

Community Aging in Place—Advancing Better Living for Elders (CAPABLE) Provider-Focused Payment Model Environmental Scan

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I. Overview

The purpose of this environmental scan is to provide members of the Physician-Focused Payment Model Technical Advisory Committee (PTAC) with background information on the context for the physician-focused payment model (PFPM), Community Aging in Place—Advancing Better Living for Elders (CAPABLE) Provider-Focused Payment Model, which was proposed by the Johns Hopkins School of Nursing and the Stanford Clinical Excellence Research Center on October 30, 2018.

The scan focuses on the epidemiology of multiple chronic conditions and functional limitations; issues in payment policy affecting in-home supports, including home visits and home modifications; problems in care delivery; and results of other similar or proposed models. Appendix A includes the questions, search terms, and sources used to identify the research summarized below.

Epidemiology of Multiple Chronic Conditions & Functional Limitations

In order to qualify for the CAPABLE PFPM, beneficiaries must have: 1) at least two chronic conditions and 2) at least one limitation in activities of daily living (ADL).¹ For prior studies, participants could have two limitations in instrumental activities of daily living (IADL) instead of one ADL impairment, had to be cognitively intact, able to stand without assistance, live in the community, and not have plans to move within 12 months; participants may not have had >3 hospitalizations in the prior year, be receiving cancer treatment or have <1 year life expectancy. While prior CAPABLE studies were limited to low-income individuals, the proposal indicates interest in learning about benefits of CAPABLE for individuals with higher income. The literature provides information on many of these criteria, but no source provides information on this combination of qualifying criteria. This section reviews the burden of both multiple chronic conditions (MCC) and functional limitations, in terms of the population affected and health outcomes for those affected within the Medicare population.

Multiple Chronic Conditions. In 2015, 65 percent of Medicare fee-for-service (FFS) beneficiaries had MCC,² defined as having two or more chronic conditions, and 15 percent of beneficiaries had six or more chronic conditions.³ Having MCC is associated with low functional status, disability, psychological

¹ ADLs are fundamental skills needed to manage basic physical needs, including grooming/personal hygiene, dressing, toileting/continence, transferring/ambulating, and eating. IADLs include activities related to independent living in the community, such as managing finances and medications (Mlinac & Feng, 2016).

² CMS prevalence data includes 19 chronic conditions: Alzheimer's disease and related dementia, heart failure, arthritis (osteoarthritis and rheumatoid), hepatitis (chronic viral B and C), asthma, HIV/AIDS, atrial fibrillation, hyperlipidemia (high cholesterol), autism spectrum disorders, hypertension (high blood pressure), cancer (breast, colorectal, lung, and prostate), ischemic heart disease, chronic kidney disease, osteoporosis, chronic obstructive pulmonary disease, schizophrenia and other psychotic disorders, depression, stroke, and diabetes.

³ Centers for Medicare & Medicaid Services. (2017). Chronic conditions [reports and tables]. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html

distress, low quality of life, and increased risk of mortality (Gandhi et al., 2018). In addition, Medicare beneficiaries with MCC use health care services at a higher rate and account for a disproportionate share of Medicare spending. For example, beneficiaries with six or more chronic conditions had a 30-day readmission rate of 25.0 percent, compared to 8.9 percent among beneficiaries without MCC (Lochner et al., 2013). In 2015, beneficiaries who had at least two chronic conditions concurrently accounted for more than 90 percent of Medicare spending, with 51 percent of spending on the 15 percent of beneficiaries with six or more chronic conditions.⁴

Functional Limitations. According to the Federal Interagency Forum on Aging Related Statistics, in 2013, 12 percent of older beneficiaries had IADL limitations only, whereas 32 percent had at least one ADL limitation (2016). Beneficiaries with larger degrees of functional limitation are less likely to receive recommended care (Na et al., 2017). Financial barriers are the most common reason beneficiaries with ADL limitations are less likely to receive needed care, even after adjusting for dual-eligibility (McClintock et al., 2017). Additionally, higher stages of ADL and IADL limitation are associated with increased three-year cumulative mortality among non-institutionalized Medicare beneficiaries age 65 or older (Hennessy et al., 2015). Individuals with functional limitations are at greater risk of falls, hospital readmission, and long-term care (LTC) placement (Kurichi et al., 2017).

MCC and Functional Limitations among Dual-Eligible Beneficiaries. Dual-eligible beneficiaries are especially likely to have MCC and functional limitations. Nearly three-quarters (71 percent) of dual-eligible FFS beneficiaries have MCC.⁵ Further, there were approximately 6 million dual-eligible FFS Medicare beneficiaries with at least one ADL limitation in 2013 (MedPAC & MACPAC, 2018). However, many of these beneficiaries may live in an institution and/or have cognitive impairment and thus are not eligible for CAPABLE. Among noninstitutionalized dual-eligible beneficiaries with MCC and a physical disability, the majority are female (72.3 percent), have less than a high school diploma (60.2 percent), are not married (73.7 percent), and reside in a non-rural area (80.1 percent) (Fox & Reichard, 2013).

Many dual-eligible beneficiaries with functional limitations and/or MCC may qualify for home and community-based services (HCBS), which are meant to help beneficiaries live safely at home or as an alternative to LTC facilities, and provide services similar to those proposed as part of CAPABLE. It is estimated that 2.78 million dual-eligible beneficiaries used HCBS in 2013 (MedPAC & MACPAC, 2018). Beneficiaries who use HCBS are more likely to be older, black, unmarried, and lower income, according to a 2011 survey (Sonnega et al., 2017).

Issues in Payment Policy

This section reviews Medicare and Medicaid coverage for services similar to those offered through CAPABLE in order to inform discussion on gaps that a CAPABLE payment model could fill. Briefly, CAPABLE provides in-home nurse and occupational therapist visits, home safety assessment, and home modifications based on assessment results. In addition to summarizing current coverage policies for

⁴ Centers for Medicare & Medicaid Services. (2017). Chronic conditions [reports and tables]. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html

⁵ Centers for Medicare & Medicaid Services. (2017). Chronic conditions [reports and tables]. Retrieved from https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/CC_Main.html

these or similar services, the final portion of this section briefly presents other payment models providing in-home supportive services.

The Medicare Part A & B Home Health Benefit. Per the Medicare Benefit Policy Manual (2017), the Medicare Home Health Benefit is available to beneficiaries enrolled in Part A and/or Part B of the Medicare Program. Services including intermittent skilled nursing care, physical therapy, speech-language pathology services, and occupational therapy are covered if a physician certifies that the beneficiary is confined to the home and needs the skilled therapy services. Additionally, the beneficiary must have a face-to-face encounter with a physician related to the primary reason that the patient requires home health services no more than 90 days prior to, or within 30 days of, the home health start-of-care date.

Under the **Home Health Prospective Payment System** (PPS), Medicare pays home health agencies (HHAs) a predetermined base payment for each 60-day episode of care for each beneficiary. The payment is adjusted for the health condition and care needs of the beneficiary. The payment is also adjusted for the geographic differences in wages for HHAs across the country.⁶ The Home Health PPS permits continuous episode recertifications for patients who continue to be eligible for the home health benefit, and Medicare does not limit the number of recertifications (Medicare Learning Network, 2018).

Medicare Advantage (MA): Covered In-Home Supplemental Services. The Centers for Medicare & Medicaid Services (CMS) currently defines a supplemental health care benefit in the Medicare Managed Care Manual (section 30.1) as an item or service: 1) that is not covered by Original Medicare, 2) that is primarily health-related, and 3) for which the MA plan must incur a non-zero direct medical cost.⁷ Covered in-home supplemental services include bathroom-safety devices and in-home safety assessments. MA plans may choose to offer provision of specific non-Medicare-covered safety devices as a supplemental benefit to prevent injuries in the bathroom, as well as in-home bathroom-safety inspections conducted by a qualified health professional to identify the need for safety devices. Similarly, an in-home safety assessment may be performed by an occupational therapist or other qualified health provider. The assessment may include identification and/or minor modification of some home hazards outside of the bathroom in order to reduce risk of injury.

In 2019, CMS will expand the scope of the “primarily health-related” supplemental benefit standard; the expanded definition will include items and services related to daily maintenance, such as fall prevention devices and similar items and services that diminish the impact of injuries/health conditions.⁸

Medicaid Home and Community-Based Services Waivers. HCBS became eligible for Medicaid coverage in 1981 under Section 1915(c) to the Social Security Act, which permits state Medicaid agencies to seek waivers to provide HCBS under Medicaid. Additional HCBS options have been established in recent years

⁶ CMS. (2018). Home health PPS. Retrieved from <https://www.cms.gov/Medicare/Medicare-Fee-for-Service-Payment/HomeHealthPPS/index.html>

⁷ CMS. (April 2016). Benefits and beneficiary protections. In *Medicare Managed Care manual* (chapter 4). Retrieved from <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/mc86c04.pdf>

⁸ CMS Newsroom. (April 2018). 2019 Medicare Advantage and Part D rate announcement and call letter. Retrieved from <https://www.cms.gov/newsroom/fact-sheets/2019-medicare-advantage-and-part-d-rate-announcement-and-call-letter>

(Bennett, Curtis, & Harrod, 2018). Home modifications are covered in 44 states through their Medicaid program; non-Medicaid assistance programs in 27 states provide home modifications.^{9,10}

The key Medicaid HCBS authorities are the following:

1915(c) HCBS Waiver: Allows Medicaid agencies to provide a range of HCBS to beneficiaries. Programs can provide a combination of standard medical services and non-medical services, including (but not limited to): case management, homemaker, home health aide, personal care, adult day health services, habilitation (both day and residential), and respite care.¹¹ As of 2017, 47 states and the District of Columbia had at least one 1915(c) waiver (Bennett, Curtis, & Harrod, 2018).

1915(i) State Plan HCBS: A state Medicaid program may offer a range of HCBS benefits to beneficiaries and establish specific medical necessity criteria for the services. People must meet state-defined criteria based on need and typically get a combination of acute-care medical services (like dental services, skilled nursing services) and long-term services and supports (like respite care, case management, supported employment, and environmental modifications) in home and community-based settings.¹²

1915(j) State Plan Self-Directed Personal Assistance Services: This state plan option allows beneficiaries to voluntarily direct their own personal care services, meaning that beneficiaries may choose their own providers and manage a fixed amount of funds to be used for personal care services based on their needs (Bennett, Curtis, & Harrod, 2018). This includes the purchase of supports, services, or supplies that increase independence or substitute for human help and the hiring of legally liable relatives (such as parents or spouses) for in-home support or homemaking services.¹³

1915(k) State Plan Community First Choice: This state plan option allows state Medicaid agencies to receive an enhanced federal match for offering certain HCBS that promote community-based living for beneficiaries who would otherwise require institutional care. Medicaid programs are not allowed to target certain populations or geographic areas or place enrollment caps on the benefits (Bennett, Curtis, & Harrod, 2018).

⁹ Paying for Senior Care. (April 2018). Medicaid programs that pay for home modifications for aging & disabilities. Retrieved from <https://www.payingforseniorcare.com/home-modifications/medicaid-waivers.html>

¹⁰ Paying for Senior Care. (May 2018). State assistance programs for home modifications for aging in place. Retrieved from <https://www.payingforseniorcare.com/home-modifications/state-assistance-programs.html>

¹¹ CMS. (January 2015). Application for a §1915(c) Home and Community-Based Waiver [Version 3.5, includes changes implemented through November 2014]. Instructions, technical guide and review criteria. Retrieved from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf>

¹² CMS. (January 2015). Application for a §1915(c) Home and Community-Based Waiver [Version 3.5, includes changes implemented through November 2014]. Instructions, technical guide and review criteria. Retrieved from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf>

¹³ CMS. (n.d.). Self-directed personal assistant services 1915 (j). Retrieved from <https://www.medicaid.gov/medicaid/hcbs/authorities/1915-j/index.html>

1115 Demonstration Waivers: As of March 2018, 12 state Medicaid programs had approved 1115 waivers focused on managed long-term services and supports (MLTSS), and four Medicaid agencies had pending waivers with a similar focus. Although these waivers differ across states, all 1115 waivers focused on using MLTSS to expand access to HCBS, especially for beneficiaries at risk of entering institutional care, such as seniors with chronic conditions or individuals with disabilities (Bennett, Curtis, & Harrod, 2018).

Other payment models to address in-home supportive care:

MediCaring Communities Model. The MediCaring Accountable Care Communities (MediCaring ACCs) model is designed to keep frail elders in the community while enhancing quality of life and reducing the use of medical services (Mason, 2017). Designed by the Altarum Institute Center for Elder Care and Advanced Illness, the MediCaring ACC model's financial incentives for providers are based on a modified ACO shared savings structure. Results from this model have not been published.

Program of All-Inclusive Care for the Elderly (PACE). PACE, a joint Medicare-Medicaid program, provides care management and plans service delivery based on beneficiaries' needs through the work of interdisciplinary care teams. While it enjoys a good reputation for quality, cost outcomes, reliability, and comprehensiveness, the program has been very slow to replicate; it has grown to serve just 35,000 elders in its approximately 30-year history (Bernhardt et al., 2016).

Older Americans Act (OAA). The OAA provides services such as home-delivered and congregate meals, family caregiver support, in-home assistance, preventive health services, transportation, job training, protection from abuse, and other supportive services. HCBS services under the OAA include home care, adult day services, case management, transportation, and health promotion (Fox-Grage, 2014). In 2016, 11.3 million older adults were served by programs under OAA Grants for State and Community Programs on Aging (Colello & Napili, 2018).

Problems in Care Delivery

Evidence for features of CAPABLE. The CAPABLE model includes interdisciplinary, patient-driven care provided by a registered nurse (RN) and occupational therapist (OT) who perform home visits and a handyworker who performs home repairs or modifications. Two studies of home visit interventions including assessments similar to features of CAPABLE have been shown to reduce hospitalizations and nursing home admissions among older adults (Mattke et al., 2015; Schamess et al., 2017). A systematic review of occupational therapy interventions for older adults found that home modifications are an effective strategy for preventing and reducing fall risk (Britt, 2017). Home repairs and modifications may include services such as brighter lighting, grab bars, stair lifts, ramps, installation of safety equipment (bath railing, locks), repair of steps, and simple plumbing or electrical needs (Kudrimoti & Dial, 2017).¹⁴ Home modifications and repairs can help make homes safer for older adults, including those with disabilities who are at increased risk for falling, as well as low-income older adults (Lee et al., 2017). An evidence synthesis of care models for patients with complex health needs identified active patient engagement in care, provision of care that aligns with patient goals, and person-to-person encounters,

¹⁴ Administration for Community Living. (June 2018). Promoting aging in place by enhancing access to home modifications. Retrieved from <https://acl.gov/grants/promoting-aging-place-enhancing-access-home-modifications>

including home visits, as features of more effective and efficient primary care for older adults with chronic illness (Klein et al., 2015).

Proposed quality metrics and outcomes. The CAPABLE proposal recommends five quality metrics: patient-centered visits (Stewart et al., 2000) and patient experience,^{15,16} as well as the change in three metrics measured before and after the intervention: difficulty with ADLs and IADLs,¹⁷ depressive symptoms (measured by the PHQ-8 or PHQ-9 screening), and fall risk (Lohman et al., 2017; Stevens & Phelan, 2013).¹⁸

Results of Other Similar or Proposed Models

Background on the proposal submitter. This proposal was jointly submitted by the Johns Hopkins School of Nursing and the Stanford Clinical Excellence Research Center. Sarah L. Szanton, PhD, RN, Director of the Johns Hopkins School of Nursing Center for Innovative Care in Aging, and colleagues have published research on the CAPABLE model, described here and included in the annotated bibliography.

The Johns Hopkins School of Nursing Center for Innovative Care in Aging advances novel behavioral interventions to enhance the health, well-being, and aging of diverse adults and their families in various settings, including home and community. This involves developing, evaluating, translating, and implementing programs and educating health and human service professionals and students in behavioral intervention research.

Stanford Clinical Excellence Research Center. The Clinical Excellence Research Center in the Department of Medicine at Stanford University focuses on the discovery of scalable methods of high-quality health care delivery that lower population-wide health spending.

Results of CAPABLE evaluations. The CAPABLE model has been evaluated through the pilot study at Johns Hopkins and as a Health Care Innovation Award (HCIA) round one project. An NIH-funded randomized controlled trial found improvements in functional status at five months after baseline (primary outcome) but not at 12 months after baseline (secondary outcome) (Szanton, Xue, Leff, et al., 2019). Results from a pilot study and HCIA showed similar improvements in functional status and reduction in depressive symptomatology (Szanton, Leff, Wolff, et al., 2016; Szanton, Thorpe, Boyd, et al., 2011). Pilot study data also showed improvements in fall self-efficacy and quality of life (Szanton, Thorpe, Boyd, et al., 2011). Two studies assessed health care expenditures based on the HCIA data. Using Monte Carlo simulations, the CAPABLE team found reduced Medicaid expenditures in inpatient care and long-term service use, and lower overall Medicaid spending, among CAPABLE participants

¹⁵ The CAPABLE proposal uses the term “participant satisfaction” in reference to the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. We have used “patient experience” here to be consistent with the language used by CAHPS.

¹⁶ Agency for Healthcare Research and Quality. (March 2016). CAHPS: Assessing health care quality from the patient’s perspective. Retrieved from https://www.ahrq.gov/cahps/about-cahps/cahps-program/cahps_brief.html

¹⁷ Scales include Katz Index of independence in ADLs, Physical Self-Maintenance Scale [PSMS] and IADL scale, Older Americans Resources and Services (OARS), Barthel ADL Index, Functional Independence Measure (FIM), Performance ADL Test (PAT), Erlangen Test of Activities of Daily Living, Texas Functional Living Scale, and Independent Living Scales.

¹⁸ Stopping Elderly Accidents, Deaths & Injuries, Centers for Disease Control and Prevention. (2017). Algorithm for fall risk screening, assessment, and intervention. Retrieved from <https://www.cdc.gov/steady/pdf/STEADI-Algorithm-508.pdf>

relative to a matched comparison group (Szanton, Alfonso, Leff, et al., 2018). An independent evaluation of Medicare and Medicaid expenditures for the HCIA CAPABLE project were inconclusive; however, sample sizes were small for these analyses (172 Medicare beneficiaries and 207 Medicaid beneficiaries) (Ahn et al., 2017). More detailed findings from each study are in the annotated bibliography.

Current CAPABLE replication sites. The proposal and this environmental scan identified 19 U.S. sites that are currently implementing the CAPABLE model. The majority of these include an evaluation component. Although most are grant funded, three organizations are implementing the program in an accountable care organization (ACO) model and one is implementing through a Medicaid waiver. In addition to these sites, at least one Medicare Advantage plan and several dual-eligible special needs plans (D-SNPs) have added CAPABLE to their services (Szanton & Gitlin, 2016).

One case study from an Australian adaptation of CAPABLE has been published (Jeon et al., 2018), but no evaluations of United States-based replications were identified in this scan. Baseline data from the evaluation of MiCAPABLE, the Michigan Medicaid waiver implementation of CAPABLE, were presented at the 2017 International Association of Gerontology and Geriatrics meeting (Szanton, Alfonso, Leff, et al., 2018).

Similar demonstrations, waivers, and models.

- *Advancing Better Living for Elders (ABLE) model.* ABLE is the precursor model upon which CAPABLE builds. The ABLE program is a home-based occupational (OT) and physical therapy (PT) intervention that was found in a randomized controlled trial to reduce functional difficulties, fear of falling, and home hazards and to enhance self-efficacy and use of control-oriented strategies, as well as to have a survivorship effect at 12 months. A follow-up study determined that the survivorship effect extended up to 3.5 years and maintained statistically significant differences for two years (Gitlin et al., 2009).
- *Independence at Home Demonstration.* This CMMI demonstration is testing the effectiveness of delivering comprehensive primary care services at home for Medicare beneficiaries with multiple chronic conditions and functional limitations.¹⁹ In addition to home visits, this model includes assessments similar to those used in CAPABLE (e.g., home safety and fall risk assessment). An evaluation of this demonstration recently submitted to Congress showed reductions in emergency department (ED) visits, hospital readmissions, and preventable admissions after three years. Results for Medicare expenditures and LTC placement were inconclusive, with further analysis suggested by the authors.²⁰ To date, this demonstration is small (limited to 10,000 beneficiaries) and thus likely underpowered to show significant reductions in expenditures.
- *Support and Services at Home (SASH) program.* The goals of SASH are similar to CAPABLE, as the program aims to keep low-income, aging beneficiaries in their homes. SASH provides targeted support (e.g., care coordination) and in-home services to Medicare FFS beneficiaries living in affordable housing properties. Home visits and home repairs or modifications are not core features of the program, but these services can be provided on an ad hoc basis. SASH

¹⁹ CMS. (2018). Independence at Home Demonstration. Retrieved from <https://innovation.cms.gov/initiatives/independence-at-home/>

²⁰ U.S. Department of Health and Human Services. (November 2018). Report to Congress: Evaluation of the Independence at Home Demonstration. Retrieved from <https://innovation.cms.gov/Files/reports/iah-rtc.pdf>

assessments cover items including functional ability, fall risk, medications, and mental health/social isolation. Results to date demonstrate higher self-reported health status and functioning among participants relative to the comparison group, lower rates of hospitalizations, and slower growth (but not a significant impact) on Medicare expenditures (Kandilov et al., 2017).

- *Geriatric Resources for Assessment and Care of Elders (GRACE)*. GRACE is a program designed to enable low-income seniors with MCC to age safely in their homes. It includes in-home assessments that cover items including medication management, mobility, and depression, as well as lessons on how to avoid falls. Evaluations of GRACE have demonstrated improved outcomes, including fewer hospitalizations, readmissions, and ED visits, higher quality-of-life ratings, and reduced hospital costs (Counsell et al., 2007).²¹

²¹ Agency for Healthcare Research and Quality. (March 2017). GRACE Team Care. Retrieved from <https://www.ahrq.gov/workingforquality/priorities-in-action/grace-team-care.html>

II. Annotated Bibliography

Ahn R., Anderson B., Armstrong E., et al. (February 2017). HCIA complex/high-risk patient targeting: Third annual report. Bethesda, MD: NORC at the University of Chicago.

Subtopic(s): Results of Proposed or Similar Models

Type of Source: Evaluation report

Objective: To present findings for 23 HCIA round 1 awardees that serve patients with MCC who are at high risk for hospitalization, re-hospitalization, ED visits, or nursing home stays. One of the interventions was Johns Hopkins University School of Nursing's CAPABLE model; this bibliography entry covers CAPABLE only.

Main Findings: Decreases in hospitalizations and increases in total cost of care in both the Medicare and Medicaid analyses relative to the comparison group; however, results are not statistically significant. The Medicare analyses show nonsignificant increase in ED visits; conversely, a nonsignificant decrease in ED visits is seen in the Medicaid analyses, relative to a comparison group. The survey data reflects an improvement in health-related quality of life, decreased depressive symptoms, and improved fall prevention self-efficacy. The survey had statistically significant reduction for difficulties in ADL and IADL.

Strengths/Limitations: Relatively small sample sizes for both claims analyses may limit analytic power and introduce bias. Propensity score matching methods used to select comparison group may not have been able to adequately capture all aspects of program eligibility.

Generalizability to Medicare Population: Yes

Methods: Difference-in-difference analysis using a propensity score-matched comparison group to study Medicare and Medicaid costs and utilization outcomes. Data from an internal Johns Hopkins University School of Nursing survey of participants was used to report on non-claims outcomes.

Bennett, A. D., Curtis, P., & Harrod, C. S. (2018). *Bundling, benchmarking, and beyond: Paying for value in home- and community-based services*. New York: Milbank Memorial Fund.

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: Report

Objective: This report provides an overview of Medicaid's long-term services and supports (LTSS), including HCBS. It provides information about Medicaid spending on LTSS, federal HCBS authorities, and the recent shift in LTSS toward HCBS and away from institutional care. The report examines one alternative payment model (APM), bundled payments, and its applicability to Medicaid HCBS state examples from Colorado and Arkansas. The report also looks at efforts to establish quality measurement systems to promote high quality and payment for value in Medicaid HCBS, especially current efforts regarding quality metrics for HCBS.

Main Findings: N/A

Strengths/Limitations: N/A

Generalizability to Medicare Population: N/A

Methods: N/A

Bernhardt, A. K., Lynn, J., Berger, G., et al. (2016) Making it safe to grow old: A financial simulation model for launching MediCaring Communities for frail elderly Medicare beneficiaries. *Milbank Quarterly*, 94(3), 597-625. doi:10.1111/1468-0009.12199

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: Report

Objective: This study uses financial simulation to determine whether communities could implement the MediCaring Communities model within current Medicare and Medicaid spending levels.

Main Findings: Financial simulation models suggest that better care at lower cost for frail elderly Medicare beneficiaries is possible within current financing levels. The simulation projected third-year savings between \$269 and \$537 per beneficiary per month and cumulative returns on investment between 75% and 165%.

Generalizability to Medicare Population: Yes

Methods: The financial simulation for MediCaring Communities uses four diverse communities chosen for adequate size, varying health care delivery systems, and ability to implement reforms and generate data rapidly: Akron, Ohio; Milwaukie, Oregon; northeastern Queens, New York; and Williamsburg, Virginia. For each community, leaders contributed baseline population and program effect estimates that reflected projections from reported research to build the model.

Britt, A. (2017). A literature review: occupational therapy interventions and the quality of life of elderly adults in the United States (doctoral dissertation).

Subtopic(s): Problems in Care Delivery

Type of Source: Thesis/literature review

Objective: To identify what occupational therapy intervention is most effective in increasing the quality of life for older adults (65+) in the United States.

Main Findings: The results included three overarching findings: home modifications and environmental interventions, social engagement interventions, and interventions that use a multidisciplinary approach were all effective. Occupational therapy as a part of a multidisciplinary approach was determined most effective in improving the quality of life of older adults in the United States. All 10 studies reviewed showed a positive correlation between occupational therapy and improving some aspect of older adult life. More studies need to be conducted on a larger scale with a broader range of demographics.

Strengths/Limitations: The review included few articles and was limited in terms of geographical and demographical data reported.

Generalizability to Medicare Population: Yes

Methods: The study included articles published within the past 10 years, conducted in the United States, and testing an intervention or prevention methods for adults 60 years and older. Ten articles were included in this study, including Szanton et al., 2011 (CAPABLE evaluation).

CMS. (2017). Chapter 7: home health services. In *Medicare benefit policy manual*. Baltimore, MD: Centers for Medicare & Medicaid Services.

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: CMS-issued guidelines

Objective: To provide Medicare coverage instructions and guidelines for Home Health Services.

Main Findings: N/A
Strengths/Limitations: N/A
Generalizability to Medicare Population: N/A
Methods: N/A

[Colello, K. J., & Napili, A. \(November 14, 2018\). Older Americans Act: Overview and Funding. R43414, Version 24. Washington DC: Congressional Research Service.](#)

Subtopic(s): Issues in Payment Policy
Type of Source: Report
Objective: To provide an overview of the Older Americans Act. It briefly describes the act's titles, highlighting selected provisions, followed by FY2019 appropriations and a funding history.
Main Findings: N/A
Strengths/Limitations: N/A
Generalizability to Medicare Population: N/A
Methods: N/A

[Counsell, S. R., Callahan, C.M., Clark, D. O., et al. \(2007\). Geriatric care management for low-income seniors: a randomized controlled trial. *JAMA*, 298\(22\), 2623-2633.](#)

Subtopic(s): Results of Proposed or Similar Models
Type of Source: Journal article
Objective: To test the effectiveness of a geriatric care management model on improving the quality of care for low-income seniors in primary care.
Main Findings: Integrated and home-based geriatric care management resulted in improved quality of care and reduced acute care utilization among a high-risk group. Improvements in health-related quality of life were mixed, and physical function outcomes did not differ between groups.
Strengths/Limitations: The results of this trial may not be generalizable to different groups of older persons (e.g., those of higher socioeconomic status and those living in rural communities) or different clinic settings. Physicians and the intervention team and patients were unblinded to the participant's intervention status given the nature of the intervention, but the research assistants conducting the independent outcome assessments were blinded.
Generalizability to Medicare Population: Yes
Methods: Older adult Medicaid patients received two years of home-based care management by a nurse practitioner and social worker, who collaborated with the primary care physician and a geriatrics interdisciplinary team and were guided by 12 care protocols for common geriatric conditions. Patients were recruited from six community-based health centers and randomized at the physician level.

[Federal Interagency Forum on Aging-Related Statistics. \(2016\). Older Americans 2016: Key indicators of well-being. Washington DC: Government Printing Office.](#)

Subtopic(s): Epidemiology of the Disease

Type of Source: Report

Objective: To provide statistics related to the support and well-being of older Americans.

Main Findings: Using data from national data sources, researchers calculated and compiled statistics on the health status, health behaviors, and health care of older Americans.

Strengths/Limitations: The majority of estimates are from a sample population and thus could be affected by sampling error. The report was created by the Federal Interagency Forum on Aging-Related Statistics, which includes 16 agencies.

Generalizability to Medicare Population: Yes

Methods: The report utilized data from more than a dozen national data sources to examine the population, economics, health status, health risks/behaviors, health care, and environment of older adults.

Fox, M. H., & Reichard, A. (2013). Disability, health, and multiple chronic conditions among people eligible for both Medicare and Medicaid, 2005–2010. *Preventing Chronic Disease* 10. doi:10.5888/pcd10.130064

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: Explore the prevalence of MCC among dual-eligibles by discrete socioeconomic and health characteristics.

Main Findings: Researchers found 73.5 percent of those dual eligible of ages 65 or higher had MCC, and of this group the mean age and total annual expenditure were 71 and \$14,364. Additional results explored the likelihood of MCC for groups of beneficiaries by age, sex, and socioeconomic characteristics. The most common chronic conditions are also reported.

Strengths/Limitations: Excluded the 17 percent of dual-eligible beneficiaries who are institutionalized.

Generalizability to Medicare Population: Yes

Methods: The study used Medical Expenditure Panel Survey (MEPS) data for 2005–2010. The sample was divided into age groups 18–64 and 65 or older and then grouped by physical disability only, physical and cognitive disability, and others.

Fox-Grage, W., & Ujvari, K. (2014). *The Older Americans Act*. Washington DC: AARP Public Policy Institute.

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: AARP policy brief

Objective: Describe services available under the Older Americans Act (OAA) and discuss the uptake of those services.

Main Findings: The OAA provides critical services—such as home-delivered and congregate meals, family caregiver support, in-home assistance, preventive health services, transportation, job training, protection from abuse, and other supportive services—that help about 11 million older adults stay as independent as possible. In FY2014, OAA federal funding was \$1.88 billion. Funding has been relatively flat over the past decade, failing to keep up with inflation and demand from a rapidly expanding older population.

Strengths/Limitations: N/A

Generalizability to Medicare Population: Yes

Methods: N/A

Gandhi, K., Lim, E., Davis, J., & Chen, J. J. (2018). Racial disparities in health service utilization among Medicare fee-for-service beneficiaries adjusting for multiple chronic conditions. *Journal of Aging and Health, 30*(8), 1224-1243. doi:10.1177/0898264317714143

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: Explore racial disparities in Hawaii's health services utilization among Medicare FFS beneficiaries age 65 and older.

Main Findings: Compared with Whites, all racial groups underutilized all types of services. Use of inpatient, home health care, and skilled nursing facility greatly increased as the number of chronic conditions increased.

Strengths/Limitations: Limited generalizability because the study focused only on Medicare FFS beneficiaries living in Hawaii.

Generalizability to Medicare Population: Limited

Methods: Separate multivariable logistic regression models for each service type (inpatient, outpatient, emergency, home health agency, and skilled nursing facility) were used to examine racial disparities, adjusting for sociodemographic characteristics and MCCs.

Gitlin, L. N., Hauck, W. W., Dennis, M. P., Winter, L., Hodgson, N., & Schinfeld, S. (2009). Long-term effect on mortality of a home intervention that reduces functional difficulties in older adults: results from a randomized trial. *Journal of the American Geriatrics Society, 57*(3), 476-481.

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To evaluate long-term mortality effects of a home-based intervention previously shown to reduce functional difficulties and whether survivorship benefits differed by risk level.

Main Findings: The intervention group had lower mortality up to 3.5 years and maintained statistically significant differences for two years. Those at moderate mortality risk derived the most intervention benefit. Findings suggest that the intervention could be a low-cost clinical tool to delay both functional decline and mortality.

Strengths/Limitations: The database does not allow for multivariate risk adjustments or control of clinical variables (e.g., comorbidities, health service utilization, hospitalizations). Survival analyses were unplanned and post hoc.

Generalizability to Medicare Population: Yes

Methods: Randomized study of 319 adults age 70 years and older with ADL limitations.

Intervention participants received OT and PT sessions to instruct participants in compensatory strategies, home modifications, safety, fall recovery techniques, and balance and muscle strength exercises. Mortality data was obtained from the National Death Index.

Hennessy, S., Kurichi, J. E., Pan, Q., et al. (2015). Disability stage is an independent risk factor for mortality in Medicare beneficiaries 65 years of age and older. *PM&R*, 7(12), 1215-1225. doi:10.1016/j.pmrj.2015.05.014

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To examine the association between functional stages based on activities of ADLs and IADLs with three-year mortality in Medicare beneficiaries age 65 years and older, accounting for baseline sociodemographics, health status, smoking, subjective health, and psychological well-being.

Main Findings: The authors found nearly monotonic relationships between ADL and IADL stage and adjusted three-year mortality. The overall mortality rate was 3.6 per 100 person years, and three-year cumulative mortality was 10.3 percent. Unadjusted three-year mortality was monotonically associated with both ADL stage and IADL stage.

Strengths/Limitations: A major strength of this study is its use of a representative sample of non-institutionalized Medicare beneficiaries, which makes its results broadly generalizable to the community-dwelling U.S. population 65 years and older.

Generalizability to Medicare Population: Yes

Methods: Cohort study using the Medicare Current Beneficiary Survey (MCBS) and associated health care utilization data.

Jeon, Y-H., Clemson, L., Naismith, S. L., et al. (2018). Improving the social health of community-dwelling older people living with dementia through a reablement program. *International Psychogeriatrics*, 30(6), 915-920. doi:10.1017/S1041610217001533

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Case study

Objective: To present a case study of one client who participated in I-HARP (Interdisciplinary home-based reablement program) and highlight key contributions that such a reablement approach to care can make to optimizing the social health of people living with dementia. I-HARP is an adaptation of the CAPABLE model.

Main Findings: Most of the client's goals were achieved, with a significant improvement in her functional mobility toward the end of the program.

Strengths/Limitations: There are case study limitations (e.g., generalizability). Also, the study was published in Australia, where the focus is on dementia patients, which is different from focus of U.S. CAPABLE models.

Generalizability to Medicare Population: Limited

Methods: The subject participated in the I-HARP program according to the program protocol (initial family psychoeducation session and assessment followed by six OT home visits, four RN home visits, and one psychologist visit).

Kandilov, A., Keyes, V., Siegfried, N., et al. (March 2017). Support and Services at Home (SASH) evaluation: Evaluation of the first four years. Washington DC: Department of Health and Human Services Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy.

Subtopic(s): Results of Proposed or Similar Models

Type of Source: Evaluation report

Objective: To describe the implementation and impacts of a program intended to improve health status and slow the growth of health care expenditures among older adults living in affordable housing properties.

Main Findings: Self-reported health status and functioning were higher for SASH participants relative to the survey comparison group, and SASH participants reported fewer problems managing multiple medications. The SASH program did not have a significant impact on the growth of Medicare expenditures. However, among participants enrolled in SASH panels established before April 2012 (early panels, representing 40 percent of SASH participants with Medicare living in affordable housing properties), growth in annual Medicare expenditures was slower by an estimated \$1,227 per beneficiary per year. These same beneficiaries in the early panels also had lower rates of hospitalization and slower rates of growth for hospital and specialty physician costs.

Strengths/Limitations: The large differences in demographic characteristics between the SASH participants and the comparison group, especially the greater proportion of comparison beneficiaries who were first eligible for Medicare because of disability and the greater proportion of comparison beneficiaries who were dually eligible for Medicare and Medicaid, is also a limitation in this analysis.

Generalizability to Medicare Population: Yes

Methods: The analysis combines findings from interviews with SASH staff members and key stakeholders, a survey of SASH participants, and an analysis of Medicare claims data. Analysis of Medicare claims data used regression methods to identify the impact of the SASH program on health care expenditure and utilization outcomes.

Klein, S. K., McCarthy, D. M., & Ryan, J. R. (2015). *Models of care for high-need, high-cost patients: An evidence synthesis*. New York: Commonwealth Fund. doi:[10.15868/socialsector.25052](https://doi.org/10.15868/socialsector.25052)

Subtopic(s): Problems in Care Delivery

Type of Source: Issue brief

Objective: To synthesize findings from six expert reviews and secondary analyses of evidence on the impact and features of clinical care models or care management programs that target high-need, high-cost patients.

Main Findings: Successful models have several common attributes: targeting patients likely to benefit from the intervention; comprehensively assessing patients' risks and needs; relying on evidence-based care planning and patient monitoring; promoting patient and family engagement in self-care; coordinating care and communication among patients and providers; facilitating transitions from the hospital and referrals to community resources; and providing appropriate care in accordance with patients' preferences. Overall, the evidence of impact is modest, and few of these models have been widely adopted in practice because of barriers, such as a lack of supportive financial incentives under FFS reimbursement arrangements.

Strengths/Limitations: Individual research studies included in the reviews may not have been strictly comparable because of differences in intensity and scope of interventions, in populations served, and in duration of study periods. Authors did not ascertain whether the programs cited in the literature are still in existence. Finally, many studies used reductions in hospitalizations to

indicate the potential for reduced health care spending; however, this outcome depends on whether cost savings from reduced utilization exceed the costs of care enhancements and program administration, which was often not measured.

Generalizability to Medicare Population: N/A

Methods: Literature review (methods not described)

Kudrimoti, A. M., & Dial, L. K. (2017). Selected problems of aging. In Paulman P. M., Taylor R. B., Paulman A. A., Nasir L. S. (eds), *Family Medicine: Principles and Practice*, 305-318. Cham, Switzerland: Springer International Publishing. doi:10.1007/978-3-319-04414-9_23

Subtopic(s): Epidemiology of the Disease

Type of Source: Book chapter

Objective: To provide information on issues that are common to the age 85+ population and are valuable to the family physician who cares for these patients. Clinicians treating this population face the challenge not only of treating chronically ill adults but also in helping to delay or prevent the onset of chronic disease.

Main Findings: The chapter describes the pathophysiology, diagnosis, and management of frailty, constipation, and sleep-related disorders in the elderly. It also addresses social and functional issues, including community-based assistive services and living arrangements, how to help seniors understand Medicare, and assessing older drivers.

Strengths/Limitations: N/A

Generalizability to Medicare Population: Yes

Methods: N/A

Kurichi, J. E., Streim, J. E., Xie, D., et al. (2017). The association between activity limitation stages and admission to facilities providing long-term care among older Medicare beneficiaries. *American Journal of Physical Medicine & Rehabilitation*, 96(7), 464-472. doi:10.1097/PHM.0000000000000653

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To examine whether activity limitation stages are associated with admission to LTC facilities.

Main Findings: Activity limitation stages are strongly associated with future admission to LTC. The weighted annual rate of LTC admission was 1.1 percent. In the adjusted model, compared to ADL stage 0, the hazard ratios (95 percent confidence intervals [CIs]) were 2.0 (1.5–2.7), 3.9 (2.9–5.4), 3.6 (2.5–5.3), and 4.7 (2.5–9.0) for ADL stage I (mild limitation), ADL stage II (moderate limitation), ADL stage III (severe limitation), and ADL stage IV (complete limitation), respectively

Strengths/Limitations: Findings are based on a sample of Medicare beneficiaries designed to be representative and use the gold standard to assess functional limitations (ADLs and IADLs). However, measure of LTC is not able to distinguish between short and long stays in facilities.

Generalizability to Medicare Population: Yes

Methods: Cohort study using MCBS data from the 2005–2009 entry panels. Proportional hazard models examined associations between activity limitation stages and time to first LTC admission, adjusting for baseline sociodemographics and health conditions.

Lee, S-J., Parrott, K. R., Giddings, V. L., Robinson, S. R., & Brown, G. (2017). The influence of home modifications on aging in place for North Carolina low-income elderly homeowners. *Journal of Family & Consumer Sciences*, 109(4), 26-32. doi:10.14307/JFCS109.4.26.

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To identify strategies employed by the homeowners that they perceived to facilitate their ability to age in place and explore home modification profiles of a sample of low-income elderly homeowners and discuss the meaning of home modifications for their successful aging in place.

Main Findings: Most participants in this study reported better housing conditions after home modifications. The most frequent home modification types were grab bars, ramp, (raised) toilet, and (widening) doorway. Home modifications support low-income elderly homeowners' ability to age in place. Continued involvement of various organizations and community programs to increase environmental well-being of elderly homeowners with limited resources can foster aging in place.

Strengths/Limitations: The study has limited generalizability due to a relatively small sample taken from a single location. The frequency counts for each question were unequal because not everyone responded to the open-ended questions and prompts; some participants might have been hesitant to answer with personal, financial, or critical information in direct response to interviewer questions, which may bias results.

Generalizability to Medicare Population: Yes

Methods: Personal interviews were conducted in a central North Carolina city with 30 low-income elderly homeowners who completed home modifications. Study participants, low-income North Carolina elderly homeowners (average age=73 years), were mostly single (n=28), female (n=29), with income less than \$25,000 (n=29). The interviews included open-ended questions related to home modifications. Interviews were tape-recorded and transcribed for content analysis.

Lochner, K. A., Goodman, R. A., Posner, S., & Parekh, A. (2013). Multiple chronic conditions among Medicare beneficiaries: state-level variations in prevalence, utilization, and cost, 2011. *Medicare & Medicaid Research Review*, 3(3). doi:10.5600/mmrr.003.03.b02

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To explore variation among Medicare beneficiaries with MCC (especially six or more chronic conditions) at the state level.

Main Findings: Prevalence rates for beneficiaries with six or more chronic conditions were lowest in Alaska and Wyoming (7 percent) and highest in Florida and New Jersey (18 percent). The lowest readmission rates were in Utah (19 percent), and the highest were in Washington D.C. (31 percent). New York and Florida had the fewest ED visits per beneficiary (1.6), and Washington DC had the most (2.7). Hawaii had the lowest Medicare spending per beneficiary at \$24,086, and Maryland, Washington DC, and Louisiana had the highest (more than \$37,000).

Strengths/Limitations: The study excluded several behavioral and mental health disorders such as substance abuse and schizophrenia. The analysis does not account for differences in

Medicare populations between states for characteristics such as disability or dual-eligible beneficiaries.

Generalizability to Medicare Population: Yes

Methods: The study used CMS administrative enrollment and claims data to analyze state-level patterns in MCC for beneficiaries of the FFS program in 2011.

Lohman, M. C., Crow, R. S., DiMilia, P. R., et al. (2017). Operationalization and validation of the Stopping Elderly Accidents, Deaths, and Injuries (STEADI) fall risk algorithm in a nationally representative sample. *Journal of Epidemiology and Community Health*, 71(12), 1191-1197.

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To understand the STEADI tool's predictive validity or adaptability to survey data.

Main Findings: The adapted STEADI clinical fall risk screening tool is a valid measure for predicting future fall risk using survey cohort data. The predictive validity of the adapted STEADI fall risk algorithm indicates its potential for measuring fall risk in community settings and for informing population-based fall prevention initiatives.

Strengths/Limitations: The use of nationally representative National Health and Aging Trends Study (NHATS) sample data and the longitudinal analytic design accounting for complex sampling elements allow inferences about fall risk to be generalized to older adults in the United States.

Generalizability to Medicare Population: Yes

Methods: Data from five annual rounds (2011–2015) of the NHATS, a representative cohort of adults age 65 and older in the United States. Analytic sample respondents (n=7,392) were categorized at baseline as having low, moderate, or high fall risk and logistic mixed-effects regression was used to estimate the association between baseline fall risk and subsequent falls and mortality. Analyses incorporated complex sampling and weighting elements to permit inferences at a national level.

Mason, D. J. (2017). Long-term care: Investing in models that work. *JAMA*, 318(16), 1529-1530. doi:10.1001/jama.2017.15230

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: Journal article

Objective: To describe demonstration projects that have been shown to prevent nursing home admission, along with barriers to their implementation.

Main Findings: Several mature demonstration projects have been shown to prevent nursing home admission but scaling them up will require start-up funding in communities nationwide, removing regulatory barriers, and embracing a social model of health.

Strengths/Limitations: N/A

Generalizability to Medicare Population: Yes

Methods: N/A

Mattke, S., Han, D., Wilks, A., & Sloss, E. (2015). Medicare home visit program associated with fewer hospital and nursing home admissions, increased office visits. *Health Affairs*, 34(12), 2138-2146. doi:[10.1377/hlthaff.2015.0583](https://doi.org/10.1377/hlthaff.2015.0583)

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To investigate whether the UnitedHealth Group's HouseCalls program could reduce costly institutional care. The HouseCalls program provides an annual in-home visit by either a physician or a nurse practitioner.

Main Findings: Compared to non-HouseCalls Medicare Advantage plan members and FFS beneficiaries, HouseCalls participants had reductions in hospitalizations and lower risk of nursing home admission. In addition, participants' numbers of office visits—chiefly to specialists—increased. The program's effects on ED use were mixed.

Strengths/Limitations: This study was observational and disregarded events (e.g., ED visits) in the month of the house call visit.

Generalizability to Medicare Population: Yes

Methods: The authors used difference-in-differences approach to examine whether participation in the program was associated with a shift in utilization from institutional care to home and community-based care, by analyzing changes in admissions to hospitals and nursing homes and changes in the use of ambulatory care services. The study population included two intervention groups in five states: SNP members and standard MA members and four comparison groups: Medicare FFS beneficiaries, standard MA members with no HouseCalls benefit, and two future HouseCalls comparison groups (a member eligible for the program in the first year but not scheduled for a visit until the following year).

McClintock, H. F. , Kurichi, J. E., Kwong, P. L., et al. (2017). Disability stages and trouble getting needed health care among Medicare beneficiaries. *American Journal of Physical Medicine & Rehabilitation*, 96(6), 408-416. doi:[10.1097/PHM.0000000000000638](https://doi.org/10.1097/PHM.0000000000000638)

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To examine whether activity limitation stages were associated with patient-reported trouble getting needed health care among Medicare beneficiaries.

Main Findings: Medicare beneficiaries at higher stages of activity limitations reported trouble getting needed health care, which was commonly attributed to financial barriers. Compared to beneficiaries with no limitations (ADL stage 0), the adjusted odds ratios (OR) (95 percent confidence intervals, or CIs) for stage I (mild) to stage IV (complete) for trouble getting needed health care ranged from OR=1.53 (95 percent CI: 1.32–1.76) to OR=2.86 (95 percent CI: 1.97–4.14). High costs (31.7 percent), not having enough money (31.2 percent), and supplies/services not covered (24.2 percent) were the most common reasons for reporting trouble getting needed health care.

Strengths/Limitations: Findings are based on a sample of Medicare beneficiaries designed to be representative and use the gold standard to assess functional limitations (ADLs and IADLs).

Generalizability to Medicare Population: Yes

Methods: A population-based study (n= 35,912) of Medicare beneficiaries who participated in the MCBS for years 2001–2010. A multivariable logistic regression model examined the association between activity limitation stages and trouble getting needed care.

[Medicare Learning Network. \(2018\). Home health prospective payment system. Baltimore, MD: CMS.](#)

Subtopic(s): Issues in Medicare Payment Policy

Type of Source: CMS-issued Medicare Learning Network Booklet

Objective: To provide guidance for home health agencies regarding consolidated billing (CB) requirements, criteria that must be met to qualify for home health services, therapy services, elements of updates to the HH PPS, physician billing and payment for home health services, and the Home Health Quality Reporting Program (HH QRP).

Main Findings: N/A

Strengths/Limitations: N/A

Generalizability to Medicare Population: N/A

Methods: N/A

[MedPAC & MACPAC. \(January 2018\). Data Book: Beneficiaries Dually Eligible for Medicare and Medicaid.](#)

Subtopic(s): Epidemiology

Type of Source: Data book

Objective: To present information on the demographic and other personal characteristics, expenditures, and health care utilization of individuals who are dual eligible for Medicare and Medicaid coverage.

Main Findings: This population is diverse and includes individuals with MCC, physical disabilities, and cognitive impairments such as dementia, developmental disabilities, and mental illness. It also includes some individuals who are relatively healthy.

Strengths/Limitations: N/A

Generalizability to Medicare Population: Yes

Methods: In each section, the authors compare subgroups of dual-eligible beneficiaries, including those with full versus partial benefits and those under age 65 versus those ages 65 and older. They also compare dual-eligible beneficiaries with non-dual Medicare and Medicaid beneficiaries. In addition to presenting data for calendar year (CY) 2013, the authors include information on trends in the dual-eligible population between CY2009 and CY2013.

[Mlinac, M.E., & Feng, M.C. \(2016\) Assessment of activities of daily living, self-care, and independence. *Archives of Clinical Neuropsychology*, 31\(6\), 506-516. doi:10.1093/arclin/acw049](#)

Subtopic(s): Epidemiology of the Disease; Problems in Care Delivery

Type of Source: Journal article/review article

Objective: To provide clinicians with accessible and practical information on the assessment of a person's ability to engage in ADLs, with or without assistance.

Main Findings: Unlike with other types of capacity, neuropsychological tests may have less predictive validity for ADL assessment. There is some evidence that changes in attention, executive functioning, visuospatial tasks, and memory can affect ADLs, generally in later stages

of dementia. Using self-report, caregiver report, and/or performance-based measures of ADL functioning can be clinically useful, particularly in interdisciplinary settings. It is important for clinicians to attend to factors that drive or worsen ADL impairment—particularly those that may improve with treatment, such as depression, resistance to care, and pain. ADL impairment can have significant ramifications for patients and their caregivers, as it can lead to caregiver burnout and institutionalization. Patient-centered approaches to enhancing independence in self-care activities can improve quality of life for patients and help to alleviate caregiver burden.

Strengths/Limitations: N/A

Generalizability to Medicare Population: N/A

Methods: N/A

Na, L., Hennessy, S., Bogner, H. R., et al. (2017). Disability stage and receipt of recommended care among elderly Medicare beneficiaries. *Disability and Health Journal*, 10(1), 48-57. doi:10.1016/j.dhjo.2016.09.007

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To use a new disability staging method to analyze how receipt of recommended care varies by disability status among older Medicare beneficiaries.

Main Findings: One out of three older Medicare beneficiary did not receive recommended care, and those at higher activity limitation stages experienced substantial disparities in recommended care.

Strengths/Limitations: The recommended care indicators used in the study may be dated (the set was published in 2000). It does not cover dementia, for instance. The study also excluded HMO-enrolled beneficiaries, who may be more likely to receive preventative care.

Generalizability to Medicare Population: Yes

Methods: Researchers used logistic regression modeling to assess the association of receiving recommended care for 38 indicators across activity limitation stages. The data is from a cohort study of older community-dwelling Medicare beneficiaries.

Schamess, A., Foraker, R., Kretovics, M., et al. (2017). Reduced emergency room and hospital utilization in persons with multiple chronic conditions and disability receiving home-based primary care. *Disability and Health Journal*, 10(2), 326-333. doi:10.1016/j.dhjo.2016.10.004

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To evaluate whether enrollment of patients with disability and MCC in a HBPC program is associated with a subsequent decrease in ED visits and hospital admissions. The program is Ohio State University Wexner Medical Center's (OSUWMC) OSU Healthy at Home (OSUHH) program.

Main Findings: Provision of HBPC for persons with multiple chronic conditions and disability is associated with a persistent reduction in ED and hospital use.

Strengths/Limitations: Only utilization data from within the OSUWMC health care system was available; ED and hospital utilization were the only indicators of program efficacy.

Generalizability to Medicare Population: Yes

Methods: The authors abstracted electronic medical record (EMR) data among patients receiving HBPC and compared rates per 1,000 patient days for ED visits, admissions, 30-day readmissions, and inpatient days for up to three years before and after enrollment. Participants were ≥ 18 years old, with more than two chronic conditions requiring ongoing medical management, and disability posing substantial barriers to office-based primary care.

Sonnega, A., Robinson, K., & Levy, H. (2017). Home and community-based service and other senior service use: Prevalence and characteristics in a national sample. *Home Health Care Services Quarterly*, 36(1), 16-28. doi:10.1080/01621424.2016.1268552

Subtopic(s): Epidemiology of the Disease

Type of Source: Journal article

Objective: To report on trends on home and community-based service utilization.

Main Findings: HCBS users were more vulnerable than users of other senior services. Those using other services more closely resembled those using no resources in health condition and demographics. The most popular services were tax preparation and exercise classes. The likelihood of current HCBS use increased with past use of senior services. The authors suggest that senior services are a “gateway to future use of HCBS.”

Strengths/Limitations: The data does not include certain HCBS, such as congregate nutrition programs, nutrition counseling, homemaker, personal care, and case management services. The data is also cross-sectional instead of longitudinal.

Generalizability to Medicare Population: Yes

Methods: Analysis of results from the Health and Retirement Study (HRS), which is the first survey assessing HCBS utilization in nationally representative sample of older (ages 60 and older) adults in the United States. The study included a comparison group of those without senior services.

Stevens, J. A., & Phelan, E. A. (2013). Development of STEADI: a fall prevention resource for health care providers. *Health Promotion Practice* 14, 706–14.

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To describe the development of the STEADI fall prevention toolkit for providers.

Main Findings: The STEADI tool kit addresses identified knowledge gaps among primary health care providers regarding fall risk assessment, treatment, and referrals. It provides information and resources designed to help health care providers incorporate fall prevention into their clinical practice as well as a tool for linking primary care with community fall prevention and exercise programs.

Strengths/Limitations: The toolkit incorporated input from a variety of health care providers at each stage of development, and it is based on current evidence of what works to prevent falls. However, many of the components have not yet been field tested in health care practice settings.

Generalizability to Medicare Population: N/A

Methods: Researchers at the Centers for Disease Control and Prevention’s Injury Center reviewed relevant literature and conducted in-depth interviews with health care providers to determine current knowledge and practices related to older adult fall prevention; developed

draft resources based on the AGS/BGS guideline; incorporated provider input; and addressed identified knowledge and practice gaps. Draft resources were reviewed by six focus groups of health care providers and revised.

Stewart, M., Brown, J. B., Donner, A., et al. (2000). The impact of patient-centered care on outcomes. *Journal of Family Practice, 49*(9), 796-804.

Subtopic(s): Problems in Care Delivery

Type of Source: Journal article

Objective: To assess the association between patient-centered communication in primary care visits and subsequent health and medical care utilization.

Main Findings: Patient-centered communication influences patients' health through perceptions that their visit was patient centered and especially through perceptions that common ground was achieved with the physician. Patient-centered practice improved health status and increased the efficiency of care by reducing diagnostic tests and referrals.

Strengths/Limitations: Approximately 30 percent of the patients refused to participate, and although the participants represented the age distribution of eligible patients, men were overrepresented in the study, and it is possible nonresponse bias influenced results.

Generalizability to Medicare Population: No

Methods: The authors selected 39 family physicians at random, and 315 of their patients participated. Office visits were audiotaped and scored for patient-centered communication. In addition, patients were asked for their perceptions of the patient-centeredness of the visit. Both measures of patient-centeredness were correlated with the outcomes of visits, adjusting for the clustering of patients by physician and controlling for confounding variables.

Szanton, S. L., Alfonso, Y. N., Leff, B., et al. (2018). Medicaid cost savings of a preventive home visit program for disabled older adults. *Journal of the American Geriatrics Society, 66*(3), 614-620. doi:10.1111/jgs.15143

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To determine whether the CAPABLE program saves Medicaid more money than it costs to provide.

Main Findings: Average Medicaid spending per CAPABLE participant was \$867 less per month than that of their matched comparison counterparts (observation period average 17 months, range 1–31 months). The largest differential reductions in expenditures were for inpatient care and long-term services and supports. The magnitude of reduced Medicaid spending could pay for CAPABLE delivery and provide further Medicaid program savings due to averted services use.

Strengths/Limitations: The study used administrative data and propensity scores to generate a matched comparison group. Because of data limitations, comparison group criteria could not mirror intervention enrollment criteria (e.g., place of residence, intention to move in the next 12 months), and key outcomes could not be assessed (e.g., ADL limitations).

Generalizability to Medicare Population: Yes

Methods: This was a single-arm clinical trial (N=204; individuals age 65 and older with reported difficulty with at least one ADL) with a propensity score matched comparison group of individuals (N=2,013) dually eligible for Medicaid and Medicare, matched on baseline geographic and demographic characteristics, chronic conditions, and health care use. The authors used finite mixture model regression estimates in a Markov model to model average monthly Medicaid expenditures.

Szanton, S. L., & Gitlin L .N. (2016). Meeting the health care financing imperative through focusing on function: the CAPABLE studies. *Public Policy & Aging Report*, 26(3), 106-110. doi:[10.1093/ppar/prw014](https://doi.org/10.1093/ppar/prw014)

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To highlight an innovative model (CAPABLE) to improve daily function and save health care costs; discuss initial findings and possibilities for scaling it to other settings and finance mechanisms.

Main Findings: In the first 100 completers in the HCIA round 1 CAPABLE project, participants reduced ADL and IADL difficulty, reduced depressive symptoms as measured by the PQH-9 assessment, and home hazards were decreased.

Strengths/Limitations: Preliminary results from the first 100 participants in a larger program.

Generalizability to Medicare Population: Yes

Methods: Pre/post analysis compared outcomes before and after receiving the CAPABLE intervention.

Szanton, S. L., Leff, B., Wolff, J. L., Roberts, L., & Gitlin, L. N. (2016). Home-based care program reduces disability and promotes aging in place. *Health Affairs*, 35(9), 1558-1563. doi:[10.1377/hlthaff.2016.0140](https://doi.org/10.1377/hlthaff.2016.0140)

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To report the final outcomes of the CMMI-funded CAPABLE demonstration project launched in 2012 and build upon previous publications about the CAPABLE pilot study.

Main Findings: The CAPABLE program was associated with improved physical functioning in low-income older adults in one Maryland city who were dually eligible for Medicaid and Medicare. Favorable results were observed uniformly across demographic and chronic disease groups.

Strengths/Limitations: The CMMI demonstration was a quality improvement project without a control group.

Generalizability to Medicare Population: Yes

Methods: The sample included 234 CAPABLE participants age 65 and older who were dually eligible for Medicare and Medicaid and who reported having at least some difficulty in performing ADLs. In addition, participants had to be living in a house and could not be cognitively impaired, be receiving skilled home health care services, or have been hospitalized four or more times in the previous year. The authors analyzed changes in basic and instrumental ADL limitations and depression from baseline to follow-up using multivariable linear regression models that accounted for differences in race and baseline age and depression score.

Szanton, SL, Xue, Q-L, Leff, B, et al. (January 2019). Effect of a biobehavioral environmental approach on disability among low-income older adults: A randomized clinical trial. *JAMA Internal Medicine*. doi:10.1001/jamainternmed.2018.6026.

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To determine whether a 10-session, home-based, multidisciplinary program reduces disability.

Main Findings: Low-income community-dwelling older adults who received the CAPABLE intervention experienced substantial decrease in disability; disability may be modifiable through addressing both the person and the environment. CAPABLE participation resulted in 30 percent reduction in ADL disability scores at five months (relative risk [RR], 0.70; 95%CI, 0.54–0.93; $P = .01$) versus control participation. CAPABLE participation resulted in a statistically nonsignificant 17 percent reduction in IADL disability scores (RR, 0.83; 95%CI, 0.65–1.06; $P = .13$) versus control participation. ADL and IADL function measured at 12 months after baseline (a secondary outcome) was not significantly different from participants versus controls. Participants in the CAPABLE group versus those in the control group were more likely to report at five months that the program made their life easier (82.3 percent versus 43.1 percent; $P < .001$), helped them take care of themselves (79.8 percent versus 35.5 percent; $P < .001$), and helped them gain confidence in managing daily challenges (79.9 percent versus 37.7 percent; $P < .001$).

Strengths/Limitations: Participants who responded to recruitment may be different in unmeasured ways from individuals who did not respond. Older adults who are referred to as high-cost utilizers are often harder to engage and may not have the same uptake or same results. In addition, this study was limited to low-income older adults in Baltimore, Maryland, and the sample was predominantly black women, which may limit generalizability. However, few studies of geriatric models have been conducted among low-income older adults and with a predominantly black sample.

Generalizability to Medicare Population: Yes

Methods: In this randomized clinical trial of 300 low-income community-dwelling adults with a disability in Baltimore, Maryland, between March 18, 2012, and April 29, 2016, age 65 years or older, cognitively intact, and with self-reported difficulty with one or more ADLs or two or more IADLs, participants were interviewed in their home at baseline, five months (end point), and 12 months (follow-up) by trained research assistants who were masked to the group allocation. Participants were randomized to either the intervention (CAPABLE) group ($n=152$) or the attention control group ($n=148$). Intention-to-treat analysis was used to assess the intervention. Data were analyzed from September 2017 through August 2018. The main outcome was disability with ADLs or IADLs at five months.

Szanton, S. L., Thorpe, R. J., Boyd, C., et al. (2011). Community aging in place, Advancing Better Living for Elders: A bio-behavioral-environmental intervention to improve function and health-related quality of life in disabled older adults. *Journal of the American Geriatrics Society*, 59(12), 2314-2320. doi:10.1111/j.1532-5415.2011.03698.x

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To determine effect size and acceptability of a multi-component behavior and home repair intervention with low-income, disabled older adults.

Main Findings: Thirty-five of 40 adults (87 percent) completed the six-month trial, and 93 percent and 100 percent of the control and intervention group, respectively, stated the study benefited them. The intervention group improved on number of ADL and IADL difficulties, quality of life, and falls efficacy relative to the comparison group.

Strengths/Limitations: Although participants were randomized to intervention and control conditions, only 40 participants were enrolled in this pilot study.

Generalizability to Medicare Population: Yes

Methods: Participants included 40 low-income older adults with difficulties in at least one ADL or two IADL. Change in outcomes from baseline to follow-up was analyzed for Cohen's D effect size.

Szanton, S. L., Wolff, J. W., Leff, B., et al. (2014). CAPABLE trial: A randomized controlled trial of nurse, occupational therapist and handyman to reduce disability among older adults: Rationale and design. *Contemporary Clinical Trials*, 38(1), 102-112. doi:[10.1016/j.cct.2014.03.005](https://doi.org/10.1016/j.cct.2014.03.005)

Subtopic(s): Problems in Care Delivery; Results of Proposed or Similar Models

Type of Source: Journal article

Objective: To presents the rationale and design for a randomized clinical trial of CAPABLE.

Main Findings: The primary outcome is number of ADL limitations and secondary outcomes include IADL limitations and fall risk. This paper describes the trial design.

Strengths/Limitations: N/A

Generalizability to Medicare Population: Yes

Methods: The CAPABLE trial is a randomized controlled trial in which low-income older adults with self-care disability are assigned to one of two groups: an interdisciplinary team of a nurse, occupational therapist, and handyworker to address both personal and environmental risk factors for disability based on participants' functional goals, or an attention control of sedentary activities of choice. Both groups receive up to 10 home visits over four months.

III. Appendix A: Research Questions, Data Sources, Key Word, and Search Term Table

The environmental scan includes a review of information from existing peer-reviewed and non-peer-reviewed publications. We conducted a formal search of major medical, health services research, and general academic databases. We also conducted targeted searches of content available in the grey literature. We reviewed the websites of professional associations/societies and CMS for relevant evaluation reports and program documentation. The table below lists the research questions motivating this environmental scan as well as the sources and search terms used.

Table 1. Search Strategy

Research Questions	Preliminary Search Terms	Sources
Epidemiology of Functional Limitation & Multiple Chronic Conditions		
<p>Clearly define the issue / population by addressing the following:</p> <ol style="list-style-type: none"> 1. What is the prevalence of multiple chronic conditions (2+ conditions), functional limitations (1ADL or 2 IADL), or both among Medicare beneficiaries? What are the characteristics (sociodemographic [including social determinants, e.g., area deprivation index], <u>dual eligibility</u>, comorbidity) of Medicare beneficiaries with these conditions? 2. What outcomes are associated with multiple chronic conditions, functional limitations, and both (e.g. hospitalizations, ED visits, long-term care placement, falls)? 3. What factors are associated with long-term care placement among Medicare beneficiaries/older adults? <p>Notes:</p> <ul style="list-style-type: none"> • Note the extent to which the literature focuses on the CAPABLE population, versus more broadly, including populations that are excluded from CAPABLE (e.g., cognitive impairment, three or more hospitalizations, within last year of life). • Are there estimates of the proportion of the Medicare population that would qualify for CAPABLE, given the co-occurrence of functional limitations, cognitive impairment, income level, etc.? Could this be estimated from the literature? 	<p>Activities of Daily Living (ADLs) Instrumental Activities of Daily Living (IADLs) Multiple chronic conditions Disability Functional limitation Functional decline Fall risk Long-term care (LTC) facility (nursing home, skilled nursing facility [SNF], assisted living facility [ALF]) LTC facility placement, utilization Emergency room/department (ER/ED) visit, hospitalization, admission, acute care utilization</p>	<p>PubMed Google Scholar American Community Survey (ACS) National Health Interview Survey (NHIS) Sources cited in proposal</p>
Issues in Payment Policy		
<ol style="list-style-type: none"> 4. What are Medicare payment rules on in-home supports (including nurse home visits and other services provided in the home)? What types of supports are covered? 5. What are the existing Medicare FFS payment rules for RN and OT home visits? 6. What are Medicare Advantage and Medicaid (waiver) guidelines on reimbursement for in-home 	<p>+Multiple chronic conditions, functional limitations (ADL, IADL, disability) Medicare Advantage, Medicaid + in-home supports Medicare Advantage home & bathroom safety devices & modifications Accountable care organizations (ACOs)</p>	<p>MedPAC MACPAC Medicare coverage database PubMed Google Scholar CMMI Medicaid.gov</p>

Research Questions	Preliminary Search Terms	Sources
<p>supports, especially home repairs or modifications?</p> <p>7. What, if any, other payment models exist to address supportive care to enable staying in home (e.g., PACE, ACOs)?</p>	<p>Home repair and modification payment/reimbursement Home safety assessment Home and community-based services Long-term services and supports (LTSS) Home health Home care nursing Program of All-Inclusive Care for the Elderly (PACE) Older Americans Act</p>	<p>Associations for home care, home visiting, and/or aging (AARP, NCOA, HCAOA, NAHC) Administration on Aging Medicare Claims Processing Manual</p>
Problems in Care Delivery		
<p>8. Is there support for the validity of quality metrics or outcomes proposed for use in the model?</p> <p>9. What are the results of evaluations of CAPABLE and similar interventions (e.g., ABLE)? These include the HCIA evaluation, the NIH trial, the Johns Hopkins evaluation, and any other evaluations of the implementing sites (see appendix on proposal p. 15)?</p> <p>a. Do any of these evaluations assess payment for the model (versus evidence of effectiveness and costs)?</p> <p>10. What is the evidence for aspects of CAPABLE (e.g., home repairs or modifications, OT, home health nurse visits) for reducing the risk for falls/acute episodes that lead to hospitalizations or LTC utilization?</p> <p>a. What is the evidence as it relates to SDOH/higher burden among low-income population?</p>	<p>Best practices Validity Patient-centered visit Patient experience Patient-reported quality of life PHQ-8 PHQ-9 Depression screening CDC fall risk assessment ADLs IADLs Nurse home visits CAPABLE, ABLE</p>	<p>Cochrane NCQA CMS Measures Inventory Tool PubMed Google Scholar Associations for home care, home visiting, and/or aging (AARP, NCOA, HCAOA, NAHC) CMMI Sources cited in proposal</p>
Results of Proposed or Similar Models		
<p>11. What is the evidence for the use, costs, and effectiveness of each of these tools involved in the CAPABLE model?</p> <p>a. CDC fall risk assessment b. ADL and IADL scales c. PHQ-8 and PHQ-9 depression screening d. CAHPS survey on patient experience</p> <p>12. What other demonstrations, waivers, etc. have included a home repairs/modifications component? What about RN and/or OT home visits? Are there published evaluations of these models?</p>	<p>CDC fall risk assessment ADL and IADL scales PHQ-8 and PHQ-9 depression screening CAHPS survey on patient experience Home repair/modification demonstration/model/waiver RN/nurse home visit demonstration/model/waiver Occupational therapy home visit demonstration/model/waiver</p>	<p>Google Scholar PubMed CMMI Sources cited in proposal Medicaid.gov</p>

Three NORC staff members between 11/14/18 and 11/26/18 conducted more than 50 searches of major medical and academic databases, including PubMed and the University of Chicago Library; government websites including MedPAC, CMS, and CMMI; and Google Scholar. Searches were generally restricted to the past five years, except when conducting searches on programs that predate this time period (e.g., PACE, ABLE). Human filtering was conducted on search results based on whether the title and abstract of the materials found matched inclusion criteria.

Community Aging in Place—Advancing Better Living for Elders (CAPABLE) Provider-Focused Payment Model: Summary of Federal and State Home Modification Coverage for the PRT

January 16, 2019

Overview. The purpose of this document is to provide the PRT with a summary of current federal coverage for home repairs and modifications, similar to services proposed in the CAPABLE model. Fee-for-service (FFS) Medicare does not cover any relevant services. Medicare Advantage allows coverage of home safety devices and modifications and is expanding coverage in 2019 and 2020. Uptake of the home and bathroom devices benefit by plans to date is limited (4.7 percent in 2019). Medicaid allows coverage of home and/or environmental modifications under different waiver authorities; this coverage varies by state. Home modifications or repairs do not appear to be covered in Center for Medicare & Medicaid Innovation (CMMI) models. The Accountable Health Communities cooperative agreement states, “CMS funds for this model cannot pay directly or indirectly for any community services (e.g., housing, food, violence intervention programs, and transportation) received by community dwelling beneficiaries as a result of their participation in any of the three intervention tracks.”¹ However, such coverage is available through the Financial Alignment Initiative for dual-eligible Medicare-Medicaid beneficiaries. Finally, the Administration for Community Living (ACL) and Older Americans Act provide some funding for modification and repairs. Coverage under each of these programs is described in greater detail below.

Fee-for-service Medicare. FFS Medicare does not cover home repairs or modifications. Medicare Part B covers medically necessary durable medical equipment (DME), some of which may improve accessibility in the home for Medicare beneficiaries, such as canes, commode chairs, hospital beds, patient lifts, walkers, wheelchairs, and scooters. To be covered by Medicare, DME must be prescribed by the beneficiary’s doctor.

Medicare Advantage (MA). The Centers for Medicare & Medicaid Services (CMS) currently defines a supplemental health care benefit in the Medicare Managed Care Manual (section 30.1) as an item or service: 1) that is not covered by Original Medicare, 2) that is primarily health-related, and 3) for which the MA plan must incur a non-zero direct medical cost.² Covered in-home supplemental services include bathroom-safety devices and in-home safety assessments. MA plans may choose to offer provision of specific non-Medicare-covered safety devices as a supplemental benefit to prevent injuries in the bathroom, as well as in-home bathroom-safety inspections conducted by a qualified health professional to identify the need for safety devices. Similarly, in-home safety assessment may be performed by an occupational therapist or other qualified health provider. These assessment may include identification and/or minor modification of some home hazards outside of the bathroom in order to reduce risk of injury.

¹ Centers for Medicare & Medicaid Services, Center for Medicare & Medicaid Innovation. (January 5, 2016). *Accountable Health Communities First Amendment Announcement cooperative agreement*. Retrieved from <https://www.grantsolutions.gov/gs/preaward/previewPublicAnnouncement.do?id=55237>

² Centers for Medicare & Medicaid Services. (April 2016). Benefits and beneficiary protections. In *Medicare Managed Care manual* (chapter 4). Retrieved from <https://www.cms.gov/Regulations-and-Guidance/Guidance/Manuals/Downloads/mc86c04.pdf>

For CY 2019, CMS expanded the scope of the “primarily health-related” supplemental benefit standard; the expanded definition includes items and services related to daily maintenance, such as fall prevention devices and similar items and services that diminish the impact of injuries/health conditions.³ Supplemental benefits under this broader interpretation must be medically appropriate and recommended by a licensed provider⁴ as part of a care plan if not directly provided by a licensed provider; supplemental benefits do not include items or services solely to induce enrollment.⁵ One category of supplemental benefits is home and bathroom safety devices and modifications, and plans can cover installation. CMS included the following description in guidance to plans dated April 27, 2018:

“Home & Bathroom Safety Devices & Modifications” (PBP B14c): Non-Medicare-covered safety devices to prevent injuries in the home and/or bathroom. Plans may also offer installation. The benefit may include a home and/or bathroom safety inspection conducted by a qualified health professional, in accordance with applicable state and Federal requirements, to identify the need for safety devices and/or modifications, as well as the applicability of the device or modification to the specific enrollee’s needs and home.

Examples of safety devices and modifications include: shower stools, hand-held showers, bathroom and stair rails, grab bars, raised toilet seats, temporary/portable mobility ramps, night lights, and stair treads. The plan must briefly describe the proposed benefit and enrollee criteria for receiving these additional benefits (e.g., enrollee at risk of falls) in the PBP.

Home modifications must not include items or services that are capital or structural improvements to the home of the enrollee (e.g., easy use door knobs and faucets, permanent ramps, and widening hallways or doorways). In addition, items such as smoke detectors and fire alarms are not permitted.

The Bipartisan Budget Act of 2018 (Public Law No. 115-123) (BBA 2018) further expanded supplemental benefits by creating a new standard that does not require supplemental benefits to be primarily health related when provided to chronically ill enrollees. Beginning CY 2020, MA plans will have the ability to also offer “non-primarily health related” items or services to chronically ill enrollees, as defined in Section 1852(a)(3)(D)(ii), if it has a reasonable expectation of improving the chronic disease or maintaining the health or overall function of the enrollee as it relates to the chronic disease.

Medicaid Home and Community-Based Services (HCBS) Waivers. Under 1915(c) HCBS waivers, home accessibility adaptations are considered an “other service” not specified in the statute, for which the

³ CMS Newsroom. (April 2018). 2019 Medicare Advantage and Part D rate announcement and call letter. Retrieved from <https://www.cms.gov/newsroom/fact-sheets/2019-medicare-advantage-and-part-d-rate-announcement-and-call-letter>

⁴ Enrollees are not currently required to get physician orders for supplemental benefits (e.g., OTC items). Requiring physician orders now would impose new restrictions on MA plans and potentially cause large administrative burden and interruptions in care. Therefore, CMS will use the “recommended” standard. We note that supplemental benefits must also be medically appropriate.

⁵ CMS. (April 2, 2018). Announcement of Calendar Year (CY) 2019 Medicare Advantage capitation rates and Medicare Advantage and Part D payment policies and final call letter. Retrieved from <https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Announcement2019.pdf>

state can request the authority to provide.⁶ Home modifications, environmental modifications, and/or beneficiary-directed personal care services⁷ are covered under the 1915(i) State Plan HCBS, 1915(j) State Plan Self-Directed Personal Assistance Services, and 1915(k) State Plan Community First Choice authorities for beneficiaries who meet certain eligibility requirements.^{8,9,10}

The 1915(c) waivers appear to be the most common mechanism under which state Medicaid programs provide coverage for home modifications. In 2012, 43 states reported 1915(c) waiver spending on the equipment, technology, and modifications category for HCBS users. Average spending for all HCBS users was \$957, and 24.1 percent of HCBS users had a claim for a service in this category.¹¹ In contrast, as of 2015, five states have approved 1915(k) state plan amendments, and only two states cover services similar to those proposed under CAPABLE.¹² [Appendix A](#) provides two detailed lists of Medicaid and non-Medicaid programs that cover services in the equipment, technology, and modifications category,¹³ including home adaptations. Home modifications are covered in 44 states through their Medicaid programs; non-Medicaid assistance programs in 27 states provide home modifications.^{14,15} Common covered services include ramps, grab bars, door widening, lifts, and roll in showers. Most states impose eligibility requirements based on age, disability, level of care requirements, and/or income, and many set an annual or lifetime benefit maximum.

As of January 9, 2019, 13 state Medicaid programs had approved 1115 demonstration waivers focused on managed long-term services and supports (MLTSS), and five Medicaid agencies had pending waivers

⁶ Disabled and Elderly Health Programs Group, CMS. (January 2015). Application for a §1915(c) Home and Community-Based Waiver [Version 3.5, includes changes implemented through November 2014]. Instructions, Technical Guide and Review Criteria. Retrieved from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf>

⁷ Personal care services may include the purchase of supports, services, or supplies that increase independence, such as accessibility ramps.

⁸ Disabled and Elderly Health Programs Group, CMS. (January 2015). Application for a §1915(c) Home and Community-Based Waiver [Version 3.5, includes changes implemented through November 2014]. Instructions, Technical Guide and Review Criteria. Retrieved from <https://www.medicaid.gov/medicaid-chip-program-information/by-topics/waivers/downloads/technical-guidance.pdf>

⁹ Social Security Administration. (n.d.). Provisions respecting inapplicability and waiver of certain requirements of this title. Retrieved from https://www.ssa.gov/OP_Home/ssact/title19/1915.htm

¹⁰ CMS. (n.d.). 1915(k) Community First Choice overview [presentation slides]. Retrieved from <http://www.nasddd.org/uploads/documents/SOTA%2Bslides%2Bfor%2BCFC%2BHCBS%2BPresentation%2B9%2B10%2B%283%29.pdf>

¹¹ Medicaid and CHIP Payment and Access Commission (MACPAC). (June 2018). Medicaid home- and community-based services: Characteristics and spending of high-cost users. Retrieved from <https://www.macpac.gov/wp-content/uploads/2018/06/Medicaid-HCBS-Characteristics-and-Spending.pdf>

¹² Maryland covers environmental assessment by an occupational therapist and assistive devices and equipment. Oregon covers environmental modifications and assistive devices, with a \$5,000 limit per modification or device, that are not covered by other programs and assist the individual's ability to perform ADLs.

¹³ Peebles V., & Bohl A. (2014). The HCBS taxonomy: A new language for classifying home- and community-based services. *Medicare & Medicaid Research Review*, 4(3), E1-E17. doi:10.5600/mmrr.004.03.b01

¹⁴ Paying for Senior Care. (April 2018). Medicaid programs that pay for home modifications for aging & disabilities. Retrieved from <https://www.payingforseniorcare.com/home-modifications/medicaid-waivers.html>

¹⁵ Paying for Senior Care. (May 2018). State assistance programs for home modifications for aging in place. Retrieved from <https://www.payingforseniorcare.com/home-modifications/state-assistance-programs.html>

with a similar focus.¹⁶ These waivers differ across states, but all expand access to HCBS. According to an interim evaluation report on a subset of states, home modifications are covered in Alabama and Tennessee and are not covered in New York or Georgia. Environmental modifications are covered in Alabama and Georgia and are not covered in New York or Tennessee.¹⁷ Other 1115 waivers not described in publicly available documents may also cover home modifications.

CMS Demonstrations. Home or environmental modifications or repairs may be offered as a supplemental benefit by Medicare-Medicaid Plans (MMPs) under the capitated model of the Financial Alignment Initiative for dual-eligible beneficiaries; in this model, CMS, a state, and a health plan enter into a three-way contract. In CY 2018, environmental modifications were offered by some MMPs in California and Michigan and by all MMPs in South Carolina.¹⁸ In addition to those described in publicly available sources, other states and/or MMPs may also cover these services.

Older Americans Act (OAA). OAA Part B, Section 321(a) authorizes the Assistant Secretary to carry out a program for making grants to states under state plans approved under section 307 for supportive services, including services that are designed: 1) to assist older individuals to obtain adequate housing, including residential repair and renovation projects designed to enable older individuals to maintain their homes, in conformity with minimum housing standards; and 2) to adapt homes to meet the needs of older individuals who have physical disabilities.¹⁹ Modification and repair funds provided by the OAA are distributed by Area Agencies on Aging (AAA).²⁰ AAAs are supported by the ACL, which has provided other funding for home modifications, including a 2018 grant called “Promoting Aging in Place by Enhancing Access to Home Modifications.”²¹

¹⁶ Kaiser Family Foundation. (January 9, 2019). Medicaid waiver tracker: Approved and pending Section 1115 waivers by state. Retrieved from <https://www.kff.org/medicaid/issue-brief/medicaid-waiver-tracker-approved-and-pending-section-1115-waivers-by-state/>

¹⁷ Mathematica Policy Research. (January 31, 2018). Medicaid 1115 Demonstration interim evaluation report: Managed long-term services and supports. Retrieved from <https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/mltss-interim-eval-report.pdf>

¹⁸ CMS. (February 8, 2018). Supplemental benefits offered by Medicare-Medicaid plans in CY 2018. Retrieved from https://www.cms.gov/Medicare-Medicaid-Coordination/Medicare-and-Medicaid-Coordination/Medicare-Medicaid-Coordination-Office/FinancialAlignmentInitiative/MMPInformationandGuidance/Downloads/MMPSupplementalBenefitsCY2018_02082018.pdf

¹⁹ Older Americans Act of 1965. As Amended through P.L. 114-144, enacted April 19, 2016. Retrieved from <https://legcounsel.house.gov/Comps/Older%20Americans%20Act%20Of%201965.pdf>

²⁰ Home improvement assistance. Eldercare Locator. Retrieved from https://eldercare.acl.gov/Public/Resources/Factsheets/Home_Modifications.aspx

²¹ Administration for Community Living. (June 25, 2018). Promoting aging in place by enhancing access to home modifications. Retrieved from <https://acl.gov/grants/promoting-aging-place-enhancing-access-home-modifications>

Appendix A

Table 1: State Medicaid Programs with Coverage for Home Modifications

Table 2: Non-Medicaid State Assistance Programs for Home Modifications^{22,23}

Table 1. State Medicaid Programs with Coverage for Home Modifications

State	Waiver	Relevant Eligibility Criteria	Relevant Services
AL	Alabama Community Transition (ACT) Medicaid Waiver	<ul style="list-style-type: none"> Designated as disabled by the Social Security Administration or be 65 years of age or older Must require a nursing facility level of care (NFLOC) Income/asset tested 	<ul style="list-style-type: none"> Home modifications (\$5,000 lifetime limit)
AK	Alaskans Living Independently (ALI) Waiver	<ul style="list-style-type: none"> Seniors 65 years of age and older or adults 21 years of age to 64 years of age who are physically disabled and in need of a NFLOC Low-income 	<ul style="list-style-type: none"> Environmental Modifications—also referred to as home modifications: wheelchair ramps, grab-bars, walk-in tubs, etc.
AR	Arkansas Independent Choices Program	<ul style="list-style-type: none"> At least 18 years old, have a medical need for personal care services, require assistance with ADLs and legally reside in the state of Arkansas Must be financially eligible for a Medicaid program in the state of Arkansas that provides personal care services. Low-income 	<ul style="list-style-type: none"> Home modifications and assistive technologies, such as wheelchair ramps, stair-glides, walk-in tubs, and other modifications that increase the ability to live independently.
AR	Arkansas Choices in Homecare Waiver	<ul style="list-style-type: none"> Must be a resident of Arkansas who is physically disabled between the ages of 21 and 64 or is 65 years of age or older Must require a nursing home level of care (NHLOC) and require a minimum of one of the services offered through AR Choice 	<ul style="list-style-type: none"> Home modifications

²² Paying for Senior Care. (April 2018). Medicaid programs that pay for home modifications for aging & disabilities. Retrieved from <https://www.payingforseniorcare.com/home-modifications/medicaid-waivers.html>.

²³ Paying for Senior Care. (May 2018). State Assistance Programs for Home modifications for Aging in Place. Retrieved from <https://www.payingforseniorcare.com/home-modifications/state-assistance-programs.html>

State	Waiver	Relevant Eligibility Criteria	Relevant Services
AZ	Arizona Long Term Care Services (ALTCS)	<ul style="list-style-type: none"> • Must be a resident of Arizona who is over the age of 65 or have a recognized disability, such as being blind • Resident's level of both physical and mental impairment are considered 	<ul style="list-style-type: none"> • Home modifications
AZ	Arizona Self Directed Attendant Care	<ul style="list-style-type: none"> • Elderly and disabled AZ residents qualified for Medicaid via the AZ Long Term Care System • Must require a NHLOC and be willing and able to receive that care at home 	<ul style="list-style-type: none"> • Cost of equipment to promote independence, such as shower chairs, grab bars, and walkers
CA	California's Multipurpose Senior Services Program	<ul style="list-style-type: none"> • Must be at least 65 years of age • Must require the level of care typically provided in a nursing home 	<ul style="list-style-type: none"> • Home modifications • Minor Home Repairs
CO	Colorado Medicaid Waiver for the Elderly, Blind and Disabled	<ul style="list-style-type: none"> • Persons 18 and older who are disabled • Persons 65 years of age and older; these individuals need not be designated officially as having a "disability" but must be assessed and found in need of NHLOC 	<ul style="list-style-type: none"> • Home modifications to increase access: widening of doorways, addition of ramps, etc.
CT	Connecticut Community First Choice Option	<ul style="list-style-type: none"> • Individuals 65+ • Applicants under 65 must be eligible for the state's Medicaid program 	<ul style="list-style-type: none"> • Home safety modifications (such as ramps, bars, or bathroom remodels to accompany a wheelchair) up to a value of \$10,000
CT	Connecticut Personal Care Attendant	<ul style="list-style-type: none"> • Individuals ages 65 and over and individuals aged 18–64, who have a recognized disability and • Must need hands-on assistance with at least two ADLs, such as bathing, eating, meal preparation, or administration of prescription drugs 	<ul style="list-style-type: none"> • Modifications to living quarters
DE	Delaware (Diamond State) Health Plan Plus	<ul style="list-style-type: none"> • Must first qualify for Medicaid 	<ul style="list-style-type: none"> • Home modifications—safety/accessibility (to help persons remain at home): \$10,000 max. per benefit year and \$20,000 total max.
DC	District of Columbia Elderly & Persons with Physical Disabilities Waiver	<ul style="list-style-type: none"> • Residents of the District of Columbia with a medically documented need for NHLOC and are 65 years of age or over 18 and officially disabled 	<ul style="list-style-type: none"> • Environmental accessibility adaptations (home modifications, such as making the home wheelchair accessible)

State	Waiver	Relevant Eligibility Criteria	Relevant Services
FL	Florida Statewide Managed Care Long-Term Care	<ul style="list-style-type: none"> • Be 65 years of age or be between ages 18–64 and designated as disabled by the Social Security Administration • Need NFLOC • Meet the financial requirements for Florida Medicaid 	<ul style="list-style-type: none"> • Home accessibility adaptation
ID	Idaho HCBS Aged & Disabled Medicaid Waiver	<ul style="list-style-type: none"> • Must be 65 years of age or older and require NHLOC or • Be between ages 18–64 and have designation of disability by the Social Security Administration 	<ul style="list-style-type: none"> • Home modifications: installation of ramps and grab bars, etc.
IN	Indiana Aged and Disabled Medicaid Waiver	<ul style="list-style-type: none"> • Must be found to require at least the level of care provided in nursing homes (assistance with 3 ADLs) 	<ul style="list-style-type: none"> • Environmental modifications and assessment: addition of walk-in tubs, grab bars, widening of doorways, etc.
IA	Iowa Medicaid HCBS Elderly Waiver	<ul style="list-style-type: none"> • Must be 65+, assessed by a medical team and found to need the level of care provided in a nursing home on a long-term basis but must be able to receive that care at home at a cost lower than it would cost in a nursing home 	<ul style="list-style-type: none"> • Home and vehicle modifications: ramps, keyless entry systems, vehicle lifts, etc.
IA	Iowa Health and Disability Waiver	<ul style="list-style-type: none"> • Individuals between the ages of 18–64 who are physically disabled 	<ul style="list-style-type: none"> • Home/vehicle modifications
KS	Kansas HCBS Frail and Elderly (HCBS/FE) Waiver	<ul style="list-style-type: none"> • Individuals at least 65 years of age, must be assessed by a medical team and determined to require the level of care typically provided in a nursing home 	<ul style="list-style-type: none"> • Home modifications for mobility purposes: wheelchair ramps, walk-in showers, etc.
KY	Kentucky's Home and Community Based (HCB) Waiver Program for Aged and Disabled	<ul style="list-style-type: none"> • Must be 65+ or be under 65 and designated as disabled by Social Security • Must require NHLOC and be willing and able to receive that care in their home or community 	<ul style="list-style-type: none"> • Minor home adaptations: intended to increase the independence of the recipient; can be consumer directed.
LA	Louisiana Community Choices Waiver	<ul style="list-style-type: none"> • Individuals ages 65+ or physically disabled individuals between the ages of 21 and 64 • Must require the level of care provided in a nursing home but choose to receive that care outside of a nursing home environment 	<ul style="list-style-type: none"> • Home modifications to increase an individual's independence: ramps, lifts, roll-in shower, widening of doorways, etc.
ME	Maine Older Adults and Adults with Disabilities Waiver	<ul style="list-style-type: none"> • Adults 18–64 must be disabled as determined by Social Security • Seniors, aged 65 and older, must require the level of care provided in a nursing home as determined during a medical review 	<ul style="list-style-type: none"> • Environmental modifications/home modifications: stair lifts, roll-in showers, grab bars, etc.

State	Waiver	Relevant Eligibility Criteria	Relevant Services
MD	Maryland Medicaid Waiver for Older Adults	<ul style="list-style-type: none"> • Must be at least 18 years of age to be eligible, and they must be assessed and found in need of NHLOC • Those between the ages of 18 and 64 must be physically disabled 	<ul style="list-style-type: none"> • Environmental modifications
MD	Maryland Community First Choice (CFC) Program	<ul style="list-style-type: none"> • At a minimum, applicants must have a diagnosed medical condition that demands the need for personal care assistance • In order to qualify medically for CFC, must require assistance with two ADLs • In addition, must be eligible for a Medicaid program that includes nursing home services • A higher level of care need, such as a NFLOC, increases the range of assistance services an applicant can receive. 	<ul style="list-style-type: none"> • Environmental assessments for home or vehicle modifications
MA	Mass-Health Frail Elder Home and Community-Based Services Waiver	<ul style="list-style-type: none"> • Must be a minimum of 60 years of age, but those between the ages of 60 and 64 must be physically disabled. • Require the level of care provided in nursing homes, yet they should be willing to receive the care at home 	<ul style="list-style-type: none"> • Home modifications to improve accessibility
MI	Michigan Medicaid Choice Waiver Program	<ul style="list-style-type: none"> • Must be at least 65 years old (or 18–64 and disabled), qualify for a NHLOC, and require one service provided by the waiver on an ongoing basis 	<ul style="list-style-type: none"> • Environmental modifications to one's home or car to increase independence
MI	Michigan Health Link Program	<ul style="list-style-type: none"> • Minimum of 21 years old and enrolled in both Medicaid and Medicare • Cannot be enrolled in hospice • For the MI Health Link waiver, one must either be enrolled in MI Health Link or require a NFLOC 	<ul style="list-style-type: none"> • Home modifications
MN	Minnesota Medicaid Elderly Waiver Program	<ul style="list-style-type: none"> • Must be at least 65 years of age and have significant health challenges to the extent that they require aid to complete their daily personal tasks, which is equivalent to the level of care provided in nursing homes 	<ul style="list-style-type: none"> • Home modifications
MN	Minnesota Consumer Support Grant (CSG) Program	<ul style="list-style-type: none"> • Must be able to live in their own home or the home of a relative and have the capacity to direct their own care (or authorize someone else to do it for them) • In addition, be eligible to receive home care services from Medical Assistance (MN Medicaid program), which has both medical and financial qualifiers 	<ul style="list-style-type: none"> • Home modifications to account for their disability

State	Waiver	Relevant Eligibility Criteria	Relevant Services
MO	Mississippi Independent Living Waiver	<ul style="list-style-type: none"> • Must be a minimum of 16 years old and have a serious impairment that is neurological or orthopedic 	<ul style="list-style-type: none"> • Home modifications: grab bars, roll-in shower, widening of doorways, etc.
MT	Montana Medicaid Home and Community Based Services Waiver	<ul style="list-style-type: none"> • No specific age requirements, but the type of services available may depend on the applicant's age • Individuals 64 or younger must be physically disabled to qualify • Require the level of care provided in a nursing home 	<ul style="list-style-type: none"> • Home modifications (to improve access and safety)
NE	Nebraska Aged & Disabled Waiver	<ul style="list-style-type: none"> • Must be 65 or older (or if younger, they must be officially disabled), require NHLOC, and be financially qualified for Nebraska Medicaid to be eligible for this waiver 	<ul style="list-style-type: none"> • Home modifications (up to \$5,000 annually for approved modifications and assistive technology)
NV	Nevada HCBW for Persons with Physical Disabilities	<ul style="list-style-type: none"> • Must be assessed and certified as disabled by an NV Department of Health and Human Services physician • Must also require a NHLOC, and if not for the care provided by the waiver, be at risk of nursing home placement within 30 days 	<ul style="list-style-type: none"> • Home modifications: addition of wheelchair ramps, grab bars, remodeling of bathrooms to allow wheelchair access, etc.
NH	New Hampshire's Choices for Independence Waiver	<ul style="list-style-type: none"> • Must be at least 18 years of age • Individuals between the ages of 18 and 64 must be officially designated as disabled by Social Security • Individuals 65 and older must qualify for NHLOC 	<ul style="list-style-type: none"> • Environmental accessibility for homes and vehicles
NJ	New Jersey Medicaid Managed Long Term Services and Supports (MLTSS)	<ul style="list-style-type: none"> • Must be either 65 years or older or, if younger, disabled as defined by the Social Security Administration • Must require nursing home level of help or need assistance from another person in order to do any two or more of the ADLs 	<ul style="list-style-type: none"> • Environmental accessibility adaptations/home modifications: ramp installation, adding grab bars, and widening doorways
NJ	New Jersey Personal Preference Program	<ul style="list-style-type: none"> • Must have a need for assistance with ADLs, such as bathing, toileting, and eating, as determined by a health care professional but needs cannot be so severe that full-time NHLOC is required 	<ul style="list-style-type: none"> • Home modifications: changes to one's home to accommodate for physical challenges, such as stair glides, handicap ramps, walk-in tubs, grip bars for the bathroom, and doorway alterations to accommodate for wheelchairs

State	Waiver	Relevant Eligibility Criteria	Relevant Services
NM	New Mexico Centennial Care Community Benefit	<ul style="list-style-type: none"> • Must require NHLOC 	<ul style="list-style-type: none"> • Environmental modifications: roll-in showers, modified switches, ramps, lifts, etc.
NY	New York Medicaid Managed Long Term Care	<ul style="list-style-type: none"> • Must be 65+ • Must need the level of care provided in a skilled nursing home 	<ul style="list-style-type: none"> • Home modifications
NC	North Carolina Community Alternatives Program for Disabled Adults Waiver	<ul style="list-style-type: none"> • Be at least 18 years of age and have a physical or mental disability that results in a need for the level of care typically found in nursing homes 	<ul style="list-style-type: none"> • Minor home adaptations
ND	North Dakota Medicaid Waiver for Aged and Disabled	<ul style="list-style-type: none"> • Under 65 years of age must be designated as disabled by Social Security • 65 and older, must require NHLOC but need not be fully disabled 	<ul style="list-style-type: none"> • Environmental modification for the home
OH	Ohio MyCare Plan	<ul style="list-style-type: none"> • Intended for those enrolled in both Medicare and Medicaid • Ages 65+ 	<ul style="list-style-type: none"> • Home modification
OH	Ohio PASSPORT Waiver	<ul style="list-style-type: none"> • Individuals assessed to determine if they require the level of care found in nursing homes, this typically means they need significant assistance with the ADLs • Individuals with dementia and Alzheimer's don't automatically qualify, but care needs are assessed under special procedures 	<ul style="list-style-type: none"> • Home modifications
OK	Oklahoma's ADvantage Program Waiver	<ul style="list-style-type: none"> • Be 65 and over and need NHLOC 	<ul style="list-style-type: none"> • Home modifications for improved access: ramps, lifts, roll-in showers, widening of doorways, etc.
OR	Oregon K Plan	<ul style="list-style-type: none"> • Must require an institutional level of care, such as in a hospital or nursing home facility 	<ul style="list-style-type: none"> • Home modifications: ramp installation, widening of doorways, roll-in showers, etc. (up to \$5,000)
PA	Pennsylvania Services My Way	<ul style="list-style-type: none"> • Must be qualified for at least one of two PA Medicaid programs: the PA Department of Aging Waiver and the Attendant Care Program • Individual must require NHLOC 	<ul style="list-style-type: none"> • Home modifications

State	Waiver	Relevant Eligibility Criteria	Relevant Services
PA	Pennsylvania Aging Waiver	<ul style="list-style-type: none"> • Be at least 60 years old and require the level of care typically provided in a nursing home 	<ul style="list-style-type: none"> • Environmental accessibility modifications (home and/or vehicle)
PA	Pennsylvania Community HealthChoices Program	<ul style="list-style-type: none"> • Must require a NHLOC or be eligible for both Medicaid and Medicare 	<ul style="list-style-type: none"> • Home/vehicle modifications
RI	Rhode Island Global Consumer Choice Compact Waiver	<ul style="list-style-type: none"> • Ages 65+ • Assessment used to determine need and level of functioning, which determines services provided 	<ul style="list-style-type: none"> • Home and vehicle modifications: roll-in shower, widening of doorways, installation of grab bars, lifts, and ramps
SC	South Carolina Community Choices Healthy Connections (Medicaid) Waiver for the Aged	<ul style="list-style-type: none"> • Ages 65+ and must require NFLOC 	<ul style="list-style-type: none"> • Home modifications to increase accessibility: ramps, grab bars, widening of doorways, etc.
SD	South Dakota HCBS Waiver for the Elderly	<ul style="list-style-type: none"> • Persons 65 and older qualify if they require nursing home care 	<ul style="list-style-type: none"> • Home modifications
TN	Tennessee CHOICES in Long-Term Care	<ul style="list-style-type: none"> • Individuals 65+ requiring the level of care typically provided in nursing homes and/or be "at risk" of moving to a nursing home if they don't receive care 	<ul style="list-style-type: none"> • Home modifications
TX	Texas Star Plus Medicaid Waiver	<ul style="list-style-type: none"> • Candidates must have a need for care services typically provided in nursing homes • All candidates require an assessment of their needs 	<ul style="list-style-type: none"> • Home modifications
UT	Utah Medicaid Aging Waiver for Individuals Age 65+	<ul style="list-style-type: none"> • Individuals 65+, assessed and in need of nursing home care 	<ul style="list-style-type: none"> • Any home modifications to increase independence
VT	Vermont Global Commitment to Health Waiver	<ul style="list-style-type: none"> • Individuals whose care requirements put them at risk of nursing home placement are clinically eligible for this waiver • Persons with moderate needs can also receive limited care, including adult day services and homemaker support 	<ul style="list-style-type: none"> • Home modifications

State	Waiver	Relevant Eligibility Criteria	Relevant Services
VT	Vermont CFC Moderate Needs Group Services Program	<ul style="list-style-type: none"> Must be functionally limited to the extent that some assistance in living independently is required 	<ul style="list-style-type: none"> Program provides certain amount of flexible funding, which can be used for home modifications among other things
VA	Virginia Commonwealth Coordinated Care (CCC) Plus Waiver	<ul style="list-style-type: none"> Ages 65+ and disabled; require a hospital or NHLOC 	<ul style="list-style-type: none"> Home/vehicle modifications
WA	Washington's New Freedom Program	<ul style="list-style-type: none"> Must live at home or in an assisted living facility Must be assessed to require the level of care typically provided in a nursing home 	<ul style="list-style-type: none"> Home and vehicle modifications: alterations to one's home or car to accommodate for a disability, such as the addition of wheelchair ramps and lifts or grab bars
WA	Washington Medicaid Alternative Care (MAC) Program	<ul style="list-style-type: none"> Ages 55+, live in home setting, require NHLOC and assistance with some ADLs 	<ul style="list-style-type: none"> Home modifications and basic repairs for safety purposes
WA	Washington Community Options Program Entry System Waiver	<ul style="list-style-type: none"> Ages 65+, must require assistance with 2+ ADLs, need NHLOC 	<ul style="list-style-type: none"> Environmental accessibility modifications to one's home or vehicle
WI	Wisconsin Medicaid IRIS Program	<ul style="list-style-type: none"> Must require level of care consistent to that which is provided in a nursing home or an intermediate care facility for persons with intellectual disabilities Must require assistance with ADLs 	<ul style="list-style-type: none"> Home modification
WI	Wisconsin Family Care	<ul style="list-style-type: none"> Must live in one of the 65 counties where program is available 65+ years old and have a disability or dementia that requires them to receive assistance to manage with ADLs and continue living independently 	<ul style="list-style-type: none"> Home modification

Table 2. Non-Medicaid State Assistance Programs for Home modifications for Aging

State	Program	Relevant Eligibility Criteria	Relevant Services
AK	Senior Access Program	<ul style="list-style-type: none"> • Ages 55+ • Current need for home modifications • Must have exhausted other possible sources of funding such as Medicaid, Medicare, or the Veteran's Administration • Annual income of the household (not the individual) cannot exceed 100% of their geographic area's average household income 	<ul style="list-style-type: none"> • Home modifications, such as wheelchair ramps, grab bars, chair lifts/stair lifts, and roll-in showers, which are intended to increase a home's accessibility for those with disabilities and those experiencing other challenges associated with aging
AZ	Non-Medical HCBS	<ul style="list-style-type: none"> • Must be at least 60 years of age, require assistance with at least three ADLs and/or IADLS • Cannot be qualified for, or concurrently receiving services from both Arizona Medicaid and this program 	<ul style="list-style-type: none"> • Benefits determined on case-by-case basis and may include home modification
CT	Home Care for Elders	<ul style="list-style-type: none"> • Ages 65+, critical need for assistance with at least 1 to 2 ADLs • Low-income 	<ul style="list-style-type: none"> • Services are determined on a case-by-case basis and may include minor home modifications
FL	Community Care for the Elderly (CCE)	<ul style="list-style-type: none"> • Ages 60+, must have a functional impairment with which they require assistance • Income too high to qualify for Medicaid 	<ul style="list-style-type: none"> • Subsidies can be used for variety of services and supplies, including home access modifications (ramps, widening of doorways, etc.)
FL	Home Care for the Elderly (HC)	<ul style="list-style-type: none"> • Must be at risk for nursing home placement, be 60+ years old, low-income 	<ul style="list-style-type: none"> • Subsidies can be used for a variety of services and supplies including home access modifications (ramps, widening of doorways, etc.)
GA	Non Medicaid HCBS	<ul style="list-style-type: none"> • Open to all Georgia residents 60 years or older regardless of financial income or assets • Those determined to have the greatest need for services, such as those who are frail and at risk of nursing home placement, live by themselves, live in a rural area, are minorities, or have the greatest financial need will be given priority for services 	<ul style="list-style-type: none"> • Services vary but may include home modification and repair: widening of doorways, ramps, lifts, etc.

State	Program	Relevant Eligibility Criteria	Relevant Services
HI	Kupuna Care	<ul style="list-style-type: none"> • Ages 60+, cannot reside in a skilled nursing facility, assisted living, foster care home, or other adult residential care facility • Must have functional impairment preventing them from performing at least two ADLs or IADLs • Cannot be receiving services via a comparable government, private home, or community-based care services program 	<ul style="list-style-type: none"> • Services determined on a case-by-case basis and may include home modifications, such as additions of grab bars and ramps
HI	Community Living Program (CLP)	<ul style="list-style-type: none"> • 60 years of age or older and reside in their home or the home of a relative • Must require assistance with some ADLs, have resided in a nursing home facility or an adult residential care home recently or have diagnosis of Alzheimer's Disease or a related dementia • Lower-income but cannot be eligible for Medicaid 	<ul style="list-style-type: none"> • Monthly budget is established, based on need, and funds can be used for long-term care services and supports as participant sees fit
IL	Home Accessibility Program	<ul style="list-style-type: none"> • One individual in household must either be elderly or disabled • Elderly individuals must be at least 60 years of age and be physically limited in their movements • Need for home repairs/modifications for accessibility must be documented via a letter from one's doctor or a service provider agency • Low-income 	<ul style="list-style-type: none"> • Grants can be used for varying home safety and accessibility projects, including adding walk-in showers and grab bars, modifying height of bathroom sinks to allow wheelchair access, replacing flooring to allow wheelchair access if the current flooring is a hazard, correcting minor foundation issues, and more
IN	CHOICES	<ul style="list-style-type: none"> • Ages 60+ • Must be unable to perform two or more ADLs (bathing, dressing, eating, using the bathroom, etc.); and therefore at risk of being placed in nursing home • Must have applied for and been found ineligible for Medicaid or assistance required is not available through Medicaid 	<ul style="list-style-type: none"> • Benefits determined at time of enrollment and periodically reassessed as needs change, may include home modifications such as grab bars, lifts, ramps, etc.
IA	Iowa Able Foundation Loan Program	<ul style="list-style-type: none"> • Ages 18+, must show ability to pay back loan 	<ul style="list-style-type: none"> • Loans can be used to make home modifications and repairs or to purchase assistive technology • Quotes for bathroom modification projects must be obtained prior to approval

State	Program	Relevant Eligibility Criteria	Relevant Services
IA	Senior Living/Case Management Program	<ul style="list-style-type: none"> • Ages 60+, functional need for assistance • Must need assistance with at least 2 ADLS but cannot have such a high level of care need that they need to live in a nursing home • No strict income/asset limits, but intended for low-income individuals 	<ul style="list-style-type: none"> • Some services are always provided free of charge, while others may require fees • Benefits specific to individual and may include home modifications to accommodate a disability
KY	Hart-Supported Living Program	<ul style="list-style-type: none"> • All Kentucky residents with disabilities or with income at or below 300% of the Federal Poverty Level (FPL) 	<ul style="list-style-type: none"> • Grants to cover home modifications related to an applicant's disability, such as wheelchair ramps, walk-in tubs, and stair lifts—not exceeding \$2,500 for a rental property.
ME	Maine Home Repair and Elderly Grant	<ul style="list-style-type: none"> • Must be 62+, homeowner, must live in home in which improvements will be made • Low-income/middle-income 	<ul style="list-style-type: none"> • Funds can be applied toward range of home safety improvements, including plumbing, heat, or electrical repairs, as well as modifications to help elderly and disabled individuals improve access to, and in and around their homes
MD	Accessible Homes for Seniors	<ul style="list-style-type: none"> • At least one household member must be 55 • Applicant must be homeowner in MD; be present in home needing repairs • Low-income/middle-income 	<ul style="list-style-type: none"> • May include variety of home modifications, including addition of exterior ramps or stair lifts, widening of doorways, addition of hand railings, bathroom modifications, adding lever handles for faucets and doors, adding or renovating rooms, relocation of laundry area, and more
MN	Alternative Care	<ul style="list-style-type: none"> • Age 65 or older, assessed and found to have need for nursing home care. 	<ul style="list-style-type: none"> • Services differ by county and individual needs, may include home accessibility adaptations
MN	Consumer Support Grant	<ul style="list-style-type: none"> • Must be able to live in own home or home of a relative and have ability to direct their own care or authorize someone else to do it for them • Low-income: must be eligible to receive home care services from MN Medicaid • Must require assistance with ADLs 	<ul style="list-style-type: none"> • Home modifications to account for disability
NE	Disabled Persons and Family Support	<ul style="list-style-type: none"> • Have formal designation of disability (including dementias) • Must live in home or in home of friend or family member • Low-income 	<ul style="list-style-type: none"> • Home modifications to improve accessibility or maintain safety; spending limit of \$3,600 annually

State	Program	Relevant Eligibility Criteria	Relevant Services
NV	Assistive Technology for Independent Living	<ul style="list-style-type: none"> • Must have documented, permanent disability that significantly limits functioning • Requested assistive technology or modification must increase the applicant's level of independent function • Must have no other means of obtaining these services • Priority given to applicants currently residing in care facility or facing significant risk of being placed in care facility 	<ul style="list-style-type: none"> • Home modifications, including widening of doorways, installation of wheelchair ramps, grab bars and handrails, the addition of walk-in tub, shower chair, or stair glide
NJ	New Jersey Assistance for Community Caregiving	<ul style="list-style-type: none"> • Must need NHLOC but be living at home, in rental property, or with family member or friend • Low-income/middle-income 	<ul style="list-style-type: none"> • Home modifications to improve accessibility
NY	RESTORE Program	<ul style="list-style-type: none"> • Ages 60+ • Applicant must own home in NY needing modifications • Low-income/middle-income 	<ul style="list-style-type: none"> • Home modifications, including wheelchair ramps, grab bars, door modifications, repairs and modifications for wheelchair accessibility, hand railings, repairing broken stairs, chair lift, appliances, walk-in bathtub • Repairs/replacements relating to: foundation, roofs, and gutters; heating, ventilation, plumbing, electrical, and air conditions; windows, screens, and doors; and painting
NY	Community Services for the Elderly (CSE)	<ul style="list-style-type: none"> • Age 60+, must require assistance to continue living safely in their homes 	<ul style="list-style-type: none"> • Minor residential repairs
ND	Service Payments for the Elderly and Disabled	<ul style="list-style-type: none"> • SPED applicants must have challenges completing at least four of their ADLs (bathing, getting dressed, mobility, eating, etc.) without assistance OR five Instrumental ADLs (shopping for essentials, managing finances, housework, etc.). In addition, these challenges must have been occurring for at least three months or be expected to last a minimum of three months • Must have an inability to pay for their care. Assets, however, are considered in fixed terms 	<ul style="list-style-type: none"> • Home modifications (minor changes to improve home access and safety, such as installation of grab bars)

State	Program	Relevant Eligibility Criteria	Relevant Services
OH	Elderly Services Program	<ul style="list-style-type: none"> • Age minimum varies by county (60 or 65 years old) • Applicants must also demonstrate a need for assistance with daily activities, such as mobility, toiletry, dressing, eating, and hygiene • Cannot be eligible for Medicaid or a Medicaid Waiver 	<ul style="list-style-type: none"> • Basic home modifications/home repairs, such as addition of grab bars and ramps, fixing a water leak, etc.
PA	Pennsylvania Assistive Technology Foundation	<ul style="list-style-type: none"> • One must be a resident of Pennsylvania and include a statement as to how the desired assistive technology is, indeed, assistive technology 	<ul style="list-style-type: none"> • Home modifications: stair lift, lift chair, wheelchair ramp, walk-in bathtub, roll-in showers, lowered counter tops, widening of doorways, etc.
PA	Access Home Modification Program	<ul style="list-style-type: none"> • Applicants must be homebuyers who are persons with a permanent disability or have a family member(s) living in the household with a permanent disability who are purchasing a new or existing home with a loan originated through one of the agency's homeownership loan programs 	<ul style="list-style-type: none"> • Home modifications should be designed to meet the needs of the person with the physical disability who will be residing in the home • Eligible modification items may include, but are not limited to the following. <ul style="list-style-type: none"> ○ bathroom modifications ○ installation of grab bars and handrails ○ kitchen modifications ○ lifting devices ○ main level bathroom or bedroom addition ○ ramp addition or repair ○ sidewalk addition or repair ○ widening doorways or hallways
PA	Options Program	<ul style="list-style-type: none"> • The portion of the program that provides financial assistance or care services not funded by Medicaid requires that applicants be legal Pennsylvania residents, 60+ years old, have difficulty with daily functioning, and be willing to provide evidence of their financial income and assets 	<ul style="list-style-type: none"> • Home modifications

State	Program	Relevant Eligibility Criteria	Relevant Services
RI	Home and Community Care Co-Pay Program	<ul style="list-style-type: none"> • Be at least 65 years of age • Co-Payment Program has two levels of eligibility (called Level 1 and Level 2) that impact how much financial assistance participants receive: Level 2 income limit is pegged at 200% of Federal Poverty Level and the Level 1 income limit at 125% • Cannot also be eligible and receiving services from Medicaid 	<ul style="list-style-type: none"> • Home modifications to improve safety and access
UT	The Alternatives Program	<ul style="list-style-type: none"> • State residents must be at least 18 years of age and have a functional ability challenge, which puts them at risk for nursing home placement • Financial requirements determine if care is provided free of charge or offered on a sliding scale 	<ul style="list-style-type: none"> • Home modifications, such as the addition of grab bars
VT	Home Access Program (HAP) & Sue Williams Freedom Fund	<ul style="list-style-type: none"> • An individual must be a physically disabled resident of Vermont • HAP income eligibility guidelines require that the individual's income be no greater than 80% of the median average in the geographic location in which the individual resides 	<ul style="list-style-type: none"> • Benefits and services determined by individual needs: for example, addition of an entry ramp to home, increasing width of steps, an addition of a pedestal sink (to allow wheelchair access), adding built-in shower seat, handheld shower attachment, a higher toilet seat, and/or grab bars
WA	Tailored Support for Older Adults Program	<ul style="list-style-type: none"> • Must require assistance with some ADLs and includes tasks such as bathing, dressing/undressing, transferring, walking, etc. • Care need must be equivalent to that which is provided in a nursing home facility. However, care recipients must live in a home setting, such as their own home or the home of a family member or friend 	<ul style="list-style-type: none"> • Home modifications, such as the addition of grab bars or wheelchair ramps
DC	Senior Citizens' Home Repair and Improvement	<ul style="list-style-type: none"> • Must be senior citizen (at least 65 years of age) • Must own their homes and have resided in their homes for at least 3 years prior to their date of application • Must be "low to middle income." However, the program does not publish definitive dollar amounts for those terms. 	<ul style="list-style-type: none"> • Assistance with home repairs • Assistance with home and yard upkeep • Financial loans and grants to enable aging in place or to increase a home's safety and weatherization, including HVAC, electrical, plumbing and indoor/outdoor wheelchair ramps and other accessibility improvements

State	Program	Relevant Eligibility Criteria	Relevant Services
DC	DC Single Family Residential Rehabilitation Program, Handicapped Accessibility Improvement Program, & Special Benefit for Seniors	<ul style="list-style-type: none"> • One's income is a deciding factor • For the Additional Benefit for Seniors, must be 62 years of age or older • For HAIP, must be at least 60 years of age or be a minimum of 18 years of age and disabled 	<ul style="list-style-type: none"> • Loans and grants can be used for a variety of purposes. Examples include (but are not limited to) repairing one's roof, fixing building code violations, and improving accessibility with the addition of wheelchair ramps, stair-lifts, and roll-in showers. • Under the Roof Repair Program, one can receive a grant up to \$15,000. This can be used to repair/replace gutters and exterior roofing. • Under the Handicapped Accessibility Improvement Program, individuals can receive a grant up to \$30,000 for home accessibility projects. For instance, one might need to widen doorways or replace a vanity sink with a pedestal sink to allow wheelchair access.
DC	Safe at Home Program	<ul style="list-style-type: none"> • Applicants must be DC residents who are at least 60 years old or a minimum of 18 years of age and disabled • Open to homeowners and renters (given the renter has permission from the owner of the home) of single-family homes and apartments • Annual household income must be no greater than 80% of DC's Area Median Income 	<ul style="list-style-type: none"> • Program participants are able to receive home modifications and adaptations to increase the safety of one's home and living environment. Maximum benefit amount is \$6,000. The following benefits may be available: <ul style="list-style-type: none"> ○ Handrails and grab bars ○ Bathtub cuts (to create walk-in tubs) ○ Shower seats ○ Furniture risers (making it easier to get up from beds, sofas, and chairs) ○ Wheelchair ramps ○ Chair lifts/stair lifts ○ Bed transfer handles ○ Private security camera (to increase home security)

State	Program	Relevant Eligibility Criteria	Relevant Services
WI	Family Care and Family Care Partnership	<ul style="list-style-type: none"> • Must either be 18–64 years old and have a physical disability or 65+ years old and considered a “frail elder,” meaning they have a disability or dementia that requires them to receive care to manage their ADLs and continue living independently • Financially, requirements are like Medicaid’s long-term care criteria. 	<ul style="list-style-type: none"> • Home modifications
WY	Home Services Program (WyHS)	<ul style="list-style-type: none"> • Be 60 years of age or older or be disabled as determined by the Social Security Administration and over the age of 18 • Require the level of care services typically provided in a nursing home • No income eligibility requirements 	<ul style="list-style-type: none"> • Home modifications: \$300 maximum per eligible applicant per year