



Novel Care Models for Aging in Place and Future Directions

Cari Levy, MD, PhD

Objectives

- Describe trends in provision of long-term care
- Identify novel care models to support aging in place
- Understand relevance of innovation in novel care models

What_____% of individuals older than age sixty five today will need some form of long-term care for up to three years of their lives?

A: 66.6%

B: 52.4%

C: 71.9%

D: 48.2%

Senior housing occupancy is...

A: Increasing

B: Decreasing

Assisted living occupancy is...

A: Increasing

B: Decreasing

Which professional group provides the majority of nursing home care?

A: Internal medicine

B: Family practice

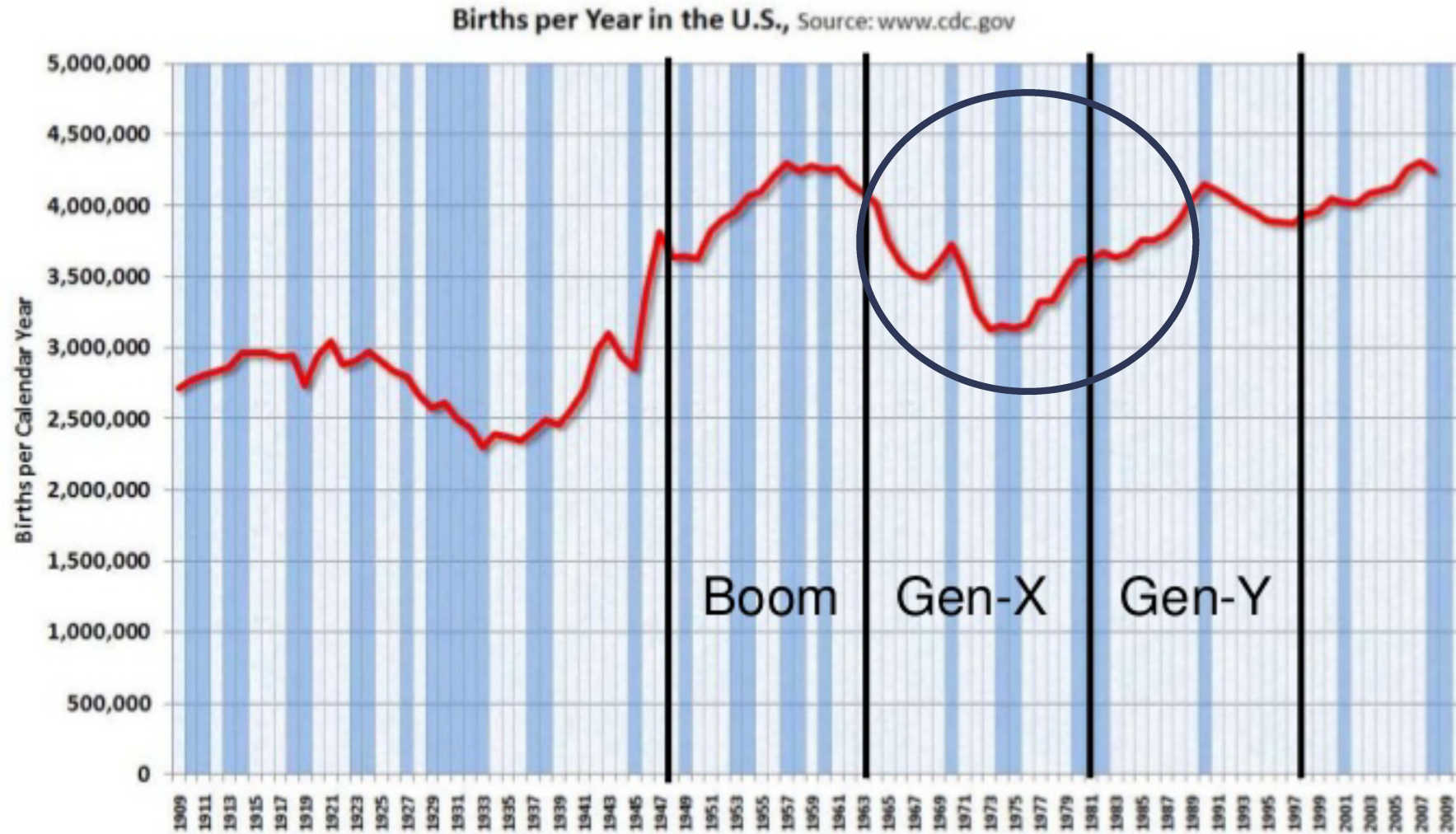
C: Nurse practitioner

D: None of the Above

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Live Births by Year



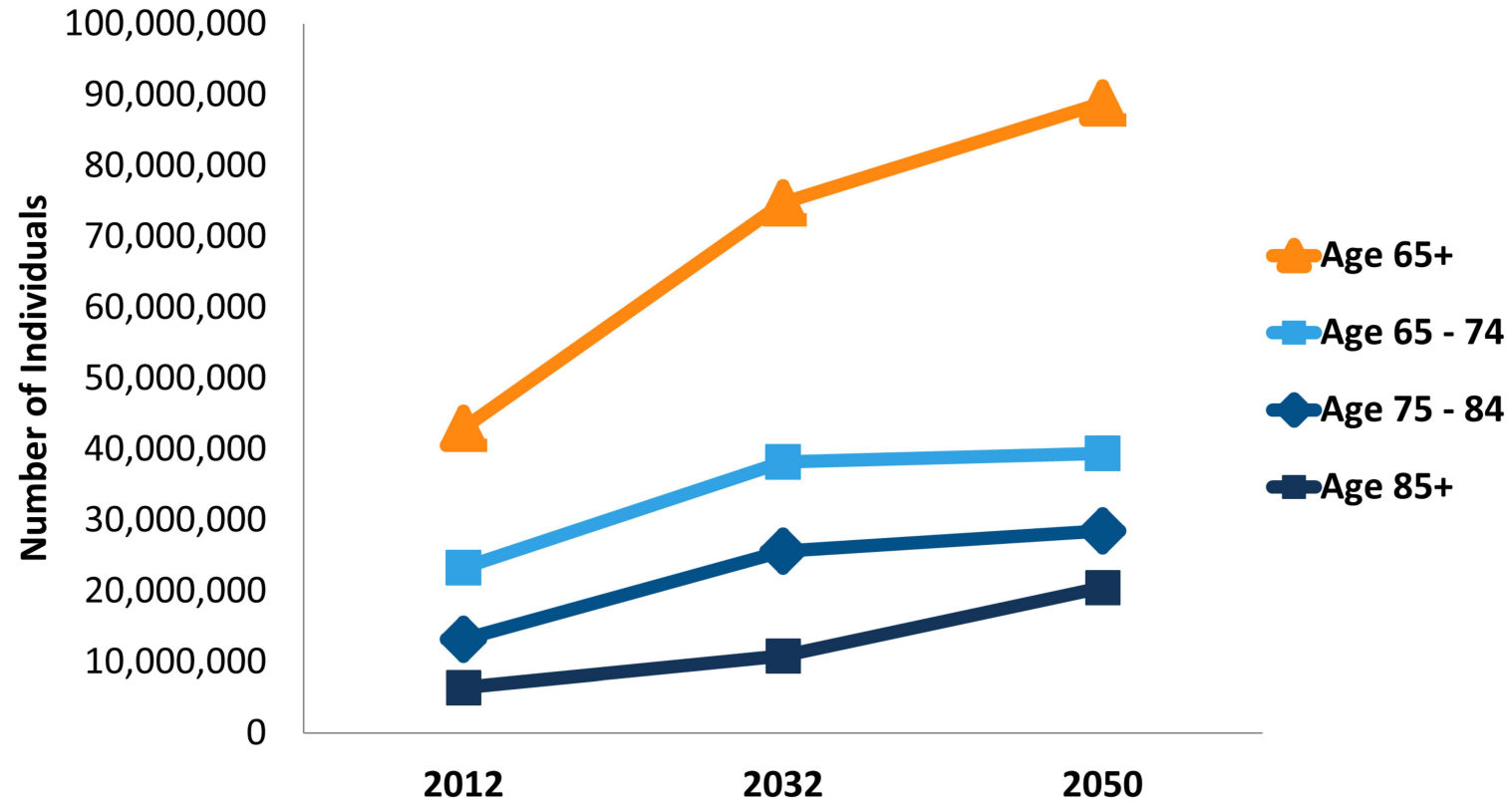
Baby Boomers Lead Societal Change

- Questioning governmental authority
 - Now depending on Social Security, Medicare and Medicaid
- Optimism and adaptability – social change is possible
 - Post recession, delaying retirement
 - Sandwiched caring for parents and adult children

Long-term care is on the cusp of a reformation...

Figure 1

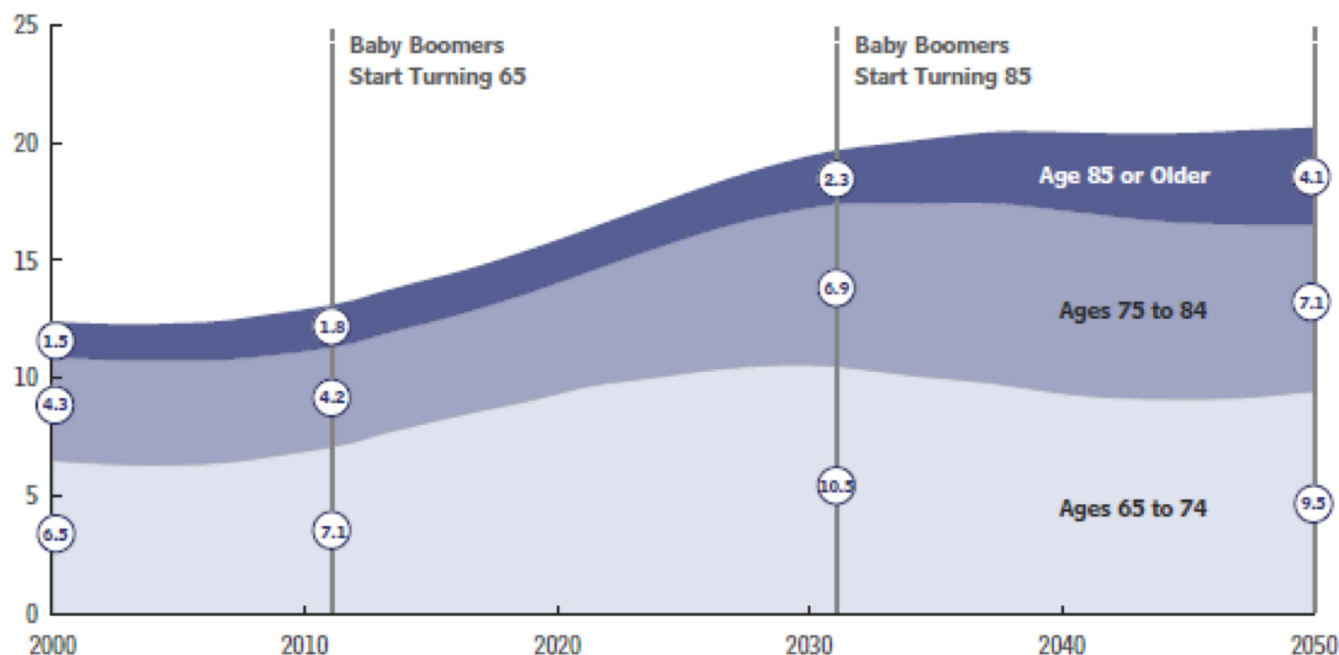
The 65 and Over Population Will More Than Double and the 85 and Over Population Will More Than Triple by 2050



SOURCE: A. Houser, W. Fox-Grage, and K. Ujvari. *Across the States 2013: Profiles of Long-Term Services and Supports* (Washington, DC: AARP Public Policy Institute, September 2012), http://www.aarp.org/content/dam/aarp/research/public_policy_institute/ltc/2012/across-the-states-2012-full-report-AARP-ppi-ltc.pdf.

Exhibit 1.**Elderly Adults As a Share of the U.S. Population, 2000 to 2050**

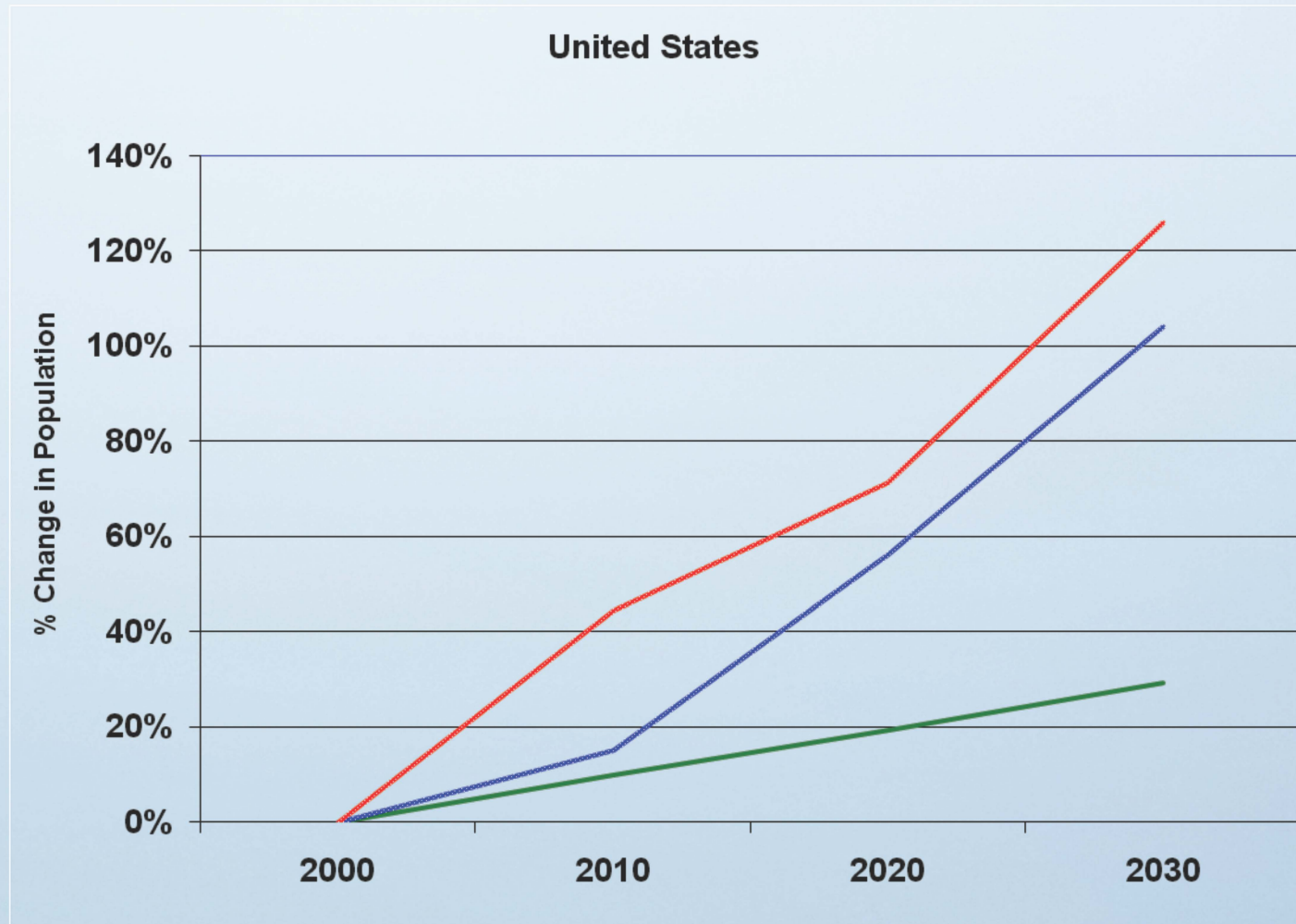
(Percent)



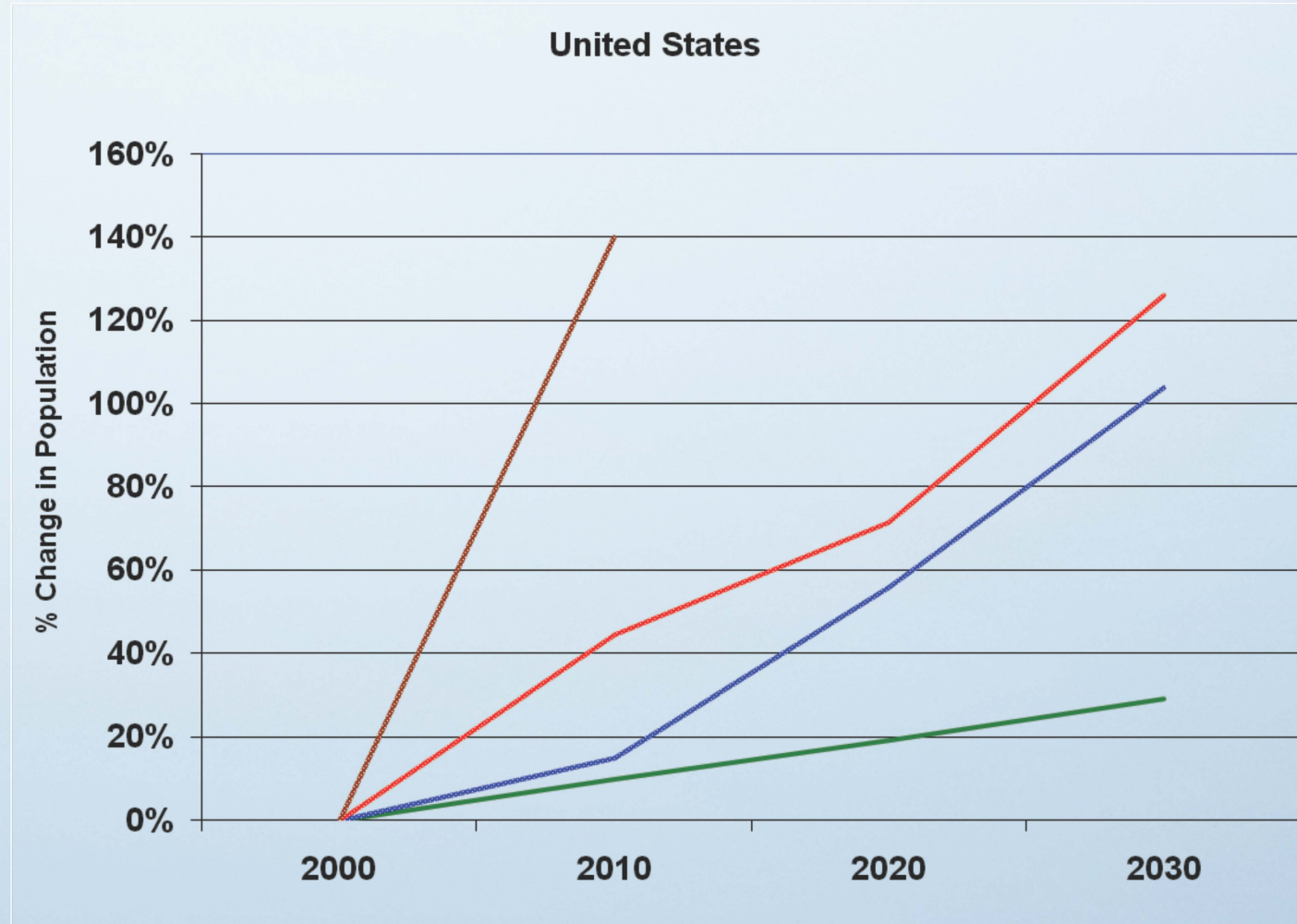
Source: Congressional Budget Office tabulations based on population projections reported in *The 2012 Long-Term Budget Outlook* (June 2012), www.cbo.gov/publication/43288.

Note: Members of the baby-boom generation (people born between 1946 and 1964) started turning 65 in 2011 and will turn 85 beginning in 2031.

% Change in U.S. Population



% Increase in Veterans over Age 85



Trends in Post-Acute Care

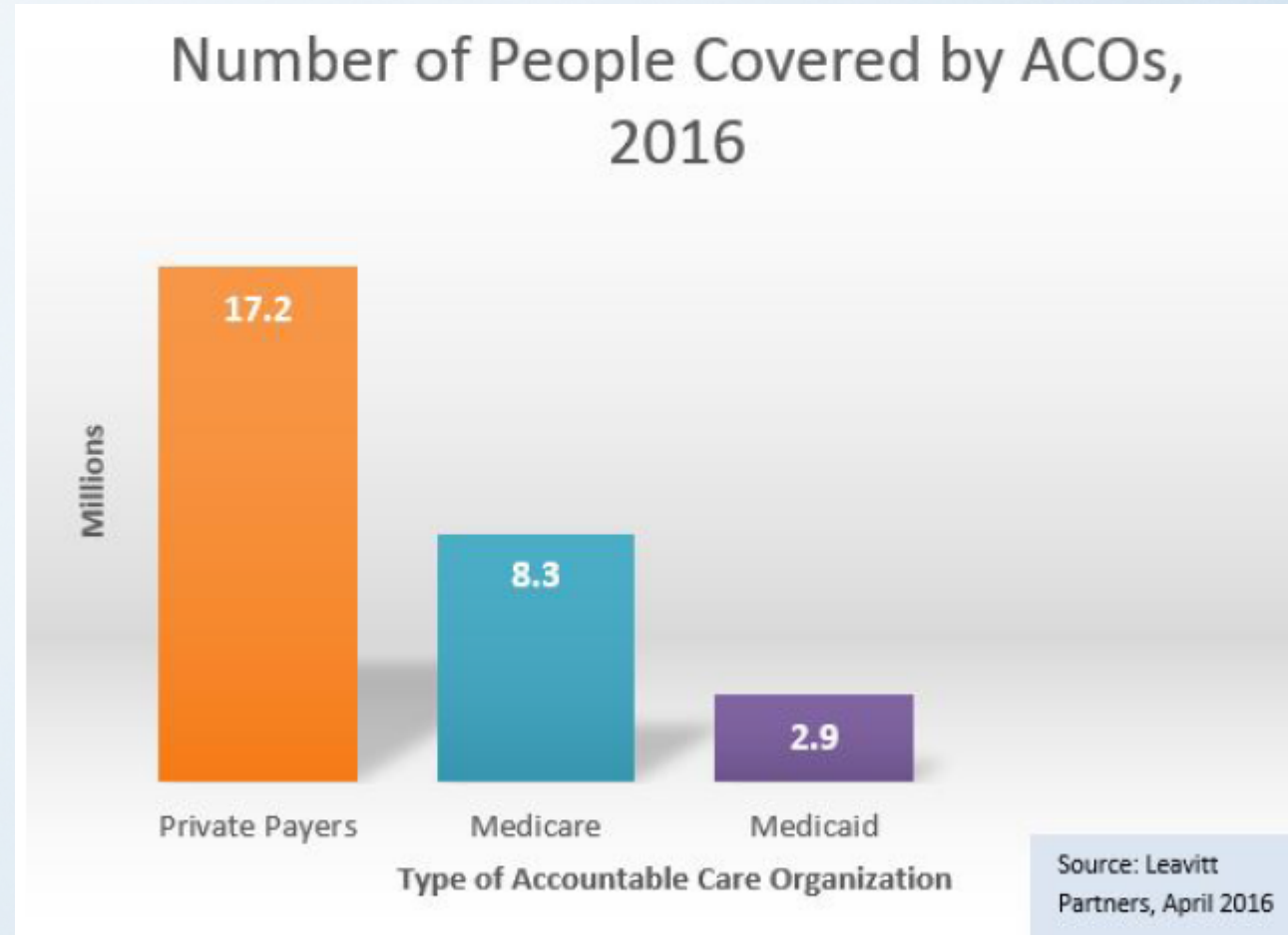
An “Awakening” and Integration into Health Systems

- Information Exchange
- Collaborative Quality Improvement
- Align Incentives for Coordinated Care
- Narrow Networks
- PAC Specialization

ACOs are being used widely by commercial payers

- Commercial ACOs cover some 17.2 million beneficiaries, more than twice as many as Medicare ACOs.¹
- The total number of ACOs in the US is estimated at 200-300
- Seven of the ten largest ACOs in the US are commercial ACOs.²

¹ Muhlstein D and McClellan M; "Accountable Care Organizations in 2016. Health Affairs blog April 21, 2016
² SK&A "Top 30 ACOs" SK&A Market Insight Report 2014.



First Discharge Locations

Filters

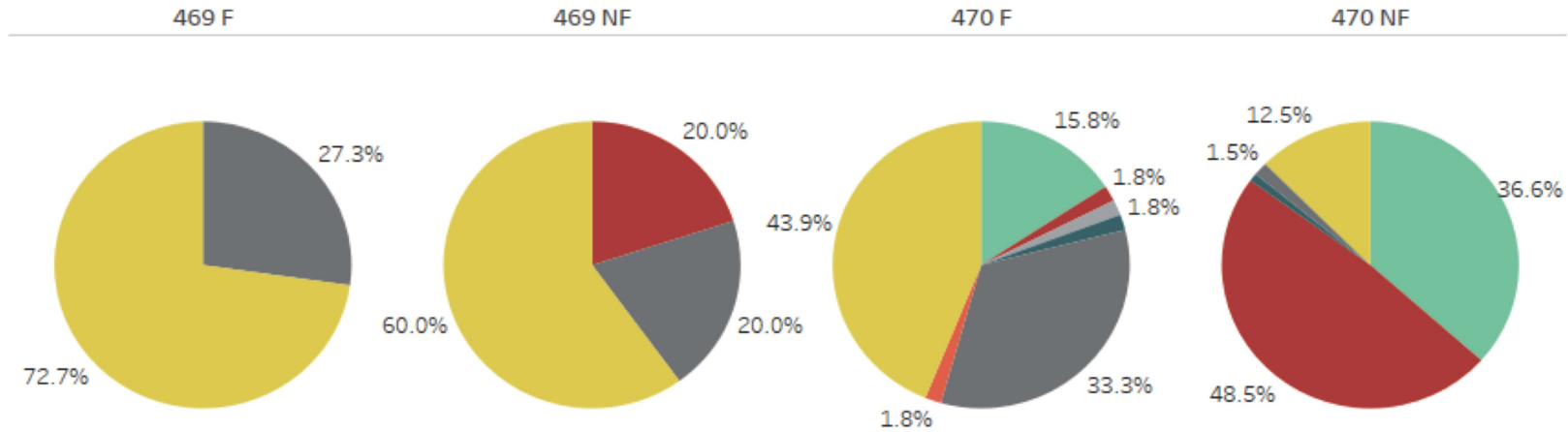
Year/Quarter
All

DRG/Status
All

Replacement Type
All

Readmitted?
All

Overall Discharge Percentage by DRG/Status

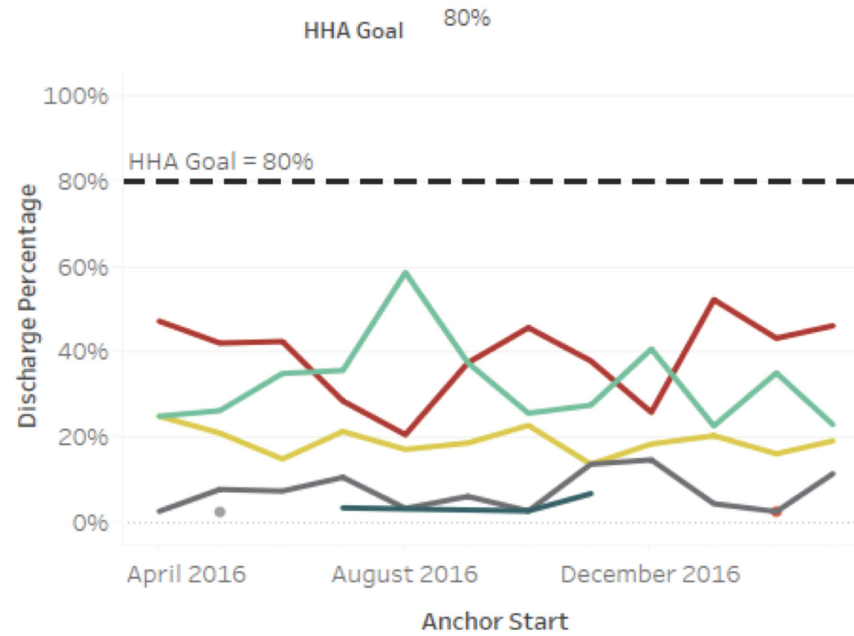


Highlights

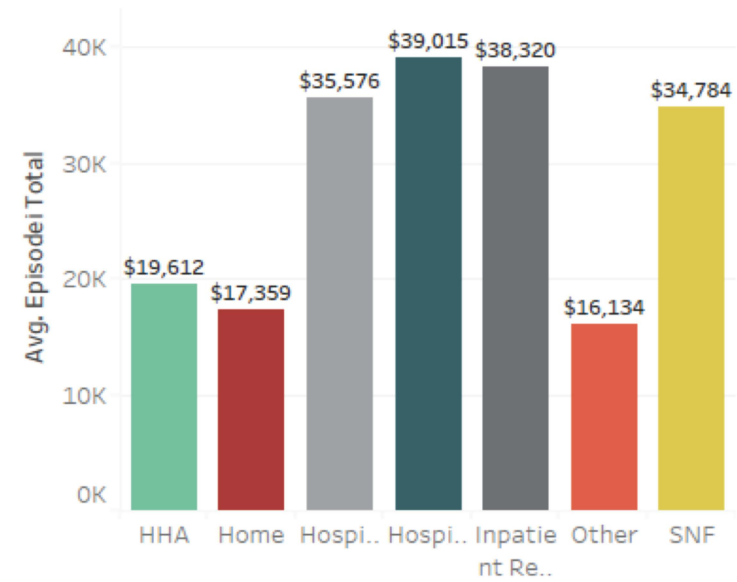
Discharge Location

- HHA
- Home
- Hospice
- Hospital
- Inpatient Rehab
- Other
- SNF

Percent of First Discharge by Month

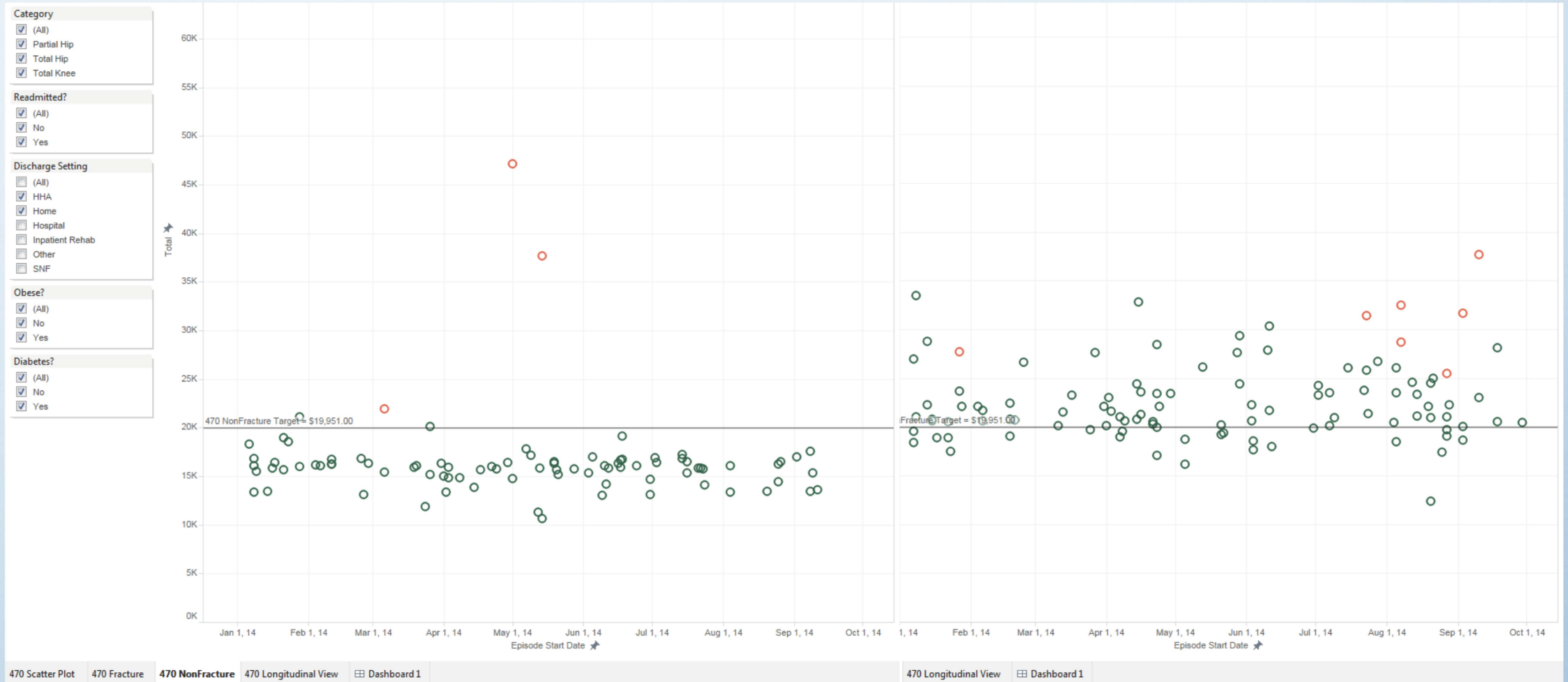


Average Episode Total per Discharge Location



Discharge Home Health Costs

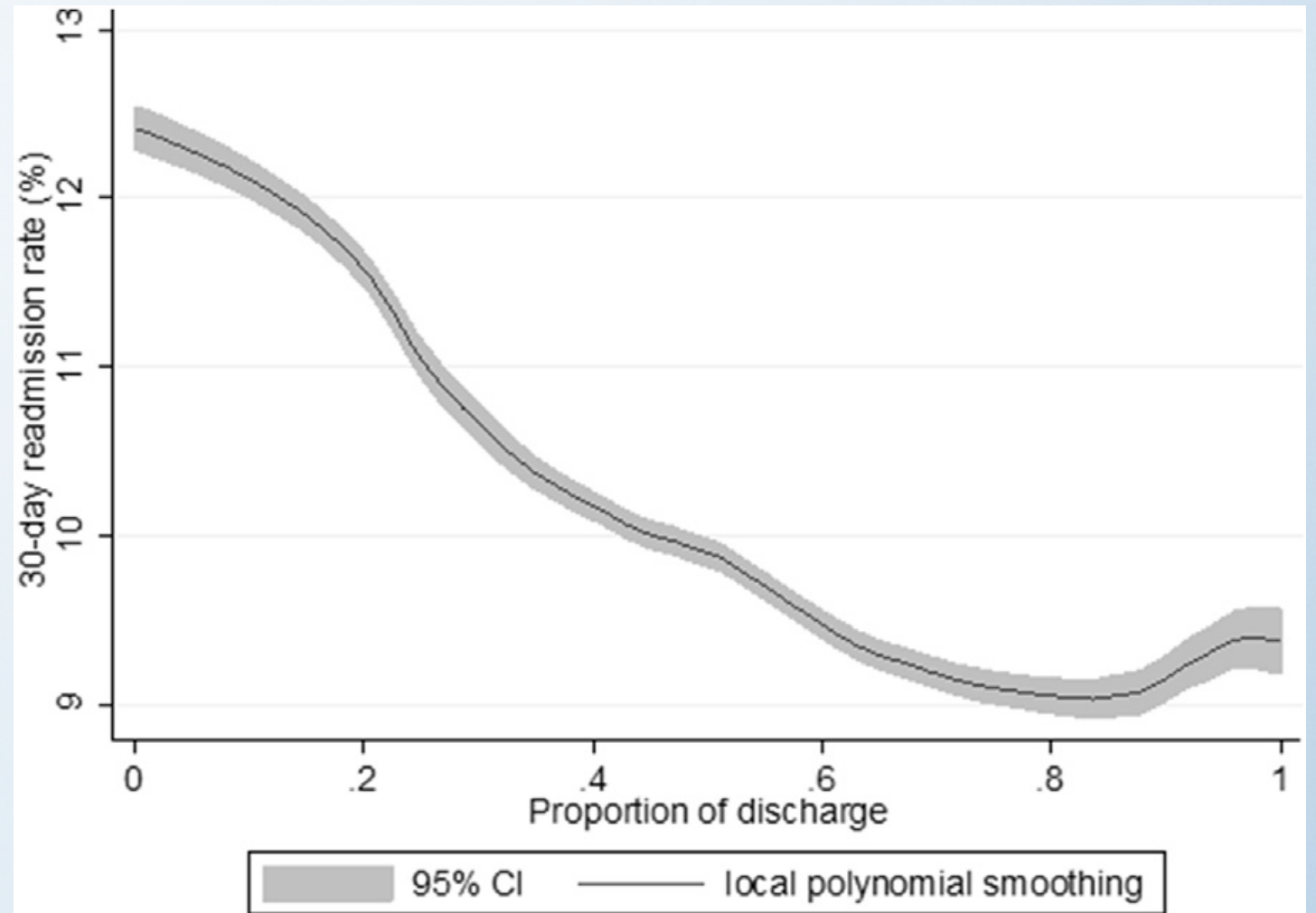
Discharge SNF Costs



Specialization and Narrow Networks may improve outcomes

Thirty-day readmission rates based on the proportion of surgical discharges from a hospital to a particular skilled nursing facility (SNF).

Surgery May 2016 Schoenfeld et al



PAC Specialization

- The number of physicians classified as SNFists increased by 48.2% (1496 vs 2225) from 2007 to 2014
- The number of NPs or PAs classified as SNFists nearly doubled (1,678 vs 3,074)
- More attention to the frame in which we place PAC
 - Complexity algorithms
 - Person-centered care
 - Inter-professional teams

Teno JM, Gozalo PL, Trivedi AN, Mitchell SL, Bunker JN, Mor V. Temporal Trends in the Numbers of Skilled Nursing Facility Specialists From 2007 Through 2014. *JAMA Intern Med.* 2017;177(9):1376–1378.

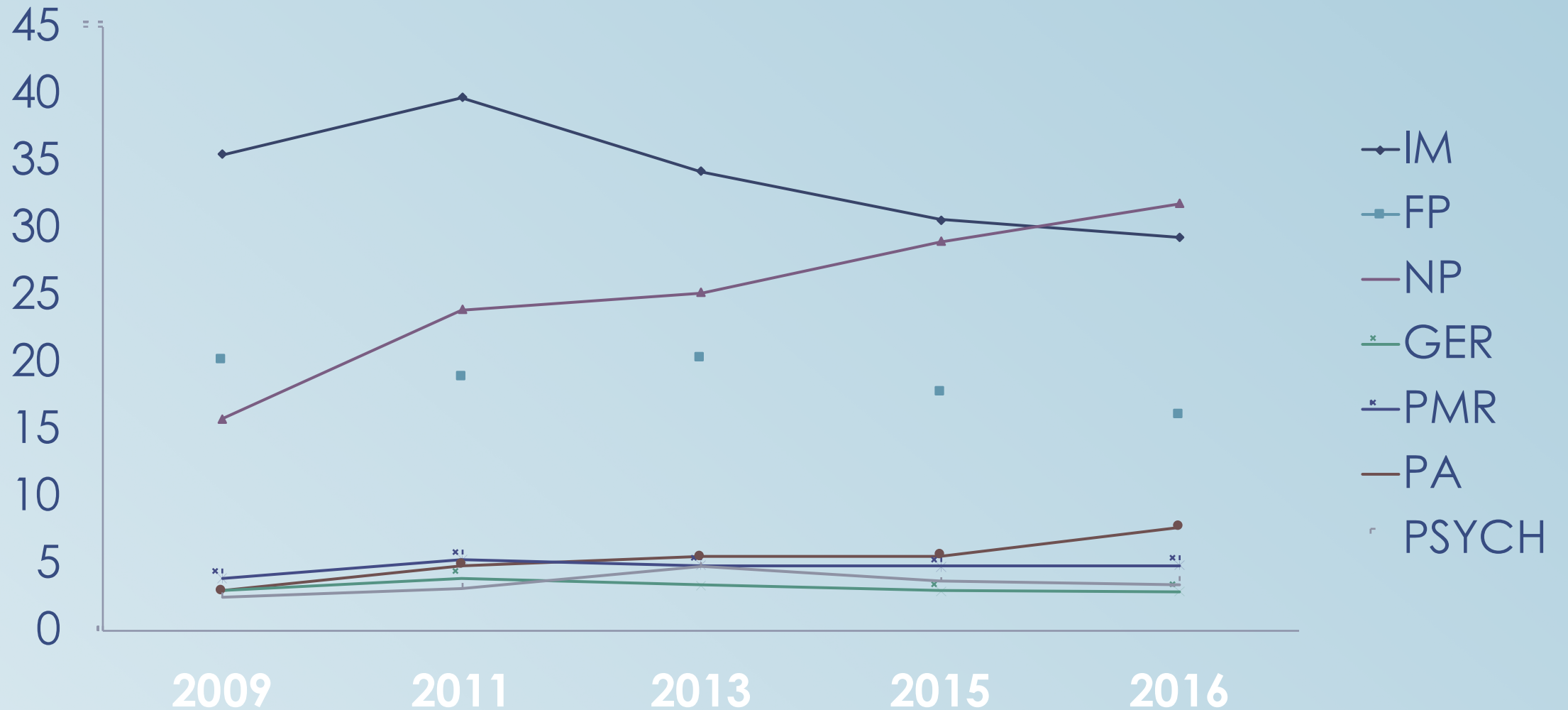
SNF vs. NF 2009-2015

Frequency of Visits

(Thousands of Visits)

POS	2009	2011	2013	2015	2016
Total	22,601	24,874	26,295	27,576	27,491
SNF	59.3%	58.5%	60.0%	61.3%	61.8%
NF	40.7%	41.5%	40.0%	38.7%	38.2%

Who Billed Nursing Home Visits 2009 - 2016



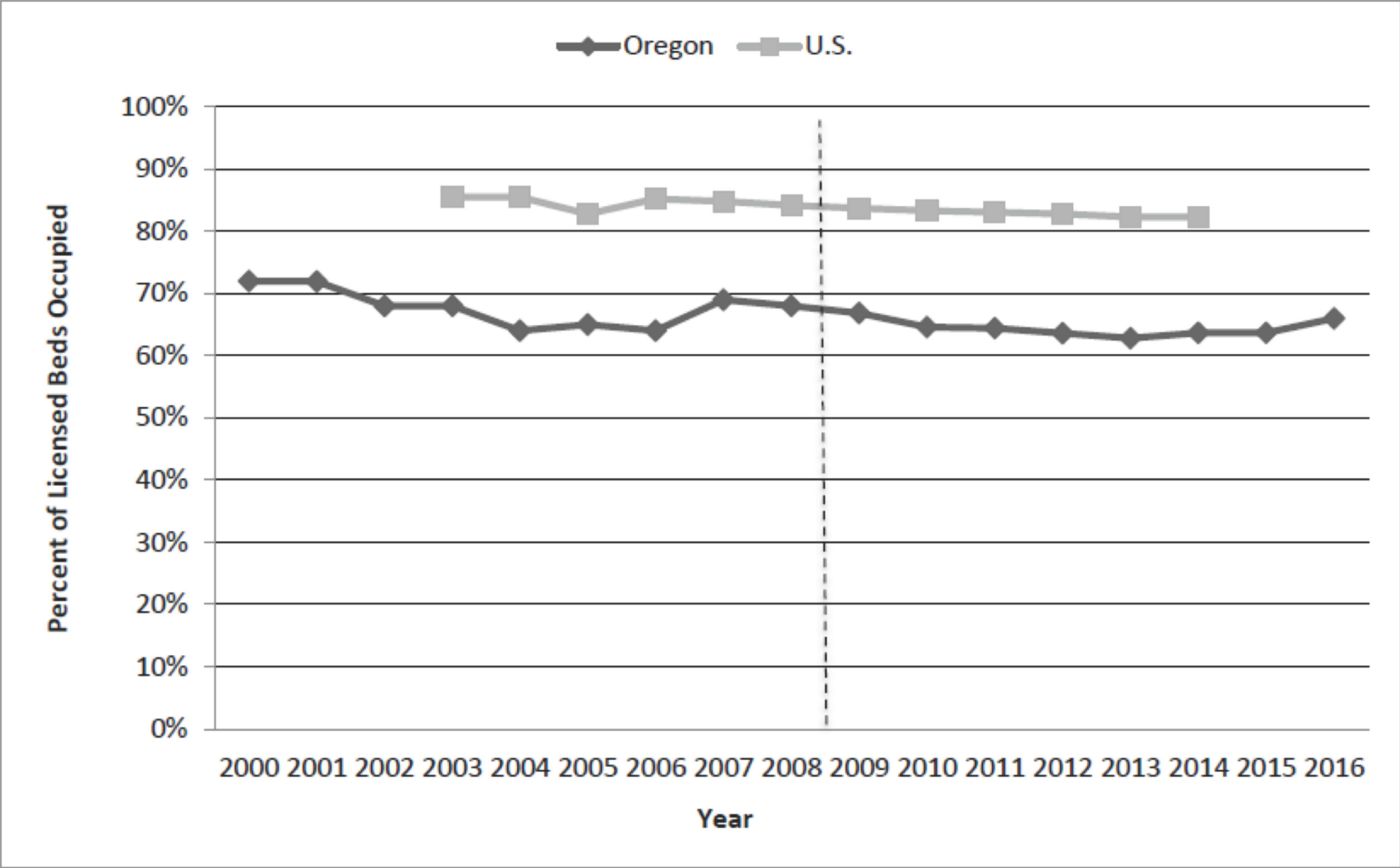
Senior Housing Occupancy Rates

- Seniors housing properties occupancy was lowest in Q2 2018 since Q1 2010
 - 87.9%, down 0.8% in one year
- Q2 2018 occupancy rates
 - Independent Living: 90.2%
 - Assisted Living: 85.2%
- “The seniors housing occupancy rate has trended downward over the past 10 quarters, which is only 2 quarters short of its 12-quarter downturn during the Great Recession,”
- “The occupancy rate for assisted living was the lowest since NIC began to report the data in late 2005,” said Beth Burnham Mace, chief economist for NIC. Inventory growth also set a record, with more than 4,400 units coming online.”

LTC Rebalancing – Oregon

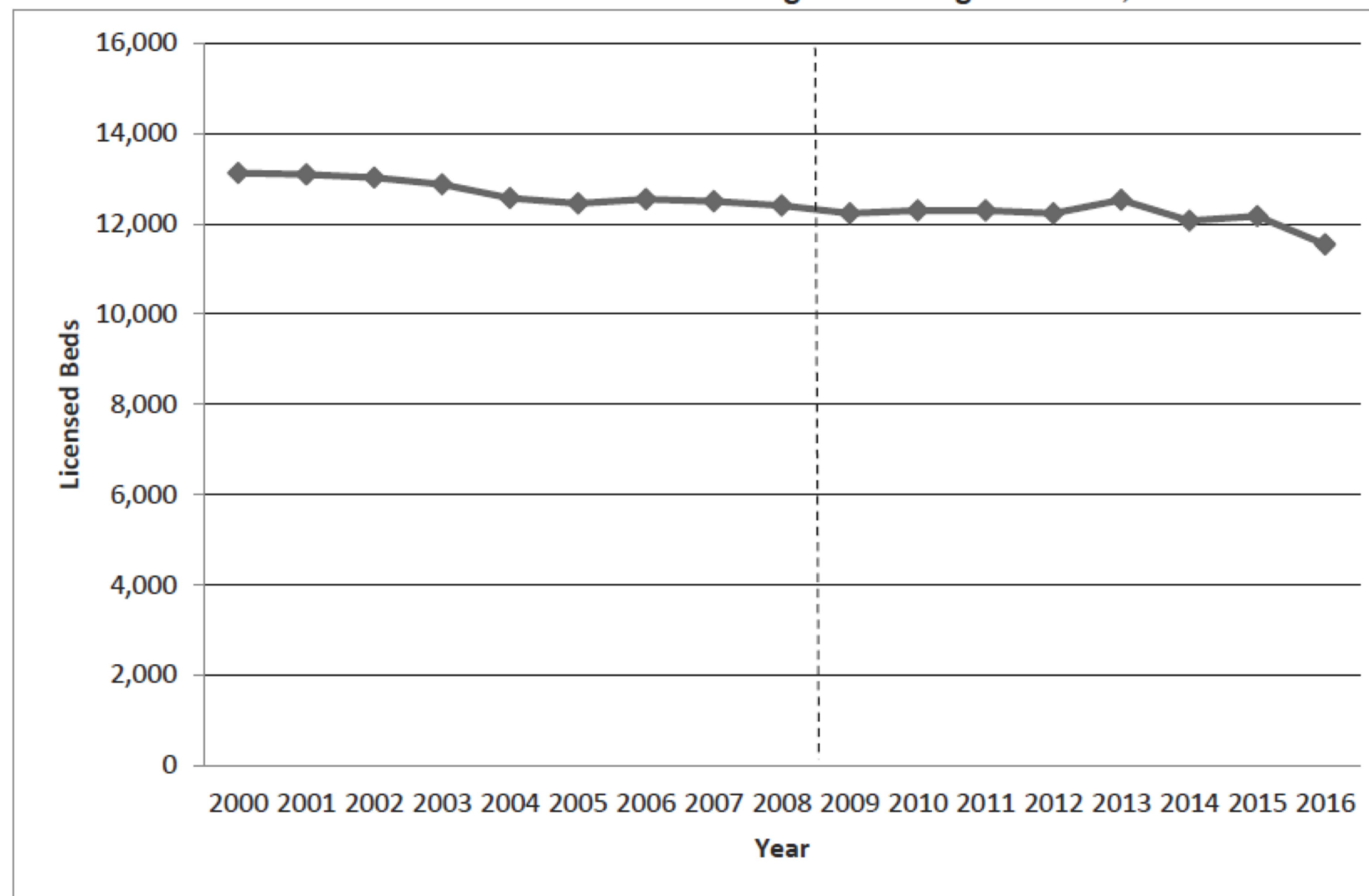
- Oregon is a leader in shifting LTC to HCBS and away from institutionalized care
- Oregon has the lowest nursing home occupancy rate in the country
 - In 2016, average nursing home occupancy rate was 66%
 - Over the past 17 years, decreases in the number of licensed beds in nursing home facilities and overall decreases in occupancy rates in Oregon

Exhibit 3.1. Average Occupancy Rate, Oregon and U.S. 2000-2016



Sources: OHPR Nursing Facility Reports, 2000-08; Cost Reports, Revenue Statements, and Nursing Home Compare 3.0, 2010-15, The Henry J. Kaiser Family Foundation.

Exhibit 1.2. Total Number of Licensed Beds in Oregon Nursing Facilities, 2000-2016



Sources: OHPN Nursing Facility Reports, 2000-08; Cost Reports, Revenue Statements, and Nursing Home Compare 3.0, 2010-15

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Mr. White

- 88 years old
- Pet owner



Mrs. Black

- 77 years old
- Reasonably spry
- Broken ankle

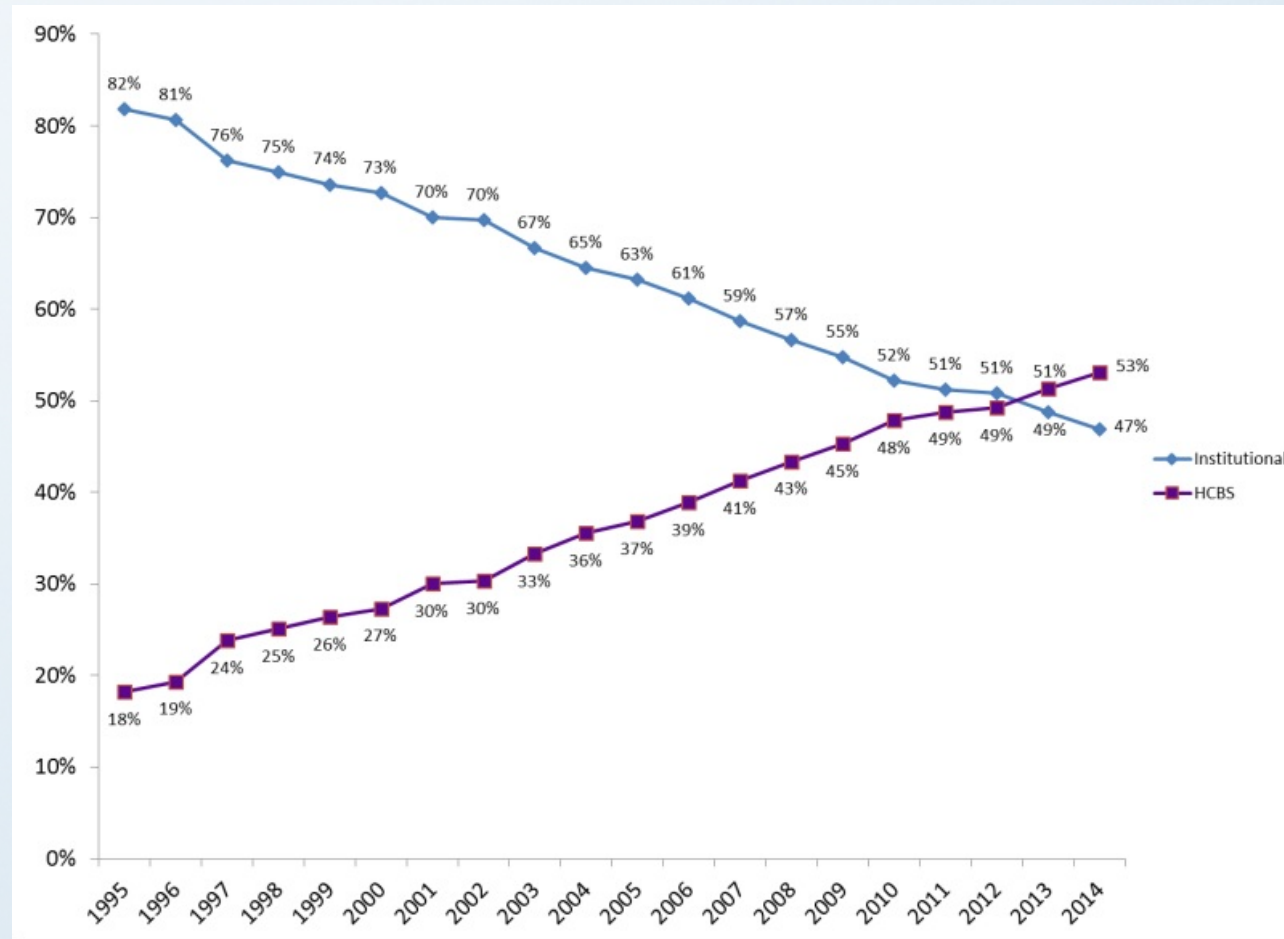


Mr. Green

- 80 years old
- Healthy eater



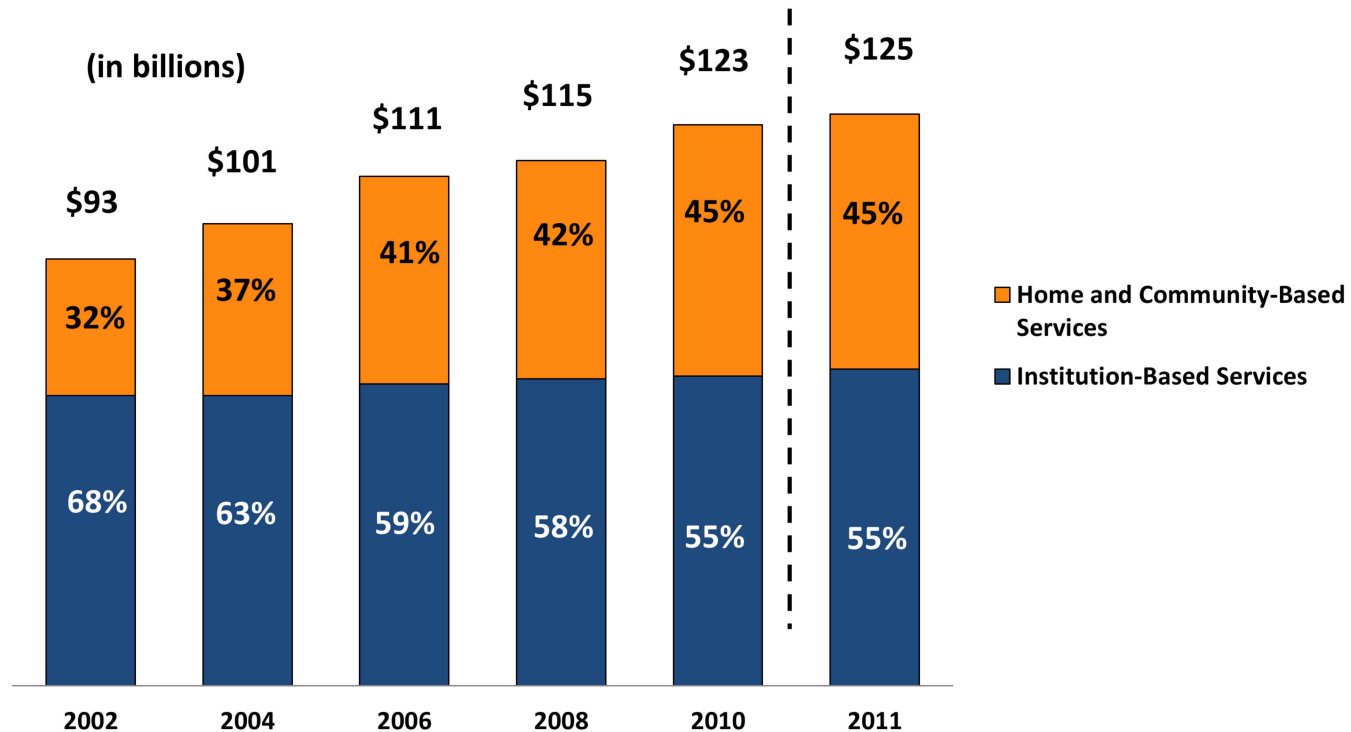
Medicaid HCBS Expenditures as a Percentage of Total Medicaid LTSS Expenditures, FYs 1995-2014



SOURCE: Eiken, S., Sredl, K., Burwell, B., & Saucier, P. (2016). *Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2014*, Figure 6. Truven Health Analytics. <https://www.medicaid.gov/medicaid/ltss/downloads/ltss-expenditures-2014.pdf>.

Figure 2

Growth in Medicaid Long-Term Services and Supports Expenditures, 2002 - 2011



NOTE: Home and community-based care includes state plan home health, state plan personal care services and § 1915(c) HCBS waivers. Institutional care includes intermediate care facilities for individuals with intellectual/developmental disabilities, nursing facilities, and mental health facilities.

SOURCE: KCMU and Urban Institute analysis of CMS-64 data.



Patient Engagement

Home-to-Home Time — Measuring What Matters to Patients and Payers

Article · July 24, 2017

**Michael L. Barnett, MD, David C.
Grabowski, PhD & Ateev Mehrotra,
MD, MPH**

Harvard T.H. Chan School of Public Health
Harvard Medical School

Home Based Primary Care and Medical Foster Home



Independence at Home Demo Continues Success



For the second performance year, Independence at Home participants saved Medicare more than \$10 million – an average of \$1,010 per beneficiary – while delivering higher quality patient care in the home, according to a new analysis released last week by the Centers for Medicare & Medicaid Services (CMS).

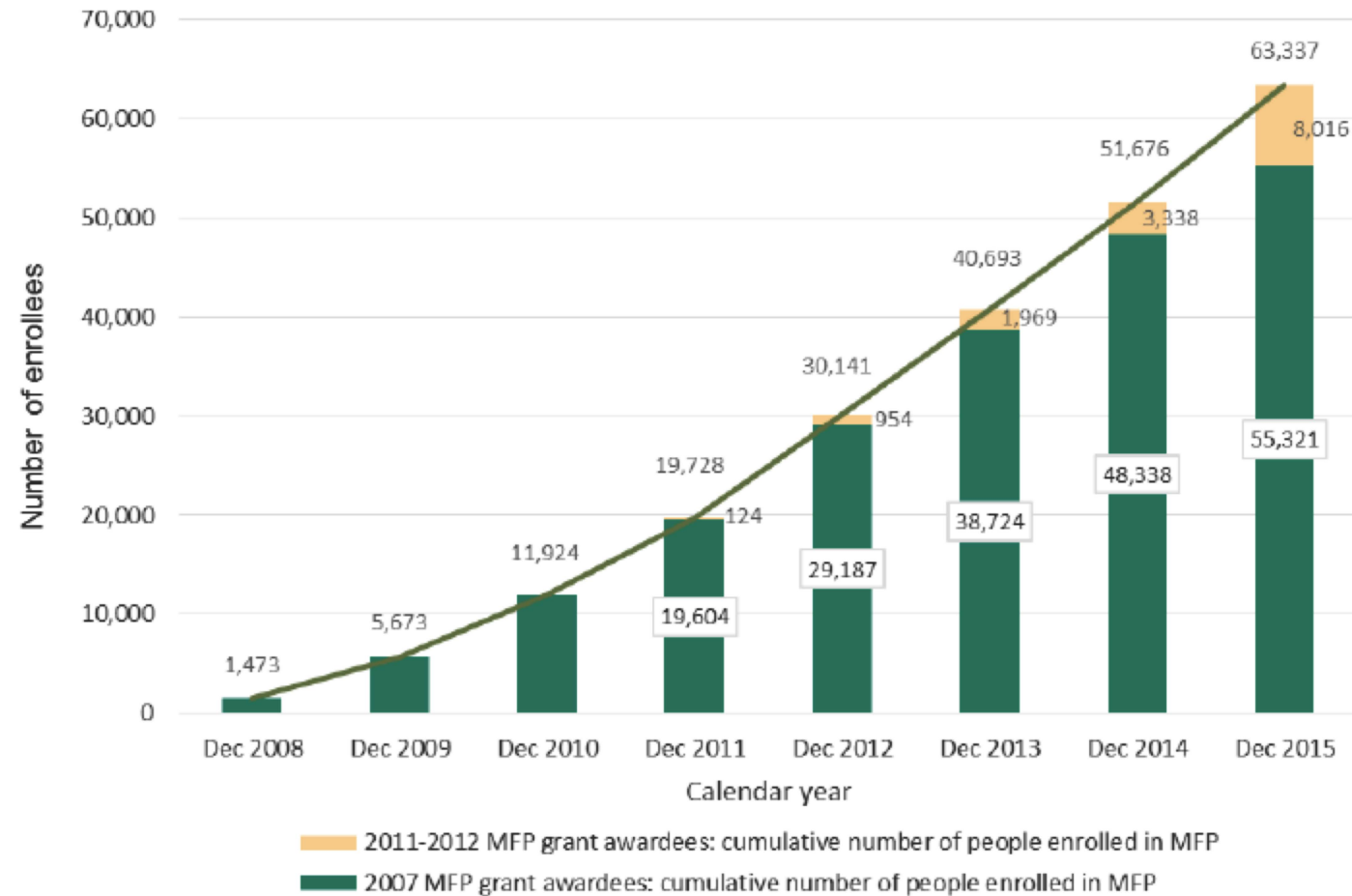
Under the terms of the demonstration, CMS will award incentive payments of \$5.7 million to seven participating practices that succeeded in reducing spending while improving quality.

“The Demonstration is authorized by Section 3024 of the Affordable Care Act, giving the Department of Health and Human Services authority: “to test a payment incentive and service delivery model that utilizes physician and nurse practitioner directed home-based primary care teams designed to reduce expenditures and improve health outcomes in the provision of items and services

Money Follows the Person

- In 2015, 11,661 MFP transitions to community-based LTC
- Since 2012, there have been at least 10,000 transitions per year
- Transitioning an older adult from a nursing home resulted in an average annual health care savings of \$22,080 in the first year post-transition
- In 2015, 82% of participants reported satisfaction with living situation 1-year post transition to the community compared to 62% pre-transition

Figure II.1. Cumulative total number of MFP transitions, 2008–2015



Source: Mathematica's analysis of State MFP Grantee Semiannual Progress Reports, 2008–2015.

VA Caregiver Support Program Partnered Evaluation (VA-CARES)

- Caregivers and Veterans Omnibus Health Services Act of 2010
- Training, services and assistance for family caregivers
 - Program of Comprehensive Assistance for Family Caregivers
 - Program of General Caregiver Support Services
- Surpassed projections with 50,000 applications, \$400 million FY15
- Evaluation ongoing

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Innovation



Where is successful transformation in workforce?

Uber – an unpleasant job has become available to all because a task we all do has become:

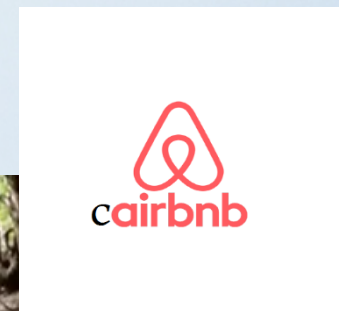
- Bite-sized
- Income-generating
- Socially desirable



Bite-sized



Income Generating

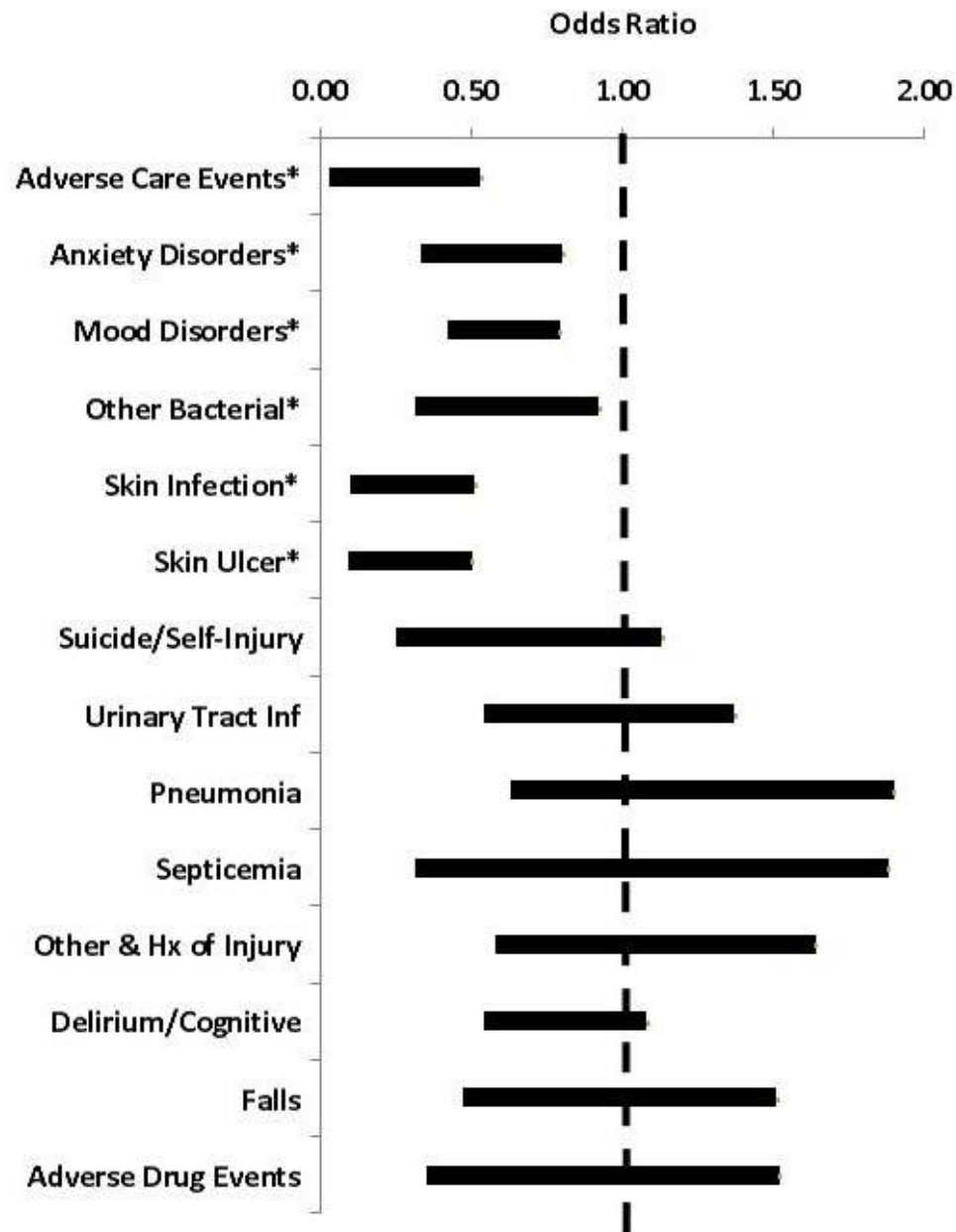


Socially Desirable



Mr. White – Government Funded Options





Odds of Adverse Events in MFH and Matched CLC Controls

Figure From: Shared Homes as an Alternative To Nursing Home Care: Impact of VA's Medical Foster Home Program on Hospitalization, Dr. Cari Levy et al. Published in The Gerontologist, 2016, Vol. 56 No. 1

Unadjusted Cost Difference – Medical Foster Home

Total Costs	MFH	HBPC	CLC	CNH	MFH vs.		
					HBPC	CLC	CNH
Pre-Enrollment	\$71,394	\$32,663	\$89,556	\$73,728	<0.001	<0.001	0.6059
Post-Enrollment	\$64,497	\$43,663	\$145,242	\$94,140	<0.001	<0.001	<0.001

Levy C, Whitfield E. Medical Foster Homes: Can the adult foster care model substitute for nursing home care? J Am Geriatr Soc. Oct 14, 2016.

Adjusted Cost Difference

	Adjusted Cost Difference MFH-CNH			
Type of Care	Y.diff	se.Y.diff	95% Confidence Interval	
Hospitalization	-832.794	1878.819	-4524.13	2858.543
Home Based Primary Care	14261.51	445.0467	13388.8	15134.23
Mental Health	96.17057	147.7028	-193.449	385.7905
Recreation Therapy	31.54548	8.782598	14.3319	48.75907
Home Health	-5.08873	72.81706	-147.966	137.7886
Nursing Home				
Total Costs	-27553.3	5456.608	-38276.3	-16830.3
Costs Per Day Alive	-100.077	14.45642	-128.411	-71.742

Mrs. Black – Private Pay Options



Geriatric Case Management

- “A geriatric care manager, usually a licensed nurse or social worker who specializes in geriatrics, is a sort of "professional relative“
- Services may include:
 - Discussing difficult topics and complex issues
 - Home visits and evaluation of in-home care needs
 - Coordinate medical services
 - Care planning and management

Immigrant Communities

- Tonga core values:
 - ofa (love)
 - faka'apa'apa (respect) and
 - fuakavenga (responsibility)



Mr. Green – Lifestyle Options



Aging in Community

- Shared homes/Cohousing
- Pocket neighborhoods
- The Golden Girls Network
- The Village to Village Network



Latitude Margaritville, Daytona Beach, FL

- Town Center – Coming soon!
- State of the art fitness center
- Indoor lap pool
- Spa
- Arts & Crafts Studio
- Indoor/Outdoor Dining
- Resort Style outdoor pool
- Outdoor Patio
- Tennis/ Pickleball/ Bocce ball Courts
- Outdoor Amphitheatre
- Barkaritaville Pet Spa and Dog Park
- Shuttle Service
- Private beach front club



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