

THE MEDICARE ADVANCING HOME AND COMMUNITY CARE (MAHCC) MODEL

Advancing Solutions for the Overlooked Middle: A Concept for Accessing Home and Community-Based Care in Medicare

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Executive Summary

As the population ages, California, like other states, is focused on supporting older adults and people with disabilities, and their caregivers. California aims to support these individuals to remain safely at home and connected to their communities. One of the most pressing issues is the lack of affordable, accessible home and community-based services (HCBS) for older adults who do not qualify for Medi-Cal¹ but may struggle to pay for HCBS for their functional needs.² Often referred to as the Overlooked Middle, many of these individuals are Medicare beneficiaries who are at increased risk of hospitalization, institutionalization, financial strain, and caregiver burnout due to the lack of structured, sustainable support options.

Recognizing these issues, California leaders have made closing such gaps a focus of its long-term services and supports (LTSS) planning efforts. The State continues to advance its Master Plan for Aging (MPA) to prepare for the needs of its growing older adult population and build an equitable, coordinated system of services and supports that enables older adults and people with disabilities to live well in the community. As a part of the MPA's broader LTSS Financing and Affordability Initiative, the State engaged ATI Advisory for analytics and technical support, and Milliman for actuarial support, to assess whether a Medicare-based model could deliver targeted HCBS to the Overlooked Middle population in a way that improves outcomes and reduces or does not increase Medicare costs in the longer term.

Specifically, the state tasked ATI Advisory to answer three key research questions:

- 1 Can Medicare serve as a financing platform for a targeted set of HCBS for the Overlooked Middle?
- 2 How could HCBS be structured, targeted, and delivered within Medicare?
- 3 Is there a pathway to offer HCBS within the Medicare program that does not increase or reduces overall Medicare spending?

The result of this analysis is a proof of concept called the Medicare Advancing Home and Community Care (MAHCC) model —demonstrating that it is feasible to design a targeted, community-based Medicare intervention that can support functional needs in a cost-effective way.

1 Medi-Cal is California's state Medicaid program.

2 Individuals with functional needs may require health and health-related services and supports due to their lack of capacity for self-care due to physical, cognitive, or mental disabilities or conditions.



The MAHCC model would provide service navigation and supports through a targeted HCBS benefit and the evidence-based Community Aging in Place-Advancing Better Living for Elders (CAPABLE) program, coordinated closely with Medicare providers to align medical and functional supports. Administering agencies, selected for their experience serving older adults and people with disabilities and their capacity to manage provider networks and eligibility assessments, would assess Medicare beneficiaries for eligibility and coordinate services.

Actuarial modeling of the MAHCC concept projected approximately \$528 million in net Medicare savings due to MAHCC enrollment across this population in California, accounting for all assumptions of the baseline scenario. While the analysis was based on California-specific data, the concept has broad applicability across states and could advance without requiring additional Congressional action. Further cross-state analysis will be valuable for refining and advancing the model.

The goal of this paper is to share the MAHCC model with all interested parties, including policymakers, providers, and payers. Building on this foundational work, stakeholders can develop, adapt, and test new Medicare-based approaches to improve beneficiary and caregiver experience of care and their outcomes, impact the overall trajectory of decline and subsequent institutionalization for a defined population for which there are deficits in care, and reduce avoidable health care spending for the population.

\$528M

in projected net
Medicare savings
due to MAHCC
enrollment across a
target population in
California



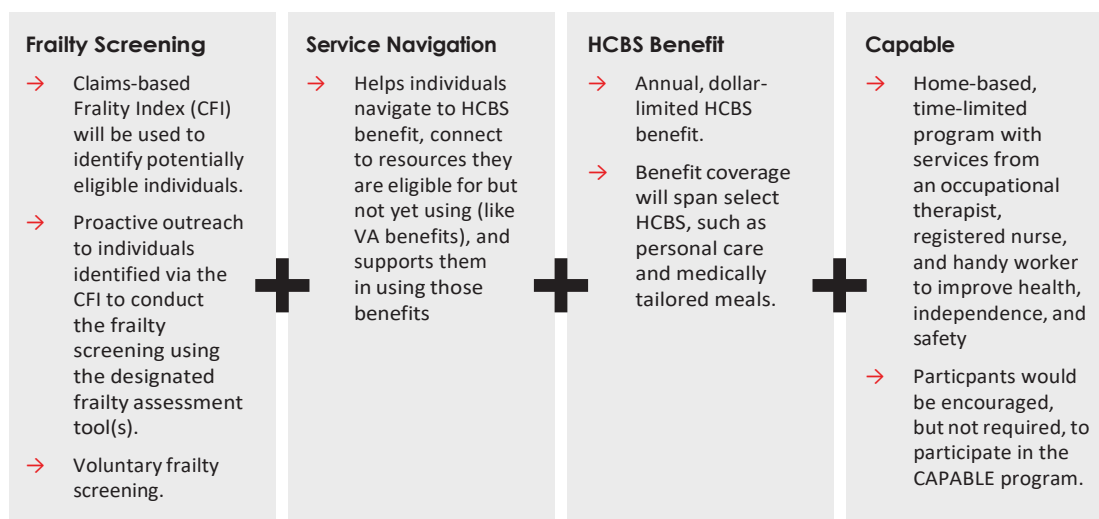
MAHCC Model Overview

The following MAHCC model overview addresses the research questions posed including how HCBS could be structured, targeted, and delivered within Medicare and whether there is a pathway to offer HCBS within the Medicare program that will not increase or can even reduce overall Medicare spending. More comprehensive specifications for the MAHCC model are described in subsequent sections.

HOW COULD HCBS BE STRUCTURED WITHIN MEDICARE?

The MAHCC model would combine frailty screening, ongoing LTSS service navigation, and an HCBS benefit with the option to participate in the CAPABLE program (**Figure 1**).

Figure 1. Intervention Components



Prospective model enrollees would first undergo a frailty assessment, including individuals identified as potentially eligible using a Claims-Based Frailty Index (CFI) approach, to validate eligibility for the model prior to enrollment.

The service navigation benefit would be available throughout an individual's enrollment in the model to 1) connect individuals to existing supports, such as Veterans benefits, for which they may be eligible and 2) support individuals in using their HCBS benefit to best meet their needs. Service navigation is a required component of the model to enable enrollees to access high value services to support their needs.

The HCBS benefit would be an annual, fixed amount available for services. Services that could be accessed through the benefit include Medically Tailored Meals (MTMs), non-emergency



medical transportation (NEMT), adult day programs, caregiver supports and respite, which would be offered both in-home and in adult day program settings, and personal care services, including support with IADLs and ADLs. For purposes of modeling, analysis assumed \$2,500 as the annual fixed amount to make sure projected model costs remain lower than projected model savings.

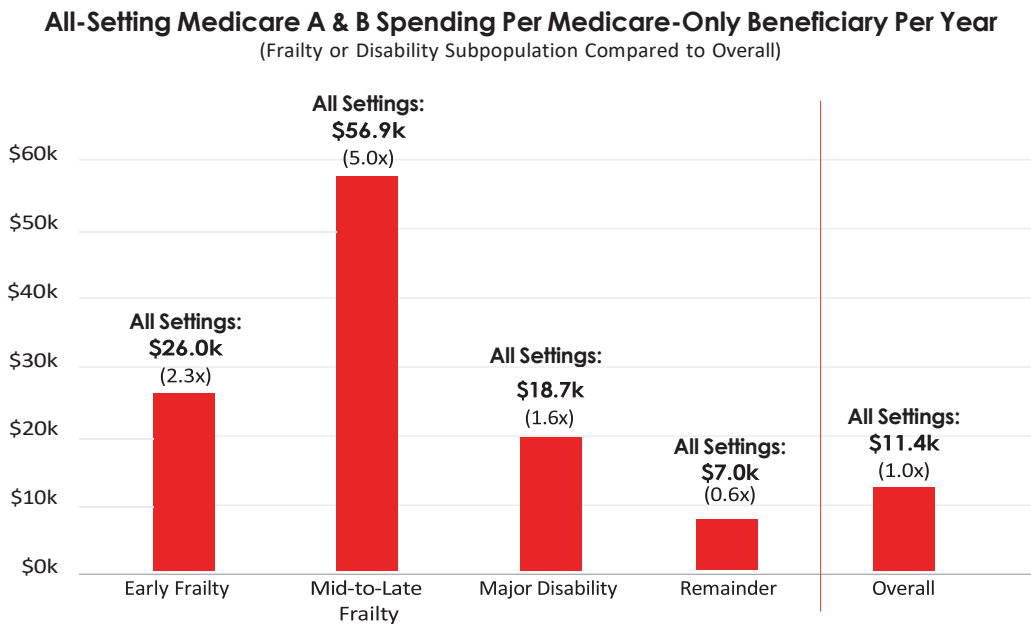
In addition to the services available under the fixed amount, enrollees would be encouraged to participate in the CAPABLE program, which is a home-based, time-limited program that includes services to improve health, independence, and safety from an occupational therapist, registered nurse, and handy worker.³

HOW COULD HCBS BE TARGETED WITHIN MEDICARE?

To identify and target individuals within Medicare likely to benefit from the model, who are also likely to have high potentially avoidable Medicare spending, ATI Advisory conducted a Medicare Fee-For-Service (FFS) claims analysis. ATI Advisory analyzed all Medicare claims incurred among Californians with Traditional Medicare and without Medicaid, then individuals with early frailty, mid-to-late frailty, and major disability were further identified via CFI. This claims analysis supported a preliminary assessment of the initial MAHCC model concept. Medicare spending for those likely eligible individuals was much greater than the average Medicare population, and much of that spending was caused by adverse care events. Medicare Parts A and B spending per beneficiary per year averaged nearly \$57,000 annually for individuals with mid-late frailty, or five times the average Medicare spending per beneficiary (See **Figure 2**). Further, ATI Advisory identified that individuals experiencing mid-to-late frailty incurred **nearly half of all acute and post-acute spending in Medicare Parts A and B** (analysis not shown).



3 CAPABLE National Center. (2024). CAPABLE Community Aging in Place Advancing Better Living for Elders. Retrieved from <https://capablenationalcenter.org/>.

Figure 2. ATI Claims-Based Traditional Medicare Analysis Findings⁴**\$57k**

Average annual
Medicare Parts A
and B spending
for beneficiaries with
mid-late frailty

5x

the Medicare Parts A
and B spending for
an average Medicare
beneficiary

The approach for identifying eligible individuals based on claims described above provides a promising opportunity to reach individuals experiencing moderate to severe frailty who are likely to have high Medicare spending.

Based upon this analysis, the MAHCC model outlines a two-part approach for identifying the Medicare beneficiaries most likely to benefit from enrollment in the intervention, which includes a claims-based algorithm as well as validated frailty assessment tools to be administered in the field. Prospective MAHCC model enrollees would be identified as potentially eligible for the model via a CFI, as well as via referrals from Medicare Part B providers. Administering agencies, local organizations contracted to operate the model, would then confirm an individual's model eligibility utilizing one of two validated frailty assessment tools. This two-step approach to determining eligibility will ensure the model serves the target population.

For purposes of developing model specifications and scoring, it was **assumed the target enrollee population would include beneficiaries in Traditional Medicare Parts A and B who are community-dwelling and meet the model's frailty level requirements.**

While Medicare beneficiaries in Medicare Advantage (MA) would also benefit from the

⁴ ATI Advisory analysis of 100% Medicare claims and enrollment data for Californians continuously enrolled in Parts A & B Traditional Medicare in 2023, and not in Medicaid or in hospice as of December 2023. Subpopulations are identified based on Figueroa Complex Care segmentations ([documentation](#)) with "mid-to-late" frailty defined as having a Kim frailty index at or above 0.25 ([documentation](#)) and with Major Disability modified to remove intellectual and developmental disability (IDD) as a qualifying criterion. Excludes 90-day nursing facility residents using 2019 claims and MDS data to identify those individuals' share of beneficiaries and spending in each segment, with shares directly age-adjusted for each segment. "Early frailty" population includes 89,000 beneficiaries, "mid-to-late frailty" population includes 103,000 beneficiaries, and "major disability" includes 67,000 beneficiaries.



interventions included in MAHCC, the assumption was made that the MAHCC model would be administered in Traditional Medicare to allow for the relatively streamlined development of a model test, scoring, and evaluation. MA Organizations could choose to test this model or a similar approach concurrently or at a later date.

HOW COULD HCBS BE DELIVERED WITHIN MEDICARE?

Once eligibility is confirmed and the beneficiary elects to participate in the model, administering agencies would provide service navigation and support for enrollees utilizing the HCBS benefit and CAPABLE. Administering agencies would collaborate closely with Medicare providers based at clinical delivery sites to ensure the supports offered through the model align with enrollees' ongoing care. The services included under the MAHCC HCBS benefit were selected based upon the body of existing evidence indicating improved individual outcomes and cost savings associated with the uptake of these services.

Administering agencies would have experience serving older adults and people with disabilities, the ability to develop and maintain a network of providers to offer the MAHCC HCBS benefit, and capacity to conduct eligibility assessments. Administering agencies would need to contract with CAPABLE and other HCBS providers to deliver the model benefits. Administering agencies would receive a fee for each assessment conducted, a per enrollee per month (PEPM) payment to support service navigation and the administrative costs of operating the model, and payments to reimburse CAPABLE providers and providers of the HCBS benefit services. A specific measure set could be utilized to evaluate enrollee outcomes and experience navigating home and community-based care, as well as cost savings associated with the model.

ACTUARIAL MODELING FINDINGS: IS THERE A PATHWAY TO OFFER HCBS WITHIN THE MEDICARE PROGRAM THAT CAN MAINTAIN OR EVEN REDUCE OVERALL MEDICARE SPENDING?

Milliman provided actuarial modeling (See [Attachment 1](#)) to estimate the direct cost of the implementation of the MAHCC model and a range of medical cost savings projections resulting from the model. The overarching goal of actuarial modeling was to determine if, under the assumptions and methodology of the baseline scenario, provision of the model's supports would generate Medicare cost savings over a 10-year period. Net savings were measured based on whether the reduction in projected Medicare paid claims for model enrollees relative to projected paid claims in absence of the program exceeded the projected benefit and administrative costs of the program. Sections 2-4 of the actuarial findings in [Attachment 1](#) describe assumptions and illustrate potential program costs, gross savings, and net savings from the baseline model projection. **Accounting for all assumptions of the actuarial modeling baseline scenario, Milliman projected approximately \$528 million in net Medicare savings due to MAHCC enrollment across this population in California.** The actuarial baseline scenario modeling demonstrates that the **MAHCC model would generate net savings for the moderate-to-severely frail population and would not**



generate net savings for individuals with lower levels of frailty (robust, pre-frail, mildly frail individuals) under a baseline scenario that relies on CAPABLE and HCBS savings estimates observed in other programs.⁵ Projected gross and net savings vary considerably under scenarios utilizing different assumptions.

NEXT STEPS

The MAHCC model shows that Medicare can play a pivotal role in supporting the Overlooked Middle who are experiencing functional decline with targeted, cost-effective HCBS. Early analysis demonstrates promise for improved outcomes and Medicare savings. Interested stakeholders including states, healthcare providers, and payers including the Centers for Medicare and Medicaid Services (CMS), may now move from proof of concept to pilot—expanding analysis beyond California to other states, conducting cross-state analyses and refinement to scale this approach, and testing model design across states and care ecosystems.

5 A potential savings element that was not modeled in the baseline scenario, due to a lack of current literature supporting a savings estimate, is a long-term delay in overall frailty. Delayed frailty has the potential to create savings that were not modeled in the baseline scenario including maintaining a lower total claims profile for a longer period of time, delaying the need to access Medicaid services including long term services and supports (LTSS), and/or contributing to the provision of HCBS in lieu of Medicaid-funded nursing facility care.



Comprehensive Model Specifications

PROBLEM STATEMENT

The MAHCC model addresses a critical gap in HCBS for individuals in the “Overlooked Middle,” or Medicare beneficiaries above the Medicaid income limit who may struggle to prepare and pay for future HCBS needs. These individuals often experience functional decline and difficulty with activities of daily living (ADLs) yet lack financing options to avoid institutional care, avoidable medical costs, and potential impoverishment. Many mistakenly assume Medicare covers long-term HCBS, leading to limited planning, high out-of-pocket expenses, and heavy reliance on family caregivers, which can impact the health and economic well-being of caregivers.

Unmet functional needs represent an opportunity for intervention which could result in improved health outcomes and Medicare savings. To this point, **research indicates that individuals with functional needs and limitations experience two and a half times more inpatient and medication costs** compared to those with a similar number of chronic conditions without functional limitations. Additionally, individuals with functional limitations and two or more chronic conditions experience over fifteen times more inpatient and medication costs than those without functional limitations or chronic conditions.⁶

A new model providing a limited, evidence-based scope of HCBS tailored to the functional needs of the “Overlooked Middle” population has the potential to improve overall health outcomes and reduce Medicare costs, and out-of-pocket and Medicaid LTSS cost growth, while supporting an enrollee’s ability to remain in the community and retain their financial security.⁷ Increased use of HCBS has been shown to reduce and/or delay the likelihood of nursing facility placement among certain Medicare populations⁸ and studies have shown that higher HCBS expenditures are associated with a lower prevalence of unmet needs related to ability to perform ADLs and instrumental activities of daily living (IADLs) among HCBS recipients.⁹

6 Fried L.P. (2004). Untangling the Concepts of Disability, Frailty, and Comorbidity: Implications for Improved Targeting and Care. *The Journals of Gerontology*, 59(3). <https://doi.org/10.1093/gerona/59.3.m255>

7 ATI Advisory. (2021). Opportunities to Improve Access to Home and Community-based Services. Retrieved from https://atiadvisory.com/wp-content/uploads/2021/05/Opportunities-to-Improve-Access-to-Home-and-Community-based-Services_April-2021.pdf

8 Harrison, J.M., Sheng, F., Josberger, R.E., et al. (2023). Changes in Nursing Home Use Following Medicaid-Supported Expanded Access to Home- and Community-Based Services for Older Adults With Dementia. *JAMA Netw. Open.* 6(7):e2322520. doi:10.1001/jamanetworkopen.2023.22520. <https://jamanetwork.com/journals/jamanetworkopen/fullarticle/2807111>

9 Miller, K. E. M., & Thunell, J. (2024). The critical role of Medicaid home- and community-based services in meeting the needs of older adults in the United States. *Health Services Research*, 59(2), 1a+. <https://link.gale.com/apps/doc/A789289823/HRCA?u=anon~46b3f8b5&sid=googleScholar&xid=d609c094>



MODEL GOALS

The purpose of the MAHCC model is to support Medicare beneficiaries with significant functional needs to remain in their home or in community-based settings through the creation of an intervention that offers limited HCBS tailored to their functional needs. By targeting the specific functional needs of this population, the model has the potential to create Medicare savings in high-cost acute and post-acute care settings, ultimately reducing per-enrollee costs and limiting the growth of LTSS costs.¹⁰ Overall model goals include improvement in enrollee and caregiver experience navigating home and community-based care; improvement in enrollee outcomes, such as delays in and/or avoidance of institutionalization, reduction in acute and post-acute care expenditures; and lowered Medicare costs.

The sections that follow provide details on the specifications used to develop the actuarial scoring for the model as described in [Attachment 1](#). Other stakeholders may modify or build upon the comprehensive model specifications during implementation.

SCOPE AND DURATION OF BENEFITS

Model Services and Benefits

Services under the MAHCC model include service navigation, an HCBS benefit, and the option to participate in the CAPABLE program.

Service Navigation

All model enrollees would be required to engage with service navigation to gain access to the HCBS benefit and CAPABLE. Service navigation would be offered via phone or other virtual formats. Administering agencies would be responsible for training all service navigators in person-centered planning to meet individuals where they are and better serve all eligible individuals in the “Overlooked Middle.” In addition to supporting the individual in navigating use of the HCBS benefit, the service navigator would screen for unmet health-related social needs and connect individuals to available social or medical programs, such as Veterans benefits, which can support the individual to remain living independently in the community. In connecting the individual with other available programs, the service navigator would share relevant materials, refer the individual to identified program(s), and connect them to a program representative or helpline, as needed.



¹⁰ ATI Advisory. (2021). Opportunities for States and Health Plans to Improve Access to Home and Community-based Services. Retrieved from <https://atiadvisory.com/resources/opportunities-for-states-and-health-plans-to-improve-access-to-home-and-community-based-services/>

Service navigators would provide the following specified services:

- 1 Screen enrollees for unmet needs and connect them and their caregivers to existing social or health-related programs for which the individual is eligible, but not yet enrolled; and
- 2 Support enrollees and their caregivers in navigating use of the HCBS benefit and CAPABLE, including identifying potential services from which the enrollee may benefit and helping connect them and their caregivers to relevant providers or agencies.

Flexible HCBS Benefit

Enrollees would be able to access HCBS through a flexible spending benefit – an annual, fixed amount of \$2,500. The flexible spending benefit is estimated to be capped at \$2,500 to 1) assure that overall model costs do not exceed the projected savings from the provision of the model's intervention while 2) assuming the \$2,500 HCBS benefit amount is sufficient to drive the modeled savings. The fixed amount of the cap could also be modified via a model design test, but for purposes of actuarial scoring, the MAHCC model assumes a \$2,500 cap. Services that could be accessed through the benefit include MTMs, NEMT, adult day programs, caregiver supports and respite, which would be offered both in-home and in adult day program settings, and personal care services, including support with IADLs and ADLs.



Table 1: Flexible HCBS Benefit Descriptions

Flexible HCBS Benefit	Description
Personal Care Services¹¹	Personal care services would include assistance with ADLs and IADLs. This would include ADL assistance with bathing, dressing, toileting, eating, walking, and transferring to or from a bed or chair. It would also include IADL assistance with preparing meals, managing money, shopping for groceries or personal items, performing light or heavy housework, and using the telephone.
Caregiver Supports and Respite^{12, 13}	This benefit would include respite via in-home or adult day program-based settings, and other caregiver supports such as caregiver education and training opportunities and caregiver peer support groups. Respite services would be provided to relieve caregivers of their ongoing duties on an intermittent basis. This would include non-medical services provided hourly or on an episodic basis in a participant's home, or in community-based settings.
Adult Day Programs¹⁴	A community-based program for older adults and individuals with disabilities that would provide assistance with personal care, ADLs, and/or supervision for individuals at risk of institutional placement. Mental health services, physical, occupational and speech therapy, and skilled nursing are not included in adult day programs.
Medically Tailored Meals¹⁵	A meal service for individuals that would provide fully prepared meals tailored to the individual's specific nutritional needs. Meals are produced under the consultation of a nutritionist based on an individual's medical condition. This would not include nutritional supports apart from MTMs, nor would it include wellness checks offered in conjunction with MTMs.

11 CMS. (2008). Appendix B: Activities of Daily Living. Retrieved from https://www.cms.gov/research-statistics-data-and-systems/research/mcbs/downloads/2008_appendix_b.pdf

12 California Department of Aging. (2024). Family Caregiver Services. Retrieved from https://aging.ca.gov/Programs_and_Services/Family_Caregiver_Services/

13 DHCS. (2022). CalAIM Community Supports Spotlight: Personal Care and Homemaker Services and Respite Services. Retrieved from <https://www.dhcs.ca.gov/Documents/MCQMD/2022-11-03-CS-PCHS-and-Caregiver-Respite-Slides.pdf>

14 California Department of Aging. (2024). Adult Day Services Programs. Retrieved from https://aging.ca.gov/Care_Options/Adult_Day_Services_Programs/

15 Meals on Wheels America. (2024). Medically Tailored Meals. Retrieved from <https://www.mealsonwheelsamerica.org/learn-more/the-power-of-a-knock-nutrition/medically-tailored-meals>



Flexible HCBS Benefit	Description
Non-Emergency Medical Transportation ¹⁶	Transportation assistance services in non-emergency instances to allow enrollees to get to or from medical appointments. Transportation services offered through this model would not include non-medical transportation or transportation add-ons such as coverage for waiting time and after-hours trips.

The HCBS benefit dollar limit would be tied to the calendar year, meaning the HCBS benefit period, for purposes of the dollar limit, would start on January 1st. Individuals who enroll in the model at any other time during the year would have access to a prorated HCBS benefit dollar limit, based on the quarter of the calendar year in which the individual enters the model. For example, if the individual enrolls in the model on April 15, in the second quarter of the year, they would have access to three-fourths of the annual HCBS benefit dollar limit. The unit costs for the services provided under the HCBS benefit would mirror state Medicaid rates for personal care, adult day programs, MTMs, caregiver supports and respite, and NEMT.

CAPABLE

Medicare beneficiaries who meet overall MAHCC eligibility criteria and enroll would also have the option to participate in CAPABLE. This is a home-based, time-limited program that includes services to improve health, independence, and safety from an occupational therapist, registered nurse, and handy worker.¹⁷ Enrollees would be able to participate in CAPABLE only once during the course of their enrollment in the model regardless of whether they disenroll and then reenroll at any point. On average, the CAPABLE program is four to five months in duration. The total allowable dollar amount for the CAPABLE benefit per model enrollee would be capped at \$5,500 which was determined based on the range of CAPABLE program costs from prior trials. MAHCC enrollees identified as having moderate to severe cognitive impairment based on completion of a basic cognitive screening would be required to have a caregiver or other support person participate alongside them if they choose to enroll in the CAPABLE program. Individuals might choose to participate in the CAPABLE program if they are interested in a client-directed program to achieve self-identified goals and overcome barriers to living independently at home. Eligible model enrollees would be encouraged, but not required, to participate in the CAPABLE program.

Administering Agencies and Provider Network

The MAHCC model could be administered by a variety of organizations, such as Area Agencies on Aging (AAAs), community-based providers, and other organizations. The administering agency structure described below was developed for actuarial modeling purposes and can be modified as desired.

16 CMS. (2024). Non-Emergency Medical Transportation (NEMT). Retrieved from <https://www.cms.gov/medicare/medicaid-coordination/states/non-emergency-medical-transportation>

17 CAPABLE National Center. (2024). CAPABLE Community Aging in Place Advancing Better Living for Elders. Retrieved from <https://capablenationalcenter.org/>



Minimum qualifications for administering agencies would include the ability to:

- **Develop** and maintain a network of providers for services offered under the HCBS benefit and CAPABLE;
- **Process** billing and payments to community-based providers of model services and transmit associated data to required entities (including CMS);
- **Use** relevant Health Information Technology (HIT) systems, including care management platforms, service referral platforms, electronic health records, billing systems, and other technology platforms;
- **Serve** Medicare-eligible beneficiaries, older adults, and/or individuals with disabilities in the geography in which the organization operates based on demonstrated experience; and
- **Establish/maintain** a physical organizational presence in their anticipated model service area.

Administering agencies would need to document a plan, and the capabilities, to:

- **Meet** service navigation staffing requirements;
- **Conduct** necessary eligibility screenings for prospective model enrollees;
- **Develop** or leverage existing community resource inventories and other infrastructure to connect enrollees to resources for which they may be eligible;
- **Support** enrollees in understanding 1) eligibility for and how to access other program benefits and 2) which model services may be most useful to the enrollee;
- **Monitor** and address quality metrics related to both operations and quality of care;
- **Build** capacity to serve enrollees and complete administrative tasks related to the model; and
- **Comply** with all model reporting requirements and enrollee protections.

As noted above, central to the role of the administering agencies is the ability to establish provider networks for all model services (including those offered through both the HCBS benefit and CAPABLE) and to collaborate with community organizations. Administering agencies should also have the capacity to accept enrollee referrals from Medicare Part B providers to support the integration of the model within the wider Medicare care delivery system. Similar to non-clinical bridge organizations participating in the Accountable Health Communities (AHC) model, administering agencies would also be required to establish partnerships with specific Clinical Delivery Sites (CDSs), such as hospitals and outpatient clinics where Medicare providers are based, to ensure the MAHCC model operates in alignment with each enrollee's ongoing medical care and becomes an extension of the existing clinical delivery system.



Duration of Model

Actuarial modeling ([Attachment 1](#)) assumed the MAHCC model would operate for an eight-year test timeframe, with two runout years prior to model evaluation to observe longer-term impacts on net savings. An eight-year model follows the precedent of the Guiding an Improved Dementia Experience (GUIDE) model and provides sufficient runway for observance of model impacts on rates of institutionalization among enrollees.

Actuarial modeling considered that MAHCC enrollees would be eligible to receive benefits throughout the duration of the model, subject to any limitations described in the scope of services, as long as they continue to meet program eligibility requirements.

Eligibility

Enrollee Eligibility

The following eligibility guidelines and model design parameters could be leveraged to make sure projected model costs and savings align with the actuarial analysis in [Attachment 1](#). Medicare beneficiaries would be eligible to voluntarily participate in MAHCC if they meet the following criteria:

- Enrollment in Traditional Medicare Parts A and B (including those who are both aligned and not aligned with an Accountable Care Organization (ACO));
- Community-based living arrangements, including home-bound individuals;
- Residency in a model service area; and
- Level of frailty, as indicated by either the FRAIL Scale¹⁸ or Edmonton Frail Scale¹⁹ frailty assessment and defined by a frailty score of 3 or higher on the FRAIL Scale or 8 or higher on the Edmonton Frail Scale (see [Appendix 1](#)) and defined by a frailty score of 0.25-0.35 for mildly frail individuals or greater than 0.35 for moderately to severely frail individuals. The Edmonton Frail Scale and the FRAIL Scale were leveraged in MAHCC model design as they are simpler to administer than other frailty screening tools that closely correlate with the selected CFI. The full set of frailty levels per existing literature on the Claims-Based Frailty Index are located in [Appendix 3](#). Although the pre-frail population would not be eligible to enroll in the model, population modeling for pre-frail individuals (frailty score of 0.20-0.249) is included in Appendix C of Milliman's white paper ([Attachment 1](#)).

The frailty level of each enrollee would be reassessed at least annually by an administering agency.

- Administering agencies evaluate a prospective enrollee's Medicare enrollment status, residency status, and living arrangements to determine their eligibility for MAHCC prior to administering the frailty assessment.



¹⁸ <https://www.mass.gov/doc/frail-scale-screening-tool/download>

¹⁹ <https://edmontonfrailscale.org>

- MAHCC would use a CFI approach, specifically using the Kim Frailty Index, to assist in identifying potentially eligible individuals. Administering agencies would proactively reach out to individuals identified via the CFI to conduct the frailty screening using the designated frailty assessment tool(s). All individuals identified via the CFI would also be screened using the assessment tool(s) to validate eligibility prior to model enrollment.
- In addition to the CFI, data could be incorporated from the Outcome and Assessment Information Set (OASIS), the Minimum Data Set (MDS), and the Inpatient Rehabilitation Facility (IRF) Patient Assessment Instrument assessments, as it is available on an individual basis, to determine an individual's potential eligibility for MAHCC.

The following individuals would be **excluded** from the MAHCC model, as they are already receiving similar services or are not living in the community:

- Individuals living in an institutional setting for more than 90 days; and
- Individuals in hospice.

Service Eligibility

If a beneficiary is deemed eligible for MAHCC, they would be eligible for all services offered under the model.

However, individuals who wish to use CAPABLE services and screen as experiencing a moderate to severe cognitive impairment based on a basic cognitive screening tool (see [Appendix 1](#)) would be required to participate alongside a caregiver or other support person if they elect to engage in the CAPABLE program. Since the CAPABLE program is designed to encourage enrollee behavioral modifications, individuals with moderate to severe cognitive impairment may require the added support of a caregiver or support person to engage with the behavioral modifications necessary to generate positive results.

Dual Eligible Individuals

The goal of the MAHCC model is to support individuals' unmet functional needs with tailored services and benefits. Many state Medicaid programs, including California's, provide HCBS and Long-Term Care to much of the Medicaid-eligible population, including individuals dually eligible for Medicare and Medicaid. This paper recognizes that the benefits included in the MAHCC model offered through Medicare could be duplicative of those already offered to dual eligible individuals through Medicaid and therefore sensitivity testing of the actuarial model showed varying levels of gross savings due to enrollment of dual eligible individuals. For actuarial modeling purposes, it was assumed in the baseline scenario that dual eligible individuals would demonstrate a much lower utilization rate of MAHCC-provided HCBS compared to non-dual eligible individuals given their existing access to Medicaid HCBS. CAPABLE was treated as a new benefit to dual eligible individuals in California and the actuarial model reflects similar utilization rate and medical cost impact assumptions for dual eligible individuals as non-dual eligible individuals. Stakeholders interested in this model may



consider permitting dual eligible individuals to enroll in the model to access CAPABLE and service navigation but may require dual eligible enrollees to be redirected to comprehensive, coordinated Medicaid HCBS rather than accessing the MAHCC HCBS benefit.

This level of access to MAHCC services would ensure the implementation of MAHCC does not negatively impact the ability of dual eligible individuals to navigate available HCBS, recognizing that the availability of an additional HCBS benefit could lead to unnecessary complexity for individuals attempting to understand and access HCBS coverage.

QUALITY AND COST

Value Proposition

The three MAHCC model components were combined to align with the overarching model goals to: 1) improve the enrollee and caregiver experience of care; 2) impact the overall trajectory of decline and subsequent institutionalization for a defined population for which there are deficits in care; and 3) reduce avoidable healthcare spending for this population. The model components, in particular the services covered under the HCBS benefit, were selected for inclusion in the model based on a literature review to identify interventions for which there was both evidence of medical and/or LTSS savings and improvement in enrollee outcomes. The ultimate goal of this model is to improve quality outcomes and access to HCBS, while simultaneously creating cost savings for Medicare and/or Medicaid.

The portion of the Overlooked Middle population with functional limitations eligible for the model is a population based on frailty, which has clear deficits in care – namely a lack of coordinated home and community-based supports. Studies have found significant associations between levels of frailty, poor health outcomes, and higher healthcare utilization and costs. For example, one study conducted over a three-year period demonstrated that individuals who were frail were 1.5 times more likely to have worsening mobility, 1.98 times more likely to have worsening ADL disability, 1.29 times more likely to have an incident fall, 1.29 times more likely to have a first hospitalization, and 2.24 times more at risk of death.²⁰

This study also found that individuals living with a disability had an increased risk of inpatient and medication costs, hospitalizations, physician visits, and home health care visits. Individuals with a disability and/or functional limitation and no chronic conditions, when compared to those without a disability and/or functional limitation, experienced 2.5 times more total inpatient and medication costs (\$790 versus \$316) and 2 times higher risk of hospitalization (8 percent versus 4 percent). Additionally, individuals with disabilities or functional limitations had 1.5 times more physician visits (3.0 versus 2.1 visits) and received 45 times more home care visits (4.5 versus 0.1 visits) than those without a disability or functional limitation.²¹ While the costs and utilization increase for individuals with two or

20 Fried L.P. (2004). Untangling the Concepts of Disability, Frailty, and Comorbidity: Implications for Improved Targeting and Care. *The Journals of Gerontology*, 59(3). <https://doi.org/10.1093/gerona/59.3.m255>

21 Fried L.P. (2004). Untangling the Concepts of Disability, Frailty, and Comorbidity: Implications for Improved Targeting and Care. *The Journals of Gerontology*, 59(3). <https://doi.org/10.1093/gerona/59.3.m255>



more chronic conditions, the cost and service utilization trends between individuals with and without disability and/or functional limitation remain the same.

Literature Review / Evidence Base

This paper recognizes that evidence for cost savings and improved outcomes is key for organizations, states, or others considering implementing this model. As such, a literature review was performed to assess existing evidence for cost savings and improved outcomes related to services incorporated into the MAHCC model. Based on the initial literature review, a subset of research shows promising findings related to decreased utilization and monthly healthcare costs, improved access to healthcare, lower rates of falls, reductions in necessary assistance with ADLs and IADLs, and reduced risk of institutionalization potentially associated with the use of the services under the HCBS benefit.^{22, 23, 24, 25, 26, 27, 28,}

²⁹ These outcomes are dependent on service type, and there are varying levels of available evidence on each service type.

This section presents a high-level summary of the current evidence for each service offered under the model. A comprehensive summary of all relevant literature related to the model's interventions can be found in [Appendix 2](#).

Service Navigation

Service navigation would be a central component of the MAHCC model to connect participants with programs they are eligible for and help them navigate the HCBS benefit. Much of the existing literature for this type of service focuses on care *coordination*, which tends to include a broader and more comprehensive set of supports than the scope of service navigation described within this proposal.

- 22 Henstenburg, J. A., Parvanta, C., Pontiggia, L., Daugherty, S., & Lavery, N. (2019). Food Is Medicine: Providing Medically Tailored Meals to Community Members with Disease-associated Nutritional Risk Supports Stable BMI and Decreased Hospitalization (P12-005-19). *Current Developments in Nutrition*, 3(Suppl 1), nzz035.P12-005-19. <https://doi.org/10.1093/cdn/nzz035.P12-005-19>
- 23 Berkowitz, S. A., Terranova, J., Randall, L., Cranston, K., Waters, D. B., & Hsu, J. (2019). Association Between Receipt of a Medically Tailored Meal Program and Health Care Use. *JAMA internal medicine*, 179(6), 786–793. <https://doi.org/10.1001/jamainternmed.2019.0198>
- 24 Berkowitz, S. A., Terranova, J., Hill, C., Ajayi, T., Linsky, T., Tishler, L. W., & DeWalt, D. A. (2018). Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries. *Health affairs (Project Hope)*, 37(4), 535–542. <https://doi.org/10.1377/hlthaff.2017.0999>
- 25 Shekelle, P.G., Begashaw, M.M., Miake-Lye, I.M. et al. Effect of interventions for non-emergent medical transportation: a systematic review and meta-analysis. *BMC Public Health* 22, 799 (2022). <https://doi.org/10.1186/s12889-022-13149-1>
- 26 Ruiz, S., Snyder, L.P., Rotondo, C., Cross-Barnet, C., Colligan, E.M., & Giuriceo, K. (2017). Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use. *Health Affairs*. 36(3), 425 – 432. <https://doi.org/10.1377/hlthaff.2016.1305>
- 27 U.S. Department of Housing and Urban Development | Office of Policy Development and Research. (2020). *Aging Gracefully in Place: An Evaluation of the Capability of the CAPABLE Approach*. Retrieved from <https://www.huduser.gov/portal/sites/default/files/pdf/CAPABLE-Evaluation-Report.pdf>
- 28 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>
- 29 Sands, L. P., Xu, H., Thomas, J., 3rd, Paul, S., Craig, B. A., Rosenman, M., Doebbeling, C. C., & Weiner, M. (2012). Volume of home- and community-based services and time to nursing-home placement. *Medicare & medicaid research review*, 2(3), mmrr.002.03.a03. <https://doi.org/10.5600/mmrr.002.03.a03>

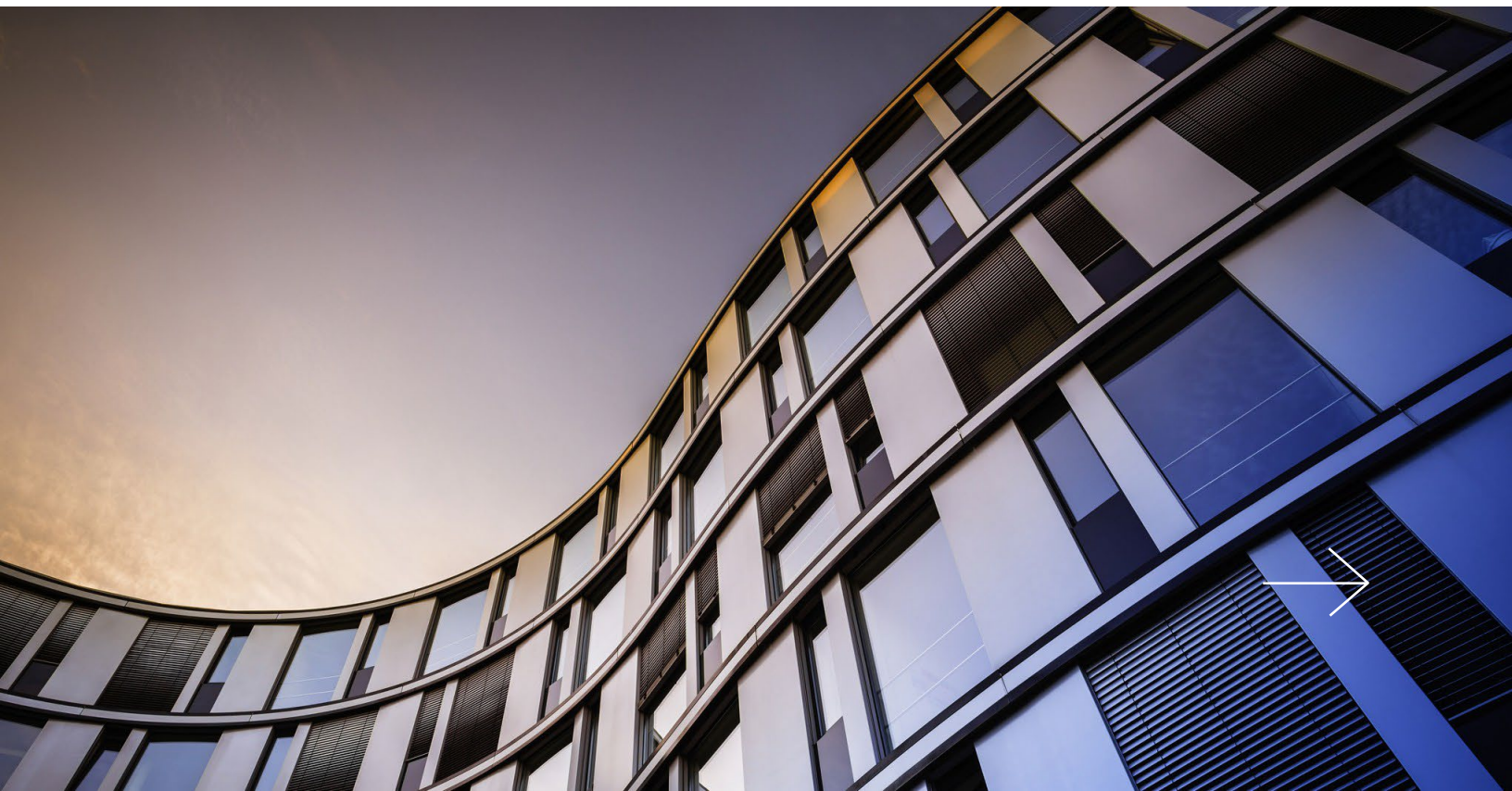


The costs of service navigation and coordination varied widely across studies, likely given the variation in scope of navigation and coordination services offered. However, the preliminary literature review identified positive impacts of service coordination or navigation interventions. For example, one study found a 19 percent lower probability of hospitalization for Texas's 1115(a) waiver participants in the first year after receiving waiver-funded care coordination services.³⁰ Individuals who received care coordination services, who had experienced five or more emergency department (ED) visits in the past year and across two waiver-funded sites had mean ages of 50 and 58, demonstrated mean savings of \$1,500 per patient per year compared to those who did not receive coordination services.

The AHC model has shown encouraging results for Traditional Medicare beneficiaries enrolled in the assistance track, which provides individuals with, among other things, navigation assistance. Enrollees in the assistance track showed a nine percent reduction in avoidable (classified as non-emergent or potentially preventable) ED visits.³¹ The MAHCC model builds upon the lessons learned from AHC by providing a limited HCBS benefit tailored to the functional needs of enrollees in addition to service navigation.

30 Breckenridge E.D. (2019). Effect of Patient Care Coordination on Hospital Encounters and Related Costs. *Population Health Management.*, 22(5). <https://doi.org/10.1089/pop.2018.0176>

31 RTI International. (2023). Accountable Health Communities (AHC) Model Evaluation. Retrieved from <https://www.cms.gov/priorities/innovation/data-and-reports/2023/ahc-second-eval-rpt>



HCBS Benefit



Personal Care. The literature on personal care services primarily shows evidence of delayed or reduced risk of nursing home placement due to the intervention, which could result in LTSS cost savings over time. For example, one study found a five percent decrease in the risk of nursing home placement with an incremental increase of five hours of personal care.³²



Caregiver Supports and Respite. Caregiver supports have shown varying levels of impact on cost savings and care outcomes depending on the type of support provided. One study analyzed the potential savings after receiving caregiver supports for caregivers 55 and older who were experiencing symptoms of distress. The study found that peer support groups for adult caregivers of care recipients 55 years or older with at least two ADL or IADL impairments could generate average net savings of \$861 per caregiver per year and \$1,461 per patient per year due to decreased healthcare utilization by the care recipient and the existing cost evidence base for each caregiver support intervention.³³ Respite has been shown to decrease caregiver burden and improve caregiver psychological well-being, but there is little evidence for delayed institutionalization of care recipients or improved cost-effectiveness.³⁴



Adult Day Health Care. Existing literature on this service type primarily explores outcomes and cost savings associated with Adult Day Health Care³⁵ services, rather than Adult Day³⁶ programs.^{37, 38} Currently, there is minimal evidence showing a reduction in medical costs as a result of Adult Day Health Care use; however, use of Adult Day Health Care has been associated with an increase in health-related quality of life and reduced risk of institutionalization, which could result in

32 Sands, L. P., Xu, H., Thomas, J., 3rd, Paul, S., Craig, B. A., Rosenman, M., Doebbeling, C. C., & Weiner, M. (2012). Volume of home- and community-based services and time to nursing-home placement. *Medicare & Medicaid research review*, 2(3), mmrr.002.03.a03. <https://doi.org/10.5600/mmrr.002.03.a03>

33 Wong V. (2021). Caring for Caregivers: Bridging the Gap Between Family Caregiving Policy and Practice. *NEJM Catalyst Innovations in Care Delivery*., 2(4). <https://doi.org/10.1056/CAT.20.0578>

34 U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation Disability, Aging and Long-Term Care Policy. (2020). *Economic Impacts of Programs to Support Caregivers: Final Report*. Retrieved from https://aspe.hhs.gov/sites/default/files/migrated_legacy_files/194136/EconImpact.pdf

35 Adult Day Health Care are community-based programs for older adults and individuals with disabilities who are at risk of institutional placement and the organized day program offers health (skilled nursing), therapeutic, and social services, as defined by the California Department of Aging.

36 Adult Day Programs provide assistance with ADLs and/or supervision for participants age 18 and older on a less than 24-hour basis, as defined by the California Department of Aging.

37 California Department of Aging. (2024). Adult Day Services Programs. Retrieved from https://aging.ca.gov/Care_Options/Adult_Day_Services_Programs/

38 California Department of Aging. (2024). Adult Day Services Programs. Retrieved from https://aging.ca.gov/Care_Options/Adult_Day_Services_Programs/



LTSS cost savings over time.^{39,40} One study, for example, showed that Adult Day Health Care users who are over the age of 65 with cognitive impairment have a decreased risk of entering long-term care settings.⁴¹



Medically Tailored Meals. Studies analyzing the impact of MTM have shown improvements in both quality outcomes and cost savings, demonstrating the potential benefit of including this service in the MAHCC model. The cost of meal delivery and meals is around \$350 per participant per month (\$4,200 per year) based on one study.⁴² MTM programs have shown significant decreases in hospitalizations, ED visits, and inpatient visits.^{43, 44}



Non-Emergency Medical Transportation. The main finding across studies examining the impacts of NEMT has been a significant reduction in the number of missed appointments for individuals using NEMT.⁴⁵ One study looking at the impact of NEMT for members of a Medicare ACO found an increase in outpatient visits of 9.2 visits per person per year with the use of NEMT. The mean cost of the NEMT intervention in this study was \$517. Factoring in the increase in outpatient visits, there was an associated increase in outpatient costs of \$4,420 per person per year.⁴⁶ Studies have not yielded sufficient data to demonstrate an association between NEMT and potential cost savings but given the impact on continuity of care, NEMT is included in the HCBS benefit.

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- 39 Andrew, T., Moriarty, J., Levin, E., & Webb, S. (2000). Outcome of referral to social services departments for people with cognitive impairment. *International journal of geriatric psychiatry*, 15(5), 406–414. [https://doi.org/10.1002/\(sici\)1099-1166\(200005\)15:5<406::aid-gps122>3.0.co;2-f](https://doi.org/10.1002/(sici)1099-1166(200005)15:5<406::aid-gps122>3.0.co;2-f)
- 40 U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy. (2006). Adult Day Services: A Key Community Service for Older Adults. Retrieved from <https://aspe.hhs.gov/sites/default/files/private/pdf/74721/keyADS.pdf>
- 41 Kelly, R., Puurveen, G., & Gill, R. (2016). The Effect of Adult Day Services on Delay to Institutional Placement. *Journal of applied gerontology : the official journal of the Southern Gerontological Society*, 35(8), 814–835. <https://doi.org/10.1177/0733464814521319>
- 42 Berkowitz, S. A., Delahanty, L. M., Terranova, J., Steiner, B., Ruazol, M. P., Singh, R., Shahid, N. N., & Wexler, D. J. (2019). Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: a Randomized Cross-over Trial. *Journal of general internal medicine*, 34(3), 396–404. <https://doi.org/10.1007/s11606-018-4716-z>
- 43 Henstenburg, J. A., Parvanta, C., Pontiggia, L., Daugherty, S., & Laverty, N. (2019). Food Is Medicine: Providing Medically Tailored Meals to Community Members with Disease-associated Nutritional Risk Supports Stable BMI and Decreased Hospitalization (P12-005-19). *Current Developments in Nutrition*, 3(Suppl 1), nzz035.P12-005-19. <https://doi.org/10.1093/cdn/nzz035.P12-005-19>
- 44 Berkowitz, S. A., Terranova, J., Randall, L., Cranston, K., Waters, D. B., & Hsu, J. (2019). Association Between Receipt of a Medically Tailored Meal Program and Health Care Use. *JAMA internal medicine*, 179(6), 786–793. <https://doi.org/10.1001/jamainternmed.2019.0198>
- 45 Shekelle, P.G., Begashaw, M.M., Miake-Lye, I.M. et al. Effect of interventions for non-emergent medical transportation: a systematic review and meta-analysis. *BMC Public Health* 22, 799 (2022). <https://doi.org/10.1186/s12889-022-13149-1>
- 46 Berkowitz, S. A., Ricks, K. B., Wang, J., Parker, M., Rimal, R., & DeWalt, D. A. (2022). Evaluating A Nonemergency Medical Transportation Benefit For Accountable Care Organization Members. *Health affairs (Project Hope)*, 41(3), 406–413. <https://doi.org/10.1377/hlthaff.2021.00449>



CAPABLE

The CAPABLE program has a substantial evidence base that demonstrates quality outcomes for program participants and cost savings. The target population included in CAPABLE model trials conducted to date includes individuals requiring assistance with one or more ADLs or two or more IADLs, individuals who are cognitively intact, community-dwelling, 50 years of age and older, and low-income individuals.

Trials have demonstrated significant quality outcomes among participants from the program intervention. Participants had a reduction in difficulties with ADLs from an average of 3.9 out of 8.0 ADLs at baseline compared to 2.0 after participating in CAPABLE.⁴⁷ Additionally, participants had a reduction in falls and decreased depressive symptoms at the end of the program compared to baseline years.^{48, 49}

CAPABLE has also shown promising cost savings associated with the intervention across several studies. In a CMMI demonstration, the CAPABLE model was associated with a \$22,120 total per participant reduction in Medicare expenditures over a two-year period compared to an average intervention cost of \$2,882 per person.⁵⁰ Further, some organizations have offered a less comprehensive (and therefore less costly) version of the CAPABLE model and still found cost savings associated with the intervention. For example, one modified version of CAPABLE offered fewer nursing visits and 10 percent of the usual handyman work yet still showed an average savings of \$614 per dual eligible participant above the intervention cost when measured one-year post-intervention.⁵¹

Summary of Actuarial Modeling Outcomes

Milliman developed an actuarial model to estimate the direct costs and a range of possible medical cost savings projections resulting from the provision of HCBS and CAPABLE benefits under MAHCC (see [Attachment 1](#)), as referenced in the [MAHCC Model Overview](#) section of this paper. Sections 2-4 in [Attachment 1](#) describe assumptions and illustrate potential program costs, gross savings, and net savings from the baseline model projection.

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- 47 Ruiz, S., Snyder, L.P., Rotondo, C., Cross-Barnet, C., Colligan, E.M., & Giuriceo, K. (2017). Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use. *Health Affairs*, 36(3), 425 – 432. <https://doi.org/10.1377/hlthaff.2016.1305>
- 48 U.S. Department of Housing and Urban Development | Office of Policy Development and Research. (2020). Aging Gracefully in Place: An Evaluation of the Capability of the CAPABLE Approach. Retrieved from <https://www.huduser.gov/portal/sites/default/files/pdf/CAPABLE-Evaluation-Report.pdf>
- 49 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>
- 50 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>
- 51 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>



The findings demonstrate that, under the assumptions and methodology of the baseline scenario, the proposed MAHCC would generate savings for the moderate-to-severely frail population and would not generate net savings for individuals with lower levels of frailty (robust, pre-frail, mildly frail individuals).

Milliman performed robust sensitivity testing to highlight the wide range of possible savings outcomes driven by the long-term nature of this projection, the number of material assumptions in the proposed design of MAHCC, and the wide range of estimated savings in the research that was relied upon for this analysis. Sensitivity tests addressed the material assumptions in the actuarial model including:

- Baseline savings amounts attributable to CAPABLE and HCBS;
- Change in the frailty mix of program enrollees; and
- Utilization of HCBS services by dual eligible enrollees.

To make certain the eligible population utilized for actuarial modeling aligned with the defined program eligibility in the MAHCC specifications narrative, the Kim Frailty Index was calculated for California Medicare beneficiary data from the 2022 CMS Medicare Limited Data Set (LDS) Standard Analytic Files (SAFs), which contain Traditional Medicare claims and eligibility data. The analysis only included claims and eligibility data from beneficiaries residing in California who met the MAHCC eligibility criteria as defined above in the MAHCC specifications narrative. Milliman then developed assumptions to project how MAHCC enrollment would change over the 10-year period.

To measure the program costs, Milliman applied a series of assumptions to project benefit and administrative costs across the 10-year program. The modeling was based on the care delivery system and payment methodology defined in the [following section](#) and [Attachment 1](#) of the model specifications narrative.

Medicare allowed claims levels for California Traditional Medicare Part A and B beneficiaries (excluding Medicare Advantage beneficiaries) were used to determine baseline medical costs. Medical claims were then sorted into service categories using Milliman's Health Cost Guidelines™ (HCGs) Grouper. Based on published research, consultations with clinical experts, and Milliman's experience with managed care programs, they determined which service categories would be classified as 'impactable' due to provision of the benefits offered through the MAHCC model. Through the use of the Milliman HCGs, Milliman was able to refer to standardized benchmarks of healthcare utilization and cost in each county and compare the resulting healthcare utilization and cost trends for impactable service categories for MAHCC enrollees as compared to trends in absence of MAHCC, to calculate potential savings under MAHCC.



CARE DELIVERY SYSTEM AND PAYMENT METHODOLOGY

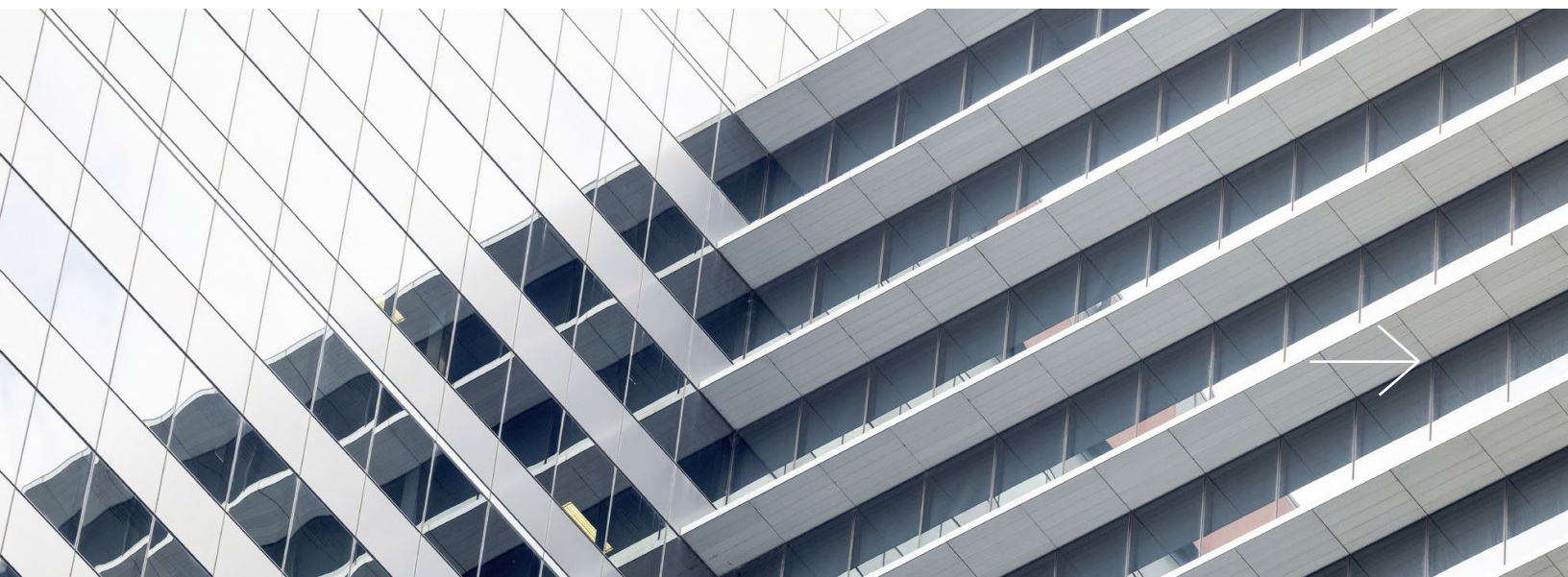
The following specifications related to care delivery and payment methodology were used to develop the actuarial scoring for the model as described in [Attachment 1](#). Other stakeholders may modify or build upon the comprehensive model specifications during implementation.

Care Delivery System

The MAHCC model would be available to Traditional Medicare beneficiaries, including those who are both aligned and not aligned with an ACO. The intervention could also be made available to eligible MA beneficiaries whose plans choose to offer the benefit. MA plans would have the opportunity to offer benefits similar to MAHCC, but uptake would be optional at the plan level and plans would not receive any additional payment for offering a benefit similar to the model.

Per the specifications for actuarial modeling, the MAHCC model would aim to enroll Traditional Medicare beneficiaries. MA plans and Medicare Shared Savings Program (MSSP) ACOs have authority to provide services that may support functional needs of enrollees.⁵² At the same time, a persistent gap exists between the needs and available services for this population. It is anticipated that the MAHCC model would be tested primarily for Traditional Medicare beneficiaries as it would target beneficiary populations that ACOs and MA plans may not be as focused on in terms of driving enrollment, i.e., high need, frail individuals living in the community. Individuals in ACOs would have the opportunity to access this model, similar to the provisions of the GUIDE Model that does not exclude beneficiaries in ACOs, and the MAHCC model would allow for direct access to service navigation and tailored home and community-based services that are unlikely to be available in ACOs.

52 CMS. (2024). Fact Sheet: Calendar Year (CY) 2025 Medicare Physician Fee Schedule Proposed Rule (CMS-1807-P)-Medicare Shared Savings Program Proposals. Retrieved from <https://www.cms.gov/newsroom/fact-sheets/fact-sheet-calendar-year-cy-2025-medicare-physician-fee-schedule-proposed-rule-cms-1807-p-medicare>



Payment Model

The proposed payment model would be applicable for service delivery within Traditional Medicare. **Figure 3** provides an overview of the MAHCC payment model. While not modeled, if desired, a portion of payments or additional payments to administering agencies could be made contingent on success on key outcome or output measures. The payment model and payment amounts assumed in actuarial modeling are as follows:

- **Infrastructure Funding:** In alignment with the precedent of the GUIDE model's infrastructure payment to safety net providers in the New Program Track,⁵³ Upfront, time-limited infrastructure funding of \$75,000 would be provided to support capacity building for administering agencies. Infrastructure funding could support many capacity-building activities, including but not limited to:
 - Creating a strong, vetted network of providers for services offered via the HCBS benefit;
 - Community outreach to inform Medicare Part B providers and community-based organizations about the program to increase the potential for program referrals;
 - Hiring and training program administration and service navigation staff;
 - Developing program workflows and protocols;
 - Configuring a care management platform or electronic health record system to streamline program operations; and
 - Costs associated with administering the CAPABLE program, including licensing fees.
- **Assessment Administration Fee:** Entities conducting the frailty and cognitive assessments required to determine program eligibility would receive a one-time payment of (\$9) for each assessment administered. The frailty assessment would be administered to all potential enrollees to confirm eligibility for the model based on the enrollee's frailty score.
- **Per Enrollee Per Month Administering Agency Payment:** Administering agencies would be paid a PEPM payment that covers both program administration and service navigation costs. The service navigation component of the PEPM payment would be \$11.65 PEPM, based on an estimated caseload of 500 enrollees⁵⁴ per full-time service navigator paid \$28/hour with benefits.⁵⁵ The program administration component of the PEPM payment is anticipated to be approximately 5 percent of total benefit spend to cover anticipated program administration costs, which was determined based on

53 CMS. (2024). GUIDE Payment Methodology Paper. Retrieved from <https://www.cms.gov/files/document/guide-payment-methodology-paper.pdf>

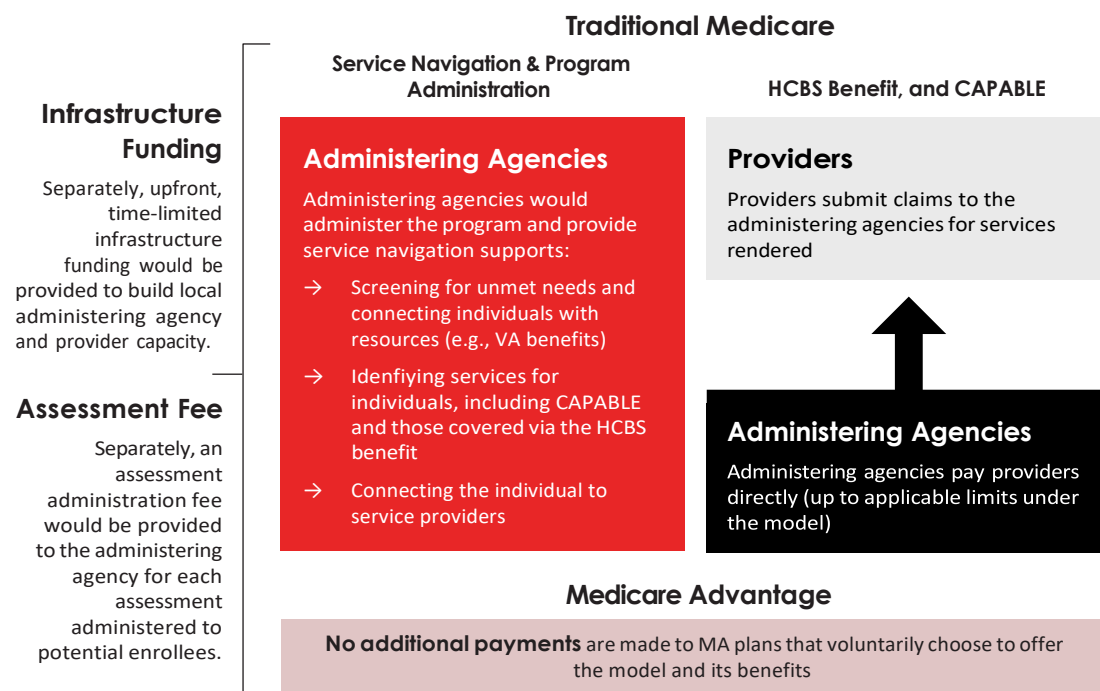
54 In the One Care program, Massachusetts' Financial Alignment Demonstration, care coordinators provided care management and conducted assessments for 467 enrollees as of 2021. The care management provided through One Care is much more intensive than the service navigation anticipated in this model which supports the assumption of a 500-enrollee case load for each service navigator.

55 Salary based on the [U.S. Bureau of Labor and Statistics 2023](https://www.bls.gov/oas/2023/may/oas211094.htm) data for the mean hourly wage of a Community Health Worker in California. <https://www.bls.gov/oas/2023/may/oas211094.htm>



- administrative costs of other similar models. The PEPM payment would be paid to the administering agency for each month that the individual remains enrolled in MAHCC and would remain constant for the duration of an individual's enrollment, apart from applicable inflationary adjustments.
- **HCBS Benefit Services and CAPABLE:** Providers would submit claims to and would be reimbursed by administering agencies for any services they provide up to the annual enrollee dollar limit for the HCBS benefit. Administering agencies would not be at financial risk for the cost of these services; administering agencies would be reimbursed for provider payments made under the model, up to applicable limits. The model would include appropriate program integrity safeguards, including regularly scheduled audits.

Figure 3. MAHCC Payment Model



ABILITY TO BE EVALUATED

The MAHCC model was purposefully designed to be a standalone program within Traditional Medicare, and it is not embedded into any other model or delivery system; however, the program could be replicable in MA should plans choose to offer it. The simplicity of this design is focused on the model's intervention and allows for a more accurate evaluation of the impacts – including attributable Medicare and Medicaid savings and enrollee outcomes – of providing an HCBS benefit, CAPABLE, and service navigation. However, if desired, this model could be integrated into any existing value-based models despite the impact this design decision would likely have on the efficacy of model evaluation.



The model could be accompanied by a comprehensive performance measurement strategy and overarching quality evaluation. In addition to collecting output information from administering agencies such as information about enrollees screened, deemed eligible, referrals, touchpoints, and model benefit utilization, the performance measurement strategy and quality evaluation would measure:

- 1 Savings and costs associated with the model;
- 2 Changes in utilization rates of acute and post-acute care;
- 3 Delays in institutionalization among model enrollees; and
- 4 Overall improvements in enrollee quality of life, well-being, and health.

To determine the care outcomes and savings generated by the model through reductions in acute and post-acute care spending and delayed institutionalization, the following measures could be contemplated for inclusion in the model measure set for future implementation. All measures would be sourced from validated, national measure sets currently utilized to measure outcomes across Medicare beneficiaries. When reporting on the following claims-based measures, administering agencies should provide reporting stratified by race/ethnicity, language, and when possible, income.

- **Rates of long-term institutionalization and corresponding costs of institutionalization across model enrollees** compared to similar Medicare beneficiaries who met the MAHCC frailty eligibility criteria yet did not receive the model supports. This measure could be used to assess both enrollee care outcomes and potential reductions in the cost of care.
- **Acute care, including ED visits and inpatient stays, and post-acute care, including skilled nursing facility stays, utilization rates and corresponding costs of acute/post-acute care across model enrollees** as compared to Medicare-only beneficiaries who met the MAHCC frailty eligibility criteria yet did not receive the MAHCC supports. This measure could be used to both assess enrollee care outcomes and potential reductions in the cost of care.

The MAHCC performance measurement strategy and quality evaluation could also consider measures that assess the overall enrollee experience and impact of the model on caregiver burden such as user experience surveys and caregiver assessments. User experience surveys could be designed to measure enrollees' self-reported confidence in living independently in the community and their self-reported quality of life. Further, user experience surveys could evaluate enrollee overall satisfaction with MAHCC, the responsiveness of administering agencies, and the ease and efficacy with which enrollees felt they were connected to necessary services and supports via administering agencies. Caregiver assessments could demonstrate whether the model had any impact on caregiver burden and stress.

Administering agencies could be required to implement quality improvement plans on an annual or biannual basis to target specific operational improvements to increase agency capacity and improve the quality of support provided to enrollees. This approach to



performance measurement and quality evaluation would require additional capacity for the administering agency to implement, which should be a key consideration when determining whether to include this measurement approach in future potential instances of MAHCC model implementation.

INTEGRATION AND CARE COORDINATION

The MAHCC model aims to improve integration and care coordination of services for model enrollees. Central to accomplishing this goal is the model's service navigation component, which aims to help individuals use their HCBS benefit and CAPABLE, while also connecting them with other programs for which they may be eligible. Further, this model advances systemic improvements to integration and care coordination by building and expanding upon existing local infrastructure through partnerships with administering agencies, providers, AAAs, and other community-based organizations.

To ensure integration with the larger care delivery system, Medicare Part B providers could refer Medicare beneficiaries to administering agencies for screening to determine their eligibility for the model. Administering agencies could be encouraged to proactively reach out to providers to educate them on the model's eligibility requirements and benefits provided through MAHCC. This approach could facilitate referrals from providers who may be more familiar with an individual's functional needs and potential frailty level.

ENROLLEE CHOICE AND SAFETY

Enrollment in the MAHCC model was specified as voluntary in actuarial modeling, providing individuals complete choice as to whether they participate. Further, the design of the model is centered on patient choice, safety, and autonomy. The model design offers benefits that could be tailored to meet specific functional and social needs of enrollees. As an elective model, enrollees remain in control of their participation in MAHCC. There would not be any penalties or risks associated with declining participation in MAHCC, and enrollees could stop participating at any time. Participation in MAHCC would not prevent an enrollee from accessing other entitled benefits, including those in Medicare or Medicaid.

LIMITATIONS

As a promising intervention requiring further testing and evaluation, the MAHCC model concept has several limitations with regards to the optimal amount and selection of benefits available, the impact of local factors (e.g., provider network, service navigation hub), and consistency in access to the model for Medicare beneficiaries. The MAHCC model concept as described aims to balance these potential limitations with a feasible and person-centered design, recognizing the role of this initial model concept is to capture evidence and test strategies prior to broader implementation.



Identified limitations of the MAHCC model include:

- The scope of the HCBS benefit and its dollar amount, while addressing the highest priority needs of enrollees, is unlikely to address the full extent of functional needs of model enrollees;
- The HCBS benefits selected for the model have shown evidence of delaying the need for institutional care and/or reducing medical costs; however, the selected benefits may not include all HCBS services that an individual needs and/or those specific services that could reduce their use of unnecessary medical care;
- Capacity building may be necessary to support the model's administering agencies and providers to conduct enrollee outreach and provide benefits, which also presents an opportunity for the State to strengthen its existing community-based infrastructure;
- Less accessibility to the model for MA enrollees since MA plans would not be required to participate in the model (refer to the [Care Delivery System and Payment Methodology](#) section); and
- The model services are not available to individuals with mild frailty who may benefit from earlier intervention to delay subsequent decline.



Appendices

APPENDIX 1: FRAILTY AND COGNITIVE SCREENING TOOLS

Edmonton Frail Scale (EFS)

The EFS contains nine questions and two activities which take approximately five to ten minutes for the assessor to complete and score. A modified version of the EFS has also been validated which removes the clock-drawing cognition activity to accommodate individuals with cognitive impairment.⁵⁶ The EFS can be administered by individuals who are not trained or do not have expertise in geriatrics. The individuals who administer the EFS may include physicians, nurse practitioners, therapists, social workers, pharmacists, community care workers, transition coordinators, and others. Use of the official version of the EFS requires a license.⁵⁷

Frailty Domain	Item	0 points	1 point	2 points
Cognition	Please imagine that this pre-drawn circle is a clock. I would like you to place the numbers in the correct positions then place the hands to indicate a time of ‘ten after eleven.’	No errors	Minor spacing errors	Other errors
General health status	In the past year, how many times have you been admitted to a hospital?	0	1 – 2	≥ 2
General health status	In general, how would you describe your health?	‘Excellent’, ‘Very good’, ‘Good’	‘Fair’	‘Poor’
Functional independence	With how many of the following activities do you require help? (meal preparation, shopping, transportation, telephone, housekeeping, laundry, managing money, taking medications)	0 – 1	2 – 4	5 – 8

56 Rose, M., Yang, A., Welz, M., Masik, A., & Staples, M. (2018). Novel modification of the Reported Edmonton Frail Scale. *Australasian journal on ageing*, 37(4), 305–308. <https://doi.org/10.1111/ajag.12533>

57 Edmonton Frail Scale (EFS). (2024). How does it work? Retrieved from <https://edmontonfrailscale.org/how-does-it-work-hcps>



Frailty Domain	Item	0 points	1 point	2 points
Social support	When you need help, can you count on someone who is willing and able to meet your needs?	Always	Sometimes	Never
Medication use	Do you use five or more different prescription medications on a regular basis?	No	Yes	
Medication use	At times, do you forget to take your prescription medications?	No	Yes	
Nutrition	Have you recently lost weight such that your clothing has become looser?	No	Yes	
Mood	Do you often feel sad or depressed?	No	Yes	
Continence	Do you have a problem with losing control of urine when you don't want to?	No	Yes	
Functional performance	I would like you to sit in this chair with your back and arms resting. Then, when I say 'GO', please stand up and walk at a safe and comfortable pace to the mark on the floor (approximately 3m away), return to the chair, and sit down	0 – 10s	11 – 20s	One of: >20s, or patient unwilling, or requires assistance
Totals	Final score is the sum of column totals			

Scoring:

0 – 5 = Not Frail

6 – 7 = Vulnerable

8 – 9 = Mild Frailty

10 – 11 = Moderate Frailty

12 – 17 = Severe Frailty

TOTAL	/17
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Administered by: _____



FRAIL Scale

The FRAIL (Fatigue, Resistance, Ambulation, Illnesses, and Loss of Weight) Scale is a five-item questionnaire that takes approximately five to ten minutes to complete and score.⁵⁸ It can be completed in person or over the phone. The FRAIL Scale does not need to be administered by individuals with expertise in frailty or geriatrics.⁵⁹ It is often utilized as the first step toward detecting frailty among individuals living in the community to be able to provide frail individuals with additional supports.⁶⁰ The assessment is included below.

Please ask the participant the following questions (*not a self-assessment*):

Age: _____

Fatigue: How much of the time during the past 4 weeks did you feel tired?

1 = All of the time, 2 = Most of the time, 3 = Some of the time, 4 = A little of the time, 5 = None of the time.

Responses of "1" or "2" are scored as 1 and all others as 0.

Score_____

Resistance: By yourself and not using aids, do you have any difficulty walking up 10 steps without resting?

1 = Yes, 0 = No.

Score_____

Ambulation: By yourself and not using aids, do you have any difficulty walking a couple of blocks (e.g. several hundred yards)?

1 = Yes, 0 = No.

Score_____

Illnesses: Did a doctor ever tell you that you have [illness]? How many (see list below): _____

The total illnesses (0–11) are recoded as 0–4 = 0 and 5–11 = 1.

58 Commonwealth of Massachusetts. Frail Scale Screening Tool. Retrieved from <https://www.mass.gov/doc/frail-scale-screening-tool/download>

59 Sanford, A.M., Morley, J.E. (2024). Frailty Assessment: The FRAIL Scale. In: Ruiz, J.G., Theou, O. (eds) Frailty. Springer, Cham. https://doi.org/10.1007/978-3-031-57361-3_19

60 Morley, J. E., Malmstrom, T. K., & Miller, D. K. (2012). A simple frailty questionnaire (FRAIL) predicts outcomes in middle aged African Americans. The journal of nutrition, health & aging, 16(7), 601–608. <https://doi.org/10.1007/s12603-012-0084-2>



The illnesses include hypertension, diabetes, cancer (other than a minor skin cancer), chronic lung disease, heart attack, congestive heart failure, angina, asthma, arthritis, stroke, and kidney disease.

Score_____

Loss of weight: How much do you weigh? _____ [current weight]

One year ago in May of 2018, how much did you weigh? _____[weight 1 year ago]”

Percent weight change is computed as: [weight 1 year ago - current weight]/weight 1 year ago]] * 100.

Percent change > 5 (representing a 5% loss of weight) is scored as 1 and < 5% as 0.

Score_____

Total Score: _____

A score of 0 represents robust health status.

1-2: Pre-frail

3-5: Frail

Frailty has been significantly associated with malnutrition.

If the participant screens as Pre-frail or Frail, ask if they have been admitted to the hospital in the past 3 months (Y/N)? _____

Cognitive Screening Tool for CAPABLE

The cognitive screening tool below is commonly used by current CAPABLE program sites to determine program eligibility. For MAHCC, administering agencies could use the cognitive screening below to determine whether enrollees screen as positive for moderate to severe cognitive impairment, which would in turn determine whether enrollees would be required to involve a caregiver or other support person if they choose to participate in CAPABLE. The screening tool below does not have to be administered by a clinician.

COGNITIVE ASSESSMENT

1. I’m going to say 3 words. Remember the words: **apple, table**, and **penny** (allow client to repeat 4 times). I will ask you to repeat the words in a few minutes.
2. What is the day, month, and year?
 _____(1) _____(2) _____(3)
3. Who is the president of the United States? (4)



4. What are the 3 words I asked you to remember a few minutes ago?

Apple (5)

table (6)

penny (7)

Cognitive Score (add the correct responses): / 7

3 or more incorrect responses make them ineligible.

APPENDIX 2: COMPREHENSIVE LITERATURE REVIEW

The literature review included in this section is a full compilation of evidence for cost savings and improved outcomes related to the services covered under the HCBS benefit in the model. This section expands on the studies highlighted in the main body of the narrative and is a comprehensive review of the studies related to services incorporated into the MAHCC model. A literature review was performed to assess existing evidence for cost savings and improved outcomes related to services offered within the MAHCC model. Based on the initial literature review, a subset of research shows promising findings related to decreased utilization and monthly healthcare costs, improved access to healthcare, lower rates of falls, reductions in necessary assistance with ADLs and IADLs, and reduced risk of institutionalization potentially associated with the use of the services under the HCBS benefit.^{61, 62, 63, 64, 65, 66, 67, 68} These outcomes are dependent on service type, and there are varying levels of available evidence on each service type.

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- 61 Henstenburg, J. A., Parvanta, C., Pontiggia, L., Daugherty, S., & Lavery, N. (2019). Food Is Medicine: Providing Medically Tailored Meals to Community Members with Disease-associated Nutritional Risk Supports Stable BMI and Decreased Hospitalization (P12-005-19). *Current Developments in Nutrition*, 3(Suppl 1), nzz035.P12-005-19. <https://doi.org/10.1093/cdn/nzz035.P12-005-19>
- 62 Berkowitz, S. A., Terranova, J., Randall, L., Cranston, K., Waters, D. B., & Hsu, J. (2019). Association Between Receipt of a Medically Tailored Meal Program and Health Care Use. *JAMA internal medicine*, 179(6), 786–793. <https://doi.org/10.1001/jamainternmed.2019.0198>
- 63 Berkowitz, S. A., Terranova, J., Hill, C., Ajayi, T., Linsky, T., Tishler, L. W., & DeWalt, D. A. (2018). Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries. *Health affairs (Project Hope)*, 37(4), 535–542. <https://doi.org/10.1377/hlthaff.2017.0999>
- 64 Shekelle, P.G., Begashaw, M.M., Miake-Lye, I.M. et al. Effect of interventions for non-emergent medical transportation: a systematic review and meta-analysis. *BMC Public Health* 22, 799 (2022). <https://doi.org/10.1186/s12889-022-13149-1>
- 65 Ruiz, S., Snyder, L.P., Rotondo, C., Cross-Barnet, C., Colligan, E.M., & Giuriceo, K. (2017). Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use. *Health Affairs*. 36(3), 425 – 432. <https://doi.org/10.1377/hlthaff.2016.1305>
- 66 U.S. Department of Housing and Urban Development | Office of Policy Development and Research. (2020). *Aging Gracefully in Place: An Evaluation of the Capability of the CAPABLE Approach*. Retrieved from <https://www.huduser.gov/portal/sites/default/files/pdf/CAPABLE-Evaluation-Report.pdf>
- 67 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>
- 68 Sands, L. P., Xu, H., Thomas, J., 3rd, Paul, S., Craig, B. A., Rosenman, M., Doebbeling, C. C., & Weiner, M. (2012). Volume of home- and community-based services and time to nursing-home placement. *Medicare & Medicaid research review*, 2(3), mmrr.002.03.a03. <https://doi.org/10.5600/mmrr.002.03.a03>



Service Navigation

Service navigation would be a central component of the MAHCC model to connect participants with programs they are eligible for and help them navigate the HCBS benefit. The literature review focused on programs with a target population similar to the MAHCC model – including community-dwelling and frail older adults and individuals with intellectual and developmental disabilities (IDD). The costs of service navigation and coordination varied widely across studies, likely given the variation in scope of navigation and coordination services offered.

Much of the existing literature for this type of service focuses on *care coordination*, which tends to include a broader and more comprehensive set of supports than the scope of service navigation described within this proposal. However, the preliminary literature review identified positive impacts of service coordination or navigation interventions.

For example, one study found a 19 percent lower probability of hospitalization for Texas’s 1115(a) waiver participants in the first year after receiving waiver-funded care coordination services.⁶⁹ Individuals who received care coordination services, who had experienced five or more ED visits in the past year and across two waiver-funded sites had mean ages of 50 and 58, had mean savings of \$1,500 per patient per year compared to those who did not receive coordination services. Another non-peer-reviewed study reviewed the impact of the collaborative care model at the Healthy Aging Brain Center (HABC) in Indiana and found annual net cost savings of \$2,856 per patient as a result of HABC’s care coordination intervention.⁷⁰ The HABC intervention was a collaborative care model that included a team consisting of a memory care physician and two trained care coordinators. The team used standardized tools to assess patients’ needs and provided individualized care to patients focused on self-management, and resources and counseling for caregivers.

Additionally, the AHC model has shown encouraging results for FFS Medicare beneficiaries enrolled in the assistance track, which provides individuals with HRSN screenings, community referrals, and navigation assistance. In the AHC model, FFS Medicare beneficiaries in the assistance track, who therefore received navigation assistance, showed a nine percent reduction in avoidable, classified as non-emergent or potentially preventable, ED visits.⁷¹ The AHC navigation services included referrals to programs and follow-up for a year or until HRSNs were resolved or deemed unresolvable.⁷²

69 Breckenridge E.D. (2019). Effect of Patient Care Coordination on Hospital Encounters and Related Costs. *Population Health Management.*, 22(5). <https://doi.org/10.1089/pop.2018.0176>

70 French, D.D., LaMantia, M.A., Livin, L.R., Herceg, D., Alder, C.A., and Boustani, M.A. (2014). Healthy Aging Brain Center Improved Care Coordination And Produced Net Savings. *Health Affairs.* 33(4), 526 – 724. <https://doi.org/10.1377/hlthaff.2013.1221>

71 RTI International. (2023). Accountable Health Communities (AHC) Model Evaluation. Retrieved from <https://www.cms.gov/priorities/innovation/data-and-reports/2023/ahc-second-eval-rpt>

72 CMS. (2020). Accountable Health Communities Model Fact Sheet: First 750,000 Completed Screenings. Retrieved from <https://www.cms.gov/priorities/innovation/media/document/ahc-fact-sheet-2020-prelim-findings>



In the AHC program's evaluation report, 77 percent of eligible participants accepted navigation services, but about two-thirds of these individuals did not have their HRSN resolved and were not connected to a community service provider.⁷³ Beneficiaries enrolled in the AHC model showed similar use of community services compared to the control group, which did not receive navigation services. Lack of transportation, ineligibility for services, and lack of available community resources were common barriers to receipt of community services. The MAHCC model builds upon the lessons learned from AHC by providing a limited HCBS benefit that could be tailored to the functional needs of enrollees in addition to service navigation.

A study examining the impact of telephonic social needs screening and navigation intervention serving the top one percent of health care utilizers in a California-based integrated health system showed a 2.2 percent reduction, as compared to the control group, in total utilization, which was defined as a count of visits in ED, outpatient, and/or inpatient settings. A majority of the study population was enrolled in Medicare, and the 2.2 percent utilization reduction was observed one-year post intervention.⁷⁴

An additional study evaluated an intervention involving a needs assessment and connection to a varied set of social and health programs to meet the needs of individuals over the age of 65 who were at risk of avoidable hospital admission or premature admission to institutional care. The study found that the limited navigation intervention resulted in between 14 - 29 fewer inpatient days per patient per year and a gradual reduction in the incidence of falls over the course of an individual's enrollment in the intervention.⁷⁵

73 CMS. (2023). Accountable Health Communities Model 2018 – 2021). Retrieved from <https://www.cms.gov/priorities/innovation/data-and-reports/2023/ahc-second-eval-rpt>

74 Schickedanz, A., Sharp, A., Hu, Y. R., Shah, N. R., Adams, J. L., Francis, D., & Rogers, A. (2019). Impact of Social Needs Navigation on Utilization Among High Utilizers in a Large Integrated Health System: a Quasi-experimental Study. *Journal of general internal medicine*, 34(11), 2382–2389. <https://doi.org/10.1007/s11606-019-05123-2>

75 Mayhew L. (2009). On the effectiveness of care co-ordination services aimed at preventing hospital admissions and emergency attendances. *Health care management science*, 12(3), 269–284. <https://doi.org/10.1007/s10729-008-9092-5>



HCBS Benefit

- **Personal Care.** The target population identified in existing personal care and respite literature focuses on frail older adults, younger adults with physical disabilities, and adults 65 years or older with Medicare or Medicaid.^{76, 77, 78} The literature on personal care services primarily shows evidence of delayed or a reduced risk of nursing home placement associated with receipt of personal care services, which could result in LTSS cost savings over time. One study found a five percent decrease in the risk of nursing home placement with an incremental increase of five hours of personal care.⁷⁹ Another study found that a one percent increase in individuals using personal care services resulted in a 0.8 percent decrease in the proportion of low-care nursing home residents.⁸⁰
- **Caregiver Supports and Respite.** Receipt of caregiver support has caused varying levels of impact on cost savings and care outcomes depending on the type of support provided. One study analyzed the potential savings for caregivers 55 and older who were experiencing symptoms of distress after receiving caregiver supports. The study found that peer support groups for adult caregivers of care recipients 55 years or older with at least two ADL or IADL impairments could generate average net savings of \$861 per caregiver per year and \$1,461 per patient per year.⁸¹ This was based on information from the Health Education Program (HEP) which is a year-long peer group intervention for family caregivers led by social workers. Respite offers temporary relief to caregivers through services offered in or out of the home. Receipt of respite has been shown to result in a decrease in caregiver burden and improvement in caregiver psychological well-being, but there is little evidence for delayed institutionalization of care recipients or improved cost-effectiveness in terms of cost of care.⁸²
- **Adult Day Programs/Adult Day Health Care.** Existing literature on this service type primarily explores outcomes and cost savings associated with Adult Day Health Care services, rather than Adult Day programs. Adult Day Health Care, as defined by the California Department of Aging, is a community-based program for older adults and individuals with disabilities who are at risk of institutional placement and the organized

76 Sands, L. P., Xu, H., Thomas, J., 3rd, Paul, S., Craig, B. A., Rosenman, M., Doebbeling, C. C., & Weiner, M. (2012). Volume of home- and community-based services and time to nursing-home placement. *Medicare & Medicaid research review*, 2(3), mmrr.002.03.a03. <https://doi.org/10.5600/mmrr.002.03.a03>

77 Spillman, B. (2016). Does Home Care Prevent or Defer Nursing Home Use? ASPE. Retrieved from <https://aspe.hhs.gov/reports/does-home-care-prevent-or-defer-nursing-home-use-0>

78 Thomas, K. S. (2014). The Relationship Between Older Americans Act In-Home Services and Low-Care Residents in Nursing Homes. *Journal of Aging and Health*, 26(2), 250-260. <https://doi.org/10.1177/0898264313513611>

79 Sands, L. P., Xu, H., Thomas, J., 3rd, Paul, S., Craig, B. A., Rosenman, M., Doebbeling, C. C., & Weiner, M. (2012). Volume of home- and community-based services and time to nursing-home placement. *Medicare & Medicaid research review*, 2(3), mmrr.002.03.a03. <https://doi.org/10.5600/mmrr.002.03.a03>

80 Spillman, B. (2016). Does Home Care Prevent or Defer Nursing Home Use? ASPE. Retrieved from <https://aspe.hhs.gov/reports/does-home-care-prevent-or-defer-nursing-home-use-0>

81 Wong V. (2021). Caring for Caregivers: Bridging the Gap Between Family Caregiving Policy and Practice. *NEJM Catalyst Innovations in Care Delivery*, 2(4). <https://doi.org/10.1056/CAT.20.0578>

82 U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation Disability, Aging and Long-Term Care Policy. (2020). Economic Impacts of Programs to Support Caregivers: Final Report. Retrieved from https://aspe.hhs.gov/sites/default/files/migrated_legacy_files/194136/EconImpact.pdf



day program offers health, therapeutic, and social services.⁸³ Separately, Adult Day Programs provide assistance with ADLs and/or supervision for participants age 18 and older on a less than 24-hour basis.⁸⁴ The target populations analyzed in the literature that follows include individuals who have at least one serious disabling condition, including chronic mental health conditions, and a high need for assistance with IADLs and ADLs, such as toileting, medication management, bathing, ambulating, and eating.⁸⁵ Currently, there is minimal evidence showing a reduction in medical costs as a result of Adult Day Health Care use; however, use of Adult Day Health Care has demonstrated an increase in health-related quality of life and reduced risk of institutionalization, which could result in LTSS cost savings over time.^{86,87} One study, for example, showed that Adult Day Health Care users who are over the age of 65 with cognitive impairment have a decreased risk of entering long-term care settings.⁸⁸ The average cost of a full day of Adult Day Health Care in 2012 was \$68.89 per day.⁸⁹

→ **Medically Tailored Meals.** Studies analyzing the impact of MTM have shown improvements in both quality outcomes and cost savings, demonstrating the potential benefit of including this service in the MAHCC model. Target populations in studies for this service typically included individuals of a varied age range, at least one chronic, diet-sensitive condition, and who were experiencing food insecurity. The cost of meal delivery and meals was around \$350 per participant per month (\$4,200 per year) based on one study of MTM effectiveness.⁹⁰ MTM programs have shown significant decreases in hospitalizations, ED visits, and inpatient visits.^{91,92} Participation in an MTM program has

- 83 California Department of Aging. (2024). Adult Day Services Programs. Retrieved from https://aging.ca.gov/Care_Options/Adult_Day_Services_Programs/
- 84 California Department of Aging. (2024). Adult Day Services Programs. Retrieved from https://aging.ca.gov/Care_Options/Adult_Day_Services_Programs/
- 85 Kelly, R., Puurveen, G., & Gill, R. (2016). The Effect of Adult Day Services on Delay to Institutional Placement. *Journal of applied gerontology: the official journal of the Southern Gerontological Society*, 35(8), 814–835. <https://doi.org/10.1177/0733464814521319>
- 86 Andrew, T., Moriarty, J., Levin, E., & Webb, S. (2000). Outcome of referral to social services departments for people with cognitive impairment. *International journal of geriatric psychiatry*, 15(5), 406–414. [https://doi.org/10.1002/\(sici\)1099-1166\(200005\)15:5<406::aid-gps122>3.0.co;2-f](https://doi.org/10.1002/(sici)1099-1166(200005)15:5<406::aid-gps122>3.0.co;2-f)
- 87 U.S. Department of Health and Human Services Assistant Secretary for Planning and Evaluation Office of Disability, Aging and Long-Term Care Policy. (2006). Adult Day Services: A Key Community Service for Older Adults. Retrieved from <https://aspe.hhs.gov/sites/default/files/private/pdf/74721/keyADS.pdf>
- 88 Kelly, R., Puurveen, G., & Gill, R. (2016). The Effect of Adult Day Services on Delay to Institutional Placement. *Journal of applied gerontology: the official journal of the Southern Gerontological Society*, 35(8), 814–835. <https://doi.org/10.1177/0733464814521319>
- 89 Fields, N. L., Anderson, K. A., & Dabelko-Schoeny, H. (2014). The effectiveness of adult day services for older adults: a review of the literature from 2000 to 2011. *Journal of applied gerontology: the official journal of the Southern Gerontological Society*, 33(2), 130–163. <https://doi.org/10.1177/0733464812443308>
- 90 Berkowitz, S. A., Delahanty, L. M., Terranova, J., Steiner, B., Ruazol, M. P., Singh, R., Shahid, N. N., & Wexler, D. J. (2019). Medically Tailored Meal Delivery for Diabetes Patients with Food Insecurity: a Randomized Cross-over Trial. *Journal of general internal medicine*, 34(3), 396–404. <https://doi.org/10.1007/s11606-018-4716-z>
- 91 Henstenburg, J. A., Parvanta, C., Pontiggia, L., Daugherty, S., & Laverty, N. (2019). Food Is Medicine: Providing Medically Tailored Meals to Community Members with Disease-associated Nutritional Risk Supports Stable BMI and Decreased Hospitalization (P12-005-19). *Current Developments in Nutrition*, 3(Suppl 1), nzz035.P12-005-19. <https://doi.org/10.1093/cdn/nzz035.P12-005-19>
- 92 Berkowitz, S. A., Terranova, J., Randall, L., Cranston, K., Waters, D. B., & Hsu, J. (2019). Association Between Receipt of a Medically Tailored Meal Program and Health Care Use. *JAMA internal medicine*, 179(6), 786–793. <https://doi.org/10.1001/jamainternmed.2019.0198>



been associated with net monthly savings, after accounting for program costs, in medical expenditures of \$220 based on a study of dual eligible individuals.⁹³ A study looking at the impact of home-delivered meal services on overall health care among Metropolitan Area Neighborhood Nutrition Alliance (MANNA) clients found a 31 percent decrease in average monthly healthcare costs in the intervention group.⁹⁴ Additionally, MTM recipients who specifically received meals through the meal provider, Project Angel Heart, had an average decrease in total monthly medical costs of 24 percent among clients with chronic obstructive pulmonary disease (COPD), congestive heart failure (CHF), and diabetes.⁹⁵

→ **Non-emergency Medical Transportation.** The target populations of NEMT studies typically include low-income individuals with at least one chronic or serious health condition and primarily focus on the impact of the interventions on Medicaid populations. Money Follows the Person (MFP) participants and Section 1915(c) waiver enrollees had the highest NEMT utilization rates from 2018 to 2020.⁹⁶ The average NEMT intervention costs are less straightforward than other services due to the inconsistent allocation of NEMT costs to cost centers across state agencies.⁹⁷ The cost of NEMT services as part of the model would be based on Medicaid NEMT rates.⁹⁸ The main finding across NEMT studies has been a significant reduction in the number of missed appointments for individuals using NEMT.⁹⁹ One study evaluating the impact of NEMT for members of a Medicare ACO found an increase in outpatient visits of 9.2 visits per person per year with the use of NEMT. The mean cost of the NEMT intervention in this study was \$517. Factoring in the increase in outpatient visits documented across study participants, there was an associated increase in outpatient costs of \$4,420 per person per year.¹⁰⁰ There has not been sufficient data to show a clear association between NEMT and cost savings. However, the improved appointment attendance rate could have a positive impact on access to care for the model's target population.

93 Berkowitz, S. A., Terranova, J., Hill, C., Ajayi, T., Linsky, T., Tishler, L. W., & DeWalt, D. A. (2018). Meal Delivery Programs Reduce The Use Of Costly Health Care In Dually Eligible Medicare And Medicaid Beneficiaries. *Health affairs (Project Hope)*, 37(4), 535–542. <https://doi.org/10.1377/hlthaff.2017.0999>

94 Gurvey J. (2013). Examining health care costs among MANNA clients and a comparison group. *Journal of Primary Care & Community Health.*, 4(4). <https://doi.org/10.1177/2150131913490737>

95 Project Angel Heart (2018). Small Intervention, Big Impact: Health Care Cost Reductions Related to Medically Tailored Nutrition. Retrieved from https://www.projectangelheart.org/wp-content/uploads/2018/06/PAH_ImpactStudy_OnePager_FINAL.pdf

96 Becerra, X. (2021). Report to Congress Non-Emergency Medical Transportation in Medicaid, 2018 – 2020. U.S. Department of Health and Human Services. Retrieved from <https://www.medicaid.gov/medicaid/benefits/downloads/nemt-rtc.pdf>

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CAPABLE

Among the benefits included in the MAHCC model, the CAPABLE program has the most substantial evidence base demonstrating quality outcomes and cost savings. The target population included in CAPABLE model trials conducted to date includes individuals requiring assistance with one or more ADLs or two or more IADLs, individuals who are cognitively intact, community-dwelling, 50 years of age and older, and low-income individuals.

Trials have demonstrated significant quality outcomes among participants from the program intervention. Participants had a reduction of difficulties with ADLs from an average of 3.9 out of 8.0 ADLs at baseline compared to 2.0 at the end of the model.¹⁰¹ Additionally, participants had a reduction in falls and decreased depressive symptoms at the end of the program compared to baseline years.^{102, 103}

CAPABLE has also shown promising cost savings associated with the intervention across several studies. CAPABLE runs an average of five months with an intervention cost between \$3,000 – \$5,000 per person for the course of the intervention, and a two-year license cost of \$21,000 for organizations administering the CAPABLE program. In a CMMI demonstration trial, the intervention was associated with a \$22,120 total per participant reduction in Medicare expenditures over a two-year period compared to an average intervention cost of \$2,882 per person.¹⁰⁴ Additionally, among a dual eligible population, CAPABLE led to an average reduction of \$867 in Medicaid expenditures per CAPABLE participant per month (this did not include the intervention cost).¹⁰⁵

101 Ruiz, S., Snyder, L.P., Rotondo, C., Cross-Barnet, C., Colligan, E.M., & Giuriceo, K. (2017). Innovative Home Visit Models Associated With Reductions In Costs, Hospitalizations, And Emergency Department Use. *Health Affairs*, 36(3), 425 – 432. <https://doi.org/10.1377/hlthaff.2016.1305>

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104 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>

105 Rosenblum, S., Rizer, A. (2023). The CAPABLE Program: An Effective Intervention For Dual Eligible Individuals In Integrated Programs. *Health Affairs*. Retrieved from <https://www.healthaffairs.org/content/forefront/capable-program-effective-intervention-dual-eligible-individuals-integrated-programs>



Some organizations have offered a less comprehensive, and therefore less costly, version of the CAPABLE model and still found cost savings associated with the intervention. For example, one modified version of CAPABLE offered fewer nursing visits and 10 percent of the usual handyman work, resulting in an average savings of \$614 per dual eligible participant above the intervention cost when measured one-year post-intervention.¹⁰⁶ Another modified version of CAPABLE was offered to nursing home-eligible adults in the community as part of a previous Michigan Medicaid waiver. Michigan found that its Medicaid spending was \$833 less per month for the average CAPABLE participant (which did not include the intervention cost).¹⁰⁷

106 Szanton, S. L., Leff, B., Li, Q., Breyse, J., Spoelstra, S., Kell, J., Purvis, J., Xue, Q. L., Wilson, J., & Gitlin, L. N. (2021). CAPABLE program improves disability in multiple randomized trials. *Journal of the American Geriatrics Society*, 69(12), 3631–3640. <https://doi.org/10.1111/jgs.17383>

107 Szanton, S.L., Alfonso, N.H., Roberts, L., Bishai, D.H. (2017). Cost Savings for Capable Program Driven by Decreases in Hospital and Long-term Care for Participants. *Innovation in Aging*, 1(S1), 1392. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6184378/pdf/igx004.5126.pdf>



APPENDIX 3: FRAILITY LEVELS

Frailty Cut Point	Frailty Level
<0.15	Robust
0.15-0.249	Prefrail
0.25-0.349	Mildly Frail
>0.35	Moderate to Severely Frail



Attachment 1

1. **Cost and Savings Analysis for Medicare Advancing Home and Community Care Model.** Prepared by Milliman for the California Health and Human Services Agency. Full report attached to the model specifications narrative and is available online at atiadvisory.com/resources/wp-content/uploads/2026/02/Milliman_Cost-and-Savings-Analysis-for-MAHCC-Model.pdf.



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