

connect4life

Integrated Care in Seniors Housing that Meets the Triple Aim

By Anne Tumlinson, MMHS and Lynne Katzmann, PhD

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Abstract

According to the Partnership to Fight Chronic Disease, more than 190 million Americans, or about 59 percent of the population, are affected by one or more chronic illnesses.¹ Over the next 15 years (between 2016 and 2030,) 80 percent of the United States population will experience one or more chronic conditions, costing more than \$42 trillion in medical care spending and losses in employment productivity. The frail elderly population in the United States suffers from multiple chronic conditions, uses the most health care services and, not surprisingly, drives most of the costs in our health care system. As baby boomers continue to age, millions more Americans will join this vulnerable population, adding additional pressure to deliver quality outcomes at the lowest cost.



To address these challenges and enhance the resident experience, Juniper Communities, a Bloomfield, NJ-based national owner-operator of seniors housing, developed the Connect4Life model, which provides on-site comprehensive therapy, primary care, pharmacy and lab services, integrated with other services using a “high-tech/high-touch” communications protocol that transfers information through an Electronic Health Record (EHR) and coordinates care through a human navigator.

Juniper Communities retained Anne Tumlinson Innovations (ATI) to compare Connect4Life outcomes and utilization data with data on the broader Medicare population from the 2012 Medicare Current Beneficiary Survey (MCBS). The findings suggest that the Connect4Life model contributes to lower hospital readmissions and the utilization of inpatient services among a high-need resident population.

The results affirm the potential of integrating select clinical care and services in a seniors housing environment that provides supportive services to those who have chronic conditions, functional limitations, and complex social needs. While Juniper’s population is older, frailer, and more cognitively impaired than the overall Medicare population, the study showed Juniper’s utilization of costly inpatient services and readmissions appears dramatically lower than for comparably frail individuals living in the community and in other seniors housing communities.

The results suggest an integrated program of services in seniors housing—like Juniper’s Connect4Life—can contribute to reducing the cost of care and services to Medicare beneficiaries residing in seniors housing. More importantly, the data points to the value of the Connect4Life model for managing population health because of its ability to efficiently target integrated care interventions in the high-cost, high-need Medicare population.

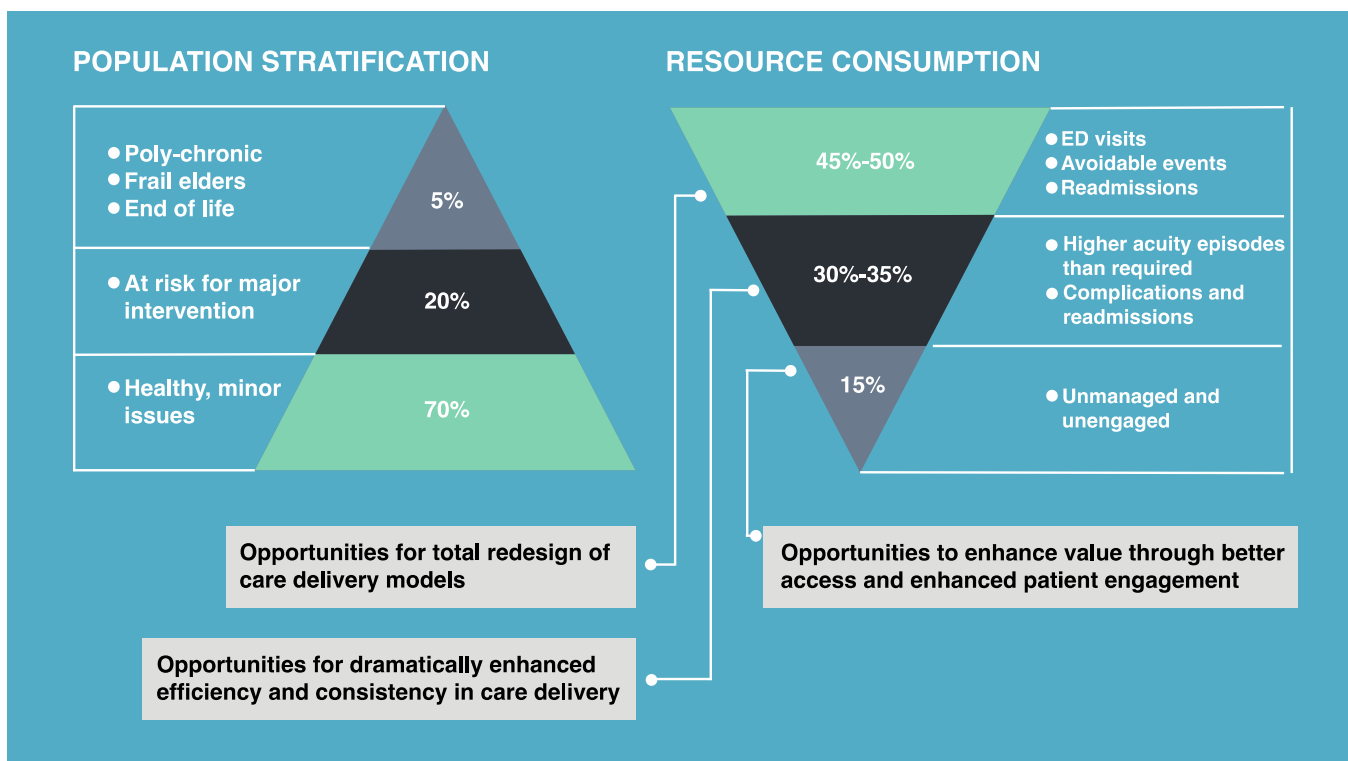
The Importance of Integrated Care

The United States population of older adults is growing rapidly. By 2030, nearly one-quarter of Americans will be over age 65,² and almost half of those will be over age 75. Health care costs as a portion of gross domestic product have grown from 4.4 percent in 1950 to 17.9 percent in 2011. Left unmanaged, they could exceed 30 percent by 2040, contributing to economic uncertainty.³ There is a shared belief that the United States must contain per capita health care cost growth and measure quality to assure that our dollars are better spent.

Senior housing residents are right in the middle of Medicare’s target for change: the high-cost, high-need individuals who represent 5% of the population but use 50% of the resources.

A recent *New England Journal of Medicine* (NEJM) article⁴ by five leading health care foundations stated: “Improving America’s health system will require improving care for the people who use the system the most: those with multiple chronic conditions complicated by the inability to care for themselves (functional limitations) and complex social needs.”

These high-need, high-cost patients represent five percent of the population but account for 50 percent of the nation’s annual health care spending.



*National Institute 2013: Blended MarketScan Commercial, Medicare 5% LDS, and representative payor Medicare Data

Over the last seven years, local health care systems have focused on delivering better care value by improving relationships among hospitals and post-hospital care, particularly via skilled nursing facilities or Medicare-certified home health services, and improving management of transitions between sites of care. The hospital and post-acute care settings represent highly variable costs that are important to address in the front-line of delivering value-based care, and in managing episodic costs and population health.

Juniper is pioneering Connect4Life –one of senior living’s first integrated models of care and service—that emphasizes a richly active and engaged approach to healthy aging.

At the same time, there has been interest among consumers and policymakers alike to increase access to new and innovative options for home-based supports and services that will improve the ability of individuals to remain in home-like environments and avoid spending down their resources on costly nursing home care. One of the most significant challenges of home-based long-term supports and services is in finding “service hubs” with appropriate

incentives and knowledge to integrate and coordinate across medical and long-term supports and services. Often, complex care management is left to unpaid family caregivers to handle alone with little support.

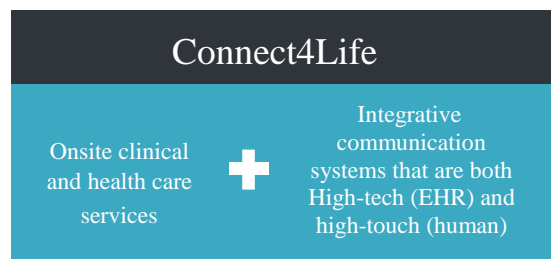
Seniors housing providers willing to develop integrated care delivery models can fill this gap by offering home-like residential settings that integrate the range of services frail older adults need to live engaged and meaningful lives. Seniors housing can provide a stable physical environment where supportive services and health management techniques can be introduced to address multiple dimensions of health (e.g., physical, social, mental, and spiritual) in a proactive manner—in effect, achieving the triple aim on the front end—before an acute hospitalization episode might ever begin.

In this spirit, Juniper has developed, implemented, and tested a new care delivery model for seniors housing designed to meet the triple aim of recent health policy changes in the United States—improved customer satisfaction; evidence-based quality; and lower healthcare utilization.

Juniper Communities: Connect4Life

Fostering a model to fill this gap has been a primary focus for Juniper Communities. For nearly three decades, Juniper has been developing service and delivery programs to enhance aging, lifestyle, and resident health. Recognizing opportunities in the new landscape, Juniper pioneered Connect4Life—which combines supportive housing and services with primary care and other clinical services that prevent illness or restore wellbeing.

Juniper’s Connect4Life model integrates traditionally siloed clinical services with the supportive services and universally designed features of home built into seniors housing environments. Integration is achieved through the provision of key clinical ancillary services on site, most notably primary care, and rehabilitative services. However,



Juniper believes that just providing those services on site is not sufficient to truly integrate care. Juniper’s model mandates that all Connect4Life providers utilize a common EHR to share real-time data among providers and measure outcomes. This high-tech approach to integration is then married with a high-touch medical concierge or “MC” (emcee) to assure that providers and consumers alike engage in the process and are fully informed.

Connect4Life has three key components:

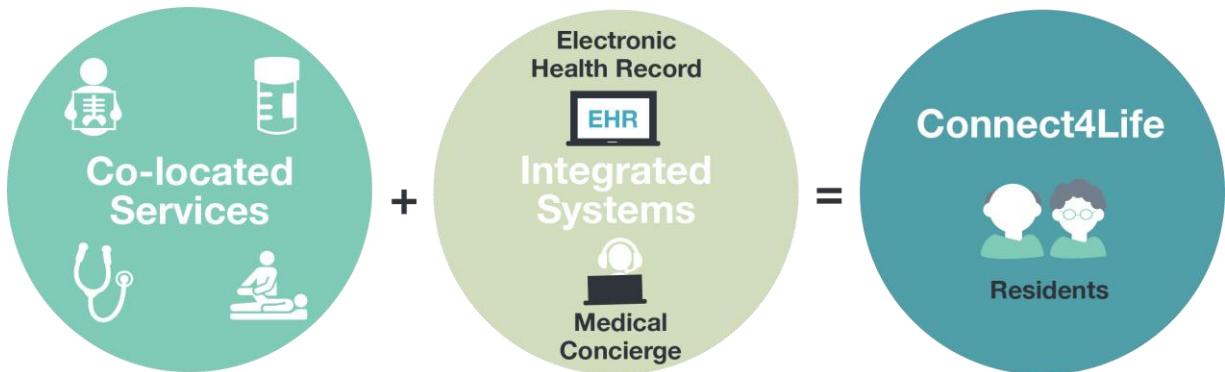
- **Onsite delivery of primary care and other ancillary services** used to foster prevention and restore wellbeing among high-cost, high-need individuals:

Onsite primary care has been shown to reduce hospitalizations by 40% and increase lifespan by 25%

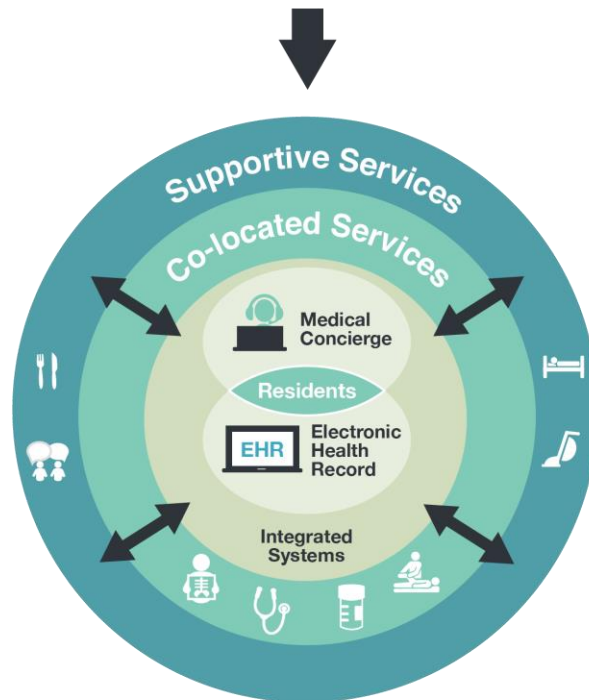
- » Integrating primary care practitioners directly into seniors housing via a patient-centered medical home model. Primary care represents a low-cost means to achieve strong outcomes: Data from Medicare’s Coordinated Care program in 2011 indicate that primary care services, when consistently offered onsite in a seniors housing setting, reduced hospitalization of high-risk patients by nearly 40 percent and lengthened lifespan by as much as 25 percent⁵.
- » Cultivating wellbeing through therapy-driven physical wellness programming and seamless access to other services through strategic partnerships and alliances. Through its primary rehabilitation therapy partner, Genesis Rehab, Juniper and Genesis have collaboratively developed a series of physical wellness and therapy protocols that create certain measures and outcomes that establish Juniper’s definition of wellbeing.

- **A “high-tech” foundation for shared data and communication** that measures and evaluates quality metrics to define value.
 - » Utilizing a common EHR among all Connect4Life providers means care team members have common access to real-time health and medical information, and a means to communicate on a common secure platform. Common access to information permits all providers to see test results, medications, etc. and facilitates stronger collaboration to solve issues.
 - » Intentional use of data and outcomes drive quality, define performance and guide operations. Each Juniper community documents and trends more than 90 measures across five domains. These metrics are central to monitoring each community’s clinical profile and identifying trends for intervention and improvement.
- **A “high-touch” coordinator that provides a 1:1 connection between the patient and the caregivers.** The coordinator also drives communication among providers, data sharing and outcomes, and is the champion and facilitator of patient engagement.
 - » A coordinator, preferably a Certified Medical Assistant (CMA) who is ideally able to monitor vitals and handle prescription reorders, is the “connector” between the resident and the providers. The coordinator ensures seamless access to, and coordination with, other services provided through strategic partnerships and alliances. Close communication, usually face-to-face and coordination among members of the care team including physicians and “case managers,” is critical to success, according to NEJM⁶.

» The coordinator provides patient education to enhance engagement and facilitate effective chronic care management. Education and layman’s level clinical information is needed to permit patients, particularly older, sicker patients, to be partners in their own care. Partnership is needed in making decisions on care itself and in following through in regard to medical instruction once care is provided. As noted in *Health Affairs*⁷, Hibbard and coauthors found that when engagement is low, costs can be 8-21 percent higher.



Connect4Life's high-tech + high-touch integrative services lead to higher quality care and better outcomes for residents



**Integrated Services in Seniors' Housing:
One Population Health Management Solution**

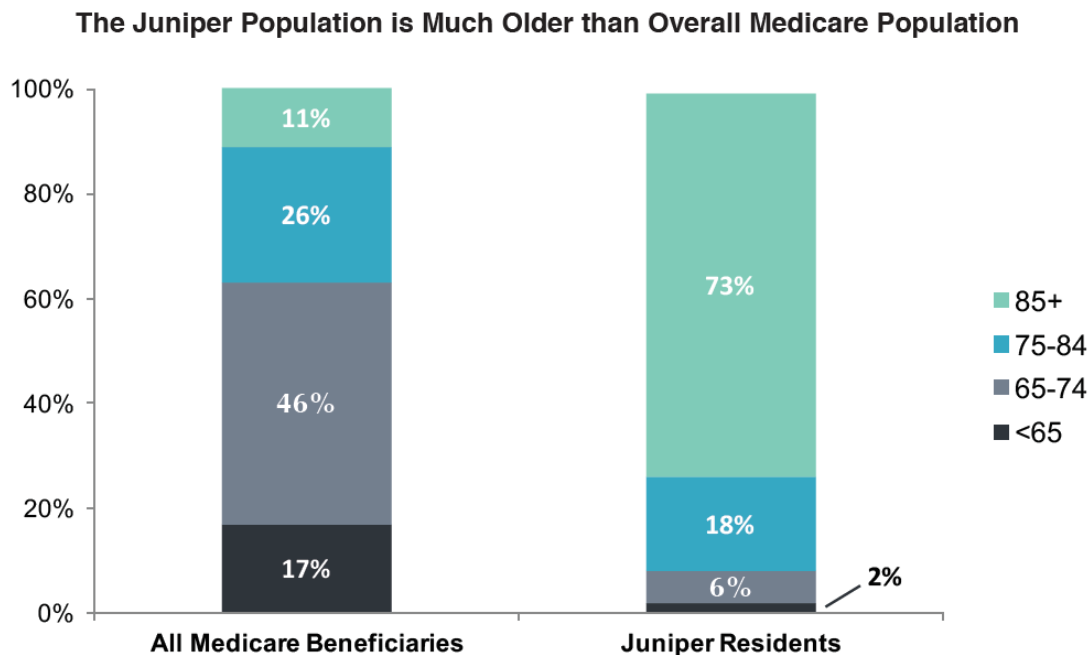
Understanding the Value of Integrated Care in Seniors Housing in Managing Population Health

To evaluate the potential importance of integrating health care services and seniors housing, ATI compared Connect4Life’s key outcomes to national data. Specifically, the researchers used the 2012 Medicare Current Beneficiaries Survey (MCBS) cost and use file to compare the health care utilization of Juniper residents with all Medicare beneficiaries and sub-populations of Medicare beneficiaries with functional and cognitive level-of-care needs similar to Juniper’s resident population.

The study found that **the Juniper population is much frailer and more at risk for high health care spending than the overall Medicare population.** But, compared to similarly disabled and cognitively impaired Medicare populations living in the community and in seniors housing without integrated care programs, **Juniper performed more than 50 percent better on inpatient hospitalization rates and more than 80 percent better on readmission rates.**

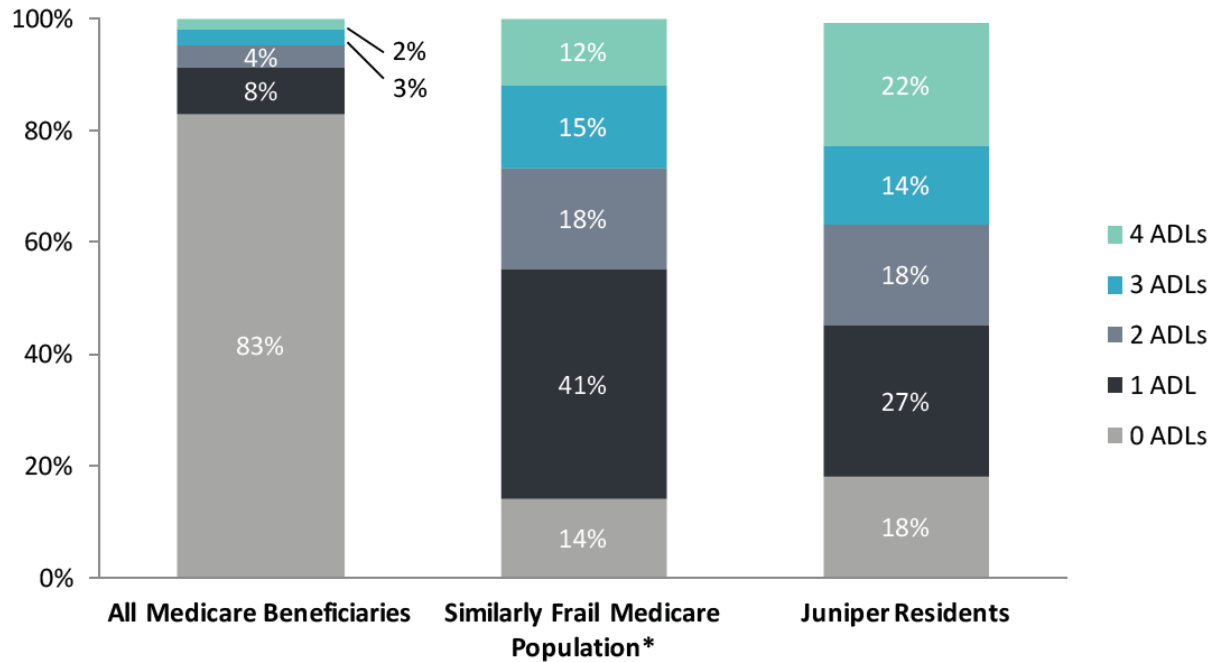
Key Findings Include:

- **Juniper’s Medicare population is much older than the overall Medicare population.** In contrast to only 11 percent of all Medicare beneficiaries who are 85 or older, Juniper’s similarly aged cohort represents 73 percent of the total resident population within the sample.



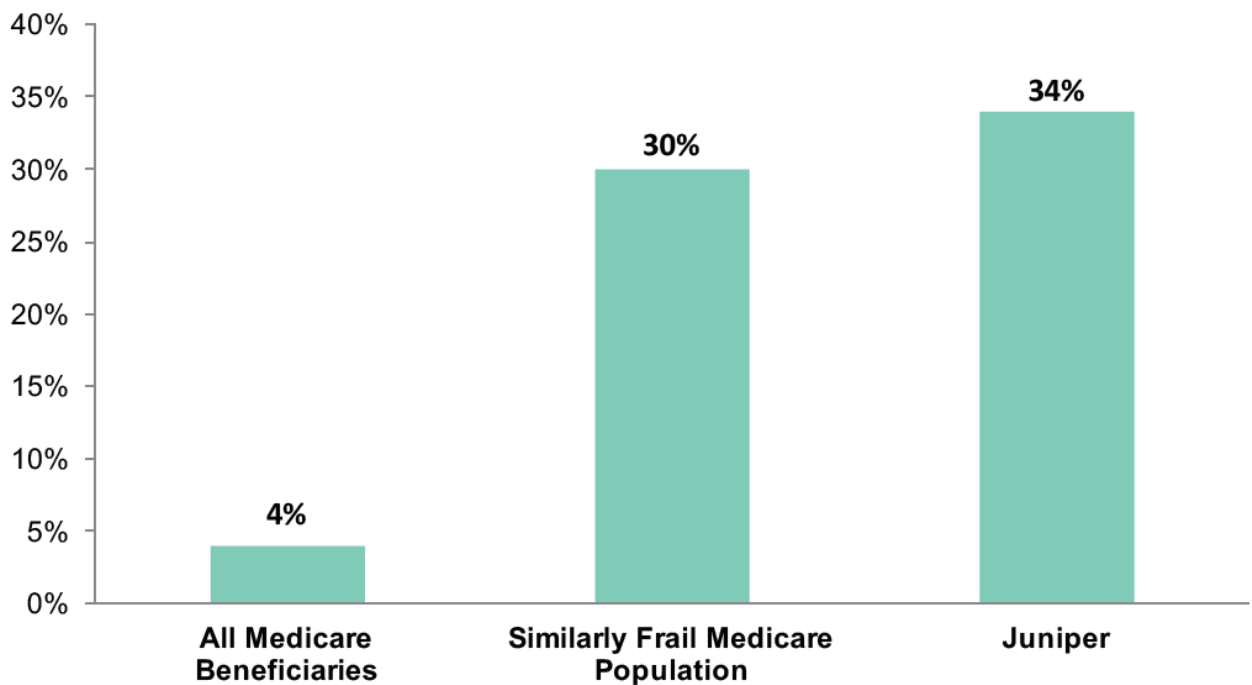
- **Juniper’s resident population has much higher levels of functional impairment than the overall Medicare population.** About half of the Juniper resident population (and a similarly frail Medicare population) were assessed to need assistance with two or more activities of daily living (ADLs) compared to the total Medicare population, in which only nine percent needed similar health care spending, even when holding constant the number of chronic conditions.

The Juniper Population is a “Hot Spot” for High-Need Medicare Beneficiaries



**The Medicare population that is “similarly frail” as Juniper residents receives help with at least one activity of daily living (ADL) or has cognitive impairment.*

Percentage of Population with Cognitive Impairment

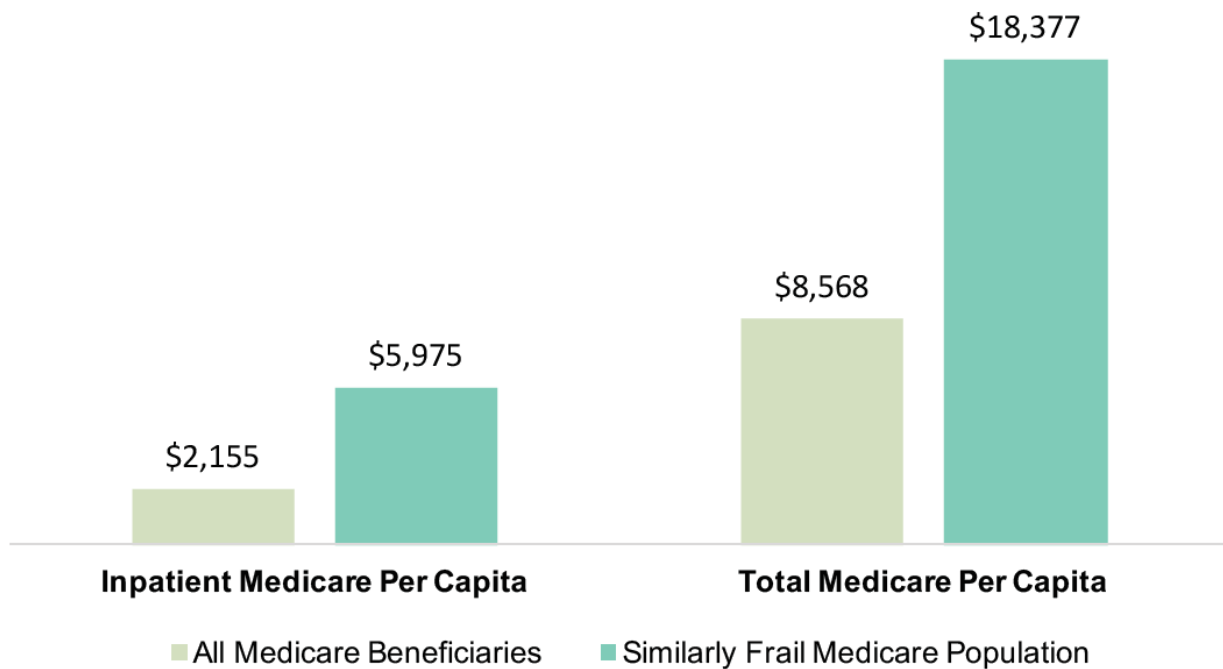


- Furthermore, the level of **cognitive impairment among Juniper’s population is much higher than the Medicare population as a whole**. About a third of the Juniper resident population and a similarly frail Medicare population have cognitive impairment compared to only four percent in the overall Medicare population.

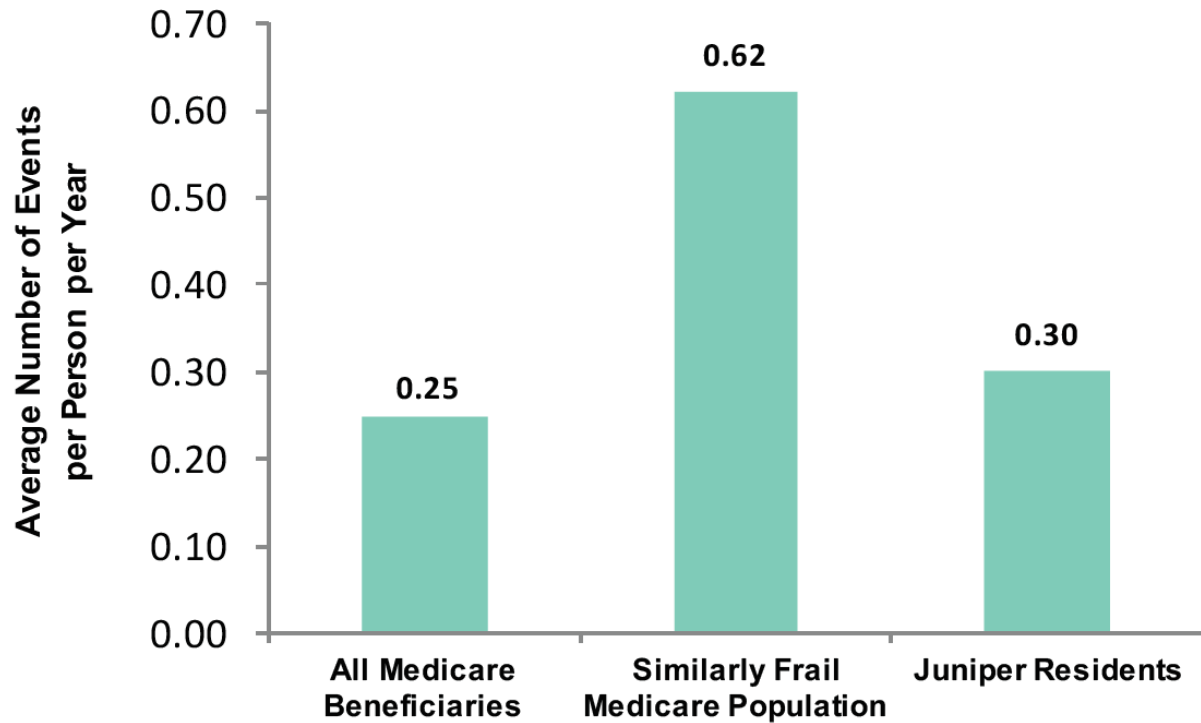
The researchers created an analytic population in the MCBS data to match the functional and cognitive frailty levels of the Juniper resident population (see “Similarly Frail Medicare Population” shown above). The MCBS data showed that annual per capita Medicare spending is more than twice as high for the Medicare population similar to the Juniper sample—those with a high level of functional impairment (defined as one or more ADLs or cognitive impairment)—than for the overall Medicare population.

The data indicate that this higher level of spending is the result of higher utilization. Specifically, the researchers examined inpatient hospitalizations, emergency room (ER) visits, and readmission rates. Reducing ER visits, hospitalizations, and readmissions is a critically important element of population health management and reducing overall health care spending.

Spending Two Times Higher for Similarly Frail Medicare Population



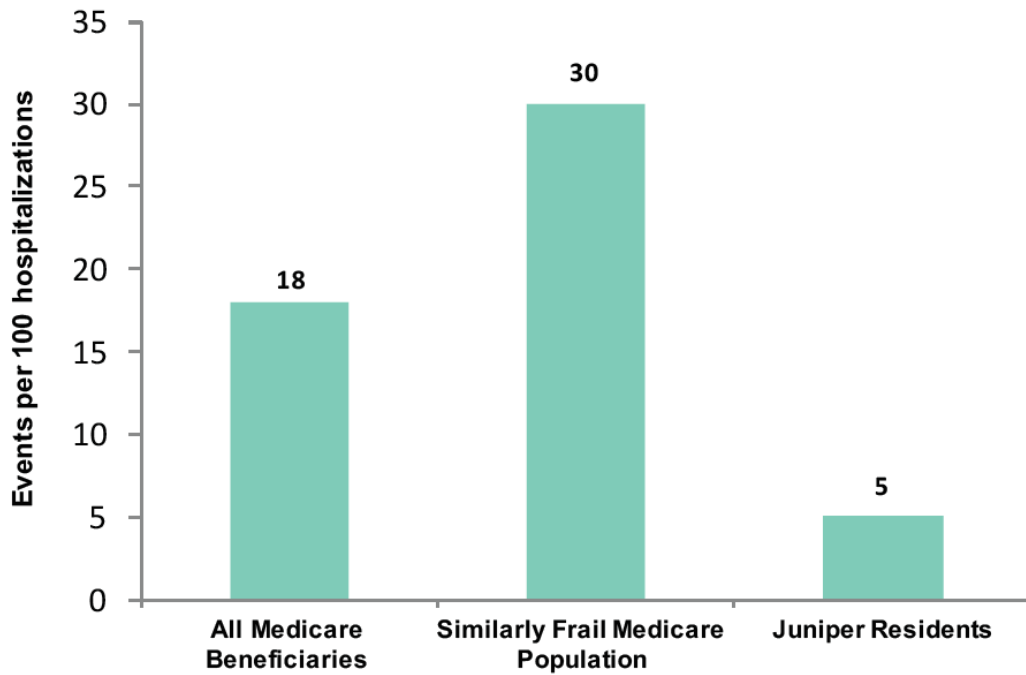
Juniper Residents' Hospitalization Rate Half the Similarly Frail Medicare Population



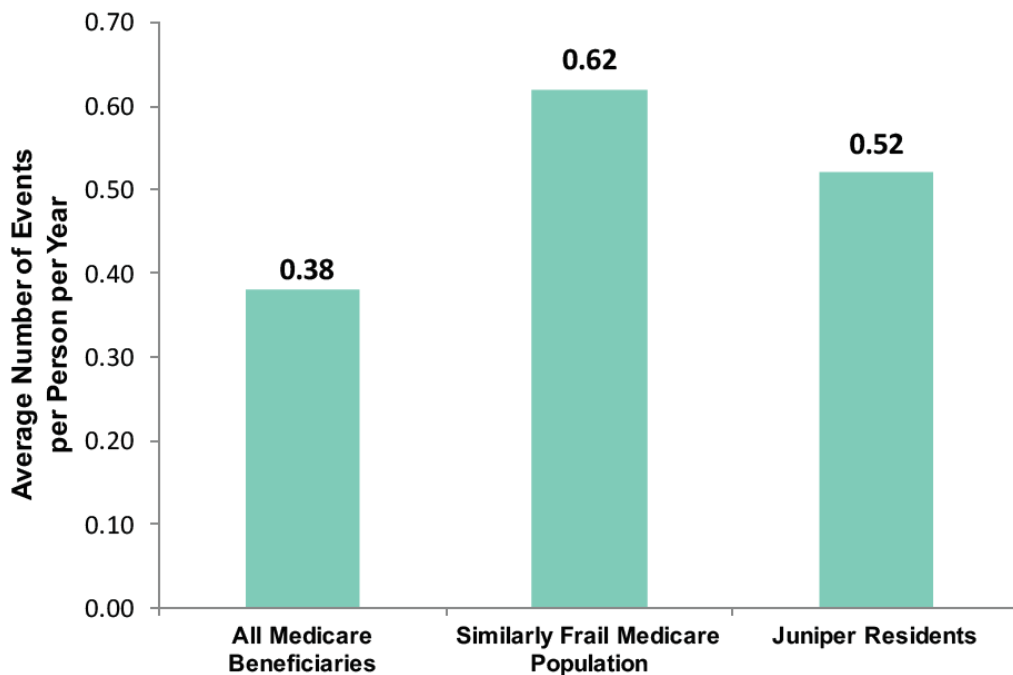
When compared to a similarly frail population living in the community or in seniors housing communities overall, **Juniper's hospitalization rate was about 50 percent lower.**

When looking at readmissions, **Juniper's re-hospitalization rate per 100 hospital admissions was over 80 percent lower** than a similarly frail Medicare population in the community and approximately 65 percent lower than the rate for all Medicare beneficiaries.

Juniper Re-hospitalizations Over 80% Lower than Similarly Frail Medicare Population



Juniper Residents' Emergency Department Use 15% Lower than Similarly Frail Medicare Population



Benefits in adoption of an integrated model

By: *Lynne Katzmann, CEO of Juniper Communities*

As the health care industry shifts away from volume-based measures towards value-based care, hospitals, health systems, physicians, payors—and even residents—universally acknowledge that data will drive every aspect of health care over the next three decades. Data and outcomes have defined Juniper's operational practices and innovative program development for more than a decade. This is why our Connect4Life model is gaining such steam.

Juniper offers a unique alternative to more traditional senior living providers and to similarly frail seniors living in the community— one that emphasizes a richly active and engaged approach to healthy aging. A 2016 report⁸ of the Advisory Board's Post-Acute Care Collaborative's Senior survey on drivers of consumer choice in senior living confirmed that "immediate and convenient access to medical care is the driving force behind most consumer's decision to shift from home to a facility." Specifically, the report points to the importance of onsite, primary care availability.

Connect4Life also represents a delivery innovation for senior care that bears greater examination and exploration around improving beneficiary health and wellbeing while managing total cost of care, particularly for the high-cost, high-need population. This cohort is particularly important since the social determinants of health (food, good housing, transportation, etc.) were estimated to account for 70 percent of avoidable mortality, suggesting that these factors should be included in any major policy that aims to reduce utilization and cost among this specific population.

Data Implications

The data suggest that integrating clinical care with the supportive environment and services provided by licensed seniors housing may dramatically reduce utilization of high-cost services which also have been shown to disrupt quality of life and impact the long-term wellbeing, particularly of frail, chronically ill seniors. The Connect4Life model holds potential for achieving the triple aim: improving care, improving customer satisfaction, and reducing costs.

As such, Connect4Life may be a good addition to the services already provided by seniors housing and may point to not only lower costs in seniors housing where this model is implemented for this high-cost, high-need population, but may similarly point to the importance of integration of medical and long-term supports and services, regardless of where an older adults lives.

Additional research over a longer period of time may facilitate revisions in the care model that will have further implications for population health management practices and for health policy.

Methodology

To analyze the acuity and health care utilization of Juniper Communities, Juniper staff analyzed and reported data to the ATI research team that they collected through resident assessments, level of care determinations, and electronic health records for a sample of 471 residents of 10 separate assisted living communities. All of the residents included in the study population had been living in the communities for over one year.

Data collected on the Juniper study population included functional limitations, cognitive impairment, chronic conditions, ER use, hospitalizations, and re-hospitalizations. The research team used the Medicare Current Beneficiary Survey (MCBS) Cost and Use File from 2012 to evaluate the Medicare cost and service utilization of three comparison populations:

Successful population health strategies must look at not only chronic conditions of an individual or group but also at functional limitations and complex social needs. To accomplish better “population health” we must look not only at health/clinical interventions but also housing and support services which impact the social determinants of health. Food matters; having someone to get you to appointments matter; being stimulated by others matters; heat matters; a clean home and body matters. In contrast to care in a single family home or even multiple dwelling unit without services or family, seniors housing provides nutrition, supportive activities of daily living (ADL) services, and does so economically. Connect4Life integrates these aspects of clinical, social and environmental care and service to achieve the triple aim.

Juniper’s innovative model is a value-added strategy not only for meeting the triple aim but also for stabilizing occupancy and growing market share. It increases EBITDA (greater ancillary service revenue, higher length of stay and census) and secures the value of real estate-backed investments in seniors housing communities. The seniors housing industry provides a strong, large market with built in economies of scale related to proximity and the ability to share exam and other clinical spaces.

For these senior living organizations across America, shifting with changes in United States health care policy and trends will be critical in maintaining both market share and relevance in the future. Elder care providers can no longer stand outside the fray as the aging boom continues. They must think differently about long-standing relationships with customers and payor/provider organizations, as well as the roles they will play in delivering better care and better health.

Juniper’s pioneering approach to senior care presents value and opportunity for seniors housing and care providers in potential cost savings to Medicare and benefits to residents.

1. All community-dwelling Medicare beneficiaries, which reflects the average Medicare cost and utilization experienced in the fee-for-service Medicare population not living in institutions. (n=50,038,595)
2. An LTSS need population living in the community—that is those who are living at home and not in residential care who reported receiving help with at least one ADL or had a diagnosis of dementia or Alzheimer’s disease. The team limited this population to those 65 years of age or older. (n= 6,254,290).
3. Those with LTSS need living in a residential care setting that provides personal care services who also reported receiving help with at least one ADL or had a diagnosis of dementia or Alzheimer’s disease. The team included respondents 65 and older. (n= 418,797)

Utilization for all services except readmissions was defined as events per person per year, whereas readmissions were defined as all cause readmissions within a 30-day period of the initial hospitalization per 100 hospitalizations per year. All-cause readmissions were calculated by identifying any hospitalization that took place within 30-days of another hospitalization. Inpatient hospitalization counts include readmissions.

The team was unable to match MCBS comparison populations with the Juniper resident population on chronic conditions due to gaps in ICD-10 codes in the Juniper system. As with any study that attempts to measure differences in utilization across population, there may be unmeasured differences between the benchmark and Juniper populations that account for differences in utilization.

The analysis is limited in that the health care utilization data in the Juniper population is not based on paid health care claims and therefore is not independently verified. This analysis is instructive directionally in evaluating outcomes for a senior housing population receiving an integrated care intervention.

ENDNOTES

¹ <http://www.fightchronicdisease.org/latest-news/new-national-data-shows-projected-total-cost-chronic-disease-2016-2030-america-42>

² <https://www.census.gov/prod/2014pubs/p25-1140.pdf>

³ *Congress and Policy Making in the 21st Century*, Jenkins J. and Patashnik E.

⁴ <http://www.nejm.org/doi/full/10.1056/NEJMp1608511#t=article>

⁵ Medicare Coordinated Care Demonstration Program, 2011 <https://innovation.cms.gov/Files/reports/mccd-hqp-finaleval.pdf>

⁶ <http://www.nejm.org/doi/full/10.1056/NEJMp1608511#t=article>

⁷ <http://content.healthaffairs.org/content/32/2/207.full>

⁸ <https://www.advisory.com/research/post-acute-care-collaborative/members/multimedia/infographics/2016/what-consumers-want-from-post-acute-care>