

3.

DISABILITIES AMONG OLDER ADULTS

Health and disability are closely tied to older households' housing needs. Physical and cognitive functioning tend to decline with advancing age, increasing the incidence of disabilities related to walking and movement (mobility), self-care, and ability to run a household, all of which may limit older adults' capacities to live independently in the community.

To better understand the housing and care needs of the older population through 2035, this chapter examines current disability rates, trends in health that may alter these rates in the future, and projections of the number and type of future households in which one or more members is likely to have a disability. To understand the capacity of older adults to meet their own housing and care needs, the following chapter then analyzes the financial well-being of our aging population.

HEALTH, DISABILITY, AND HOUSING NEEDS

"Health" is a multi-dimensional concept: the World Health Organization defines it as a state of complete physical, mental, and social well-being, and not merely as the absence of disease or infirmity. For our purposes, we are interested in how health, or its absence, affects housing needs. We therefore examine health insofar as it affects people's capacity to perform daily self-care and household tasks independently, for such tasks are intimately connected to movement about the home as well as to potential needs for assistance and care.

Difficulty performing a basic daily activity independently is understood as a functional limitation, or disability, in that activity area.¹ "Activities of daily living" (ADLs) are self-care tasks that include bathing, dressing, toileting, transferring (e.g. in and out of bed), and eating.² Within the home, ADLs may be partially addressed through accessible housing: difficulty bathing and toileting, for example, may be eased by the installation of walk-in showers, grab bars, and raised toilet seats. However, individuals with ADL disabilities often also need the help of caregivers.

“Instrumental activities of daily living” (IADLs) are independent living skills related to a person’s ability to cope with his/her environment, and include tasks such as shopping, cooking, housekeeping, use of transportation, managing money, managing medication, and telephone use.³ Many disabilities related to IADLs stem from physical frailty: for example, doing laundry and general housework may require more energy or strength than a person has. But other tasks, such as paying bills, preparing food, and managing medications, may be more related to cognitive health. Disability status is frequently assessed using ADL and IADL measures in combination, and can stem from physical as well as cognitive impairment.

In this report we also examine limitations in mobility, including difficulties in walking, climbing stairs, and transferring (e.g. in and out of bed). Some mobility limitations can be addressed through the use of assistive technology, such as wheelchairs or walkers. Mobility limitations might also be addressed through physical modifications to the home. For example, a single-floor living arrangement can eliminate the challenge of climbing stairs. Appliances placed at lower levels can save users from having to lift their arms above shoulder-height. And those using assistive devices such as wheelchairs or walkers may benefit from wider hallways and doorways to facilitate movement throughout a house.

DISABILITY IN CURRENT OLDER ADULTS

In order to understand the housing implications of disability in the older population, we utilize the 2014 Health and Retirement Study (HRS), a longitudinal data set sponsored by the National Institute on Aging. HRS is unique among other disability surveys in that it provides detailed information on health and disability for all members of the primary respondent’s household, allowing us to analyze disability and housing implications for individuals as well as for the household as a whole. This analysis can help us to gauge the number of older households affected by disability, their characteristics (including tenure and household type), and the scope of the need for household modifications and supports in the home.

To operationalize mobility-related disabilities, ADLs, and IADLs we selected specific tasks identified in the literature on disability that are measured by HRS and sorted them into three categories: mobility disabilities, self-care disabilities, and household activity disabilities (Chart 3.1). For our purposes, mobility disabilities include difficulties walking, getting in and out of bed (transferring), and climbing stairs. Transferring is technically defined as an ADL in the literature, and neither walking nor climbing stairs are traditionally considered ADLs or IADLs, but we have constructed this category of mobility-related challenges to study older adults’ abilities to move about their homes.⁴ Self-care disabilities include difficulty eating, dressing, toileting, and bathing independently, all of which are defined as ADLs in the literature. Limitations related to household activities include need for assistance preparing meals, shopping, managing money, doing housework, driving, using the phone, and taking medication, all of which are defined as IADLs in the literature.

Chart 3.1	
Disability related to:	Difficulty with:
Mobility	<ul style="list-style-type: none"> • Walking • Transferring in and out of Bed • Climbing Stairs
Self-care	<ul style="list-style-type: none"> • Eating • Dressing • Toileting • Bathing
Household activity	<ul style="list-style-type: none"> • Meal Preparation • Food Shopping • Using Telephone • Taking Medication • Money Management • Housework • Driving

An extensive literature on ADL and IADL limitations, which has emerged since the two measures were established in the 1960s and 1970s, shows that the prevalence of disability rises sharply with advancing age. Income, educational attainment, race and ethnicity, and marital status have also been correlated with disability risk among older adults. Disability rates are highest among those with low incomes or limited educational attainment, among Hispanics and non-Hispanic blacks, and among the unmarried.⁵

These findings are borne out in our analysis of HRS data. Fully 41 percent of older adults aged 65-79 have at least one self-care, household activity, or mobility disability as identified in Chart 3.1, but for those 80 and over, this share rises to nearly 71 percent. Household activity disability is the most common disability (**Figure 3.1**). This is a broad category, and high rates are driven in particular by reported difficulties with housework and driving, both of which are substantially higher in older age groups.

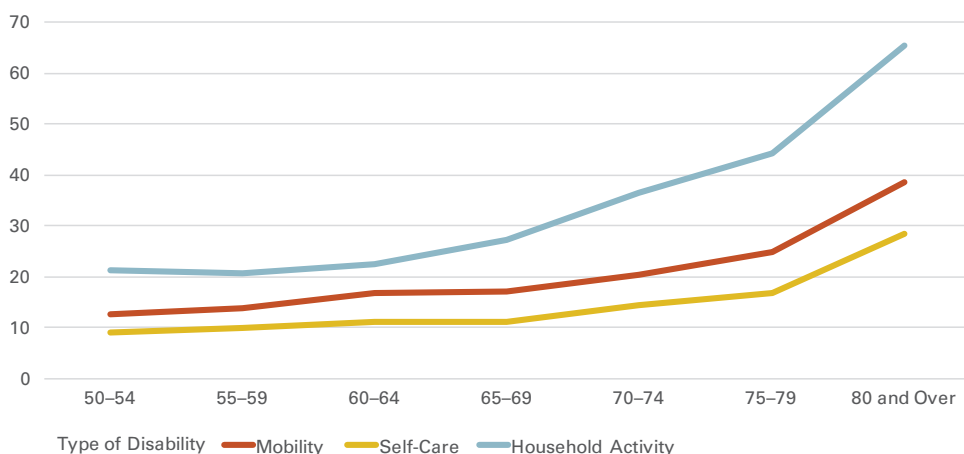
CURRENT HOUSEHOLDS WITH DISABILITIES

In considering the implications of disability for the housing situations of older adults, incidence at the household level is more relevant than incidence at the individual level. For example, if only one member of a married couple household has a mobility disability, the housing unit will need to accommodate that individual even though the other spouse does not need the same accommodation.

Disability rates are higher for minority households across all three types of disability. Among older households, Hispanic households have the highest rates of mobility disability at 48 percent, followed by 41 percent of non-Hispanic Asian/other households. Household activity disability rates are highest in Hispanic households (62 percent), closely followed by non-Hispanic black households at 60 percent. Similarly, self-care disability rates are higher among minorities than among non-Hispanic white households: 31 percent of non-Hispanic black households and 35 percent of Hispanic households aged 65 and over have a self-care disability, compared with 21 percent of non-Hispanic white households of the same age.

Figure 3.1: Disability Prevalence Increases with Age

Share of Population with Disabilities by Age Group (Percent)



Notes: Mobility disability is defined as difficulty walking, getting in and out of bed, and climbing one flight of stairs; self-care disability as difficulty eating, dressing, toileting, and bathing; and household activity disability as difficulty with meal preparation, food shopping, using the telephone, taking medication, money management, housework, and driving.

Source: JCHS tabulations of University of Michigan, 2014 Health and Retirement Survey.

By tenure, renter households aged 65 and older are far more likely than owner households of the same age to have a disability, though the gap narrows at more advanced ages. Overall, 60 percent of renter households headed by a person aged 65 and older include at least one member with a household activity disability, 45 percent have a mobility disability, and 30 percent have a self-care disability. In comparison, 50 percent of owner households headed by a person aged 65 and older have a household activity disability, 29 percent have a mobility disability, and 21 percent have a self-care disability. The higher prevalence of disability among older renters is of great significance because renters often have neither the financial resources nor the legal authority to suitably modify their homes. Limited financial resources also make it difficult to obtain care in the home.

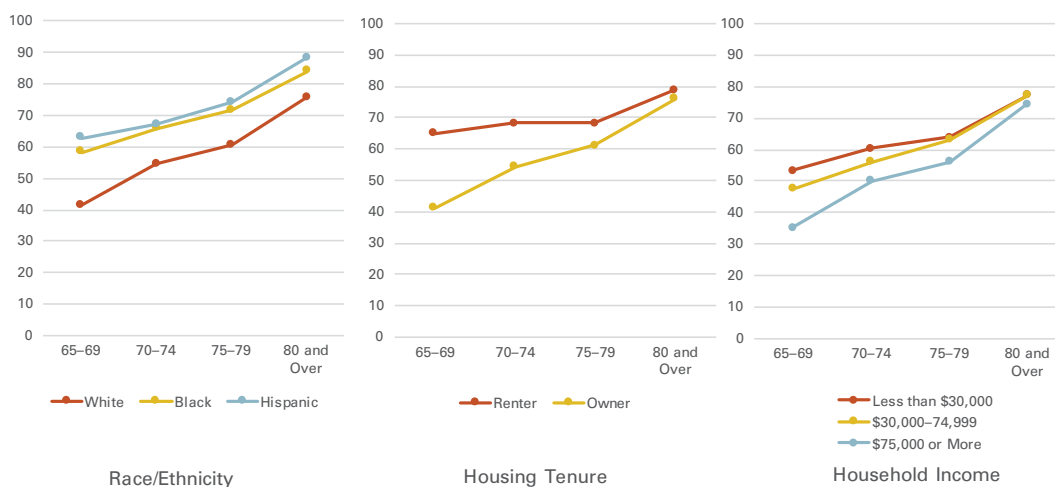
Disability rates among older households follow similar patterns to those among the older population and increase with age regardless of race/ethnicity, tenure,

or income (Figure 3.2). For households aged 65-79, 45 percent have household activity limitations, 28 percent have mobility limitations, and 20 percent have self-care limitations. Among households aged 80 and over, these rates are higher, at 71 percent, 45 percent, and 34 percent respectively. Still, the larger size of the 65-79 householder age group means there are more households with disabilities among the “younger old” group: nearly 12 million households in the 65-79 age group have at least one disability, compared to nearly 6.1 million households aged 80 and over.

These rates translate into a total of 15.3 million households aged 65 and older with household activity limitations, 9.6 million with mobility limitations, and 7 million with self-care limitations. Many households fall into two or even all three of these disability categories. In total, nearly 18 million households aged 65 and over have at least one person with at least one disability.

Figure 3.2: Disabilities are Increasingly Common with Age, Regardless of Race/Ethnicity, Tenure, or Income

Share of Households Aged 65 and over with Disabilities (Percent)



Notes: Whites and blacks are non-Hispanic. Hispanics may be of any race. Race/ethnicity figure excludes Asian and other households due to insufficient data.

Source: JCHS tabulations of University of Michigan, 2014 Health and Retirement Survey.



HOUSEHOLDS WITH INCIDENCE OF DEMENTIA

While dementia can cause all three types of disabilities mentioned above, it is discussed separately here because it often requires different types of interventions, from specific design elements to specialized care. Estimates of current dementia prevalence vary: recent analysis of Health and Retirement Study data indicates that 8.8 percent of adults aged 65 and over have dementia, and another 18.8 percent have some lower level of functional impairment that does not meet the criteria for dementia (referred to as “CIND,” or cognitive impairment, no dementia).⁶ In comparison, analysis of data from two other oft-cited nationally representative studies—the Aging, Demographics, and Memory Study (ADAMS), and the National Health and Aging Trends Study (NHATS)—yield slightly different estimates. Analysis of ADAMS data indicates that 13.9 percent of people aged 71 and older in the US have dementia, with another 22 percent classified as having CIND.⁷ Meanwhile, estimates of dementia prevalence based on NHATS data suggest that 14.8 percent of adults aged 71 and older have “probable” dementia, while another 12.8 percent has “possible” dementia.⁸ Among older adults aged 65 and older, analysis of NHATS data indicates that 11.2 percent have probable dementia, while 10.6 percent have possible dementia.

Each of these estimates shows the prevalence of dementia rising sharply with age. Analysis of HRS data, for instance, puts the share of older adults with dementia at 3.2 percent for 65-74 year-olds, at 9.9 percent for 75-84 year-olds, and at 29.3 percent for those aged 85 and older.⁹ Similarly, the share with CIND also rises with age, increasing from 14 percent among the 65-74 age group, to 22.6 percent for those aged 75-84, and up to 29.9 percent among adults aged 85 and over.

Applying these shares to the Census Bureau’s 2015 Current Population Estimates translates to a 65-and-over population with dementia of 4.1 million today, with an additional 8.9 million with CIND. The oldest age group (85 and older) represents fully 45 percent, or 1.8 million, of this current older population with dementia.

HELP FOR THOSE WITH DISABILITIES: SUPPORTS AND SERVICES IN THE HOME

As noted at the outset of this chapter, older adults living with disabilities can often benefit from care in the home. Indeed, a 2005 study has estimated that nearly 70 percent of adults will need some form of long-term care in later life.¹⁰ At the time, this study projected the average total duration of long-term care use for older adults who turned 65 in 2005 to be 3 years. The study further estimated that 1.9 years of this care would be spent at home, with approximately 0.5 years of formal (paid) care and 1.4 years of informal care (e.g. from a spouse or partner, family member, or friend), and the remaining 1.1 years spent in long-term care facilities, most of which would be spent in nursing home care (0.8 years), with 0.3 years spent in assisted living facilities. However, long-term care use varies across demographic and socioeconomic groups. Reflecting differences in disability rates across demographic groups, the oldest age groups, women, and unmarried people are most likely to use some form of long-term care before death.¹¹ Additionally, lower-income older adults are more likely to need longer periods of assistance than those who are financially better-off.¹² It is also unclear how trends toward the increased provision of long-term care in the home may alter these 2005 estimates for where care is most likely to be delivered.

Analysis of 2014 HRS data indicates that among all older households aged 65 and over with functional limitations, 54 percent received some form of help. The vast majority of this was unpaid/informal help, most of which came from family caregivers. Only 8.2 percent who reported receiving assistance got it from formal, paid sources. Consistent with these findings, in 2009, AARP estimated that family caregivers provided \$450 billion worth of unpaid care, almost four times Medicaid long-term services and supports spending, and nearly seven times what people paid privately (assuming an hourly rate of \$11.16).¹³

When both formal and informal care received by older households are accounted for, there is still a sizeable gap between households needing help and those actually receiving it.¹⁴

Forty-five percent of households aged 65 and older have some form of disability but receive no help of any kind—a total of 8.1 million households in 2014. Going forward, fewer family caregivers will be available to provide care to older adults, given both rising need and declines in the number of children among the baby boom generation.¹⁵

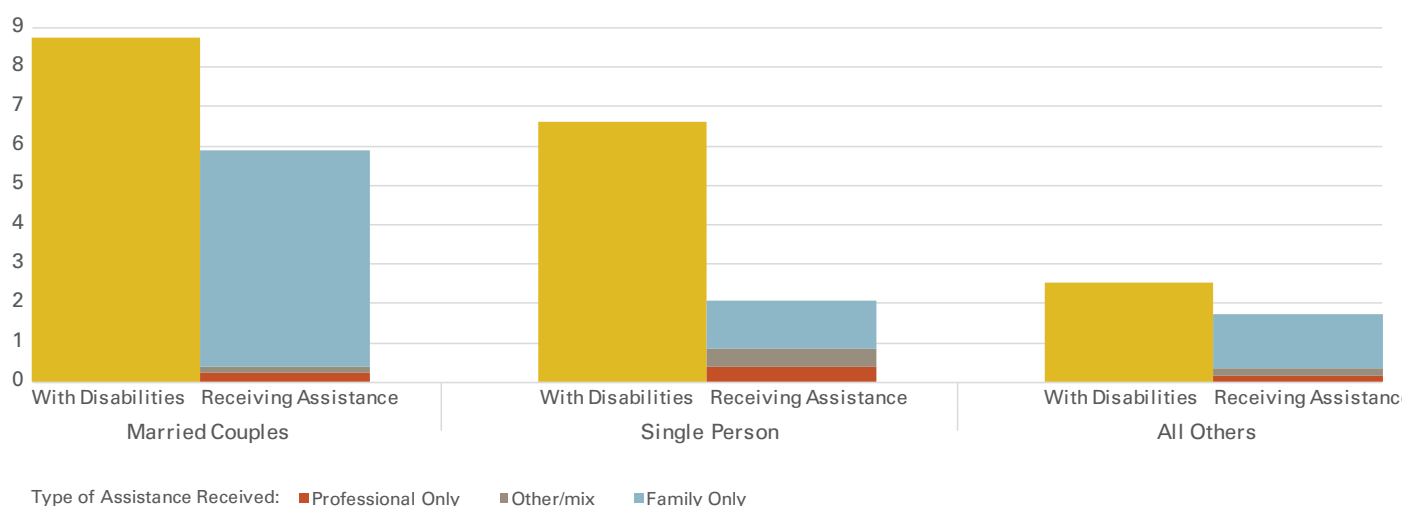
Furthermore, this overall picture masks sizeable differences between the help situations of married couples and single-person households. Among married couple households with any disability, 67 percent reported receiving some form of assistance (which can include help from a spouse), compared with just 32 percent of single-person households (Figure 3.3). In addition to being less likely to receive help, disabled single-person households are far more likely than married couples to pay for the help they receive. While just 4 percent of married couple households with disabilities receiving help obtained it from a paid source, 18 percent of single-person households with disabilities who received help paid for it.

TRENDS IN THE NUMBERS OF HOUSEHOLDS WITH DISABILITIES

Demographic and health trends will shape the disability rates of future older households. Since incidence of disability rises with age, the overall aging of the population will increase both the share and number of older adults with disabilities, particularly in the 80-and-over group. Rising rates of educational attainment suggest lower disability rates, but uncertain trends in income, to be discussed in the next chapter, may lead in the other direction, since those with lower incomes have higher disability rates. Finally, given that the likelihood of disability is higher among Hispanic and black households, as noted above, the increasing diversity of the older population will likely lead to higher numbers with mobility, self-care, and household activity disabilities.

Figure 3.3: Single Person Households with Disabilities Are Most Likely to Lack Help

Households Aged 65 and over by Household Type (Millions)



Source: JCHS tabulations of University of Michigan, 2014 Health and Retirement Survey.



In addition to demographic trends, health trends are shaping disability rates. Recent increases in average lifespan may be particularly consequential, given that the oldest age groups have the highest disability rates. Between 1980 and 2014, life expectancy at age 65 increased from 16.4 years to 19.3 years.¹⁶ Men have experienced larger increases in life expectancy than have women. For men, life expectancy at age 65 increased from 14.1 years in 1980 to 18.0 in 2014, while female life expectancy at age 65 increased from 18.3 to 20.5 years over the same period.

There is substantial debate about whether lengthening lifespans are resulting in more years of healthy, disability-free life, or whether these additional years are simply drawing out the period of impairment during the last years of life. Some researchers argue that a “compression of morbidity”—a reduction in the average period during which an individual suffers from disability—is indeed occurring.¹⁷ However, others believe that the period of disabled life is expanding, and still others find that the evidence is mixed,

with some demographic groups benefiting less or not at all from compression of morbidity—specifically the minorities, poor, and less well-educated.¹⁸ Furthermore, a 2016 study indicates gender differences in compression of morbidity, finding that while older men have experienced decreasing disability, postponement of disability to older ages, and increased percentage of remaining life spent active in addition to increases in longevity, older women have seen comparatively smaller postponements in disability, an upward trend in moderate disability, a stagnation of active life as a percentage of life expectancy, and smaller increases in longevity.¹⁹

Recent trends in several specific health conditions may also influence disability rates among the future older population. Rising rates of diabetes and obesity are of particular concern, but arthritis and chronic conditions such as cardiovascular disease and lung disease are also among the most significant contributors to disability for older adults.²⁰ Trends in these disability-related diseases and conditions, and their potential effects on disability among the future older population, are discussed below.

- **Obesity.** Obesity can exacerbate age-related declines in physical function.²¹ Obesity rates have risen substantially in recent decades, and will likely have important implications for the overall health and functional capacity of the future elderly population.²² Researchers warn that if obesity rates continue to rise, ADL disability rates will increase for the 50-69 age group by 1 percent per year more than if there were no further weight gain, an increase that may offset overall trends toward decreasing old-age disability.²³ While some recent studies have indicated that acceleration in the increase of obesity rates may now be leveling off after rising throughout the past several decades, researchers still anticipate overall increases in obesity in coming years: one study forecasts a 33 percent increase in obesity prevalence from 2012 to 2030.²⁴

Studies find that obesity is an important cause of frailty in older persons, which is associated with limitations performing basic ADLs and IADLs.²⁵ In particular, obesity is closely tied to mobility limitations in older adults: obesity contributes to the risk of knee osteoarthritis, which can lead to difficulty walking and overall decreases in mobility.²⁶ Although obesity is associated with increased difficulties in all the basic ADLs except eating, the effect is strongest for mobility-related ADLs, including transferring from a bed to a chair and dressing, as well as activities related to walking. Obesity is also linked with many other medical conditions that become more prevalent with age and themselves lead to disability, including hypertension, diabetes, and cardiovascular disease.²⁸

EVIDENCE SUGGESTS THAT LATE 20TH CENTURY GAINS IN OVERALL HEALTH AMONG THE OLDER POPULATION ARE NOW MODERATING.

- **Diabetes.** Old age is associated with higher diabetes prevalence. As of 2014, the CDC reports that 25.9 percent of the population aged 65 and over has diabetes, compared with 16.2 percent of the population aged 45-64.²⁹ The aging of the overall population is therefore a significant driver of the diabetes epidemic. Older persons with diabetes have higher rates of coexisting illnesses (like hypertension, coronary heart disease, and stroke), premature death, and physical and cognitive impairment (including risk of decreased physical activity, increased risk of falls, and heightened rates of dementia).³⁰

Diabetes prevalence is expected to increase significantly through 2050. A study published in 2006 projected that between 2005 and 2050, the number of older adults with diabetes would increase by 220 percent among those aged 65-74 years, and by 449 percent among those aged 75 and over.³¹ Given that CDC-reported rates of diagnosed diabetes among the population aged 65 and older have risen further since 2006—increasing between 2004 and 2014 from 18.5 percent to 21.5 percent for the 65-74 age group, and from 16 percent to 19.2 percent for the 75 and over age group—these projections may well underestimate the magnitude of future increases.

- **Arthritis.** Arthritis is one of the most common causes of disability among American adults.³² Analysis of data from the 2009 National Health Interview Survey indicates that 40 percent of adults with arthritis report that at least 1 of 9 important daily functional activities are “very difficult” or that they “cannot do” them.³³ For example, almost 8 million adults who reported an arthritis-attributable activity limitation also reported severe limitation in their ability to stoop, bend, or kneel. Further, 6 million reported not being able to walk a quarter of a mile.

Obesity is closely connected to arthritis risk: obese adults have far higher prevalence of arthritis (28.9 percent) than normal/underweight adults (16.3 percent), and are also far more likely to have arthritis activity limitations.³⁴ National Health Interview Survey data from 2009 indicates that 44.8 percent of arthritic obese adults have arthritis-attributable activity limitations, compared with 38.2 percent of arthritic normal/underweight adults.

Projections indicate that by 2040, 1 in 4 US adults (78.4 million) aged 18 and over will have doctor-diagnosed arthritis, and 1 in 9 (34.6 million) will have an arthritis-attributable activity limitation. The largest increases are projected among those 65 and older.³⁵ The Centers for Disease Control and Prevention cautions that if obesity rates continue to rise, the number of adults with arthritis-attributable activity limitations may grow even beyond these projections.³⁶

- **Dementia.** Dementia is one of the major causes of disability and dependency among older people worldwide. Alzheimer’s disease is the most common cause of dementia, responsible for an estimated 60 to 80 percent of dementia cases.³⁷ Researchers agree that the risk of dementia among older Americans has been declining during the past several decades. A 2016 study using HRS data to analyze trends in dementia prevalence between 2000-2012 found that rates declined by more than 20 percent over that period.³⁸ Evidence from the Framingham Heart Study indicates that from 1975 to the present, there has been a 20 percent decrease in dementia incidence each decade.³⁹ An analysis of Health and Retirement Study data found that in 1993, 12 percent of surveyed adults 70 years of age or older had cognitive impairment, compared with nearly 9 percent in 2002.⁴⁰ Similarly, analysis of National Long-Term Care Survey data found that between 1982 and 1999, severe cognitive impairment among people aged 65 and over declined from 5.7 percent to 2.9 percent.⁴¹ However, although overall dementia prevalence is declining, research has found that the specific risk of Alzheimer’s disease held largely constant between 1997 and 2008, with no significant declines.⁴²

Several studies have investigated the relationship between higher educational attainment and dementia prevalence, with some hypothesizing that education helps build a “cognitive reserve” that acts as a buffer against cognitive decline.⁴³ Recent analyses, however, have found no or only small links between education and cognitive decline, leaving the effects of recent increases in educational attainment an open question.⁴⁴

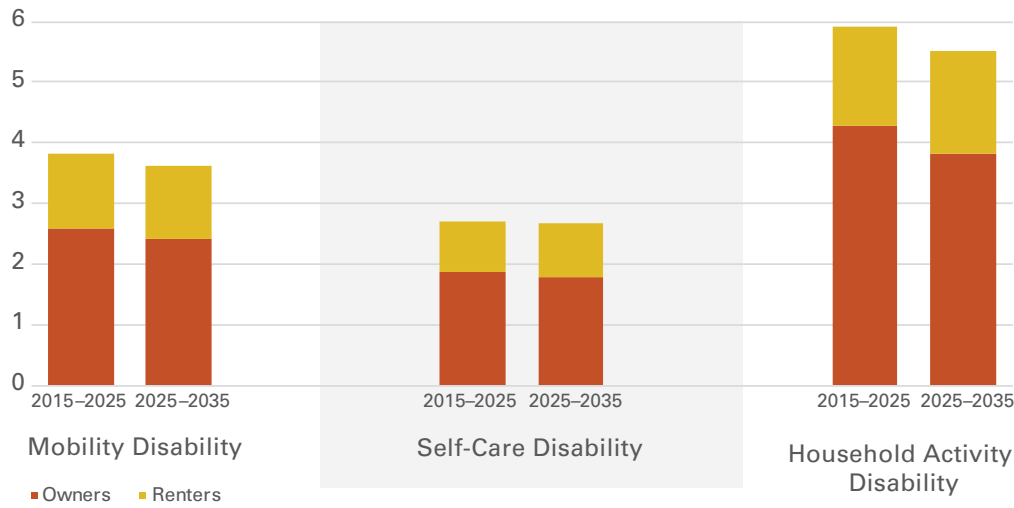
Researchers point out that even though dementia risk is declining, the combined effects of longer lives and the dramatic bulge of baby boomers reaching old age will lead to larger numbers of Americans with dementia.⁴⁵ Additionally, increases among the middle aged in obesity and diabetes rates—two important risk factors for dementia—may dampen recent declines in dementia prevalence.⁴⁶ Other studies have linked loneliness to increased risk of dementia. A study published in 2007 found that elderly people who report being lonely were twice as likely to have dementia as those who were not lonely.⁴⁷ Given the large numbers of older people living alone, and the overwhelming preference to age in place (which for many is in disconnected suburban and rural areas), the living situations and spatial distribution of the elderly population across the US may increase the risk of dementia among the future elderly population.

Though the literature describing health trends and disability among older adults is complicated, evidence suggests that late 20th century gains in overall health among the older population are now moderating.⁴⁸ While the 1980s and 1990s saw declines in disability, these downward trends appear to have leveled off in the first decade of the 21st century.⁴⁹ One study found, for example, a relative leveling off in declines in late-life activity limitation from 2000-2010.⁵⁰ Another study published in 2014 that analyzed National Health Interview Survey data found that while the 65-and-over age group has experienced decreases in all limitations except physical functions, the 40-64 age group has experienced increases in all limitations except trouble hearing. Although findings vary by survey depending on the measure of limitation used, sub-period, and age group, the overall takeaway is that there have been no major recent changes in disability rates among the elderly.⁵¹

Given these uncertainties, in projecting numbers of future households with disabilities, we hold current rates of disability constant by five-year age band, race, and household type, and we apply these rates to the household projections discussed in Chapter 1. The analysis shows a tremendous future increase in the number of older households with a disability, owing largely to the expected increase in households headed by older individuals and, to a much lesser extent, to the growth in particular demographic groups more likely to be affected by disability.

Figure 3.4: The Number of Households with a Disability Will Increase Substantially by 2035

Growth in Households Aged 65 and over with Disabilities by Tenure (Millions)

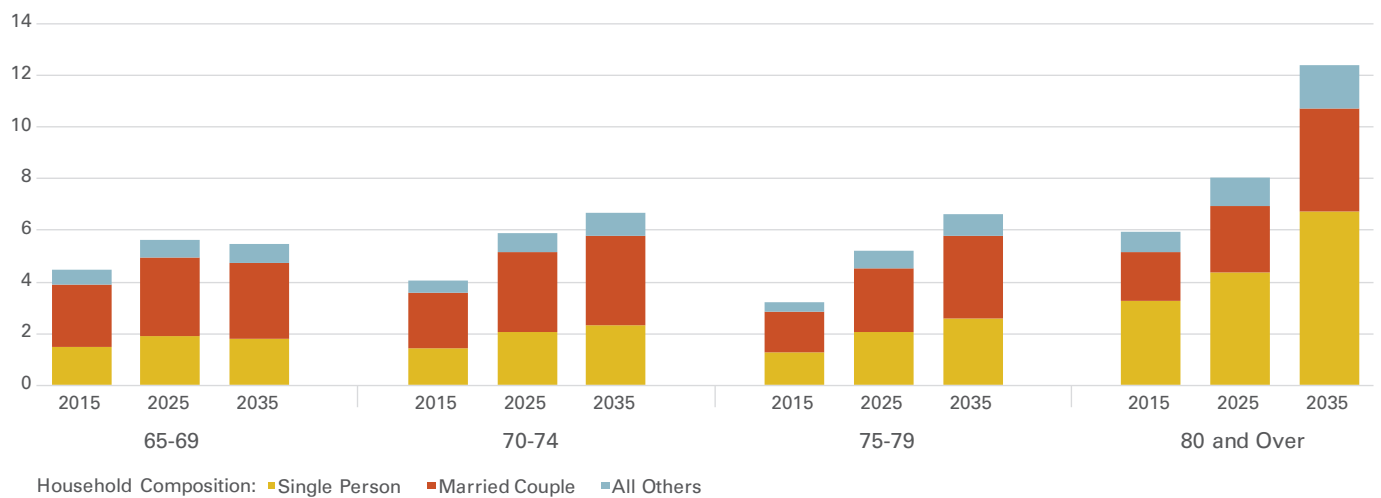


Notes: Mobility disability is defined as difficulty walking, getting in and out of bed, and climbing one flight of stairs; self-care disability as difficulty eating, dressing, toileting, and bathing; and household activity disability as difficulty with meal preparation, food shopping, using the telephone, taking medication, money management, housework, and driving.

Source: JCHS tabulations of University of Michigan, 2014 Health and Retirement Survey and JCHS 2016 Household and Tenure Projections.

Figure 3.5: Single Person Households Aged 80 and over Will Drive Growth in Disabled Older Households

Projected Households with Disabilities by Age Group (Millions)



Source: JCHS tabulations of University of Michigan 2014 Health and Retirement Survey and 2016 JCHS Household and Tenure Projections.

PROJECTED HOUSEHOLDS WITH DISABILITIES

The growth in the numbers of the “oldest old” in coming decades will lead to significant increases in the numbers of older adults with disabilities.

JCHS projections estimate that by 2025, the number of households aged 65 and older with a mobility disability will increase to nearly 13.4 million (an increase of 3.8 million compared to 2014); by 2035, this figure will reach 17.1 million (an increase of 7.4 million).

By the year 2025, the number of households aged 65 and older with a self-care disability is projected to increase by 2.7 million to a total of 9.5 million, and then to nearly 12.2 million in 2035. The number of households with a household activity-related disability will grow by 5.9 million to a total of 21 million households in 2025, and by another 5.5 million to a total of nearly 27 million households in 2035 (**Figure 3.4**).

Although renters represent a relatively small minority among older households—a trend that will likely hold over the next several decades, according to JCHS projections—older renters’ higher disability rates mean that they will contribute substantially to the overall growth in disabled households through 2035. Renter households will account for 24 percent of overall growth in households 65 and over through 2025, and for 26 percent of overall growth from 2025 to 2035. However, in each decade, renters will drive at least 30 percent of growth in the number of older households with each type of disability.

JCHS projections estimate that by 2025, 4 million renters and 9.3 million owner households are likely to include at least one person with a mobility disability. By 2035, among the 11.5 million renter households and 38.1 million owner households headed by an adult aged 65 and over, there will be 5.3 million renter households and 11.8 million owner households with mobility limitations, for a total of 17.1 million households that may be helped by physical modifications to the home.⁵²

By 2025, households with a household activity disability are projected to increase to nearly 16 million owners and over 5 million renters, and by 2035 to almost 19.7 million owners and 7 million renters. Households with a self-care disability will increase by 2025 to almost 6.8 million owner households and nearly 2.7 renters, and by 2035 to 8.6 million owners and 3.6 million renters. Households with either of these types of disability will likely benefit from care or support in the home.

Rapid growth among the oldest age groups in coming decades will mean that the number of disabled households aged 80 and older will double for each disability type (mobility, household activity, and self-care). By 2035, a projected 5.3 million households aged 80 and older will have self-care limitations, 7.2 million will have mobility limitations, and 11.4 million will have household activity limitations. The population aged 80 and over not only tends to have the highest disability rates and highest need for long-term care services, but is also more likely to be widowed and without a partner to provide assistance with daily activities, which increases the need for care from sources outside the home.

The extraordinary projected growth in the 80-and-over population, who often live alone as single-person households, will drive growth in the number of disabled older households in coming decades. By 2025, the number of disabled single-person households aged 80 and over will increase by 1.1 million, and then by another 2.3 million by the year 2035. Married couple households aged 80 and over with a disability will see a smaller increase in the first period, increasing by 0.6 million by 2025, and then by another 1.3 million by 2035. This means that by 2035, the number of single-person households with a disability will more than double, while the number of disabled married-couple households will rise by around 50 percent (**Figure 3.5**).

By 2035, 11.4 million single-person households and a further 11.7 married-couple households will have household activity limitations. Mobility limitations will affect 7.6 million single-person households and 6.9 million married couple households, and self-care limitations will impact 5.3 million single-person households and 5.1 million married couple households. The number of disabled single-person households in the oldest age groups (aged 80 and older) will undergo particularly substantial growth, rising by over 100 percent within each disability category. By 2035, in the 80 and older age group, there will be 3.9 single-person households with mobility limitations, 2.8 million with self-care limitations, and 6.2 million with household activity limitations.

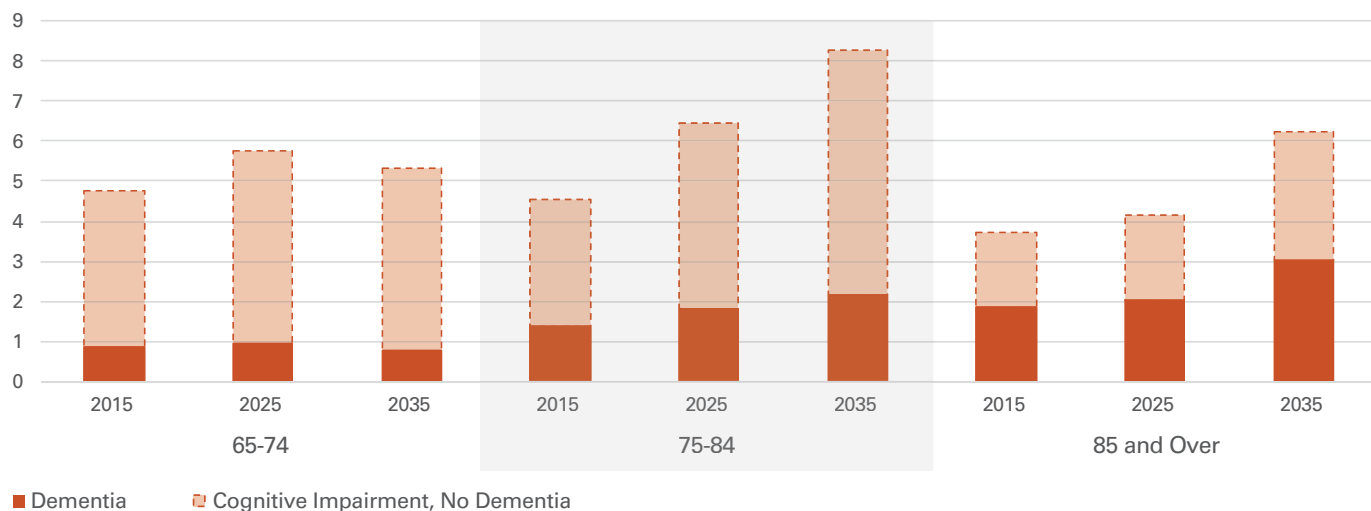
PROJECTED RATES OF DEMENTIA

Dementia has particular implications for housing and care, including housing design, and so we present projections for the population with dementia separately here.

As noted above, a recent study used HRS data to analyze trends in dementia prevalence between 2000-2012, and found that rates declined by more than 20 percent over that period.⁵³ The magnitude of this decline echoes that found by other studies, such as the Framingham Heart Study, which indicates there has been a 20 percent decrease in dementia incidence each decade from 1975 to the present.⁵⁴ With this evidence in mind, in projecting the future number of older adults with dementia, we assume that the recent declines in dementia rates will continue in coming years. However, to be conservative in our projections, we reduce the expected rate of decline for each age group between 2015-2025 and 2025-2035 to half that seen among HRS respondents between 2000-2012.⁵⁵

Figure 3.6: Population Aging Will Drive the Number of Older Adults with Dementia Far Higher

Projected Population with Dementia by Age Group (Millions)



Source: JCHS tabulations of Johns Hopkins University, 2012 National Health and Aging Trends and US Census Bureau, 2014 Population Projections.

Using this methodology, JCHS projections yield a 2025 estimate of 4.8 million adults aged 65 and older with dementia, and another 11.6 million with CIND (cognitive impairment, no dementia). By 2035, the number of adults aged 65 and older with dementia may reach 6 million, with an additional 13.9 million having CIND.

We can break down this projection further according to older (aged 65-84) and oldest (aged 85 and over) adults.⁵⁶ Among 65-84 year olds, the number with dementia will grow to 2.9 million by 2035, and the number with CIND will grow to 10.7 million. Among the oldest age group, aged 85 and older, growth will be relatively higher, with the number of dementia cases rising from 1.8 million to 3 million, and the number with CIND increasing from 1.9 to 3.2 million (**Figure 3.6**).

These projections assume that the declines in dementia prevalence among the older population seen in recent decades will continue in coming years. However, if declines were to halt completely, these numbers would grow by several million more. Applying today's age-specific dementia rates to the projected older population in 2025 would result in 5.5 million adults aged 65 and older with dementia and 12.3 million with CIND that year. By 2035, holding today's dementia rates constant yields 7.6 million adults aged 65 and over with dementia and 15.5 million with CIND.

As these two scenarios illustrate, the older population's tremendous expansion over the next two decades will likely push the number of older adults with dementia substantially higher whether or not trends toward declining dementia prevalence continue.

The burden of cognitive impairment on individuals, their families, and caregivers is enormous. It was estimated that the monetary cost of dementia in 2010 was between \$157 billion and \$215 billion. The increase in the number of older adults with dementia over the next two decades will therefore clearly have substantial financial implications. Additionally, increased numbers with dementia may also increase demand for housing design features intended to

help dementia patients navigate their home environments. A review of the literature indicates that these features could include bright contrasting colors and lights, as well as design elements that maximize a person's orientation and safety.⁵⁸ Additionally, because dementia is linked to physical functional limitations, the rise in the number of older adults with dementia may also increase demand for home modifications related to mobility, self-care, and household activity limitations.⁵⁹

SUMMARY

Because disability rates rise with age and because the older population will grow at such an enormous rate over the next two decades, the number of older households with disabilities will rise dramatically. This increase will have major implications for housing: the housing stock will need to be modified to accommodate the greater numbers living with disabilities, and there will be increased demand for formal and informal care delivered in the home. Though technology and greater emphasis on care in the home rather than in group quarters are enabling older adults to live longer in their own homes even with serious disabilities, many will be better served in specialized housing within the community, such as housing with services or assisted living, that offers in-house supports and care.

As the next chapter discusses, however, housing costs alone are already out of reach for many, including those with moderate and middle incomes. For many households, the further costs of home modifications and services are a stretch too far. At best, such households will have to rely on friends and family for care; at worst, to the detriment of their health and safety, they will be unable to get the help they require, or will have to remain in housing unsuited to their physical and cognitive needs.