About this Series

This Spotlight is part of the AARP Public Policy Institute’s LTSS Choices initiative. This initiative includes a series of reports, blogs, videos, podcasts, and virtual convenings that seeks to spark ideas for immediate, intermediate, and long-term options for transforming long-term services and supports (LTSS). We will explore a growing list of innovative models and evidence-based solutions—at both the national and international levels—to achieve system-wide LTSS reform.

We recognize the importance of collaborating and partnering with others across the array of sectors, disciplines, and diverse populations to truly transform and modernize the LTSS system. We invite new ideas and look forward to opportunities for collaboration.

For all questions and inquiries, please contact Susan at LTSSChoices@aarp.org.

Introduction

Over the past few decades in the United States, much of the innovation in the long-term services and supports (LTSS) system has originated at the state or local levels, only to be elevated to the national level after much experience and testing of new concepts. Such evolution—and subsequent expansion—has involved federal government and foundation support, along with changes in federal Medicare, Medicaid, and housing policies.

Most innovations take a long time to diffuse or fail to do so. For example, in health care, the average time it takes for an evidence-based practice to make its way into general practice is 17 years, and half of all new practices never become widespread.

However, five promising innovations currently in the LTSS system are becoming more commonplace. This paper discusses these innovative programs and the diffusion of innovation, which involves the process of individuals or organizations adopting new ideas or practices.

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4. According to Rogers (2003), an innovation is “an idea, practice, or object that is perceived as new by an individual or other unit of adoption.”
or scaling-up process, underlying them. We also make observations about the factors affecting their expansion to date.

Our framework for analyzing the spread of the five LTSS-related innovations is the widely accepted diffusion of innovation model that Everett Rogers conceived. Rogers’s work identified five characteristics critical to the successful expansion or diffusion of an innovation.\(^5\)

1. **Relative advantage** is the extent to which potential adopters perceive the innovation to be superior to current practice. Factors affecting this perception include cost-effectiveness, social prestige, convenience, and satisfaction. The greater the perceived advantage of an innovation, the more rapidly it will diffuse.

2. **Compatibility** involves how well the potential adopters believe the innovation aligns with their values, ideas, and needs. An incompatible innovation will be slower to diffuse.

3. **Complexity** is how difficult an innovation is to use or understand. Innovations that are easy to understand tend to be adopted more rapidly.

4. **Trialability** refers to how easy it is to test an innovation on a limited basis. Those that can be tested in smaller steps provide more early information to potential adopters.

5. **Observability** is the degree to which potential adopters know about the results of an innovation. More visible innovation results mean easier adoption. For example, more visibility leads to more peer discussion of an innovation.

Innovations are most likely to be adopted if they have greater relative advantage, more compatibility with innovators’ values, less complexity, more trialability or testing opportunities, and greater renown or observability.\(^6\) Relative advantage and compatibility appear to be the most influential factors affecting the speed at which innovations spread.

We found that a combination of factors leads to diffusion of LTSS-related innovations:

- Innovators trying to solve problems with their state and local LTSS systems
- Innovations that are compatible with the ethics and needs of the innovators
- Local and state level experimentation that demonstrates the cost-effectiveness of the innovations
- Foundations and government policy makers working together to test and refine the innovations and providing technical assistance to reduce complexity, costs, and risks for potential adopters
- Successful innovations, in terms of diffusion, that have backers who disseminate information about them
- Policy makers who alter policy, increase funding, and provide technical assistance to help states and localities expand the innovations

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According to Rogers, innovators are venturesome and risk tolerant; they “understand and apply complex technical knowledge.” They can adapt to changing conditions and setbacks. Although innovators are not necessarily opinion leaders, Rogers posits that innovators have a gatekeeping role as introducers of new ideas into a given system.\(^7\)

To identify these factors, we analyzed the following five innovations: the Program of All-Inclusive Care for the Elderly (PACE),\(^8\) Green House nursing homes,\(^9\) self-direction\(^10\) of home and community-based services (HCBS), integration of health and HCBS into housing targeted to older adults, and restorative services\(^11\) for older adults.

### Scaling and LTSS Equity

As we explore the five LTSS innovations, we must consider how the development of these models, their adoption, and the scaling of innovations in general advance and/or hinder LTSS equity.

The evidence supporting many of these models (e.g., PACE, Support and Services at Home [SASH\(^®\)]) includes research showing how they benefit specific populations. For example, some of the earliest CAPABLE services were primarily delivered to older Black women in Baltimore. Research into new and existing models of LTSS should always include diverse populations, and resulting publications should be specific about the populations included in a given study or intervention. This transparency is critical to understanding whether and to what extent the innovation is relevant across populations.

At the same time, diverse communities should not be treated only as test populations. As innovations come to scale beyond the study phase, they should do so in ways that offer different types of communities access to the services and supports. Developing an intervention in a primarily Black community, for example, but then scaling it to primarily white beneficiaries would exacerbate inequities and should be avoided.

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\(^8\) PACE programs integrate medical and LTSS for older adults and others at risk of entering a nursing facility. Generally, enrollees are dually eligible for Medicare and Medicaid.

\(^9\) These are small, homelike nursing facilities that train direct care workers to be flexible and meet residents’ individual needs.

\(^10\) Generally, these services are planned and purchased under the direction and control of the individual, including the amount, duration, scope, provider, and location of the HCBS.

\(^11\) Restorative care, also called re-ablement services, helps people maintain improve or maintain their ability to carry out daily activities that promote independent living. Rehabilitation services help people regain physical functions after illness or injury.
Program of All-Inclusive Care for the Elderly (PACE)

PACE was one of the first programs to combine Medicare and Medicaid funds to deliver comprehensive and integrated services to community-living adults ages 55 and older who would otherwise need to live in nursing homes. The heart of the PACE model is person-centered services led by an interdisciplinary team, that includes primary care providers, social workers, dietitians, therapists, personal care attendants, and drivers. The team conducts a needs assessment, establishes a comprehensive care plan, and coordinates and delivers all necessary services. These services include medical care, LTSS, transportation, nutrition, and other around-the-clock biopsychosocial services for beneficiaries. A combination of Medicare Parts A, B, and D and Medicaid cover the associated costs.

PACE programs provide services to older adults with complex care needs—while helping them maintain their independence in their homes for as long as possible. Many of the services are delivered in PACE centers, which often have a primary care clinic, therapy gym, and adult day health center. The remainder of needed care occurs in the participant’s home. If the PACE program cannot provide a service directly, it will establish a contracting arrangement.

PACE programs receive monthly capitated payments from Medicare, state Medicaid programs, the Department of Veterans Affairs, private pay, or a combination of these sources. The fixed payments allow for flexibility and create incentives for PACE programs to help beneficiaries improve or maintain their health and function. About 90 percent of PACE participants are dually eligible for Medicare and Medicaid.

According to the National PACE Association, 147 PACE programs operated in 32 states and served almost 62,000 beneficiaries in August 2022.

Evolution of PACE

PACE developed over several decades. On Lok, the genesis of the PACE model, began in the early 1970s in the Chinatown district of San Francisco, helping older adults of Chinese, Filipino, and Italian heritage live at home while receiving LTSS. Families in this community wanted to avoid institutional medical care for their loved ones—and the associated high costs. In 1973, On Lok began providing medical services, social rehabilitation, and daily care; over time, it added meals, transport, and at-home services. Day-care centers for adults became a core component. In 1979, On Lok received a four-year grant from the Department of Health and Human Services (DHH) to further develop its model.

In 1983, On Lok received Medicare and Medicaid waivers that allowed it to receive capitated payments for integrated care. In 1986, On Lok’s model spread to about 10 sites under a federal demonstration program that Congress authorized. In 1990, the PACE model, based on On Lok’s programming, received financial assistance from what is now called the Centers for the Medicare and Medicaid Services (CMS). In the Balanced Budget Act of 1997, Congress recognized PACE as a permanent Medicare and Medicaid provider.

PACE also received funding from foundations at key points. For example, the Robert Wood Johnson Foundation (RWJF), the John A. Hartford Foundation, and the Retirement Research Foundation funded the On Lok site and funded technical assistance for five replication sites following On Lok’s 1986 expansion.

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Research Results

Most studies of PACE’s impact on enrollees show that they benefit in terms of their health, function, and independence. Evidence of PACE’s impact on Medicare and Medicaid costs is unequivocal. A 2021 study of PACE beneficiaries who were eligible for both Medicare and Medicaid found that they were less likely to be hospitalized, less likely to visit the emergency department, and much less likely to be institutionalized than their similar, dually eligible peers enrolled in Medicare Advantage Plans.13 These results controlled for beneficiaries’ demographic and health conditions.

Several more studies have documented positive results. A 2015 study of PACE programs in eight states compared the experiences of new PACE enrollees from 2006 through 2008 with the experiences of a matched control group composed of new dually eligible recipients of Medicaid home and community-based waiver or nursing facility services.14 PACE beneficiaries had lower mortality rates, and any nursing home use was more likely to be short term. Generally, Medicare and Medicaid did not experience cost savings, although New York’s Medicaid program did have lower costs for PACE enrollees. A third study compared PACE beneficiaries and dually eligible persons receiving Medicaid HCBS waiver services in terms of risk of entering a nursing home and functional and cognitive impairment.15 Data collection took place from 2005 through 2009 in 12 states. PACE enrollees had a 31 percent lower risk of entering a facility; when they did enter, they were more likely to have cognitive impairment and more likely to have higher levels of physical impairment than their dually eligible peers.

According to the National PACE Association, state Medicaid programs that offer PACE saved an average of 15 percent of the cost for a dually eligible person age 65+, compared to the costs the state Medicaid programs otherwise would have incurred to provide services to these individuals outside of PACE.

Summary

PACE started at the local level to solve a problem - the institutionalization of older adults who had Asian heritage. PACE, with a comprehensive set of integrated services, successfully addressed concerns about care quality and quality of life by helping older adults with complex care needs and disabilities remain at home. Positive results in multiple studies convinced foundations to provide grants and government policy makers to alter policies to enable the program to grow. Although today more than 140 PACE sites exist, most are small; they serve, on average, about 470 people.16 Additional scaling up likely requires more assistance and changes in certain states’ Medicaid policies. Existing PACE programs might also need help to expand the number of participants they serve.

Research demonstrates that PACE improves the LTSS system by reducing institutionalizations, improving outcomes, decreasing costs, and empowering older adults to live at home. It is compatible with the ethics of program adopters. The program’s complexity was reduced through technical

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16 National PACE Association, personal communication, April 8, 2022.
assistance. Dissemination of program results has meant that many policy makers in the LTSS system know about PACE and its myriad advantages.

PACE organizations operate and deliver care within a defined territory. If an older adult does not live within a PACE service area, they aren’t able to receive PACE services. Such focus on geography can serve both to ensure equitable access across communities and to widen disparities—by redlining a PACE service area. As existing PACE service areas expand and new service areas emerge, it will be incumbent on PACE organizations, state agencies, and CMS to ensure that those geographic regions do not exclude communities and/or minimize potential for equitable access. Data from 2015 (when PACE had fewer enrollees than it has today) show strong representation of Black beneficiaries and potential underrepresentation for Hispanic and Asian communities. Additional data on PACE demographics are necessary for understanding today’s patient mix.

PACE continued its innovation during the COVID-19 pandemic. Many organizations had to close their centers and clinics and deliver all care and services in the home. An ongoing Agency for Healthcare Research and Quality research study will determine the impact of these adaptations and identify emerging best practices.
Green House® Nursing Homes

Bill Thomas, a medical director at a nursing home in rural New York State, was the innovator who developed the Green House model. In 1991, he was the medical director at a nursing home that had had no citations during its licensure surveys for seven years; however, Thomas noticed that residents lived according to a fixed schedule, had little to do, were lonely, and had no control over their lives. He decided that he wanted to make his nursing home more homelike and enable staff and residents to have more autonomy. Among the changes he implemented were a focus on person-centered care and empowering staff to learn more about residents so they could better meet residents’ individual needs. He also created a more homelike environment by bringing animals into the building, giving residents more choices, and decreasing use of psychotropics. Thomas called his program the Eden Alternative, and hundreds of nursing homes adopted his principles, likely due to his active promotion of the Eden Alternative through presentations and articles.

Meanwhile, the RWJF had been searching for ways to improve nursing home quality. In 2001, Thomas met with RWJF staff and shared his ideas about further reforming nursing homes so that they would more closely resemble a family home, using principles based on the Eden Alternative. He received a small grant to develop the first Green House nursing homes. In 2005, RWJF provided a five-year, $10 million grant to fund the Green House Replication Initiative that offered technical assistance, support, and an evaluation designed to test and promote the innovative model. The number of Green House homes grew—reaching 100 in 2010, 200 in 2016, and 300 in 2020.

Green House homes are small homes for people who need a skilled nursing level of care. Three core values form the basis of the Green House model: a real home, a meaningful life, and empowered staff. Trademarked Green House homes look and function like houses in the community and must follow the model’s design and standards of quality.

The Green House model also rests on a person-centered approach to services. Residents are the decision makers. For example, they decide when they want to wake up, how they spend their day, what services they receive, and how to interact with other residents.

The Green House staffing model is unique in that direct care staff work in self-managed teams, and these teams are both empowered to make decisions and responsible for the residents’ quality of life. These workers partner with the clinical team on being responsible for the services that residents receive and managing the home and its daily schedules to respond best to residents’ choices and needs. The direct care workers are trained as certified nursing assistants; they receive additional training in meal preparation, laundry, housekeeping, and activities.

Another distinctive part of the Green House staffing model is how direct care workers, nurses, and Green House guides (i.e., those who help the homes meet nursing home licensure requirements) work together. The model’s collaboration, coaching, and supervision differ markedly from the operations of traditional nursing homes. Research shows that the Green House model requires new ways of thinking and acting, which lead to positive outcomes for residents and workers.

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17 Much of the information in this section comes from an AARP Public Policy Publication LTSS Choices: Small-House Nursing Homes.
18 R. Waters, “The Big Idea Behind a New Model of Small Nursing Homes,” Health Affairs, March 2021. This article describes a group of small nursing homes with dispersed living quarters; there, COVID-19 was far less prevalent than in traditional nursing homes.
19 Waters, R. (2021). The Big Idea Behind a New Model of Small Nursing Homes,” Article describes a group of small nursing homes with dispersed living quarters where COVID-19 was far less prevalent than traditional nursing homes.
The first four Green House nursing homes were built in 2003. According to the Green House Homes Project, there are 371 trademarked homes on about 70 campuses in 32 states. These homes serve about 3,200 people. About 90 percent of Green Houses are state-licensed skilled nursing facilities. Most of these facilities can serve Medicare and Medicaid beneficiaries.

**Research**

Generally, Green House facilities provide better-quality care than do traditional nursing homes. For example, a 2015 study found that residents of Green House nursing homes were 16 percent less likely to be bedridden, 38 percent less likely to have pressure ulcers, and 45 percent less likely to have catheters than their counterparts in traditional nursing homes. The Green House residents also boasted lower hospital readmission rates.

Other studies on Green House homes have documented the positive effects of the model on a range of measures, including quality of life and quality of care, family satisfaction, direct care time for residents, and staff satisfaction. Financial studies have shown that Green House homes do not cost more than traditional nursing homes to operate.\(^{21}\)

Quality differences have persisted during the COVID-19 pandemic. For example, Green House nursing homes had 41 confirmed deaths per 1,000 residents through 2021, compared with 122 deaths per 1,000 in all certified skilled nursing homes.\(^{22}\) These results likely derive from private rooms and bathrooms providing superior environmental protection. Other reasons may include lower staff turnover and the overall workforce structure, which involve consistent staff assignment to residents so staff did not have to rotate among the homes. Green House homes saw certified nurse assistant turnover of 33.5 percent—versus 129.1 percent in facilities nationwide. Green House staff have a deep knowledge of residents, which enables recognition of emerging conditions and effective infection control. The universal caregiver model (direct care staff deliver care, cook, clean, and provide activities) greatly limits interactions with staff from outside the home.

**Summary**

The original innovator, Bill Thomas, developed the Eden Alternative to improve nursing home care in his rural town. Because he was an energetic proponent of his model, other nursing homes adopted his principles—which they found to be compatible with their own. His work caught the attention of RWJF staff. They, in turn, funded a pilot of the Eden Alternative’s next iteration: the fully redesigned Green House homes. The pilot and subsequent activities included demonstrations, marketing and communications activities, research, dissemination of results, and the eventual founding of a dedicated Green House Project organization to oversee and continually improve the model. Research demonstrated the relative advantage of Green House homes over traditional nursing homes. Technical assistance made the model less complex for potential adopters and less expensive because technical assistance staff worked with states to mitigate potentially costly regulatory hurdles and provide a process and model for the development of Green House homes.

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\(^{22}\) Alex Spanko, Green House Project, personal communication, May 2022. See also *The Green House Project COVID Study Report* (Linthicum, MD: Green House Project, September 2020), [https://thegreenhouseproject.org/resources/research/covid-19](https://thegreenhouseproject.org/resources/research/covid-19).
Self-Directed Home and Community-Based Services (HCBS)

Self-directed HCBS programs typically give beneficiaries a monthly allowance they can use to hire their own workers, including family members, and, in many cases, to purchase care-related services and supplies. This type of program originated in the 1960s at the local and state levels and via a federal veterans home care allowance after World War II. HCBS programs eventually became available nationwide, primarily to Medicaid beneficiaries and veterans. As of 2019, the National Inventory of Self-Directed Programs reported that self-direction models reached 1,234,214 participants through 267 separate programs, 71 of which were veteran directed. In fiscal year 2018, up to 4.8 million beneficiaries received Medicaid HCBS.

Self-direction began in states and localities, when these levels of government funded HCBS programs that paid family and friends to care for participants with disabilities. One of the first major efforts was California’s independent living model, which began in the 1960s and 1970s. The model is based on self-directed personal care services. One such program operated for college students with disabilities in Berkeley through the first Center for Independent Living. Drawing from these efforts, California implemented its state-funded In-Home Supportive Services (IHSS) program in 1973; it was not a Medicaid program until the 1990s. Now, IHSS offers people of all ages with disabilities the opportunity to select and manage their own workers, but the number of hours of care and the wages are set by a public authority.

In addition to California, other states, including Colorado, Michigan, New York, Oklahoma, Oregon, Virginia, Washington, and Wisconsin, implemented self-directed personal assistance services in state-funded programs and under Medicaid. For example, Oklahoma changed its state-funded program to a Medicaid personal care services program. New York did so in the late 1970s after a nursing home scandal, eventually giving a small group of people the ability to choose their own personal care workers in New York City. In the mid-1990s, New York passed legislation directing its counties to offer a self-directed opportunity to anyone who qualified and wanted an alternative to agency services. These state activities began under Medicaid’s personal care option because, at the time, Medicaid HCBS waivers did not directly authorize self-direction.

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24 M. O. Watts, M. Musumeci, and P. Chidambaram, *Medicaid Home and Community-Based Services Enrollment and Spending* (Washington, DC: Kaiser Family Foundation, 2020). Note that participants may receive services from more than one Medicaid HCBS service. For example, they might receive waiver and home health services.

25 This is a local, consumer-controlled, nonprofit agency that is designed and operated within a local community by individuals with a range of disabilities. Centers for Independent Living provide an array of noninstitutional services that include information and referral, skills training, advocacy, peer counseling, transition assistance from institutions to the community, avoidance of institutions, and transition of youth with significant disabilities after they complete their secondary education.
Cash and Counseling Evaluation

Cash and Counseling began in Arkansas, Florida, and New Jersey in the 1990s. The demonstration tested self-direction with 6,700 people in a randomized controlled trial. Medicaid beneficiaries in the treatment group experienced fewer unmet needs and improvement in several health outcomes, and they were more likely to be satisfied with the quality of their care and their workers when compared with persons receiving home care agency services. Primary caregivers in the treatment group had less physical, emotional, and financial stress.26

Self-direction for veterans began at the federal level after World War II when the Veterans Benefits Administration began paying an Attendant Care Allowance, a cash benefit program, to veterans with disabilities. This nontaxable monthly benefit still exists. In 2008, the Administration on Aging and the Veterans Health Administration joined forces to create the veterans-directed care program and provide technical assistance to these programs.

Program Expansion and Research Results

The federal government as well as the RWJF and other foundations funded a series of grants and programs to test and promote self-direction. These efforts included the following:

- Grants to 15 states to develop programs for people with intellectual or developmental disabilities.
- Evaluating the Cash and Counseling program in Arkansas, Florida, and New Jersey.
- The Independent Choices Programs in Oregon and Ohio.
- Funding for the Department of Health and Human Services (Real Choice Systems Change grants), the World Institute on Disability, and the National Association of States United on Aging and Disability to promote self-direction in aging and disability services.
- A second round of funding to replicate the Cash and Counseling model in 12 additional states in 2004.
- More flexibility to states. Beginning in 2004, CMS started giving states the flexibility to implement self-direction programs through various Medicaid waivers, and Congress created new authorities that CMS implemented (e.g., 1915(j) state plan).
- A National Resource Center for Participant-Directed Services to provide technical assistance to states replicating Cash and Counseling. A manual was published in 2009.27

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Paying family caregivers. This is one way to expand availability of self-direction opportunities for Medicaid beneficiaries. Before the COVID-19 pandemic, 16 states allowed all family members to get paid when caring for relatives, and 15 allowed some family to be paid. During the COVID-19 pandemic, another 17 states implemented temporary policy changes that allowed payment of family caregivers. They did this, in part, because of the large number of people who were dying isolated in nursing homes and shortages of LTSS direct care workers.

Summary

Self-direction evolved over decades. Advocacy from the younger community with disabilities caused testing and expansion of self-directed programs at the state level. In addition, states recognized that paying family caregivers offered an alternative to expensive institutional care. So, self-direction presented relative advantages to people with disabilities and to the state programs that served them. Self-direction, regardless of the type of enrollee disability or evaluation methodology, shows positive results for participants. In addition, well-designed self-direction programs cost less than traditional care.

Opportunities for expanding self-direction through Medicaid waivers gained considerable traction after the positive results of the randomized controlled trial of Cash and Counseling and a comprehensive, RWJF-funded communication plan. Federal policy makers also changed program rules to enable states to provide self-direction programs through allowing states more flexibility in their Medicaid programs. For those participants who want to direct their care, self-direction shows clear advantages over traditional home care agency services and is consistent with the ethics of the politically powerful Independent Living Movement for people living with disabilities. Technical assistance makes implementing self-direction less complicated for adopters, and the RWJF communications effort has been comprehensive and effective.


Supportive Services in Housing for Older Adults

Supportive services in housing programs for older adults are designed to connect residents with services that can help them remain at home. Integrating services into housing for older adults has a long history, with state and federal involvement beginning in the late 1980s. In addition, the RWJF funded some housing and supportive services programs in the late 1980s and early 1990s. This section describes several programs and their research results separately because these programs have differed in degrees of offering health-related services.

A 1989 report from the Department of Housing and Urban Development (HUD) stated that, at that time, nine states subsidized supportive services programs for frail older adults in senior housing. Services typically included congregate meals, personal care, social services, housekeeping, transportation, and laundry. Those states were Connecticut, Maine, Maryland, Massachusetts, New Jersey, New Hampshire, New York, Vermont, and Oregon.

In 1990, Congress permitted certain federally funded housing projects to hire service coordinators for elderly and disabled residents. At least two studies have evaluated the impact of these coordinators.

1. In 2007, HUD surveyed 363 of its property managers and found that half of the properties had used available HUD funding to hire service coordinators for their residents. These managers reported that resident satisfaction with coordinators was high and the residents’ quality of life improved. People who lived in properties with service coordinators stayed 6 months longer in their homes, on average, than those people in properties without coordinators.

2. A 2015 study found that residents living in housing with onsite service coordinators had lower hospitalization rates compared with residents in sites without these staff.

In the 2010s, new programs integrated even more services, including health-related services, into senior housing sites; research confirmed the positive effects on residents. The Staying at Home Program involved hiring an onsite social worker and registered nurse who provided care coordination, advance care planning, and medication management; these workers also helped residents keep a health care diary. In 2014, researchers analyzed self-reported outcomes and health care utilization from residents of 11 senior housing buildings in Pittsburgh. Seven of them had implemented the Staying at Home Program. The Staying at Home sites had significantly fewer transfers to nursing homes, visits to emergency departments, inpatient admissions, and unscheduled hospital stays compared with those sites that had not implemented Staying at Home.

The Self Help Active Services for Aging Model (SHASAM) provides residents with onsite social workers who (1) deliver health and wellness assessments, counseling, and wellness and exercise programs and (2) help residents access public benefits. Researchers found that Medicare beneficiaries in senior

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housing with SHASAM programs, compared with Medicare beneficiaries living in the same zip codes, had significantly fewer hospital discharges and shorter lengths of stay.\textsuperscript{33}

In 2009, Cathedral Square, a Vermont nonprofit housing and services provider, piloted the SASH\textsuperscript{®} (Support and Services at Home) model to connect residents with community-based services, promote health care coordination, and offer evidence-based programs at the population level. SASH uses housing programs as the vehicle for innovative health services delivery. Given successful pilot outcomes (reductions in hospitalizations, falls, and nursing home stays), in 2011, SASH began receiving Medicare funding and expanded to all counties in the state. SASH became part of Vermont’s health care reform plan, known as the Blueprint for Health.\textsuperscript{34}

Since 2011, SASH has served more than 10,000 participants in 22 nonprofit affordable housing properties and their surrounding communities in Vermont.\textsuperscript{35} Cathedral Square, through its affiliated National Well Home Network, provides regional implementation support as well as statewide oversight, data management, and technical assistance to maintain the quality and integrity of the SASH model. Several foundations help fund the effort. In 2016, SASH expanded beyond Vermont to Rhode Island and Minnesota, with plans to replicate the model in more states, such as California and Maryland.

Housing providers that implement SASH’s home-based care management model employ a full-time care coordinator and hire or contract for a quarter-time wellness nurse for each of their 70 to 100 participants (Medicare or Medicaid beneficiaries). Staff members partner with participants to complete regular health and wellness assessments and individualized healthy living plans; these workers also deliver health coaching and care coordination with local community providers, primary care providers, and hospitals. A multiyear, HHS- and HUD-funded independent evaluation showed that Medicare beneficiaries’ health costs were approximately $1,400 lower per year than those for a matched comparison group.\textsuperscript{36} Medicaid costs for dually eligible beneficiaries’ institutional care were also significantly lower. And SASH residents reported better functioning and ability to manage their medications than did the comparison group.

Other positive results for SASH include improvements in residents’ blood pressure and blood sugar levels, fewer falls leading to hospitalization, and lessened emergency room use.\textsuperscript{37} Residents report easier access to mental health services and reduced social isolation. A higher percentage of residents have advance directives.

The SASH model has formalized partnerships and a centralized administrative structure at Cathedral Square that provides the quality assurance, technical assistance, data tracking/management, and oversight for all SASH sites in Vermont, Rhode Island, and Minnesota.

Designed to provide the core elements of SASH, the Integrated Wellness in Supportive Housing (IWISH) program, begun in 2017, employs a full-time resident wellness director and a part-time nurse in HUD

\textsuperscript{33}Turnham et al.
\textsuperscript{34}Molly Dugan, Cathedral Square, personal communication on April 28, 2022.
\textsuperscript{35}Dugan, personal communication.
\textsuperscript{37}A. Benedict-Nelson, A. Hervada, P. Polanski, and C. Blakeway Amero, LTSS Choices Spotlight: Coordinating Housing, Health and LTSS through Home-Based Care Management (Washington, DC: AARP Public Policy Institute).
properties. The director assesses residents’ needs, coordinates health and wellness programs, and connects residents to community services. The nurse monitors residents’ health and wellness and promotes access to primary care. These staff members serve 100 to 115 residents and develop individual and HUD-property healthy aging plans.

A final evaluation report on IWISH will be available soon as of September 2022. The evaluation compares outcomes for residents in 40 properties with IWISH programs with outcomes for residents living in 84 similar properties with no similar program. Measures are use of primary, acute, and nonacute health care; length of stay in the HUD properties; and transitions to nursing home care. Quantitative results are not available as of this writing; however, staff and residents with IWISH programs report positive effects on residents’ health and well-being, more resident use of primary care, and fewer exits from the properties.  

**Summary**

Housing experts and subsidized housing staff recognized the needs of older residents and took advantage of funding to help them remain in their communities. Although scant information is available, foundations apparently were involved in the early stages of promoting supportive services programs in subsidized housing. Action appears to have bubbled up from local innovators, and federal experts have promoted and studied these options. The SASH model has led to important improvements in residents’ health. As a result, supported services in housing are poised for more replication. Should the IWISH innovation prove effective in the forthcoming report, project replication will receive a further boost.

The housing with services model for older adults shows that there is a relative advantage over traditional housing sites in terms of resident outcomes. This model is compatible with the innovators’ goal of helping older adults remain independent; however, with the exception of the SASH model, this effort lacks technical assistance that would reduce the complexity for potential adopters, and results have not been widely disseminated. Should the IWISH innovation prove successful, it would likely require funding, technical assistance, and dissemination efforts to diffuse the innovation among group housing sites for older adults.

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ABLE and CAPABLE

Two innovations, which rely on occupational therapy, physical therapy, and home repair professionals, improve LTSS for older adults and help them remain at home. Researchers at Johns Hopkins University initiated the innovations; they are discussed separately below.

The first program, Advancing Better Living for Elders (ABLE), provided four visits and one telephone contact from an occupational therapist and one visit from a physical therapist during a six-month period. The occupational therapist worked with participants to identify problem areas and helped them to improve function through behavioral and environmental modifications. Physical therapists delivered strengthening and balance exercises to support improvement in targeted areas. In the second six-month period, occupational therapists had three telephone contacts with participants.

A randomized controlled trial found that ABLE reduced participants’ functional difficulties, fear of falling, and home hazards. Participants saw improved self-efficacy and use of equipment and environmental strategies. After 12 months, intervention participants had a 1 percent mortality rate, compared with a 10 percent rate among members of the control group.

Community Aging in Place, Advancing Better Living for Elders (CAPABLE) built on the ABLE model by adding a registered nurse to address pain management, medications, depression, and a handyperson to perform home repairs. CAPABLE services last four to five months and the occupational therapist visits the participant six times during that period; the registered nurse visits four times. A handyperson provides up to eight hours of labor involving repairing the home, installing assistive devices, and modifying the home. Participants work with an occupational therapist and a registered nurse to identify up to three achievable goals with each professional and barriers to achieving those goals.

At least six quasi-experimental trials have studied CAPABLE. Research on CAPABLE shows that 75 percent of participants had a reduction in difficulties with activities of daily living, 65 percent had a reduction in difficulties with instrumental activities of daily living, and 53 percent had an improvement in depressive symptoms. Demographics did not affect outcomes, nor did prior hospitalizations. CAPABLE participants also had consistent, clinically significant reductions in disability as measured by activities of daily living and instrumental activities of daily living and some improvements in other outcomes. Positive outcomes continued at seven months, and cost savings were sustained for up to two years.

Outcomes were not as positive when interventions did not follow the CAPABLE model completely. For example, more traditional home care assessments, less home modification, or reduced nurse visits led to fewer positive outcomes for participants.

Funding for some of the studies of CAPABLE came from CMS’s Center for Medicare and Medicaid Innovation (CMMI) and the Rita and Alex Hillman Foundation. Other foundations that helped expand

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41 These are basic self-care tasks such as bathing, eating, and dressing.

42 These are things a person does every day to take care of oneself and one’s home, such as shopping, using the phone, and preparing meals. These tasks require complex planning and thinking.
the number of CAPABLE sites are the Harry and Jeanette Weinberg Foundation, The John A. Hartford Foundation, the St. David’s Foundation, and the Retirement Research Foundation. Various Medicare Advantage plans have considered or are offering CAPABLE, and three states are engaged in statewide CAPABLE implementation supported through Medicaid waivers or American Rescue Plan Act funding.

Funds from the Rita and Alex Hillman Foundation helped to create an infrastructure to promote growth of CAPABLE sites and fidelity to the original intervention. For example, CAPABLE has staff involved in partnership development, implementation, evaluation, and training. The Hillman funding also enabled development of resources to facilitate implementation and scaling up of CAPABLE.

**Summary**

The CAPABLE innovation is of real benefit to older adults in terms of function and quality of life as well as emotional well-being. CAPABLE is poised to expand but needs more attention from the federal government and foundations. It has met the conditions of relative advantage and trialability. At this writing, a technical assistance program is underway. A comprehensive dissemination effort would help potential innovators know more about CAPABLE and its positive results.

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Conclusions

After reviewing the history of the five innovations, we found that a combination of factors, predicted by Rogers’s model, leads to diffusion of innovations. These factors generally coalesce in the following stages:

1. An innovation tends to bubble up from the local level to address specific unmet needs or to reduce costs to consumers or government. This sometimes occurs as the result of advocacy and expands when policy makers see the relative advantages of the innovation.

2. The innovation is perceived as successful at those levels and spreads across localities or within states—sometimes with the help of policy makers or foundations.

3. Preliminary tests of the innovation are successful in maintaining or improving older adults’ function or quality of services. The mix of services generally meets a consumer’s needs better than does usual care and is consistent with the ethics of the innovators. Costs of delivering these services are usually no higher than for usual care. So, trialability is an important feature of diffusion of the innovations under consideration here.

4. Influential leaders or experts in academia, government, and foundations agree to work together to test these innovations formally and on a broader scale.

5. If the innovations prove successful, the results of any experiments appear in peer-reviewed journals and are often disseminated more widely.

6. State and federal policy makers eliminate most inadvertent political or policy obstacles to adaptation and diffusion of the innovations. In some cases, governments expand funding for the innovations.

7. Technical assistance is available to reduce the complexity of the innovations for state and local policy makers wishing to adapt the innovation to their specific needs and policy situations.

8. State and local policy makers understand the innovations, accept the validity of their benefits, and use the funding and technical assistance available to implement the innovations.

9. A planned and comprehensive dissemination of results is critical to meeting Rogers’s criteria of observability and promoting diffusion of the innovation.
Recommendations for Choosing and Promoting LTSS Innovations

Based on our exploration of five innovations in various stages of diffusion or scaling up, we have the following recommendations for those in a position to choose and promote LTSS innovations.

1. **Relative advantage.** Choose innovations that appear to be superior to current practice in terms of consumer choice and satisfaction, quality, and cost-effectiveness. Credible evidence must demonstrate the innovation’s effectiveness.

2. **Compatibility.** Choose innovations that are compatible with the needs of the people served.

3. **Complexity.** Choose innovations that have robust technical assistance, which will help innovators with implementation.

4. **Trialability.** Ensure that technical assistance supports implementation testing to obtain the information needed to decide whether to proceed.

5. **Observability.** Focus on innovations that have demonstrable results for consumers, families, and systems and that can replicate these results with other communities.

Based on our research and discussions with experts on the five innovations, we offer specific recommendations for policy makers, funders, researchers, innovators, and thought leaders (Exhibit 1).

**EXHIBIT 1. KEY RECOMMENDATIONS BY AUDIENCE**

<table>
<thead>
<tr>
<th>Policy Makers</th>
<th>Funders</th>
<th>Researchers</th>
<th>Innovators</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Expand Medicare and Medicaid’s ability to finance innovative models of care.</td>
<td>• Provide low-cost capital and grants to innovators.</td>
<td>• Include implementation and scalability when studying an intervention.</td>
<td>• Leverage existing community resources.</td>
</tr>
<tr>
<td>• Expand offerings from the VA and other federal funders.</td>
<td>• Require real dissemination plans.</td>
<td>• Consider audiences who might be able to bring interventions to practice.</td>
<td>• Develop and articulate the business case behind an innovation.</td>
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<tr>
<td>• Streamline application processes.</td>
<td>• Stay with innovative models beyond the early stages.</td>
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<tr>
<td>• Promote innovations at the state level.</td>
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</table>

**Individual and organizational thought leaders have the responsibility to raise the profile of innovations and innovators; facilitate connections between each of the above groups; convene like-minded partners; and build coalitions to support innovation, perform advocacy, and drive policy and practice.**

**Recommendations for Policy Makers**

Simply put, policy makers should expand opportunities for proven innovations to grow and scale. In practice, this is achieved primarily by allowing Medicare and Medicaid to finance innovative models of care more easily. For example, allow these payers to fund services and housing in communities

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45 Alice Bonner and Sarah Szanton (CAPABLE); Molly Dugan (SASH); Robert Jenkens (LTSS Independent Consultant); Kevin Mahoney (Self-Direction); Francesca O’Reilly (PACE); Susan Ryan (Greenhouse Homes Project).
modeled after SASH and to implement short-term interventions like CAPABLE across Medicaid waivers and/or Medicare benefits. The process through which new PACE sites receive federal approval should also be streamlined to allow more communities to have a PACE organization.

Although federal policy sets the tone for many of these innovations, state agencies can act under the existing policy environment to bring these innovations to their residents. If a state does not have a self-directed HCBS program, it should create one. States could also amend their HCBS waivers and state plan amendments to incorporate CAPABLE as a covered service. Similarly, states could work with provider organizations to develop a PACE application for areas that lack PACE coverage.

Additional federal and state payers also have a role to play in scaling innovations. The VA has been a leader in self-directed care, for example, and could continue to lead the way by expanding access to CAPABLE and other innovations. The VA may also be able to finance and offer Green House nursing home services to eligible veterans. Although the Older Americans Act (OAA) programs have fewer resources than those of Medicare, Medicaid, and the VA, the relatively broader flexibility that OAA programs have could facilitate access to innovations—albeit on a smaller scale.

Policy makers should also consider ways to remove existing barriers that inhibit scalability. For instance, state governments could modify certificate of need (CON) laws to offer exceptions for new Green House developments and other innovative models of nursing home delivery. The 2022 National Academies of Science, Engineering, and Medicine report on nursing home quality includes CON elimination in its recommendations section. Removing CON barriers for Green Houses could foster innovation in nursing home care while still preventing an influx of new large-scale facilities. Providers would have to demonstrate that their project would meet certain small-home standards and still get approval from the appropriate state licensing board.

Federal and state agencies should expand technical assistance offerings to support innovation, including peer-to-peer learning among providers and state agencies, expert insights, and more.

**Recommendations for Foundations and Investors**

Funders should provide innovators with access to low-cost capital and grants to develop and scale up their interventions. For example, prospective Green House nursing homes need access to a low-cost replacement program because renovations to meet model standards often require extensive renovation or replacement.

In addition, these entities should promote strategic partnerships of innovators and policy makers to build pressure and momentum for needed reforms. Reforms should address the full range of options that people may want as they age. For example, for isolated older adults, aging in place in their individual homes may not be their preference. They might want more opportunities for socialization that community-oriented innovations like Green Houses or SASH provide.

It is also critical for funders to continue to support interventions that show initial success. Include in investment portfolios both new, creative options and those that show promise through funding, dissemination, and mechanisms for promoting diffusion, including technical assistance.

Funders should require that innovators who receive funds develop and execute meaningful dissemination plans. Where needed, funders should provide or facilitate technical assistance that supports the development of such plans.
Recommendations for Researchers

When testing a new intervention, researchers should also assess whether that intervention is feasibly implementable and scalable. Research on reach, adoption, and maintenance of interventions is important. Researchers should also study the impact of innovations on equity in access and outcomes, both in program design and implementation.

Along those lines, time-intensive tasks for researchers include developing manuals and researching implementation issues, such as dissemination and diffusion of innovations. Researchers should have support from their respective academic institutions to complete these activities.

Researchers should also consider their audiences when publishing new research. To translate across audiences, personal stories are often necessary—in addition to numbers and detailed methodological explanations. To get from paper to practice, emotional appeal is crucial.

Recommendations for Innovators

Whenever possible, innovators should leverage existing community resources when deploying and/or scaling a new model. Developing these partnerships is often more efficient than focusing on building new capacity, including scarce workers. For example, certain PACE programs have been working with federally qualified health centers and area agencies on aging.

Innovators should also invest sufficient time and effort in articulating the business case to existing providers and policy makers while advocating for the necessary policy changes to make that business case even stronger.

Recommendations for Thought Leaders

Thought leaders exist at the individual and organization levels, and thought leaders have critical roles to play that do not neatly fit into any of the four groups described previously. Thought leaders have the capacity and the responsibility to uplift LTSS innovations that they think can make a meaningful difference and improve care.

As conveners, thought leaders should bring together innovators, funders, policy makers, and researchers—and facilitate connections between these groups. Often, thought leaders can be the tipping point between an innovative idea and a national or statewide practice.

Thought leaders should also focus on coalition building to form a basis of support for a given model and give direction and leadership to that coalition (e.g., national availability of PACE, more health plans providing CAPABLE). Where appropriate, thought leaders should position themselves as advocates to influence policy makers.
About the Authors

Susan C. Reinhard, RN, PhD, FAAN, is senior vice president and director of the AARP Public Policy Institute. She leads the LTSS Choices project and serves as the chief strategist for the Center to Champion Nursing in America and Family Caregiving Initiatives.

Jane A. Tilly, DrPH, is an independent consultant who has conducted research and policy analysis related to aging, health, and long-term services and supports for over 20 years.

Brendan Flinn is a senior policy advisor at the AARP Public Policy Institute, where he works on long-term services and supports issues, including policy affecting home and community-based services and nursing homes.

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