



Analysis and estimate of the federal budget impact of the Health Outcomes, Planning and Education (HOPE) for Alzheimer’s Act of 2015

Summary

The Health Outcomes, Planning and Education (HOPE) for Alzheimer’s Act of 2015 (H.R. 1559/S. 857) would amend Medicare law to add an additional benefit for disease care planning services for beneficiaries diagnosed with Alzheimer’s disease or related dementias. We estimate that the bill would decrease net federal health spending by \$692 million over the 2016-2025 period. We estimate that Medicare spending related to the new care planning benefit would increase by \$399 million and \$1.2 billion in savings would result from its implementation over that period. Federal Medicaid spending would increase by an estimated \$111 million over the decade as a result of enactment of the bill. *Table 1* displays the components of the estimate.

Table 1 – Ten-year impact on federal health spending of establishing a care planning benefit for Medicare beneficiaries with Alzheimer’s disease and related dementias (figures in millions of dollars)

Federal fiscal year, in millions of dollars

	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2016-20	2016-25
Medicare												
Care planning benefit	0	7	18	31	45	52	54	58	64	69	102	399
Other Medicare /1	0	-12	-40	-80	-124	-150	-164	-184	-209	-238	-257	-1,201
subtotal, Medicare	0	-5	-22	-49	-79	-97	-110	-126	-145	-169	-155	-802
Medicaid												
	0	1	4	7	11	14	15	17	19	22	23	111
Net impact	0	-4	-19	-42	-68	-84	-95	-108	-126	-147	-132	-692

Notes: Estimate developed by Healthsperien 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.

Background

Alzheimer's disease is a form of dementia that affects the regions of the brain responsible for memory, thinking, and behavior; related forms of dementia include vascular dementia, dementia with Lewy bodies, and frontotemporal lobar degeneration. Individuals with the disease experience substantial cognitive decline over a long period of time and many ultimately require a nursing home level of care as their condition worsens and as caregivers lose the ability to provide necessary services to them. As diagnosis generally requires a clinical evaluation, many individuals in the early stages of the disease are unaware they have it. Frequently, individuals with Alzheimer's disease suffer from other chronic conditions, a factor that complicates medical treatment as the disease progresses. Related dementias have similar progressive characteristics. While new treatments are under development in the research community for Alzheimer's, no cure or pathway for substantial delay currently exists.

Multiple factors contribute to relatively high hospitalization rates for patients with dementia, including medical conditions developing with or aggravated by dementia, challenges with self-management of chronic conditions, and changes in level of support in the home environment. Patients with incident dementia have higher rates of hospitalization, including for preventable conditions, than those without dementia. Risk-adjusted all-cause admission rates for patients with incident dementia were 1.41 times higher than those without dementia, and risk-adjusted admission rates for ambulatory care sensitive conditions were 1.78 times higher.¹ Therefore, opportunities exist to advance new models of care that include formal care planning approaches that can help prevent the utilization of avoidable or unnecessary medical services, such as emergency room visits and hospitalizations.

Starting on January 1 of the year after enactment, the bill would require that Medicare reimburse physicians and certain non-physician medical providers who participate in the program for care planning services related to Alzheimer's disease and related dementias. Those services primarily include the development and furnishing of an initial and one-time comprehensive care plan for eligible individuals. Non-physician providers permitted to provide care planning would include physician assistants, nurse practitioners, clinical nurse specialists, clinical social workers, and clinical psychologists. Medicare reimbursement levels for those care planning services would be either 80 percent of the lesser of the actual charge for those services or an amount determined under the Medicare Physician Fee Schedule for those services under the provisions of the bill. Eligible individuals would include Medicare beneficiaries with a documented diagnosis of Alzheimer's disease or related dementia made by their provider on or after the date of enactment. The individual's personal representatives, and/or one or more family caregivers also would be eligible.

The bill specifies that services and information included in the care plan should be related to helping beneficiaries, their personal representatives, and/or their caregiver(s) to understand the beneficiary's diagnosis and progression of the disease, including available medical and non-medical options for ongoing treatment, services, and support. The care plan should also include ways to obtain medical care,

¹ Phelan, Elizabeth, et al., "Association of Incident Dementia with Hospitalization," *JAMA*, 2012; 307 (2):165-172.

treatment or additional support that helps beneficiaries manage their condition (such as through medication reconciliation). Additionally, the bill would require that any care planning services or information provided to eligible individuals take into account the beneficiary's co-morbid chronic conditions in determining appropriate medical care, treatments, and additional supports. The bill also would require the physician or non-physician practitioner to document the beneficiary's condition and the recommended plan of care in their medical record.

The bill specifies that the Secretary of the Department of Health and Human Services (HHS) establish guidelines for furnishing the benefit – both information and services – and consult with stakeholders in the medical community and those who represent individuals with Alzheimer's disease. The Secretary would be required to periodically update requirements for the care plan to reflect advances in science and technology. The bill would further require that the Secretary conduct outreach to physicians and appropriate non-physician providers, including through a one-time education initiative regarding the addition of this covered benefit to the Medicare program and beneficiary eligibility requirements.

Spending under the HOPE Act

The HOPE Act's care planning benefit would provide a comprehensive assessment of needed medical services that would help patients and their caregivers understand disease progression and navigate the new terrain of their condition. Based on expert discussions and review of existing programs in this area, we expect services under that benefit might include: identification of necessary activities (such as falls prevention) to prevent hospitalization and avoid emergency room visits, review and management of medications, evaluation of potential complications related to preexisting chronic conditions, and identification of targeted referrals to providers with expertise in treating these patients. Under the benefit, providers would document the patient's condition on their medical record. Per the bill's requirements, we further expect that the care plan would identify and link patients and their caregivers with organizations and providers of long-term services and supports (LTSS) that have expertise in helping patients and their families on a continual basis to handle issues related to their disease.

Below are the main elements included in the estimated impact of enactment of this new benefit on federal spending.

Cost per person for the Alzheimer's care planning benefit. Based on a review of university-based research programs that offer care planning and management benefits to patients with dementia and CMS's prior approach to determining payment levels under Medicare's Annual Wellness Visit (AWV) we estimate that reimbursement for the new benefit under the bill would be about \$200 in the first year of the benefit (inclusive of Medicare and beneficiary coinsurance). Due to the comprehensive, complex, and medically oriented nature of the proposed benefit, we assume that CMS, at a minimum, would adopt an approach similar to Medicare's AWV benefit in setting reimbursement rates. For the AWV benefit, which includes two separate visits, CMS decided that the resources involved were similar to those deployed in providing a relatively high level of new and established patient office visits (CPT codes 99204 and 99214, respectively), leading to per visit payment levels of \$172 and \$111, respectively, in

2011.² However, we also anticipate that the agency would consider the costs of care planning activities that exist at several leading programs in this area - and more broadly for advanced illness. Appendix 1 contains additional detail regarding our estimation of the reimbursement level established by CMS.

Overall, we expect that services may vary depending upon the particular health needs of the patient and that the Secretary would adopt a flexible approach in determining the benefit's parameters by looking to existing programs that use care planning approaches. Over time, we estimate the cost of the benefit would increase by about 0.6 percent on an average annual basis, reflecting growth in Part B services as well as increases in recommended service levels and intensity over time as permitted under the bill.

Impact on Medicare and Medicaid spending per person. Published research from the Healthy Aging Brain Center showed that a care management intervention for patients with dementia, a program that included a care planning initiative and cost about \$600, yielded \$3,500 in net Medicare savings, primarily from hospital and emergency room visits.³ That roughly 6:1 ratio offers an upper-bound when considering the potential impact of a more limited care planning benefit.

We assumed that a care planning benefit with the parameters established by the HOPE Act would result in net savings three times that of the cost of the intervention, a lesser but still robust impact compared to an ongoing care management benefit. That net figure accommodates potential increased use of referral services under Part B, additional diagnosis costs, as well as any increased or decreased costs related to medication changes recommended by the care planning process. As a percent of costs, that figure translates to about 2 percent of Medicare spending for a person with that condition and increasing health care needs in the first year post-diagnosis. We assume that impact would diminish each year over the next two years. Appendix 2 contains further information on the estimated Return on Investment (ROI) under the Medicare program.

For beneficiaries participating in the program who are also eligible for Medicaid, we expect that the care planning benefit would enhance and facilitate referrals to long-term care support services uniquely offered through the Medicaid program. Based on analysis of long-term care spending program data for dual eligible individuals in the community, we estimate that the proposal would lead to about a 4 percent increase in the use of long-term care services in the first year after diagnosis, mainly for personal care services where available. We assume that those cost increases would continue at a diminished level for the next two years. Appendix 3 includes additional detail on the Medicaid estimate.

Program phase-in and implementation effectiveness. We expect the implementation of the new care planning benefit would take several years (reaching full effect in 2020) and only a portion of eligible beneficiaries would request the services provided under the proposal. Not all eligible beneficiaries would seek out this benefit and those that do might participate in response to recommendations made

² "Annual wellness visit to provide personalized preventive plan benefit", American College of Physicians, 2015.

³ Dustin D. French, Michael A. LaMantia, Lee R. Livan, Dorlan Herceg, Catherine Alder, and Malaz A. Boustani, "Healthy Aging Brain Center Improved Care Coordination and Produced Net Savings," *Health Affairs*, April 2014, 33(4):613-618.

by their physicians. We assume some physicians would engage their patients in this benefit in response to the bill's required provider outreach program. We estimate that the combined impact of these various considerations would lead to about 40 percent of potentially eligible Medicare beneficiaries newly receiving Alzheimer's care planning services. In 2025, about 400,000 individuals would use the benefit, we estimate.

Additionally, we assume that diagnosis rates would rise under the proposal by about 5 percentage points over the baseline over the next decade in response to the newly available reimbursement under the proposal and general provider outreach and education provided under the bill. By 2025, we assume diagnosis rates would reach about 70 percent for individuals under age 85.

Spending impact on Medicare and Medicaid. On net, we estimate that federal health spending would decrease by \$692 million over the next decade, based on an assumption of enactment sometime in 2016.

The main elements of the estimate, reported on a federal fiscal year basis, are below:

- The estimated cost to Medicare of the Alzheimer's care planning benefit derives from the annual cost per person for the benefit multiplied by the number of newly diagnosed individuals. We estimate that by fiscal year 2025 the annual cost of this care intervention would be \$69 million. Over the 2016-2025 period, we estimate that Medicare costs would rise by \$399 million.
- The bill's enactment of a care planning benefit would impact Medicare spending by lowering net costs in the three years post-diagnosis, more than offsetting the cost of the new benefit. The estimated change in Medicare spending for individuals with Alzheimer's disease and related dementias diagnosed in 2016 or in years after (including those newly diagnosed under the bill) equals the product of: baseline spending for each age cohort and diagnosis year, the percent change in spending by baseline spending (depending on diagnosis year), and the implementation effect (which includes beneficiary and provider participation rates). In fiscal year 2025, Medicare program spending would decrease by \$238 million, roughly 0.1 percent of Medicare spending overall in that year. Over the 2016-2025 period, we estimate that Medicare spending would decrease by about \$1.2 billion, including the effects of changes to Part B premium receipts.
- We estimate the change in Medicaid spending in a similar fashion, primarily to account for the cost of referrals to more long-term care services.⁴ We estimate that by fiscal year 2025, the federal share of Medicaid would increase by \$22 million, roughly 0.05 percent of Medicaid long-

⁴ We did not account for changes in federal Medicaid spending related to payment of Medicare Part B or cost sharing amounts because of uncertainty around how state payment policy might address coverage of cost sharing under the care planning benefit. However, we anticipate any impact would be small relative to our estimate.

term care spending, because of the provisions of the bill. Over the 2016-2025 period, we estimate federal Medicaid spending would increase by \$111 million.

Appendix 4 includes additional discussion on the impact of the HOPE Act on total spending.

Appendix 1 – Estimation of CMS reimbursement for the costs of an Alzheimer’s care planning benefit

Commonly, when adding a new service to the Medicare Physician Fee Schedule, CMS establishes billing codes and reimbursement levels based on the expected level of resources and effort involved in providing the service. In the case of the Alzheimer’s disease and related dementias care planning benefit, we expect that CMS may take into account its approach in determining reimbursement for the new Medicare Annual Wellness Visit (AWV) benefit. For that benefit, which includes two separate visits, CMS decided that the resources involved were similar to those deployed in providing a relatively high level of new and established patient office visits (CPT codes 99204 and 99214, respectively), leading to per visit payment levels of \$172 and \$111, respectively, in 2011.⁵

CMS may also consider the experience of existing programs that provide a care planning benefit to patients with dementia. We reviewed leading programs in this area that offer both initial care planning services and ongoing care management services and found that the combined cost of those services ranged from \$600 to \$1,100 per year. While we did not find any specific attribution of costs to the care planning aspect of that care, the research findings and subsequent expert discussions suggest that a range of 20 percent to 25 percent of the costs are due to the initial development and furnishing of a plan of care.

Because of the comprehensive, complex, and medically-oriented nature of the proposed benefit, we assume that CMS will at a minimum adopt an approach similar to the AWV in setting reimbursement rates. However, we also anticipate that the agency will consider the costs of care planning activities under way at several leading programs in this area - and more broadly for advanced illness - which we believe may lead to higher levels of reimbursement for an initial visit than that under the AWV. Therefore, we estimate that total reimbursement rates under the bill would be about \$200 at the outset of the program (inclusive of Medicare and beneficiary coinsurance).

CMS may adopt alternative approaches in this area, and our estimate represents the middle of a range of possible outcomes. A more robust view of the benefit might lead CMS to adopt a reimbursement that reflects the experience of current university-based research programs; at the same time, a less ambitious view might lead CMS to adopt a billing approach for a lower-level new patient visit.⁶ Regardless of the approach, we expect the core components of the benefit to be similar and estimate the variation around our estimate to be relatively small (\$100 to \$300 per visit.)

⁵ “Annual wellness visit to provide personalized preventive plan benefit”, American College of Physicians, 2015. The specific codes used for those visits are G0438 and G0439.

⁶ For example, CMS recently established codes for provision of advance care planning services, effective January 1, 2016, including the explanation and discussion of advance directives, with reimbursement amounts ranging from \$75 to \$86 for a 30 minute visit.

Appendix 2 – Return on Investment on per beneficiary spending under Medicare

Ongoing research and pilot programs seek to identify the impact of a range of clinical interventions on health spending. A measure of the success of these programs is the return on investment (ROI), or the amount of savings that results from every dollar of intervention costs. Experience from some private health plans in programs that address prevention and behavior change save \$2 for every \$1 invested.⁷ Some medical home programs that offer comprehensive care management show greater savings over time – in the 6:1 range.⁸ However, to be successful, interventions must be appropriately targeted to the population who receives them and include incentives for system change, such as reducing emergency room visits and preventable hospitalizations; meeting those standards in many cases proves challenging and producing savings relies to a large extent on appropriate targeting of the population and their service needs.

Based on expert discussions and review of existing programs in this area, we expect services under this benefit might include those that would lead to lower spending on hospital and emergency room services. They include: identification of preventive activities needed to prevent hospitalizations and avoid emergency room visits, activities related to injury and falls prevention, review and adjustment of medications, evaluation of potential complications related to chronic conditions that many dementia patients have, and identification of targeted referrals to providers with expertise in treating these patients.

Substantial literature exists pointing to the gaps in care for incident dementia cases, particularly preventable hospitalizations and emergency room visits. These gaps are primarily due to overall inadequacies of the primary care system to comprehensively manage the care of individual dementia patients.

Published research from the Healthy Aging Brain Center from Indiana University showed that a care management intervention for patients with dementia, a program that included a care planning initiative and cost about \$600, yielded about \$3,500 in net Medicare savings, primarily from hospital and emergency room visits.⁹ That roughly 6:1 ratio offers an upper-bound in consideration of the potential impact of a more limited care planning benefit. We assumed that a care planning benefit with the parameters established by the HOPE Act would result in net savings three times that of the cost of the intervention - a lesser but still robust impact compared to that of an ongoing care management benefit. That figure translates to about 2 percent of Medicare per capita spending for the population with Alzheimer's or related dementia in 2015 who most likely would seek care planning services. We assume

⁷ U.S. Deficit Reduction: The Medicare and Medicaid Opportunity, UnitedHealth Center for Health Reform & Modernization, October 2010.

⁸ Advancing Primary Care Delivery, UnitedHealth Center for Health Reform & Modernization, September 2014.

⁹ Dustin D. French, Michael A. LaMantia, Lee R. Livan, Dorlan Herceg, Catherine Alder, and Malaz A. Boustani, "Healthy Aging Brain Center Improved Care Coordination and Produced Net Savings," *Health Affairs*, April 2014, 33(4):613-618. Additionally, see Callahan, Christopher, MD et al., "Effectiveness of Collaborative Care for Older Adults with Alzheimer Disease in Primary Care: A Randomized Controlled Trial", *JAMA*, 2006; 295(18):2148-2157.

those individuals would be in the mild stage of the disease and beginning to use health care services to a greater degree due to their condition.

Most of the Medicare savings would be for reduced hospitalizations and would be partially offset by increased visits to geriatricians and specialists or, in some cases, new diagnostic services. In developing our estimate, we accounted for the challenges faced in adopting the system redesign necessary to fully adopt the types of interventions that would yield those savings. We further assume that the benefits of care planning largely accrue in the first year after the beneficiary completes the process and that its effects attenuate over time as the disease progresses to a more complex state, as caregivers might experience disruption, and as time between the provision of guidance and the patient's care needs increases.

There is a range of uncertainty around the potential ROI from a care planning benefit and research continues to evolve in this area.¹⁰ Nonetheless, we believe the evidence supports an ROI of order of magnitude described above. We assume that a more robust care intervention might yield savings on the order of 4 times the cost of the benefit, while a more attenuated program would lead to smaller savings, perhaps twice that of the intervention cost.

¹⁰ Reuben, David, MD, et al., The University of California at Los Angeles Alzheimer's and Dementia Care Program for Comprehensive, Coordinated, Patient-Centered Care: Preliminary Data, *Journal of the American Geriatric Society*, 61:2214-2218, 2013.

Appendix 3 – Estimation of Medicaid spending

We expect that because of the care planning benefit, providers would help link patients and their caregivers with organizations and providers of long-term services and supports (LTSS) that have expertise in helping patients and their families on a sustained basis to handle issues related to their disease. For beneficiaries participating in the program who are also eligible for Medicaid (dual-eligibles), we assume that the care planning benefit might provide them with referrals to long-term care support services uniquely offered through that program. Based on analysis of long-term care spending program data for dual eligible individuals in the community, we estimate that the proposal would lead to a five percent increase in long-term care spending, mainly for personal care services where available. As with the impact on Medicare spending, we anticipate that the impact of this provision would attenuate over time. As the disease progresses, we anticipate that under current law enrollees otherwise would enroll in more intensive Medicaid long-term service and support programs; therefore, the new benefit would not have an impact on long-term service use.

Appendix 4 – Impact on total spending

For each cohort of individuals diagnosed in 2016 or in years after in Medicare and in Medicaid, we multiplied the annual cost per person for the benefit by the number of newly diagnosed individuals. We assumed that there would be an increase in diagnoses due to the newly available reimbursement under the proposal and provider outreach and education provisions. By 2025, we assume diagnosis rates would reach about 70 percent (as opposed to 65 percent under baseline estimates) for beneficiaries under age 85. Because new programs commonly take time to become fully operational, we assumed there would be a 3-year phase-in period for the care planning benefit. Not all eligible beneficiaries will seek out this benefit; we assume only 40 percent of those eligible ultimately participate, some of whom will do so because of their physician's response to the bill's required provider outreach program.

We estimated the change in Medicare spending for individuals with Alzheimer's and related dementias diagnosed in 2016 or in years after (including those newly diagnosed under the bill) by multiplying the following: baseline spending for each age cohort and diagnosis year, the percent change in spending by baseline spending (depending on diagnosis year), and the implementation effect (which includes beneficiary and provider participation rates). We also calculated the impact of higher Part B spending on premium revenues. We estimated the change in Medicaid spending in a similar fashion to account for increased costs, primarily for referrals to more long-term care services. Finally, we converted all figures from calendar year to federal fiscal year.