



# Metropolitan Center for Applied Research & Extension

WASHINGTON STATE UNIVERSITY  
EXTENSION

## Moving Toward Age-Friendly Housing in King County

January, 2018

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*About the Metro Center*

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The Metro Center connects decision makers with the expertise of Washington State University to produce practical solutions to the challenges of growth. Using a client-centered and project-based approach, we help Washington's metropolitan communities respond to emerging needs and build capacity to create vibrant economies, healthy neighborhoods and sustainable environments for the future.

# MOVING TOWARD AGE FRIENDLY HOUSING IN KING COUNTY

*January, 2018*  
*Final Report*

**Prepared By:**



Metropolitan Center for  
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WASHINGTON STATE UNIVERSITY  
EXTENSION

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*Aging and Disability Services*  
Area Agency on Aging for Seattle and King County



City of Seattle



King County

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## **Executive Summary**

It is well-known that the population of the United States is aging; the percentage of people over age 65 is projected to increase considerably. In King County, the population is both aging, and becoming more diverse, while the cost of housing continues to increase. This growing demographic shift presents unique concerns, particularly in terms of creating and ensuring safe, affordable, and accessible housing for a growing aging population in King County. This assessment is instrumental for understanding how to meet the current – and future – housing needs of older adults in King County.

Washington State University's Metropolitan Center for Applied Research and Extension (Metro Center) was contracted by the City of Seattle Human Services Department, Aging and Disability Services Division (ADS) to conduct an assessment of current and projected needs for senior housing and housing-based support services, and to provide recommendations for affordable senior housing strategies. In order to conduct this assessment, the Metro Center utilized various strategies: 1) secondary data analysis of federal, state, and local data sources to assess several factors, including current housing stock, diversity of the older adult population within King County, and housing cost burden for households with older adults; and 2) literature review and case study analysis to examine historically under-served and vulnerable older adult populations as well as identify current best practices and policy approaches to support aging in place and age-friendly initiatives. Based on these approaches, the research team identified several recommended strategies for enhancing the ability of King County to meet current and future housing needs of older adults. A sample of key findings and recommendations from these multiple analyses are detailed below.

## **Key Findings**

*Older adult-led households are increasing:*

- Adults aged 55 years and older represent approximately 30% of total current households in King County. This percentage is projected to increase to approximately 47% households in 2030, and 62% in 2050.
- If trends continue, the number of older adult-households may outpace the supply of accessible and affordable housing in King County.

*Housing is unaffordable for many older King County households:*

- A higher percentage of households with older adults live in unaffordable housing (more than 30% of total income spent on housing costs) compared to households without older adults.
- Households with older adults who rent their home are more likely to have unaffordable housing: over half these households live in unaffordable housing (more than 30% of income spent on housing costs).
- East Urban King County has the highest percentage of households with older adults who rent living in unaffordable housing.
- Approximately 40% of senior households with a mortgage live in unaffordable housing, and this is consistent across different regions of King County.
- Households with older adults who own their homes without a mortgage are less burdened by housing costs, but higher percentages of these households live in unaffordable housing compared to households without older adults.

*Low-income older adults are unable to afford housing in King County:*

- A higher percentage of households with older adults have low to extremely low income as compared to other households.
- A quarter of households with older adults are unable to afford the average rent for a one-bedroom apartment in King County without assistance.
- In East Urban King County, over a third of households with older adults could not afford the gross median rent without assistance.

*King County is becoming more diverse as the size of many historically under-served populations is increasing:*

- A growing number of individuals in King County are Persons of Color and foreign-born.
- King County will see an increase in the percentage of the population that has a disability, and a higher percentage of Persons of Color have at least one disability.
- Seattle has one of the largest populations of individuals who identify as LGBTQ+<sup>1</sup> in the nation, and housing options that are both age-friendly and LGBTQ+-friendly are limited to date.

## **Key Recommendations**

*Increase supply of affordable housing that meets the needs of a diverse, aging population:*

- Households with older adults are more likely to live in unaffordable housing and increased subsidies to make housing more affordable for older adults, particularly those who are low-income (e.g., 0 to 30% of AMI), are needed.
- Projections indicate that household growth may outpace the supply of units straining current housing supply. Land use policies should be updated to increase supply of smaller single-family infill housing (e.g., accessory dwelling units), and the development of “missing middle” housing (e.g., cottage clusters) should be allowed to increase supply.
- Increase the supply of affordable housing that is welcoming of diverse older adult populations, especially LGBTQ+ older adults, by encouraging the funding and development of alternative housing developments that are LGBTQ+-friendly, intergenerational, or multigenerational.
- Provide support for innovative housing and community programs that offer supports and services within affordable housing and provide affordable intergenerational living opportunities.

*Create accessible housing that meets the needs of a diverse aging population:*

- Without modification, many homes lack features that make them accessible for older adults, especially those with disabilities. The building of accessible housing should be incentivized, particularly housing that exceeds ADA requirements.
- Financial assistance for home modification is especially important since very few housing units in King County are accessible. Home modification assistance will help support aging in place.
- Locate new senior housing in areas with existing services to help older adults meet their daily needs, engage with the community, and reduce transportation costs for essential services.
- Explore the best use of emerging technologies in home and community settings from telemedicine to time banking.

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<sup>1</sup> LGBTQ stands for the following communities: Lesbian, Gay, Bisexual, Transgender, and Queer or Questioning; LGBTQ+ also represents the following communities: Transsexual, Two-spirited, Intersex, Asexual, Ally, Pansexual, Agender, Gender Queer, Bigender, Gender Variant, and Pangender. Retrieved from: <http://ok2bme.ca/resources/kids-teens/what-does-lgbtq-mean/>.

- Increase funding for delivery of home and community-based services, which provides older adults with the ability to age in place and stay in their residence of choice much longer. Explore support for the local village movement to see how service delivery may be improved.

Meeting the needs of a growing aging population will require a combination of strategies designed to increase affordable housing, especially for low-income older adults, accessibility that addresses the needs of older adults with and without disabilities, and social connectedness that will better allow all older adults, including vulnerable populations, to better age in place. To aid the development of a comprehensive strategy for promoting aging in place and age-friendly housing, we provide the following analyses that examine the demographics of the current older adult population, project the growth of the aging population, and assess the unique needs of older adults in King County.

# Moving Toward Age-friendly Housing in King County

Over the next 25 years, increasing longevity, declining fertility, improvements in medical technology and other factors will combine to double the population of Americans over age 65 (1). From a policy standpoint, it is also crucial to acknowledge that this demographic change represents a permanent shift toward an aging society; as such, planning should address concerns for the current Boomer population of older adults and for future generations. Many older adults indicate a preference for aging in their homes and communities (i.e., “aging in place”), thereby creating a need for new housing, and retrofits to the current stock, that are more affordable, accessible, safer, lower-maintenance, socially-connected, and well-located within existing communities (2).

To adapt to King County’s diverse aging population, policymakers will need to make informed and proactive decisions attuned to the housing needs of vulnerable groups, such as older adults who are homeless, people of color, Veterans, and those with varying sexual orientations and identities.

Before exploring existing conditions in King County, it is important to first describe several concepts pertaining to age-friendly housing, and to provide a theoretical framework that helps explain how individuals interact with environments (e.g., personal, physical, social).

## Age-friendly Housing: Shaping a Proactive, Local Policy Approach

Age-friendly policy strategies support aging communities by improving physical, social, and service environments through local engagement and action. Investment in age-friendly policies not only benefits the current population of older adults, but also future cohorts who are predicted to experience significantly longer lives. Since 2016, Seattle has been a member of the Global Network for Age-friendly Cities and Communities. Coordinated by the American Association of Retired Persons (AARP) in the U.S., the network focuses on age-friendly housing emphasizing inclusiveness (regardless of age or ability), social connectivity, accessibility, and equitable access to housing options, which includes providing housing that is affordable to a range of income levels.

### What is “Age-friendly” Housing?

- ▲ *Housing that works for people of all ages and abilities (e.g., visit-able, universally designed).*
- ▲ *Housing that supports social well-being (e.g., reduces isolation, supports community activity).*
- ▲ *Housing with access to appropriate supportive services that facilitates aging in community.*
- ▲ *Equitable access to housing options across the spectra of income, age, ability, race, gender, identity, geography, or service history.*

## Aging in Place

While the term *aging in place* is fluid, it is becoming more common in the fields of planning, social work, housing, and other areas (3). Aging in place is commonly defined as the ability to live in one’s own home

and community safely, independently, and comfortably, regardless of age, income, or ability (4). The distinction between aging in one's *home* or in one's *community* is important. Older adults may not age well in inaccessible or unaffordable *homes*; however, they may benefit from aging in a *community* where social networks are in place, they are familiar with services, and they have perceived levels of comfort and safety.

### **Theoretical Framework: Age-friendly Housing and Aging in Place**

From a gerontological perspective, initial efforts to conceptualize and define concepts such as “age-friendly housing” or “aging in place” focused primarily on understanding older adults in terms of their physical/health changes and fluctuations in their surrounding environments. For example, Lawton and Nahemow (5) examined the dynamic interactions between housing environments and the physical capabilities of older people -- a concept they described as *environmental press*. According to their well-established framework, in optimal settings, characteristics of the environment should function to accommodate losses or changes in physical function. In other words, individuals balance the demands (environmental press) in their lives (e.g., many stairs up to residence versus ramp) with their level of personal competence (e.g., decreased stamina or mobility) and the resources available to them. This model is useful for understanding aging in place interventions because it describes a scaffolding process, where modification of one's environment can increase personal adaptation, especially as personal competence may change with age.

Since this earlier, seminal work, researchers have identified other important contributors essential to one's ability to remain in his or her home with age. For example, in addition to focusing on the physical environment to support optimal age-friendly housing, it is also crucial to consider other components of healthy environments, as well as other psychosocial changes that occur with aging. The term “environment”, however, is broad and open for interpretation. Lawton observed the absence of a truly functional taxonomy of environments, and aimed to define several aspects of the environment which included: the personal environment (e.g., significant persons in the life of a subject); the group environment (e.g., relationships of an individual to groups, such as pressure and norms, but the absence of a wider social context); the suprapersonal environment (e.g., characteristics of the aggregate of individuals in proximity to an individual, such as average age, income, and/or race); the social environment (e.g., social and political movements, economic cycles, traditions and values); and the physical environment (e.g., the natural or built environment) (6).

In line with this taxonomy of environments, we believe that age-friendly housing should center on four key areas: 1) equity and options for a diverse, older population; 2) physical environments; 3) social environments; and 4) service environments. We describe each of these components and provide complementary policy recommendations in Section III of this report.

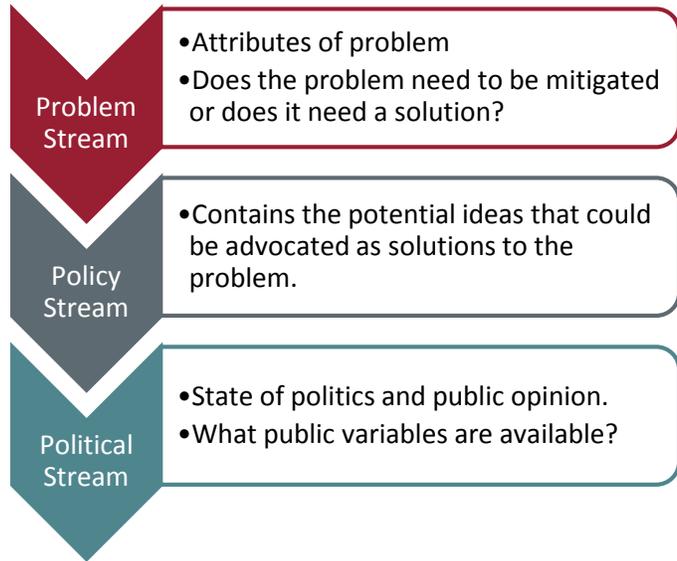
### **Agenda Setting for this Report**

Myriad issues compete for the attention of policymakers. Kingdon (7) offered a useful and relevant theory for understanding how age-friendly housing can be furthered through policymaking processes.

He proposed that a policy, or policies, can be adopted or changed when a “window” of opportunity opens that permits participants to connect at least two “streams” associated with the policy process: (a) *problem streams* (i.e., defining and placing an issue on the agenda), (b) *policy streams* (i.e., knowledge and solutions that can be considered by decision makers), and (c) *political streams* (i.e., political climate and the will to place the issue on the agenda) (7).

The window of opportunity for preparing for an aging King County is shrinking - especially with respect to affordable and accessible housing. In Portland, Oregon, researchers have navigated age-friendly housing using an agenda setting approach that has led to local policy changes attuned to population aging (8). Local municipalities such as King County should approach the demographic imperative driven by population aging as a policy window that, if advanced properly, can proactively address housing’s age friendliness so that it: (a) provides equitable access to housing options for a diverse older population, (b) addresses physical accessibility, (c) supports social well-being, and (d) provides access to a range of services that facilitate aging in place or community.

The *problem stream* – the need for an increased supply of age-friendly housing in King County – has been established and is further elucidated in the following section: Existing Conditions & Background. The overall aim of this report is to address the *policy stream* and provide recommendations to consider, propose, and advance, for those involved in local policy and *political streams*.



## Existing Conditions & Background

As we noted in the introduction, we live in an aging society. The steady, sustained increase in the number of older adults in King County poses many challenges for policymakers both because of the speed at which it is occurring, and the diversity of the population. While aging is a universal experience, people can age differently, and at different rates, as they accumulate a lifetime of unique life events. For example, as older adults increasingly live alone, loneliness and social isolation become significant public health threats; a lack of social connectivity is a risk factor for mortality, similar in magnitude to other well-known risk factors such as smoking and obesity (9). Thus, it will be necessary for policy makers to address both the physical and psychosocial needs of older adults before the financial and social costs of waiting become overwhelming. In this section we provide the data and evidence that further establishes the urgency to mindfully plan and implement age-friendly policies at the local level.

## Population Aging Globally & Nationally

Approximately 617 million (8.5%) people worldwide are currently aged 65 and over. That number is projected to increase to nearly 1.6 billion (17%) by 2050 (10). The rising number and proportion of older adults will affect many aspects of society, presenting challenges to policymakers, service providers, families, housing providers, and others (11). Within two decades, older adults will represent one in five people in the U.S., and households led by older adults will rise to one in three. These statistics indicate that we have a brief, but urgent, window to plan for appropriate housing options to meet the changes that accompany population aging. Additionally, from 2015 to 2035 it is predicted that (2):

- 1) Approximately one in seven people will be age 65 and older and one in four heads of household will be over the age of 65.
- 2) The U.S. will witness increases in both older married households and older single-person households; and older single-person households will grow more quickly, have lower incomes, higher rates of disabilities, and may need to seek supports and care from outside the home.
- 3) Households with individuals aged 80 and older will more than double from 7.8 to 16.2 million by 2035, with the fastest growth occurring between 2025 and 2035.

Population aging, and increased life expectancy has also affected our understanding of the lifespan and what constitutes an “older adult”. Gerontologists generally consider people *young old* (aged 65 to 74 years), *old old* (aged 75-84 years) and *oldest old* (aged 85 years and older). Other aging experts and demographers may also consider individuals aged 55-60 years as older adults. These age-based categories simply convey the amount of variability in how people age, and that the needs of a 65-year old may differ drastically from a 90-year old. For the purpose of this report, we generally consider adults aged 60-65 and older as “older adults”, however it will be important to keep in mind that the aging experience can vary significantly by individual and that data sets may be aggregated and/or disaggregated by age in different ways.

The composition of the aging demographic in the U.S. is the most diverse that is has ever been in terms of age, race, culture, identity, disability, and socioeconomic standing. By 2030, close to 29% of the older population will be persons of color (12). Approximately 15% of adults 60 and older are foreign-born (13) and the needs of late-life immigrants are often under-researched and poorly understood. Currently, 2.7 million adults aged 50 years and older self-identify as lesbian, gay, bisexual, transgender, or queer (LGBTQ+) and this number is expected to double by 2060 (14). In recent years, economic conditions in the U.S. have caused older Americans to experience significant increases in financial inequality, with

financially secure older adults faring much better than their lower income counterparts. Currently, people age 50 and older comprise more than 30% of the nation’s homeless population (15). The diversity of experiences among older adults means that a “one size fits all” approach to housing may not adequately meet the needs of oppressed groups.

## Population Aging in Washington State and King County

### Methods

To examine population aging in King County, we utilized several data sources, primarily the American Community Survey (ACS), to examine county trends. Where applicable, we also examined regional differences within King County using Public Use Microdata Areas (PUMAs) to create four regions within King County: East Urban, South, East Rural and Seattle (Figure 1). The ACS uses weighting to estimate characteristics of the population as a whole based on a sample of persons within each PUMA. Therefore, population estimates based on the ACS are estimates and have an error associated with them. The map below illustrates the PUMAs that were used to develop regions for more detailed analysis.

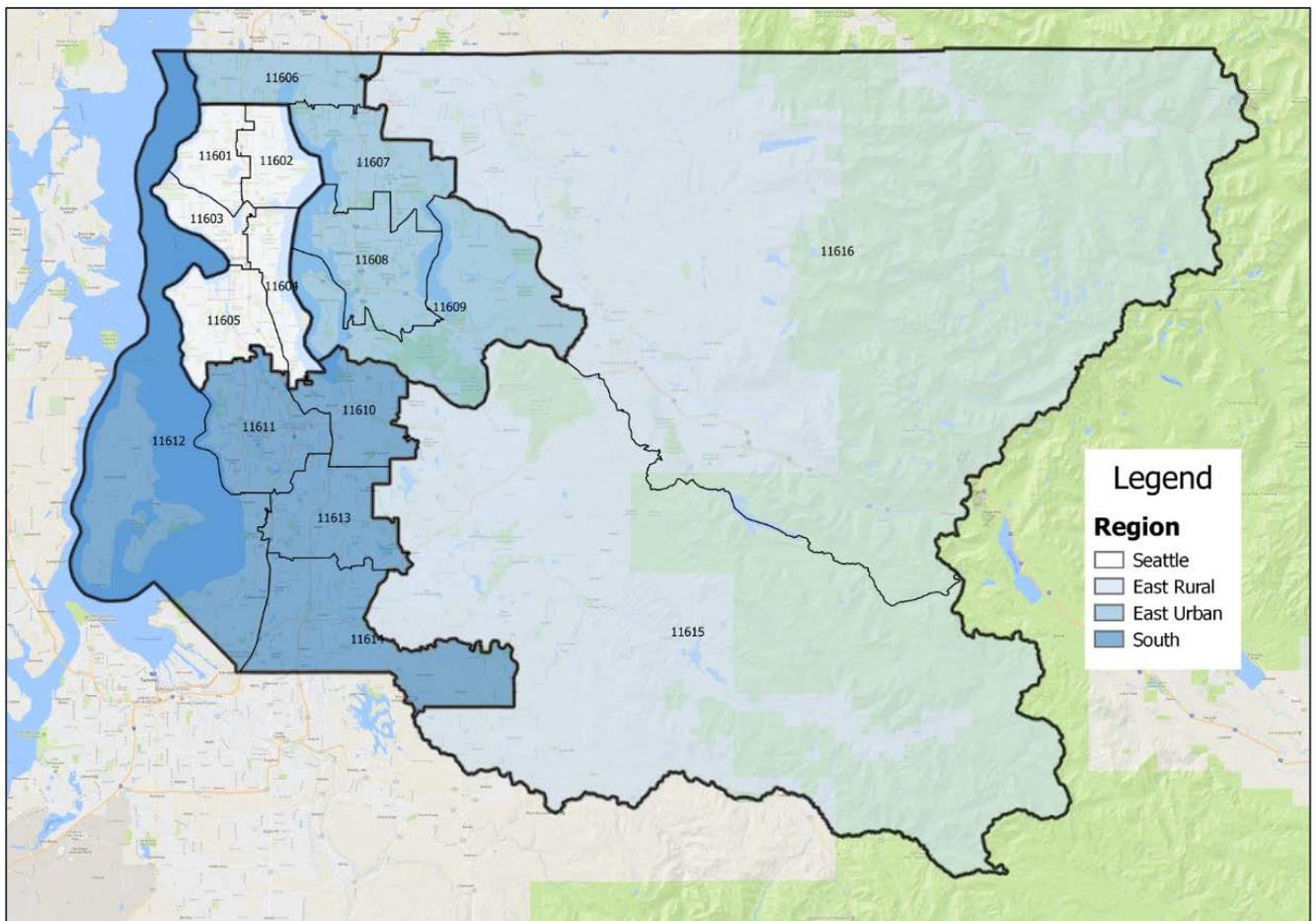


Figure 1. Map of King County Regions developed for this report. The smaller outlined areas with 5-digit ID numbers are Public Use Micro Areas defined by the US Census. Each contains at least 100,000 persons. Geographic data obtained from OFM GIS Portal.

### Population Aging in Washington State

In Washington State, the proportion of the population 65 and older will increase to 16.7% in 2020, and to 21.6% in 2040, nearly double the percentage of adults 65 and older in 1990 (16). The percentage of the population 85 and older is expected to nearly triple, constituting 4.3% of the population by 2020 (16) (Figure 2). Approximately 80% of the growth in the older adult population in King County has occurred in urban areas (17).

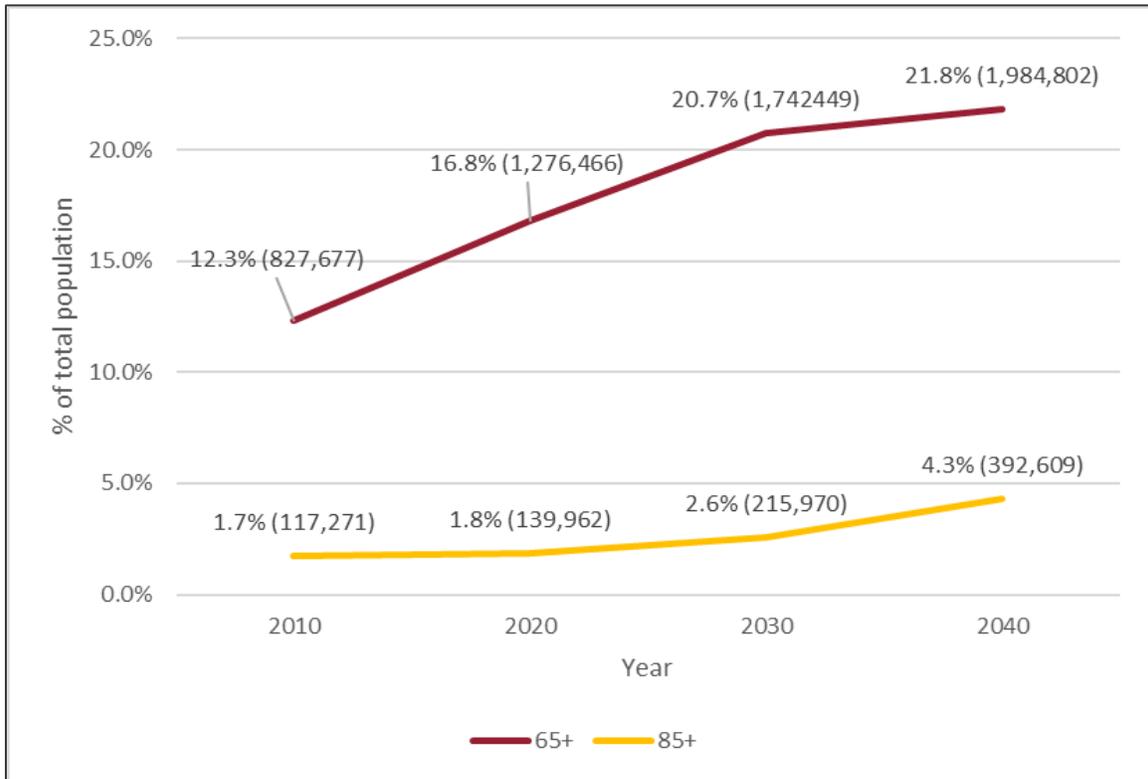


Figure 2. Estimated percentage of Washington State Population that are over 65 and 85 years of age, 2010-2040. Estimates based on OFM population projections report 2016.

### Population Aging in King County

Population aging in King County is similar to trends we see in the state as a whole. While the proportion of the oldest-old (i.e., those aged 85 and older) in King County’s total population has remained relatively stable since 2009 (approximately 1.8% of the population), the percentage of the total population 60 and older has increased steadily during this same time frame (2.7%). These statistics, in addition to the statewide population projections conducted by the Washington State Office of Financial Management, indicate that the population of King County is continuing to age, and the population 85 and older is one of the fastest growing groups.

### A Diverse King County

As previously noted, race and ethnicity, sexual orientation, and other factors have an impact on the needs of older adults. While the majority of the aging population in King County in each age demographic is White, consistent with national trends, the total aging population is becoming more

ethnically and racially diverse.<sup>2</sup> While 84% of the 85 and older population are White, only 69.4% of those 45 to 54, and 55.2% of those under 45 are White, underscoring the increasing diversity of King County as a whole (18). Population diversity also depends on region (Figure 3). The population of South King County age 60 and older is the most diverse, followed closely by Seattle. East Rural King County is the least diverse; however, it is becoming more diverse with nearly three times the population under age 60 identifying as Hispanic as compared to those age 60 and older (6.5%) (18).

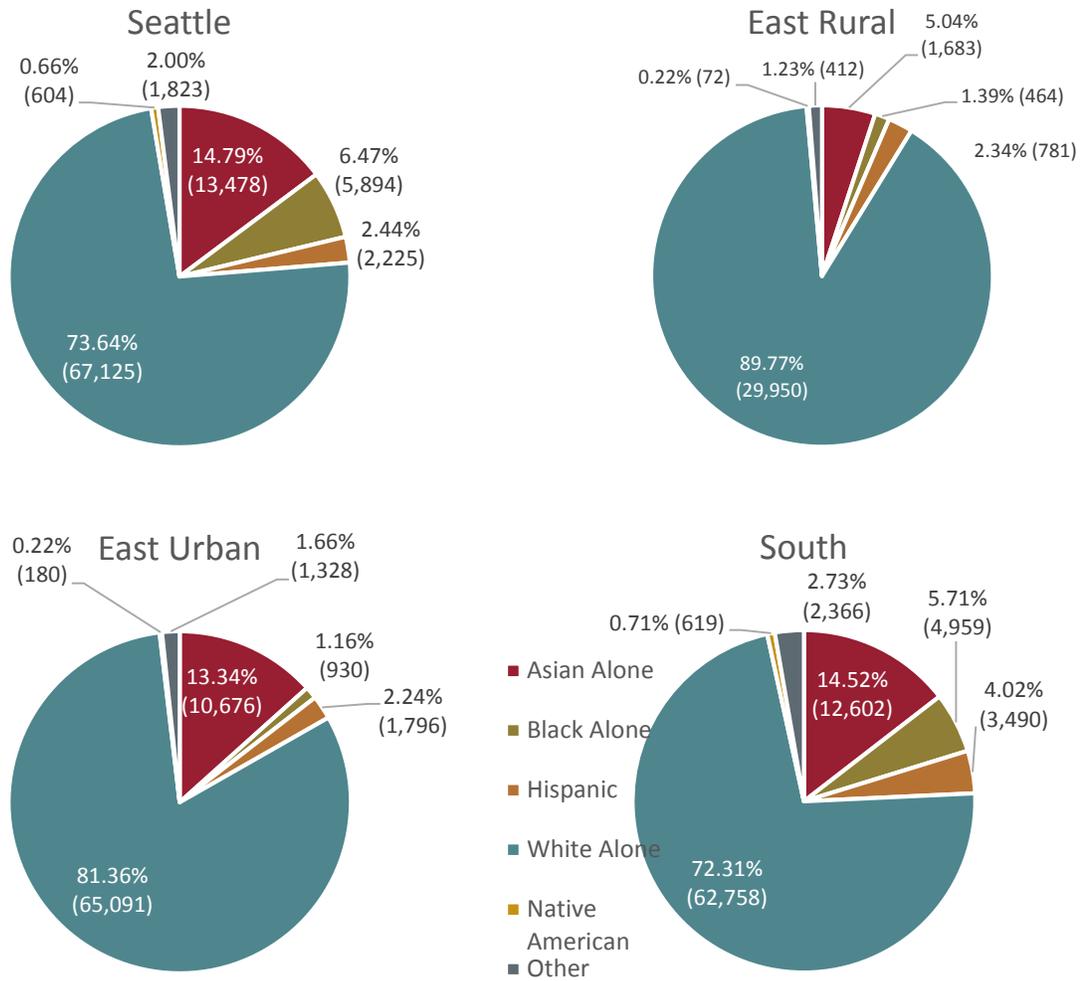


Figure 3. Percentage of regional population over 60 by Races in King County. Estimated population of each group is given in parentheses. Estimates based on ACS 5 Year Data 2011-2015.

<sup>2</sup> To examine diversity by race and ethnicity, the ACS race variable was re-coded. Respondents who indicated they were single race only (White Alone, Black Alone) were coded as White, African American, etc. Individuals who indicated multiple races, were re-coded as other. Individuals who identified as Hispanic in a separate question, were coded as Hispanic.

Nearly one quarter of the older adult population in King County is foreign born (18). As can be seen in Figure 4, the percentage of the population aged 60 and older who were born in a foreign country is highest in South King County, followed by East Urban King County, Seattle, and East Rural King County (9.8%) (18). Current statistics indicate that the number of foreign born over age 65 will increase, especially in South and East Urban King County due to higher percentages of the 45-54 and 55-64 age groups being foreign born (18). Washington State has also seen a 12% increase in refugee arrivals since 2012, and 50% of all new refugee arrivals resettle in King County (primarily South King County) (19).

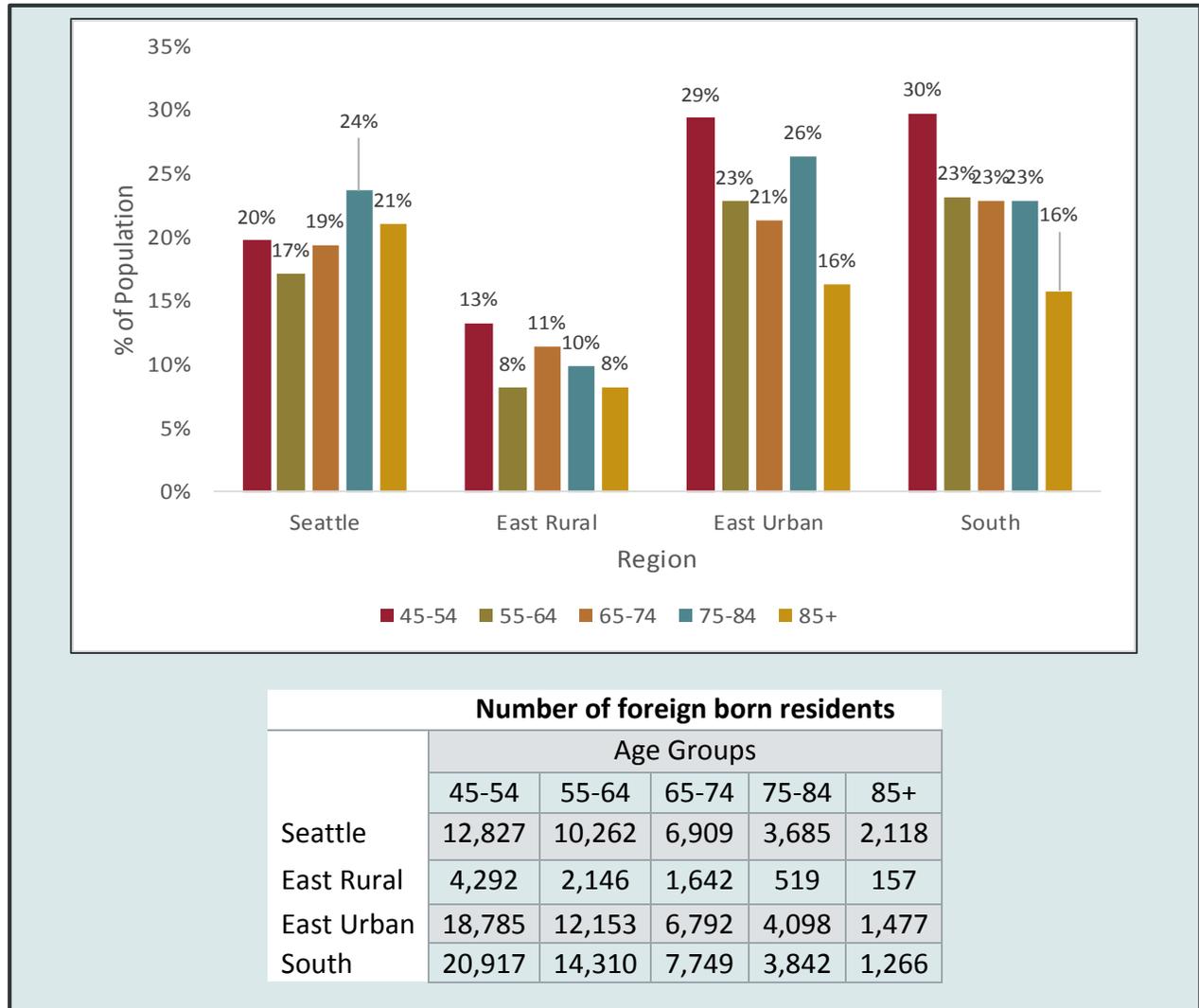


Figure 4. Estimated percent and number of King County residents that are foreign born, by age group and region of King County. Estimates are based on ACS 5 Year Data 2011-2015.

King County’s aging population is also diverse in terms of gender identity, sexual orientation, socioeconomic, and service status. Seattle has the second-largest LGBTQ+ community in the U.S. with 12.9% of the community identifying as LGBTQ+ (20). Veterans comprise approximately 6.7% of the King County population (110,832), and about 65% of the Veteran population is 55 or older (21).

A diverse older adult population will have wide-ranging needs that must be addressed. Groups of people who have historically been excluded and underserved based on factors such as sexual orientation, ethnicity, disability, or immigration status will also require specific age-friendly policy approaches to mitigate long-standing barriers often experienced by marginalized groups. This topic is addressed further in the [Equity & Social Justice](#) section.

## **Current and Projected Housing**

### ***King County Population Growth***

King County population growth increased 11.52% from 2010 to 2017 (22), outpacing Washington State's population growth from 2005 to 2015 (23). If this growth rate continues, King County's population will increase 105,040 by 2020; 361,398 by 2030; and 905,518 by 2050,<sup>3</sup> resulting in an increase in the number of households.

## **King County Household Growth**

### ***Methodological issues with estimating household growth***

We utilized estimated population and headship rates to project household growth over time. Household demand research is complicated by the fact that Census Bureau Surveys such as the Current Population Survey's Annual Social and Economic Supplement (CPS/ASEC), the Housing Vacancy Survey (HVS) and the American Community Survey (ACS) provide different estimates of the number of households and housing units. The CPS/ASEC survey is closer to decennial estimates, while both the ACS and HVS significantly underestimate the number of households (24). These differences are partially attributed to weighting methodology; both the ACS and HVS force the weighted total number of housing units to equal housing stock estimates provided by the Population Estimates Program (PEP). The CPS/ASEC uses the population to calculate number of households by weighting to PEP estimates of the total population (24). The ACS revised its weighting methodology to reduce the number of householders (heads of households) to match housing stock estimates, and evidence suggests that utilizing housing stock estimates, rather than population-based estimates, may lead to significant underestimation of both households and housing units (24). Further complicating the use of the ACS for estimating number of households, is that it significantly under-estimates household growth from 2000-2010. Therefore, relying on the ACS estimates to calculate the current number of households will likely lead to significantly under-estimating the total number of households in King County.

### ***2010 to 2015 Household Estimates by Age Group***

To avoid potentially underestimating the current and projected number of households, we estimate current households and household growth utilizing three major components: changes in the adult population, the age distribution of the adult population, and headship rates (24). Headship rates are "the share of people that head an independent household" (25). As such, headship rates reflect the "ratio of households-to-people for a given population group" (25). Higher headship rates reflect fewer adults per household for a given population group, and thus more households. We can estimate the number of households for a certain population group by multiplying their total population by their headship rates. Headship rates generally increase with age, which means as a population gets older

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<sup>3</sup> Population growth depends on several factors, including migration rates, fertility rates, and death rates. All factors that could lead to fluctuation in growth cannot be assessed; therefore, these figures are tentative, and projections may be overstated due to a period of high growth due to migration rates.

they tend to form more households. In other words, increases in older adult populations will likely produce higher household growth than increases in young adult populations, who form fewer households. Headship rates not only vary by age, but by race and ethnicity.

To calculate the number of households for King County by age, we utilized population data by age group for 2010 and 2015 (26), and estimates of the percentage of each age group identified as head of household (headship rate) (18). First, the total number households for each age group in 2010 was estimated by multiplying the total population for that age group by its headship rate. Second, the growth in households for each age group from 2010 to 2015 was calculated by subtracting the 2010 population for each age group from their 2015 population and multiplying by their headship rate. Finally, the 2015 estimated households by age group was calculated by adding the estimated household growth to 2010 estimated households. The total number of King County households increased by approximately 51,135 households from 2010 to 2015. The majority of these households occurred in the 55-64 and 65-74 age groups (38,349). In 2015, the estimated number of King County households was 815,015; of these estimated households, approximately 37.4% feature a head of household who is 55 or older (Table 1).

Table 1. King County estimated and projected population, household growth and headship rates. Estimates based on ACS 5 Year Data 2011-2015.

Age	2010 Population	2010 Estimated Households	2015 Population	2010-2015 Estimated Growth	Headship rate	2010-2015 Estimated Household Formation	2015 Estimated Households
16-19	117,514	2,938	120,198	0.0228	2.50%	67	3,005
20-24	129,822	28,691	132,416	0.02	22.10%	573	29,264
25-34	312,717	144,163	332,160	0.0622	46.10%	8,963	153,126
35-44	296,790	159,376	302,054	0.0177	53.70%	2,827	162,203
45-54	291,132	164,781	286,890	-0.0146	56.60%	-2,401	162,380
55-64	228,217	133,735	253,308	0.1099	58.60%	14,703	148,438
65-74	112,747	67,986	151,961	0.3478	60.30%	23,646	91,633
75-84	64,148	40,926	67,951	0.0593	63.80%	2,427	43,353
85+	33,784	21,284	34,306	0.0155	63.00%	329	21,613
<b>Total</b>	<b>1,586,871</b>	<b>763,880</b>	<b>1,681,245</b>			<b>51,135</b>	<b>815,015</b>

**Estimated Household Growth 2020 to 2050**

In order to make projections of household growth, it is necessary to conduct population projections for each age group and estimate headship rates over time to calculate projected changes in households. Population growth was estimated by analyzing average change in population for each age group from 2000 to 2005 and 2005 to 2010. This average was used to estimate population growth for each age group for five-year periods from 2015 to 2050. The headship rate was then multiplied by population projections to determine the approximate increase in the number of households based on age. However, this presents some methodological concerns. Past research has kept headship rates constant because they have been stable historically (25). In recent years, headship rates have declined nationally,

particularly since the Great Recession; and headship rates have decreased in King County by age from 2000-2016 according to ACS estimates. It is unclear at this point in time whether the declines nationally are short-term due to the Great Recession, and thus will rebound due to economic recovery, or a longer-term trend where headship rates will continue to decrease, or a combination of both (25). Trends over time will need to be monitored to determine which scenario is correct, particularly in King County. The headship rates above were derived from 2011-2015 ACS estimates. These rates are lower than previous years and may help prevent over-estimating household growth substantially in comparison to using average headship rates over the 2000-2016 period. Until trends can be examined, these figures should be considered estimates and revisited as more data becomes available.

Using these estimates to project over time, King County will have approximately 1,587,470 households by 2050 (Table 2); approximately 62% will have head of households who are aged 55 and older. Due to the noted limitations to these estimates, trends should be analyzed over time to determine how household growth is changing, particularly the percentage of households that are headed by older adults. Additionally, research notes that headship rates also differ by race and ethnicity, yet conducting comparisons based on headship rates for age *and* race/ethnicity are not possible due to the high standard error which prevents any generalization to the larger population. Despite these limitations, these findings are consistent with studies that project older adult households will be the largest share of household growth from 2025 to 2035 nationally (25). However, it is predicted that Boomer households will begin to decline in 2035; therefore, these results may overestimate the number of older adult households for 2040 to 2050.

Table 2. Estimated current and projected households in King County 2015-2050. Estimates based on ACS 5 Year Data 2011-2015 and OFM Population Projections Report 2016.

Age	2015 Estimated Households	2020 Estimated Households	2030 Estimated Households	2040 Estimated Households	2050 Estimated Households
16-19	3,005	3,074	3,214	3,361	3,514
20-24	29,264	29,849	31,041	32,282	33,572
25-34	153,126	162,646	182,871	205,610	231,177
35-44	162,203	165,080	170,936	176,999	183,278
45-54	162,380	160,014	155,352	150,825	146,430
55-64	148,439	164,758	200,987	245,181	299,093
65-74	91,633	123,503	209,413	355,083	602,084
75-84	43,353	45,923	51,369	57,460	64,274
85+	21,613	21,947	22,626	23,326	24,047
<b>Total</b>	<b>815,015</b>	<b>876,794</b>	<b>1,027,808</b>	<b>1,250,128</b>	<b>1,587,470</b>

### Housing Inventory

To address an increasing need for appropriate housing for older adults in King County, it is important to assess the current inventory of housing options. The number and types of housing available in King County were examined, as well as the types of housing currently used by older adults.

King County has approximately 882,655 housing units (21). This number does not reflect group quarter housing and is based on the ACS one-year estimates. As previously noted, the ACS has been found to significantly underestimate the number of housing units at the national level, and the King County estimate may be underestimated due to weighting methodology.

To project the number of housing units that may be available in the future, the ACS one-year estimates of housing units from 2009 to 2016 were used to calculate the average rate of change for each year. This average was then used to calculate estimated growth over time. The highest increase in units occurred from 2009-2010 (+2.2%), and 2015-2016 (+1.2%). For all other years, the number of units increased 1% or less than the previous year. If current trends continue, King County will have an estimated 1,017,813 units by 2030, and 1,200,000 housing units by 2050.<sup>4</sup>

Based on the previous estimates, the number of households may begin to exceed the number of available units by 2030 as shown in Figure 5. If current population rates remain consistent, the housing market may be strained even further in the future. This suggests that increasing the number of units available should be a high priority in order to meet the housing demand for all population groups, and particularly those with a head of household 55 and older. The lack of housing may drive a decrease in household formation, leading to lower headship rates due to the inability of the current housing market to meet demand. If households outpace unit availability, the scarcity of housing may drive an increase in housing costs in the area.

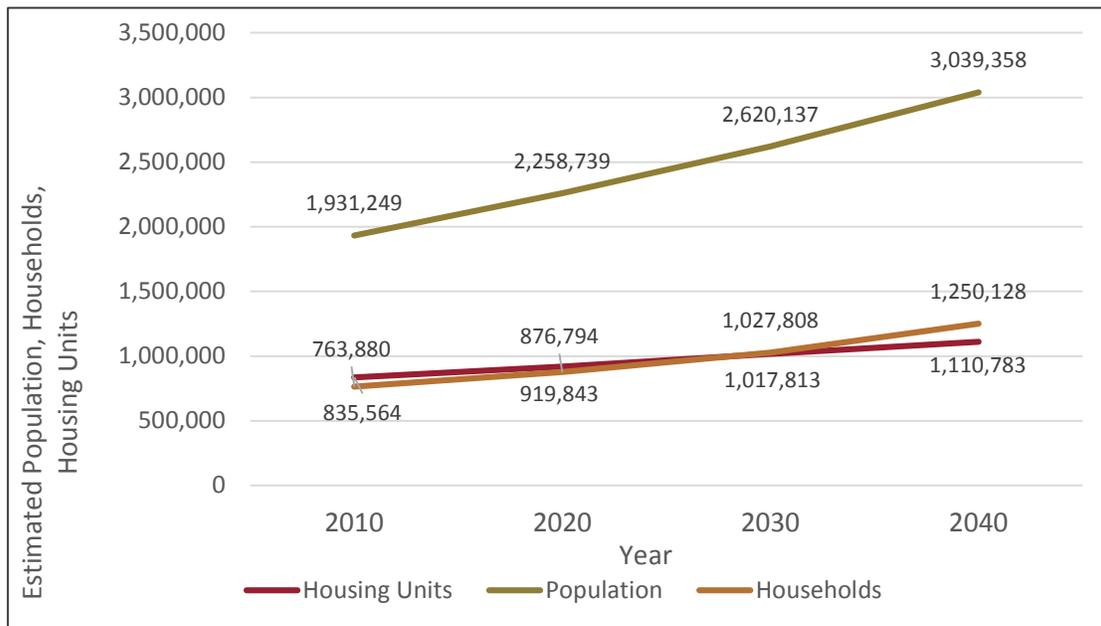


Figure 5. Past and projected population, households, and housing units in King County 2010-2040. Projections based on ACS 5-year data 2011-2015, and OFM Population Projections Report 2016.

<sup>4</sup> Building rates fluctuate based on several factors, and these estimates are therefore tentative. Using ACS data to calculate current number of units has several limitations as studies have found ACS underestimates the number of units when compared to decennial Census surveys (24). However, ACS, and particularly 5-year estimates, are used for estimating number of units at a more local level due to its increased sample size compared to other survey options that may track more closely to housing unit estimates on a national level.

### ***Building Types***

There are an estimated 882,655 housing units in King County, the majority of which (54.9%) are single-family detached units (18). Table 3 details the number and percentage of each building type in King County, showing the prevalence of single family detached housing in this area.

*Table 3. Estimated percentage and number of housing units by type and the percentage of households with an older adult living in each unit type. Estimates based on ACS 5 Year Data 2011-2015.*

<b>Unit Type</b>	<b>% of Total Units</b>	<b>Approximate # of Units</b>	<b>% of Senior Households</b>
Mobile home or trailer	2.1%	18,536	2.9%
One-family housing detached	54.9%	484,578	64.3%
One family housing attached	4.4%	38,837	4.1%
2 apartments	2.1%	18,536	1.2%
3-4 apartments	4.3%	37,954	2.5%
5-9 apartments	6.2%	54,725	3.6%
10-19 apartments	7.4%	65,316	3.8%
20-49 apartments	7.4%	65,316	5.6%
50 or more apartments	11.1%	97,975	11.8%
Boat, RV, Van, etc.	0.1%	882	0.2%

The approximate number of units and percentage of unit type also varies by region. Figure 6 shows that slightly less than half the units in Seattle are single family detached units (43.3%, 109,811) while 84.5% (60,598) of East Rural King County units are single family detached units. As shown in Figure 7, the majority of households with an individual aged 60 and older live in one family detached units, with slightly over half of these households in one family detached units located in Seattle (56.3%, 36,938), compared to over 60% in East Urban (66.8%, 35,952) and South (64.3%, 35,952) King County, and over 80% (18,261) in East Rural King County. (18)

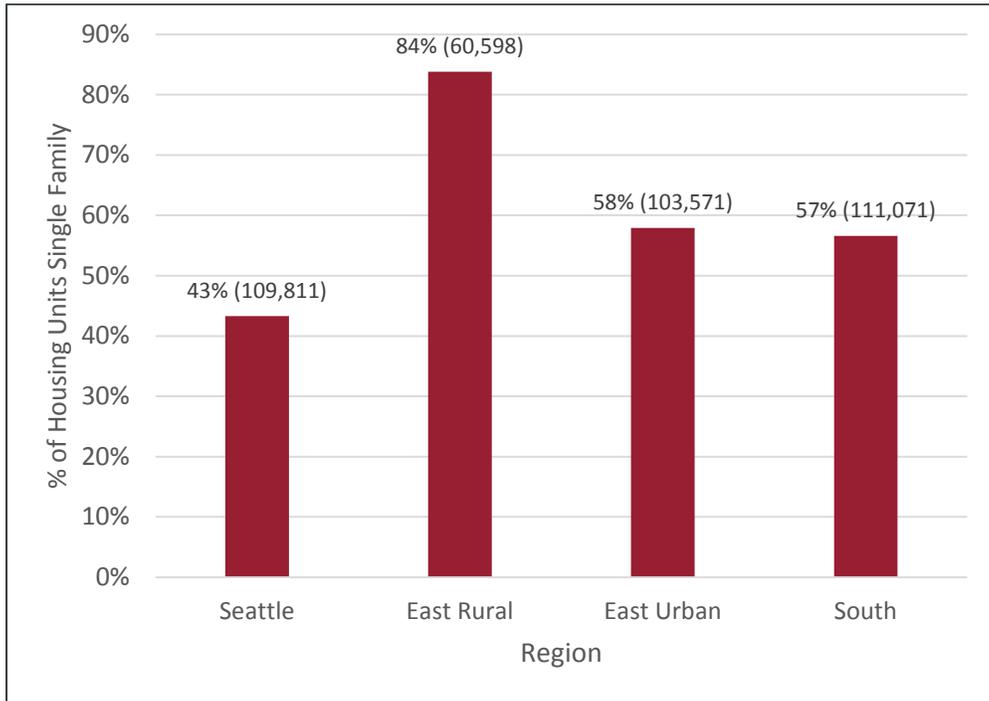


Figure 6. Estimated percent and number of housing units classified as single family detached by region. Estimates based on ACS 5-year data 2011-2015.

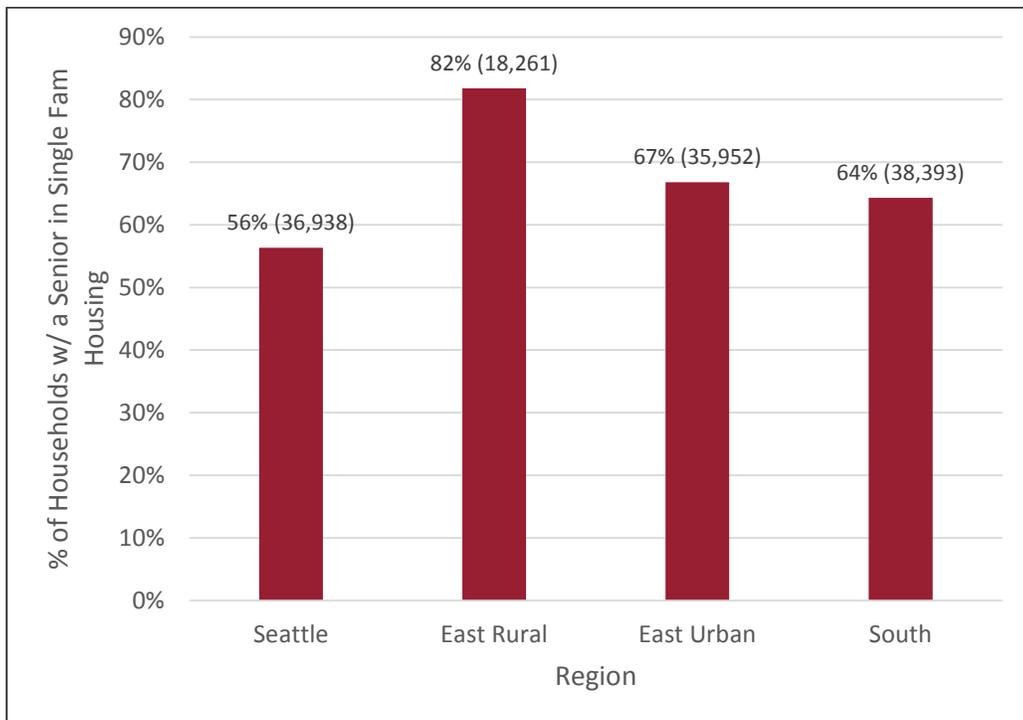


Figure 7. Estimated percent and number of households with an older adult living in single family detached unit by region. Estimates based on ACS 5-year data 2011-2015.

Single family units comprise the majority of building types in King County. Most households with someone age 60 or older live in single family units, illustrating the relationship between zoning and housing for older adults.

### **Affordability**

Housing prices in King County have been rising due, in part, to a shortage of housing compared to population growth. Unless household incomes also rise, which is less likely for older adults on fixed incomes, access to affordable housing decreases. The following sections examine housing affordability for older adults in King County.

#### ***King County Housing Market***

##### ***Housing Prices***

King County home values have risen from \$311,000 in 2012 to approximately \$610,000 in 2018 (27).<sup>5</sup> The median list price for all homes in King County has also increased substantially – from \$350,000 in 2015 to \$575,000 in 2017 (27). These conditions have led to an increase in the King County median housing sale price, which increased over 15% in the past year for all homes and is currently \$562,600 (27). In August of 2017, the median sales price for single family homes (including town homes) in King County was \$650,000, an increase of \$100,000 from the previous year (28). Fewer houses are being listed for sale, and the amount of time a house is listed has decreased from a high of 140 days on Zillow in 2015 compared to a high of 64 in 2017 (27).

##### ***Rental costs***

At the beginning of 2012, the average rental list price for all homes was \$1,500 a month. It increased to \$2,200 at the beginning of 2017 and now, in early 2018, it is estimated to be approximately \$2,400 (27). For single family homes, the average rental list price was \$1,750 at the beginning of 2012, rising to approximately \$2,350 by 2017. Average condo rental list prices are currently \$1,810 per month, while duplex/triplexes are currently approximately \$1,520 a month (27).

According to the ACS five-year estimates, the monthly gross median rent in King County was \$1,230 (18). East Urban King County was the most expensive region, with a monthly gross median rent of \$1,580, and South King County was the least expensive, with a monthly gross median rent of \$1,136.

#### ***Low Income Older Adults and Housing Affordability***

In 2015, approximately 62% of owner-occupied housing in Washington was considered affordable, while 41.25% of owner-occupied housing in King County was considered affordable during the same time frame (29).

Housing affordability was examined by comparing median household incomes for older adults to rents and home values. The median income for King County was estimated by OFM to be \$80,998 in 2015 and was projected to increase to \$84,897 in 2016 (30). ACS five-year data from 2011-2015 shows a substantially lower median income for all King County respondents during this time frame: approximately \$75,466 (18). Median income varies greatly between households with an older adult present and those without (Figure 8). These differences also considerably vary by region. The gap in

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<sup>5</sup> This figure includes all homes, including condos.

median incomes between these households is greatest in East Rural and East Urban King County, and smallest in South King County (18).

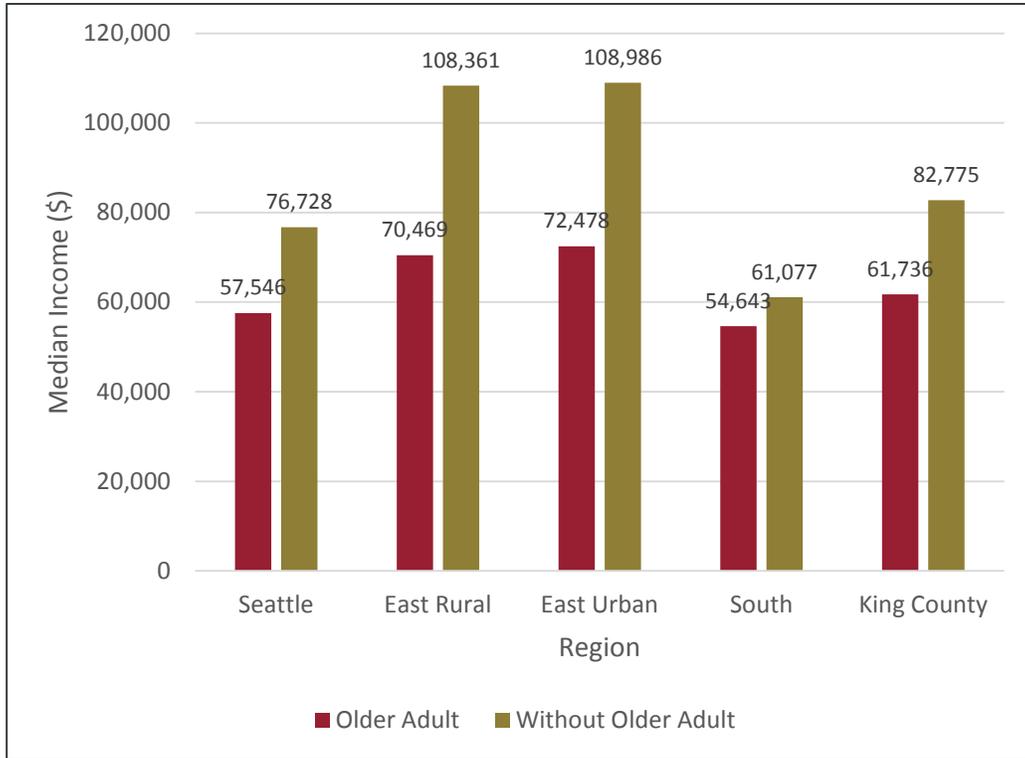


Figure 8. Median Income of households with an older adult (i.e., aged 60 and older) compared to households without an older adult (i.e., under 60) in King County. Estimates based on ACS 5-year data 2011-2015.

Calculating household income as a percentage of the Area Median Income (AMI) based on household size provides the opportunity to determine the percentage of households who have extreme low income (0-29% of area median income), very low income (30 to 49% of median), low income (50-79%), moderate income (80-100%), and above median Income (above 100% of median income). A slightly higher percentage of households with an older adult are low income and very low income (Figure 9). Approximately 45.2% of households with an older adult present are low to extreme low income, compared to approximately 36.6% of households with no older adults present.

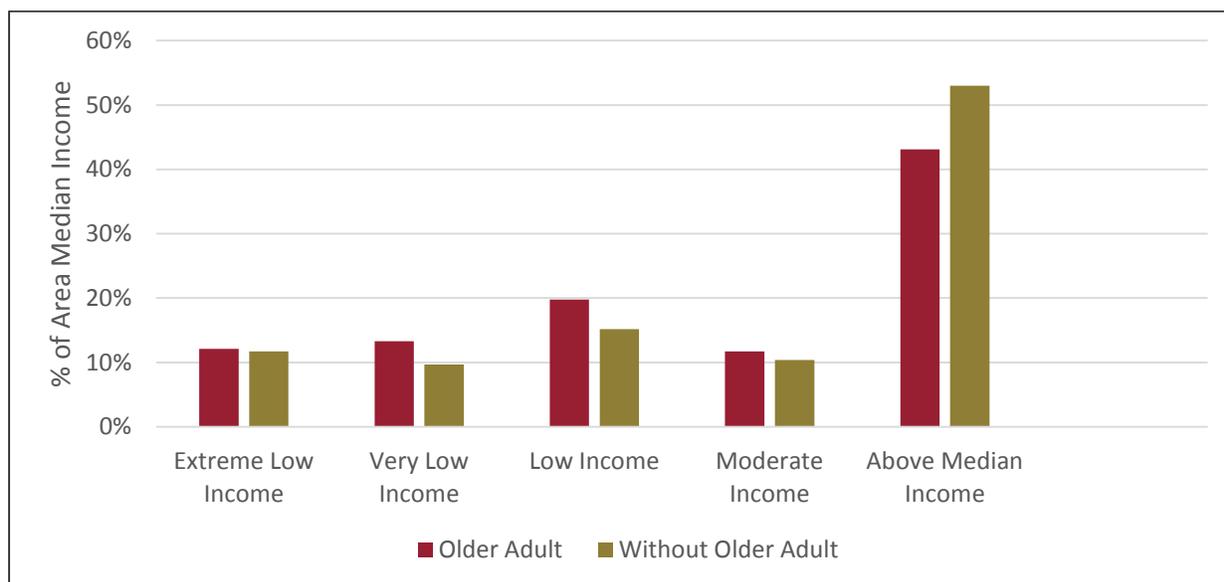


Figure 9. Household income as percent of area median income for households with older adults (i.e., aged 60 and older) compared with households without an older adult (i.e., under 60). Estimates based on ACS 5-year data 2011-2015.

Households with older adults are more likely to have incomes that make housing unaffordable. Using our definition of housing affordability (housing costs not exceeding 30 percent of income), rent affordability can be calculated by “analyzing the fraction of median income needed to afford median fair market rent” (29). For example, if fair market rent is 19,500 per year, a household would need at least \$65,000 per year for housing to be affordable ( $\$65,000 \times 30\% = 19,500$ ). If area median income is \$80,000, then 81.25% of median income is needed to achieve affordability (29). The fair market rent value for King County in 2016 was \$1,225 a month, or \$14,700 per year; so a household would need \$49,000 in income per year, or 57.7% of area median income for it to be affordable. This housing would be unaffordable for 25.4% of older adult households in King County (18).

Gross median rent for King County was approximately \$1,230 from 2011-2015. In East Urban King County, a household would need approximately \$63,500 in income, or 74.8% of area median income to afford gross median rent, making rent in East Urban King County unaffordable for over a third of the households (38.2%) with an older adult based on reported income.

### ***Housing affordability***

Housing is considered affordable when housing costs are 30% or less of gross household income. This affordability metric is used to analyze whether households are moderately burdened by housing costs (30 to 50% of income spent on housing costs) or severely burdened (more than 50% of income spent on housing). In the following sections we analyze housing affordability for older adults who rent, and those who own their homes.

### ***Rental Affordability***

Approximately one-quarter of households with an individual 60 and older rent their home (25.3%). Over half of these households are either moderately burdened or severely burdened by housing costs. In King County, a higher percentage of households with older adults who rent are burdened by housing costs than households without an older adult present (Figure 10). Housing burden is similar across

regions, although some differences exist. A higher percentage of East Urban King County households with an individual 60 or over are severely burdened by rental costs, while a slightly higher percentage of these households are moderately burdened in Seattle. East Rural King County households with an individual 60 and older are more likely to be moderately burdened by housing costs. (18)

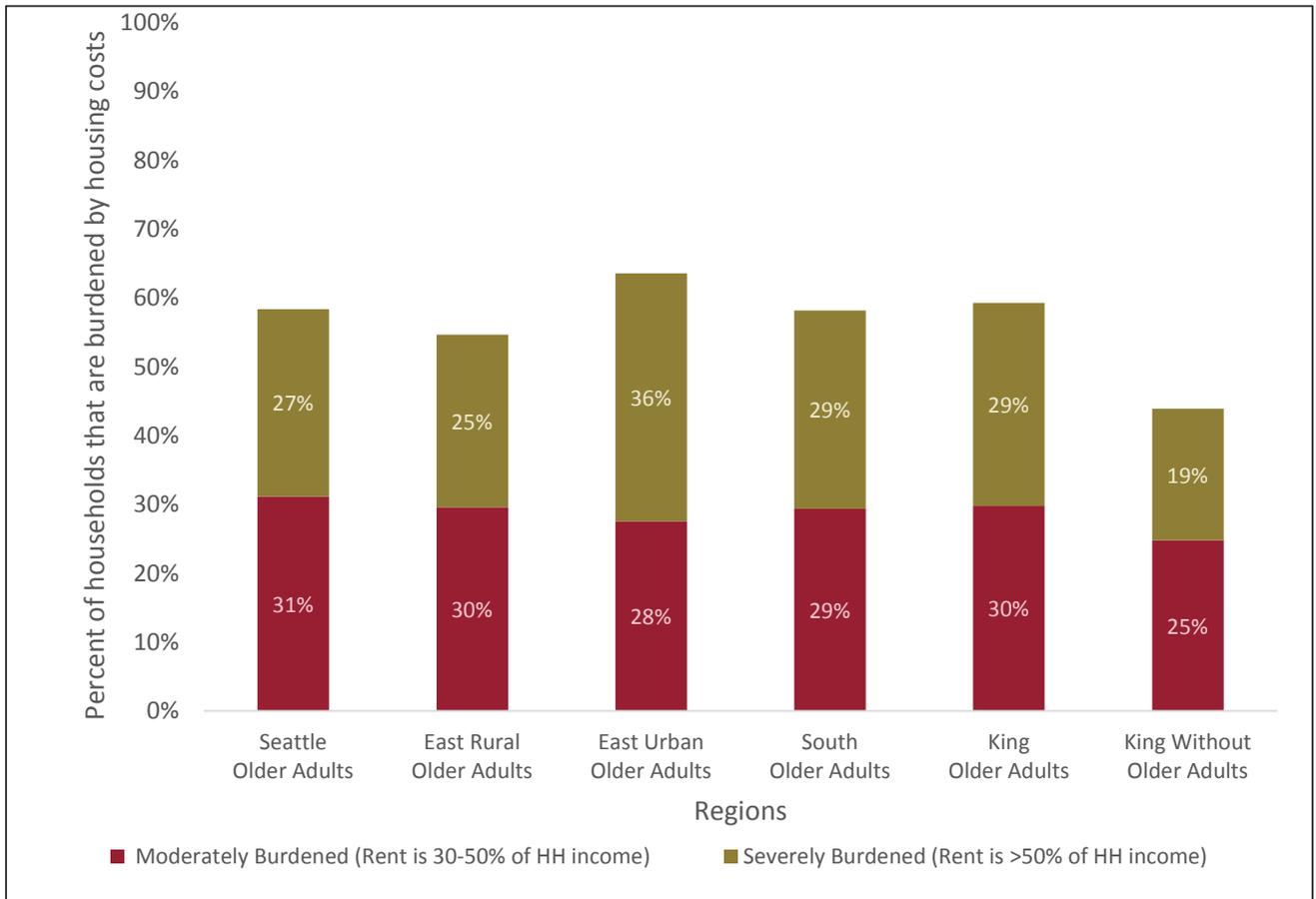


Figure 10. Estimated percent of households that rent and have someone 60 and older that are burdened by rent cost in King County. King Without Older Adults includes households county wide that do not have someone 60 and older. Estimates based on ACS 5-year data 2011-2015.

### Home ownership and affordability

Approximately 33.9% of households in King County with an individual 60 and older own their home free and clear, while nearly 39.4% have a mortgage payment. Homeowners who own their home free and clear are considerably less burdened by housing costs: 16.2% of households with an individual 60 and older are moderately burdened and 12.9% are severely burdened by housing costs (18). However, King County households with an older adult present are still cost burdened in higher percentages than those without an older adult, even if there is no longer a mortgage payment (Figure 11). Cost burden for households with older adults who own their home free and clear are similar across regions, although burden is slightly higher in East Urban and East Rural King County.

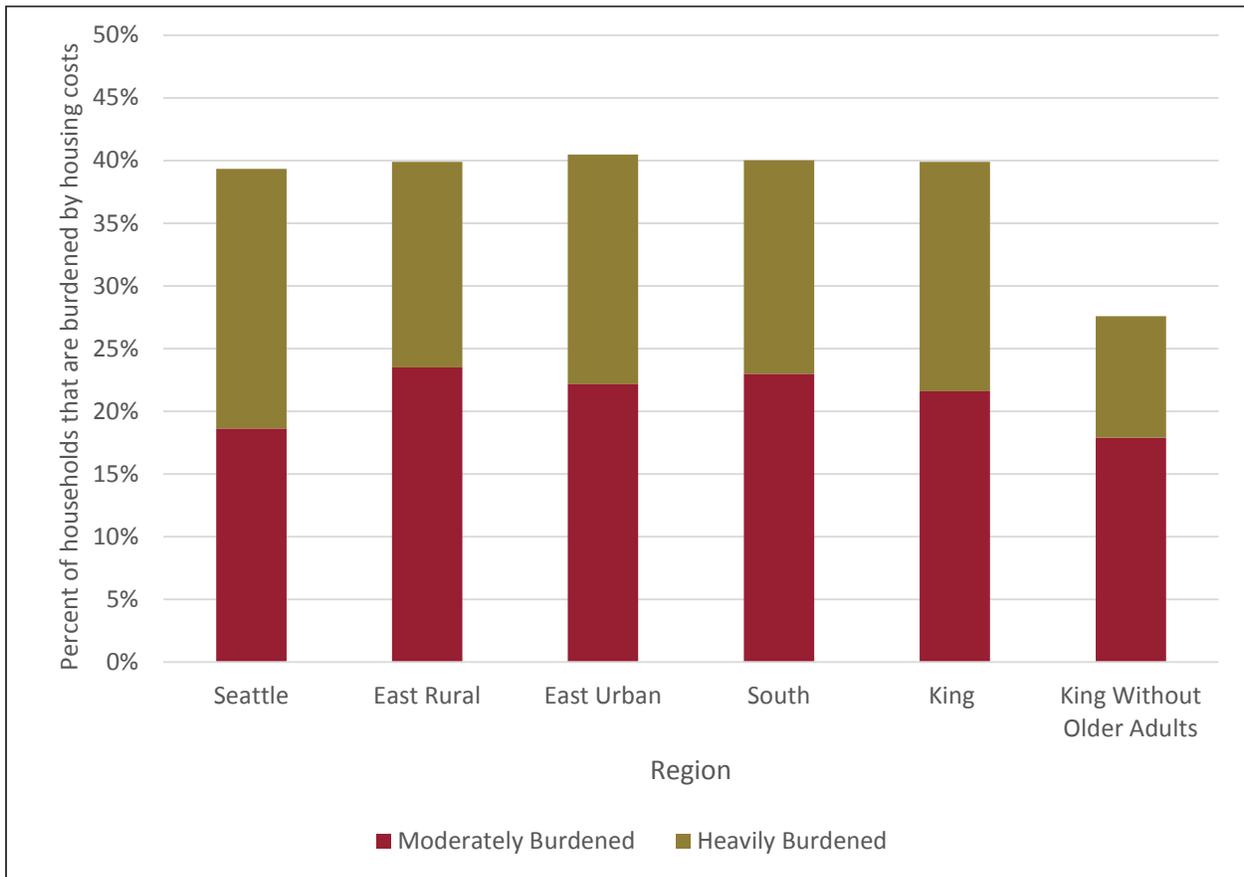


Figure 11. Estimated percent of households with a mortgage and that have someone 60 and older that are burdened by housing costs in King County. King Without Older Adults includes households county wide that do not have someone 60 and older. Estimates based on ACS 5 Year Data 2011.

Cost burden is higher for those households who still have a mortgage payment, and King County households with an older adult present are more burdened than households without an older adult (Figure 12). Forty percent of households with older adults with a mortgage payment are either moderately burdened or severely burdened by housing costs (18). Cost burden for households with an older adult are similar across regions with approximately 40% of these households being cost burdened in all regions of King County.

Affordability issues are compounded by limited low-income housing options within the county. Affordable Housing in King county estimates that there are approximately 627 low income housing apartment complexes in King County with an estimated 53,494 units (31). These estimates do not focus on apartments specifically for older adult populations. Several agencies in King County provided data on their affordable units for the elderly and individuals who are disabled, and based on this information we estimate that there are approximately 55,020 to 55,085 units for low-income older adults in the county.<sup>6</sup> Given that this total is only about 6.2% of the total estimated units in King County, affordable rental properties targeted specifically to low-income older adults are limited. However, a

<sup>6</sup> Range is due to potential overlap between some lists. These estimates exclude units owned by companies that are specifically reserved for people with disabilities (not seniors).

comprehensive inventory of affordable units for older adults will need to be compiled in order to fully understand affordable housing options, particularly low-income older adults.

Housing burden in King County will continue to increase as long as the median housing price and median rent continue to increase at a pace that exceeds median income growth for the county. Older adults – especially older adults who rent – are especially susceptible to housing price increases due to lower overall household incomes.

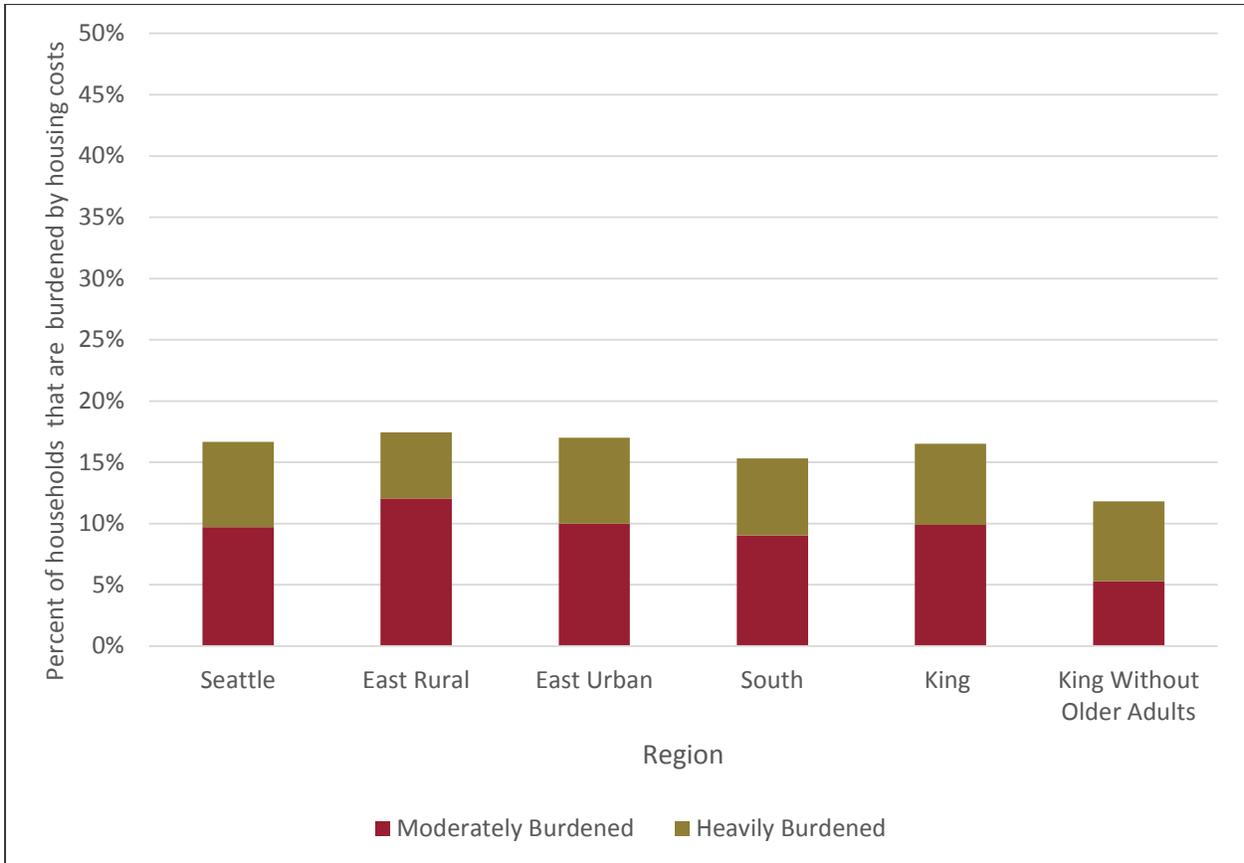


Figure 12. Estimated percent of households that own their house outright and have someone 60 and older that are burdened by housing costs in King County. King Without Older Adults includes households county wide that do not have someone 60 and older. Estimates are based on ACS 5 Year Data 2011-2015

## **Equity & Social Justice**

Demographic influences such as race, gender, socioeconomic status, sexual orientation or identity, also shape the dynamics of age-friendly housing and aging in place in ways that are not yet fully understood. To help insure that all residents have access to resources and opportunities King County has made great efforts to prioritize social justice via the implementation of its Equity and Social Justice (ESJ) Strategic Plan, and by developing strategies that address root causes of inequities. Additionally, the Seattle Housing Authority (SHA) and City of Seattle implemented a Race and Social Justice Initiative (RSJI), an agency-wide education program on the effects of racism, as well as efforts to dismantle institutional racism by examining and modifying SHA's policies and procedures to support social justice. These principles should also be applied when considering housing policy for older adults from oppressed groups.

The disadvantages and barriers experienced by older adults from oppressed groups can accumulate, culminating in greater oppression later in life, particularly for those who are members of multiple, oppressed groups (32). Scholars have advocated that, in addition to the accumulation of disadvantage, systems of oppression (e.g., racism, heterosexism, ableism, ageism, sizeism, xenophobia) (33) intersect, and mutually reinforce one another. For example, an older adult who is living in poverty and identifies as LGBTQ+ and a person of color, may have experienced multiple systems of oppression. As policymakers and advocates consider equity in terms of housing, they must recognize that individuals from multiple oppressed groups often experience mistreatment that stems from multiple, interconnected systems of inequality. It is beyond the scope of this report to speak to all systems of oppression; however, a few equity and social justice issues are presented below.

### **Housing Concerns for Racially Diverse, Immigrant, and Refugee Populations.**

By 2060 the total older population in the U.S. that is White non-Hispanic is projected to drop by 24 percentage points from 2014 figures (i.e., from 78 percent to 54 percent) (34). In King County, the proportion of the older population that are People of Color will increase as a larger percentage of individuals under 55 identify as People of Color (Figure 13). Additionally, the number of older adults who are foreign born will likely rise due to increased refugee arrivals in King County, and a higher percentage of individuals under 65 who are foreign born.

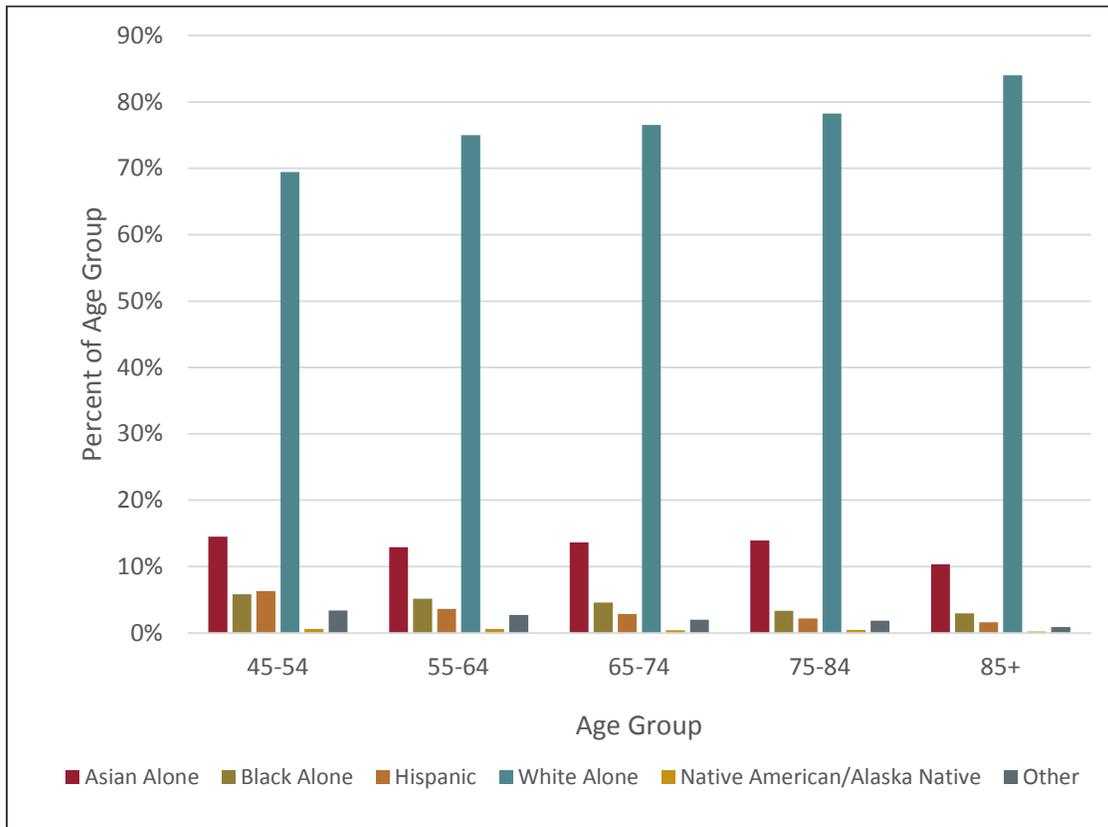


Figure 13. Estimated percent of each age group that identify as a specific race in King County. Estimates based on ACS 5 Year Data 2011-2015.

Members of diverse ethnic and racial groups potentially have different needs, preferences, and understandings regarding aging in place. For example, as noted in the King County Determinants of Equity Report (35), people of color, those with limited English proficiency, and those who are economically vulnerable, consistently experience inequities in economic and health outcomes. Due to factors such as socioeconomic differences and discrimination that people of color experience over their lifetimes, they are much more likely to encounter service barriers, experience higher rates of disability, and have less wealth than White older adults (36). One study found that 76% of African American and 85% of Latino older adults did not have sufficient financial resources to meet expected lifetime expenses (37). These challenges can also further exacerbate feelings of social isolation and health disparities (38).

The intersection of race, ethnicity and aging is reflected in rates of disability, which are substantially higher among older Native American/Alaska Native, Black, Hispanic, and Asian adults, in comparison to White older adults. In King County, the percentage of individuals 60 and older who have at least one disability is higher by 4% for Hispanic, 14.2% for Black, and 27.7% for Native American individuals over White individuals (18). Alternatively, if just viewing overall disability prevalence in King County by race and ethnicity (Table 4), 27.7% of individuals aged 60 years and older who identify as White reported having a disability in 2015, which is the lowest rate of incidence among racial categories. The highest

rates of incidence by race, include those who identified as Native American/Alaska Native (55.2%),<sup>7</sup> Black (41.9%), Hispanic (31.9%), and Asian (28.8%) (18).

Table 4. Percent and number of adults over 60 with a disability by race in King County. Estimates based on ACS 5 Year Data 2011-2015.

Race	Adults 60+	
	% with Disability	# with Disability
Asian Alone	28.81%	11,074
Black Alone	41.86%	5,126
Hispanic	31.91%	2,646
White Alone	27.68%	62,264
Native American/Alaska Native	55.19%	814
Other	42.59%	2,525

The U.S. immigrant and refugee population aged 65 and older also continues to grow. This group is comprised of foreign-born individuals who have lived long-term in the U.S., as well as those who have more recently migrated here as part of family reunification and refugee admissions (39). It is difficult to make accurate projections regarding the future size of an older immigrant population; however, some researchers have estimated that the number of older U.S. immigrants will quadruple to more than 16 million by 2050 (40).

Older immigrants and refugees are much more likely than older adults born in the U.S. to live in extended-family households, particularly if they migrated after the age of 60 (41) (42). Multigenerational or extended family households are often established in response to economic need, or they may reflect cultural preferences within some communities. For some late-life immigrants, extended family households are a source of intergenerational support or social connectedness and may be crucial for older adults with limited English proficiency. Approximately 20.1% of King County households with individuals 60 years and older speak a language other than English in the household.

Levels of extended-family living can vary widely among immigrant groups and families, but it has been identified as a strong desire among many communities. Based on qualitative interviews with representatives of immigrant and refugee groups, and communities of color in King County, it was specifically reported that immigrants and refugees face significant challenges in securing appropriate housing for multigenerational families. (43) (44) (45) (46)

### Housing Concerns for LGBTQ+ Older Adults

Approximately 2.4 million people in the U.S., aged 65 years or older, identify as lesbian, gay, bisexual, transgender, intersex, asexual, pansexual, queer or questioning (LGBTQ+). Many of them grew up in an era when same-sex behavior and gender variance were severely stigmatized and sometimes criminalized. More than two-thirds of the surveyed LGBTQ+ older adults in Seattle/King County

<sup>7</sup> Native American/Alaska Native statistics carry a higher error term based on sample size.

reported they had been victimized three or more times over the course of their lives (47). Although the LGBTQ+ community has made significant progress in advancing civil rights, they continue to experience discrimination and health disparities. LGBTQ+ older adults are at a much higher risk for experiencing disabilities, poverty, homelessness, social isolation, depression, alcohol dependence, financial disparity, housing deficiencies, and premature institutionalization (48).

LGBTQ+ older adults consistently report housing discrimination as a concern (49), and many are often denied equal opportunity in housing. For example, a research study sponsored by the U.S. Department of Housing and Urban Development (HUD) found that same-sex couples were less likely to receive a response from the same housing provider than opposite-sex couples, when making a housing availability inquiry (50) (51). Even in state of Washington, where same-sex marriage is recognized, and discrimination in housing based on sexual orientation is prohibited, 30% reported experiencing at least one form of adverse treatment when seeking housing (52).

LGBTQ+ older adults who feel a strong connection to their community are often hesitant to leave, underscoring a need for support to age in place. Conversely, those who feel unwelcome in their community tend to be more isolated and express a desire to connect with other LGBTQ+ older adults (53). Consequently, social isolation and loneliness are of particular concern to LGBTQ+ communities. Currently, over 45% of LGBTQ+ older adults in Seattle/King County live alone; they are less likely to be partnered or married, and they have fewer children and other intergenerational ties (47). They may rely significantly on peers for support and assistance, however, many of their peers are contending with their own aging and health challenges (48).

LGBTQ+ elders also experience disparities related to services. Most aging and health and human services providers do not have adequate training to effectively serve LGBTQ+ older adults. Up to 16% of LGBTQ+ elders reported receiving inferior services, or even being denied services, due to their actual or perceived sexual orientation and/or gender identity; and one in six fear obtaining any services outside the LGBTQ+ communities (47). Approximately one in five LGBTQ+ elders have served in the military, yet only 14% of those are accessing Veteran's insurance benefits, despite being likely to report poor general health, financial barriers to care and obtaining medication. These statistics speak to the need for affordable, welcoming housing options with services tailored for the health and social needs of this population.

Almost half of all LGBTQ+ older adults are "very or extremely interested" and 78% are at least "somewhat interested" in residing in an affordable LGBTQ+-friendly housing development at some point in the future (54). In response, housing advocates and community developers are increasingly responding to this need, and several models of these communities have emerged in various cities across the U.S.

Washington State has one senior living community, located in the Olympic Peninsula (Discovery Bay Resort), that specifically welcomes LGBTQ+ older adults. Built decades ago as an RV park, it was purchased by local women who organized it as a leaseholders' association and sold individual lot leases. Currently, all lots are leased or owned, and all are occupied by women who organize social activities and events to foster community engagement. There are ongoing efforts to create more housing options for LGBTQ+ older adults in Seattle's Capitol Hill area, which has a long history of being a home and cultural

center for LGBTQ+ life in Seattle. The following case study examples may provide a good model for this endeavor by highlighting LGBTQ+-friendly housing developments in other large cities.

***Case Study Example: Town Hall Apartments, Chicago, IL and John C. Anderson Apartments, Philadelphia, PA***

In 2014, two early examples of LGBTQ+-friendly housing developments were completed in Chicago and Philadelphia. Both developments sought and received strong community input regarding the design, layout, and needed services from the beginning; and both have had wait lists of 300-400 people.

Chicago's Town Hall Apartments is a \$25 million, six-story, 79-unit development open to individuals aged 55 and over, created in response to the high demand for safe and affordable housing for local LGBTQ+ older adults. The building includes a senior center that offers programs and services, as well as a full-time social worker and on-site property manager sensitive to LGBTQ+ residents. Co-owned by Heartland Housing, an affordable housing developer, and Center on Halsted, it is the largest LGBTQ+ community center in the Midwest. As of 2016, 60% of Town Hall residents identified as LGBTQ+ and 63% were below the poverty line.

Philadelphia's, John C. Anderson Apartments, is a 67-unit building open to individuals aged 62 and older. This \$19.5 million project was funded with \$2 million in grants from the city, \$6 million from the state and \$11.5 million in low-income housing tax credits. The building includes ground floor retail space, and it has been lauded for its aesthetics. Developers and LGBTQ+ community leaders specifically marketed the building to older LGBTQ+ adults and approximately 90% of residents identify as LGBTQ+.

***Case Study Example: Ingersoll Senior Residences and Crotona Senior Residences, New York City, NY***

SAGE, one of the country's oldest and largest nonprofit LGBTQ+ advocacy and service organization, has partnered with private developers to build New York City's first subsidized housing for LGBTQ+ elders with limited incomes. Scheduled to be completed and opened in 2019, the residences are anticipated to be the largest LGBTQ+-friendly affordable housing for older adults in the U.S. SAGE launched a National LGBT Elder Housing Initiative in 2015 to help address the housing crisis faced by LGBT older adults, 25% of whom live below 200% of the federal poverty level.

Ingersoll Senior Residences, which is being built on land leased from the New York City Housing Authority in Ft. Greene, Brooklyn, is a 145-unit affordable housing residence. Crotona Senior Residences is an 82-unit housing development in Crotona Park North, Bronx. It is also the first collaboration between SAGE and HELP USA, a nonprofit that builds and manages homeless shelters and transitional and permanent housing for those who are homeless. SAGE will operate an LGBTQ+ senior center on site at both locations to support residents and community members. Both residences will also allot between 25-30% of the buildings' studio and one-bedroom apartments to older adults who are homeless. Residents will be selected by lottery and, based on similar affordable housing developments in other cities, it is estimated that approximately 60-90% of the units will be occupied by LGBTQ+ older adults. Preference for some units will be given to residents in city housing projects. While fair housing laws require that the buildings be open to anyone who meets the age and income qualifications, the Ingersoll and Crotona residences are being heavily marketed to the LGBTQ+ community; however, any individual who is age-qualified (at least 62 years old) and income-qualified for affordable housing in New York City, can apply to live there.

***Case Study Example: Anita May Rosenstein Campus, Los Angeles, CA***

The LA LGBT Center's the Village at Ed Gould Plaza in Hollywood is currently undergoing a major expansion with completion scheduled in 2019. The development of the new campus, which will become the new headquarters of the LA LGBT Center, aims to create an innovative, intergenerational campus that will: provide support and services to LGBTQ+ older adults; support the safety and well-being of homeless youth (40% of whom identify as LGBTQ+); and address the health and medical needs of LGBTQ+ people.

This campus project will significantly expand the size and services of its program, offering more integrated services for LGBTQ+ people than any other place in the U.S. It will include an intergenerational LGBTQ+ older adult and youth housing complex featuring 100 units of affordable housing for older adults, as well as 100 beds for homeless youth. Both senior and youth centers, and up to 35 units of supportive housing, will also be included, as well as ground floor retail space and a commercial kitchen space to be used to feed homeless older adults and youth. Finally, plans include the development of a medical facility, integrated into the campus in an effort to expand health and mental health services (e.g., primary care; targeted programs LGBTQ+ individuals; HIV/AIDs specialty care; mental health services; research). The \$118 million development is being funded by money pledged in a capital fundraising campaign, federal tax credits, affordable housing funding streams, and a mortgage.

The LGBTQ+-friendly housing projects in the case studies above encountered several challenges in pioneering and completing these concepts including: the identification LGBTQ+-sensitive developers, affordable housing providers, architects, and designers who also understand the unique needs of older adults; finding sustainable funding for services and property management; and securing land to build housing in urban areas. Nonetheless, these housing developments fill a gap and pose one solution to the longstanding barriers in attaining safe and affordable housing and services for LGBTQ+ elders.

**Housing Concerns for Older Adults who are Homeless**

Homelessness is common in the United States; with over 500,000 people living on the streets, in cars, in homeless shelters, or in subsidized transitional housing during any given night (55). Approximately 50% of the homeless population is over the age of 50; 8% are Veterans.

Although definitions of homelessness can vary, in the U.S., the 1987 McKinney-Vento Act definition is commonly used. Eligibility for federal funds from HUD for permanent supportive housing programs is also reliant on this standard definition which considers homeless individuals as those who are lacking "a fixed, regular, and adequate nighttime residence". This also includes individuals living in shelters, on the streets, or those at imminent risk of homelessness. (56).

To date, most knowledge, practices, and programs designed to address homelessness tend to focus on youth, young adults, and young families, with far less attention devoted to the needs of older adults who are homeless (57). Older adults, however, are at greater risk of homelessness than at any other time in recent history. A 2015 analysis of federal and state poverty data under the Supplemental Poverty Measure (SPM), found that 45% of adults aged 65 and older were considered "economically vulnerable" with incomes below 200% of the poverty threshold (58). In King County, 23.7% of households with older adults are at or below 200% of the federal poverty line; and 37.8% are at or below 300% of the federal poverty line. The highest percent of households with older adults at or below 200% of the federal poverty line are in Seattle and South King County (27%).

The homeless population is also aging faster than the general population in the U.S. (59). Currently, the median age of a single homeless adult is 50 (60) (61), compared to age 37, in 1990 (62). While age 50 is not typically considered “old age”, adults aged 50 and over who are homeless have similar or higher rates of chronic conditions as community-dwelling adults aged 65 and over (63). Similarly, while all adults who are homeless tend to have poorer health status and premature mortality (64), older homeless adults have significantly higher rates of disability and chronic illnesses (65). Consequently, many experts consider homeless adults aged 50 and over to be “elderly” (66). As the homeless population continues to age, it is imperative to address the unique challenges that older adults who are homeless will face. This includes the challenges and complexities of trying to manage health conditions in homeless shelters or on the street; an inability to modify their physical living environment to adapt to their physical changes; and lack of accessibility and age-friendly features in homeless shelters (67).

Most evidence supports permanent supportive housing programs as the best practice for addressing chronic homelessness. Permanent supportive housing is defined by the U.S. Department of Housing and Urban Development (HUD) as permanent, subsidized housing with on-site, or closely linked, supportive services for chronically homeless persons (56). These programs address the underlying causes of homelessness by providing affordable housing tailored with supportive services (e.g., medical care, case management) (59). One particular program, Hearth Outreach Program<sup>8</sup> in Boston, MA has a twenty-year history of supporting older adults who are homeless. In this program, extensive outreach is conducted by case managers who visit shelters (as well as receive referrals) to identify individuals who are aged 50 and older who are homeless or at high-risk for homelessness. The case managers also help their clients navigate the subsidized housing application process, fill out paperwork, accompany clients to interviews, follow-up with agencies, and provide ongoing emotional support to clients. While it is a successful and long-term program, it must rely on several different funding sources because there is currently no single public agency or funding source that focuses on the older homeless population’s unique need for housing linked with supportive services. As such, the Hearth Outreach Program has relied on Section 8 project-based housing subsidies, Medicaid and Department of Mental Health funding for eligible services, and other local and state funding sources.

### **Housing Concerns for Veterans**

Veterans comprise approximately 9% of the U.S. population and almost 7% (110,832) of the King County population where approximately 65% of the Veteran population is aged 55 or older (68). The Department of Veterans Affairs (VA) projects that Veterans aged 65 or older will make up at least 40% of all Veterans for the next 25 years (69). Veterans of all ages have higher rates of disabilities than non-Veterans, and almost a quarter (24%) report having a service related disability (70). Veterans with disabilities also have higher rates of poverty.

Similar to other special populations, Veterans have unique housing needs. Older Veterans live disproportionately in rural areas, and after age 70, marriage rates decline, and single-person households increase. Over half of older Veteran renters are housing burdened, and those who become homeless

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<sup>8</sup>For more information, please visit <http://www.hearth-home.org/outreach-program/>

experience an increased mortality risk and an increased suicide risk in comparison to the non-Veteran population.

The VA strives to be a model where health care and social determinants, such as housing, intersect. Veterans' benefits, administered by the VA, include housing via VA loan guarantees, housing for homeless Veterans through a VA partnership with HUD and other stakeholders, and home modifications for Veterans whose service has made it impossible, or difficult, for them to function in their homes. The Veteran's Aid and Attendance (VA&A) Pension also provides benefits to Veterans and their spouses to help pay for costs of care – both in-home care and senior housing. The King County Veterans Program provides a range of services to Veterans within the county, including housing assistance, and various support services to help meet basic needs.

## Physical Environments

The physical environment can accommodate losses or changes in physical function through improved design that supports people of all ages and abilities. Improved design and modifications can increase the ability of an individual to adapt to that environment. Greenfield and colleagues (71) describe efforts within age-friendly initiatives to make environments more conducive to older adults' health and well-being, and their ability to age in place and in the community. King County faces the challenge of increasing disability rates, and a lack of available accessible housing to accommodate those rising needs.

## Changes in Functional Ability

The number of households in the U.S. with a disability is projected to increase by 76% from 2016 to 2035, with renters more likely than homeowners to have mobility disabilities, and less control over modifying their units. By 2035, 17 million older adult households in the U.S. will have at least one person with a mobility disability who may experience challenges to safety and independence (e.g., stairs, narrow corridors and doorways, traditional bathroom layouts) (2). In general, age and disability are positively correlated; a higher percentage of older adults report living with a disability, including sensory, mobility or cognitive disabilities. Approximately 50.2% of the population aged 75 and older have a disability, compared to 22% of those 65-74 (18).

Compounding the issue of increasing demand for accessible housing is the current lack of such housing. Chan and Ellen documented the "startling scarcity of units in the U.S. housing stock that are suitable for aging" (72). The U.S. Department of Housing and Urban Development conducted an analysis of the 2011 American Housing Survey data and concluded that approximately 33.3% of the U.S. housing stock was potentially modifiable, 3.8% was livable for individuals with moderate mobility difficulties, and less than 1% was wheelchair accessible (73). Dawkins and Miller reported that there were significant unmet housing program needs due to a mismatch between HUD-assisted households and programs targeted to the needs of persons with a disability (74). Legislation such as the Americans with Disabilities Act, the Rehabilitation Act, and Fair Housing Act have not met the need of older adults with disabilities to date, and trends indicate may not be able to do so in the future.

In King County, the positive correlation between age and disability is evident in Figure 14.

Approximately 14.7% (29,662) of individuals aged 55-64 had a disability, while those rates rose with age to 23.1% (26,773) for those 65-74, 41% (21,833) for those 75-84, and 70.3% (20,448) aged 85 and over (18).

The proportion of the aging population with a reported disability varies by region within King County. South King County has the highest percentage of individuals aged 60 and over with a reported disability (32.8%, 28,446), followed by Seattle (31%, 28,244), East Urban King County (25%, 19,965), and East Rural King County (23.4%, 7,794) (18). Furthermore, as we previously reported (see Table 4), disability also varies by race and ethnicity, with people of color disproportionately experiencing disability.

With the projected increases in persons with disabilities, King County faces particular concerns with respect to the fast-growing oldest cohorts, areas of the region with higher proportions of people with disabilities (e.g., South County, Seattle), populations that face disproportionately higher levels of disability (e.g., Blacks/African Americans, Hispanics/Latinx, and the mismatch between the growing demand for accessible housing and the low supply of such housing).

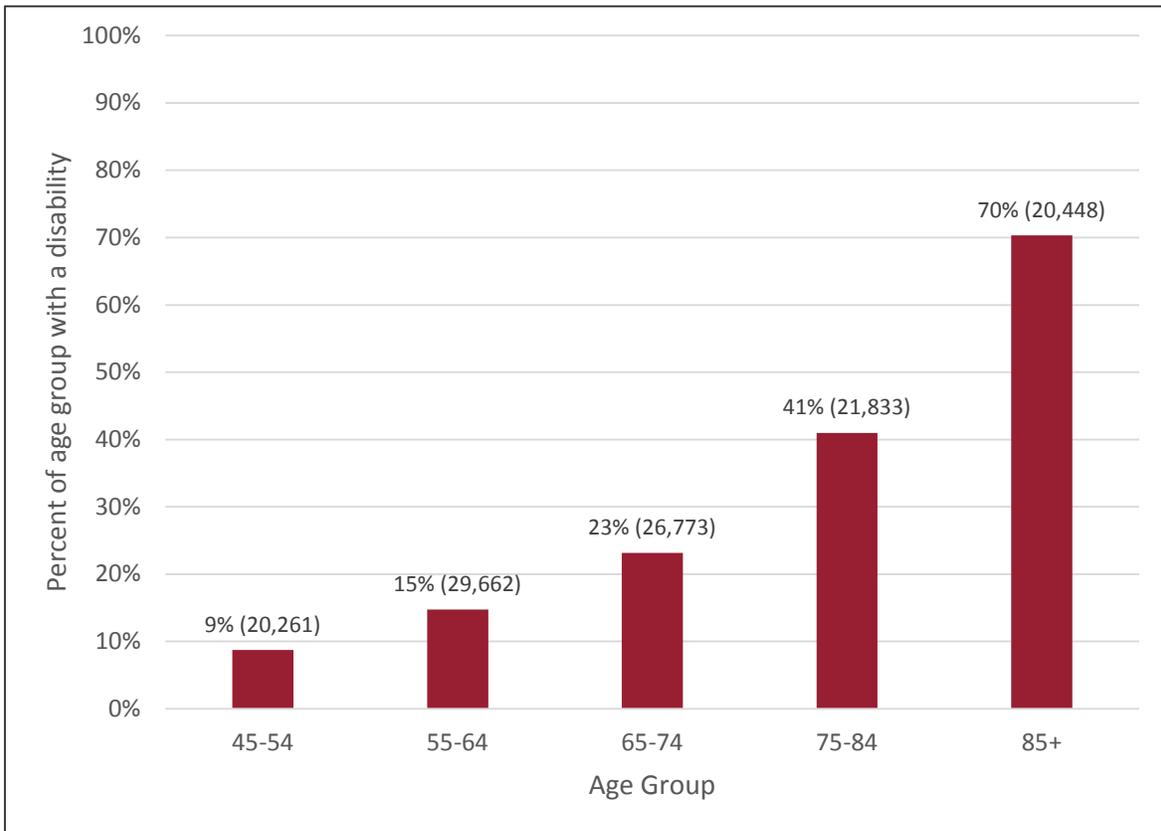


Figure 14. Estimated percent and number of each age group living with a disability in King County. Estimates based on ACS 5 Year Data 2011-2015.

### Housing in Close Proximity to Services

When considering the increases in the population of older adults with a disability, it makes sense that communities should locate housing that is specifically intended for older adults (and/or people with disabilities) in close proximity to essential services. The American Planning Association (75) specifically called for communities to create housing options along a continuum of size that are affordable, accessible, close to services, and located within existing communities.

The metric most commonly utilized to quantify close proximity is a quarter-mile distance, as it is assumed to be adequate distance for planning for access to services by frailer individuals or people with disabilities. Maroko et al discussed “walkability” distances and provide two references as 1/4 mile (~400 m) or 1/2 mile (~800 m) as a standard walking distance (76). A University of Virginia study, when operationalizing destination accessibility, also used 0.25 miles as the maximum range to determine accessible destinations (77), and Walk Score’s methodology gives maximum points for amenities within a 5-minute walk (i.e., .25 miles) (78).

While urban living does not guarantee people will have access to services, or that they will remain engaged in their communities, people living in low-density areas generally face more challenges to accessing services and remaining engaged in the community. Approximately three-quarters of older adults live outside of cities and nearly half are aging in low density locations with less than one housing unit per acre. Aging in place can work, but not if individuals are isolated in their homes (79).

## Service Environments

According to environmental gerontology experts, for an older person with limitations in their personal abilities (e.g., ADLs, IADLs), the availability of community-level supportive services may be the difference between being able to age in one's community or becoming institutionalized (6). The costs for institutionalized long-term care far exceeds the cost of care that one could receive in his/her own home (72). Furthermore, solely relying on family members to provide in-home care will not be a realistic solution as it is expected that fewer family caregivers will be available to fulfill older adults' needs due to the rising acuity of need and declines in fertility rates (80). Consequently, paid care is predicted to become a more necessary option in the next two decades (2). While many older adults will have the ability to pay for appropriate housing and supportive services; a great number of low-income older adults will struggle to do so (2).

According to the Leading Age Center for Housing Plus Services, population aging will lead to several challenges for policymakers and service providers including: unprecedented demands on health care and aging-related services; increased reliance on formal and informal caregiving assistance; increased spending on chronic diseases; substantial demand on services stemming from mental health and cognitive impairment; rising housing costs that lead to low-income older adults not having enough money to pay for increasing costs of medications and other expenses related to health care and supportive services; the need for the delivery of health and long-term care services that result in improved outcomes and reduced costs; and affordable housing properties to be linked with health and supportive services (81).

## Housing with Supports and Services

As the population continues to age, older groups will need both more appropriate housing features to meet their current needs, and access to services to meet their health concerns and prevent potential isolation within their communities. One emerging community-based care model that aims to connect residents to health services and social supports has been piloted in Vermont and Oregon. These efforts, and other models of housing plus services, target different groups (e.g., previously homeless individuals) and hold a common theme: bring services closer to where people live, and provide opportunities that improve quality of life and sense of community while also connecting the most vulnerable members of the group to appropriate care and treatment.

### *Case Study Example: Support and Services at Home, Vermont*

Support and Services at Home (SASH) has been implemented in Vermont for more than eight years (82) and was designed to promote greater care coordination for older adults and people with disabilities who have high-cost health care needs living in affordable housing and the surrounding communities. An evaluation of the program determined that the program's unique contribution was its use of teams, embedded in affordable housing properties, becoming a platform for connecting residents to health services and social supports. Additional lessons for replication included (83):

- Increasing wellness nurse hours may result in larger impacts on participants, especially those participants living in the community (as opposed to site-based participants).
- Site-based participants may benefit more from the program than the community participants because SASH staff offices and group programming are in closer proximity, located within their housing properties.
- Successful trainings for new staff, as well as ongoing training for existing SASH staff, ensured that staff maintained necessary knowledge and skills to best serve participants.

- The SASH program recognizes the importance of building relationships and greater collaboration across community organizations which can improve participants' access to a variety of needed services and resources.

### ***Case Study Example: Housing with Services, Portland, OR***

Housing with Services (HWS) has been implemented in Portland, Oregon for more than three years (84). An evaluation of the HWS project found that, according to multiple data sources, HWS successfully reached vulnerable residents, such as those with a presence of chronic illness, mental illness, mobility impairment, and social indicators of need, such as food insecurity and social isolation. Several key findings are relevant to policymakers and services providers such as (85):

- Residents who had contact with HWS were more likely to use preventative health services; outpatient mental health use increased among residents with HWS contacts.
- Residents who had HWS contacts reported far less food insecurity compared to residents with no contacts, over time.
- The number of Medicaid-eligible residents with HWS contacts receiving long term services and supports increased during the program period.
- HWS successfully reached residents at risk of housing instability.
- Social isolation was reduced and culturally specific services were improved.

### **The Village Movement**

One non-governmental approach to facilitate aging in place is the Village, or Village Movement. According to Next Avenue, the Village Movement principles include: a group of community residents, typically age 50 and older, forming a nonprofit membership organization to provide access to services that supports aging in place; and a varying geographical catchment area ranging from a few blocks (urban/suburban) to a 20-mile radius (suburban/rural). Villages are autonomous, and members determine which services are offered; typical service offerings include: home-safety modifications, transportation, meal delivery, technology training and support, health and wellness programs, social activities, and the services of visiting nurses and care managers. Most villages utilize a paid or volunteer administrator who connects members with services and coordinates village-wide programs and activities. Many villages recruit and rely on local volunteers to help deliver services to its members as well (e.g., home modifications) (86).

The Village to Village Network is a national organization established in 2010 that collaborates to maximize the growth, impact, and sustainability of individual Villages and wider movement. The Network provides expert guidance, resources and support to help communities establish and maintain their Villages. The Movement started in Beacon Hill, Boston, in 2001 and there are currently more than 200 existing Villages, and 150 in development, that help communities establish and manage their own aging in place initiatives called Villages (87).

Research has shown that the Village model represents an innovative and potentially promising approach for supporting aging in place among older adults, especially for middle-income older adults who often fall outside the purview of shrinking public programs (88). Villages have distinctive shared characteristics, including: a service consolidation model of operation, reliance on membership dues and other internal resources, substantial consumer involvement, and relative organizational autonomy.

There is wide variation in the implementation approaches Villages have adopted. For example, in the greater Seattle region, three Villages were in operation as of 2017 with several additional Villages forming in King County (89). These Villages are both geographically specific and organized in a unique fashion, often with separate nonprofit status. Another model for Villages can be found in the greater Portland region, which uses a “hub and spoke” network model that has one 501(c)3 nonprofit that serves as the “hub” (i.e., Villages NW) for emerging grassroots villages, and “spokes” (e.g., Eastside Village, North Star Village) (90). This model allows for efficiencies in leadership and services, as well as a streamlined approach to developing grants and advocating for local policies and partnerships.

One major criticism of the Village model is the relatively limited range of older adults that have been served. It remains to be seen whether the Village model can attract and respond to the needs of a more economically and ethnically diverse older adult population (88). However, as King County continues to age, diversify, and face challenges with the supply of affordable housing, the Village model may provide services that can reduce the need for moves to long term and/or skilled care settings. Furthermore, opportunities exist for Villages to serve certain populations in tandem with age-friendly efforts. This would allow geographically specific supportive services to exist, while at the same time, advancing age-friendly efforts through strategic action plans, policy change, and collective action.

### **Intergenerational Living**

The World Health Organization sees intergenerational communities as an important aspect of age-friendly communities: “Intergenerational opportunities enrich the experience for all ages. Older people pass on traditional practices and knowledge and experiences, while younger people offer information about newer practices and help older people navigate in a rapidly changing society” (91).

#### ***Case Study Example: Intergenerational Housing for Foster Youth and Older Adults***

Bridge Meadows is an intergenerational community located in Portland, Oregon that opened its doors to residents in 2011. It has since expanded to open another location in Beaverton, Oregon in 2017, as well as an innovative housing development for transition age foster youth who moved out of the intergenerational community (92). The community was modeled after Hope Meadows, an innovative residential community spanning a five-block small-town neighborhood in Rantoul, Illinois (93). Bridge Meadows adapted the Generations of Hope Communities model that challenged conventions about retirement, community development, and social service delivery, whereas the community becomes the intervention by facilitating meaningful intergenerational relationships and purposeful engagement as cornerstones of the neighborhood (94).

Evidence suggests that the type of intergenerational housing environment produced by Bridge Meadows is beneficial to community members. In particular, narrowing the physical and social distances between people and community activities can enhance individuals’ ability to participate in, and benefit from, meaningful social activity which includes environments that enhance social engagement, meaningful tasks, social support, and opportunities for learning (95).

The financing for this housing model is complicated, requiring homes for foster families and affordable housing for older adults within the same community. However, this type of housing creates an age-friendly environment that is beneficial to both younger and older people and may serve as the type of innovative model that can be replicated and scaled in the future.

## **Aging and Technology**

In 2016, Forbes called gerontechnology (i.e., the scientific field focused on gerontology and technology) “the next hottest thing in Silicon Valley” (96). It is also an important aspect of age-friendly housing in King County. Whether describing telehealth or “The Internet of Caring Things” – a buzzword that describes health care devices that are wirelessly connected to the cloud – technology and aging continue to gain interest, adoption, and innovation.

Schulz and colleagues (97) explain that the interest in technology for aging is driven by multiple converging trends:

- The rapid pace of technological development, particularly in consumer electronics and communication.
- The unprecedented growth of the aging population in the United States and worldwide.
- The increase in the number and survival of persons with disability.
- The growing and unsustainable costs of caring for the elderly people.
- The increasing interest on the part of business, industry, and government agencies in addressing health care needs with technology.

These trends contribute to technology playing an important role in enhancing the quality of life and independence of individuals who may have functional limitations due to trauma, chronic disorders, illness, or aging. Technology also provides hope that levels of efficiency may potentially reduce individual and societal costs of caring for older adults (98). Already, the use of technology in to improve the lives of older adults is increasingly widespread as advancements are integrated into everyday use. In fact, as Dr. Clara Berridge (99) from the University of Washington notes, “technologies are being implemented faster than researchers are able to identify their ethical implications and define what appropriate use means for different populations.”

Technological solutions pertaining to home and community environments and older adults are being explored such as telehealth combined with patient education, which engages independent community-dwelling chronically ill older adults in their own care. Health-assistive smart homes can assist independent and assisted-living older adults with safety and health via ambient motion sensors and machine learning algorithms that may identify and predict health events, as well as provide timely alerts to facilitate earlier interventions. Mindful implementation and evaluation of the efficacy of such technologies is still needed as more technology solutions become available and are employed. Nonetheless, it provides a promising avenue that may improve quality of life among older adults, increase their ability to age in place, and decrease health/service care costs while maintaining dignity and independence for older adults.

## **Time Banking**

Time banking is an interesting innovation that may provide different opportunities for social and economic activity for older adults and others. Edgar Cahn (100) proposed that humans have a second economy, or a “Core Economy”, that does not operate on monetary-based activities, but rather, it functions on exchanges among members of families, neighborhoods, and communities. Cahn, considered the creator of time banking, notes that “Nothing could be simpler than a basic Time Bank”, and describes the concept:

Collom (101) suggested that governmental support to increase the participation of older adults in community currencies, such as time banking, may be a wise investment. Currently, Timebanks of Puget

Sound operates multiple Time Banks in King County and provides members a software platform to offer and receive service by using a community currency (i.e., Time Credits) on services such as animal care, tutoring, running errands, cooking, housecleaning, taxi service, computer help, yard work, and more (102).

## **Social Environments**

### **Social Isolation**

As noted earlier in this report, social isolation is a growing epidemic that has serious consequences for physical, mental, and emotional health. It has been estimated that social isolation is as damaging to one's health as smoking 15 cigarettes daily (103). Other researchers have also reported that it significantly increases risk of heart disease and stroke (104), cognitive decline (105), and mortality, with socially isolated adults having a 30% higher risk of dying within the next seven years (103). Conversely, individuals with strong social connections are 50% more likely to survive longer than those who are isolated (103). These statistics, combined with the burgeoning aging population, underscore the necessity for a focus on social environment when considering age-friendly housing. The challenge, however, is that while the evidence on social isolation is strong, the solutions to address social isolation are less clear.

In the U.S., about one-third of adults aged 65 and older live alone, and half of those aged 85 and older live alone. In King County, the trends are similar with over one-third (37.5%) of households in King County representing a one-person household with an individual aged 60 or older (18). Older people are more vulnerable to social isolation than younger adults due to changes in physical health (e.g., mobility), social networks (e.g., death of partners or friends, family members moving away), and social roles (e.g., retirement, financial security) (106) (107).

### **Social Isolation in Rural Areas**

Older adults living in rural areas are more likely to experience loneliness (108) and social isolation (109) than those living in urban areas. This may be partially explained by barriers older adults are likely to face in remaining in their homes and staying engaged in their rural communities. For example, older adults who wish to age in place in rural and remote communities are likely to have limited support available to remain independent, fewer housing and transportation options, and may need to travel out of their communities for health services. All of these factors create challenges for older adults and their families. Rural areas are also characterized by less accessible public transport, public facility maintenance (i.e. roads and pavements), commercial outlets, and health and social care services, as well as greater income inequality and fewer households with children living at home (110) (111) (112). These factors may put rural residents at risk of declining social opportunities and possible loneliness and/or social isolation as they age.

Although individuals in low-density suburban, rural or remote areas may be at an elevated risk for limited social connection due to the factors described above, urban-dwelling older adults who are unable to leave their homes alone are also at risk. Additionally, many vulnerable and oppressed populations are also at high-risk of feeling socially isolated.

A longer duration of residence has been linked to decreases in loneliness and social isolation, which may warrant focused public strategies to facilitate aging in place. For example, moving to a new area at an older age may put individuals at risk of loneliness and/or social isolation. Additional factors, such as widowhood, declining mental or physical health, and financial difficulties have also been associated with loneliness, regardless of social isolation, and may be useful for identifying older people at high-risk of loneliness, particularly in rural communities. Increased effort to facilitate the ability for older adults to

remain in their communities can be beneficial for preserving their social network, preventing loneliness, and optimizing long-term wellbeing and health; additionally, this can also benefit community stability.

### **Social Isolation Interventions**

Social isolation interventions are not yet well developed (113), but there is some evidence that educational and social activity group interventions, such as referring and incorporating older adults into community or senior centers, can be effective in reducing social isolation. Ideally, people in neighborhoods and communities could also help keep an eye out for vulnerable older adults and take proactive steps to reduce social isolation (e.g., ensure access to transportation, connect with faith-based communities). In line with this, many areas have established formal Gatekeeper Programs, which is a model of an organized community outreach effort to support older people and those with disabilities by utilizing nontraditional referral sources (e.g., postal employees, bankers, neighbors, meter readers), who may come in contact with older people as part of their daily work routine, as “gatekeepers” by observing, identifying, and reporting signs that a vulnerable adult may need assistance. This could include noticing that an elder has been particularly isolated, a home has become in disrepair, or that an elder has seemed confused or in poor health.

The Silver Line, a 3,000-person volunteer program based in the U.K., is another example of a community outreach effort to reduce loneliness. It is a confidential, free helpline for older people across the country available 24/7. The main goal of the program is to offer information, friendship, and advice. They provide regular friendship calls and letters, facilitate group calls, match volunteers based on their interest, and provide referral to local services. Since the national launch, Silver Line<sup>9</sup> has received over 1.4 million calls, most of which happen overnight or on weekends when other services may not be available and when older people may feel loneliest and isolated. They typically receive 10,000 calls every week, with 53% of callers reporting they have no one else with whom they can talk. There are small-scale examples of similar programs in the U.S., such as the Friendship Line provided by the Institute on Aging in San Francisco (114).

While the development of social isolation interventions continues, it is important to note that social participation and connectedness are actually key factors in age-friendly communities. In fact, Menec (115) argued that a primary benefit of an age-friendly community is that it creates and fosters social connectivity. Thus, by investing in age-friendly housing, communities can also improve the social environment for older adults. Menec (115) also noted that it improves social connectivity in multiple ways by creating connections, empowering individuals, and increasing access to resources and services. Finally, while social participation and connectedness are important, there is also a need for reciprocity between older adults and their community, and this is what an age-friendly community can provide.

### **Summary**

King County, like many areas of the country, is facing a complicated dilemma: how to provide housing for a growing aging population that is available to all groups, has appropriate physical characteristics, supports social connectedness, and is in proximity to services that older adults need. It is a tall order for policy makers and housing planners.

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<sup>9</sup> <https://www.thesilverline.org.uk/>

The detailed analysis in this report shines a light on the current population and housing characteristics of King County. The breadth of the information precludes a comprehensive list of findings that may be of interest to all persons, but important findings include:

- 1) The older adult population is increasing in both size and proportion of the overall population.
- 2) The older adult population is becoming more diverse.
- 3) The number of older adults with disabilities will increase with the overall population, requiring special housing and services.
- 4) At current rates, the supply of housing units will not keep up with the growth in demand from new households.
- 5) Most older adults live in single family detached houses.
- 6) If patterns continue, housing will not be affordable for most low-income older adults, and will become increasingly more unaffordable for those at, or just under, the area median income.

This establishes a basis for policy makers to recognize issues, and to proactively address current and future housing needs.

## **Age-friendly Housing Policy Recommendations for King County**

### **Policy Recommendations: Equity and Social Justice**

The data reveals that households with older adults are more burdened by housing costs than those without. Households with older adults are also more likely to be low income (as measured by comparing income to the area median income). Current fair market rental rates, and gross median rental rates are unaffordable for over a quarter of households with older adults, and thus out of reach for economically vulnerable older adults without additional help, particularly since evidence suggests that housing costs in King County will continue to increase. The data reveals that interventions are needed to provide affordable housing for older adults in King County. Affordable housing should also consider the needs of under-served older adults, as well as be equitably accessed by groups who have experienced discrimination. The recommendations below relate to equity and social justice for vulnerable groups, however, additional recommendations in subsequent sections (i.e., Physical Environment, Social Environment, Service Environment) will also incorporate a focus on equity as well.

#### **EqSocJus 1: Increase supply of affordable housing that is also inclusive / welcoming of diversity.**

Policymakers should be mindful to focus on the specific needs of groups who are often marginalized and underserved; being a member of both a vulnerable group and an older adult can put individuals at high-risk for financial insecurity and social isolation. Specifically, policymakers should encourage the funding and development of LGBTQ+-friendly, affordable senior housing developments, particularly in already established LGBTQ+-welcoming communities (e.g., Capitol Hill neighborhood). There are several models from other communities across the nation, but keys to successful development have included: integrating the community in making decisions about design; incorporating and building a strong sense of community (e.g., ground floor retail coffee shop or community center; and exploring innovative models that can serve multiple generations and needs (e.g., Anita Rosentstein campus to serve both younger and older LGBTQ+ individuals; Ingersoll residence which incorporates support for homeless older adults).

#### **EqSocJus 2: Strategically locate affordable and accessible housing for older adults.**

Affordable and accessible housing should be developed within 0.25 miles of essential services such as transportation infrastructure, commercial clusters, and important government services. Policies that prioritize housing for older adults and or people with disabilities near important services can enhance social and economic opportunities for those who may not be able to travel longer distances. Reductions in transportation costs can provide more funding for meeting daily needs, saving for future needs, or other discretionary spending. Locating affordable housing near established programs, services, and community centers that meet the needs of vulnerable populations of older adults can also increase a sense of inclusiveness and community, an important antidote to social isolation.

**EqSocJus 3: Advocate for improvement to affordable housing policy.**

Policies and programs supporting affordable housing and community development programs are needed. This includes establishing additional local Housing Trust Funds and funding critically important programs that have experienced decreasing funding from 2010 to 2016 such as Public Housing (-\$1.6 million), the Community Development Block Grant program (-\$1.4 billion), HOME funds (-\$1.0 billion), and housing for older adults and people with disabilities (-\$641million) (116).

**EqSocJus 4: Increased advocacy, cultural competency and sensitivity training.**

Aging and disability networks, and other organizations, should heighten awareness of the needs and experiences of diverse populations of older adults and recognize the barriers and challenges that vulnerable groups face. Ongoing cultural competency training can also help lessen the need for uniquely targeted housing by reducing discrimination and increasing a sense of inclusivity. In addition, senior housing providers and developers should publicly adopt anti-discrimination policies and practices and be sensitive to the unique needs of vulnerable groups.

**EqSocJus 5: Additional research and investigation needs to be done on what age-friendly housing means for diverse populations.**

There is very little data available about the needs of certain special population groups (e.g., LGBTQ+ older adults, older refugees/immigrants, older adults who are homeless) and further evidence is needed to generate the political will to implement policy changes, highlight where protections may be lacking, and securing funding for needed services. For some populations of older adults, age-friendly housing constitutes multigenerational living. Thus, an exploration of multigenerational housing may be beneficial, particularly, as we noted, for immigrant/refugee populations and those with limited English proficiency.

**Policy Recommendations: Physical Environments**

While there is a clear need to make housing more affordable, especially for low income older adults, increasing the affordable housing stock alone will not help them to age in place if housing is inaccessible. As noted in this report, an increasing number of older adults have at least one disability, and disability is more prevalent for People of Color, non-Hispanic older adult populations. The American Housing Survey also estimates that less than 3.7% of the current housing stock in the Seattle Metropolitan Area has basic access, which limits the ability of all older adults, and especially those with disabilities, to age in place. Further modification of current housing will be difficult for low-income older adults who are already living in unaffordable housing. Policymakers must consider the following proactive approaches in an effort to add accessible housing stock that can meet current needs and growing future needs.

**PhysEnv 1: Require and incentivize the building of accessible housing above and beyond existing policies (e.g., ADA), which have not, and will not, meet the growing needs of an aging population.** Although federal, state, and local policies advance accessible environments, it is important to meet the “spirit of the ADA” (i.e., prohibiting discrimination against individuals with disabilities in all areas of public life) by extending those principles beyond public areas and commercial buildings into residential development. Furthermore, a variety of accessibility standards should be developed, from the concept of visit-ability (e.g.,

zero-step entrances and homes that can be visited by a person with a mobility impairment) to universal design (e.g., design that meets the need of the greatest extent of the population, regardless of their age, size, ability or disability).

**PhysEnv 2: Update land use policies to increase the supply of smaller single-family infill housing (e.g., accessory dwelling units) within existing neighborhoods, especially those in areas rich with service options.** The analysis reveals that King County’s housing stock may not meet the needs of a growing number of households, and households will outpace projected number of housing units by 2030. As such, allowing infill housing options is an important step in meeting the growing demand, especially considering that the majority of those 60 and older live in single-family housing units.

**PhysEnv 3: Allow the development of “missing middle” housing, defined as “a range of multi-unit or clustered housing types compatible in scale with single-family homes that help meet the growing demand for walkable urban living (117).”** Increasing development of this type of housing will be an important step to meeting the growing household demand within King County, especially if population continues to increase at current rates. These middle housing options should require or incentivize accessible housing (e.g., visit-able) that enhances social connectivity (e.g., cottage housing clusters, pocket neighborhoods) as well as reconfiguring typical housing types (e.g., from side-by-side townhomes to “stacked flats” that create opportunities for at least one accessible dwelling).

**PhysEnv 4: Require that all homes are built to be adaptable for people with varying abilities.** As most of the aging population would prefer to age in place, ensuring that new and retrofitted housing has walls with backing in the bathrooms (for the easy installation of grab bars) will save money and time for those interested in aging in place. Additional incentives can be offered for zero-step entries and features such as a roll-in shower, easily convertible caregiver quarters, stacked closets to facilitate future elevators, and/or door and cabinet hardware that can be used in case of a future change in ability.

**PhysEnv 5: Provide financial assistance for home modifications.** By facilitating aging in place, costs associated with acute and long-term care can be reduced, allowing older adults and people with disabilities the ability to use their available financial resources for meeting their ongoing daily needs. Home modifications include visit-able and adaptable housing, accessible housing commensurate to ADA code, universal design, etc. It is estimated that only approximately 3.7% of King County housing has basic passage, such as extra wide doors and hallways. Options to consider include tax credits, public loans, and grants.

**PhysEnv 6: Concentrate new senior housing in areas rich in existing services (and/or areas that will be future hubs of services and activities).** Construction of new housing in town centers, main streets, and transit corridors can assist older adults in meeting their day-to-day needs and engaging in the community. Additionally, use a quarter-mile metric for access, rather than half-mile, which is often used by transportation planners. As noted in previous analysis, current stock of affordable housing specifically for older adults is limited within the county,

accounting for approximately 6.2% of total estimated units in the county. New senior housing, and an emphasis on affordable senior housing, will need to be developed in these areas.

### **Policy Recommendations: Service Environments**

The gross median rent in King County is already unaffordable for many low-income older adults without assistance and spending a sizeable portion of their annual income on housing limits their ability to pay for additional services needed. As noted, social isolation can be a major impediment to aging in place, and services are needed to ensure that older adults can live independently and happily in their homes for as long as possible. The recommendations below provide options for providing more services that can help older adults of all income levels and abilities age in place in affordable and accessible housing.

**SerEnv 1: Increase funding for the delivery of home and community-based services.** As the costs for health care and long-term care services remain high, the delivery of services that allow older adults to age in their communities, while maintaining health and independence for as long as possible, can produce savings while simultaneously maintaining social networks, and familiarity with the community and available services.

**SerEnv 2: Invest in technology solutions to enhance delivery and access to home and community-based services.** A variety of emerging gerontechnology solutions are becoming available for a variety of settings (e.g., telehealth, health-assistive smart homes; ambient motion sensors that can provide timely alerts to facilitate earlier interventions). Supporting and expanding time banking options may provide a way for community members to affordably offer social supports and select services to others.

**SerEnv 3: Explore a pilot project focused on housing with supports and services, such as those being offered in Vermont (SASH) and Oregon (HWS).** Such programs facilitate the building of relationships and greater collaboration across community organizations, benefitting participants across a variety of services levels with varying resources. A pilot project should involve the education of partner agencies, and clear delineation of roles and responsibilities across organizations and programs, to avoid real or perceived duplication of services. Other supports and services, such as Hearth Outreach Program in Boston, MA, are worth exploring as well. This program supports older adults who are homeless with case managers who help their clients navigate the subsidized housing application process, fill out paperwork, accompany clients to interviews, follow-up with agencies, and provide ongoing emotional support.

**SerEnv 4: Provide comprehensive support of the regional Village network.** These efforts are locally-based and could cover all of King County, while serving as a grassroots initiative providing community services and social connectivity to facilitate aging in place. The Village efforts in King County may be served by aligning with age-friendly initiatives.

## **Policy Recommendations: Social Environments**

Review of the current literature suggests that social isolation is a problem that must be addressed in order for older adults to age in place. Certain groups of older adults may be more isolated than others, and specific strategies are needed to ensure these groups feel connected to their communities. Additionally, older adults in rural areas are more likely to feel social isolation, and strategies are needed to ensure that they are not left behind in the effort to help older adults age in place. We recommend the following strategies to decrease social isolation:

### **SocEnv 1: Explore and encourage development of multigenerational housing opportunities.**

Creating communities that cater to a variety of needs (e.g., age-integrated housing versus age-segregated housing) increases opportunities for intergenerational engagement and support, decreases social isolation, and increases community cohesion. There are two potential methods for achieving this goal: follow a model similar to the Bridge Meadow community or the proposed Anita Rosenstein LGBT center, which has a campus style development that features different housing types and uses; and advocate for new models of multigenerational housing within the current housing policy structure and guidelines.

**SocEnv 2: Encourage age-friendly design of housing communities.** In addition to accessible and visit-able design, specific approaches to community design include narrowing the physical and social distances between people, and supporting community activities that have the ability to enhance individuals' ability to participate in, and benefit from, meaningful social activity. By enabling community members to live in environments that enhance social engagement, meaningful tasks, social support, and opportunities for learning, people of all ages and abilities can benefit.

**SocEnv 3: Adopt technology solutions to increase social connections and minimize loneliness and develop key outreach networks to assure the safety and well-being of older adults at-risk for isolation.** This may include creating voluntary and informal services to provide wellness checks, transportation, home modification assistance, or in-home support for older adults. A large wave of retired Boomer professionals will be a great, untapped resource and crucial for volunteer efforts. Successful models include "gatekeeper" programs (an organized outreach effort designed to identify, refer, and respond to at-risk older adults, and people with disabilities living in our community) or the "Silver Line" (a telephone helpline program implemented in the U.K. to specifically address loneliness in older adults).

**SocEnv 4: Advance opportunities for aging in place, particularly in rural areas.** Rural communities benefit from having access to local leaders and existing partnerships that can further age-friendly goals; however, challenges exist including a lack of infrastructure and limited access to social and health services. Support in the form of age-friendly regional or national policies, programs, and funding sources are fundamental to supporting rural social inclusion, participation of older adults, and access to services for older adults who may be harder to serve.

**SocEnv 5: Create safe gathering places/resource centers for a diverse population of older adults.** These settings are useful for addressing social isolation and loneliness among all older

adults, but specialized centers, specifically welcoming for oppressed groups (e.g., LGBTQ+ elders; immigrants), are key to helping reduce social isolation. They also serve as a service hub for those individuals looking for information on local programs and supports, including low income older adults seeking assistance with meeting basic needs.

## **Conclusion**

The demographic shift to an aging society is imminent. Most older adults prefer to be able to age in place in their homes and communities. Globally and locally, age-friendly communities are growing in number with the goal of create appropriate physical, social, and service environments that are equitable and just, and for people across the course of their lives.

Policymakers – as well as the general public – must recognize and understand that the changing structure of society toward an aging demographic will be a permanent shift and is not limited to the aging of the Boomer generation. Population aging will dramatically alter the way that communities and economies function, yet the precise impacts of those changes are not yet fully understood.

This study, in combination with other studies funded by Aging and Disability Services, City of Seattle Office of Housing, Seattle Housing Authority, King County Housing Authority, City of Seattle Human Services Department, and the King County Housing & Community Development, have highlighted areas of concern that will need to be addressed in order to meet this growing challenge. However, further research is needed to more fully understand the impact of these demographic changes on housing and service options for older adults, and particularly low-income older adults. Further research should examine housing accessibility in King County to better estimate the number of units that are currently accessible, and the potential costs of providing funding for retro-fitting current housing stock. Additionally, a comprehensive inventory of affordable housing units, specifically for seniors and people with disabilities will help determine how best to supplement current stock, and locate new facilities. GIS analysis of current affordable housing inventory overlaid with essential services will help King County better understand the impact of these demographic changes, and improve future accessible and affordable housing options for low-income older adults.

As we have noted in this report, the window of opportunity for preparing for an aging King County to age in place is shrinking – especially with respect to affordable and accessible housing. In line with the agenda setting that we presented in the introduction, this report has outlined many of the problem and policy streams associated with creating age-friendly communities. It is now up to local municipalities to activate the political stream and take advantage of a policy window to advance age-friendly housing. Now is the time to prepare and mindfully plan for meeting the needs of the current and future aging population in King County.

## References

1. **Centers for Disease Control and Prevention.** *The State of Aging and Health in America 2013.* Atlanta, Georgia : Centers for Disease Control and Prevention, US Department of Health and Human Services, 2013.
2. **Joint Center for Housing Studies of Harvard University.** *Projections & Implications for Housing a Growing Population: Older Households 2015-2035.* Cambridge, MA : s.n., 2016.
3. **Center for Home Care Policy & Research.** *Community Innovations for Aging in Place (CIAIP) Final Report.* New York, NY : s.n., April 2014.
4. **Centers for Disease Control and Prevention.** Healthy Places . *Healthy Places Terminology.* [Online] <https://www.cdc.gov/healthyplaces/terminology.htm>.
5. **Lawton, M. P., Nahemow, L.** Ecology and the aging process. [ed.] C. Eisdorfer and M. P. Lawton. *Psychology of Adult Development and Aging.* Washington, DC : American Psychological Association, pp. 619-674, 1973.
6. **Lawton, M P.** *Environment and Aging.* Albany, NY : The Center for the Study of Aging, 1986.
7. **Kingdon, John.** *Agendas, Alternatives and Public Policies.* Boston : Little, Brown and Company, 1984.
8. **Neal, M.B., DeLaTorre, A. and Carder, P. C.** *Age-friendly Portland: A university-city-community partnership.* Journal of Aging & Social Policy, Vol. 26, pp. 88-101, 2014.
9. **Holt-Lunstad J., Smith T.B., & Layton J.B.** *Social Relationships and Mortality Risk: A Meta-analytic Review.* s.l.: PLoS Med, Vol. 7, 2010.
10. **National Institute on Aging.** *Annual Data Report.* s.l. : National Institute on Aging Budget Office, 2015.
11. **Federal Interagency Forum on Aging Related Statistics.** *2016 Older Americans Key Indicators of Well-Being.* Washington, DC : US Government Printing Office, 2016.
12. **Vincent, G A and Velkoff, V A.** *The next four decades, the older population in the United States: 2010 to 2050. Current Population Reports.* Washington, DC : U.S. Census Bureau, pp. P25-1138., 2010.
13. **Colby, S., Ortman, J.** *Projections of the Size and Composition of the U.S. Population: 2014 tp 2060.* s.l. : U.S. Census Bureau, 2015.
14. **Fredriksen-Goldsen, K I, et al.** *The aging and health report: Disparities and resilience among lesbian, gay, bisexual, and transgender older adults.* s.l. : Institute for Multigenerational Health, 2011.
15. **Nagourney, A.** Old and on the Street: The Graying of America's Homeless External link. *The New York Times.* May 31, 2016.
16. **Washington State Office of Financial Management.** *State Population Forecast Supplemental Presentation.* November 2017.
17. **Aging and Disability Services.** *Demographic Trends.*
18. **U.S Census Bureau.** *2011-2015 American Community Survey.* s.l. : U.S. Census Bureau's American Community Survey Office.
19. **Aging and Disability Services.** *Aging in King County: Profile of the Older Population.*
20. **Turnbull, L.** *12.9% in Seattle are gay or bisexual, second only to S.F., study says.* 2016.
21. **U.S. Census Bureau/American Fact Finder.** *2016 American Community Survey.* s.l. : U.S. Census Bureau's American Community Survey Office, 2016.
22. **Washington State Office of Financial Management.** *Population Change and Rank.* April 2017.
23. **Vance-Sherman, Annelise.** King County Profile. *Washington State Employment Security Department.* [Online] September 2015. <https://fortress.wa.gov/esd/employmentdata/reports-publications/regional-reports/county-profiles/king-county-profile>.
24. **McCue, Daniel, Masnick, George and Herbert, Chris.** *Assessing Households and Household Growth Estimates with Census Bureau Surveys.* s.l. : Joint Center for Housing Studies Harvard University, 2015.

25. **McCue, Daniel and Herbert, Christopher.** *Updated Household Projections, 2015-2035: Methodology and Results.* s.l. : Harvard Joint Center for Housing Studies, 2016.
26. **Washington State Office of Financial Management.** *Estimates of April Population by Age, Sex, Race and Hispanic Origin, 2010-2016.* 2017.
27. **Zillow.** King County Home Prices and Values. [Online] <https://www.zillow.com/king-county-wa/home-values/>.
28. **Seattle Times.** King County Home Prices Surge 18 Percent, Most on Record for this Time of Year. September 6, 2017.
29. **Mullin & Longergan Associates.** *State of Washington Housing Needs Assessment.* s.l. : Affordable Housing Advisory Board, 2015.
30. **Washington State Office of Financial Management.** *Median Household Income Estimates.* March 8, 2017.
31. **Affordable Housing Online.** *Affordable Housing in King County.* [Online] [Cited: 2 9, 2018.] <https://affordablehousingonline.com/housing-search/Washington/King-County>.
32. **King, D.H.** *Multiple jeopardy, multiple consciousness: The context of a black feminist ideology.* Signs, pp. 42-72, 1988.
33. **Collins, P.H.** *Toward a New Vision: Race, Class, and Gender as Categories of Analysis and Connection.* Race, Sex & Class, Vol. 1, pp. 25-45, 1993.
34. **Mather, M., Jacobsen, L.A., & Pollard, K.M.** *Population Bulletin: Aging in the United States.* s.l. : Population Reference Bureau, 2015.
35. **Beatty , Abigail and Foster, Dionne.** *The Determinants of Equity: Identifying Indicators to Establish a Baseline of Equity in King County.* s.l. : King County Office of Performance, Strategy and Budget, 2015.
36. **Hansen, Julie Chin and Scharlach, Andrew.** *Community Services.* Independent for Life, p. 73, 2012.
37. **Meschede, T., Shapiro, T., Sullivan, L., & Wheary, J.** *Severe Financial Insecurity Among African American and Latino Seniors.* Waltham and New York City : Demos and Institute on Assets and Social Policy, 2010.
38. **Miyawaki, C. E.** *Association of social isolation and health across different racial and ethnic groups of older Americans.* Ageing & Society, Vol. 35, pp. 2201–2228, 2015.
39. **Leach, M.** *America's older immigrants: A profile.* Generations, Vol. 32, pp. 343-349, 2009.
40. **Treas, Judith and Batalova, Jeanne.** *Older Immigrants.* [book auth.] K Warner Schaie and Peter Uhlenberg. *Social Structures: The Impact of Demographic Changes on the Well-Being of Older Persons.* New York : Springer, pp. 1-24, 2007.
41. **Wilmoth, J.M.** *Living Arrangements Among Older Immigrants in the United States.* The Gerontologist, Vol. 41, pp. 228-238, 2001.
42. **Wilmoth, J.M.** *A demographic profile of older immigrants.* Public Policy & Aging Report, Vol. 22, pp. 8-11, 2012.
43. **Dicks, G.** [interv.] P. Piering. October 27, 2017.
44. **Peterson, S.** [interv.] P. Piering. October 31, 2017.
45. **Lucero, C.** [interv.] P. Piering. November 13, 2017.
46. **Peterson, S.** [interv.] P. Piering. November 21, 2017.
47. **Fredrikson-Goldsen, K I, et al.** *At-Risk and Underserved: LGBTQ Older Adults in Seattle/King County: Findings from Aging with Pride.* Seattle: University of Washington, 2015.
48. **DeVries, B.** *LG(BT) persons in the second half of life: The intersectional influences of stigma and cohort.* LGBT Health, pp. 18-23, 2014.
49. **City & County of San Fransisco.** *Aging in the Lesbian Gay Bisexual and Transgender Community.* San Fransisco: s.n., 2003.

50. **M. Davis and Company, Inc.** *An Estimate of Housing Discrimination Against Same Sex Couples*. s.l. : US Department of Housing and Urban Development, 2013.
51. **Levy, D., Wissoker, D., Aranda, C., Howell, B., Pitingolo, R., Sewell, S., Santos, R.** *A paired-testing pilot study of housing discrimination against same-sex couples and transgender individuals*. Metropolitan Housing and Communities Policy Center. s.l.: Urban Institute Research Report, 2017.
52. **Center, Equal Rights.** *Opening Doors: An investigation of barriers to senior housing for same-sex couples*. 2014.
53. **Jennifer M. Boggs, Jennifer Dickman Portz, Diane K. King, Leslie A. Wright, Kenneth Helander, Jessica H. Retrum & Wendolyn S. Gozansky.** *Perspectives of LGBTQ Older Adults on Aging in Place: A Qualitative Investigation*. Journal of Homosexuality, Vol. 64, 2017.
54. **SAGE.** *Out and Visible: The Experiences and Attitudes of Lesbian, Gay, Bisexual and Transgender Older Adults, Ages 45-75*.
55. **Henry, M., Rosenthal, L., Shivji, A., Watt, R. & Abt Associates.** *The 2016 Annual Homeless Assessment Report (AHAR) to Congress*. s.l. : The U.S. Department of Housing and Urban Development, 2016.
56. **Development, US Department of Housing and Urban.** *Supportive Housing Program Desk Guide*. [Online] 2008. <https://www.hudexchange.info/resource/841/supportive-housing-program-shp-desk-guide/>.
57. **Grenier, A., Barken, R., Sussman, T., Rothwell, D., & Bourgeois-Guérin.** *Homelessness among older people: Assessing strategies and frameworks across Canada*. Canadian Review of Social Policy/Revue Canadienne de Politique Sociale, pp. 1-39, 2016.
58. **Cubanski, Juliette, Casillas, Giselle and Damico, Anthony.** *Poverty Among Seniors: An Updated Analysis of National and State Level Poverty Rates Under the Official and Supplemental Poverty Measures*. s.l.: The Henry J. Kaiser Family Foundation, 2016.
59. **Brown, R.T., Thomas, M.L., Cutler, D., & Hinderlie, M.** *Meeting the Housing and Care Needs of Older Homeless Adults: A Permanent Supportive Housing Program Targeting Homeless Elders*. Seniors Housing Care J., Vol. 21, pp. 126-135, 2013
60. **US Interagency Council on Homelessness.** *Opening Doors: Federal Strategic Plan to Prevent and End Homelessness*. [Online] 2010. [www.ich.gov/PDF/OpeningDoors\\_2010\\_FSPPPreventEndHomeless.pdf](http://www.ich.gov/PDF/OpeningDoors_2010_FSPPPreventEndHomeless.pdf).
61. **Culhane, D.P., Metraux, S., Byrne, T., Stino, M., and Bainbridge, J.** *The age structure of contemporary homelessness: Evidence and implications for public policy*. Analyses of Social Issues and Public Policy, pp. 13: 1-17, 2013.
62. **Hahn, J.A., Kushel, M.B., Bangser, D.R., Riley, E. and Moss A.R.** *The aging of the homeless population: Fourteen-year trends in San Francisco*. Journal of General Internal Medicine, pp. 21:775–778, 2006.
63. **Brown, R.T., Kiely, D.K., Bharel, M., & Mitchell, S.L.** *Geriatric syndromes in older homeless adults*. Journal of General Internal Medicine, Vol. 27, pp. 16-22, 2012.
64. **Hwang, S. W.** *Mortality among men using homeless shelters in Toronto, Ontario*. Journal of the American Medical Association, Vol. 283, pp. 2152-2157, 2000.
65. **Garibaldi, B., Conde-Martel, A., & O'Toole, T. P.** *Self-reported comorbidities, perceived needs, and sources for usual care for older and younger homeless adults*. Journal of General Internal Medicine, Vol. 20, pp. 726-30, 2005.
66. **Gelberg, L., Linn, L.S., Mayer-Oakes, & S.A.** *Difference in health status between older and younger homeless adults*. Journal of the American Geriatrics Society, Vol. 38, pp. 1220-1229, 1990.
67. **Kushel, M.** *Older homeless adults: Can we do more?* Journal of General Internal Medicine, Vol. 27, pp. 5-6, 2012.

68. **Bureau, U.S. Census.** *American Community Survey, 5-year Estimates.* 2012-2016.
69. **Affairs, Department of Veterans.** *Aging Veterans in the United States: A snapshot of older veterans and their social, economic, and housing characteristics.* 2016.
70. **U.S. Census Bureau** FINDER/American Fact. *American Community Survey.* 2012-2016..
71. **Greenfield, E.A., Oberlink, M., Scharlach, A.E., Neal, M.B., and Stafford, P.B.** *Age-friendly community initiatives: Conceptual issues and key questions.* *The Gerontologist*, pp. 55(2), 191-198, 2015.
72. **Chan, Sewin and Gould, E.I.** *Housing for an Aging Population.* *Housing Policy Debate*, pp. 2-26, 2016.
73. **U.S. Department of Housing and Urban Development.** *Accessibility of America's Housing Stock: Analysis of the 2011 American Housing Survey (AHS).* s.l : Office of Policy Development and Research, U.S. Department of Housing and Urban Development, 2015.
74. **Dawkins, C. and Miller, M.** *The Characteristics and Unmet Housing Program Needs of Disabled HUD-Assisted Households.* *Housing Policy Debate*, 2017.
75. **American Planning Association.** *Aging in community policy guide.* 2014.
76. **Maroko, A R, et al.** *The complexities of measuring access to parks and physical activity sites in New York City: A quantitative and qualitative approach.* *International Journal of Health Geographics*, p. 8(34), 2009.
77. **Ulmer, Jared and Hoel, Lester A.** *Evaluating the Accessibility of Residential Areas for Bicycling and Walking using GIS.* s.l. : Center for Transportation Studies at the University of Virginia, 2003. UVACTS-5-14-64.
78. **Walk Score Methodology.** *Walk Score.* [Online] <https://www.walkscore.com/methodology.shtml>.
79. **National Academies of Sciences, Engineering, and Medicine.** *Developing Affordable and Accessible Community-Based Housing for Vulnerable Adults: Proceedings of a Workshop.* Washington, DC: The National Academies Press, 2017.
80. **Redfoot, D, Feinberg, L and Houser, A.** *The aging of the baby boom and the growing care gap: A look at future declines in the availability of family caregivers.* *AARP Public Policy Institute.* Washington, DC: AARP Public Policy Institute, 2013.
81. **Leading Age Center for Housing Plus Services.** *Why housing plus services.* 2017.
82. **U.S. Department of Health and Human Services.** *Support and Services at Home (SASH) Evaluation: Second Annual Report.* 2016.
83. **U.S. Health and Human Services.** *U.S. Department of Health and Human Services (2017). Support and services at home (SASH) evaluation: Highlights from the first four years.* s.l. : HHS Office of the Assistant Secretary for Planning and Evaluation, 2017.
84. **Institute on Aging.** *Housing with Services.* s.l. : Portland State University, 2016.
85. **Carder , P C, et al.** *Housing with services program evaluation.* Portland, OR : Institute on Aging, Portland State University, 2016.
86. **Snelling, Sherri.** *The Village Movement: Redefining Aging in Place.* s.l. : Next Avenue, June 4, 2012.
87. **Village to Village Network.** [Online] 2017.  
[http://www.vtvnetwork.org/content.aspx?page\\_id=22&club\\_id=691012&module\\_id=248579](http://www.vtvnetwork.org/content.aspx?page_id=22&club_id=691012&module_id=248579).
88. **Scharlach, A, Graham, C and Lehning, A.** *The "Village" Model: A consumer-driven approach for aging in place.* *The Gerontologist*, Vol. 52, pp. 418-427, 2012.
89. **Aging and Disability Services.** *Village Members Create Supportive Communities.* July 11, 2017.
90. **What is Villages NW.** *Villages NW.* [Online] <http://villagesnw.org/what-is-villages-nw/>.
91. **World Health Organization.** *www.who.int. Global Age-friendly Cities: A Guide.* [Online] 2007.  
[http://www.who.int/ageing/publications/Global\\_age\\_friendly\\_cities\\_Guide\\_English.pdf](http://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf).
92. **Bridge Meadows.** [Online] 2018. <http://www.bridgemeadows.org/>.
93. **Hope Meadows.** *Hope Meadows: About.* [Online] 2015. <http://hopemeadows.org/about/>.

94. **Eheart, B.K., et al.** *Generations of Hope Communities: An intergenerational neighborhood model of support and service.* Children and Youth Services Review, pp. 31, 47-52, 2008.
95. **Scharlach, A and Lehning, A.** *Creating age-friendly communities.* New York, NY : Oxford University Press, 2016.
96. **Burkhardt, W.** The next hottest thing In Silicon Valley: Gerontechnology. *Forbes.* 2016.
97. **Beach, S. R. and Czaja, S. J.** *Advancing the aging and technology agenda in gerontology.* The Gerontologist, pp. 55(5), 724–734, 2014.
98. **Schulz, R., Wahl, H-W., Matthews, J.T., DeVito Dabbs, A., Beach, S.R., & Czaja, S.J.** *Advancing the aging and technology agenda in gerontology.* The Gerontologist, Vol. 55, pp. 724-734, 2014.
99. **Berridge, C.** *Fulfilling the promises of gerotech requires getting under its skin.* s.l. : International Network for Critical Gerontology., 2017.
100. **Cahn, E.S.** *Priceless Money: Banking time for changing times.* s.l. : TimeBanks UK, 2006.
101. **Collom, E.** *Engagement of the elderly in time banking: The potential for social capital generation.* Journal of Aging & Social Policy, pp. 20(4), 414-436, 2008.
102. Timebanks of Puget Sound. [Online] 2013. <http://tbanks.org/faqs/#What-are-Time-Credits?>
103. **Holt-Lunstad, J., et al.** *Loneliness and social isolation as risk factors for mortality: a meta-analytic review.* *Perspect Psychol Sci.*, Vol. 10, pp. 227-37, 2015.
104. **Valtorta, N., Kanaan, M., Gilbody S., Ronzi, S., & Hanratty, B.** *Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies.* *Heart*, Vol. 102, pp. 1009-16, 2016.
105. **Donovan, N., Wu, Q., Rentz, D., Sperling, R., Marshall, G., & Glymour, M.** *Reciprocal relations of loneliness and cognitive function in older U.S. adults.* *Alzheimer's & Dementia*, Vol. 11, pp. 201-202, 2015.
106. **Social Care Institute for Excellence.** *Social Care Institute for Excellence Preventing Loneliness and Social Isolation Among Older People. At a Glance*, pp. 1-6, 2012.
107. **Wilson C, Moulton B.** *Loneliness Among Older Adults: A National Survey of Adults 45 +.* Knowledge Networks and Insight Policy Research. Washington DC : American Association of Retired Persons, 2010.
108. **Drennan J., Treacy M., Butler M., Byrne A., Fealy G., Frazer K., Irving K.** *The experience of social and emotional loneliness among older people in Ireland.* *Ageing and Society.* 2008, pp. 1113–1132., 2008.
109. **Jivraj, S., Nazroo, J. and Barnes, M.** Change in social detachment in older age in England . [ed.] J. Nazroo and A. Steptoe J. Banks. *The Dynamics of Ageing: Evidence from the English Longitudinal Study of Ageing 2002-10 (Wave 5).* s.l. : London Instit, 2012.
110. **Bolton, M.** *Loneliness – the state we're in: A report of evidence compiled for the Campaign to End Loneliness.* s.l. : Age UK Oxfordshire. 2013.
111. **N., Le Mesurier.** *The Hidden Store – Older People's Contributions to Rural Communities.* s.l. : Age Concern report. 2003.
112. **Philip, A. and Gilbert, L.J.** *Low income amongst the older population in Great Britain: a rural/non-rural perspective on income levels and dynamics.* *Regional Studies*, Vol. 41, pp. 735-46, 2007.
113. **Nicholson, N.R.** *A review of social isolation: an important but underassessed condition in older adults.* *J Prim Prev.*, Vol. 33, pp. 137-52, 2012.
114. **Institute on Aging.** *Friendship Line.* [Online] 2017. <https://www.ioaging.org/services/all-inclusive-health-care/friendship-line>.
115. **Menec, VH.** *Conceptualizing Social Connectivity in the Context of Age-Friendly Communities.* *Journal of Housing For the Elderly*, Vol. 31, 2017.

116. **Weiss, E., Brown, N.** *A Place to Call Home: The Case for Increased Federal Investments in Affordable Housing*. Washington D.C. : Campaign for Housing and Community Development Funding, 2017.

117. Missing Middle. *Missing Middle: Responding to the demand for Walkable Urban Living*. [Online]  
<http://missingmiddlehousing.com/>.





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