



# Update on the National Study of Long-Term Care Providers (NSLTCP)

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NCHS Board of Scientific Counselors  
December 4, 2018

# Presentation overview

1. Context and goals (slides 3-9)
2. Products and uses (slides 10-28)
3. How do we make this work? (slides 29-32)
  - Multiple data sources
4. Plans (slides 33-38)
5. Opportunities and challenges (slides 39-44)
  - Potential for partnerships
  - Eligibility, data quality, response rates, data linkage



# NCHS health care data spectrum

## Ambulatory and Hospital Care

- Physician Offices
- Community Health Centers

National Ambulatory Medical Care Survey

- Emergency Depts
- Outpatient Depts
- Ambulatory Surgery Locations

National Hospital Ambulatory Medical Care Survey

## Inpatient

National Hospital Discharge Survey  
- *Last 2010*

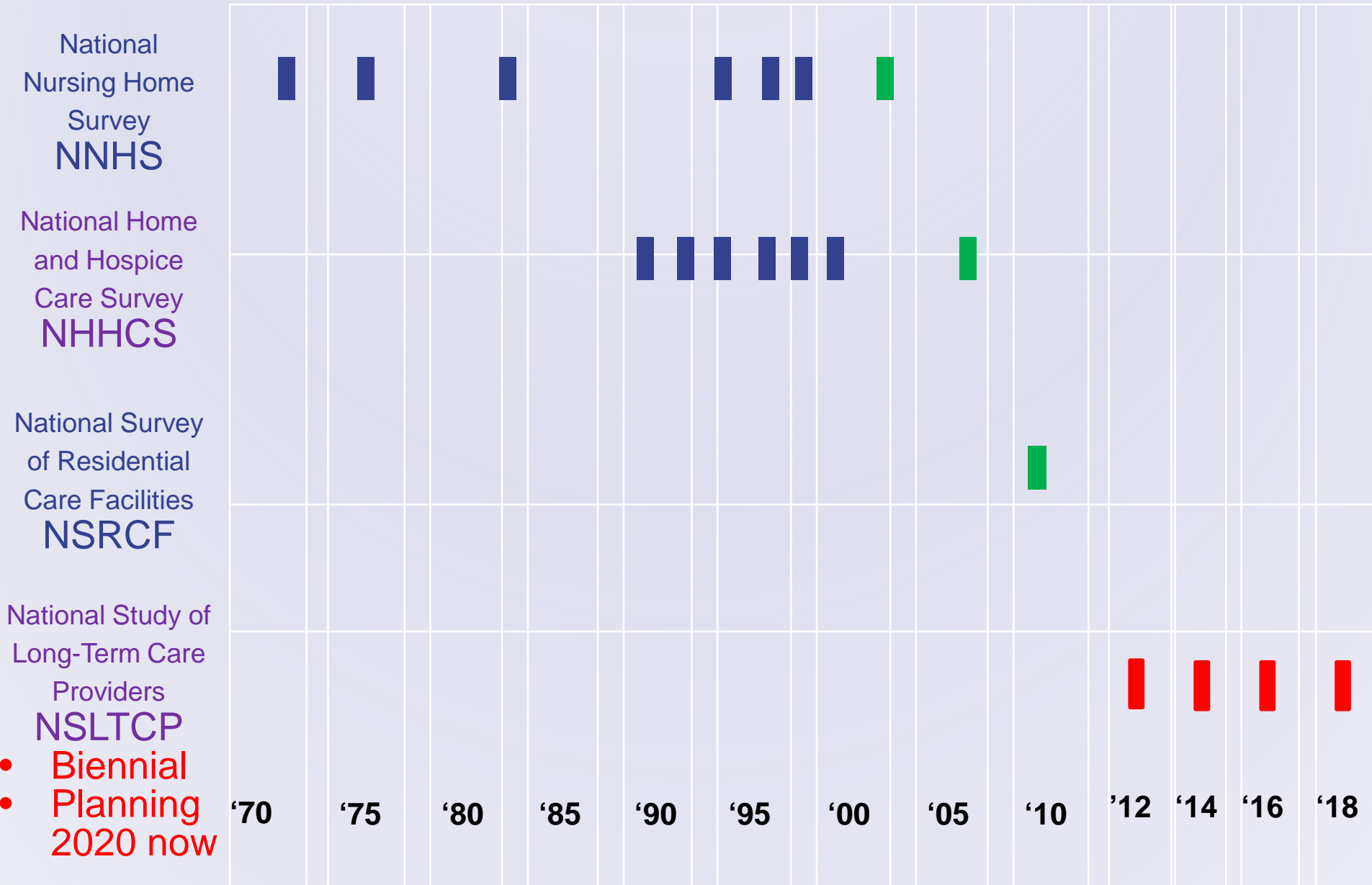
National Hospital Care Survey

## Long-Term Care

- National Nursing Home Survey-  
*Last 2004*
- National Home and Hospice Care Survey-*Last 2007*
- National Survey of Residential Care Facilities-  
*2010*

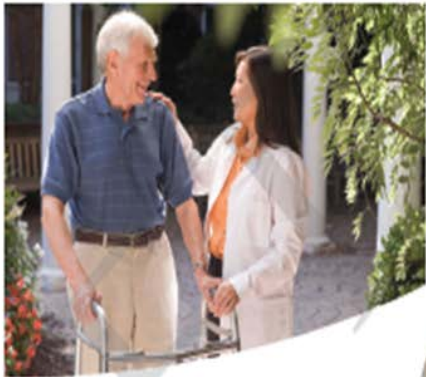
National Study of Long-Term Care Providers-  
*Since 2012*

# NCHS LTC surveys: 1973 – present



# National Study of Long-Term Care Providers

National Health Care Surveys



- Monitors trends in paid, regulated LTC services
- Includes five sectors
  - adult day services centers and participants
  - home health agencies and patients
  - hospices and patients
  - nursing homes and residents
  - residential care communities and residents



# Goals

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



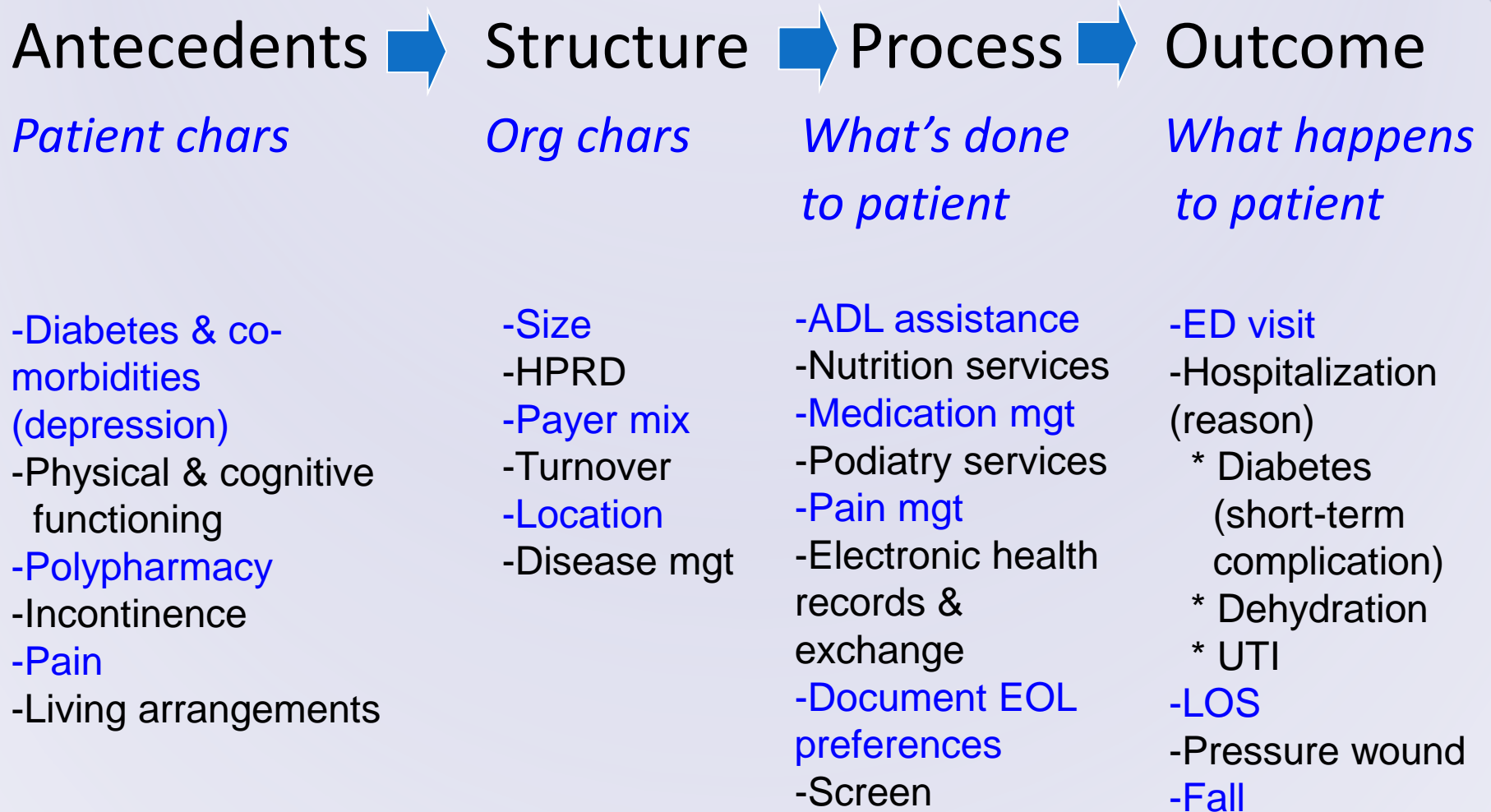
# What's unique?

1. State estimates
2. Multiple LTC sectors at similar time (5-7 sectors)
3. Only on-going nationally representative data on adult day and residential care
4. Ability to trend
5. Alternate provider-level and individual-level services user analytical design
6. Starting with 2018 wave, produce public-use files



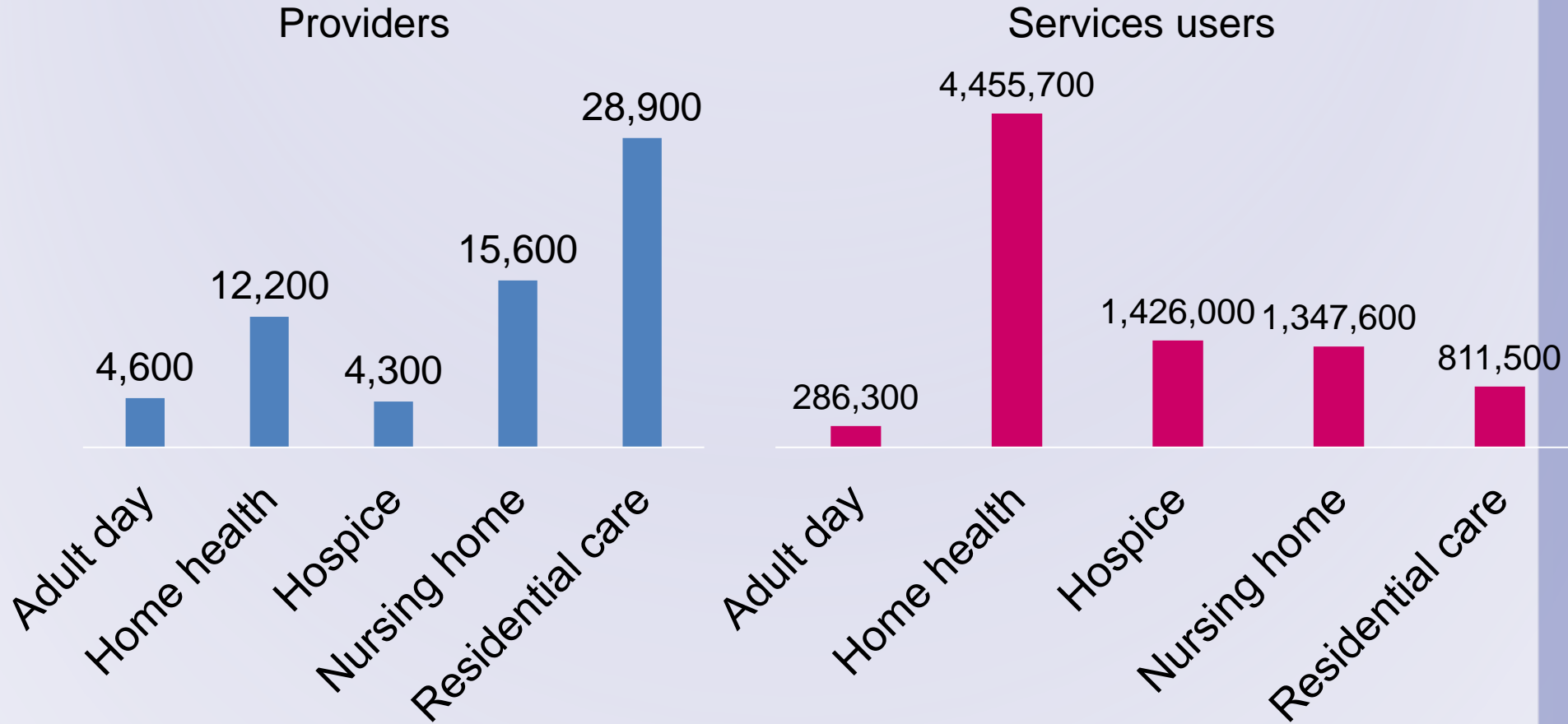
# Informed by Donabedian framework

## Examples of topics covered in NSLTCP





# LTSS sectors captured in NSLTCP, 2015 and 2016



# 16 QuickStats

*QuickStats*: Percentage\* of Residential Care Community Residents with an Advance Directive,<sup>†</sup> by Census Division<sup>§</sup> — National Study of Long-Term Care Providers, 2016

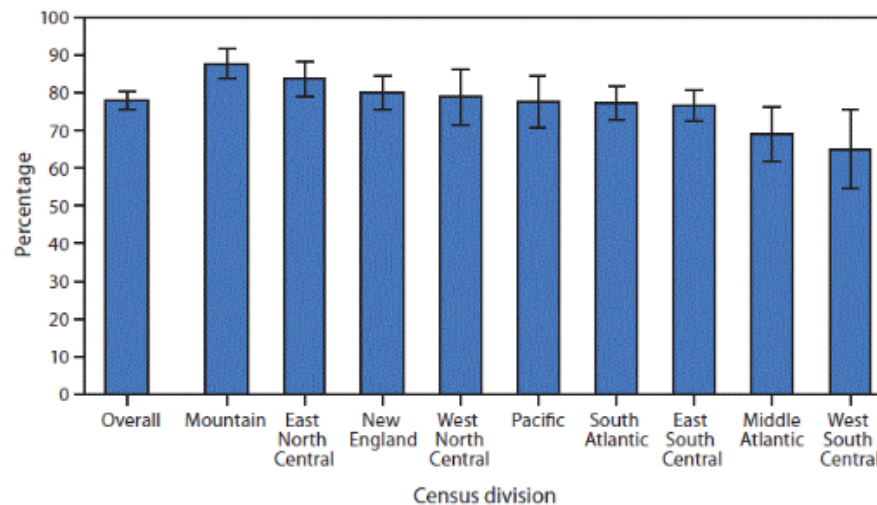
Weekly / July 20, 2018 / 67(28);790



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Reported by: Jessica Penn Lendon, PhD, [jlendon@cdc.gov](mailto:jlendon@cdc.gov), 301-458-4714; Christine Caffrey, PhD; Denys T. Lau, PhD.



National Study of  
Long-Term Care Providers

## Variation in Residential Care Community Resident Characteristics, by Size of Community: United States, 2016

Christine Caffrey, Ph.D., and Manisha Sengupta, Ph.D.

### Key findings

#### Data from the National Study of Long-Term Care Providers

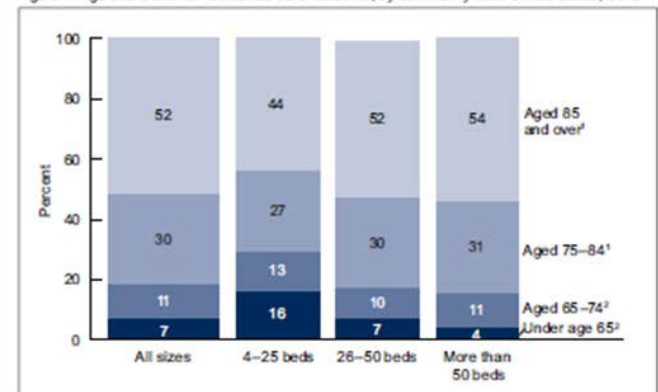
- More residents in residential care communities with more than 25 beds were aged 85 and over compared with smaller communities.
- A higher percentage of residents in communities with 4–25 beds were receiving Medicaid compared with residents in larger communities.
- The prevalence of Alzheimer disease and depression was higher among residents of communities with 4–25 beds than in larger communities, but the prevalence of cardiovascular disease was lower.
- The percentage of residents needing assistance with bathing, dressing, toileting, transferring, walking, or eating was highest in communities with 4–25 beds.
- The percentage of residents who had fallen in the previous 90 days increased with increasing community bed size.

Residents of residential care communities are persons who cannot live independently but generally do not require the skilled care provided by nursing homes. On any given day in 2016, an estimated 811,500 residents were in residential care communities (1,2). As the population ages, the numbers in residential care communities will likely increase, creating a sizeable group within the long-term care population. This report presents national estimates of selected characteristics of residential care community residents in 2016 and compares them by community size. State-level estimates are available from: [https://www.cdc.gov/nchs/nsitcp/nsitcp\\_products.htm](https://www.cdc.gov/nchs/nsitcp/nsitcp_products.htm).

*Keywords:* assisted living • long-term services and supports • National Study of Long-Term Care Providers

**In 2016, residents in larger communities were older than those in smaller communities.**

Figure 1. Age distribution of residential care residents, by community size: United States, 2016



<sup>1</sup>Significantly increasing linear trend by community size.

<sup>2</sup>Significantly decreasing linear trend by community size.

NOTES: Percentages are based on unrounded numbers; estimates may not add up to totals because of rounding. Access data table for Figure 1 at: [https://www.cdc.gov/nchs/data/data/tableofcontents/161129\\_nitcp.pdf#1](https://www.cdc.gov/nchs/data/data/tableofcontents/161129_nitcp.pdf#1). SOURCE: NCHS, National Study of Long-Term Care Providers, 2016.



### Variation in Residential Care Community Nurse and Aide Staffing Levels: United States, 2014

by Vincent Rome, M.P.H., and Lauren D. Harris-Kojetin, Ph.D.

#### Abstract

**Objectives**—This report presents national and state estimates of staffing levels in residential care communities for registered nurses, licensed practical or vocational nurses, and aides in the United States for 2014.

**Methods**—Data were drawn from the residential care community component of the 2014 wave of the biennial National Study of Long-Term Care Providers, conducted by the Centers for Disease Control and Prevention's National Center for Health Statistics. For each staff type, the "staffing level" measure is presented as average hours per resident per day, defined as the total number of hours worked divided by the total number of residents, which does not necessarily reflect the amount of care given to a specific resident. Analyses examined the extent to which residential care community nurse and aide staffing levels varied by selected organizational characteristics and selected resident composition characteristics of the communities. Differences among subgroups were evaluated using two-sided *t* tests at the 0.05 level.

**Results**—In 2014, the total registered nurse, licensed practical or vocational nurse, and aide staffing level among all residential care communities was about 2 hours and 50 minutes. Registered nurse staffing levels differed for two of the three organizational characteristics (size and metropolitan statistical area [MSA]) and for only one of the four resident composition characteristics (primarily serving residents needing any assistance with activities of daily living). Licensed practical or vocational nurse staffing levels differed for all three organizational characteristics (size, MSA, and ownership) and for only one of the four resident composition characteristics (primarily serving residents diagnosed with Alzheimer's disease or other dementias). In contrast, differences in aide staffing levels were common when examining both community organizational and resident composition characteristics. Registered nursing, licensed practical and vocational nursing, and aide staffing levels varied geographically by state.

**Keywords:** long-term services and supports • assisted living • home- and community-based services • National Study of Long-Term Care Providers

#### Introduction

Assisted living and similar residential care communities are a critical component of the long-term care services and supports spectrum for older adults and younger adults with disabilities who cannot live independently in their home. Growth in this sector has been due, in part, to shifts in federal and state policy, which have incentivized home- and community-based long-term care services and support settings over institutional-based settings (1). Residential care communities serve residents with increasingly complex care needs (2,3). Registered nurses, licensed practical or vocational nurses, and aides are the backbone of care delivery for residents living in this setting (4). "Average hours per resident per day" is a commonly used measure of staffing level in long-term care facilities, representing the amount of time that staff have available to provide care to residents (5).

Research on staffing in residential care communities and other long-term care provider settings indicates that nurse and aide staffing levels are influenced by factors related to the characteristics of the facilities and residents (6–9), and may have implications for resident outcomes and quality of care (10–14).



# 2 Series 3 Reports

Vital and Health Statistics

Series 3, Number 38

February 2016



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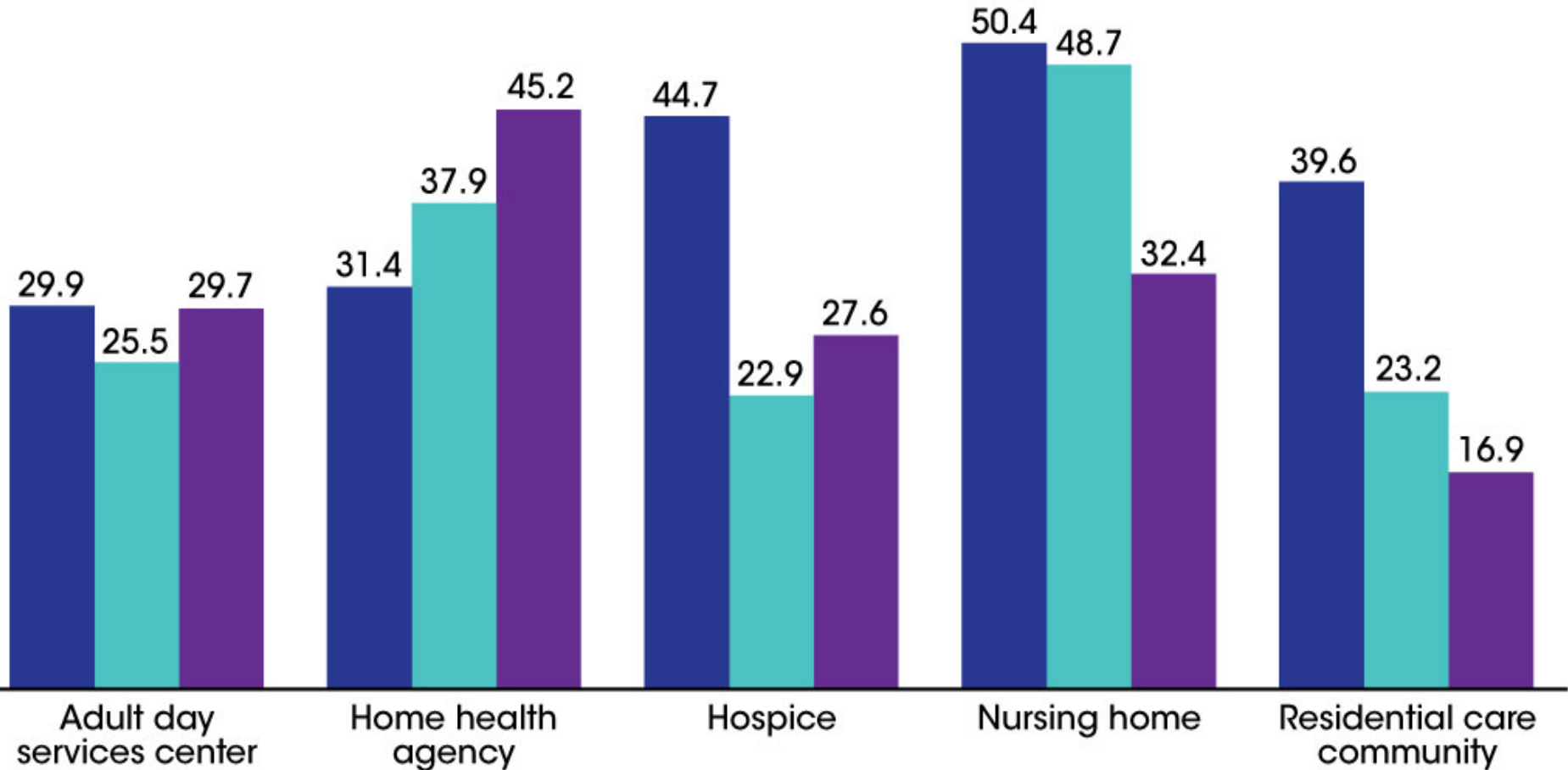
## Long-Term Care Providers and Services Users in the United States: Data From the National Study of Long-Term Care Providers, 2013–2014



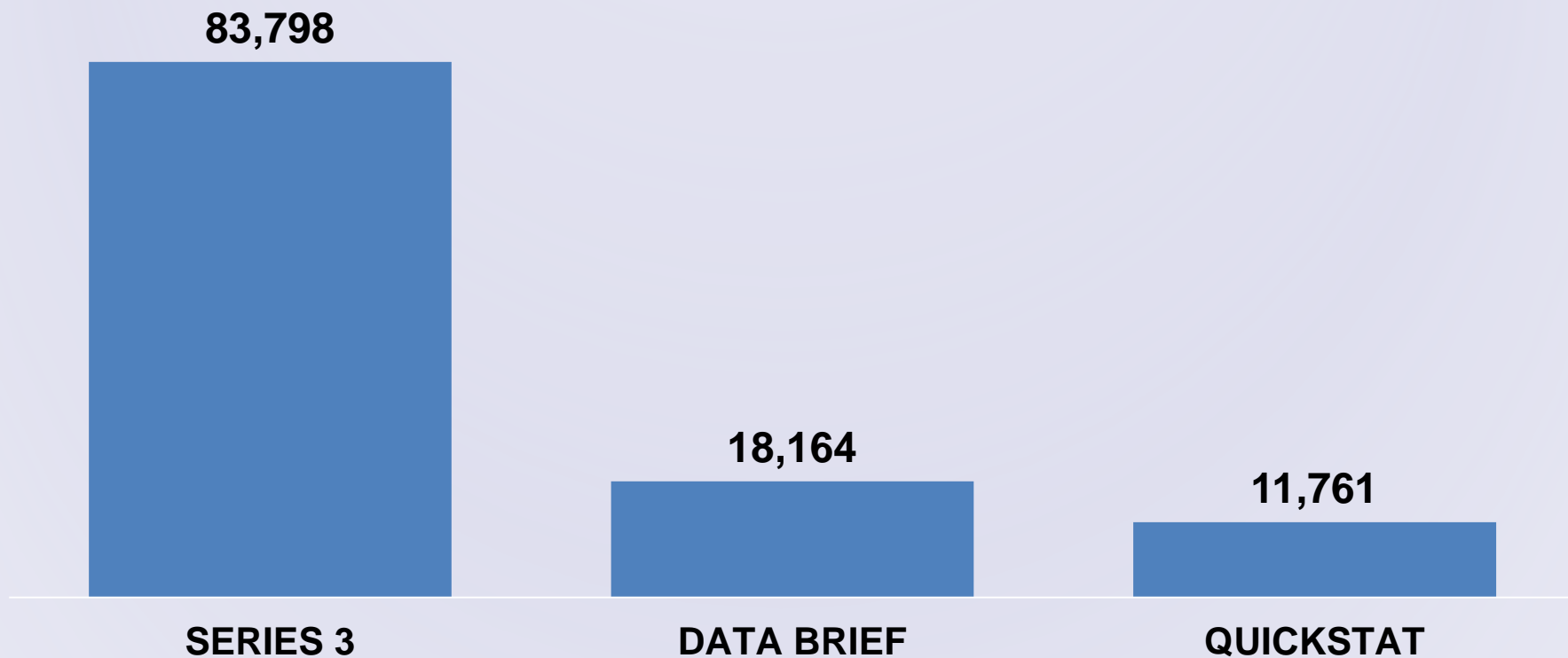
U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
Centers for Disease Control and Prevention  
National Center for Health Statistics

# 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

■ Alzheimer's disease or other dementias ■ Depression ■ Diabetes



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# 2 articles published, another accepted for future publication

Format: Abstract

Am J Manag Care. 2015 Dec 1;21(12):e669-76.

## Characteristics of residential care communities from health records.

Park-Lee E<sup>1</sup>, Rome V, Caffrey C.

Author information

### Abstract

**OBJECTIVES:** Residential care communities have the potential to improve communication, reduce the use of, and examines characteristics as in the United States, nationally and by Census



## Relationships Between Residential Care Community Characteristics and Overnight Hospital Stays and Readmissions: Results From the National Study of Long-Term Care Providers

Christine Caffrey, PhD; Lauren Harris-Kojetin, PhD; Vincent Rome, MPH; Lindsay Schwartz, PhD

### ABSTRACT

**The Problem:** Hospitalizations and subsequent readmissions can produce significant challenges when trying to reduce costs and improve quality of care. This study describes hospitalizations and readmissions using residential care community data from the 2012 National Study of Long-Term Care Providers.

**The Resolution:** About 61.0% of residential care communities had hospitalizations, and among these communities, 39.3% had readmissions. Residential care communities in the Northeast were more likely to have had hospitalizations and readmissions. Residential care communities located in a continuing care retirement community (CCRC) had a lower likelihood of hospitalizations, and communities that provided therapeutic services had a lower likelihood of readmissions.

**Tips for Success:** An association with a CCRC and provision of therapeutic services were found to be protective against hospitalizations and readmissions, respectively.

**Keywords:** Long-term services and supports, residential care, hospitalizations, readmissions, National Study of Long-Term Care Providers



# 16 sets of state estimates— web tables and maps

30 / 123 109%

marks

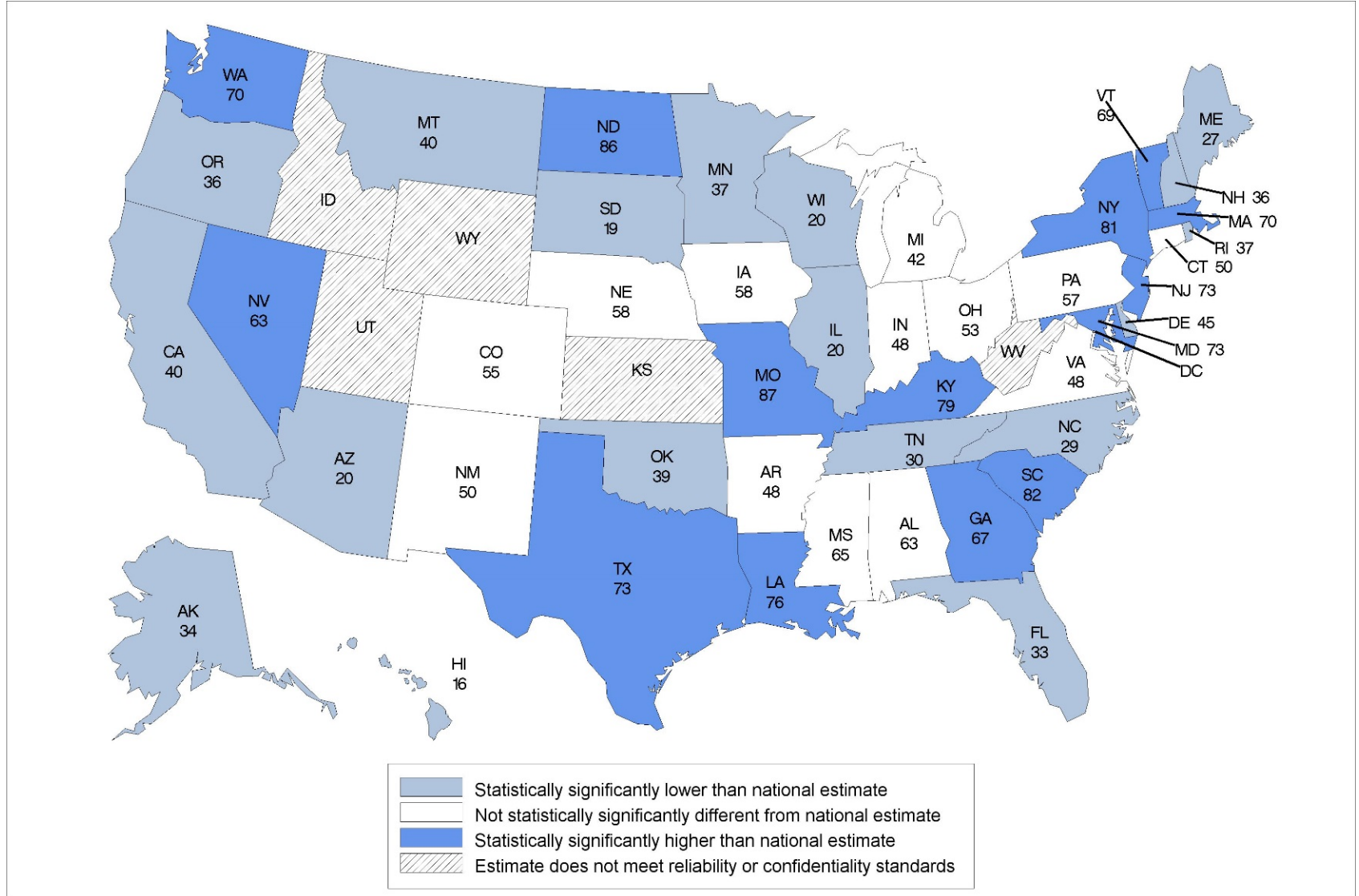
Providers and users of Long-Term Care Services, by Provider Type and Selected Characteristics

- Table 1. Alabama Profile
- Table 2. Alaska Profile
- Table 3. Arizona Profile
- Table 4. Arkansas Profile
- Table 5. California Profile**
- Table 6. Colorado Profile
- Table 7. Connecticut Profile
- Table 8. Delaware Profile
- Table 9. District of Columbia Profile
- Table 10. Florida Profile
- Table 11. Georgia Profile
- Table 12. Hawaii Profile
- Table 13. Idaho Profile
- Table 14. Illinois Profile
- Table 15. Indiana Profile
- Table 16. Iowa Profile
- Table 17. Kansas Profile
- Table 18. Kentucky Profile

**Table 5. Providers and Users of Long-Term Care Services in California, by Provider Type and Selected Characteristics**

Selected characteristic	Adult day services center		Home health agency	
	Number of providers	Number of beds or licensed maximum capacity	Number of providers	Number of agencies
<b>Organization</b>				
Number of providers <sup>1</sup>	1,100	(1)	1,100	(32)
Number of beds or licensed maximum capacity <sup>2</sup>	80,200	(1,500)	---	---
Average capacity	75	(1.4)	---	---
Average number of people served	52	(1.1)	---	---
<b>Metropolitan statistical area status (percent):</b>				
Metropolitan	96.4	(0.5)	98.2	(0.4)
Micropolitan or neither	3.6	(0.5)	1.8	(0.4)
<b>Ownership (percent):</b>				
For-profit	42.4	(1.3)	88.1	(1.0)
Not-for-profit, government, or other	57.6	(1.3)	11.9	(1.0)
<b>Number of people served (percent):<sup>3</sup></b>				
Category 1	24.7	(1.1)	31.8	(1.4)
Category 2	66.6	(1.3)	27.4	(1.3)
Category 3	8.7	(0.8)	30.7	(1.4)
Missing <sup>4</sup>	---	---	10.1	(0.9)
<b>Staffing<sup>5</sup></b>				
Number of nursing employee FTEs	4,257	(141)	10,316	(432)
<b>Nursing employee FTEs (percent):</b>				
Registered nurse	18.2	(0.7)	55.4	(1.1)
Licensed practical nurse or licensed vocational nurse	9.5	(0.4)	30.0	(1.0)
Aide	72.3	(0.9)	14.6	(0.7)
<b>Providers with one or more employee FTEs (percentage):</b>				
Registered nurse	37.7	(1.3)	100.0	(0.0)
Licensed practical nurse or licensed vocational nurse	29.5	(1.2)	87.9	(1.0)

# Percentage of adult day participants who used Medicaid for long-term care services in the past 30 days: United States, 2014



Statistical significance tested at  $p < 0.05$ . The national percentage is 54%.

# 12 sets of national estimates

2016 NSLTCP Weighted Survey Estimates: Residential Care Communities

QUESTION NUMBER	VARIABLE NAME	SURVEY QUESTION TEXT	DATA MEASURE	CODE CATEGORIES	WEIGHTED PERCENTAGES AND COUNTS*	STANDARD ERRORS**	COMMUNITIES ASKED/ RECODED	ADDITIONAL NOTES
2	BEDS	At this residential care community, what is the number of licensed, registered, or certified residential care beds? Include both occupied and unoccupied beds. If this residential care community is licensed, registered, or certified by apartment or unit, please count the number of single-resident apartments or units as one bed each, two-bedroom apartments or units as two beds each and so forth. If none, enter "0."  ___ <i>Number of beds</i>	Percent of residential care communities, by bed size categories (total number of beds in the community)	1 = 4-10 beds	45.6	0.1	All	Total number of residential care communities: 28,858. Collected as a continuous variable; recoded the variable to provide estimates in categories.
				2 = 11 - 25 beds	15.3	0.1		
				3 = 26 - 100 beds	31.5	0.3		
				4 = >100 beds	7.7	0.1		
				Total number of beds <sup>®</sup>	996,102	8,787		
5	TOTRES	What is the total number of residents currently living at this residential care community? Please include residents for whom a bed is being held while in the hospitals. If you have respite care residents, please include them. If none, enter "0."  ___ <i>Number of residents</i>	Percent of residential care communities, by resident-size categories (total number of residents in the community)	1 = 1-25 residents	65.0	0.3	All	Collected as a continuous variable; recoded the variable to provide estimates in categories.
				2 = 26 - 100 residents	30.7	0.4		
				3 = >100 residents	4.3	0.2		
				Total number of current residents in residential care communities <sup>®</sup>	811,451	8,343		
8	OWNERSHIP	What is the type of ownership of this residential care community? ___ <i>Private—nonprofit</i> ___ <i>Private—for profit</i> ___ <i>Publicly traded company or limited liability company (LLC)</i> ___ <i>Government—Federal, state, county, or local</i>	Percent of residential care communities, by ownership type	-9 = Not ascertained	2.5	0.4	All	Used frame information to recode 31 cases with missing data.
				1 = Nonprofit, government	18.6	0.7		
				2 = For profit (including publicly traded company or limited liability company)	78.9	0.8		



Presentations at dozens of national and state research, policy and provider conferences

**National Study of Long Term Care Providers:**  
**An Essential Resource for**  
**Effective Advocacy of Adult Day Services**

Vincent Rome, MPH

Jessica P. Lendon, PHD

National Center for Health Statistics, Centers for Disease Control and Prevention

National Adult Day Services Association Conference, 2018



National Study of  
Long-Term Care Providers

# Health, United States, 2015

With Special Feature on Racial and Ethnic Health Disparities



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

2016

# Older Americans

## Key Indicators of Well-Being



FEDERAL  
INTERAGENCY  
FORUM ON  
AGING  
RELATED  
STATISTICS



### National Study of Long-Term Care Providers



# PICKING UP THE PACE OF CHANGE

A State Scorecard on Long-Term Services and Supports for Older Adults, People with Physical Disabilities, and Family Caregivers



Susan Reinhard, Jean Accius, Ari Houser, Kathleen Ujvari, Julia Alexis, Wendy Fox-Grage

National Study of  
Long-Term Care Providers

# JUSTICE IN AGING

FIGHTING SENIOR POVERTY THROUGH LAW

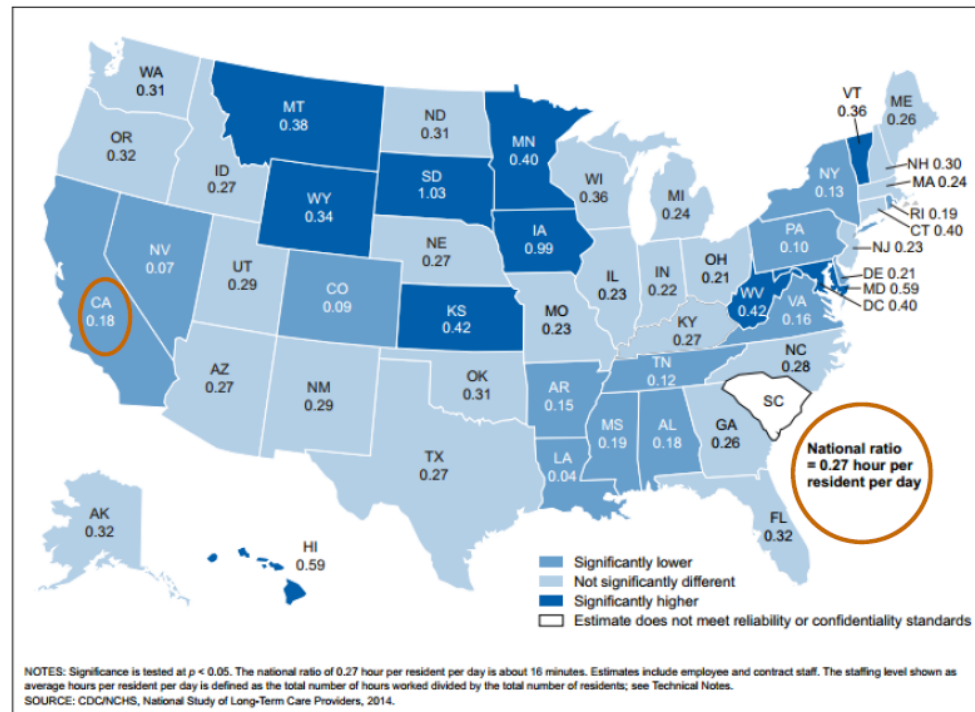
## Progress and Challenges in California Assisted Living

Eric Carlson  
Fay Gordon

# CHALLENGES

## Lack of health care expertise in facilities

- As a result, California has a low level of nurse staffing.
- RN staffing levels are low.



Source: CDC National Health Statistics Report: <http://www.cdc.gov/nchs/data/nhsr/nhsr091.pdf>.

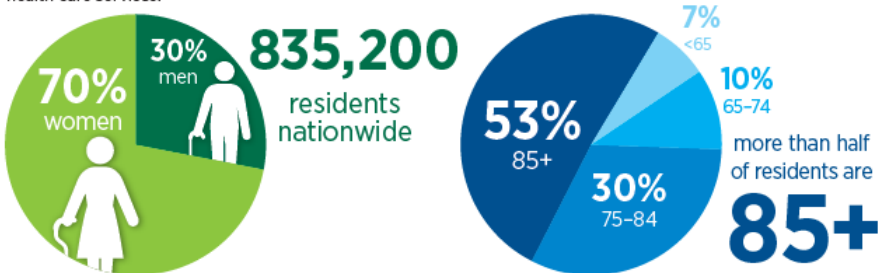


## Assisted Living: A Growing Aspect of Long Term Care

Assisted living communities typically serve individuals who need help with every day activities and some health care services but generally do not require 24-hour skilled nursing care services for extended periods of time. These communities offer a unique mix of companionship, independence, privacy, and security in a home-like setting. The philosophy of assisted living is built on the concept of delivering person-centered care and services to each individual resident.

### Residents

Assisted living communities serve the oldest old who need help with some **activities of daily living (ADLs)** and health care services.



### Activities of Daily Living



### Common Conditions ALs Help Residents Manage



**Activities and Services**

- SPECIALIZED DEMENTIA CARE SERVICES**
  - Memory care is an increasing component of assisted living.
  - 12% have a unit, wing or floor designated
  - 10% only serving adults with dementia
- TYPICAL SERVICES**
  - 24-hour supervision and assistance
  - Exercise, health, and wellness programs
  - Housekeeping and maintenance
  - Meals and dining services
  - Medication management or assistance
  - Personal care services such as ADLs
  - Transportation
- COORDINATED SERVICES**
  - Assisted living does not directly provide certain health care services, but consistently works with other providers to offer these services.
  - dental
  - depression screening
  - hospice
  - mental health or counseling
  - pharmacy/pharmacist
  - podiatry
  - skilled nursing
  - therapy (physical, occupational or speech)

## Assisted Living: A Growing Aspect of Long Term Care

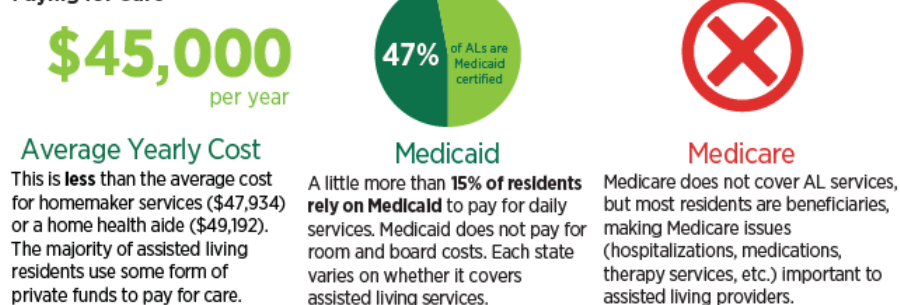
### Communities



### Workforce



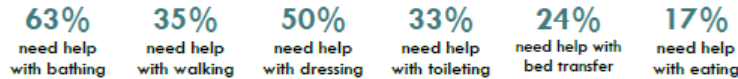
### Paying for Care



**ASSISTED LIVING RESIDENTS**

- **54%** are over the age of 85.
- **42%** have Alzheimer's disease or other form of dementia.

*Activities of Daily Living*

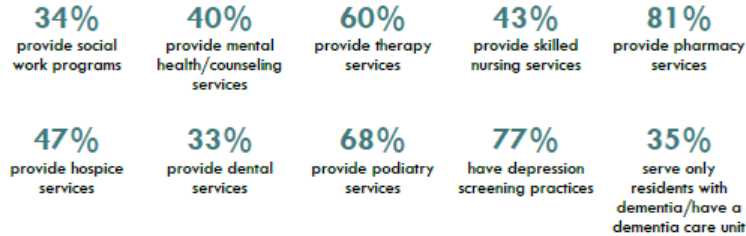


**ASSISTED LIVING PROVIDERS**

- **300** assisted living communities
- **9,700** beds/licensed max capacity
- **30** average number of people served

**4%** of residents  
rely on **Medicaid** for  
their long term care

*Community Programs Offered*



**ECONOMIC IMPACT**

*Workforce*

- **2,750** direct jobs
- **3,567** total\* jobs

*Economic Activity*

- **\$182.9** million direct
- **\$295.8** million total\*

*Tax Revenue*

- **\$11** million state/local
- **\$19.6** million federal

\*Total impact is the sum of direct, indirect, and induced effects on the economy of the state.  
Sources: CDC/NCHS, National Study of Long-Term Care Providers, 2013-14. Federal FY2017 Quarterly Census of Employment and Wages from the U.S. Bureau of Labor Statistics, and IMPLAN (data and software).



# NSLTCP In the News



## Are Adult Foster Homes a Good Care Option?

They offer a less expensive, more home-like atmosphere than

By [Liz Seegert](#) July 15, 2018



May 04, 2018

## RN representation holds steady in nursing homes

Share this content:      

Despite an industry-wide push for staffing improvements, nursing homes continue to reduce their reliance on nurse aides between 2012 and 2016.

Registered nurses made up just 13% of nursing home staff in 2016, according to a segment of the National Study of Long-Term Care Facilities conducted by the Centers for Disease Control and Prevention. The findings, which were set to be published online today.

In 2016, nursing aides, as expected, provided the most care in nursing homes, including nursing homes, residential care facilities, and other long-term care settings. The agency definition of aides includes certified nursing assistants, personal care assistants and medical assistants.

According to the CDC, they accounted for 59% of nursing home staff, while registered nurses provided 21% and certified nursing assistants 13%. Activities and therapy aides accounted for 12%.

The same report for 2014 showed aides provided 60% of care, registered nurses 21% and certified nursing assistants 13%.

June 28, 2018

## CDC: One-fourth of assisted living communities use EHRs; use highest in Midwest

Share this content:      

About one-fourth of assisted living communities use electronic health records, and use is highest among communities located in the Midwest, according to the Centers for Disease Control and Prevention.



The federal agency publishes the National Study of Long-Term Care Facilities Thursday online as part of its "Weekly Report" dated June 28, 2018.

The study found that 26% of assisted living communities used computer health and personal information systems.

[Lois A. Bowers, Senior Editor](#)

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July 19, 2018

## Mountain region is tops for assisted living resident advance directives

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IN FOCUS

July 25  
**Admirable Alzheimer's awareness efforts**  
Nationwide  
Senior living communities and organizations across the country are raising awareness and funding for Alzheimer's.

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Tweets by [@McKnightSL](#)

Next Article In News

[Discrimination lawsuit sparks awareness campaign](#)

Disability  
Care  
Mental  
Health

Mountain region of assisted living communities documented highest rates of advance directives, according to the CDC's National Study of Long-Term Care Facilities.

Community residents in their files, according to the CDC's 2016 National Study of Long-Term Care Facilities. The CDC's findings show that 9% of assisted living communities in the Mountain region had advance directives in their files, compared to 7% in the Midwest, 6% in the South, and 5% in the West.

The study was conducted by the U.S. Census Bureau as part of the National Study of Long-Term Care Facilities in Arizona, Colorado, Idaho, Montana, Nevada, and Utah.



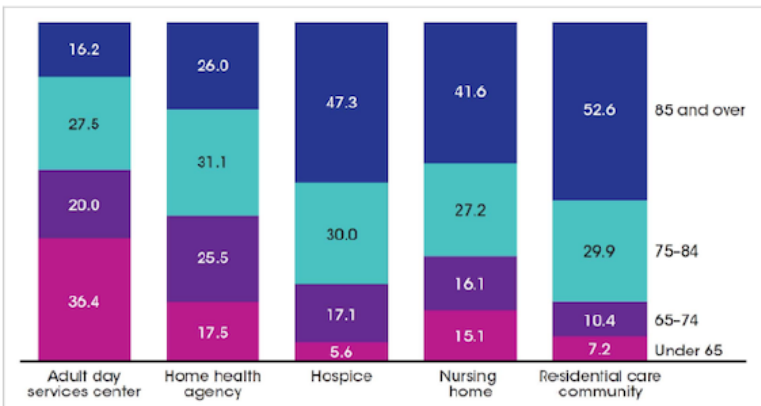
Mountain region is tops for assisted living resident advance directives



### Medicine and Society Data Watch

#### Percent Distribution of Long-Term Care Services Users, by Age

Mar 02, 2016



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.

Data Source: CDC/NCHS, National Study of Long-Term Care Providers and Table 4 in Appendix B.

Source: Centers for Disease Control and Prevention/National Center for Health Statistics: *Long-Term Care Providers and Services Users in the United States: Data From the National Study of Long-Term Care Providers, 2013-2014*

### DISABILITY & CAREGIVING

By David C. Grabowski, Daryl J. Caudry, Katie M. Dean, and David G. Stevenson

DOI: 10.1377/hlthaff.2015.0330  
 HEALTH AFFAIRS 34,  
 NO. 10 (2015): 1650-1656  
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 The People-to-People Health  
 Foundation, Inc.

# Integrated Payment And Delivery Models Offer Opportunities And Challenges For Residential Care Facilities

Approximately one million people live in residential care facilities across the United States.<sup>1</sup> These facilities include assisted living residences, board-and-care homes, congregate care, enriched housing programs, homes for the aged, personal care homes, and shared housing establishments.<sup>2</sup> As of 2012 over 50 percent of residential care facility residents were 85 or older, and 32 percent were ages 75-84.<sup>3</sup> Seventy-two percent of residents were female, and 87 percent were non-Hispanic white.<sup>3</sup>

<sup>3</sup> Harris-Kojetin L, Sengupta M, Park-Lee E, Valverde R. Long-term care services in the United States: 2013 overview. Vital and Health Statistics [serial on the Internet]. 2013 Dec [cited 2015 Jul 10]. Available from: [http://www.cdc.gov/nchs/data/nsltcp/long\\_term\\_care\\_services\\_2013.pdf](http://www.cdc.gov/nchs/data/nsltcp/long_term_care_services_2013.pdf)



# How do we make this work? – Sectors and data sources

## SECTORS

Hospices

Nursing  
Homes

Home Health  
Care  
Agencies

Residential  
Care  
Communities

Adult Day  
Services  
Centers

## DATA SOURCES

Administrative records – claims, assessment,  
regulatory data from CMS

Multi-mode survey data



# Administrative data sources

*Reference period is 3<sup>rd</sup> quarter of survey year for comparable time period across sectors*

- Nursing homes, home health agencies, hospices
  - CMS' Certification and Survey Provider Enhanced Reporting (**CASPER**, formerly known as Online Survey Certification and Reporting) data files
- Nursing home residents
  - Minimum Data Set Active Resident Episode Table (**MARET**) data
  - CASPER-nursing home file
  - Medicare Provider Analysis and Review (**MedPAR**) inpatient claims data—overnight hospitalizations



# Administrative data sources

*Reference period is calendar year the year before the survey for comparable time period across sectors*

- Home health patients
  - Outcome-Based Quality Improvement (**OBQI**) Case Mix Roll Up data (also known as Agency Patient-Related Characteristics Report data) from the Outcome and Assessment Information Set (OASIS)
  - Institutional Provider and Beneficiary Summary (**IPBS**)-Home health data
- Hospice patients
  - IPBS-Hospice data file



# Survey data collection

		Adult Day	Residential Care
Target respondent		Director or Administrator	
Modes		Mail, Web, Telephone	
Cases fielded	2012	5,254	11,690
	2014	5,443	11,618
	2016	5,348	11,688
Completions	2012	3,212	4,694
	2014	2,763	5,035
	2016	2,836	4,578
National response rates	2012	67%	55%
	2014	58%	50%
	2016	62%	51%
State response rates	2012	42% - 93%	44% - 84%
	2014	39% - 80%	41% - 79%
	2016	46% - 94%	33% - 87%



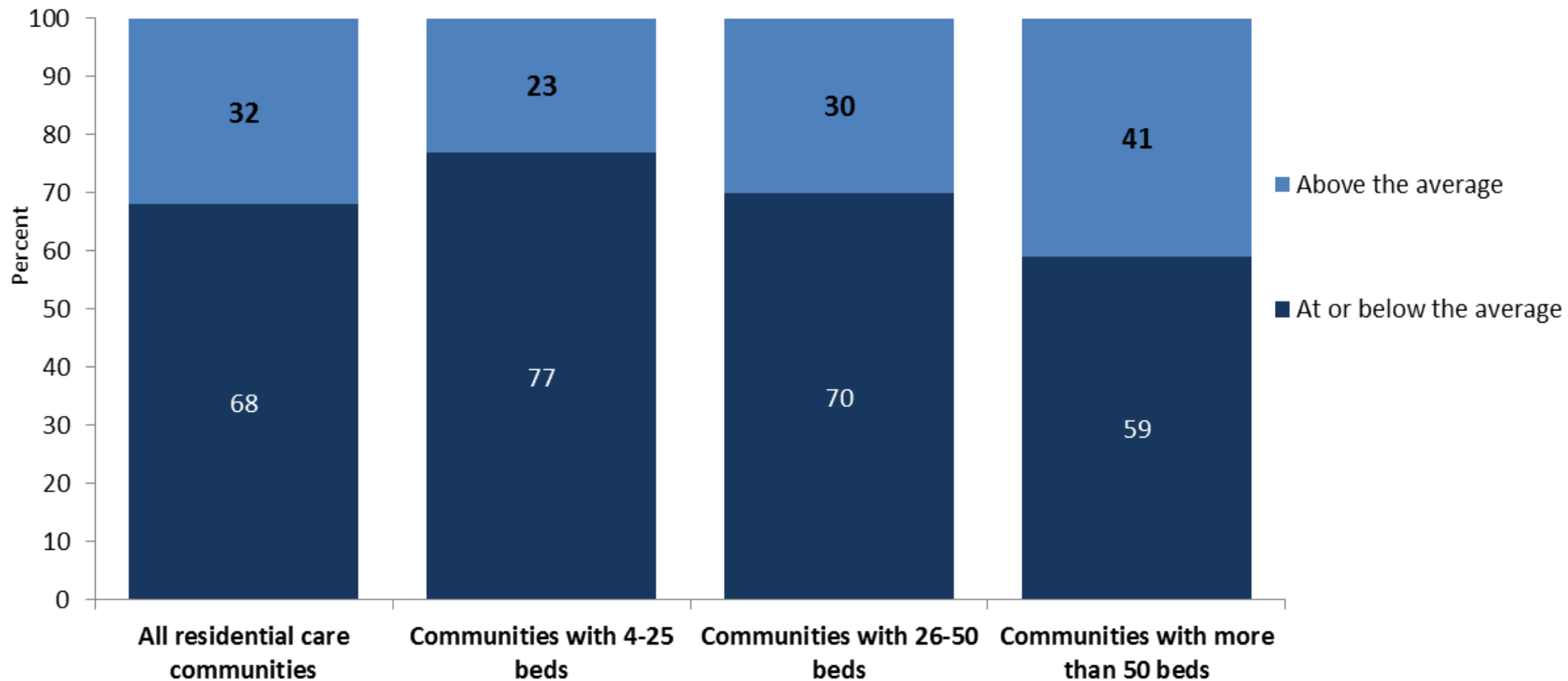


# Alternate survey designs by wave

Features	2018, 2022	2012, 2014, 2016, 2020
Geographic detail	National	State and National
Provider data	More	Less
Services user data	More	Less
Products	<ul style="list-style-type: none"><li>• Reports, tables</li><li>• Research Data Center</li><li>• Public-use files</li></ul>	<ul style="list-style-type: none"><li>• Reports, tables, maps</li><li>• Research Data Center</li></ul>
Sample size	~4K	~ 17K
Respondent task burden	<ul style="list-style-type: none"><li>• Avg=60-75 mins</li><li>• Easier task</li></ul>	<ul style="list-style-type: none"><li>• Avg=45-60 mins</li><li>• Harder task</li></ul>

# Example of analyses possible with aggregate data

**Figure. Residential care communities by whether their 30-day hospital readmission rates are above, at, or below the average, overall and by bed size**



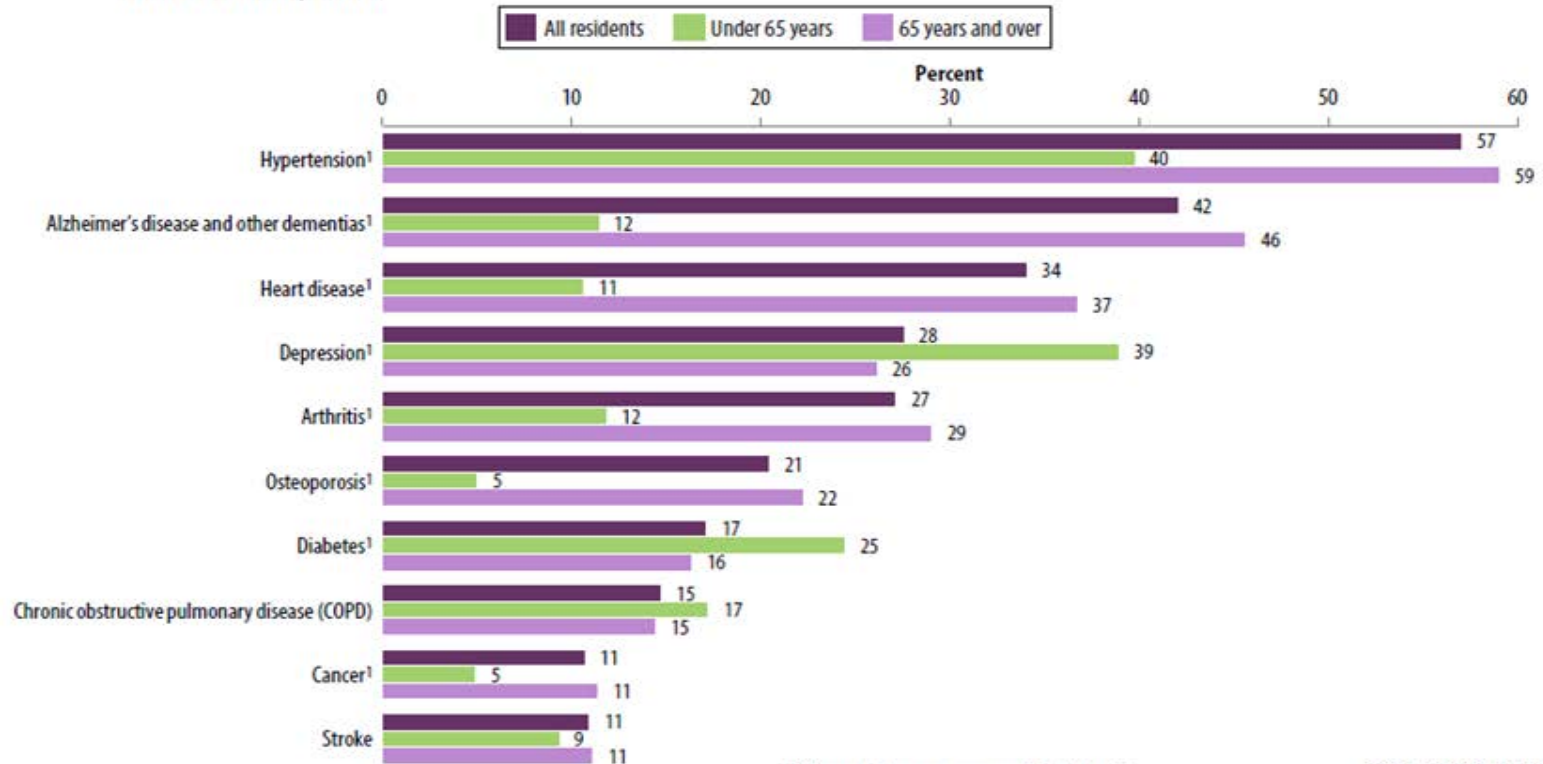
Differences between all community bed sizes were significant at  $p < .05$  and increase by size is statistically significant ( $p < .05$ ) based on a weighted least-squares regression test. Size-specific averages for 30-day hospital readmission rates were 17.3% for all sizes, 16.7% for 4-25 beds, 16.3% for 26-50 beds, and 18.3% for more than 50 beds.

NOTES: Denominator is residential care communities that had at least one resident with a discharge from an overnight hospital stay in the past 90 days.

Source: National Study of Long-Term Care Providers, 2012 -- Caffrey et al.

# Example of analyses possible with person-level data

FIGURE 3-1 Percentage of residential care community residents, by the 10 most common chronic conditions and age: United States, 2010

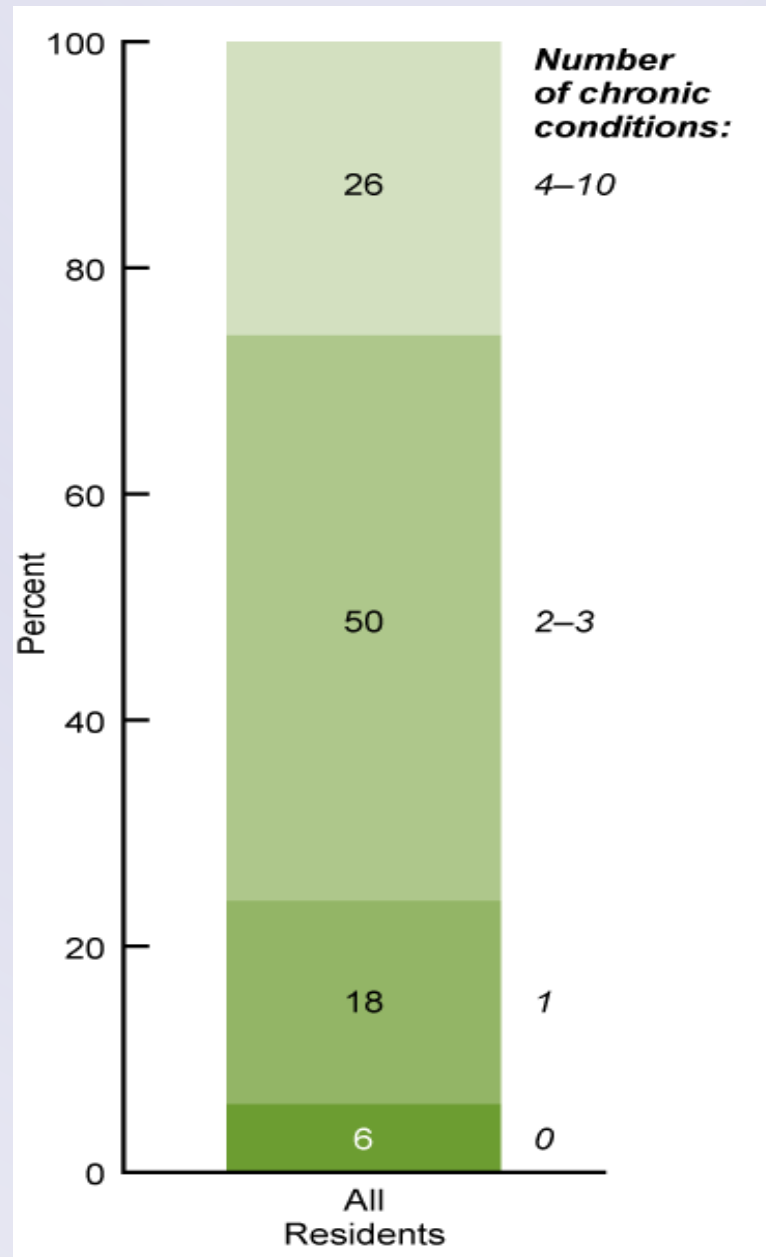


<sup>1</sup> Differences between age groups are significant at  $p < .05$ .

SOURCE: CDC/NCHS, 2010 NSRCE.

- The 10 most common chronic conditions for all residents included, in descending order, hypertension (57%), Alzheimer's disease and other dementias (42%), heart disease (34%), depression (28%), arthritis (27%), osteoporosis (21%), diabetes (17%), chronic obstructive pulmonary disease (COPD; 15%), cancer (11%), and stroke (11%).
- Hypertension, Alzheimer's disease and other dementias, heart disease, arthritis, osteoporosis, cancer, and stroke were more prevalent among residents aged 65 and over than among residents under age 65.
- A higher percentage of residents under age 65 had depression, diabetes, or COPD than did residents aged 65 and over.

# Example of analyses possible with person-level data (2)



-- Caffrey et al.

# Add sectors

## Snap Shot of LTPAC Settings

Total Number of Settings From National Study of Long-Term Care Providers ( 2013 - 2014)



In 2014, nearly 67,000 LTPAC providers served over 9 million Americans.

# Name change

- NSLTCP



- **N**ational
- **P**ost-acute
- **A**nd
- **L**ong-Term Care
- **S**tudy



# Opportunities

- Reliable infrastructure to collect primary data on adult day and residential care
- With partnerships, potential to build
  - collect primary data on more sectors or add content to current biennial surveys
  - add **content** and **sectors** from administrative data sources
  - identify and engage potential funding partners



# Record keeping-question alignment project

- With Collaborating Center for Questionnaire Design and Evaluation Research (CCQDER)
  - record keeping practices and response generation (data quality) for aggregate-level services user survey questions
  - variation among providers to determine extent to which survey questions fit well or cause undue burden or data quality challenges.





# 2018 survey protocol

Contact confirmation call

Advance package

2 – 3 follow-ups to providers that have not submitted provider Q

Thank you for submitting provider Q

Telephone interview confirmation & prep information

1. Reminder of date and time
2. Instructions for making clean list of services users
3. Show cards for selected items



## National Study of Long-Term Care Providers

# Pursuing Consent for Record Linkage in an Establishment Survey: Results from a National Survey

Lauren Harris-Kojetin, PhD  
Manisha Sengupta, PhD

FCSM 2018 Research and Policy Conference  
March 8, 2018

# Take home summary—practical implications

- Should we pursue linkage for NSLTCP surveys? **Likely not.**
- Small sample size—Potential for bias—Unknown generalizability
  - Majority of HIPAA-covered establishments not share  
**–4%-11% of 65% = 7% of initial sample at best**
  - Willingness to share varies by key characteristics
  - In non-HIPAA covered establishments, getting resident or family consent likely cost-prohibitive
  - What would the linked sample represent? To what population is sample generalizable, if any, and with what probability?



## National Center for Health Statistics

### National Study of Long-Term Care Providers

About NSLTCP

What's New

Questionnaires, Datasets, and Related Documentation

Study Results and Publications

#### Reports

National and State Estimates (Maps, Tables, and Figures)

Journal Articles

Presentations

Residential Care Community Participants

Adult Day Services Center Participants

Long-Term Care Listserv

Contact Us



## National Study of Long-Term Care Providers

[CDC](#) > [NCHS](#) > [National Study of Long-Term Care Providers](#) > [Study Results and Publications](#)

### Study Results and Publications - Reports




2016

2014

2012

#### National Health Statistics Reports

- [Advance Directive Documentation Among Adult Day Services Centers and Use Among Participants, by Region and Center Characteristics: National Study of Long-Term Care Providers, 2016](#)  [PDF - 409 KB] (09/2018)

#### Data Briefs

- [NCHS Data Brief No. 296: Variation in Adult Day Services Center Participant Characteristics, by Center Ownership: United States, 2016](#) (02/2018)
- [NCHS Data Brief No. 299: Variation in Residential Care Community Resident Characteristics, by Size of Community: United States, 2016](#) (02/2018)