

Dementia Risk Factors

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Objectives

1. To understand dementia risk factors
2. To understand the different causes of cognitive decline
3. To understand current recommendations of core elements of evaluation of patients with cognitive impairment

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Statement of the Problem

- **50 million people worldwide have dementia**
- **Alzheimer's disease is the most common cause of dementia**
 - 1 in 9 people over 65 years has AD
 - Approximately 7.2 million Americans, 74% are 75 or older, the number will double by 2050
 - 5th leading cause of death in 2024
- **Age of onset is younger in Louisiana**
- **Annual costs for care of individuals with Alzheimer's disease**
 - In 2025, AD and other dementias will cost the nation \$384 billion
 - Could rise to 1 trillion by 2050

<https://www.alz.org/getmedia/ef8f48f9-ad36-48ea-87f9-b74034635c1e/alzheimers-facts-and-figures.pdf>

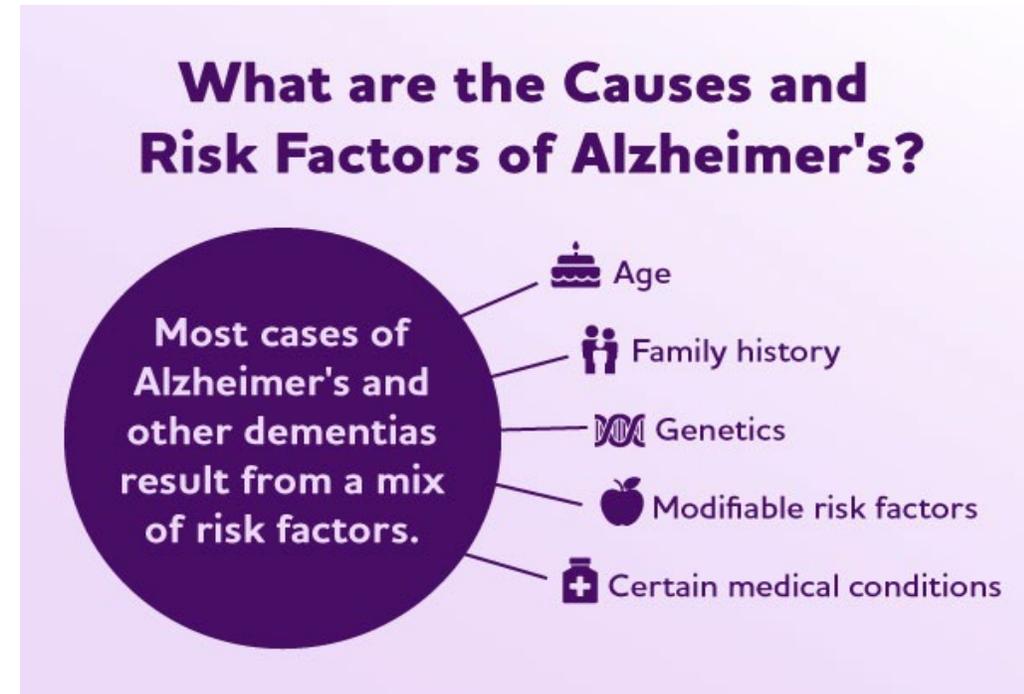
Statement of the Problem

- A systematic review found that almost 17% of persons 65 years and older have mild cognitive impairment (MCI). Moreover, studies indicate that 1/3 of them will go on to develop dementia within five years.
- Approximately 10% of Americans 45 years and older have subjective cognitive decline (SCD), an early warning sign of possible future dementia.

<https://www.alz.org/getmedia/069027e3-7617-4207-8277-7950b3a31b0b/alzheimers-dementia-reducing-risk-cognitive-decline-ph-fs.pdf>

Risk Factors

- Characteristics that appear to have some relationship to the development of a disease.
- If present, increases the risk, but not the certainty, that disease will develop.
- While some are modifiable, some cannot be changed such as age, genetics, and family history.



<https://www.alz.org/alzheimers-dementia/what-is-alzheimers/causes-and-risk-factors>

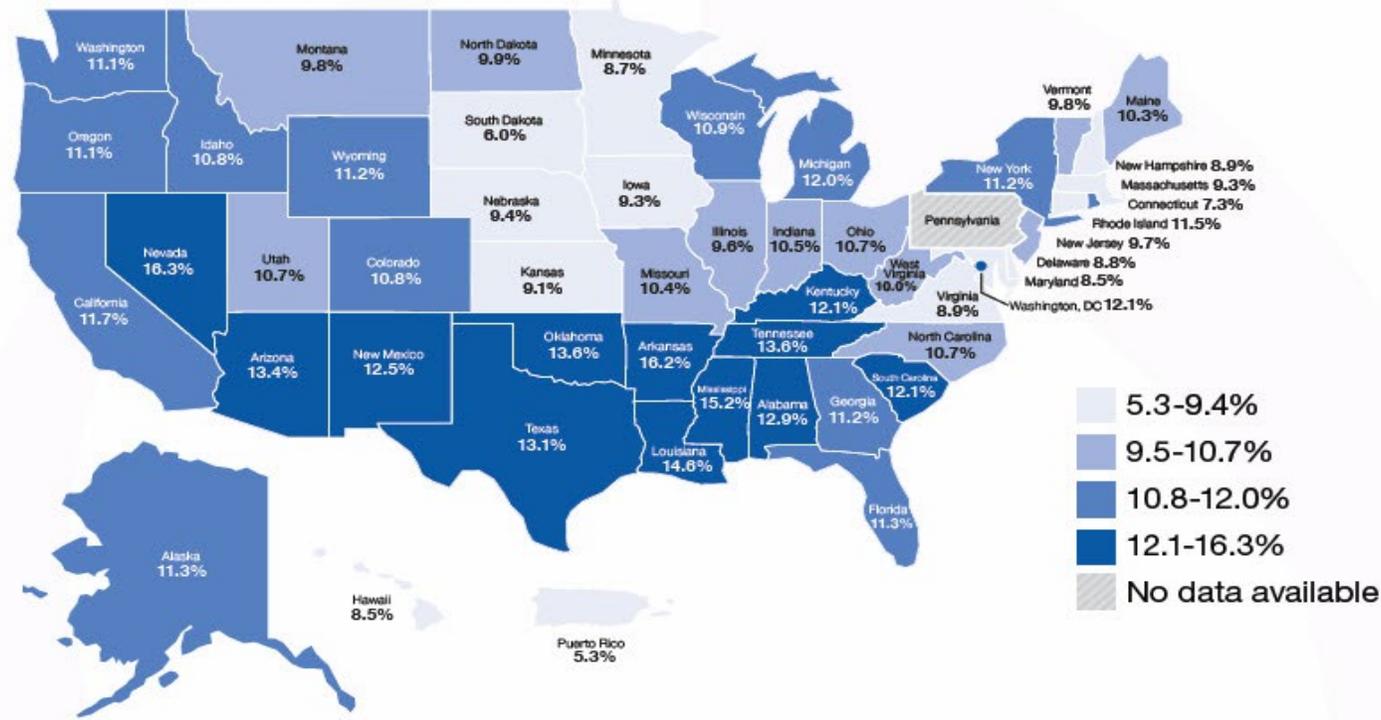
Prevention of Aging-Related Cognitive Impairment and Dementia

- Major and urgent public health priority
- Emerging evidence for the effectiveness of specific health-related behaviors and practices
 - Increased focus on lifestyle and behavioral actions to preserve cognitive function and prevent memory impairment and dementia
- Strengthening the public health infrastructure
 - Expanding efforts at dementia risk reduction and prevention
 - Population-based solutions, including:
 - Promoting brain health
 - Increasing access to early detection and diagnosis
 - Supporting people living with dementia and their caregivers

Cognitive Decline in Louisiana

Prevalence of Subjective Cognitive Decline in the U.S.

Figure 1: Adults 45 years of age and older with Subjective Cognitive Decline



LOUISIANA POPULATION DATA

45-54	528,974	11.42%
65-74	493,078	10.65%
75-84	232,006	5.01%
85+	85,306	1.84%
Total >45 yrs	1,339,364	

Total State Population 2021 = 4,624,000

29% of the State Population is over 45 years of age

According to the CDC, 14.6% of Louisiana residents over 45 years of age have Subjective Cognitive Decline (SCD) and are at risk for dementia.

Based on current population data, **about 195, 547 Louisiana citizens are at risk.**

Louisiana's Health Rankings

Behaviors	State Rank
Nutrition and Physical Activity	
Exercise (% of adults)	38
Physical Inactivity (% of adults)	44
Sleep Health	
Insufficient Sleep (% of adults)	47
Tobacco Use	
Smoking (% of adults)	43
Health Outcomes	
Physical Health	
Multiple Chronic Conditions (% of adults)	45
Obesity (% of adults)	45

A growing body of research evidence for 14 potentially modifiable risk factors suggests that up to 45% of dementia cases could be delayed or reduced, marking a 5% increase from the 2020 findings.

Life Course Approach to Risk Reduction

EARLY LIFE

Less Education – 5%

MIDLIFE

Hearing loss – 7%
 High LDL, Cholesterol - 7%**
 Depression - 3%
 TBI – 3%
 Physical Inactivity - 2%
 Diabetes - 2%
 Smoking -2%
 Hypertension – 2%
 Obesity -1%
 Excessive Alcohol -1%

LATE LIFE

Social Isolation – 5%
 Air pollution – 3%
 Visual Loss - 2%**

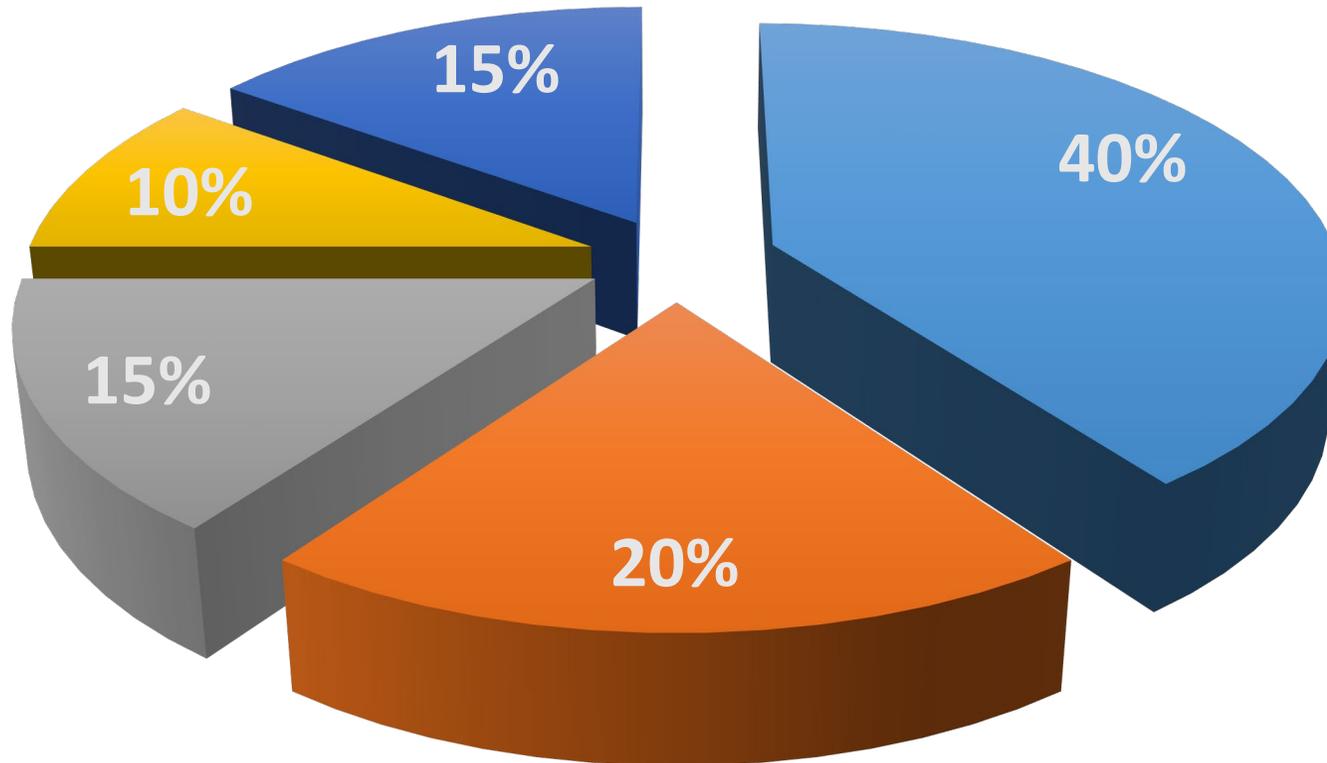
45%
 Potentially
 Modifiable

Percentage (%) reduction in cases of dementia if this risk factor eliminated

** Added in 2024

<https://www.alzint.org/news-events/news/lancet-commission-identifies-two-new-risk-factors-for-dementia-and-suggests-45-of-cases-could-be-delayed-or-reduced/>

Worldwide Prevalence of Dementia Subtypes



■ Alzheimer's disease (40%)

■ Vascular dementia (20%)

■ Mixed dementia (15%)

■ Frontal dementias (10%)

■ Other (15%)



Table – Dementia Subtypes

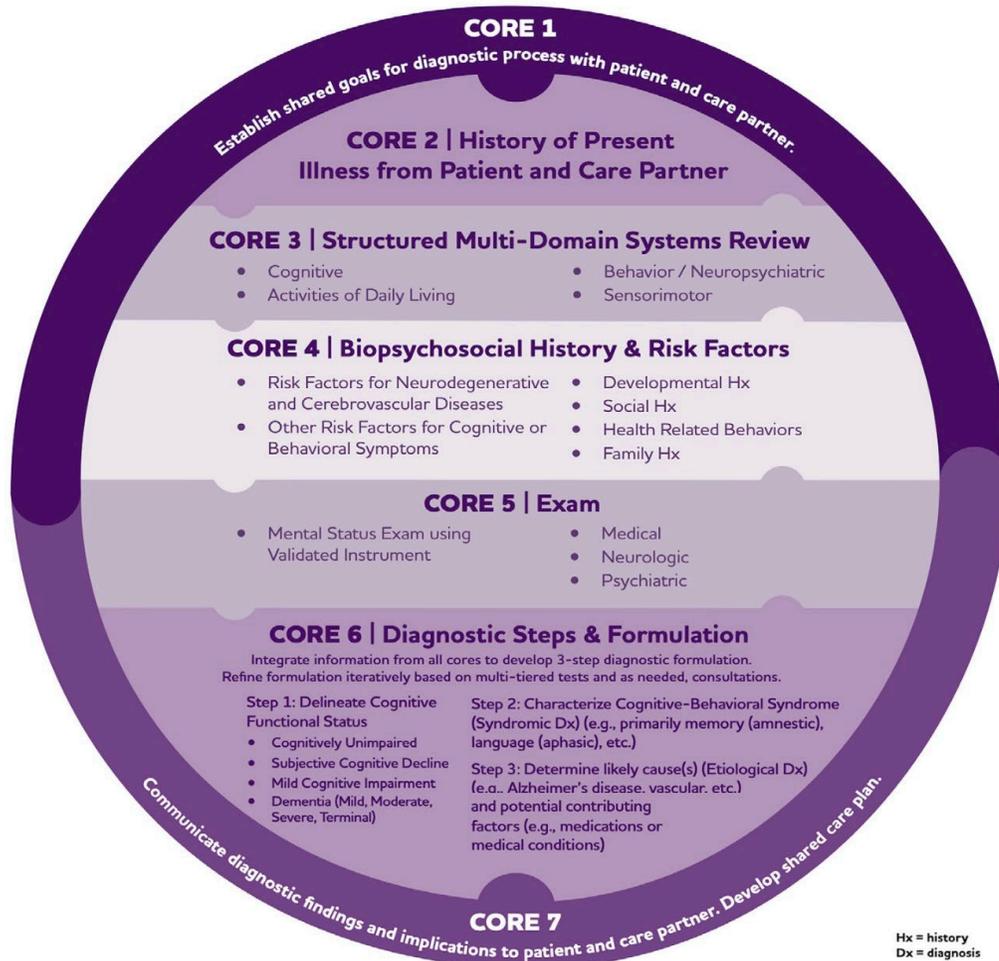
Degenerative Dementias	Percent	Subtypes	Symptoms	Pathology
Alzheimer's disease (AD)	40%	Early-onset (before age 65) Late-onset (after age 65)	Profound memory loss; Cognitive decline	Amyloid (AB 42) plaques; Neurofibrillary (tau) tangles
Frontal Dementias (FTD)	10%	Frontotemporal dementia (FTD) behavioral variant; Pick's disease; Semantic dementia; Primary Progressive Aphasia	Variable; Less memory loss than AD	Heterogeneous; Tau vs. Non-tau types
Mixed Dementia types	15%	AD plus VaD; Lewy body disease; Cortitocobasal degeneration	Variable	Heterogeneous
Vascular Dementia (VaD)	20%		Variable	Vascular disease
Multi-infarct dementia (large-vessel stroke); Small-vessel disease (chronic microvascular disease); Mixed type (Large and small vessel disease)			Variable	Vascular disease
Other Dementia types	15%	Subtypes	Symptoms	Pathology
Parkinson's Disease (PD) with dementia		Degenerative disease with about 30% of PD patients developing dementia; 60-80% have depression	Variable	Lewy body; Alpha synuclein
Traumatic Brain Injury (TBI)		Concussion; Intracranial hemorrhage; Hematomas – subdural; epidural	Greater Executive function deficits	Heterogeneous
Toxic, Metabolic, Endocrine, Deficiency		Alcoholic Dementia; B12 deficiency; Hypothyroidism		Deficiency states; Endocrine
Infectious/Inflammatory/ Autoimmune		Creutzfeldt-Jacob disease (CJD); Herpes simplex encephalitis; HIV dementia; Multiple sclerosis/demyelinating disorders		Heterogeneous
Chronic medical diseases		Chronic Renal disease; Hepatic disorders		Toxic/metabolic
Others disorders with cognitive decline		Multiple sclerosis; Brain tumors; Normal pressure hydrocephalus; Huntington's disease; Chronic major psychiatric disorders; Substance abuse syndromes		Heterogeneous



Alzheimer's Disease or Related Form of Cognitive Impairment or Dementia — *First comprehensive guideline applicable to primary and specialty care* —

- **An expert workgroup representing primary and specialty care has developed new guidelines** for comprehensive evaluation of patients who may have cognitive impairment or dementia due to Alzheimer's disease or a related disease. Current guidelines for a comprehensive evaluation process are more than 20 years old.
- **Results of the evaluation should be a three-step diagnostic formulation**, summarizing the patient's overall level of impairment, a brief summary of the symptoms they are experiencing, and the likely underlying brain disease(s) and/or conditions contributing to their symptoms. This can help inform the development of optimal care plans to maximize quality of life.
- As new treatments and care pathways emerge for these conditions, it is critical to obtain timely and accurate diagnosis so the person and family are empowered and have the greatest autonomy to make the best decisions for themselves.
- When clinicians use these guidelines and health care systems provide adequate resources, outcomes should improve in most patients in most practice settings.

CORE ELEMENTS OF EVALUATION OF PATIENT WITH SUSPECTED COGNITIVE IMPAIRMENT



Hx = history
Dx = diagnosis

REFERENCES – SOURCE MATERIAL

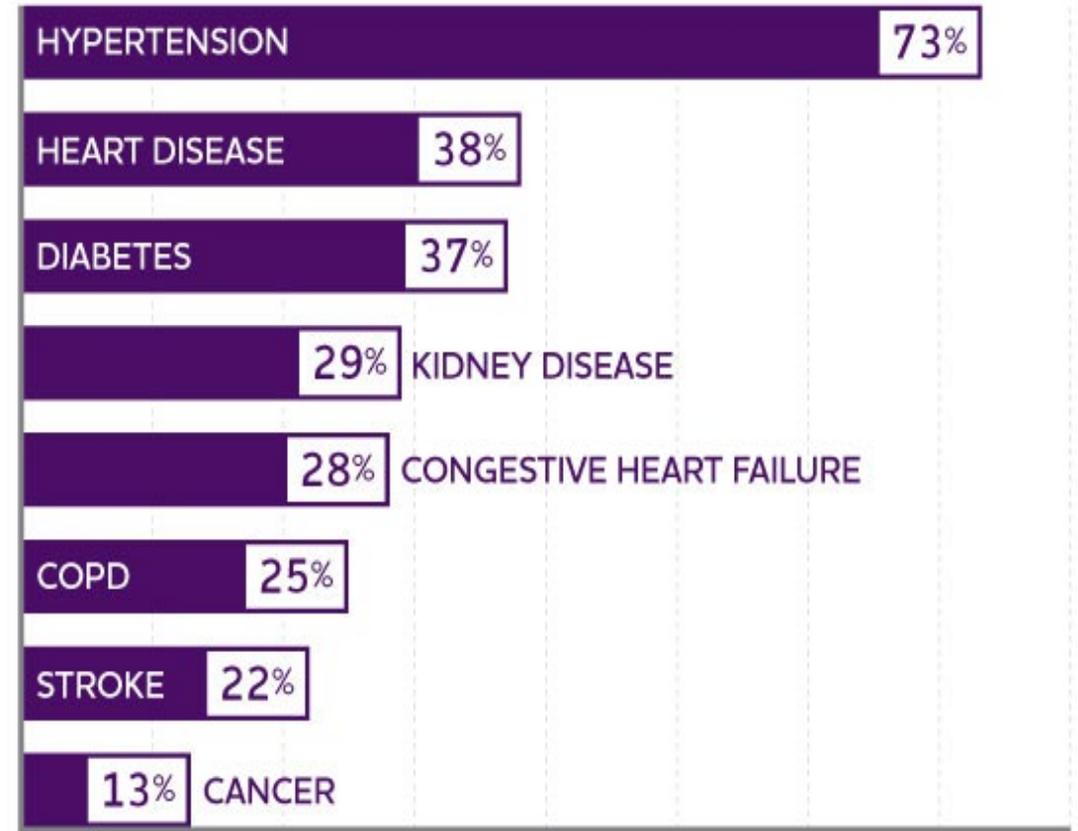
“The Alzheimer’s Association Clinical Practice Guideline for the Diagnostic Evaluation, Testing, Counseling and Disclosure of Suspected Alzheimer’s Disease and Related Disorders (DETeCD-ADRD): Executive Summary of Recommendations for Primary Care,” Atri, et al. <https://doi.org/10.1002/alz.14333>

“The Alzheimer’s Association Clinical Practice Guideline for the Diagnostic Evaluation, Testing, Counseling and Disclosure of Suspected Alzheimer’s Disease and Related Disorders (DETeCD-ADRD): Executive Summary of Recommendations for Specialty Care,” Dickerson, et al. <https://doi.org/10.1002/alz.14337>

“The Alzheimer’s Association Clinical Practice Guideline for the Diagnostic Evaluation, Testing, Counseling and Disclosure of Suspected Alzheimer’s Disease and Related Disorders (DETeCD-ADRD): Validated Clinical Assessment Instruments,” Atri, et al. <https://doi.org/10.1002/alz.14335>

- Risk of developing dementia in later life can be influenced by factors present years and decades earlier.
- Chronic conditions increase the risk of developing dementia
 - Most people living with dementia have one or more chronic conditions such as heart disease or diabetes.
 - These chronic diseases can complicate care.
- **Dementia risk can be reduced!**
 - Modify your lifestyle
 - Move and manage your medical conditions – midlife hypertension, avoiding and managing diabetes, and midlife obesity.

Percentage of People with Alzheimer's or Another Dementia Who Also Have...



ADDITIONAL RESOURCES

REPORTS FROM THE LANCET COMMISSION:

- <https://www.thelancet.com/commissions-do/dementia-prevention-intervention-and-care>

AMERICA'S HEALTH RANKINGS:

- <https://www.thelancet.com/commissions-do/dementia-prevention-intervention-and-care>

ALZHEIMER'S ASSOCIATION: RISK REDUCTION:

- <https://www.alz.org/professionals/public-health/public-health-topics/risk-reduction#:~:text=The%20most%20notable%20healthier%20behaviors,managing%20diabetes%20and%20midlife%20obesity>

Questions?



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Please also feel free to visit the Well-Ahead
website at:

<http://wellaheadla.com>

