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Long-Term Care Providers and Services Users in the United States: Data From the National Study of Long-Term Care Providers, 2013–2014

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics

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Long-Term Care Providers and Services Users in the United States: Data From the National Study of Long-Term Care Providers, 2013–2014

by Lauren Harris-Kojetin, Ph.D., Manisha Sengupta, Ph.D., Eunice Park-Lee, Ph.D., Roberto Valverde, M.P.H., Christine Caffrey, Ph.D., Vincent Rome, M.P.H., and Jessica Lendon, Ph.D.

Executive Summary

Long-term care services provided by paid, regulated providers are an important component of personal health care spending in the United States. This report presents the most current national descriptive results from the National Study of Long-Term Care Providers (NSLTCP), which is conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS). Data presented are drawn from multiple sources, primarily NCHS surveys of adult day services centers and residential care communities (covers 2014 data year); and administrative records obtained from the Centers for Medicare & Medicare Services (CMS) on home health agencies, hospices, and nursing homes (covers 2013 and 2014 data years). This report provides information on the supply, organizational characteristics, staffing, and services offered by paid, regulated providers of long-term care services; and the demographic, health, and functional composition of users of these services. Services users include residents of nursing homes and residential care communities, patients of home health agencies and hospices, and participants of adult day services centers.

This report updates "Long-Term Care Services in the United States: 2013 Overview" (available from: http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf), which covered data years 2011 and 2012. In contrast, the title of this report and future reports will reflect the years of the data used rather than the publication year, in this case 2013 through 2014. A forthcoming companion product to this report, "Long-Term Care Providers and Services Users in the United States—State Estimates Supplement: National Study of Long-Term Care Providers, 2013–2014," contains tables and maps showing comparable state estimates for the national findings in this report, and will be available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_products.htm.

Keywords: home- and community-based services • long-term services and supports • post-acute care • National Study of Long-Term Care Providers

Key Findings

In 2014, about 67,000 paid, regulated long-term care services providers served about nine million people in the United States. Long-term care services were provided by 4,800 adult day services centers, 12,400 home health agencies 4,000 hospices, 15,600 nursing homes, and 30,200 assisted living and similar residential care communities (Appendix B, Table 1). In this report, "current" participants or residents in 2014 refers to those participants enrolled in the adult day services center, or residents living in the nursing home or residential care community on the day of data collection in 2014, rather than the total number of participants ever enrolled in the center or residents ever living in the nursing home or residential care

community at any time throughout the 2014 calendar year. In 2014, there were an estimated 282,200 current participants enrolled in adult day services centers, 1,369,700 current residents in nursing homes, and 835,200 current residents living in residential care communities. In 2013, about 4,934,600 patients were discharged from home health agencies, and 1,340,700 patients received services from hospices (Appendix B, Table 4).

Provider sectors differed in ownership, chain status, and average size, and supply varied by sector and region. At least 60% of home health agencies, hospices, nursing homes, and residential care communities were for profit, while about 40% of adult day services centers were for profit (Figure 4). The majority of nursing homes and residential care communities were chain-affiliated, while the majority of adult day services centers were not chain-affiliated (Figure 5).

The average number of people served per provider varied by sector (Appendix B, Table 1). The absolute and relative supply of nursing home beds, residential care beds, and adult day services center capacity varied by region (Figure 3). The supply of residential care beds per 1,000 persons aged 65 and over was higher in the Midwest and West than in the Northeast and the South, and the capacity of adult day services centers was higher in the West than in the other regions.

In 2014, more than 1.5 million nursing employee full-time equivalents (FTEs)—including registered nurses (RNs), licensed practical nurses (LPNs) or licensed vocational nurses (LVNs), and aides—and about 35,200 social work employee FTEs worked in the five sectors. Of these nursing and social work employee FTEs, almost two-thirds worked in nursing homes, about one-fifth were residential care community employees, almost one-tenth were employed by home health agencies, and less than one-twentieth were employed by hospices and adult day services centers. The relative distribution of nursing and social work employee FTEs varied across sectors; the most common employee FTEs were aides in adult day services centers, nursing homes, and residential care communities, while RNs were the most common employee FTEs in home health agencies and hospices (Figure 9).

Provider sectors differed in their average staffing levels for nursing, social work, and activities employees, and in a variety of services offered. Among the three sectors where nursing staff levels (RNs, LPNs or LVNs, and aides) could be examined, the average total nursing staff hours per resident or participant day were higher in nursing homes than in residential care communities and adult day services centers (Figure 11). In contrast, the average social work staff hours per resident or participant day was higher in adult day services centers than in nursing homes or residential care communities, and the average activities staff hours per resident or participant day in adult day services centers was more than twice the size of the ratio for nursing homes or residential care communities. Sectors also varied in the services offered (Figures 12–19).

Rates of use of long-term care services varied by sector. Reflecting similar differences found on the supply side, the daily-use rate among individuals aged 65 and over per 1,000 persons aged 65 and over varied by sector. The highest daily-use rate was for nursing home residents, followed by residential care residents, and the lowest daily-use rate was for adult day services center participants.

Users of long-term care services varied by sector in their demographic and health characteristics, functional status, and experience of adverse events. Adult day services center participants tended to be younger than services users in other sectors. Adult day services center participants were the most racially and ethnically diverse among the five sectors: about one-fifth was Hispanic and one-fifth was non-Hispanic black. Although a sizeable portion of services users in all five sectors had a diagnosis of Alzheimer's disease or other dementias, the prevalence differed among sectors (Figure 26). Among the five sectors, nursing homes had the largest shares of services users diagnosed with Alzheimer's disease and depression. Depression ranged in prevalence from about one-fifth of hospice patients up to almost one-half of nursing home residents. Diabetes was most prevalent among home health patients (almost one-half)

and least prevalent among residential care community residents (less than one-fifth). Although the need for assistance with activities of daily living (ADLs) was common in all sectors, functional ability varied by sector (Figure 27). A higher percentage of nursing home residents needed assistance with dressing, eating, and toileting compared with services users in other sectors. Compared with adult day participants and residential care residents, more home health patients had overnight hospital stays and emergency department visits (Figure 28). More residential care residents had falls compared with adult day participants and nursing home residents.

The adult day services sector was different from other sectors in notable ways. There were fewer adult day services center providers when compared with the number of providers in other sectors, except for hospices (Appendix B, Table 1). A higher percentage of adult day services centers were nonprofit or government-owned compared with providers in other sectors (Figure 4). Compared with providers in other sectors, a lower percentage of adult day services centers offered mental health or counseling services (Figure 13) or therapeutic services (Figure 14). Adult day services center participants tended to be younger than services users in other sectors (Figure 22), and they were the most racially and ethnically diverse among the five sectors (Figure 24).

The NSLTCP findings in this report provide the most current national picture of providers and services users in five major sectors of paid, regulated long-term care services in the United States. Findings on differences and similarities in supply, provision, and use, and the characteristics of providers and users of long-term care services can inform policy and planning to meet the needs of an aging population. NCHS plans to conduct NSLTCP every 2 years to monitor national and state trends. NSLTCP study results and publications are available from its website: http://www.cdc.gov/nchs/nsltcp.htm.

Chapter 1

Introduction

Chapter 1. Introduction

Long-Term Care Services

Long-term care services[1] include a broad range of health, personal care, and supportive services that meet the needs of frail older people and other adults whose capacity for self-care is limited because of a chronic illness; injury; physical, cognitive, or mental disability; or other health-related conditions [U.S. Department of Health and Human Services (HHS)]. Long-term care services include assistance with activities of daily living [(ADLs) e.g., dressing, bathing, and toileting], instrumental activities of daily living [(IADLs) e.g., medication management and housework]; and health maintenance tasks.[2] Long-term care services assist people to improve or maintain an optimal level of physical functioning and quality of life, and can include help from other people and special equipment or assistive devices.

Individuals may receive long-term care services in a variety of settings (Congressional Budget Office, 2013):

1. In the community, such as at an **adult day services center**
2. In the home, for example from a **home health agency**, **hospice**, or family and friends
3. In institutions, such as in a **nursing home**
4. In other residential settings, for instance in an assisted living or similar **residential care community**

Long-term care services provided by paid, regulated providers are an important component of personal health care spending in the United States (O'Shaughnessy, 2014). Estimates of expenditures for long-term care services vary, depending on what types of providers, populations, and services are included. Recent estimates for the amount spent annually on paid long-term care services are between $210.9 billion (O'Shaughnessy, 2014) and $317.1 billion[3] (Colello, Mulvey, & Talaga, 2013). The cost of long-term care services varies by the type of paid care provided and the type of provider or sector (e.g., adult day services

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[1] Historically, the term "long-term care" has been used to refer to services and supports to help frail older adults and younger persons with disabilities maintain their daily lives. Recently, alternative terms have gained wider use, including "long-term services and supports." The Patient Protection and Affordable Care Act (ACA, P.L. 111-148, as amended) uses the term "long term services and supports" and defines the term to include certain institutionally based and noninstitutionally based long-term services and supports [Section 10202(f)(1)]. This report uses "long-term care services" to reflect both the changing vocabulary and the fact that these services can include both health care-related and nonhealth care-related services.

[2] The need for long-term care services is generally defined based on functional limitations (need for assistance with or supervision in ADLs and IADLs) regardless of cause, age of the person, where the person is receiving assistance, whether the assistance is human or mechanical, and whether the assistance is paid or unpaid.

[3] The $210.9 billion estimate for 2011 is based on analysis by the National Health Policy Forum (O'Shaughnessy, 2014) using published (Hartman, Martin, Benson, & Catlin, 2013) and unpublished data from the National Health Expenditure Account data provided by CMS, Office of the Actuary. The $317.1 billion estimate for 2011 is based on analysis by the Congressional Research Service (CRS) (Colello et al., 2013) of National Health Expenditure Accounts published annually by the U.S. Department of Health and Human Services, and LTSS personal care expenditures by payer and setting for 2011 obtained by CRS through personal communication with the Centers for Medicare & Medicaid Services, Office of the Actuary, prepared December 16, 2012. Excluding Medicare spending on home health and skilled nursing facilities, total long-term care services spending was $241.7 billion in 2011.

centers, assisted living and similar residential care communities, home health agencies, or hospices) (Genworth, 2012; MetLife Mature Market Institute, 2012).

Finding a way to pay for long-term care services is a growing concern for older adults, other persons with disabilities, and their families, and it is a major challenge facing state and federal governments (Bipartisan Policy Center, 2014; Reinhard, Kassner, Houser, & Mollica, 2011; U.S. Senate Commission on Long-Term Care, 2013). Medicaid finances a major portion of paid long-term care services,[4] followed by Medicare,[5] and out-of-pocket payments by individuals and families (Colello et al., 2013; O'Shaughnessy, 2014). However, the distribution of financing sources varies by sector and population. For example, most residents pay out of pocket for assisted living and similar residential care communities (Mollica, 2009), with a small percentage using Medicaid to help pay for services (Caffrey et al., 2012). In contrast, the largest single payer for long-term nursing home care is Medicaid, whereas Medicare finances hospice costs and a major portion of the costs for short-stay post-acute care in skilled nursing facilities for Medicare beneficiaries (Federal Interagency Forum on Aging-Related Statistics, 2012; The SCAN Foundation, 2013).

The number of people using nursing facilities, alternative residential care places, or home care services is projected to increase from 15 million in 2000 to 27 million in 2050 (HHS, 2003). Most of this increase will be due to growth in the older adult population who need such services (HHS, 2003). Although people of all ages may need long-term care services, the risk of needing these services increases with age. Results from the National Health and Aging Trends study show that, of the 10.9 million older adults who reported receiving help with daily activities in a given month in 2011, about 3 in 10 received paid help (Freedman & Spillman, 2014). Projections estimate that among people who reach age 65, more than two-thirds will need long-term care services during their lifetime (Kemper, Komisar, & Alecxih, 2005–2006), and they have a 46% chance of spending time in a nursing home (Spillman & Lubitz, 2002). More recent projections using microsimulation modeling estimate that, on average, an American turning 65 today will incur $138,000 in future long-term care services costs (Favreault & Dey, 2015).

The number of Americans over age 65 is projected to more than double from 40.2 million in 2010 to 88.5 million in 2050 (Vincent & Velkoff, 2010). Those aged 85 and over are projected to almost triple, from 6.3 million in 2015 to 17.9 million in 2050 and will account for 4.5% of the total population (United States Census Bureau, 2012). This "oldest old" population tends to have the highest disability rate and highest need for long-term care services, and is also more likely to be widowed and without someone to provide assistance with daily activities (Feder & Komisar, 2012; Houser, Fox-Grage, & Ujvari, 2012). Decreasing family size and increasing employment rates among women may reduce the traditional pool of family caregivers, further stimulating demand for paid long-term care services (Congressional Budget Office, 2004). Among persons who need long-term care services, adults aged 65 and over are more likely than younger adults to receive paid help (Kaye, Harrington, & LaPlante, 2010). Recent studies project that the number of older adults using paid long-term care services will grow substantially (Congressional Budget Office, 2013; Johnson, Toohey, & Wiener, 2007; Kaye, 2013; Stone, 2006; The Lewin Group, 2010). As a

[4] Medicaid finances a variety of long-term care services through multiple mechanisms (e.g., Medicaid State Plan, home- and community-based services waiver program, and other options for community-based long-term care services), including an array of home- and community-based services and institutional services (O'Malley Watts, Musumeci, & Reaves, 2013; Scully et al., 2013). This report does not address all long-term care services financed by Medicaid. For example, intermediate care facilities for people with intellectual or developmental disabilities are excluded.

[5] Experts disagree on whether Medicare expenditures for skilled nursing facilities and home health agencies, since they are post-acute services, should be considered long-term care services (Colello et al., 2013). This report includes Medicare-certified skilled nursing facilities and home health agencies, which are often referred to as post-acute care services. See Technical Notes for details on types of providers included.

substantial share of paid long-term care services is publicly funded through programs such as Medicaid and Medicare, accurate and timely statistical information can help guide those programs and inform relevant policy decisions. The National Study of Long-Term Care Providers (NSLTCP) is designed to help supply this information.

The National Study of Long-Term Care Providers

The long-term care services delivery system in the United States has changed substantially over the last 30 years. For example, although nursing homes are still a major provider of long-term care services, there has been growing use of skilled nursing facilities for short-term post-acute care and rehabilitation (Decker, 2005). Further, consumers' desire to stay in their own homes, as well as federal and state policy developments,[6] have led to growth in a variety of home- and community-based alternatives (Doty, 2010; Wiener, 2013). The major sectors of paid long-term care services providers now also include adult day services centers, assisted living and similar residential care communities, home health agencies, and hospices.

In 2011, the National Center for Health Statistics (NCHS) launched the biennial NSLTCP—an integrated strategy for efficiently obtaining and providing statistical information about the major sectors of paid, regulated long-term care services in the United States. NSLTCP is designed to provide reliable, accurate, relevant, and timely statistical information to support and inform long-term care services policy, research, and practice.

The main goals of NSLTCP are to:

1. Estimate the supply, provision, and use of paid, regulated long-term care services
2. Estimate key policy-relevant characteristics and practices
3. Produce national and state estimates, where feasible
4. Compare among sectors
5. Monitor trends over time

NSLTCP replaces NCHS' periodic National Nursing Home Survey and National Home and Hospice Care Survey, as well as the one-time National Survey of Residential Care Facilities. Unlike the previous strategy of surveying major sectors of long-term care services separately and at different times—often several years apart—NSLTCP intends to provide information on five major sectors of providers and services users at a similar point in time, and to provide updated information on all five sectors every 2 years. The NSLTCP core is designed to:

- Broaden NCHS' ongoing coverage of paid, regulated long-term care services providers beyond home health agencies, hospices, and nursing homes to also include adult day services centers and assisted living and similar residential care communities (called "residential care communities" in this report)
- Have the potential over time to add other types of paid, regulated long-term care services providers (e.g., home care agencies)

[6] Examples of these federal and state policy developments include the Supreme Court's Olmstead decision; introduction of the Medicare Prospective Payment System; and a variety of initiatives to encourage balancing of Medicaid-financed services from institutional to noninstitutional settings, such as Money Follows the Person, Community First Choice Option, and the Balancing Incentives Payment Program (White House Conference on Aging Staff, 2015).

- Capitalize on existing national administrative data from the Centers for Medicare & Medicaid Services (CMS) on home health agencies, hospices, and nursing homes
- Collect primary data every other year from cross sectional, nationally representative, establishment-based surveys of adult day services centers and residential care communities, because administrative data do not exist
- Produce state estimates, where feasible
- Monitor trends

In addition to the core content, the NSLTCP data collection system provides the infrastructure on which to build provider-specific surveys, cross-provider topical modules, more in-depth surveys to respond to evolving or emerging policy issues, and sampling and collecting information on individual users (e.g., nursing home residents).

Structure of Report and Other NSLTCP Products

This is the second in a series of descriptive overview reports intended to serve as an information resource for use by policy makers, providers, researchers, advocates, and others to inform planning for long-term care services. The report includes two chapters that present findings. Chapter 2 presents findings on providers of long-term care services (i.e., adult day services centers, home health agencies, hospices, nursing homes, and residential care communities). Chapter 2 topics include geographic distribution, operating characteristics, staffing, and services.

Staffing is especially important to examine because paid long-term care services are provided by a wide array of trained professionals and paraprofessionals, with the largest share—an estimated 70% to 80%—being direct care workers that include certified nursing assistants and personal care aides and home health aides, generally referred to as aides (Paraprofessional Healthcare Institute, 2013; The SCAN Foundation, 2012). Previous studies have provided evidence that higher nurse staffing levels are associated with higher quality of care outcomes for nursing home residents (Bostick, Rantz, Flesner, & Riggs, 2006; Castle & Engberg, 2007; Collier & Harrington, 2008); nursing homes are required to meet minimum nurse staffing ratios for participation in Medicare and Medicaid. Less research has been conducted on staffing levels and outcomes in adult day, home health, hospice, and residential care settings (for an exception see Stearns et al., 2007). In its 2008 report, "Retooling for an Aging America: Building the Health Care Workforce," the Institute of Medicine (IOM) documented the growing need for gerontological social workers and the lack of interest among social workers in working with older adults (IOM, 2008). According to a recent study, while about 36,100 to 44,200 professional social workers were employed in long-term care settings, approximately 110,000 social workers would be needed in these settings by 2050 (HHS, 2006). Projections estimate that social workers and home health and personal care aides are among the long-term care services occupations that will grow the most by 2030 (Spetz, Trupin, Bates, & Coffman, 2015). This report contributes to the literature on the long-term care services workforce by using NSLTCP data to provide information on numbers of nursing, licensed social work, and activities employees, and average hours per service user day, by sector.

Chapter 3 presents findings on users of long-term cares services, including participants of adult day services centers, patients of home health agencies and of hospices, and residents of nursing homes and of residential care communities. Chapter 3 topics include demographic characteristics; functional status; selected health conditions, including dementia; and adverse events among services users. Dementia is a common precipitating factor for transition to receiving long-term care services. According to the Alzheimer's Association, in 2015, there were about 5.3 million Americans living with Alzheimer's disease or other

dementias; 5.1 million of them were aged 65 and over (Alzheimer's Association, 2015). Alzheimer's disease is also a common precipitating factor for using long-term care services (Alzheimer's Association, 2013). The number of people with Alzheimer's disease or other dementias will continue to increase along with the growth of the older population (Alzheimer's Association, 2013).

Chapter 4 describes the data sources used to produce the information on providers and services users in each of the five sectors, outlines the approach used for data analyses, and discusses study limitations. Appendix A defines each variable used for each sector in the study, and Appendix B presents the data tables for the figures in Chapters 2 and 3.

This report presents national results from the second wave of NSLTCP,[7] using data from surveys about adult day services centers and participants, and residential care communities and residents that were fielded by NCHS between June 2014 and January 2015. The report also uses data from administrative records obtained from CMS on home health agencies and patients, hospices and patients, and nursing homes and residents, which reflect these providers and services users between 2013 and 2014.[8] A forthcoming companion product, "Long-Term Care Providers and Services Users in the United States—State Estimates Supplement: National Study of Long-Term Care Providers, 2013–2014," which contains tables and maps showing comparable state estimates for the national findings in this report, will be available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_products.htm.[9] Additional NSLTCP results and publications are also available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_products.htm. NCHS intends to field the third wave of NSLTCP surveys between May and November 2016, obtain the third wave of administrative data along a similar time frame, and produce future reports to examine trends over time.

The findings in this report provide the most current national picture of providers and users of five major sectors of paid, regulated long-term care services in the United States. Findings on differences and similarities in supply, provision, and use; and the characteristics of providers and users of long-term care services offer useful information to policymakers, providers, and researchers as they plan to meet the needs of an aging population.

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[7] This report provides an update to "Long-Term Care Services in the United States: 2013 Overview" (http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf), which reported findings from the first NSLTCP wave conducted in 2012.

[8] See Technical Notes for definitions of the five sectors and the corresponding data sources used in this report.

[9] These state tables and maps provide an update to "Long-Term Care Services in the United States: 2013 State Web Tables and Maps" (available from: http://www.cdc.gov/nchs/data/nsltcp/State_estimates_for_NCHS_Series_3_37.pdf).

Chapter 2

National Profile of Long-Term Care Services Providers

Chapter 2. National Profile of Long-Term Care Services Providers

Introduction

As of 2014, in the United States, there were an estimated 4,800 adult day services centers, 12,400 home health agencies, 4,000 hospices, 15,600 nursing homes, and 30,200 residential care communities.[10,11] Of these approximately 67,000[12] paid, regulated,[13] long-term care services providers, 7.2% were adult day services centers, 18.5% were home health agencies, 6.0% were hospices, 23.3% were nursing homes, and 45.1% were residential care communities.

This chapter provides an overview of the supply, organizational characteristics, staffing, and services offered by paid, regulated providers of long-term care services in each of these five sectors. Supply information is provided nationally, by census geographic region, and by metropolitan statistical area (MSA) status. Organizational characteristics include ownership type, chain affiliation, Medicare and Medicaid certification, and number of people served. Staffing measures include number and distribution of nursing and social work employees; percentage of providers employing any nursing, social work, or activities employees; and average hours per resident or participant per day, by staff type. Services include social work, mental health or counseling, therapeutic services, skilled nursing or nursing, pharmacy or pharmacist services, hospice, dental services, podiatry, dementia care units, and depression screening.

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[10] Estimates are rounded as whole numbers to the nearest hundred.

[11] See Technical Notes for a discussion of the differences between the 2010, 2012, and 2014 estimates of the number of residential care communities.

[12] Estimates are rounded as whole numbers to the nearest hundred; estimates may not add to totals because of rounding.

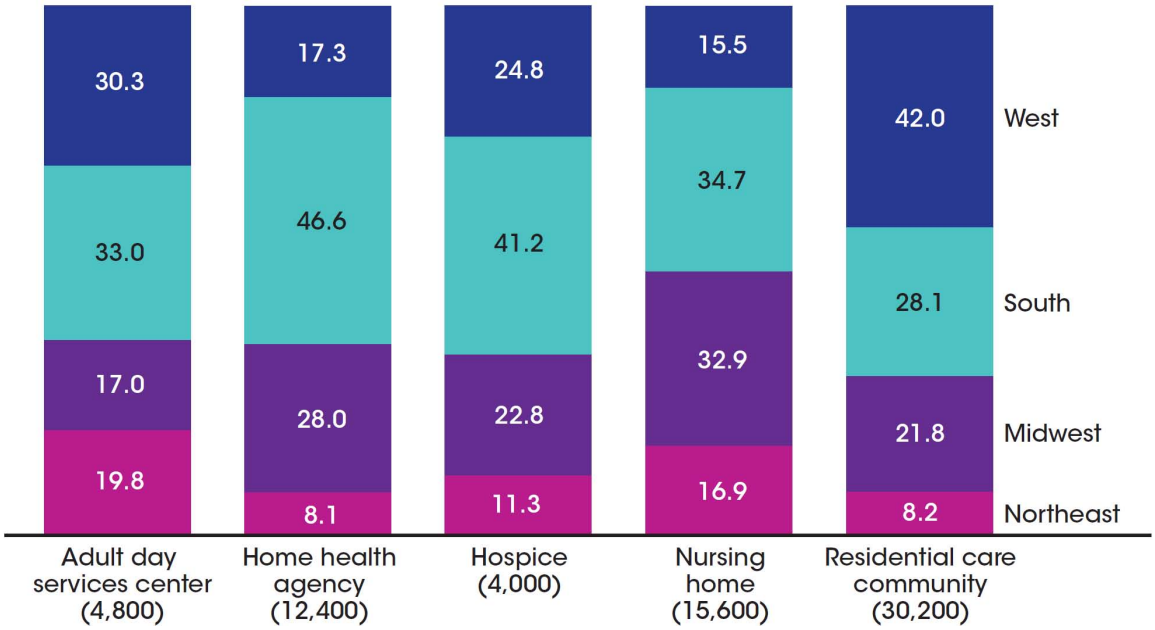
[13] The report includes only providers that are in some way regulated by federal or state government. Adult day services centers and residential care communities were state-regulated, home health agencies and nursing homes were Medicare- or Medicaid-certified, and hospices were Medicare-certified. Based on the 2007 National Home and Hospice Care Survey, 93% of hospice agencies were Medicare-certified. See Technical Notes for details on the Institutional Provider and Beneficiary Summary hospice data that were used to provide the most coverage of and information on hospice patients.

Supply of Long-Term Care Services Providers

Geographic distribution

The supply of providers in the five long-term care services sectors varied in their geographic distribution. The largest share of adult day services centers (33.0%), home health agencies (46.6%), hospices (41.2%), and nursing homes (34.7%) was in the South, while the largest share of residential care communities (42.0%) was in the West (Figure 1).

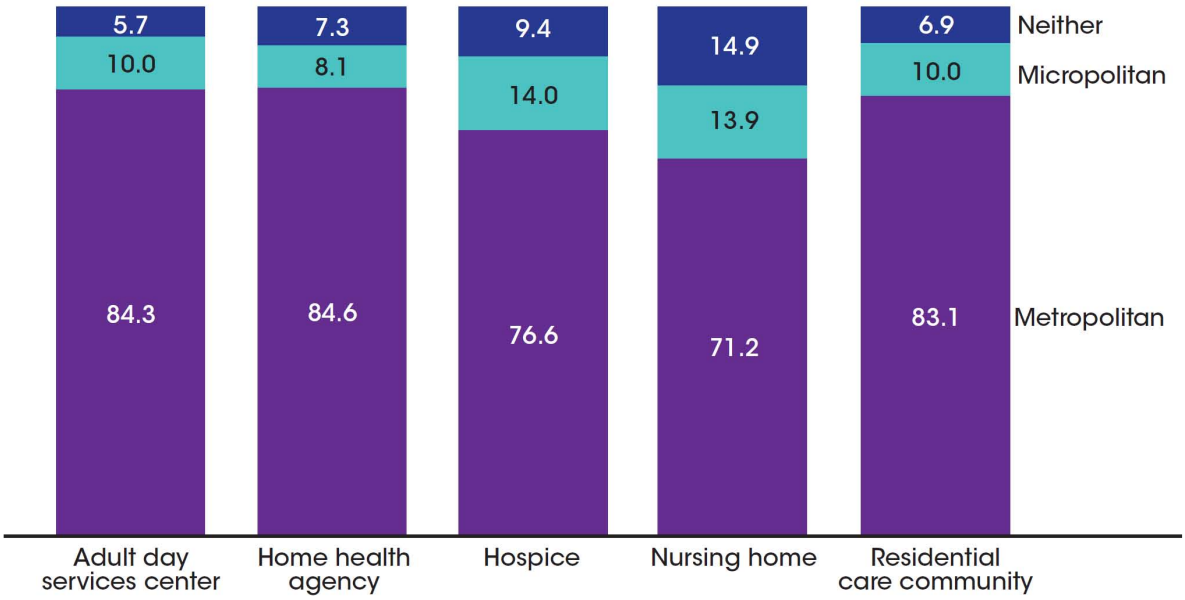
Figure 1. Percent distribution of long-term care services providers, by sector and region: United States, 2014



NOTE: Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

The vast majority of providers in all five long-term care services sectors were in MSAs[14] (Figure 2). This distribution reflects the higher population density in these areas. Compared with hospices (76.6%) and nursing homes (71.2%), a greater percentage of adult day services centers (84.3%), home health agencies (84.6%), and residential care communities (83.1%) were located in metropolitan areas.

Figure 2. Percent distribution of long-term care services providers, by sector and metropolitan statistical area status: United States, 2014



NOTES: Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers. Metropolitan statistical areas and micropolitan statistical areas are geographic entities delineated by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. A metropolitan statistical area contains a core urban area of 50,000 or more population, and a micropolitan statistical area contains an urban core of at least 10,000 (but less than 50,000) population. Each metropolitan or micropolitan statistical area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core (Office of Management and Budget, 2009).
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

[14] Metropolitan and micropolitan statistical areas are geographic entities delineated by the Office of Management and Budget for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. A metropolitan statistical area contains a core urban area of 50,000 or more population, and a micropolitan statistical area contains an urban core of at least 10,000 (but less than 50,000) population. Each metropolitan or micropolitan statistical area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core (Office of Management and Budget, 2009).

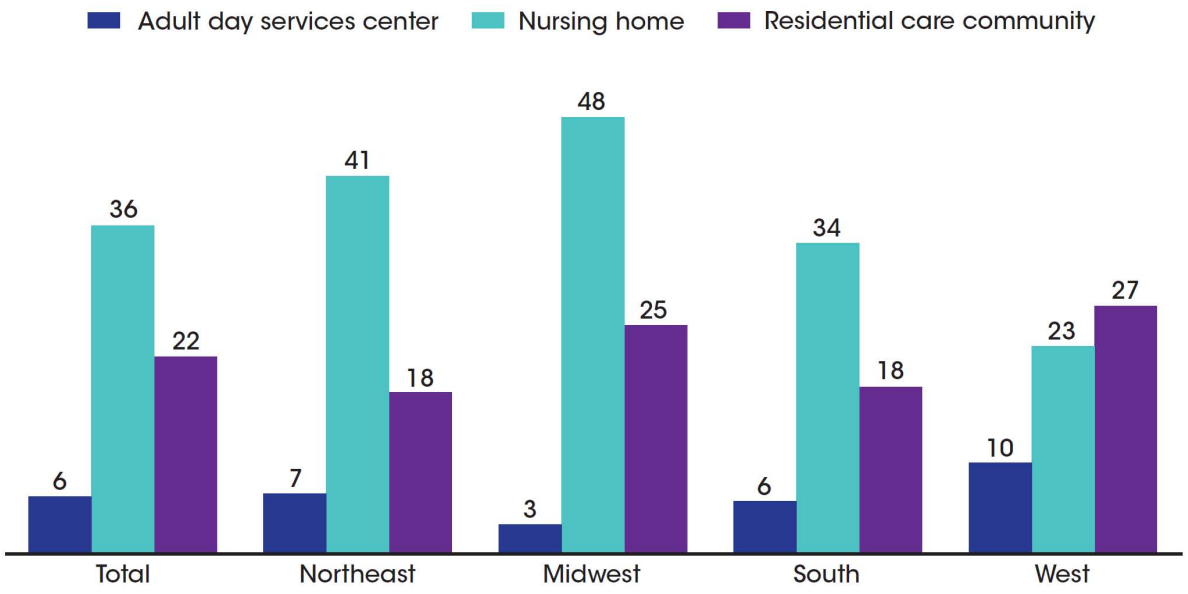
Capacity

Based on the maximum number of participants allowed, the 4,800 adult day services centers in the country could serve a daily maximum of up to 289,400 participants nationally (Appendix B, Table 1). The allowable daily capacity of adult day services centers ranged from 1 to 530, with an average of 62 participants. The 15,600 nursing homes in the country provided a total of 1,663,300 certified beds. Nursing homes ranged in capacity from 2 to 1,389 certified beds, with an average of 106 certified beds. The 30,200 residential care communities in the United States provided 1,000,000 licensed beds. Residential care communities ranged in capacity from 4 to 499 licensed beds, with an average of 33 licensed beds.[15]

The supply of adult day services center capacity and nursing home and residential care beds varied by region (Figure 3). Compared with other regions, the Midwest had the largest supply of nursing home beds (48) and the smallest supply of adult day services center capacity (3) per 1,000 persons aged 65 and over. The West (27) and Midwest (25) had a larger supply of resident care beds per 1,000 persons aged 65 and over compared with the Northeast (18) and the South (18).

In the West, the supply of residential care beds (27) was greater than the supply of nursing home beds (23) per 1,000 persons aged 65 and over, whereas nursing home beds outnumbered residential care beds in all other regions.

Figure 3. Long-term care services provider capacity per 1,000 people aged 65 and over, by sector and region: United States, 2014



NOTES: Capacity refers to the number of certified nursing home beds, the number of licensed residential care community beds, and the maximum number of adult day services center participants allowed. See Appendix A for more information on definitions used for each provider type. Capacity for home health agencies and hospices was not examined because licensed maximum capacity or a similar metric was not available.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers.

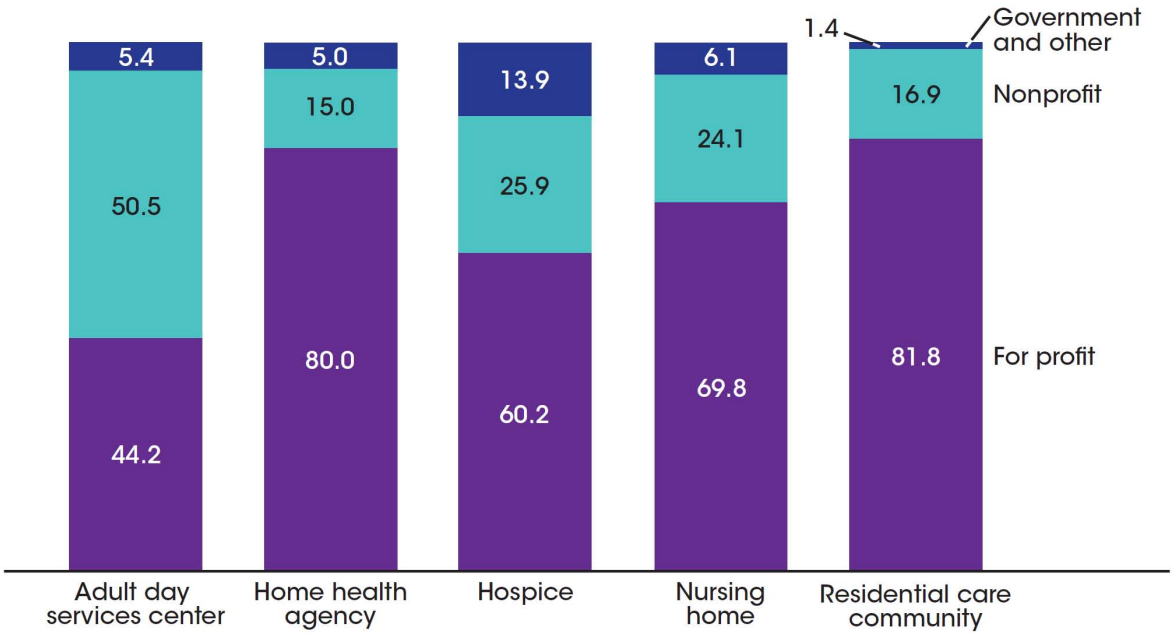
[15] Capacity for home health agencies and hospices was not examined because licensed maximum capacity or a similar metric was not available.

Organizational Characteristics of Long-Term Care Services Providers

Ownership type

In all sectors except adult day services centers, the majority of long-term care services providers were for profit (Figure 4). Home health agencies (80.0%) and residential care communities (81.8%) had the highest percentage of for-profit ownership, while adult day services centers (44.2%) had the lowest percentage. About one-half of adult day services centers were nonprofit (50.5%).

Figure 4. Percent distribution of long-term care services providers, by sector and ownership: United States, 2014

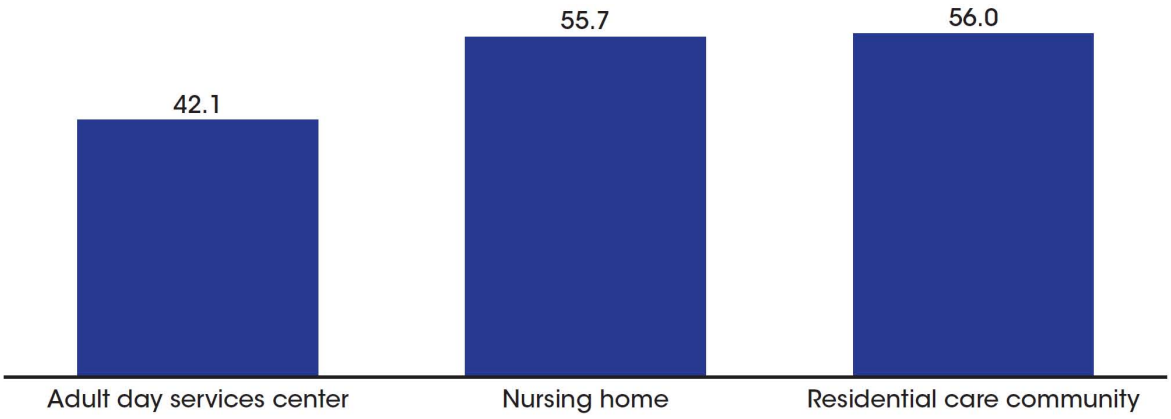


NOTES: See Appendix A for definitions of ownership used for each sector. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

Chain status

The majority of nursing homes (55.7%) and residential care communities (56.0%) were chain-affiliated, while fewer adult day services centers (42.1%) were part of a chain (Figure 5).[16]

Figure 5. Percentage of long-term care services providers that are chain-affiliated, by sector: United States, 2014



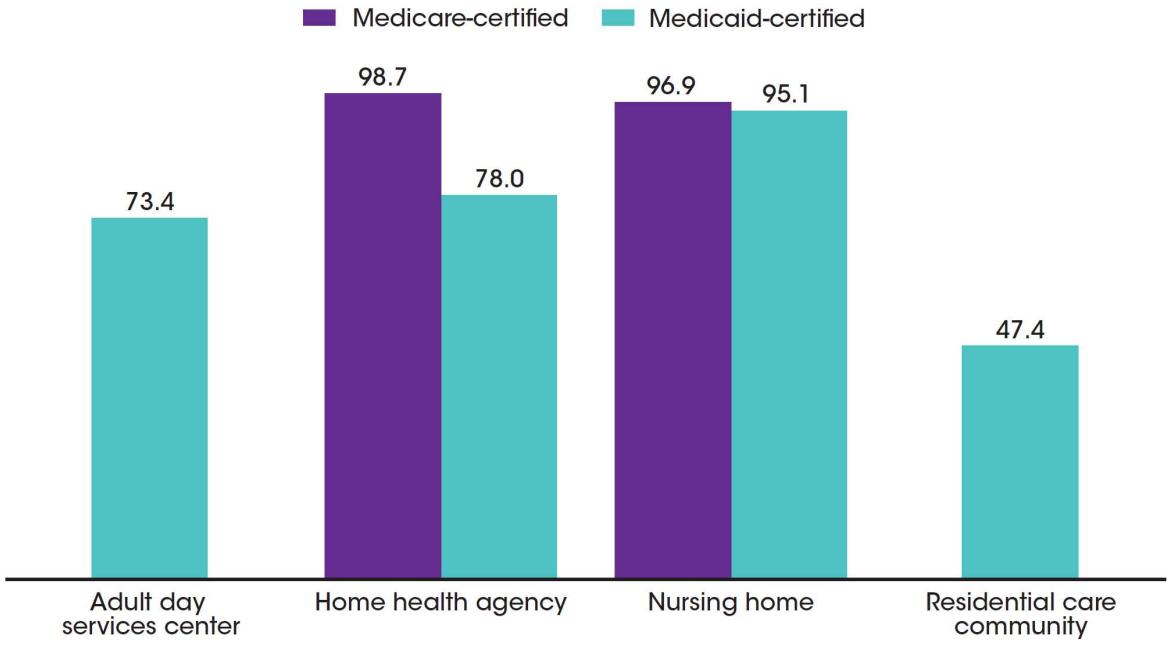
NOTES: See Appendix A for more information on the definition of chain as used for each sector. Chain affiliation for home health agencies and hospices was not examined because this information was not available.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

[16] Chain affiliation for home health agencies and hospices was not examined because this information was not available.

Medicare and Medicaid certification

All data on home health agencies and nursing homes used in this report are only for Medicare- or Medicaid-certified providers, and all data on hospices are only for Medicare-certified hospices. Almost all nursing homes (95.1%), about three-quarters of adult day services centers (73.4%) and home health agencies (78.0%), and almost one-half of residential care communities (47.4%) were authorized or certified to participate in Medicaid (Figure 6). Information was not available on whether any of the Medicare-certified hospices were also certified by Medicaid. Virtually all home health agencies (98.7%), hospices (100.0%; data not shown in figure), and nursing homes (96.9%) were Medicare-certified.[17]

Figure 6. Percentage of long-term care services providers that are Medicare- and Medicaid-certified, by sector: United States, 2014



NOTES: Medicare certification is not applicable for adult day services centers and residential care communities. See Appendix A for definitions of certifications used for each sector.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

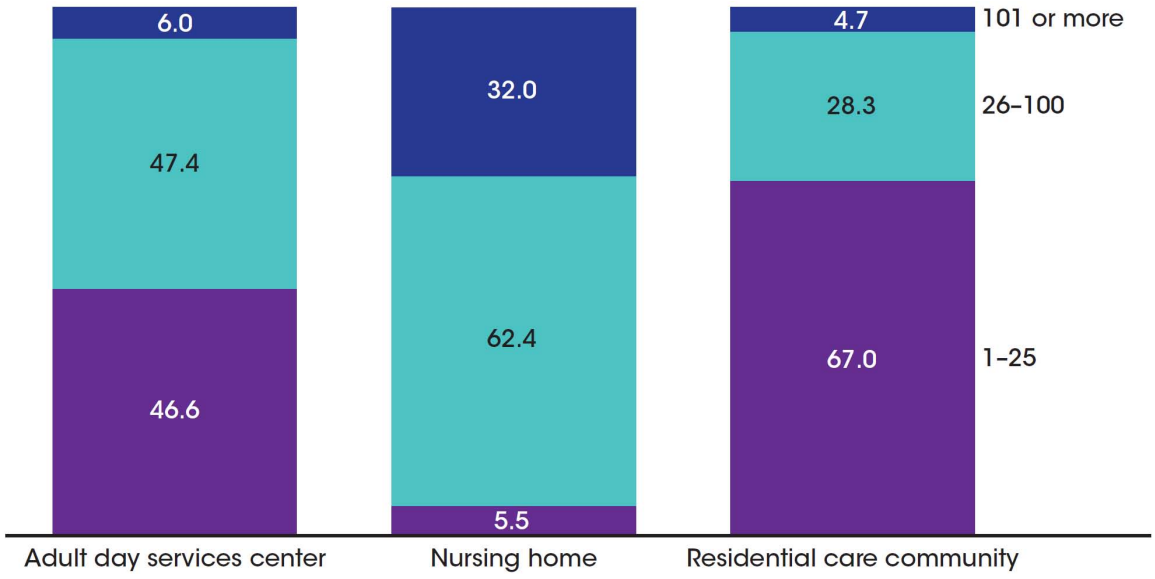
[17] Medicare does not certify or reimburse for services provided by adult day care services centers or residential care communities; therefore, these providers were not asked about Medicare certification.

Number of people served

In terms of persons served daily per provider,[18] nursing homes served, on average, more than twice the number of people as adult day services centers, and three times the number of people as residential care communities. Nursing homes housed an average of 88 current residents daily, while adult day services centers had a mean weekday daily attendance of 39 participants, and residential care communities served an average of 28 residents daily (Appendix B, Table 1).

The majority of nursing homes (62.4%) served between 26 and 100 residents daily, while the majority of residential care communities (67.0%) served 25 residents or fewer daily (Figure 7).[19] Adult day services centers were about evenly split between those serving 25 participants or fewer daily (46.6%) and those serving 26 to 100 participants daily (47.4%).

Figure 7. Percent distribution of long-term care services providers, by sector and number of people served daily: United States, 2014



NOTES: Number of people served categorizes the number of current residents (nursing homes, residential care communities) or the average daily attendance of participants in a typical week (adult day services centers) into three categories: 1–25, 26–100, and more than 100. See Appendix A for more information on how number of people served was defined for each sector. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers. This figure does not include home health agencies or hospices because the data on services users in these sectors that were used for this report are about patients served annually, not daily. Daily use among home health agencies and hospices could not be derived from these data.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

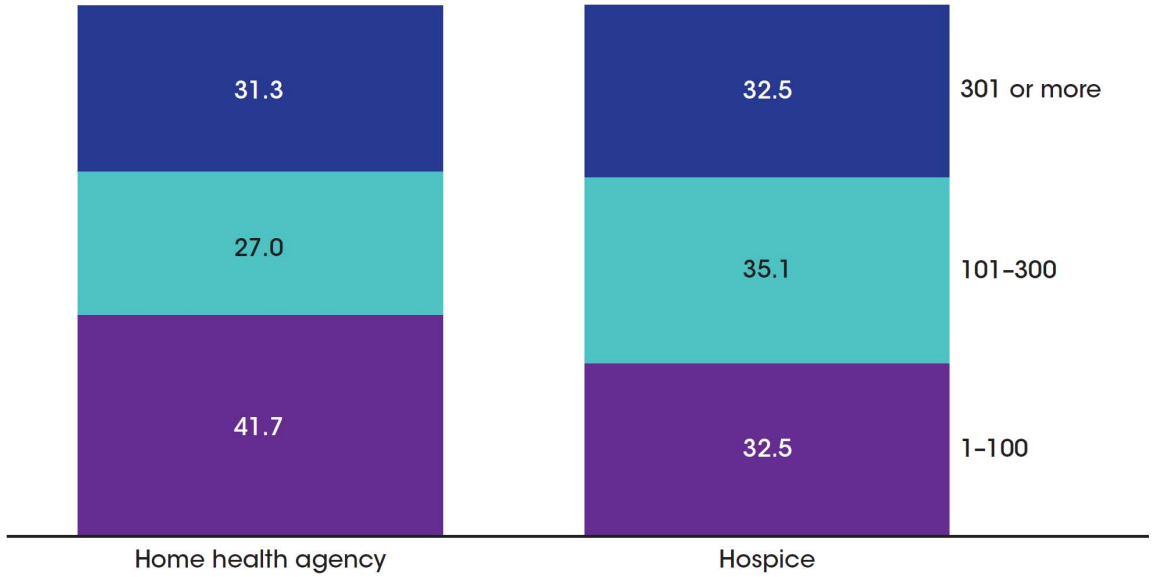
[18] See Appendix A for how number of people served was defined for each sector.

[19] Figure 7 does not include data for home health agencies or hospices because the data on services users in these sectors that were used for this report are about patients served annually, not daily. Daily use among home health agencies and hospices could not be derived from these data.

The percentage of nursing homes (32.0%) serving more than 100 persons daily was more than five times as large as the percentage of adult day services centers (6.0%) and residential care communities (4.7%) doing so (Figure 7).

In terms of persons served annually,[20] a home health agency served an average of 427 patients who were then discharged from the agency in 2013, while a hospice served an average of 355 patients during the year (Appendix B, Table 1). About four-tenths of home health agencies (41.7%) discharged 100 patients or fewer annually, while one-quarter (27.0%) discharged 101 to 300, and almost one-third (31.3%) discharged more than 300 (Figure 8).[21] The average number of patients served annually per hospice agency was about evenly distributed, with about one-third of agencies each serving 1 to 100 patients (32.5%), 101 to 300 patients (35.1%), and more than 300 patients (32.5%).

Figure 8. Percent distribution of long-term care services providers, by sector and number of people served annually: United States, 2013



NOTES: Number of people served is derived from the number of home health patients whose episode of care ended at any time in 2013 and the number of hospice patients receiving care at any time in 2013, respectively, and has three categories: 1–100, 101–300, and more than 300. See Appendix A for more information on how number of people served was defined for each sector. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers. This figure does not include adult day services centers, nursing homes, or residential care communities because the data on services users in these sectors that were used for this report are about services users served daily, not annually. Annual use among adult day services centers, nursing homes, or residential care communities could not be derived from these data.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 1 in Appendix B.

[20] See Appendix A for how number of people served was defined for each sector.

[21] Figure 8 does not include data for adult day services centers, nursing homes, or residential care communities because the data on services users in these sectors that were used for this report are about services users served daily, not annually. Annual use among adult day services centers, nursing homes, or residential care communities could not be derived from these data.

Staffing: Nursing, Social Work, and Activities Employees

This section focuses on workers employed directly by adult day services centers, home health agencies, hospices, nursing homes, and residential care communities. Information is provided about registered nurses (RNs), licensed practical nurses (LPNs) or licensed vocational nurses (LVNs), aides, social workers, and activities staff. Contract staff that work for these providers were excluded because comparable information on contract staff was not available for all five sectors.[22]

Nursing and social work employee full-time equivalents

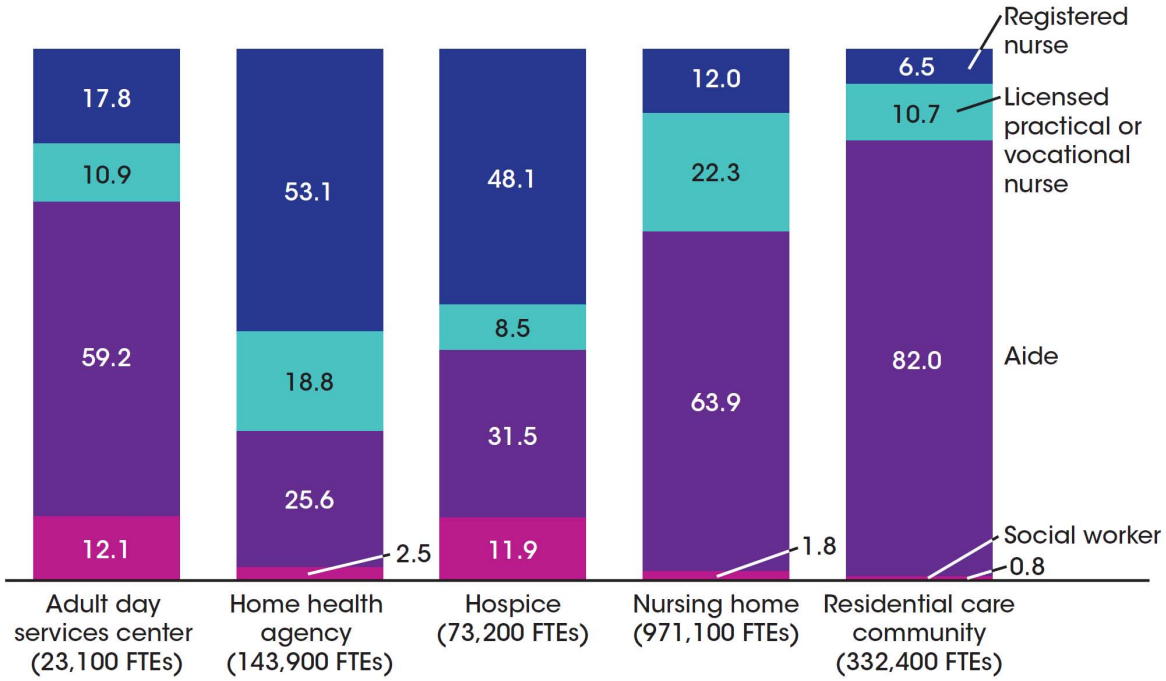
In 2014, more than 1.5 million nursing employee full-time equivalents (FTEs)—including RNs, LPNs and LVNs, and aides—and about 35,200 social work employee FTEs were working in the five sectors (data not shown). Of these nursing and social work employees in the five sectors, almost two-thirds (62.9% or 971,100 FTEs) worked in nursing homes, about one-fifth (21.5% or 332,400 FTEs) were residential care community employees, almost one-tenth (9.3% or 143,900 FTEs) were employed by home health agencies, and less than one-twentieth were employed by hospices (4.7% or 73,200 FTEs) and adult day services centers (1.5% or 23,100 FTEs) (Figure 9).

The relative distribution of social work and nursing employee FTEs varied across sectors. In adult day services centers (59.2%), nursing homes (63.9%), and residential care communities (82.0%), the majority of these employee FTEs were aides. However, in home health agencies (53.1%) and hospices (48.1%), RNs were the most common of these employee FTEs.[23] Social work FTE employees were more common in adult day services centers (12.1%) and hospices (11.9%) than in the other sectors.

[22] See Appendix A for the definition of full-time equivalent and each staff type used for each sector.

[23] The administrative data used in this report for the home health, hospice, and nursing home sectors used less-inclusive wording to capture aides than was used in the questionnaire data for adult day services centers and residential care communities. Consequently, estimates using the administrative data may undercount the number of aides employed by providers in those sectors. See Appendix A for how aide was defined for each sector.

Figure 9. Percent distribution and total number of nursing and social work employee full-time equivalents, by sector and staff type: United States, 2014



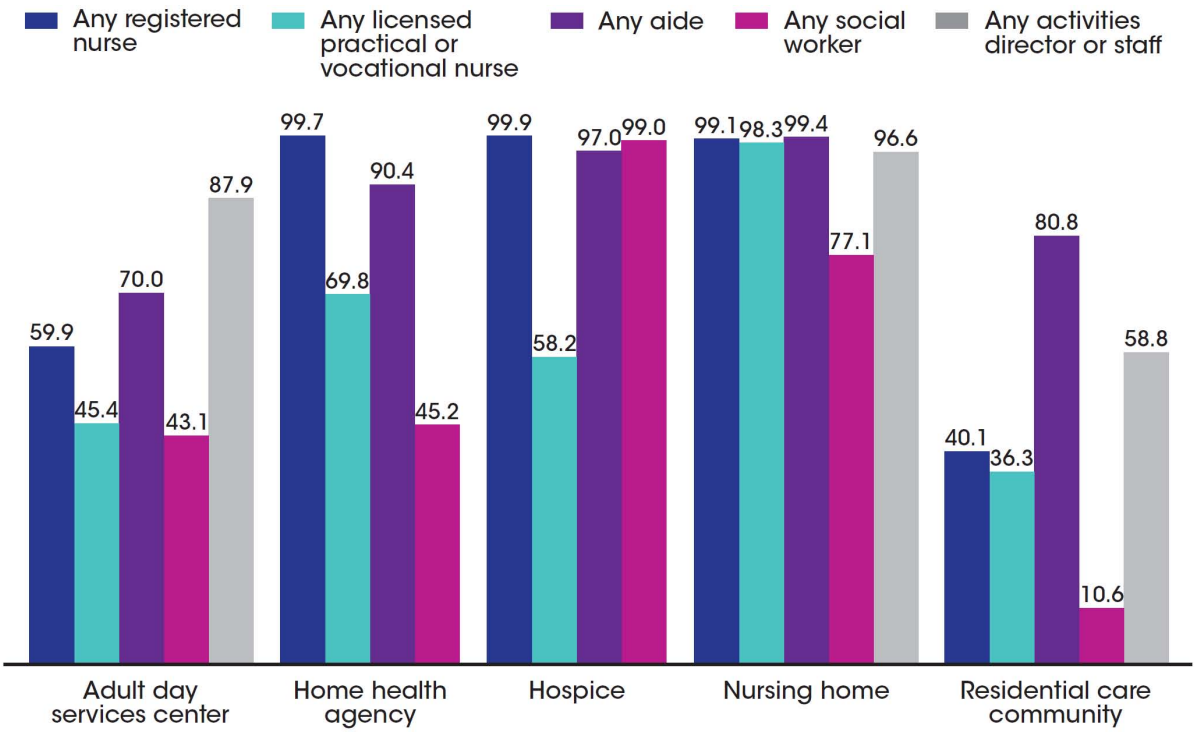
NOTES: FTEs are full-time equivalents. Only employees are included for all staff types; contract staff are not included. For adult day services centers and residential care communities, aides refer to certified nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides. For home health agencies and hospices, aides refer to home health aides. For nursing homes, aides refer to certified nurse aides, medication aides, and medication technicians. See Technical Notes for information on how outliers were identified and coded. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 2 in Appendix B.

Providers employing any nursing, social work, or activities staff

Among the four staff types examined across all five sectors, employing any aides showed the least variation by sector (Figure 10). In all five sectors, the majority of providers employed aides; nursing homes (99.4%) were most likely and adult day services centers (70.0%) were least likely to have any aides on staff.

The majority of providers in all sectors except residential care communities employed licensed nursing staff (either RNs or LPNs and LVNs). Virtually all home health agencies, hospices, and nursing homes employed at least one RN (99.7%, 99.9%, and 99.1%, respectively). In contrast, 59.9% of adult day services centers and 40.1% of residential care communities directly employed any RNs. The majority of nursing homes (98.3%), home health agencies (69.8%), and hospices (58.2%) employed at least one LPN or LVN, whereas a minority of adult day services centers (45.4%) and residential care communities (36.3%) directly employed any LPNs or LVNs.

Figure 10. Percentage of long-term care services providers with any full-time equivalent employees, by sector and staff type: United States, 2014



NOTES: Only employees are included for all staff types; contract staff are not included. For adult day services centers and residential care communities, aides refer to certified nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides. For home health agencies and hospices, aides refer to home health aides. For nursing homes, aides refer to certified nurse aides, medication aides, and medication technicians. Social workers include licensed social workers or persons with a bachelor's or master's degree in social work in adult day services centers and residential care communities; medical social workers in home health agencies and hospices; and qualified social workers in nursing homes. Data for activities director and staff are not available for home health agencies and hospices. See Technical Notes for information on how outliers were identified and coded. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 2 in Appendix B.

Employing any social workers showed the most variation across five sectors. Virtually all hospices (99.0%) employed social workers, as did more than three-fourths of nursing homes (77.1%). More than four-tenths of home health agencies (45.2%) and adult day services centers (43.1%) employed social workers; however, only one-tenth (10.6%) of residential care communities directly employed social workers.

The majority of nursing homes (96.6%), adult day services centers (87.9%), and residential care communities (58.8%) directly employed an activities director or activities staff.[24]

Staffing hours for nursing, social work, and activities staff

For every measure of nursing staff type examined (i.e., RN, LPN and LVN, and aides, respectively), the average nursing staff hours per resident or participant per day were higher in nursing homes than in residential care communities and adult day services centers (Figure 11).[25] In contrast, the average social work staff hours per resident or participant per day was higher in adult day services centers (0.14 hours or 8 minutes) than in nursing homes (0.08 hours or 5 minutes) or residential care communities (0.03 hours or 2 minutes), and the average activities staff hours per resident or participant per day in adult day services centers (0.72 hours or 43 minutes) was more than twice the size of the ratio for nursing homes (0.19 hours or 11 minutes) or residential care communities (0.33 hours or 20 minutes).

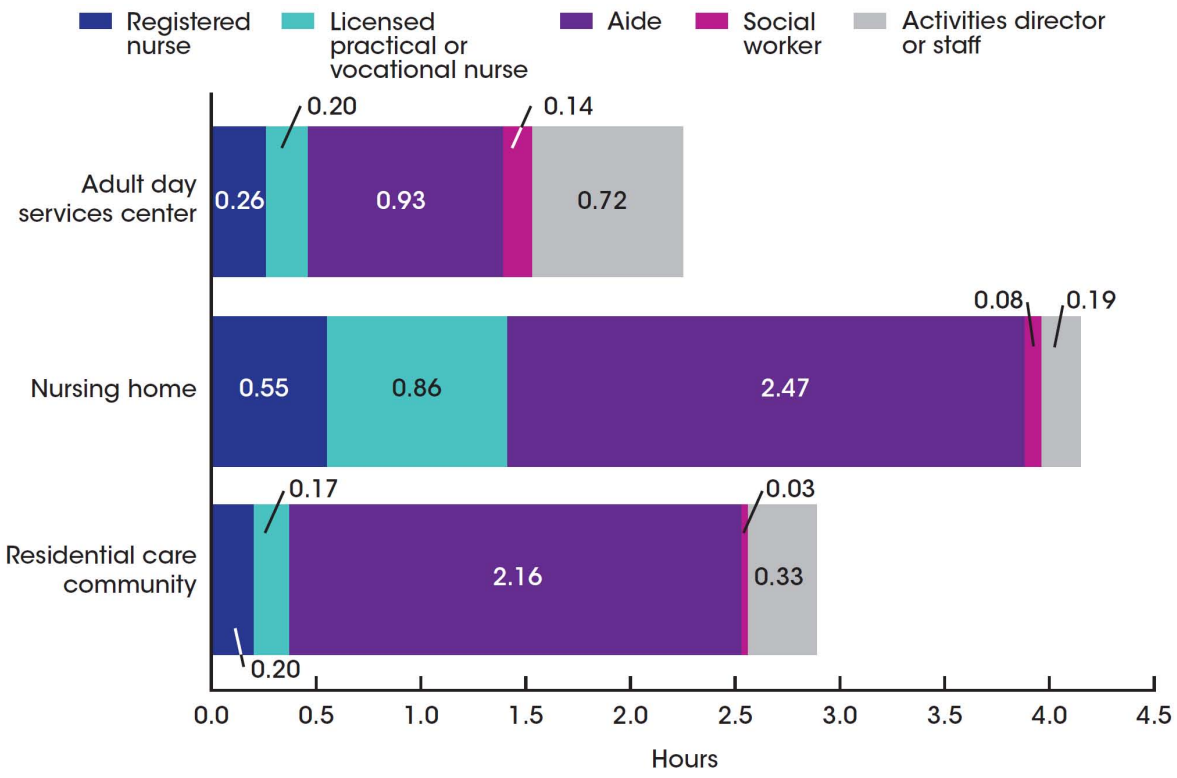
The average total nursing hours (combining RNs, LPN and LVNs, and aides) per resident or participant per day were 3.88 (3 hours and 53 minutes) for nursing home residents, 2.53 (2 hours and 32 minutes) for residential care residents, and 1.39 (1 hour and 23 minutes) for adult day participants. The average total nursing hours per resident per day in nursing homes was more than twice the size of the ratio for adult day services centers.

The average total licensed nursing hours (combining RNs with LPNs and LVNs) per resident or participant per day were 1.41 (1 hour and 25 minutes) for nursing home residents, 0.46 (28 minutes) for adult day participants, and 0.37 (22 minutes) for residential care residents. The average licensed nursing hours per resident or participant per day in nursing homes were more than twice the size of the corresponding ratios for residential care communities and adult day services centers.

[24] Use of any activities staff was not examined for home health agencies and hospices because this information was not available.

[25] Rather than hours per day, which have been used in nursing home and residential care settings, alternative staffing metrics have been reported in the literature for adult day services centers, home health agencies, and hospices, such as average number of visits per 8-hour day (National Association for Home Care & Hospice, Hospital and Healthcare Compensation Service, 2009) and worker-to-participant ratio (MetLife Mature Market Institute, 2010). However, in order to provide a measure by which to compare staffing levels across sectors, hours per user (resident or participant) per day are provided in this report. See Technical Notes and Appendix A for details on how hours per resident or participant per day were computed for adult day services centers, nursing homes, and residential care communities. Hours per patient per day could not be provided for home health agencies or hospices, because the administrative data available provided total number of all patients served in a year, not the number served on a given day, which is needed to produce this estimate.

Figure 11. Average hours per resident or participant per day, by sector and staff type: United States, 2014



NOTES: Only employees are included for all staff types; contract staff are not included. For adult day services centers and residential care communities, aides refer to certified nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides. For home health agencies and hospices, aides refer to home health aides. For nursing homes, aides refer to certified nurse aides, medication aides, and medication technicians. Social workers include licensed social workers or persons with a bachelor's or master's degree in social work in adult day services centers and residential care communities; medical social workers in home health agencies and hospices; and qualified social workers in nursing homes. For adult day services centers, average hours per participant per day was computed by multiplying the number of full-time equivalent (FTE) employees for the staff type by 35 hours, divided by the average daily attendance of participants and by 5 days. For nursing homes and residential care communities, average hours per resident per day was computed by multiplying the number of FTE employees for the staff type by 35 hours, divided by the number of current residents and by 7 days. See Technical Notes for information on how outliers were identified and coded. Hours per patient per day could not be provided for home health agencies or hospices, because the administrative data available provided total number of all patients served in a year, not the number served on a given day, which is needed to produce this estimate.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 2 in Appendix B.

Services Provided

This section provides information on what percentage of providers in each sector (where data were applicable and available) offered each of eight services: social work; mental health or counseling; therapies (physical, occupational, and speech); skilled nursing or nursing; pharmacy or pharmacist; hospice; dental; and podiatry. Services could be provided directly by the provider or by others through arrangement by the provider.[26] In contrast to the 2012 adult day and residential care community questionnaires, for each service in the 2014 questionnaires, if an adult day services center or residential care community reported offering only referrals to participants or residents, respectively, the provider was considered as not providing the service.[27] This section also reports on provision of dementia special care units and depression screening.

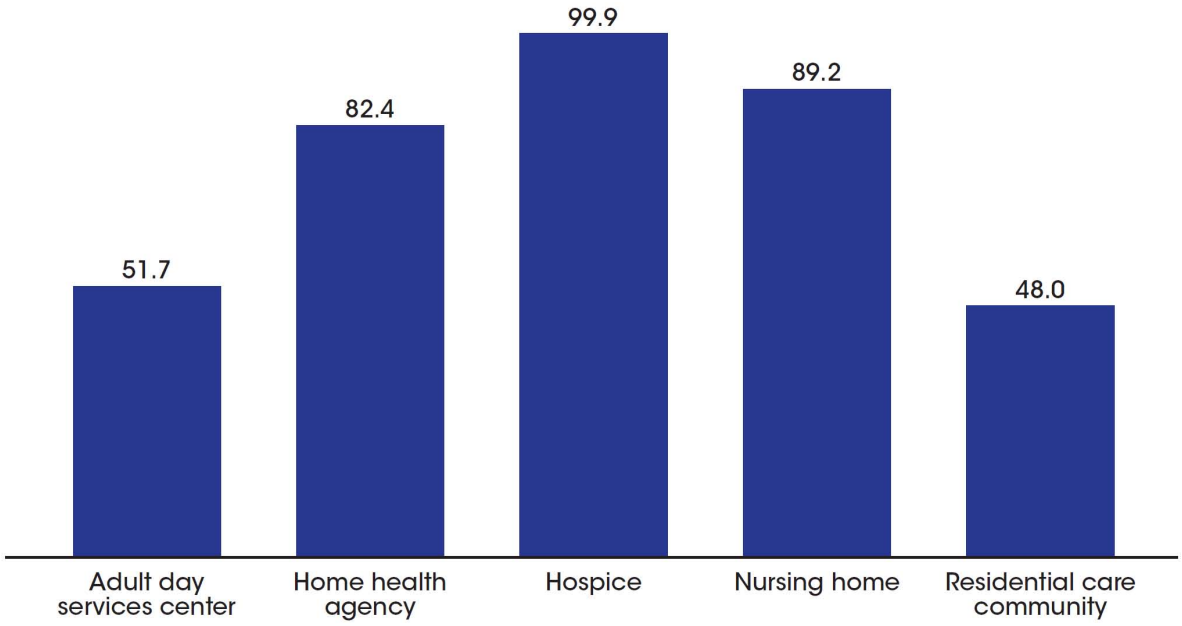
Social work services

The majority of providers in all sectors except residential care offered social work services (Figure 12). Virtually all hospices (99.9%) provided social work services, as did most nursing homes (89.2%) and home health agencies (82.4%), likely because providing these services is required for Medicare certification. Fewer adult day services centers (51.7%) and residential care communities (48.0%) reported providing social work services.

[26] These eight services were chosen because they are commonly provided by Medicare- and Medicaid-certified long-term care services providers, and administrative data were available for most sectors. However, the available administrative data did not have information on whether or not the following sectors provided these services: mental health or counseling services (home health agencies), pharmacy or pharmacist services (hospices), dental services (home health agencies or hospices), and podiatrist services (home health agencies or hospices). See Appendix A for definitions of services included for each sector.

[27] See Chapter 4 for more information on differences in how services were measured in the 2012 and 2014 adult day and residential care community questionnaires.

Figure 12. Percentage of long-term care services providers that provide social work services, by sector: United States, 2014

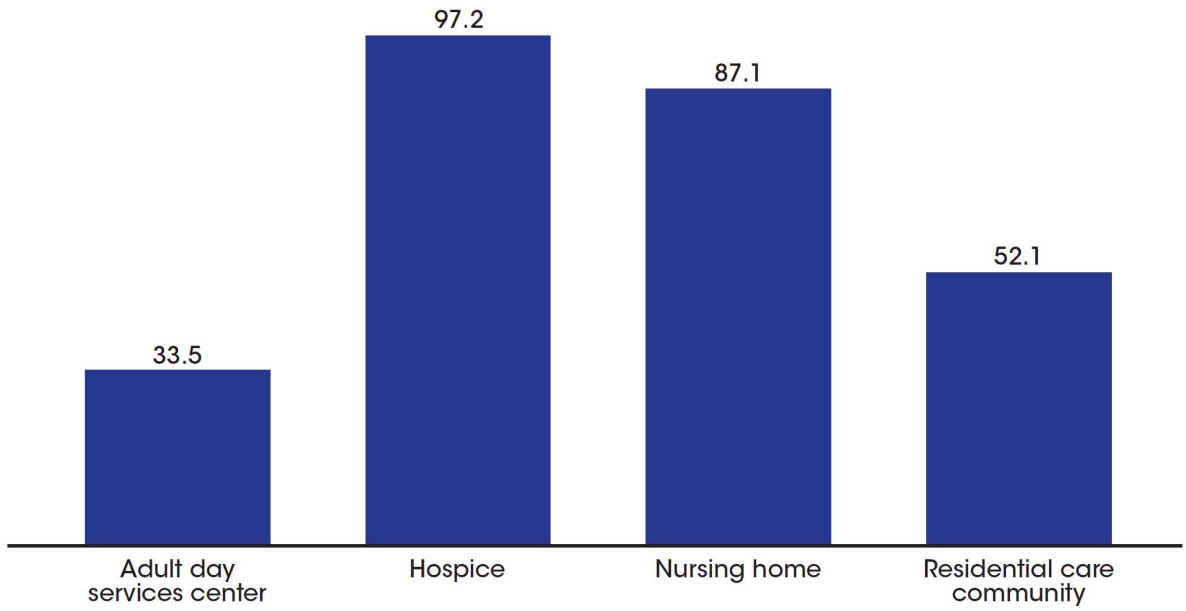


NOTES: Social work services refer to services provided by licensed social workers or persons with a bachelor's or master's degree in social work, and include an aray of services such as psychosocial assessment, individual or group counseling, and referral services. See Appendix A for more information on how the provision of social work services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Mental health or counseling services

Mental health or counseling services were offered by most hospices (97.2%), nursing homes (87.1%), and the majority of residential care communities (52.1%), while about one-third of adult day services centers (33.5%) reported offering these services (Figure 13).

Figure 13. Percentage of long-term care services providers that provide mental health or counseling services, by sector: United States, 2014

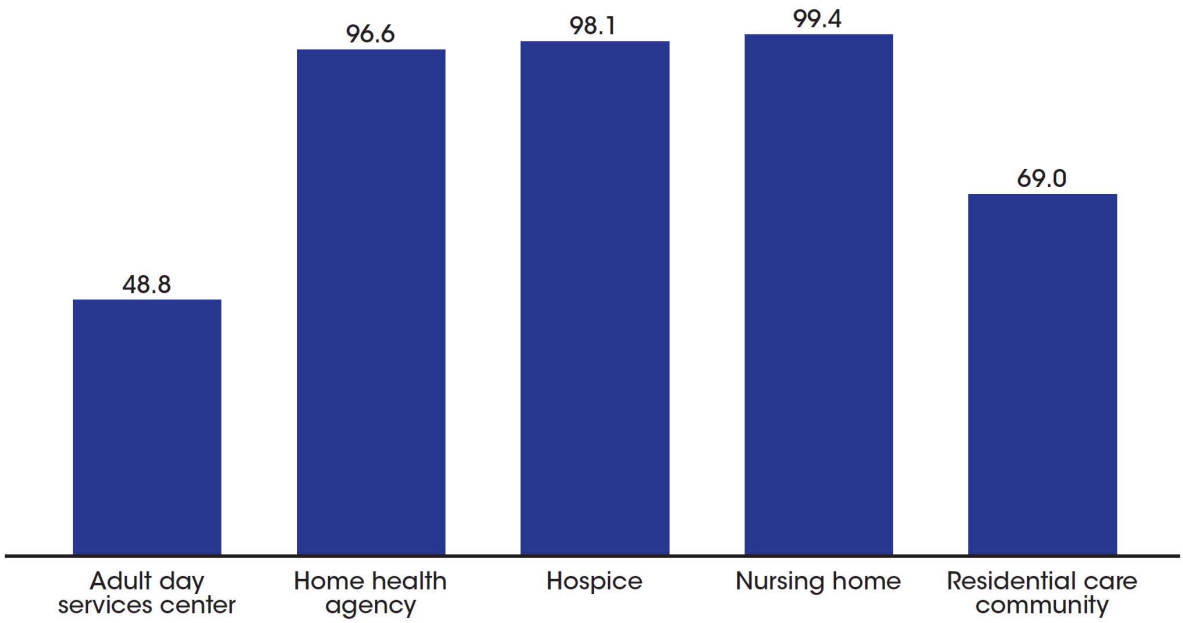


NOTES: Mental health services refer to services that target residents' mental, emotional, psychological, or psychiatric well-being and include diagnosing, describing, evaluating, and treating mental conditions. See Appendix A for more information on how the provision of mental health services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. The available administrative data did not have information on whether or not home health agencies provided mental health or counseling services. Percentages are based on the unrounded numbers
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Therapeutic services

Virtually all nursing homes (99.4%), hospices (98.1%), and home health agencies (96.6%) offered therapeutic services, as did more than two-thirds of residential care communities (69.0%) and almost one-half of adult day services centers (48.8%) (Figure 14).

Figure 14. Percentage of long-term care services providers that provide any therapeutic services, by sector: United States, 2014

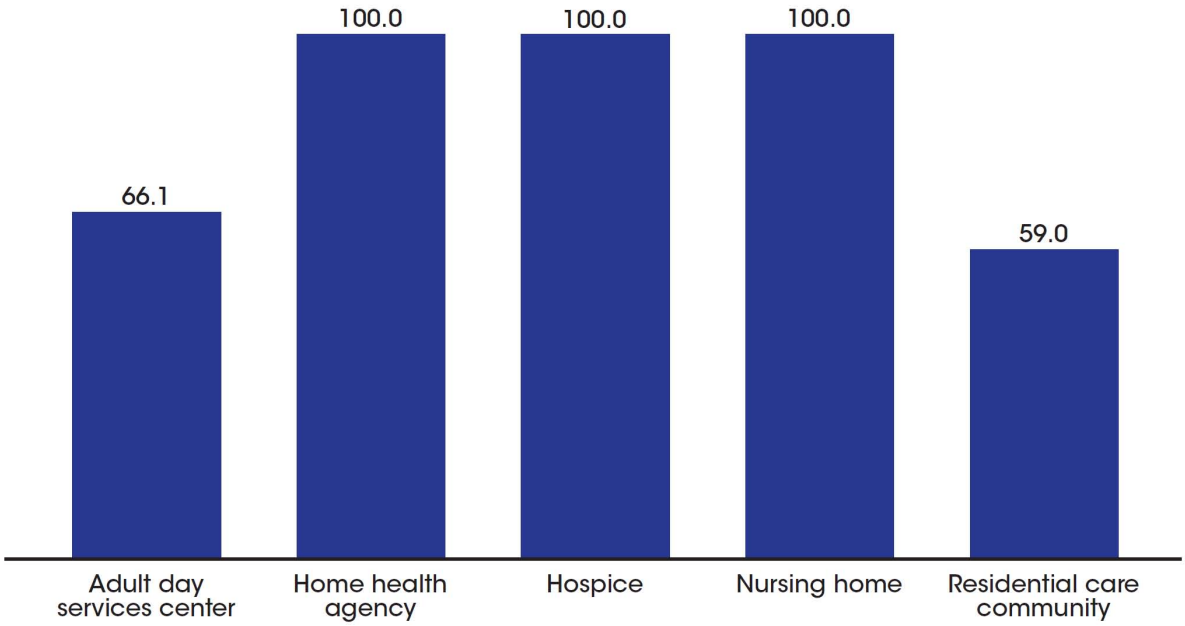


NOTES: Any therapeutic services refer to physical, occupational, or speech therapy services. See Appendix A for more information on how the provision of any therapeutic services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Skilled nursing or nursing services

All home health agencies, hospices, and nursing homes (100.0%) offered skilled nursing or nursing services, as did the majority of adult day services centers (66.1%) and residential care communities (59.0%) (Figure 15).

Figure 15. Percentage of long-term care services providers that provide skilled nursing or nursing services, by sector: United States, 2014

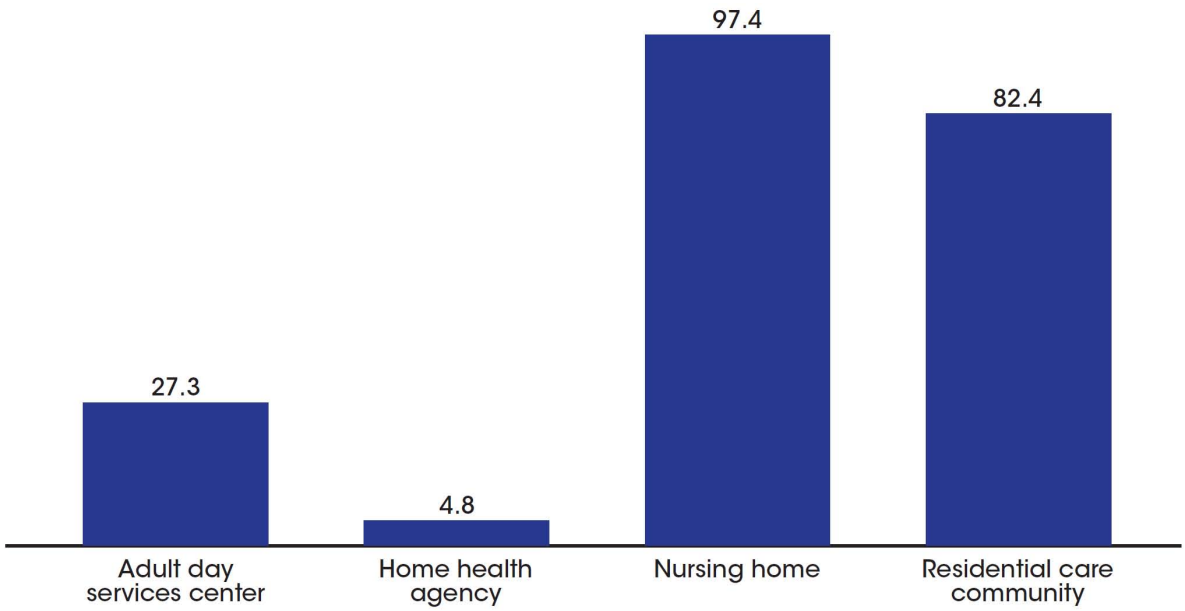


NOTES: Skilled nursing services refer to services that must be performed by a registered nurse or licensed practical nurse and are medical in nature. See Appendix A for more information on how the provision of skilled nursing services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Pharmacy or pharmacist services

Nearly all nursing homes (97.4%) and more than four-fifths of residential care communities (82.4%) offered pharmacy or pharmacist services, while fewer adult day services centers (27.3%) and home health agencies (4.8%) provided these services (Figure 16).

Figure 16. Percentage of long-term care services providers that provide pharmacy or pharmacist services, by sector: United States, 2014

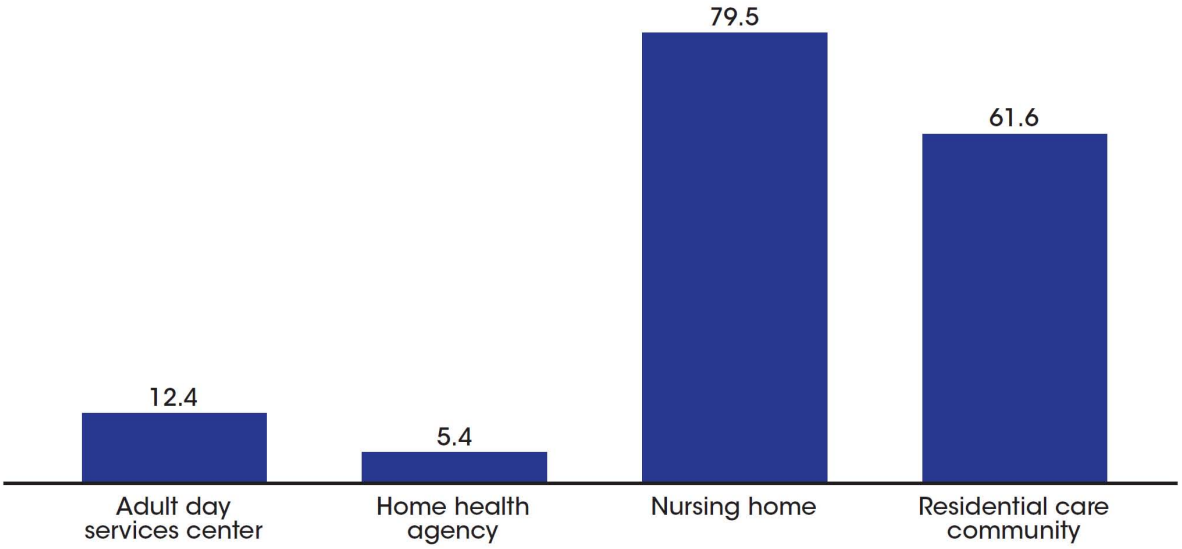


NOTES: Pharmacy services refer to the filling of and delivery of prescriptions. See Appendix A for more information on how the provision of pharmacy services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. The available administrative data did not have information on whether or not nursing homes provided pharmacy or pharmacist services. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Hospice services

About eight-tenths of nursing homes (79.5%) offered hospice services, compared with six-tenths of residential care communities (61.6%), one-tenth of adult day services centers (12.4%), and less than one-tenth of home health agencies (5.4%) (Figure 17).

Figure 17. Percentage of long-term care services providers that provide hospice services, by sector: United States, 2014

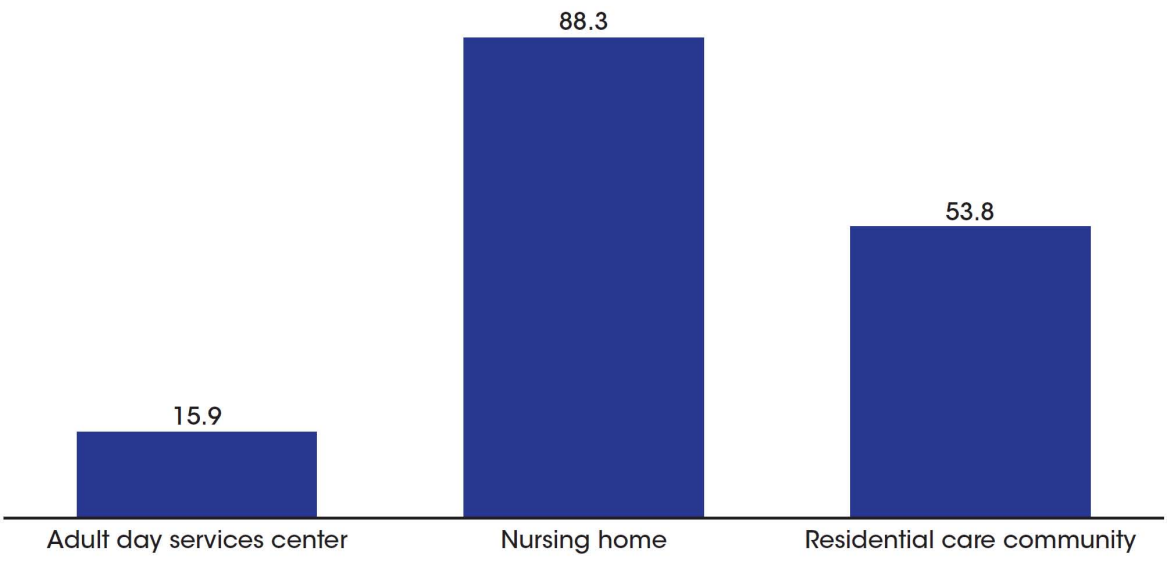


NOTES: See Appendix A for more information on how the provision of hospice services was defined for each sector. See Chapter 4 for an explanation of differences in how services were measured in 2012 and 2014. Percentages are based on the unrounded numbers. All hospices were expected to provide hospice services.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Dental services

Most nursing homes (88.3%) offered dental services compared with about one-half of residential care communities (53.8%) and almost one-fifth of adult day services centers (15.9%) (Figure 18).

Figure 18. Percentage of long-term care services providers that provide dental services, by sector: United States, 2014

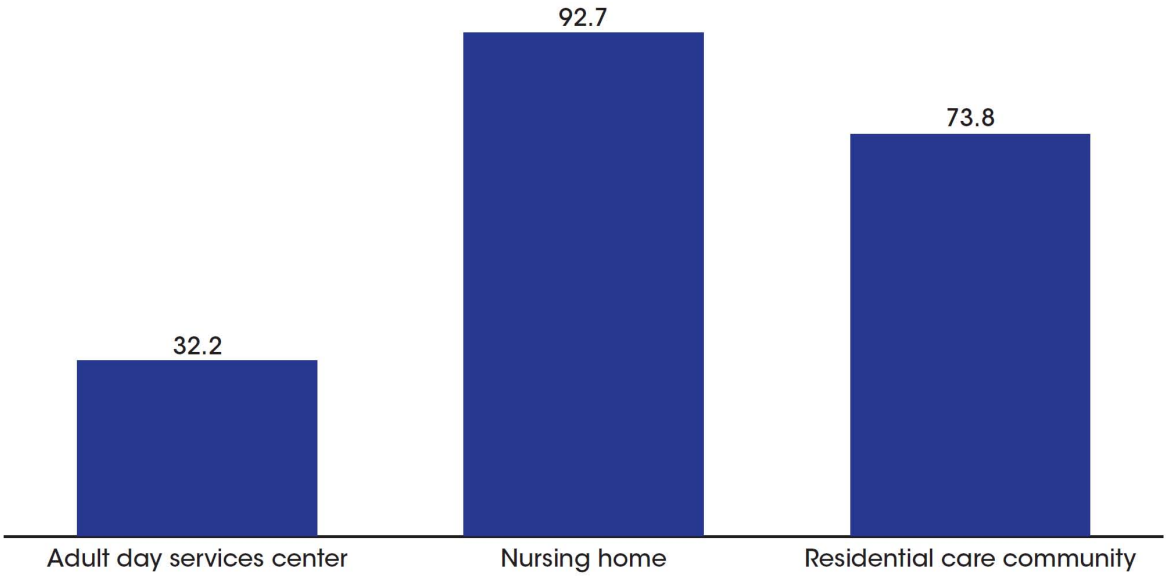


NOTES: See Appendix A for more information on how the provision of dental services was defined for each sector. Percentages are based on the unrounded numbers. The available administrative data did not have information on whether or not home health agencies or hospices provided dental services.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Podiatry services

Most nursing homes (92.7%) offered podiatry services compared with almost three-quarters of residential care communities (73.8%) and almost one-third of adult day services centers (32.2%) (Figure 19).

Figure 19. Percentage of long-term care services providers that provide podiatry services, by sector: United States, 2014

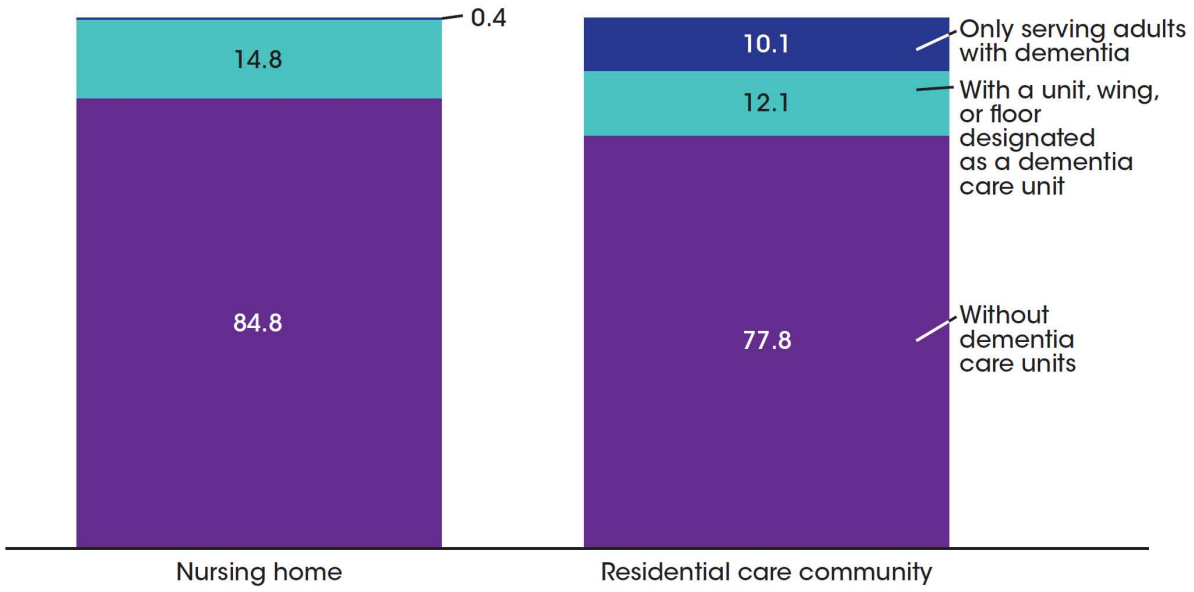


NOTES: See Appendix A for more information on how the provision of podiatry services was defined for each sector. Percentages are based on the unrounded numbers. The available administrative data did not have information on whether or not home health agencies or hospices provided podiatry services.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

Dementia care units

More than one-tenth of nursing homes (14.8%) and residential care communities (12.1%) offered a dementia care unit within a larger facility or community (Figure 20).[28] While another one-tenth of residential care communities (10.1%) served only residents with dementia, few nursing homes (0.4%) did so.

Figure 20. Percent distribution of long-term care services providers, by sector and dementia care unit: United States, 2014



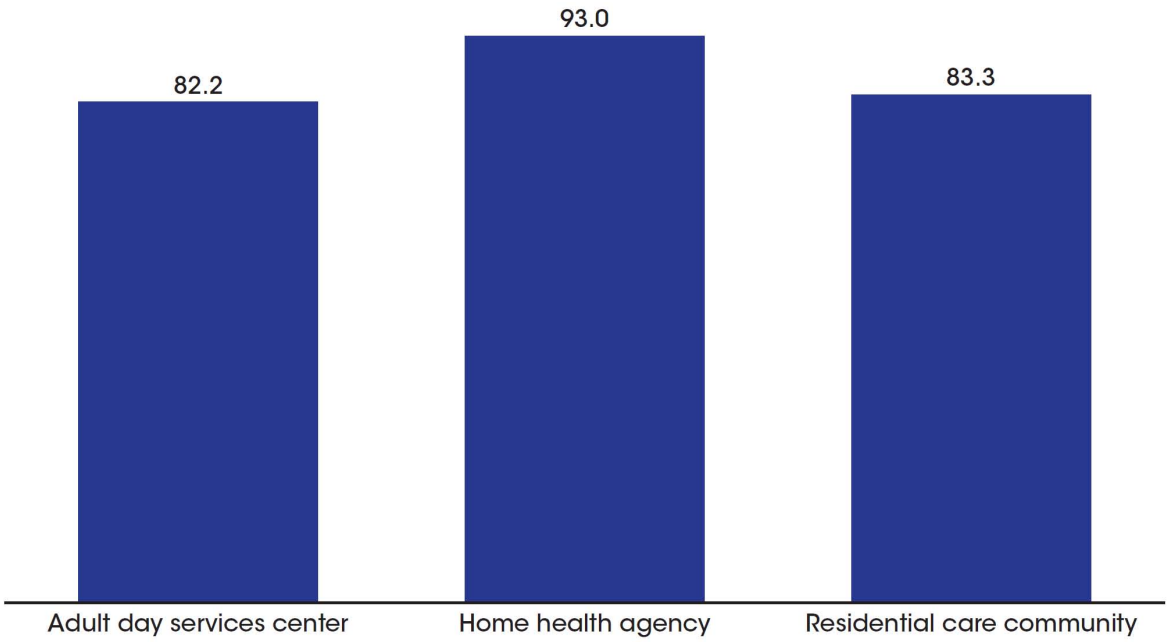
NOTES: See Appendix A for more information on how dementia care units were defined for each sector. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers. Dementia care units or dementia-only providers were not examined for adult day services centers, home health agencies, or hospices because these topics are more relevant for residential sectors such as nursing homes and residential care communities.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

[28] Dementia care units or dementia-only providers were not examined for adult day services centers, home health agencies, or hospices because these topics are more relevant for residential sectors such as nursing homes and residential care communities.

Depression screening

Although many adult day services centers, home health agencies, and residential care communities screened their services users for depression using a standardized tool or accepted screening results performed by another health care provider, a higher percentage of home health agencies (93.0%) performed this service compared with adult day services centers (82.2%) and residential care communities (83.3%) (Figure 21).[29]

Figure 21. Percentage of long-term care services providers that screen for depression, by sector: United States, 2014



NOTES: Depression screening refers to screening for depression with a standardized tool or accepting results from depression screening performed by other health care providers. See Appendix A for more information on how depression screening was defined for each sector. Percentages are based on the unrounded numbers. Depression screening was not examined among hospices and nursing homes because this information was not available.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 3 in Appendix B.

[29] Depression screening was not examined among hospices and nursing homes because this information was not available.

Chapter 3

National Profile of Long-Term Care Services Users

Chapter 3. National Profile of Long-Term Care Services Users

Introduction

In this report, "current" participants or residents in 2014 refers to those participants enrolled in the adult day services center, or residents living in the nursing home or residential care community, on the day of data collection in 2014, rather than the total number of participants ever enrolled in the center or residents ever living in the nursing home or residential care community at any time throughout the 2014 calendar year. In 2014, there were an estimated 282,200 current participants enrolled in adult day services centers,[30] 1,369,700 current residents in nursing homes, and 835,200 current residents living in residential care communities. In 2013, about 4,934,600 patients received services from home health agencies, and 1,340,700 patients received services from hospices. Together these five long-term care services sectors served about nine million (8,762,400) people annually.[31]

This chapter provides an overview of the demographic, health, and functional composition of users of long-term care services, and their experience of adverse events, by sector. Demographic measures include age, race and ethnicity, and sex. Medicaid as a payer source is used to measure payment characteristics. Measures of health status include diagnosis of Alzheimer's disease and other dementias, depression, and diabetes. Measures of functional status include needing assistance with selected activities of daily living [(ADLs) i.e., bathing, dressing, eating, toileting, transferring in and out of a chair or bed, and walking]. Measures of adverse events include overnight hospital stays, emergency department visits, and falls.

[30] In 2014, there were an estimated 282,200 current participants enrolled in adult day services centers, of which 187,200 attended on a typical day.

[31] This estimate is the sum of the estimates of the people served in each of the five sectors, and is a rough approximation. The data used for each sector captured services users in different ways, and the data year used for each sector varied across sectors. The estimated number of adult day services center participants represents current participants in 2014. The estimated number of home health patients represents patients who ended care in 2013 (i.e., discharges). The estimated number of hospice patients represents patients who received care at any time in 2013.

The estimated number of nursing home residents represents current residents in 2014. The estimated number of residential care community residents represents current residents in 2014. The same person may be included more than once in the sum of services users in the five sectors, if a person received care in more than one sector in a similar time period (e.g., a residential care resident receiving care from a home health agency). Given that the estimate for the number of current adult day, nursing home, and residential care services users in a given year is likely less than the number of all services users in these sectors throughout that year, it is expected that the estimate of all services users in all five sectors as of 2014 is at least nine million, in spite of the possibility of double counting of the same person across sectors.

Use of Long-Term Care Services

As noted in the introduction to this chapter, participants in adult day services centers and residents in nursing homes and residential care communities are current users in 2014.[32] Home health patients refer to patients who ended home health care anytime in 2013. Hospice patients refer to patients who received care anytime in 2013. Use of long-term care services by individuals aged 65 and over per 1,000 persons aged 65 and over varied by sector.[33] The daily-use rate was higher for nursing homes (25 per 1,000), compared with residential care communities (17 per 1,000) and adult day services centers (4 per 1,000). The annual-use rate was higher for home health agencies (91 per 1,000) compared with hospices (28 per 1,000).

Demographic Characteristics of Long-Term Care Services Users

Long-term care services users by age

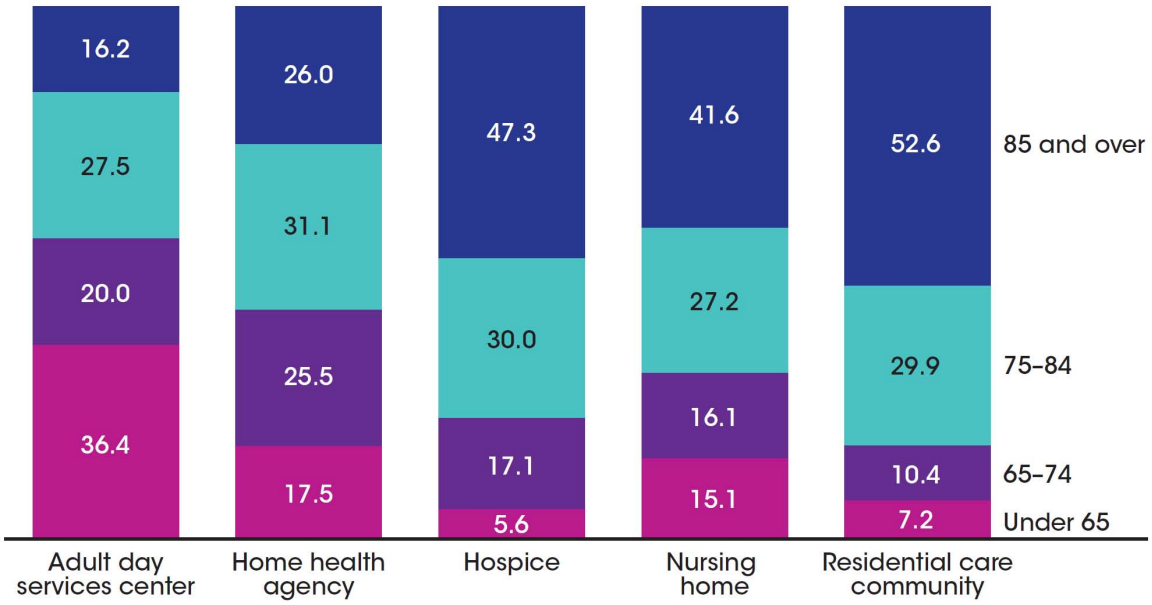
The majority of long-term care services users were aged 65 and over: 94.4% of hospice patients, 92.9% of residential care residents, 84.9% of nursing home residents, 82.6% of home health patients, and 63.7% of participants in adult day services centers (Figure 22).

The age composition of services users varied by sector, with residential care communities (52.6%), hospices (47.3%), and nursing homes (41.6%) serving more persons aged 85 and over, and adult day services centers (36.4%) serving more persons under age 65 than other sectors.

[32] See Technical Notes for more information on the definitions of services users and data sources used for each sector

[33] Given the data available, daily-use rates were compared for nursing home residents, residential care residents, and adult day services center participants, while annual-use rates were compared for home health patients and hospice patients.

Figure 22. Percent distribution of long-term care services users, by sector and age group: United States, 2013 and 2014

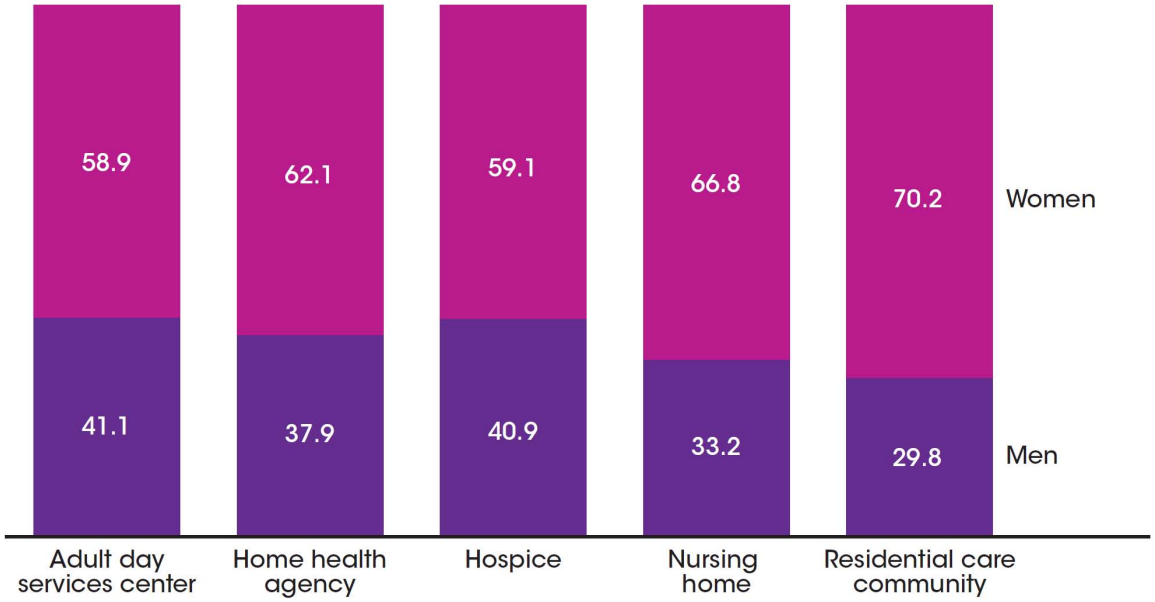


NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. Denominators used to calculate percentages for home health agencies and hospices were the number of patients who received care from Medicare-certified home health agencies at any time in 2013 and the number of patients who received care from Medicare-certified hospices at any time in 2013, respectively. See Technical Notes for more information on the data sources used for each sector. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

Long-term care services users by sex

In all five sectors, the users of long-term care services were overwhelmingly women, with residential care communities having the highest proportion (70.2%) (Figure 23).

Figure 23. Percent distribution of long-term care services users, by sector and sex: United States, 2013 and 2014



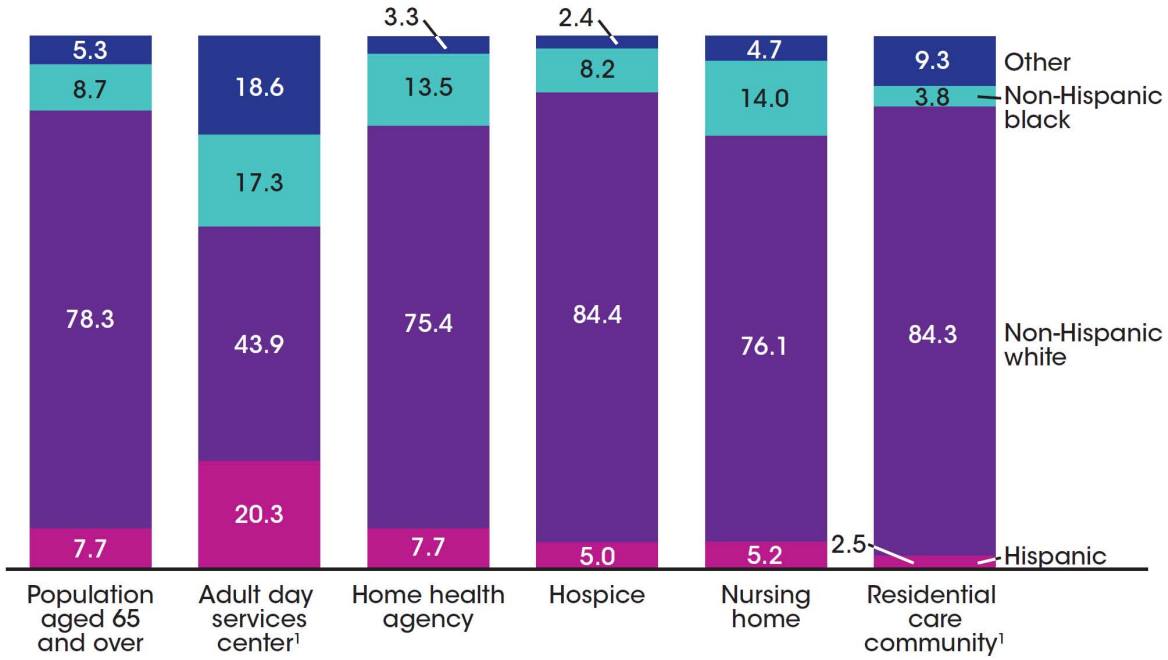
NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. Denominators used to calculate percentages for home health agencies and hospices were the number of patients whose episode of care ended at any time in 2013 and the number of patients who received care from Medicare-certified hospices at any time in 2013, respectively. See Technical Notes for more information on the data sources used for each provider type. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

Long-term care services users by race and ethnicity

Non-Hispanic white persons accounted for at least three-quarters of users in all long-term care services sectors except adult day services centers (Figure 24).

The percentage of non-Hispanic white persons was highest in hospice (84.4%) and residential care communities (84.3%), followed by nursing homes (76.1%) and home health agencies (75.4%). Less than one-half of the participants in adult day services centers were non-Hispanic white (43.9%). Adult day services centers were the most racially and ethnically diverse among the five sectors: 17.3% of services users were non-Hispanic black and 20.3% of services users were Hispanic. More than one-tenth of home health patients and nursing home residents were non-Hispanic black. About 8.2% of hospice patients and 3.8% of residential care residents were non-Hispanic black.

Figure 24. Percent distribution of long-term care services users, by sector and race and Hispanic origin: United States, 2013 and 2014



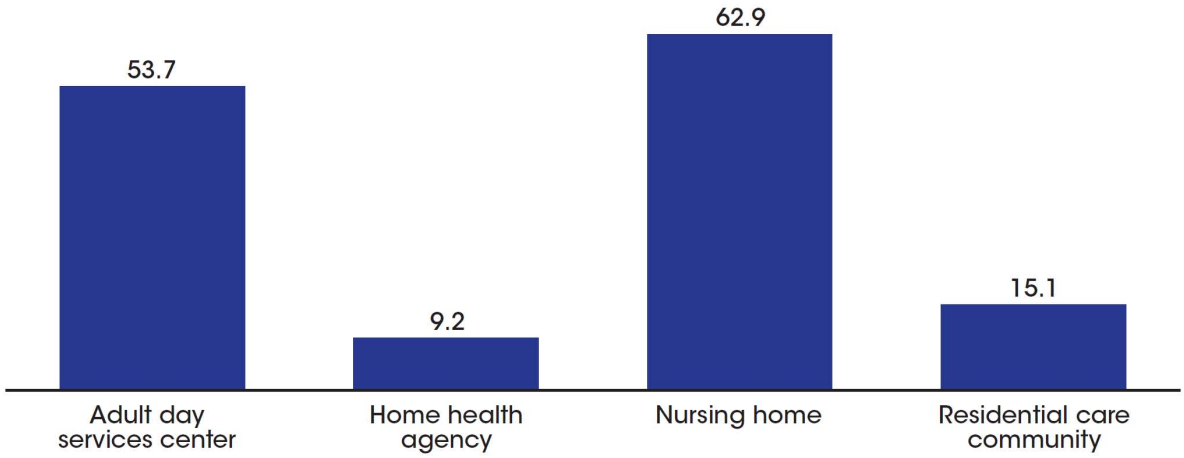
[1]Includes non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, non-Hispanic Native Hawaiian or other Pacific Islander, non-Hispanic of two or more races, and unknown race and ethnicity.

NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. Denominators used to calculate percentages for home health agencies and hospices were the number of patients who received care from Medicare-certified home health agencies at any time in 2013 and the number of patients who received care from Medicare-certified hospices at any time in 2013, respectively. See Technical Notes for more information on the data sources used for each provider type. Percentages may not add to 100 because of rounding. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers; Table 4 in Appendix B; and U.S. Census Bureau, Population Division, Population Estimates, July 1, 2014.

Long-term care services users by use of Medicaid as a payer source

The percentage of long-term care services users using Medicaid as a payer source was highest in nursing homes (62.9%), followed by adult day services centers (53.7%) (Figure 25). Among residential care residents, 15.1% used Medicaid as a payer source, followed by less than one-tenth of home health patients (9.2%).[34]

Figure 25. Percentage of long-term care services users with Medicaid as payer source, by sector: United States, 2013 and 2014



NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. The denominator used to calculate percentages for home health agencies was the number of patients whose episode of care ended at any time in 2013. Data on Medicaid as payer source were not available for hospice patients. See Appendix A for more information on how Medicaid as payer source was defined for each sector.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

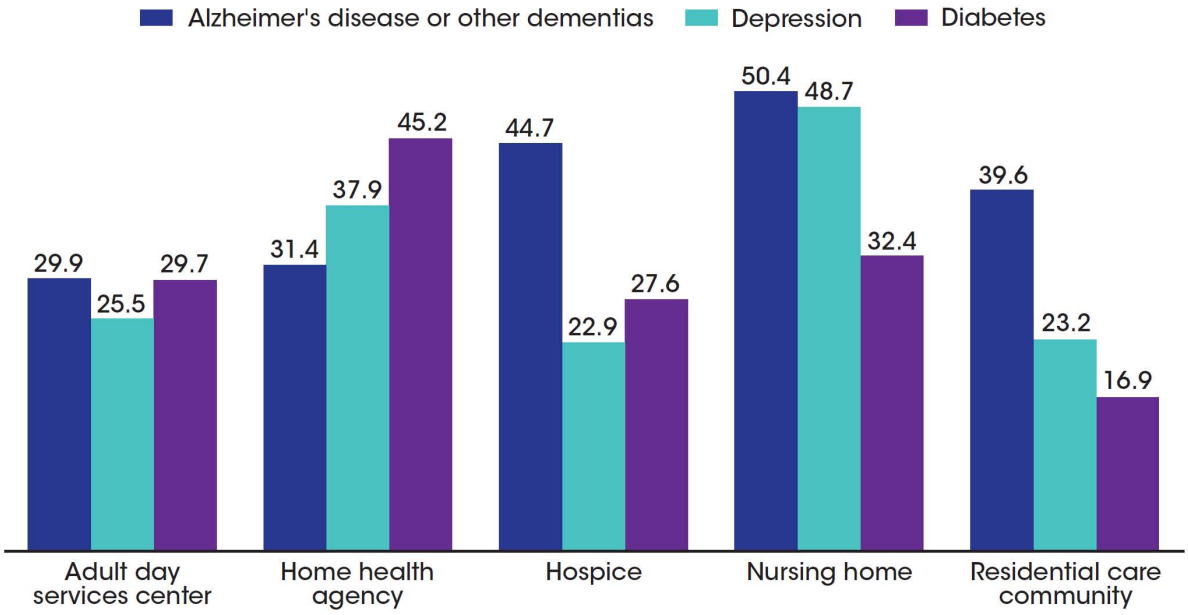
[34] Data on Medicaid as payer source were not available for hospice patients.

Health and Functional Characteristics of Long-Term Care Services Users

Alzheimer's disease or other dementias, depression, and diabetes among long-term care services users

Alzheimer's disease or other dementias were most prevalent among nursing home residents (50.4%) and were least prevalent among adult day services center participants (29.9%) (Figure 26). The percentage of long-term care services users with a diagnosis of depression was highest in nursing homes (48.7%) and lowest in hospices (22.9%) and residential care communities (23.2%). Diabetes was most prevalent among home health patients (45.2%) and was least prevalent among residential care community residents (16.9%).

Figure 26. Percentage of long-term care services users with a diagnosis of Alzheimer's disease or other dementias, depression, and diabetes, by sector: United States, 2013 and 2014



NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. Denominators used to calculate percentages for home health agencies and hospices were the number of patients who received care from Medicare-certified home health agencies at any time in 2013 and the number of patients who received care from Medicare-certified hospices at any time in 2013, respectively. See Technical Notes for more information on the data sources used for each sector. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

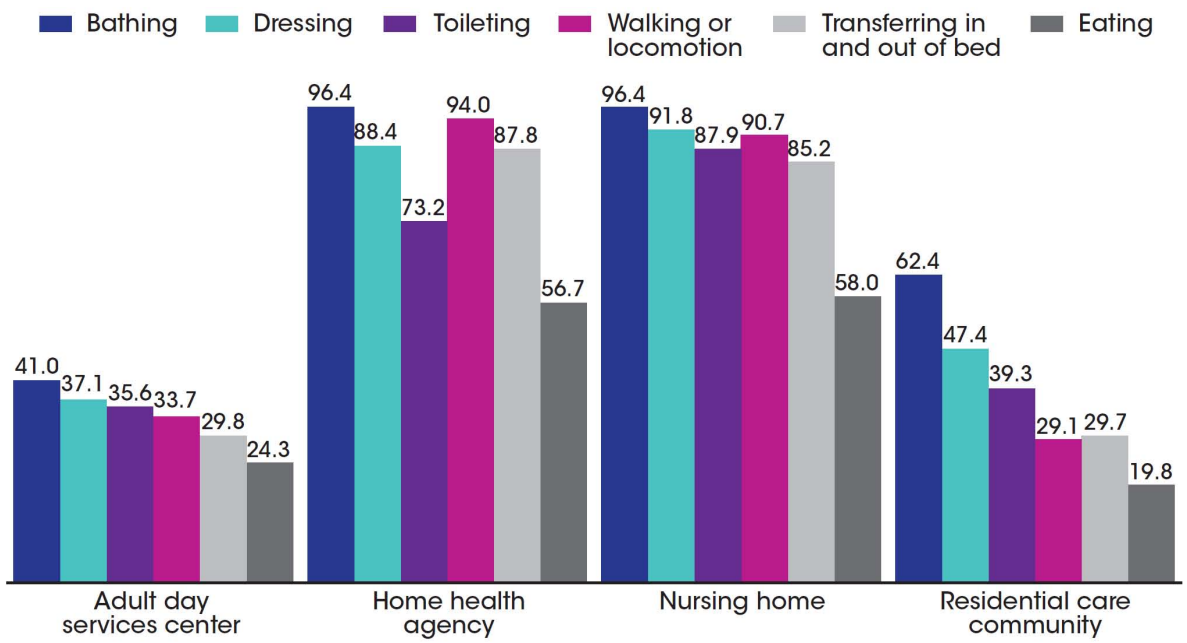
Need for assistance with ADLs among long-term care services users

This report uses the need for assistance with six ADLs: bathing, dressing, toileting, walking, transferring in and out of bed, and eating to measure physical and cognitive functioning among residents in nursing homes and residential care communities, home health patients, and adult day services center participants.[35]

Overall, functional ability varied by sector. Within each sector, the need for assistance with bathing was most common, whereas the need for assistance with eating was least common (Figure 27). Compared with services users in other sectors, more nursing home residents needed assistance in dressing, eating, toileting, and walking. For three of the six ADLs (bathing, dressing, and toileting), fewer adult day services center participants than services users in other sectors needed assistance.

While the prevalence of ADL needs differed by sector, at least 41.0% of long-term care services users in all sectors needed assistance with at least one of the six ADLs.[36]

Figure 27. Percentage of long-term care services users needing any assistance with activities of daily living, by sector and activity: United States, 2013 and 2014



NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. The denominator used to calculate percentages for home health agencies was the number of patients whose episode of care ended at any time in 2013. Participants, patients, or residents were considered needing any assistance with a given activity if they needed help or supervision from another person or used special equipment to perform the activity. Data on need for assistance with activities of daily living were not available for hospice patients. See Appendix A for more information on how needing any assistance with a given activity was defined. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

[35] Data on need for assistance with ADLs were not available for hospice patients.

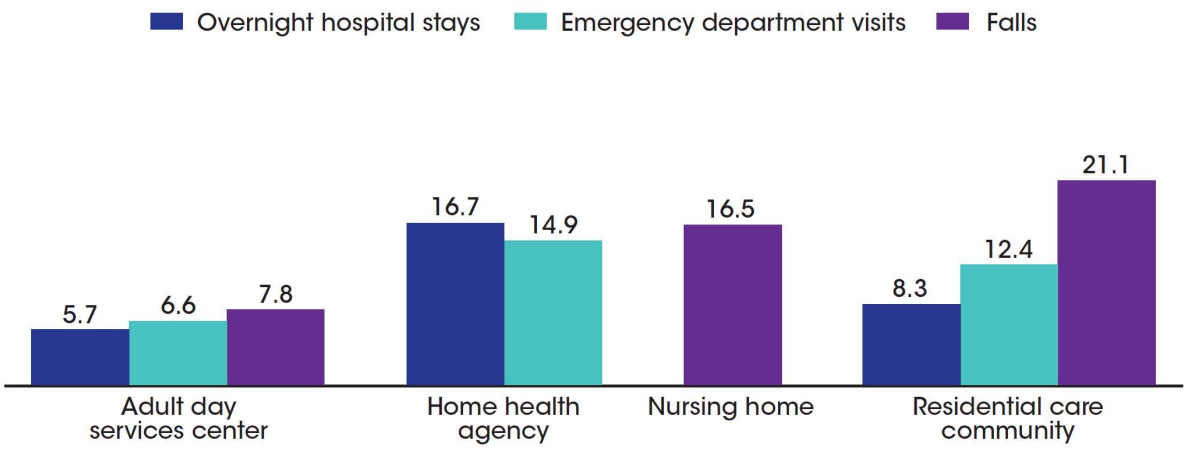
[36] In all sectors, the need for assistance with bathing was most common. Fewer adult day services center participants (41%) than services users in other sectors needed assistance with bathing. Therefore, at a minimum, 41% of services users across all sectors needed assistance with an ADL.

Adverse events among long-term care services users

This report estimates the prevalence of overnight hospitalizations, emergency department visits, and falls as indicators of adverse, potentially avoidable events.[37]

About 2 in 10 home health patients had overnight hospital stays (16.7%) and emergency department visits (14.9%); about 1 in 10 adult day services center participants and residential care community residents had overnight hospital stays (5.7% of adult day services center participants and 8.3% of residential care community residents) and emergency department visits (6.6% of adult day services center participants and 12.4% of residential care community residents) (Figure 28). About one-fifth of residential care community residents (21.1%) and nursing home residents (16.5%) had falls; 7.8% of adult day services center participants had falls.[38]

Figure 28. Percentage of long-term care services users with overnight hospital stays, emergency department visits, and falls, by sector: United States, 2013 and 2014



NOTES: Denominators used to calculate percentages for adult day services centers, nursing homes, and residential care communities were the number of current participants enrolled in adult day services centers, the number of current residents in nursing homes, and the number of current residents in residential care communities in 2014, respectively. The denominator used to calculate percentages for home health agencies was the number of patients whose episode of care ended at any time in 2013. For adult day services centers and residential care communities, adverse events refer to a period of 90 days prior to the survey. For home health agencies, adverse events refer to a period since the last Outcome and Assessment Information Set assessment. For nursing homes, falls refer to the period since admission or since the prior assessment, whichever is more recent. For home health agencies, data were not available for falls. For nursing homes, data were not available for emergency department visits, and hospitalizations were not included in this report because the timing of Medicare claims data did not match the other nursing home data sets used here. For hospice patients, data were not available for any adverse event. See Technical Notes for more information on the data sources used for each sector. Percentages are based on the unrounded numbers.
SOURCES: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

[37] For adult day services centers and residential care communities, adverse events refer to a period of 90 days prior to the survey. For home health agencies, adverse events refer to a period since the last Outcome and Assessment Information Set (OASIS) assessment. For nursing homes, falls refer to the period since admission or since the prior assessment, whichever is more recent. Varying reference periods by sector do not allow for direct comparisons between sectors.

[38] For home health patients, data for falls were not available. For nursing home residents, data for emergency department visits were not available, and data for hospitalizations were not reported because the timing of Medicare claims data did not match the other nursing home data sets used for this report. For hospice patients, data for emergency department visits, overnight hospital stays, and falls were not available.

Chapter 4

Technical Notes

Chapter 4. Technical Notes

Data Sources

This report uses data from multiple sources, including two main sources: administrative data from the Centers for Medicare & Medicaid Services (CMS) on nursing homes, home health agencies, and hospices; and cross sectional, nationally representative, establishment-based survey data from the Centers for Disease Control and Prevention's National Center for Health Statistics (NCHS) for assisted living and similar residential care communities and for adult day services centers. Data for all five sectors were obtained for comparable time periods, where feasible.

Administrative data: home health agencies, hospices, and nursing homes

Provider-level data

Provider-specific data files from the Certification and Survey Provider Enhanced Reporting [(CASPER), formerly known as Online Survey Certification and Reporting] system were used. These files were drawn from the third quarter of 2014. CASPER data were collected to support the survey and certification regulatory function of CMS; every nursing home, home health agency, and hospice in the United States that was certified to provide services under Medicare, Medicaid, or both was included in the data. The number of variables in each file and frequency of certification survey data collection varied by sector because different provider sectors had to report different information during the survey and certification process.

Home health agency file–Included 12,439 home health agencies coded as active providers located in the United States. About 76.7% were Medicare- and Medicaid-certified, 22.0% were Medicare-certified only, and 1.3% were Medicaid-certified only. About 88.0% of these home health agencies completed a certification survey during the last 3 years (including 57.3% during the last 2 years).

Hospice file–Included 4,026 hospices coded as active providers located in the United States; information on type of certification (Medicare-only, Medicaid-only, or both) was not available. CMS requires certification surveys of Medicare hospices every 6 to 8 years, on average (HHS, 2007). About 94.3% of Medicare hospices completed a certification survey during the last 8 years (including 56.3% during the last 3 years).

Nursing home file–Included 15,639 nursing homes coded as active providers located in the United States. About 92.0% were Medicare- and Medicaid-certified, 4.9% were Medicare-certified only, and 3.1% were Medicaid-certified only. Nearly all of these nursing homes (98.6%) completed a certification survey during the last 18 months (including 79.7% during the last 12 months).

User-level data

User-level data were aggregated to the provider level (e.g., the distribution of an agency's patients or a facility's residents by age, race, and sex), using the unique provider identification (ID) number. These user-level data were merged to respective provider-specific data files.

Home health patients

Outcome-Based Quality Improvement (OBQI) Case Mix Roll Up data (also known as Agency Patient-Related Characteristics Report data) are from the Outcome and Assessment Information Set (OASIS). OBQI data were used as the primary source of information on home health patients whose episode of care ended at any time in calendar year 2013 (i.e., discharges), regardless of payment

source. These data included home health patients who received services from Medicare-certified home health agencies and Medicaid-certified home health providers in states where those agencies were required to meet the Medicare Conditions of Participation. When merged with the CASPER home health agency file by provider ID number, 888 (7.1%) of 12,439 agencies in the CASPER file had no patient information in the OBQI data. The total number of patients in this merged file (4,934,620) was used as the denominator when calculating percentages of home health patients in different age categories and sex categories; to compute percentages of those receiving Medicaid, needing any assistance with activities of daily living (ADLs), having hospitalizations, and having emergency department visits; and to compute the annual number of users and the annual-use rates of home health care.

Institutional Provider and Beneficiary Summary (IPBS) home health data were used to compute percentages of home health patients of different racial and ethnic backgrounds, and to compute percentages of those diagnosed with Alzheimer's disease or other dementias, depression, and diabetes. IPBS data were used because the OBQI data did not use racial and ethnic categories and did not contain information on patient's diagnosis of dementia, depression, or diabetes that was comparable to those used in other data sources. The IPBS data file contained information on home health patients for whom Medicare-certified home health agencies submitted a Medicare claim at any time in calendar year 2013. When merged with the CASPER home health agency file, 984 (7.9%) of the 12,439 agencies in the CASPER file had no patient information in the IPBS home health data. The total number of patients in this merged file (4,074,822) was used as the denominator when calculating percentages of home health patients in different racial and ethnic categories, and to compute percentages of those diagnosed with Alzheimer's disease or other dementias, depression, and diabetes.

Hospice patients

The ***IPBS hospice data*** file contained information on hospice patients for whom Medicare-certified hospice agencies submitted a Medicare claim at any time in calendar year 2013. Given that 93.0% of hospice agencies were Medicare-certified in 2007 (based on findings from the 2007 National Home and Hospice Care Survey) and that no other data source was available on hospice patients, IPBS hospice data were assumed to provide current coverage and information on most hospice patients. Data on demographic characteristics (i.e., age, sex, and racial and ethnic background) and selected diagnosed chronic conditions (including Alzheimer's disease or other dementias, depression, and diabetes) were available; information on patients needing ADL assistance was not available. When merged with the CASPER hospice agency file, 251 (6.2%) of the 4,026 hospices in CASPER had no patient information in the IPBS hospice data. The total number of hospice patients in this merged file (1,340,723) was used to compute the annual number of users, the annual-use rates, and it was used as the denominator when calculating percentages for all aggregate, patient-level measures.

Nursing home residents

Minimum Data Set Active Resident Episode Table (MARET) data contained information on all residents who were residing in a Medicare- or Medicaid-certified nursing home on the last day of the third quarter of 2014, regardless of payment source. Excluded were residents whose last assessment during the third quarter of 2014 was a discharge assessment. Minimum Data Set (MDS) assessment records provided by nursing homes and maintained by CMS were used to create a profile of the most recent standard information for each active resident. Within MARET, CMS defined an active resident as "a resident whose most recent assessment transaction is not a discharge and whose most

recent transaction has a target date (assessment reference date for an assessment record or entry date for an entry record) less than 150 days old. If a resident has not had a transaction for 150 days, then that resident is assumed to have been discharged."

After aggregating individual resident-level MARET data to the provider ID level, the aggregated MARET data were linked to the CASPER nursing home file. There were 263 (1.7%) of 15,639 nursing homes in the CASPER file that had no resident information in the MARET data. The total number of nursing home residents in this merged file (1,288,010) was used as the denominator when calculating percentages of nursing home residents with different demographic characteristics (i.e., age, sex, and racial and ethnic background), to obtain the number of residents diagnosed with Alzheimer's disease or other dementias, depression, and diabetes, and to compute the daily-use rates of nursing homes.

Because the MARET data exclude residents whose last assessment was a discharge assessment, information on hospitalizations collected as part of an MDS discharge assessment is not available. Hospitalization rates among nursing home residents can be obtained by linking Medicare claims data like the Medicare Provider Analysis and Review (MedPAR) file with MDS data. However, the latest MedPAR file available is from 2013; the time frame is older than the CASPER and MARET data used in this report to estimate nursing home resident characteristics. Consequently, hospitalization rates of nursing home residents are not included in this report.

The **CASPER nursing home file** for the third quarter of 2014 included information on selected measures for 1,369,687 current residents living in 15,639 nursing homes; this information was collected using Form CMS-672 (Resident Census and Conditions of Residents). The resident census information was designed to represent the facility at the time of the certification survey. CMS defined current residents as "residents in certified beds regardless of payer source." Because the data were provided at the individual provider level, file merging was unnecessary, and no nursing home had missing data on resident census items. Resident census information from the CASPER nursing home file was used to compute the number of current residents and to obtain the number of residents with ADL limitations.

Survey data: adult day services centers and residential care communities

NCHS designed and conducted surveys for the adult day services center and residential care community components of the second wave of the National Study of Long-Term Care Providers (NSLTCP) in 2014.[39] The NSLTCP questionnaires consist of topics common or comparable across all five sectors ("core topics") and topics that are specific to a particular sector ("sector-specific topics"). To facilitate comparisons across sectors, the core content for the primary data collection for adult day services centers and residential care communities was designed to be as similar as possible to the core content and wording available through the CMS administrative data for home health agencies, hospices, and nursing homes. The adult day services center and residential care community questionnaires included questions that collected information at both the provider and aggregate-user level.

[39] The 2014 NSLTCP questionnaires for adult day services centers and residential care communities, respectively, are available from: http://www.cdc.gov/nchs/data/nsltcp/2014_NSLTCP_Adult_Day_Services_Center_Questionnaire.pdf and http://www.cdc.gov/nchs/data/nsltcp/2014_NSLTCP_Residential_Care_Communities_Questionnaire.pdf.

Adult day services centers

The sampling frame obtained from the National Adult Day Services Association (NADSA) contained 5,678 adult day services centers that self-identified as adult day care, adult day services, or adult day health services centers. After removing duplicates, the final frame consisted of 5,443 adult day services centers that were included in the data collection efforts. Unlike 2012, the 2014 wave had a set of eligibility criteria for study participation that was determined by self-report in the screener section of the questionnaire. In addition to inclusion in NADSA's database, adult day services centers had to: 1) be licensed or certified by the state specifically to provide adult day services, or authorized or otherwise set up to participate in Medicaid; 2) have average daily attendance of at least one participant based on a typical week; and 3) have at least one participant enrolled at the center at the time of the survey. As a result, all responding centers participated in Medicaid or were in some way regulated by the state. There were 174 (3.2%) centers in the frame that were ultimately determined to be out of business during data collection. Additionally, 222 (4.1%) centers in the frame were determined to be ineligible for other reasons during data collection. A total of 396 (7.3%) centers were either invalid or out of business. However, 2,284 centers (42.0%) could not be contacted by the end of data collection and, therefore, the final eligibility status of these communities was unknown. Using the eligibility rate,[40] a proportion of these centers of unknown eligibility was estimated to be eligible. This estimated number and the total number of eligible centers resulting from the screening process were used to estimate the total number of eligible adult day services centers in the United States. Of the 4,751 in-scope and presumed in-scope adult day services centers, 2,763 completed the questionnaire, for a response rate of 58.0%,[41] resulting in an estimated national total of 4,800 adult day services centers and 282,200 participants.

Data were collected through three modes: self-administered, hard copy mail questionnaires; self-administered web questionnaires; and Computer-Assisted Telephone Interview (CATI). Response rates by state ranged from 38.5% to 80.2% and are presented in Table 4.1. Weights were used to adjust the record counts of the respondents to the total number of valid adult day services centers (4,751).

[40] Eligibility rate is calculated by the number of known eligible adult day services centers divided by the total number of adult day services centers with known eligibility status. Centers that were invalid or out of business and centers that screened out as ineligible were classified as "known ineligibles."

[41] Response rates are calculated using standards set by the American Association of Public Opinion Research (AAPOR). AAPOR Response Rate #4 calculations include assumptions of eligibility among potential respondents that are not interviewed. AAPOR Response Rate #4 formula was used to calculate response rates for adult day services centers [completed questionnaires / (completed eligible questionnaires) + (eligibility rate *x* cases of unknown eligibility)].

Table 4.1. Response rates for adult day services centers for the National Study of Long-Term Care Providers, by state

Area	Rate	Area	Rate
United States	58.0	Missouri	63.2
Alabama	51.5	Montana	58.9
Alaska	76.9	Nebraska	64.4
Arizona	59.1	Nevada	75.0
Arkansas	61.5	New Hampshire	70.8
California	49.9	New Jersey	62.1
Colorado	58.0	New Mexico	38.5
Connecticut	66.7	New York	63.2
Delaware	76.9	North Carolina	80.2
District of Columbia	60.0	North Dakota	61.9
Florida	53.0	Ohio	60.5
Georgia	58.1	Oklahoma	79.0
Hawaii	56.4	Oregon	64.7
Idaho	66.7	Pennsylvania	64.8
Illinois	79.6	Rhode Island	66.7
Indiana	63.8	South Carolina	65.9
Iowa	60.6	South Dakota	66.7
Kansas	60.0	Tennessee	64.5
Kentucky	64.0	Texas	53.9
Louisiana	43.6	Utah	71.4
Maine	56.3	Vermont	66.7
Maryland	53.8	Virginia	65.0
Massachusetts	60.2	Washington	70.3
Michigan	59.0	West Virginia	—
Minnesota	60.8	Wisconsin	59.3
Mississippi	41.1	Wyoming	50.0

— Quantity zero.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Residential care communities

The sampling frame was constructed from lists of licensed residential care communities obtained from the state licensing agencies in each of the 50 states and the District of Columbia. The 2014 NSLTCP used the same definition of residential care community and the same approach to create the sampling frame (Wiener, Lux, Johnson, & Greene, 2010) that was used for the 2010 National Survey of Residential Care Facilities (NSRCF) (Moss et al., 2011). To be eligible for the study, a residential care community must:

- Be licensed, registered, listed, certified, or otherwise regulated by the state to provide:
  - Room and board with at least two meals a day and around-the-clock, onsite supervision
  - Help with personal care such as bathing and dressing or health-related services, such as medication management

- Have four or more licensed, certified, or registered beds
- Have at least one resident currently living in the community
- Serve a predominantly adult population

Residential care communities licensed to exclusively serve individuals with severe mental illness, intellectual disability, or developmental disability; and nursing homes were excluded.

NSLTCP used a combination of probability sampling and census-taking. Probability samples were selected in the states that had sufficient numbers of residential care communities to enable state-level, sample-based estimation. A census was taken of residential care communities in the states that did not have sufficient numbers of residential care communities to enable state-level, sample-based estimation. From 40,583 communities in the sampling frame, 11,618 residential care communities were sampled and stratified by state and facility bed size. A set of screener items in the questionnaire was used to determine eligibility. Of the 11,618 sampled residential care communities, 128 (1.4% weighted) communities were invalid or out of business. Additionally, 1,075 (10.6% weighted) communities in the sample were determined to be ineligible for other reasons during data collection. However, 5,380 communities (50.0% weighted) could not be contacted by the end of data collection, and therefore, the final eligibility status of these communities was unknown. Using the eligibility rate,[42] a proportion of these communities of unknown eligibility was estimated to be eligible. This estimated number and the total number of eligible communities resulting from the screening process were used to estimate the total number of eligible residential care communities in the United States. Of the 9,232 in-scope and presumed in-scope residential care communities, 5,035 of them completed the survey questionnaire, for a weighted response rate (for differential probabilities of selection) of 49.6%, resulting in an estimated national total of 30,200 residential care communities and 835,200 residents.

Data were collected through three modes: self-administered, hard copy mail questionnaires; self-administered web questionnaires; and CATI interviews. The questionnaire was completed for 5,035 communities, for a weighted response rate (for differential probabilities of selection) of 49.6%.[43] Response rates by state are presented in Table 4.2. Sample weights were adjusted to total the estimated number of eligible residential care communities (30,245).

[42] Eligibility rate is calculated by the number of known eligible residential care communities divided by the total number of residential care communities with known eligibility status. Communities that were invalid or out of business and communities that screened out as ineligible were classified as "known ineligibles."

[43] Response rates are calculated using standards set by AAPOR. AAPOR Response Rate #4 calculations include assumptions of eligibility among potential respondents that are not interviewed. AAPOR Response Rate #4 formula was used to calculate response rates for residential care communities [completed questionnaires / (completed eligible questionnaires) + (eligibility rate *x* cases of unknown eligibility)].

Table 4.2. Response rates for residential care communities for the National Study of Long-Term Care Providers, by state

Area	Rate	Area	Rate
United States	49.6	Missouri	73.1
Alabama	49.3	Montana	56.1
Alaska	46.8	Nebraska	69.3
Arizona	48.3	Nevada	56.8
Arkansas	73.8	New Hampshire	62.1
California	41.2	New Jersey	55.7
Colorado	56.9	New Mexico	54.0
Connecticut	54.0	New York	61.7
Delaware	52.8	North Carolina	48.0
District of Columbia	57.1	North Dakota	72.8
Florida	44.9	Ohio	62.8
Georgia	46.2	Oklahoma	58.3
Hawaii	50.0	Oregon	51.7
Idaho	50.2	Pennsylvania	61.9
Illinois	52.2	Rhode Island	68.4
Indiana	59.4	South Carolina	57.5
Iowa	78.6	South Dakota	70.9
Kansas	70.1	Tennessee	57.7
Kentucky	58.7	Texas	45.9
Louisiana	59.4	Utah	54.1
Maine	60.1	Vermont	67.7
Maryland	44.6	Virginia	61.8
Massachusetts	48.1	Washington	48.1
Michigan	44.4	West Virginia	49.0
Minnesota	58.8	Wisconsin	50.1
Mississippi	48.3	Wyoming	74.1

SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Differences in the number of residential care communities estimated in 2010, 2012, and 2014

Estimates of the number of residential care community providers varied between the 2010 NSRCF and the 2012 NSLTCP. NCHS assessed these differences and concluded that they were largely related to the eligibility differences between the 2010 NSRCF and the 2012 NSLTCP. While both surveys used the same eligibility criteria, overall screener-based eligibility dropped from 81.0% in the 2010 NSRCF to 67.1%[44] in the 2012 NSLTCP (Table 4.3). This decrease in the screener-based eligibility rate was most pronounced for providers with small bed sizes (4 to 10 beds): a decrease from 63.6% in 2010 to 45.8% estimated in 2012. Given that the 2012 NSLTCP (n = 11,690) had a much larger sample than NSRCF (n = 3,605), and that small bed size providers make up the largest proportion of all residential care communities, the lower eligibility rate in 2012 compared with 2010 among small-sized residential care communities had a large effect on the differences in the eligibility rate for the two surveys.

[44] The screener-based eligibility rate was computed based on residential care communities that completed the screening questions [completed eligible / (completed eligible + completed ineligible)].

The discrepancy in eligibility between the 2010 NSRCF and the 2012 NSLTCP was likely due to differences in data collection modes used in 2010 (interviewer-administered CATI screener followed by in-person interview for eligible communities) and 2012 (primarily respondent self-administered screener and questionnaire completed by mail or web), and the resulting differences in how the respondents who self-administered the questionnaire interpreted the eligibility questions. In the 2012 NSLTCP, the most common eligibility criteria that providers, particularly small bed size residential care communities, did not meet, were provision of onsite, 24-hour supervision. Some respondents using the self-administered modes (i.e., hard copy questionnaire or web questionnaire) likely did not fully comprehend this question and may have screened themselves out of the study erroneously.[45] Cognitive testing was conducted to assess these eligibility questions, and preliminary findings supported this hypothesis. To address these differences, NCHS revised the eligibility question asking whether the residential care community provided 24-hour supervision.[46] Results from the 2014 wave indicated that the overall eligibility rate increased to 80.7%, similar to the 2010 NSRCF rate. However, the 2014 eligibility rates for all bed size categories except small providers (4–10 beds) were slightly lower compared with the 2010 NSRCF (Table 4.3) and may be attributed to mode differences between 2010 and 2014.

Table 4.3. Eligible residential care communities, by bed size and survey year

Eligible communities	2014 National Study of Long-Term Care Providers	2012 National Study of Long-Term Care Providers	2010 National Survey of Residential Care Facilities
Overall (percent)	80.7	67.1	81.0
Bed size (percent)			
Small (4–10 beds)	65.3	45.8	63.6
Medium (11–25 beds)	81.0	68.5	82.8
Large (26–100 beds)	91.7	82.4	94.5
Extra large (more than 100 beds)	93.8	85.5	95.9

SOURCES: CDC/NCHS, National Study of Long-Term Care Providers, 2014, 2012, and National Survey of Residential Care Facilities, 2010.

[45] For more information, see "Long-Term Care Services in the United States: 2013 Overview" (available from: http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf) and 2012 residential care community Readme document (available from: http://www.cdc.gov/nchs/data/nsltcp/NSLTCP_RCC_Readme_RDC_Release.pdf).

[46] The eligibility question asking whether the residential care community provided 24-hour supervision is question 4 in the 2012 questionnaire (http://www.cdc.gov/nchs/data/nsltcp/2012_NSLTCP_Residential_Care_Communities_Questionnaire.pdf) and question 6 in the 2014 questionnaire (http://www.cdc.gov/nchs/data/nsltcp/2014_NSLTCP_Residential_Care_Communities_Questionnaire.pdf).

The estimated national number of residential care communities ranged from 31,100 in 2010 to 22,200 in 2012, and 30,200 in 2014 (Table 4.4). The number of beds was estimated at 971,900 in 2010, 851,400 in 2012, and 1,000,000 in 2014.

Table 4.4. Residential care communities and beds, by bed size and survey year

Characteristic	2014 National Study of Long-Term Care Providers		2012 National Study of Long-Term Care Providers		2010 National Survey of Residential Care Facilities	
	Weighted number	Weighted percent	Weighted number	Weighted percent	Weighted number	Weighted percent
Number of residential care communities	30,200	100.0	22,200	100.0	31,100	100.0
Small (4–10 beds)	14,500	47.9	9,300	41.7	15,400	50.0
Medium (11–25 beds)	4,500	14.9	3,700	16.8	4,900	16.0
Large (26–100 beds)	9,100	30.1	7,300	32.7	8,700	28.0
Extra large (more than 100 beds)	2,100	7.0	1,900	8.7	2,100	7.0
Number of beds	1,000,000	100.0	851,400	100.0	971,900	100.0
Small (4–10 beds)	89,600	9.0	64,700	7.6	96,700	9.9
Medium (11–25 beds)	76,900	7.7	86,900	10.2	86,800	8.9
Large (26–100 beds)	522,600	52.3	434,800	51.1	493,800	50.8
Extra large (more than 100 beds)	310,900	31.1	265,000	31.1	294,600	30.3

SOURCES: CDC/NCHS, National Study of Long-Term Care Providers, 2014, 2012, and National Survey of Residential Care Facilities, 2010.

Population bases for computing rates

Populations used for computing rates of national supply and rates of use by state populations were obtained from the Census Bureau's Population Estimates Program. The program produces estimates of the population for the United States, its states, counties, cities, and towns, and for the Commonwealth of Puerto Rico and its municipalities. Demographic components of population change (births, deaths, and migration) were produced at the national, state, and county levels of geography. Additionally, housing unit estimates were produced for the country, states, and counties. Population estimates for each state and territory were not subject to sampling variation because the sources used in the demographic analysis were complete counts. For a more detailed description of the estimates methodology, see http://www.census.gov/popest/.

For calculating rates of national supply and rates of use by state for adult day services centers, nursing homes, and residential care communities, estimates of the population aged 65 and over for July 1, 2014, were used (United States Census Bureau, 2014). For calculating rates for use by state for home health agencies and hospices, estimates of the population aged 65 and over for July 1, 2013, were used, to match the time frame of the administrative data for these sectors (United States Census Bureau, 2014).

Comparing NSLTCP estimates with estimates from other data sources

Administrative data

Home health agencies—Selected estimates from the 2014 merged home health file[47] were compared with estimates from different reports and data sources including: the Medicare Payment Advisory

[47] Created by linking CASPER home health file, IPBS home health file, and OBQI Case Mix Roll Up file by provider ID number.

Commission's (MedPAC) 2013 "Report to the Congress: Medicare Payment Policy" (MedPAC, 2013); the 2013 Medicare & Medicaid Statistical Supplement[48] using data from the 2012 standard analytical files; and the Home Health Compare data of October 2014. Estimates also were compared with analyses on Medicare- or Medicaid-certified home health agencies that participated in NCHS' 2007 National Home and Hospice Care Survey (NHHCS). Select provider and user characteristics were comparable with other data sources except certification status, age distribution of patients, and patients diagnosed with select conditions. About 1% of home health agencies in the 2014 merged home health file were Medicaid-only certified compared with 14% from NHHCS. About 18% of patients in the 2014 merged home health file were under age 65 compared with 31% in NHHCS. These differences in the number and age distribution of patients could be related to the 2014 home health merged file's inclusion of fewer Medicaid-only certified home health agencies, and the fact that the 2014 merged file contains discharged home health patients rather than current home health patients (on whom the 2007 NHHCS collected data). Almost 10% of patients were reported to have diabetes in the 2013 Medicare & Medicaid Statistical Supplement, compared with 45.2% in the 2014 merged home health file. The former flagged a patient as having diabetes only, if diabetes was the first-listed or primary diagnosis listed for the patient, while the latter flagged a patient as having diabetes if diabetes was among all the diagnoses listed for the patient.

Hospices—Selected estimates from the 2014 merged hospice file[49] were compared with estimates on hospice care services provided in a MedPAC report using Medicare cost reports, Provider of Services file, and the standard analytic file of hospice claims between 2000 and 2011 (MedPAC, 2013). Estimates also were compared with analyses on Medicare- or Medicaid-certified hospice agencies that participated in the 2007 NHHCS. Select provider and user characteristics were comparable with other data sources except age distribution of patients; about 6% of hospice patients in the merged file were under age 65 compared with 17% in NHHCS. Estimates for age distribution of patients varied due to differences in the patient population each data source covered. NHHCS collected information on patients (not just Medicare beneficiaries) discharged from hospices in 2007 that were Medicare- or Medicaid-certified, pending certification, or state licensed; the 2014 merged hospice file included Medicare beneficiaries who received hospice services from Medicare-certified hospices in 2013.

Nursing homes—Estimates from the merged 2014 CASPER nursing home and MARET files were compared with estimates from the Nursing Home Data Compendium 2013 edition, custom tables created using Brown University's LTCFocus website (Brown University),[50] and the skilled nursing facility services chapter of the MedPAC report (MedPAC, 2013). Provider-related estimates using the 2014 merged nursing home file were comparable with these other data sources, while differences in the racial and ethnic mix of residents were observed. Compared with 10% of non-Hispanic black nursing home residents presented in the MedPAC report (2013) using the 2010 Medicare Current Beneficiary Survey, about 14% of nursing home residents in 2014 were non-Hispanic black. Disparities in estimates could be due to differences in the population and the time frame used to obtain the estimates; the 2014 merged file included the latest assessment information on current residents (regardless of payer source) as of the third quarter of 2014, while MedPAC estimates were based on Medicare beneficiaries utilizing skilled nursing facility services in 2010.

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[48] Available from: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareMedicaidStatSupp/index.html.

[49] Created by linking CASPER hospice file and IPBS hospice file by provider ID number.

[50] Available from: http://ltcfocus.org.

Survey data

Estimates from the 2014 adult day services center and residential care community components of NSLTCP were compared with the 2010 MetLife National Study of Adult Day Services (MetLife Mature Market Institute, 2010) and findings from the 2010 National Survey of Residential Care Facilities, respectively. Differences between 2010, 2012, and 2014 estimates for the number of residential care communities, beds, and residents were discussed earlier in this chapter. The 2014 estimates for select provider and user characteristics for both adult day services centers and residential care communities were found to be comparable with these other data sources.

Data Analysis

Results describing providers and services users were analyzed at the individual agency or facility level. Findings from administrative data on nursing homes, home health agencies, and hospices were treated as sample-based, and population standard errors were calculated to account for some random variability associated with the files. For the survey data for residential care communities and adult day services centers, point estimates and standard errors were calculated using appropriate design and weight variables to account for complex sampling, when applicable. For survey data,[51] statistical analysis weights were computed as the product of two components: the sampling weight (only for residential care communities in states where they were sampled) and adjustment for unknown eligibility due to nonresponse. To adjust the adult day services center and residential care community weights for unknown eligibility, the SUDAAN procedure WTADJUST (RTI International, 2012) was used; the procedure uses a constrained logistic model to predict known eligibility and to compute the unknown eligibility adjustment factors for the weights. Standard errors for survey data were computed using Taylor series linearization.

Variance estimates

Administrative data: home health agencies, hospices, and nursing homes

The home health, hospice, and nursing home data files were created using CMS administrative data. The files represented 100% of the CMS population at the specific time that the frame was constructed, and they were not subject to sampling variability. Thus, the standard errors could be seen as being zero. However, there might be some random variability associated with the numbers. For example, if the administrative data were drawn at a different time, the estimates might be different. Also, the data are subject to potential entry and other reporting errors. To account for these types of variability, the administrative data estimates were treated as a simple random sample, providing conservative standard errors for the random variation that might be associated with the files.

Survey data: adult day services centers and residential care communities

Although a census of all adult day services centers was attempted, estimates were subject to variability due to the amount of nonresponse. Although the records that comprise the adult day services center file were not sampled, the variability associated with the nonresponse was treated as if it were from a stratified (by state) sample without replacement.

[51] Sampling weights were used only for residential care communities where a sample was drawn; sampling weights were not used for adult day services centers or for residential care communities in states where a census was taken.

Data from residential care communities included a mix of sampled communities from states that had enough residential care communities to produce reliable state estimates and a census of residential care communities in states that did not have enough communities to produce reliable state estimates. Consequently, the residential care community estimates were subject to sampling variability and nonresponse variability. The variability for the residential care communities estimates was treated as if it were from a stratified (by state and size) sample without replacement.

Statistical significance tests

All statements in Chapters 2 and 3 describing differences in estimates indicate that statistical testing was performed, and the differences between two point estimates were determined to be statistically significant at the 0.05 level. Differences among sectors were evaluated using *t* tests. All statistical significance tests were two-sided using $p < 0.05$ as the significance level. Lack of comment regarding the difference between any two statistics does not necessarily mean that the difference was tested and found not to be statistically significant. Data analyses were performed using SAS version 9.3, the SAS-callable SUDAAN version 11.0.0 statistical package (RTI International, 2012), and STATA/SE 12.1 (StataCorp, 2013). Individual estimates may not sum to totals because estimates were rounded.

Data editing

Data files were examined for missing values and inconsistencies. In order to minimize cases with missing values and inconsistencies, residential care community and adult day services center survey instruments were programmed to show critical items with missing values in the CATI and web applications, to inform respondents that an answer was required, and to include data validations such as asking respondents to resolve an inconsistent answer or to check an answer if it was outside of the expected range. For instance, responses to items that needed to add up to the total number of residential care community residents or adult day services center participants were accepted only if the sum of responses was within a certain range (i.e., ±10% of the total number of residents or participants).

For the survey data for adult day services centers and residential care communities, selected aggregate resident- or participant-level variables were imputed (i.e., age, race, and sex). Although administrative data were also reviewed for missing values and inconsistencies, the files did not go through the same data cleaning and editing as the survey data.

For both survey data and administrative data, staffing information was edited in the same manner. Outliers were defined as values two standard deviations above or below the size-specific mean for a given staff type, where size was defined as number of people served. When calculating the size-specific mean for a given staff type, cases were coded as missing if the number of full-time equivalent (FTE) registered nurse employees was greater than 999, if the number of FTE licensed practical or vocational nurse employees was greater than 999, if the number of FTE personal care aide employees was greater than 999, if the number of FTE social work employees was greater than 99, or if the number of FTE activities director or staff employees was greater than 99. For the definitions and categories of number of people served for each sector, see Appendix A.

Cases with missing data were excluded from analyses on a variable-by-variable basis. For administrative data used to estimate characteristics of nursing home residents and home health patients, individual user-level information was rolled up to provider-level data. If a nursing home or home health agency had missing data on a given variable for 20% or more of its residents or patients, it was considered to not have enough data to provide an estimate representative of that nursing home or home health agency, and was coded as having missing data on the variable. Variables used in this report had a percentage (weighted if survey data, unweighted if administrative data) of cases with missing data ranging between 0.1% and 8.1%. The range

of cases with missing data for each sector is as follows:

- Adult day services center: 0.1% (Medicaid participation status) to 5.1% (number of participants treated in a hospital emergency department in the last 90 days)
- Home health agency: 7.1% to 7.9% of home health agencies on all patient measures (e.g., number of patients aged 65 and over) due to agencies with no patient information available in the OBQI data and the IPBS home health data, respectively. In addition, 8.1% of home health agencies had no information on the number of patients who had utilized a hospital emergency department, including 7.1% of agencies with no patient information available in the OBQI data and 1.0% of agencies with missing data on the variable for 20% or more of its patients.
- Hospice: 6.2% of hospices for all patient measures (e.g., number of patients diagnosed with depression) due to agencies with no patient information available in the IPBS hospice data
- Nursing home: 1.7% (e.g., number of residents who are of Hispanic or Latino origin) of nursing homes for all resident demographic information due to nursing homes with no resident information available in MARET data. In addition, 6.4% of nursing homes had no information on the number of residents who had any falls, including 1.7% of nursing homes with no resident information available in the MARET data and close to 4.7% of nursing homes with missing data on the variable for 20% or more of its residents.
- Residential care community: 1.7% (e.g., ownership status) to 7.4% (e.g., number of social work employee FTEs)

Limitations

Differences in question wording among data sources

While every effort was made to match question wording in the NSLTCP surveys to the administrative data available through CMS, some differences remained and may affect comparisons between these two data sources (e.g., capacity, reference periods used for adverse events). To the extent possible (i.e., when available and appropriate), findings were presented on a given topic for all five sectors. However, due to two types of data-related differences, for some topics in the report, information was provided for some but not all five sectors.

The first type of data-related difference was due to the settings served by the five sectors. For example, home health agencies were not residential and, therefore, it was not relevant to discuss the number of beds in this sector, whereas it was relevant for nursing homes and residential care communities. As a result, information on capacity as measured by the number of beds was presented for nursing homes and residential care communities only.

The second difference was attributable to differences among the administrative data sources used for nursing homes, home health agencies, and hospices. For example, the CASPER data did not include information on whether home health agencies offered mental health or counseling services, but it did include this information for nursing homes and hospices. The NSLTCP residential care community and adult day services center surveys included additional content that was not presented in this report because no comparable data existed in the CMS administrative data (e.g., transportation services, electronic health records, and health information exchange). NCHS produced Data Briefs that presented additional results on adult day services centers and residential care communities, using survey data not included in this overview report. These latest reports are available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_products.htm.

Differences in time frames among data sources

Different data sources had different time frames or reference periods. For instance, user-level data used for home health agencies (i.e., OBQI and IPBS home health data) and hospices (i.e., IPBS hospice data) were from patients who received home health or hospice care services at any time in calendar year 2013. In contrast, survey data on residential care community residents and adult day services center participants and CMS data on nursing home residents were from current services users in 2014. In this report, "current" participants or residents in 2014 refers to those participants enrolled in the adult day services center, or residents living in the nursing home or residential care community, on the day of data collection in 2014, rather than the total number of participants ever enrolled in the center or residents ever living in the nursing home or residential care community at any time throughout the 2014 calendar year. In other words, the estimated number of adult day services center participants represents current participants in 2014. The estimated number of home health patients represents patients who ended care in 2013 (i.e., discharges). The estimated number of hospice patients represents patients who received care at any time in 2013. The estimated number of nursing home residents represents current residents in 2014. The estimated number of residential care community residents represents current residents in 2014. Given these differences in denominator, comparisons across all five sectors were not feasible for some variables.

Age of administrative data

The administrative data for home health agencies, hospices, and nursing homes were collected to support the survey and certification function of CMS in these different sectors; both the content and the frequency with which the certification surveys were conducted differ across these three provider sectors. Consistent with the required frequency for the recertification survey, CASPER data on virtually all nursing homes were under 18 months old, 88.0% of CASPER home health agency data were no more than 3 years old, and 94.3% of CASPER hospice data were no more than 8 years old. When these relatively older home health agency and hospice data were linked to user-level data of calendar year 2013, 7.1% of home health agencies and 6.2% of hospices in the CASPER files did not match with provider ID numbers in OBQI and IPBS hospice data, respectively. It is possible that home health agencies and hospices with missing patient-level information might no longer be operational or might have begun operating in 2014,[52] so that their patient information was not captured in the user-level data from 2013.

[52] Of 888 home health agencies that did not match with provider numbers in OBQI data, about 62% had completed the agency's initial certification survey in 2014.

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Appendix A

Crosswalk of Definitions by Sector

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Supply of long-term care services providers, by sector							
Number of providers	Number of paid, regulated long-term care services providers	Number of adult day services centers based on 2014 NSLTCP survey of adult day services centers	Number of assisted living and similar residential care communities based on 2014 NSLTCP survey of residential care communities	Number of home health agencies certified to provide services under Medicare, Medicaid, or both in the third quarter of 2014	Number of hospices certified to provide services under Medicare, Medicaid, or both in the third quarter of 2014	Number of nursing homes certified to provide services under Medicare, Medicaid, or both in the third quarter of 2014	Study-specific eligibility criteria were used to define residential care communities. See Technical Notes for information on eligibility criteria.
Region	Grouping of conterminous states into geographic areas corresponding to groups used by the United States Census Bureau. A map showing the states included in each of the four U.S. Census regions is available from: http://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf.	Four census regions 1= Northeast 2= Midwest 3= South 4= West	Four census regions 1= Northeast 2= Midwest 3= South 4= West	Derived from: [STATE_CD] 1= Northeast 2= Midwest 3= South 4= West	Derived from: [STATE_CD] 1= Northeast 2= Midwest 3= South 4= West	Derived from: [STATE_CD] 1= Northeast 2= Midwest 3= South 4= West	…
Metropolitan statistical area (MSA) and micropolitan statistical area	Geographic entities delineated by the Office of Management and Budget (OMB) for use by federal statistical agencies in collecting, tabulating, and publishing federal statistics. A metro area contains a core urban area of 50,000 or more population, and a micro area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.	Metropolitan statistical area status 1= Metropolitan 2= Micropolitan 3= Neither	Metropolitan statistical area status 1= Metropolitan 2= Micropolitan 3= Neither	Derived from: [ZIP_CD] 1= Metropolitan 2= Micropolitan 3= Neither	Derived from: [ZIP_CD] 1= Metropolitan 2= Micropolitan 3= Neither	Derived from: [ZIP_CD] 1= Metropolitan 2= Micropolitan 3= Neither	**All provider types:** Used 2013 OMB standards for delineating metropolitan and micropolitan statistical areas.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires available from: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Supply of long-term care services providers, by sector							
Capacity	Used to quantify the supply of long-term care services provided in the community (i.e., adult day services center or residential care communities) or in an institutional setting (i.e., nursing homes). See Technical Notes for description of population bases used for computing rates.	Q4. What is the maximum number of participants allowed at this adult day services center at this location? This may be called the allowable daily capacity and is usually determined by law or by fire code, but may also be a program decision.	Q2. At this residential care community, what is the number of licensed, registered, or certified residential care beds? Include both occupied and unoccupied beds.	…	…	Derived from: [CRTFD_BED_CNT] Number of beds in Medicare- or Medicaid-certified areas within a facility.	**NH:** Number of certified beds was used because current residents in CASPER (CNSUS_RSDNT_CNT) are defined as those in certified beds regardless of payer source.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Organizational characteristics of long-term care services providers, by sector							
Ownership	Classified into three categories: for profit, nonprofit, and government and other. Publicly traded company or limited liability company (LLC) was categorized as for profit.	1= For profit 2= Nonprofit 3= Government and other Derived from: [OWNERSHP] Q5. What is the type of ownership of this adult day services center? 1= Private, nonprofit 2= Private, for profit 3= Publicly traded company/ LLC 4= Government (federal, state, county, local) If OWNERSHP= 3, code OWN as 2. Else if OWNERSHP=1, code OWN=1; Else OWN = 3.	1= For profit 2= Nonprofit 3= Government and other Derived from: [OWNERSHP] Q8. What is the type of ownership of this residential care community? 1= Private, nonprofit 2= Private, for profit 3= Publicly traded company/ LLC 4= Government (federal, state, county, local) If OWNERSHP= 3, code OWN as 2. Else if OWNERSHP=1, code OWN=1; Else OWN = 3.	1= For profit 2= Nonprofit 3= Government and other Derived from: [GNRL_CNTL_TYPE_CD] 01= Voluntary NP, religious affiliation 02= Voluntary NP, private 03= Voluntary NP, other 04= Proprietary 05= Government, state/ county 06= Government, Combination Government and Voluntary 07= Government, Local If GNRL_CNTL_TYPE_CD='01', '02,' '03', code HHA as OWN=2; Else if GNRL_CNTL_TYPE_CD='04', code HHA as OWN=1; Else OWN=3;	1= For profit 2= Nonprofit 3= Government and other Derived from: [GNRL_CNTL_TYPE_CD] 01= Nonprofit, Church 02= Nonprofit, Private 03= Nonprofit, Other 04= Proprietary, Individual 05= Proprietary, Partnership 06= Proprietary, Corporation 07= Proprietary, Other 08= Government, State 09= Government, County 10= Government, City 11= Government, City-County 12= Combination Government and NP 13= Other If GNRL_CNTL_TYPE_CD='01', '02,' '03', code HOS as OWN=2; Else if GNRL_CNTL_TYPE_CD='04','05', '06', '07', code HOS as OWN=1; Else OWN=3;	1= For profit 2= Nonprofit 3= Government and other Derived from: [GNRL_CNTL_TYPE_CD] 01= For profit, individual 02= For profit, partnership 03= For profit, corporation 04= Nonprofit, church related 05= Nonprofit, corporation 06= Nonprofit, other 07= Government, state 08= Government, county 09= Government, city 10= Government, city/county 11= Government, hospital district 12= Government, federal 13= Limited Liability Company If GNRL_CNTL_TYPE_CD='01', '02,' '03','13', OWN=1; Else if GNRL_CNTL_TYPE_CD='04', '05,' '06', OWN=2; Else OWN=3;	. . .
Number of people served	Categorizes providers into three categories based on the number of current participants or residents (adult day services centers, nursing homes, and residential care communities), the number of patients receiving care at any time in calendar year 2013 (hospices), or the number of patients who ended an episode of care at any time in calendar year 2013 (home health agencies).	1= 1–25 2= 26–100 3= 101 or more Derived from: [AVGPART] Q2. Based on a typical week, what is the approximate average daily attendance at this center at this location? Include respite care participants.	1= 1–25 2= 26–100 3= 101 or more Derived from: [TOTRES] Q5. What is the total number of residents currently living at this residential care community? Include respite care residents.	1= 1–100 2= 101–300 3= 301 or more Derived from: [TOTPAT from Outcome-Based Quality Improvement (OBQI) Case Mix Roll Up data] Number of home health patients whose episode of care ended at any time in calendar year 2013 (i.e., discharges), regardless of payment source.	1= 1–100 2= 101–300 3= 301 or more Derived from: [BENE_CNT in Institutional Provider and Beneficiary Summary (IPBS) hospice data] Number of hospice care patients for whom Medicare-certified hospice care agencies submitted a Medicare claim at any time in calendar year 2013.	1= 1–25 2= 26–100 3= 101 or more Derived from: [CNSUS_RSDNT_CNT] Number of current residents reported in CASPER, defined as those in certified beds regardless of payer source.	. . .

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Organizational characteristics of long-term care services providers, by sector							
Medicare certification	Refers to Medicare certification status of home health agencies, hospices, and nursing homes	...	...	1= Certified 2= Not certified Derived from: [PGM_PRTCPTN_CD] Indicates if the provider participates in Medicare, Medicaid, or both programs. 1= MEDICARE ONLY 2= MEDICAID ONLY 3= MEDICARE AND MEDICAID	1= Certified 2= Not certified All hospices included in CASPER are assumed to be Medicare-certified.	1= Certified 2=Not certified Derived from: [PGM_PRTCPTN_CD] Indicates if the provider participates in Medicare, Medicaid, or both programs. 1= MEDICARE ONLY 2= MEDICAID ONLY 3= MEDICARE AND MEDICAID	...
Medicaid certification	Refers to Medicaid certification or participation status	1= Certified 2= Not certified Derived from: [MEDICAID] Q1_b. Is this adult day services center authorized or otherwise set up to participate in Medicaid?	1= Certified 2= Not certified Derived from: [MEDICAID] Q10. Is this residential care community authorized or otherwise set up to participate in Medicaid?	1= Certified 2= Not certified Derived from: [PGM_PRTCPTN_CD] Indicates if the provider participates in Medicare, Medicaid, or both programs. 1= MEDICARE ONLY 2= MEDICAID ONLY 3= MEDICARE AND MEDICAID	---	1= Certified 2= Not certified Derived from: [PGM_PRTCPTN_CD] Indicates if the provider participates in Medicare, Medicaid, or both programs. 1= MEDICARE ONLY 2= MEDICAID ONLY 3= MEDICARE AND MEDICAID	...
Chain affiliation	Refers to chain affiliation status of adult day services centers, residential care communities, and nursing homes	Q6. Is this center owned by a person, group, or organization that owns or manages two or more adult day services centers? This may include a corporate chain.	Q9. Is this residential care community owned by a person, group, or organization that owns or manages two or more residential care communities? This may include a corporate chain.	---	---	Derived from: [MLT_OWND_FAC_ORG_SW] Owned or leased by Multi-Facility Organization Check "yes" if the facility is owned or leased by a multi-facility organization, otherwise check "no." A Multi-Facility Organization is an organization that owns two or more long term care facilities. The owner may be an individual or a corporation. Leasing of facilities by corporate chains is included in this definition.	...

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Registered nurse	Number of full-time equivalent (FTE) registered nurse (RN) employees (based on a 35-hour work week)	Derived RNFTE1 from: [RNFT1, RNPT1] Q14a_a. RNs: Number of full-time center employees, Number of part-time center employees.	Derived RNFTE1 from: [RNFT1, RNPT1] Q17a_a. RNs: Number of full-time residential care community employees, Number of part-time residential care community employees.	Derived RNFTE1 from: [RN_CNT] Number of full-time equivalent registered professional nurses employed by a provider	Derived RNFTE1 from: [RN_CNT] Number of full-time equivalent registered professional nurses employed by a provider	Derived RNFTE1 from: [RN_FLTM_CNT, RN_PRTM_CNT] Number of full-time equivalent registered nurses employed by a facility on a full-time basis; Number of full-time equivalent registered nurses employed by a facility on a part-time basis.	**ADSC, RCC:** Number of full-time and the number of part-time employees for a given staff type were converted into FTEs with an assumption that full-time is 1.0 FTE and part-time is 0.5 FTE. **HHA, HOS**: Number of FTE employees by staff type is provided in administrative data. **NH:** Administrative data on nursing homes report the number of hours for a given staff type during the 2 weeks prior to their annual survey. CMS converts the number of hours into FTEs (based on a 35-hour work week). **All provider types:** Outliers are defined as cases with FTEs that are two standard deviations above or below the mean for a given size category, and recoded as the size-specific mean of FTE for the given staff type. See Technical Notes for more information on editing of the staffing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Licensed practical nurse (LPN) or licensed vocational nurse (LVN)	Number of FTE licensed practical nurse or licensed vocational nurse employees (based on a 35-hour work week)	Derived LPNFTE1 from: [LPNFT1, LPNPT1] Q14b_a. LPNs/LVNs: Number of full-time center employees, Number of part-time center employees.	Derived LPNFTE1 from: [LPNFT1, LPNPT1] Q17b_a. LPNs/LVNs: Number of full-time residential care community employees, Number of part-time residential care community employees.	Derived LPNFTE1 from: [LPN_LVN_CNT] Number of full-time equivalent licensed practical or vocational nurses employed by a facility	Derived LPNFTE1 from: [LPN_LVN_CNT] Number of full-time equivalent licensed practical or vocational nurses employed by a facility	Derived LPNFTE1 from: [LPN_LVN_FLTM_CNT, LPN_LVN_PRTM_CNT] Number of full-time equivalent licensed practical or vocational nurses employed by a facility on a full-time basis; Number of full-time equivalent licensed practical or vocational nurses employed by a facility on a part-time basis.	**ADSC, RCC:** Number of full-time and the number of part-time employees for a given staff type were converted into FTEs with an assumption that full-time is 1.0 FTE and part-time is 0.5 FTE. **HHA, HOS:** Number of FTE employees by staff type is provided in administrative data. **NH:** Administrative data on nursing homes report the number of hours for a given staff type during the 2 weeks prior to their annual survey. CMS converts the number of hours into FTEs (based on a 35-hour work week). **All provider types:** Outliers are defined as cases with FTEs that are two standard deviations above or below the mean for a given size category, and recoded as the size-specific mean of FTE for the given staff type. See Technical Notes for more information on editing of the staffing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Aide	Number of FTE aide employees (based on a 35-hour work week) Aides refer to paid staff providing direct care and assistance to residents, participants, or patients with a broad range of activities. Different terms are used to describe aides in different data sources. For adult day services centers and residential care communities, aides include certified nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides who are employees of a community or center. For home health agencies and hospices, aides refer to home health aides employed by the agency. For nursing homes, aides refer to certified nurse aides, and medication aides or technicians who are facility employees.	Derived AIDEFTE1 from: [AIDEFT1, AIDEPT1] Q14c_a. Certified nursing assistants, nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides: Number of full-time center employees, Number of part-time center employees.	Derived AIDEFTE1 from: [AIDEFT1, AIDEPT1] Q17c_a. Certified nursing assistants, nursing assistants, home health aides, home care aides, personal care aides, personal care assistants, and medication technicians or medication aides: Number of full-time residential care community employees, Number of part-time residential care community employees.	Derived AIDEFTE1 from: [HH_AIDE_CNT] Number of full-time equivalent home health aides employed by a home health agency	Derived AIDEFTE1 from: [HH_AIDE_EMPLEE_CNT] Number of full-time equivalent home health aides employed by a hospice	Derived AIDFTE1 from: [NRS_AIDE_FLTM_CNT, NRS_AIDE_PRTM_CNT, MDCTN_AIDE_FLTM_CNT, MDCTN_AIDE_PRTM_CNT] Number of full-time equivalent certified nurse aides employed by a facility on a full-time basis; Number of full-time equivalent certified nurse aides employed by a facility on a part-time basis; Number of full-time equivalent medication aides or technicians employed by a facility on a full-time basis; Number of full-time equivalent medication aides or technicians employed by a facility on a part-time basis.	**ADSC, RCC:** Number of full-time and the number of part-time employees for a given staff type were converted into FTEs with an assumption that full-time is 1.0 FTE and part-time is 0.5 FTE. **HHA, HOS:** Number of FTE employees by staff type is provided in administrative data. **NH:** Administrative data on nursing homes report the number of hours for a given staff type during the 2 weeks prior to their annual survey. CMS converts the number of hours into FTEs (based on a 35-hour work week). **All provider types:** Outliers are defined as cases with FTEs that are two standard deviations above or below the mean for a given size category, and recoded as the size-specific mean of FTE for the given staff type. See Technical Notes for more information on editing of the staffing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Social worker	Number of FTE social worker employees (based on a 35-hour work week)	Derived SOCWFTE1 from: [SOCWFT1, SOCWPT1] Q14d_a. Social workers—licensed social workers or persons with a bachelor's or master's degree in social work: Number of full-time center employees, Number of part-time center employees.	Derived SOCWFTE1 from: [SOCWFT1, SOCWPT1] Q17d_a. Social workers—licensed social workers or persons with a bachelor's or master's degree in social work: Number of full-time residential care community employees, Number of part-time residential care community employees.	Derived SOCWFTE1 from: [SCL_WORKR_CNT] Number of full-time equivalent social workers employed by the agency	Derived SOCWFTE1 from: [MDCL_SCL_WORKR_CNT] Number of full-time equivalent medical social workers employed by a hospital or hospice	Derived SOCWFTE1 from: [SCL_WORKR_FLTM_CNT, SCL_WORKR_PRTM_CNT] Number of full-time equivalent social workers employed by a facility on a full-time basis; Number of full-time equivalent social workers employed by a facility on a part-time basis.	**ADSC, RCC:** Number of full-time and the number of part-time employees for a given staff type were converted into FTEs with an assumption that full-time is 1.0 FTE and part-time is 0.5 FTE. **HHA, HOS:** Number of FTE employees by staff type is provided in administrative data. **NH:** Administrative data on nursing homes report the number of hours for a given staff type during the 2 weeks prior to their annual survey. CMS converts the number of hours into FTEs (based on a 35-hour work week). **All provider types:** Outliers are defined as cases with FTEs that are two standard deviations above or below the mean for a given size category, and recoded as the size-specific mean of FTE for the given staff type. See Technical Notes for more information on editing of the staffing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Activities directors or activities staff	Number of FTE activities directors or activities employees (based on a 35-hour work week)	Derived ACTFTE1 from: [ACTFT1, ACTPT1] Q14e_a. Activities directors or activities staff: Number of full-time residential care community employees, Number of part-time residential care community employees.	Derived ACTFTE1 from: [ACTFT1, ACTPT1] Q17e_a. Activities directors or activities staff: Number of full-time residential care community employees, Number of part-time residential care community employees.	---	---	Derived ACTFTE1 from: [ACTVTY_PROFNL_FLTM_CNT, ACTVTY_PROFNL_PRTM_CNT, ACTVTY_STF_OTHR_FLTM_CNT, ACTVTY_STF_OTHR_PRTM_CNT) Number of full-time equivalent activity professionals employed full-time by a facility; Number of full-time equivalent activity professionals employed part-time by a facility; Number of full-time equivalent other activities staff providing therapeutic services employed full time by a facility; Number of full-time equivalent other activities staff providing therapeutic services employed part time by a facility.	**ADSC, RCC:** Number of full-time and the number of part-time employees for a given staff type were converted into FTEs with an assumption that full-time is 1.0 FTE and part-time is 0.5 FTE. **HHA, HOS:** Number of FTE employees by staff type is provided in administrative data. **NH:** Administrative data on nursing homes report the number of hours for a given staff type during the 2 weeks prior to their annual survey. CMS converts the number of hours into FTEs (based on a 35-hour work week). **All provider types:** Outliers are defined as cases with FTEs that are two standard deviations above or below the mean for a given size category, and recoded as the size-specific mean of FTE for the given staff type. See Technical Notes for more information on editing of the staffing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Staffing: Nursing, social work, and activities employees, by sector							
Hours per resident or participant per day (HPPD)	Refers to the number of hours providing care for one resident or participant per day for a given staff type. For adult day services centers, HPPD for a given staff type was computed by multiplying the number of FTEs for the staff type by 35 hours, and dividing the total number of hours for the staff type by average daily attendance of participants and by 5 days. For nursing homes and residential care communities, the number of FTEs for a given staff was converted into hours by multiplying by 35 hours for the staff type, and dividing the total number of hours for the staff type by the number of current residents in the facility, and by 7 days, to arrive at the HPPD.	Derived from: [RNFTE1, LPNFTE1, AIDEFTE1, SOCWFTE1, ACTFTE1, AVGPART] RNHPPD1= (RNFTE1*35)/ AVGPART/5 days; LPNHPPD1= (LPNFTE1*35)/ AVGPART/5 days; AIDEHPPD1=(AIDEFTE1 *35)/AVGPART/5 days SOCWHPPD1= =(SOCWFTE1*35)/ AVGPART/5 days; ACTHPPD1 =(ACTFTE1*35)/ AVGPART/5 days	Derived from: [RNFTE1, LPNFTE1, AIDEFTE1, SOCWFTE1, ACTFTE1, TOTRES] RNHPPD1 = (RNFTE1*35)/ TOTRES/7 days; LPNHPPD1 = (LPNFTE1*35)/ TOTRES/7 days; AIDEHPPD1 =(AIDEFTE1*35)/ TOTRES/7 days; SOCWHPPD1 =(SOCWFTE1*35)/ TOTRES/7 days; ACTHPPD1 = (ACTFTE1*35)/TOTRES/7 days;	---	---	"Derived from: [RNFTE, LPNFTE, AIDEFTE, SOCWFTE, CNSUS_ RSDNT_CNT] RNHPPD1 = (RNFTE1*35)/ CNSUS_ RSDNT_CNT/7 days; LPNHPPD1 = (LPNFTE1*35)/ CNSUS_ RSDNT_CNT/7 days; AIDEHPPD1 =(AIDEFTE1*35)/ CNSUS_ RSDNT_CNT/7 days; SOCWHPPD1 =(SOCWFTE1*35)/ CNSUS_ RSDNT_CNT/7 days ACTHPPD1 =(ACTFTE1*35)/ CNSUS_ RSDNT_CNT/7 days;"	Residential settings (i.e., nursing homes and residential care communities) and adult day services centers operate and staff differently to serve the needs of their residents or participants; these differences between provider types are reflected in using average daily attendance and 5 days (as opposed to number of current residents and 7 days) when computing HPPD for staff working at adult day services centers.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Social work services	In survey data, refers to services provided by licensed social workers or persons with a bachelor's or master's degree in social work, and include an array of services such as psychosocial assessment, individual or group counseling, and referral services. In administrative data, refers to qualified social workers services in nursing homes, and medical social services in home health agencies and hospices.	1= Provided 2= Not provided (includes referral only) Derived from: [SERVSOCW1, SERVSOCW2, SERVSOCW3, SERVSOCW4, SERVSOCW5] Q12_c. Social work services—provided by licensed social workers or persons with a bachelor's or master's degree in social work, and include an array of services such as psychosocial assessment, individual or group counseling, and referral services 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVSOCW1, SERVSOCW2, SERVSOCW3, SERVSOCW4, SERVSOCW5] Q15_c. Social work services—provided by licensed social workers or persons with a bachelor's or master's degree in social work, and include an array of services such as psychosocial assessment, individual or group counseling, and referral services 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided Derived from: [MDCL_SCL_SRVC_CD] Indicates how medical social services are provided. 0= NOT PROVIDED 1= PROVIDED BY STAFF 2= PROVIDED UNDER ARRANGEMENT 3= COMBINATION If MCDL_SCL_SRVC_CD=0, SERVSOCW=2; else if MDCL_SCL_SRVC_CD >0, SERVSOCW=1;	1= Provided 2= Not provided Derived from: [MDCL_SCL_SRVC_CD] Indicates how medical social services are provided. 0= NOT PROVIDED 1= PROVIDED BY STAFF 2= PROVIDED UNDER ARRANGEMENT 3= COMBINATION If MCDL_SCL_SRVC_CD=0, SERVSOCW=2; else if MDCL_SCL_SRVC_CD >0, SERVSOCW=1;	1= Provided 2= Not provided Derived from: [SCL_WORK_SRVC_ONST_RSDNT_SW, SCL_WORK_SRVC_ONST_NRSDNT_SW, SCL_WORK_SRVC_OFSITE_RSDNT_SW] 1) Qualified social workers services Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to nonresidents; 3) Services provided to residents offsite/or not routinely provided onsite; If "No" to 1), 2), and 3), SERVSOCW=2; Else SERVSOCW=1;	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Mental health or counseling services	Mental health services in survey data refer to services that target a person's mental, emotional, psychological, or psychiatric well-being and include diagnosing, describing, evaluating, and treating mental conditions. Counseling services are provided to the patient and family to assist them in "minim;izing the stress and problems that arise from the terminal illness, related conditions, and the dying process" (http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_m_hospice.pdf).	1= Provided 2= Not provided (includes referral only) Derived from: [SERVMH1, SERVMH2, SERVMH3, SERVMH4, SERVMH5] Q12_d. Mental health services—target participants' mental, emotional, psychological, or psychiatric well-being and include diagnosing, describing, evaluating, and treating mental conditions 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVMH1, SERVMH2, SERVMH3, SERVMH4, SERVMH5] Q15_d. Mental health services—target residents' mental, emotional, psychological, or psychiatric well-being and include diagnosing, describing, evaluating, and treating mental conditions 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	- - -	1= Provided 2= Not provided Derived from: [CNSLNG_SRVC_CD] Counseling services 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If CNSLNG_SRVC_CD=0, SERVMH=2; else if CNSLNG_SRVC_CD >0, SERVMH=1;	1= Provided 2= Not provided Derived from: [MENTL_HLTH_ONST_RSDNT_SW, MENTL_HLTH_ONST_NRSDNT_SW, MENTL_HLTH_OFSITE_RSDNT_SW] Mental health services 1) Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to nonresidents; 3) Services provided to residents offsite/or not routinely provided onsite; If "No" to 1), 2), and 3), SERVMH=2; Else SERVMH=1;	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Therapeutic services	Refers to providing any of the three therapeutic services: physical therapy, occupational therapy, or speech therapy or pathology.	1= Provided 2= Not provided (includes referral only) Derived from: [SERVTX1, SERVTX2, SERVTX3, SERVTX4, SERVTX5] Q12_e. Any therapeutic services—physical, occupational, or speech 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVTX1, SERVTX2, SERVTX3, SERVTX4, SERVTX5] Q15_e. Any therapeutic services—physical, occupational, or speech 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided Derived from: [PT_SRVC_CD, OT_SRVC_CD, SPCH_THRPY_SRVC_CD] Physical therapy, occupational therapy, or speech therapy 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If PT_SRVC_CD=0 AND OT_SRVC_CD=0 AND SPCH_THRPY_SRVC_CD=0, SERVTX=2; Else SERVTX=1;	1= Provided 2= Not provided Derived from: [PT_SRVC_CD, OT_SRVC_CD, SPCH_PTHLGY_SRVC_CD] Physical therapy, occupational therapy, or speech pathology 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If PT_SRVC_CD=0 AND OT_SRVC_CD=0 AND SPCH_PTHLGY_SRVC_CD=0, SERVTX=2; Else SERVTX=1;	1= Provided 2= Not provided Derived from: [PT_ONST_RSDNT_SW, PT_ONST_NRSDNT_SW, PT_OFSITE_RSDNT_SW, OT_SRVC_ ONST_RSDNT_SW, OT_SRVC_ONST_NRSDNT_SW, OT_SRVC_OFSITE_RSDNT_SW, SPCH_PTHLGY_ONST_RSDNT_SW, SPCH_PTHLGY_ONST_NRSDNT_SW, SPCH_PTHLGY_OFSITE_RSDNT_SW] Physical therapist services, occupational therapist services, or speech or language pathologists 1) Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to non-residents; 3) Services provided to residents offsite/ or not routinely provided onsite; If "No" to all 9 variables, SERVTX=2; Else SERVTX=1;	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Pharmacy, pharmacist, or pharmaceutical services	Pharmacy services include filling of and delivery of prescriptions. Pharmacist services are provided by "the licensed pharmacist(s) who a facility is required to use for various purposes, including providing consultation on pharmacy services, establishing a system of records of controlled drugs, overseeing records and reconciling controlled drugs, and/or performing a monthly drug regimen review for each resident" (CMS form 671). Definition for pharmaceutical services is not provided in CMS' State Operations Manual.	1= Provided 2= Not provided (includes referral only) Derived from: [SERVRX1, SERVRX2, SERVRX3, SERVRX4, SERVRX5] Q12_f. Pharmacy services—including filling of and delivery of prescriptions 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVRX1, SERVRX2, SERVRX3, SERVRX4, SERVRX5] Q15_f. Pharmacy services—including filling of and delivery of prescriptions 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided Derived from: [PHRMCY_SRVC_CD] Pharmaceutical services 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If PHRMCY_SRVC_CD=0, SERVRX_RC=2; else if PHRMCY_SRVC_CD >0, SERVRX=1;	---	1= Provided 2= Not provided Derived from: [PHRMCY_SRVC_ONST_RSDNT_SW, PHRMCY_SRVC_ONST_NRSDNT_SW, PHRMCY_SRVC_OFSITE_RSDNT_SW] Pharmacist services 1) Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to non-residents; 3)Services provided to residents offsite/or not routinely provided onsite; If "No" to 1), 2), and 3), SERVRX=2; Else SERVRX=1;	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Skilled nursing or nursing services	In survey data, refers to services that must be performed by an RN or LPN and are medical in nature. For home health agencies, hospices, and nursing homes, information on the provision of nursing services is presented. For home health agencies, the definition for nursing services is not provided in CMS' State Operations Manual. For hospices, nursing services are "routinely available on a 24-hour basis, 7 days a week," and hospices must "provide nursing care and services by or under the supervision of a registered nurse" (available from: http://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/downloads/som107ap_m_hospice.pdf). Nursing services in nursing homes refer to "coordination, implementation, monitoring and management of resident care plans. Includes provision of personal care services, monitoring resident responsiveness to environment, range-of-motion exercises, application of sterile dressings, skin care, naso-gastric tubes, intravenous fluids, catheterization, administration of medications, etc." (CMS form 671).	1= Provided 2= Not provided (includes referral only) Derived from: [SERVNURS1, SERVNURS2, SERVNURS3, SERVNURS4, SERVNURS5] Q12_h. Skilled nursing services—must be performed by a RN or LPN and are medical in nature 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVNURS1, SERVNURS2, SERVNURS3, SERVNURS4, SERVNURS5] Q15_h. Skilled nursing services—must be performed by a RN or LPN and are medical in nature 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided Derived from: [NRSNG_SRVC_CD] Nursing care 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If NURSNG_SRVC_CD=0, SERVNURS=2; Else if NURSNG_SRVC_CD >0, SERVNURS=1;	1= Provided 2= Not provided Derived from: [NRSNG_SRVC_CD] Nursing services 0= Not provided 1= Provided by agency staff 2= Provided under arrangement 3= Combination If NURSNG_SRVC_CD=0, SERVNURS=2; Else if NURSNG_SRVC_CD >0, SERVNURS=1;	1= Provided 2= Not provided Derived from: [NRSNG_SRVC_ONST_RSDNT_SW, NRSNG_SRVC_ONST_NRSDNT_SW, NRSNG_SRVC_OFSITE_RSDNT_SW] Nursing services 1) Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to non-residents; 3) Services provided to residents offsite/or not routinely provided onsite; If "No" to 1), 2), and 3), SERVNURS=2; Else SERVNURS=1.	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Hospice services	Refers to palliative and supportive services to dying persons and their family members. For home health agencies, the agency was coded as providing hospice services if the agency also participates in the Medicare program as a hospice. If nursing homes have at least one bed in a unit identified and dedicated by a facility for residents needing hospice services or having one or more residents receiving hospice care benefits, they were coded as providing hospice services.	1= Provided 2= Not provided (includes referral only) Derived from: [SERVHOS1, SERVHOS2, SERVHOS3, SERVHOS4, SERVHOS5] Q12_b Hospice services 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVHOS1, SERVHOS2, SERVHOS3, SERVHOS4, SERVHOS5] Q15_b Hospice services 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided Derived from: [MDCR_HOSPC_SW] Indicate if the Home Health Agency also participates in the Medicare program as a hospice. If MDCR_HOSPC_SW='Y', SERVHOS=1; Else if MDCR_HOSPC_SW='N', SERVHOS=2;	…	1= Provided 2= Not provided Derived from: [HOSPC_BED_CNT, CNSUS_HOSPC_CARE_CNT] 1) Number of beds in a unit identified and dedicated by a facility for residents needing hospice services; 2) Number of residents receiving hospice care benefit If HOSPC_BED_CNT >0 or CNSUS_HOSPC_CARE_CNT >0, SERVHOS=1; Else if HOSPC_BED_CNT=0 AND CNSUS_HOSPC_CARE_CNT=0, SERVHOS=2;	**ADSC, RCC**: The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Dental services	Refers to routine and emergency dental services provided by a licensed dentist.	1= Provided 2= Not provided (includes referral only) Derived from: [SERVDENT1, SERVDENT2, SERVDENT3, SERVDENT4, SERVDENT5] Q12_a. Routine and emergency dental services by a licensed dentist 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVDENT1, SERVDENT2, SERVDENT3, SERVDENT4, SERVDENT5] Q15_a. Routine and emergency dental services by a licensed dentist 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	---	---	1= Provided 2= Not provided Derived from: [DNTL_SRVC_ONST_RSDNT_SW, DNTL_SRVC_ONST_NRSDNT_SW, DNTL_SRVC_OFSITE_RSDNT_SW] Dental services 1) Services provided onsite to residents, either by employees or contractors; 2) Services provided onsite to non-residents; 3) Services provided to residents offsite/or not routinely provided onsite; If "No" to 1), 2), and 3), SERVDENT=2; Else SERVDENT=1	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Podiatry services	Refers to podiatry services	1= Provided 2= Not provided (includes referral only) Derived from: [SERVPOD1, SERVPOD2, SERVPOD3, SERVPOD4, SERVPOD5] Q12_g. Podiatry services 1= Provided by paid center employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	1= Provided 2= Not provided (includes referral only) Derived from: [SERVPOD1, SERVPOD2, SERVPOD3, SERVPOD4, SERVPOD5] Q15_g. Podiatry services 1= Provided by paid residential care community employees 2= Provided by arranging for and paying outside vendors 3= Provided by arranging for outside vendors paid by others 4= Referral 5= None of these apply/ Not provided	---	---	1= Provided 2= Not provided Derived from: [PDTRY_SRVC_ONST_RSDNT_SW, PDTRY_SRVC_ONST_NRSDNT_SW, PDTRY_SRVC_OFSITE_RSDNT_SW] Dental services 1) Services provided onsite to residents, either by employees or contractors 2) Services provided onsite to nonresidents 3) Services provided to residents offsite/or not routinely provided onsite if "No" to 1), 2), and 3), SERVPOD=2; Else SERVPOD=1;	**ADSC, RCC:** The 2014 questionnaire used "mark all that apply" questions to ask about different services that ADSCs or RCCs provide. Respondents indicated as many as four different ways that the ADSC or RCC provided a given service. For each service, five binary variables were created: four separate variables corresponding to four different ways that ADSCs or RCCs provide the service (i.e., by paid employees, by arranging for and paying outside vendors, by arranging for outside vendors paid by others, or by referral); one variable indicating whether the ADSC or RCC provides the service in any of these ways or does not provide the service. For this report, a derived variable with two mutually exclusive categories was used: 1) Provided by paid employees, arranging for and paying outside vendors, or arranging for outside vendors paid by others, in addition to referral; 2) Not provide or provide only by referral.

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		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Services provided by long-term care services providers, by sector							
Depression screening	Refers to the status of providing depression screening services using a standardized tool or accepting screening results from other health care providers	Derived from: [DEPSCRN1, DEPSCRN2] Q10. As part of the admission process, does this adult day services center ... a. screen participants for depression with a standardized tool or scale? b. accept results from depression screenings performed by other health care providers?	Derived from: [DEPSCRN1, DEPSCRN2] Q12. As part of the admission process, does this residential care community ... a. screen residents for depression with a standardized tool or scale? b. accept results from depression screenings performed by other health care providers?	Derived from: [MSR_322_VAL, MSR_323_VAL, MSR_324_VAL from OBQI Case Mix Roll Up data] Emotional / Behavioral, Emotional, Depression indicator [MSR_322_VAL]; 'Neuro / Emotional / Behavioral, Emotional, PHQ-2: Interest / Pleasure, 0-3 scale [MSR_323_VAL]; 'Neuro / Emotional / Behavioral, Emotional, PHQ-2: Down / Depressed, 0-3 scale' [MSR_324_VAL]; if patient is coded as nonresponsive, DEPSCRN= missing; else if MSR_322_VAL >=0 then DEPSCRN=1; else if MSR_320_VAL >=0 and MSR_322_VAL=. then DEPSCRN=0; else DEPSCRN=missing;	...	ADSC, RCC: Coded center/community if they conducted the screening using a standardized tool or accepted results from depression screenings performed by other health care providers; HHA: After deriving DEPSCRN using OBQI data and rolling up the variable to provider ID number, the rolled up data were merged to CASPER home health data. Using the merged file, if agencies screened 80% or more of their patients for depression using a standardized assessment tool (i.e., PHQ-2) or with a different standardized assessment, they were coded as conducting depression screenings.	...
Dementia care units	Refers to the provision of dementia care units	...	1= Serves only residents with dementia 2= Provides dementia care units within larger community Derived from: [ONLYDEM, DEMWING] Q13. Does this residential care community only serve adults with dementia or Alzheimer's disease? Q13a. [If no to Q13] Does this residential care community have a distinct unit, wing, or floor that is designated as a dementia or Alzheimer's Special Care Unit?	...	...	1= Serves only residents with dementia 2= Provides dementia care units within larger facility Derived from: [CRTFD_BED_CNT, ALZHMR_BED_CNT] Number of certified beds; Number of beds in a unit identified and dedicated by the facility for residents with Alzheimer's disease if CRTFD_BED_CNT =ALZHMR_BED_CNT then DSU=1; else if ALZHMR_BED_CNT >0 then DSU=2; else DSU=0;	...

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		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Use of long-term care services, by sector							
Number of services users	Number of users of services provided by paid, regulated long-term care services providers	Q3. What is the total number of participants currently enrolled at this center at this location? Include respite care participants. Average daily attendance of participants (AVGPART) was used to create SIZE variable (number of people served), while this data item (TOTPART) was used to estimate the number of adult day services center participants in the United States; TOTPART was used as the denominator when computing percentages for all aggregate, participant-level measures.	Q5. What is the total number of residents currently living at this residential care community? Include respite care residents. This data item (TOTRES) was used to create SIZE variable (number of people served) and to estimate the number of residents in residential care communities in the United States; TOTRES was used as the denominator when computing percentages for all aggregate, resident-level measures.	Derived from: [patient ID from OBQI Case Mix Roll Up data] Number of home health patients whose episode of care ended at any time in CY (calendar year) 2013 (i.e., discharges), regardless of payment source; 888 agencies (7.1%) with missing OBQI Case Mix Roll Up data; This data item (TOTPAT) was used to create SIZE variable (number of people served) and to obtain the number of home health patients in the United States; TOTPAT was used as the denominator when computing percentages for selected aggregate, patient-level measures (i.e., age, sex, and patients needing any assistance in activities of daily living).	Derived from: [BENE_CNT from IPBS hospice data] Number of hospice patients for whom Medicare-certified hospice submitted a Medicare claim at any time in CY 2013; 251 agencies (6.2%)with missing IPBS hospice data; This data item (BENE_CNT) was used to create SIZE variable (number of people served) and to obtain the number of hospice patients in the United States; BENE_CNT was used as the denominator when computing percentages for all aggregate patient-level measures.	Number of current residents in certified beds in nursing homes in CASPER nursing data; This data item (CNSUS_RSDNT_CNT) was used to create SIZE variable and to obtain the number of current nursing home residents in the United States; CNSUS_RSDNT_CNT was used when computing percentages for selected aggregate, resident-level measures (i.e., residents needing any assistance in activities of daily living).	...

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Use of long-term care services, by sector							
Number of services users—Con.	Additional data on home health patients and nursing home residents were available; these data contain information on a smaller number of home health patients [who are Medicare beneficiaries receiving services from Medicare-certified home health agencies] and nursing home residents [excluding residents with latest Minimum Data Set (MDS) assessment data are based on discharge assessment].	…	…	Derived [from: [BENE_CNT from IPBS home health data] Number of home health patients for whom Medicare-certified home health care agencies submitted a Medicare claim at any time in CY 2013; 984 agencies (7.9%) with missing IPBS home health data; This data item (BENE_CNT) was used as the denominator when computing percentages for selected aggregate, patient-level measures (i.e., race and ethnicity, diagnosed with dementia, diagnosed with depression, and diagnosed with diabetes).	…	Derived from: [resident ID from Minimum Data Set Active Resident Episode Table (MARET) data] Number of active residents (Exclude residents whose last assessment during Q3 2014 was discharge assessment); 263 nursing homes (1.7%) in CASPER with missing MARET data; This data item (NUMRES) was used as the denominator when computing percentages for selected aggregate, resident-level measures (i.e., age, sex, race and ethnicity, diagnosed with dementia, diagnosed with depression, and diagnosed with diabetes).	…

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Age	Number of long-term care services users under age 65	Derived from: [AGLT17RC, AG18TO44RC, AG45TO54RC, AG55TO64RC] Q17. Of the participants currently enrolled at this adult day services center, how many are: a. 17 years or younger? b. 18–44 years? c. 45–54 years? d. 55–64 years?	Derived from: [AGLT17RC, AG18TO44RC, AG45TO54RC, AG55TO64RC] Q20. Of the residents currently living in this residential care community, how many are: a. 17 years or younger? b. 18–44 years? c. 45–54 years? d. 55–64 years?	Derived from: [MSR_201_VAL Num from OBQI Case Mix Roll Up data] Calculated age at the time of episode of care	Derived from: [AGE_LESS_65 from IPBS hospice data] Number of beneficiaries under age 65 utilizing the provider type of service	Derived from: [A0900_BIRTH_DT from MARET data] Resident's birth date	**ADSC, RCC:** Cases with missing data were imputed. **HHA, NH:** MARET data are individual resident-level data, and OBQI Case Mix Roll Up data are also individual patient-level data; When rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching (HHA–7.1%; NH–1.7%), no facilities or agencies had missing data. **HOS:** IPBS-Hospice file contains hospice patient information at the provider-level; other than cases with missing data due to nonmatching (6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Age—Con.	Number of long-term care services users between ages 65 and 74	Q17. Of the participants currently enrolled at this adult day services center, how many are: e. 65–74 years?	Q20. Of the residents currently living in this residential care community, how many are: e. 65–74 years?	Derived from: [MSR_201_VAL Num from OBQI Case Mix Roll Up data] Calculated age at the time of episode of care	Derived from: [AGE_65_69, AGE_70_74 from IPBS hospice data] Number of beneficiaries between ages 65 and 69 utilizing the provider type of service; Number of beneficiaries between ages 70 and 74 utilizing the provider type of service	Derived from: [A0900_BIRTH_DT from MARET data] Resident's birth date	**ADSC, RCC:** Cases with missing data were imputed. **HHA, NH:** MARET data are individual resident-level data, and OBQI Case Mix Roll Up data are also individual patient-level data. When rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching (HHA–7.1%; NH–1.7%), no facilities or agencies had missing data. **HOS:** IPBS-Hospice file contains hospice patient information at the provider-level; other than cases with missing data due to nonmatching (6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Age—Con.	Number of long-term care services users between ages 75 and 84	Q17. Of the participants currently enrolled at this adult day services center, how many are: f. 75–84 years?	Q20. Of the residents currently living in this residential care community, how many are: f. 75–84 years?	Derived from: [MSR_201_VAL Num from OBQI Case Mix Roll Up data] Calculated age at the time of episode of care	Derived from: [AGE_75_79, AGE_80_84 from IPBS hospice data] Number of beneficiaries between ages 75 and 79 utilizing the provider type of service; Number of beneficiaries between ages 80 and 84 utilizing the provider type of service	Derived from: [A0900_BIRTH_DT from MARET data] Resident's birth date	**ADSC, RCC:** Cases with missing data were imputed. **HHA, NH:** MARET data are individual resident-level data, and OBQI Case Mix Roll Up data are also individual patient-level data. When rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching (HHA–7.1%; NH–1.7%), no facilities or agencies had missing data. **HOS:** IPBS-Hospice file contains hospice patient information at the provider-level; other than cases with missing data due to nonmatching (6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Age—Con.	Number of long-term care services users aged 85 and over	Q17. Of the participants currently enrolled at this adult day services center, how many are: g. 85 years and older?	Q20. Of the residents currently living in this residential care community, how many are: g. 85 years and older?	Derived from: [MSR_201_VAL Num from OBQI Case Mix Roll Up data] Calculated age at the time of episode of care	Derived from: [AGE_OVER_84 from IPBS hospice data] Number of beneficiaries over age 84 utilizing the provider type of service.	Derived from: [A0900_BIRTH_DT from MARET data] Resident's birth date	**ADSC, RCC:** Cases with missing data were imputed. **HHA, NH:** MARET data are individual resident-level data, and OBQI Case Mix Roll Up data are also individual patient-level data. When rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching (HHA–7.1%; NH–1.7%), no facilities or agencies had missing data. **HOS:** IPBS-Hospice file contains hospice patient information at the provider-level; other than cases with missing data due to nonmatching (6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Race and ethnicity	Number of long-term care services users of Hispanic or Latino origin	Q15. Of the participants currently enrolled at this adult day services center, how many are: a. Hispanic or Latino, of any race?	Q18. Of the residents currently living in this residential care community, how many are: a. Hispanic or Latino, of any race?	Derived from: [RACE_HISPN from IPBS home health data] Number of Hispanic beneficiaries utilizing the provider type of service	Derived from: [RACE_HISPN from IPBS hospice data] Number of Hispanic beneficiaries utilizing the provider type of service	Derived from: [A1000D_HSPNC_CD from MARET data] Indicates if the resident's ethnicity is Hispanic	**HH:** IPBS home health data used; race-ethnicity data in OBQI Case Mix Roll Up do not match race-ethnicity categories used in other data sources. **ADSC, RCC:** Cases with missing data were imputed; **NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities with 20.0% or more of their resident information missing for a given data item were coded as missing. About 2.0% of facilities, including facilities with missing data due to nonmatching (NH–1.7%), had missing data. **HHA, HOS:** IPBS home health data and IPBS hospice data contain information on home health patients and hospice patients at the provider-level, respectively; other than cases with missing data due to nonmatching (HHA–7.9%, HOS–6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Race and ethnicity—Con.	Number of long-term care services users who are non-Hispanic white	Q15. Of the participants currently enrolled at this center, how many are: f. White, not Hispanic or Latino?	Q18. Of the residents currently living in this residential care community, how many are: f. White, not Hispanic or Latino?	Derived from: [RACE_WHITE from IPBS home health data] Number of white beneficiaries utilizing the provider type of service	Derived from: [RACE_WHITE from IPBS hospice data] Number of white beneficiaries utilizing the provider type of service	Derived from: [A1000F_WHT_CD from MARET data] Indicates if the resident's ethnicity is white	**HH:** IPBS home health data used; race-ethnicity data in OBQI Case Mix Roll Up do not match race-ethnicity categories used in other data sources. **ADSC, RCC:** Cases with missing data were imputed; **NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities with 20.0% or more of their resident information missing for a given data item were coded as missing. About 2.0% of facilities, including facilities with missing data due to nonmatching (NH–1.7%), had missing data. **HHA, HOS:** IPBS home health data and IPBS hospice data contain information on home health patients and hospice patients at the provider-level, respectively; other than cases with missing data due to nonmatching (HHA–7.9%, HOS–6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Race and ethnicity—Con.	Number of long-term care services users who are non-Hispanic black	Q15. Of the participants currently enrolled at this center, how many are: d. Black, not Hispanic or Latino?	Q18. Of the residents currently living in this residential care community, how many are: d. Black, not Hispanic or Latino?	Derived from: [RACE_BLACK from IPBS home health data] Number of non-Hispanic black beneficiaries utilizing the provider type of service	Derived from: [RACE_BLACK from IPBS hospice data] Number of non-Hispanic black beneficiaries utilizing the provider type of service	Derived from: [A1000C_AFRCN_AMRCN_CD] Indicates if the resident's ethnicity is African American	**HH:** IPBS home health data used; race-ethnicity data in OBQI Case Mix Roll Up do not match race-ethnicity categories used in other data sources. **ADSC, RCC:** Cases with missing data were imputed; **NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities with 20.0% or more of their resident information missing for a given data item were coded as missing. About 2.0% of facilities, including facilities with missing data due to nonmatching (NH–1.7%), had missing data. **HHA, HOS:** IPBS home health data and IPBS hospice data contain information on home health patients and hospice patients at the provider-level, respectively; other than cases with missing data due to nonmatching (HHA–7.9%, HOS–6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Race and ethnicity—Con.	Number of long-term care services users who are of a race other than white or black	Derived from: [AIANRC, ASIANRC, NHOPIRC, MULTIOTHERRC, UNKNOWNRC] Q15. Of the participants currently enrolled at this center, how many are: b. American Indian or Alaska Native, not Hispanic or Latino? c. Asian, not Hispanic or Latino? e. Native Hawaiian or Other Pacific Islander, not Hispanic or Latino? g. Two or more races, not Hispanic or Latino? h. Some other category reported in this residential care community's system? i. Not reported (race and ethnicity unknown)?	Derived from: [AIANRC, ASIANRC, NHOPIRC, MULTIOTHERRC, UNKNOWNRC] Q18. Of the residents currently living in this residential care community, how many are: b. American Indian or Alaska Native, not Hispanic or Latino? c. Asian, not Hispanic or Latino? e. Native Hawaiian or Other Pacific Islander, not Hispanic or Latino? g. Two or more races, not Hispanic or Latino? h. Some other category reported in this residential care community's system? i. Not reported (race and ethnicity unknown)?	Derived from: [RACE_NATIND, RACE_API, RACE_OTHER from IPBS home health] Number of American Indian or Alaska Native beneficiaries utilizing the provider type of service; Number of Asian Pacific Islander beneficiaries utilizing the provider type of service; Number of all other beneficiaries not elsewhere classified utilizing the provider type of service.	Derived from: [RACE_NATIND, RACE_API, RACE_OTHER from IPBS hospice data] Number of American Indian or Alaska Native beneficiaries utilizing the provider type of service; Number of Asian Pacific Islander beneficiaries utilizing the provider type of service; Number of all other beneficiaries not elsewhere classified utilizing the provider type of service.	Derived from: [A1000A_AMRCN_INDN_AK_NTV_CD, A1000B_ASN_CD, A1000E_NTV_HI_PCFC_ISLNDR_CD from MARET data] Indicates if the resident's ethnicity is American Indian or Alaska Native; Indicates if the resident's ethnicity is Asian; Indicates if the resident's ethnicity is Native Hawaiian or Pacific Islander.	**HH: IPBS** home health data used; race-ethnicity data in OBQI Case Mix Roll Up do not match race-ethnicity categories used in other data sources. **ADSC, RCC: C**ases with missing data were imputed; **NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities with 20.0% or more of their resident information missing for a given data item were coded as missing. About 2.0% of facilities, including facilities with missing data due to nonmatching (NH–1.7%), had missing data. **HHA, HOS:** IPBS home health data and IPBS hospice data contain information on home health patients and hospice patients at the provider-level, respectively; other than cases with missing data due to nonmatching (HHA–7.9%, HOS–6.2%), no agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Demographic characteristics of long-term care services users, by sector							
Sex	Number of long-term care services users who are male	Q16. Of the participants currently enrolled at this center, how many are: a. Male?	Q19. Of the residents currently living in this residential care community, how many are: a. Male?	Derived from: [MSR_202_VAL, TOTPAT from OBQI Case Mix Roll Up data] "Patient History, Demographics, Gender: Male".	Derived from: [MALE from IPBS hospice data] Number of male beneficiaries utilizing the provider type of service	Derived from: [A0800_GNDR_CD from MARET data] Identifies the resident's sex. '-'=Not assessed/no information/unable to determine 1= Male 2= Female	**ADSC, RCC:** Cases with missing data were imputed; **HHA, NH:** MARET data are individual resident-level data, and OBQI Case Mix Roll Up data are also individual patient-level data. When rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching (HHA–7.1%; NH–1.7%), no facilities or agencies had missing data. **HOS:** IPBS hospice file contains hospice patient information at the provider-level; other than cases with missing data due to nonmatching (6.2%), no agencies had missing data.
	Number of long-term care services users who are female	Q16. Of the participants currently enrolled at this center, how many are: b. Female?	Q19. Of the residents currently living in this residential care community, how many are: b. Female?	Derived from: [MSR_202_VAL, TOTPAT from OBQI Case Mix Roll Up data] "Patient History, Demographics, Gender: Female".	Derived from: [FEMALE from IPBS hospice data] Number of female beneficiaries utilizing the provider type of service	Derive from: [A0800_GNDR_CD] Identifies the resident's gender. '-'=Not assessed/no information/unable to determine 1= Male 2= Female	
Medicaid as payer source	Number of long-term care users with Medicaid paying for some or all long-term care services received	Q7. During the last 30 days, for how many of the participants currently enrolled at this adult day services center, did Medicaid pay for some or all of their services received at this center? If none, enter "0."	Q10a. During the last 30 days, for how many of the residents currently living in this residential care community, did Medicaid pay for some or all of their services received at this center? If none, enter "0."	---	Derived from: [MSR_207_VAL from OBQI Case Mix Roll Up data] Number of patients coded as having Medicaid as payer source if they had any Medicaid as traditional fee-for-service or HMO or managed care as current payment sources for home care at start of care or resumption of care.	Derived from: [CNSUS_MDCD_CNT] Number of residents whose primary payer is Medicaid	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. About 8.1% of agencies (including 7.1% of missing due to nonmatching) had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Diagnosed with dementia	Number of long-term care services users diagnosed with dementia	Q18. Of the participants currently enrolled at this center, about how many have been diagnosed with: a. Alzheimer's disease or other dementias?	Q21. Of the residents currently living in this residential care community, about how many have been diagnosed with: a. Alzheimer's disease or other dementias?	Derived from: [ALZRDSD_BENE_CNT from IPBS home health data] Number of beneficiaries meeting the chronic condition algorithm for Alzheimer's broad classification, including dementia and utilizing the provider type of service (Alzheimer's disease and related disorders or senile dementia)	Derived from: [ALZRDSD_BENE_CNT from IPBS hospice data] Number of beneficiaries meeting the chronic condition algorithm for Alzheimer's broad classification, including dementia and utilizing the provider type of service (Alzheimer's disease and related disorders or senile dementia)	Derived from: [I4200_ALZHMR_CD, I4800_DMNT_CD from MARET data] Indicates whether the resident had an active diagnosis of Alzheimer's disease in the last 7 days or indicates whether the resident had an active diagnosis of non-Alzheimer's dementia such as vascular or multi-infarct dementia; mixed dementia; or frontotemporal dementia such as Pick's disease and dementia related to stroke, Parkinson's disease, or Creutzfeldt-Jakob diseases in the last 7 days.	**NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities with 20.0% or more of their resident information missing for a given data item were coded as missing. About 6.4% of facilities (including 1.7% of missing data due to nonmatching) had missing data. **HHA, HOS:** IPBS home health data and IPBS hospice data contain information on home health patients and hospice patients at the provider-level, respectively; other than cases with missing data due to nonmatching (HHA–7.9%, HOS–6.2%), no agencies had missing data.
Diagnosed with depression	Number of long-term care services users diagnosed with depression	Q18. Of the participants currently enrolled at this center, about how many have been diagnosed with: d. Depression?	Q21. Of the residents currently living in this residential care community, about how many have been diagnosed with: d. Depression?	Derived from: [DEPR_BENE_CNT from IPBS home health data] Number of beneficiaries meeting the chronic condition algorithm for depression and utilizing the provider type of service	Derived from: [DEPR_BENE_CNT from IPBS hospice data] Number of beneficiaries meeting the chronic condition algorithm for depression and utilizing the provider type of service	Derived from: [I5800_DPRSN_CD from MARET data] Indicates if the resident had an active diagnosis of depression (other than bipolar) in the last 7 days.	
Diagnosed with diabetes	Number of long-term care services users diagnosed with diabetes	Q18. Of the participants currently enrolled at this center, about how many have been diagnosed with: f. Diabetes?	Q21. Of the residents currently living in this residential care community, about how many have been diagnosed with: f. Diabetes?	Derived from: [DIAB_BENE_CNTfrom IPBS home health data] Number of beneficiaries meeting the chronic condition algorithm for diabetes and utilizing the provider type of service	Derived from: [DIAB_BENE_CNTfrom IPBS hospice data] Number of beneficiaries meeting the chronic condition algorithm for diabetes and utilizing the provider type of service	Derived from: [I2900_DM_CD from MARET data] Indicates whether the resident had an active diagnosis of diabetes mellitus (diabetic retinopathy or neuropathy) in the last 7 days.	

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		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Assistance with eating	Number of long-term care services users needing any assistance in eating. Assistance refers to needing any help or supervision from another person, or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many need any assistance at their usual residence or this center in each of the following activities? b. With eating, like cutting up food	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? b. With eating, like cutting up food	Derived from: [MSR_342_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with eating if they: are able to feed self independently but require meal setup or intermittent assistance or supervision from another person; require a liquid, pureed, or ground meat diet; are unable to feed self and must be assisted or supervised throughout the meal or snack; are able to take in nutrients orally and receive supplemental nutrients through a nasogastric tube or gastrostomy; are unable to take in nutrients orally and are fed nutrients through a nasogastric tube or gastrostomy; or are unable to take in nutrients orally or by tube feeding.	- - -	Derived from: [CNSUS_EATG_ASTD_CNT, CNSUS_EATG_DPNDNT_CNT] Number of residents coded as needing any assistance with eating if they require supervision, limited or extensive assistance from staff, or full staff performance every time during entire 7-day period. If the facility routinely provides "setup" activities (e.g., opening containers, buttering bread, and organizing the tray) and if this is the extent of assistance provided for the resident, the resident was coded as not needing any assistance with eating.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Assistance with dressing	Number of long-term care services users needing any assistance in dressing. Assistance refers to needing any help or supervision from another person or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many need any assistance at their usual residence or this center in each of the following activities? c. With dressing	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? c. With dressing	Derived from: [MSR_336_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with dressing if: they are able to dress upper and lower body without assistance, if clothing and shoes are laid out or handed to the patient; someone must help the patient put on upper body clothing or undergarments, slacks, socks or nylons, and shoes; or patient depends entirely upon another person to dress the upper and lower body.	- - -	Derived from: [CNSUS_DRS_ASTD_CNT; CNSUS_DRS_DPNDNT_CNT] Number of residents coded as needing any assistance with dressing if they require supervision, limited or extensive assistance from staff, or full staff performance every time during entire 7-day period. If the facility routinely set out clothes for all residents, and this is the only assistance the resident receives, the resident was coded as not needing any assistance with dressing.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.
Assistance with toileting	Number of long-term care services users needing any assistance in using bathroom. Assistance refers to needing any help or supervision from another person or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many need any assistance at their usual residence or this center in each of the following activities? e. In using the bathroom (toileting)	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? e. In using the bathroom (toileting)	Derived from: [MSR_339_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with toileting if: the patient is able to manage toileting hygiene and clothing management without assistance if supplies or implements are laid out for the patient; someone must help the patient to maintain toileting hygiene or adjust clothing; or the patient depends entirely upon another person to maintain toileting hygiene. Toileting hygiene refers to the patient's current ability to maintain perineal hygiene safely, or adjust clothes or incontinence pads before and after using toilet, commode, bedpan, and urinal. If managing ostomy, it includes cleaning area around stoma, but not managing equipment.	- - -	Derived from: [CNSUS_TOILT_ASTD_CNT, CNSUS_TOILT_DPNDNT_CNT] Number of residents coded as needing any assistance with toileting if they require supervision, limited or extensive assistance from staff, or full staff performance every time during entire 7-day period. If all that is done for the resident is to open a package (e.g., a clean sanitary pad), the resident was coded as not needing any assistance with toileting.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Assistance with bathing	Number of long-term care services users needing any assistance in bathing or showering. Assistance refers to needing any help or supervision from another person or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many need any assistance at their usual residence or this center in each of the following activities? d. With bathing or showering	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? d. With bathing or showering	Derived from: [MSR_337_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with bathing if the patient is: with the use of devices, able to bathe self in shower or tub independently, including getting in and out of the tub or shower; able to bathe in shower or tub with the intermittent assistance of another person; able to participate in bathing self in shower or tub, but requires presence of another person throughout the bath for assistance or supervision; unable to use the shower or tub, but able to bathe self independently with or without the use of devices at the sink, in chair, or on commode; unable to use the shower or tub, but able to participate in bathing self in bed, at the sink, in bedside chair, or on commode, with the assistance or supervision of another person throughout the bath; or unable to participate effectively in bathing and is bathed totally by another person.	---	Derived from: [CNSUS_BATHG_ASTD_CNT, CNSUS_BATHG_DPNDNT_CNT] Number of residents coded as needing any assistance with bathing if they require supervision, physical help limited to transfer only or in part of bathing activity, or full staff performance every time during entire 7-day period. If the facility provides setup assistance to all residents, such as drawing water for a tub bath or laying out bathing materials, and the resident requires no other assistance, the resident was coded as not needing any assistance with bathing.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.

	Definition	Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Assistance with walking or locomotion	Number of long-term care services users needing any assistance with walking or locomotion. Assistance refers to needing any help or supervision from another person or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many now need any assistance at their usual residence or this center in each of the following activities? f. With locomotion or walking	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? f. With locomotion or walking	Derived from: [MSR_340_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with ambulation or locomotion if they are: able to independently walk on even and uneven surfaces and negotiate stairs with or without railings without use of an assistive device, with the use of a one-handed assistive device, or with the use of a two-handed device; able to walk only with the assistance of another person at all times; chairfast, unable to ambulate but are able to wheel self independently; chairfast, unable to ambulate and unable to wheel self; or bedfast, unable to ambulate or be up in a chair.	- - -	Derived from: [CNSUS_INDPNDNT_MBLTY_CNT] Number of residents who require no help or oversight; or help or oversight was provided only 1 or 2 times during the past 7 days. Do not include residents who use a cane, walker, or crutch.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Health and functional characteristics of long-term care services users, by sector							
Assistance with transferring	Number of long-term care services users needing any assistance in transferring. Assistance refers to needing any help or supervision from another person or use of special equipment.	Q19. Of the participants currently enrolled at this center, about how many now need any assistance at their usual residence or this center in each of the following activities? a. With transferring in and out of a chair	Q22. Of the residents currently living in this residential care community, about how many need any assistance in each of the following activities? a. With transferring in and out of a bed or chair	Derived from: [MSR_340_VAL from OBQI Case Mix Roll Up data] Number of patients coded as needing any assistance with transferring if they are: able to transfer with minimal human assistance or with use of an assistive device; able to bear weight and pivot during the transfer process but unable to transfer self; unable to transfer self and are unable to bear weight or pivot when transferred by another person; bedfast, unable to transfer but are able to turn and position self in bed; bedfast, unable to transfer and are unable to turn and position self.	- - -	Derived from: [CNSUS_TRNSFR_ASTD_CNT, CNSUS_TRNSFR_DPNDNT_CNT] Number of residents who require help moving between surfaces, including, to or from bed, chair, wheelchair, or standing positions. Excludes transfers to or from the bath or toilet. If the facility routinely provides "setup" assistance to all residents, such as handing the equipment (e.g., sliding board) to the resident, and this is the only assistance required, the resident was coded as not needing assistance with transferring.	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. Other than cases with missing data due to nonmatching, (HHA–7.1%), no facilities or agencies had missing data.

Definition		Survey data (question numbers refer to order in National Study of Long-Term Care Providers [NSLTCP] questionnaires: http://www.cdc.gov/nchs/nsltcp/nsltcp_questionnaires.htm)		Administrative data (when data source is not specified, the source is the Center for Medicare & Medicaid's [CMS'] Certification and Survey Provider Enhanced Reporting [CASPER])			Notes
		Adult day services center (ADSC)	Residential care community (RCC)	Home health agency (HHA)	Hospice (HOS)	Nursing home (NH)	
Adverse events among long-term care services users, by sector							
Overnight hospital stay	Number of long-term care users who were discharged from an overnight hospital stay	Q20. Of the participants currently enrolled at this center, about how many were discharged from an overnight hospital stay in the last 90 days? Exclude trips to the hospital emergency department that did not result in an overnight hospital stay. If none, enter "0."	Q23. Of the residents currently living in this residential care community, about how many were discharged from an overnight hospital stay in the last 90 days? Exclude trips to the hospital emergency department that did not result in an overnight hospital stay. If none, enter "0."	Derived from: [MSR_447_VAL from OBQI Case Mix Roll Up data] To which inpatient facility has the patient been admitted? 1=Hospital	---	---	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. About 7.4% of agencies (including 7.1% of missing due to nonmatching) had missing data.
Emergency department visits	Number of long-term care users who had emergency department visits	Q21. Of the participants currently enrolled at this center, about how many were treated in a hospital emergency department in the last 90 days? If none, enter "0."	Q24. Of the residents currently living in this residential care community, about how many were treated in a hospital emergency department in the last 90 days? If none, enter "0."	Derived from: [MSR_426_VAL from OBQI Case Mix Roll Up data] Since the last time Outcome and Assessment Information Set data were collected, has the patient utilized a hospital emergency department (includes holding or observation)?	---	---	**HHA:** OBQI Case Mix Roll Up data are individual patient-level data; when rolling up individual user-level data to provider ID, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. About 8.1% of agencies (including 7.1% of missing due to nonmatching) had missing data.
Falls	Number of long-term care users who had falls	Q22. Of the participants currently enrolled at this center, about how many had any falls in the last 90 days? Include on-site and off-site falls. If none, enter "0."	Q25. Of the residents currently living in this residential care community, about how many had any falls in the last 90 days? Include on-site and off-site falls. If none, enter "0."	---	---	Derived from: [J1800_FALL_LAST_ASMT_CD from MARET data] Has the resident had any falls since admission or the prior assessment, whichever is more recent?	**NH:** MARET data are individual resident-level data; when rolling up individual user-level data to provider ID number, facilities or agencies with 20.0% or more of their resident or patient information missing for a given data item were coded as missing. About 6.4% of facilities (including 1.7% of missing data due to nonmatching) had missing data.

... Category not applicable.
--- Data not available.

Appendix B

Detailed Tables

Table 1. Long-term care services providers, by geographical and organizational characteristics and sector: United States, 2013–2014

Characteristic	Adult day services center	Standard error	Home health agency	Standard error	Hospice	Standard error	Nursing home	Standard error	Residential care community	Standard error
Number of providers[1]	4,800	6	12,400	…	4,000	…	15,600	…	30,200	341
Number of beds or licensed maximum capacity[1]	289,400	2,871	…	…	…	…	1,663,300	…	1,000,000	14,001
Average number of beds or licensed maximum capacity[2,3]	62	0.60	---	---	---	---	106	0.49	33	0.35
Average number of people served[3,4]										
Daily	39	0.43	…	…	…	…	88	0.44	28	0.32
Annually	…	…	427	10.04	355	10.61	…	…	…	…
Region (percent distribution)										
Northeast	19.8	0.04	8.1	0.25	11.3	0.50	16.9	0.30	8.2	0.02
Midwest	17.0	0.06	28.0	0.40	22.8	0.66	32.9	0.38	21.8	0.06
South	33.0	0.06	46.6	0.45	41.2	0.78	34.7	0.38	28.1	0.05
West	30.3	0.05	17.3	0.34	24.8	0.68	15.5	0.29	42.0	0.05
Metropolitan statistical area status (percent distribution)										
Metropolitan	84.3	0.38	84.6	0.32	76.6	0.67	71.2	0.36	83.1	0.53
Micropolitan	10.0	0.34	8.1	0.24	14.0	0.55	13.9	0.28	10.0	0.45
Neither	5.7	0.26	7.3	0.23	9.4	0.46	14.9	0.28	6.9	0.33
Ownership (percent distribution)										
For profit	44.2	0.60	80.0	0.36	60.2	0.77	69.8	0.37	81.8	0.67
Nonprofit	50.5	0.60	15.0	0.32	25.9	0.69	24.1	0.34	16.9	0.65
Government and other	5.4	0.28	5.0	0.20	13.9	0.55	6.1	0.20	1.4	0.20
Number of people served[5]										
Category 1	46.6	0.56	41.7	0.46	32.5	0.76	5.5	0.18	67.0	0.38
Category 2	47.4	0.59	27.0	0.41	35.1	0.78	62.4	0.39	28.3	0.44
Category 3	6.0	0.30	31.3	0.43	32.5	0.76	32.0	0.37	4.7	0.23
Certification (percent)										
Medicare-certified	…	…	98.7	0.10	---	---	96.9	0.14	…	…
Medicaid-certified	73.4	0.49	78.0	0.37	---	---	95.1	0.17	47.4	0.79
Chain-affiliated (percent)	42.1	0.61	---	---	---	---	55.7	0.40	56.0	0.99

… Category not applicable.
--- Data not available.
[1]Estimates are rounded as whole numbers to the nearest hundred.
[2]For adult day services centers, capacity is based on licensed maximum capacity. For nursing homes and residential care communities, capacity is based on number of licensed or certified beds.
[3]Averages are based on unrounded numbers.
[4]The estimated number of adult day services center participants represents current participants in 2014. The estimated number of home health patients represents patients who ended care in 2013 (i.e., discharges). The estimated number of hospice patients represents patients who received care at any time in 2013. The estimated number of nursing home residents represents current residents in 2014. The estimated number of residential care community residents represents current residents in 2014.
[5]For adult day services centers, nursing homes, and residential care communities, number of people served is based on current users on any given day in 2014, and the categories are 1–25, 26–100, and 101 and over. For home health agencies and hospices, number of people served is based on number of patients in 2013, and categories are 1–100, 101–300, and 301 and over. Home health patients are patients who received and ended care anytime in 2013. Hospice patients are patients who received care anytime in 2013.
NOTE: Percentages may not add to 100 because of rounding; percentages are based on the unrounded numbers.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2013–2014.

Table 2. Staffing characteristics of long-term care services providers, by staff type and sector: United States, 2014

Characteristic	Adult day services center	Standard error	Home health agency	Standard error	Hospice	Standard error	Nursing home	Standard error	Residential care community	Standard error
Total number of nursing and social work employee FTEs	23,100	316	143,900	1,500	73,200	1,441	971,100	4,236	332,400	6,223
Percent distribution of total nursing and social work employee FTEs										
Registered nurse	17.8	0.24	53.1	0.34	48.1	0.29	12.0	0.06	6.5	0.26
Licensed practical nurse or licensed vocational nurse	10.9	0.18	18.8	0.24	8.5	0.19	22.3	0.07	10.7	0.31
Aide	59.2	0.44	25.6	0.33	31.5	0.28	63.9	0.07	82.0	0.42
Social worker	12.1	0.22	2.5	0.04	11.9	0.12	1.8	0.01	0.8	0.04
Percent of providers with one or more employee FTEs										
Registered nurse	59.9	0.59	99.7	0.05	99.9	0.05	99.1	0.08	40.1	0.80
Licensed practical nurse or licensed vocational nurse	45.4	0.59	69.8	0.41	58.2	0.78	98.3	0.10	36.3	0.70
Aide	70.0	0.57	90.4	0.26	97.0	0.27	99.4	0.06	80.8	0.87
Social worker	43.1	0.59	45.2	0.45	99.0	0.15	77.1	0.34	10.6	0.51
Activities director or staff	87.9	0.41	---	---	---	---	96.6	0.14	58.8	0.89
Mean employee hours per resident or participant per day										
Registered nurse	0.26	0.01	---	---	---	---	0.55	0.01	0.20	0.01
Licensed practical nurse or licensed vocational nurse	0.20	0.01	---	---	---	---	0.86	0.01	0.17	0.01
Aide	0.93	0.02	---	---	---	---	2.47	0.01	2.16	0.05
Social worker	0.14	0.00	---	---	---	---	0.08	0.00	0.03	0.01
Activities director or staff	0.72	0.02	---	---	---	---	0.19	0.00	0.33	0.03

--- Data not available.
0.00 Quantity more than zero but less than 0.05.
NOTES: FTE is full-time equivalent. Percentages may not add to 100 because of rounding; percentages are based on the unrounded numbers.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Table 3. Provision of services by long-term care services providers, by type of service and sector: United States, 2014

Characteristic	Adult day services center	Standard error	Home health agency	Standard error	Hospice	Standard error	Nursing home	Standard error	Residential care community	Standard error
Social work services (percent distribution)										
Yes	51.7	0.59	82.4	0.34	99.9	0.04	89.2	0.25	48.0	1.02
No	48.3	0.59	17.6	0.34	0.1	0.04	10.8	0.25	52.0	1.02
Mental health or counseling services (percent distribution)										
Yes	33.5	0.59	---	---	97.2	0.26	87.1	0.27	52.1	1.01
No	66.5	0.59	---	---	2.8	0.26	12.9	0.27	47.9	1.01
Therapeutic services (percent distribution)										
Yes	48.8	0.62	96.6	0.16	98.1	0.21	99.4	0.06	69.0	0.97
No	51.2	0.62	3.5	0.16	1.9	0.21	0.6	0.06	31.0	0.97
Skilled nursing services (percent distribution)										
Yes	66.1	0.57	100.0	—	100.0	—	100.0	0.01	59.0	1.00
No	33.9	0.57	—	—	—	—	—	0.01	41.0	1.00
Pharmacy or pharmacist services (percent distribution)										
Yes	27.3	0.54	4.8	0.19	---	---	97.4	0.13	82.4	0.82
No	72.7	0.54	95.2	0.19	---	---	2.7	0.13	17.7	0.82
Hospice services (percent distribution)										
Yes	12.4	0.40	5.4	0.20	...	...	79.5	0.32	61.6	1.01
No	87.6	0.40	94.6	0.20	...	...	20.5	0.32	38.4	1.01
Dental services (percent distribution)										
Yes	15.9	0.43	---	---	---	---	88.3	0.26	53.8	1.02
No	84.1	0.43	---	---	---	---	11.7	0.26	46.2	1.02
Podiatry services (percent distribution)										
Yes	32.2	0.54	---	---	---	---	92.7	0.21	73.8	0.91
No	67.8	0.54	---	---	---	---	7.3	0.21	26.2	0.91
Screen for depression (percent)	82.2	0.49	93.0	0.24	---	---			83.3	0.77
Dementia-specific units (percent)										
Only serve residents with dementia	...	...	...	...	...	...	0.4	0.05	10.1	0.62
Have a distinct unit, wing, or floor designated for dementia special care	...	...	...	...	...	...	14.8	0.28	12.1	0.44

--- Data not available.
— Quantity zero.
... Category not applicable.
NOTES: Percentages may not add to 100 because of rounding; percentages are based on the unrounded numbers.
SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2014.

Table 4. Long-term care services users, by selected characteristics and sector: United States, 2013–2014

Characteristic	Adult day services center	Standard error	Home health agency	Standard error	Hospice	Standard error	Nursing home	Standard error	Residential care community	Standard error
Number of users[1]	282,200	3,325	4,934,600	116,603	1,340,700	40,416	1,369,700	6,930	835,200	12,986
Age (percent)										
Under 65	36.4	0.59	17.5	0.17	5.6	0.06	15.1	0.15	7.2	0.31
65 and over	63.7	0.59	82.6	0.17	94.4	0.06	84.9	0.15	92.9	0.31
65–74	20.0	0.25	25.5	0.09	17.1	0.11	16.1	0.07	10.4	0.29
75–84	27.5	0.39	31.1	0.07	30.0	0.08	27.2	0.06	29.9	0.47
85 and over	16.2	0.23	26.0	0.15	47.3	0.22	41.6	0.17	52.6	0.60
Sex (percent distribution)										
Men	41.1	0.23	37.9	0.06	40.9	0.11	33.2	0.13	29.8	0.34
Women	58.9	0.23	62.1	0.06	59.1	0.11	66.8	0.13	70.2	0.34
Race and ethnicity (percent distribution)										
Hispanic	20.3	0.46	7.7	0.19	5.0	0.38	5.2	0.12	2.5	0.16
Non-Hispanic white	43.9	0.60	75.4	0.36	84.4	0.49	76.1	0.26	84.3	0.68
Non-Hispanic black	17.3	0.40	13.5	0.23	8.2	0.23	14.0	0.20	3.8	0.18
Other[2]	18.6	0.66	3.3	0.11	2.4	0.13	4.7	0.10	9.3	0.66
Conditions (percent)										
Diagnosed with Alzheimer's or dementia	29.9	0.46	31.4	0.16	44.7	0.31	50.4	0.15	39.6	0.72
Diagnosed with depression	25.5	0.49	37.9	0.14	22.9	0.17	48.7	0.13	23.2	0.52
Diagnosed with diabetes	29.7	0.40	45.2	0.16	27.6	0.19	32.4	0.08	16.9	0.33
Need assistance in physical functioning (percent)										
Eating	24.3	0.46	56.7	0.43	---	---	58.0	0.24	19.8	0.51
Bathing	41.0	0.69	96.4	0.09	---	---	96.4	0.08	62.4	0.73
Dressing	37.1	0.61	88.4	0.25	---	---	91.8	0.10	47.4	0.69
Toileting	35.6	0.57	73.2	0.40	---	---	87.9	0.12	39.3	0.67
Walking or locomotion	33.7	0.61	94.0	0.14	---	---	90.7	0.11	29.1	0.64
Transferring in and out of a chair or bed	29.8	0.59	87.8	0.22	---	---	85.2	0.19	29.7	0.62
Medicaid as payer source (percent)	53.7	0.82	9.2	0.33	---	---	62.9	0.18	15.1	0.47
Adverse events (percent)										
Overnight hospital stay	5.7	0.13	16.7	0.12	---	---	---	---	8.3	0.22
Emergency department visit	6.6	0.14	14.9	0.10	---	---	---	---	12.4	0.27
Fall	7.8	0.22	---	---	---	---	16.5	0.07	21.1	0.47

--- Data not available.

[1]The estimated number of adult day services center participants represents current participants in 2014. The estimated number of home health patients represents patients who ended care in 2013 (i.e., discharges). The estimated number of hospice patients represents patients who received care at any time in 2013. The estimated number of nursing home residents represents current residents in 2014. The estimated number of residential care community residents represents current residents in 2014.

[2]For adult day services centers and residential care communities, includes non-Hispanic American Indian or Alaska Native, non-Hispanic Asian, non-Hispanic Native Hawaiian or other Pacific Islander, non-Hispanic of two or more races, and unknown race and ethnicity.

NOTES: Numbers may not add to totals because of rounding. Percentages are based on the unrounded numbers.

SOURCE: CDC/NCHS, National Study of Long-Term Care Providers, 2013–2014.

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