine the fewest number of segments necessary to characterize a trend and the year(s) when segments begin and end. A limitation of using aggregated data and Joinpoint software alone for trend analysis of the NHIS is that this approach does not account for year-to-year correlation or use the recommended degrees of freedom for statistical testing. Given these limitations, other techniques were also used to refine the testing.

An enhancement in the online dynamic report is the "tool tip" which provides the reader with useful information when hovering on a bar within a chart. In the tool tip, the reader can find specifics about the estimate such as the year and quarter of the NHIS it is from, any subgroups it is for, percentage, and confidence interval. For trend charts, a matrix of z-scores providing indications of statistically significant differences between years is also provided. The z-score is a statistic that helps you decide whether or not the difference between any two specific years is statistically significant (whether or not to reject the null hypothesis that there is no difference).

Differences between percentages or rates for current estimates were evaluated by using two-sided significance tests at the 0.05 level. Terms such as "higher than," "less than," "more likely," and "less likely" indicate a statistically significant difference, unless otherwise noted. Terms such as "similar" and "no difference" indicate that the statistics being compared were not significantly different. Lack of comment regarding the difference between any two statistics does not necessarily mean that the difference was tested and found to be not significant. Because of small sample sizes, estimates based on less than 1 year of data may have large variances, and caution should be used in analyzing these estimates. Patterns for such estimates may change as more data become available.

# Adjustment for age and sex

Age-sex-adjusted percentages were calculated for three race and ethnicity groups. For the prevalence of obesity, only age-adjusted sex-specific percentages are presented because the race and ethnicity patterns in obesity prevalence differ by sex. Similarly, only sex-adjusted age-specific prevalences are presented for the asthma measures because the race and ethnicity patterns in asthma episodes and current asthma differ by age. Direct standardization was used for adjustment, using the projected 2000 U.S. population as the standard population (6) and using age groups that varied depending on the impact of age on the specific measure. Rates presented are crude rates unless otherwise stated.

# Race and ethnicity categories

The race and ethnicity categories for data years presented in this online dynamic report are defined using the 1997 *Revisions to the Standards for the Classification of Federal Data on Race and Ethnicity* (7) promulgated by the U.S. Office of Management and Budget (OMB). For conciseness, the text, tables, and figures in this report use shorter versions of the 1997 OMB terms for race and ethnicity. For example, the category "not Hispanic or Latino, black or African American, single race" is referred to as "non-Hispanic black, single race" in the text, tables, and figures. NHIS editing procedures are consistent with U.S. Census Bureau procedures for collecting and editing data on race and ethnicity, which eliminate "other race" as a separate race response. This response category is treated as missing, and race is imputed if this was the only race response. In cases where "other race" was mentioned along with one or more OMB race groups, the "other race" response is dropped and the OMB race group information is retained.

# Metropolitan statistical area categories

MSA status is classified in three categories: large MSA of 1 million or more persons, small MSA of less than 1 million persons, and not in an MSA. Generally, an MSA consists of a county or group of counties containing at least one urbanized area of 50,000 or more population. In addition to the county or counties that contain all or part of the urbanized area, an MSA may contain other adjacent counties that are economically and socially integrated with the central city. The number of adjacent counties included in an MSA is not limited, and boundaries may cross state lines.

OMB defines MSAs according to published standards that are applied to U.S. Census Bureau data. The definition of an MSA is periodically reviewed. For 2006–2015, the June 2003 metropolitan and micropolitan statistical area definitions, which resulted from application of the 2000 OMB standards to U.S. Census 2000, are used for NHIS data. Beginning in 2016, the February 2013 metropolitan and micropolitan statistical area delineations, which resulted from application of the 2010 OMB standards to U.S. Census 2010, are used for NHIS data. The 2010 OMB standards are almost identical to the 2000 OMB standards. The 2000 criteria for designating MSAs introduced the

simplification of the MSA classification criteria as well as addition of a new category—micropolitan statistical area—for some nonmetropolitan counties. Areas not in an MSA include both micropolitan areas and areas outside the core-based statistical areas. For additional information about MSAs, see the U.S. Census Bureau's website at: <a href="https://www.census.gov/programs-surveys/metro-micro.html">https://www.census.gov/programs-surveys/metro-micro.html</a>. Differences observed in estimates across this transition in OMB standards may be due to the change in definitions of metropolitan areas.

#### Influenza vaccination

Estimates through July of 2010 were based on separate questions on the receipt of a flu shot or flu vaccine sprayed in their nose during the past 12 months. From August 2010 through 2011, questions were modified to reflect that, for the first time, the seasonal influenza vaccine included protection for the 2009 pandemic H1N1 virus. Beginning in August 2010, instead of separate questions about a flu shot and nasal spray flu vaccine, a single question was asked about flu vaccination during the past 12 months for children followed by a question about the mode of administration (shot or nasal spray). For children aged 6 months—8 years, who initially require two doses of vaccine to be fully vaccinated, these questions do not indicate whether the vaccination was a child's first or second dose. The flu vaccine questions in the Sample Adult Core questionnaire changed to a similar format as those in the Sample Child Core questionnaire in 2016 (single question about flu vaccine during the past 12 months followed by an additional question about the mode of administration).

There were changes from October 2009 through 2011 in how information on receipt of H1N1 vaccinations was collected that could affect influenza vaccination estimates. Influenza vaccination estimates based on data collected during 2009 and January through July of 2010 included only seasonal and not 2009 H1N1 pandemic influenza vaccination. Estimates based on data collected in quarters three and four of 2010 and quarters one and two of 2011 could be affected, to an unknown extent, by reports of H1N1 immunization without seasonal flu immunization for the period when the two vaccinations were administered separately.

Prevalence of influenza vaccination during the past 12 months is different from season-specific coverage (8; estimates available from: <a href="https://www.cdc.gov/flu/fluvaxview">https://www.cdc.gov/flu/fluvaxview</a>). Responses to the influenza vaccination questions used to calculate the influenza vaccination estimates presented in this report (see Appendix) cannot be used to determine when, during the preceding 12 months, the survey participant received the influenza vaccination. In addition, estimates are subject to recall error, which will vary depending on when the question is asked, because the receipt of an influenza vaccination is seasonal. Advisory Committee on Immunization Practices (ACIP) recommendations regarding who should receive an influenza vaccination have changed over the years, and changes in coverage estimates may reflect changes in recommendations (9). NHIS questions are not always detailed enough to determine whether ACIP recommendations have been met.

#### Pneumococcal vaccination

ACIP recommendations regarding who should receive pneumococcal vaccination have changed over the years, and changes in estimates of pneumococcal vaccination may reflect changes in recommendations (see <a href="https://www.cdc.gov/vaccines/vpd/pneumo/index.html">https://www.cdc.gov/vaccines/vpd/pneumo/index.html</a>). Of particular note, beginning in 2014, all adults aged 65 and over are recommended to receive both the 13-valent pneumococcal conjugate vaccine (PCV13) and the 23-valent pneumococcal polysaccharide vaccine (PPSV23) in series (10–12). The NHIS question on receipt of pneumococcal vaccination does not distinguish the type of vaccine received.

# Alcohol consumption

From 2006–2013, the alcohol consumption estimates presented are for the percentage of adults aged 18 and over who had five or more drinks in 1 day at least once in the past year, regardless of sex. However, in 2014 the survey questions were changed; male and female respondents were asked about a different quantity of drinks consumed in a day in the past year. As a result, the estimates presented for 2014 and later are for men aged 18 and over who had five or more drinks in 1 day at least once in the past year and women aged 18 and over who had four or more drinks in 1 day at least once in the past year. Differences observed in estimates for women based on the 2014 and later NHIS and 2013 and earlier NHIS may be partially or fully attributable to these changes in the survey questions on alcohol consumption.

#### Human immunodeficiency virus (HIV) testing

From 2006 to 2010, the question on HIV testing was located in the AIDS Knowledge and Attitudes (ADS) section of the NHIS questionnaire. The question was preceded by questions that asked respondents whether they had donated blood to a blood bank since March 1985 and, if they had, whether they had donated blood during the past 12 months. The wording of the HIV testing question depended on the respondent's answers to the blood donation

questions. Respondents who had donated blood were instructed to exclude tests they may have had as part of blood donations before they were asked if they had ever been tested for HIV. Respondents who had not donated blood were only asked if they had ever been tested for HIV. The ADS section was the last section fielded in the Sample Adult Core questionnaire and was preceded by the Adult Access to Health Care and Utilization (AAU) section.

In 2011, the ADS section was dropped from NHIS, with only the HIV testing question retained. The question was added to the AAU section and is preceded by questions on health insurance. Because no questions were asked about blood donations prior to the HIV testing question, the wording of the question was the same for all respondents. They were instructed to exclude tests they may have had as part of blood donations before they were asked if they had ever been tested for HIV. The AAU section is the last section fielded in the Sample Adult Core questionnaire, and the HIV testing question is the last question in the AAU section. Differences observed in estimates based on the 2010 and earlier NHIS and the 2011 and later NHIS may be partially or fully attributable to this change in placement of the HIV testing question on the NHIS questionnaire.

In 2013, the HIV testing question was removed from the AAU section and was added to the Adult Selected Items (ASI) section, where it is preceded by questions on sexual orientation, worries related to financial matters, sleep, and psychological distress. Because no questions were asked about blood donations prior to the HIV testing question, the wording of the question was the same for all respondents. They were instructed to exclude tests they may have had as part of blood donations before they were asked if they had ever been tested for HIV. Beginning in 2013, the ASI section is the last section fielded in the Sample Adult Core questionnaire, and the HIV testing question is the second-to-last question in the ASI section (followed by a question asking adults who had not been tested why they had not been tested). Differences observed in estimates based on the 2012 and earlier NHIS and the 2013 and later NHIS may be partially or fully attributable to this change in placement of the HIV testing question on the NHIS questionnaire.

# Serious psychological distress

From 2006 to 2012, the six questions on psychological distress were located in the Adult Conditions (ACN) section of the Sample Adult Core questionnaire. These questions ask how often a respondent experienced certain symptoms of psychological distress during the past 30 days. Response codes of the six questions for each person (with "ALL of the time" assigned 1, "NONE of the time" assigned 5, and other intermediate responses assigned accordingly) were transformed (with "ALL of the time" assigned 4, "NONE of the time" assigned 0, and intermediate responses assigned accordingly) and summed to yield a scale with a 0–24 range. A value of 13 or more for this scale is used here to define serious psychological distress (13). The ACN section was preceded by the Adult Socio-Demographic (ASD) section. In 2013, the six psychological distress questions were moved from the ACN section and added to the Adult Selected Items (ASI) section, where they were preceded by questions on sexual orientation, worries related to financial matters, and sleep. Beginning in 2013, the ASI section is the last section fielded in the Sample Adult Core questionnaire. Due to the higher than usual amount of missing data in the ASI section, adults with missing data for any of the six psychological distress questions are excluded from the calculation of the serious psychological distress indicator for 2013 and later. Differences observed in estimates based on the 2012 and earlier NHIS and the 2013 and later NHIS may be partially or fully attributable to this change in placement of the six psychological distress questionnaire.

# **Early Release of NHIS Estimates**

The NCHS Early Release Program updates and releases timely estimates by means of three Early Release reports. This Early Release of Selected Estimates (14) and a separate health insurance report (1) are released approximately 5 to 6 months after NHIS data collection has been completed for each quarter. A third report on wireless substitution (2) is released mid-year and again at the end of the year. New measures may be added as work continues and in response to changing data needs. Feedback on the Early Release mechanism and on the estimates is welcome (e-mail).

Announcements about Early Releases, other new data releases, publications, or corrections related to NHIS will be sent to members of the NHIS researchers electronic mailing list. To join, visit: https://www.cdc.gov/subscribe.html.

A list of previous Early Release Program reports is available from: https://www.cdc.gov/nchs/nhis/releases.htm.

# **Suggested Citation**

Clarke TC, Norris T, Schiller JS. Early release of selected estimates based on data from the National Health Interview Survey. National Center for Health Statistics. May 2019. Available from: https://www.cdc.gov/nchs/nhis.htm.

# **References**

- 1. Cohen RA, Terlizzi EP, Martinez ME. Health insurance coverage: Early release of estimates from the National Health Interview Survey, 2018. National Center for Health Statistics. May 2019. Available from: https://www.cdc.gov/nchs/data/nhis/earlyrelease/insur201905.pdf.
- 2. Blumberg SJ, Luke JV. Wireless substitution: Early release of estimates from the National Health Interview Survey, January–June 2018. National Center for Health Statistics. December 2018. Available from: https://www.cdc.gov/nchs/data/nhis/earlyrelease/wireless201812.pdf.
- 3. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Healthy People 2020. Washington, DC. Available from: https://www.healthypeople.gov/2020/default.aspx.
- 4. Parker JD, Talih M, Malec DJ, Beresovsky V, Carroll M, Gonzalez JF, et al. National Center for Health Statistics data presentation standards for proportions. National Center for Health Statistics. Vital Health Stat 2(175). 2017. Available from: https://www.cdc.gov/nchs/data/series/sr 02/sr02 175.pdf
- 5. National Cancer Institute, Statistical Research and Applications Branch. Joinpoint Regression Program, version 4.5.0.1 [computer software]. 2017.
- 6. Klein RJ, Schoenborn CA. Age adjustment using the 2000 projected U.S. population. Healthy People Statistical Notes, no. 20. Hyattsville, MD: National Center for Health Statistics. 2001. Available from: https://www.cdc.gov/nchs/data/statnt/statnt20.pdf.
- 7. Office of Management and Budget. Revisions to the standards for the classification of federal data on race and ethnicity. Fed Regist 62(210):58782–90. 1997. Available from: https://www.gpo.gov/fdsys/pkg/FR-1997-10-30/pdf/97-28653.pdf.
- 8. Centers for Disease Control and Prevention. Surveillance of influenza vaccination coverage— United States, 2007–08 through 2011–12 influenza seasons. MMWR 62(SS-4):1–28. 2013. Available from: https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6204a1.htm?s cid=ss6204a1 w.
- 9. Centers for Disease Control and Prevention. Prevention and control of influenza: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 55(RR–10):1–42. 2006. Available from: https://www.cdc.gov/mmwr/PDF/rr/rr5510.pdf.
- 10. Centers for Disease Control and Prevention. Prevention of pneumococcal disease: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 46(RR–08):1–24. 1997. Available from: https://www.cdc.gov/mmwr/preview/mmwrhtml/00047135.htm.
- 11. Centers for Disease Control and Prevention. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine for adults with immunocompromising conditions: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 61(40):816–9. 2012. Available from: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6140a4.htm.
- 12. Tomczyk S, Bennett NM, Stoecker C, Gierke R, Moore MR, Whitney CG, et al. Use of 13-valent pneumococcal conjugate vaccine and 23-valent pneumococcal polysaccharide vaccine among adults aged ≥65 years: Recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 63(37):822−5. 2014. Available from: https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6337a4.htm.
- 13. Kessler RC, Barker PR, Colpe LJ, Epstein JF, Gfroerer JC, Hiripi E, et al. Screening for serious mental illness in the general population. Arch Gen Psychiatry 60(2):184–9. 2003.
- Clarke TC, Norris T, Schiller JS. Early release of selected estimates based on data from the National Health Interview Survey. National Center for Health Statistics. May 2019. Available from: https://www.cdc.gov/nchs/nhis.htm.

# Appendix. National Health Interview Survey Questions Used to Define Selected Health Measures (based on the latest available NHIS)

Alphanumeric codes refer directly to the question on the latest available National Health Interview Survey that was used to define the health measure.

# Usual place to go for medical care

AAU.020 Is there a place that you USUALLY go to when you are sick or need advice about your health?

AND

CAU.020

Is there a place that [child] USUALLY goes when [he/she] is sick or you need advice about [his/her] health?

- (1) Yes
- (2) There is NO place
- (3) There is MORE THAN ONE place
- (7) Refused
- (9) Don't know

AAU.030

[If only one place] What kind of place is it—a clinic, doctor's office, emergency room, or some other place? [If more than one place] What kind of place do you go to most often—a clinic, doctor's office, emergency room, or some other place?

**AND** 

CAU.030

[If only one place] What kind of place is it—a clinic, doctor's office, emergency room, or some other place? [If more than one place] What kind of place does [child] go to most often—a clinic, doctor's office, emergency room, or some other place?

- (1) Clinic or health center
- (2) Doctor's office or HMO
- (3) Hospital emergency room
- (4) Hospital outpatient department
- (5) Some other place
- (6) Doesn't go to one place most often
- (7) Refused
- (9) Don't know

#### Failure to obtain needed medical care

FAU.030

DURING THE PAST 12 MONTHS, was there any time when [you/someone in the family] needed medical care, but did not get it because [you/the family] couldn't afford it?

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

# Receipt of influenza vaccination

AAU.310 DURING THE PAST 12 MONTHS, have you had a flu vaccination? A flu vaccination is usually given in the fall and protects against influenza for the flu season.

CFI.005

DURING THE PAST 12 MONTHS, has [child] had a flu vaccination? A flu vaccination is usually given in the fall and protects against influenza for the flu season.

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

# Receipt of pneumococcal vaccination

AAU.320

Have you EVER had a pneumonia shot? This shot is usually given only once or twice in a person's lifetime and is different from the flu shot. It is also called the pneumococcal vaccine.

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

# Obesity

AHB.190

How tall are you without shoes?

(02-07) 2-7 feet

(97) Refused

(99) Don't know

(M) Metric

**AND** 

(00-11) 0-11 inches

(97) Refused

(99) Don't know

OR

(0-2) 0-2 meters

(7) Refused

(9) Don't know

**AND** 

(000–241) 0–241 centimeters

(997) Refused (999) Don't know

AHB.200

How much do you weigh without shoes?

(050–500) 50–500 pounds

(997) Refused (999) Don't know (M) Metric

OR

(022–226) 22–226 kilograms

(997) Refused (999) Don't know

# Leisure-time physical activity

The next questions are about physical activities (exercise, sports, physically active hobbies...) that you may do in your LEISURE time.

AHB.090

How often do you do VIGOROUS leisure-time physical activities for AT LEAST 10 MINUTES that cause HEAVY sweating or LARGE increases in breathing or heart rate?

Field Representative: Read if necessary: How many times per day, per week, per month, or per year do you do these activities?

Number of vigorous leisure-time physical activities

(000) Never (001–995) 1–995 time(s) (996) Unable to do this type activity (997) Refused

Don't know

Time period for vigorous leisure-time physical activities

(0) Never

(999)

- (1) Per day
- (2) Per week
- (3) Per month
- (4) Per year
- (6) Unable to do this activity
- (7) Refused
- (9) Don't know

AHB.100

About how long do you do these vigorous leisure-time physical activities each time?

Number for length of vigorous leisure-time physical activities

(001–995) 1–995 (997) Refused (999) Don't know

Time period for length of vigorous leisure-time physical activities

- (1) Minutes
- (2) Hours
- (7) Refused
- (9) Don't know

AHB.110 How often do you do LIGHT OR MODERATE LEISURE-TIME physical activities for AT LEAST 10 MINUTES that cause ONLY LIGHT sweating or a SLIGHT to MODERATE increase in breathing or heart rate?

Field Representative: If necessary, prompt with: How many times per day, per week, per month, or per year do you do these activities?

Number of light or moderate leisure-time physical activities

(000) Never (001–995) 1–995 time(s) (996) Unable to do this type activity (997) Refused (999) Don't know

Time period for light or moderate leisure-time physical activities

- (0) Never
- (1) Per day
- (2) Per week
- (3) Per month
- (4) Per year
- (6) Unable to do this activity
- (7) Refused
- (9) Don't know
- AHB.120 About how long do you do these light or moderate leisure-time physical activities each time?

Number for length of light or moderate leisure-time physical activities

(001–995) 1–995 (997) Refused (999) Don't know

Time period for length of light or moderate leisure-time physical activities

- (1) Minutes
- (2) Hours
- (7) Refused
- (9) Don't know

# AHB.130 How often do you do LEISURE-TIME physical activities specifically designed to STRENGTHEN your muscles such as lifting weights or doing calisthenics? (Include all such activities even if you have mentioned them before.)

#### Number of times

(000)	Never
(001-995)	1–995 time(s)
(996)	Unable to do this type activity
(997)	Refused
(999)	Don't know

Time period for times per day, per week, per month, or per year

- (0) Never
- (1) Per day
- (2) Per week
- (3) Per month
- (4) Per year
- (6) Unable to do this activity
- (7) Refused
- (9) Don't know

# Current cigarette smoking

AHB.010 Have you smoked at least 100 cigarettes in your ENTIRE LIFE?

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

AHB.030 Do you NOW smoke cigarettes every day, some days or not at all?

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

# Alcohol consumption

AHB.150 In your ENTIRE LIFE, have you had at least 12 drinks of any type of alcoholic beverage?

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

#### AHB.180

In the PAST YEAR, on how many DAYS did you have [5 or more/4 or more] drinks of any alcoholic beverage?

NOTE: From 1997–2013, both men and women were asked about days in which they had 5 or more drinks of any alcoholic beverage. Starting in 2014, this question was changed; men were still asked about days in which they had 5 or more drinks of any alcoholic beverage, but women were asked about days in which they had 4 or more drinks of any alcoholic beverage.

Number of days

(000)	Never/None
(001-365)	1-365 days
(997)	Refused
(999)	Don't know

Time period for days per week, per month, or per year

- (0) Never/None
- (1) Per week
- (2) Per month
- (3) Per year
- (7) Refused
- (9) Don't know

# Human immunodeficiency virus testing

ASI.400 Except for tests you may have had as part of blood donations, have you ever been tested for HIV?

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

#### General health status

FHS.500 Would you say [your/person's] health in general is excellent, very good, good, fair, or poor?

- (1) Excellent
- (2) Very good
- (3) Good
- (4) Fair
- (5) Poor
- (7) Refused
- (9) Don't know

#### Personal care needs

#### FHS.070

Because of a physical, mental, or emotional problem, [do you/does anyone in the family] need the help of other persons with PERSONAL CARE NEEDS, such as eating, bathing, dressing, or getting around inside this home?

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

# Serious psychological distress

ASI.390 During the PAST 30 DAYS, how often did you feel

- ...So sad that nothing could cheer you up?
- ...Nervous?
- ...Restless or fidgety?
- ...Hopeless?
- ...That everything was an effort?
- ...Worthless?
- (1) ALL of the time
- (2) MOST of the time
- (3) SOME of the time
- (4) A LITTLE of the time
- (5) NONE of the time
- (7) Refused
- (9) Don't know

# Diagnosed diabetes

ACN.160

Other than during pregnancy, have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?/Have you EVER been told by a doctor or health professional that you have diabetes or sugar diabetes?

- (1) Yes
- (2) No
- (3) Borderline or prediabetes
- (7) Refused
- (9) Don't know

#### **Asthma**

ACN.080

Have you EVER been told by a doctor or other health professional that you had asthma?

AND

CHS.080

Has a doctor or other health professional EVER told you that [child] has asthma?

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

ACN.085

Do you still have asthma?

AND

CHS.085

Does [child] still have asthma?

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

ACN.090 DURING THE PAST 12 MONTHS, have you had an episode of asthma or an asthma attack? AND CHS.090 DURING THE PAST 12 MONTHS, has [child] had an episode of asthma or an asthma attack? (1) Yes

- (2) No
- (7) Refused
- (9) Don't know