Presenting EHR Data Alongside Survey Data: Insights and Challenges

Christine Caffrey

Manisha Sengupta

Shannon Kindilien

Division of Health Care Statistics

FCSM 2024 Research and Policy Conference
October 24, 2024

Disclosure

- None of the authors have any conflicts of interest to disclose.

- The findings and conclusions in this presentation are those of the authors and do not necessarily represent the official position of the National Center for Health Statistics, Centers for Disease Control and Prevention, Department of Health and Human Services, or RTI International.

QuickStats: Percentage of Residential Care Communities* That Use Electronic Health Records, by Community Bed Size — United States, 2018, 2020, and 2022[†]
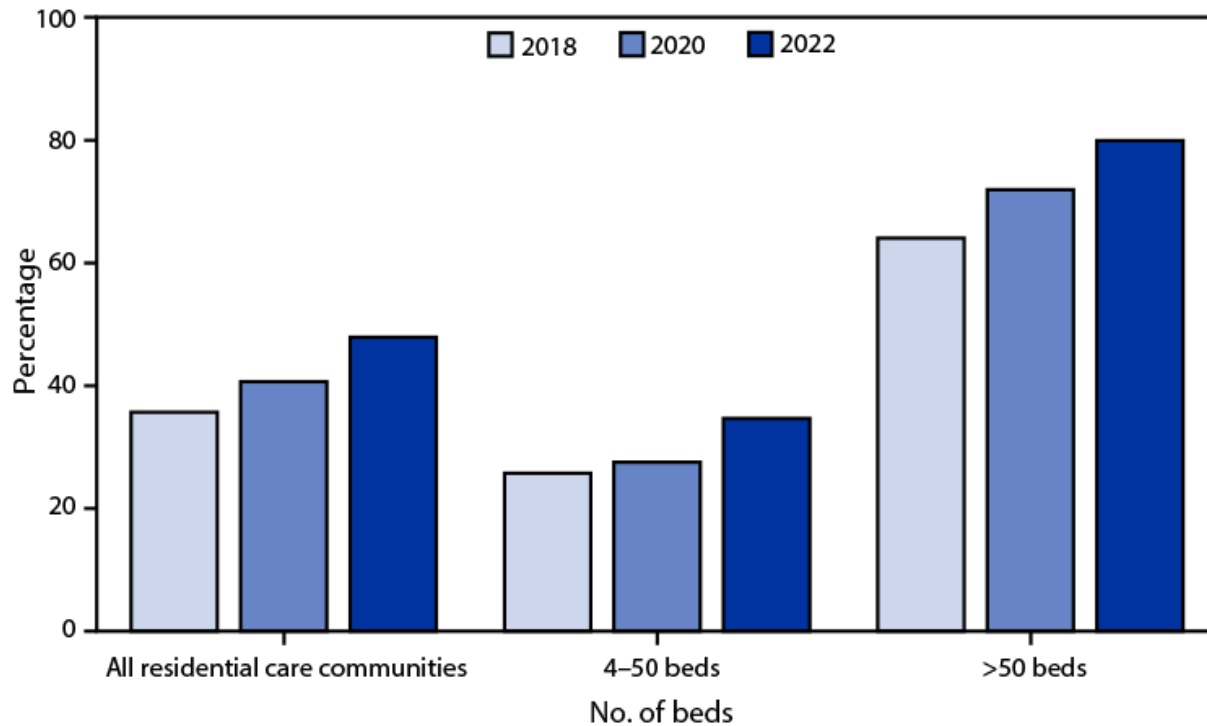
Source: National Center for Health Statistics, National Post-acute and Long-term Care Study, 2018, 2020, and 2022 data.

National Post-acute and Long-term Care Study

(formerly National Study of Long-Term Care Providers)

SETTINGS

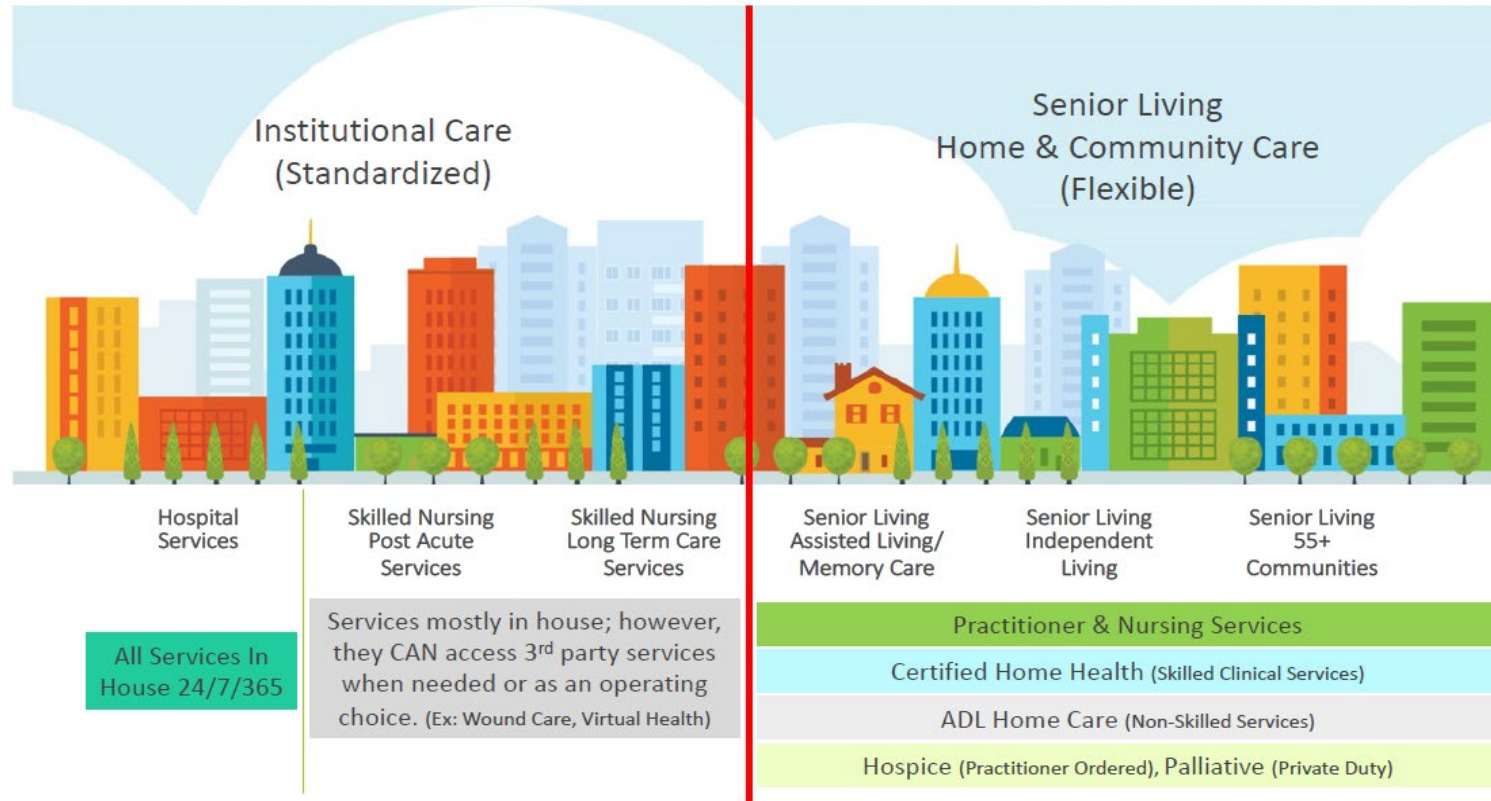|						
Hospice Agency	Nursing Home	Home Health Care Agency	Inpatient Rehab Hospital*	Long-term care Hospital*	Residential Care Community	Adult Day Services Center

DATA SOURCES

Secondary Data:

Centers for Medicare and Medicaid Services administrative claims, assessment, and regulatory data

(CASPER, MDS, OASIS, IRF-PAI, IPBS)

Primary Data:

NCHS multi-mode survey of providers

* Setting added in 2018

PointClickCare (PCC) Overview

Institutional Care (Standardized)

Senior Living Home & Community Care (Flexible)

| Hospital Services | Skilled Nursing Post Acute Services | Skilled Nursing Long Term Care Services | Senior Living Assisted Living/ Memory Care | Senior Living Independent Living | Senior Living 55+ Communities |

All Services In House 24/7/365

Services mostly in house; however, they CAN access 3rd party services when needed or as an operating choice. (Ex: Wound Care, Virtual Health)

Practitioner & Nursing Services

Certified Home Health (Skilled Clinical Services)

ADL Home Care (Non-Skilled Services)

Hospice (Practitioner Ordered), Palliative (Private Duty)

*Legros, Jessie.(2021). PointClickCare at CDC Training Guide. Public Health Education, OPHDST, CDC.

NPALS/PCC projects

Specific Goals

1. Explore a commonly used LTC EHRs software, PCC Lighthouse

2. Explore the feasibility of presenting NPALS alongside PCC

3. Examining PCC users within NPALS respondents

NPALS/PCC projects

Study Designs

1. Review of PCC Lighthouse

2. Comparison of NPALS and PCC Lighthouse data dictionaries

3. Drafting of tables with 2018/2020 NPALS and PCC estimates together

4. Crosstabulations of NPALS PCC measure by select characteristics

Results-PCC data dictionary

Overview

- Focuses on real-time data elements from facilities managing patient care.

- Data designed to provide detailed information to EHR users engaged in patient care, analyzing clinical performance, operational metrics, quality control, and financial metrics.

  - Lighthouse includes data specific to operations, clinical care, pharmaceutical usage, incident reporting, and staff interactions.

- Variables exist to support operational decision making, regulatory compliance, and quality improvement.
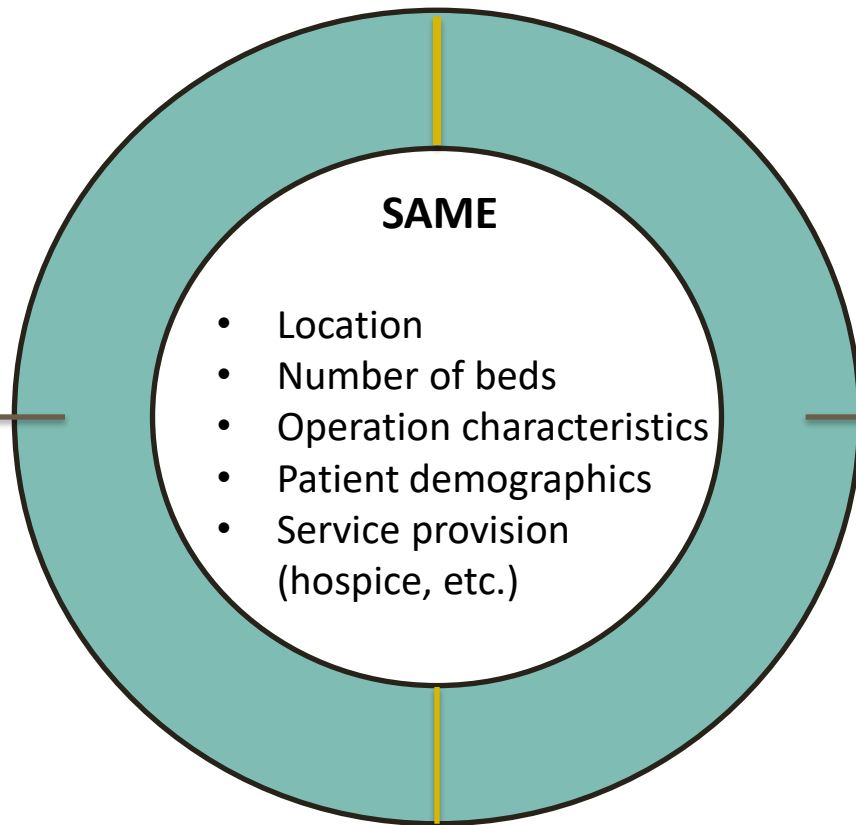
Results-NPALS data dictionary

Overview

- Provider topics
  - location, operational characteristics, services offered, staffing, and practices
- Services user topics
  - Sociodemographics, health conditions, physical and cognitive functioning, health care use, transitions in/out, and adverse events
- Survey design variables
  - PSU, strata, weights

Results-Comparing NPALS/PCC data dictionaries

- Pharmacy
- Dementia
- Ownership
- Geography
- Size
- Patient screening

SAME

- Location
- Number of beds
- Operation characteristics
- Patient demographics
- Service provision (hospice, etc.)

- Revenue sources
- Counts of patients
- Opioid prescriptions
- Nutrition services

Results-Comparing NPALS/PCC data dictionaries

NPALS

- Staffing & benefits
- Provider's Medicaid status
- Screening practices
  - COVID-19 response
- Services: social/recreational
- Telehealth

VS.

Lighthouse

- Medications
- ICD, MDS codes
- Incident reports
- Room characteristics
- Payer/financials

Note: NPALS also captures data from providers that report not using *any* EHR.

Results-NPALS alongside PCC CDC project

Overview

- CDC-NCHS workgroup
  - A team of NCHS NPALS researchers and CDC PCC researchers
  - Met monthly for almost 2 years

- Explored ability to present 2018 and 2020 NPALS alongside PCC data
  - Identified similar sample/measures, describe, draft tables
  - Organizational characteristics, Resident characteristics

Results-NPALS alongside PCC CDC Project

Preliminary Findings

	NPALS - EHR users		PCC
	2018	2020	2022
Facility Characteristics			
Census Region			
Northeast	*	10	13
Midwest	39	38	35
South	22	28	32
West	29	24	20
Metropolitan Statistical Area	83	81	81
Center Size			
4-10 beds	*	15	4
11-25 beds	*	15	5
26-100 beds	52	52	74
>100 beds	19	18	17

	NPALS - EHR users		PCC
	2018	2020	2022
Resident Characteristics			
% Female	67	70	59
Age			
<75 yrs	17	17	29
65-74 yrs			
75-84 yrs	27	31	18
>=85 yrs	56	52	53
Race/Ethnicity			
NHW	93	90	92
NHB	*	4	4
Another race or ethnicity	*	6	4

*estimate does not meet NCHS reliability standards

Results-PCC Users in 2022 NPALS

Overview

For 2022 NPALS included question for EHRs users:

What is the name of your Electronic Health Records system?

Point Click Care included on list

Crosstabulations by select characteristics

Results-PCC Users in 2022 NPALS

Preliminary Findings

48.7% of residential care communities that were EHRs users in the 2022 NPALS used Point Click Care

	PCC 2022	NPALS PCC 2022
Facility Characteristics		
Census Region		
Northeast	13	13
Midwest	35	41
South	32	23
West	20	23
Metropolitan Statistical Area	81	81
Center Size		
1-3 beds		
4-10 beds	4	*
11-25 beds	5	*
26-100 beds	74	55
>100 beds	17	16

*estimate does not meet NCHS reliability standards

Conclusions

PCC alongside NPALS

Future plans

- Can we replicate this project in the future with current data and more variables?

Challenges

- Purpose of two data systems different
- Measurement differences, not representative

PCC users in NPALS

Future plans

- Are we able to get PCC data from/about our NPALS PCC respondents?

Challenges

- Respondents report resistance and difficulties when asked about this
- PCC's ability/willingness to construct personalized datasets for us

Thank you!

More information about NPALS…

Visit: https://www.cdc.gov/nchs/npals/site.html

Email: ltcsfeedback@cdc.gov