

Regional Planning for Aging in Place: Older Adults' Perceptions of Needs and Awareness of Aging Services in Washington State

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ABSTRACT

Aging in place (AIP), or being able to maintain independence in one's home and community, will be a big challenge for older adults in coming decades. As interest in AIP, age-friendly policies, and livable community initiatives grows, successful policy planning should be based on the perspectives of older adults, especially those from marginalized communities with limited resources. We surveyed 252 community-dwelling older adults ($M = 73.61$; $SD = 8.44$) via computer-assisted-telephone interviews about their health, support needs, access to services/supports, and awareness of the local aging services organization. Nearly one-third of participants (31%) reported having unmet support needs for their activities of daily living. The most prevalent unmet needs were related to home maintenance tasks (i.e., home repairs, yard work, housekeeping, and other services). Regression analyses revealed that poor health (physical and mental) increased risk for unmet needs, but adequate knowledge of aging services lowered the risk (all $p < 0.05$). Most participants were not familiar with the local aging services organization and nearly one-quarter did not know where to get the help they needed. Content analysis revealed four pathways of anticipated help: (1) reliance on friends/family, (2) general expectations that government, social services, or community support will be available, (3) pursuit of non-specific searches for support, and (4) referrals from medical professionals. Raising awareness about affordable community-based aging services, bolstering cross-sector engagement, and proactively investing in age-friendly community initiatives are necessary actions toward effectively planning for future support needs and addressing the comprehensive AIP needs of diverse older adults.

Keywords: community gerontology, age-friendly, home and community-based services, Area Agency on Aging

Planificación Regional para el Envejecimiento en el Lugar: Percepciones de los adultos mayores sobre las necesidades y la conciencia de los servicios para el envejecimiento en el estado de Washington

RESUMEN

Envejecer en el lugar (AIP), o poder mantener la independencia en el hogar y la comunidad, será un gran desafío para los adultos ma-

yores en las próximas décadas. A medida que crece el interés en AIP, las políticas amigables con las personas mayores y las iniciativas comunitarias habitables, la planificación de políticas exitosas debe basarse en las perspectivas de los adultos mayores, especialmente aquellos de comunidades marginadas con recursos limitados. Encuestamos a 252 adultos mayores que viven en la comunidad (M = 73,61; SD = 8,44) a través de entrevistas telefónicas asistidas por computadora sobre su salud, necesidades de apoyo, acceso a servicios/apoyos y conocimiento de la organización local de servicios para el envejecimiento. Casi un tercio de los participantes (31 %) informaron tener necesidades de apoyo insatisfechas para sus actividades de la vida diaria. Las necesidades insatisfechas más prevalentes estaban relacionadas con las tareas de mantenimiento del hogar (es decir, reparaciones del hogar, trabajo en el jardín, limpieza y otros servicios). Los análisis de regresión revelaron que la mala salud (física y mental) aumentaba el riesgo de necesidades insatisfechas, pero el conocimiento adecuado de los servicios para personas mayores reducía el riesgo (todos $p < 0,05$). La mayoría de los participantes no estaban familiarizados con la organización local de servicios para personas mayores y casi una cuarta parte no sabía dónde obtener la ayuda que necesitaban. El análisis de contenido reveló cuatro vías de ayuda anticipada: (1) confianza en amigos/familiares, (2) expectativas generales de que el gobierno, los servicios sociales o el apoyo comunitario estarán disponibles, (3) la búsqueda de apoyo no específico y (4) referencias de profesionales médicos. Crear conciencia sobre los servicios asequibles para personas mayores basados en la comunidad, reforzar la participación intersectorial e invertir de manera proactiva en iniciativas comunitarias amigables con las personas mayores son acciones necesarias para planificar de manera efectiva las futuras necesidades de apoyo y abordar las necesidades integrales de AIP de diversos adultos mayores.

Palabras clave: gerontología comunitaria, servicios adaptados a las personas mayores, en el hogar y en la comunidad, Agencia del Área sobre el Envejecimiento

关于就地养老的区域规划：华盛顿州老年人的需求感知和对养老服务的认识

摘要

就地养老（AIP）、或能够在家庭和社区中保持独立，这将

是未来几十年老年人面临的一大挑战。鉴于越来越多的兴趣聚焦于AIP、老年友好型政策和宜居社区倡议，成功的政策规划应基于老年人的视角，尤其是来自资源有限的边缘化社区的老年人。我们通过计算机辅助电话采访，对 252 名居住在社区的老年人（ $M = 73.61$ ； $SD = 8.44$ ）进行调研，了解了他们的健康状况、支持需求、服务/支持的获取机会以及对当地养老服务组织的认识。近三分之一的参与者（31%）报告称，他们日常生活的支持需求未得到满足。未满足的最普遍需求有关于家庭维护任务（即家庭维修、庭院工作、家政服务和其他服务）。回归分析显示，健康状况不佳（身体和精神）会增加未满足需求的 $p < 0.05$ 风险，但对养老服务的充分了解会降低该风险（所有 $p < 0.05$ ）。大多数参与者不熟悉当地的养老服务组织，近四分之一的人不知道从哪里获得他们需要的帮助。内容分析揭示了预期帮助的四条途径：（1）依赖朋友/家人，（2）对“可供使用的政府服务、社会服务或社区支持”的普遍期望，（3）寻求非特定支持，（4）医疗专业人员的转介。提高对可负担的、基于社区的养老服务的认识，加强跨部门参与，并积极投资老年友好型社区倡议，是有效规划未来支持需求和解决不同老年人的综合AIP需求的必要行动。

关键词：社区老年学，老年友好，基于家庭和社区的服务，地区老龄化机构

Aging in place (AIP), or being able to maintain independence in one's home and community, will be a big challenge for older adults in coming decades (Binette, 2021). People are living longer with chronic conditions; approximately 60% of older adults experience at least one chronic condition and 40% have at least two (Administration on Aging, 2021; U.S. Centers for Disease Control & Prevention, n.d.). Living with chronic conditions will likely require daily self-management routines and may result in potentially complex health care inter-

actions and increased need for support. At the same time, most people express a preference for AIP (Binette, 2021; Binette & Vasold, 2018), which will necessitate a wide range of services/supports available in communities. Addressing the needs of an increasingly diverse older population (e.g., by race/ethnicity, urban/rural-dwelling, socioeconomic status) will require unique AIP solutions. Rather than relying primarily on policymakers or clinicians' views, AIP initiatives should incorporate older adults' perspectives, experiences, and input, especially individuals from his-

torically marginalized or underserved communities with limited resources (Finlay & Finn, 2020; Greenfield, 2015; Phillipson & Buffel, 2020) and individuals who may not have adequate and/or available family support (Greenfield & Reyes, 2015).

Age-Friendly Policies and Aging in Place

The global age-friendly movement (World Health Organization, 2007), livable community initiatives (AARP, n.d.), and the concept of aging in place (U.S. Centers for Disease Control and Prevention, 2009) all reflect the ever-growing importance of policies to promote the abilities of adults to remain living in their homes and communities as they age. Environmental gerontologists have long argued that the residential and community environments in which older adults live can support or hinder one's ability to age optimally (Greenfield, 2012; Kan et al., 2020). Policymakers and service providers have also become increasingly aware of the importance of providing age-friendly services to older people (e.g., considerations for housing, transportation, open spaces, access to services, social inclusion), which has fostered greater discussion about innovating age-friendly/AIP strategies and practices. Overall, the development and implementation of age-friendly policy strategies, such as engaging stakeholders from across sectors and taking a community-planning approach (Greenfield et al., 2015; Scharlach & Lehning, 2016), represents an important new component of public policy and ultimately supports AIP be-

cause it leads to enhancing physical, social, and service environments through local community engagement (Phillipson & Buffel, 2020).

Initial efforts to conceptualize and define AIP primarily focused on the physical health needs of older adults, within the context of their changing environments. For example, Lawton and Nahemow's (1973) foundational work described how individuals balance demands—or environmental press—in their lives (e.g., steep stairs up to a residence) with their available level of personal competence and resources (e.g., decreased stamina or mobility). This person-environment model is useful for understanding AIP interventions because it proposes a scaffolding process, where modification of one's environment can increase personal adaptation. In ideal settings, features of one's environment should operate to accommodate changes in one's functioning, especially as personal resources and abilities may change with age. An important pathway to enhancing personal adaptation for AIP is through the service environment and provision of adequate home and community-based long-term services and supports (LTSS).

Home and Community-based Long-Term Services & Supports

Access to home and community-based LTSS is an important domain of age-friendly and livable cities that facilitates older adults' abilities for AIP. Older adults easily identify barriers to AIP and may not have the resources to access the services and supports they need (Brim et al., 2021). More specif-

ically, Medicaid is the primary payer for a range of LTSS because Medicare only provides limited LTSS, and these services and supports are often unaffordable through private insurance markets (Reaves & Musumeci, 2015). If older adults proactively seek help for ongoing care needs, they may not qualify for Medicaid-funded LTSS if they are not yet considered functionally or financially in need. Furthermore, there are significant variations across states in how they provide services and supports within Medicaid (Friedman et al., 2019). As a result, older adults' utilization of home- and community-based LTSS remains low due to limited awareness of and barriers to using services (Brossoie et al., 2011; Casado et al., 2011; Lindquist et al., 2018). Issues with accessing LTSS, continuity of care, and efficiency of health care delivery (Regan & Wong, 2009) continue to contribute to health disparities and disrupt the potential for individuals to age in place.

The national network of over 600 Area Agencies on Aging (AAA) serves as an invaluable community-based resource equipped to meet older adults' AIP needs in their homes and communities. AAAs exist to specifically promote and coordinate an array of home and community-based services and supports, such as chronic disease self-management, in-home health care, transportation services, nutrition programs, information and referral, and more (Brewster et al., 2018; Kunkel, 2019). AAAs also have expertise in routinely addressing both the complex social and functional health needs of older

adults, but agencies may need to adapt or expand services to better address variability in older adults' social determinants of health needs (Weaver et al., 2021). Prioritizing community-based services that support AIP is advantageous because it enables older people to maintain independence, autonomy, and connection to social support, and helps to avoid high-cost institutional care (Martin et al., 2019; Stones & Gullifer, 2016; Wiles et al., 2012). The majority of AAAs across the nation are also actively involved in age-friendly and livable community activities and initiatives (National Association of Area Agencies on Aging, 2017; 2020). In addition, investment in age-friendly policies, programs, and services to support AIP not only benefits the current population of older adults, but also future generations who are likely to experience significantly longer lives.

Policy Planning within a Community Gerontology Framework

In response to an increasing focus on age-friendly community development and a more informed understanding of the challenges of AIP (e.g., complexities of diverse contexts, political environments, and marginalized populations), scholars have argued for community gerontology perspectives on person-environment exchanges in later life. For example, Greenfield and colleagues (2019) proposed an ecological community gerontology framework in which aging is understood at the meso-level (i.e., within the community), while simultaneously being part of the

micro- (i.e., contexts most proximal to individuals) and macro- (i.e., broader social systems) levels. More specifically, micro-level influences on aging may include individuals' health status, chronic conditions, and socio-economic status, while meso-level influences on aging can be understood as individuals' awareness of supports in the community, their openness or receptiveness to using services, or the geographic region in which they are located. Macro-level influences on aging can be comprised of the local, state, and national social and policy systems of services and supports. Overall, bioecological approaches that integrate micro-, meso-, and macro-level contexts can be useful for understanding the influence of the broader social context of population aging. It is unclear whether existing policies, programs, and services will meet the projected needs of a burgeoning aging population, underscoring the need for further work at the community development level.

Current Study

For communities to develop and implement a broad array of responsive organizational policies and practices that meet the demands of a diverse aging society and support AIP, intentional efforts to understand the challenges and changes that will occur due to population aging and to identify unmet needs in the community are needed. We take a community-based lens in our analyses that explores community contexts to sustain efforts supporting AIP. Although use of LTSS can support AIP safely, awareness of available services,

affordability issues, and various social determinants of health can be common barriers to accessing services. In this study, we explored older adults' perspectives of AIP held by older adults across a five-county region in southwest Washington state by asking the following research questions: (1) What AIP needs and supports do older adults expect? (2) Do older adults feel they are receiving adequate health services and what factors are associated with adequate support and services? (3) How aware are older adults of current aging services/supports in their community and what are their anticipated sources of support?

Methods

Guided by community-based participatory research principles, we partnered with AAA in Washington State to develop an interview protocol. We surveyed a probability sample of community-dwelling older adults via computer-assisted telephone interviews. From a sampling frame of approximately 10,000 phone numbers (obtained from Survey Sampling International) based in the five-county region covering the study area, trained interviewers relied on random digit dialing to contact households. All respondents were initially screened to determine study eligibility (i.e., identify a resident aged 60+ in the household or a person under 60 who was a caregiver). There were 7,219 eligible phone numbers from which 363 individuals ($n = 252$ older adults; $n = 111$ caregivers) either fully or partially

completed the survey during the open study period between April and June of 2016. While the overall response rate based on the larger sampling frame was just over 5%, this reflects similar national trends consistent with phone surveys (Kennedy & Hartig, 2019). When an eligible and voluntary participant was identified, interviewers continued with the phone interview. A typical interview lasted 30 minutes. For the current study, we aimed to center the voices of older adults themselves and thus only included adults aged 60+ living in the community ($n = 252$) who fully or partially completed the phone survey.

Participants

The average age of participants was 74 years ($SD = 8.4$, $range = 60-94$ years). Almost two-thirds of participants were women ($n = 164$) and the majority (81%, $n = 204$) were White, which reflected the racial demographic of the region. Over one-third of participants were widowed (37.8%; $n = 85$) and another 28.4% ($n = 64$) were married/partnered. Slightly more than half of participants ($n = 132$) resided in rural areas and nearly 20% ($n = 50$) had annual household incomes less than \$20,000. See Table 1 for additional sociodemographic information of the participants.

Table 1. Participant Characteristics and Summary of Outcome and Independent Variables

Variables	% (n) or Mean (SD)
Outcome variables	
Access to sufficient health services	80.00 (200)
Number of unmet I/ADL support needs	
None	68.65 (173)
One unmet I/ADL support need	17.46 (44)
Two unmet I/ADL support needs	5.95 (15)
Three unmet I/ADL support needs	3.97 (10)
Four or more unmet I/ADL support needs	3.97 (10)
Most prevalent unmet I/ADL support needs	
Heavy housework	11.11 (28)
House repairs	9.13 (23)
Yard work	15.48 (39)
Other services (e.g., wheelchair repairs, assistive devices, dental care)	8.73 (22)
Independent and control variables	
Self-rated health conditions	
Good or excellent	71.89 (179)
Neutral	14.46 (36)
Very bad or bad	13.65 (34)

Any chronic disease	53.17 (134)
Depressive symptoms (PHQ-2 scores range 0-6)	0.86 (1.46)
Awareness of where to get help if needed	76.95 (187)
Number of AAA services ever used (range 0-10)	0.26 (0.86)
Knowledge of six or more AAA services	23.02 (58)
Age (range from 60-94)	73.61 (8.44)
Gender	
Women	71.93 (164)
Men	28.07 (64)
Education	
More than high school degree	73.41 (185)
Income	
More than \$20,000	46.43 (117)
Less than or \$20,000	19.84 (50)
Did not report	33.73 (85)
Married	25.40 (64)
White, non-Hispanic	80.95 (204)
Rural residency	52.38 (132)
Type of health insurance	
Public insurance	69.44 (175)
Private insurance	30.56 (77)

Note: Most variables are categorical; there are only three continuous variables: (1) level of depressive symptoms, (2) number of AAA services ever used, and (3) age. Mean and standard deviation (in parentheses) are shown for the continuous variables.

Measures

The interview survey included both closed and open-ended questions to assess participants' AIP needs related to home and community-based services. It was developed in collaboration with AAA leaders, administrators, and management teams to reflect the types of services and programs available to the community and with the goal to identify gaps in service needs within the community. For more information on the survey, please contact the first author.

Outcome variables. We examined six outcomes, all related to health service access or unmet needs. First, we examined whether participants felt they had *access to sufficient health services*. This was measured via a one-item, dichotomous question: "Do you have sufficient health care services to meet all your medical needs including physical, mental, dental, and specialty health care (e.g., geriatrician, cardiologist, psychiatrist, or nephrologist)?" Participants responded yes/no, but were also provided an opportunity to expand on their responses in an open-ended format.

Next, we examined the number of *unmet instrumental/activities of daily living (I/ADL) support needs*. I/ADL support needs were measured via participant self-report of receiving help or needing help (new or additional help beyond their current support) in any of the following established I/ADL areas (Lawton & Brody, 1969): meal preparation, personal care tasks, getting in and out of bed/chair, walking, shopping, managing medications or money, using a telephone, light or heavy housework, yard work, interior or exterior house repairs, transportation, assistance with a computer, or any other service. The four most prevalent I/ADL needs were *heavy housework, home repairs, yard work, and other services* (e.g., wheelchair repairs, changing oxygen tanks, assistive devices such as magnifiers, access to dental care, access to exercise programs, financial support for bills, and assistance with general errands). We examined each of these four variables as an outcome separately.

Independent variables. The predictor variables of interest included a set of physical and mental health indicators, several variables pertaining to awareness/knowledge of services, and an indicator of community support services utilization. *Self-rated physical health* was reported on a five-point Likert-scale from 1 = very bad to 5 = excellent. We recoded this into a three-point scale as very bad or bad (13.6% participants), neutral (14.5% participants), and good or excellent (71.9% participants). Participants also indicated whether they had *any chronic condition*, which we

recoded into a binary variable (yes = at least one, no = none). Approximately 53% of participants reported having at least one chronic condition. To measure *level of depressive symptoms*, the Patient Health Questionnaire (PHQ-2) was used as a depression screener and inquired about the degree to which an individual experienced depressed mood and anhedonia over the prior two weeks. The PHQ-2 has been validated in previous studies and demonstrates sensitivity (Gilbody et al., 2007). The PHQ-2 scores ranged from 0 to 6, with higher scores indicating greater distress. Approximately 64% scored a 0, while 2.8% scored a 6. We used this as a continuous variable in the analyses, and the average score was 0.86.

Three predictor variables were included to measure awareness of community supports: awareness of where to get help, knowledge of AAA services, and whether AAA services were ever used. Participants began by answering a series of questions regarding their daily I/ADL needs (e.g., “Are you currently receiving help preparing meals?”, “Are you currently receiving help managing medications?”) and for which activities they would like help or more help. Participants were then asked about their *awareness of where to get help* based on a dichotomous (yes/no) question, “Do you know where to get the help you may need for daily activities?” The next variable focused more specifically on recognition of the local AAA, which provides a host of local programs and aging support services in the community. First, participants were asked whether they were aware of services provided

by AAA (e.g., family caregiver support, transportation, senior health and wellness, senior meal sites, home delivered meals, farmers market vouchers, personal care services, case management, care coordination, or information and assistance services). We then created a composite variable called *knowledge of AAA services* by sum scoring their responses to reflect the level of awareness of these ten AAA services. Participant scores ranged from 0 to 10 (*mean* = 2.81); because most participants (57.9%, *n* = 149) were not aware of a single AAA service, this resulted in a skewed distribution. Consequently, we used the top quartile as a cut-off to distinguish between participants with more, versus less, knowledge of available AAA services. This variable was then dichotomized so that scores ranging between 0-6 were considered “less knowledgeable” and scores ranging between 7-10 were considered “more knowledgeable.” Finally, participants who endorsed recognition of the AAA organization were asked if they had *ever used services*.

Control variables. Information related to age, gender, education, income, marital status, race/ethnicity, rural residency, and type of health insurance coverage were controlled for in all analyses. Given the age of the participants and that most were out of the labor force, we did not control for employment status in our analyses. Based on the sample distribution, household income was dichotomized into above and below the lowest household income quartile (\$20,000). This low-income threshold was also selected in accordance with the Center on Budget and Policy Prior-

ities (CBPP) report that 25% of retiree households live on less than \$20,000 (Romig, 2019). Participants with household incomes of less than \$20,000 per year were classified as low income and those with household incomes of \$20,000 or more per year were classified as higher income. Additionally, many participants did not disclose household income information, and we created a separate income category of ‘did not report’ to avoid large loss of data points. Due to our smaller sample size, types of health insurance were categorized into two mutually exclusive groups: those with public insurance coverage and those with private insurance coverage only. The public insurance category could include any variation of participants with Medicaid only, Medicare only, both Medicaid and Medicare, both Medicaid and private health insurance, both Medicare and private health insurance, or Medicaid, Medicare, and private insurance. While it is common for older adults to purchase a Medicare or Medicaid supplement, their primary health insurance is typically the public insurance option, which was our rationale for this dichotomization.

Given the sample size, we minimized the categories within each variable to preserve degrees of freedom. For instance, marital status was coded ‘1’ for married or partnered individuals and ‘0’ for otherwise. The latter category included divorced, separated, widowed, or single individuals; including each of these categories separately would have resulted in small cell size per category. All outcome, independent, and control variables are summarized in Table 1.

Open-ended questions. Finally, we also explored participants' *anticipated sources of support*. All participants were asked an open-ended question regarding their knowledge of where to get any help they may need and to identify that source: "Do you know where to get the help you may need? Please tell me where you would get help." The majority of respondents (77%) reported that they knew where to get the help they would need, and the research team qualitatively analyzed and coded their responses to this question.

Data Analysis

The computer-assisted telephone interview survey was programmed into Voxco software to facilitate the interview process and data collection. The computer-assisted telephone interviewing procedures resulted in minimal missing data; all available data were used in each analysis. We conducted basic descriptive (mean, standard deviation, and chi-square) and regression analyses using SPSS version 26 software. Logistic regression models were fitted to examine access to sufficient health services and the four outcome variables related to needing more help with specific tasks. These five outcome variables were binary indicator variables. Odds ratios (OR) are reported in Table 2 for access to sufficient health services and in Table 4 for the other four outcome variables on unmet I/ADL needs. Poisson regression modeling was used to examine the connection between I/ADL support needs and sociodemographic/health factors. Because support needs were based on a count of number of needs reported,

they are not reflective of a normal distribution. Thus, the advantage of relying on a count model, versus a linear model, is that it accounts for skewness of the outcome variable because a normal distribution of this variable is not assumed. Further, counting the number of unmet I/ADL support needs enabled us to determine how sociodemographic and health factors influenced the degree of perceived unmet I/ADL support needs and provided more context to the logistic regression analyses which are based on binary I/ADL outcomes. Incidence rate ratios (IRR) from the Poisson regression model are shown in Table 3. All statistical tests were two-tailed and to contextualize findings, significance level thresholds are reported at $p < 0.05$, though we note meaningful trends toward significance at $p < 0.10$ (Betensky, 2019; Thiese, Ronna, & Ott, 2016).

Anticipated Sources of Support. Lastly, for qualitative data from the open-ended survey questions, researchers independently read each response multiple times and generated an inductive coding scheme for content analysis (Hsieh & Shannon, 2005; Thomas, 2006) based on participants' reported sources for seeking support. Additional codes were developed, and the coding scheme was revised and refined, yielding several distinct themes related to how participants planned to meet their AIP needs. Two authors independently applied the final coding scheme and discrepancies were discussed until 100% agreement was achieved.

Table 2. Logistic Regression Analysis: Access to Sufficient Health Services

Variable	Odds ratio (SE)	p-value	95% CI
Self-rated health conditions: Very bad or bad	0.62 (0.42)	0.48	[0.17, 2.33]
Self-rated health conditions: Good or excellent	1.28 (0.73)	0.66	[0.42, 3.92]
Levels of depressive symptoms	0.72* (0.10)	0.02	[0.55, 0.94]
Any chronic disease	0.51 (0.26)	0.19	[0.19, 1.38]
Awareness of where to get help	1.44 (0.69)	0.45	[0.56, 3.69]
Adequate knowledge of AAA services	2.05 (1.17)	0.21	[0.67, 6.25]
Number of AAA services ever used	1.33 (0.45)	0.40	[0.68, 2.57]
Women	0.56 (0.29)	0.26	[0.20, 1.55]
Rural residency	0.45 [†] (0.20)	0.08	[0.18, 1.10]
Age	0.98 (0.03)	0.57	[0.93, 1.04]
White, non-Hispanic	2.68 (1.74)	0.13	[0.75, 9.55]
Has more than HS degree	0.76 (0.38)	0.58	[0.28, 2.02]
Married	1.48 (0.89)	0.51	[0.46, 4.81]
Income: more than \$20,000	3.72* (1.96)	0.01	[1.33, 10.44]
Income: did not report	1.38 (0.74)	0.55	[0.48, 3.97]
Private health insurance or self-pay	0.47 (0.29)	0.22	[0.14, 1.56]
Sample size	214		
R ²	0.25		

Note. Standard errors are shown in parentheses. * $p < 0.05$; ** $p < 0.01$. *** $p < 0.001$ reflect statistical significance; [†] $p < 0.10$ reflects trend toward significance.

Results

Access to Sufficient Health Services

Most (80%) of the participants reported having sufficient access to health services. All independent and control variables were included in the logistic regression analysis (see Table 2). While the association between each of these variables and the outcome variable was in the expected direction, estimated coefficients for three of the factors were statistically significant. Individuals from higher income households were more likely to report sufficient

access to health services (OR = 3.72 (SE = 1.96), $p = 0.01$) when compared to households with less than \$20,000. Thus, individuals in higher income households were almost at four times greater odds of reporting access to sufficient health services, compared to individuals in lower income households. When compared with participants who did not disclose their household income information, those in higher income households were still at almost three times greater odds of reporting access to sufficient health services (OR = 2.70 (SE = 1.96), $p = 0.06$). In contrast, individuals with higher levels of

Table 3. Poisson Regression Analyses: Number of Unmet I/ADL Support Needs

Variables	IRR (SE)	95% CI
Access to sufficient health services	0.78 (0.16)	[0.52, 1.17]
Self-rated health: Very bad or bad	1.63 [†] (0.45)	[0.95, 2.81]
Self-rated health: Good or excellent	1.14 (0.30)	[0.67, 1.91]
Level of depressive symptoms	1.27 ^{***} (0.07)	[1.15, 1.41]
Any chronic disease	2.04 ^{**} (0.47)	[1.29, 3.22]
Awareness of where to get help	0.87 (0.17)	[0.59, 1.27]
Knowledge of AAA services	0.49 ^{**} (0.13)	[0.29, 0.83]
Number of AAA services ever used	1.17 [†] (0.10)	[0.99, 1.37]
Women	1.41 (0.31)	[0.92, 2.17]
Rural residency	0.86 (0.17)	[0.58, 1.25]
Age	1.01 (0.01)	[0.98, 1.03]
White, non-Hispanic	1.23 (0.45)	[0.60, 2.52]
More than HS degree	1.51 [†] (0.33)	[0.99, 2.31]
Married	1.48 [†] (0.29)	[1.11, 2.18]

Note. Standard errors shown in parentheses. Incidence ratios from Poisson regression model are shown for the first outcome variable

[†] $p < 0.05$; ^{**} $p < 0.01$. ^{***} $p < 0.001$ reflect statistical significance; [†] $p < 0.10$ reflects trend toward significance.

depressive symptoms (OR = 0.72 (SE = 0.10), $p = 0.02$) were less likely to report access to sufficient health services. Each unit increase on the PHQ-2 scale of depressive symptoms was associated with a decrease in the odds of reporting access to sufficient health services by a factor of 1.4. In other words, those with depressive symptoms were 38% less likely to report sufficient health service compared to those without depressive symptoms. Finally, there was also a trend for individuals from rural areas to be less likely to report access to sufficient health services (OR = 0.45 (SE

= 0.20), $p = 0.08$). Rural residency was associated with 55% less likelihood of reporting sufficient health service.

Unmet I/ADL Support Needs

Nearly one-third (31%) of participants reported unmet I/ADL support needs. All independent and control variables were included in Poisson regression analyses (see Table 3), as was access to sufficient health services in this and the next four logistic regression models (see Table 4). Among the health variables, self-rated poorer health was trending in a direction to be mean-

ingly associated with greater unmet needs (IRR = 1.63 (SE = 0.45), $p = 0.08$). That is, the incident rate for individuals with self-rated health status of very bad or bad was 1.6 times the incident rate for individuals with neutral self-rated health. Similarly, the incident rate for individuals with at least one chronic condition was twice that for individuals without any chronic conditions (IRR = 2.04 (SE = 0.47), $p = 0.002$). Mental health was also a significant factor and for every unit increase in depressive symptoms, incident rate of number of unmet needs increased by 27% (IRR = 1.27 (SE = 0.07), $p < 0.001$). In terms of knowledge of local aging services (i.e., AAA), the incident rate for those with more knowledge of AAA services was two times lower than those with limited knowledge (IRR = 0.49 (SE = 0.13), $p = 0.008$). This indicated that those with more knowledge of AAA services reported fewer unmet I/ADL needs. For every unit increase in number of AAA services ever used, incident rate of number of unmet needs increased by 17% (IRR = 1.17 (SE = 0.10), $p = 0.06$). This finding was trending toward significance but may also reflect the need for correcting for endogeneity; it is likely that those with more unmet needs might also have greater needs and higher utilization of community services in general. Finally, married individuals (IRR = 1.48 (SE = 0.29), $p = 0.05$) were significantly more likely to report greater unmet needs and those who were higher educated (IRR = 1.51 (SE = 0.33), $p = 0.06$) were substantially more likely to report greater unmet needs.

Most prevalent unmet I/ADL support needs. There were four I/ADL needs that were most frequently reported. All were related to home maintenance-related tasks: needing more help with heavy housework, home repairs, yard work, or other services. To explore key factors associated with whether the four most prevalently reported needs were met or not, we conducted a series of logistic regressions. While significantly associated factors varied with each outcome, poorer mental health was a common, significant variable across most of these unmet I/ADL support needs. The findings are described below and portrayed in Table 4.

Regarding unmet needs associated with heavy housework, those with good or excellent self-rated health reported fewer unmet needs (OR = 0.22 (SE = 0.16), $p = 0.04$). Women, and higher educated individuals, however, were both more likely to report having unmet heavy housework needs. The odds of women reporting unmet heavy housework were 4.4 times the odds of men reporting the same.

In terms of house repairs, 27.8% of participants reported they did not have the financial means to make modifications necessary to remain in their homes. Those who were married were more likely to report unmet needs. More specifically, the odds of married individuals reporting unmet house repair needs were 3.5 times higher compared to the reference group (OR = 3.54 (SE = 2.24), $p = 0.05$).

For the final two most prevalent unmet needs (yard work and other

Table 4. Logistic Regression Analyses: Four Most Frequently Reported Unmet I/ADL Needs

Variables	Heavy housework			House repairs			Yard work			Other services		
	OR (SE)	95% CI	OR (SE)	95% CI	OR (SE)	95% CI	OR (SE)	95% CI	OR (SE)	95% CI	OR (SE)	95% CI
Access to sufficient health services	0.40 (0.25)	0.11, 1.39	0.74 (0.51)	0.19, 2.87	0.87 (0.46)	0.30, 2.47	2.71 (2.26)	0.53, 13.87				
Self-rated health: Very bad/bad	1.06 (0.79)	0.24, 4.60	0.80 (0.70)	0.14, 4.46	0.69 (0.47)	0.18, 2.62	1.62 (1.57)	0.24, 10.85				
Self-rated health: Good/excellent	0.22* (0.16)	0.05, 0.90	0.66 (0.48)	0.16, 2.74	0.50 (0.28)	0.17, 1.51	2.06 (1.79)	0.38, 11.25				
Level of depressive symptoms	1.15 (0.20)	0.82, 1.62	1.37* (0.26)	0.95, 1.98	1.42** (0.21)	1.06, 1.89	1.64** (0.31)	1.12, 2.38				
Any chronic disease	2.29 (1.55)	0.60, 8.67	1.16 (0.72)	0.34, 3.90	1.24 (0.60)	0.48, 3.20	1.80 (1.27)	0.45, 7.21				
Awareness of where to get help	1.66 (1.10)	0.45, 6.07	1.10 (0.68)	0.32, 3.72	1.01 (0.48)	0.40, 2.56	0.12*** (0.07)	0.04, 0.39				
Knowledge of AAA services	0.93 (0.65)	0.23, 3.69	0.75 (0.52)	0.20, 2.88	0.38 (0.24)	0.11, 1.30	0.76 (0.59)	0.17, 3.48				
Number of AAA services ever used	0.94 (0.31)	0.50, 1.79	1.04 (0.28)	0.62, 1.75	1.08 (0.25)	0.68, 1.72	0.93 (0.27)	0.52, 1.64				
Women	4.26* (3.25)	0.95, 19.02	1.85 (1.18)	0.53, 6.46	0.99 (0.46)	0.39, 2.47	0.70 (0.44)	0.20, 2.39				
Rural residency	1.95 (1.14)	0.62, 6.13	0.42 (0.24)	0.14, 1.30	0.93 (0.40)	0.40, 2.15	0.23** (0.16)	0.06, 0.89				
Age	1.01 (0.04)	0.93, 1.08	1.02 (0.04)	0.95, 1.10	1.01 (0.03)	0.96, 1.07	0.97 (0.04)	0.89, 1.05				
White, non-Hispanic	3.58 (4.44)	0.31, 40.75	0.82 (0.73)	0.15, 4.64	1.63 (1.44)	0.29, 9.18	0.17* (0.17)	0.02, 1.25				

More than HS degree	3.44* (2.50)	0.83, 14.31	1.63 (1.12)	0.43, 6.23	1.61 (0.80)	0.61, 4.26	0.34 (0.23)	0.09, 1.25
Married	1.98 (1.27)	0.56, 6.99	3.54** (2.24)	1.02, 12.23	0.76 (0.40)	0.27, 2.12	0.56 (0.46)	0.11, 2.75
Income: more than \$20,000	2.23 (1.61)	0.54, 9.17	0.68 (0.49)	0.16, 2.83	2.28 (1.33)	0.73, 7.16	0.32 (0.23)	0.08, 1.32
Income: did not report	0.45 (0.42)	0.07, 2.78	0.48 (0.42)	0.09, 2.62	2.13 (1.36)	0.61, 7.48	0.29 (0.26)	0.05, 1.60
Private health insurance	1.00 (0.74)	0.24, 4.27	0.92 (0.70)	0.21, 4.07	0.52 (0.34)	0.14, 1.90	0.45 (0.43)	0.07, 2.90
Sample size	214		214		214		214	
R ²	0.24		0.11		0.11		0.30	

Note. Standard errors shown in parentheses. Odds ratios from logistic regression models are shown for remaining outcome variables.

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$ reflect statistical significance; † $p < 0.10$ reflects trend toward significance.

services), more depressive symptoms were significantly associated with both. In fact, the only significant variable associated with unmet yard work needs was depressive symptoms (OR = 1.42 (SE = 0.21), $p = 0.02$). Odds of reporting unmet needs related to other services (e.g., wheelchair repairs, access to dental care, assistive devices, access to exercise programs) increased by a factor of 1.6 with each unit increase in depressive symptoms (OR = 1.64 (SE = 0.31), $p = 0.01$). On the other hand, the odds of reporting unmet needs related to other services were eight times lower among those with awareness of where to get help compared to those with limited awareness (OR = 0.12 (SE = 0.07), $p < 0.001$). Finally, individuals living in rural areas (OR = 0.23 (SE = 0.16), $p = 0.03$) were also less likely to report unmet needs related to other services.

Anticipated Sources of Support

Despite being long-time community residents and potentially eligible for community-based services and supports, over half ($n = 127$) of the participants were completely unaware of available AAA services, and nearly three-quarters of participants ($n = 186$) had never used any AAA services. Of those who were aware of AAA ($n = 114$), 57.9% ($n = 66$) reported they had used a range of AAA services. When participants were queried in an open-ended question about where they would seek help if needed in the future, their responses aligned with four general themes: (1) reliance on friends/family, (2) general expectations that government, social services, or community support will be available,

(3) pursuit of non-specific searches for support, and (4) referrals from medical professionals. Many reported a combination of these four avenues of support.

The understanding that family, friends, or neighbors would be available for support was commonly reported (36% of all responses). A typical response was, "I call my granddaughter or daughter." While some expected help from people they lived with—"my wife helps me do just about everything"—others expected help from more distal sources, including their "network of friends and neighbors" or "several friends in town who help."

The second most prevalent response (32%) was related to an expectation that government supported programs or community-based social services would be readily available. Most of these responses were vague in nature but revealed a belief that services would be accessible to them in their local community. For example, one participant stated: "I would go through the state or human services agency" and another reported, "I'll just find local social services or use the senior center."

Approximately 29% of the responses featured non-specific or general searches for support including, "I would search the internet, phone books, or Craigslist" or "I've got a phonebook." Other participants had an impression that support was available but were uncertain about specific names of organizations or location of services. For example, "I think they have a building for where you can get support for different things if you needed it" or "I know we

have some places that can have people that can come and help." Many participants also asserted their independence and ability to "figure it out" on their own (e.g., "I talk to myself and I will get it done," "I can just have somebody come in and help me," and "I'm pretty independent so I can find my way").

Finally, 20% of the responses identified the medical community, primarily doctors or insurance providers, as a source of information and referral. Many stated, "I'd call my doctor" or "contact my doctor's office and they would guide me to who I need." Others reported that "there are things available in the community and you can get access to some of those things through your doctor" or "social workers in the doctor's office - they have access to a lot of things we don't think we may need." While participants expressed confidence that they could find the support they needed through their providers, many were still unclear on what types of supports would be available to them. For example, one participant stated, "my doctor could probably get me a lot of help through social services at the hospital, but I don't know exactly what is available." Another shared that they would "get a hold of my insurance people" when seeking help.

Discussion

We orient our findings within a community gerontology framework (Greenfield et al., 2019) that encourages consideration on how community-level change at the

meso-level can facilitate change at the micro- and larger macro-level contexts related to aging. In addition, leveraging the lived experiences of older adults can inform AIP policy and program initiatives (Carver et al., 2018), which in turn can potentially reduce health and social inequalities at the local level. By interviewing community residents about their current health, access to services, and AIP needs, community-based aging services organizations are better equipped to identify service gaps, understand local needs of older adults to inform policy, and better plan for interventions to support AIP. This approach also highlights the importance of connecting efforts at a local level to broader advocacy around national policy programs and funding streams that will be necessary to meet the demand of a rapidly increasing aging population.

Reports of Good Health, Despite Existing Support Needs

A relatively high percentage of participants reported being in good health, in spite of a simultaneously high prevalence of reported chronic conditions. This is consistent with other surveys (Lucas & Benson, 2018; Tam, 2020; Tkatch et al., 2017) and while this could be a possible indication of efforts to optimize later life health via earlier detection of disease indicators and management of chronic conditions, it may also reflect ways in which older adults conceptualize health. For many, health can be understood more broadly than simply the absence of illness or chronic conditions, especially for individuals

who feel their chronic conditions are manageable. While this positive trend of high self-rated health in later life helps to debunk common myths and declinist age stereotypes, it is important to recognize that many older adults will still likely need additional supports in later life. This reflects the growing importance of educating the public more broadly about the critical need to prepare and plan for aging and future care.

Study findings revealed several subgroups of older adults with distinct needs, underscoring the significance of targeting efforts to high-risk populations. For example, access to sufficient health services was worse among individuals living in rural areas, with greater depressive symptoms, and with potentially lower incomes, which included both those who reported household incomes of \$20,000 or less and those who did not disclose household income. Having fewer financial resources to address ongoing unmet needs negatively affects individuals' health and wellbeing. Rural-dwelling individuals historically have worse health, limited income, and restricted access to adequate services/supports compared to their urban counterparts (Hash et al., 2014); in turn, rural-dwelling individuals have increased risk of premature mortality (Weaver et al., 2018; Hoffman & Holmes, 2017). Translating these findings into practical insights for policymakers is critical for several reasons: the socioeconomic gap continues to widen (Singh et al., 2017) and a disproportionate share of the aging population growth is occurring in rural areas (Jensen et al., 2020; Lang, 2013).

The risk of having greater unmet I/ADL support needs was higher among individuals with poor self-rated health, more chronic conditions, and depressive symptoms. As for most prevalent unmet I/ADL support needs, having more depressive symptoms was associated with unmet needs related to yard work, house repairs, and other services. Health policy has traditionally focused on physical health, where services and supports are primarily targeted to address physical health needs; however, our results support provision for the explicit integration of services and supports for socioemotional health. This is especially essential in the context of research on social determinants of health (e.g., food insecurity, housing instability, transportation needs) and the significant influence that social and emotional needs have on health risks and outcomes (Greysen et al., 2014; Hood et al., 2016; Hu et al., 2014; Sattler et al., 2015; Thornton et al., 2016). Thus, early identification and intervention support for individuals with underlying mental and physical health issues, as well as limited financial means, can facilitate reduction of existing health disparities.

While the most prevalent unmet needs were related to home maintenance tasks (e.g., heavy housework, home repairs, yard work, other services) that would enable older adults to remain living in their own homes, nearly one-third reported not having the financial means to make home modifications to support AIP. This aligns with growing recognition that 90% of the nation's housing structures are unprepared to accommodate AIP (Vespa et

al., 2020). For older adults specifically, growing evidence indicates that meeting social determinant of health needs, such as housing stability, can improve health (Gottlieb et al., 2013) and reduce medical care costs (Taylor et al., 2016). Conversely, having home maintenance concerns may cause stress and anxiety (Coleman et al., 2016). Furthermore, AAAs are well equipped to address and ameliorate social determinants of health because they have strong community networks and are knowledgeable about local resources that specifically address social and environmental obstacles affecting individuals' overall health and wellbeing (Kunkel et al., 2018).

Planning for Future Support amidst a Lack of Awareness about Resources

Planning for future support needs is a critical issue for older adults, their families, and the communities in which they live. LTSS are expensive for individuals, as well as for local, state, and federal entities, and yet more than 70% of older adults will eventually need some type of support (Administration for Community Living, 2020). Advanced preparation can also reduce stress in families and prevent planning in the context of health crises. Nonetheless, most people do not anticipate they will ever need help with their care needs and relatively few adults intentionally plan for, or actively contemplate, their future care needs (Gould et al., 2017). In the current study, participants revealed a similar naiveté regarding how they would plan to seek support when needed,

which illuminated several important findings.

Many participants anticipated relying on family and friends, a perception confirmed in the literature (Roberto et al., 2001; Stolee et al., 2014), while other participants expected to turn to formal caregiving via social services or community supports, a typical alternative to informal caregiving. It is unknown whether study participants already had conversations with their loved ones about their caregiving support expectations or whether they could financially afford formal caregiving services, but prior research indicates this may be unlikely (The Assistant Secretary for Planning and Evaluation, 2019). With increased longevity, families are aging together longer and there is a need to help promote and facilitate the often difficult conversations that older adults and their families need to have in order to prepare for future needs to remain at home. Those who are proficient at using proactive coping skills to plan for and anticipate future challenges tend to have higher socioeconomic status (i.e., income and education level) in comparison to their less-resourced counterparts (Ouwehand et al., 2009). We found that higher educated and married individuals reported greater support needs, which may reflect the social privilege of recognizing an increase in care needs. Thus, there remains a gap in community outreach and education efforts that raises public awareness of available community supports for older adults and family caregivers in preparing for later life needs and changes, especially among potentially vulnerable

individuals with fewer resources or no available family members.

Beyond relying on family members or hiring formal caregivers, the other pathways of support that participants identified appeared inadequate and often inaccurate (i.e., plans to pursue non-specific searches for support; reliance solely on referrals from medical professionals). Unforeseen challenges can arise when there is an inaccurate expectation that supports will be available. For example, individuals may not be eligible for Medicaid-funded programs until they spend-down their financial assets and have greater functional need. As an alternative, individuals could turn to community-based resources like AAAs to receive in-home health, social support, and information/referral to community resources. However, individuals may not be aware of such resources. Although AAAs have been established for almost fifty years, they still tend to be under-recognized and under-utilized in communities, despite the breadth of services and supports they provide to older adults and adults of all ages with disabilities. In this study, despite being potentially eligible for services, over half the participants had not even heard of the AAA organization and importantly, we found that those with inadequate knowledge of AAA services were also more likely to report some unmet I/ADL needs. This finding in particular underscores an important gap for advocacy and targeted outreach to increase community knowledge of these available supports for adults as they anticipate aging in their homes and communities. Another

er potential barrier exists for reaching individuals living in rural areas, who were less likely to report some unmet needs. This finding aligns with a typical narrative describing many rural-dwelling individuals as self-sufficient and hesitant to allow support from outsiders. During the global pandemic, AAAs played a critical role in meeting the needs of older adults and their caregivers. AAAs needed to adapt delivery of their services/supports in order to support individuals during the height of physical distancing (Gallo & Wilber, 2020; Pendergrast, 2021; Wilson et al., 2020). Moving forward, AAAs should continue to evolve in ways that maintain connection with hard-to-reach populations.

Building collaborative, community-based, cross-sector partnerships is one promising avenue for targeted outreach and increasing community knowledge of supports. We found that individuals who had adequate knowledge about services were less likely to report unmet I/ADL support needs. Utilizing primary care sites and clinical partnerships with AAAs can be especially useful for reaching individuals who may not have family members, who live in rural communities, or who are experiencing mental and physical health challenges. Clinicians function as a key information source for older adults; in our study, at least 20% of participants planned to rely on their medical providers for information, resources, and referral for AIP support. However, health care professionals often lack sufficient knowledge of community resources that best serve their patients'

social needs (Lincoln, 2019; Ploeg, et al., 2017; Siegel et al., 2018; Siegler et al., 2015), which further highlights the importance of promoting a higher degree of clinical-community partnerships. There is increasing evidence that when local AAAs maintain partnerships with healthcare organizations, those communities experience significant benefits that translate to reduction in hospital readmission rates, lower health care use, and lower spending, in comparison to counties without these programs and partnerships (Brewster et al., 2018; Brewster et al., 2020). These findings indicate that investment in health and aging services partnerships, via AAAs, is a viable pathway to both reducing health care costs while simultaneously supporting older adults' AIP needs. Incentivizing these partnerships at the policy level (i.e., financial reimbursement) will be necessary to build sustainable practices that benefit and support vulnerable adults to age in their homes and communities (Weaver et al., 2021; WHO, 2015). Further, there are opportunities to consider additional, innovative community partnerships beyond the clinical sector that raise awareness of AIP needs. We provided examples of ways in which formal supports (e.g., aging network, health care clinics) can work more collaboratively in community settings, however, exploring informal support networks may also be necessary. For example, identification and development of innovative paid or volunteer intergenerational approaches for meeting the needs of an older population (Hoffman et al., 2020).

Limitations and Future Directions

The results should be interpreted in light of several limitations. The measures used in this study were based on participants' self-reported perceptions. Thus, we acknowledge that some of the predictors and outcomes are potentially jointly determined and that outcomes may not be causal. For instance, it is possible that some participants were aware of certain services because they needed that support or that participants were depressed as a result of their needs not being met. Due to data limitations, we lacked sufficient exogenous instruments to identify causality and to correct for endogeneity; future studies should incorporate both objective and subjective health measures, as well as a longitudinal design that can capture data over time. Nonetheless, there is still value in relying on self-reported measures as this reflects the lived experiences and perceptions of older adults related to their AIP abilities. In addition, we recognize that caution should be used when relying on any single-item measures, as this may affect measurement reliability and validity; however, some scholars (Bergkvist, 2015) also argue that for simple, concrete constructs, a single item can be sufficient.

The representative sampling from the community and opportunity to hear directly from older adults in the broader community are strengths of this study. The response rate was consistent with other national studies using phone interview methodologies. While response rates have been declining nationally and could signal higher

risk of error, researchers who have examined the effect of low response on data quality have generally found that response rates may not be a reliable metric of accuracy and can still yield reliable data (Davern et al., 2010; Kennedy & Hartig, 2019). Nonetheless, the lower response rate may indicate that some older adults' perspectives were not reflected in this study, most likely those who may be the most vulnerable and least resourced. For example, on average, the participants in this study reported better health, were more highly educated, and were primarily White. Finally, while our sample was representative of the community residents local to the study area, it did not reflect a national perspective, and thus the needs of older adults from different geographical regions may differ. Based on other national studies, however, we argue that the limited attention to planning and preparing for aging from both an individual and community perspective is a universal challenge. Additional needs assessments that incorporate, and possibly oversample for, more diverse perspectives are still needed to adequately plan for AIP, especially for racially minoritized older adults. In a post-pandemic era, in which social and racial inequities have been further exacerbated (Shippee et al., 2020), vulnerable adults may have unique needs that differ from those reflected in this study.

Finally, we acknowledge that there are many challenges within the aging network and that some of our recommendations may not apply universally. AAAs across the U.S. can vary

significantly in terms of services and supports provided, especially for those who are not Medicaid eligible. This highlights an ongoing challenge of the aging network and the continued advocacy need for better alignment of services/supports, along with expansion of supports for near-risk individuals who are proactive in seeking support, but not income eligible (Weaver & Roberto, 2019). Another related challenge of the AAAs is not just the inconsistency in availability of services/supports, but also in the naming of AAAs across regions; the terminology “area agency” may also be unclear to community members. National efforts to rebrand and market AAAs with a more universal, recognizable name—that is also more in line with emerging initiatives to reframe aging—may promote more interest, awareness of, and access to the valuable programs and services they can provide to communities.

Conclusions

Policymakers are often encouraged to advocate for preventive solutions that assist individuals before needs become unmanageable. A focus on age-friendly and AIP initiatives that can benefit all generations can help meet this goal. In terms of policy and planning, however, many issues compete for the attention of policymakers. Conveying to policymakers the extensive influence population aging will have on communities and how individuals need to proactively plan for their own aging continues to be challenging. With the ever-shifting political

landscape, it is important to have policy solutions at the ready.

Investing in age-friendly community initiatives and policies is in line with a community gerontology framework, in which community-level changes have the potential to enhance health at the individual micro-level, but also have influence on macro-level aging policies. Thus, increased community engagement between researchers, policymakers, citizens, and practitioners to address functional and socioemotional health is needed in order to collaboratively prepare for future aging care needs. Many adults avoid planning and anticipating future care needs; our findings highlight the need for raising awareness about available community-based aging services so individuals can seek preventive services/supports and engage in future planning. More than ever before, there is a need for increased cross-sector, multidisciplinary engagement and for multiple stakeholders to work together in supporting communities as a fundamental context for promoting population health, equity, and wellbeing across the lifespan. AAAs are central to serving older adults in their homes and communities and can serve a vital community role by supporting individuals’ goals to age in place and to prepare for future needs. In addition, it is important to acknowledge and recognize that older adults are also valuable community resources who can make community contributions via volunteerism, peer support, and mutual aid. Collectively, we need to continue to intentionally incorporate the perspectives and experiences of older adults,

as well as draw on their strengths and resilience, regarding how to invest in, shape, and strengthen the communities in which we all strive to age in place.

References

- AARP. (n.d.). *AARP livable communities*. <https://www.aarp.org/livable-communities/>
- Administration for Community Living. (2020, February 18). *How much care will you need?* Long-Term Care. <https://acl.gov/ltc/basic-needs/how-much-care-will-you-need>
- Administration on Aging. (2021, May). *2020 Profile of Older Americans*. U.S. Department of Health & Human Services. <https://acl.gov/aging-and-disability-in-america/data-and-research/profile-older-americans>
- The Assistant Secretary for Planning and Evaluation. (2019, May 14). *Assessing the out-of-pocket affordability of long-term services and supports*. HHS Office of the Assistant Secretary for Planning and Evaluation [ASPE] Research Brief. https://aspe.hhs.gov/sites/default/files/migrated_legacy_files//189396/OoPAfford.pdf
- Bergkvist, L. (2015). Appropriate use of single-item measures is here to stay. *Marketing Letters*, 26, 245-255. <https://doi.org/10.1007/s11002-014-9325-y>
- Betensky, R. A. (2019). The *p*-value requires context, not threshold. *The American Statistician*, 73(1), 115 – 117. <https://doi.org/10.1080/00031305.2018.1529624>
- Binette, J. (2021). *Home and community preference survey: A national survey of adults age 18-plus*. AARP Research. <https://doi.org/10.26419/res.00479.001>
- Binette, J., & Vasold, K. (2018). *2018 Home and community preferences: A national survey of adults' age 18-Plus*. AARP. <https://doi.org/10.26419/res.00231.001>
- Brewster, A. L., Kunkel, S., Straker, J., & Curry, L. A. (2018). Cross-sectoral partnerships by Area Agencies on Aging: Associations with health care use and spending. *Health Affairs*, 37(1), 15-21. <https://doi.org/10.1377/hlthaff.2017.1346>
- Brewster, A. L., Wilson, T. L., Frehn, J., Berish, D., & Kunkel, S. R. (2020). Linking health and social services through Area Agencies on Aging is associated with lower health care use and spending: An examination of the potential health impacts of establishing partnerships between hospitals and Area Agencies on Aging. *Health Affairs*, 39(4), 587-594. <https://doi.org/10.1377/hlthaff.2019.01515>

- Brim, B., Fromhold, S., & Blaney, S. (2021). Older adults' self-reported barriers to aging in place. *Journal of Applied Gerontology*, Advance online publication. <https://doi.org/10.1177/0733464820988800>
- Brossoie, N., Roberto, K. A., Willis-Walton, S., & Reynolds, S. (2011). *Report on baby boomers and older adults: Information and service needs*. Virginia Polytechnic Institute and State University, Center for Gerontology. <http://hdl.handle.net/10919/46989>
- Buffel, T., Handler, S., & Phillipson, C. (2018). Age-friendly cities and communities: A manifesto for change. In T. Buffel, S. Handler, & C. Phillipson (Eds.), *Age-friendly cities and communities: A global perspective* (pp. 273-288). Policy Press.
- Carver, L. F., Beamish, R., Phillips, S. P., & Villeneuve, M. (2018). A scoping review: Social participation as a cornerstone of successful aging in place among rural older adults. *Geriatrics*, 3(4), 75. <https://doi.org/10.3390/geriatrics3040075>
- Casado, B. L., van Vulpen, K. S., & Davis, S. L. (2011). Unmet needs for home and community-based services among frail older Americans and their caregivers. *Journal of Aging and Health*, 23(3), 529-553. <https://doi.org/10.1177/0898264310387132>
- Coleman, T., Kearns, R. A., & Wiles, J. (2016). Older adults' experiences of home maintenance issues and opportunities to maintain ageing in place. *Housing Studies*, 31(8), 964-983. <https://doi.org/10.1080/02673037.2016.1164834>
- Davern, M., McAlpine, D., Beebe, T.J., Ziegenfuss, J., Rockwood, T., & Call, K. T. (2010). Are lower response rates hazardous to your health survey? An analysis of three state telephone health surveys. *Health Services*, 45(5), 1324-1344. <https://doi.org/10.1111/j.1475-6773.2010.01128.x>
- Finlay, J. M., & Finn, B. M. (2020). Geography's blind spot: The age-old urban question. *Urban Geography*, 42(8), 1061-1078. <https://doi.org/10.1080/02723638.2020.1742468>
- Friedman, C., Caldwell, J., Rapp Kennedy, A., & Rizzolo, M. C. (2019). Aging in place: A national analysis of home-and community-based Medicaid services for older adults. *Journal of Disability Policy Studies*, 29(4), 245-256. <https://doi.org/10.1177/1044207318788889>
- Gallo, H. B., & Wilber, K. H. (2021). Transforming aging services: Area Agencies on Aging and the COVID-19 response. *The Gerontologist*, 61(2), 152-158. <https://doi.org/10.1093/geront/gnaa213>
- Gilbody, S., Richards, D., Brealey, S., & Hewitt, C. (2007). Screening for depression

in medical settings with the Patient Health Questionnaire (PHQ): A diagnostic meta-analysis. *Journal of General Internal Medicine*, 22(11), 1596-1602. <https://doi.org/10.1007/s11606-007-0333-y>

Gottlieb, L., Sandel, M., & Adler, N. E. (2013). Collecting and applying data on social determinants of health in health care settings. *JAMA Internal Medicine*, 173(11), 1017-1020. <https://doi.org/10.1001/jamainternmed.2013.560>

Gould, O. N., Dupuis-Blanchard, S., Villalon, L., Simard, M., & Ethier, S. (2017). Hoping for the best or planning for the future: Decision making and future care needs. *Journal of Applied Gerontology*, 36(8), 953-970. <https://doi.org/10.1177/0733464815591213>

Greenfield, E. A. (2012). Using ecological frameworks to advance a field of research, practice, and policy on aging-in-place initiatives. *The Gerontologist*, 52(1), 1-12. <https://doi.org/10.1093/geront/gnr108>

Greenfield, E. A. (2015). Healthy aging and age-friendly community initiatives. *Public Policy & Aging Report*, 25(2), 43-46. <https://doi.org/10.1093/ppar/prv002>

Greenfield, E. A., Black, K., Buffel, T., & Yeh, J. (2019). Community gerontology: A framework for research, policy, and practice on communities and aging. *Gerontologist* 59(5), 803-810. <https://doi.org/10.1093/geront/gny089>

Greenfield, E. A., Oberlink, M., Scharlach, A. E., Neal, M. B., & Stafford, P. B. (2015). Age-friendly community initiatives: Conceptual issues and key questions. *The Gerontologist*, 55(2), 191-198. <https://doi.org/10.1093/geront/gnv005>

Greenfield, E. A., & Reyes, L. (2015). Continuity and change in relationships with neighbors: Implications for psychological well-being in middle and later life. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, 70(4), 607-618. <https://doi.org/10.1093/geronb/gbu084>

Greysen, R. S., Hoi-Cheung, D., Garcia, V., Kessell E., Sarkar, U., & Goldman, L. (2014). "Missing pieces" – Functional, social, and environmental barriers to recovery for vulnerable older adults transitioning from hospital to home. *Journal of American Geriatric Society*, 62(8), 1556-1561. <https://doi.org/10.1111/jgs.12928>

Hash, K. M., Jurkowski, E. T., & Krout, J. (2014). *Aging in rural places: Programs, policies, and professional practice*. Springer.

Hood, C. M., Gennuso, K. P., Swain, G. R., & Catlin, B. B. (2016). County health rankings: Relationships between determinant factors and health outcomes. *American Journal of Preventive Medicine*, 50(2), 129-135. <https://doi.org/10.1016/j.amepre.2015.08.024>

- Hoffman, G. J., Webster, N. J., & Bynum, J. P. (2020). A framework for aging-friendly services and supports in the age of COVID-19. *Journal of Aging & Social Policy*, 32(4-5), 450-459. <https://doi.org/10.1080/08959420.2020.1771239>
- Hoffman, A., & Holmes, M. (2017, August). *Regional differences in rural and urban mortality trends*. NC Rural Health Research Program, UNC Sheps Center. https://www.shepscenter.unc.edu/wp-content/uploads/dlm_uploads/2017/08/Regional-Differences-in-Urban-and-Rural-Mortality-Trends.pdf
- Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, 15(9), 1277-1288. <https://doi.org/10.1177/1049732305276687>
- Hu, J., Gonsahn, M., & Nerenz, D. (2014). Socioeconomic status and readmissions: Evidence from an urban teaching hospital. *Health Affairs*, 33(5), 778-785. <https://doi.org/10.1377/hlthaff.2013.0816>
- Jensen, L., Monnat, S. M., Green, J. J., Hunter, L. M., & Sliwinski, M. J. (2020). Rural population health and aging: Toward a multilevel and multidimensional research agenda for the 2020s. *American Journal of Public Health*, 110(9), 1328-1331. <https://doi.org/10.2105/AJPH.2020.305782>
- Kan, H. Y., Forsyth, A., & Molinsky, J. (2020). Measuring the built environment for aging in place: A review of neighborhood audit tools. *Journal of Planning Literature*, 35(2), 180-194. <https://doi.org/10.1177/0885412220903497>
- Kennedy, C., & Hartig, H. (2019, February 27). *Response rates in telephone surveys have resumed their decline*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2019/02/27/response-rates-in-telephone-surveys-have-resumed-their-decline/>
- Kunkel, S. R. (2019). Building on the past, securing the future: Area Agencies on Aging and Older Americans Act reauthorization. *Public Policy Aging Rep* 29(2), 52-55. <https://doi.org/10.1093/ppar/prz009>
- Kunkel, S. R., Lackmeyer, A. E., Straker, J. K., & Wilson, T. L. (2018, November). *Community-based organizations and health care contracting: Building and strengthening partnerships*. Miami University, Scripps Gerontology Center. <https://sc.lib.miamioh.edu/bitstream/handle/2374.MIA/6280/Kunkel-Community-Based-Organizations-and-Health-Care-Contracting.pdf>
- Lang, S. S. (2013, July 3). *Graying of rural America has policy implications*. Cornell Chronicle. <http://news.cornell.edu/stories/2013/07/graying-rural-america-has-policy-implications>
- Lawton, M. P., & Brody, E. M. (1969). Assessment of older people: Self-maintaining and instrumental activities of daily living. *The Gerontologist*, 9(3), 179-

186. https://doi.org/10.1093/geront/9.3_Part_1.179

- Lawton, M. P., & Nahemow, L. (1973). Ecology and the aging process. In C. Eisdorfer & M. P. Lawton (Eds.), *The psychology of adult development and aging* (pp. 619-674). American Psychological Association. <https://doi.org/10.1037/10044-020>
- Lincoln, K. D. (2019). The role of social determinants and why community-based programming works: Social needs often are not met during healthcare visits, but HCBS can fill that gap. *Generations (Supplement #3)*, 13-18.
- Lindquist, L. A., Ramirez-Zohfeld, V., Forcucci, C., Sunkara, P., & Cameron, K. A. (2018). Overcoming reluctance to accept home-based support from an older adult perspective. *Journal of the American Geriatrics Society*, 66(9), 1796-1799. <https://doi.org/10.1111/jgs.15526>
- Lucas, J. W., & Benson, V. (2018). *Tables of summary health statistics for the U.S. population: 2017 National Health Interview Survey*. National Center for Health Statistics. <https://www.cdc.gov/nchs/nhis/SHS/tables.htm>.
- Martin, D., Long, O., Kessler, L. (2019). Planning for aging in place: Incorporating the voice of elders to promote quality of life. *Journal of Housing for the Elderly*, 33(4), 382-392. <https://doi.org/10.1080/02763893.2019.1593280>
- National Association of Area Agencies on Aging. (2017). National survey of area agencies on aging: Serving America's older adults. Washington, D.C.
- National Association of Area Agencies on Aging. (2020). National survey of area agencies on aging: Meeting the needs of today's older adults. Washington, D.C. Available from <https://www.usaging.org/2020aaasurvey>
- Ouwehand, C., de Ridder, D. T., & Bensing, J. M. (2009). Who can afford to look to the future? The relationship between socio-economic status and proactive coping. *The European Journal of Public Health*, 19(4), 412-417. <https://doi.org/10.1093/eurpub/ckp047>
- Pendergrast C. (2021). "There was no "That's not my job"": New York Area Agencies on Aging approaches to supporting older adults during the COVID-19 pandemic. *Journal of Applied Gerontology*, 40(11), 1425-1436. <https://doi.org/10.1177/0733464821991026>
- Phillipson, C., & Buffel, T. (2020). Age-friendly cities and communities: Policy opportunities and challenges. *Journal of Elder Policy*, 1(1), 137-154. <https://doi.org/10.18278/jep.1.1.7>
- Ploeg, J., Denton, M., Hutchison, B., McAiney, C., Moore, A., Brazil, K., Tindale, J., & Lam, A. (2017). Primary care physicians' perspectives on facilitat-

- ing older patients' access to community support services: Qualitative case study. *Canadian Family Physician*, 63(1), e31-e42.
- Reaves, E. L., & Musumeci, M. (2015, December). *Medicaid and long-term services and supports: A primer*. Kaiser Family Foundation. <https://files.kff.org/attachment/report-medicaid-and-long-term-services-and-supports-a-primer>
- Roberto, K. A., Allen, K. R., & Blieszner, R. (2001). Older adults' preferences for future care: Formal plans and familial support. *Applied Developmental Science*, 5(2), 112-120. https://doi.org/10.1207/S1532480XADS0502_6
- Romig, K. (2019, July 19). *Social Security lifts more Americans above poverty than any other program*. Center on Budget and Policy Priorities. Center on Budget and Policy Priorities. <https://www.cbpp.org/sites/default/files/atoms/files/10-25-13ss.pdf>.
- Sattler, E. L., Lee, J. S., & Young, H. N. (2015). Factors associated with inpatient hospital (re)admissions in Medicare beneficiaries in need of food assistance. *Journal of Nutrition Gerontology and Geriatrics*, 34(2), 228-244. <https://doi.org/10.1080/21551197.2015.1031601>
- Schariach, A. E., & Lehning, A. J. (2016). *Creating aging-friendly communities*. Oxford University Press.
- Shippee, T. P., Akosionu, O., Ng, W., Woodhouse, M., Duan, Y., Thao, M. S., & Bowblis, J. R. (2020). COVID-19 pandemic: exacerbating racial/ethnic disparities in long-term services and supports. *Journal of Aging & Social Policy*, 32(4-5), 323-333. <https://doi.org/10.1080/08959420.2020.1772004>
- Siegel, B., Erickson, J., Milstein, B., Pritchard, K. E. (2018). Multisector partnerships need further development to fulfill aspirations for transforming regional health and well-being. *Health Affairs*, 37(1), 30-37. <https://doi.org/10.1377/hlthaff.2017.1118>
- Siegler, E. L., Lama, S. D., Knight, M. G., Laureano, E., & Carrington Reid, M. (2015). Community-based supports and services for older adults: A primer for clinicians. *Journal of Geriatrics*, vol. 2015, pp. 1-7. <https://doi.org/10.1155/2015/678625>
- Singh, G. K., Daus, G. P., Allender, M., Ramey, C. T., Martin, E. K., Perry, C., De Los Reyes, A. A., & Vedamuthu, I. P. (2017). Social determinants of health in the United States: addressing major health inequality trends for the nation, 1935-2016. *International Journal of MCH and AIDS*, 6(2), 139-164. <https://doi.org/10.21106/ijma.236>
- Stolee, P., Zaza, C., & Sharratt, M. T. (2014). Later life care planning conversations

for older adults and families. *Journal of Applied Gerontology*, 33(6), 710-736. <https://doi.org/10.1177/0733464813500712>

Stones, D., & Gullifer, J. (2016). 'At home it's just so much easier to be yourself': Older adults' perceptions of ageing in place. *Ageing & Society*, 36(3), 449-481. <https://doi.org/10.1017/S0144686X14001214>

Tam, T. (2020, December). *Aging and chronic diseases: A profile of Canadian seniors*. Public Health Agency of Canada. https://www.canada.ca/content/dam/hc-sc/documents/services/publications/diseases-and-conditions/aging-chronic-diseases/canadian-seniors-report_2021-eng.pdf

Taylor, L. A., Tan, A. X., Coyle, C. E., Ndumele, C., Rogan, E., Canavan, M., Curry, L. A., & Bradley, E. H. (2016). Leveraging the social determinants of health: What works? *PloS One*, 11(8), Article e0160217. <https://doi.org/10.1371/journal.pone.0160217>

Thiese, M.S., Ronna, B., & Ott, U. (2016). P value interpretations and considerations. *Journal of Thoracic Disease*, 8(9), 928-931. <http://dx.doi.org/10.21037/jtd.2016.08.16>

Thomas, D. R. (2006). A general inductive approach for analyzing qualitative evaluation data. *American Journal of Evaluation*, 27(2), 237-246. <https://doi.org/10.1177/1098214005283748>

Thornton, R., Glover, C., Cené, C., Glik, D., Henderson, J., & Williams, D. (2016). Evaluating strategies for reducing health disparities by addressing the social determinants of health. *Health Affairs*, 35(8), 1416-1423. <https://doi.org/10.1377/hlthaff.2015.1357>

Tkatch, R., Musich, S., MacLeod, S., Kraemer, S., Hawkins, K., Wicker, E. R., & Armstrong, D. G. (2017). A qualitative study to examine older adults' perceptions of health: Keys to aging successfully. *Geriatric Nursing*, 38(6), 485-490. <https://doi.org/10.1016/j.gerinurse.2017.02.009>

U.S. Centers for Disease Control and Prevention. (2009, October 15). *Healthy places terminology*. <https://www.cdc.gov/healthyplaces/terminology.htm>

U.S. Centers for Disease Control and Prevention. (n..d.) *About chronic diseases*. National Center for Chronic Disease Prevention and Health Promotion. <https://www.cdc.gov/chronicdisease/about/index.htm>

Vespa, J., Engelberg, J., & He, W. (2020, May 15). *Old housing, new needs: Are U.S. homes ready for an aging population?* U.S. Census Bureau. <https://www.census.gov/content/dam/Census/library/publications/2020/demo/p23-217.pdf>

- Wilson, T.L., Scala-Foley, M., Kunkel, S.R., & Brewster, A.L. (2020). Fast-track innovation: Area Agencies on Aging respond to the COVID-19 pandemic. *Journal of Aging and Social Policy*, 32(4-5), 432-438. <https://doi.org/10.1080/08959420.2020.1774313>
- World Health Organization. (2007). *Global age-friendly cities: A guide*. https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf
- Weaver, R. H., & Roberto, K. A. (2019). Effects of long-term services and supports on survival of poor, highly vulnerable older adults. *The Gerontologist*, 59(5), 936-946. <https://doi.org/10.1093/geront/gny040>
- Weaver, R. H., Roberto, K. A., & Blieszner, R. (2018). Older adults in rural Appalachia: Preference and expectations for future care. *The International Journal of Aging and Human Development*, 86(4), 364-381. <https://doi.org/10.1177/0091415017720891>
- Weaver, R. H., Bolkan, C., Robbins, S. L., Benton, B., Kim, E., Ensey, M., & Kelly, D. (2021). Caring beyond healthcare: Lessons learned from a community-based partnership to reduce hospital readmission among high-risk adults. *Journal of Community Engagement and Scholarship*, 14(1), pp. 1-15.
- Wong, S. T., & Regan, S. (2009). Patient perspectives on primary health care in rural communities: effects of geography on access, continuity and efficiency. *Rural and Remote Health*, 9(1), Article 1142. <https://doi.org/10.22605/RRH1142>
- World Health Organization. (2015). *World Report on Ageing and Health*. <https://apps.who.int/iris/handle/10665/186463>
- Wiles, J. L., Leibing, A., Guberman, N., Reeve, J., & Allen, R. E. (2012). The meaning of “aging in place” to older people. *The Gerontologist*, 52(3), 357-366. <https://doi.org/10.1093/geront/gnr098>