Aging and Long-Term Care

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Study helps: When you scroll over the yellow sticky notes you will receive study helps.

Introduction

We are all getting older. When we were young, many of us could not wait to get older, especially if we had older siblings. They were allowed to, and were capable of, doing so many more things. We continued to grow stronger, increased in understanding, got an education and became professionals. Now, as time goes on, we work toward security—emotional, financial, and social while trying to hold on to some semblance of our physical youth. As we get older, we hope and worry about being able to afford retirement, or whether we even should retire—would we even like it?

At some point, most of us will reach what is considered "Older." Not older like what we wanted when we couldn't wait to drive a car. "Older" as in "Old," "Seasoned" and "Experienced" more than much of the rest of the population.

In reality, age is relative. I used to think 40 was very old. Now I think of 40 as very young. Those who are in their 90's probably think of how young they were when they were 70, or even 80. We all experience age differently, but there are many things the aged have in common. These issues are important to know. It is important for us to understand, have empathy and show compassion for those we serve. This course will seek to provide you with some of that understanding.

Chapter 1 – Profile of Older Americans

In the first chapter we use the publication from the Administration on Aging (AoA) United States Department of Health and Human Services to get a snapshot of the current older population in the United States. This is sourced from:

A Profile of Older Americans: 2017 was developed by the Administration on Aging (AoA), Administration for Community Living, U.S. Department of Health and Human Services.

2017 Profile of Older Americans

April 2018

Administration for Community Living

Administration on Aging

The Administration for Community Living, which includes the Administration on Aging, is an operating division of the U.S. Department of Health and Human Services.

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Highlights[1 2 3]

- ☐ Over the past 10 years, the population age 65 and over increased from 37.2 million in 2006 to 49.2 million in 2016 (a 33% increase) and is projected to almost double to 98 million in 2060.
- ☐ Between 2006 and 2016 the population age 60 and over increased 36% from 50.7 million to 68.7 million.
- ☐ The 85 and over population is projected to more than double from 6.4 million in 2016 to 14.6 million in 2040 (a 129% increase).
- ☐ Racial and ethnic minority populations have increased from 6.9 million in 2006 (19% of the older adult population) to 11.1 million in 2016 (23% of older adults) and are projected to increase to 21.1 million in 2030 (28% of older adults).
- ☐ The number of Americans aged 45-64 – who will reach age 65 over the next two decades – increased by 12% between 2006 and 2016.
- ☐ About one in every seven, or 15.2%, of the population is an older American.
- ☐ Persons reaching age 65 have an average life expectancy of an additional 19.4 years (20.6 years for females and 18 years for males).
- ☐ There were 81,896 persons age 100 and over in 2016 (0.2% of the total age 65 and over population).
- ☐ Older women outnumber older men at 27.5 million older women to 21.8 million older men.
- ☐ In 2016, 23% of persons age 65 and over were members of racial or ethnic minority populations--9% were African-Americans (not Hispanic), 4% were Asian or Pacific Islander (not Hispanic), 0.5% were Native American (not Hispanic), 0.1% were Native Hawaiian/Pacific Islander, (not Hispanic), and 0.7% of persons 65+ identified themselves as being of two or more races. Persons of Hispanic origin (who may be of any race) represented 8% of the older population.
- ☐ A larger percentage of older men are married as compared with older women--- 70% of men, 46% of women. In 2017, 33% older women were widows.
- ☐ About 28% (13.8 million) of noninstitutionalized older persons lived alone (9.3 million women,
  4.5 million men).
- ☐ Almost half of older women (45%) age 75 and over lived alone.
- ☐ The median income of older persons in 2016 was $31,618 for males and $18,380 for

females. The real median income (after adjusting for inflation) of all households headed by older people increased by 2.1% (which was not statistically significant) between 2015 and 2016. Households containing families headed by persons age 65 and over reported a median income in 2016 of $58,559.

- ☐ The major sources of income as reported by older persons in 2015 were Social Security (reported by 84% of older persons), income from assets (reported by 63%), earnings (reported by 29%), private pensions (reported by 37%), and government employee pensions (reported by 16%).
- ☐ Social Security constituted 90% or more of the income received by 34% of beneficiaries in 2015 (23% of married couples and 43% of non-married beneficiaries).
- ☐ Over 4.6 million older adults (9.3%) were below the poverty level in 2016. This poverty rate is not statistically different from the poverty rate in 2015 (8.8%). In 2011, the U.S. Census Bureau released a new Supplemental Poverty Measure (SPM) which takes into account regional variations in living costs, non-cash benefits received, and non-discretionary expenditures but does not replace the official poverty measure. In 2016, the SPM showed a poverty level for persons age 65 and over of 14.5% (more than 5 percentage points higher than the official rate of 9.3%). This increase is mainly due to including medical out-of-pocket expenses in the poverty calculations.
- ☐ The need for caregiving increases with age. In January-June 2017, the percentage of older adults age 85 and over needing help with personal care (22%) was more than twice the percentage for adults ages 75–84 (9%) and more than six times the percentage for adults ages 65–74 (3%).

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[1] Principal sources of data for the Profile are the U.S. Census Bureau, the National Center for Health Statistics, and the Bureau of Labor Statistics. The Profile incorporates the latest data available but not all items are updated on an annual basis. [2] This report includes data on the 65 and over population unless otherwise noted. The phrases “older adults” or “older persons” refer to the population age 65 and over.

[3] Numbers in this report may not add up due to rounding.

The Older Population

In the United States, the population age 65 and over numbered 49.2 million in 2016 (the most recent year for which data are available). They represented 15.2% of the population, about one in every seven Americans. The number of older Americans increased by 12.1 million or 33% since 2006, compared to an increase of 5% for the under-65 population.

Between 2006 and 2016, the number of Americans aged 45-64 (who will reach age 65 over the next two decades) increased by 12% and the number of Americans age 60 and over increased by 36% from 50.7million to 68.7 million.

In 2016, among the population age 65 and over there were 27.5 million women and 21.8 million men, or a sex ratio of 126 women for every 100 men. At age 85 and over, this ratio increased to 187 women for every 100 men.

Since 1900, the percentage of Americans age 65 and over has more than tripled (from 4.1% in 1900 to 15.2% in 2016), and the number has increased over fifteen times (from 3.1 million to 49.2 million). The older population itself is increasingly older. In 2016, the 65-74 age group (28.6 million) was more than 13 times larger than in 1900 (2,186,767); the 75-84 group (14.2 million) was more than 18 times larger (771,369), and the 85+ group (6.4 million) was 52 times larger (122,362).

In 2016, persons reaching age 65 had an average life expectancy of an additional 19.4 years (20.6 years for females and 18 years for males). A child born in 2016 could expect to live 78.6 years, more than 30 years longer than a child born in 1900 (47.3 years). Much of this increase occurred because of reduced death rates for children and young adults. However, the period of 1990-2007 also has seen reduced death rates for the population aged 65- 84, especially for men – by 41.6% for men aged 65-74 and by 29.5% for men aged 75-84. Life expectancy at age 65 increased by only 2.5 years between 1900 and 1960, but has increased by 4.2 years from 1960 to 2007.

Nonetheless, some research has raised concerns about future increases in life expectancy in the US compared to other high-income countries, primarily due to past smoking and current

obesity levels, especially for women age 50 and over (National Research Council, 2011).

In 2016, 3.5 million persons celebrated their 65th birthday. Census estimates showed an annual net increase between 2015 and 2016 of 1.5 million in the number of persons age 65 and over.

Between 1980 and 2016, the centenarian population experienced a larger percentage increase than did the total population. There were 81,896 persons age 100 and over in 2016 (0.2% of the total age 65 and over population). This is more than double the 1980 figure of 32,194.

Sources: U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2016. Release Date: June 2017; Table 1. Intercensal Estimates of the Resident Population by Sex and Age for the United States: April 1, 2000 to July 1, 2010. Release Date: September 2011; Annual Estimates of the Resident Population by Single Year of Age and Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2016. Release Date: June 2017; 2010 Census Special Reports, Centenarians: 2010, C2010SR-03, 2012; Hobbs, Frank and Nicole Stoops, Census 2000 Special Reports, Series CENSR-4, Demographic Trends in the 20th Century, Table 5. Population by Age and Sex for the United States: 1900 to 2000, Part A; National Center for Health Statistics, Kochanek KD, Murphy SL, Xu JQ, Arias E. Mortality in the United States, 2016. NCHS data brief, no 293. Hyattsville, MD: December 2017; and National Research Council, Crimmins EM, Preston SH, Cohen B, editors. Explaining Divergent Levels of Longevity in High-Income Countries. Panel on Understanding Divergent Trends in Longevity in High-Income Countries, 2011.

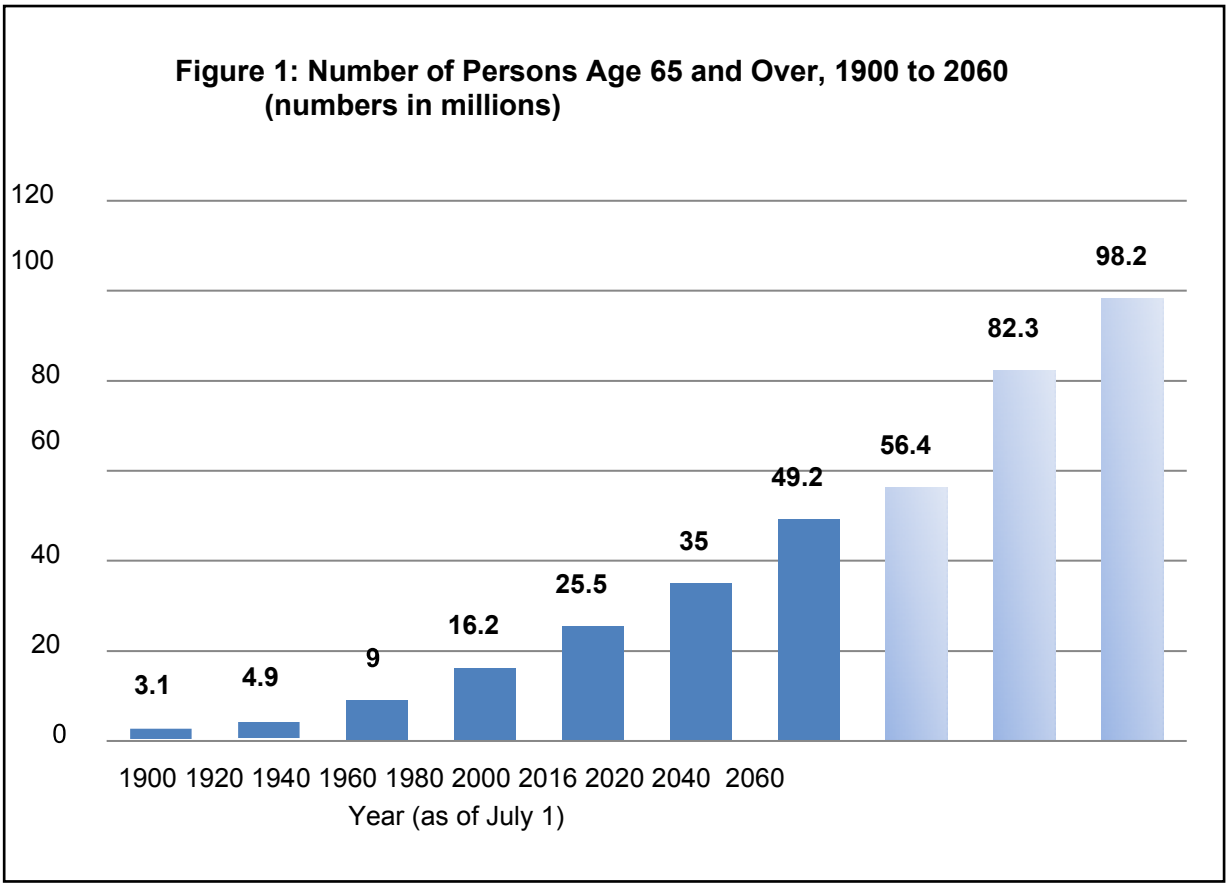
Future Growth

The older population is expected to continue to grow significantly in the future (Figure 1). This growth slowed somewhat during the 1990's because of the relatively small number of babies born during the Great Depression of the 1930's. But the older population is beginning to burgeon as approximately one-third of the "baby boom" generation is now age 65 and over.

The population age 65 and over has increased from 37.2 million in 2006 to 49.2 million in 2016 (a 33% increase) and is projected to almost double to 98 million in 2060. By 2040, there will be about 82.3 million older persons, over twice their number in 2000. People age 65 and over represented 15.2% of the population in the year 2016 but are expected to grow to be 21.7% of the population by 2040. The 85 and over population is projected to more than double from 6.4 million in 2016 to 14.6 million in 2040 (a 129% increase).

Racial and ethnic minority populations have increased from 6.9 million in 2006 (19% of the older adult population) to 11.1 million in 2016 (23% of older adults) and are projected to increase to 21.1 million in 2030 (28% of older adults). Between 2016 and 2030, the white (not Hispanic) population age 65 and over is projected to increase by 39% compared to 89% for older racial and ethnic minority populations, including Hispanics (112%), African-Americans (not Hispanic) (73%), American Indian and Native Alaskans (not Hispanic) (72%), and Asians (not Hispanic) (81%).

Figure 1: Number of Persons Age 65 and Over: 1900-2060 (numbers in millions)



Note: Increments in years are uneven. Lighter bars indicate projections. Source: U.S. Census Bureau, Population Estimates and Projections.

Sources: U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2016, Release Date: June 2017; Intercensal Estimates of the Resident Population by Sex and Age for the United States: April 1, 2000 to July 1, 2010. Release Date: September 2011; Intercensal Estimates of the White Alone Not Hispanic Resident Population by Sex and Age for the United States: April 1, 2000 to July 1, 2010. Release Date: September 2011; 2014 National Population Projections: Summary Tables, Table 3.

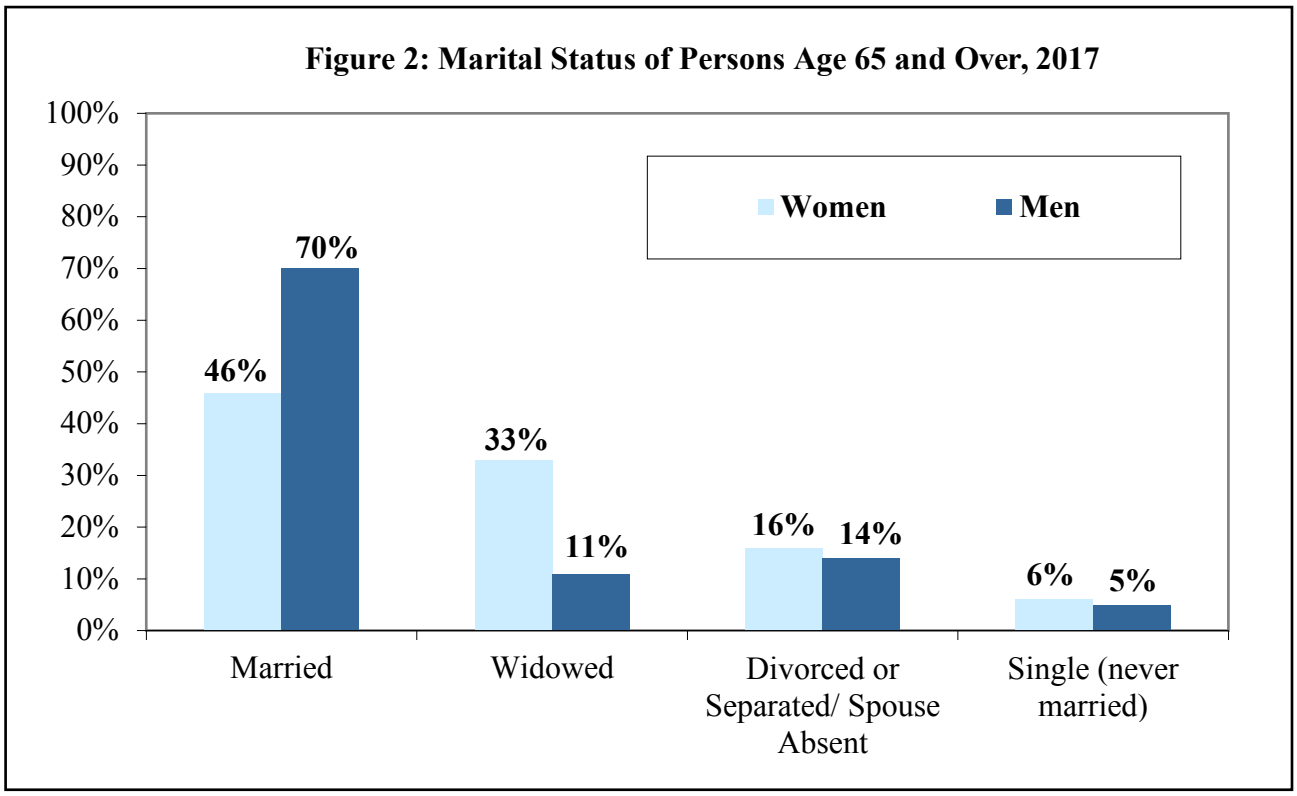
Projections of the Population by Sex and Selected Age Groups for the United States: 2015 to 2060, released December 10, 2014; and NP2014_D1: Projected Population by Single Year of Age, Sex, Race, and Hispanic Origin for the United States: 2014 to 2060. Release date: December 2014.

Marital Status

In 2017, a larger percentage of older men were married as compared with older women--70% of men, 46% of women (Figure 2). Widows accounted for 33% of all older women in 2017. There were more than three times as many widows (8.9 million) as widowers (2.5 million).

Divorced and separated (including married/spouse absent) older persons represented only 15% of all older persons in 2017. However, this percentage has increased since 1980, when approximately 5.3% of the older population were divorced or separated/spouse absent.

Figure 2: Marital Status of Persons Age 65 and over, 2017



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Living Arrangements

Over half (59%) of older noninstitutionalized persons age 65 and over lived with their spouse (including partner) in 2017. Approximately 16 million or 72% of older men, and 12.9 million or 48% of older women, lived with their spouse (Figure 3). The proportion living with their spouse decreased with age, especially for women. Only 34% of women 75 and over years old lived with a spouse.

About 28% (13.8 million) of all noninstitutionalized older persons in 2017 lived alone (9.3 million women, 4.5 million men). They represented 34% of older women and 20% of older men. The proportion living alone increases with advanced age. Among women age 75 and over, for example, almost half (45%) lived alone.

A relatively small number (1.5 million) and percentage (3.1%) of the 65 and over population lived in institutional settings in 2016. Among those who did, 1.2 million lived in nursing homes. However, the percentage increases dramatically with age, ranging from 1% for persons ages 65-74 to 3% for persons ages 75-84 and 9% for persons age 85 and over.

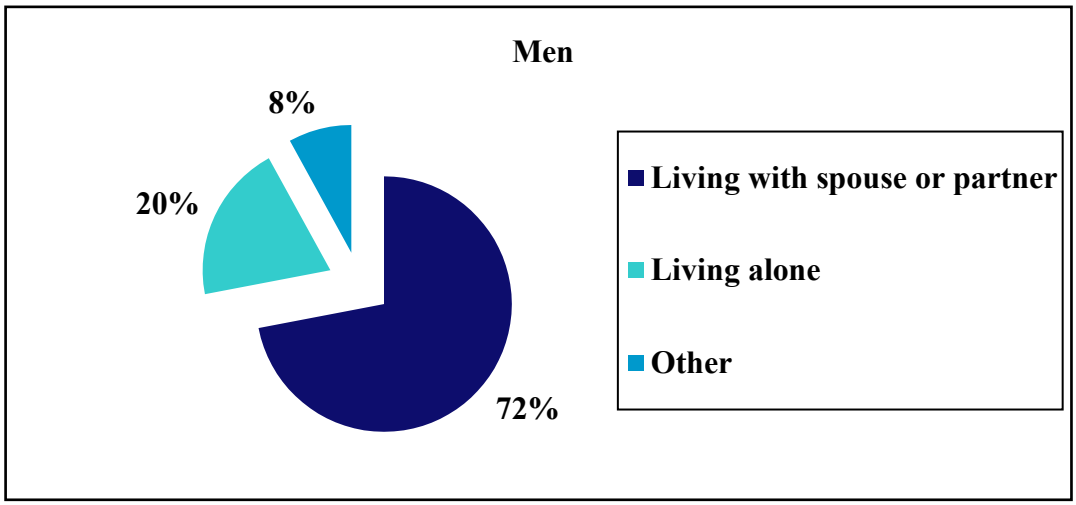
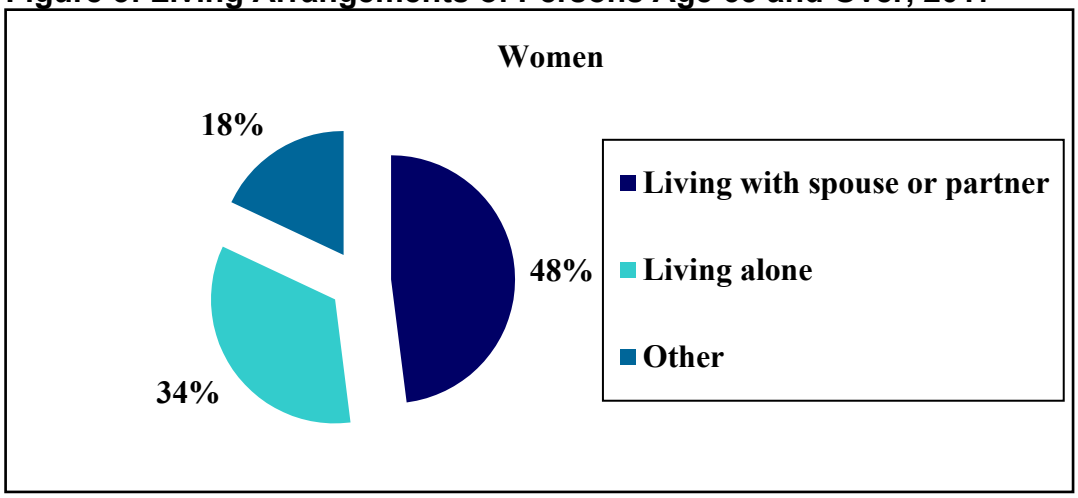


Figure 3: Living Arrangements of Persons Age 65 and Over, 2017



Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Sources: U.S. Census Bureau, American Community Survey; Current Population Survey, Annual Social and Economic Supplement 1967 to present; Table AD3. Living arrangements of adults 65 to 74 years old, 1967 to present; Table AD3. Living arrangements of adults 75 and over, 1967 to present.

Racial and Ethnic Composition

In 2016, 23% of persons age 65 and over were members of racial or ethnic minority populations—9% were African-Americans (not Hispanic), 4% were Asian or Pacific Islander (not Hispanic), 0.5% were Native American (not Hispanic), 0.1% were Native Hawaiian/Pacific Islander, (not Hispanic), and 0.7% of persons age 65+ identified themselves as being of two or more races. Persons of Hispanic origin (who may be of any race) represented 8% of the older population.

Only 9% of all the people who were members of racial and ethnic minority populations were age 65 and over in 2016 compared to 19% of non-Hispanic whites. The percentage of people age 65 and over within each racial and ethnic minority group were as follows: 11% of African-Americans (not Hispanic), 12% of Asians (not Hispanic), 9% of Native Hawaiian and Other Pacific Islanders (not Hispanic), 11% of American Indian and Native Alaskans (not Hispanic), and 7% of Hispanics.

Source: U.S. Census Bureau, Population Division, Annual Estimates of the Resident Population by Sex, Age, Race, and Hispanic Origin for the United States and States: April 1, 2010 to July 1, 2016. Release Date: June 2017.

Geographic Distribution

The proportion of older persons in the population varied considerably by state with some states experiencing much greater growth in their older populations (Figures 4 and 5). In 2016, more than half (54%) of persons age 65 and over lived in 10 states: California (5.3 million); Florida (4.1 million); Texas (3.4 million); New York (3.0 million); Pennsylvania (2.2 million); Ohio (1.9 million); Illinois (1.9 million); Michigan (1.6 million); North Carolina (1.6 million); and New Jersey (1.4 million). Georgia, Virginia, Arizona, Washington, Massachusetts, and Tennessee each had over 1 million people age 65 and over in 2016 (Figure 6).

The five states with the highest percentage of persons age 65 and over in 2016 were Florida (19.9%), Maine (19.4%), West Virginia (18.8%), Vermont (18.1%), and Montana (17.7%).

In four states, the age 65 and over population increased by 50% or more between 2006 and 2016: Alaska (66%); Nevada (57%); Colorado (55%); and Arizona (50%).

The 14 states with poverty rates at or over 10% for older adults during 2016 were: District of Columbia (13.4%); Louisiana (13%); Mississippi (12.3%); New Mexico (11.5%); New York (11.4%); Kentucky (11.1%); South Dakota (10.9%); Arkansas (10.5%); Texas (10.5%); Florida (10.4%); California (10.3%);

Georgia (10.1%);
Alabama (10.0%); and Idaho (10.0%).

A smaller percentage of older adults changed residence as compared with younger age groups. From 2016 to 2017, only 4% of older persons moved as opposed to 12% of the under age 65 population. Most older movers (57%) stayed in the same county and 21% remained in the same state (different county). Only 22% moved out-of- state or abroad.

Sources: Administration for Community Living agid.acl.gov. Data Source: Population Estimates 2006, accessed January 30, 2018. U.S. Census Bureau, American Community Survey; Current Population Survey, Annual Social and Economic Supplement; Table 1. General Mobility, by Race and Hispanic Origin, Region, Sex, Age, Relationship to Householder, Educational Attainment, Marital Status, Nativity, Tenure, and Poverty Status: 2016 to 2017; Annual Estimates of the Resident Population for Selected Age Groups by Sex for the United States, States, Counties, and Puerto Rico Commonwealth and Municipios: April 1, 2010 to July 1, 2016. Release date June 2017.

Figure 4: Persons Age 65 and Over as a Percentage of Total Population, 2016

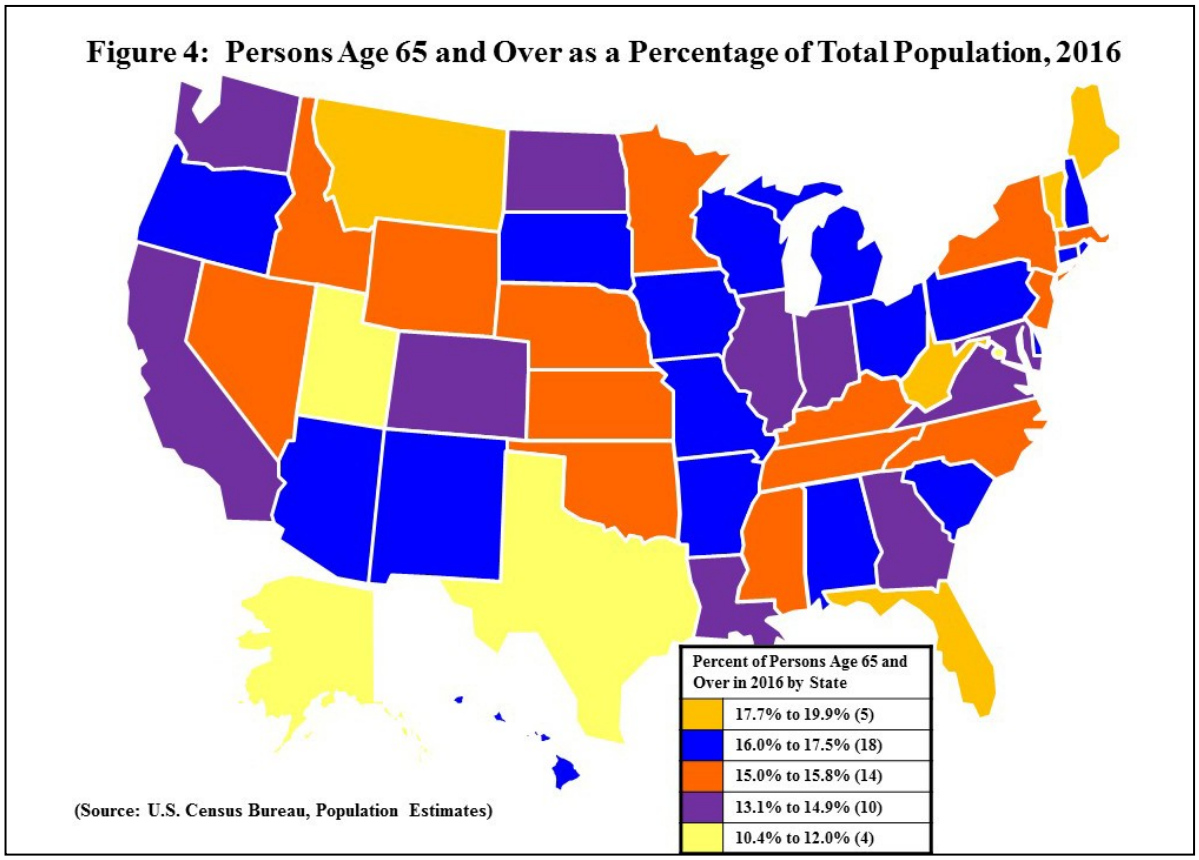


Figure 5: Percent Increase in Population Age 65 and Over, 2006 to 2016

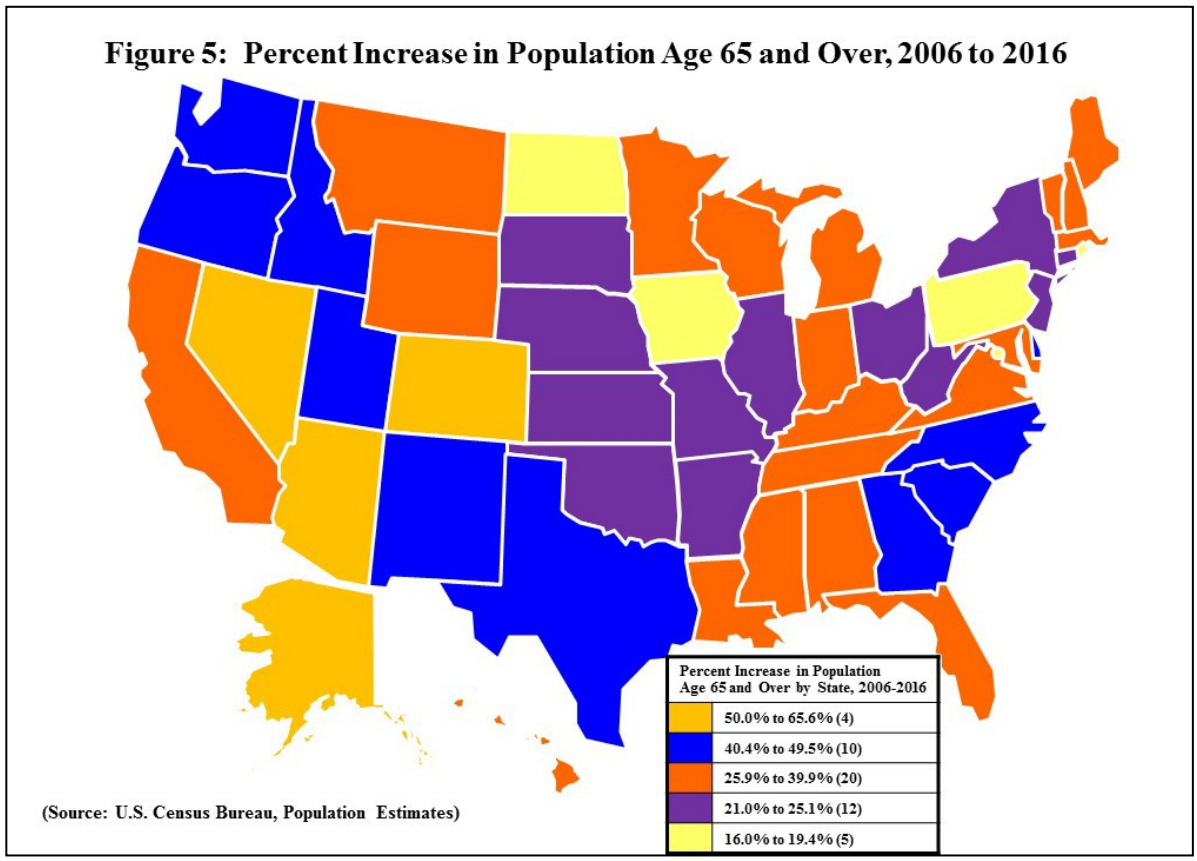


Figure 6: The Age 65 and Over Population by State, 2016

State	Number of Persons 65 and Over (1)	Percent of All Ages	Percent Increase from 2006 to 2016	Percent Below Poverty 2016 (2)
US Total (50 States+ DC)	49,244,195	15.20%	32.5	9.30%
Alabama	784,551	16.10%	28.0	10.00%
Alaska	77,206	10.40%	65.6	4.20%
Arizona	1,170,924	16.90%	50.0	9.00%
Arkansas	486,734	16.30%	24.0	10.50%
California	5,346,635	13.60%	38.1	10.30%
Colorado	743,524	13.40%	55.0	7.60%
Connecticut	577,403	16.10%	21.2	6.50%
Delaware	166,950	17.50%	44.2	6.90%
District of Columbia	78,691	11.60%	19.4	13.40%
Florida	4,094,917	19.90%	36.3	10.40%
Georgia	1,354,662	13.10%	49.4	10.10%
Hawaii	243,962	17.10%	37.3	8.90%
Idaho	254,989	15.10%	48.7	10.00%
Illinois	1,871,264	14.60%	22.8	9.20%
Indiana	991,563	14.90%	25.9	7.70%
Iowa	514,215	16.40%	17.1	6.90%
Kansas	436,993	15.00%	21.7	8.00%
Kentucky	690,717	15.60%	28.3	11.10%
Louisiana	674,443	14.40%	30.9	13.00%
Maine	257,683	19.40%	32.4	9.10%
Maryland	876,210	14.60%	35.6	8.20%
Massachusetts	1,073,964	15.80%	26.3	8.50%
Michigan	1,611,755	16.20%	27.0	8.10%
Minnesota	832,228	15.10%	31.8	7.20%
Mississippi	450,941	15.10%	26.0	12.30%
Missouri	978,021	16.10%	24.8	8.20%
Montana	185,040	17.70%	39.5	8.90%
Nebraska	286,744	15.00%	21.6	7.80%

Nevada	441,142	15.00%	57.3	8.70%
New Hampshire	226,804	17.00%	39.9	4.60%
New Jersey	1,372,612	15.30%	22.1	8.30%
New Mexico	342,426	16.50%	40.4	11.50%
New York	3,032,509	15.40%	21.8	11.40%
North Carolina	1,569,465	15.50%	43.1	9.40%
North Dakota	109,999	14.50%	16.0	7.90%
Ohio	1,886,629	16.20%	22.4	8.10%
Oklahoma	590,138	15.00%	24.2	8.60%
Oregon	688,878	16.80%	42.8	7.50%
Pennsylvania	2,223,721	17.40%	17.5	7.80%
Rhode Island	173,964	16.50%	17.4	9.10%
South Carolina	830,232	16.70%	49.5	8.60%
South Dakota	138,805	16.00%	25.1	10.90%
Tennessee	1,047,052	15.70%	35.3	8.90%
Texas	3,353,240	12.00%	44.0	10.50%
Utah	321,164	10.50%	44.8	6.70%
Vermont	112,932	18.10%	35.2	8.70%
Virginia	1,228,744	14.60%	39.7	7.80%
Washington	1,081,063	14.80%	47.2	7.60%
West Virginia	343,517	18.80%	21.0	9.50%
Wisconsin	928,418	16.10%	26.7	7.60%
Wyoming	87,812	15.00%	38.0	8.50%
Puerto Rico	645,887	18.90%	26.3	38.10%

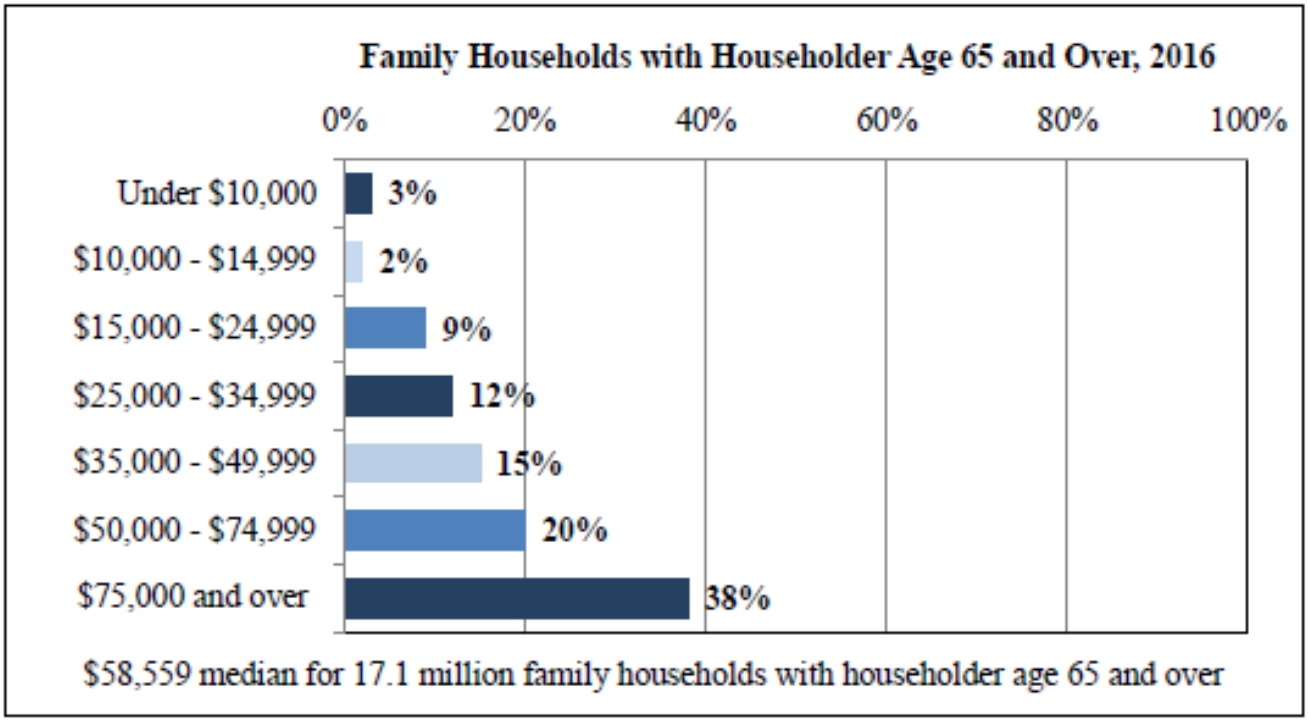
Notes: (1) Population Estimates (2) Poverty data for the US total are from the Current Population Survey, Poverty data for States and Puerto Rico are from the American Community Survey.

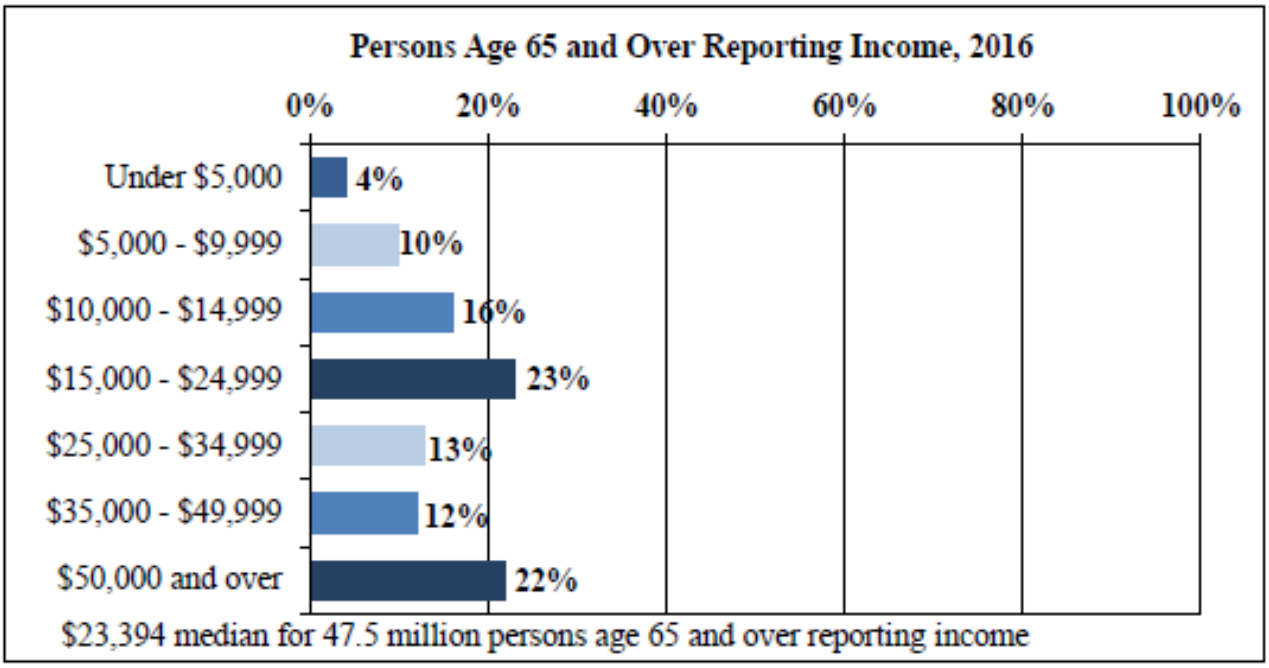
Data Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement; Population Estimates; and American Community Survey.

Income

The median income of older persons in 2016 was $31,618 for males and $18,380 for females. From 2015 to 2016, the real median income (after adjusting for inflation) of all households headed by older people increased by 2.1% which was not statistically significant. Households containing families headed by persons age 65 and over reported a median income in 2016 of $58,559 ($61,458 for non-Hispanic Whites, $44,986 for Hispanics, $43,554 for African-Americans, and $66,116 for Asians). About 5% of family households with an older adult householder had incomes less than $15,000 and 73% had incomes of $35,000 or more (Figure 7).

Figure 7: Percent Distribution by Income: 2016





Note: Percentages may not add to 100 due to rounding.
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

For all older persons reporting income in 2016 (47.5 million), 14% reported less than $10,000 and 47% reported
$25,000 or more. The median income reported was $23,394.

The major sources of income as reported by older persons in 2015 were Social Security (reported by 84% of older persons), income from assets (reported by 63%), earnings (reported by 29%), private pensions (reported by 37%), and government employee pensions (reported by 16%). In 2015, Social Security benefits accounted for 33% of the aggregate income[4] of the older population. The bulk of the remainder consisted of earnings (34%), asset income (9%), pensions (20%) and other (4%). Social Security constituted 90% or more of the income received by 34% of beneficiaries (23% of married couples and 43% of non-married beneficiaries).

Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, FINC-01.

Selected Characteristics of Families by Total Money Income in 2016; PINC-01. Selected Characteristics of People 15 Years Old and Over by Total Money Income in 2016, Work Experience in 2016, Race, Hispanic Origin, and Sex; and U.S. Census Bureau, Income and Poverty in the United States: 2016, Current Population Reports, P60-259, issued September 2017. Social Security Administration, “Fast Facts and Figures About Social Security, 2017.”

Poverty

Over 4.6 million people age 65 and over (9.3%) were below the poverty level in 2016.[5] This poverty rate is not statistically different from the poverty rate in 2015 (8.8%). Another 2.4 million or 4.9% of older adults were classified as "near-poor" (income between the poverty level and 125% of this level).

In 2016, 2.7 million older Whites (alone, not Hispanic) (7.1%) were poor in 2016, compared to 18.7% of older African-Americans (alone), 11.8% of older Asians (alone), and 17.4% of older Hispanics (any race).

Older women had a higher poverty rate (10.6%) than older men (7.6%) in 2016. A higher percentage of older persons living alone were poor (17.3%) as compared with older persons living with families (5.3%). The highest poverty rates were experienced among older Hispanic women who lived alone (39.5%).

In 2011, the U.S. Census Bureau released a new Supplemental Poverty Measure (SPM). The SPM methodology shows a significantly higher number of older persons below poverty than is shown by the official poverty measure. For persons age 65 and over, this poverty measure showed a poverty level of 14.5% in 2016 (more than 5 percentage points higher than the official rate of 9.3%). Unlike the official poverty rate, the SPM takes into account regional variations in the cost of housing etc. and, even more significantly, the impact of both non-cash benefits received (e.g., SNAP/food stamps, low income tax credits, and WIC) and non-discretionary expenditures including medical out-of-pocket (MOOP) expenses. For persons 65 and over, MOOP was the major source of the significant differences between these measures. The SPM does not replace the official poverty measure.

Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement; POV01: Age and Sex of All People, Family Members and Unrelated Individuals Iterated by Income-to-Poverty Ratio and

Race: 2016; "Income and Poverty in the United States: 2016," P60-259, issued September, 2017; Poverty Thresholds for 2016 by Size of Family and Number of Related Children Under 18 Years; and “The Supplemental Poverty Measure: 2016,” P60-261(RV), revised September 2017.

[4] Aggregate income refers to the total income of couples and nonmarried persons aged 65 or older.

[5] The poverty threshold in 2016 was $11,511 for householders age 65 and over living alone.

Housing

Of the 11.9 million households headed by persons age 75 and over in 2015, 76% were owners and 24% were renters. The median family income of older homeowners was $31,000. The median family income of older renterswas $17,400. In 2015, almost 44% of older householders spent more than one-third of their income on housing costs - 36% for owners and 78% for renters.

For older homeowners age 75 and over in 2015, the median construction year was 1969 compared to 1978 for all homeowners. Among the homes owned by people age 75 and over, 3.5% had moderate to severe problems with plumbing, heating, electric, wiring, and/or upkeep. In 2015, the median value of homes owned by older persons was $150,000 (with a median purchase price of $53,000). In comparison, the median home value all homeowners was $180,000 (with a median purchase price of $127,000). About 78% of older homeowners in 2015 owned their homes free and clear.

Source: Department of Housing and Urban Development, American Housing Survey, National Tables: 2015.

Employment

In 2017, 9.6 million (19.3%) Americans age 65 and over were in the labor force (working or actively seeking work), including 5.3 million men (23.9%) and 4.3 million women (15.7%). They constituted 6% of the U.S. labor force. About 3.6% were unemployed. Labor force participation of men age 65 and over decreased steadily from 63.1% in 1900 to 15.8% in 1985; then stayed at 16%-18% until 2002; and has been increasing since then to over 20%. The participation rate for women age 65 and over rose slightly from 8.3% in 1900 to 10.9% in 1956, fell to 7.3% in 1985, and then stayed at 8%-9% during the 1990s. Beginning in 2000, labor force participation of older women started to gradually rise from 9.7% to the 2017 level of

15.7%. This increase is especially noticeable among the population ages 65-69.

Source: Bureau of Labor Statistics, Current Population Survey, Labor Force Statistics, Household Data, Annual Averages, Table 3. Employment status of the civilian noninstitutional population by age, sex, and race.

Education

The educational level of the older population is increasing. Between 1970 and 2017, the percentage of older persons who had completed high school rose from 28% to 86%. About 30% in 2017 had a bachelor's degree or higher. The percentage who had completed high school varied considerably by race and ethnic origin in 2017: 91% of Whites (not Hispanic), 79% of Asians (not Hispanic), 75% of African-Americans (not Hispanic), 79% of American Indian/Alaska Natives (not Hispanic), and 58% of Hispanics. The increase in educational levels is also evident within these groups. In 1970, only 30% of older Whites and 9% of older African-Americans were high school graduates.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Health and Health Care

In June-July 2017, 45% of noninstitutionalized people age 65 and over assessed their health as excellent or very good (compared to 64% for persons ages 18-64 years). Most older persons have at least one chronic condition and many have multiple conditions. In 2015, among persons age 65 and over, the top five chronic conditions were hypertension (58%), hyperlipidemia (48%), arthritis (31%), ischemic heart disease (29%), and diabetes (27%).

In January-June 2017, 71% of people age 65 and over reported that they received an influenza vaccination during the past 12 months and 69% reported that they had ever received a pneumococcal vaccination. About 31% (of persons age 60 and over) reported height/weight combinations that placed them among the obese. Slightly under half (44%) of persons ages 65-74 and 29% of persons age 75 and over reported that they engaged in regular leisure-time physical activity. Only 9% of persons age 65 and over reported that they were current smokers and 8% reported excessive alcohol consumption. Less than 3% of persons age 65 and over reported that they had experienced serious psychological distress during the past 30 days.

In 2015, 7.1 million people age 65 and over stayed in a hospital overnight at least one night during the

year. Among this group of older adults, 10% stayed overnight 1 time, 3% stayed overnight 2 times, and 2% stayed overnight 3 or more times. This is approximately double the number of overnight hospital stays for the population ages 45 to 64; 6% had stayed overnight 1 time, 1% stayed overnight 2 times, and 1% stayed overnight 3 or more times. Older persons averaged more office visits with doctors than younger persons in 2016. Among people age 75 and over, 19% had 10 or more visits to a doctor or other health care professional in the past 12 months compared to 17% among people ages 65 to 74,15% among people ages 45 to 64, and 11% among people ages 18
to 44.

In January-June 2017, 97% of persons age 65 and over reported that they did have a usual place to go for medical care and only 3% said that they failed to obtain needed medical care during the previous 12 months due to cost.

In 2016, consumers age 65 and over averaged out-of-pocket health care expenditures of $5.994, an increase of 38% since 2006 ($4,331). In contrast, the total population spent considerably less, averaging $4,612 in out-of- pocket costs. Older Americans spent 13.1% of their total expenditures on health, as compared to 8% among all consumers. Health costs incurred on average by older consumers in 2016 consisted of $4,159 (69%) for insurance,
$913 (15%) for medical services, $715 (12%) for drugs, and $207 (3%) for medical supplies.

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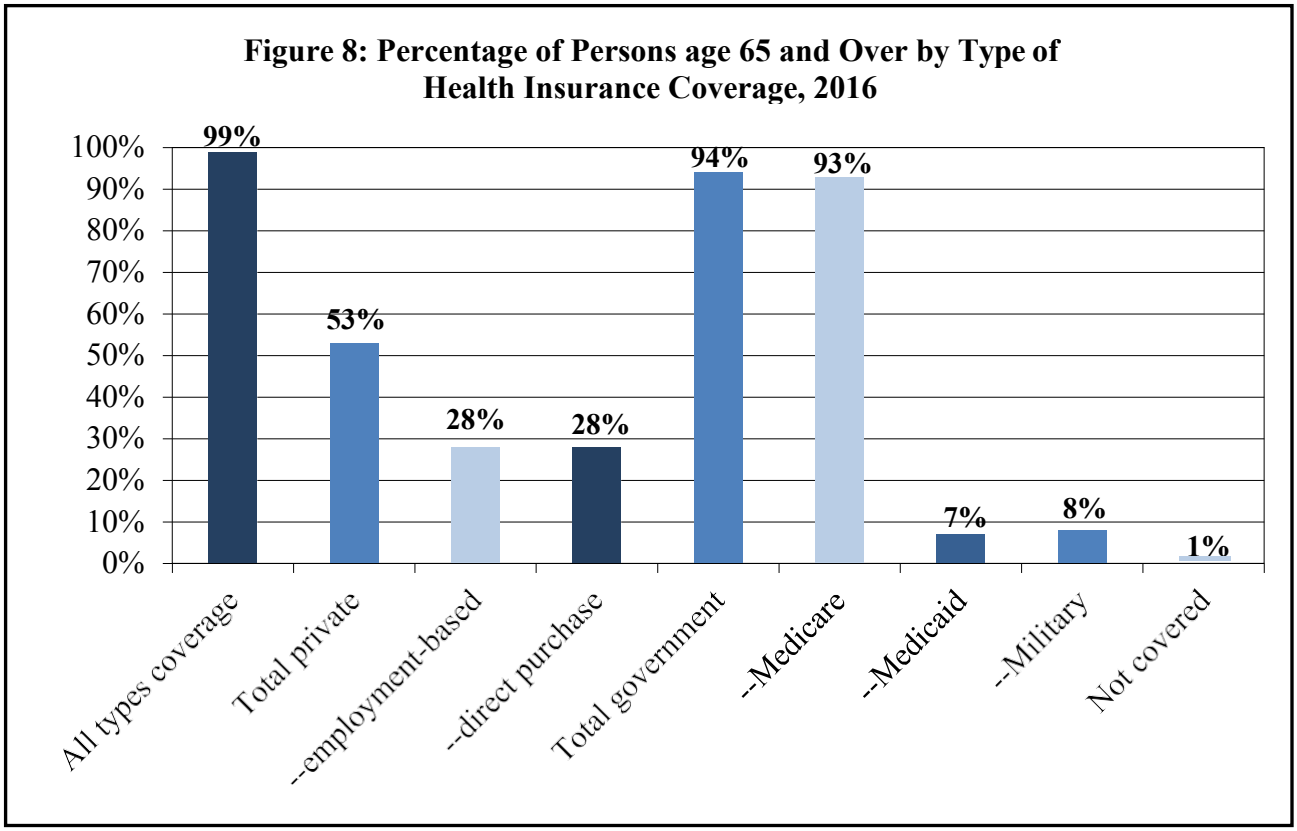
Sources: National Center for Health Statistics, National Health Interview Survey, Early Release of Selected Estimates Based on Data from the January-June 2017; Tables of Summary Health Statistics for U.S. Adults: 2015 and 2016; Centers for Medicare and Medicaid Services, Medicare claims data. Bureau of Labor Statistics, Consumer Expenditure Survey, Table 1300. Age of Reference Person: Annual Expenditures Means, Shares, Standard Errors, and Coefficient of Variation, 2016. Table 3. Age of reference person: Average annual expenditures and characteristics, Consumer Expenditure Survey, 2006.

Health Insurance Coverage

In 2016, almost all (93%) non-institutionalized persons age 65 and over were covered by Medicare. Medicare covers mostly acute care services and requires beneficiaries to pay part of the cost, leaving about half of health spending to be covered by other sources. About half of older adults (53%) had some type of private health insurance, 8% had military-based health insurance,7% were covered by Medicaid, and 1% had no coverage (Figure 8).

Figure 8: Percentage of Persons Age 65 and Over by type of Health Insurance Coverage, 2016



Note: A person can be represented in more than one category.

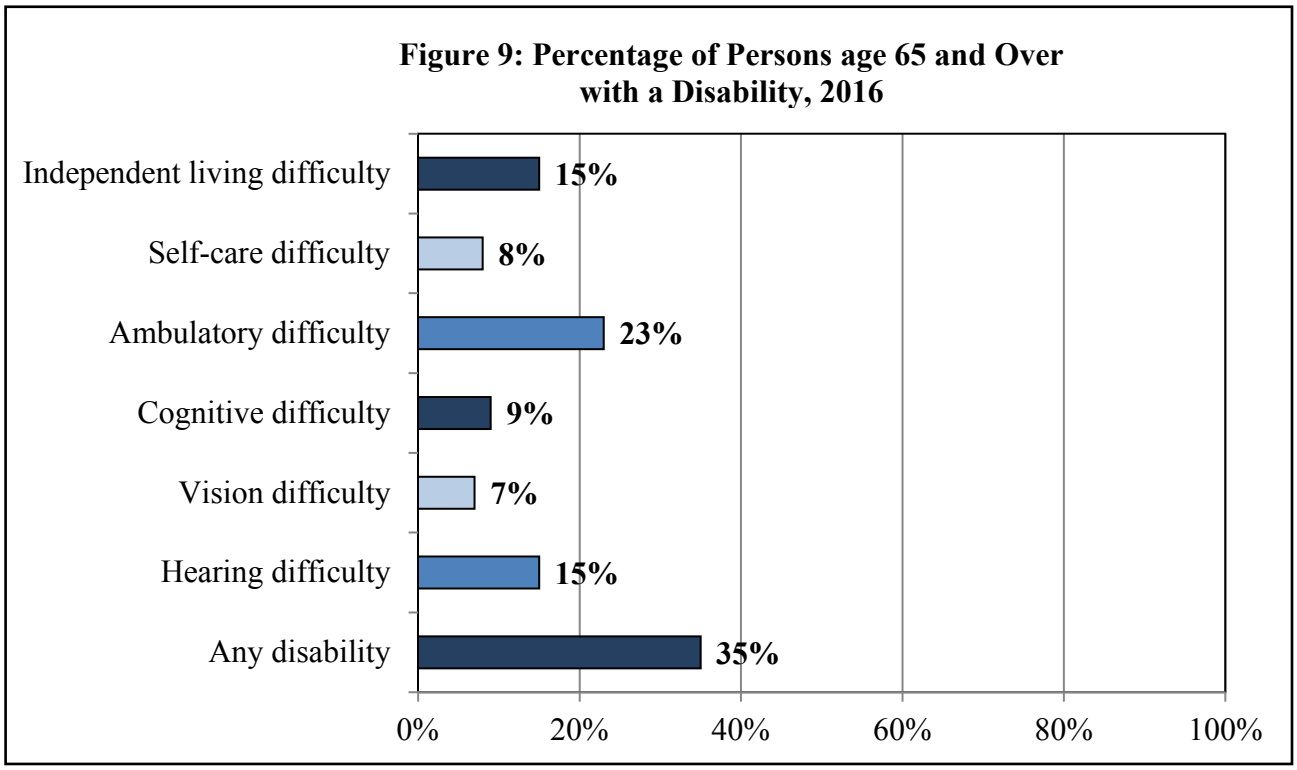
Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement.

Sources: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement; Table HI01. Health Insurance Coverage Status and Type of Coverage by Selected Characteristics: 2016.

Disability and Physical Functioning

According to the U.S. Census Bureau's American Community Survey, some type of disability (i.e., difficulty in hearing, vision, cognition, ambulation, self-care, or independent living) was reported by 35% of people age 65 and over in 2016. The percentages for individual disabilities ranged from almost one quarter (23%) having an ambulatory disability to 7% having a vision difficulty (Figure 9).

Figure 9: Percentage of persons age 65 and over with a disability, 2016



Source: U.S. Census Bureau, American Community Survey.

In 2016, 44.3% of people age 75 and over reported having a difficulties in physical functioning. This percentage is more than twice as large as for the age group 45 to 64 (19.7%). The percentage of people age 75 and over reporting difficulties in physical functioning ranged from 4.9% reporting it was very difficult to (or cannot) sit for 2 hours to 29.2% reporting it was very difficult to (or cannot) stand for 2 hours.

Sources: U.S. Census Bureau, American Community Survey. National Center for Health Statistics, National Health Interview Survey.

Caregiving

The need for caregiving increases with age. In January-June 2017, the percentage of older adults age 85 and over needing help with personal care (22%) was more than twice the percentage for adults ages 75–84 (9%) and more than six times the percentage for adults ages 65–74 (3%).

Older adults not only need care, but often also provide care to younger family members. For example, approximately 1 million grandparents age 60 and over were responsible for the basic needs of one or more grandchildren under age 18 living with them in 2016. Of these caregivers, 58% were grandmothers and 42% were grandfathers.

In addition, in 2015, among the 3.6 million people with Intellectual and Developmental Disabilities (I/DD)[6] living with a family caregiver, 24% had caregivers who were age 60 and over (872,042). The percentage of people with I/DD living with older caregivers ranged from 11% in Alaska to 25% in Florida.

Sources: National Center for Health Statistics, National Health Interview Survey, Early Release of Selected Estimates Based on Data from the January-June 2017. U.S. Census Bureau, American Community Survey. Braddock, D., Hemp, R., Tanis, E.S. Wu, J. & Haffer, L. (2017). State of the States in Developmental Disabilities. American Association on Intellectual and Developmental Disabilities.

[6] The total number of people with Intellectual and Developmental Disabilities (I/DD) is estimated to be 5 million.

Notes

Principal sources of data for the Profile are the U.S. Census Bureau, the National Center for Health Statistics, and the Bureau of Labor Statistics. The Profile incorporates the latest data available but not all items are updated on an annual basis.

Numbers in this report may not add up due to rounding. Age-adjusted estimates are used when available.
The data presented in this report refer to the noninstitutionalized population except where noted.

A Profile of Older Americans: 2017 was developed by the Administration on Aging (AoA), Administration for Community Living, U.S. Department of Health and Human Services.

AoA serves as an advocate for older adults within the federal government and is working to encourage and coordinate a responsive system of family and community based services throughout the nation. AoA helps states develop comprehensive service systems which are administered by 56 State Units on Aging, 629 Area Agencies on Aging, 263 Tribal organizations, and 1 Native Hawaiian organization.

Chapter 2. The Biopsychosocial Aspects of Aging

A. *Biological (Physical) Aspects of Aging*

Age-Related Diseases and Clinical and Public Health Implications for the 85 Years Old and Over Population

The following is sourced from the US National Library of Medicine

https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5732407/

Written by Efraim Jaul and Jeremy Barron

By 2050, the American 85 years old and over population will triple. Clinicians and the public health community need to develop a culture of sensitivity to the needs of this population and its subgroups. Sensory changes, cognitive changes, and weakness may be subtle or may be severe in the heterogeneous population of people over age 85. Falls, cardiovascular disease, and difficulty with activities of daily living are common but not universal. This paper reviews relevant changes of normal aging, diseases, and syndromes common in people over age 85, cognitive and psychological changes, social and environmental changes, and then reviews common discussions which clinicians routinely have with these patients and their families. Some hearing and vision loss are a part of normal aging as is decline in immune function. Cardiovascular disease and osteoporosis and dementia are common chronic conditions at age 85. Osteoarthritis, diabetes, and related mobility disability will increase in prevalence as the population ages and becomes more overweight. These population changes have considerable public health importance. Caregiver support, services in the home, assistive technologies, and promotion of

home exercise programs as well as consideration of transportation and housing policies are recommended. For clinicians, judicious prescribing and ordering of tests includes a consideration of life expectancy, lag time to benefit, and patient goals. Furthermore, healthy behaviors starting in early childhood can optimize quality of life among the oldest-old.

The percentage of national populations over age 65 has been increasing in the last 10 years and will continue to rise for another 20 years due to improved life expectancies and a post-World War 2 baby boom. Beginning in 2030, the numbers of adults over age 85 will rise quickly. By 2050, the number of adults over age 80 around the globe will triple from 2015 numbers (1). Some nations are aging even faster. Now is the time for the public health community to plan for the "older-older age wave." Many cities have begun to explore how to make themselves more "elder-friendly." As the baby boom-generation ages from 65 to 85, there will be a more intense need for services in the home and in community and institutional settings.

The aging process currently encompasses more than a generation and exceeds three decades. The common framework for describing different older adult populations is "young-old" (2), "old" (3), and "old-old." The "young-old" are people in their 60s and early 70s who are active and healthy. The "old" are people in their 70s and 80s who have chronic illnesses and are slowing down with some bothersome symptoms. The "old-old" or "oldest-old" (4) are often sick, disabled, and perhaps even nearing death.

When caring for older adults as a clinician or as a caregiver, predicting the future and then planning for the most likely aging trajectories are key steps. This paper presents a model for the clinical and public health needs of adults over age 85.

The changes associated with a chronologic age of 85 can be divided into a few domains: normal aging, common diseases, and functional, cognitive/psychiatric, and social changes.

Normal Aging

Although changes can be described in every organ system, this review will address changes with public health and clinical decision-making implications.

Sensory Changes

Hearing Loss

Hearing loss (presbycusis) and increased cerumen production with aging contribute to difficulty hearing. The prevalence of hearing loss increases as a function of age and accumulating risk factors and has a high association with reduced quality of life (5). Approximately one-half of adults over age 85 have hearing impairment (6). **Mild hearing loss can impair speech processing, particularly if speech is rapid or if multiple talkers in large rooms generate reverberant noise. Therefore, verbal communication difficulties are most prominent in settings where people gather. Increased social isolation mediates the observed associations between hearing loss and depression, cognitive decline, and reduced quality of life.**

The use of hearing aids could reverse adverse effects on the quality of life, and cognitive function in elderly adults (7). Unfortunately, among individuals with hearing loss in one study, only 14.6% reported currently using a hearing aid (8). Often, health insurance does not offer coverage for these devices.

Visual Acuity

Visual acuity decreases normally with age (presbyopia). Older adults will often have problems with glare, making night driving riskier. A (strike in) longitudinal survey

conducted in the UK on the population aged 75 and older found that prevalence of severe visual impairment was 23% at ages 85–89 and increased to 37% at age over 90 (9). Visual acuity deteriorates faster at higher ages. Cataract surgery is typically safe and sometimes helps function.

Vestibular Function

Dizziness is a common multifactorial geriatric syndrome contributing to falls. Vestibular function declines subtly with age. Vestibular rehabilitation can be an effective treatment (10).

Muscle Strength and Fat Changes

Muscle mass and strength decline starting in the fourth decade of life. **By age 85, approximately 20% of people meet criteria for sarcopenia (meaningful loss of muscle mass and strength) (11).** Chronic inflammation, declining hormone levels, impaired muscle mitochondrial function, and impaired muscle stem cell function all probably contribute to sarcopenia (12). This decline in muscle mass and increase in fat mass contributes to important changes in pharmacokinetics. Older adults may need lower medication doses than younger adults. Muscle weakness (13) and rapid rate of strength decline (14) both predict future mortality.

Immunosenescence

There are a wide variety of age-related changes in the immune system, some mediated by chronic inflammation and a chronic pro-inflammatory state. There is a decline in B cell function, a decline in T cell generation, altered T cell activation, and dysfunction of innate immunity (including impaired neutrophil function and chemotaxis and a dysregulated proinflammatory monocyte response). These changes (15) weaken the body's capacity to fight infection. For example, influenza infections are more common and more serious in older adults while the vaccine is less effective.

Cellular immune dysfunction also contributes to the prevalence of herpes zoster among older adults. Vaccines are generally not as effective for older adults. High doses of the influenza vaccine may be more helpful than standard doses (16). Chronically slowed inflammatory processes also contribute to slow wound healing in older adults (17).

Urologic Changes

The urinary bladder is often not sterile in older adults but rather is colonized with bacteria not causing infection. Asymptomatic bacteriuria is more common in women than men and is most frequent among hospitalized patients and residents of long-term care facilities (up to 50% of women in these high risk groups) (18). Use of antibiotics in this situation is inappropriate (19) and may contribute to antimicrobial resistance.

Somatic Disease and Multiple Chronic Conditions

Cardiovascular Disease

Cardiovascular disease remains the most common cause of death of older adults, although death rates have dropped in the last 20 years. This category includes chronic ischemic heart disease, congestive heart failure, and arrhythmia. Ischemic heart disease may be underdiagnosed in the oldest-old (20). Normal aging includes vascular remodeling and vascular stiffness (21). Atherosclerosis causes inflammation and further vascular changes (22) increasing risk for cardiac events, cerebrovascular events, peripheral vascular disease, cognitive impairment, and other organ damage.

Hypertension

Hypertension, a major contributor to atherosclerosis, is the most common chronic disease of older adults (23). Isolated systolic hypertension is particularly common among older adults and is associated with mortality even at advanced ages. The value of intensive pharmacotherapy for hypertension in people over age 75 remains controversial. Evidence seems to suggest that aggressive treatment should be offered (24) and continued as long as it is well-tolerated and consistent with the patient's goals.

Cancer

Cancer is the second leading cause of death in older adults. However, by age 85, the death rate from cancer begins to fall (25). Slow-growing tumors seem to be common in this population.

Response to cancer treatment depends on functional status rather than age. Individuals in their ninth or tenth decade should not be denied aggressive cancer treatment simply due to age.

Screening is not recommended for breast cancer after age 75, due to insufficient evidence for benefit, although there may be benefit for women with a long life expectancy (26, 27). Similarly, for people over age 75 in the US, colon cancer screening is only recommended in cases where there is a long predicted life expectancy and a perceived strong capacity to tolerate cancer treatment, if needed (27, 28). At any age, life expectancy is quite variable in older adults, based on comorbidities and other factors (29).

Screening for prostate cancer is not recommended due to frequent false positives, which are burdensome, and to identification of slow-growing tumors (30).

Osteoarthritis

Osteoarthritis is the second most common chronic condition (23) among American older adults and a common cause of chronic pain and disability. Fifty-two percent of 85-year olds had a diagnosis of osteoarthritis in one study (20). The prevalence of osteoarthritis seems to be higher among women than men. Obesity is a risk factor for osteoarthritis and as the population ages (and particularly as the overweight population ages), the rate of severe hip, and knee arthritis will increase. Pain management will continue to be a vexing clinical and health policy problem as virtually all analgesics have remarkable risks in older adults. Osteoarthritis treatments also include costly joint replacement surgery, which is often accompanied by intensive rehabilitative therapies. Low back pain is itself a common symptom particularly in older women and the cause is often multifactorial. Non-pharmacologic treatments can help.

Diabetes Mellitus

Diabetes rates have been increasing as populations age and become more overweight. The prevalence of diabetes among American older adults may increase more than 400% by 2050 (31). Diabetes remains a strong risk factor for cardiovascular disease at age 85 (32). Diabetes is also associated with peripheral arterial disease and peripheral neuropathy, contributing to diabetic foot ulcers and amputations. Diabetic foot ulcers occur in 6% of diabetic patients annually and amputations in about 0.5%. **Management approaches in diabetes should be individualized.** Sulfonylureas and insulin carry a substantial risk of hypoglycemia and use should be weighed carefully in vulnerable older adults. Transitions from hospital to home or post-acute care are risky times for patients treated with hypoglycemic agents as dosing needs may fluctuate (31). **Regular foot**

examinations are critical for people with diabetes to prevent amputations. Regular walking can improve circulation in the legs.

Osteoporosis

Osteopenia is normal loss of bone density with aging. Many 85-year-old adults have osteoporosis, a more severe weakening of bone density. Osteoporosis is associated with an increased rate of bone fractures, while osteopenia is not. Bone density screening is recommended for women over age 65 (33). Although the prevalence of fractures in men increases by age 85, the value of osteoporosis screening for men has not been clearly demonstrated. The effectiveness and safety of calcium and vitamin D supplementation in order to prevent fractures remains controversial.

Multiple Chronic Conditions

Sixty two percent of Americans over 65 have more than one chronic condition (34) and the prevalence of multiple chronic conditions is increasing (35), due to aging of populations and to increasing diabetes rates. Older adults with multiple chronic conditions account for a large percentage of health spending (36). Targeting this population for research and for quality improvement should improve care and reduce costs.

Physical Function

Normal age-related changes and accumulated pathology contribute to functional changes seen with aging.

Walking Speed

Walking speed declines with normal aging but will decline additionally due to disease. **Walking speed measurements can be used to predict future community**

ambulation, falls, disability (37), and risk of mortality (38). Measurement of walking speed is quick, safe, requires no special equipment, and adds no significant cost to clinical care. In one study, the average walking speed for the age group of 85–89 is 1.1 m/s for men and 0.8 m/s for women. After age 90 years, mean walking speed decreased to 0.9 m/s for men and 0.8 m/s for women (39). Physical activity interventions can improve walking speed.

Mobility Disability

Seventy-three percent of Americans over age 85 have some difficulty with walking according to a US Census study. Mobility disability is associated with social isolation, falls, and depression. One-third of people over age 85 with a disability live alone (40).

Disability in Activities of Daily Living

Disability rates are relatively high among adults over age 85. Rates of disability in activities like dressing and bathing, and disability in instrumental activities of daily living such as cooking, all rise with age over 80. Difficulty with bathing typically precedes difficulty with dressing or difficulty with using the toilet. In one study, 75% of people aged 85 had difficulty or disability with bathing and 25% had difficulty or disability with using the toilet (41). People with disabilities often also struggle with chronic pain, depression, and complex medication regimens (42). The percentage of older adults with disabilities has modestly decreased in recent decades.

Falls

Falls are a major cause of morbidity and disability among older adults. 30–40% of adults over age 70 fall each year and rates are particularly high for older adults in long-term care facilities. Falls account for more than half of injuries among older adults. **Fall-related death rates are higher for adults over age 85 than for other**

age groups (43). Physical activity, vitamin D supplementation, balance exercise, and home safety assessment as a part of a multifactorial fall prevention program have been shown to reduce the incidence of falls (44). Individuals with balance problems or falls should have a multifactorial falls risk assessment (45).

Frailty

Frailty is defined as special vulnerability to stressors and is suggested by weakness, slowness, exhaustion, and weight loss (46). In one study, 38% of people aged 85–89 were frail (47). Frailty status can be assessed easily and the frail state predicts future disability, falls, hospitalizations, and poor surgical outcomes. Targeted interventions for frail populations would likely include physical activity and nutritional components (48) as well as medication reviews.

Continence

Thirty percent of women over age 65 and 50% of older adults in nursing facilities have urinary incontinence (49). Common causes for incontinence among women include overactive bladder, stress incontinence, and functional incontinence. Urinary incontinence reduces well-being and quality of life (50). However, common incontinence medications cause burdensome side effects.

Social/Environmental

Being married and being wealthy predict longer survival. The benefit of marriage seems stronger for men than women. Alternatively, social isolation predicts mortality and other adverse outcomes in older adults (58). Five percent of older adults are home bound, rarely leaving the home except for important medical

appointments (59). Most of these older adults are >80. These older adults who live alone and are in poor health are vulnerable during a natural disaster (60).

Most older adults, even at advanced ages, live in the community. By 2035, the number of American households with someone over age 80 will double (61).

Approximately 13% of women and 8% of men over age 85 live in nursing facilities or other institutional settings (62). These rates have fallen in recent decades presumably due to less disability and better care options in the home. Support for home caregivers and promotion of home medical and social work services can further minimize institutionalization. More than 17 million Americans served as family caregivers to an older adult in 2011 (63). Being a caregiver is typically a prolonged responsibility although the number of hours of work involved markedly varies based on the needs of the care recipient. Older adults with dementia have the highest needs for caregiver time. Opportunities to support family caregivers can include formal training, peer counseling, stress management, legal advice, and employment-flexibility (64).

Go to:

Medical Decisions

Starting or stopping medications, ordering screening tests, sending people to the hospital, and advising families about placement or end of life care are complex discussions which health providers have with people over age 85. Often, family members play a central role in these complex discussions. The patient may have hearing impairment, cognitive impairment, or communication impairment. Life expectancy is often a major consideration; however, many patients are skeptical of life expectancy estimates and don't like to talk about it (65).

Polypharmacy

Polypharmacy is defined as the use of concomitant use of five or more medications by a single patient. When taking five medications, the risk of an adverse drug event or drug-drug interaction is very high. Polypharmacy increases the risk of falls, disability (66), and other negative outcomes. Providers must weigh time to benefit, burden, risks of adverse effects, and goals of care when choosing to start or stop medications in people over age 85 (67).

Hospitalization

Hospitalizations are common among people over age 85 (68) and associated with functional decline (69). Providing more acute care in the home could help to prevent hospital complications such as functional decline and iatrogenic infection. Attention to transitional care and rapid post-hospital medical follow-up visits can minimize medication errors and rehospitalization.

Institutional Placement

Many older adults value their ability to continue living in their own homes as they age. Home-based interventions may slow the progression of disability and prevent the need for institutionalization (70). Discussions with families review all of the options for living arrangements and then assess safety and preferences.

Advance Directives and End of Life Care

Many 85-year olds with multiple chronic conditions will die within a few years. Advance directives on life-sustaining therapies such as cardiopulmonary resuscitation, mechanical ventilation, and tube feeding enable patients to exert some control over their end of life care. Every 85-year-old adult should appoint a health-care agent who can make complicated decisions in an emergency. As people

approach the end of life, medical discussions tend to focus more on quality of life and symptom management. However, these “palliative” conversations are not only appropriate near the end of life. Clinicians should routinely assess symptoms and evaluate which problems affect a person’s quality of life.

Conclusion

The aging process is universal but not uniform. Awareness of age-related physiological changes, such as reduced acuity of vision and hearing, slow reaction time, and impaired balance, will prepare patients and caregivers to manage risks, make informed decisions, and perhaps prevent falls and medication adverse effects.

Functional deterioration in an elderly person can also arise from social and mental health problems. Awareness of these problems may prevent age-related deterioration, such as attention to depression and suicide risk in men during the first year following the death of a spouse or depression after hip fracture or stroke.

Optimizing vision and hearing can prevent isolation, depression, and cognitive impairment. Lower extremity strength especially of the quadriceps muscle is critical for basic activities of daily living, especially bathing, walking, and performing transfers. People over age 85 need these muscles for stability and preventing falls. Walking speed is a helpful measure. Resistance exercise such as regular walking is recommended to help maintain strength and prevent cardiovascular disease. Maintaining a healthy body weight throughout the life span likewise can prevent diabetes, osteoarthritis, and other chronic diseases.

Decisions to prescribe medications or order screening tests should take into account goals of care, burden, risks, and lag time to benefit. In the future, more adults over age 85 will benefit from home-based services and technologies and will benefit from

creative transportation and housing services opportunities for social participation, as well as programs to support family caregivers. (***Jaul and Barron, 2017)***

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B. Psychological Aspects of Aging

Aging and Depression

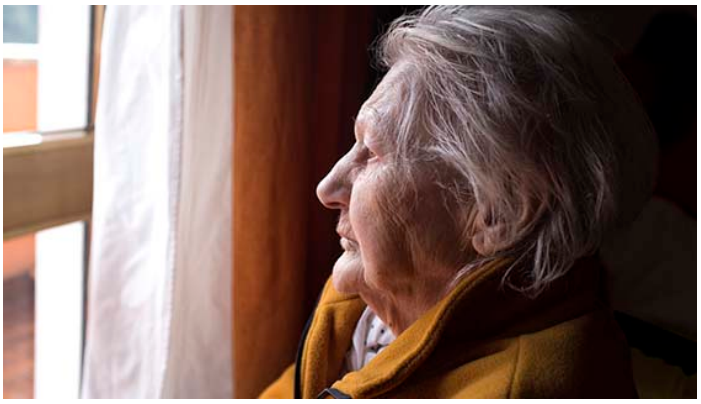
Sourced from the following NIH Link:

https://www.nia.nih.gov/health/depression-and-older-adults

Depression and Older Adults

Depression is more than just feeling sad or blue. It is a common but serious mood disorder that needs treatment. It causes severe symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, and working.

When you have depression, you have trouble with daily life for weeks at a time. Doctors call this condition “depressive disorder” or “clinical depression.”



Depression is a real illness. It is not a sign of a person’s weakness or a character flaw. You can’t “snap out of” clinical depression. Most people who experience depression need treatment to get better.

Depression Is Not a Normal Part of Aging

Depression is a common problem among older adults, but it is NOT a normal part of aging. In fact, studies show that most older adults feel satisfied with their lives, despite having more illnesses or physical problems. However, important life changes that happen as we get older may cause feelings of uneasiness, stress, and sadness.

For instance, the death of a loved one, moving from work into retirement, or dealing with a serious illness can leave people feeling sad or anxious. After a period of adjustment, many older adults can regain their emotional balance, but others do not and may develop depression.

Get Immediate Help

If you are thinking about harming yourself, tell someone who can help immediately.

- Do not isolate yourself.
- Call your doctor.
- Call 911 or go to a hospital emergency room to get immediate help, or ask a friend or family member to help you.

Call the toll-free, 24-hour National Suicide Prevention Lifeline: **1-800-273-TALK (1-800-273-8255)** or **1-800-799-4TTY (1-800-799-4889)**.

Recognizing Symptoms of Depression in Older Adults

Depression in older adults may be difficult to recognize because they may show different symptoms than younger people. For some older adults with depression, sadness is not their main symptom. They may have other, less obvious symptoms of depression, or they may not be willing to talk about their feelings. Therefore, doctors may be less likely to recognize that their patient has depression.

Sometimes older people who are depressed appear to feel tired, have trouble sleeping, or seem grumpy and irritable. Confusion or attention problems caused by depression can sometimes look like Alzheimer's disease or other brain disorders. Older adults also may have more medical conditions, such as heart disease, stroke, or cancer, which may cause depressive symptoms. Or they may be taking medications with side effects that contribute to depression.

Types of Depression

There are several types of depressive disorders.

Major depression involves severe symptoms that interfere with the ability to work, sleep, study, eat, and enjoy life. An episode can occur only once in a person's lifetime, but more often, a person has several episodes.

Persistent depressive disorder is a depressed mood that lasts for at least 2 years. A person diagnosed with persistent depressive disorder may have episodes of major depression along with periods of less severe symptoms, but symptoms must last for 2 years to be considered persistent depressive disorder.

Other forms of depression include psychotic depression, postpartum depression, and seasonal affective disorder.

Causes and Risk Factors for Depression

Several factors, or a combination of factors, may contribute to depression.

- **Genes—**People with a family history of depression may be more likely to develop it than those whose families do not have the illness.
- **Personal history—**Older adults who had depression when they were younger are more at risk for developing depression in late life than those who did not have the illness earlier in life.
- **Brain chemistry—**People with depression may have different brain chemistry than those without the illness.
- **Stress—**Loss of a loved one, a difficult relationship, or any stressful situation may trigger depression.

Vascular Depression

For older adults who experience depression for the first time later in life, the depression may be related to changes that occur in the brain and body as a person ages. For example, older adults

may suffer from restricted blood flow, a condition called ischemia. Over time, blood vessels may stiffen and prevent blood from flowing normally to the body's organs, including the brain.

If this happens, an older adult with no family history of depression may develop what is sometimes called "vascular depression." Those with vascular depression also may be at risk for heart disease, stroke, or other vascular illness.

Depression Can Co-Occur with Other Illnesses

Depression, especially in middle-aged or older adults, can co-occur with other serious medical illnesses such as diabetes, cancer, heart disease, and Parkinson's disease. Depression can make these conditions worse and vice versa. Sometimes medications taken for these physical illnesses may cause side effects that contribute to depression. A doctor experienced in treating these complicated illnesses can help work out the best treatment strategy.

All these factors can cause depression to go undiagnosed or untreated in older people. Yet, treating the depression will help an older adult better manage other conditions he or she may have.

Common Symptoms of Depression

There are many symptoms associated with depression, and some will vary depending on the individual. However, some of the most common symptoms are listed below. If you have several of these symptoms for more than 2 weeks, you may have depression.

- Persistent sad, anxious, or "empty" mood
- Feelings of hopelessness, guilt, worthlessness, or helplessness
- Irritability, restlessness, or having trouble sitting still
- Loss of interest in once pleasurable activities, including sex
- Decreased energy or fatigue
- Moving or talking more slowly
- Difficulty concentrating, remembering, making decisions
- Difficulty sleeping, early-morning awakening, or oversleeping
- Eating more or less than usual, usually with unplanned weight gain or loss
- Thoughts of death or suicide, or suicide attempts
- Aches or pains, headaches, cramps, or digestive problems without a clear physical cause and/or that do not ease with treatment
- Frequent crying

Treatments for Depression

Depression, even severe depression, can be treated. If you think you may have depression, start by making an appointment to see your doctor or healthcare provider. This could be your primary doctor or a provider who specializes in diagnosing and treating mental health conditions (a psychologist or psychiatrist). Certain medications and some medical conditions can cause the same symptoms as depression. A doctor can rule out these possibilities by doing a physical exam, interview, and lab tests. If the doctor can find no medical condition that may be causing the depression, the next step is a psychological evaluation.

Learn about talking with your doctor about sensitive subjects, including depression and mental health.

Treatment choices differ for each person, and sometimes multiple treatments must be tried to find one that works. It is important to keep trying until you find something that works for you.

The most common forms of treatment for depression are medication and psychotherapy.

Therapy for Depression

Psychotherapy, also called "talk therapy," can help people with depression. Some treatments are short-term, lasting 10 to 20 weeks; others are longer, depending on the person's needs.

Cognitive behavioral therapy is one type of talk therapy used to treat depression. It focuses on helping people change negative thinking and any behaviors that may be making depression worse. Interpersonal therapy can help an individual understand and work through troubled relationships that may cause the depression or make it worse. Other types of talk therapy, like problem-solving therapy, can be helpful for people with depression.

Medications for Depression

Antidepressants are medicines that treat depression. There are many different types of antidepressants. They may help improve the way your brain uses certain chemicals that control mood or stress. You may need to try several different antidepressant medicines before finding one that improves your symptoms and has manageable side effects.

Antidepressants take time, usually 2 to 4 weeks, to work. Often symptoms such as sleep, appetite, and concentration problems improve before mood lifts, so it is important to give the medication a chance to work before deciding whether it works for you.

If you begin taking antidepressants, do not stop taking them without the help of a doctor. Sometimes people taking antidepressants feel better and then stop taking the medication on their own, but then the depression returns. When you and your doctor have decided it is time to stop

the medication, usually after 6 to 12 months, the doctor will help you slowly and safely decrease your dose. Stopping antidepressants abruptly can cause withdrawal symptoms.

Most antidepressants are generally safe, but the U.S. Food and Drug Administration requires that all antidepressants carry black box warnings, the strictest warnings for prescriptions. The warning says that patients of all ages taking antidepressants should be watched closely, especially during the first few weeks of treatment. Talk to your doctor about any side effects of your medication that you should watch for.

For older adults who are already taking several medications for other conditions, it is important to talk with a doctor about any adverse drug interactions that may occur while taking antidepressants.

Do not use herbal medicines such as St. John's wort before talking with your healthcare provider. It should never be combined with a prescription antidepressant, and you should not use it to replace conventional care or to postpone seeing a healthcare provider.

Preventing Depression

What can be done to lower the risk of depression? How can people cope? There are a few steps you can take. Try to prepare for major changes in life, such as retirement or moving from your home of many years. Stay in touch with family. Let them know when you feel sad.

Regular exercise may also help prevent depression or lift your mood if you are depressed. Pick something you like to do. Being physically fit and eating a balanced diet may help avoid illnesses that can bring on disability or depression.

Further information on Depression and Treatment from the National Institute of Mental Health: https://www.nimh.nih.gov/health/topics/depression/index.shtml

Depression

Overview

Depression (major depressive disorder or clinical depression) is a common but serious mood disorder. It causes severe symptoms that affect how you feel, think, and handle daily activities, such as sleeping, eating, or working. To be diagnosed with depression, the symptoms must be present for at least two weeks.

Some forms of depression are slightly different, or they may develop under unique circumstances, such as:

- Persistent depressive disorder **(also called dysthymia) is a depressed mood that lasts for at least two years.** A person diagnosed with persistent depressive disorder may have episodes of major depression along with periods of less severe symptoms, but symptoms must last for two years to be considered persistent depressive disorder.
- **Postpartum depression** is much more serious than the "baby blues" (relatively mild depressive and anxiety symptoms that typically clear within two weeks after delivery) that many women experience after giving birth. Women with postpartum depression experience full-blown major depression during pregnancy or after delivery (postpartum depression). The feelings of extreme sadness, anxiety, and exhaustion that accompany postpartum depression may make it difficult for these new mothers to complete daily care activities for themselves and/or for their babies.
- **Psychotic depression** occurs when a person has severe depression plus some form of psychosis, such as having disturbing false fixed beliefs (delusions) or hearing or seeing upsetting things that others cannot hear or see (hallucinations). The psychotic symptoms typically have a depressive "theme," such as delusions of guilt, poverty, or illness.
- **Seasonal affective disorder** is characterized by the onset of depression during the winter months, when there is less natural sunlight. This depression generally lifts during spring and summer. Winter depression, typically accompanied by social withdrawal, increased sleep, and weight gain, predictably returns every year in seasonal affective disorder.
- **Bipolar disorder** is different from depression, but it is included in this list is because someone with bipolar disorder experiences episodes of extremely low moods that meet the criteria for major depression (called "bipolar depression"). But a person with bipolar disorder also experiences extreme high – euphoric or irritable – moods called "mania" or a less severe form called "hypomania."

Examples of other types of depressive disorders newly added to the diagnostic classification of DSM-5 include disruptive mood dysregulation disorder (diagnosed in children and adolescents) and premenstrual dysphoric disorder (PMDD).

Signs and Symtpoms

If you have been experiencing some of the following signs and symptoms most of the day, nearly every day, for at least two weeks, you may be suffering from depression:

- Persistent sad, anxious, or “empty” mood
- Feelings of hopelessness, or pessimism
- Irritability
- Feelings of guilt, worthlessness, or helplessness
- Loss of interest or pleasure in hobbies and activities
- Decreased energy or fatigue
- Moving or talking more slowly
- Feeling restless or having trouble sitting still
- Difficulty concentrating, remembering, or making decisions
- Difficulty sleeping, early-morning awakening, or oversleeping
- Appetite and/or weight changes
- Thoughts of death or suicide, or suicide attempts
- Aches or pains, headaches, cramps, or digestive problems without a clear physical cause and/or that do not ease even with treatment

Not everyone who is depressed experiences every symptom. Some people experience only a few symptoms while others may experience many. Several persistent symptoms in addition to low mood are required for a diagnosis of major depression, but people with only a few – but distressing – symptoms may benefit from treatment of their “subsyndromal” depression. The severity and frequency of symptoms and how long they last will vary depending on the individual and his or her particular illness. Symptoms may also vary depending on the stage of the illness.

Risk Factors

Depression is one of the most common mental disorders in the U.S. Current research suggests that depression is caused by a combination of genetic, biological, environmental, and psychological factors.

Depression can happen at any age, but often begins in adulthood. Depression is now recognized as occurring in children and adolescents, although it sometimes presents with more prominent irritability than low mood. Many chronic mood and anxiety disorders in adults begin as high levels of anxiety in children.

Depression, especially in midlife or older adults, can co-occur with other serious medical illnesses, such as diabetes, cancer, heart disease, and Parkinson’s disease. These conditions are often worse when depression is present. Sometimes medications taken for these physical

illnesses may cause side effects that contribute to depression. A doctor experienced in treating these complicated illnesses can help work out the best treatment strategy.

Risk factors include:

- Personal or family history of depression
- Major life changes, trauma, or stress
- Certain physical illnesses and medications

Treatment and Therapies

Depression, even the most severe cases, can be treated. The earlier that treatment can begin, the more effective it is. Depression is usually treated with medications, psychotherapy, or a combination of the two. If these treatments do not reduce symptoms, electroconvulsive therapy (ECT) and other brain stimulation therapies may be options to explore.

Quick Tip: No two people are affected the same way by depression and there is no "one-size-fits-all" for treatment. It may take some trial and error to find the treatment that works best for you.

Medications

Antidepressants are medicines that treat depression. They may help improve the way your brain uses certain chemicals that control mood or stress. You may need to try several different antidepressant medicines before finding the one that improves your symptoms and has manageable side effects. A medication that has helped you or a close family member in the past will often be considered.

Antidepressants take time – usually 2 to 4 weeks – to work, and often, symptoms such as sleep, appetite, and concentration problems improve before mood lifts, so it is important to give medication a chance before reaching a conclusion about its effectiveness. If you begin taking antidepressants, do not stop taking them without the help of a doctor. Sometimes people taking antidepressants feel better and then stop taking the medication on their own, and the depression returns. When you and your doctor have decided it is time to stop the medication, usually after a course of 6 to 12 months, the doctor will help you slowly and safely decrease your dose. Stopping them abruptly can cause withdrawal symptoms.

Please Note: In some cases, children, teenagers, and young adults under 25 may experience an increase in suicidal thoughts or behavior when taking antidepressants, especially in the first few weeks after starting or when the dose is changed. This warning from the U.S. Food and Drug Administration (FDA) also says that patients of all ages taking antidepressants should be watched closely, especially during the first few weeks of treatment.

If you are considering taking an antidepressant and you are pregnant, planning to become pregnant, or breastfeeding, talk to your doctor about any increased health risks to you or your unborn or nursing child.

To find the latest information about antidepressants, talk to your doctor and visit www.fda.gov.

You may have heard about an herbal medicine called St. John's wort. Although it is a top-selling botanical product, the FDA has not approved its use as an over-the-counter or prescription medicine for depression, and there are serious concerns about its safety (it should never be combined with a prescription antidepressant) and effectiveness. Do not use St. John's wort before talking to your health care provider. Other natural products sold as dietary supplements, including omega-3 fatty acids and S-adenosylmethionine (SAMe), remain under study but have not yet been proven safe and effective for routine use. For more information on herbal and other complementary approaches and current research, please visit the National Center for Complementary and Integrative Health website.

Psychotherapies

Several types of psychotherapy (also called "talk therapy" or, in a less specific form, counseling) can help people with depression. Examples of evidence-based approaches specific to the treatment of depression include cognitive-behavioral therapy (CBT), interpersonal therapy (IPT), and problem-solving therapy. More information on psychotherapy is available on the NIMH website and in the NIMH publication *Depression: What You Need to Know*.

Brain Stimulation Therapies

If medications do not reduce the symptoms of depression, electroconvulsive therapy (ECT) may be an option to explore. Based on the latest research:

- ECT can provide relief for people with severe depression who have not been able to feel better with other treatments.

- Electroconvulsive therapy can be an effective treatment for depression. In some severe cases where a rapid response is necessary or medications cannot be used safely, ECT can even be a first-line intervention.
- Once strictly an inpatient procedure, today ECT is often performed on an outpatient basis. The treatment consists of a series of sessions, typically three times a week, for two to four weeks.
- ECT may cause some side effects, including confusion, disorientation, and memory loss. Usually these side effects are short-term, but sometimes memory problems can linger, especially for the months around the time of the treatment course. Advances in ECT devices and methods have made modern ECT safe and effective for the vast majority of patients. Talk to your doctor and make sure you understand the potential benefits and risks of the treatment before giving your informed consent to undergoing ECT.
- ECT is not painful, and you cannot feel the electrical impulses. Before ECT begins, a patient is put under brief anesthesia and given a muscle relaxant. Within one hour after the treatment session, which takes only a few minutes, the patient is awake and alert.

Other more recently introduced types of brain stimulation therapies used to treat medicine-resistant depression include repetitive transcranial magnetic stimulation (rTMS) and vagus nerve stimulation (VNS). Other types of brain stimulation treatments are under study. You can learn more about these therapies on the NIMH Brain Stimulation Therapies webpage.

If you think you may have depression, start by making an appointment to see your doctor or health care provider. This could be your primary care practitioner or a health provider who specializes in diagnosing and treating mental health conditions. Visit the NIMH Find Help for Mental Illnesses if you are unsure of where to start.

Beyond Treatment: Things You Can Do

Here are other tips that may help you or a loved one during treatment for depression:

- Try to be active and exercise.
- Set realistic goals for yourself.
- Try to spend time with other people and confide in a trusted friend or relative.
- Try not to isolate yourself, and let others help you.
- Expect your mood to improve gradually, not immediately.

- Postpone important decisions, such as getting married or divorced, or changing jobs until you feel better. Discuss decisions with others who know you well and have a more objective view of your situation.
- Continue to educate yourself about depression.

Memory Impairment

Alzheimer's Disease & Related Dementias

Sourced from the following NIH Link:
https://www.nia.nih.gov/health/alzheimers

Basics of Alzheimer's Disease and Dementia

Alzheimer's disease is an irreversible, progressive brain disorder that slowly destroys memory and thinking skills and, eventually, the ability to carry out the simplest tasks. It is the most common cause of dementia in older adults. While dementia is more common as people grow older, it is not a normal part of aging. In most people with Alzheimer's, symptoms first appear in their mid-60s. Estimates vary, but experts suggest that more than 5.5 million Americans, most of them age 65 or older, may have dementia caused by Alzheimer's.

Alzheimer's disease is currently ranked as the sixth leading cause of death in the United States, but recent estimates indicate that the disorder may rank third, just behind heart disease and cancer, as a cause of death for older people.

Alzheimer's is the most common cause of dementia among older adults. Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person's daily life and activities. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person's functioning, to the most severe stage, when the person must depend completely on others for basic activities of daily living.

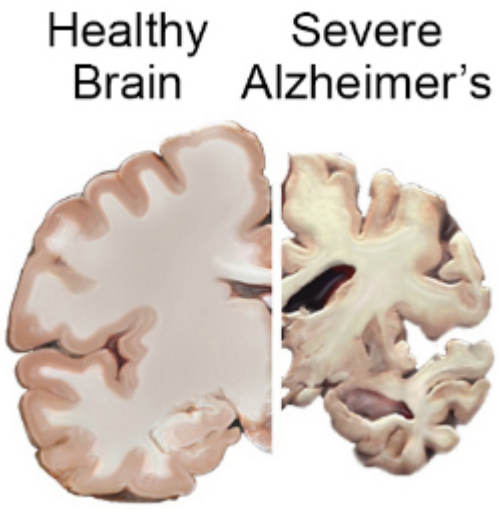
The causes of dementia can vary, depending on the types of brain changes that may be taking place. Other dementias include Lewy body dementia, frontotemporal disorders, and vascular

dementia. It is common for people to have mixed dementia—a combination of two or more types of dementia. For example, some people have both Alzheimer's disease and vascular dementia.

Alzheimer's disease is named after Dr. Alois Alzheimer. In 1906, Dr. Alzheimer noticed changes in the brain tissue of a woman who had died of an unusual mental illness. Her symptoms included memory loss, language problems, and unpredictable behavior. After she died, he examined her brain and found many abnormal clumps (now called amyloid plaques) and tangled bundles of fibers (now called neurofibrillary, or tau, tangles).

These plaques and tangles in the brain are still considered some of the main features of Alzheimer's disease. Another feature is the loss of connections between nerve cells (neurons) in the brain. Neurons transmit messages between different parts of the brain, and from the brain to muscles and organs in the body.

Changes in the Brain



Scientists continue to unravel the complex brain changes involved in the onset and progression of Alzheimer's disease. It seems likely that changes in the brain may begin a decade or more before memory and other cognitive problems appear. During this preclinical stage of Alzheimer's disease, people seem to be symptom-free, but toxic changes are taking place in the brain. Abnormal deposits of proteins form amyloid plaques and tau tangles throughout the brain. Once-healthy neurons stop functioning, lose connections with other neurons, and die. Many other complex brain changes are thought to play a role in Alzheimer's, too.

The damage initially appears to take place in the hippocampus and the entorhinal cortex, parts of the brain essential in forming memories. As more neurons die, additional parts of the brain are

affected and begin to shrink. By the final stage of Alzheimer's, damage is widespread, and brain tissue has shrunk significantly.

Signs and Symptoms

Memory problems are typically one of the first signs of cognitive impairment related to Alzheimer's disease. Some people with memory problems have a condition called mild cognitive impairment (MCI). In MCI, people have more memory problems than normal for their age, but their symptoms do not interfere with their everyday lives. Movement difficulties and problems with the sense of smell have also been linked to MCI. Older people with MCI are at greater risk for developing Alzheimer's, but not all of them do. Some may even go back to normal cognition.

The first symptoms of Alzheimer's vary from person to person. For many, decline in non-memory aspects of cognition, such as word-finding, vision/spatial issues, and impaired reasoning or judgment, may signal the very early stages of Alzheimer's disease. Researchers are studying biomarkers (biological signs of disease found in brain images, cerebrospinal fluid, and blood) to detect early changes in the brains of people with MCI and in cognitively normal people who may be at greater risk for Alzheimer's. Studies indicate that such early detection is possible, but more research is needed before these techniques can be used routinely to diagnose Alzheimer's disease in everyday medical practice.

Mild Alzheimer's Disease

As Alzheimer's disease progresses, people experience greater memory loss and other cognitive difficulties. Problems can include wandering and getting lost, trouble handling money and paying bills, repeating questions, taking longer to complete normal daily tasks, and personality and behavior changes. People are often diagnosed in this stage.

Moderate Alzheimer's Disease

In this stage, damage occurs in areas of the brain that control language, reasoning, sensory processing, and conscious thought. Memory loss and confusion grow worse, and people begin to have problems recognizing family and friends. They may be unable to learn new things, carry out multistep tasks such as getting dressed, or cope with new situations. In addition, people at this stage may have hallucinations, delusions, and paranoia and may behave impulsively.

Severe Alzheimer's Disease

Ultimately, plaques and tangles spread throughout the brain, and brain tissue shrinks significantly. People with severe Alzheimer's cannot communicate and are completely dependent

on others for their care. Near the end, the person may be in bed most or all of the time as the body shuts down.

What Causes Alzheimer's?

Scientists don't yet fully understand what causes Alzheimer's disease in most people. In people with early-onset Alzheimer's, a genetic mutation may be the cause. Late-onset Alzheimer's arises from a complex series of brain changes that occur over decades. The causes probably include a combination of genetic, environmental, and lifestyle factors. The importance of any one of these factors in increasing or decreasing the risk of developing Alzheimer's may differ from person to person.

The Basics of Alzheimer's

Scientists are conducting studies to learn more about plaques, tangles, and other biological features of Alzheimer's disease. Advances in brain imaging techniques allow researchers to see the development and spread of abnormal amyloid and tau proteins in the living brain, as well as changes in brain structure and function. Scientists are also exploring the very earliest steps in the disease process by studying changes in the brain and body fluids that can be detected years before Alzheimer's symptoms appear. Findings from these studies will help in understanding the causes of Alzheimer's and make diagnosis easier.

One of the great mysteries of Alzheimer's disease is why it largely strikes older adults. Research on normal brain aging is exploring this question. For example, scientists are learning how age-related changes in the brain may harm neurons and affect other types of brain cells to contribute to Alzheimer's damage. These age-related changes include atrophy (shrinking) of certain parts of the brain, inflammation, vascular damage, production of unstable molecules called free radicals, and mitochondrial dysfunction (a breakdown of energy production within a cell).

Genetics

Most people with Alzheimer's have the late-onset form of the disease, in which symptoms become apparent in their mid-60s. Researchers have not found a specific gene that directly causes late-onset Alzheimer's. However, having one form of the apolipoprotein E (APOE) gene does increase a person's risk. This gene has several forms. One of them, APOE ε4, increases a person's risk of developing the disease and is also associated with an earlier age of disease onset. However, carrying the APOE ε4 form of the gene does not mean that a person will definitely develop Alzheimer's disease, and some people with no APOE ε4 may also develop the disease.

Also, scientists have identified a number of regions of interest in the genome (an organism's complete set of DNA) that may increase or decrease a person's risk for late-onset Alzheimer's to varying degrees.

Early-onset Alzheimer's disease occurs between a person's 30s and mid-60s and represents less than 10 percent of all people with Alzheimer's. Some cases are caused by an inherited change in one of three genes. For others, research shows that other genetic components are involved.

Most people with Down syndrome develop Alzheimer's. This may be because people with Down syndrome have an extra copy of chromosome 21, which contains the gene that generates harmful amyloid.

For more about Alzheimer's genetics research, see NIA's Alzheimer's Disease Genetics Fact Sheet.

Health, Environmental, and Lifestyle Factors

Research suggests that a host of factors beyond genetics may play a role in the development and course of Alzheimer's disease. There is a great deal of interest, for example, in the relationship between cognitive decline and vascular conditions such as heart disease, stroke, and high blood pressure, as well as metabolic conditions such as diabetes and obesity. Ongoing research will help us understand whether and how reducing risk factors for these conditions may also reduce the risk of Alzheimer's.

A nutritious diet, physical activity, social engagement, and mentally stimulating pursuits have all been associated with helping people stay healthy as they age. These factors might also help reduce the risk of cognitive decline and Alzheimer's disease. Clinical trials are testing some of these possibilities.

Diagnosis of Alzheimer's Disease

Doctors use several methods and tools to help determine whether a person who is having memory problems has "possible Alzheimer's dementia" (dementia may be due to another cause) or "probable Alzheimer's dementia" (no other cause for dementia can be found).

To diagnose Alzheimer's, doctors may:

- Ask the person and a family member or friend questions about overall health, use of prescription and over-the-counter medicines, diet, past medical problems, ability to carry out daily activities, and changes in behavior and personality

- Conduct tests of memory, problem solving, attention, counting, and language
- Carry out standard medical tests, such as blood and urine tests, to identify other possible causes of the problem
- Perform brain scans, such as computed tomography (CT), magnetic resonance imaging (MRI), or positron emission tomography (PET), to rule out other possible causes for symptoms

These tests may be repeated to give doctors information about how the person's memory and other cognitive functions are changing over time.

Alzheimer's disease can be *definitely* diagnosed only after death, by linking clinical measures with an examination of brain tissue in an autopsy.

People with memory and thinking concerns should talk to their doctor to find out whether their symptoms are due to Alzheimer's or another cause, such as stroke, tumor, Parkinson's disease, sleep disturbances, side effects of medication, an infection, or a non-Alzheimer's dementia. Some of these conditions may be treatable and possibly reversible.

If the diagnosis is Alzheimer's, beginning treatment early in the disease process may help preserve daily functioning for some time, even though the underlying disease process cannot be stopped or reversed. An early diagnosis also helps families plan for the future. They can take care of financial and legal matters, address potential safety issues, learn about living arrangements, and develop support networks.

In addition, an early diagnosis gives people greater opportunities to participate in clinical trials that are testing possible new treatments for Alzheimer's disease or other research studies.

Treatment of Alzheimer's Disease

Alzheimer's disease is complex, and it is unlikely that any one drug or other intervention can successfully treat it. Current approaches focus on helping people maintain mental function, manage behavioral symptoms, and slow down certain problems, such as memory loss. Researchers hope to develop therapies targeting specific genetic, molecular, and cellular mechanisms so that the actual underlying cause of the disease can be stopped or prevented.

Maintaining Mental Function

Several medications are approved by the U.S. Food and Drug Administration (FDA) to treat symptoms of Alzheimer's. Donepezil (Aricept®), rivastigmine (Exelon®), and galantamine (Razadyne®) are used to treat mild to moderate Alzheimer's (donepezil can be used for severe Alzheimer's as well). Memantine (Namenda®), the Exelon® patch, and Namzaric® (a combination

of memantine and donepezil) are used to treat moderate to severe Alzheimer's. These drugs work by regulating neurotransmitters, the chemicals that transmit messages between neurons. They may help reduce symptoms and help with certain behavioral problems. However, these drugs don't change the underlying disease process. They are effective for some but not all people, and may help only for a limited time.

Managing Behavior

Common behavioral symptoms of Alzheimer's include sleeplessness, wandering, agitation, anxiety, and aggression. Scientists are learning why these symptoms occur and are studying new treatments—drug and non-drug—to manage them. Research has shown that treating behavioral symptoms can make people with Alzheimer's more comfortable and makes things easier for caregivers.

Looking for New Treatments

Alzheimer's research has developed to a point where scientists are exploring ways to delay or prevent the disease as well as treat its symptoms. In ongoing clinical trials supported by NIA, scientists are developing and testing several possible interventions. Under study are drug therapies aimed at a variety of targets, including the beta-amyloid protein, cerebrovascular function, loss of synapses, and specific neurotransmitters, as well as nondrug interventions, such as physical activity, diet, cognitive training, and combinations of these approaches.

Support for Families and Caregivers

Caring for a person with Alzheimer's disease can have high physical, emotional, and financial costs. The demands of day-to-day care, changes in family roles, and decisions about placement in a care facility can be difficult. There are several evidence-based approaches and programs that can help, and researchers are continuing to look for new and better ways to support caregivers.

Becoming well-informed about the disease is one important long-term strategy. Programs that teach families about the various stages of Alzheimer's and about ways to deal with difficult behaviors and other caregiving challenges can help.

Good coping skills, a strong support network, and respite care are other ways that help caregivers handle the stress of caring for a loved one with Alzheimer's disease. For example, staying physically active provides physical and emotional benefits.

Some caregivers have found that joining a support group is a critical lifeline. These support groups allow caregivers to find respite, express concerns, share experiences, get tips, and

receive emotional comfort. Many organizations sponsor in-person and online support groups, including groups for people with early-stage Alzheimer's and their families.

What Is Dementia? Symptoms, Types, and Diagnosis

Alzheimer's is one of the types of Dementias. In this section other types are discussed.

Dementia is the loss of cognitive functioning—thinking, remembering, and reasoning—and behavioral abilities to such an extent that it interferes with a person's daily life and activities. These functions include memory, language skills, visual perception, problem solving, self-management, and the ability to focus and pay attention. Some people with dementia cannot control their emotions, and their personalities may change. Dementia ranges in severity from the mildest stage, when it is just beginning to affect a person's functioning, to the most severe stage, when the person must depend completely on others for basic activities of living.

Signs and symptoms of dementia result when once-healthy neurons (nerve cells) in the brain stop working, lose connections with other brain cells, and die. While everyone loses some neurons as they age, people with dementia experience far greater loss.

While dementia is more common as people grow older (up to half of all people age 85 or older may have some form of dementia), it is **not** a normal part of aging. Many people live into their 90s and beyond without any signs of dementia. One type of dementia, frontotemporal disorders, is more common in middle-aged than older adults.

The causes of dementia can vary, depending on the types of brain changes that may be taking place. Alzheimer's disease is the most common cause of dementia in older adults. Other dementias include Lewy body dementia, frontotemporal disorders, and vascular dementia. It is common for people to have mixed dementia—a combination of two or more types of dementia. For example, some people have both Alzheimer's disease and vascular dementia.

What are the Different Types of Dementia?

 Various disorders and factors contribute to the development of dementia. Neurodegenerative disorders result in a progressive and irreversible loss of neurons and brain functioning. Currently, there are no cures for these types of disorders. They include:

- Alzheimer's disease
- Frontotemporal disorders
- Lewy body dementia

Other types of progressive brain disease include:

- Vascular contributions to cognitive impairment and dementia
- Mixed dementia, a combination of two or more types of dementia

Other conditions that cause dementia-like symptoms can be halted or even reversed with treatment. For example, normal pressure hydrocephalus, an abnormal buildup of cerebrospinal fluid in the brain, often resolves with treatment.

In addition, certain medical conditions can cause serious memory problems that resemble dementia. These problems should go away once the conditions are treated. These conditions include:

- Side effects of certain medicines
- Emotional problems, such as stress, anxiety, or depression
- Certain vitamin deficiencies
- Drinking too much alcohol
- Blood clots, tumors, or infections in the brain

- Delirium
- Head injury, such as a concussion from a fall or accident
- Thyroid, kidney, or liver problems

Doctors have identified many other conditions that can cause dementia or dementia-like symptoms. These conditions include:

- Argyrophilic grain disease, a common, late-onset degenerative disease
- Creutzfeldt-Jakob disease, a rare brain disorder
- Huntington's disease, an inherited, progressive brain disease
- Chronic traumatic encephalopathy (CTE), caused by repeated traumatic brain injury
- HIV-associated dementia (HAD)

The overlap in symptoms of various dementias can make it hard to get an accurate diagnosis. But a proper diagnosis is important to get the right treatment. Seek help from a neurologist—a doctor who specializes in disorders of the brain and nervous system—or other medical specialist who knows about dementia.

How is Dementia Diagnosed?

To diagnose dementia, doctors first assess whether a person has an underlying treatable condition such as abnormal thyroid function, normal pressure hydrocephalus, or a vitamin deficiency that may relate to cognitive difficulties. Early detection of symptoms is important, as some causes can be treated. In many cases, the specific type of dementia a person has may not be confirmed until after the person has died and the brain is examined.

A medical assessment for dementia generally includes:

- **Medical history.** Typical questions about a person's medical and family history might include asking about whether dementia runs in the family, how and when symptoms began, changes in behavior and personality, and if the person is taking certain medications that might cause or worsen symptoms.
- **Physical exam.** Measuring blood pressure and other vital signs may help physicians detect conditions that might cause or occur with dementia. Some conditions may be treatable.
- **Neurological tests.** Assessing balance, sensory response, reflexes, and other cognitive functions helps identify conditions that may affect the diagnosis or are treatable with drugs.

What Tests are Used to Diagnose Dementia?

The following procedures also may be used to diagnose dementia:

- **Cognitive and neuropsychological tests.** These tests are used to assess memory, problem solving, language skills, math skills, and other abilities related to mental functioning.
- **Laboratory tests.** Testing a person's blood and other fluids , as well as checking levels of various chemicals, hormones, and vitamins, can help find or rule out possible causes of symptoms.
- **Brain scans.** These tests can identify strokes, tumors, and other problems that can cause dementia. Scans also identify changes in the brain's structure and function. The most common scans are:
    - Computed tomography (CT), which uses x rays to produce images of the brain and other organs
    - Magnetic resonance imaging (MRI), which uses magnetic fields and radio waves to produce detailed images of body structures, including tissues, organs, bones, and nerves
    - Positron emission tomography (PET), which uses radiation to provide pictures of brain activity
- **Psychiatric evaluation.** This evaluation will help determine if depression or another mental health condition is causing or contributing to a person's symptoms.
- **Genetic tests.** Some dementias are caused by a known gene defect. In these cases, a genetic test can help people know if they are at risk for dementia. It is important to talk with a genetic counselor before and after getting tested, along with family members and the doctor.

Who Can Diagnose Dementia?

Visiting a family doctor is often the first step for people who are experiencing changes in thinking, movement, or behavior. However, neurologists—doctors who specialize in disorders of the brain and nervous system—generally have the expertise needed to diagnose dementia. Geriatric psychiatrists, neuropsychologists, and geriatricians may also be skilled in diagnosing the condition.

If a specialist cannot be found in your community, ask the neurology department of the nearest medical school for a referral. A hospital affiliated with a medical school may also have a dementia or movement disorders clinic that provides expert evaluation.

Subjective Cognitive Decline — A Public Health Issue

As you read below you will come to understand, if you were not aware already, how pervasive cognitive decline is in the Elderly. Also, because many do not interact as much socially, and the complications this can have with many other co-existing issues, it is important as a healthcare profession to be able to identify this in those you treat.

The following is sourced from the Center for Disease Control (CDC)
https://www.cdc.gov/aging/data/subjective-cognitive-decline-brief.html

Subjective Cognitive Decline (SCD) is the self-reported experience of worsening or more frequent confusion or memory loss.[1,2] It is a form of cognitive impairment and one of the earliest noticeable symptoms of Alzheimer's disease and related dementias.[2,3] SCD can have implications for living with and managing chronic disease, or performing everyday activities like cooking or cleaning.[2] Because SCD is self-reported, it does not imply a diagnosis of cognitive decline by a health care professional.[1,2]

Cognition is a combination of processes in the brain that includes the ability to learn, remember, and make judgments.[1] When cognition is impaired, it can have a profound impact on an individual's overall health and well-being.[1] Cognitive decline can range from mild cognitive impairment to dementia, a form of decline in abilities severe enough to interfere with daily life.[1] Alzheimer's disease is the most common form of dementia.[1-3]

Some cognitive decline can occur as adults age, but frequently forgetting how to perform routine tasks, for example, is not a normal part of aging and can affect a person's ability to live and function independently. Some people with cognitive decline may be unable to care for themselves or perform activities of daily living, such as meal preparation, managing medical appointments, or managing their personal finances. Limitations in cognitive ability may impact a person's ability to effectively manage medication regimens which can result in poor health outcomes of comorbid chronic diseases like heart disease or diabetes. By educating people about modifiable risk factors, encouraging early assessment and intervention, and understanding its impact on adults and their families, the health and well-being of many older adults may be improved.[1,2]

With the growing older adult population and the related increase in the need for health and social services, the public health community is challenged to be proactive. By acting quickly and strategically to stimulate needed changes to systems and environments, public health professionals can work to mitigate future impacts of SCD as well as Alzheimer's disease and related dementias on the health and wellness of the public. This is particularly important as these issues can impact not only older adults but also their family and friends who act as caregivers.

- The prevalence of subjective cognitive decline (SCD) is 11.1%, or 1 in 9 adults.
- The prevalence of SCD among adults aged 65 years and older is 11.7% compared to 10.8% among adults 45-64 years of age.
- The prevalence of SCD is 11.3% among men compared to 10.6% among women.
- The prevalence of SCD differs among racial/ethnic groups, 10.9% of Whites report SCD compared to 12.8% of Blacks/African Americans, 11.0% of Hispanics, and 6.7% of Asians and Pacific Islanders.
- Lower prevalence of SCD is reported in adults with more years of formal education.

Older adults who live alone can be at risk for poor health outcomes, are less likely to use health services, and are more vulnerable to self-neglect and fall-related injuries than those living with others.[6,7] Older adults who live alone report more unmet needs such as managing money, medications, mobility, and some activities of daily living.[6,7]

- Of adults with SCD, 29.3% live alone.
- Among persons reporting SCD aged 45-64 years, 24.7% live alone compared to 36.2% of those aged 65 years and older.
- 30.3% of women with SCD live alone compared to 28.1% of men.
- The prevalence of living alone among adults with SCD differs among racial/ethnic groups. Of those with SCD, 30.4% of Whites live alone compared to 35.5% of Blacks/African Americans, 18.3% of Hispanics, and 15.3% of Asians and Pacific Islanders.

Researchers have found that few adults with SCD discussed their confusion or memory loss with a health care professional.[Bold Added] [7-9] In fact, the prevalence of cognitive decline identified in community surveys is over twice that reported in medical records of general practitioners.[8,9] Opportunities for improvement exist for increased screening, diagnosis, and identification of treatable cause(s).[9]

- Less than half of adults with SCD (45.3% of adults aged 45 years and older) reported discussing symptoms of confusion or memory loss with a health care professional.
- Among persons reporting SCD, 48.8% of those aged 45 to 64 years reported discussing their memory loss or confusion with a health care professional compared to 39.8% of persons aged 65 years and older.
- Half (50.5%) of women reported discussing SCD with a health care professional compared to 39.2% of men.
- The percentage of those who discussed SCD with a health care professional varies by race and ethnicity. Among Whites, 46.0% reported discussing SCD with a health care professional compared to 45.3% of Blacks/African Americans, 40.2% of Hispanics and 34.1% of Asians and Pacific Islanders.

Coronary heart disease can lead to decreased cognitive function that can impact effective chronic disease self-management.[10-13] Cognitive impairment in areas of learning, memory, and decision-making can increase the need for assistance in self-management, such as help with medication management or scheduling medical appointments.[10-13]

- More than 1 in 4 (28.6%) adults with SCD reported having coronary heart disease or stroke.
- Among adults with SCD, 23.9% of adults aged 45-64 years report having coronary heart disease or stroke, compared to 35.9% of adults aged 65 years and older.
- One in four (26.3%) women with SCD reported having coronary heart disease or stroke, compared to nearly one-third (31.3%) of men.
- The prevalence of CHD among adults with SCD is 25.7% in adults who completed at least some post high school education or higher compared to 31.7% among adults with a high school degree and 31.0% among adults with less than a high school degree.

SCD and Frequent Mental Distress

Mental distress includes stress, depression and problems with emotions.[15] Frequent mental distress (FMD) is defined as experiencing mental distress or having mentally unhealthy days for at least 14 days in a 30 day period.[15]

About how many days during the past 30 days was your mental health not good? (14 or more days = frequent mental distress)

- One third (33.7%) of adults with SCD report FMD.
- One in five (20.9%) adults 65 years of age and older with SCD reported FMD compared to 42.0% of adults 45-64 years of age.
- 37.6% of women with SCD reported FMD compared to 29.4% of men.

(CDC, 2020)

C. Social Aspects of Aging

Social isolation, loneliness in older people pose health risks

https://www.nia.nih.gov/news/social-isolation-loneliness-older-people-pose-health-risks

Human beings are social creatures. Our connection to others enables us to survive and thrive. Yet, as we age, many of us are alone more often than when we were younger, leaving us vulnerable to social isolation and loneliness—and related health problems such as cognitive decline, depression, and heart disease. Fortunately, there are ways to counteract these negative effects.

NIA-supported researchers are studying the differences between social isolation and loneliness, their mechanisms and risk factors, and how to help people affected by these conditions. “NIA is interested in exploring potential interventions to address social isolation and loneliness, which are both risk factors for poor aging outcomes,” said Lisbeth Nielsen, Ph.D., of NIA’s Division of Behavioral and Social Research.

Social isolation and loneliness do not always go together. About 28 percent of older adults in the United States, or 13.8 million people, live alone, according to a report by the Administration for Community Living’s Administration on Aging of the U.S. Department of Health and Human Services, but many of them are not lonely or socially isolated. At the same time, some people feel lonely despite being surrounded by family and friends.

“A key scientific question is whether social isolation and loneliness are two independent processes affecting health differently, or whether loneliness provides a pathway for social isolation to affect health,” Dr. Nielsen noted.

Health effects of social isolation, loneliness

Research has linked social isolation and loneliness to higher risks for a variety of physical and mental conditions: high blood pressure, heart disease, obesity, a weakened immune system, anxiety, depression, cognitive decline, Alzheimer’s disease, and even death.

People who find themselves unexpectedly alone due to the death of a spouse or partner, separation from friends or family, retirement, loss of mobility, and lack of transportation are at particular risk.

Conversely, people who engage in meaningful, productive activities with others tend to live longer, boost their mood, and have a sense of purpose. These activities seem to help maintain their well-being and may improve their cognitive function, studies show.

Breaking ground in loneliness research

Much of what we know about the causes and effects of social isolation and loneliness comes from the groundbreaking research of the late John T. Cacioppo, Ph.D., former director of the Center for Cognitive and Social Neuroscience at the University of Chicago and an NIA grantee.

Dr. Cacioppo’s research found that being alone and loneliness are different but related. Social isolation is the **objective** physical separation from other people (living alone), while loneliness is the **subjective** distressed feeling of being alone or separated. It’s possible to feel lonely while among other people, and you can be alone yet not feel lonely.

A pioneer in the field of social neuroscience, Dr. Cacioppo passed away in March 2018. His wife and collaborator, Stephanie Cacioppo, Ph.D., continues this work as assistant professor of psychiatry and behavioral neuroscience at the University of Chicago and director of the university’s NIA-supported Brain Dynamics Laboratory.

“The misery and suffering caused by chronic loneliness are very real and warrant attention,” she said. “As a social species, we are accountable to help our lonely children, parents, neighbors, and even strangers in the same way we would treat ourselves. Treating loneliness is our collective responsibility.”

Although there is more to learn, the understanding of the mechanisms of action of loneliness and its treatment has increased dramatically since scientific investigation began more than two

decades ago, according to Dr. Stephanie Cacioppo. Among the novel predictions from the Cacioppo Evolutionary Theory of Loneliness is that loneliness automatically triggers a set of related behavioral and biological processes that contribute to the association between loneliness and premature death in people of all ages. Research is headed toward the systematic study of these processes across generations, Dr. Cacioppo explained.

Understanding the biology of loneliness

Losing a sense of connection and community changes a person's perception of the world. Someone experiencing chronic loneliness feels threatened and mistrustful of others, which activates a biological defense mechanism, according to Steve Cole, Ph.D., director of the Social Genomics Core Laboratory at the University of California, Los Angeles. His NIA-funded research focuses on understanding the physiological pathways of loneliness (the different ways that loneliness affects how your mind and body function) and developing social and psychological interventions to combat it.

For example, loneliness may alter the tendency of cells in the immune system to promote inflammation, which is necessary to help our bodies heal from injury, Dr. Cole said. But inflammation that lasts too long increases the risk of chronic diseases.

Loneliness acts as a fertilizer for other diseases," Dr. Cole said. "The biology of loneliness can accelerate the buildup of plaque in arteries, help cancer cells grow and spread, and promote inflammation in the brain leading to Alzheimer's disease. Loneliness promotes several different types of wear and tear on the body.

People who feel lonely may also have weakened immune cells that have trouble fighting off viruses, which makes them more vulnerable to some infectious diseases, he added.

NIA-supported research by Dr. Cole and others shows that having a sense of mission and purpose in life is linked to healthier immune cells. Helping others through caregiving or volunteering also helps people feel less lonely.

"Working for a social cause or purpose with others who share your values and are trusted partners puts you in contact with others and helps develop a greater sense of community," he noted.

Researching genetic and social determinants of loneliness

In another NIA-funded study, researchers are trying to understand the differences between social isolation and loneliness and how they may influence health. They are also trying to identify

potential interactions between genes and the environment of older adults affected by social isolation and loneliness.

Previous studies have estimated the heritability of loneliness between 37 percent and 55 percent using twins and family-based approaches. “Individuals who are not prone genetically to feeling lonely may, for example, suffer much less from social isolation, while others feel lonely even though they are surrounded and part of a rich social life,” according to Nancy Pedersen, Ph.D., a professor of genetic epidemiology at the Karolinska Institutet in Stockholm, Sweden. “We are also interested in understanding what role socioeconomic status plays in such associations.”

Using data from twin studies, Dr. Pedersen and researchers found that both social isolation and loneliness are independent risk factors, and that genetic risk for loneliness significantly predicted the presentation of cardiovascular, psychiatric (major depressive disorder), and metabolic traits. Family history does not strongly influence this effect.

“We need to identify people who are most prone to suffer from social isolation and loneliness and those who would benefit most from interventions,” said Dr. Pedersen. “Interventions for social isolation may look very different from interventions for those who feel lonely.”

Beyond genetics, understanding social determinants of health, and the role of social and interpersonal processes in healthy aging and longevity, is another research direction at NIH. Scientists are beginning to apply this framework to research on social isolation and loneliness.

“Future research will need to clarify the extent to which loneliness and social isolation are malleable, and if so, what are the most effective approaches? Demonstrating that we can move the needle on these risk factors is a critical first step toward developing effective interventions,” said Dr. Nielsen. Research is also needed to clarify how great a change in loneliness or social isolation is required to achieve a meaningful change in health, she added.

Living alone with cognitive impairment

Older adults living alone with cognitive impairment—a growing and vulnerable population—face unique challenges. Elena Portacolone, Ph.D., assistant professor of sociology at the University of California, San Francisco, leads an NIA-funded study to understand their daily experiences, social networks, and decision-making ability, with the aim of designing culturally sensitive interventions to improve their health, well-being, and social integration.

“Whereas most researchers of isolation study the personal traits and behaviors of isolated individuals, my research focuses on the role that *structural* factors (i.e., institutions, social

policies, ideologies) play in exacerbating the social isolation of vulnerable individuals," said Dr. Portacolone. "For example, in my prior investigation of older residents of high-crime neighborhoods, who were mostly African-American older adults, a tension emerged between participants' longing to participate in society and obstacles that made this participation difficult to attain."

These structural obstacles included fear of being robbed, distrust of neighbors, limited availability of appropriate services, dilapidated surroundings, and limited meaningful and positive relationships. Having few friends or family members attuned to their concerns was another factor exacerbating social isolation. Study participants expressed a desire to be socially integrated, an idea that runs against the prevailing assumption that isolated older adults are alone by choice.

Similar patterns emerge in Dr. Portacolone's ongoing investigation of older adults with cognitive impairment living alone. "One African-American study participant told me of her tendency to lock herself in the bathroom during family gatherings to cry and 'let the tension out' because her family members realize how concerned she is about her memory loss," recalled Dr. Portacolone. "Other participants with Alzheimer's disease noted that their friends were less eager to see them after they shared their diagnosis."

Another structural obstacle is limited affordable services that address the specific needs of cognitively impaired people living alone. Home care aides are seldom trained to support older adults with cognitive impairment, and their fees are often too high for most older adults on a long-term basis, explained Dr. Portacolone. In addition, some older adults with cognitive impairment have had their driver's license revoked, but they do not get help with replacement transportation, which dramatically increases their isolation.

As a result, older adults with cognitive impairment living alone spend much of their time managing their household and their health, Dr. Portacolone said. They are often reluctant to show they need help because they fear being forced to move from their homes.

"The primary takeaway from this research is that interventions to increase older adults' social integration should address not only their behaviors, but their overall surroundings. We need to concentrate our attention on the influence of social policies, institutions, and ideologies in the everyday experience of isolated older adults," Dr. Portacolone said.

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Chapter 3 Long-Term Care

A. Caregiving

The following information is sourced from the National Institute on Aging
https://www.nia.nih.gov/health/caregiving/long-term-care

Long-term care services help people live as independently and safely as possible when they can no longer perform everyday activities on their own. Find out about different types of long-term care and how to pay for them.

What is Long-Term Care

Long-term care involves a variety of services designed to meet a person's health or personal care needs during a short or long period of time. These services help people live as independently and safely as possible when they can no longer perform everyday activities on their own.

Long-term care is provided in different places by different caregivers, depending on a person's needs. Most long-term care is provided at home by unpaid family members and friends. It can also be given in a facility such as a nursing home or in the community, for example, in an adult day care center.

The most common type of long-term care is personal care—help with everyday activities, also called "activities of daily living." These activities include bathing, dressing, grooming, using the toilet, eating, and moving around—for example, getting out of bed and into a chair.

Long-term care also includes community services such as meals, adult day care, and transportation services. These services may be provided free or for a fee.

People often need long-term care when they have a serious, ongoing health condition or disability. The need for long-term care can arise suddenly, such as after a heart attack or stroke. Most often, however, it develops gradually, as people get older and frailer or as an illness or disability gets worse.

Who Needs Long-Term Care?

It is difficult to predict how much or what type of long-term care a person might need. Several things increase the risk of needing long-term care.

- **Age.** The risk generally increases as people get older.
- **Gender.** Women are at higher risk than men, primarily because they often live longer.
- **Marital status.** Single people are more likely than married people to need care from a paid provider.
- **Lifestyle.** Poor diet and exercise habits can increase a person's risk.
- **Health and family history.** These factors also affect risk.

What Are the Different Types of Home-Based Long-Term Care Services?

Home-based long-term care includes health, personal, and support services to help people stay at home and live as independently as possible. Most long-term care is provided either in the home of the person receiving services or at a family member's home. In-home services may be short-term—for someone who is recovering from an operation, for example—or long-term, for people who need ongoing help.

Most home-based services involve personal care, such as help with bathing, dressing, and taking medications, and supervision to make sure a person is safe. Unpaid family members, partners, friends, and neighbors provide most of this type of care.

Home-based long-term care services can also be provided by paid caregivers, including caregivers found informally, and healthcare professionals such as nurses, home health care aides, therapists, and homemakers, who are hired through home health care agencies. These services include: home health care, homemaker services, friendly visitor/companion services, and emergency response systems.

Home Health Care

Home health care involves part-time medical services ordered by a physician for a specific condition. These services may include nursing care to help a person recover from surgery, an accident, or illness. Home health care may also include physical, occupational, or speech therapy and temporary home health aide services. These services are provided by home health care agencies approved by Medicare, a government insurance program for people over age 65.

Homemaker and Personal Care Services

Home health agencies offer homemaker and personal care services that can be purchased without a physician's order. Homemaker services include help with meal preparation and household chores. Personal care includes help with bathing and dressing. Agencies do not have to be approved by Medicare to provide these kinds of services.

Find a Medicare-certified home health agency in your area.

Friendly Visitor and Senior Companion Services

Friendly visitor/companion services are usually staffed by volunteers who regularly pay short visits (less than 2 hours) to someone who is frail or living alone. You can also purchase these services from home health agencies.

Senior Transportation Services

Transportation services help people get to and from medical appointments, shopping centers, and other places in the community. Some senior housing complexes and community groups offer transportation services. Many public transit agencies have services for people with disabilities. Some services are free. Others charge a fee.

Learn more about transportation services from Eldercare Locator.

Emergency Medical Alert Systems

Emergency response systems automatically respond to medical and other emergencies via electronic monitors. The user wears a necklace or bracelet with a button to push in an emergency. Pushing the button summons emergency help to the home. This type of service is especially useful for people who live alone or are at risk of falling. A monthly fee is charged.

Long-Term Care Planning

You can never know for sure if you will need long-term care. Maybe you will never need it. But an unexpected accident, illness, or injury can change your needs, sometimes suddenly. **The best time to think about long-term care is before you need it.**

Planning for the possibility of long-term care gives you time to learn about services in your community and what they cost. It also allows you to make important decisions while you are still able.

People with Alzheimer's disease or other cognitive impairment should begin planning for long-term care as soon as possible.

Learn more about advance care planning.

Making Decisions About Long-Term Care

Begin by thinking about what would happen if you became seriously ill or disabled. Talk with your family, friends, and lawyer about who would provide care if you needed help for a long time. Read about how to prepare healthcare advance directives.

You might delay or prevent the need for long-term care by staying healthy and independent. Talk to your doctor about your medical and family history and lifestyle. He or she may suggest actions you can take to improve your health.

Healthy eating, regular physical activity, not smoking, and limited drinking of alcohol can help you stay healthy. So can an active social life, a safe home, and regular health care.

Making Housing Decisions: Aging in Place

In thinking about long-term care, it is important to consider where you will live as you age and how your place of residence can best support your needs if you can no longer fully care for yourself.

Most people prefer to stay in their own home for as long as possible. Learn about services, products, and resources that can help older adults stay in their homes.

Talking with Your Parents About Long-Term Care

It can be difficult to make the decision about whether you or a loved one needs to leave home. Sometimes, decisions about where to care for a family member need to be made quickly, for example, when a sudden injury requires a new care plan. Other times, a family has a while to look for the best place to care for an elderly relative.

You may have had a conversation with a loved one where they asked you not to “put them” in a nursing home. Many of us want to stay in our own homes. Agreeing that you will not put someone in a nursing home may close the door to the right care option for your family. The fact is that for some illnesses and for some people, professional health care in a long-term care facility is the only reasonable choice.

Making Financial Decisions for Long-Term Care

Long-term care can be expensive. Americans spend billions of dollars a year on various services. How people pay for long-term care depends on their financial situation and the kinds of services they use. Often, they rely on a variety of payment sources, including:

- Personal funds, including pensions, savings, and income from stocks
- Government health insurance programs, such as Medicaid (Medicare does not cover long-term care but may cover some costs of short-term care in a nursing home after a hospital stay.)
- Private financing options, such as long-term care insurance
- Veterans' benefits
- Services through the Older Americans Act

Residential Facilities, Assisted Living, and Nursing Homes

At some point, support from family, friends, and local programs may not be enough. People who require help full-time might move to a residential facility that provides many or all of the long-term care services they need.

Facility-based long-term care services include: board and care homes, assisted living facilities, nursing homes, and continuing care retirement communities.

Some facilities have only housing and housekeeping, but many also provide personal care and medical services. Many facilities offer special programs for people with Alzheimer's disease and other types of dementia.

What Are Board and Care Homes?

Board and care homes, also called residential care facilities or group homes, are small private facilities, usually with 20 or fewer residents. Rooms may be private or shared. Residents receive personal care and meals and have staff available around the clock. Nursing and medical care usually are not provided on site.

What Is Assisted Living?

Assisted living is for people who need help with daily care, but not as much help as a nursing home provides. Assisted living facilities range in size from as few as 25 residents to 120 or more. Typically, a few "levels of care" are offered, with residents paying more for higher levels of care.

Assisted living residents usually live in their own apartments or rooms and share common areas. They have access to many services, including up to three meals a day; assistance with personal

care; help with medications, housekeeping, and laundry; 24-hour supervision, security, and on-site staff; and social and recreational activities. Exact arrangements vary from state to state.

What Are Nursing Homes?

Nursing homes, also called skilled nursing facilities, provide a wide range of health and personal care services. Their services focus on medical care more than most assisted living facilities. These services typically include nursing care, 24-hour supervision, three meals a day, and assistance with everyday activities. Rehabilitation services, such as physical, occupational, and speech therapy, are also available.

Some people stay at a nursing home for a short time after being in the hospital. After they recover, they go home. However, most nursing home residents live there permanently because they have ongoing physical or mental conditions that require constant care and supervision.

To look for and compare nursing homes in your area, see Medicare's Nursing Home Compare. Also get tips for choosing a nursing home.

What Are Continuing Care Retirement Communities (CCRCs)?

Continuing care retirement communities (CCRCs), also called life care communities, offer different levels of service in one location. Many of them offer independent housing (houses or apartments), assisted living, and skilled nursing care all on one campus. Healthcare services and recreation programs are also provided.

In a CCRC, where you live depends on the level of service you need. People who can no longer live independently move to the assisted living facility or sometimes receive home care in their independent living unit. If necessary, they can enter the CCRC's nursing home.

B. Abuse of The Elderly

The information from this section come directly from the National Center on Elder Abuse (NCEA). You can find them at this link: https://ncea.acl.gov/

The following is sourced from:
https://ncea.acl.gov/NCEA/media/docs/Red-Flags-of-Elder-Abuse-English.pdf

NATIONAL CENTER ON ELDER ABUSE

Red Flags of Abuse

Our communities are like structures that support people's safety and wellbeing. One of the most important ways we can all contribute to this ongoing construction project is by looking out for warning signs of maltreatment. Does someone you know display any of these signs of abuse? If so, **TAKE ACTION IMMEDIATELY**. Everyone, at every age, deserves justice. **Report suspected abuse as soon as possible.**

Emotional & Behavioral Signs

- Unusual changes in behavior or sleep
- Fear or anxiety
- Isolated or not responsive
- Depression

Physical Signs

- Broken bones, bruises, and welts
- Cuts, sores or burns
- Untreated bed sores
- Torn, stained or bloody underclothing
- Unexplained sexually transmitted diseases

- Dirtiness, poor nutrition or dehydration
- Poor living conditions
- Lack of medical aids (glasses, walker, teeth, hearing aid, medications)

Financial Signs

- Unusual changes in bank account or money management
- Unusual or sudden changes in a will or other financial documents
- Fraudulent signatures on financial documents
- Unpaid bills

WHAT IS ELDER ABUSE?

Elder abuse is the mistreatment or harming of an older person. It can include physical, emotional, or sexual abuse, along with neglect and financial exploitation. Many social factors—for example, a lack of support services and community resources—can make conditions ripe for elder abuse. Ageism (biases against or stereotypes about older people that keep them from being fully a part of their community) also play a role in enabling elder abuse. By changing these contributing factors, we can prevent elder abuse and make sure everyone has the opportunity to thrive as we age.

TYPES OF ELDER ABUSE

Physical abuse: Use of force to threaten or physically injure an older person

Emotional abuse: Verbal attacks, threats, rejection, isolation, or belittling acts that cause or could cause mental anguish, pain, or distress to an older person

Sexual abuse: Sexual contact that is forced, tricked, threatened, or otherwise coerced upon an older person, including anyone who is unable to grant consent

Exploitation: Theft, fraud, misuse or neglect of authority, and use of undue influence as a lever to gain control over an older person's money or property

Neglect: failure or refusal to provide for an older person's safety, physical, or emotional needs

HOW CAN WE PREVENT AND ADDRESS ELDER ABUSE?

We can lessen the risk of elder abuse by putting supports and foundations in place that make abuse difficult. If we think of society as a building that supports our wellbeing, then it makes sense to design the sturdiest building we can—one with the beams and load-bearing walls necessary to keep everyone safe and healthy as we age. For example, constructing community supports and human services for caregivers and older adults can alleviate risk factors tied to elder abuse. Increased funding can support efforts to train practitioners in aging-related care. Identifying ways to empower older adults will reduce the harmful effects of ageism. And leveraging expert knowledge can provide the tools needed to identify, address, and ultimately prevent abuse.

HOW CAN WE REPORT SUSPECTED ABUSE?

No matter how old we are, justice requires that we be treated as full members of our communities. If we notice some of these signs of abuse, it is our duty to report it to the proper authorities.

Programs such as **Adult Protective Services (APS)** and the **Long-Term Care Ombudsmen** are here to help. For reporting numbers, contact **Eldercare Locator** at 1-800-677-1116 (eldercare.gov).

If you or someone you know is in a life threatening situation or immediate danger, call **911** *or the local police or sheriff.*

The National Center on Elder Abuse (NCEA) directed by the U.S. Administration on Aging, helps communities, agencies and organizations ensure that older people and adults with disabilities can live with dignity, and without abuse, neglect, and exploitation. We are based out of Keck School of Medicine of USC. NCEA is the place to turn for education, research, and promising practices in preventing abuse.

Visit us online for more resources! **ncea.acl.gov**

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Types of Abuse

Elder abuse is a growing problem. While we don't know all of the details about why abuse occurs or how to stop its spread, we do know that help is available for victims. Concerned people, like you, can spot the warning signs of a possible problem, and make a call for help if an elder is in need of assistance.

- Physical Abuse
- Sexual Abuse
- Emotional or Psychological Abuse
- Neglect
- Abandonment
- Financial or Material Exploitation
- Self-neglect

Physical Abuse

Physical abuse is defined as the use of physical force that may result in bodily injury, physical pain, or impairment. Physical abuse may include but is not limited to such acts of violence as striking (with or without an object), hitting, beating, pushing, shoving, shaking, slapping, kicking, pinching, and burning. In addition, inappropriate use of drugs and physical restraints, force-feeding, and physical punishment of any kind also are examples of physical abuse.

Signs and symptoms of physical abuse include but are not limited to:

- bruises, black eyes, welts, lacerations, and rope marks
- bone fractures, broken bones, and skull fractures
- open wounds, cuts, punctures, untreated injuries in various stages of healing
- sprains, dislocations, and internal injuries/bleeding
- broken eyeglasses/frames, physical signs of being subjected to punishment, and signs of being restrained
- laboratory findings of medication overdose or under utilization of prescribed drugs
- an elder's report of being hit, slapped, kicked, or mistreated

- an elder's sudden change in behavior
- the caregiver's refusal to allow visitors to see an elder alone

Sexual Abuse

Sexual abuse is defined as non-consensual sexual contact of any kind with an elderly person. Sexual contact with any person incapable of giving consent is also considered sexual abuse. It includes, but is not limited to, unwanted touching, all types of sexual assault or battery, such as rape, sodomy, coerced nudity, and sexually explicit photographing.

Signs and symptoms of sexual abuse include but are not limited to:

- bruises around the breasts or genital area
- unexplained venereal disease or genital infections
- unexplained vaginal or anal bleeding
- torn, stained, or bloody underclothing
- an elder's report of being sexually assaulted or raped

Emotional or Psychological Abuse

Emotional or psychological abuse is defined as the infliction of anguish, pain, or distress through verbal or nonverbal acts. Emotional/psychological abuse includes but is not limited to verbal assaults, insults, threats, intimidation, humiliation, and harassment. In addition, treating an older person like an infant; isolating an elderly person from his/her family, friends, or regular activities; giving an older person the "silent treatment;" and enforced social isolation are examples of emotional/psychological abuse.

Signs and symptoms of emotional/psychological abuse include but are not limited to:

- being emotionally upset or agitated
- being extremely withdrawn and non communicative or non responsive
- unusual behavior usually attributed to dementia (e.g., sucking, biting, rocking)
- an elder's report of being verbally or emotionally mistreated

Neglect

Neglect is defined as the refusal or failure to fulfill any part of a person's obligations or duties to an elder. Neglect may also include failure of a person who has fiduciary responsibilities to provide care for an elder (e.g., pay for necessary home care services) or the failure on the part of an in-home service provider to provide necessary care.

Neglect typically means the refusal or failure to provide an elderly person with such life necessities as food, water, clothing, shelter, personal hygiene, medicine, comfort, personal safety, and other essentials included in an implied or agreed-upon responsibility to an elder.

Signs and symptoms of neglect include but are not limited to:

- dehydration, malnutrition, untreated bed sores, and poor personal hygiene;
- unattended or untreated health problems
- hazardous or unsafe living condition/arrangements (e.g., improper wiring, no heat, or no running water)
- unsanitary and unclean living conditions (e.g. dirt, fleas, lice on person, soiled bedding, fecal/urine smell, inadequate clothing)
- an elder's report of being mistreated

Abandonment

Abandonment is defined as the desertion of an elderly person by an individual who has assumed responsibility for providing care for an elder, or by a person with physical custody of an elder.

Signs and symptoms of abandonment include but are not limited to:

- the desertion of an elder at a hospital, a nursing facility, or other similar institution
- the desertion of an elder at a shopping center or other public location
- an elder's own report of being abandoned

Financial or Material Exploitation

Financial or material exploitation is defined as the illegal or improper use of an elder's funds, property, or assets. Examples include, but are not limited to, cashing an elderly person's checks without authorization or permission; forging an older person's signature; misusing or stealing an older person's money or possessions; coercing or deceiving an older person into signing any document (e.g., contracts or will); and the improper use of conservatorship, guardianship, or power of attorney.

Signs and symptoms of financial or material exploitation include but are not limited to:

- sudden changes in bank account or banking practice, including an unexplained withdrawal of large sums of money by a person accompanying the elder
- the inclusion of additional names on an elder's bank signature card
- unauthorized withdrawal of the elder's funds using the elder's ATM card
- abrupt changes in a will or other financial documents
- unexplained disappearance of funds or valuable possessions
- substandard care being provided or bills unpaid despite the availability of adequate financial resources
- discovery of an elder's signature being forged for financial transactions or for the titles of his/her possessions
- sudden appearance of previously uninvolved relatives claiming their rights to an elder's affairs and possessions
- unexplained sudden transfer of assets to a family member or someone outside the family;
- the provision of services that are not necessary
- an elder's report of financial exploitation

Self-neglect

Self-neglect is characterized as the behavior of an elderly person that threatens his/her own health or safety. Self-neglect generally manifests itself in an older person as a refusal or failure to provide himself/herself with adequate food, water, clothing, shelter, personal hygiene, medication (when indicated), and safety precautions.

The definition of self-neglect excludes a situation in which a mentally competent older person, who understands the consequences of his/her decisions, makes a conscious and voluntary decision to engage in acts that threaten his/her health or safety as a matter of personal choice.

Signs and symptoms of self-neglect include but are not limited to:

- dehydration, malnutrition, untreated or improperly attended medical conditions, and poor personal hygiene
- hazardous or unsafe living conditions/arrangements (e.g., improper wiring, no indoor plumbing, no heat, no running water)
- unsanitary or unclean living quarters (e.g., animal/insect infestation, no functioning toilet, fecal/urine smell)
- inappropriate and/or inadequate clothing, lack of the necessary medical aids (e.g., eyeglasses, hearing aids, dentures)
- grossly inadequate housing or homelessness

Reporting Abuse

Each one of us has a responsibility to keep older adults safe from harm. The laws in most states require helping professions in the front lines—such as doctors and home health providers—to report suspected abuse or neglect. These professionals are called mandated reporters. Under the laws of eight states, "any person" is required to report a suspicion of mistreatment.

Call the police or 911 immediately if someone you know is in immediate, life-threatening danger.
If you have been the victim of abuse, exploitation, or neglect, you are not alone. Many people care and can help. Please tell your doctor, a friend, or a family member you trust, or call the Adult Protective Services program in your area at this link: (https://ncea.acl.gov/Resources/State.aspx). Relay your concerns to the local Adult Protective Services, Long-term Care Ombudsman, or police. If the danger is not immediate, but you suspect that abuse has occurred or is occurring, please tell someone.

You can reach the Eldercare Locator by telephone at **1-800-677-1116**. Specially trained operators will refer you to a local agency that can help. The Eldercare Locator is open Monday through Friday, 9 a.m. to 8 p.m. Eastern Time.
You do not need to prove that abuse is occurring; it is up to the professionals to investigate the suspicions.

When making the call, be ready to give the name, address, and contact information of the person you suspect is abused or neglected, and details about why you are concerned.

You may be asked a series of questions to gain more insight into the nature of the situation.

- Are there any known medical problems (including confusion or memory loss)?
- What kinds of family or social supports are there?
- Have you seen or heard incidents of yelling, hitting, or other abusive behavior?

You will be asked for your name, address, telephone number, etc., but most states will take the report even if you do not identify yourself.

The professionals receiving your report are prohibited from releasing your information as reporter. They may not disclose your identity to the alleged abuser or victim.

Chapter 4: Medicare, Medication and Healthcare Costs

Medical costs are often then number one cost for the Elderly. Many live in poverty as a result of overwhelming costs. As we get older we tend to be more ill, and to see medical personnel and take more, and very expensive medication. It will be a benefit to those you work with if you are familiar with Medicare and can share important resources.

The following is from the website Medicare Interactive
https://www.medicareinteractive.org/get-answers/medicare-basics/medicare-overview/introduction-to-medicare

Introduction to Medicare

Medicare is the federal government program that provides health care coverage (health insurance) if you are 65+, under 65 and receiving Social Security Disability Insurance (SSDI) for a certain amount of time, or under 65 and with End-Stage Renal Disease (ESRD). The Centers for Medicare & Medicaid Services (CMS) is the federal agency that runs Medicare. The program is funded in part by Social Security and Medicare taxes you pay on your income, in part through premiums that people with Medicare pay, and in part by the federal budget.

Once you have become Medicare-eligible and enroll, you can choose to get your Medicare benefits from Original Medicare, the traditional fee-for-service program offered directly through the federal government, or from a Medicare Advantage Plan, a type of private insurance offered by companies that contract with Medicare (the federal government). Original Medicare includes:

- Part A (Inpatient/hospital coverage)
- Part B (Outpatient/medical coverage)

If you want Medicare prescription drug coverage (Part D) with Original Medicare, in most cases you will need to actively choose and join a stand-alone Medicare private drug plan (PDP).

You still have Medicare if you enroll in a Medicare Advantage Plan. This means that you will still owe a monthly Part B premium (and your Part A premium, if you have one). Each Medicare Advantage Plan must provide all Part A and Part B services covered by Original Medicare, but can do so with different rules, costs, and restrictions that can affect how and when you receive care. Medicare Advantage Plans can also provide Part D coverage. Note that if you have health coverage from a union or current or former employer when you become eligible for Medicare, you may automatically be enrolled in a Medicare Advantage Plan that they sponsor. You have the choice to stay with this plan, switch to Original Medicare, or enroll in a different Medicare Advantage Plan, but you should speak with your employer/union before making any change.

It is important to understand your Medicare coverage choices and to pick your coverage carefully. How you choose to get your benefits and who you get them from can affect your out-of-pocket costs and where you can get your care. For instance, in Original Medicare, you are covered to go to nearly all doctors and hospitals in the country. Medicare Advantage Plans, on the other hand, usually have network restrictions, meaning that you will be more limited in your

access to doctors and hospitals. However, Medicare Advantage Plans can also provide additional benefits that Original Medicare does not cover, such as routine vision or dental care.

Medicare is different from Medicaid, which is another government program that provides health insurance. Medicaid is funded and run by the federal government in partnership with states to cover people with limited incomes. Depending on the state, Medicaid can be available to people below a certain income level who meet other criteria (e.g., age, disability status, pregnancy) or be available to all people below a certain income level. Remember, unlike Medicaid, Medicare eligibility does not depend on income. Also, eligible individuals can have both Medicare and Medicaid and are known as dual-eligibles.

Everyone who has Medicare receives a red, white, and blue Original Medicare card. If you choose to receive your coverage through Original Medicare, you will show this card when you get services. If you choose to receive your Medicare benefits through a Medicare Advantage Plan, you will still get an Original Medicare card but you will show your Medicare Advantage Plan card when you get services. No matter how you get your Medicare health benefits, only give your Medicare number to your doctors and health care providers.

There are four parts of Medicare: Part A, Part B, Part C, and Part D.

Medicare Part A—covered services

- **Inpatient hospital care:** This is care received after you are formally admitted into a hospital by a physician. You are covered for up to 90 days each benefit period in a general hospital, plus 60 lifetime reserve days. Medicare also covers up to 190 lifetime days in a Medicare-certified psychiatric hospital.
- **Skilled nursing facility (SNF) care:** Medicare covers room, board, and a range of services provided in a SNF, including administration of medications, tube feedings, and wound care. You are covered for up to 100 days each benefit period if you qualify for coverage. To qualify, you must have spent at least three consecutive days as a hospital inpatient within 30 days of admission to the SNF, and need skilled nursing or therapy services.
- **Home health care:** Medicare covers services in your home if you are homebound and need skilled care. You are covered for up to 100 days of daily care or an unlimited amount of intermittent care. To qualify for Part A coverage, you must have spent at least three consecutive

days as a hospital inpatient within 14 days of receiving home health care. (Note: You can get home health care through Medicare Part B if you do not meet all the requirements for Part A coverage.)

- **Hospice care:** This is care you may elect to receive if a provider determines you are terminally ill. You are covered for as long as your provider certifies you need care.

  Keep in mind that Medicare does not usually pay the full cost of your care, and you will likely be responsible for some portion of the cost-sharing (deductibles, coinsurances, copayments) for Medicare-covered services.

Medicare Part B—covered services

Medicare Part B provides outpatient/medical coverage. The list below provides a summary of Part B-covered services and coverage rules:

- **Provider services:** Medically necessary services you receive from a licensed health professional.
- **Durable medical equipment (DME):** This is equipment that serves a medical purpose, is able to withstand repeated use, and is appropriate for use in the home. Examples include walkers, wheelchairs, and oxygen tanks. You may purchase or rent DME from a Medicare-approved supplier after your provider certifies you need it.
- **Home health services:** Services covered if you are homebound and need skilled nursing or therapy care.
- **Ambulance services:** This is emergency transportation, typically to and from hospitals. Coverage for non-emergency ambulance/ambulette transportation is limited to situations in which there is no safe alternative transportation available, and where the transportation is medically necessary.
- **Preventive services:** These are screenings and counseling intended to prevent illness, detect conditions, and keep you healthy. In most cases, preventive care is covered by Medicare with no coinsurance.
- **Therapy services:** These are outpatient physical, speech, and occupational therapy services provided by a Medicare-certified therapist.
- **Mental health services.**
- **X-rays and lab tests.**

- **Chiropractic care** when manipulation of the spine is medically necessary to fix a subluxation of the spine (when one or more of the bones of the spine move out of position).
- **Select prescription drugs**, including immunosuppressant drugs, some anti-cancer drugs, some anti-emetic drugs, some dialysis drugs, and drugs that are typically administered by a physician.

This list includes commonly covered services and items, but it is not a complete list. Keep in mind that Medicare does not usually pay the full cost of your care, and you will likely be responsible for some portion of the cost-sharing (deductibles, coinsurances, copayments) for Medicare-covered services.

Medicare Part C—covered services

Medicare Advantage basics

While the majority of people with Medicare get their health coverage from Original Medicare, some choose to get their benefits from a Medicare Advantage Plan, also known as a Medicare private health plan or Part C. MA Plans contract with the federal government and are paid a fixed amount per person to provide Medicare benefits.

The most common types of MA Plan are:

- Health Maintenance Organizations (HMOs)
- Preferred Provider Organizations (PPOs)
- Private Fee-For-Service (PFFS)

You may also see:

- Special Needs Plans (SNPs)
- Provider Sponsored Organizations (PSOs)
- Medical Savings Accounts (MSAs)

Remember, you still have Medicare if you enroll in an MA Plan. This means that you likely pay a monthly premium for Part B (and a Part A premium, if you have one). If you are enrolled in an MA Plan, you should receive the same benefits offered by Original Medicare. Keep in mind that your MA Plan may apply different rules, costs, and restrictions, which can affect how and when you receive care. They may also offer certain benefits that Medicare does not cover, such as dental and vision care, caregiver counseling and training, and certain in-home support like

housekeeping. Not all MA Plans cover additional benefits, so check with a plan directly to learn what benefits it covers.

All Medicare Advantage Plans must include a limit on your out-of-pocket expenses for Part A and B services. For example, the maximum out-of-pocket cost for HMO plans in 2020 is $6,700. These limits tend to be high. In addition, while plans cannot charge higher copayments or coinsurances than Original Medicare for certain services, like chemotherapy and dialysis, they can charge higher cost-sharing for other services.

Remember: MA Plans may have different:

- Networks of providers
- Coverage rules
- Premiums (in addition to the Part B premium)
- Cost-sharing for covered services

Even plans of the same type offered by different companies may have different rules, so you should always check with a plan directly to find out how its coverage works.

You can join an MA Plan if:

1. You have Medicare Parts A and B
2. You live in the plan's service area
3. And, you do not have End-Stage Renal Disease (ESRD), except in limited circumstances
    - Note: If you have ESRD and need dialysis or a kidney transplant, you may enroll in an MA Plan if you join a Special Needs Plan that specifically accepts people with ESRD, or if other special circumstances apply.

Many Medicare Advantage Plans also offer prescription drug coverage (Part D). If you join an MSA plan or a PFFS plan without drug coverage, you can enroll in a stand-alone Part D plan. Remember that people with Original Medicare who want Part D coverage also enroll in a stand-alone Part D plan.

If you have health coverage from your union or employer (current or former) when you become eligible for Medicare, you may automatically be enrolled in an MA Plan that they sponsor. You

have the choice to stay with this plan, switch to Original Medicare, or enroll in a different MA Plan. Be aware that if you switch to Original Medicare or enroll in a different MA Plan, your employer or union could terminate or reduce your health benefits, the health benefits of your dependents, and any other benefits you get from your company. Talk to your employer/union and your plan before making changes to find out how your health benefits and other benefits may be affected.

Medicare Part D—covered services

Part D basics

Medicare Part D, the prescription drug benefit, is the part of Medicare that covers most outpatient prescription drugs. Part D is offered through private companies either as a stand-alone plan, for those enrolled in Original Medicare, or as a set of benefits included with your Medicare Advantage Plan.

Unless you have creditable drug coverage and will have a Special Enrollment Period, you should enroll in Part D when you first get Medicare. If you delay enrollment, you may face gaps in coverage and enrollment penalties.

Each Part D plan has a list of covered drugs, called its formulary. If your drug is not on the formulary, you may have to request an exception, pay out of pocket, or file an appeal.

A drug category is a group of drugs that treat the same symptoms or have similar effects on the body. All Part D plans must include at least two drugs from most categories and must cover all drugs available in the following categories:

- HIV/AIDS treatments
- Antidepressants
- Antipsychotic medications
- Anticonvulsive treatments for seizure disorders

- Immunosuppressant drugs
- Anticancer drugs (unless covered by Part B)

Part D plans must also cover most vaccines, except for vaccines covered by Part B.

Some drugs are explicitly excluded from Medicare coverage by law, including drugs used to treat weight loss or gain, and over-the-counter drugs.

Note: For certain drugs or under specific circumstances, your drugs may be covered by Part A or Part B.

Conclusion

With Aging and Long Term Care the services needs runs through every part of life. It can become very overwhelming to navigate all the person changes in life (Physical, Social, Mental Financial), not to mention the medical aspects which can feel like a Merry Go Round. All of these changes come at a time when we as people are more vulnerable, and sometime less capable, than we have been years. We do not move as fast, think as fast, organize as well, and forget a lot. For many, it is crucial to have somebody, or a lot of people, there to help them manage, and hopefully thrive, through the golden years. The more knowledge you have, the greater service you can provide, and some day, you will be happy you know.

Resources

For Pension Assistance: Pension Help America: https://www.pensionhelp.org/
Retirement Resource for Women: Women's Institute For A Secure Retirement (WISER)
https://www.wiserwomen.org/index.php?id=38
To find home-based services, contact Eldercare Locator at **1-800-677-1116** or visit https://eldercare.acl.gov. You can also call your local Area Agency on Aging, Aging and Disability Resource Center, department of human services or aging, or a social service agency.

LongTermCare.gov
1-202-619-0724
aclinfo@acl.hhs.gov
https://longtermcare.acl.gov/

Eldercare Locator
1-800-677-1116 (toll-free)
eldercarelocator@n4a.org
https://eldercare.acl.gov

National Association of Area Agencies on Aging
1-202-872-0888
info@n4a.org
www.n4a.org

Medicare.GOV: Nursing Home Compare

https://www.medicare.gov/nursinghomecompare/search.html

Medicare.gov

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