Overview of Post-acute and Long-term Care Providers and Services Users in the United States, 2020

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Abstract

Objective—This report presents national results from the National Post-acute and Long-term Care Study to describe providers and services users in seven major settings of paid, regulated post-acute and long-term care services in the United States.

Methods—Data are from the 2020 National Post-acute and Long-term Care Study, which includes surveys of adult day services centers and residential care communities and administrative data from the Centers for Medicare and Medicaid Services on home health agencies, hospices, inpatient rehabilitation facilities, long-term care hospitals, and nursing homes.

Results—The findings show variation in characteristics of the seven post-acute and long-term care settings. About 68,150 providers served roughly 7.3 million people in the United States; about one-half of these providers were residential care communities, and about one-quarter were nursing homes. The Northeast had a higher percentage of adult day services centers than other settings, the Midwest had a higher percentage of nursing homes, the South had a higher percentage of long-term care hospitals, and the West had a higher percentage of residential care communities. Among the settings, more registered nurses were employed in inpatient rehabilitation facilities and long-term care hospitals, and more licensed practical nurses in home health agencies and long-term care hospitals. The most common services were skilled nursing and therapeutic services. Adult day services centers had the highest percentage of users younger than age 65, while nearly one-half of hospice and nursing home users were age 85 and older. Adult day services centers had the highest percentage of other non-Hispanic and Hispanic users among the settings. The percentage of users with selected diagnoses and activities of daily living difficulties varied by setting.

Conclusion—The providers described in this report comprise a large share of the U.S. post-acute and long-term care industry. This report provides the most recent nationally representative information on these providers and services users and updates findings from previous National Center for Health Statistics reports.

Keywords: aging • disability • home- and community-based services • chronic conditions • National Post-acute and Long-term Care Study

Introduction

Paid long-term care services and supports include a broad range of health, personal care, and supportive services that meet the needs of adults whose capacity for self-care is limited because of chronic illness; injury; physical, cognitive, or mental disability; or other health-related conditions (1). Post-acute care provides short-term rehabilitative or other healthcare services to patients typically following a stay in an acute care hospital, a medical facility that provides short-term treatment and care for medical conditions and injuries. Depending on the intensity of care the patient requires, post-acute care may include a stay in a facility, outpatient services, or home care (2). People may receive post-acute care services from providers that also provide long-term care, such as adult day services centers, home health agencies, and nursing homes. Both long-term and post-acute care may be home- and community-based or provided in institutional settings (1–4).

Long-term care services include assistance with activities of daily living (such as dressing, bathing, and toileting), instrumental activities of daily living (such as medication management and housework), and health maintenance

tasks (3). The need for long-term care services is generally based on functional status (the need for assistance with or supervision in activities of daily living and instrumental activities of daily living) regardless of cause, age, location, whether the assistance is human or mechanical, and whether the assistance is paid or unpaid. Long-term care settings include adult day services centers, home health agencies, hospices, inpatient rehabilitation facilities, long-term care hospitals, nursing homes, and residential care communities. However, these settings do not represent the entire picture of long-term care in the United States, as care provided by informal or unpaid caregivers, such as family, friends, and neighbors (5), and all paid home care or personal care services are not included in long-term care data collected by the National Center for Health Statistics (NCHS) (6,7).

The Centers for Medicare & Medicaid Services (CMS) requires specific criteria to cover beneficiaries in the post-acute care settings. For home health care, patients must be physician certified as needing at least part-time care and must have difficulty leaving the home (2). Skilled nursing facilities are typically covered by Medicare, and CMS certifies them to offer short-term, post-acute nursing and rehabilitation care. Inpatient rehabilitation facilities must qualify for Medicare's inpatient rehabilitation facility prospective payment system and patients are enrolled in Medicare Part A fee-for-service. These facilities offer physical, occupational, and speech therapies and nursing services for patient rehabilitation after illness, injury, or surgery, usually following a hospital stay (2,8,9). Long-term care hospitals (freestanding or hospital-based) are for people with complex conditions that need hospital-level care for longer periods of time (typically more than 25 days) (10). Like inpatient rehabilitation facilities, long-term care hospitals participate in the Medicare prospective payment system and serve Medicare fee-for-service beneficiaries.

This report provides an overview of the characteristics of seven paid, regulated long-term and post-acute care services providers in the United States, including adult day services centers,

home health agencies, inpatient rehabilitation facilities, hospices, long-term care hospitals, nursing homes, and residential care communities, and compares characteristics across these services.

Methods

Data sources

This report uses multiple NCHS survey data and CMS administrative data sources, collectively referred to as the National Post-acute and Long-term Care Study (NPALS). The surveys are designed to collect information about the characteristics of the adult day services center or residential care community and its users, such as size, ownership, computerized capabilities, services provided, user demographics and health and physical functioning, and numbers and types of staff. The surveys collect provider-level information and data on services users that were combined at the provider level. Similarly, estimates from administrative CMS data were provider-level, and services user data were aggregated to create analytic data files as comparable to the survey data as possible. The purpose of NPALS is to provide reliable, accurate, relevant, and timely statistical information to support and inform post-acute and long-term care services policy, research, and practice (11). Federal CMS data are routinely collected for five of the settings (home health agencies, hospices, inpatient rehabilitation facilities, long-term care hospitals, and nursing homes), and NCHS collects data on the two settings for which other national data sources do not exist (adult day services centers and residential care communities). U.S. Census Bureau population estimates (12,13) were used to calculate rates shown in Figures 2 and 8 (12).

The 2020 surveys of adult day services centers and residential care communities used a multimode data collection (mail, web, or telephone) of a census of adult day services centers and a stratified random sample of residential care communities, conducted by NCHS from November 2020 to July 2021. The target respondents were adult day

services center and residential care community directors. Data included 1,780 eligible adult day services centers from a frame of 5,466 (weighted response rate of 43%) and 4,312 residential care communities from a sampling frame of 11,618 (weighted response rate of 45%). A survey methodology report (14), survey-specific technical documentation (15,16), and examples of the questionnaires (17,18) are available from: https://www.cdc.gov/nchs/npals/questionnaires/#cdc_listing_res4-2020.

CMS data are used for five settings: home health agencies, hospices, inpatient rehabilitation facilities, long-term care hospitals, and nursing homes. These CMS data sources are from calendar year 2020 and represent all Medicare and Medicaid certified providers and services users who received care in 2020 (19). Certification and Survey Provider Enhanced Reports data for each setting included provider-level information and claims or assessment data sources provided information about the services users. Services user information was obtained from the Outcome and Assessment Information Set and Institutional Provider Based Summary for home health agency patients; Institutional Provider Based Summary for hospice and long-term care hospital patients; Institutional Provider Based Summary and the Inpatient Rehabilitation Facility-Patient Assessment Inventory for inpatient rehabilitation facility patients; and Medicare Provider Analysis and Review and Minimum Data Set Active Resident Table for nursing home residents. Data include about 11,400 home health agencies, 5,200 hospices, 1,200 inpatient rehabilitation facilities, 350 long-term care hospitals, and 15,300 nursing homes. Technical notes describing the CMS administrative data sources and methodology in more detail are available (19).

Measures

In 2020, NCHS collected survey data about the operations, practices, services offered, staffing profile, services user demographics, services user health and physical functioning status, and services user adverse events among adult day services centers and residential care

communities. The survey questionnaires consist of core topics common or comparable across all seven settings, as well as selected topics that are specific to a particular setting. To make comparisons across settings easier, the topics for the adult day services center and residential care community surveys were designed to be as similar as possible to the core topics and wording available in the CMS data sources. This report compares each setting by a variety of provider and user characteristics, where available or applicable to the setting. The measures include provider characteristics, such as U.S. Census Bureau region, number of beds, number of people served daily and annually, staffing (registered nurses, licensed practical or vocational nurses, aides, and social workers), and services provided by employees or through arrangement with outside providers (dietary and nutritional, hospice, mental health or counseling, pharmacy, skilled nursing, social work, and therapeutic). Services user characteristics include:

- Age groups: Younger than 65, 65–74, 75–84, and 85 and older
- Race and Hispanic-origin groups: Black non-Hispanic (subsequently, Black); White non-Hispanic (subsequently, White); a combined other non-Hispanic race category (subsequently, other races) that includes American Indian and Alaskan Native, Asian, Native Hawaiian or Other Pacific Islander, two or more races, unknown, and categories not in the provider's system; and Hispanic
- Selected diagnosed conditions: Alzheimer disease or other dementias, depression, diabetes, heart disease, and hypertension
- Difficulties with activities of daily living: bathing and eating

Details about how the variables in this report and accompanying online data tables are measured across each of the seven settings are available (20).

Data analysis

For the adult day care services center and residential care community survey data, estimates were weighted to account for complex sampling and

nonresponse variability (14–16), and subsetting techniques were used to ensure proper variance calculation. The CMS data represent 100% of the Medicare- and Medicaid-regulated providers and beneficiaries of those providers at the specific time that the data were collected and were not subject to sampling variability (19). However, due to the possibility of random variability associated with different time frames, potential data entry errors, and reporting errors, the estimates from CMS data sources were treated as a simple random sample. All estimates from all sources meet NCHS guidelines for reliability of proportions (21) and confidentiality.

All figures show percentages or rates. Table 1 shows the total number of providers, services users, and staff types by setting. The 95% confidence intervals for estimates in Figure 2 are shown in Table 2. For the estimates shown in all other figures, 95% confidence intervals can be found in previously published tables for the corresponding estimates (22). Statements in this report describing differences indicate that statistical testing was performed and the differences between two estimates were determined to be statistically significant using two-sided t tests at the $p < 0.05$ level, unless otherwise specified. 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-callable SUDAAN (23) and Stata (24) statistical packages. Individual estimates in distributions may not sum to totals because estimates were rounded.

Cases with missing data were excluded from analyses on a variable-by-variable basis. For adult day services centers and residential care communities, missing data for age, sex, and race and ethnicity were imputed (14–16). Missing data for categorical variables in all files was less than 10%; however, for some aggregated services user-level data, 10–61% of the data was missing. This was mainly due to the loss of information that occurred when merging data from the Institutional Provider Based Summary, the Outcome and Assessment Information Set, and the Minimum Data Set Active Resident Table files to Certification and

Survey Provider Enhanced Reports. Table 3 describes the percentage missing for each setting. The administrative data technical notes contain more detailed information about how data file management may lead to higher levels of missing data for aggregated user-level data after merging to the Certification and Survey Provider Enhanced Reports provider-level data files (19).

Results

Supply of providers by region

In 2020, about 68,150 paid and regulated post-acute and long-term care services providers existed across the United States (Table 1). Of these, 6.0% were adult day services centers, 16.7% were home health agencies, 7.6% were hospices, 1.8% were inpatient rehabilitation facilities, 0.5% were long-term care hospitals, 22.5% were nursing homes, and 44.9% were residential care communities (percentages derived from number of providers shown in Table 1). The type of providers varied in their geographic distribution. The Northeast had a higher percentage of adult day services centers (18.4%), compared with other provider types (Figure 1). The Midwest had a higher percentage of nursing homes (32.7%) than other settings. The South had a higher percentage of long-term care hospitals (54.0%), followed by home health agencies (42.1%) and inpatient rehabilitation facilities (42.4%). The West had a higher percentage of residential care communities (39.7%) than other settings.

Adult day services centers' capacity and the availability of beds in other residential settings per 1,000 people age 65 and older also varied by region (Figure 2, Table 2). Overall, the United States had a larger number of certified nursing home beds per population age 65 and older (30.0 per 1,000 people age 65 and older) compared with licensed residential care community beds (22.0 per 1,000), certified inpatient rehabilitation facility beds (6.2 per 1,000), adult day services center maximum participants allowed (5.4 per

Figure 1. Percent distribution of post-acute and long-term care services providers, by setting and region: United States, 2020

[1]Statistically significant differences in the Northeast between adult day services and all settings (*p* < 0.05); home health agencies and most settings except for hospice and long-term care hospitals; hospice and most settings except home health, long-term care hospitals, and residential care communities; inpatient rehabilitation facilities and all settings except long-term care hospitals; long-term care hospitals and adult day services centers and nursing homes; nursing homes and all settings; residential care communities and all settings except long-term care hospitals.

[2]Statistically significant differences in the Midwest between adult day services and all settings (*p* < 0.05); home health agencies and most settings except for inpatient rehabilitation facilities; hospices and all settings except for long-term care hospitals; inpatient rehabilitation facilities and some settings except for home health agencies, long-term care hospitals, and residential care communities; long-term care hospitals and some settings except hospices, inpatient rehabilitation facilities, and residential care communities; nursing homes and all settings; residential care communities and some settings except inpatient rehabilitation facilities and long-term care hospitals.

[3]Statistically significant differences in the South between all settings except between home health agencies and inpatient rehabilitation facilities (*p* < 0.05) .

[4]Statistically significant differences in the West between all settings except between long-term care hospitals and inpatient rehabilitation facilities and nursing homes (*p* < 0.05).

NOTES: Region is based on U.S. Census regions. Statistically significant differences were present within regions between all settings (*p* < 0.05). The number in parentheses is the number of service providers, which are rounded to the nearest 100, except for long-term care hospitals, which are rounded to the nearest 10. Percentages are based on unrounded estimates. Percent distributions may not add to 100 due to rounding.

SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

1,000), and certified long-term care hospital beds (0.4 per 1,000). This pattern was similar in the Northeast, Midwest, and South. The West had a larger rate of residential care community beds (27.5 per 1,000), followed by nursing home beds (18.7 per 1,000), compared with capacity in the other settings.

Number of people served

The number of people served by the providers was measured either daily for adult day services centers, nursing homes, and residential care communities annually for home health agencies, hospices, inpatient rehabilitation facilities, and long-term care hospitals. The number of people served on any given day was categorized as 1–25, 26–100, and 101 or more people and

showed significant variation within and across settings (Figure 3). Most adult day services centers served 1–25 participants (52.1%) daily, most nursing homes served 26–100 residents (66.5%), and most residential care communities served 1–25 residents (57.1%). As such, adult day services centers and residential care communities served fewer people than nursing homes. A greater percentage of nursing homes served 101 or more people daily, 28.5%, compared with 8.2% of adult day services centers and 10.0% of residential care communities.

The number of people served per year was categorized as 1–100, 101–300, or 301 or more, and significant differences were found within and across settings (Figure 4). More home health agencies (42.9%) and hospices (40.0%) served 1–100 patients annually

compared with the larger categories. A larger percentage of inpatient rehabilitation facilities (47.9%) and most long-term care hospitals (61.3%) served 101–300 patients compared with the other participant number categories. A higher percentage of home health agencies (42.9%) and hospices (40.0%) served 1–100 patients than inpatient rehabilitation facilities (16.6%) and long-term care hospitals (14.5%), while more long-term care hospitals (61.3%) and 47.9% of inpatient rehabilitation facilities served 101–300 patients. A higher percentage of inpatient rehabilitation facilities than other settings served 301 or more patients (35.6%).

Figure 2. Post-acute and long-term care services provider capacity per 1,000 people age 65 and older, by setting and region: United States, 2020
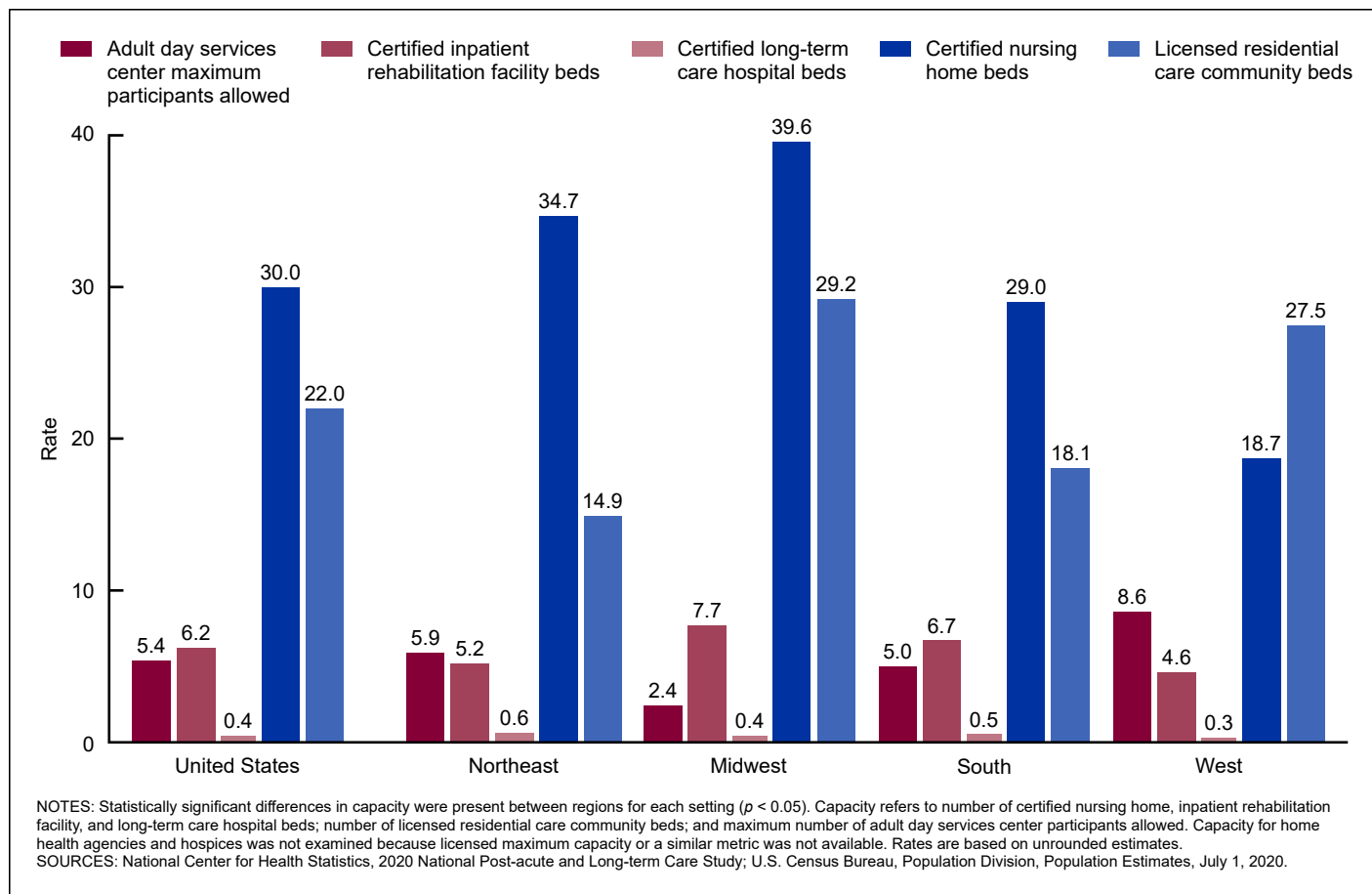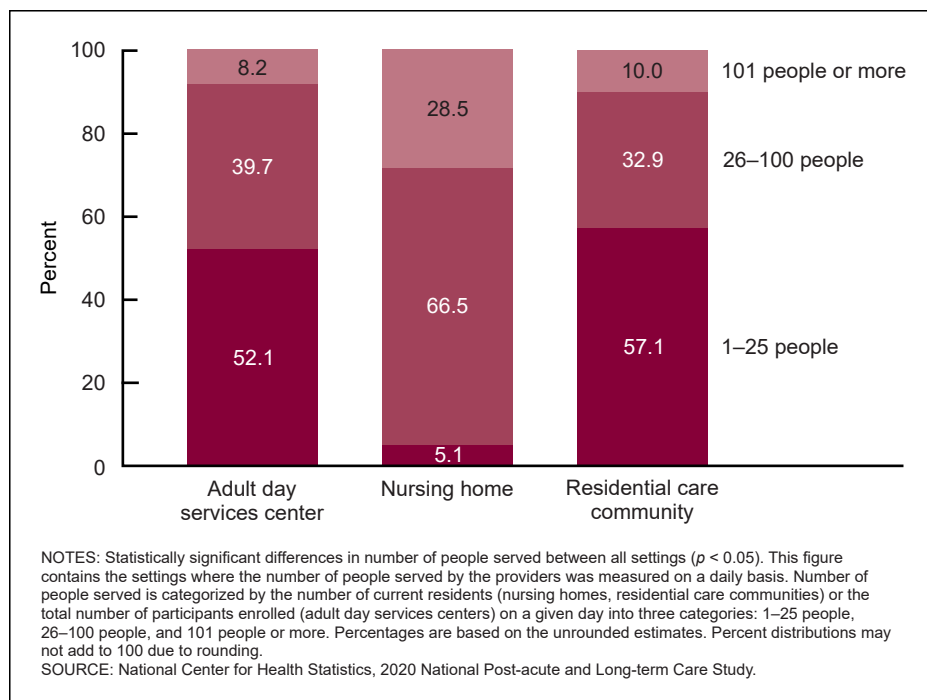

NOTES: Statistically significant differences in capacity were present between regions for each setting ($p < 0.05$). Capacity refers to number of certified nursing home, inpatient rehabilitation facility, and long-term care hospital beds; number of licensed residential care community beds; and maximum number of adult day services center participants allowed. Capacity for home health agencies and hospices was not examined because licensed maximum capacity or a similar metric was not available. Rates are based on unrounded estimates.
SOURCES: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study; U.S. Census Bureau, Population Division, Population Estimates, July 1, 2020.

Figure 3. Percent distribution of number of people served daily by post-acute and long-term care services providers, by setting: United States, 2020

NOTES: Statistically significant differences in number of people served between all settings ($p < 0.05$). This figure contains the settings where the number of people served by the providers was measured on a daily basis. Number of people served is categorized by the number of current residents (nursing homes, residential care communities) or the total number of participants enrolled (adult day services centers) on a given day into three categories: 1–25 people, 26–100 people, and 101 people or more. Percentages are based on the unrounded estimates. Percent distributions may not add to 100 due to rounding.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

Staffing and services

All settings employed full-time equivalent (FTE) nursing staff, including registered nurses and licensed practical nurses or licensed vocational nurses; adult day services centers, home health agencies, hospices, and residential care communities also employed aides, nursing assistants, and social workers. Data on employees in nursing homes were not available. About 884,500 nursing and social work FTEs worked across all of the settings where data were available (Table 1).

Inpatient rehabilitation facilities (92.7%) and long-term care hospitals (81.7%) had significantly higher percentages of registered nurses than the other settings (Figure 5). However, home health agencies (21.7%) had the highest percentage of licensed practical nurses or licensed vocational nurse FTEs among the settings. Residential care communities (75.4%), followed by adult day services centers (53.0%), had higher

Figure 4. Percent distribution of number of people served annually by post-acute and long-term care services providers, by setting: United States, 2020
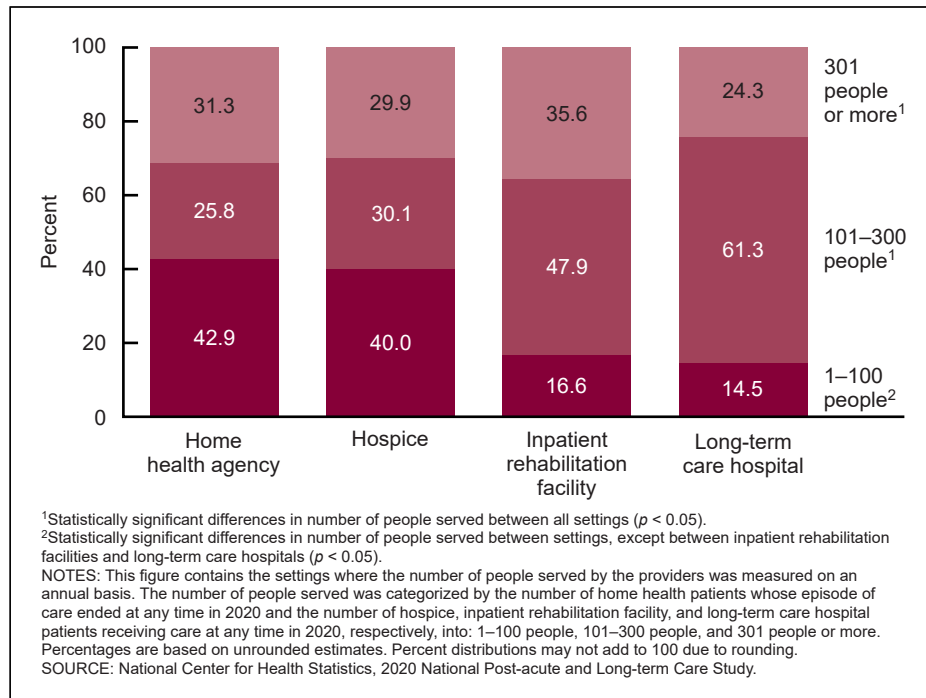

[1]Statistically significant differences in number of people served between all settings (*p* < 0.05).
[2]Statistically significant differences in number of people served between settings, except between inpatient rehabilitation facilities and long-term care hospitals (*p* < 0.05).
NOTES: This figure contains the settings where the number of people served by the providers was measured on an annual basis. The number of people served was categorized by the number of home health patients whose episode of care ended at any time in 2020 and the number of hospice, inpatient rehabilitation facility, and long-term care hospital patients receiving care at any time in 2020, respectively, into: 1–100 people, 101–300 people, and 301 people or more. Percentages are based on unrounded estimates. Percent distributions may not add to 100 due to rounding.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

percentages of aide FTEs than other settings. Hospices (11.6%), followed by adult day services centers (10.6%), had higher percentages of social work FTEs than other settings.

Many different services were offered in each of the settings and were provided in a variety of ways: by paid employees, arrangement with outside providers, or referral to outside services providers. Some providers did not provide the selected services by any of these means. Data on services in nursing homes were not available. Figure 6 shows the percentages of providers who offered services by paid employee or by arrangement with outside providers. Social work and therapeutic services, including occupational, physical, and speech therapies, were provided by the six settings with available data, while pharmacy services were offered in all settings but hospice, and skilled nursing services were offered in all settings but

Figure 5. Number and percent distribution of nursing and social work full-time equivalent employees, by setting and staff type: United States, 2020
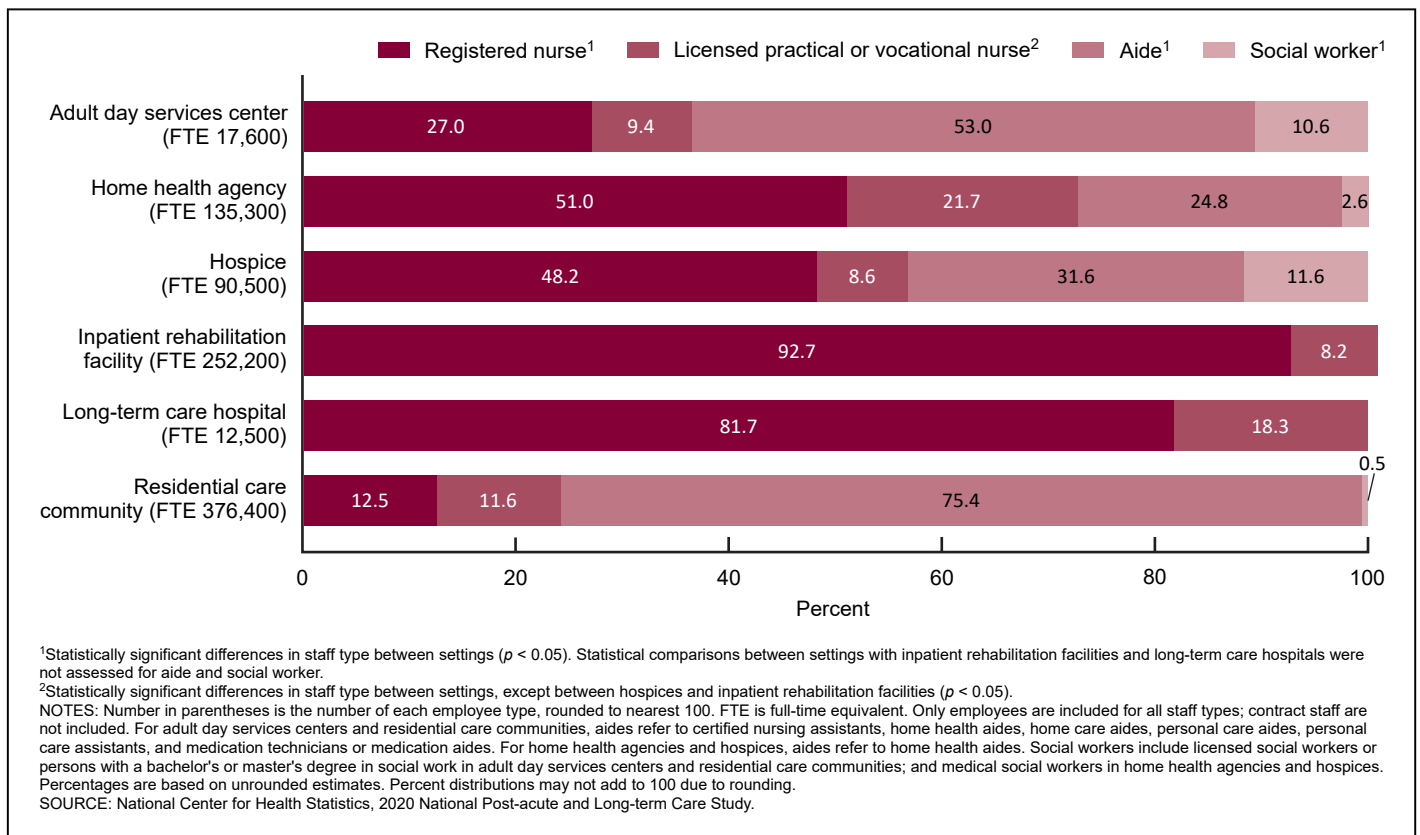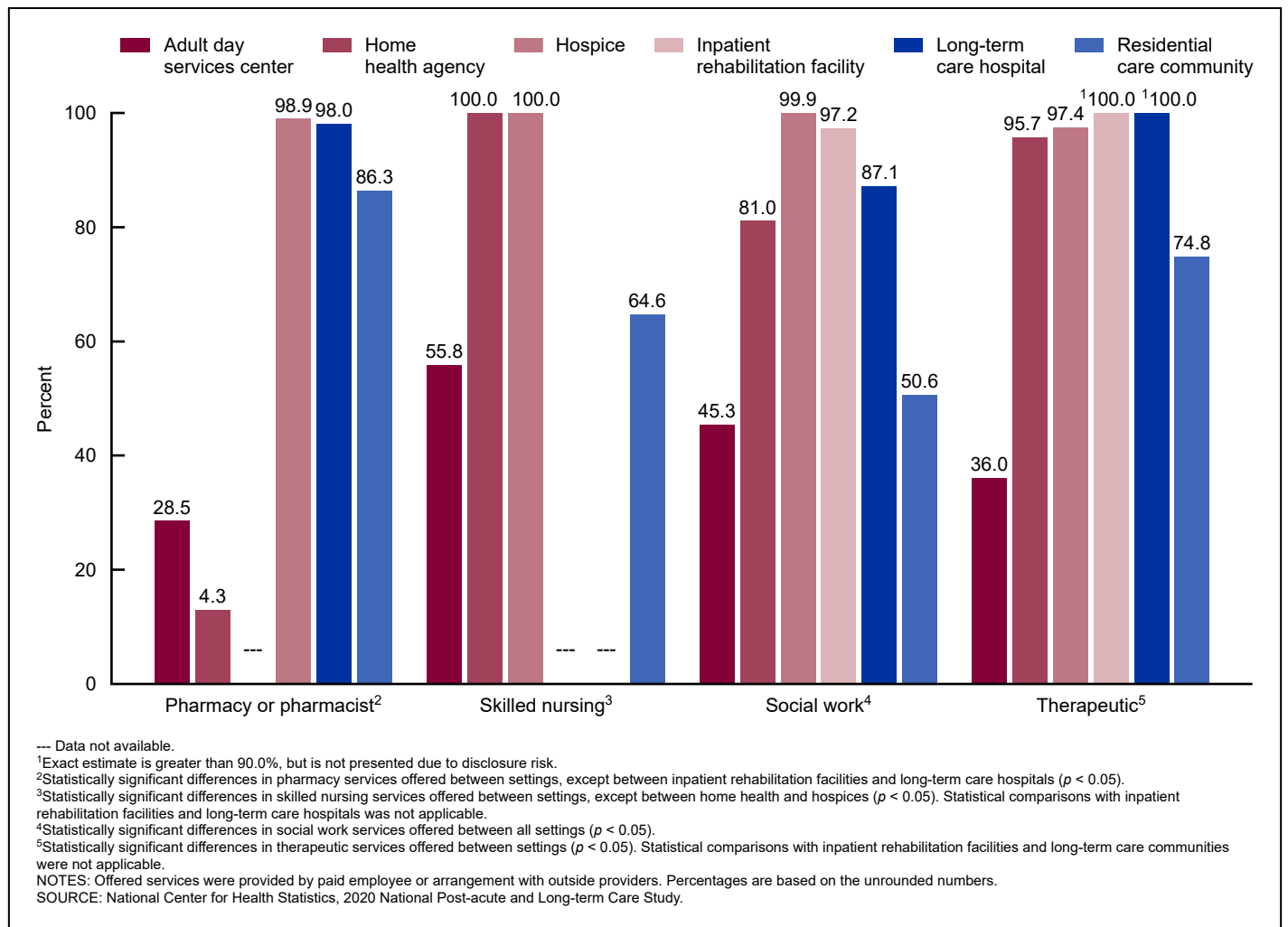

[1]Statistically significant differences in staff type between settings (*p* < 0.05). Statistical comparisons between settings with inpatient rehabilitation facilities and long-term care hospitals were not assessed for aide and social worker.
[2]Statistically significant differences in staff type between settings, except between hospices and inpatient rehabilitation facilities (*p* < 0.05).
NOTES: Number in parentheses is the number of each employee type, rounded to nearest 100. FTE is full-time equivalent. 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. 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; and medical social workers in home health agencies and hospices. Percentages are based on unrounded estimates. Percent distributions may not add to 100 due to rounding.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

Figure 6. Percentage of post-acute and long-term care services providers that offer selected services, by setting: United States, 2020

--- Data not available.
[1]Exact estimate is greater than 90.0%, but is not presented due to disclosure risk.
[2]Statistically significant differences in pharmacy services offered between settings, except between inpatient rehabilitation facilities and long-term care hospitals ($p < 0.05$).
[3]Statistically significant differences in skilled nursing services offered between settings, except between home health and hospices ($p < 0.05$). Statistical comparisons with inpatient rehabilitation facilities and long-term care hospitals was not applicable.
[4]Statistically significant differences in social work services offered between all settings ($p < 0.05$).
[5]Statistically significant differences in therapeutic services offered between settings ($p < 0.05$). Statistical comparisons with inpatient rehabilitation facilities and long-term care communities were not applicable.
NOTES: Offered services were provided by paid employee or arrangement with outside providers. Percentages are based on the unrounded numbers.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

inpatient rehabilitation facilities and long-term care hospitals.

For pharmacy or pharmacist services, almost all inpatient rehabilitation facilities (98.9%), long-term care hospitals (98.0%), and residential care communities (86.3%) offered these services, compared with 28.5% of adult day services centers and 4.3% of home health agencies. All home health agencies and hospices offered skilled nursing or nursing services, and most residential care communities (64.6%) and adult day services centers (55.8%) provided skilled nursing services. Nearly all hospices (99.9%) and inpatient rehabilitation facilities (97.2%) offered social work services, compared with 50.6% of residential care communities and 45.3% of adult day services centers. Almost all hospices (97.4%), home health agencies (95.7%), inpatient rehabilitation facilities

(over 90%), and long-term care hospitals (over 90%) offered therapeutic services, compared with 74.8% of residential care communities and 36.0% of adult day services centers.
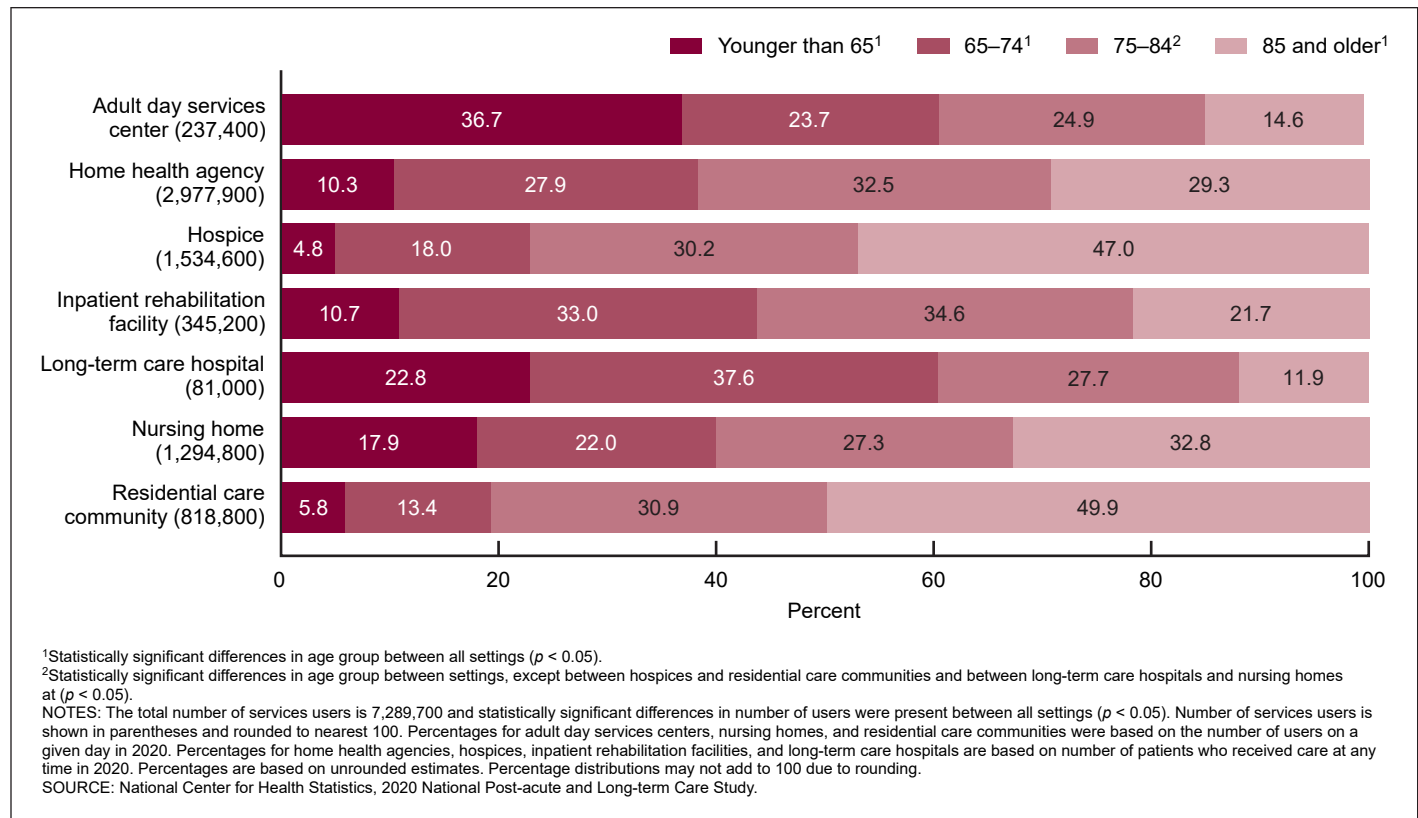
Services user demographic characteristics

In 2020, the seven settings had about 7,289,700 services users in total (Table 1). The age composition of services users varied within each setting, with most users being age 65 and older. Age groups were significantly different between settings, except for ages 75–84 between hospices and residential care communities and between long-term care hospitals and nursing homes. Adult day services centers had the largest percentage of users younger than age 65 (36.7%) among the settings. Nearly

one-half of residential care community (49.9%) and hospice (47.0%) users were age 85 and older.

The race and Hispanic origin of services users varied within and across settings (Figure 8). Adult day services center users were the most diverse in race and Hispanic origin across the seven settings. This setting had the lowest percentage of White participants (40.1%) and the highest percentages of other race (23.1%) and Hispanic (21.8%) participants, compared with the other settings. Long-term care hospitals had the highest percentage of Black services users (19.9%) among the settings. Most users of residential care communities (88.0%), followed by hospices (81.5%), inpatient rehabilitation facilities (80.2%), and home health agencies (79.2%) were White.

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Figure 7. Number and percent distribution of post-acute and long-term care services users, by setting and age group: United States, 2020

Legend: Younger than 65[1]   65–74[1]   75–84[2]   85 and older[1]

Setting (number of users)	Younger than 65	65–74	75–84	85 and older
Adult day services center (237,400)	36.7	23.7	24.9	14.6
Home health agency (2,977,900)	10.3	27.9	32.5	29.3
Hospice (1,534,600)	4.8	18.0	30.2	47.0
Inpatient rehabilitation facility (345,200)	10.7	33.0	34.6	21.7
Long-term care hospital (81,000)	22.8	37.6	27.7	11.9
Nursing home (1,294,800)	17.9	22.0	27.3	32.8
Residential care community (818,800)	5.8	13.4	30.9	49.9

[1]Statistically significant differences in age group between all settings ($p < 0.05$).
[2]Statistically significant differences in age group between settings, except between hospices and residential care communities and between long-term care hospitals and nursing homes at ($p < 0.05$).
NOTES: The total number of services users is 7,289,700 and statistically significant differences in number of users were present between all settings ($p < 0.05$). Number of services users is shown in parentheses and rounded to nearest 100. Percentages for adult day services centers, nursing homes, and residential care communities were based on the number of users on a given day in 2020. Percentages for home health agencies, hospices, inpatient rehabilitation facilities, and long-term care hospitals are based on number of patients who received care at any time in 2020. Percentages are based on unrounded estimates. Percentage distributions may not add to 100 due to rounding.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

Services user health conditions and functional status characteristics

Figure 9 displays the variation across settings in the percentage of services users diagnosed with five selected health conditions. A similar percentage of services users with Alzheimer disease or other dementias were in hospices (45.2%), long-term care hospitals (45.4%), and nursing homes (45.6%), followed by residential care communities (42.1%). Diabetes was most common in long-term care hospital patients (64.5%), followed by nearly one-half of inpatient rehabilitation facility patients (49.4%). Heart disease was most common in long-term care hospitals (67.1%), followed by inpatient rehabilitation facilities (60.4%). Similarly, high blood pressure was most common in inpatient rehabilitation facilities (94.0%) and long-term care hospitals (93.4%).

Functional status or needing assistance with the selected activities of daily living of bathing and eating varied by setting (Figure 10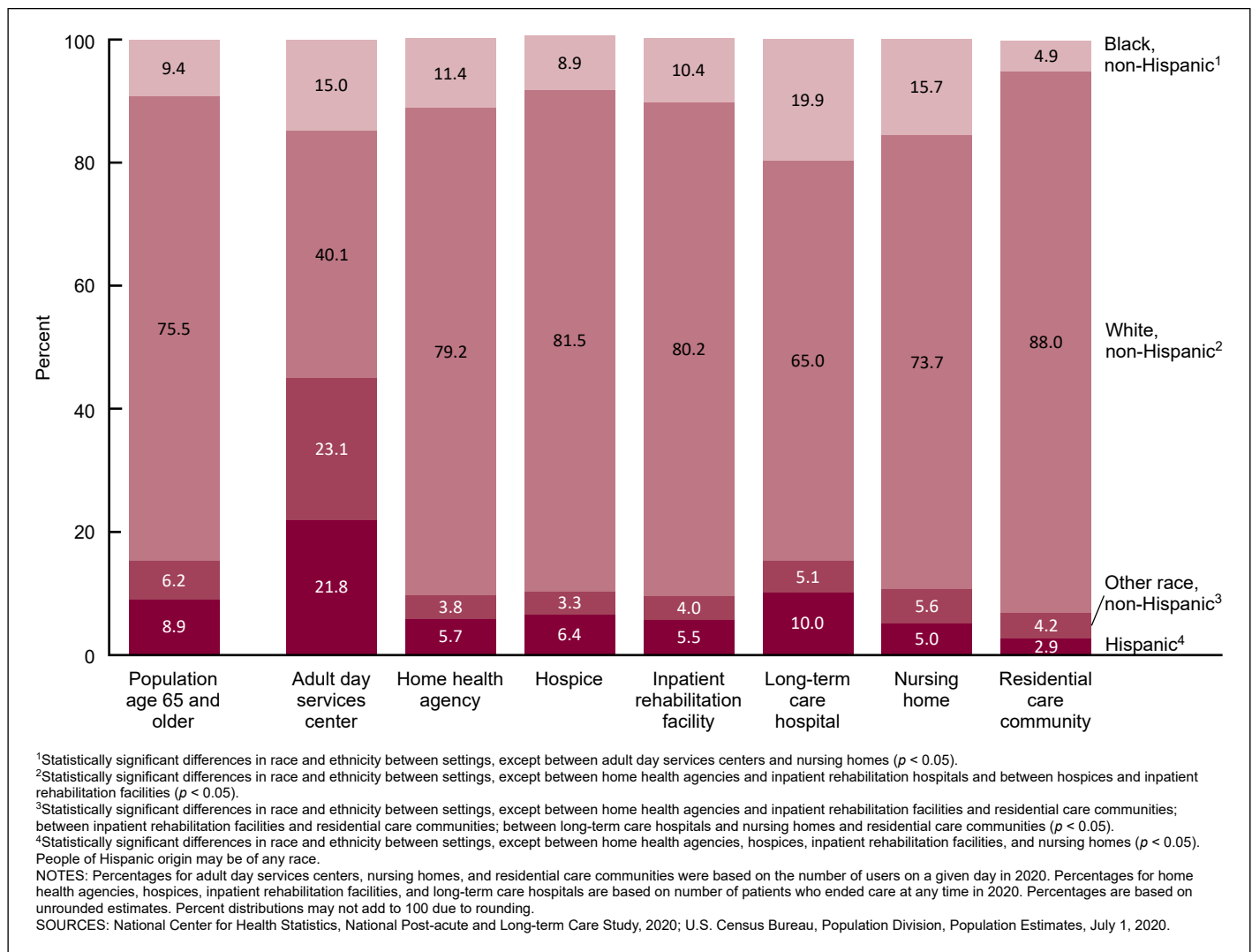). The highest percentage of services users who needed assistance with bathing was in nursing homes (96.5%), followed by inpatient rehabilitation facilities (95.1%) and home health agencies (94.9%). Needing assistance with eating was most common among services users in inpatient rehabilitation facilities (76.5%), followed by home health agencies (67.9%).

Discussion

This report provides an overview of the scope of use and characteristics of seven major post-acute and long-term care settings in the United States. In 2020, about 68,150 paid, regulated post-acute and long-term care services providers in these sectors served more than 7.3 million people in the United States. Post-acute and long-term care services were provided by 4,100 adult day services centers, 11,400 home health agencies, 5,200 hospices, 15,300 nursing homes, 1,200 inpatient rehabilitation facilities, 350 long-term care hospitals, and 30,600 residential care communities. On a given day, about 237,400 people were enrolled in adult day services centers, 1,294,800 people were residing in nursing homes, and 818,800 people were living in residential care communities. About 2,977,900 patients received care and were discharged from home health agencies, 1,534,600 patients received services from hospices, 345,200 patients received services from inpatient rehabilitation facilities, and 81,000 patients received services from long-term care hospitals.

Post-acute and long-term care services users varied by sector in their demographic, health characteristics, and functional status. A higher percentage of adult day services center participants were younger than age 65 compared with the other settings. Adult day services center users were also the most diverse in race and Hispanic origin among the seven settings. Among the five chronic conditions examined, hypertension was the most common diagnosis among services users across all settings, while Alzheimer disease or other dementias were present in nearly one-half of services users in hospice, long-term care hospitals, nursing homes, and residential care communities. However,

Figure 8. Percent distribution of post-acute and long-term care services users, by setting and race and Hispanic origin: United States, 2020

[1]Statistically significant differences in race and ethnicity between settings, except between adult day services centers and nursing homes ($p < 0.05$).
[2]Statistically significant differences in race and ethnicity between settings, except between home health agencies and inpatient rehabilitation hospitals and between hospices and inpatient rehabilitation facilities ($p < 0.05$).
[3]Statistically significant differences in race and ethnicity between settings, except between home health agencies and inpatient rehabilitation facilities and residential care communities; between inpatient rehabilitation facilities and residential care communities; between long-term care hospitals and nursing homes and residential care communities ($p < 0.05$).
[4]Statistically significant differences in race and ethnicity between settings, except between home health agencies, hospices, inpatient rehabilitation facilities, and nursing homes ($p < 0.05$). People of Hispanic origin may be of any race.
NOTES: Percentages for adult day services centers, nursing homes, and residential care communities were based on the number of users on a given day in 2020. Percentages for home health agencies, hospices, inpatient rehabilitation facilities, and long-term care hospitals are based on number of patients who ended care at any time in 2020. Percentages are based on unrounded estimates. Percent distributions may not add to 100 due to rounding.
SOURCES: National Center for Health Statistics, National Post-acute and Long-term Care Study, 2020; U.S. Census Bureau, Population Division, Population Estimates, July 1, 2020.

the prevalence of these and other reported diagnosed chronic conditions varied across settings. Difficulty with bathing was more common than eating difficulties across all settings.

Additional results from the NPALS surveys and CMS administrative data can be found in a series of interactive online tables (22). These tables display estimates for organizational characteristics, staffing, services, and user characteristics for each of the seven settings and include additional measures not included here, such as ownership status, chain affiliation, Medicaid use, other staffing measures, and adverse events. These interactive tables can be accessed here: https://www.cdc.gov/nchs/npals/webtables/overview.htm.

Impact of COVID-19

Post-acute and long-term care settings were greatly impacted by the COVID-19 pandemic. Services users, who are typically adults age 65 and older, faced greater risk of severe illness and death and may have experienced isolation (25,26). Providers faced staffing shortages due to staff illness and death, personal protection equipment shortages, and concerns about working in these high-risk environments (25,26). Providers also had to quickly begin mitigation practices to control infections, handle deaths among residents, and adapt to new regulations and reporting requirements (26). NCHS needed to adapt the survey to reduce response burden for providers during this challenging time and add items related to COVID-19 (27). This

report did not include the COVID-19 results, as information about COVID-19 in adult day services centers and residential care communities collected by NPALS is already available online (28).

Because COVID-19 affected survey and administrative data collection, estimates in this report may not be directly comparable with those in previous waves of NPALS. These estimates represent an overview of post-acute and long-term care during an unprecedented public health event that may have impacted trends among these settings. The COVID-19 pandemic impacted NCHS's ability to collect survey data, including a delay in fielding the 2020 surveys to allow for the development and inclusion of new questions about COVID-19 (27). It also impacted the reporting requirements

Figure 9. Percentage of post-acute and long-term care services users with selected health conditions, by setting: United States, 2020
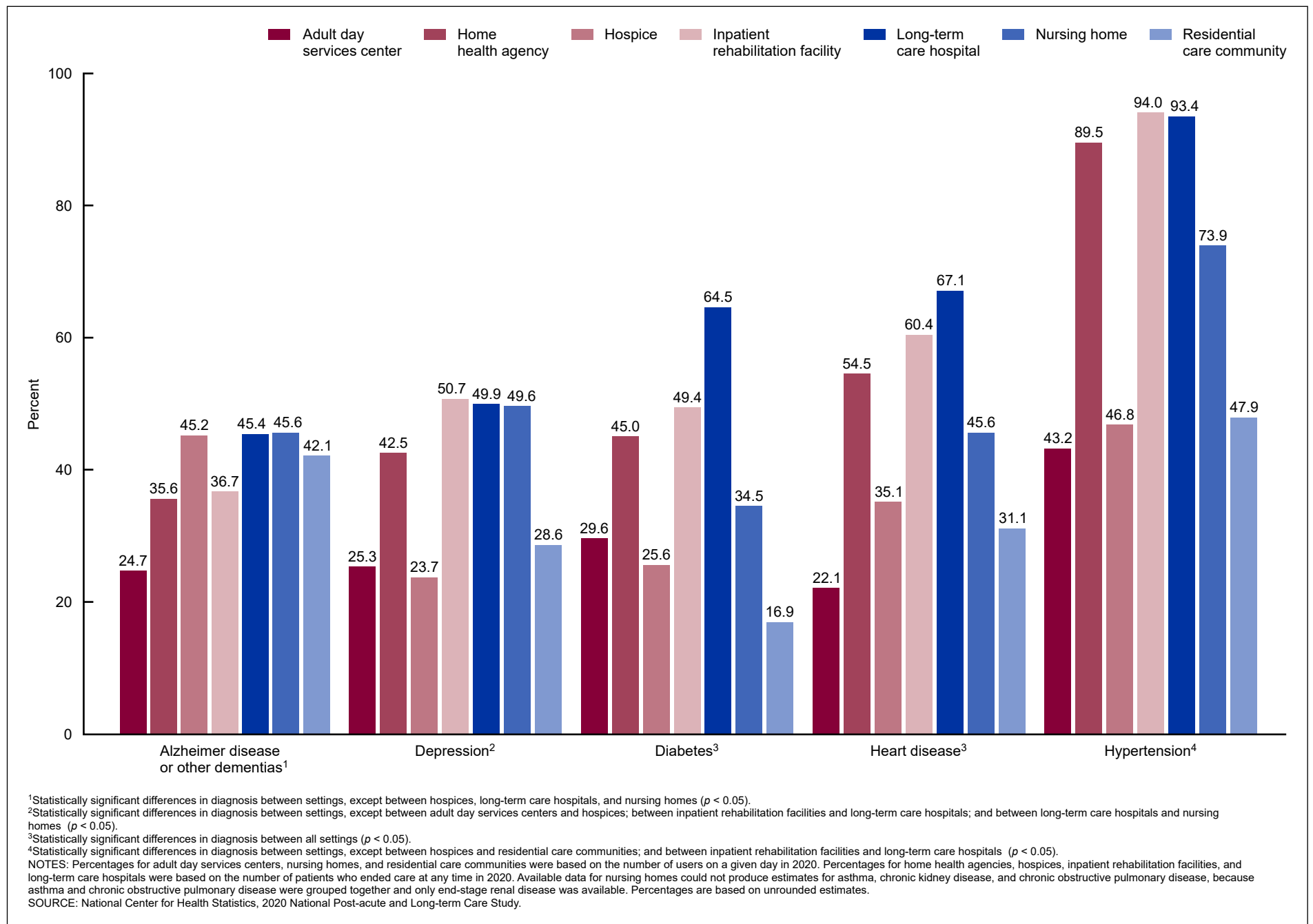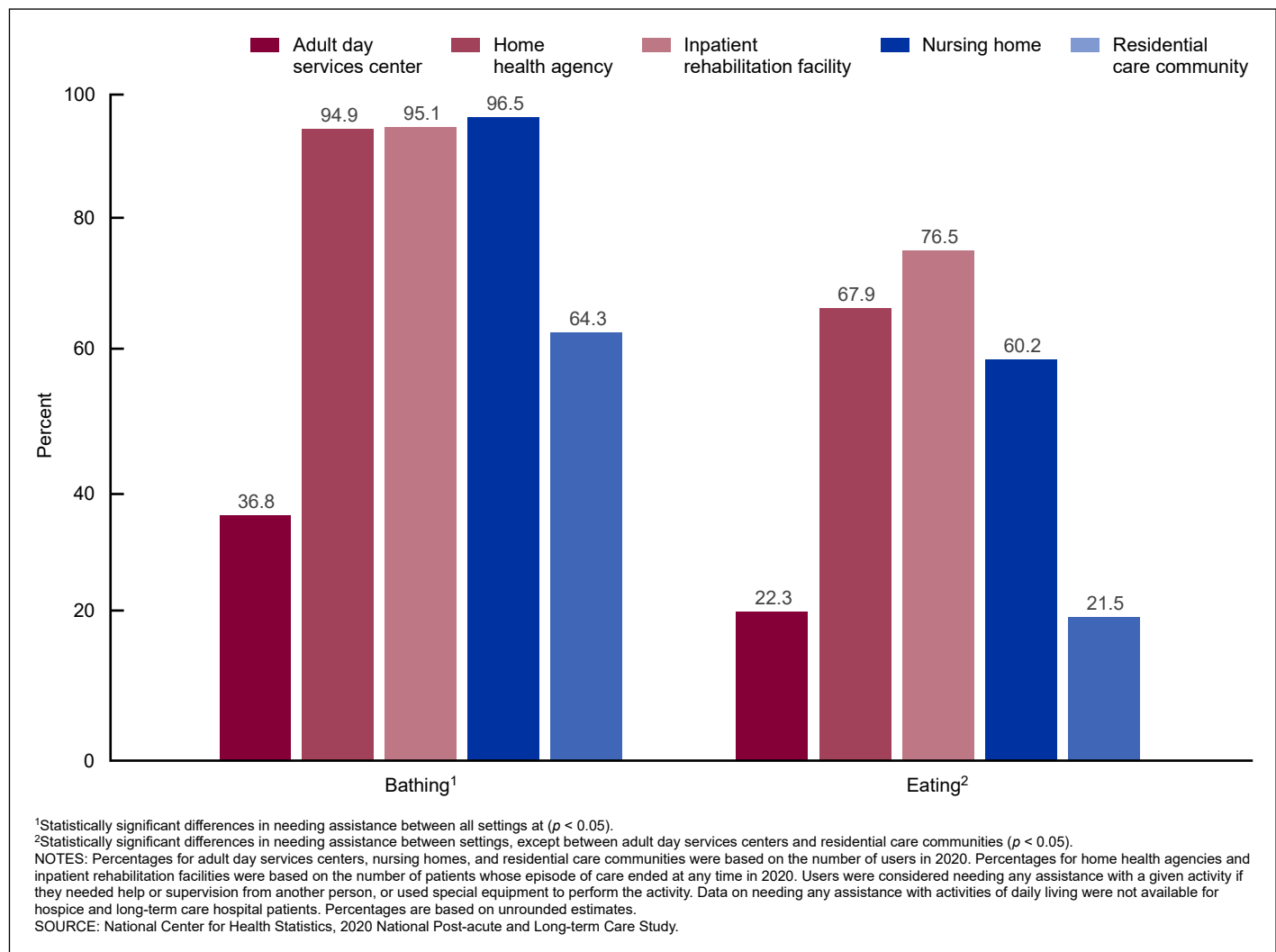

[1]Statistically significant differences in diagnosis between settings, except between hospices, long-term care hospitals, and nursing homes ($p < 0.05$).
[2]Statistically significant differences in diagnosis between settings, except between adult day services centers and hospices; between inpatient rehabilitation facilities and long-term care hospitals; and between long-term care hospitals and nursing homes ($p < 0.05$).
[3]Statistically significant differences in diagnosis between all settings ($p < 0.05$).
[4]Statistically significant differences in diagnosis between settings, except between hospices and residential care communities; and between inpatient rehabilitation facilities and long-term care hospitals ($p < 0.05$).
NOTES: Percentages for adult day services centers, nursing homes, and residential care communities were based on the number of users on a given day in 2020. Percentages for home health agencies, hospices, inpatient rehabilitation facilities, and long-term care hospitals were based on the number of patients who ended care at any time in 2020. Available data for nursing homes could not produce estimates for asthma, chronic kidney disease, and chronic obstructive pulmonary disease, because asthma and chronic obstructive pulmonary disease were grouped together and only end-stage renal disease was available. Percentages are based on unrounded estimates.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

Figure 10. Percentage of post-acute and long-term care services users needing assistance with bathing and eating, by setting: United States, 2020

[1]Statistically significant differences in needing assistance between all settings at ($p < 0.05$).
[2]Statistically significant differences in needing assistance between settings, except between adult day services centers and residential care communities ($p < 0.05$).
NOTES: Percentages for adult day services centers, nursing homes, and residential care communities were based on the number of users in 2020. Percentages for home health agencies and inpatient rehabilitation facilities were based on the number of patients whose episode of care ended at any time in 2020. Users 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 needing any assistance with activities of daily living were not available for hospice and long-term care hospital patients. Percentages are based on unrounded estimates.
SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

for some CMS data. CMS waived some reporting requirements and changed requirements for admitting or discharging users for certain providers. For example, in the first two quarters of 2020, nursing homes did not have to report certification data, including staffing (29). As a result, information on staffing and services in nursing homes is incomplete (missing for nearly 99% of providers in the nursing home Certification and Survey Provider Enhanced Reports file) and were excluded from this report. Because the number of nursing and social work staff in nursing homes is not presented, the total number of FTEs in all settings should not be compared with previous NPALS estimates (11). However, the percent distribution of staffing for the six settings that are presented in Figure 5 is similar to the 2018 NPALS results. CMS

also temporarily waived certain criteria for inpatient rehabilitation facilities and long-term care hospitals, which means that the characteristics of their patients may be different from those of inpatient rehabilitation facilities and long-term care hospitals in previous years (29). Further, estimates in 2020 of services user characteristics may differ from previous waves due to atypical number of deaths; early discharges to home; hospitalizations among nursing home, inpatient rehabilitation facility, and long-term care hospital patients; or potential services users delaying or forgoing care at these settings due to COVID-19 concerns and regulations. Even with these considerations, these estimates are useful in providing an overview of post-acute and long-term care settings in the United States in 2020.

Limitations

Every effort was made to match question wording in the NPALS surveys to the administrative data available through CMS; however, some differences remain and may affect comparisons between these settings. Due to the differences in the nature of the healthcare settings and the different data sources, estimates on some topics could not be provided for all seven settings. For example, home health agencies and hospices did not provide care in a group residential setting like residential care communities or inpatient rehabilitation facilities, so it was not applicable to discuss the number of beds. Additionally, administrative data sources used for home health agencies, hospices, inpatient rehabilitation facilities, long-term care hospitals, and nursing homes did not

contain all of the same variables. For example, the Certification and Survey Provider Enhanced Reports data did not include information on whether home health agencies offered mental health or counseling services, but they did include this information for nursing homes and hospices.

Another limitation is that the adult day services center and residential care community components of NPALS have evolved over the waves of the study by including new questions, changing question wording and response categories, and editing data. As such, direct comparisons among estimates from the 2020 NPALS and previous years may not be appropriate given some of the revisions to measures over time.

Different data sources had different data collection time frames or data reference periods. For instance, user-level data from the Institutional Provider Based Summary for home health agencies, hospices, inpatient rehabilitation facilities, and long-term care hospitals were from Medicare patients who received services at any time during the 2020 calendar year, and Outcome and Assessment Information Set home health agency and Inpatient Rehabilitation Facility-Patient Assessment Inventory data are based on any users discharged during the 2020 calendar year. 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 on a given day during the survey data collection period of November 2020 through mid-July 2021. Current participants or residents refer to those participants enrolled in adult day services centers or residents living in residential care communities on the day of data collection in 2020, rather than the total number of participants ever enrolled in the center or residents ever living in the residential care community at any time throughout 2020. Similarly, nursing home data represent current nursing home residents at the time of the certification or assessment during the 2020 calendar year. Given these differences in denominator, comparisons among services users across all seven sectors were not feasible for some variables.

Projections estimate that the number of older adults using paid long-term and post-acute care services will grow considerably in the coming years (30,31). These sectors vary in the types of services they provide and in the characteristics of the populations they serve. The findings in this report provide a current national picture of providers and users of seven major post-acute and long-term care settings in the United States. Findings on differences and similarities in supply and use and the characteristics of providers and users of long-term care services may inform policymakers, providers, and researchers as they plan to meet the needs of an aging population.

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Table 1. Number of providers, users, and employees, by post-acute and long-term care setting: United States, 2020

Characteristic	All settings	Adult day services center	Home health agency	Hospice	Inpatient rehabilitation facility	Long-term care hospital	Nursing home	Residential care community
Number of providers	68,150	4,100	11,400	5,200	1,200	350	15,300	30,600
Number of services users	7,289,700	237,400	2,977,900	1,534,600	345,200	81,000	1,294,800	818,800
Number of full-time equivalent employees	884,500	17,600	135,300	90,500	252,200	12,500	---	376,400

--- Data not available.

NOTE: Numbers are rounded to the nearest 100, except for the number of long-term care hospital providers, which were rounded to the nearest 10.

SOURCE: National Center for Heatlh Statistics, 2020 National Post-acute and Long-term Care Study.

Table 2. Post-acute and long-term care services provider capacity per 1,000 people age 65 and older, by setting and region: United States, 2020

Characteristic	National	Northeast	Midwest	South	West
	Estimate (95% confidence interval)				
Adult day services center maximum participants allowed	5.4 (5.3–5.6)	5.9 (5.5–6.2)	2.4 (2.2–2.6)	5.0 (4.7–5.2)	8.6 (8.2–9.0)
Certified inpatient rehabilitation facility beds. . . .	6.2 (5.8–6.5)	5.2 (4.1–6.3)	7.7 (6.6–8.7)	6.7 (5.9–7.5)	4.6 (3.9–5.3)
Certified long-term care hospital beds	0.4 (0.4–0.5)	0.6 (0.3–0.8)	0.4 (0.1–0.5)	0.5 (0.4–0.6)	0.3 (0.2–0.4)
Certified nursing home beds.	30.0 (29.7–30.3)	34.7(33.2–36.2)	39.6 (38.5–40.7)	29.0 (28.3–29.7)	18.7 (17.9–19.5)
Licensed residential care community beds.	22.0 (21.2–22.8)	14.9 (14.3–15.5)	29.2 (28.2–30.3)	18.1 (17.5–18.8)	27.5 (24.4–30.7)

NOTES: Statistically significant differences between regions for each setting ($p < 0.05$). Capacity refers to number of certified nursing home, inpatient rehabilitation facility, and long-term care hospital beds; number of licensed residential care community beds; and maximum number of adult day services center participants allowed. Capacity for home health agencies and hospices was not examined because licensed maximum capacity or a similar metric was not available. Rates are based on unrounded estimates.

SOURCES: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study; U.S. Census Bureau, Population Division, Population Estimates, July 1, 2020.

Table 3. Percentage of missing data in the 2020 National Post-acute and Long-term Care Study, by setting

Characteristic	Provider-level data	User-level data
Adult day services centers	1.1% for ownership and Medicaid licensure status	8.4% for health conditions
Home health agencies	4.0% for staffing variables	30.2% for all user-level data in IPBS after merging to CASPER; 61.0% ADL variables in OASIS after merging to CASPER
Hospices	No missing	15.2% for all aggregated services user-level data in IPBS after merging IPBS to CASPER
Inpatient rehabilitation facilities	7.7% for staffing variables	6.6% for all user-level data in IPBS after merging to CASPER
Long-term care hospitals	No missing	0.6% for all user-level data in IPBS after merging to CASPER
Nursing homes	All staffing and services variables are excluded because nearly 100% were missing data	12.5% for user-level data in MARET after merging to CASPER; 18.5% for health conditions in MARET because providers had 20% or more missing
Residential care communities	0.5% for chain status	11.3% for health conditions

NOTES: IPBS is Institutional Provider-Based Summary, which provides user-level characteristics for Medicare beneficiaries of the respective setting in 2020. CASPER is Certification and Survey Provider Enhanced Reports, which supplies provider-level data for each active provider in 2020; all user-level data is merged to it. OASIS is Outcome and Assessment Information Set, which provides user-level data on all home health patients who started and ended care in 2020. MARET is Minimum Data Set Active Resident Table of most recent assessments of current nursing home residents in 2020.

SOURCE: National Center for Health Statistics, 2020 National Post-acute and Long-term Care Study.

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