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THE ROLE OF SENIOR CENTERS IN MITIGATING ALZHEIMER'S AND OTHER FORMS OF DEMENTIA

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OVERVIEW

Dementia, a common term associated with memory loss, causes problems with an individual's memory, thinking, and behavior to the point where it affects day-to-day life and social functioning. Alzheimer's, the most common and familiar form of dementia, is becoming more prevalent among the older adult population. Of all individuals diagnosed with dementia in the United States, Alzheimer's accounts for sixty to eighty percent of the cases.⁷

Understanding the severity and impact of Alzheimer's and other forms of dementia on older adults and their family members is crucial for policy makers, stakeholders, supportive services, and medical professionals due to the implications on national, state, and local governments, health and social services, nonprofits, and communities. To address national demographic trends, it is important to understand the appropriate programs and services necessary to prevent, treat, and evaluate Alzheimer's, as well as the large impact the disease has on U.S. healthcare costs. With definitive ways to address prevention and a cure, it is vital that this disease become better known.

KEY POINTS

This policy brief highlights the significance and impact of Alzheimer's and other forms of dementia on the nation's increasing older adult population. This brief is intended to help inform Delaware policy-makers and community based organizations, including senior center directors and board members, about the significant impact that this disease has on the state's communities.

- About 50 million people worldwide have dementia, with an estimated 10 million new cases annually.²⁶
- Dementia has physical, psychological, social, and economic impacts on individuals and their families—impacting state and local governments as well.²⁶
- Costs for Alzheimer's in the United States in 2018 were at \$277 billion and projected to reach around \$1 trillion in 2050.²⁴

Senior center activities can play an important role in offsetting Alzheimer's and other forms of dementia among the senior population. Additionally, senior centers provide support services for individuals and families who have a loved one already diagnosed. Providing additional opportunities and alternative resources to families and individuals suffering from this disease can positively impact quality of life of members while helping to contain health-related costs in coming years.

GENERAL SIGNIFICANCE

SENIOR DEMOGRAPHICS

In terms of dementia care, treatment, and costs, Alzheimer's is one of the most challenging diseases to society. As the percentage of individuals aged 65 and older (65+) continues to grow, dementia and Alzheimer's cases are also likely to increase.

As baby boomers (those born between 1946 and 1964) age, there will be an influx in the number of individuals aged 65+. According to estimates from

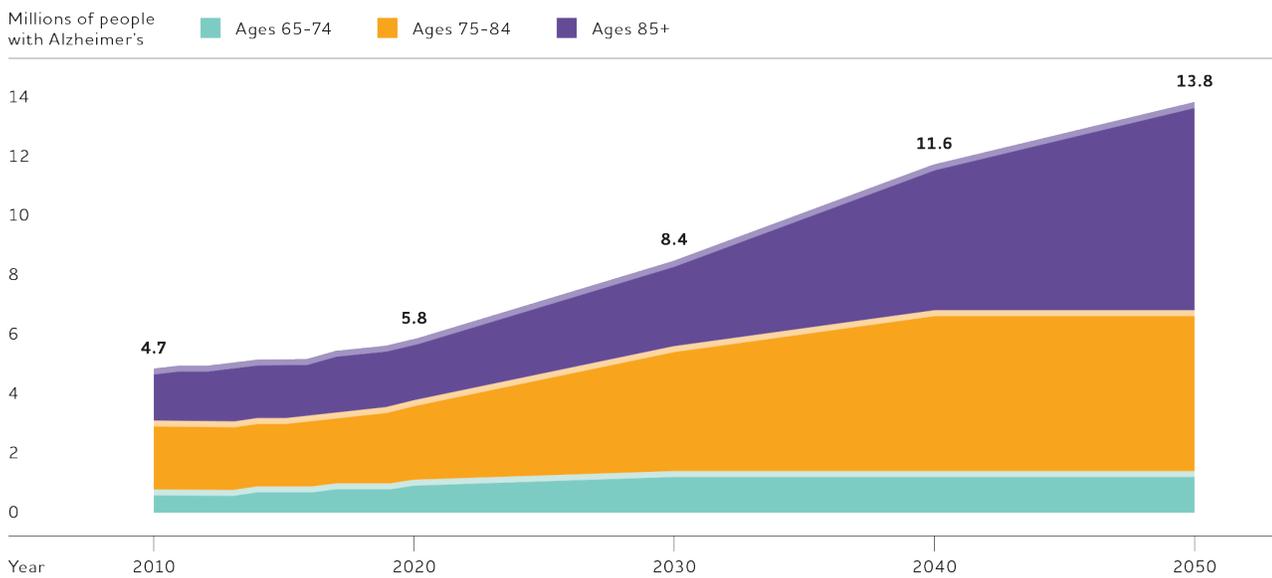
the Henry J Kaiser Family Foundation, the population of adults 65+ has grown from 35 million in 2000, to 49 million in 2016, and is projected to reach 88 million by 2050.⁸ These estimates are significant because Alzheimer's and other forms of dementia are more common in the 65+ population. Supporting this premise are national and state figures relating to the population living with Alzheimer's and other forms of dementia. Figure 1 shows the dramatic increase of diagnosed dementia cases of older adults 65+ from 2010 to 2050. By 2020, close to 6 million Americans aged 65+ will be living with a form of dementia.²⁴ Recent reports indicate over 5 million Americans aged 65+ are living with Alzheimer's.²³ In Delaware, the current population of those individuals 65+ is 159,100 with 18,000 known cases of Alzheimer's.⁴ Alternatives, other than treatment, can help mitigate the rising Alzheimer's cases nationally and locally.

COSTS

Dementia is one of the most expensive diseases in the United States. The costs associated with this disease will continue to rise as the population of individuals aged 65+ and diagnosed cases relating to Alzheimer's and dementia continues to grow. The estimated cost of caring for Alzheimer's and other forms of dementia per payment source is predicted to reach \$277 billion in 2018.²⁴ Figure 2 illustrates the percentage costs to various payment sources. As shown, Medicare bears the highest cost percentage. Figure 3 highlights the substantial difference in Medicaid and Medicare spending per person for those with and without Alzheimer's. By mid-century, the overall cost for healthcare of those individuals with Alzheimer's is expected to reach \$1.1 trillion.²⁴

Figure 2 displayed visually represents the financial impact that this disease has on each payment source. Combined, Medicare and Medicaid cover 67 percent of the cost relating to Alzheimer's and other types of dementia. As the number of individuals diagnosed increases, so will the costs for Medicare and Medicaid.

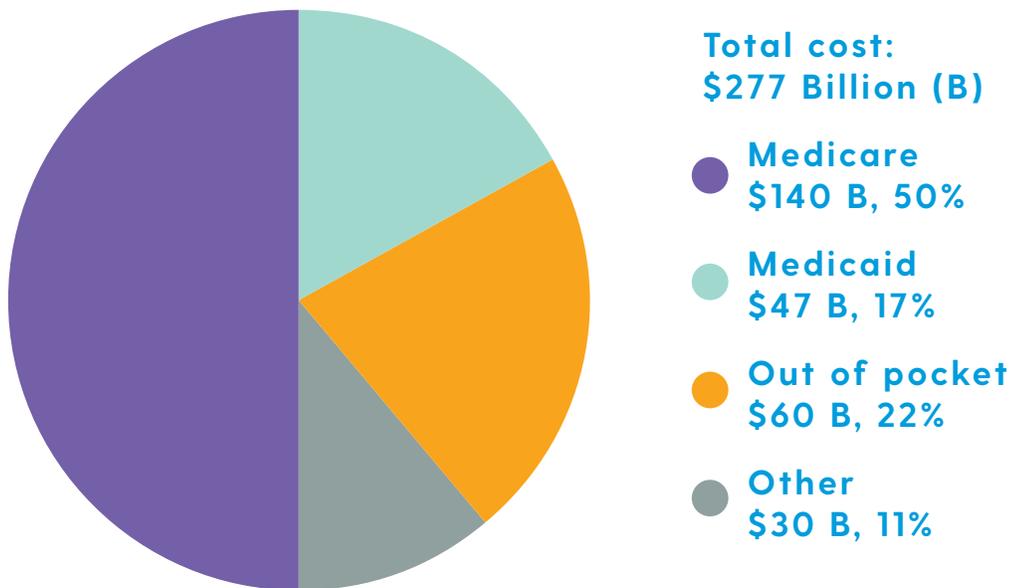
Figure 1: Projected Number of People Age 65 and Older (Total and by Age Group) in the U.S. Population with Alzheimer's, 2010 to 2050



Created from data from Hebert et al.^{12, 31}

Source: https://www.alz.org/documents_custom/2017-facts-and-figures.pdf

Figure 2: Distribution of Aggregated Costs of Care by Payment Source for Americans Age 65 and Older with Alzheimer's or Other Types of Dementia, 2018*



*Data are in 2018 dollars.

Source: https://www.alz.org/documents_custom/2018-facts-and-figures.pdf

From a financial standpoint, the difference between the average spending for seniors with and without Alzheimer's and other dementias is considerably large. As represented in graphical form, healthcare is costlier for seniors living with Alzheimer's and other related dementias than those without. When comparing Medicare and Medicaid, most of the financial burden for this disease is covered through Medicare. Medicaid spending is also effected by those individuals living with Alzheimer's and other related dementias. According to the Alzheimer's Association, "Twenty-seven percent of older individuals with Alzheimer's or other related dementias who have Medicare also have Medicaid coverage, compared with 11 percent of individuals without dementia."²⁴ In terms of Medicaid coverage, the high use of services from individuals with dementia translates into high costs for the program.²⁴ The Alzheimer's Association noted, "average annual Medicaid payments per person for Medicare beneficiaries with Alzheimer's or other dementias (\$8,399) were 23 times as great as average Medicaid payments for Medicare beneficiaries without Alzheimer's or other dementias (\$358)."²⁴ The costs are significant from both an individual and payment source perspective.

SENIOR CENTERS: AN IMPORTANT RESOURCE FOR THE COMMUNITY AND FAMILIES

PREVENTION OF CHRONIC DISEASE

Senior centers are community hubs that serve as a gateway to the nation's aging network. These centers connect older adults to vital community services that promote healthy and independent living.¹⁸ Senior centers offer a variety of programs and services, but primarily focus on opportunities for physical activity and socialization. Physical activity and socialization are two key factors that can slow the onset and progression of Alzheimer's.¹³ Other services offered at senior centers include congregate meals and nutrition programs, social and recreational activities, educational enrichment programs, inter-generational activities, and caregiver supports.

MODIFIABLE RISK FACTORS

While individual risk factors, such as age and family history, cannot be changed, a study published by the National Academy of Medicine identifies measures that can reduce the risk of cognitive decline.

Highlighted below are four recommendations that can address modifiable risk factors and examples of how senior centers can implement these recommendations.

National Academy of Medicine Recommendations to Modify Risk Factors of Alzheimer's¹⁶

1. Remain Physically Active

- Zumba
- Line Dancing
- Tai Chi
- Weight Room

2. Prevent or Control Cardiovascular Risk Factors

- Educational Programs
- Daily Physical Fitness Classes
- Nutrition

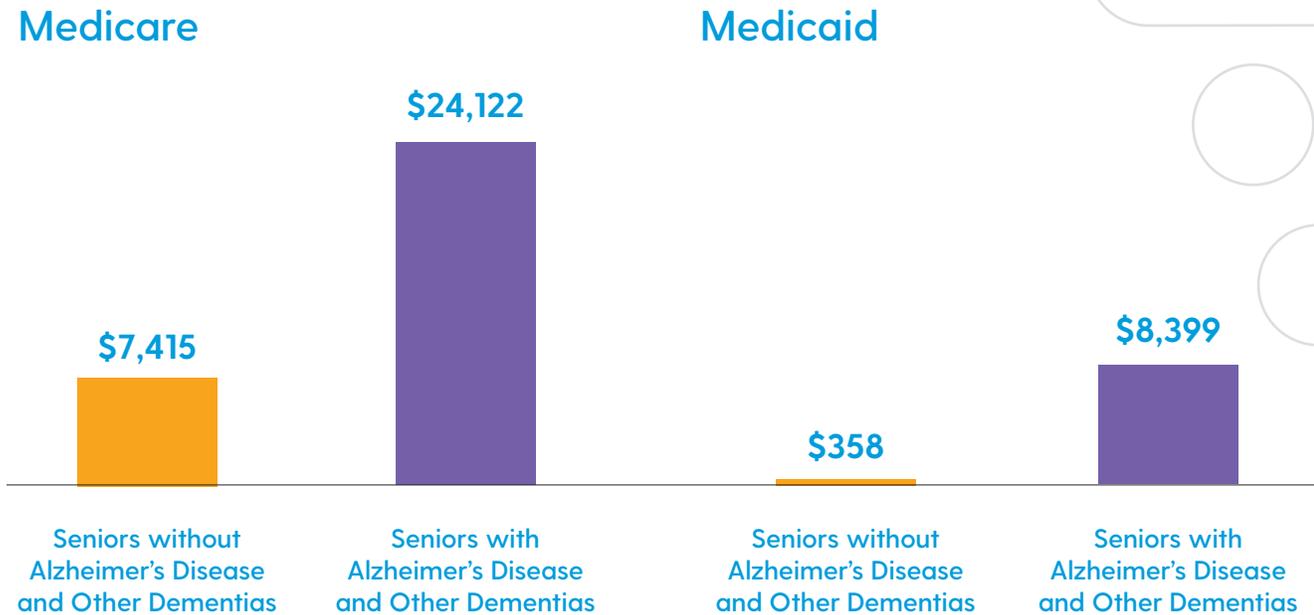
3. Engage in Intellectual Stimulating Activities

- Puzzle
- Mah Jong
- Discussion Groups
- Quilting
- Book Clubs

4. Social Interaction

- Daily Interaction with peers
- Recreational Trips

Figure 3: Average Annual Per Person Medicare and Medicaid Spending



Source: act.alz.org/site/DocServer/2012_Costs_Fact_Sheet_version_2.pdf?docID=7161

Senior centers provide daily services that specifically align with these recommendations—thus strengthening the evidence for their important role in promoting healthy aging and preventing chronic disease and illness.

BENEFITS OF EARLY DETECTION

In addition to providing programs that support healthy aging, senior centers are important contributors to the early detection of cognitive decline. Early detection for diagnosing an individual with Alzheimer's and other forms of dementia reaps a huge benefit on the financial aspect of this disease. As the disease progresses, the financial burden will become unbearable. The cumulative total cost of medical and long-term care expenditures for all individuals alive who will develop Alzheimer's is projected to be \$47 trillion.²⁴ Increasing early detection cumulatively saves a total of \$7 trillion.²⁴ While many early detections of Alzheimer's are recognized through biomarkers, senior centers role in detection will be vital. Daily interaction among employees, volunteers, and other seniors provides a continual measure of an individual's health and wellbeing.

An informal overview of dementia trainings provided to health care providers in Delaware was compiled. This assessment measured current training opportunities and gaps in professional development. Staff members at all senior centers in Delaware have completed trainings related to dementia; however, it will also be crucial for the staff at senior centers to continue to attend trainings and be trained to detect early signs of decline and changes in behavioral patterns, participation levels, and emotional well-being.¹¹

OPPORTUNITIES TO SUPPORT

Senior centers also offer a variety of services and resources for both diagnosed individuals and caregivers. These include early memory loss programs, adult day care services, and support groups. Each program can have a positive impact on individuals and their families who struggle in activities of daily living or with balancing home, work, and caregiving responsibilities.

EARLY MEMORY LOSS PROGRAMS

Early memory loss programs (EML) offered at senior centers are emerging as local and affordable opportunities to “preserve memory and independency along with promoting brain health and sustaining cognitive ability.”¹³

The key components to successful early memory loss programs are listed in the box below. This best practice guide for the EML program closely aligns with the daily services and activities at a senior center.

ADULT DAY CARE SERVICES

The Alzheimer’s Association 2018 facts and figures report specifies that adult day services play a significant role in serving individuals diagnosed with the disease.²⁴ Among individuals regularly attending adult day services, 30 percent are living with Alzheimer’s or another form of dementia.²⁴ Sixty nine percent of adult day care programs nationally offer services specifically for individuals with Alzheimer’s or another form of dementia.²⁴ Adult day care centers promote longevity and independence in a safe

and secure environment for those adults that need assistance during the day.¹⁵

SUPPORT GROUPS

More importantly, senior centers not only provide support groups for their members, they also extend services to caregivers. Collectively, unpaid caregivers of individuals with Alzheimer’s provide 18.4 billion hours of care per year.²⁴ Monetarily, these hours are valued at over \$232 billion.²⁴ Providing care for individuals with this disease creates major emotional, financial, and physical difficulties.²⁴ Support groups provides a safe space to share emotions and challenges faced when caregivers experience a significant loss, change in lifestyle, or live with and/or support an individual with a chronic health condition.²⁰ Support groups also provide opportunities to share coping strategies, exchange information, and learn about community resources.²⁰ Coping with the difficulties of caring for someone with Alzheimer’s can be difficult, but support groups provide invaluable resources to help overcome these challenges.

Best Practices for Early Memory Loss Programs from the Wisconsin Alzheimer’s Institute¹³

1. Cognitive and mental fitness exercises
2. Education related to memory and brain function
3. Social interaction with peers that encourages participant input
4. Incorporates physical activity and/or education on the benefits of physical activity and nutrition
5. Opportunities to learn memory enhancement techniques and strategies to live with memory loss
6. Access to information about local resources and support services for individuals living with memory loss and their families
7. Emphasis on laughter and humor
8. Camaraderie and support from peers living with memory loss
9. Opportunities for creativity
10. Encouragement to participate in civic engagement and community life

PLANS AND RESOURCES DESIGNED TO HELP ADDRESS THE DISEASE

In terms of national and state plans to address Alzheimer's disease, senior centers should be considered a key component in long-range strategies to address state and local challenges associated with

the disease. Figure 4 portrays the National Alzheimer's Project and Delaware's goals, future prevention efforts, funding, treatments, and research to address Alzheimer's Disease and related disorders.

COMMUNITY ENGAGEMENT OPPORTUNITIES

As Alzheimer's and other forms of dementia become more prevalent, communities and organizations on

Figure 4: National Alzheimer's Project and Delaware's Goals, Future Prevention Efforts, Funding, Treatments, and Research to Address Alzheimer's Disease and Related Disorders

National Alzheimer's Project

Goals

1. Prevent and effectively treat Alzheimer's and related dementias by 2025
2. Enhance care quality and efficiency
3. Expand supports for people with this disease
4. Enhance public awareness and engagement
5. Improve data to track progress

Prevention

- Prevent and effectively treat Alzheimer's disease by 2025

Funding

- FY17 National Institutes of Health estimates spending \$1.4 billion in research
- FY19 National Institute on Aging intends to commit \$16 million
- Prevention and Public Health Fund final funding at \$23.5 million

Treatment

- Five Food-and-Drug-Administration-approved drugs available to mask symptoms

Research

- Alzheimer's Research Centers (ARC)

Delaware's State Plan

Goals

1. Promote public awareness
2. Improve delivery services to persons with Alzheimer's
3. Strengthen the support of caregivers
4. Achieve an Alzheimer's-competent workforce
5. Create Delaware Center for Alzheimer's and Related Dementias

Prevention

- Alzheimer's Toolkit
- Two registered nurses available for consultation
- Provide multi-purpose trainings related to the disease
- In the process of creating Delaware Center for Alzheimer's and Related Dementia's

Funding

- The Alzheimer's Association Delaware Valley Chapter
- Federal Grants
- Department of Health and Social Services awarded \$898,324 in federal grants

Treatment

- Various day treatments

Research

- Swank Memory Care Center

Sources:

http://www.dhss.delaware.gov/dsaapd/files/alzheimers_plan.pdf
<https://aspe.hhs.gov/national-plans-address-alzheimers-disease#2017Plan>
<http://www.dhss.delaware.gov/dhss/pressreleases/2015/alzheimersgrant-101815.html>
https://www.alz.org/research/science/major_milestones_in_alzheimers.asp#progress
<https://www.nia.nih.gov/research/blog/2017/08/bypass-budget-sustain-momentum-alzheimers-and-related-dementias-research>
<https://mailchi.mp/n4a/jkuvyxonub-755545?e=b49894de05>
http://dhss.delaware.gov/dsaapd/files/alzheimers_report_2016.pdf



a national and local level are taking steps to address the issue. In reviewing summaries of national and state plans, one recurring theme is the importance of community engagement opportunities from the private and public sectors. Incorporating the role of senior centers in each plan can be deemed valuable. One example of how the plans can incorporate senior centers can be found in Delaware's State Plan, specifically under "Objective 2.4: Promoting the expansion of available services for persons with Alzheimer's disease."¹¹ Using senior centers as a resource can further enhance the services and activities relating to and/or preventing the disease. Partnerships and strategic alignment of strategies among nonprofit leaders and healthcare professionals are increasing to address local cases and issues. In this way, such partnerships can offer a more comprehensive approach to meeting the needs of communities from community-based and clinical perspectives. In Delaware, Alzheimer's and dementia issues are being addressed in community health needs assessments and newly developed memory loss programs. For example, Nanticoke Health Services identified

Alzheimer's as a health concern in Sussex County. The information provided expressed concerns about the growing percentage of the population reaching 65+, while specifying that western Sussex County has "several resources focused on providing access to Alzheimer's and dementia patients and their families."²⁵ The Swank Memory Care Center at Christiana Care hospital offers "patients with memory disorders and their families' essential support, education and guidance from diagnosis through treatment."⁹ In meeting with health care professionals in this program, education and programs are two major themes that will benefit Alzheimer's in the future.

RESEARCH AND ADVOCACY

The need for additional research and advocacy is well-known among policymakers, professionals, and funding organizations. While there is limited evidence on slowing down or preventing memory loss, a study called The Finnish Geriatric Intervention (FINGER) has provided positive evidence

that lifestyle changes through exercise, diet, and brain training can prevent cognitive decline.² As a result, the Alzheimer's Association is launching a life-style intervention study in the U.S. in 2018.⁶ At the national level, new opportunities for funding research are emerging through the National Institute on Aging (NIA). The NIA continues to be a strong supporter of Alzheimer's Disease Centers (ADCs).¹⁹ There are multiple ADCs at major medical institutions in the United States. The primary purpose for these centers is to "work to translate research advances into improved diagnosis and care for those with Alzheimer's and explore new ways to prevent and treat this disease."¹⁹ Through collaboration from an expert panel to end this disease, NIA is expanding its funding for ADCs by funding multiple projects throughout the next five years.¹⁹ The funding expansion is intended to help achieve

the national plan objectives. The Administration for Community Living is also awarding eleven grants over a period of three years through the Alzheimer's Disease Initiative, "which builds and expands dementia capability in states and communities and fills gaps in services for people with Alzheimer's disease and related dementias and their caregivers."²¹ These funded projects, throughout various organizations in the U.S., "will provide direct services; implement dementia-specific evidence-based and evidence-informed interventions; and conduct extensive education, training and outreach programs in the communities they serve."²¹ Overall, community-level engagement and support and funding opportunities can help promote and carry out national, state, and local objectives designed to prevent and treat this disease. Figure 5 summarizes national state plans and policies.

Figure 5: Summary of Policy Implications and Major Themes, Recommendations, and Primary Policy Areas

| POLICY IMPLICATIONS

1. Address healthcare costs
2. Improve quality of life
3. Support families
4. Contribute to growing body of knowledge

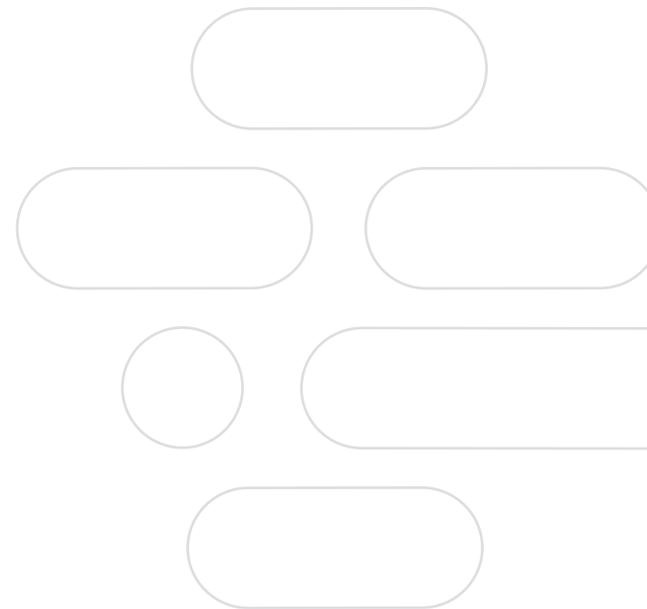
| MAJOR THEMES, RECOMMENDATIONS, AND PRIMARY POLICY AREAS

- State Health Plans: Continue to focus on Alzheimer's
- Senior Centers play a big role
- Add Senior Centers to Objective 2.4 in Delaware's State Plan
- Community-based prevention programs are less costly than drug treatments and nursing home care
- Link medical institution goals with senior center programs

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