



ENSURING EARLY DETECTION AND DIAGNOSIS

A HEALTHY BRAIN INITIATIVE ISSUE MAP

The *Healthy Brain Initiative: State and Local Road Map for Public Health, 2023–2027* is a guidebook for state and local public health practitioners to address brain health and caregiving in their communities, advance health equity, and fully integrate cognitive health into public health practice.

Find the HBI Road Map and additional tools, resources and data at:
alz.org/HBIRoadMap and cdc.gov/aging

PUBLIC HEALTH AND EARLY DETECTION AND DIAGNOSIS

Some adults may experience changes in the brain that lead to cognitive decline. Mild cognitive impairment (MCI) is an early stage of memory loss or other cognitive ability loss (such as language or visual/spatial perception) that can be diagnosed by a health care professional. MCI is part of the continuum of cognitive impairment and can have many causes.¹ At this stage, early detection and diagnosis is paramount. Early detection and diagnosis — also known as secondary prevention — can improve the quality of care a person receives and the quality of life they enjoy, can slow the disease process, and may reduce the financial and emotional impact of the disease.¹ Early detection of cognitive issues also allows clinicians to identify potentially reversible or treatable causes, including vitamin deficiencies and medication side effects.

With new developments in dementia diagnosis and treatment on the horizon, public health can play a pivotal role in creating healthy communities that reduce the risk of many chronic diseases and ensure equitable access to early detection and diagnostic services, including community-based supports and treatment across all populations.

For those whose cognitive impairment further progresses, dementia symptoms become noticeable and the disruption to cognition and everyday life can range from mild to severe. Detection and diagnosis are needed for these individuals to connect the person living with dementia to treatment and support services to help preserve their independence and quality of life for as long as possible. A strong public health response can help families manage dementia, maintain the health, well-being, independence and quality of life for people living with dementia and their caregivers, and reduce associated costs. The most effective interventions actively involve caregivers and are tailored and flexible to meet the specific and evolving needs of individuals living with dementia and their caregivers.¹

COMPELLING DATA

- » An estimated 10% of Americans aged 45 and older report subjective cognitive decline (SCD).² SCD, self-reported worsening difficulties in thinking and memory that have not been measured objectively on assessment tests, is one of the earliest warning signs of future dementia risk.³
- » The number of people living with MCI increases with age. Roughly 16.6% of people aged 65 and older have MCI. One in 4 individuals aged 80 to 84 experience symptoms of MCI.⁴
- » An estimated 6.7 million Americans are living with Alzheimer's in 2023. By 2060, this number is expected to more than double.¹
- » In 2023, the total health and long-term care costs of caring for people living with Alzheimer's and other dementias is an estimated \$345 billion. Added to this cost is the value of informal caregiving provided by family and other unpaid caregivers of people with dementia: \$339.5 billion in 2022.¹
- » Most people living with Alzheimer's and other dementias (95%) have at least one other chronic condition, such as heart disease, diabetes, or stroke.⁵ Alzheimer's complicates the management of these chronic conditions, resulting in poorer health outcomes and quality of life and increased health care costs.
- » Nearly 1 in 4 people with dementia has a preventable hospitalization.⁶

References

1. Alzheimer's Association. 2023 Alzheimer's Disease Facts and Figures. *Alzheimers Dement*. 2023;19(4):1109–1695. doi.org/10.1002/alz.13016
2. Wooten KG, McGuire LC, Olivari BS, et al. Racial and ethnic differences in subjective cognitive decline — United States, 2015–2020. *MMWR Morb Mortal Wkly Rep*. 2023;72:2023:249–255. doi:10.15585/mmwr.mm7210a1
3. Buckley RF, Maruff P, Ames D, et al. Subjective memory decline predicts greater rates of clinical progression in preclinical Alzheimer's disease. *Alzheimers Dement*. 2016;12(7):796–804. doi:10.1016/j.jalz.2015.12.013
4. Petersen RC, Lopez O, Armstrong MJ, et al. Practice guideline update summary: Mild cognitive impairment: Report of the Guideline Development, Dissemination, and Implementation Subcommittee of the American Academy of Neurology. *Neurology*. 2018;90(3):126–135. doi:10.1212/WNL.0000000000004826
5. Chronic Disease Warehouse. Center for Medicare & Medicaid Services. Accessed March 21, 2023. <https://www2.cdwdata.org/web/guest/home/>
6. Objectives and Data. Healthy People 2030. Available from: <https://health.gov/healthypeople/objectives-and-data/browse-objectives/dementias/reduce-proportion-preventable-hospitalizations-older-adults-dementia-dia-02>

EARLY DETECTION AND DIAGNOSIS ACTION AGENDA

The framework of the Healthy Brain Initiative (HBI) Road Map, built on the 10 Essential Public Health Services (EPHS) and Public Health 3.0, consists of four domains that encompass one or more of the essential services. Actions within each domain help state and local public health ensure early detection and diagnosis.

STRENGTHEN PARTNERSHIPS AND POLICIES



P-2 Utilize **community-clinical linkages** to improve equitable access to community-based chronic disease prevention, dementia support and healthy aging programs.

P-3 Partner across the community to promote **equitable access to services, supports and quality care** for people living with dementia and their caregivers.

P-6 Equip **policymakers** with information on risk factors, the stigma associated with cognitive impairment and the impact of social determinants of health; and offer evidence-informed policy options across the life course.

P-7 Join ongoing coalitions and partnerships to **prevent or remediate abuse, neglect and exploitation** of people living with dementia.

MEASURE, EVALUATE AND UTILIZE DATA



Implementation of any action should include plans to collect and analyze pertinent data, evaluate implementation, and share findings with multi-sector partners to work toward shared goals and outcomes. All actions of the M domain support this approach.



BUILD A DIVERSE AND SKILLED WORKFORCE



W-1 Provide evidence-informed training and informational resources for **primary health care providers** to facilitate culturally sensitive conversations about brain health with patients and caregivers across the life course.

W-3 Promote inclusion of the life course approach to brain health in **licensing, certification and continuing education** requirements for health care and allied professionals.

W-4 Strengthen training of **community health and direct service workers** about brain health across the life course to improve equitable care and quality of life for those living with cognitive impairment and to support caregivers.

W-5 Partner with **public safety and emergency response agencies** to improve their ability to recognize and meet the needs of people living with cognitive decline and dementia.

ENGAGE AND EDUCATE THE PUBLIC



E-1 Engage **diverse audiences** to develop **culturally responsive messaging** about brain health, cognitive decline, healthy aging and caregiving.

E-2 Disseminate culturally relevant messaging to **encourage conversations** about brain health, cognitive decline, healthy aging and caregiving.

E-3 Engage with **communities, especially those at highest risk**, about risk factors for dementia and how people living with dementia can best thrive in their communities.

E-5 Partner with **educational systems (K-12 and post-secondary)** to include brain health and dementia in their curricula.

E-6 Enhance communication with **people living with dementia, their families and caregivers** about how to access services, care and social supports.

PUBLIC HEALTH EXPERTISE TO ENSURE EARLY DETECTION AND DIAGNOSIS

The [Healthy Brain Initiative \(HBI\) Collaborative](#) is a multi-component approach that aims to fully integrate cognitive health into public health practice, reducing the risk and impact of Alzheimer's and other dementias. Membership includes the Centers for Disease Control and Prevention and organizations funded to implement the national HBI strategy and BOLD Public Health Centers of Excellence. Each issue map features different HBI Collaborative members.

BOLD Public Health Center of Excellence on Early Detection of Dementia

The Public Health Center of Excellence on Early Detection of Dementia (PHCOE EDD) is led by a team from the Division of Geriatric Medicine and Palliative Care and the Department of Population Health at NYU Langone. Its mission is to make early detection of dementia routine practice nationwide, simplifying the process of detecting cognitive impairment and developing comprehensive care pathways. Detecting dementia before a crisis occurs and then acting on effective principles of care promotes better health and wellbeing for older adults and their care partners.

The Center aims to broaden understanding of dementia as a manageable chronic condition when patients are supported by collaborative public health, clinical, and community initiatives. Its staff strive to empower individuals and organizations alike to develop systems that improve early detection capacity and open the door to better, more comprehensive care.

To this end, the Center's team synthesizes academic literature and evidence-supported strategies to develop brain health workflows across settings. They partner with organizations and communities around the country to co-create solutions, facilitating implementation of effective, sustainable, cross-sector initiatives, with particular emphasis on reducing stigma and advancing brain health equity.

The Center provides support to organizations seeking to learn more about early detection of dementia.

Website: bolddementiadetection.org

Email: nyuboldcenter@nyulangone.org



Cognitive decline is changes in memory, thinking and/or reasoning that are worsening over time.

Mild cognitive impairment (MCI) is a medical condition typified by an early stage of memory loss or other type of cognitive ability loss (such as language or visual/spatial perception) in individuals who maintain the ability to independently perform most activities of daily living. MCI is a part of the continuum of cognitive decline; it can be caused by brain diseases but also can be due to hormonal or nutritional imbalances.

Secondary prevention is detecting diseases in the earliest stages before the onset of more severe symptoms. This means early detection and diagnosis of cognitive impairment and dementia and linkages to treatment, care and services.

Tertiary prevention includes managing disease after diagnosis to minimize disease progression and negative health and quality of life effects. It also encompasses prevention and management of comorbidities.