



**Dementia Care Management (DCM): Issues and analysis of potential federal budgetary impact
10.11.22**

Innovation in approaches to payment and delivery has led to substantial changes in the health care system, with improvements to quality, enhanced access to care, and lower costs. The proposed Dementia Care Management (DCM) model brings innovation to dementia care and offers a new way to coordinate person-centered care and address the complex health needs of fee-for-service Medicare beneficiaries with Alzheimer's disease and related dementias who are living in the community.

Developed by experts in the field of dementia care, the model relies on an approach to targeting patients based on need through care pathways, rather than just the clinical disease stage. The rationale for this approach is that delivery of relatively low-cost, targeted, and evidence-based care coordination methods for this population would, over time, reduce adverse health events, avoidable emergency room use (e.g., for falls), and preventable hospitalizations associated with dementia, thus reducing costs incurred by the Medicare program. Additionally, more organized support for people with dementia and their caregivers coupled with engagement of care team members will keep seniors at home for longer periods and delay or avoid nursing facility placement.

To estimate the potential impact of the DCM program, we developed an analytic model that compares federal spending under current law for Medicare beneficiaries with dementia to estimated expenditures under the DCM model over the next decade. We relied on population and prevalence data published by the Alzheimer's Association in their annual *Facts and Figures* report and data from the Center for Medicare & Medicaid (CMS), research on dementia care gaps and the impact of interventions, and insights from experts in the field. We estimate that the implementation of the model would result in potential net savings of \$9.2 billion in Medicare and \$11.7 billion in federal Medicaid spending over 10 years and that the program, once fully phased in, would cover close to 1.8 million Medicare beneficiaries (about 20 percent of the population with dementia) by the end of the decade. (See Table 1).

Table 1

Analysis of the federal budget impact of adding dementia care management (DCM) benefit to Medicare

Federal fiscal year, in millions of dollars

	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2023-27	2023-32
Medicare												
DCM program	0	60	260	680	1,240	1,560	1,810	2,090	2,400	2,760	2,240	12,860
Other Medicare /1	-10	-90	-380	-1,030	-1,950	-2,530	-3,040	-3,620	-4,300	-5,100	-3,460	-22,050
subtotal, Medicare	-10	-30	-120	-350	-710	-970	-1,230	-1,530	-1,900	-2,340	-1,220	-9,190
Medicaid												
	-390	-850	-1,030	-1,110	-1,190	-1,270	-1,350	-1,430	-1,510	-1,590	-4,570	-11,720
Net impact	-400	-880	-1,150	-1,460	-1,900	-2,240	-2,580	-2,960	-3,410	-3,930	-5,790	-20,910

Notes: Estimate dated 8.22.22, developed by Healthspieren for the Alzheimer's Association.

Numbers may not sum to totals due to rounding

/1 Includes impact on current benefit spending and Part B premium.

Memo: DCM particip - - 60 250 600 1,020 1,160 1,300 1,460 1,630 1,820

Background on the model

The DCM model would provide enhanced patient-centered care for fee-for-service Medicare beneficiaries with Alzheimer's and related dementias living in the community. One of the innovative features of the model is that it aligns and targets interventions to patients based on assessed need (through care pathways) rather than just the clinical disease stage. Eligible beneficiaries choosing to participate in the model fall into one of three Pathways. In the first, beneficiaries have up to one hospitalization a year (measured by claims data) and financial and caregiver support. Beneficiaries in Pathway two have higher hospitalizations but still have some level of community support. Finally, Pathway three is reserved for the highest need beneficiaries, those with increased health system use and weak community support. The following elements contribute to the ability of the model to achieve cost and quality goals:

- **Coordinated care management** – an interdisciplinary care team with dementia care management expertise that works collaboratively with primary care physicians.
- **Outcomes-based approach** – assessment of performance on meaningful utilization and patient and caregiver outcome measures demonstrating the values of the DCM model services and interventions.
- **Innovative payment methodology** – shift away from the traditional fee-for-service (FFS) payment model to provide additional support and resources necessary for caring for this high-needs patient population.
- **Widespread adoption** – flexibility for adoption by all practice types (including small, community health clinics, rural practices, and larger, integrated systems) to increase patient access to valuable services.
- **Patient care innovations** – access to care and resources for individuals with dementia.
- **Caregiver focus** – enhancements and waivers necessary to support patients and their caregivers in maintaining their independence in a setting of their preference. Although caregiver training

and education services are currently not payable under Medicare, CMS may be able to bundle these services into covered Medicare care management codes.¹

Basis of estimate and summary of assumptions

We estimate that the implementation of the model would result in potential net savings of \$9.2 billion through 2032 in Medicare; that amount reflects increased spending of \$12.9 billion for services provided under the model and savings of \$22.1 billion for reductions in Medicare spending for hospital and other services and the impact on the Part B premium. Additionally, we estimate that federal spending on the Medicaid program would decrease by \$11.7 billion on the net over 10 years.

To develop those estimates, we made assumptions about the eligible population and the number of beneficiaries who would fall into each Pathway category once the program gets underway. Additionally, informing those estimates are assumptions about the participation of beneficiaries in the new DCM program and growth of the program over time, the potential savings resulting from the use of the intervention model, and the impact on the Medicaid program.

Eligible population and pathways. Roughly 3 million (about 65 percent) of the total number of Medicare beneficiaries with Alzheimer's or related dementias live in the community; others reside in nursing homes or other residential facilities (and are not eligible for the DCM model). Of those beneficiaries, about 60 percent are in the mild or moderate stage of the disease, based on information provided by the Alzheimer's Association; others are in a more advanced stage of disease but remain in the community because of both paid and unpaid support of family caregivers.

An important aspect of the DCM program is the assignment of eligible beneficiaries to Pathways based on their utilization and support needs. To implement the program, we expect that the Medicare agency would develop criteria for providers to use and as a basis of reimbursement. For this analysis, we roughly assigned beneficiaries to the DCM Pathways by first stratifying community beneficiaries by disease stage. We then developed assumptions about their likelihood of exceeding hospitalization thresholds or needing more financial or caregiving support.

Under the proposed model, CMS would identify the use of hospital services by participants using Medicare claims data. Research shows that between 32 and 50 percent of the community with dementia has at least one hospitalization per year.^{2,3,4} However, this figure increases to 76 percent of dementia patients when extending the follow-up period to a median of 2.5 years, suggesting that many beneficiaries could benefit from ongoing interventions to prevent hospitalization. Additionally, CMS would develop an approach to identify financial and caregiving barriers to further triage participants by Pathway, likely looking at income and asset data and information about caregivers in the home. For example, about 26 percent of beneficiaries in the community with dementia live alone, making them more likely to qualify for Pathway 3.⁵

¹ <https://www.federalregister.gov/public-inspection/2022-14562/medicare-and-medicaid-programs-calendar-year-2023-payment-policies-under-the-physician-fee-schedule>

² <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2955171/>

³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6497615/>

⁴ <https://www.alz.org/media/documents/alzheimers-facts-and-figures.pdf>

⁵ <https://aspe.hhs.gov/sites/default/files/private/pdf/257966/LivingArran.pdf>

In our approach, we assumed most individuals in the mild stage would qualify for Pathway 1, with about half of those in the moderate stage in that earlier Pathway. In contrast, about half of those in the severe stage of the disease would fall into Pathway 3, which offers greater support to those without caregiving resources; only about one-quarter of those beneficiaries remained in Pathway 1. We also assumed that there would be increased diagnosis of beneficiaries with dementia because of the model and account for additional community residents in our analysis. Based on a combination of assumptions, we estimate that about 47 percent of eligible beneficiaries would be in Pathway 1, 24 percent would be in Pathway 2, and 30 percent would be in Pathway 3. Over time, we expect that the DCM program's targeted support approach will reduce the share of beneficiaries needing more advanced supports under Pathway 2 and 3 (in addition to reducing overall spending in the Medicare program).

Beneficiary participation and program adoption. Based on a review of evolving Medicare provider dynamics and structure, we estimate that over time, about 15 to 20 percent of eligible Alzheimer's patients living in the community could receive care under the DCM model after the program reaches maturity. We assume that providers—including accountable care organizations (ACOs) and physician practices—representing about one quarter of the eligible population would eventually take up the option (described below), and about three-quarters of beneficiaries receiving care from those providers would opt-in to the model. We also anticipate that implementation would take 3 to 5 years. Take-up may vary across geographic regions, depending upon local market characteristics and extent of program outreach.

We assume that beneficiary participation in the model will largely depend upon the share of physicians and physician practices choosing to operate the DCM program (particularly those practicing outside of organized systems of care) and the extent to which their patients will engage in its support programs. Physicians determine the plan of care for their patients and decide whether to participate in new models of care. In the case of dementia, families and patients likely look to their physicians for guidance about care, but at the same time, some may pro-actively inquire about this new program. We expect, however, that physician take-up will be a significant determinant of beneficiary take-up. Table 2 provides illustrative estimates of participating beneficiaries by provider pathway type, assuming full implementation in 2024.

Newly available funding provided under the program for activities required to implement the intervention would encourage physicians to adopt the model and have their patients participate. Integrated delivery systems, multi-specialty group practices, practices focused on home care, and ACOs that treat large numbers of Medicare patients and have both the infrastructure and experience in care management and alternative payment models (APMs) for a range of conditions would see the opportunity to bring the approach to dementia care. In addition, because the DCM model can help to reduce spending through better care and reduced avoidable utilization (for example, emergency room visits), larger risk-based health systems may have greater incentives to adopt the benefit and support their physicians in doing so.

We believe the chances of adoption would be highest by providers in large multi-specialty group practices or broader systems such as ACOs that are at risk for the costs and quality of care and where providers have the infrastructure (administrative resources, technology, staff) to execute and provide a comprehensive care management model directed at those with dementia. We expect a subset of providers who have the incentive to provide the model (and are in an ACO or risk-based model) but do not have the infrastructure or may not have the incentive but do have the infrastructure will also adopt the model. Many Alzheimer's patients receive care through an ACO or APM operated by their health system or multi-specialty group practice. About one-third (33 percent) of fee-for-service Medicare beneficiaries are attributed to an ACO. Research findings show that in the year prior to death, about 20 percent of Alzheimer's patients were attributed to an ACO; a higher share more consistent with the overall

Medicare program likely were enrolled prior to that year and left the ACO when they entered a nursing facility.

- **Medicare Shared Savings Program (MSSP).** Of the approximately 11 to 12 million Medicare beneficiaries currently in ACOs in the MSSP—about one-third of the fee-for-service population—we estimate there are about 1 million Alzheimer's patients (the share of Medicare beneficiaries that have Alzheimer's disease or related dementia). Importantly, providers participating in the MSSP have the necessary infrastructure to include the DCM model alongside other programs that include related care coordination activities. We assume about half of those MSSP providers would adopt the DCM model (representing 15 percent of the eligible fee-for-service population or 500,000 beneficiaries).
- **Primary care models.** Primary care practices have a vested interest in improving care for Alzheimer's patients. Those providers are the first line in diagnosing and providing dementia care, yet about half do not believe they are prepared to meet the increasing demand of patients.⁶ Furthermore, for many, dementia patients are a small share of their patient panels. Because of that, we expect participation from primary care practices will come mainly from those participating in other CMMI models, which have primary care and/or other capitated approaches that could align with the structure of the DCM. We estimate that about half of the larger physician practices representing about 10 million patients, 2.5 million Medicare beneficiaries, and 200,000 dementia patients (assuming an Alzheimer's rate at about 2 percent) would participate, leading to an additional 100,000 patients enrolled in DCM (about 3 percent of the eligible fee-for-service population).
- **Innovative practices.** We also expect some smaller practices to be interested in DCM adoption; for example, about 11 percent of providers in rural areas participated in advanced APM models, showing interest in participating in new models of care. We estimate that roughly 75,000 PCPs operate outside of the MSSP program or do not participate in CMMI models (slightly less than half of all PCPs). Those practices we estimate have smaller patient panels on average and represent about 1.5 million Medicare beneficiaries with dementia. We assume that about 20 percent of those practices would adopt the DCM program, leading to the potential enrollment of 300,000 dementia patients (about 9 percent of the eligible fee-for-service population).

Not all physicians, however, are likely to adopt the model for their Medicare patients with dementia. Scale presents challenges for new models of care generally. Providers without a practice structure or size that allows for robust care management programs may face challenges in implementing a DCM program. Small practices may not have access to administrative staff to help operate the program. Additionally, practices with a small share of dementia patients in their panels may not see the advantage of operating the program, even with the incentives inherent in the monthly per member per month rates. For example, a survey (2020 Alzheimer's Association) of PCPs reported that 4 in 10 of their current patients are age 65 and older, and, on average, only 13 percent of those patients have been diagnosed with dementia.

⁶ At the end of 2022, ACO REACH will replace the current Global and Professional Direct Contracting (GPDC) Model.

Table 2 – Provider participation and DCM-eligible Medicare beneficiaries, 2024 (full implementation)

	FFS Medicare beneficiaries	ADRD in community	Providers	Provider adoption	DCM eligible (%FFS ADRD)	DCM participating
MSSP/ACO	12 million	1 million		50%	500,000 (15%)	375,000
Primary care models	2.5 million	200,000	3,000 practices	50%	100,000 (3%)	75,000
Innovative practices	12 million	1.5 million	75,000 PCPs	20%	300,000 (9%)	225,000
Non-participating	10.5 million	700,000	NA	NA	NA	NA
Total	37 million	3.3 million			900,000 (27%)	675,000 (20%)

FFS = fee-for-service, MSSP = Medicare Shared Savings Program, ACO = accountable care organization

Other challenges to the model for all types of practices may include access to specialists; in some rural areas, ACOs may not be able to offer the model. For example, while one-third of PCPs (32 percent) say they refer dementia patients to specialists at least once a month, more than half (55 percent) say there are not enough dementia care specialists in their area to meet patient demand, a problem more common in rural areas. According to a recent report, 44 percent of PCPs practicing in large cities and 54 percent in the suburbs reported there are not enough specialists in their area, while 63 percent practicing in small cities or towns and 71 percent in rural areas noted this challenge (Alzheimer's Association 2020).

Providers may choose not to adopt the model initially because it is a new program with some uncertainty as to how it will function. However, we expect that over time, the DCM model will grow in popularity among clinicians and that some group practices (including small ones) outside of the large ACO systems also will develop capabilities to handle the program and offer it to their eligible patients. We also expect that over time, program participants may drop the program or have challenges accessing services due to changing market conditions (such as providers moving far away).

Cost of DCM program. We estimate that spending for the DCM program would be about \$13 billion over the next decade, rising each year to accommodate the greater number of participants and increases in the per member per month program fee, which we assume will grow annually at the Medicare Economic Index (MEI). Administering dementia care models costs roughly \$500 to \$1,200 per beneficiary per year, excluding start-up costs. The DCM fees in the program would include spending for those services and combine spending for current programs in Medicare that cover care coordination services for dementia patients.⁷ In our analysis, we assume that the new program's fees would substitute for program fees under current law.

Impact on Medicare spending. Opportunities exist to better manage care for Medicare beneficiaries with dementia and reduce spending for adverse events and unnecessary use of high-cost health care services. Recent experience with collaborative care models has shown opportunities to reduce preventable hospitalizations and avoid expensive emergency room visits, both significant factors in the higher cost of treating dementia patients in the community.⁸ Older adults with dementia visit emergency rooms more

⁷ Current Medicare programs used for dementia patients include Transitional Care, CCM codes, and code 99483.

⁸ <https://aspe.hhs.gov/reports/hospital-emergency-department-use-people-alzheimers-disease-related-disorders-final-report-1>

frequently and have higher rates of inpatient admissions and readmissions than those who do not have dementia. They also incur higher charges, have more comorbidities and higher mortality rates than those without dementia.⁹

We estimate that savings to the Medicare program would total about \$20 billion (a reduction of about 1 percent of Medicare spending on beneficiaries with Alzheimer's disease and related dementia). Sources for potential savings would be better management of patients using new drugs and therapies, increased adherence, and prevention of adverse events. Several pilot interventions and studies currently exist that can be used as the basis for a proposed DCM model for Medicare beneficiaries.¹⁰ In developing this estimate, we reviewed the results of collaborative care models for dementia and consulted with experts inside the Alzheimer's Association; based on that research and research on other care management interventions, we assume that spending for the DCM intervention would have a return-on-investment of roughly 2:1 to 3:1 and yield savings in the rest of the Medicare program (e.g., reduced hospitalizations and emergency visits, improved medication adherence.) We expect there would be additional spending for physician and other professional services in the community that would offset those savings.

Impact on Medicaid spending. A potential benefit of improved care for dementia patients in the community is a reduction in admissions to long-term care facilities, as patients with the condition have stronger support to continue to live in their communities. As state Medicaid programs cover nursing facility care (with expenses shared by the federal government and the states), practical approaches deployed early in disease progression could lead to lower costs for this population. About half of all nursing home residents have dementia, and as many as two-thirds of dementia patients die in nursing homes.^{11,12} The median duration of stay for all nursing home residents is roughly five months, but dementia patients spend longer on average in nursing homes because they require ongoing custodial care.¹³

We estimate that on net, federal Medicaid savings over 10 years would be about \$11 billion; savings for state governments would be about \$10 billion. Those figures account for reduced nursing facility spending (roughly 7 percent of all Medicaid spending in that category) and estimated additional new spending for Medicaid-supported home and community-based services to beneficiaries who stay in the community longer.

We based our estimate on research about the use of care management interventions for people with dementia in the community that would lower the probability of nursing home admission and thus reduce spending in the Medicaid program. For example, evidence shows that care coordination interventions can increase nursing home avoidance for mild Alzheimer's disease; research from an 18-month care coordination intervention (MIND study) demonstrated a 37 percent decrease in the probability of nursing home placement.¹⁴ In developing the estimated impact of avoided or delayed nursing home admission, we assumed that Alzheimer's patients, on average, stay in nursing homes for three years, based on research and insights from experts in the field. Alzheimer's patients generally have a longer expected duration of stay in nursing homes because they need greater assistance with daily tasks that they

⁹ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4764430/>

¹⁰ CMMI has funded such pilots, including the University of California, Los Angeles' (UCLA's) Alzheimer's and Dementia Care (ADC) program, and the University of California, San Francisco's (UCSF's) Care Ecosystem program.

¹¹ <https://pubmed.ncbi.nlm.nih.gov/15673356/>

¹² <https://www.cdc.gov/nchs/fastats/alzheimers.htm>

¹³ <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2945440/>

¹⁴ <https://pubmed.ncbi.nlm.nih.gov/30575846/>

otherwise would not be able to do alone. In other words, some patients will enter nursing homes well before their death to receive assistance for these tasks, and their duration in nursing homes will extend years. Still there are shorter stays for the most severe patients who die while in the facility.

The likelihood of nursing home placement is highest for those with severe dementia (43 percent of severe patients are in facilities, compared to 29 percent of those with moderate dementia and 4 percent of those with mild cases.) Still, the risk of facility placement also is affected by supports in the community; we assumed that people in Pathway 3 and in the moderate or severe disease stages are more at risk of going into a nursing home than those in other Pathways because they have fewer caregiver resources to support them at home. Still, those in more advanced disease stages and with limited community support to start may still need facility-based support even with this intervention. Importantly, additional resources through the DCM program likely would keep participants in moderate disease stages in Pathway 1 and 2 in their homes longer than otherwise; with an intervention, care needs can shift quickly on the home front and the program could ward off adverse events like a fall that trigger a facility stay. For the most advanced-stage patients, we assume that the average annual risk of nursing home placement would decrease by about 15 percent; those reductions would be 10 percent for those in the moderate phase of the disease, and 5 percent for those in the mild stage. Overall, our analysis showed the greatest potential impact on the Pathway 3 participants, accounting for half the potential Medicaid savings.

Discussion and conclusion

The DCM model offers a new opportunity to improve the care of Medicare beneficiaries with dementia who live in the community. Challenges exist to bringing this program to scale quickly; however, as providers experience with the program's benefits in lowering costs and improving quality grows, we would see steady dissemination of the model across the health care system. Importantly, the DCM approach represents a sea-change in dementia care and a way to bring evolving and tested models of care coordination directly to this population with a focus on its specific care needs. The introduction of Pathways at the outset builds on existing claims information about hospitalization rates and can help guide supports for people in the community. Additional use of other social and financial factors that may place patients at risk in the community strengthens the ability of providers to target resources and programming to effectively keep people with dementia in community settings.

This analysis makes several assumptions about how the program would operate, the number of beneficiaries participating, and the potential savings that might accrue. An important factor in the program's implementation would be provider adoption, and we considered how both large and small providers would approach the availability of funding for care management for this population given the size of their patient panels and their participation in risk-based payment. Overall, we foresee strong take-up over time, with about 25 percent of providers offering the benefit and three-quarters of beneficiaries participating.

We relied on high-level data about hospitalization rates and developed assumptions about the distribution of patients across the three Pathways. We also made assumptions about changes in utilization of nursing facilities in Medicaid at an aggregated level. More detailed analysis at the individual beneficiary level could offer more insight into potential savings in both Medicare and Medicaid. Still, our savings figures fall within a range of possible outcomes, and net savings could end up higher or lower, depending on many factors in the program's implementation, including how CMS approaches the Pathway element of the model. Overall, we expect to see this program develop into a standard of care for patients with Alzheimer's and related dementias with widespread use. We also see

opportunity from its implementation to support more effective use of paid and family caregivers and attention to the needs for social supports to enable more community living.