Public Health and Dementia Risk Reduction

INSTRUCTOR GUIDE

ALZHEIMER'S® ASSOCIATION

HEALTHYBRAIN INITIATIVE

EMORY ROLLINS SCHOOL OF PUBLIC HEALTH | Emory Centers for Public Health Training and Technical Assistance

PUBLIC HEALTH CENTER OF EXCELLENCE — ALZHEIMER'S ASSOCIATION — DEMENTIA RISK REDUCTION

WHAT IS INCLUDED IN THE INSTRUCTOR'S GUIDE?

- **How to Use the Public Health and Dementia Risk Reduction Module Instructor Guide:** Provides guidance on how to use the Instructor Guide.

- **About the Public Health and Dementia Risk Reduction Module:** Provides a brief overview of the Public Health and Dementia Risk Reduction module and how it fits within the larger public health curriculum on addressing dementia.

  - **Learning Objectives:** Lists 3 learning objectives for a participant completing this module.

- **Competencies:** Lists competencies met by this module from AGHE/GSA; CEPH; Council on Linkages/ASPPH; and CHES.

- **Participant Engagement Options:** Includes supplementary resources that are designed to increase participant engagement and enhance understanding of the concepts covered in this module.

  - **Discussion Questions:** Provides questions to be used before participants complete the module and questions that can be used after participants complete the module.

  - **Learning Activities:** Provides interactive, application-based activities participants can use to apply and integrate knowledge from the module into their life.

  - **Sample Test Questions:** Provides multiple choice and true/false questions that can be used to assess knowledge based on the content in the module.

  - **Video Resources:** Links to select videos that are used throughout the module. Additional discussion questions for each video are also provided.

  - **Graphic Resources:** Provides copies of select graphics that are used in the module. Additional discussion questions and activities for each graphic are also provided.

  - **Additional Readings and Resources:** Provides a list of additional resources that could be used for supplementary activities or reading by participants.

- **Appendix A - Sample Test Questions:** Provides a copy of the sample test questions without correct answers included for ease of printing.

HOW TO USE THE MATERIALS

- This module is part of a larger curriculum where each module is designed for use either as part of a complete set or as a stand-alone module.

- Participants can use the module at their own independent pace, without any supplementary work or guidance from an instructor, presenter, or trainer. The module can also be used as a base for training, assignments, group projects or class discussion. In addition to the module content, this guide has supplementary materials to support activities used in a class setting.

- This document is a flexible guide that instructors can adapt to fit their needs.

- The module itself will take approximately 60 minutes to complete. If including the supplementary materials, time will vary depending on participant engagement, instructor style and the activities included.

- Discussion questions, learning activities, sample test questions, video resources with questions, graphic resources and additional reading and resources are also included in this guide. These may be modified or removed at the discretion of the instructor.

- Questions may also be used for other activities such as small group discussion or individual writing assignments. Many of the questions will directly reference specific sections in the module, so participants may benefit from having discussion questions or learning activities prior to beginning the module.

- Module content can be downloaded as a PDF from the module to be used as a reference.

- All materials are 508 compliant. (Note: if changes are made to the supplementary materials, it is recommended that changes continue to follow 508 compliance guidelines. For more information on 508 compliance, visit the Department of Health and Human Services website: https://www.hhs.gov/web/section-508/index.html)

This 60-minute course, *Public Health and Dementia Risk Reduction,* is designed for public health students, educators, and professionals. This module is part of the larger curriculum, A Public Health Approach to Dementia. Those new to this topic are encouraged to take two modules: Public Health and Dementia – Part 1: Understanding the Public Health Impact of Dementia and Health Equity in Dementia — Using a Public Health Lens to Advance Health Equity in Alzheimer's and Other Dementias, before returning to this module. The modules in this curriculum were developed by the Alzheimer's Association® and the Emory Centers for Public Health Training and Technical Assistance with support from the Centers for Disease Control and Prevention (CDC) and the BOLD Public Health Center of Excellence on Dementia Risk Reduction.

Please refer to the Alzheimer's Association Education Center and website for more detailed information on dementia and Alzheimer's.

This module covers why a public health approach is important for dementia risk reduction, and what public health professionals can do to address the risk factors for cognitive decline and dementia. The module outlines actions public health professionals can take to promote brain health by addressing modifiable risk factors and social determinants of health (SDOH). Public health examples and interactive experiences will be used to support and assess understanding.

Topics:

1. **Module Introduction**

    a. Module Instructions

    b. Introduction

    c. Learning Objectives

2. **Modifiable Risk Factors**

    a. Defining Dementia

    b. Risk Factors Evidence

    c. 10 Healthy Habits for Your Brain

3. **Public Health and Risk Factors**

    a. Public Health and Healthy Habits

    b. Risk Factors and Social Determinants of Health

4. **Public Health Action**

    a. Actions Public Health Can Take

    b. Interactive Case Study: Public Health Partnerships in Greendale, Wisconsin

5. Conclusion

    a. Next Steps

    b. Resources

    c. References

Learning Objectives

After completing this module, participants will be able to:

1. Identify and describe the modifiable risk factors for dementia with the strongest evidence to date.
2. Describe how the social determinants of health (SDOH) may contribute to dementia risk.
3. Identify actions public health professionals can take to incorporate dementia risk reduction activities into existing health prevention strategies.

The Public Health and Dementia Risk Reduction module promotes basic learning that supports the development of certain competencies and aligns with public health accreditation standards.

Academy for Gerontology in Higher Education (AGHE, through GSA):

- I.4.2: Assess the impact of inequality on individual and group life opportunities throughout the lifespan/course impacting late-life outcomes.

- II.1.3: Assess and reflect on one's work in order to continuously learn and improve outcomes for older persons.

- II.3.3: Advocate for and develop effective programs to promote the well-being of older persons.

- II.3.6: Use tools and technology to improve and enhance communication with and on behalf of older persons, their families, caregivers and communities.

- II.3.9: Develop and disseminate educational materials to increase accurate information regarding older persons and older person services.

- II.4.2: Respect and integrate knowledge from disciplines needed to provide comprehensive care to older persons and their families.

- II.4.5: Provide the following groups information and education in order to build a collaborative aging network:

  - Key persons in the community (e.g., police officers, firefighters, mail carriers, local service providers and others).

  - Aging workforce professionals and personnel (e.g., paid and unpaid; full- and part-time) in the field of aging.

- III.2.5: Provide strategies for strengthening informal supports.

- III.4.1: Promote life-long learning opportunities across the life span to enhance personal development, social inclusion and quality of life.

- III.8.3: Investigate problems through collecting and evaluating data to continuously improve outcomes and develop creative and practical solutions to problems relating to older persons.

Council on Education for Public Health (CEPH) Foundational Competencies:

- 6: Discuss the means by which structural bias, social inequities and racism undermine health and create challenges to achieving health equity at organizational, community, and systemic levels.

- 7: Assess population needs, assets and capacities that affect communities' health.

- 13: Propose strategies to identify relevant communities and individuals and build coalitions and partnerships for influencing public health outcomes.

- 18: Select communication strategies for different audiences and sectors.

- 19: Communicate audience-appropriate public health content, both in writing and through oral presentation to a nonacademic, non-peer audience with attention to factors such as literacy and health literacy.

- 21: Integrate perspectives from other sectors and/or professions to promote and advance population health.

Council on Linkages Between Academia and Public Health Practice (supported by ASPPH):

- 1.1: Describes factors that affect the health of a community.

- 3.1: Determines communication strategies.

- 3.2: Communicates with internal and external audiences.

- 4.3: Recognizes the diversity of individuals and populations.

- 5.4: Collaborates with community members and organizations.

- 6.1: Describes systems, policies, and events impacting public health.

- 8.1: Creates opportunities to achieve cross-sector alignment .

Community Health Education Specialists (CHES) Areas of Responsibility:

- 1.3.3: Identify the social, cultural, economic, political, and environmental factors that impact the health and/or learning processes of the priority populations(s).

- 1.3.5: Determine the capacity (available resources, policies, programs, practices, and interventions) to improve and/or maintain health.

- 6.3.3: Tailor message(s) for the audience(s).

- 6.4.2: Select communication channels and current and emerging technologies that are most appropriate for the audience(s) and message(s).

PARTICIPANT ENGAGEMENT OPTIONS

These supplementary resources are designed to increase participant engagement and enhance understanding of the concepts covered in this module. These include discussion questions, learning activities, graphics, additional readings and a list of video resources. It is recommended that the instructor review these resources to determine which of these additional materials would be useful in illustrating the concepts covered in the module.

DISCUSSION QUESTIONS

The following discussion questions may be useful for engaging learners before and/or after module completion:

- Before completing the module:
  - What personal or professional experiences with dementia have you had that have shaped your understanding of the condition?
  - Who are some people or organizations involved in Alzheimer's or dementia research, care or prevention?
  - Why could Alzheimer's and dementia be considered public health issues?
  - Which public health professionals are involved in Alzheimer's or dementia work?
  - In your own words, define dementia risk reduction.
  - How can you reduce your risk of dementia?
  - What are some examples of social determinants of health?

- After completing the module:
  - Imagine you work in a health department. What would you tell someone in a leadership role who doesn't think that dementia should be a public health topic?
  - What do you need to learn about your community's strengths or challenges to better address dementia? Where can you obtain the data required to inform decisions?
  - What indicators would you use to evaluate the effectiveness of public health interventions aimed at reducing dementia risk?
  - How can you include the voices of the groups disproportionately affected by dementia?
  - How can public health campaigns be designed to effectively promote brain health and dementia risk reduction?
  - What are the strengths in your community that could be great places to grow dementia risk reduction work?
  - What challenges do you foresee in implementing dementia risk reduction strategies in your community, and how would you address them?
  - How can you integrate the evidence for modifiable risk factors to support brain health into other public health efforts? Refer to the modifiable risk factor video series for more information on the risk factors.

LEARNING ACTIVITIES

The following activities may be used or adapted to enhance learning:

- Group Activity: Divide learners into groups to think about how to incorporate information related to brain health and the 10 Healthy Habits for Your Brain into existing community activities. Have each group focus on one or two healthy habits. Have learners plan integration strategies and present ideas to the larger group.
  - For more detailed information, see page 4-5 of the [Community Convenings Toolkit](#).

- Role-Playing Group Activity:
  - Objective: Understand the roles of different public health professionals in dementia risk reduction.
  - Scenario: A community meeting is being held to discuss a new initiative to promote brain health and reduce dementia risk. Roles include a public health educator, a community health worker, a policy maker, a local business owner, a person who is caring for someone living with dementia and someone who is concerned about developing dementia because of their family history.
  - Task: Assign roles to learners and provide them with background information on their character's perspective and goals. During the role-play, learners will:
    - Discuss the importance of brain health and dementia risk reduction.
    - Propose specific actions their character can take to support the initiative.
    - Debate potential challenges and solutions.
    - Work towards a consensus on the best approach to implement the initiative.

- Reflection: Have learners take a look at their surroundings, whether it's a home, workplace, or school. Identify factors that could support dementia risk reduction. Consider aspects that might make changes hard for people. What could public health do to enhance brain health support for these individuals?

- Review case studies in the [Healthy Brain Initiative (HBI) Road Map](#) (page 43) highlighting a sampling of recent efforts by state and local health departments. Then ask the following discussion questions:
  - **Minnesota:** Engaging Community Health Workers (CHW) Around the Importance of Brain Health at Every Age (page 47)
    - In what ways does the Minnesota Department of Health's focus on CHW engagement and oral health align with broader public health goals?
    - How did the Minnesota Department of Health generate buy-in from the CHWs?

- **Vermont:** Public Health Workforce Training for Brain Health and Chronic Disease (page 52)
  - ▶ What role did partnerships play in the outcomes achieved by the Vermont Alzheimer's Disease and Healthy Aging Program?
  - ▶ How does educating the workforce on dementia-informed services benefit both the professionals and the individuals they serve?
  - ▶ What takeaways can other organizations learn from Vermont's approach to integrating brain health into chronic disease prevention efforts?

- Watch two of the videos in the modifiable risk factor video series. Compare and contrast the evidence and opportunities for intervention for the two risk factors selected.

- Explore the Illinois Department of Public Health Your Brain Will Thank You messaging campaign. Looking at their campaign, think about the questions below:
  - The Right Message: Working to meet people where they are, how does this campaign educate the community?
  - The Right Audience: How does this campaign look for the most opportunity? How does it consider groups that are disproportionately impacted?
  - The Right Time: How would this campaign be impacted by other diseases and events in the community?
  - Now, think about your community. If you were to do a messaging campaign, consider: What does your community know about risk reduction? Who in the community should you start the outreach with? When is a good time to do outreach? Where can you reach people?
  - Assign learners to think about areas of opportunity in their community. Complete the action chart below to guide work in addressing how the community relates to each risk factor and any potential barriers that may arise.

Modifiable Risk Factors for Dementia	How Does this Risk Factor Relate to Your Community?	What Are the Potential Barriers that May Arise?
Example: Midlife Hypertension	*Example: Importance of regular check-ups and medication adherence.*	*Example: Access to healthcare, cost of medication*
Formal Education		
Traumatic Brain Injury (TBI)		
Midlife Hypertension		
Midlife Obesity		
Diabetes		
Physical Activity		
Smoking		
Sleep Disorders/Poor Sleep		
Balanced Nutrition		
Cognitive Engagement		

SAMPLE TEST QUESTIONS

Below are sample test questions that can be used to supplement the learning module. The correct answer and explanation are included below each question. Sample test questions without correct answers are provided in Appendix A for ease of printing.

1. Public health professionals can encourage behavior changes to reduce dementia risk through:
    A. Encouraging the public to prevent or manage chronic diseases like diabetes
    B. Encouraging doctors to prescribe medications
    C. Only focusing on the older adult population

The correct answer is A. Public health professionals can help reduce dementia risk by encouraging the public to prevent or manage chronic diseases like diabetes.

2. Modifiable risk factors include:
    A. Blood pressure, cognitive engagement, diet quality, physical activity, sleep quality, smoking, and traumatic brain injury (TBI)
    B. Age, family history and genetics
    C. All of the above

The correct answer is A. A modifiable risk factor is something that may be changed. A non-modifiable risk factor is something an individual person cannot change.

3. True or False: Both non-modifiable and modifiable risk factors determine the overall risk for cognitive decline and dementia.

The correct answer is True. Both modifiable and non-modifiable risk factors determine the overall risk for cognitive decline and dementia.

4. What percentage of dementia cases worldwide may be attributable to modifiable risk factors?
    A. 25%
    B. 35%
    C. 45%
    D. 55%

The correct answer is C. Estimates indicate that up to 45% of dementia cases worldwide may be attributable to modifiable risk factors, such as physical inactivity, lack of education, and other chronic conditions.

5. True or False: Behavior change is easier when systems-level change happens to support it.

The correct answer is True. Systems-level changes makes it easier for individuals to make healthier choices and to engage in healthier behaviors.

6. Which life stages are important for public health interventions to reduce the risk of dementia?

    A. Childhood

    B. Early Adulthood

    C. Midlife

    D. Older Life

    E. All of the above

The correct answer is E. Public health can affect the brain health of all people throughout their lives from young ages until they are older adults.

7. What is the importance of integrating brain health messaging into existing health campaigns?

    A. To focus only on older adults

    B. To develop new medications

    C. To reduce the workload of public health professionals

    D. To promote the connection between brain health and other health issues

The correct answer is D. Integrating brain health messaging highlights the interconnectedness of brain health with other diseases like diabetes and smoking cessation, and can help focus risk reduction throughout the lifespan.

8. What is an example of a public health intervention to address economic stability as a social determinant of health?

    A. Tenant-Based Housing Voucher Programs

    B. School-Based Gardening

    C. Outdoor Exercise Opportunities

The correct answer is A. Tenant-Based Housing Voucher Programs provide financial assistance to low-income households, reducing housing insecurity and financial stress. This social determinant of health is linked to better health outcomes, including cognitive health.

9. Match the following scenarios with the corresponding social determinant of health.
   Correct answers are listed in the same row. In Appendix A they are scrambled.

Juliana has always wanted to be a nurse, but wasn't sure how to pursue that path. She did get connected to a CNA training program after finishing high school and is now completing nursing school while working.	*Educational Attainment*
Martha and Georgia were recently introduced by a mutual friend and get together regularly for game night or a walk in the park. Now in their 60s, they are proof that friendships can begin at any age.	*Social Connections*
Arthi's city recently expanded public transportation near her family's home and built an amazing new park just down the street.	*Safe and Healthy Environment*
Minjun has joined a committee in his neighborhood to petition for a local grocery store that sells fresh foods and vegetables.	*Nutrition & Food Security*
Reggie lives in an economically-disadvantaged neighborhood. He recently had his car break down, which caused him to lose his job. He then had a health scare that required prolonged hospitalization. He is back home now and the hospital social worker connected him to a job placement agency to help him regain financial stability.	*Economic Stability*

10. Consider the public health scenarios below for brain health activities and match them with the appropriate action.
    Correct answers are listed in the same row. In Appendix A they are scrambled.

Lemon Health Department has secured funding to launch an awareness campaign for brain health. They are looking at **community health assessments** to determine what risk factors to prioritize first.	*Use data*
Acme County Health Department is working to promote brain health to a broader audience through **new webpages**.	*Online resources*
The new program officer in the Mayflower Health Department is in the process of launching a new health campaign targeted at middle-aged women. They are looking at **adding brain health content** to existing programs for that specific demographic.	*Integrating messages*
Bluecliff Public Health Department started hosting classes with local faith-based communities **to increase understanding** of brain health and dementia risk factors.	*Community programs and education*
Slate Mountain Health Department joined an existing **community coalition** working to reach predominately Hispanic neighborhoods, to determine how they could work together to support brain health.	*Partnerships*

VIDEO RESOURCES

Included below are videos used throughout the *Public Health and Dementia Risk Reduction* module. Consider playing them in your learning environment and using them for discussion or reflection among the learners. Suggested discussion questions are included below each video title/link.

Implementing the HBI Road Map: Elizabeth Head

    a. What did you learn from this video?

    b. What are ways this video could be used to support public health action to address dementia?

Addressing Social Determinants of Health and Dementia Risk

    a. What are the social determinants of health?

    b. Why are the social determinants of health crucial for public health action?

These videos are not included in the module but are an excellent supplemental resource focusing on the evidence behind modifiable risk factors.

Modifiable Risk Factors Video Series

    a. What makes the evidence strong for each of these modifiable risk factors in relation to brain health?

    b. What questions would you like to see further pursued in research related to modifiable risk factors?

Included below are graphics used in the module. They can be used as a basis for discussion or activities in your learning environment. Possible answers are shown in italics, where appropriate, but answers are not exhaustive or comprehensive. Graphics may be copied and inserted into a PowerPoint.

10 HEALTHY HABITS FOR YOUR BRAIN

TAKE CHARGE OF YOUR BRAIN HEALTH. THESE HEALTHY HABITS CAN LOWER THE RISK OF DEVELOPING COGNITIVE DECLINE AND POSSIBLY DEMENTIA. THIS IS TRUE EVEN FOR PEOPLE WITH A HISTORY OF DEMENTIA IN THEIR FAMILIES.

Follow as many of these tips as possible to achieve the most benefits for your brain and body. It's never too late or too early. Start now!

Challenge your mind

Be curious. Put your brain to work and do something that is new or hard for you. Learn a new skill. Try something artistic. Challenging your mind may have short- and long-term benefits for your brain.

Stay in school

Education reduces your risk of cognitive decline and dementia. Encourage youth to stay in school and pursue the highest level of training possible. Continue your own education by taking a class at a local library, college or online.

Protect your head

Help prevent an injury to your head. Wear a helmet for activities like biking, and wear a seatbelt. Protect yourself while playing sports. Do what you can to prevent falls, especially for older adults.

Control your blood pressure

Medications can help lower high blood pressure. And healthy habits like eating right and physical activity can help too. Work with a health care provider to control your blood pressure.

Eat right

Eating healthier foods can help reduce your risk of cognitive decline. This includes more vegetables and leaner meats/proteins, along with foods that are less processed and lower in fat. Choose healthier meals and snacks that you enjoy and are available to you.

Be smoke-free

Quitting smoking can lower the risk of cognitive decline back to levels similar to those who have not smoked. It's never too late to stop.

Manage diabetes

Type 2 diabetes can be prevented or controlled by healthier eating, increasing physical activity and medication, if necessary.

Maintain a healthy weight

Talk to your health care provider about the weight that is healthy for you. Other healthy habits on this list — eating right, physical activity and sleep — can help with maintaining a healthy weight.

Get moving

Engage in regular exercise. This includes activities that raise your heart rate and increase blood flow to the brain and body. Find ways to build more movement into your day — walking, dancing, gardening — whatever works for you!

Sleep well

Good quality sleep is important for brain health. Stay off screens before bed and make your sleep space as comfortable as possible. Do all you can to minimize disruptions. If you have any sleep-related problems, such as sleep apnea, talk to a health care provider.

Learn more at alz.org/healthyhabits.

ALZHEIMER'S ASSOCIATION

Questions:

1. Summarize the meaning of this graphic in a few sentences.

   a. *While research has explored many potential risk factors for dementia, these are the 10 modifiable risk factors with the most evidence to date. These factors are related to an individual's lifestyle, overall health, and the environment.*

2. Why is this graphic important for public health professionals addressing dementia?

   a. *It provides evidence-based guidance for public health professionals on which risk factors are important to focus on in various initiatives.*

   b. *It provides information in a quick format with easy-to-understand language.*
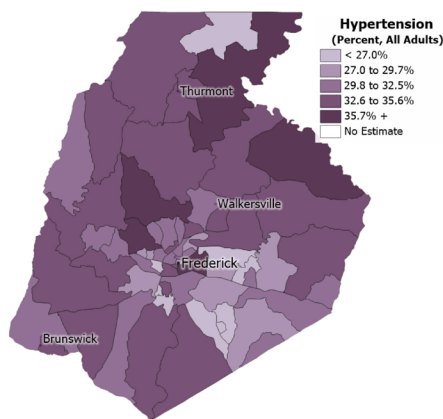
Questions:

State-specific fact sheets on the prevalence of major risk factors for cognitive decline and dementia, based on the Behavioral Risk Factor Surveillance System (BRFSS) data, are available online. These fact sheets highlight the urgency of reducing dementia risk and help public health officials prioritize their efforts.

Additionally, state and county heat maps show the areas of greatest prevalence of risk factors for cognitive decline and dementia and are available by request from the Center of Excellence (email CenterOfExcellence@alz.org). See the maps below for data on Frederick County, Maryland.

1. What do you notice when looking at the maps?

    a. *Risk factor prevalence overlap in some areas and vary amongst others.*

2. How is this data helpful to public health professionals?

    a. *Data like this helps guide resources such as funding, messaging, staff time, and programs to specific areas of greatest need.*

3. Why is this graphic important for public health professionals addressing dementia?

    a. *It is important to understand that public health has a role to play along the entire dementia continuum and at the different prevention levels.*

PUBLIC HEALTH CENTER OF EXCELLENCE
**Risk Factors for Cognitive Decline
Frederick County, MD**

Hypertension

Hypertension
(Percent, All Adults)
< 27.0%
27.0 to 29.7%
29.8 to 32.5%
32.6 to 35.6%
35.7% +
No Estimate

Countywide Rate 30.2%
NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
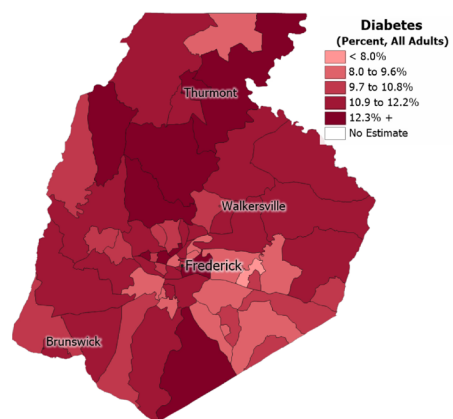Mapping Software: © 2023 CALIPER

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CenterOfExcellence@alz.org   alz.org/publichealth

PUBLIC HEALTH CENTER OF EXCELLENCE
**Risk Factors for Cognitive Decline
Frederick County, MD**

Diabetes

Diabetes
(Percent, All Adults)
< 8.0%
8.0 to 9.6%
9.7 to 10.8%
10.9 to 12.2%
12.3% +
No Estimate

Countywide Rate 11.2%
NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
Mapping Software: © 2023 CALIPER

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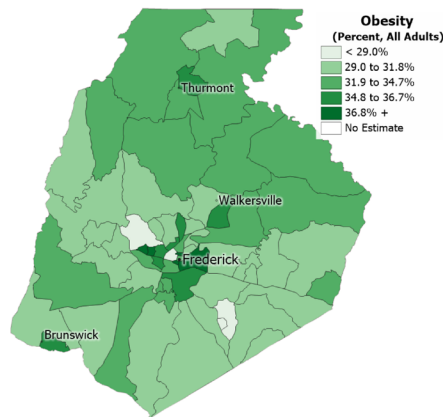
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Risk Factors for Cognitive Decline
Frederick County, MD

Obesity

Obesity
(Percent, All Adults)
- < 29.0%
- 29.0 to 31.8%
- 31.9 to 34.7%
- 34.8 to 36.7%
- 36.8% +
- No Estimate

Countywide Rate 31.6%

NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
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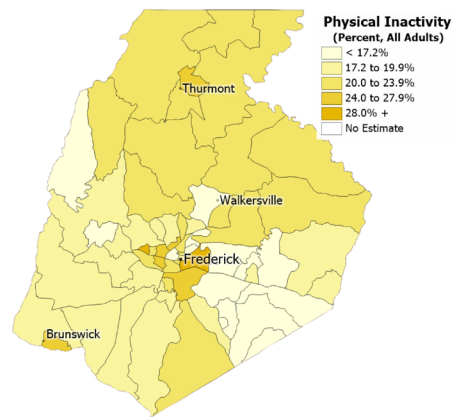
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Risk Factors for Cognitive Decline
Frederick County, MD

Physical Inactivity

Physical Inactivity
(Percent, All Adults)
- < 17.2%
- 17.2 to 19.9%
- 20.0 to 23.9%
- 24.0 to 27.9%
- 28.0% +
- No Estimate

Countywide Rate 20.2%

NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
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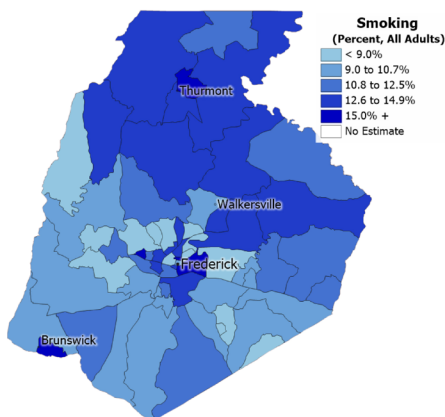
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Risk Factors for Cognitive Decline
Frederick County, MD

Smoking

Smoking
(Percent, All Adults)
- < 9.0%
- 9.0 to 10.7%
- 10.8 to 12.5%
- 12.6 to 14.9%
- 15.0% +
- No Estimate

Countywide Rate 11.1%

NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
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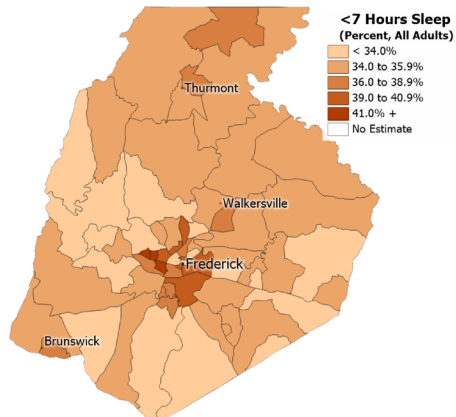
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Risk Factors for Cognitive Decline
Frederick County, MD

Poor Sleep

<7 Hours Sleep
(Percent, All Adults)
- < 34.0%
- 34.0 to 35.9%
- 36.0 to 38.9%
- 39.0 to 40.9%
- 41.0% +
- No Estimate

Countywide Rate 35.1%

NOTE: Countywide rate may differ from other published figures due to differences in data year, age group, and survey question.

Source: Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association, based on data from PLACES, Centers for Disease Control and Prevention, October 2024.
Mapping Software: © 2023 CALIPER

This Fact Sheet is supported by the Centers for Disease Control and Prevention (CDC) of the U.S. Department of Health and Human Services (HHS) as part of a financial assistance award totaling $2,973,948. The contents are those of the Alzheimer's Association and do not necessarily represent official views of nor an endorsement by, CDC, HHS, or the U.S. government.

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ADDITIONAL READING AND RESOURCES

Take action
- Download the [Addressing Social Determinants of Health and Dementia Risk Toolkit](#) and accompanying resources.
- Download the [Hosting a Community Convening for Dementia Risk Reduction Toolkit](#)

Stay informed
- [Learn more](#) about the BOLD Public Health Center of Excellence on Dementia Risk Reduction
- [Sign up](#) for the Alzheimer's Association Public Health Newsletter

Research activities in your state

Find dementia data and learn about public health actions and initiatives in your state. Share what you learn with others.
- Alzheimer's Association [State Overview Pages](#)
- [County Health Rankings and Roadmaps](#)

Identify partnership and collaboration opportunities with community organizations

Consider a variety of organizations, such as:
- Chronic disease programs
- Volunteer organizations
- Faith communities
- Art organizations
- Educational organizations

Learn more about policies and programs that support dementia risk reduction

Some examples include:
- [National Plan to Address Alzheimer's Disease](#)
- [Building Our Largest Dementia (BOLD) Infrastructure for Alzheimer's Act](#)

Learn more about public health and dementia
- [Public Health and Dementia — Part 1: Understanding the Public Health Impact of Dementia](#)
- [Public Health and Dementia — Part 2: Implementing Public Health Strategies for Dementia](#)
- [Health Equity in Dementia — Using a Public Health Lens to Advance Health Equity in Alzheimer's and Other Dementias](#)
- [Public Health and Dementia Caregiving](#)

Learn about ways you can take action today to reduce your risk of dementia

- 10 Healthy Habits for Your Brain
- Modifiable Risk Factor video series
- Four-part SDOH webinar series

  - Building Resilience: Understanding Economic Stability to Reduce Dementia Risk

  - Nourishing Minds: Exploring Nutrition and Food Security's Role in Dementia Risk Reduction

  - Breaking Barriers: Combating Dementia Through Social Engagement

  - Creating Healthier Environments: Harnessing Social Determinants for Dementia Risk Reduction

Consider volunteering or getting involved with local organizations

If you're not in a place to implement these strategies directly in your work, volunteering with community partners will continue your learning and give you a unique perspective to bring to your future work.

- Search for volunteer opportunities through the Alzheimer's Association
- Find community partners in your area, including your local Area Agency on Aging or state office of aging services
- Volunteer or work with a community to build a Dementia Friendly Community
- Get involved in or help your university become an Age Friendly University
- Join a student organization of your university or college's center on aging, your state gerontology society or the national Gerontological Society of America

RESOURCES

Alzheimer's Association Resources

- [10 Healthy Habits for Your Brain](#)
- [A Public Health Approach to Dementia Curriculum](#)
- [Addressing Social Determinants of Health and Dementia Risk Animated Video](#)
- [Addressing Social Determinants of Health and Dementia Risk: A Toolkit for Public Health Agencies](#)
- [Dementia Risk Reduction: Suggested Recommendations for Alzheimer's Plans](#)
- [Hosting a Community Convening for Dementia Risk Reduction: A Toolkit for Public Health Agencies](#)
- [Modifiable Risk Factors Science Summaries](#)
- [Modifiable Risk Factors Video Series](#)
- [Social Determinants of Health Infographics](#)

Funding Statement

1. Public health professionals can encourage behavior changes to reduce dementia risk through:
   A. Encouraging the public to prevent or manage chronic diseases like diabetes
   B. Encouraging doctors to prescribe medications
   C. Only focusing on the older adult population

2. Modifiable risk factors include:
   A. Blood pressure, cognitive engagement, diet quality, physical activity, sleep quality, smoking, and traumatic brain injury (TBI)
   B. Age, family history and genetics
   C. All of the above

3. True or False: Both non-modifiable and modifiable risk factors determine the overall risk for cognitive decline and dementia.

4. What percentage of dementia cases worldwide may be attributable to modifiable risk factors?
   A. 25%
   B. 35%
   C. 45%
   D. 55%

5. True or False: Behavior change is easier when systems-level change happens to support it.

6. Which life stages are important for public health interventions to reduce the risk of dementia?
   A. Childhood
   B. Early Adulthood
   C. Midlife
   D. Older Life
   E. All of the above

7. What is the importance of integrating brain health messaging into existing health campaigns?
   A. To focus only on older adults
   B. To develop new medications
   C. To reduce the workload of public health professionals
   D. To promote the connection between brain health and other health issues

8. What is an example of a public health intervention to address economic stability as a social determinant of health?

   A. Tenant-Based Housing Voucher Programs

   B. School-Based Gardening

   C. Outdoor Exercise Opportunities

9. Match the following scenarios with the corresponding social determinant of health.

Juliana has always wanted to be a nurse, but wasn't sure how to pursue that path. She did get connected to a CNA training program after finishing high school and is now completing nursing school while working.	*Nutrition & Food Security*
Martha and Georgia were recently introduced by a mutual friend and get together regularly for game night or a walk in the park. Now in their 60s, they are proof that friendships can begin at any age.	*Social Connections*
Arthi's city recently expanded public transportation near her family's home and built an amazing new park just down the street.	*Educational Attainment*
Minjun has joined a committee in his neighborhood to petition for a local grocery store that sells fresh foods and vegetables.	*Economic Stability*
Reggie lives in an economically-disadvantaged neighborhood. He recently had his car break down, which caused him to lose his job. He then had a health scare that required prolonged hospitalization. He is back home now and the hospital social worker connected him to a job placement agency to help him regain financial stability.	*Safe and Healthy Environment*

10. Consider the public health scenarios below for brain health activities and match them with the appropriate action.

Lemon Health Department has secured funding to launch an awareness campaign for brain health. They are looking at **community health assessments** to determine what risk factors to prioritize first.	*Partnerships*
Acme County Health Department is working to promote brain health to a broader audience through **new webpages**.	*Integrating messages*
The new program officer in the Mayflower Health Department is in the process of launching a new health campaign targeted at middle-aged women. They are looking at **adding brain health content** to existing programs for that specific demographic.	*Use data*
Bluecliff Public Health Department started hosting classes with local faith-based communities **to increase understanding** of brain health and dementia risk factors.	*Online resources*
Slate Mountain Health Department joined an existing **community coalition** working to reach predominately Hispanic neighborhoods, to determine how they could work together to support brain health.	*Community programs and education*