DEPARTMENT OF HEALTH

Healthy Brain Community Grant

REQUEST FOR PROPOSAL (RFP)

APPLICATION DEADLINE: APRIL 11, 2022

The Challenge of Alzheimer's Disease and Related Dementias (ADRD) and Public Health Opportunities

Alzheimer's disease is the most common form of dementia and the 5th leading cause of death for older adults in the U.S. [1]. By 2060, approximately 14 million Americans are expected to have Alzheimer's disease, a nearly three-fold increase, with minority populations being affected the most [1]. Cases among Hispanic, African American, and American Indian and Alaska Native elders will be two and four times higher by 2060 [2,3].

In Minnesota, dementias including Alzheimer's disease are a significant and growing challenge, with the estimated number of Minnesotans living with Alzheimer's increasing 21% from 99,000 to 120,000 between 2020 and 2025 alone [1]. Dementia affects people of every racial and ethnic group in Minnesota. In 2018, 11.4% of both Non-Hispanic White and Non-Hispanic Black and 12.4% of American Indian elders with Original Medicare had ADRD [4]. Underdiagnosis of ADRD is common, especially among people of color [1].

In 2015, the average medical and prescription spending for a Minnesotan with diagnosed ADRD was $42,240 compared with $7,320 for people without ADRD. Little of the medical and prescription spending for people with dementia was used to treat dementia itself; nearly nine out of 10 dollars were spent on urgent care like broken bones due to falls, routine visits, or managing chronic conditions like diabetes, hypertension, etc. [5]. Nearly seven of every 10 Minnesotans with dementia who are enrolled in Original Medicare live with three or four additional chronic conditions [4]. Chronic conditions can increase the risk of developing dementia and complicate care for people with dementia.

In 2020, more than 11 million family members and friends in the US provided 15.3 billion hours of unpaid care to people with dementia, at an economic value of more than $257 billion [1]. About three in 10 dementia caregivers nationwide delayed or did not do things to maintain their own health, and dementia caregivers are also more likely to report poorer health than other caregivers [1]. In 2016, 70,000 Minnesotans reported caring for people with dementia. Minnesota caregivers for people with dementia were more likely to report a history of depression and having a chronic condition compared to non-caregivers or caregivers of adults with other conditions. Three of every 10 caregivers caring for an adult with dementia reported needing additional support [6].

Public health approaches to Alzheimer's disease and other dementias (ADRD) are essential to move to a more holistic approach that emphasizes prevention and early detection. Three broad sets of approaches are needed:

1. **Risk Reduction:** Given advancements in knowledge about ADRD risk factors (e.g., lack of physical activity and uncontrolled high blood pressure) related to cognitive decline [1], and the growing awareness of the role social determinants of health (e.g., education, social context, health and

healthcare, and neighborhood and built environment) play, we must work to reduce the risk of developing ADRD.

2. **Increasing Early Diagnosis**: Most people experiencing signs of memory loss and/or cognitive impairment have not spoken with a healthcare provider about it. This prevents individuals with symptoms from either accessing resources to support themselves and their loved ones if they do have ADRD or accessing opportunities to reverse or treat other potential causes of cognitive impairment.

3. **Caregiver Well-being**: A public health approach can also build coordinated systems that provide caregivers of persons with dementia with support and resources to attend to their own well-being.

Project Overview and Eligible Applicants

Data describing the need for each of these public health approaches are described in the next section. Funded community partners will use community knowledge and evidence-informed strategies, as outlined in the Healthy Brain Initiative Road Map (HBI RoadMap), to increase impact in one, two, or all three, of the overarching strategies (risk reduction, early diagnosis, and caregiver support).

Organizations serving American Indian communities may also use the Healthy Brain Initiative Road Map for Indian Country to inform their work. We recognize that ways of understanding memory loss and dementia differ among communities, and strategies that work in one community may not work in another. This opportunity provides funding to community-based organizations to lead with their lived experience and engage their community in identifying promising practices. Creativity and novel solutions that are tailored to your community are encouraged.

MDH recognizes that other factors outside of an individual's control, such as intergenerational trauma, systemic racism, and other barriers prevent underrepresented communities from achieving optimal health. COVID-19 has brought additional challenges to these communities and highlights the need for community-led approaches to support individuals in the prevention and management of chronic conditions.

Please note: For this application, the term community is inclusive and may be used for a geographic, cultural, or ethnic community or group.

Selected participants will be asked to work with the MDH Team to design and implement an evaluation plan. A key goal of this project is to identify promising practices that could be scaled up or disseminated to other communities.

Eligible applicants include community-based nonprofit organizations within Minnesota.

We will select 1-3 partners to receive up to $20,000 through September 2023. No funding match is required.

Strategy Guidance

Risk Reduction

Age and family history are important risk factors for ADRD that we cannot change. However, there are many risk factors for adults that can be changed including uncontrolled high blood pressure and diabetes, smoking, hearing loss, social isolation, low levels or no physical activity, and others. [7]

Reducing the burden of dementia in communities includes focusing on risk factors and promoting healthier lifestyles among adults of all ages, including but not limited to elders. Risk reduction efforts must reflect the changing demographics of Minnesota. In 2018, 21% of Minnesotans were People of Color and by 2048, 34% of the state will be People of Color. [9] Approaches to dementia prevention through risk factor management need to be culturally informed and relevant for all Minnesotans.

Risk Reduction Strategies

- Refresh existing, or develop new, health education campaigns by providing a "new" reason to adopt healthy lifestyle behaviors since they are also associated with reduced risk for cognitive decline and possibly dementia (HBI RoadMap Action E-2)
    - *Example: Integrate culturally responsive brain health and dementia risk reduction messaging into a chronic disease prevention or management program*
- Community-informed policy, systems, and environmental change strategies that target high-risk groups to increase social, cognitive, and physical activity; and vascular health (HBI RoadMap Action P-1)
    - *Example: A system for community-based hypertension control that targets middle-aged BIPOC or rural Minnesota community members.*
- Key Resources:
    - Accelerating Risk Reduction and Promoting Brain Health: A Healthy brain Initiative Issue Map: https://www.cdc.gov/aging/healthybrain/pdf/Issue-Map-Risk-Reduction-508.pdf
    - Reducing Dementia Risk: A Summary of the Science and Public Health Impact:https://www.alz.org/media/Documents/compiled-evidence-based-reports.pdf
    - Dementia prevention, intervention, and care: 2020 report of the Lancet Commission: https://www.thelancet.com/article/S0140-6736(20)30367-6/fulltext

Increasing Early Diagnosis

The earliest stage of memory loss or loss of other cognitive ability is called mild cognitive impairment (MCI) and is diagnosed by a provider. People experiencing MCI can still carry out their normal activities, but they or their friends and family usually notice cognitive changes. It is important to talk about signs of cognitive impairment with a health care provider to determine what may be causing the impairment. If a person is diagnosed with MCI, awareness of the diagnosis allows the person and family to plan together for the future, and it may allow opportunities for treatment and/or delay progression of cognitive decline. Between 12-18% of US adults 60 years of age or older live with MCI. Some people with MCI will

develop dementia and MCI can be thought of as an early stage of dementia. Others with MCI will not develop dementia. [8]

To increase early diagnosis, people need to feel comfortable talking with a health care provider about their memory and thinking concerns. Talking with a provider depends on identifying and acknowledging concerns about memory and thinking, understanding the warning signs of dementia, and knowing what dementia is and how diagnosis and treatment can potentially help them and their families. [10]

Subjective cognitive decline (SCD) is a person's own assessment that they are experiencing confusion or memory loss that is happening more often or is getting worse [1]. A person with SCD may or may not have a diagnosis of mild cognitive impairment – the earliest stage of memory loss or loss of other cognitive ability that can in some cases develop into dementia. In 2019, 210,000 Minnesota adults 45 years and older said they were experiencing SCD. SCD was more common among older adults, but half of adults reporting SCD in Minnesota were 45-64 years of age. Consistent with broader trends related to dementia, Black, Indigenous, and People of Color (BIPOC) Minnesotans 45 years and older seem to be more likely to experience SCD than similarly aged Non-Hispanic Whites. Minnesota adults reporting SCD were nearly twice as likely to smoke compared with other adults 45 years of age and older. These adults were also twice as likely to report having hearing loss, 50% more likely to get no physical activity, and nearly twice as likely to have at least one chronic condition. In fact, Minnesota adults 45 years and older with SCD report were more likely to report having diabetes and hypertension compared with other adults 45 years and older. [11]

The next step in increasing diagnosis is to have appropriate screening and, if needed, testing. Right now, only about four in 10 Minnesotans noticing signs of cognitive decline said they had talked with a health care provider about it even though more than eight in every 10 of these adults had a check-up visit with a health care provider. There is a lot of work to be done to create space and comfort for these conversations, in addition to establishing better clinical systems for routinely evaluating for signs of dementia. However, some factors are aligned with improving conversation rates. Those with a regular provider were slightly more likely to have had a conversation about SCD with a provider, and adults 45-64 years of age were slightly more likely to have this conversation than those 65+ [6].

Early Diagnosis Strategies

- Educate the public about changes in cognition that should be discussed with a health professional (HBI RoadMap Action E-1)
    - *Example: Establishing an on-going faith-based initiative that increases awareness of the early signs of Alzheimer's and other dementias in a high-risk community and addresses stigma and misperceptions about dementia in a culturally responsive way*
- Community-informed policy, systems, and environmental change strategies that increase opportunities for early detection and diagnosis of ADRD (HBI RoadMap Action E-1)
    - *Example: Engaging community health workers to offer culturally appropriate screening and referrals to primary care, resources, and services for adults participating in a community program*
- Key Resources:

- Alzheimer's Association. Mild Cognitive Impairment Webpage: https://www.alz.org/alzheimers-dementia/what-is-dementia/related_conditions/mild-cognitive-impairment
- Advancing Early Detection: A Healthy Brain Initiative Issue Map: https://www.cdc.gov/aging/healthybrain/pdf/Issue-Map-Early-Detection-508.pdf
- 10 Early Signs and Symptoms of Alzheimer's: https://www.alz.org/alzheimers-dementia/10_signs
- Guidance and Tools for Conducting a Cognitive Assessment: https://www.alz.org/professionals/health-systems-clinicians/cognitive-assessment

Caregiver Well-being

In 2016, nearly one in five Minnesota adults or 870,000 said they provided assistance to a friend or family member with a health problem or disability in the last 30 days [6]. Please note that this is likely an underestimate of how many people are "caregivers" since for many people, especially People of Color, caring for others is considered a "thread of life" and is not thought of as a distinct role or set of work [12].

About 70,000 people who identify as caregivers cared for someone with dementia. Most were women (64.8%) and slightly more than half were between 45-64 years of age and were caring for a parent. Caregivers supporting people with dementia also needed support for their health and wellbeing. Caregivers supporting people with dementia were twice as likely to report needing additional support like classes about providing care, help accessing additional services, support groups, individual counseling to support them in their role, or respite care compared to other caregivers. Caregivers overall were more likely to experience depression at some point in their lives compared to non-caregivers, but dementia caregivers reported the highest rates of depression. About one in two dementia caregivers had at least one chronic condition (arthritis, asthma, cancer, cardiovascular disease, COPD, diabetes, and obesity). [6]

Caregiver Well-being Strategies

- Increase messaging that emphasizes both the important role of caregivers in supporting people with dementia and the importance of maintaining caregivers' health and well-being. (HBI RoadMap Action E-3)
  - *Example: A culturally responsive communications campaign targeting caregivers in a high-risk community with messaging about maintaining their own health and wellbeing*
- Co-market chronic disease self-management programs with ones that educate caregivers to encourage participation in both programs and help ensure caregivers receive sound information (HBI RoadMap Action E-7)
  - *Example: A system that incorporates chronic disease self-management for caregivers into a caregiver support program (see resources below on evidence-based classes)*
- Other Community-informed policy, systems, and environmental changes that enhance caregiver health and wellbeing (HBI RoadMap Action E7)

- *Example: Strategic planning and community engagement efforts to ensure existing caregiver support resources in a community are accessible to populations experiencing health inequities*

- Key Resources:
  - Wilder Foundation. Talking through the Numbers Podcast: Caring for the Caregivers: Supporting the Informal Caregivers of Minnesota's Older Adults: https://www.wilder.org/featured-media/informal-caregivers-older-adults
  - University of Minnesota Public Health Center of Excellence on Dementia Caregiving: https://bolddementiacaregiving.org/
  - Juniper Programs: https://yourjuniper.org/programs-classes/
  - Best Practice Caregiving: https://bpc.caregiver.org

References

[1] Alzheimer's Association. 2021 Alzheimer's Disease Facts and Figures: with Special Report: Race, Ethnicity, www.alz.org/media/Documents/alzheimers-facts-and-figures.pdf

[2] Rajan KB et al. Popualtion estimate of people with clinical Alzheimer's disease and mild cognitive impairment in the United States (2020-2060). *Alzheimer's and Dementia.* 2021: online early access: https://alz-journals.onlinelibrary.wiley.com/doi/abs/10.1002/alz.12362

[3] Alzheimer's Association. Native Americans and Alzheimer's Website. https://www.alz.org/help-support/resources/native-americans

[4] Medicare Chronic Conditions Data Systems: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions

[5] Minnesota Department of Health. Treated Chronic Disease Prevalence and Costs in Minnesota: Estimated costs for 2009 and 2015 and projected costs for 2015 through 2025. December 2019: https://www.health.state.mn.us/data/economics/docs/chronicconditionsbrief.pdf

[6] MDH Analyses of 2016 Behavioral Risk Factor Surveillance System Data including the Caregiver Module. December 2021.

[7] Livingston et al. 2020. *Dementia prevention, intervention, and care: 2020 report of the Lancet Commission. Lancet.* 396:413-46: https://www.thelancet.com/article/S0140-6736(20)30367-6/fulltext

[8] Alzheimer's Association. Mild Cognitive Impairment Webpage: Alzheimers-dementia/what-is-dementia/related_conditions/mild-cognitive-impairment

[9] Minnesota Sate Demographic Center. Long-Term Population Projections for Minnesota. October 2020: https://mn.gov/admin/assets/Long-Term-Population-Projections-for-Minnesota-dec2020_tcm36-457300.pdf

[10] Alzheimer's Association. Advance Early Detection and Diagnosis Webpage: https://www.alz.org/professionals/public-health/core-areas/early-detection-diagnosis

[11] MDH Analyses of 2019 Behavioral Risk Factor Surveillance System Data including the Subjective Cognitive Decline Module. December 2021.

[12] Wilder Foundation. Talking through the Numbers Podcast: Caring for the Caregivers: Supporting the Informal Caregivers of Minnesota's Older Adults: https://www.wilder.org/wilder-research/research-topics/older-adults-and-aging

Application Submission

We will select 1-3 partners to receive up to $20,000 through September 2023.

Please fill out the following application **by April 11, 2022,** to be considered for the funding opportunity: Healthy Brain Community Grant Application: https://forms.office.com/g/CszwCneqbz

Please contact Patty Takawira at patricia.takawira@state.mn.us with questions.

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