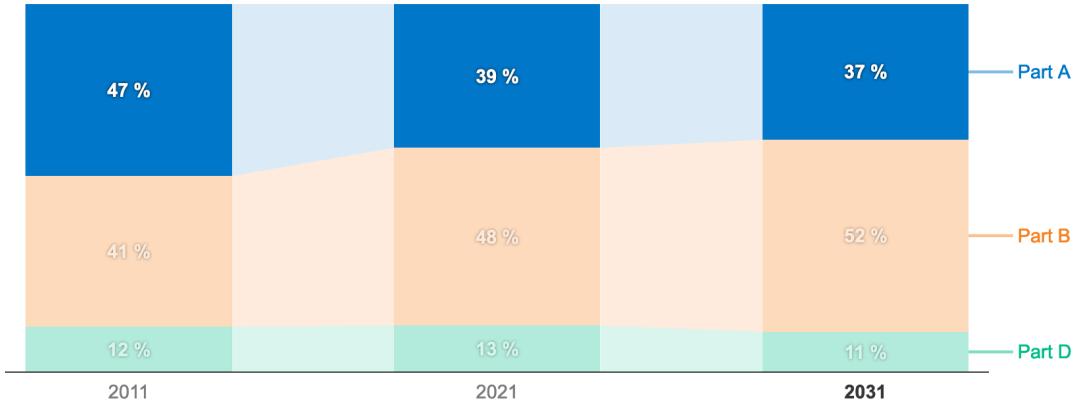
Using payment to transform care:
Hospital and post-hospital care in the U.S.

Rachel M. Werner, MD, PhD

Inpatient care is common and costly

- **1 in 5** Medicare beneficiaries are hospitalized annually in the U.S.
- Of those, 40% receive post-hospital (or post-acute) care
- Amounts to $323 billion in Medicare spending



NOTE: Amounts in billions. Amounts include spending on both traditional Medicare and Medicare Advantage.
SOURCE: KFF analysis of Medicare spending data from the 2022 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds. • PNG

KFF

The Medicare Hospital Insurance trust fund is projected to be depleted in 2031

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Inpatient prospective payment system

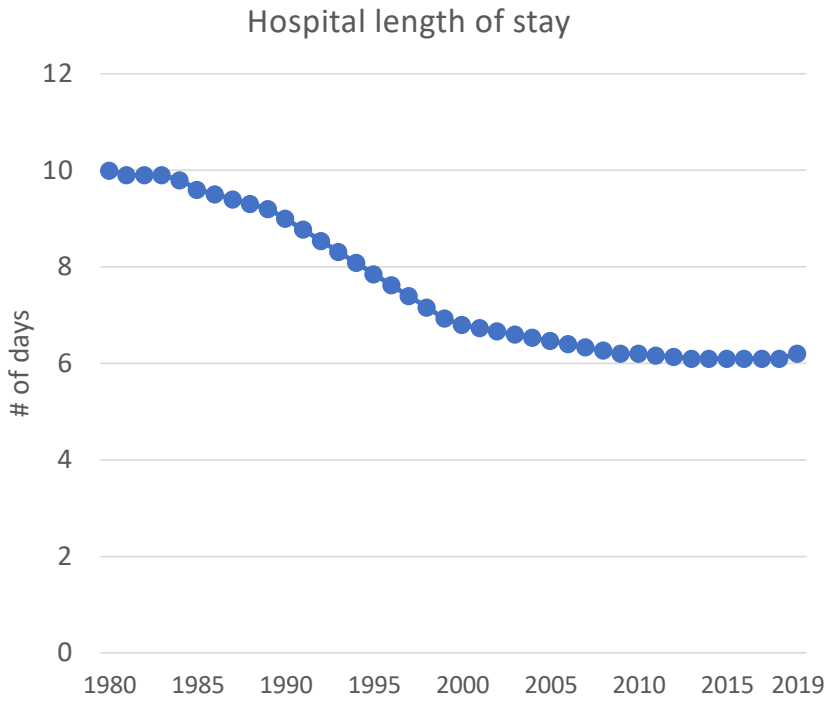
Prior to 1983 U.S. hospitals were reimbursed on a retrospective cost basis

- Hospitals were reimbursed for whatever they spent
- Little incentive to control costs

In 1983, facing the imminent insolvency of the Medicare Hospital Insurance trust fund,

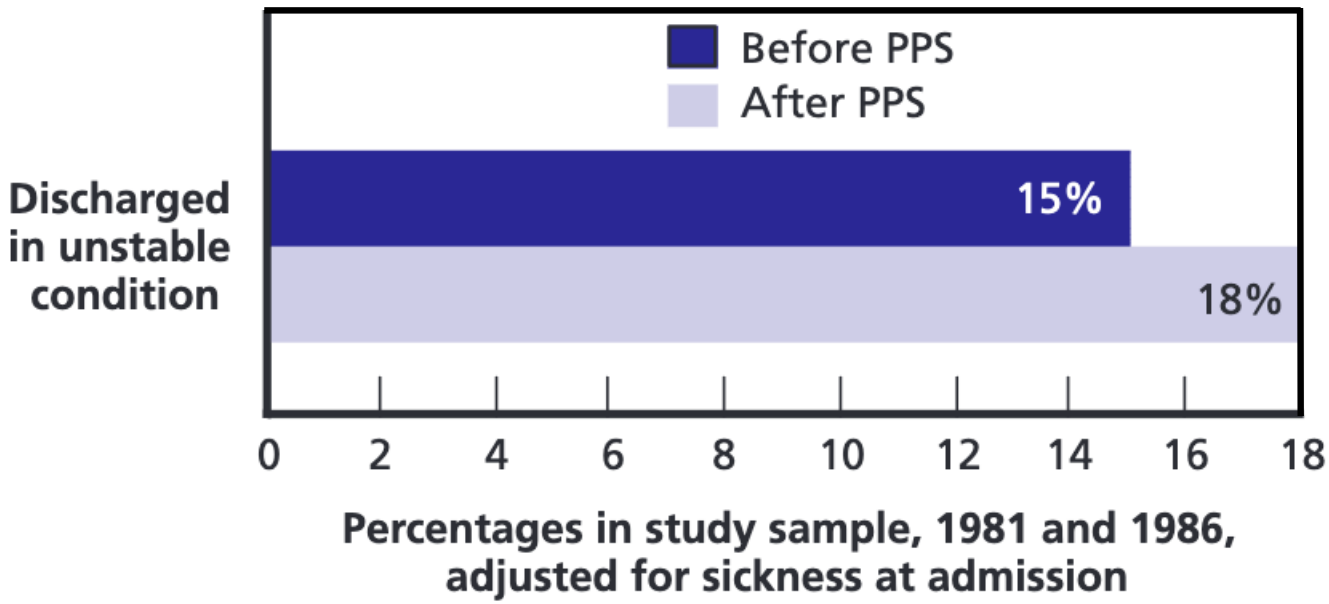
- Congress passed legislation that implemented the Medicare Inpatient Prospective Payment System (IPPS)
- Hospitals were paid a flat rate based on Diagnosis Related Group (DRGs)

Hospitals sought ways to reduce costs



- Length of hospital stay declined
- Medicare annual spending on hospital care declined by over 20% from projected spending
- No significant negative impact on patient outcomes

Patients were discharged quicker and sicker



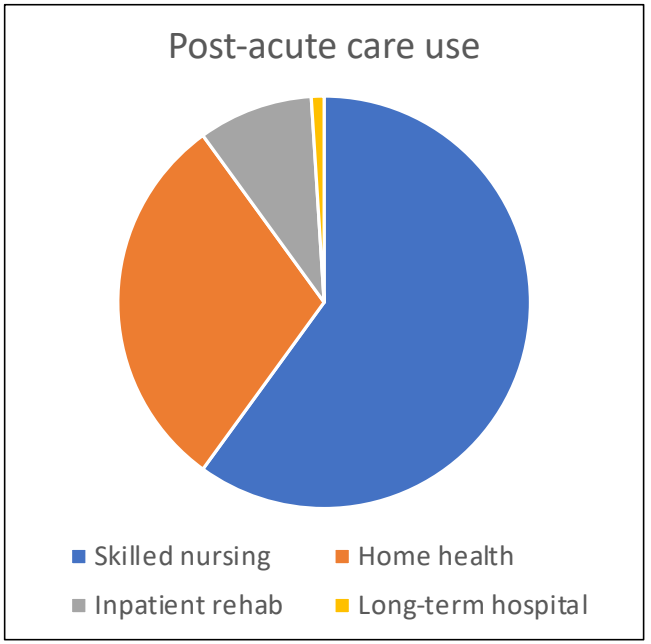
Draper et al., RAND Corporation, 2006

Growth of post-acute care

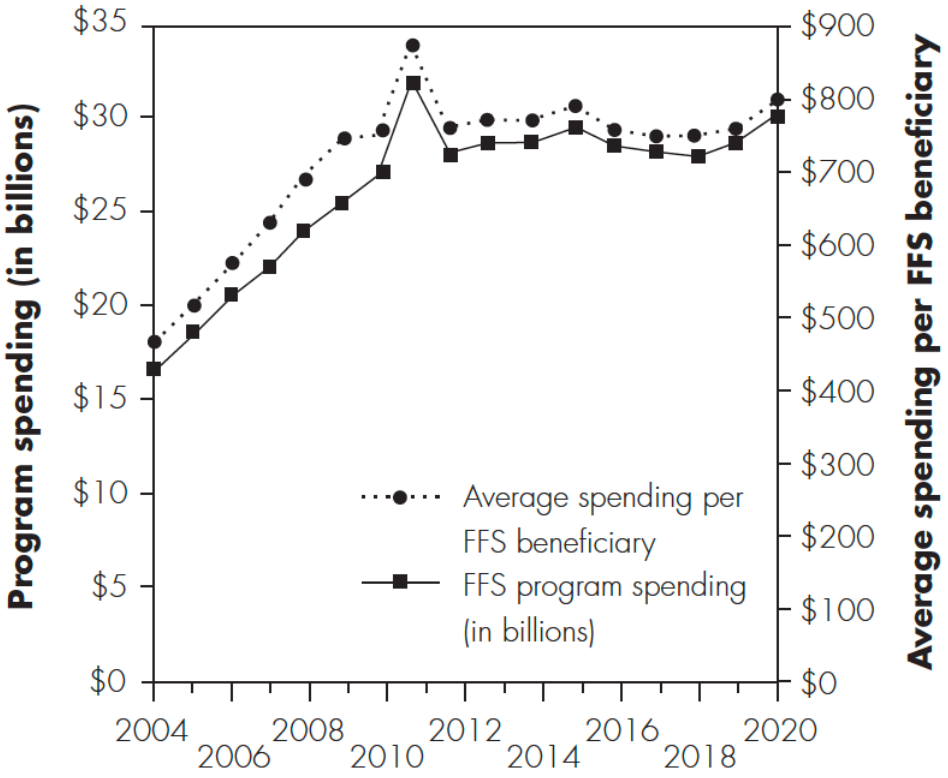
- As patients were discharged quicker and sicker, they needed transitional care
- Post-acute care grew to provide a transition between hospital and home
  - Rehabilitation and recovery from hospitalization (e.g. hip replacement, congestive heart failure, pneumonia)
- Medicare expenditures for post-acute care grew
  - $2.5 billion in 1986
  - $30 billion in 1996

Post-acute care use is common and expensive

- Today, post-acute care costs Medicare $60 billion per year
  - 15% of Medicare budget
- 40% of Medicare beneficiaries receive post-acute care after a hospital discharge
- Skilled nursing facilities (SNF) are the most common setting, accounting for 60%
  - $27 billion on SNF stays



Growth in Medicare spending on SNF care



MedPAC (2020)

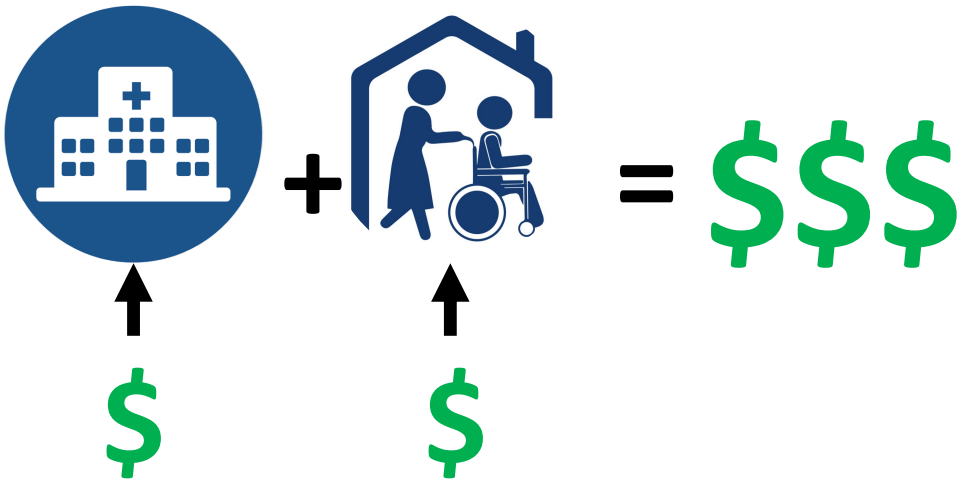
Medicare's payment policies fueled growth

Hospital stays and post-acute care is reimbursed separately

- High costs and fragmentation

Medicare payment for SNFs

- Prospective, but on a *per diem* basis
- Generous *per diem* rates
- Covers up to 100 days for a benefit period
- No copay for first 20 days



ACA payment reform

In 2010 the ACA was passed, and CMMI established

- Focused attention on reforming provider payment to increase the value of care → to provide higher quality of care at a lower cost
- Implemented value-based payment and alternative payment models
    - Accountable care organizations
    - Bundled payment for episodes of care

Value-based payment seeks to hold providers accountable for costs of care across settings

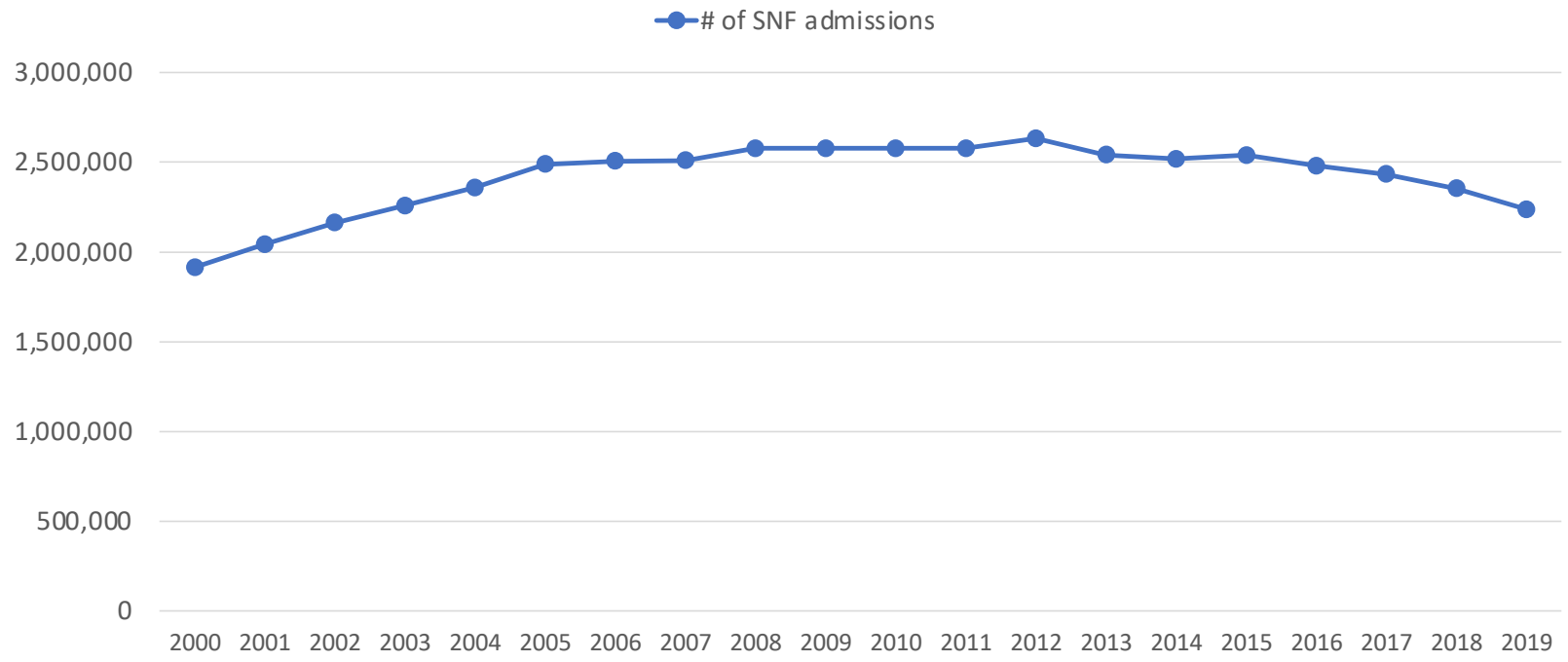
- Align providers' incentives across health care settings
- May reduce unnecessary health care utilization

Payment reform & post-acute care

- Post-acute care has been a common target of payment reform, with hospitals and other providers actively seeking ways to reduce spending by sending patients directly home

- Prior research has found that both bundled payments and ACOs result in lower costs of post-hospital care
  - Less institutional post-acute care
  - Shorter episodes of post-acute care
  - Less health care spending across an episode of hospital + post-hospital care

Post-acute care in SNFs over time



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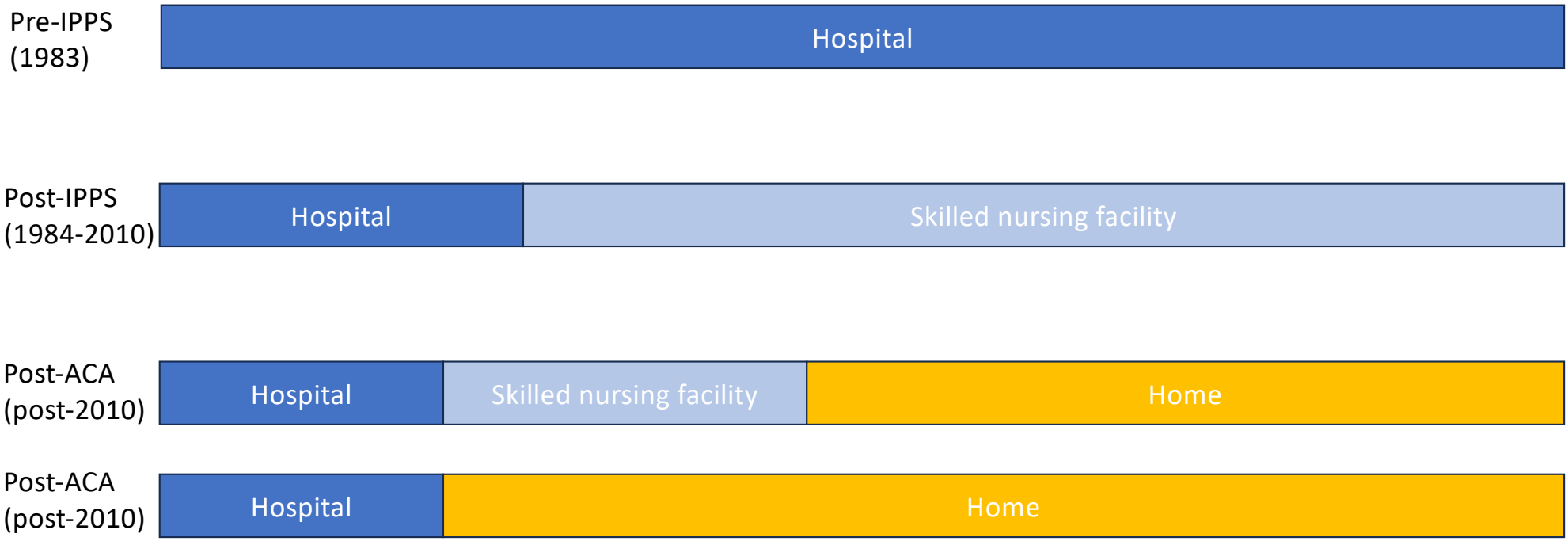
Changes in where we provide care over time

For an episode of illness, changes in the setting where care is provided



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Changes in *where* we provide care

SNF versus home health care

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Home-based post-hospital care

- Home health represents 30% of all post-acute care use among Medicare beneficiaries
- Post-acute care can be delivered at home through visits from home health agencies
  - "Homebound" and need skilled care on intermittent basis
    - Skilled nursing or therapy
    - At most once/day
    - For finite period
- Is much less expensive than institutional post-acute care
  - Average Medicare costs: $2,500 for home health versus $11,000 for SNF

JAMA Internal Medicine | Original Investigation

Patient Outcomes After Hospital Discharge to Home With Home Health Care vs to a Skilled Nursing Facility

Rachel M. Werner, MD, PhD; Norma B. Coe, PhD; Mingyu Qi, MS; R. Tamara Konetzka, PhD

Table 1. Characteristics of Patients Discharged From the Hospital in Study Cohort

Characteristic	Patients, No. (%)	
	Home Health Care (n = 6 687 339)	SNF (n = 10 548 515)
Age, mean (SD), y	78.7 (7.7)	81.5 (7.9)
Female sex	3 918 245 (58.6)	6 809 443 (64.6)
Race/ethnicity		
White	5 706 387 (85.3)	9 163 361 (86.9)
Black	657 929 (9.8)	959 701 (9.1)
Hispanic	128 577 (1.9)	159 732 (1.5)
Dually enrolled in Medicare and Medicaid	863 159 (12.9)	2 179 823 (20.7)
Enrolled in Medicare Advantage	1 633 387 (24.4)	2 602 358 (24.7)
No. of comorbidities, mean (SD)	3.2 (2.7)	3.3 (2.8)
5 Most common DRGs		
Total knee or hip replacement	856 617 (12.8)	1 178 668 (11.2)
Sepsis	313 046 (4.7)	667 208 (6.3)
Congestive heart failure	456 418 (6.8)	460 914 (4.4)
Pneumonia	293 392 (4.4)	406 087 (3.8)
Urinary tract infection	170 681 (2.6)	434 723 (4.1)

JAMA Internal Medicine, 2019

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	Sample mean	Difference with discharge to HHA (vs. SNF)		Relative effect
30-day rehospitalization	18%	**5.6 pct points***		**31% increase**
Improvement in ADLs	49%	-1.9 pct points		
Total Medicare payment (60 days)	$26,101	**-$4,514***		**17% decrease**

* p-value < .001

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JAMA Internal Medicine, 2019

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Changes in *where* we provide care

Shorter SNF stays

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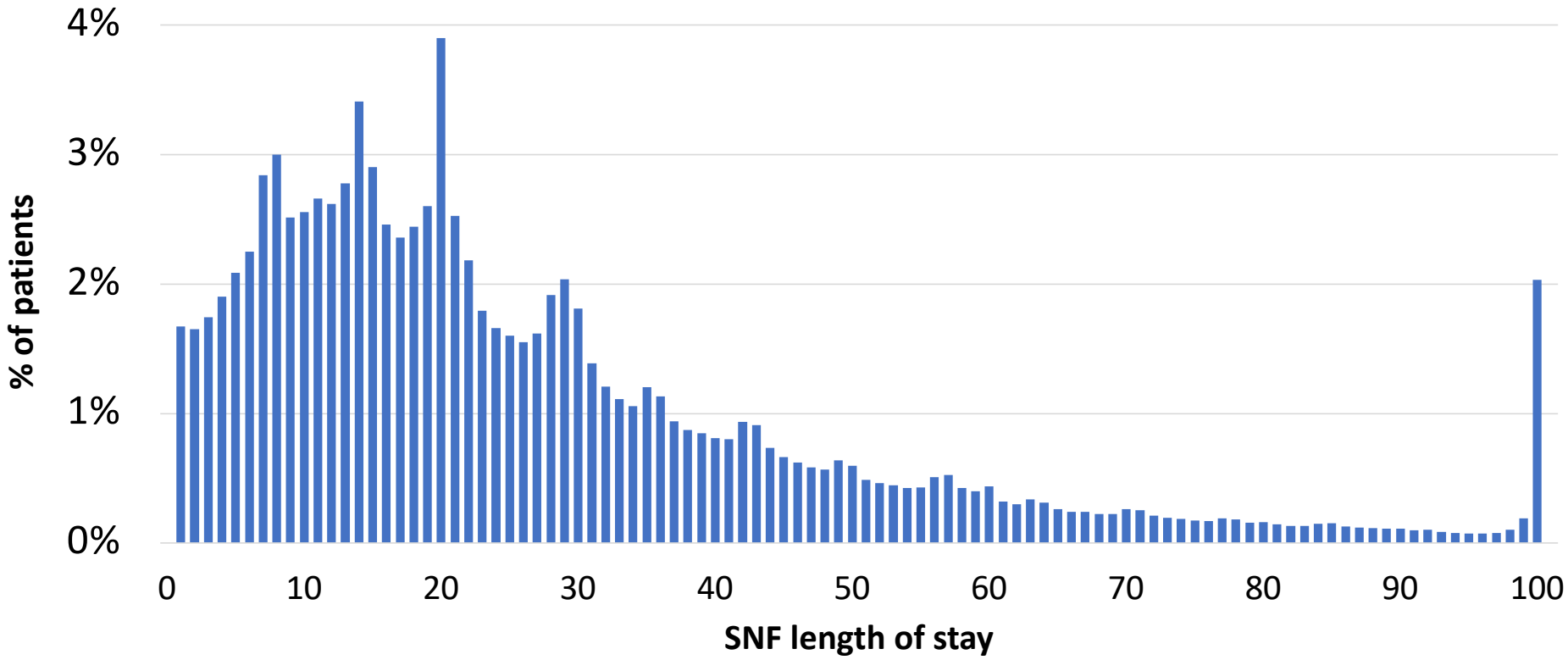
Do longer SNF stays provide value?



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AMERICAN JOURNAL OF HEALTH ECONOMICS

THE VALUE OF AN ADDITIONAL DAY OF POST-ACUTE CARE IN A SKILLED NURSING FACILITY

RACHEL M. WERNER
NORMA COE
MINGYU QI
R. TAMARA KONETZKA

	Sample mean	Effect of one additional day	Relative effect
7-day rehospitalization	8.2	**-0.15 pct pt***	2% decline
30-day rehospitalization	15.2	-0.03 pct pt	
Successful discharge from SNF	76.2	**0.17 pct pt***	0.2% increase
Total Medicare payment (30 days)	$14,682	**$371***	3% increase

* p-values < 0.01

Werner, Konetzka, Qi, Coe; *American Journal of Health Economics*, 2023

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Changes in *who* provides care

Do we have an adequate home care workforce?

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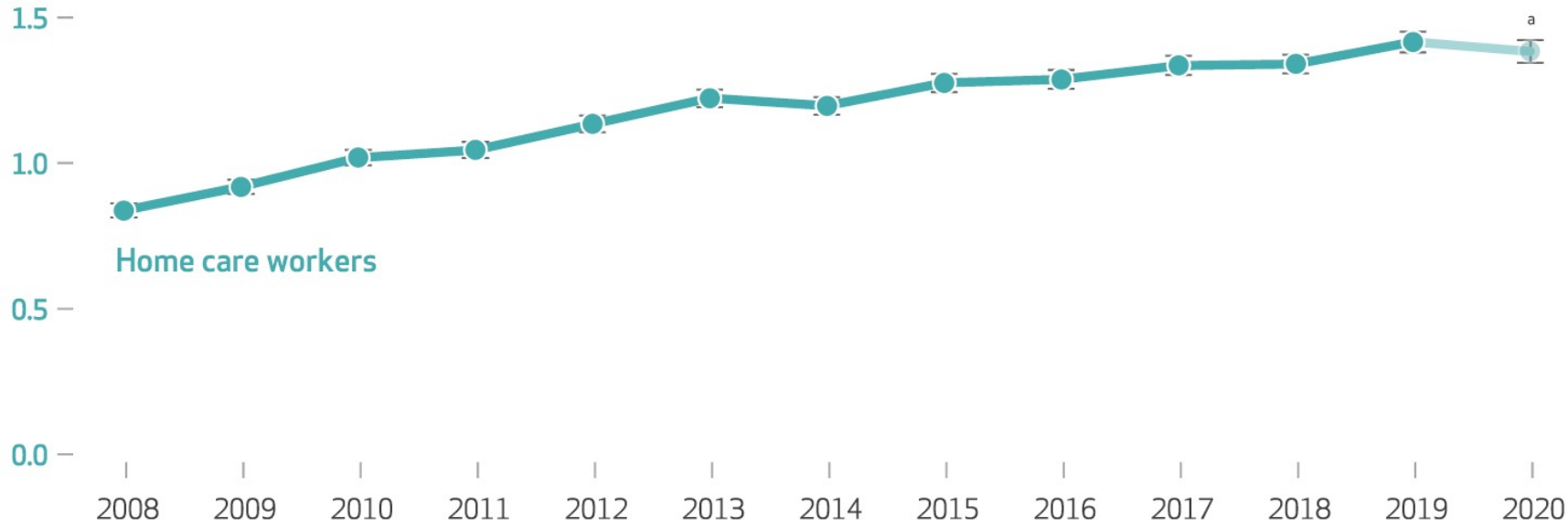
HealthAffairs

The Home Care Workforce Has Not Kept Pace With Growth In Home And Community-Based Services

Amanda R. Kreider
Rachel M. Werner



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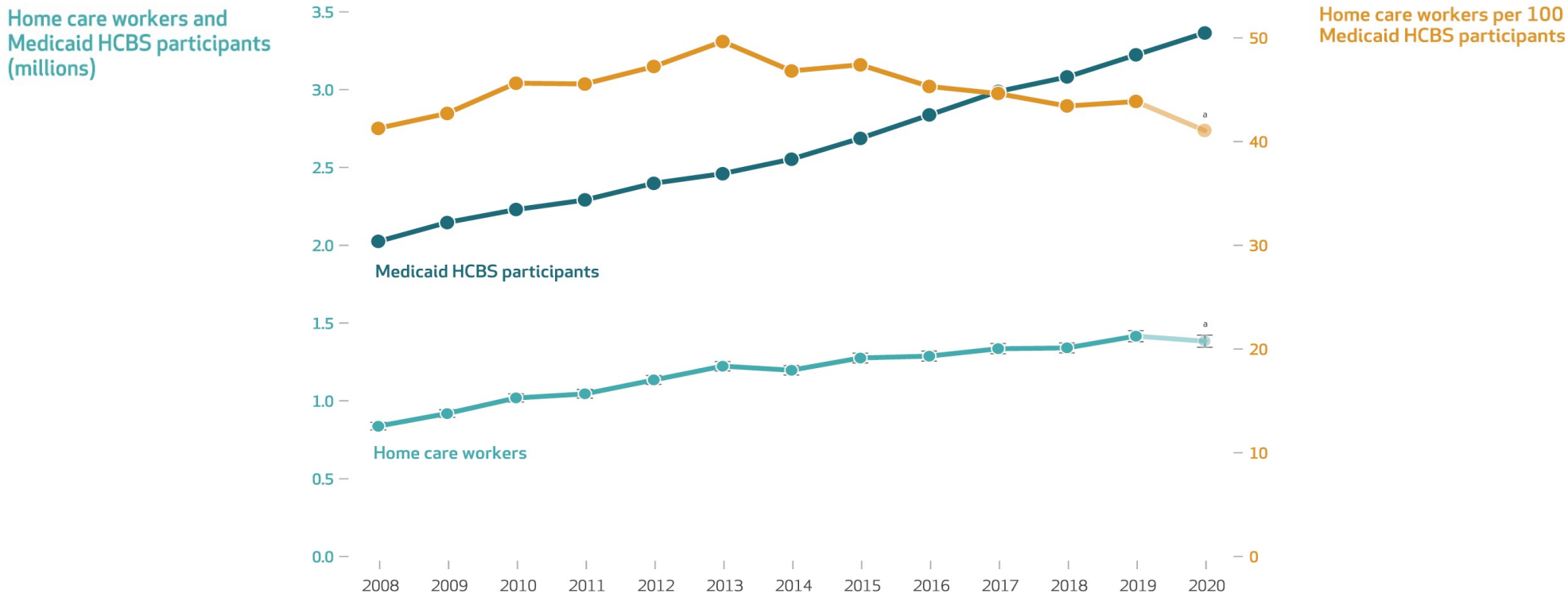

Health Affairs, 2023

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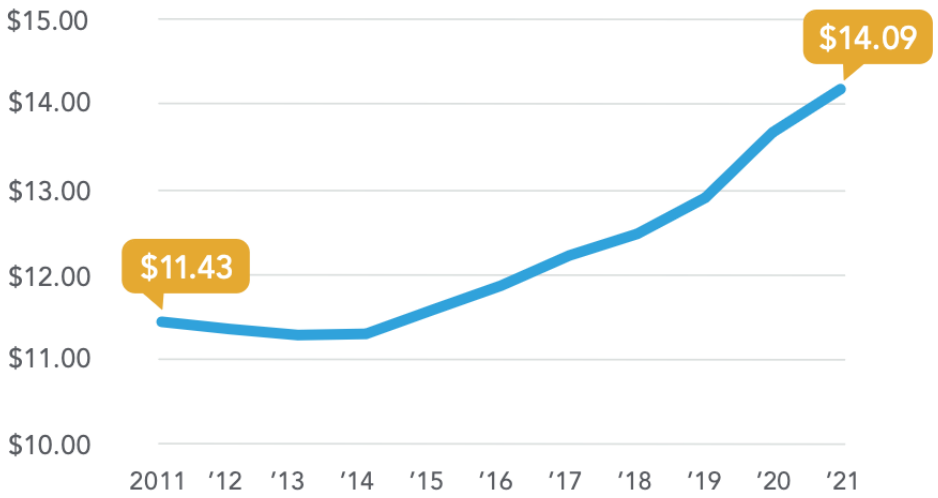
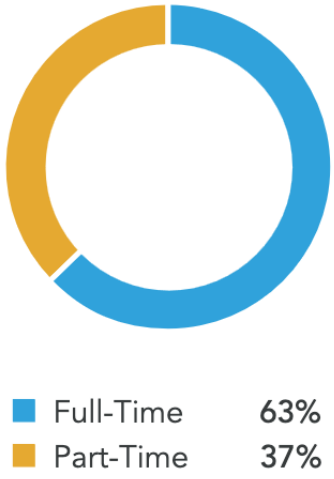
Wages

HOME CARE WORKER MEDIAN HOURLY WAGES, ADJUSTED FOR INFLATION, 2011 TO 2021



HOME CARE WORKERS BY EMPLOYMENT STATUS, 2021



PHI, 2022

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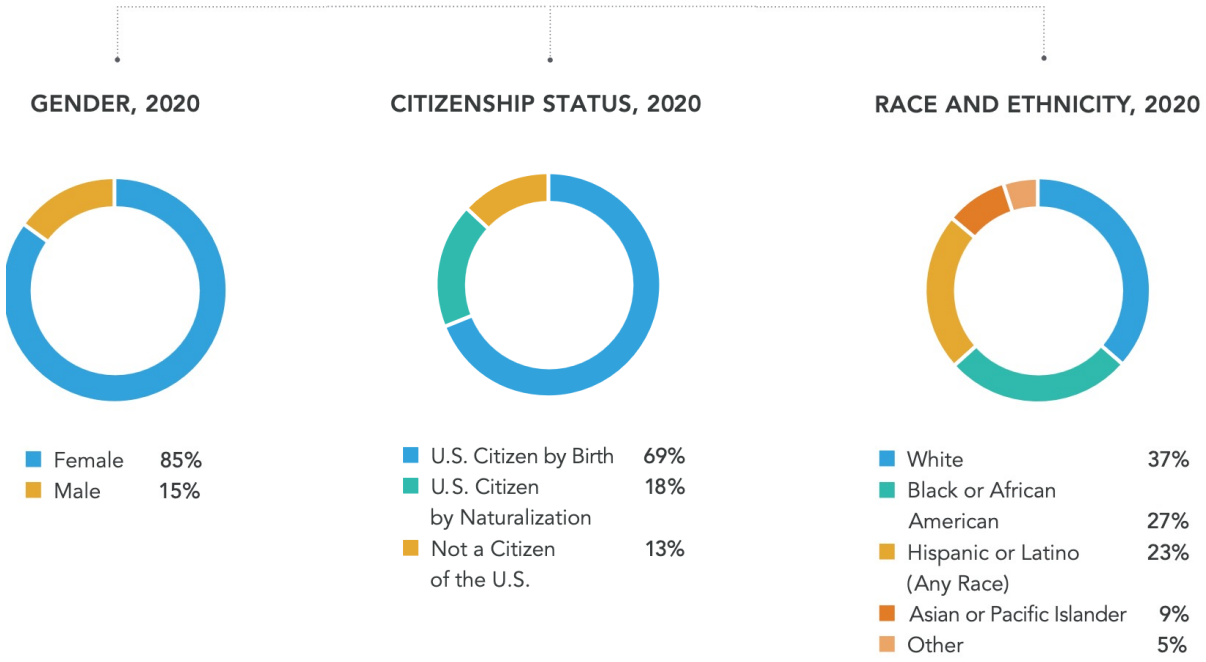
Demographics of home care workers



PHI, 2022

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Changes in *who* provides care

Shifting the provision of care to caregivers

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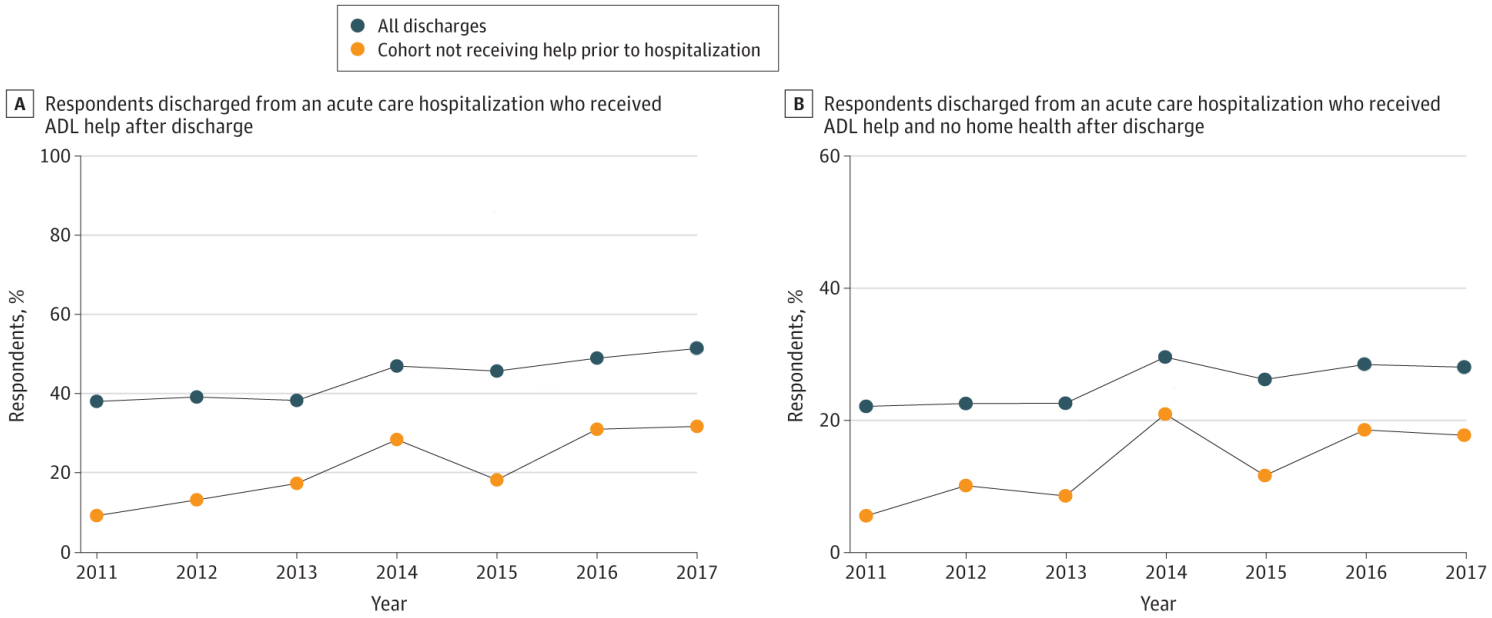
Original Investigation | Health Policy

Trends in Receipt of Help at Home After Hospital Discharge Among Older Adults in the US

Eric Bressman, MD; Norma B. Coe, PhD; Xinwei Chen, MS; R. Tamara Konetzka, PhD; Rachel M. Werner, MD, PhD

% of people receiving unreimbursed help at home after hospital discharge



JAMA Network Open, 2021

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Demographics of caregivers

85% of caregivers are family members

- Typically providing unpaid care

75% of caregivers are female

Costs of caregiving

AARP valued this care at **$600 billion** in 2021

- Vastly underestimate true cost of caregiving by excluding the broader financial and health risks from caregiving

Family caregivers are more likely to:

- Take leave from a job
- Take out a loan or mortgage
- Spend savings
- Hold multiple jobs
- Retire early, losing retirement income and health benefits

Costs are disproportionately borne by women of color

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The Effects of Post-Acute Care Payment Reform on the Need for and Receipt of Caregiving

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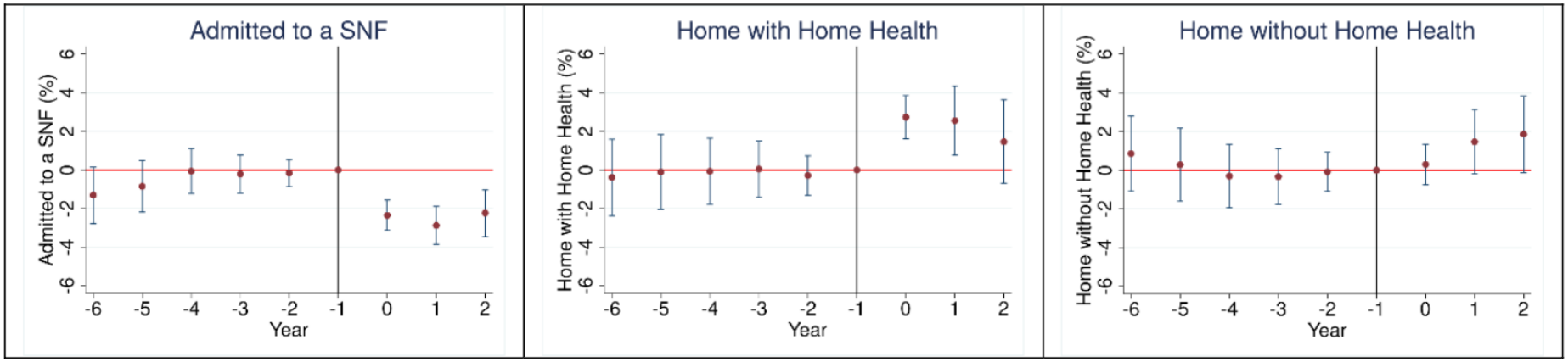
Post-hospital care under bundled payment
(for hip/knee replacement)



Werner, Coe, Kim, Konetzka; *American Journal of Health Economics*, In press.

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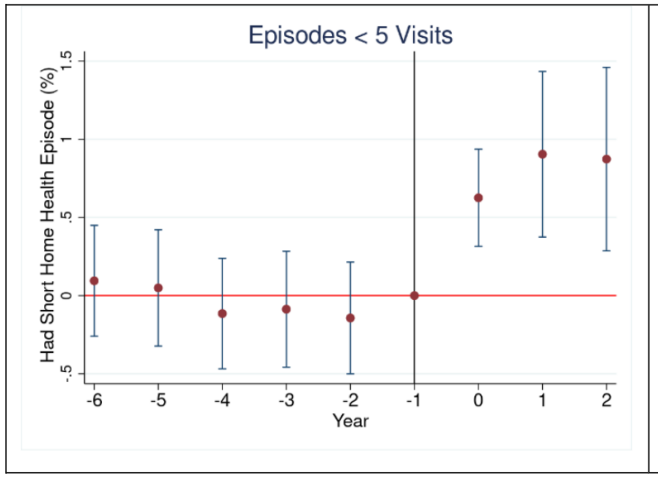

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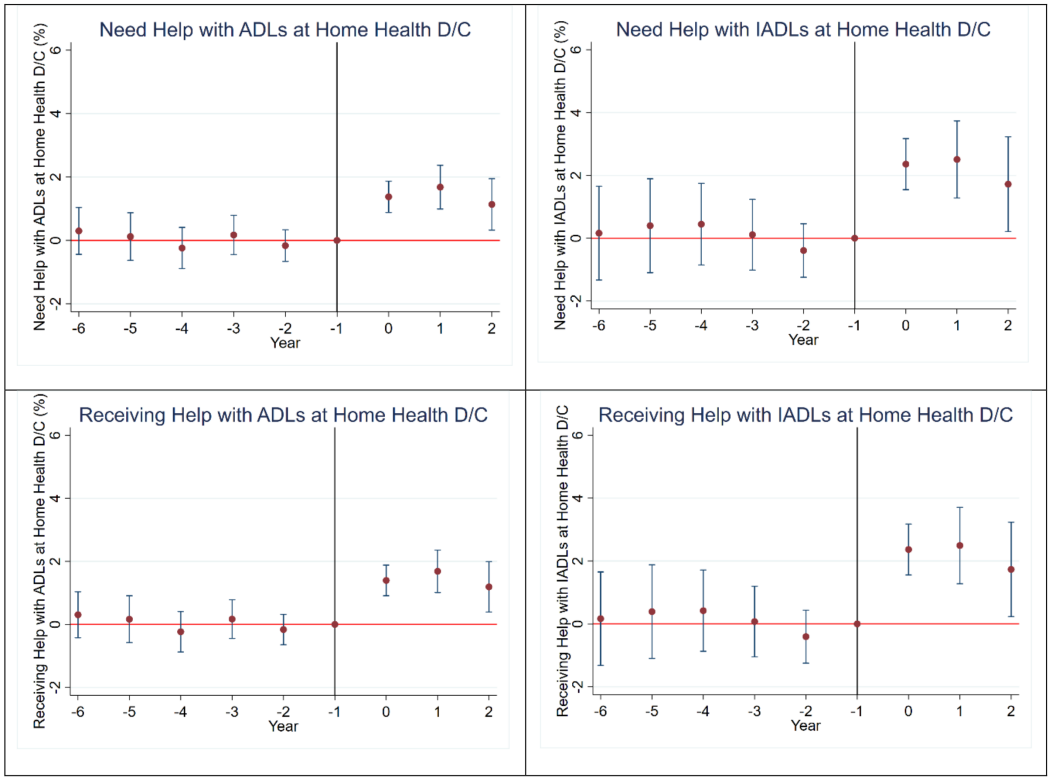

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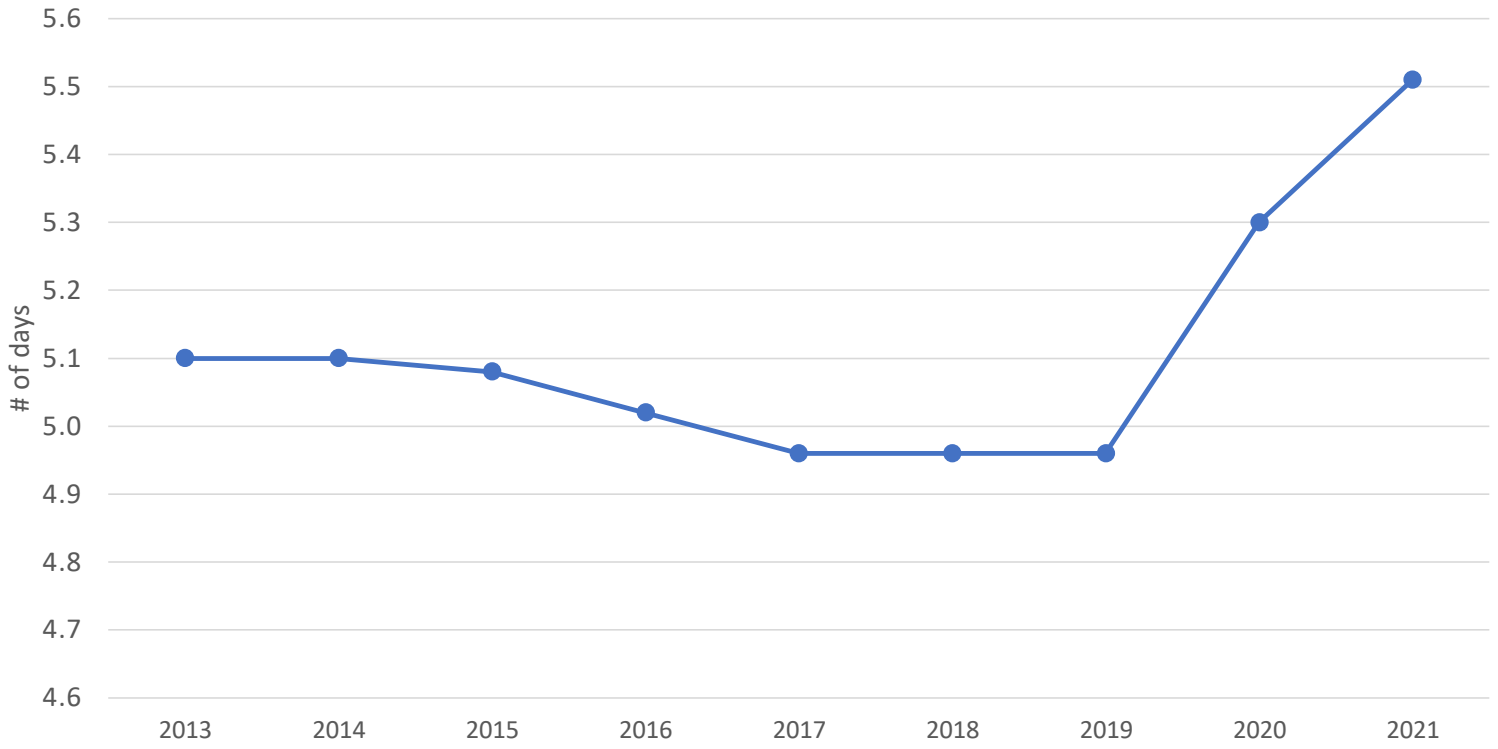
Where are we today?

Length of hospital stay with COVID-19



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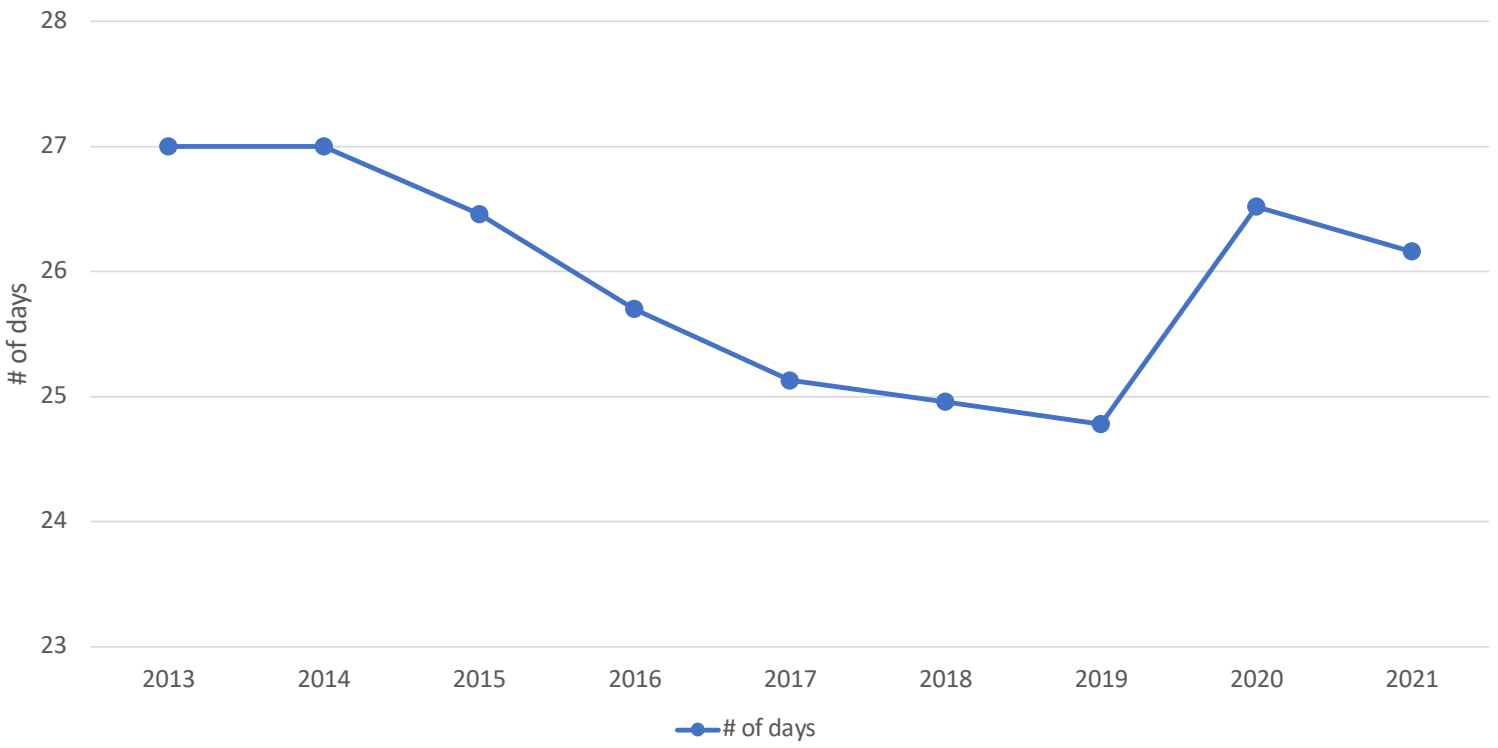
Length of SNF stay with COVID-19



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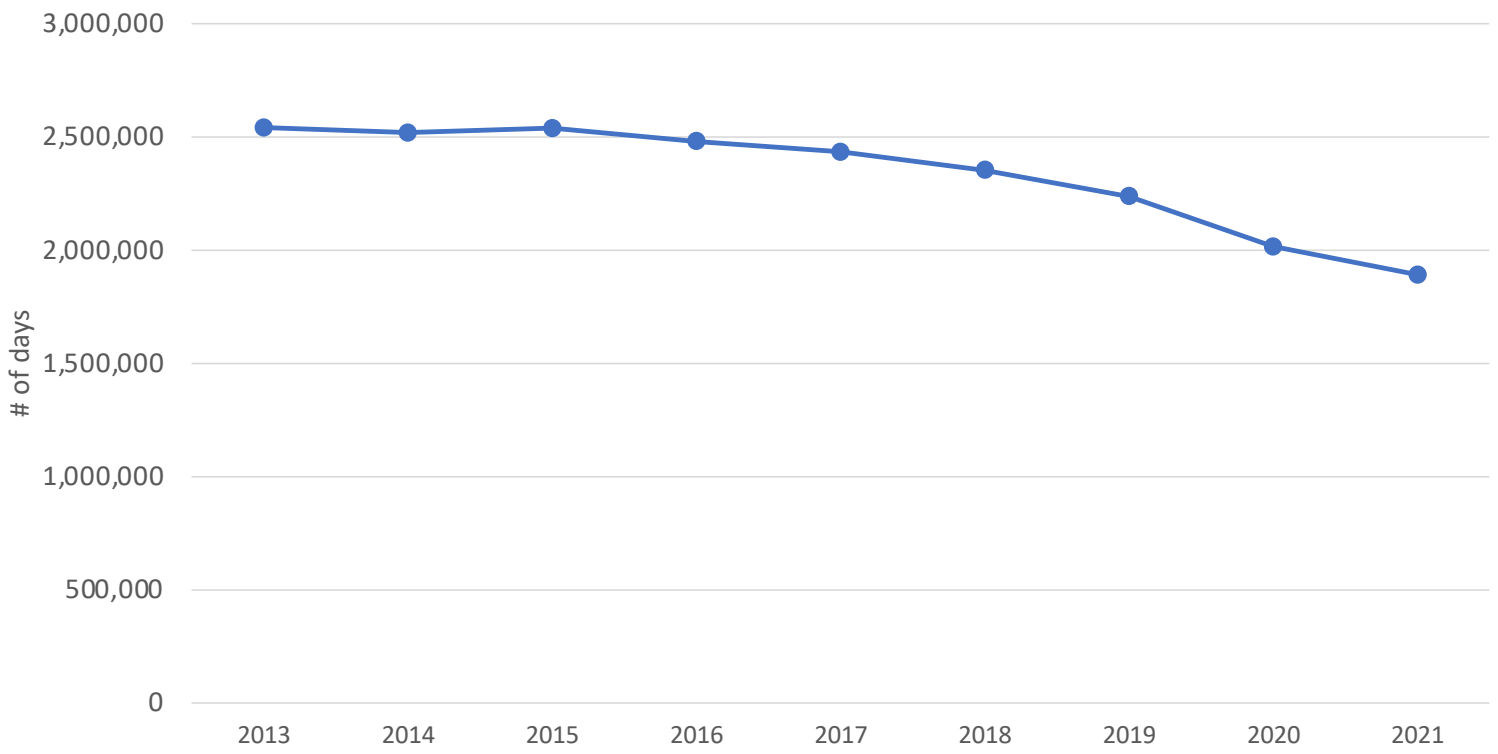
of SNF admissions with COVID-19



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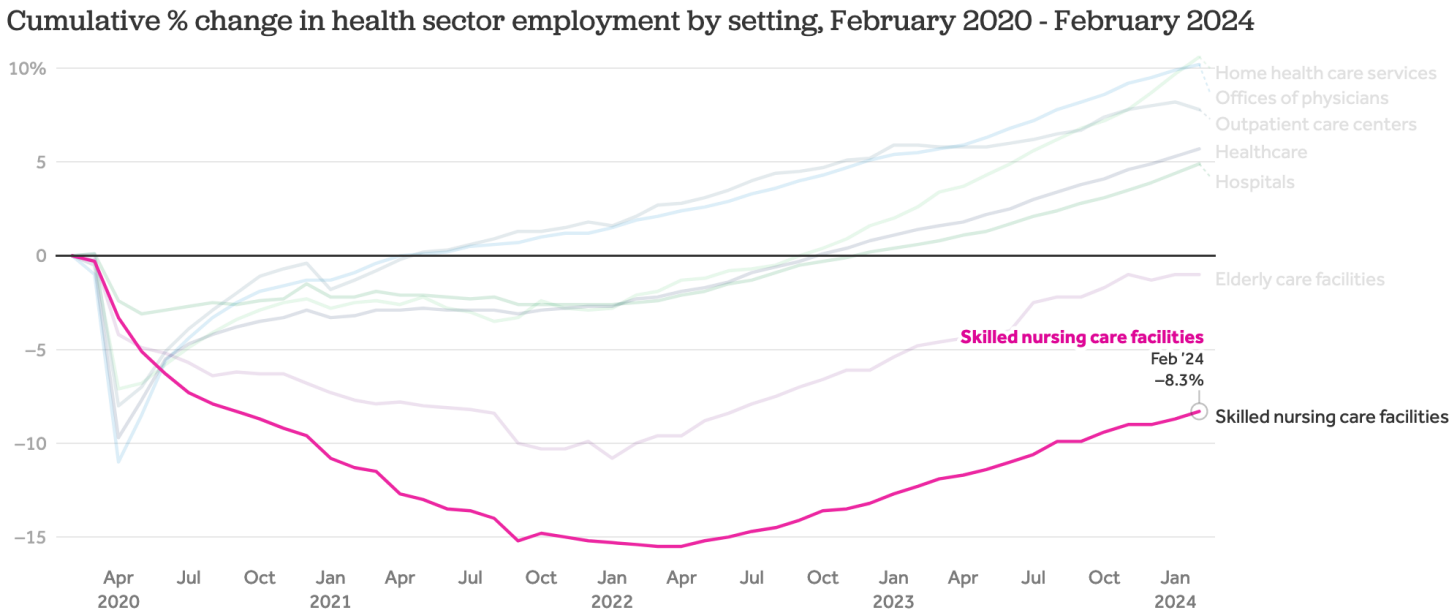
The pandemic exacerbated workforce shortages



Note: All data is seasonally adjusted. Data for the latest two months are preliminary. BLS category for continuing care retirement communities and assisted living facilities for the elderly is labeled as elderly care facilities.

Source: Bureau of Labor Statistics Current Employment Statistics (CES) • Get the data • PNG

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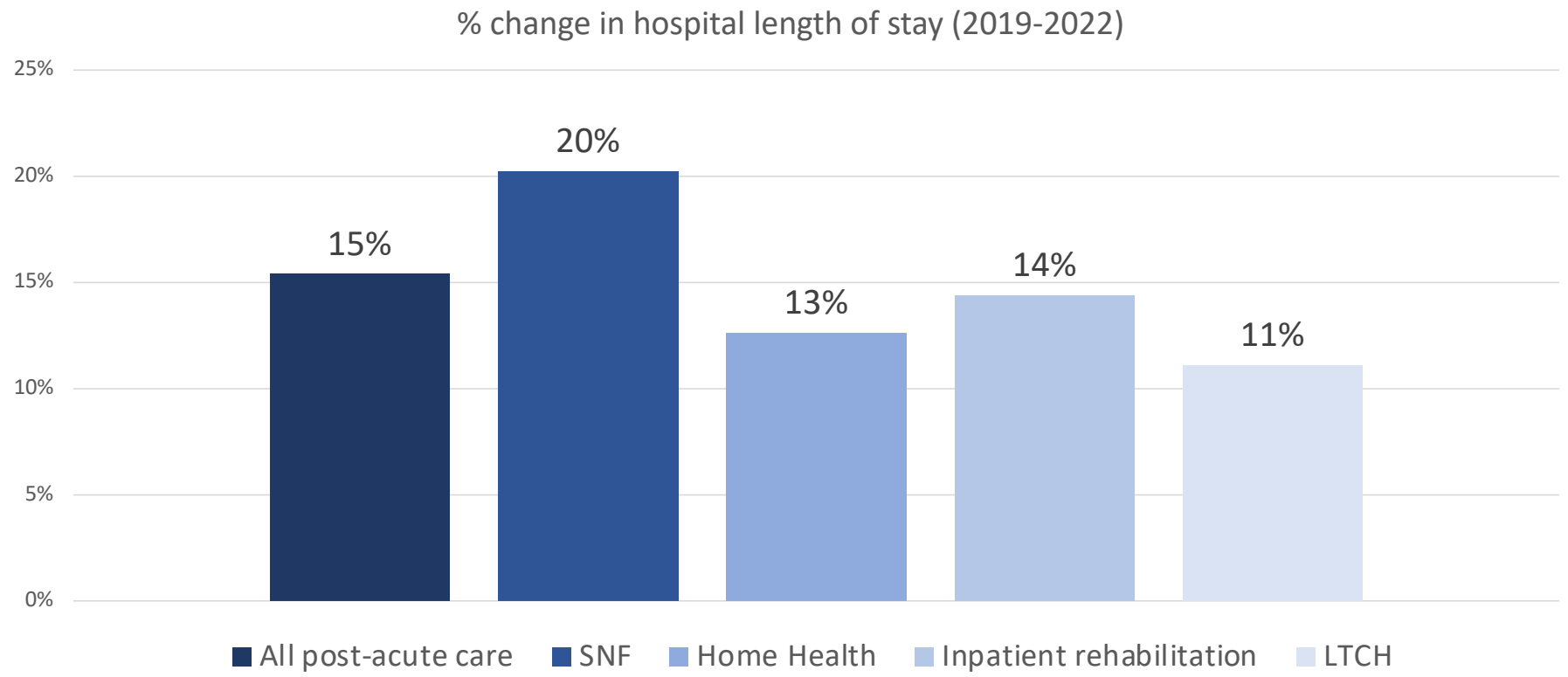
Patients waiting for PAC stayed longer



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Summary: Inpatient PPS

- Improved the value of hospital care
  - Shorter stays
  - No effect on quality
- Increased wasteful spending during the post-hospital period
  - Overuse of institutional post-acute care (in SNFs)
  - Questionable value
- Payment reforms have attempted to correct this wasteful spending
  - Reduced spending on high-cost post-acute care
  - Resulted in increased need for help at home with insufficient support

Balancing the incentives:
Hospital stays and post-hospital care

Changes to hospital incentives

- Should hospital lengths of stay be longer?
- Shift the provision of post-acute care to hospitals, making hospitals fully accountable; and pay using global capitated payment system

Provide options for more intensive care at home

- Current traditional Medicare regulations for home health care hinders more intensive care
- Some experimentation in increasing support at home (e.g. in MA)
- Take advantage of technology and remote monitoring (e.g. SNF at home)

Support workforce for supported care at home

- Workers
- Caregivers