# Health Risks and Behaviors 

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## INDICATOR 21

## Vaccinations

Vaccinations against influenza and pneumococcal disease are recommended for older Americans, who are at increased risk for complications from these diseases compared with younger individuals. ${ }^{17,18}$ Influenza vaccinations are given annually, and pneumococcal vaccinations are usually given once in a lifetime. The costs associated with these vaccinations are covered under Medicare Part B.

## Percentage of population age 65 and over vaccinated against influenza and pneumococcal disease, by race and Hispanic origin, selected years 1989-2008



NOTE: For influenza, the percentage vaccinated consists of people who reported having a flu shot during the past 12 months and does not include receipt of nasal spray flu vaccinations. For pneumococcal disease, the percentage refers to people who reported ever having a pneumonia vaccination. See Appendix B for the definition of race and Hispanic origin in the National Health Interview Survey
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

In 2008, 67 percent of people age 65 and over reported receiving a flu shot in the past 12 months; however, there are differences by race and ethnicity. Seventy percent of non-Hispanic whites reported receiving a flu shot compared with 50 percent of non-Hispanic blacks and 55 percent of Hispanics.
© In 2008, 60 percent of people age 65 and over had ever received a pneumonia vaccination. Despite recent increases in the rates for all groups, non-Hispanic whites were more likely to have received a pneumonia vaccination (64 percent) compared with non-Hispanic blacks (45 percent) or Hispanics ( 36 percent).

The percent of older people receiving vaccinations increases with age. In 2008, 79 percent of persons age 85 and older had received a flu shot compared with 73 percent among persons age 75-84 and 61 percent among persons age 65-74. For pneumonia vaccinations, 69 percent of persons 75-84 and 85 and older had ever received a pneumonia vaccination compared with 53 percent among persons 65-74.

Data for this indicator's charts and bullets can be found in Tables 21a and 21b on page 106.

## INDICATOR 22

## Mammography

Health care services and screenings can help prevent disease or detect it at an early, treatable stage. Mammography has been shown to be effective in reducing breast cancer mortality among women age 50 to $74 .{ }^{19}$

## Percentage of women age 50 and over who had a mammogram in the past 2 years, by age group, selected years 1987-2008



NOTE: Questions concerning use of mammography differed slightly on the National Health Interview Survey across the years for which data are shown. For details, see Health, United States 2009, Appendix II.
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

Among women age 65 and over, the percentage who had a mammogram within the preceding 2 years almost tripled from 23 percent in 1987 to 66 percent in 2008. While there was a significant difference in 1987 between the percentage of older non-Hispanic white women ( 24 percent) and the percentage of older non-Hispanic black women (14 percent) who reported having had a mammogram, in recent years, this difference has disappeared.

Older women who were poor were less likely to have had a mammogram in the preceding 2 years than older women who were not poor. In 2008, 49 percent of women age 65 and over who lived in families with incomes less than 100 percent of the poverty threshold reported having had a mammogram. Among older women living in families with incomes 200
percent or more of the poverty threshold, 71 percent reported having had a mammogram.

©Older women without a high school diploma were less likely to have had a mammogram than older women with a high school diploma. In 2008, 49 percent of women age 65 and over without a high school diploma reported having had a mammogram in the preceding 2 years, compared with 66 percent of women who had a high school diploma and 76 percent of women who had at least some college education.

Data for this indicator's charts and bullets can be found in Table 22 on page 107.

## INDICATOR 23

## Diet Quality

Nutrition plays a significant role in the health of older Americans. A healthful diet can reduce cardiometabolic risk factors, such as hypertension, diabetes, and obesity. The increase in the size of the older population is paralleled by an increase in the prevalence of chronic diseases, such as cardiovascular disease. ${ }^{20}$ Since diet is a modifiable lifestyle factor, dietary improvement can lead to reduced disease risk and improved health in older adults. The Healthy Eating Index-2005 (HEI-2005) ${ }^{21,22}$ measures how well diets conform to the recommendations of the 2005 Dietary Guidelines for Americans ${ }^{23}$ and MyPyramid, ${ }^{24}$ USDA's food guidance system (http://www.MyPyramid.gov).

Average dietary component scores as a percent of federal diet quality
standards, ${ }^{\text {a }}$ population age 65 and older, by age group, 2003-2004


## INDICATOR 24

## Physical Activity

Physical activity is beneficial for the health of people of all ages, including the 65 and over population. It can reduce the risk of certain chronic diseases, may relieve symptoms of depression, helps to maintain independent living, and enhance overall quality of life. ${ }^{25,26}$ Research has shown that even among frail and very old adults, mobility and functioning can be improved through physical activity. ${ }^{27}$

> Percentage of population age 45 and over who reported engaging in regular leisure time physical activity, by age group, 1997-2008


NOTE: Data are based on 2-year averages. "Regular leisure time physical activity" is defined as "engaging in light-moderate leisure time physical activity for greater than or equal to 30 minutes at a frequency greater than or equal to five times per week, or engaging in vigorous leisure time physical activity for greater than or equal to 20 minutes at a frequency greater than or equal to three times per week."
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health Interview Survey.

In 2007-2008, 22 percent of people age 65 and over reported engaging in regular leisure time physical activity. The percentage of older people engaging in regular physical activity was lower at older ages, ranging from 25 percent among people age 65-74 to 11 percent among people age 85 and over. Although there was no significant change in the percentage reporting physical activity between 1997 and 2008 among all people 65 and over, there were small increases among people 75-84.

Men age 65 and over are more likely than women in the same age group to report engaging in regular leisure time physical activity ( 27 percent and 18 percent, respectively, in 2007-2008). Older non-Hispanic white people report higher levels of physical activity
than non-Hispanic black people ( 23 percent compared with 13 percent for non-Hispanic blacks in 2007-2008).

Other forms of physical activity also contribute to overall health and fitness. Strength training is recommended as part of a comprehensive physical activity program among older adults and may help to improve balance and decrease risk of falls. ${ }^{28}$ Fourteen percent of older people reported engaging in strengthening exercises in 2007-2008.

Data for this indicator's charts and bullets can be found in Tables $24 a$ and 24 b on page 109.

## INDICATOR 25

## Obesity

Similar to cigarette smoking, obesity is a major cause of preventable disease and premature death. ${ }^{29}$ Both are associated with increased risk of coronary heart disease; Type 2 diabetes; endometrial, colon, postmenopausal breast, and other cancers; asthma and other respiratory problems; osteoarthritis; and disability. ${ }^{30,31}$

Percentage of population age 65 and over who are obese, by sex and age group, selected years 1988-2008


NOTE: Data are based on measured height and weight. Height was measured without shoes. Obese is defined by a Body Mass Index (BMI) of 30 kilograms/meter ${ }^{2}$ or greater. See Appendix C for the definition of BMI.
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey

As with other age groups, the percentage of people age 65 and over who are obese has increased since 1988-1994. In 2007-2008, 32 percent of people age 65 and over were obese, compared with 22 percent in 1988-1994.

- In 2007-2008, 35 percent of women age 65-74 and 27 percent of women age 75 and over were obese. This is an increase from 1988-1994, when 27 percent of women age 65-74 and 19 percent of women age 75 and over were obese.
- Older men followed similar trends; 24 percent of men age 65-74 and 13 percent of men age 75 and over were obese in 1988-1994, compared with 40 percent of men age $65-74$ and 26 percent of men age 75 and over in 2007-2008.
$\checkmark$ Over the past 9 years, the trend has leveled off, with no statistically significant change in obesity for older men or women between 1999-2000 and 2007-2008.

Data for this indicator's charts and bullets can be found in Table 25 on page 110.

## INDICATOR 26

## Cigarette Smoking

Smoking has been linked to an increased likelihood of cancer, cardiovascular disease, chronic obstructive lung diseases, and other debilitating health conditions. Among older people, the death rate for chronic lower respiratory diseases (the fourth leading cause of death among people age 65 and over) increased 50 percent between 1981 and 2006. See "Indicator 15: Mortality." This increase reflects, in part, the effects of cigarette smoking. ${ }^{32}$


The percentage of older Americans who are current cigarette smokers declined between 1965 and 2008. Most of the decrease during this period is the result of the declining prevalence of cigarette smoking among men (from 29 percent in 1965 to 11 percent in 2008). For the same period, the percentage of women who smoke cigarettes has remained relatively constant, increasing slightly from 10 percent in 1965 before declining to 8 percent in 2008.

Among older men, blacks have a higher rate of smoking than do whites ( 18 percent and 10 percent, respectively). The percentage of older women who smoke is similar among whites and African Americans.

A large percentage of both men and women age 65 and over are former smokers. In 2008, 55 percent of older men previously smoked cigarettes, while 31 percent of women age 65 and over were former smokers.

Data for this indicator's charts and bullets can be found in Tables 26a, 26b, and 26c on pages 111-113.

## INDICATOR 27

## Air Quality

As people age, their bodies are less able to compensate for the effects of environmental hazards. Air pollution can aggravate heart and lung disease, leading to increased medication use, more visits to health care providers, admissions to emergency rooms and hospitals, and even death. An important indicator for environmental health is the percentage of older adults living in areas that have measured air pollutant concentrations above the level of the Environmental Protection Agency's (EPA) national standards. Ozone and particulate matter (PM) (especially smaller, fine particle pollution called PM 2.5) have the greatest potential to affect the health of older adults. Fine particle pollution has been linked to premature death, cardiac arrhythmias and heart attacks, asthma attacks, and the development of chronic bronchitis. Ozone, even at low levels, can exacerbate respiratory diseases such as chronic obstructive pulmonary disease or asthma. ${ }^{33-37}$

## Percentage of people age 65 and over living in counties with "poor air quality," 2000-2008



NOTE: The term "poor air quality" is defined as air quality concentrations above the level of the National Ambient Air Quality Standards (NAAQS). The term "any standard" refers to any NAAQS for ozone, particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead. In 2008, EPA strengthened the national standard for 8 -hour ozone to 0.075 ppm and the national standard for lead to $0.15 \mu \mathrm{~g} / \mathrm{m} 3$. This figure includes people living in counties that monitored ozone and lead concentrations above the new levels. This results in percentages that are not comparable to previous publications.
Reference population: These data refer to the resident population.
SOURCE: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality System; U.S., U.S. Census Bureau, Population Projections, 2000-2008.

In 2008, 36 percent of people age 65 and over lived in counties with poor air quality for ozone compared with 52 percent in 2000.
$\checkmark$ A comparison of 2000 and 2008 shows a reduction in PM 2.5. In 2000, 41 percent of people age 65 and over lived in a county where PM 2.5 concentrations were at times above the EPA standards compared with 11 percent of people age 65 and over in 2008.

The percentage of people age 65 and over living in counties that experienced poor air quality for any air pollutant decreased from 62 percent in 2000 to 38 percent in 2008.

## INDICATOR 27

## Air Quality continued

Air quality varies across the United States; thus, where people live can affect their health risk. Each state monitors air quality and reports findings to the EPA. In turn, the EPA determines whether pollutant measurements meet the standards that have been set to protect human health.

## Counties with "poor air quality" for any standard in 2008



NOTE: The term "poor air quality" is defined as air quality concentrations above the level of the National Ambient Air Quality Standards (NAAQS).
The term "any standard" refers to any NAAQS for ozone, particulate matter, nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead.
Reference population: These data refer to the resident population.
SOURCE: U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Air Quality System; U.S. Census Bureau, Population Projections, 2000-2008.

In 2008, nearly 42 percent of the population lived in a county where measured air pollutants reached concentrations above EPA standards. This percentage was fairly consistent across all age groups, including people age 65 and over.

Overall, approximately 127 million people lived in counties where monitored air in 2008 was unhealthy at times because of high levels of at least one of the six principal air pollutants: ozone, particulate matter (PM), nitrogen dioxide, sulfur dioxide, carbon monoxide, and lead. The vast majority of areas that experienced unhealthy air did so because of one or both of two pollutants-ozone and PM.

Data for this indicator's charts and bullets can be found in Tables 27a and 27b on pages 113-117.

## INDICATOR 28

## Use of Time

How individuals spend their time reflects their financial and personal situations, needs, or desires. Time-use data show that as Americans get older, they spend more of their time in leisure activities.

## Percentage of day that people age 55 and over spent doing selected activities on an average day, by age group, 2008



NOTE: "Other activities" includes activities such as educational activities; organizational, civic, and religious activities; and telephone calls. Chart includes people who did not work at all.
Reference population: These data refer to the civilian noninstitutionalized population.
SOURCE: Bureau of Labor Statistics, American Time Use Survey.
© In 2008, older Americans spent on average more than one-quarter of their time in leisure activities. This proportion increased with age: Americans 75 and over spent 32 percent of their time in leisure compared with 24 percent for those age 55-64.
$\checkmark$ On an average day, people age $55-64$ spent 15 percent of their time (about 4 hours) working or doing work-related activities compared with 5 percent (about one hour) for people age 65-74 and 2 percent (less than 30 minutes) for people age 75 and over.

## INDICATOR 28

## Use of Time continued

Leisure activities are those done when free from duties such as working, household chores, or caring for others. During these times, individuals have flexibility in choosing what to do.


Reference population: These data refer to the civilian noninstitutionalized population. SOURCE: Bureau of Labor Statistics, American Time Use Survey.

Watching TV was the activity that occupied the most leisure time-slightly more than one-half the total-for Americans age 55 and over.

Americans age 75 and over spent a higher percentage of their leisure time reading (14 percent versus 9 percent) and relaxing and thinking ( 10 percent versus 5 percent) than did Americans age 55-64.
$\Delta$ The proportion of leisure time that older Americans spent socializing and communicating-such as visiting friends or attending or hosting social events-declined with age. For Americans age 55-64, 13 percent of leisure time was spent socializing and communicating compared to 8 percent for those age 75 and over.

