

Characteristics of Older Adults Who Met Federal Physical Activity Guidelines for Americans: United States, 2022

by Nazik Elgaddal, M.S., and Ellen A. Kramarow, Ph.D.

Abstract

Objective—This report presents national estimates of the percentage of adults age 65 and older who met the federal physical activity guidelines for both aerobic and muscle-strengthening activities during leisure time by sociodemographic and health-related characteristics.

Methods—Data from the 2022 National Health Interview Survey were used to estimate the percentage of adults age 65 and older who met the U.S. Department of Health and Human Services 2018 Federal Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time. Adults were considered to have met the guidelines if they met both aerobic and muscle-strengthening recommendations. Estimates are presented by age group, sex, race and Hispanic origin, education, family income, urbanization level, respondent-assessed health status, chronic conditions, disability status, severity of depression symptoms, severity of anxiety symptoms, and body mass index.

Results—Overall, 13.9% (age adjusted) of adults age 65 and older met federal physical activity guidelines for both aerobic and muscle-strengthening activities in 2022. Differences were seen by several sociodemographic characteristics. Men (16.9%), White non-Hispanic adults (15.2%), and those living in metropolitan areas (14.7%) were more likely to meet the guidelines. The percentage meeting the federal physical activity guidelines increased with increasing education level and family income and decreased with number of chronic conditions. Older adults who reported poor health status had the lowest percentage meeting the guidelines compared with those reporting good, very good, or excellent health. Older adults without disabilities were three times more likely to meet the federal physical activity guidelines than adults with disabilities (15.9% compared with 5.0%, respectively). Older adults with no depression or anxiety symptoms were more likely to meet the guidelines than those with mild symptoms or moderate or severe symptoms.

Keywords: aerobic • muscle strengthening • chronic conditions • race and Hispanic origin • National Health Interview Survey (NHIS)

Introduction

Regular physical activity is important for the overall health and well-being of people of all ages (1). For older adults, regular physical activity helps maintain physical functioning and reduces the risk of chronic conditions, including dementia, and also reduces the risk of falls and fall-related injuries (2–4). Physical inactivity is associated with higher healthcare costs, in part related to the increased risk and economic costs of chronic diseases and their treatment (5,6). In 2022, the estimated population of adults age 65 and older was 57.8 million, making up 17% of the total U.S. population (7). The older population is expected to grow to nearly 95 million (23% of the total population) by 2060 (8). As the population ages and older adults become a growing share of the overall U.S. population, regular physical activity has been shown to be an important means of improving health and functioning (2).

Increasing the proportion of adults who meet the federal physical activity guidelines is a leading health indicator of Healthy People 2030, a program that sets national objectives to improve health and well-being (9). Among all adults, people age 65 and older have the lowest percentages overall for

meeting the federal physical activity guidelines (2,10). To help address gaps in information and highlight differences in levels of physical activity for older adults, this report presents the most current estimates of older adults (adults age 65 and older), as reported in the National Health Interview Survey (NHIS), who met the 2018 Federal Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities, by selected sociodemographic and health-related characteristics.

Methods

Data source

Estimates in this report are based on data from the 2022 NHIS, a nationally representative household survey of the U.S. civilian noninstitutionalized population. It is conducted continuously throughout the year by the National Center for Health Statistics. Interviews are typically initiated face-to-face in respondents' homes, with follow-ups conducted over the telephone as needed. In 2022, the final Sample Adult response rate was 47.7% (11). NHIS does not include people in long-term care institutions (for example, nursing homes and hospitals for the chronically ill or physically or intellectually disabled); consequently, the estimates presented here represent the community-dwelling population only (11). For more information about NHIS, visit: <https://www.cdc.gov/nchs/nhis.htm>.

2018 federal physical activity guidelines

Adults of all ages were considered to have met the 2018 federal physical activity guidelines if they met *both* the aerobic and muscle-strengthening recommendations in the U.S. Department of Health and Human Services 2018 Physical Activity Guidelines for Americans, 2nd edition (<https://health.gov/paguidelines>). Aerobic physical activity guidelines for adults recommend at least 150 minutes (2 hours and 30 minutes) to 300 minutes (5 hours) a week of moderate-intensity aerobic physical activity, or 75 minutes (1 hour

and 15 minutes) to 150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Muscle-strengthening activity guidelines for adults recommend muscle-strengthening activities of moderate or greater intensity and involving all major muscle groups on 2 days a week or more.

The measure of meeting the physical activity guidelines is based on responses to a series of survey questions included in NHIS every other year about aerobic physical activity and muscle-strengthening activity during leisure time. NHIS combines responses into four mutually exclusive categories of meeting federal physical activity guidelines: 1) meets neither physical activity criteria; 2) meets muscle-strengthening activity criteria only; 3) meets aerobic physical activity criteria only; and 4) meets both physical activity criteria. Crude estimates of the percent distribution of adults age 65 and older who met criteria for each of the categories are shown in the Technical Notes [Table](#).

Sociodemographic and geographic characteristics

Sociodemographic and geographic measures for adults age 65 and older include age group, sex, race and Hispanic origin, education, family income as a percentage of the federal poverty level (FPL), urbanization level, and region. See Technical Notes for additional information.

Selected health-related characteristics

Health-related measures for adults age 65 and older include respondent-assessed health status, number of chronic conditions, disability status, severity of depression symptoms (based on the eight-item Patient Health Questionnaire depression scale [PHQ-8]), severity of anxiety symptoms (based on the seven-item Generalized Anxiety Disorder scale [GAD-7]), and body mass index. See Technical Notes for additional information.

Statistical analysis

The analytic sample is restricted to adults age 65 and older, which included a total of 8,771 respondents in the 2022 NHIS Sample Adult file. Respondents with missing data or unknown information (354 = 4.0%) are excluded unless specifically noted. Age-adjusted estimates are presented for adults age 65 and older by sociodemographic and health-related characteristics. Estimates were age adjusted to the 2000 U.S. Census population using the direct method for age groups 65–74, 75–84, and 85 and older (12). Age-specific percentages are not age adjusted.

Percentages and the corresponding variances were calculated using SAS-callable SUDAAN version 11.0.3 (RTI International, Research Triangle Park, N.C.) (13) within SAS version 9.4 (SAS Institute Inc., Cary, N.C.). All procedures account for NHIS's stratified, complex cluster sampling design. All estimates were evaluated using National Center for Health Statistics presentation standards for proportions (14).

Differences in percentages between sociodemographic and health subgroup characteristics were evaluated using two-sided significance tests at the $p < 0.05$ level. Trends by age group, family income (as a percentage of FPL), education level, and number of chronic conditions were evaluated using orthogonal polynomials in logistic regression. The term “more likely” indicates a statistically significant difference. Lack of comment regarding the difference between any two estimates does not necessarily mean that the difference was tested and not found to be significant.

Results

In 2022, 13.9% (age adjusted) of adults age 65 and older met the 2018 federal physical activity guidelines for both aerobic and muscle-strengthening activities during their leisure time. The percentage of adults age 65 and older who met the guidelines for both aerobic and muscle-strengthening activities decreased with increasing age, from 16.8% among those ages 65–74 and 12.3% among those ages 75–84 to 6.2%

among those age 85 and older (Figure 1, Table 1).

Men (16.9%) were more likely than women (11.5%) to meet both physical activity guidelines (Figure 2, Table 1). Non-Hispanic White (subsequently, White) adults were more likely to meet both physical activity guidelines (15.2%) compared with non-Hispanic Black (subsequently, Black) adults (10.2%) and Hispanic adults (10.3%). The difference between White and non-Hispanic Asian (subsequently, Asian) (12.2%) adults was not significant. Adults age 65 and older who lived in metropolitan areas were more likely to meet both physical activity guidelines than those who lived in nonmetropolitan areas (14.7% compared with 10.0%, respectively). Older adults living in the West (17.0%) and Midwest (14.4%) were more likely to meet physical activity guidelines than those living in the South (12.0%). Adults living in the West were also more likely to meet physical activity guidelines than those living in the Northeast (13.2%) (Table 1).

The percentage of older adults who met both physical activity guidelines increased with increasing family

income, from 6.4% among those with incomes less than 100% FPL to 21.4% among those with incomes 400% FPL or more (Figure 3, Table 1). Similarly, the percentage meeting physical activity guidelines increased with increasing education level, from 4.5% among those with less than a high school diploma or GED to 25.6% among those with a bachelor's degree or higher.

Adults age 65 and older who rated their health as fair or poor were least likely to meet the physical activity guidelines (4.5%), while those reporting their health as excellent or very good had the highest percentage of meeting both physical activity guidelines (21.8%), followed by those reporting their health status as good (10.2%) (Figure 4, Table 2). The percentage who met both physical activity guidelines decreased as the number of chronic conditions increased, from 19.3% of adults with zero to one chronic condition, 16.2% for those with two chronic conditions, 13.2% for those with three chronic conditions, and 7.8% for adults with four chronic conditions or more.

The percentage of adults without disabilities who met both physical activity guidelines was about three times higher than those with disabilities (15.9% compared with 5.0%, respectively) (Figure 5, Table 2). Adults with no depression symptoms were more likely to meet the guidelines (15.6%) compared with those with mild depression symptoms (7.2%) and those with moderate or severe depression symptoms (4.7%). The same pattern was observed for anxiety symptoms. Adults with no anxiety symptoms were more likely to meet both physical activity guidelines (14.8%) compared with those with mild anxiety symptoms (7.6%) and those with moderate or severe anxiety symptoms (5.4%). Older adults with healthy weight were more likely to meet both physical activity guidelines (19.1%) compared with adults in other body mass index categories, although differences between adults with healthy weight and adults with underweight were not significant (Table 2).

Figure 1. Percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by age group: United States, 2022

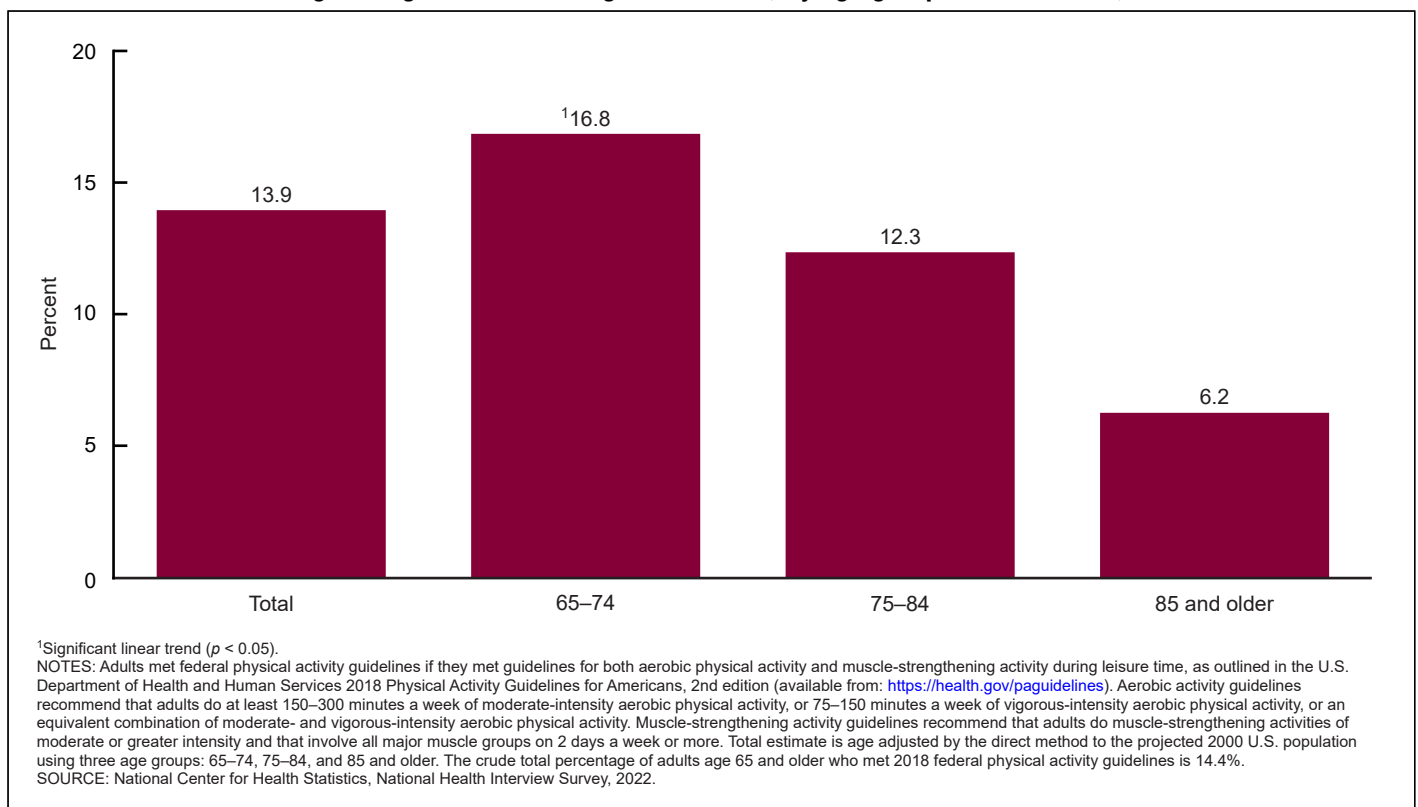


Figure 2. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by sex, race and Hispanic origin, and urbanization level: United States, 2022

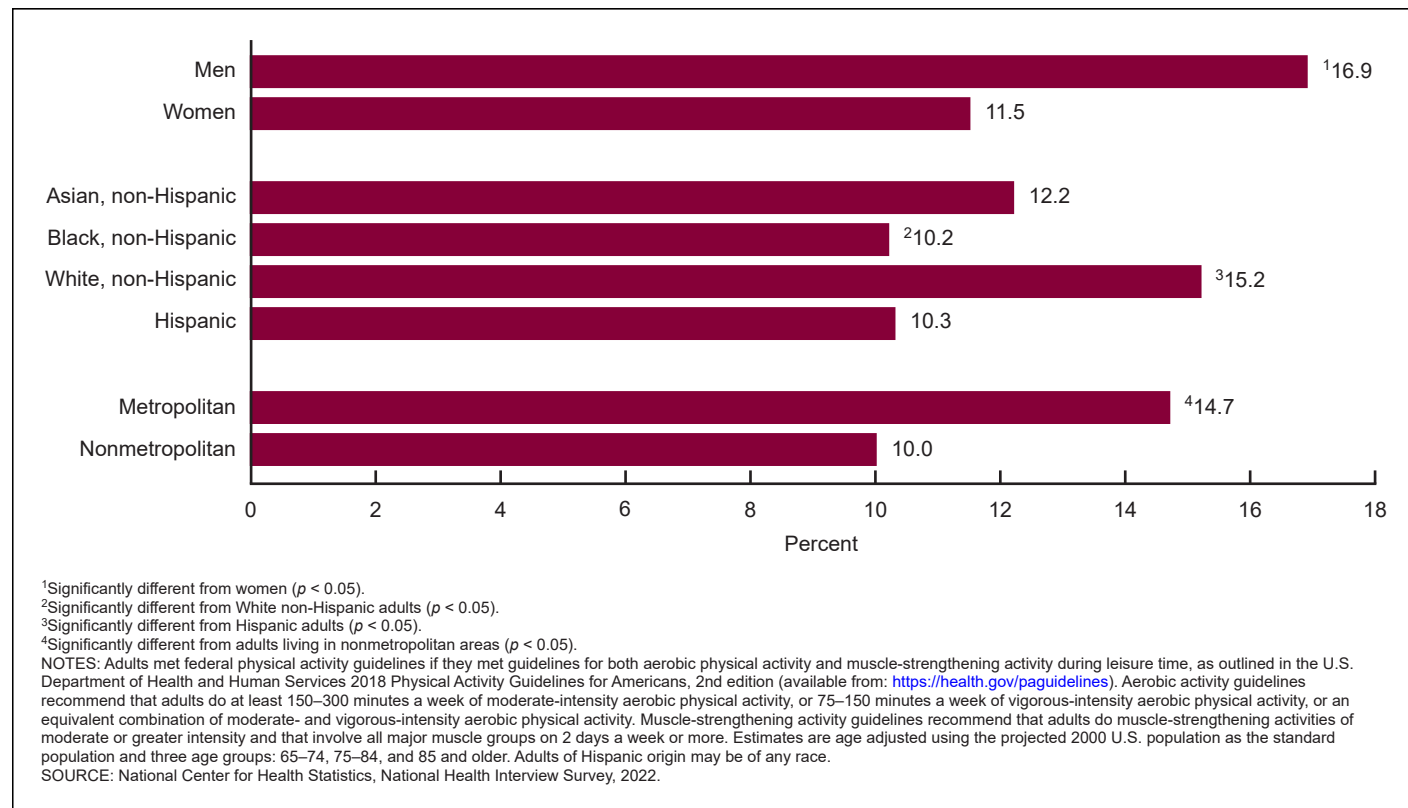


Figure 3. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by family income and education level: United States, 2022

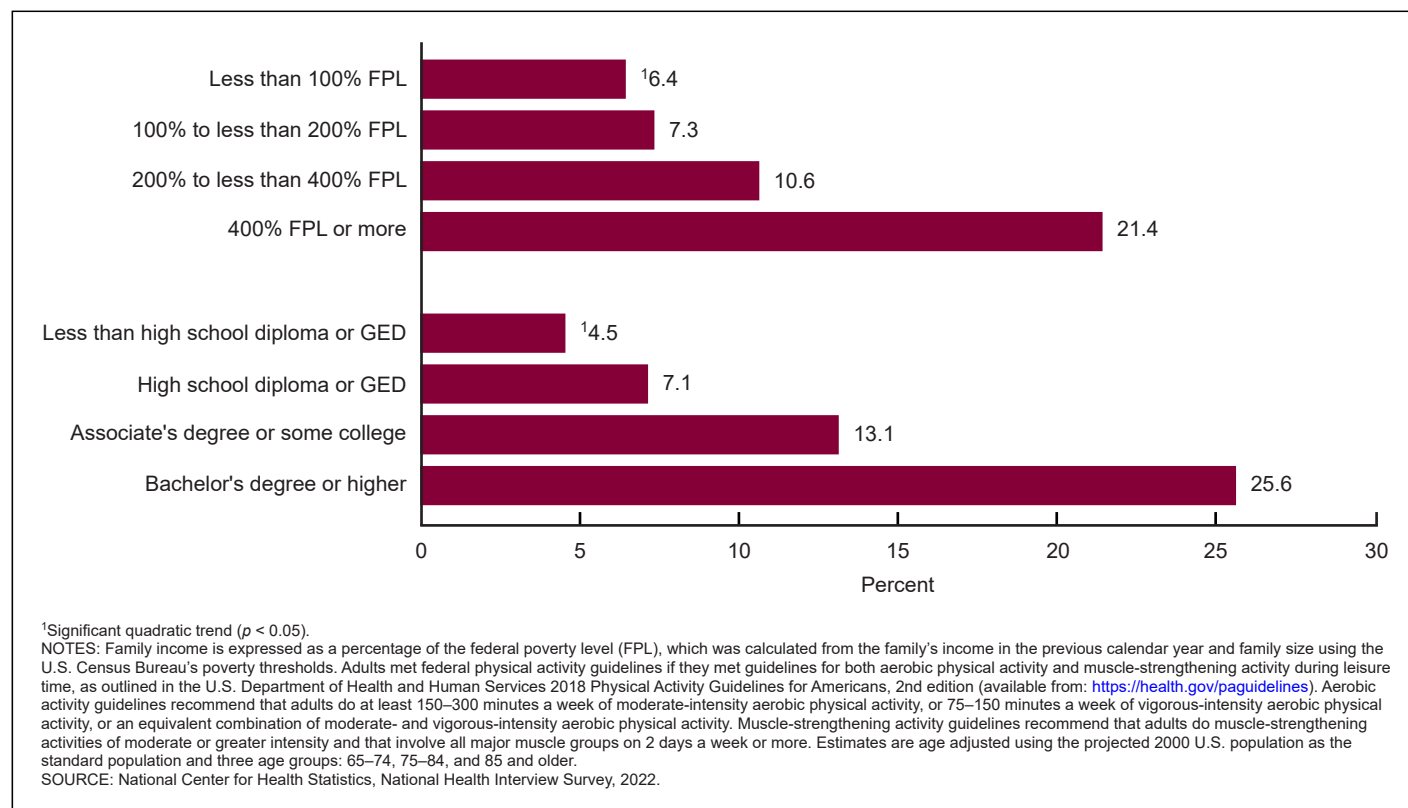


Figure 4. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by respondent-assessed health status and number of chronic conditions: United States, 2022

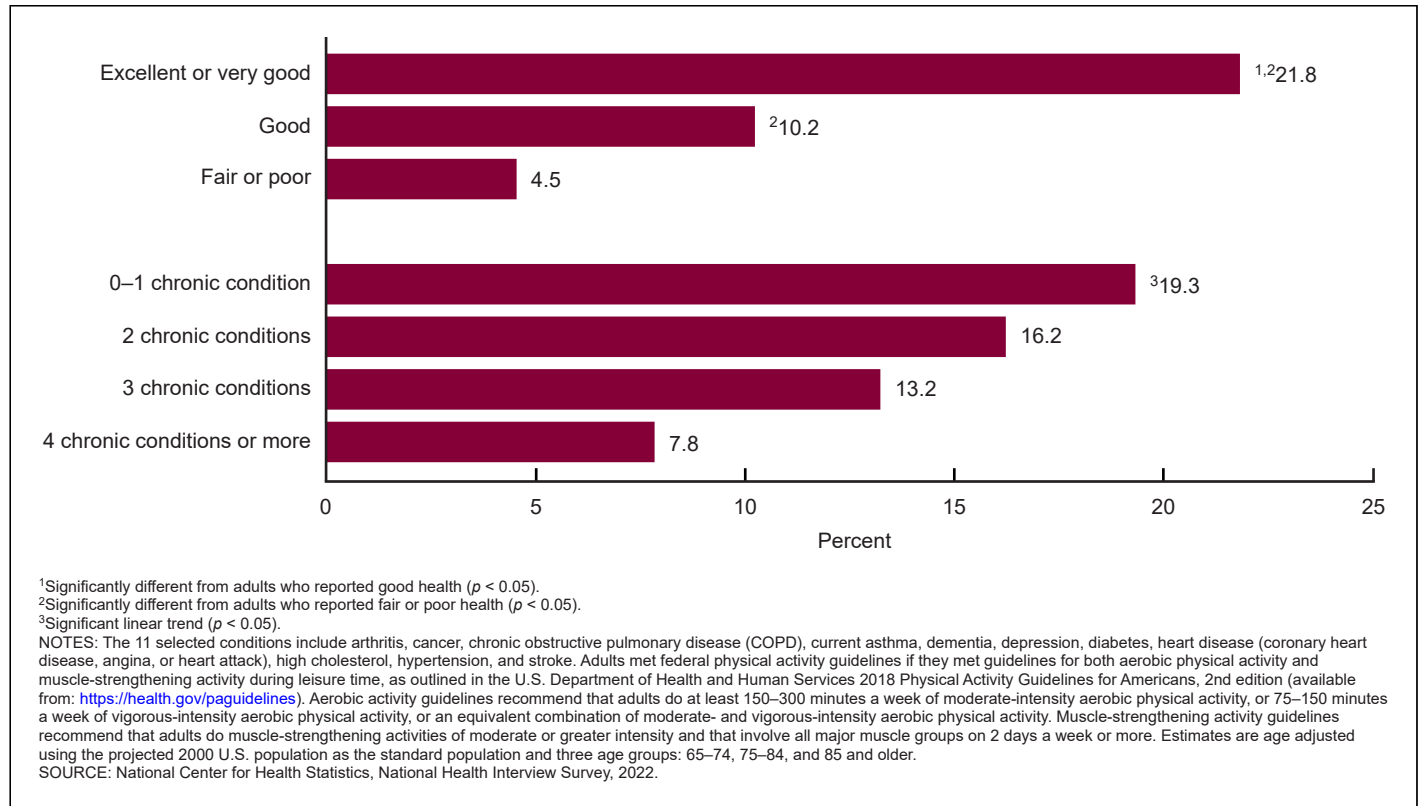
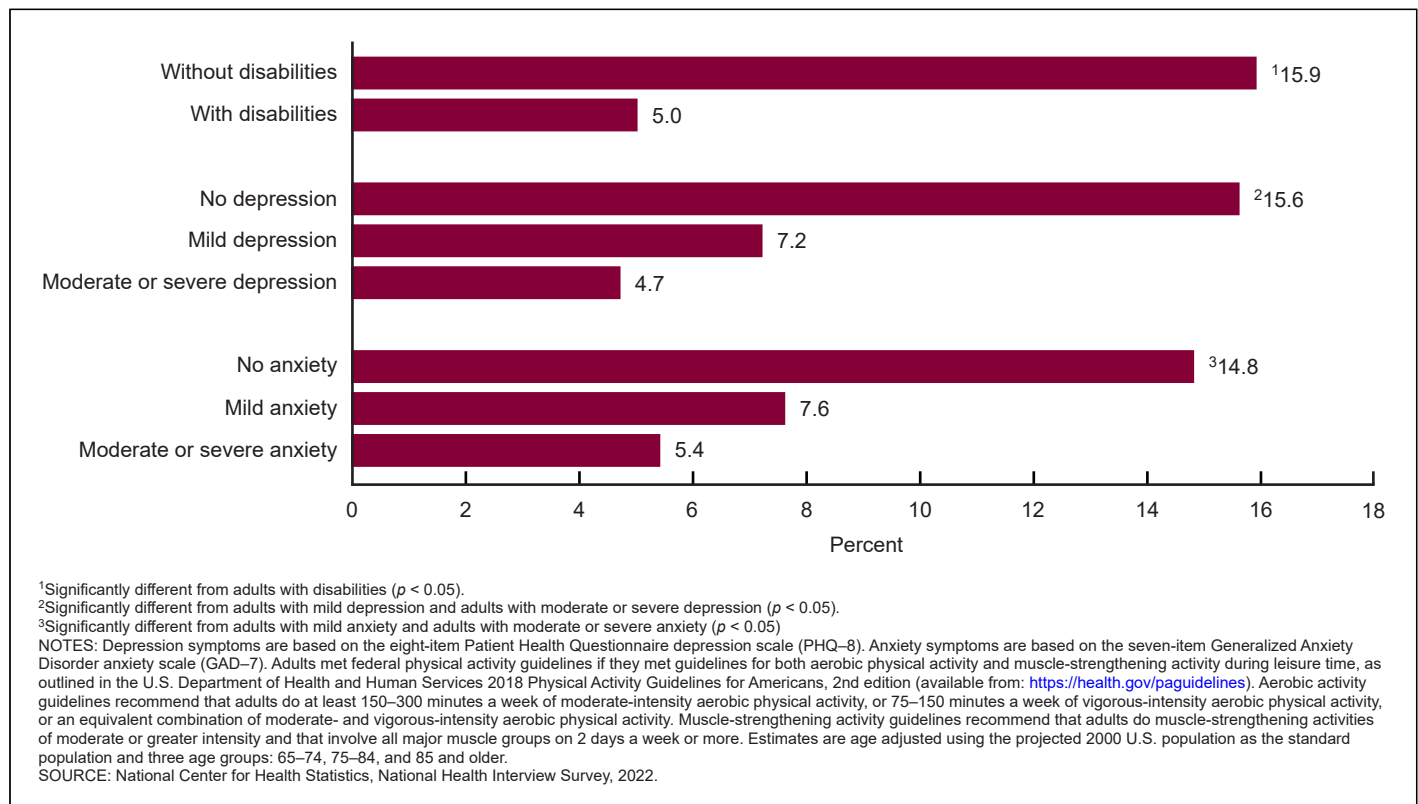


Figure 5. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by disability status, depression symptoms, and anxiety symptoms: United States, 2022



Discussion

This report presents national estimates of U.S. adults age 65 and older who met the U.S. Department of Health and Human Services 2018 Federal Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by sociodemographic and health-related characteristics, using the most recent data available in the 2022 NHIS. In 2022, 13.9% (age adjusted) of adults age 65 and older met the physical activity guidelines. Variation was observed in levels of physical activity in the older population by sociodemographic, geographic, and health-related characteristics. Differences were observed in meeting the physical activity guidelines by age group, sex, race and Hispanic origin, and urbanization level. Physical activity decreased with increasing age. Women, Black and Hispanic adults, and those living in nonmetropolitan areas had lower levels of physical activity than men, White adults, and those living in metropolitan areas, respectively.

Adults living in the West had higher percentages of meeting physical activity guidelines than those living in the Northeast or South. Adults age 65 and older with less education and those with lower incomes had lower levels of physical activity than adults with more education and those with higher incomes. Adults age 65 and older with fair or poor respondent-assessed health status and those with four chronic conditions or more had lower levels of meeting physical activity guidelines than adults with excellent or very good health and those with three chronic conditions or fewer. Adults without disabilities and those with no depression or anxiety symptoms had higher levels of meeting physical activity guidelines.

The results presented in this report have some limitations. The estimates represent the community-dwelling population only and do not account for levels of physical activity among the institutionalized population, which includes about 3% of all adults age 65 and older (15). As with all studies using cross-sectional data such as NHIS, it is not possible to determine causation

when exploring the association between physical activity and other characteristics. For example, the association of lower physical activity with higher numbers of chronic conditions may be the result of physical inactivity leading to more chronic conditions or, alternatively, may be from chronic conditions negatively affecting the ability to engage in physical activity.

Physical activity is beneficial for older adults, including those at advanced ages or with chronic health conditions or functional limitations (2,3). The targets for meeting guidelines for physical activity during leisure time for older adults are the same as those for all adults age 18 and older (for example, doing at least 150 minutes of moderate-intensity equivalent aerobic physical activity per week), with additional key guidelines for older adults. These include doing “multicomponent physical activity” that includes balance activities (such as tai chi) in addition to the aerobic and muscle-strengthening components and older adults determining “their level of effort for physical activity relative to their level of fitness” (1,2). Understanding the patterns of physical activity for adults age 65 and older may help inform interventions to promote healthy aging.

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Table 1. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by sociodemographic characteristics: United States, 2022

Selected characteristic	Percent (95% confidence interval)	Standard error
Total (age adjusted)	13.9 (13.0–14.8)	0.4
Age group		
65–74	¹ 16.8 (15.6–18.1)	0.6
75–84	12.3 (10.9–13.9)	0.7
85 and older	6.2 (4.7–8.1)	0.8
Sex		
Men	² 16.9 (15.4–18.4)	0.7
Women	11.5 (10.6–12.5)	0.5
Race and Hispanic origin		
Asian, non-Hispanic	12.2 (8.4–16.9)	2.0
Black or African American, non-Hispanic	³ 10.2 (7.9–12.9)	1.2
White, non-Hispanic	⁴ 15.2 (14.2–16.3)	0.5
Hispanic	10.3 (7.7–13.3)	1.4
Education		
Less than high school diploma or GED	⁵ 4.5 (3.0–6.3)	0.8
High school diploma or GED	7.1 (6.1–8.3)	0.6
Associate's degree or some college	13.1 (11.5–14.8)	0.8
Bachelor's degree or higher	25.6 (23.8–27.4)	0.9
Family income as a percentage of federal poverty level		
Less than 100%	⁶ 6.4 (4.6–8.6)	1.0
100% to less than 200%	7.3 (5.9–9.0)	0.8
200% to less than 400%	10.6 (9.4–12.0)	0.6
400% or more	21.4 (19.9–23.0)	0.8
Urbanization level		
Metropolitan	⁶ 14.7 (13.7–17.4)	0.5
Nonmetropolitan	10.0 (8.0–12.3)	1.0
Region		
Northeast	⁷ 13.2 (11.3–15.2)	1.0
Midwest	⁸ 14.4 (12.6–16.3)	0.9
South	⁷ 12.0 (10.7–13.5)	0.7
West	17.0 (14.9–19.3)	1.1

¹Significant linear trend by age ($p < 0.05$).

²Significantly different from women ($p < 0.05$).

³Significantly different from White non-Hispanic adults ($p < 0.05$).

⁴Significantly different from Hispanic adults ($p < 0.05$).

⁵Significant quadratic trend ($p < 0.05$).

⁶Significantly different from adults living in nonmetropolitan areas ($p < 0.05$).

⁷Significantly different from adults in the West ($p < 0.05$).

⁸Significantly different from adults in the South ($p < 0.05$).

NOTES: Adults met federal physical activity guidelines if they met guidelines for both aerobic physical activity and muscle-strengthening activity during leisure time, as outlined in the U.S. Department of Health and Human Services 2018 Physical Activity Guidelines for Americans, 2nd edition (available from: <https://health.gov/paguidelines>). Aerobic activity guidelines recommend that adults do at least 150–300 minutes a week of moderate-intensity aerobic physical activity, or 75–150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Muscle-strengthening activity guidelines recommend that adults do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 days a week or more. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Estimates are age adjusted using the projected 2000 U.S. population as the standard population and three age groups: 65–74, 75–84, and 85 and older. Adults of Hispanic origin may be of any race.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2022.

Table 2. Age-adjusted percentage of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time, by health-related characteristics: United States, 2022

Selected characteristic	Percent (95% confidence interval)	Standard error
Self-perceived health status		
Excellent or very good	^{1,2} 21.8 (20.3–23.4)	0.8
Good	² 10.2 (9.0–11.4)	0.6
Fair or poor	4.5 (3.5– 5.7)	0.6
Number of chronic conditions		
0–1	³ 19.3 (17.4–21.2)	1.0
2	16.2 (14.4–18.1)	0.9
3	13.2 (11.5–15.1)	0.9
4	7.8 (6.7–9.0)	0.6
Disability status		
Without disabilities	⁴ 15.9 (14.9–17.0)	0.5
With disabilities	5.0 (3.8–6.4)	0.7
Severity of depression symptoms (PHQ–8 measure)		
No depression	⁵ 15.6 (14.6–16.7)	0.5
Mild depression	7.2 (5.5–9.1)	0.9
Moderate or severe depression	4.7 (3.0–7.1)	1.0
Severity of anxiety symptoms (GAD–7 measure)		
No anxiety	⁶ 14.8 (13.9–15.9)	0.5
Mild anxiety	7.6 (5.6–10.0)	1.0
Moderate or severe anxiety	5.4 (3.1–8.8)	1.4
Body mass index category		
Underweight	14.3 (8.2–22.4)	3.6
Healthy weight	^{7,8} 19.1 (17.5–20.7)	0.8
Overweight	⁸ 14.9 (13.5–16.4)	0.7
Obese	8.3 (7.1–9.7)	0.6

¹Significantly different from adults who reported good health ($p < 0.05$).

²Significantly different from adults who reported fair or poor health ($p < 0.05$).

³Significant linear trend by number of conditions ($p < 0.05$).

⁴Significantly different from adults with disabilities ($p < 0.05$).

⁵Significantly different from adults with mild depression and adults with moderate or severe depression ($p < 0.05$).

⁶Significantly different from adults with mild anxiety and adults with moderate or severe anxiety ($p < 0.05$).

⁷Significantly different from adults with overweight ($p < 0.05$).

⁸Significantly different from adults with obesity ($p < 0.05$).

NOTES: The 11 selected chronic conditions include arthritis, cancer, chronic obstructive pulmonary disease (COPD), current asthma, dementia, depression, diabetes, heart disease (coronary heart disease, angina, or heart attack), high cholesterol, hypertension, and stroke. Depression symptoms are based on the eight-item Patient Health Questionnaire depression scale (PHQ–8). Anxiety symptoms are based on the seven-item Generalized Anxiety Disorder anxiety scale (GAD–7). Adults met federal physical activity guidelines if they met guidelines for both aerobic physical activity and muscle-strengthening activity during leisure time, as outlined in the U.S. Department of Health and Human Services 2018 Physical Activity Guidelines for Americans, 2nd edition (available from: <https://health.gov/paguidelines>). Aerobic activity guidelines recommend that adults do at least 150–300 minutes a week of moderate-intensity aerobic physical activity, or 75–150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Muscle-strengthening activity guidelines recommend that adults do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 days a week or more. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population. Estimates are age adjusted using the projected 2000 U.S. population as the standard population and three age groups: 65–74, 75–84, and 85 and older.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2022.

Technical Notes

Definitions

Body mass index category—Based on respondent-reported height and weight and calculated using the formula: weight in kilograms divided by height in meters squared (kg/m^2). Body mass index categories are: underweight (less than 18.5), healthy weight (18.5 to less than 25.0), overweight (25.0 to less than 30.0), and obese (30.0 or more).

Disability status—Categorized by the level of difficulty reported in the Washington Group Short Set on Functioning (16). The six domains of functioning include: seeing (even if wearing glasses), hearing (even if wearing hearing aids), mobility (walking or climbing stairs), communication (understanding or being understood by others), cognition (remembering or concentrating), and self-care (such as washing all over or dressing). Adults who responded “a lot of difficulty” or “cannot do at all/unable to do” to at least one domain were considered to have disabilities. Disability status was categorized into “with disabilities” and “without disabilities.”

Education level—Adults were categorized into four categories: 1) less than high school diploma or GED, 2) high school diploma or GED, 3) associate's degree or some college, and 4) bachelor's degree or higher.

Family income as a percentage of the federal poverty level (FPL)—Estimates are based on FPL, which is calculated from family income and family size using the U.S. Census Bureau's poverty thresholds for the previous calendar year (17). Family income was defined as less than 100% FPL, 100% to less than 200% FPL, 200% to less than 400% FPL, and 400% FPL or more. Family income was calculated using National Health Interview Survey imputed income files (18).

Number of chronic conditions—The 11 selected chronic conditions included arthritis, cancer, chronic obstructive pulmonary disease (COPD), current asthma, dementia, depression, diabetes, heart disease (coronary heart disease, angina, or heart attack), high cholesterol, hypertension, and stroke. The chronic

conditions examined in this report are conditions covered in the National Health Interview Survey and included in a list of 20 chronic conditions identified by the U.S. Department of Health and Human Services as part of an effort to foster a more consistent and standardized approach to measuring chronic conditions (19,20). Information on the remaining chronic conditions was not captured in the National Health Interview Survey, so could not be included in this study. Adults were asked if they had ever been told by a doctor or healthcare provider that they had angina, arthritis, cancer, chronic obstructive pulmonary disease, coronary heart disease, dementia, depression, diabetes, heart attack, or stroke.

Adults who had ever been told by a doctor or other health professional that they had high cholesterol were asked in separate questions if they had been told by a doctor or other health professional that they had high cholesterol during the past 12 months, and if they were taking prescribed medicine to help lower their cholesterol. Respondents must have been taking those medications or had high cholesterol during the past 12 months to be classified as having high cholesterol. Respondents who ever had hypertension were considered as having hypertension if they were taking prescribed medication for high blood pressure or had high blood pressure during the past 12 months. Adults who had been told they had asthma were asked if they still had asthma. The number of chronic conditions for each respondent was calculated as a sum of reported conditions. Zero or one chronic condition, two chronic conditions, three chronic conditions, and four chronic conditions or more are presented.

Race and Hispanic origin—Respondents were grouped into four categories: Hispanic, White non-Hispanic, Black or African American non-Hispanic, or Asian non-Hispanic. These categories were based on responses to two questions asking about race and Hispanic origin, where those characterized as Hispanic may be of any race or combination of races. People who reported unknown race or ethnicity or multiple races were not reported due to small sample sizes but were included in the overall analysis.

Region—Corresponds to the regions recognized by the U.S. Census Bureau and defined as Northeast (Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont); Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin); South (Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia); and West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, New Mexico, Nevada, Oregon, Utah, Washington, and Wyoming).

Respondent-assessed health status—Respondents were asked, “Would you say your health in general is excellent, very good, good, fair, or poor?” Respondents were coded as being in excellent or very good health if they responded “excellent” or “very good”; in good health if they responded “good”; and in fair or poor health if they responded “fair” or “poor.”

Severity of anxiety symptoms—Based on the seven-item Generalized Anxiety Disorder (GAD-7) anxiety scale, which asks Sample Adults how often they have been bothered by the following symptoms in the past 2 weeks: “feeling nervous, anxious, or on edge;” “not being able to stop or control worrying;” “worrying too much about different things;” “trouble relaxing;” “being so restless that it's hard to sit still;” “becoming easily annoyed or irritable;” and “feeling afraid as if something awful might happen.” Response options were “not at all,” “several days,” “more than half the days,” and “nearly every day,” scored as 0 to 3 points, respectively, and then summed to a total score. A recode summarizes the GAD-7 scale into none or minimal (values 0–4), mild (values 5–9), moderate (values 10–14), and severe (values 15–21) anxiety symptoms. For this report, moderate and severe anxiety symptoms were combined into one category. Sample Adults with two or more GAD-7 questions answered as “refused,” “don't know,” or whose answers were recorded as “not ascertained” were not included in this analysis.

Severity of depression symptoms—Based on the eight-item Patient Health Questionnaire (PHQ-8) depression scale, which asks Sample Adults how often they have been bothered by the following symptoms in the past 2 weeks: “little interest or pleasure in doing things;” “feeling down, depressed, or hopeless;” “trouble falling or staying asleep, or sleeping too much;” “feeling tired or having little energy;” “poor appetite or overeating;” “feeling bad about yourself, or that you are a failure, or have let yourself or your family down;” “trouble concentrating on things, such as reading the newspaper or watching television;” and “moving or speaking so slowly that other people could have noticed, or the opposite, being so fidgety or restless that you have been moving around a lot more than usual.” Response options were “not at all,” “several days,” “more than half the days,” and “nearly every day,” scored as 0 to 3 points, respectively, and then summed to a total score. A recode summarizes the PHQ-8 scale into none or minimal (values 0–4), mild (values 5–9), moderate (values 10–14), and severe (values 15–24) depression symptoms. For this report, moderate and severe depression symptoms were combined into one category. Sample Adults with two or more PHQ-8 questions answered as “refused,” “don’t know,” or whose answers were recorded as “not ascertained” were not included in this analysis.

Urbanization level—Categorized by collapsing the 2013 National Center for Health Statistics Urban–Rural Classification Scheme for counties (21) into two categories: metropolitan and nonmetropolitan.

Table. Percentage distribution of adults age 65 and older who met 2018 Physical Activity Guidelines for Americans for both aerobic and muscle-strengthening activities during leisure time: United States, 2022

Response	Percent (95% confidence interval)	Standard error
Met neither criteria	55.6 (54.3–57.0)	0.7
Met muscle-strengthening criteria only	6.3 (5.7–6.9)	0.3
Met aerobic criteria only	23.7 (22.6–24.8)	0.6
Met both criteria	14.4 (13.5–15.4)	0.5

NOTES: Adults met federal physical activity guidelines if they met guidelines for both aerobic physical activity and muscle-strengthening activity during leisure time, as outlined in the U.S. Department of Health and Human Services 2018 Physical Activity Guidelines for Americans, 2nd edition (available from: <https://health.gov/paguidelines>). Aerobic activity guidelines recommend that adults do at least 150–300 minutes a week of moderate-intensity aerobic physical activity, or 75–150 minutes a week of vigorous-intensity aerobic physical activity, or an equivalent combination of moderate- and vigorous-intensity aerobic physical activity. Muscle-strengthening activity guidelines recommend that adults do muscle-strengthening activities of moderate or greater intensity and that involve all major muscle groups on 2 days a week or more. Estimates are based on household interviews of a sample of the U.S. civilian noninstitutionalized population.

SOURCE: National Center for Health Statistics, National Health Interview Survey, 2022.

**U.S. DEPARTMENT OF
HEALTH & HUMAN SERVICES**

Centers for Disease Control and Prevention
National Center for Health Statistics
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National Center for Health Statistics

Brian C. Moyer, Ph.D., *Director*
Amy M. Branum, Ph.D., *Associate Director for Science*

Division of Analysis and Epidemiology

Irma E. Arispe, Ph.D., *Director*
Kimberly A. Lochner, Sc.D., *Associate Director for Science*

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