

# A Familiar Place: Home and Aging in Colorado

A Report from the Colorado Health Institute  
and NextFifty Initiative

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- 4 The Importance of Home
- 5 Housing Challenges Facing Colorado's Older Adults
  - 5 *Affordability*
  - 7 *Accessibility*
    - 8 *Accessible Homes*
    - 9 *Accessible Communities*
  - 10 *Supportive Housing Services*
    - 10 *Permanent Supportive Housing*
    - 10 *Service Coordination*
    - 11 *Indirect Supports*
- 11 A Path Forward: Innovations That Allow Older Adults to Age in Their Homes and Communities
- 11 Addressing Affordability: Leveraging Multiple Financing Sources
  - 12 *Strategy in Action: Senior Residences at Three Springs*
- 13 Addressing Accessibility: Expanding Universal Design
  - 13 *Strategy in Action: Lifelong Homes and the Institute for the Built Environment*
- 16 Addressing Housing Supports: Support and Services at Home Program
  - 16 *Strategy in Action: The SASH Program in Vermont*
- 17 Conclusion
- 18 Appendix A
- 19 Endnotes

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### About the Colorado Health Institute

The Colorado Health Institute is a nonprofit and independent health policy research organization that is a trusted source of objective health policy information, data, and analysis for the state's health care leaders.

*1971 was a big year for Gloria.\* She and her husband, Ray, moved west from Georgia; their son was born; and the growing family bought its first house in Golden, Colorado.*

*Over the next 48 years, three children would grow up in this home. Its four walls would see birthdays, marital spats and makeups, new coats of paint as styles changed. They would hear Ray vow countless times to replace the broken bathroom tile that bothered him every morning. Ray died in 2013. He never fixed that tile.*

As Gloria turns 80 this year, she's started to wonder whether life alone in this house is still the best fit for her. The extra rooms are starting to feel more like a burden than an asset. She has become more forgetful in the past few years, and while she thankfully has no major physical health issues, she knows that one fall down the split-level stairs could change that in an instant.

Perhaps she could use some help with basic activities at home. But professional help is expensive, and the only one of her three children who still lives nearby is busy with his own family and career. Maybe she could sell the house and buy a condo — a little less upkeep and fewer stairs to navigate. But prices in Golden have gone up since 1971, and her limited income makes a new mortgage daunting. She doesn't need a nursing home, so an assisted living community might be a good fit. But at \$56,000 a year, who can afford it?<sup>1</sup>

The dilemma facing Gloria may sound familiar to many older Coloradans and their families. New research by the Colorado Health Institute (CHI) on older adults and their housing needs show that this situation is not unusual. This report takes a closer look at the numbers behind stories such as Gloria's, and reveals what communities across the country are doing to address these concerns. It examines older adults' housing challenges thorough the lenses of affordability, accessibility, and health. It also profiles three promising community solutions in Colorado and elsewhere.

### NextFifty Initiative

NextFifty Initiative is a Colorado-based private foundation dedicated to funding mission-driven initiatives that improve the lives of the older adult population and their caregivers. NextFifty seeks to fund game-changing efforts to improve and sustain quality of life for people in their second 50 years. NextFifty Initiative educates about proven initiatives and advocates for transformational change.<sup>2</sup>

The report is accompanied by a toolkit that allows Colorado's communities to further explore their local data and investigate local solutions. The toolkit is available at [www.coloradohealthinstitute.org/housing-toolkit](http://www.coloradohealthinstitute.org/housing-toolkit)

The report, and the research behind it, is made possible by NextFifty Initiative, a private foundation dedicated to improving community services for older adults and their caregivers. It is part of a larger grant-supported effort to work with communities across the state to identify new resources and tools to address these challenges. CHI thanks the NextFifty Initiative for its support and community leaders across the state for donating their time, talent, and insights to this effort.

\* Gloria is a fictional character based on real-life stories gathered by CHI analysts.

## The Importance of Home

More Coloradans than ever are feeling the pressure of an increasingly costly housing market.

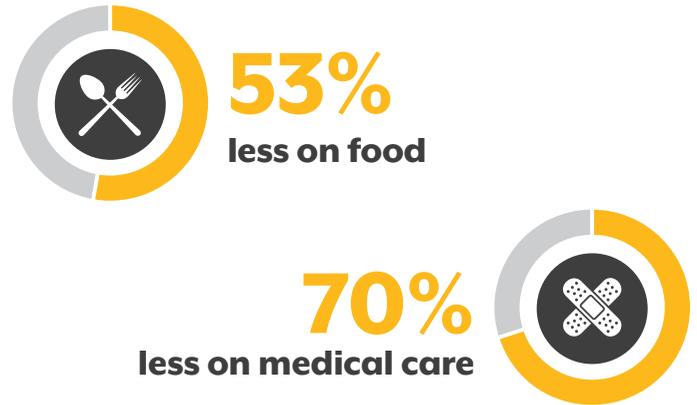
Across the state, one in four people is housing cost-burdened, meaning they spend at least 30 percent of their income on rent or ownership. This can force households to make some difficult choices. It can limit the funds available for necessities such as food or health care. Living on tight margins can also create an unstable housing environment where a financial event such as job loss can cascade into home repossession or eviction.

Coloradans of all ages are struggling with these challenges, but older adults often experience the consequences most acutely. Nine in 10 Americans age 65 years or older want to continue living in their current home or community.<sup>3</sup> But older adults are more likely to face higher health costs and fixed incomes, both of which contribute to less affordable and less stable housing situations. And these challenges will only become more pressing for Colorado — by 2050, the over-65 population is expected to nearly double.<sup>4</sup>

Many older adults also rely on their homes as a setting for long-term care. But not all houses are suited to the needs of aging Coloradans. The presence of stairs, the width of hallways, and the

Figure 1. Housing Costs Can Crowd Out Health.<sup>6</sup>

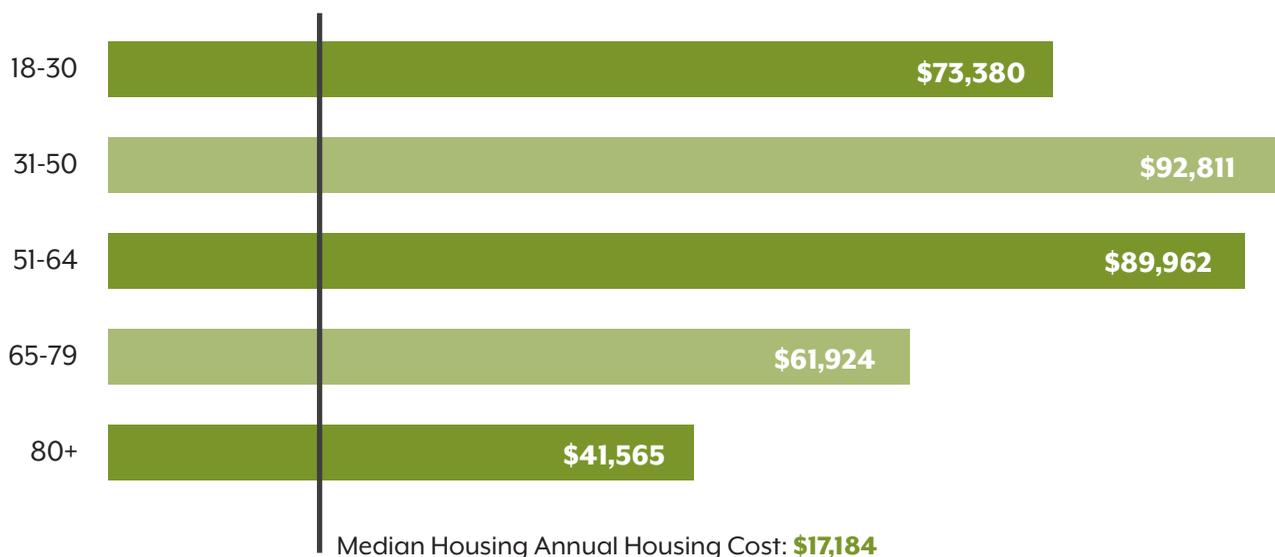
When low-income older adults are severely cost-burdened, they spend . . .



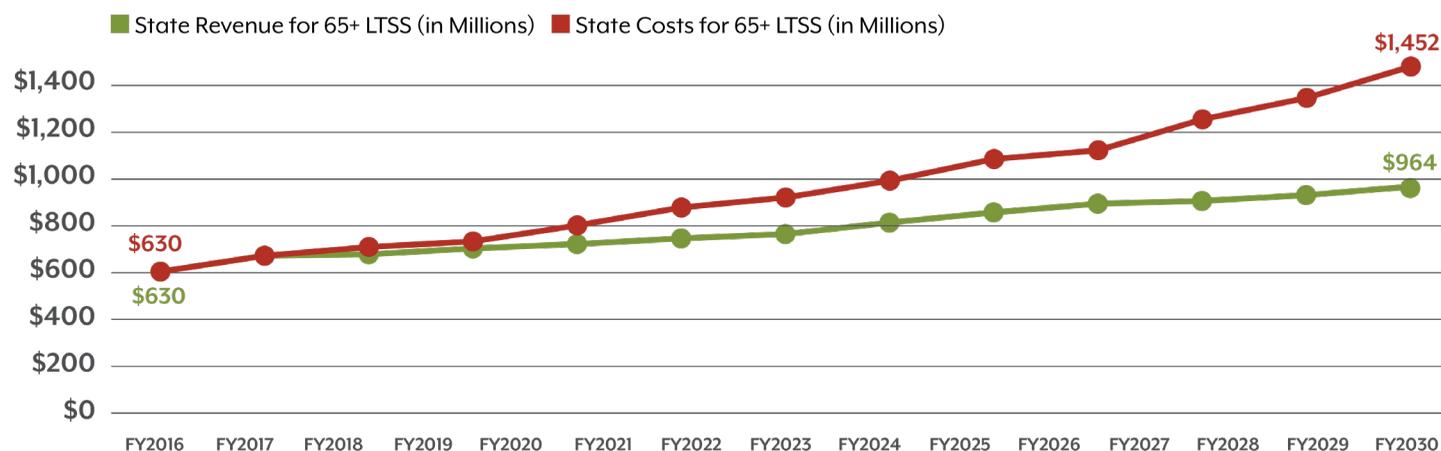
positions of light switches are special considerations for many older adults whose mobility is declining. Homes that are less accessible increase the risk of falls or speed up the need for higher levels of care, such as assisted living or nursing care.

The consequences of not addressing these housing challenges go beyond health outcomes. When older adults can't afford to age in their communities, many come to rely on institutional care. Medicaid covers these services for those who are unable to afford them.

Figure 2. Median Household Income by Age, Colorado, 2017.<sup>5</sup>



**Figure 3. State Costs Versus State Revenue for LTSS for Older Adults, Fiscal Year 2018-30.**



But if demographic and economic trends continue on their current trajectory, state costs for long term services and supports (LTSS) for older adults will be as high as \$1.5 billion in 2030, according to an analysis developed by CHI for the Strategic Action Planning Group on Aging. That far exceeds the \$964 million that will be available under current budget constraints (see Figure 3).<sup>7</sup> This increase in expenditures would substantially impact the state budget.

It's important to underscore the severity of housing challenges facing some older adults in Colorado — but it's perhaps more important to understand the trends underlying them. Below, we look at housing challenges for older adults through the lenses of affordability, accessibility, and health. We will then journey across Colorado to learn more about what communities are doing to address these challenges.

## Housing Challenges Facing Colorado's Older Adults

### Affordability

Affordability is a major housing challenge for many older adults. Across the state, just 15 percent of Coloradans over age 62 say affordable, quality housing is available in their community. In some mountain areas, such as Eagle, Grand, Jackson, Pitkin, and Summit counties, this figure is as low as 4 percent.<sup>8</sup>

This dearth of affordable housing creates a burden for both renters and owners. About 27 percent of older

Coloradans are housing cost-burdened. Thirteen percent are severely burdened, meaning they spend at least half of their household income on housing expenses.<sup>9</sup> Older adults in mountain communities, where affordable, quality housing is rare, and in Denver and Teller counties are the most likely to face high housing costs relative to household income.

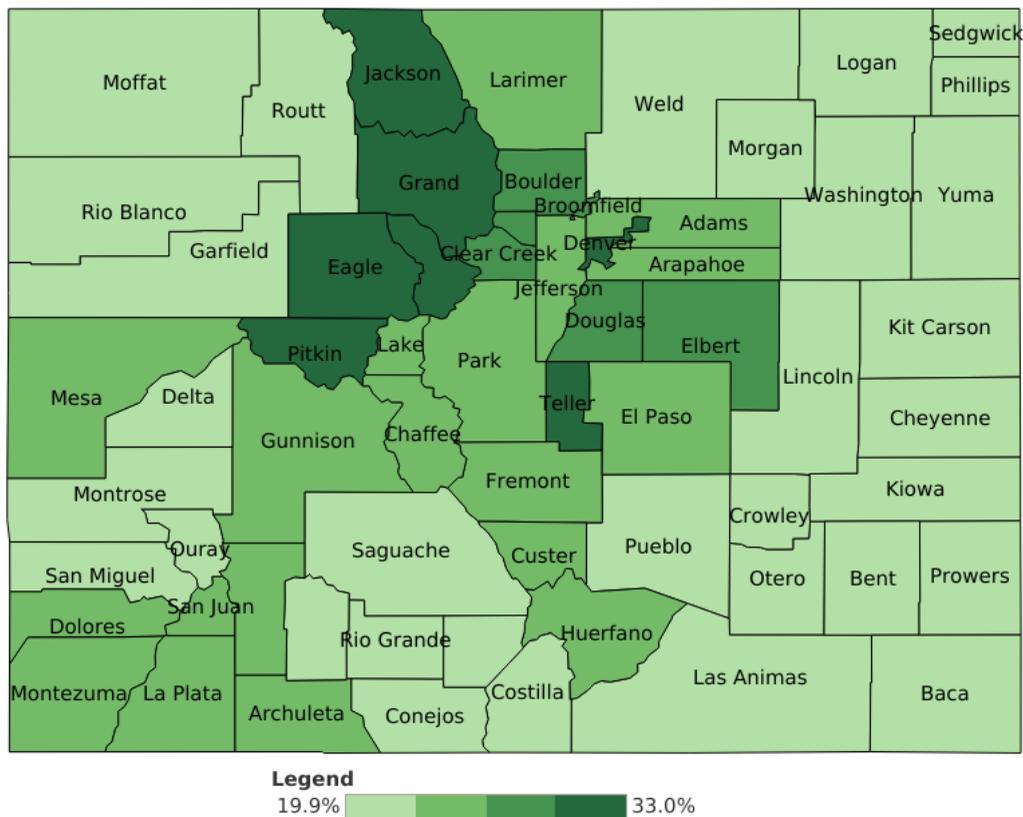
Statewide, some older adults are particularly likely to have affordability challenges. Among those over age 85, for instance, nearly a third are cost-burdened.

There are also disparities by income. Low- and middle-income older adults are the most likely to be cost-burdened. Those with incomes at or below the federal poverty level (FPL) have housing cost-burden rates nearly seven times as high as those at 500 percent FPL or more.

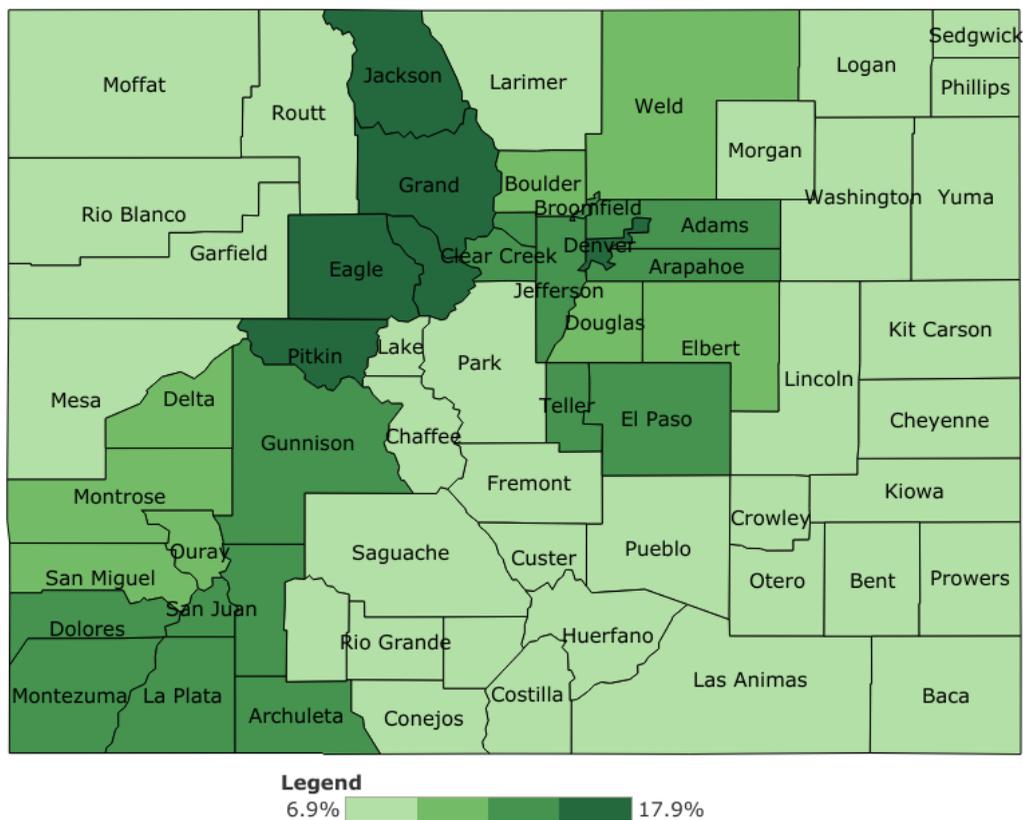
These issues have only grown more pressing over time. Since 2010, median rent in Colorado has increased by 30 percent, and the cost of a new home has increased by nearly 50 percent. Over the same time, income among people ages 65 or older has grown by just 10 percent (see Figure 6).

If current trends continue, more than half a million older Coloradans are at risk of being housing cost-burdened by 2030.<sup>13</sup> As Colorado's demographics change, this is a challenge communities in all parts of the state must work to address in order to support older adults.

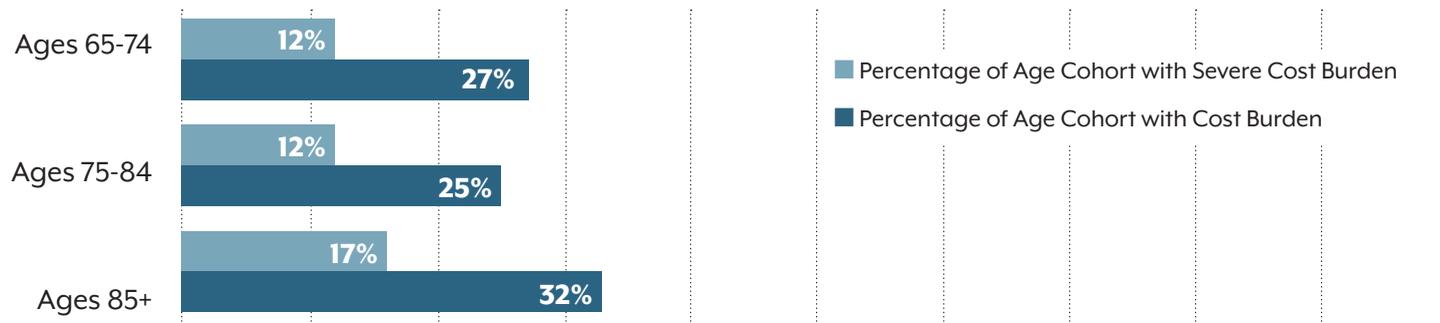
**Map 1. Rate of Housing Cost Burden Among Older Adults by County, 2017**



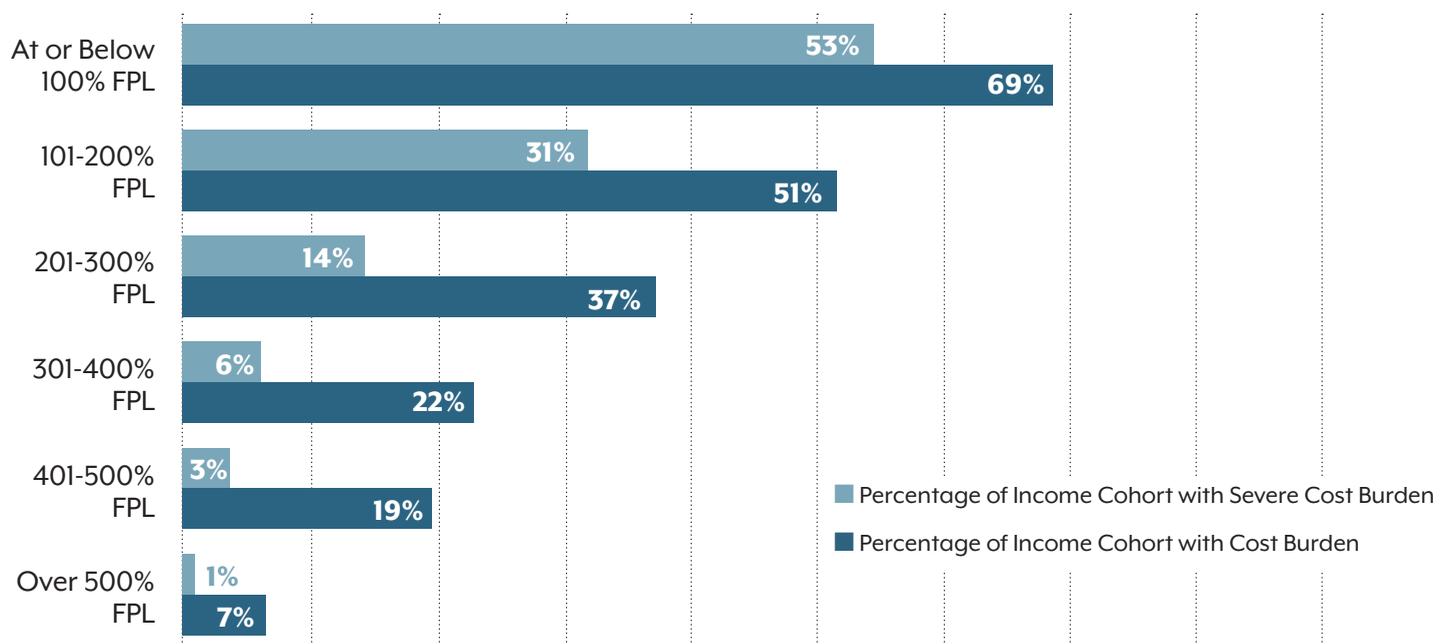
**Map 2. Rate of Severe Housing Cost Burden Among Older Adults by County, 2017**



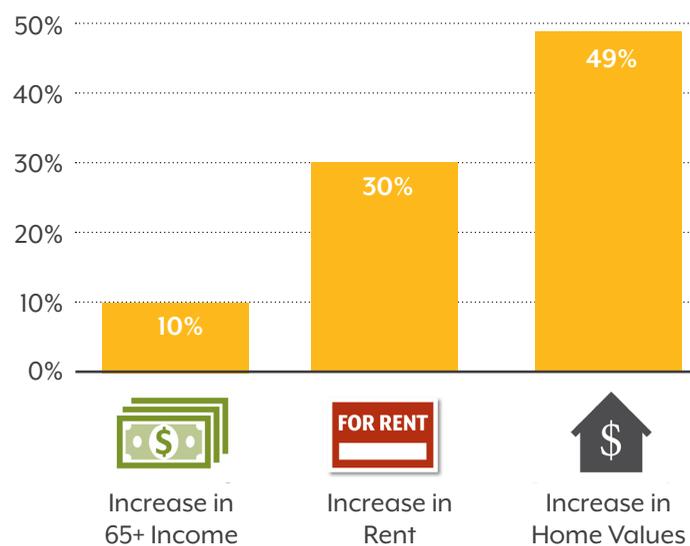
**Figure 4. Housing Cost Burden by Age Cohort.**



**Figure 5. Housing Cost Burden by Income.**



**Figure 6. The Affordability Gap for Older Adults is Growing, 2010-2017.<sup>12</sup>**



## Accessibility

Most older adults want to remain in their communities or homes for as long as possible, but that can be difficult if these spaces are not accessible to people with functional limitations or disabilities.<sup>14</sup> Making homes more accessible for older adults can enable them to age in their communities.

However, in Colorado, as in most places in the United States, there is not only a shortage of affordable housing but of accessible housing.<sup>15</sup>

Accessibility can be evaluated in two ways. First, is the home itself accessible? Can someone with a disability or a functional limitation safely live in the residence? Second, is the community accessible? Is it easy to access goods and services outside the home, and is transportation available when necessary? Since the

**Figure 7. The Two Types of Accessibility.**



### Accessibility of the Home



### Accessibility of the Community

Answers to these questions depend on a person’s unique needs, there is no gold standard for defining homes as “accessible” or “inaccessible.” Still, these questions offer a helpful framework for evaluating gaps in communities looking to serve older adults.

#### Accessible Homes

Homes can be designed to be accessible for people of all ages, but accessibility is particularly important as we age. About one in three older Coloradans has a disability of some kind, and two in three people will develop a disability and need care at some point in their lifetime.<sup>16, 17</sup> Yet today, most homes are not built to accommodate people with disabilities or functional limitations, such as difficulty walking about the house or bathing.

Only one-third of homes in Colorado have an entrance without steps, known as zero-step entry.<sup>18</sup> Less than 1 percent of U.S. homes are more broadly wheelchair accessible.<sup>19</sup> The Americans with Disabilities Act, which regulates accessibility for many buildings, only applies to public entities and public spaces in private buildings.<sup>20</sup> While the Federal Fair Housing Act requires that private residences meet accessibility standards, these regulations apply only to buildings with at least four units. Most residences in Colorado are single-family homes.<sup>21, 22</sup> Homes that meet more rigorous accessibility standards typically do so because the owner has modified the structure, not because meeting these standards is required by law.<sup>23</sup>

**Lafayette, Colorado** is one example of a community where accessibility standards have been formalized. An ordinance requires that 25 percent of all new homes include stepless entry ways, wide interior doorways, and at least a half bathroom on the main level.<sup>24</sup>



This means many homes in Colorado must be modified to make them more accessible. But access to home modification, which includes anything from wheelchair ramps to voice-activated technology, is limited for some older adults. While two in three adults age 52 and older have one or more assistive features in their homes, nearly one in four older adults could benefit from a home modification that they do not yet have.<sup>25</sup> And the older a person gets, the more likely they are to need additional assistance — for example, home modifications are shown to be extremely effective at reducing the risk of falls.<sup>26, 27</sup>

Public programs, including Medicaid, can support home modification efforts. Colorado’s Elderly, Blind, and Disabled waiver will pay for home modifications necessary to ensure Medicaid members’ health and safety. For those who qualify for these services, the benefit is capped at \$10,000 over five years.<sup>29</sup>

But most Coloradans don’t qualify for subsidized

**The CAPABLE Program** offers home modifications alongside an assessment and services provided by a nurse and occupational therapist with the goal of making the home easier to live and move around in. The Colorado Visiting Nurse Association has been piloting this program in metro Denver, and Habitat for Humanity is the organization that provides repairs inside the home.



home modifications.<sup>30</sup> For the majority who must pay out of pocket, costs can vary. About a third spend less than \$100 on modifications, while others face hundreds or thousands of dollars in additional expenses. Much of this variation is due to the type of modification needed. Adding grab bars in a bathroom is relatively affordable, for instance, while installing a wheelchair ramp can be costly.

Data on the demand for home modifications in Colorado is limited, but it likely varies by region. For example, older adults in rural areas may be in greater need of home modifications because rural homes are more likely to be older and in need of updates.<sup>31</sup> In Saguache and Otero counties, for example, the average home was built in the 1960s; on the Front Range, the average home is much newer.<sup>32</sup> The need for more extensive home modifications can burden older residents and their families, posing a major barrier to living and aging safely at home.

### Accessible Communities

For Coloradans of all ages, location is central to the ability to access important amenities such as public transit, green spaces, stores, clinics, and healthy food.

But these built environment factors have a disproportionate impact on the older members of a community. Walkable neighborhoods are correlated with better health, fewer physical limitations, and lower rates of obesity.<sup>33</sup> Older adults living in neighborhoods with community centers, public transit, and accessible public spaces such as sidewalks experience lower rates of cognitive decline than people who live in places that do not have this environment.<sup>34</sup>

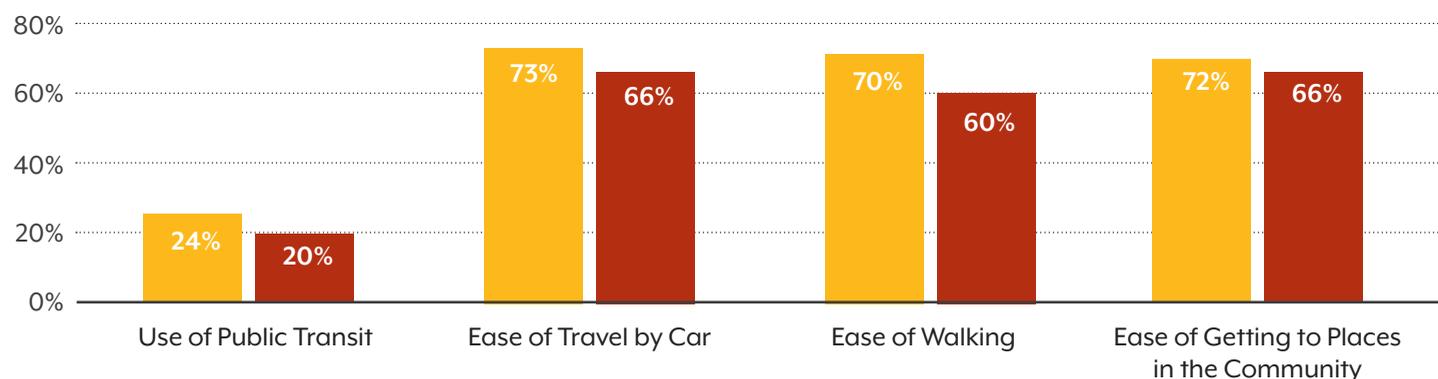


**1 in 3**  
older  
Coloradans  
experienced a  
fall injury in the  
past year.<sup>28</sup>

In Colorado, about 66 percent of older adults say they can get to the places they need to visit in their community, and 20 percent use public transit.<sup>35</sup> But community accessibility has gotten worse in the past decade. In 2018, fewer older adults reported that their communities are navigable by transit, car, and foot than in 2010.<sup>36</sup>

Densely populated communities are often more accessible. For example, just half of Coloradans living in rural areas are within 15 minutes of a hospital, compared with 87 percent of urban residents.<sup>37</sup>

**Figure 8. Accessibility of Colorado Communities Reported by Older Adults.** 2010 2018



**Figure 9. Supportive Services Fall Along a Continuum of Intensity.**



## Supportive Housing Services

Even if affordability and accessibility issues are addressed, some older adults need additional support to remain in their homes and communities as they age. This can come in various forms — a ride to the pharmacy, help with setting up appointments or navigating the long-term care system, or a higher level of clinical support such as intensive case management for mental illness.

These supportive services aim to help older adults remain in the homes and communities they prefer, often delaying more intensive and costly levels of care. While research is limited, one New York study found that Medicare enrollees in an affordable housing development who received supportive services had significantly lower discharge rates, shorter hospital stays, and were less likely to need ambulatory care.<sup>38</sup> A study in Pittsburgh showed similar results. Participants who received supportive services had fewer hospital stays, fewer transfers to nursing facilities, and lower rates of inpatient care and emergency room use.<sup>39</sup>

There is not a single, clear framework underlying the design of programs that provide these services to older adults. But supportive services vary in intensity and cost. Some older adults require permanent supportive housing, while others need indirect support such as transportation to a doctor’s office (see Figure 9).

### *Permanent Supportive Housing*

Permanent supportive housing programs support people facing chronic housing challenges for reasons that go beyond income, such as mental illness, substance use, or chronic health conditions. These programs, which can be publicly or privately funded, provide subsidized housing with no limits on the length of the lease. Residents receive supportive services, though participation is not a condition of tenancy.<sup>40</sup>

In Colorado, communities that are aging quickly and have high levels of homelessness may benefit the most from this model. While older adults are no more likely to participate in permanent supportive housing programs than adults of other ages, national data suggest that these programs will have to prepare for upcoming demographic shifts and adjust to meet the needs of an aging population.<sup>41</sup> For instance, older adults who qualify for permanent supportive housing experience cognitive decline earlier in life and require additional supports to manage daily activities.<sup>42</sup>

### *Service Coordination*

A less intensive approach is service coordination, which helps people connect with resources available in their community.

For example, Metro West Housing Solutions, a housing authority in Lakewood, funds service coordinators at its properties to help residents with doctor appointments and other needs. The Grand Junction Housing Authority also has a service coordinator for older adults in each of its age-restricted subsidized properties. (In one of these properties, Rocky Mountain Health Plans, the Western Slope’s Regional Accountable Entity, funds the position.<sup>43</sup>) Additionally, at Eaton Senior Communities, an affordable independent living development for older adults in metro Denver, a service coordinator and director of wellness facilitates visits from nurses, doctors, and other providers of long-term services and supports. This arrangement brings a higher level of care to an independent living setting. It’s especially useful because affordable assisted living beds are in short supply.<sup>44</sup>

For older adults living in their own homes, housing supports may come in the form of in-home community-based services provided by home health aides or personal care aides.

### Indirect Supports

The least intensive approach is housing that comes along with indirect supports. For example, Colorado's Medicaid program funds care coordination to help members connect with services, which can include housing. However, these coordinators are not trained housing specialists and may not have a deep understanding of local resources.<sup>45</sup> Another example of indirect supports are housing developments that offer weekly transportation assistance to commonly-used

community resources such as grocery stores.

Supportive services of any kind are hard to find in the few subsidized housing programs in Colorado or elsewhere.<sup>46</sup> Older adults who do not live in subsidized housing, meanwhile, may struggle to afford housing and the supportive services that help them remain in their homes.

Efforts to expand supportive services for older adults will be increasingly important as Colorado's population ages and housing shortages emerge in many areas of the state.<sup>47</sup>



The Laurent House, designed by Frank Lloyd Wright. See story on Page 14.

## A Path Forward: Innovations that Allow Older Adults to Age in Their Homes and Communities

Colorado communities can choose among many strategies to address housing affordability, accessibility, and the need for integrated health and social supports.

This report takes a deeper dive on three strategies that address these needs: leveraging multiple financing sources to support development (affordability); expanding universal design (accessibility); and the Support and Services at Home (SASH) program (integrated health and social supports). Each represents one way to address housing challenges. They were selected because of their high potential to impact the lives of older Coloradans.

A full list of strategies can be found in the online, interactive toolkit developed as part of this project (see Appendix A).

### Addressing Affordability: Leveraging Multiple Financing Sources

#### The Theory

It's expensive to build affordable housing, particularly in low-income communities and rural areas, where projects are often too small to attract developers. Expenses include land costs, financial and architectural fees, labor and materials, construction, permits, subsidies and vouchers, and more.<sup>48, 49</sup> Developers and investors often worry that rents for affordable housing will be too low to make up for these costs, and this risk can stop a project before it even begins.<sup>50</sup>

One solution to development costs is to combine multiple financing sources. These can include federal tax credits, loans from other investors, or philanthropic grants. In-kind gifts such as donated land also can help lower costs.



VOLUNTEERS OF AMERICA PHOTO

An artist's rendering of the planned Senior Residences at Three Springs in Durango.

## STRATEGY IN ACTION: Senior Residences at Three Springs

The city of Durango in southwestern Colorado recently struck a financing deal leveraging multiple funding sources to develop the Senior Residences at Three Springs, a 53-unit affordable independent living building. The building, which is set to open in summer 2020, will be two blocks from Mercy Regional Medical Center. It will offer service coordination and have a nurse available to its residents.

The deal's largest financing source is the federal Low-Income Housing Tax Credit program, a 9 percent tax credit for developers and a common source of capital for affordable housing projects. The city of Durango also contributed to the financing pool by selling three acres to the developers for \$10. The land's estimated market value was close to \$1 million. In addition, the city waived development fees worth \$324,000. Other sources of financing include the Colorado Housing and Finance Authority's Healthy Housing Fund, which is a revolving loan fund from the Colorado Health Foundation, and gap funding from the Colorado Division of Housing.

Thanks to support from these many funding sources,

**Table 1 . Incomes of Future Residents of Senior Residences at Three Springs.**<sup>51</sup>

Percentage of Units	Rent Amount	For People Making . . .
15%	\$400	30% area median income
25%	\$548	40% area median income
20%	\$695	50% area median income
40%	\$842	60% area median income

Volunteers of America, which is the property owner, will be able to rent to low-income older adults. And 15 percent of residents will be extremely low-income (see Table 1).

While the Three Springs development is not the only example of a multisource financing plan, it exemplifies a diversity of financing support. In addition, it shows that this approach can be successful in rural communities, where finding financing for development can be especially difficult.

## Beyond the Bottom Line:

### How to Attract Developers

The financing strategy was not the only reason the Three Springs project secured funding. The city of Durango had already completed a market study to lay the groundwork. Volunteers of America (VOA) is a key partner with experience serving low-income older adults, expertise in building affordable housing, and access to capital. VOA staff used connections to a Denver-based developer with experience applying for federal tax credits. The site itself was easy to build on due to existing infrastructure, zoning, the topography, and a city willing to partner with the VOA. Another key point, according to the developer, was that this would be the first affordable housing development for older adults in Durango. It was a needed project that the community welcomed. All of these nonfinancial factors eased the development of this project.

Communities seeking to replicate this model should pursue both local and statewide partnerships to secure funding and join with experienced housing organizations to find developers who can complete the project. Garnering support from local leaders and the community is key to getting projects financed.

## Addressing Accessibility: Expanding Universal Design

### The Theory

As more Coloradans age and develop functional limitations, it becomes increasingly important that homes are designed to meet residents' changing needs. Universal design is one way to make homes more adaptable over a lifetime.

Universal design is an approach to building and retrofitting homes with the goal of improved accessibility for people of all ages and abilities. It is a broad concept intended to promote inclusive living and adaptability, but does not refer to any one specific set of criteria. Examples of universal design features include zero-step entry, sloping curbs for wheelchair or baby stroller accessibility, single-story design, countertops at accessible levels, and the use of contrasting colors to increase visibility.

### STRATEGY IN ACTION:

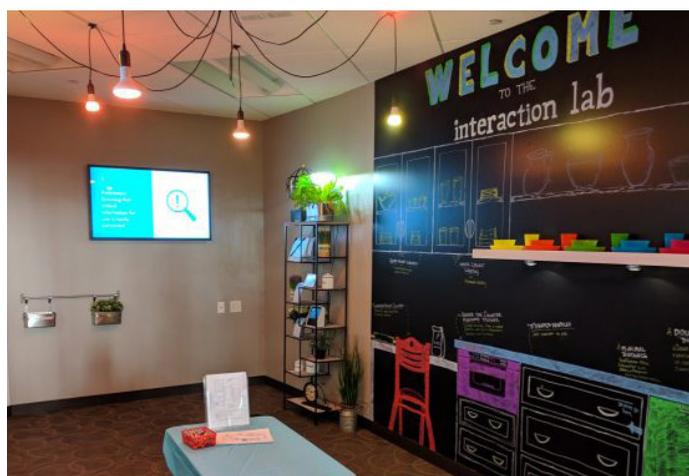
## Lifelong Homes and the Institute for the Built Environment

Lifelong Homes is an initiative in the city of Centennial to incorporate universal design principles into local permitting processes and promote universal design through outreach to adults ages 40 and older who are remodeling their homes. Its goal is to increase the demand for universal design features in homes without introducing new regulations or requirements for builders or homeowners.

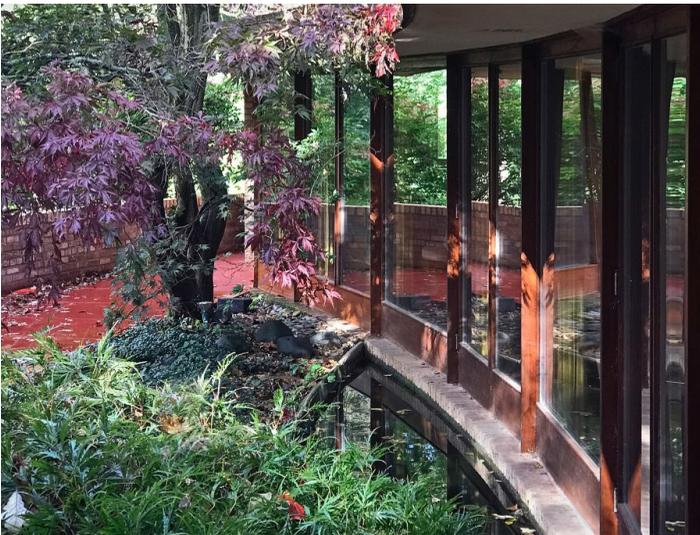
The initiative is being led by the city of Centennial in partnership with the Institute for the Built Environment (IBE) and Arapahoe Libraries. IBE, which is based at Colorado State University, is an expert advisor on age-friendly homes that promotes the voluntary approach of increasing universal design demand.

IBE is creating an age-friendly housing certificate to promote both universal design as well as other age-friendly features such as parking accessibility, accessible sidewalks, and energy efficiency (Figure 10). The concept is similar to LEED certification for energy efficient buildings in that it creates an industry standard for builders and Realtors.<sup>53</sup> This standard gives homebuyers a clearer understanding of what accessibility features they can expect in their future home.<sup>54</sup> IBE intends to pilot the certification in Centennial's Lifelong Homes initiative in 2019.

To generate interest in universal design, Centennial funded a pop-up Interaction Lab that moves to various Arapahoe Libraries locations to demonstrate universal



Centennial's pop-up Interaction Lab highlights features examples of universal design. The lab is set up at branches in the Arapahoe Libraries district. Arapahoe Libraries photo



## The Laurent House<sup>52</sup>

Universal design does not mean style must be compromised. In 1949, legendary architect Frank Lloyd Wright designed a home for Kenneth Laurent, a disabled World War II veteran. The house in Rockford, Illinois, features stunning examples of many universal design features that were decades ahead of the American Disabilities Act accessibility guidelines.

Wright called the house his “little gem,” and considered it one of the most significant buildings of his career.



Clockwise from top left: Zero-step entry, accessible workspaces, and single-story design, are among the features at Frank Lloyd Wright's Laurent House in Rockford, Illinois. Photos by Bill Bishoff/ Creative Commons

design features and point people to resources if they want to learn more. Centennial has begun to build universal design into its permitting process by asking people who apply for a permit to retrofit their home whether they know about universal design concepts and if they've included any in their project.

Centennial's Lifelong Homes initiative is relatively new and primarily focused on outreach, so there is not yet evidence of impact. In fact, there are few studies on the impact of universal design on older adults' health and safety. But this concept has been around for decades, and is often used by planners as a way to reduce stigma and increase independence, functionality, and safety for people with disabilities or other limitations.<sup>59</sup> The idea of universal design certification carries a similar promise for making homes more accessible

### Want to learn more about universal design? Check out these sources.

- City of Centennial's video explaining universal design: <https://bit.ly/2Sk0lsj>
- AARP's home fit guide: <https://bit.ly/2Gj3xFD>
- The Institute for the Built Environment's white paper on lifelong homes: <https://bit.ly/2xTSs9j>
- Seven principles of universal design: <https://bit.ly/1k45SHb>

to older adults. Communities interested in starting a local or regional universal design certification program can contact the IBE to learn more.

**Figure 10. The Certificate for Age-Friendly Housing: Criteria for Evaluation.**<sup>55</sup>



### Walkability and Community

The design of surrounding neighborhood and availability of amenities

- Access to natural spaces
- Accessible sidewalks
- Public transportation
- Socializing and services



### Visitability

The accessible design of residential common spaces and entrances

- Stepless entry
- Generous hall and door width
- Accessible guest restroom
- Parking accessibility



### Universal Design

Livable and adaptable interior spaces

- Inclusive
- Welcoming
- Adaptable
- Flexible



### Safety and Fall Prevention

Thoughtful application of interior finishes and furnishings customized to the homeowner

- Slip resistant flooring
- Accessible bathroom
- Adequate interior lighting
- Clear of clutter



### Affordability and Maintenance

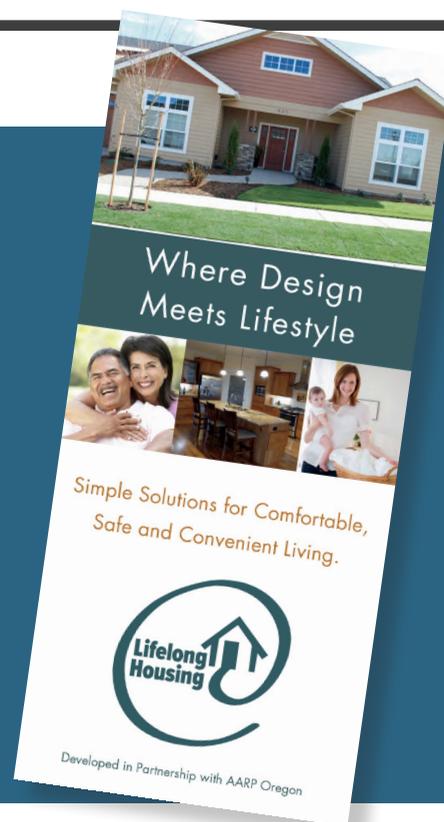
Consideration of first cost and ongoing operating costs

- Energy and efficiency
- Mortgage and rent
- Low maintenance landscaping
- Accessory dwelling units

## Lifelong Housing Certification in Oregon

Oregon is slightly ahead of Colorado when it comes to universal design. By looking at Oregon’s certification program, we can preview what might be next for Centennial and other communities here.

In southern Oregon, AARP Oregon and the Rogue Valley Council of Governments offer a voluntary Lifelong Housing Certification. Homeowners and developers provide accessibility features at three levels: for example, “visitable” is the lowest level of accessibility, with requirements such as a clear passageway from the front door to the parking area and an entry with no more than half an inch threshold.<sup>56</sup> When the homeowner sells the home, a certification of accessibility appears in local listings.<sup>57</sup> The region already has certified 60 homes and a 50-unit apartment building.<sup>58</sup>



## Addressing Housing Supports: Support and Services at Home Program

### The Theory

Older adults who have access to affordable housing in a community setting may benefit from additional supportive services to safely and successfully remain in their homes. This is a way of preventing unnecessary moves to higher levels of care, such as assisted living and nursing facilities.

The Support and Services at Home (SASH) program is one model that has captured the interest of multiple states. It has even drawn the attention of the U.S. Department of Housing and Urban Development (HUD), which is now piloting a similar program called Integrated Wellness in Supportive Housing in 40 subsidized housing sites across the country. SASH combines three components critical to aging in place: affordable housing, services coordination, and linkage to health services. Evaluations of the program thus far point to positive outcomes for older adults.

### STRATEGY IN ACTION:

#### The SASH Program in Vermont

A nonprofit in Burlington, Vermont, developed the SASH model to enable older adults and people with disabilities to continue living safely in their homes with the help of integrated, supportive services. Prior to its development, care for older adults was fragmented, and housing providers were not included in care plans.<sup>60</sup> The SASH program formalized partnerships among providers and made it more seamless for people to get the comprehensive care they need.

Program participants are older adults who live in affordable independent living developments. Most are enrolled in both Medicare and Medicaid, but they have varying levels of functional needs, and only a portion require Medicaid long-term services and supports.<sup>61</sup> Nonprofit housing properties are the sites of service, and participants are organized into panels.<sup>62</sup> Each panel is assigned one full-time SASH care coordinator and a part-time wellness nurse.<sup>63</sup>

The SASH care coordinator develops an individual

healthy living plan tailored to each person's goals.<sup>64</sup> A wellness nurse helps craft the plan through a health assessment, which includes questions about illnesses and health conditions as well as a screening for falls and nutrition issues.<sup>65</sup> Using this plan, the SASH coordinator involves various service providers, such as home health organizations and nutrition organizations, to meet the comprehensive needs of the older adult. SASH staff also help with other health activities such as the management of medication and chronic conditions, care transitions, and the completion of advance directives.<sup>66</sup>

The SASH program has demonstrated positive results in health outcomes and cost savings.

SASH participants have lower rates of falls, lower levels of hypertension, and higher completion of advance directive forms compared with people of a similar age nationally who are not in the program.<sup>67</sup> Interviews also suggest that the program has helped older adults remain in their homes as they develop greater functional limitations.<sup>68</sup> Tenancy supports have helped participants avoid evictions.<sup>69</sup>

There may be cost savings to public programs with this type of integrated model. One evaluation found that an early cohort of SASH participants reduced Medicare spending by \$1,227 per person per year. These savings were attributed mostly to lower hospital and specialty costs.<sup>70</sup> However, those savings did not continue for later cohorts,<sup>71</sup> possibly because SASH staff began making costlier home visits rather than offering only office visits.<sup>72</sup> Early cost analyses also suggest there may be Medicaid savings of \$400 per program participant for institutional care.<sup>73</sup>

SASH has not yet been replicated in other states aside from HUD's efforts, though many states are interested. Vermont funds this program statewide through its unique all-payer Accountable Care Organization (ACO) model, so most of the costs are borne by Medicare. Vermont's ACO model allows both private and public health plans, including Medicaid, to reimburse providers using a value-based capitated rate to promote improved health outcomes. This model also works particularly well with SASH because the care coordination is not duplicated between a managed care-type entity and a local community provider.<sup>74</sup> Instead, the ACO uses the SASH service coordinator to provide that service.<sup>75</sup>



Members of Vermont's SASH Program participate in an exercise class.

SASH PHOTO

The model could hold promise for a “managed fee-for-service” Medicaid program like Colorado’s. Nonprofit developers and housing authorities that serve older adults could be brought on as partners in a pilot program. The Regional Accountable Entity organizations could use a SASH service coordinator as an extension of their work at a regional level. The SASH service coordinator would be onsite and know the local community and program participants’ needs more deeply.

A challenge to implementation will be the “wrong pockets problem,” meaning if Medicaid reimburses for the SASH nurse and service coordinator, the state may not realize cost savings directly because many of the savings will accrue to the federal government through Medicare. The program would also have administrative costs, which may require private funding. Nonetheless, some of these challenges could be worked out through the pilot phase of implementation.

## Conclusion

Housing challenges in Colorado can sometimes seem overwhelming. Issues of affordability, accessibility, and supports can be especially daunting for older adults — and over the past few years, many of these obstacles, such as affordability, only seem to have grown.

But communities from Larimer to Lamar have proven the situation is anything but hopeless. Policymakers, nonprofits, developers, and more have come together to identify innovative ways of addressing these problems, such as new funding strategies, educational campaigns, and forms of service delivery. CHI is grateful to the NextFifty Initiative for providing the opportunity to highlight some of this promising work, here and in the online toolkit. Helping Colorado’s communities exchange insights and ideas will be key to promoting housing solutions for older adults.

## Appendix A: The Toolkit

CHI developed a housing toolkit that accompanies this report and features data and information about housing in every Colorado county, as well as a list of housing strategies to address issues of affordability, accessibility, and housing and health supports.

Communities can utilize this toolkit to understand their housing challenges and how older adults may be affected by those challenges. The strategies provide a starting place for action, including organizations to contact to learn more.

To access the full housing toolkit, visit: [www.coloradohealthinstitute.org/housing-toolkit](http://www.coloradohealthinstitute.org/housing-toolkit)

## Endnotes

- <sup>1</sup> Genworth. Cost of Care Survey 2018. Denver Area Metro region. Available at: <https://www.genworth.com/aging-and-you/finances/cost-of-care.html>
- <sup>2</sup> NextFifty Initiative. “About Us.” NextFifty Initiative Website. Available at: <https://www.next50initiative.org/about-next-50-initiative>
- <sup>3</sup> AARP. “Baby Boomer Facts and Figures.” AARP Livable Communities. Available at: <https://www.aarp.org/livable-communities/info-2014/livable-communities-facts-and-figures.html>
- <sup>4</sup> Colorado Department of Local Affairs State Demography Office. Data Page. Available at: <https://demography.dola.colorado.gov/data/>
- <sup>5</sup> US Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>6</sup> Joint Center for Housing Studies, Harvard University. (2018). “Housing America’s Older Adults: A Supplement to the State of the Nation’s Housing Report.” Available at: [https://www.jchs.harvard.edu/sites/default/files/Harvard\\_JCHS\\_Housing\\_Americas\\_Older\\_Adults\\_2018\\_1.pdf](https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Housing_Americas_Older_Adults_2018_1.pdf)
- <sup>7</sup> Colorado Health Institute. (2018). “State Costs and Revenue Related to Long-Term Care for Older Coloradans.” Report for the Strategic Action Planning Group on Aging. Available at: <https://www.colorado.gov/pacific/sites/default/files/SAPGA%20Long%20Term%20Care%20Cost%20Study.pdf>
- <sup>8</sup> Colorado Department of Public Health and Environment. (2018). Community Assessment Surveys for Older Adults (CASOA). Available at: <https://www.colorado.gov/pacific/cdphe/casoa>
- <sup>9</sup> U.S. Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>10</sup> U.S. Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>11</sup> U.S. Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>12</sup> U.S. Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>; Zillow custom data pull.
- <sup>13</sup> CHI calculation based on 2007-2017 compound annual growth rate
- <sup>14</sup> AARP. (2018). “2018 Home and Community Preferences Survey: A National Survey of Adults Age 18-Plus CHARTBOOK.” Available at: [https://www.aarp.org/content/dam/aarp/research/surveys\\_statistics/liv-com/2018/home-community-preferences-chartbook.doi.10.26419-2Fres.00231.002.pdf](https://www.aarp.org/content/dam/aarp/research/surveys_statistics/liv-com/2018/home-community-preferences-chartbook.doi.10.26419-2Fres.00231.002.pdf)
- <sup>15</sup> Bo’sher, L., Chan, S. et al. (2015). “Accessibility of America’s Housing Stock: Analysis of the 2011 American Housing Survey (AHS).” U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Available at: <https://www.huduser.gov/portal/sites/default/files/pdf/accessibility-america-housingStock.pdf>
- <sup>16</sup> U.S. Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>17</sup> Colorado Office of Community Access & Independence, Division on Aging & Adult Services. (2015). “Colorado State Plan on Aging October 1, 2015 – September 30, 2019.” Available at: [https://drive.google.com/file/d/1DMFM4R1qRyriovUQARp9O\\_nVHq9LQ1g8/view](https://drive.google.com/file/d/1DMFM4R1qRyriovUQARp9O_nVHq9LQ1g8/view)
- <sup>18</sup> U.S. Census Bureau. 2015 American Housing Survey Available at: <https://www.census.gov/programs-surveys/ahs.html>
- <sup>19</sup> Bo’sher, L., Chan, S. et al. (2015). “Accessibility of America’s Housing Stock: Analysis of the 2011 American Housing Survey (AHS).” U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Available at: <https://www.huduser.gov/portal/sites/default/files/pdf/accessibility-america-housingStock.pdf>
- <sup>20</sup> Bo’sher, L., Chan, S. et al. (2015). “Accessibility of America’s Housing Stock: Analysis of the 2011 American Housing Survey (AHS).” U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Available at: <https://www.huduser.gov/portal/sites/default/files/pdf/accessibility-america-housingStock.pdf>

- <sup>21</sup> US Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>22</sup> Bo'sher, L., Chan, S. et al. (2015). "Accessibility of America's Housing Stock: Analysis of the 2011 American Housing Survey (AHS)." U.S. Department of Housing and Urban Development, Office of Policy Development and Research. Available at: <https://www.huduser.gov/portal/sites/default/files/pdf/accessibility-america-housingStock.pdf>
- <sup>23</sup> Guzman, S., Viveiros, J., et al. (2017). "Expanding Implementation of Universal Design and Visitability." AARP: Insight on the Issues. Available at: <https://www.aarp.org/content/dam/aarp/ppi/2017/06/expanding-implementation-of-universal-design-and-visitability-features-in-the-housing-stock.pdf>
- <sup>24</sup> Benford, R., Barr, St. et al. (2019). "Colorado Lifelong Homes: A Review of Barriers & Solutions for Aging in Place." Colorado State University, Institute for Built Environment. Available at: [https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper\\_2019\\_FINAL.pdf](https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper_2019_FINAL.pdf)
- <sup>25</sup> Freedman, V. and Agree, M. (2008). "Home Modifications: Use, Cost, and Interactions with Functioning Among Near-Elderly and Older Adults." US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/home-modifications-use-cost-and-interactions-functioning-among-near-elderly-and-older-adults>
- <sup>26</sup> Freedman, V. and Agree, M. (2008). "Home Modifications: Use, Cost, and Interactions with Functioning Among Near-Elderly and Older Adults." US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/home-modifications-use-cost-and-interactions-functioning-among-near-elderly-and-older-adults>
- <sup>27</sup> Pynoos, J., Steinman, B. et al. (2010). "Environmental Assessment and Modification as Fall-Prevention Strategies for Older Adults." Clinics in Geriatric Medicine 26(4). Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6036911/>
- <sup>28</sup> Colorado Department of Public Health and Environment. (2017). Behavioral Risk Factor Surveillance System. Available at: <https://www.colorado.gov/pacific/cdphe/behaviorsurvey>
- <sup>29</sup> Colorado Department of Health Care Policy & Financing. Long-Term Services & Supports: Benefits & Services Glossary. "Home Modification." Available at: <https://www.colorado.gov/pacific/hcpf/long-term-services-supports-benefits-services-glossary#Home%20%20Modification>
- <sup>30</sup> Freedman, V. and Agree, M. (2008). "Home Modifications: Use, Cost, and Interactions with Functioning Among Near-Elderly and Older Adults." Us Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/home-modifications-use-cost-and-interactions-functioning-among-near-elderly-and-older-adults>
- <sup>31</sup> Scally, C., Gilbert, B., et al. (2018). "Rental Housing for a 21st Century Rural America: A Platform for Production." Urban Institute and Housing Assistance Council. Metropolitan Housing and Communities Policy Center Research Report. Available at: [https://www.urban.org/sites/default/files/publication/99045/rental\\_housing\\_for\\_a\\_21st\\_century\\_rural\\_america.pdf](https://www.urban.org/sites/default/files/publication/99045/rental_housing_for_a_21st_century_rural_america.pdf)
- <sup>32</sup> US Census Bureau. 2017 American Community Survey 1-Year Data File from IPUMS. Available at: <https://usa.ipums.org/usa/>
- <sup>33</sup> Population Reference Bureau. (2017). "How Neighborhoods Affect the Health and Well-Being of Older Americans." Today's Research on Aging No. 35. Available at: <https://www.prb.org/wp-content/uploads/2017/02/TRA-35.pdf>
- <sup>34</sup> Clarke, P. et al. (2015). "Cognitive Decline and the Neighborhood Environment. Annals of Epidemiology 25(11). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/26253697>
- <sup>35</sup> Colorado Department of Public Health and Environment. (2018). Community Assessment Surveys for Older Adults (CASOA). Available at: <https://www.colorado.gov/pacific/cdphe/casoa>
- <sup>36</sup> Colorado Department of Public Health and Environment. (2018). Community Assessment Surveys for Older Adults (CASOA). Available at: <https://www.colorado.gov/pacific/cdphe/casoa>
- <sup>37</sup> Colorado Health Institute analysis based on geocoded hospital locations.
- <sup>38</sup> Gusmano, M., Rodwin, V., et al. (2018). "Medicare Beneficiaries Living in Housing with Supportive Services Experienced Lower Hospital Use than Others." Health Affairs 37(10). Available at: <https://www.healthaffairs.org/doi/abs/10.1377/hlthaff.2018.0070>

- <sup>39</sup> Castle, N. and Resnick, N. (2016). “Service-Enriched Housing: The Staying at Home Program.” *Journal of Applied Gerontology* 35(8). Available at: <https://www.ncbi.nlm.nih.gov/pubmed/25012185>
- <sup>40</sup> CSH: The Source for Housing Solutions. (2013). “Dimensions of Quality Supportive Housing.” Available at: [https://www.csh.org/wp-content/uploads/2013/07/CSH\\_Dimensions\\_of\\_Quality\\_Supportive\\_Housing\\_guidebook.pdf](https://www.csh.org/wp-content/uploads/2013/07/CSH_Dimensions_of_Quality_Supportive_Housing_guidebook.pdf)
- <sup>41</sup> CSH: The Source for Housing Solutions. (2016). “Healthy Aging in Supportive Housing: Toolkit for service providers, developers & property managers.” Available at <https://dl155kunxflaozz.cloudfront.net/wp-content/uploads/2016/09/Healthy-Aging-Toolkit.pdf>
- <sup>42</sup> CSH: The Source for Housing Solutions. (2016). “Healthy Aging in Supportive Housing: Toolkit for service providers, developers & property managers.” Available at <https://dl155kunxflaozz.cloudfront.net/wp-content/uploads/2016/09/Healthy-Aging-Toolkit.pdf>
- <sup>43</sup> Colorado Health Institute key informant interview with Scott Aker
- <sup>44</sup> The Highland Group. (2016). “Housing and Care Facility Needs Forecast, Gaps, and Opportunities: State of Colorado and Five Sub-Areas.” Prepared for the Strategic Action Planning Group on Aging. Available at: <https://www.colorado.gov/pacific/sites/default/files/SAPGA%20Housing%20Report%20Highland%20Group%20FINAL%20BINDER%20August%2022%202016.pdf>
- <sup>45</sup> Colorado Health Institute key informant interview with Tim Cortez
- <sup>46</sup> Standers, A. and Stone, R. “Facilitating the Reform of Health Care and Long-Term Services and Supports Systems: Interviews with State Policymakers About the Potential Role of Affordable Senior Housing Plus Services Strategies.” *Leading Age Policy Brief*. Available at: [http://www.ltsscenter.org/resource-library/Housing\\_Services\\_Policy\\_Brief.pdf](http://www.ltsscenter.org/resource-library/Housing_Services_Policy_Brief.pdf)
- <sup>47</sup> The Highland Group. (2016). “Housing and Care Facility Needs Forecast, Gaps, and Opportunities: State of Colorado and Five Sub-Areas.” Prepared for the Strategic Action Planning Group on Aging. Available at: <https://www.colorado.gov/pacific/sites/default/files/SAPGA%20Housing%20Report%20Highland%20Group%20FINAL%20BINDER%20August%2022%202016.pdf>
- <sup>48</sup> UC Berkeley, Turner Center for Housing Innovation. “The Cost of Building Housing.” *Turner Center Research Series*. Available at: <https://turnercenter.berkeley.edu/construction-costs-series>
- <sup>49</sup> Shift Research Lab and Resnick, Ph. (2018). “Exploring Colorado’s Housing Affordability Challenges in All of Their Complexity”. Available at: <https://www.urbanlandc.org/news/studies/shift-research-lab-2018-report-exploring-colorados-housing-affordability-challenges-complexity/>
- <sup>50</sup> Urban Institute. “The cost of affordable housing: Does it pencil out?” Available at: <https://apps.urban.org/features/cost-of-affordable-housing/>
- <sup>51</sup> Volunteers of America. “Senior Residences at Three Springs – Durango, CO.” Note that rent amounts are the price of one-bedroom units. There are 53 units total. Each income category is discrete, meaning 40 percent area median income does not include people those earning less than 31 percent area median income.
- <sup>52</sup> The Laurent House Foundation, Inc. (2017). Available at: [www.laurenthouse.com](http://www.laurenthouse.com)
- <sup>53</sup> Benford, R., Barr, St. et al. (2019). “Colorado Lifelong Homes: A Review of Barriers & Solutions for Aging in Place.” Colorado State University, Institute for Built Environment. Available at: [https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper\\_2019\\_FINAL.pdf](https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper_2019_FINAL.pdf)
- <sup>54</sup> Benford, R., Barr, St. et al. (2019). “Colorado Lifelong Homes: A Review of Barriers & Solutions for Aging in Place.” Colorado State University, Institute for Built Environment. Available at: [https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper\\_2019\\_FINAL.pdf](https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper_2019_FINAL.pdf)
- <sup>55</sup> Benford, R., Barr, St. et al. (2019). “Colorado Lifelong Homes: A Review of Barriers & Solutions for Aging in Place.” Colorado State University, Institute for Built Environment. Available at: [https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper\\_2019\\_FINAL.pdf](https://ibe.colostate.edu/wp-content/uploads/sites/5/2019/04/LifeLongHomeWhitepaper_2019_FINAL.pdf)
- <sup>56</sup> Rogue Valley Council of Governments Lifelong Housing Certification program. “Lifelong Housing Certification Checklist.” Available at: <http://lifelonghousing.org/wp-content/uploads/2015/04/LLH-Checklist-Final.pdf>
- <sup>57</sup> Lifelong Housing. “Realtors.” Available at: <http://lifelonghousing.org/realtors/>
- <sup>58</sup> Colorado Health Institute email exchange with state of Oregon

- <sup>59</sup> Guzman, S., Viveiros, J., et al. (2017). “Expanding Implementation of Universal Design and Visitability.” AARP: Insight on the Issues. Available at: <https://www.aarp.org/content/dam/aarp/ppi/2017/06/expanding-implementation-of-universal-design-and-visitability-features-in-the-housing-stock.pdf>
- <sup>60</sup> Center for Consumer Engagement in Health Innovation. (2018). “ Care That Works: Support and Services at Home (SASH).” Available at: [https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH\\_Final.pdf](https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH_Final.pdf)
- <sup>61</sup> Colorado Health Institute key informant interview with LeadingAge
- <sup>62</sup> Stone, R. and Sanders, A. (2019). “Affordable Housing as a Platform for Wellness and Service Coordination.” Leading Age LTSS Center at UMass Boston. Slides from 2019 LeadingAge Leadership Summit.
- <sup>63</sup> Stone, R. and Sanders, A. (2019). “Affordable Housing as a Platform for Wellness and Service Coordination.” Leading Age LTSS Center at UMass Boston. Slides from 2019 LeadingAge Leadership Summit.
- <sup>64</sup> Center for Consumer Engagement in Health Innovation. (2018). “ Care That Works: Support and Services at Home (SASH).” Available at: [https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH\\_Final.pdf](https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH_Final.pdf)
- <sup>65</sup> Center for Consumer Engagement in Health Innovation. (2018). “ Care That Works: Support and Services at Home (SASH).” Available at: [https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH\\_Final.pdf](https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH_Final.pdf)
- <sup>66</sup> Center for Consumer Engagement in Health Innovation. (2018). “ Care That Works: Support and Services at Home (SASH).” Available at: [https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH\\_Final.pdf](https://www.healthinnovation.org/resources/publications/Care-That-Works-SASH_Final.pdf)
- <sup>67</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>68</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>69</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>70</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>71</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>72</sup> Kandilov, A., Keyes, V., et al. (2017). “Support and Services at Home (SASH) evaluation: Highlights from the First Four Years Research Summary.” US Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Available at: <https://aspe.hhs.gov/basic-report/support-and-services-home-sash-evaluation-highlights-first-four-years-research-summary>
- <sup>73</sup> Stone, R. and Sanders, A. (2019). “Affordable Housing as a Platform for Wellness and Service Coordination.” Leading Age LTSS Center at UMass Boston. Slides from 2019 LeadingAge Leadership Summit.
- <sup>74</sup> Hostetter, M., Klein, S., et al. (2018). “Vermont’s Bold Experiment in Community-Driven Health Care Reform.” The Commonwealth Fund. Available at: <https://www.commonwealthfund.org/publications/case-study/2018/may/vermonts-bold-experiment-community-driven-health-care-reform>
- <sup>75</sup> Colorado Health Institute key informant interview with SASH





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