



# REDUCING RISK OF COGNITIVE IMPAIRMENT

*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](https://alz.org/HBIRoadMap) and [cdc.gov/aging](https://cdc.gov/aging)



# PUBLIC HEALTH AND RISK REDUCTION

Just as public health works to keep people physically healthy across the lifespan, public health must help people stay cognitively healthy. Risk reduction — also known as primary prevention — strives to intervene before health effects occur, through measures such as promoting healthy and safe behaviors (e.g., eating well, exercising regularly, not smoking), mandating safe and healthy practices (e.g., use of seatbelts and bike helmets), and limiting exposure to factors associated with a disease or health condition (e.g., asbestos, lead and mercury).

In early life and throughout the life course, primary prevention can make a difference in sustaining cognitive function across a population. Public health primary prevention strategies use the latest science on how to maintain and promote a healthy brain and translate this research into educational messages, programs and policies. Several chronic conditions — and modifiable risk factors that can lead to these conditions — may increase the risk of cognitive decline and dementia. These include:

- » Traumatic brain injury
- » Midlife hypertension
- » Midlife obesity
- » Diabetes
- » Physical inactivity
- » Smoking
- » Poor sleep quality and sleep disorders
- » Poor diet quality
- » Depression
- » Hearing loss<sup>1</sup>

Preventing, remedying or managing conditions that increase risk improves quality of life for individuals who develop cognitive impairment. Addressing these risk factors is also relevant for caregivers in order to maintain their own health as they care for others.

## COMPELLING DATA

- » An aggressive public health effort to reduce the prevalence of risk factors, such as high blood pressure, could result in an estimated 1.2 million fewer people with Alzheimer's in 2050.<sup>2</sup>
- » An estimated 10% of Americans aged 45 and older report subjective cognitive decline (SCD).<sup>3</sup> SCD, self-reported 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.<sup>4</sup>
- » Eighty-three percent of people with subjective cognitive decline have at least one additional chronic condition.<sup>5</sup>
- » Assuming a causal link between 12 modifiable risk factors — including hypertension, smoking and diabetes — and dementia, as many as 40% of all cases of dementia worldwide are attributable to those risk factors.<sup>6</sup>
- » A randomized controlled trial found that aggressive control of blood pressure significantly reduced the risk of developing mild cognitive impairment.<sup>7</sup> Yet, the prevalence of hypertension remains high — affecting half of U.S. adults aged 45 years or older<sup>8</sup> — and on average, only half of adults with hypertension have their high blood pressure controlled.<sup>9</sup>

### References

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# THE RISK REDUCTION 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 reduce the risk of cognitive decline.

## 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-4** Partner with **public and private health plans** to implement evidence-informed policies and programs that impact social determinants of health related to brain health and cognitive impairment.

**P-5** Build on existing **state and local public health chronic disease, healthy aging, and disability programs and policies** to address social determinants of health and improve health equity related to brain health..

**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.

## 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-2** Train current and future **public health professionals** about risk factors for cognitive decline and dementia and ways to integrate this information with other chronic disease prevention strategies.

**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.

## ENGAGE AND EDUCATE THE PUBLIC



**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-4** Embed cognitive decline risk factors into evidence-informed **health promotion and chronic disease prevention awareness and education campaigns**.

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

**E-7** Ensure **caregivers** have information, tools and resources about their vital role and ways to maintain their own **health and well-being**.



# PUBLIC HEALTH EXPERTISE TO REDUCE RISK OF COGNITIVE IMPAIRMENT

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 Dementia Risk Reduction

Learn more about risk reduction of cognitive decline by staying connected with the BOLD Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association. The Center coordinates risk reduction efforts and translates the latest science on dementia risk reduction, including relevant social determinants of health, into actionable tools, materials, and messaging that public health agencies can use to reduce dementia risk for all people — including in communities that are diverse, underserved, and at higher-risk.

To help public health agencies in their risk reduction efforts, the Center offers one on one engagement with public health officials to encourage and facilitate action in their communities; technical assistance to support public health officials in designing, implementing, and evaluating risk reduction activities; and online resources to inform the public about the latest science on dementia risk reduction and how public health can act on it.

Some of the available resources include both written and video summaries of the evidence on various risk factors; state fact sheets on the prevalence of risk factors; suggestions and options for state, local, and tribal public health action to address dementia risk factors; and a report on suggested risk reduction-focused recommendations to include in governmental Alzheimer's plans.

Website: [alz.org/publichealth](https://alz.org/publichealth)

Email: [centerofexcellence@alz.org](mailto:centerofexcellence@alz.org)



**Brain health** is a concept that involves making the most of the brain's capacity and helping to reduce some risks that occur with aging. Brain health refers to the ability to draw on the strengths of the brain to remember, learn, play, concentrate, understand and maintain a clear, active mind.

**Cognitive impairment** is trouble remembering, learning new things, concentrating, or making decisions that affect everyday life.

**Primary prevention** is intervening before health effects or conditions occur. This means dementia risk reduction activities such as altering risky behaviors like poor eating habits or tobacco use or preventing and managing certain chronic conditions such as high blood pressure.