Advancing Excellence in Nursing Care for Dementia

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Indian Health Service

Training and Resources for the IHS on Alzheimer's and Dementia (TRIAD)

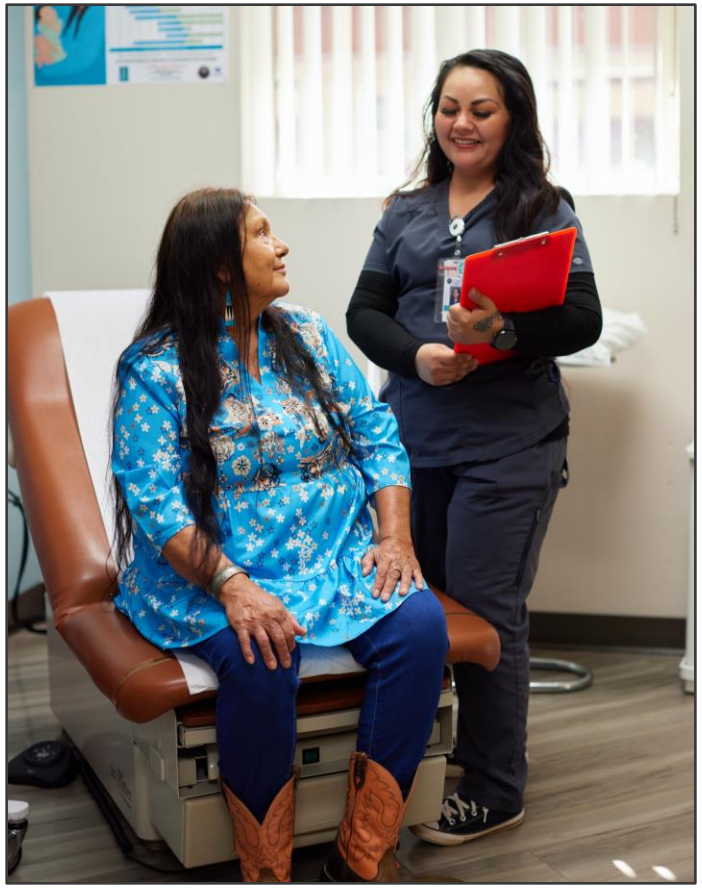
Session 1 Agenda

- **Normal Aging Versus Dementia**
- **Major Cognitive Disorders**
- **Detection and Diagnosis of Cognitive Disorders**

Learning Objectives

At the end of session 1, participants will be able to

- Differentiate cognitive changes associated with normal aging and dementia
- Describe pathophysiology, subtypes, common symptoms, and presentations associated with dementia
- Identify cognitive screening and evaluation tools best practices.
- Identify and address barriers to dementia screening in AI/AN communities



Dementia Shock Ahead

- Numbers will double in next 20 years
- 7.2 million Americans now
- 10% of people over 65 in general population
- 30% of people over 85 in general population

Alzheimer's Association, Facts and Figures

Prevalence of Dementia and Alzheimer's Disease in American Indians

Strong Heart Study

- Population-based cohort of 11 American Indian and Alaska Native communities
- Detailed cognitive testing on 2 visits 7 years apart
- Age range 72 to 95; mean 78.1, standard deviation 4.7
- MCI likely in 35%
- Dementia in 10%

(Suchy-Dicey and Domoto-Reilly et al , 2024)

Early Diagnosis: A Path to Better Care

- Better communication and support
- Greater involvement of family
- Care is easier, less chaotic
- Steps you can take now that can improve cognition

Clinical Story: Mrs. Solomon

- Mrs. Solomon is a 74-year-old woman with diabetes and hypertension
- On a recent doctor visit, her HbA1C jumps to 10%
- As a care coordinator, you follow-up with her to be sure she is following recommended treatments
- When you call, she is vague about how she is taking her insulin and antihypertensives
- She tells you that she has been misplacing her glasses and when she can't find them, doesn't take her insulin
- When asked about her daily activities, she reports watching TV and walking the dog

Typical Age-Related Cognitive Change

Dementia is not a normal part of aging

Age related memory changes include

- Occasional forgetfulness when stressed or busy
- Inability to recall a name or word, but able to recall it later
- Inability to remember details of an event, but able to place event in context

Unlike dementia, normal aging maintains key cognitive functions

- Stable long-term knowledge
- Intact long-term memories
- Consistent language abilities
- Sound decision-making and thought processes

Changes Not Associated with Normal Aging

- Inability recalling previously known information
- Difficulties planning and organizing
- Changes in behavior, personality, appearance
- Disorientation in familiar environment; visuospatial function
- Conversations that repeat or loop
- Activities of daily living require prompting

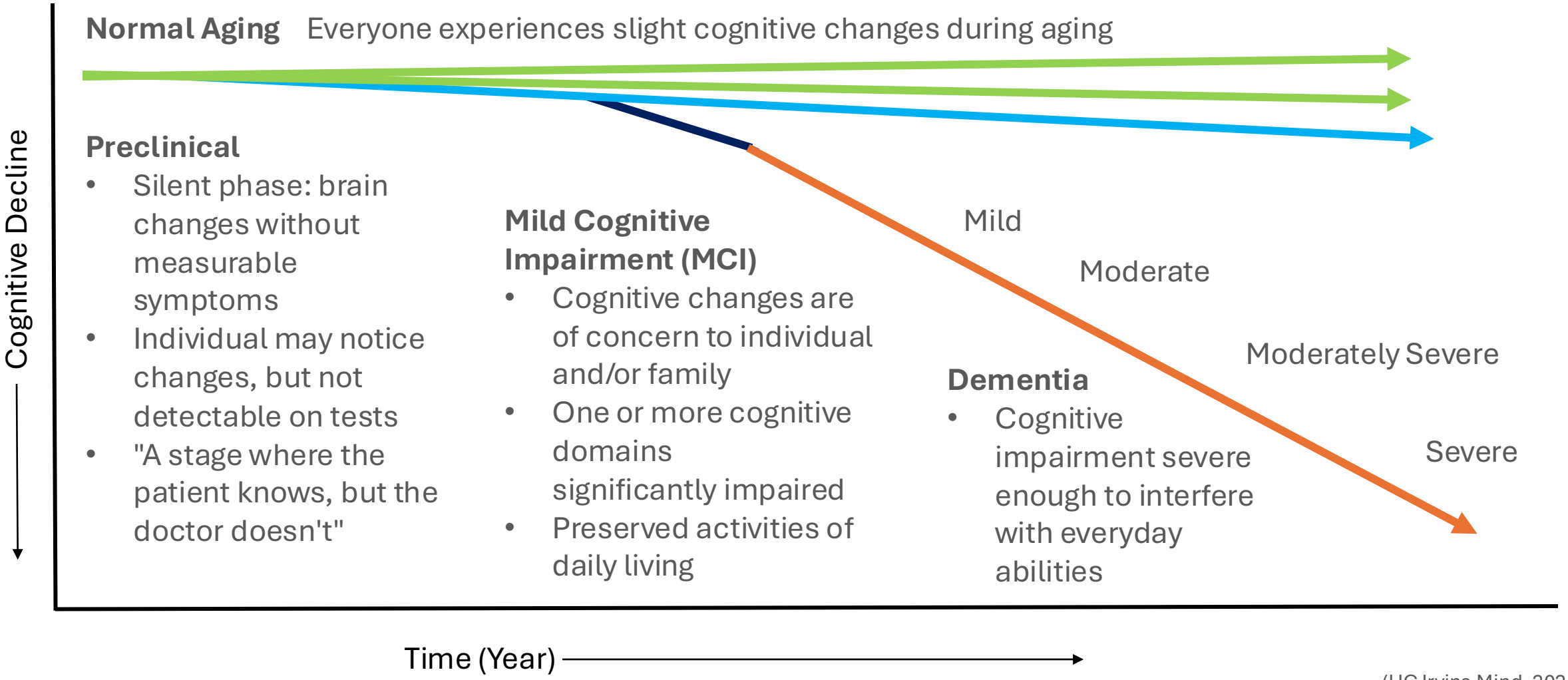
Risk Factors for American Indian and Alaska Native Populations

- Cardiometabolic conditions
- Depression
- Hearing and vision changes
- Sleep irregularities
- Lifestyle choices

Brain health interventions to decrease risk

- Control blood pressure, blood glucose
- Recommend daily brisk walks with friend
- Manage sleep apnea, hearing or vision loss
- Avoid sedating and anticholinergic medications
- Prioritize socialization over puzzles
- Limit alcohol; avoid binge drinking and use of commercial tobacco

Memory Changes



(UC Irvine Mind, 2025)

Signs of Mild Cognitive Impairment

- Forgetfulness
- Misplaces items
- Difficulty remembering names
- Loses track of thoughts
- Tangential conversations
- Difficulty concentrating

- Trouble finding words
- Repeats stories
- Difficulty following conversations
- Subtle change in mood or behavior
- Loss of interest in hobbies

Signs of Dementia

- Impaired executive function
- Difficulties planning and executing tasks
- Distraction occurs easily
- Difficulty communicating
- Personality changes

- Agitation
- Disorientation
- Repetitive behaviors
- Changes in eating patterns
- Sleep disturbance

Cognitive Impairment Versus Depression

Cognitive impairment

- Short term memory loss
- Loss of executive function
- Difficulty writing and speaking
- Mobility impairment
- Lack of awareness of changes
- Apathy
- Lack of emotional regulation

Depression

- Lack of disorientation
- Difficulty concentrating
- Inability to make decisions
- Changes in memory and motivation recognized
- Sadness
- Feelings of worthlessness

Cognitive Impairment Versus Delirium

Cognitive impairment

- Gradual onset
- Progressive decline
- Awareness maintained until later stages
- Memory loss
- Gradual language changes
- Slowing but reversal not possible

Delirium

- Rapid decline
- Physiological disturbance trigger
- Altered awareness; fluctuating attention
- Abrupt disorientation
- Disorganized thinking
- Perceptual disturbances
- Reversible state when underlying cause is treated

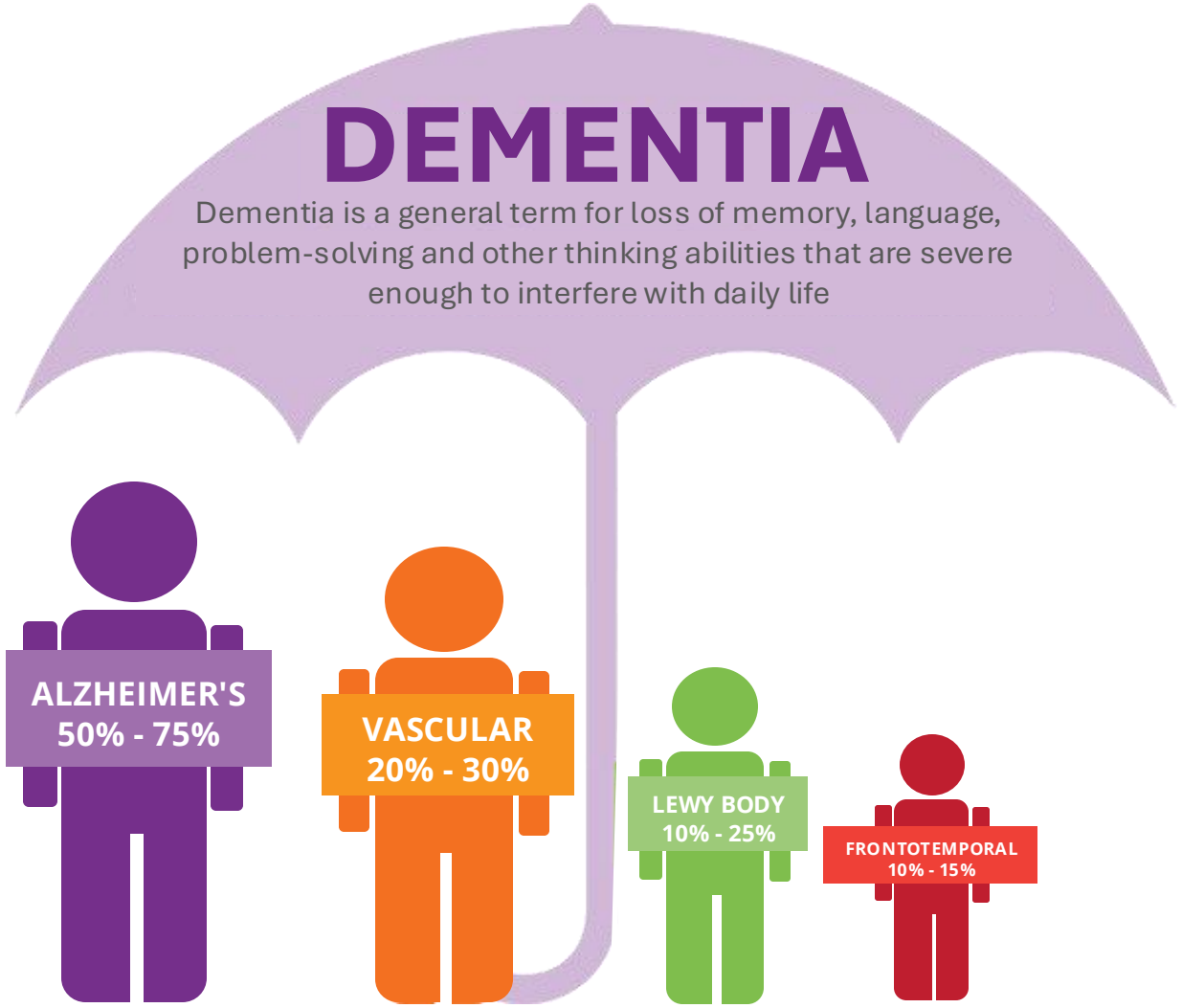
Dementia

Early-, Middle-, and Late-Stage Symptoms of Dementia

TRIAD TRAINING AND RESOURCES FOR THE IHS ON ALZHEIMER'S AND DEMENTIA

Discussion: Differentiating Dementia Presentations

Types of Dementia



(Alzheimer's Association, 2025)

Alzheimer's Disease Key Features

May present with

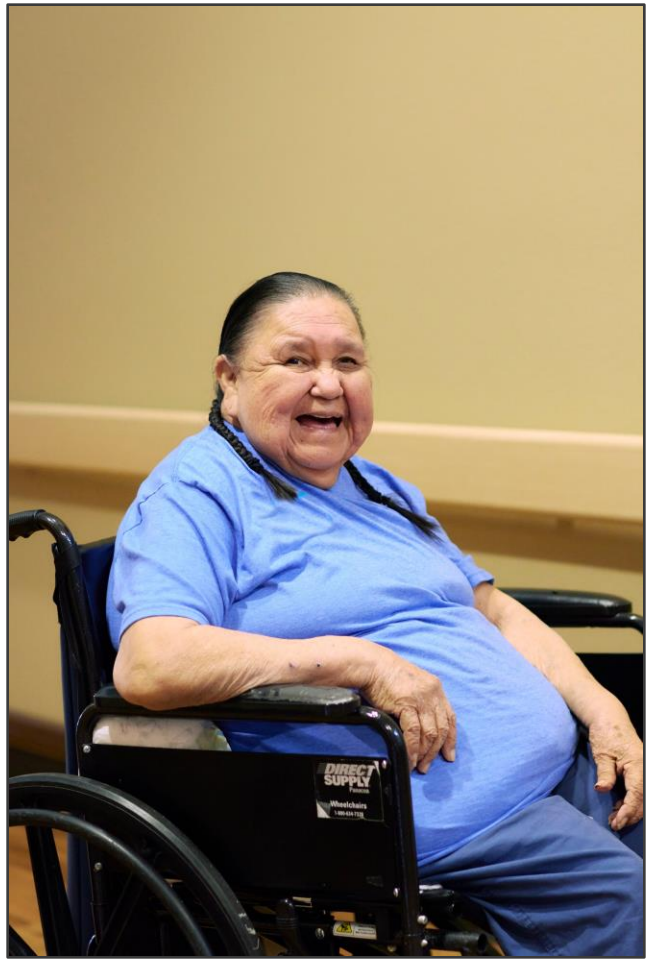
- Difficulty remembering recent conversations or events
- Apathy and depression
- Difficulty processing, interpreting, and responding to information in social situations

(Alzheimer's Disease Facts and Figures 2023, KAER Toolkit, 2020)

Pathophysiological Changes with Alzheimer's Disease

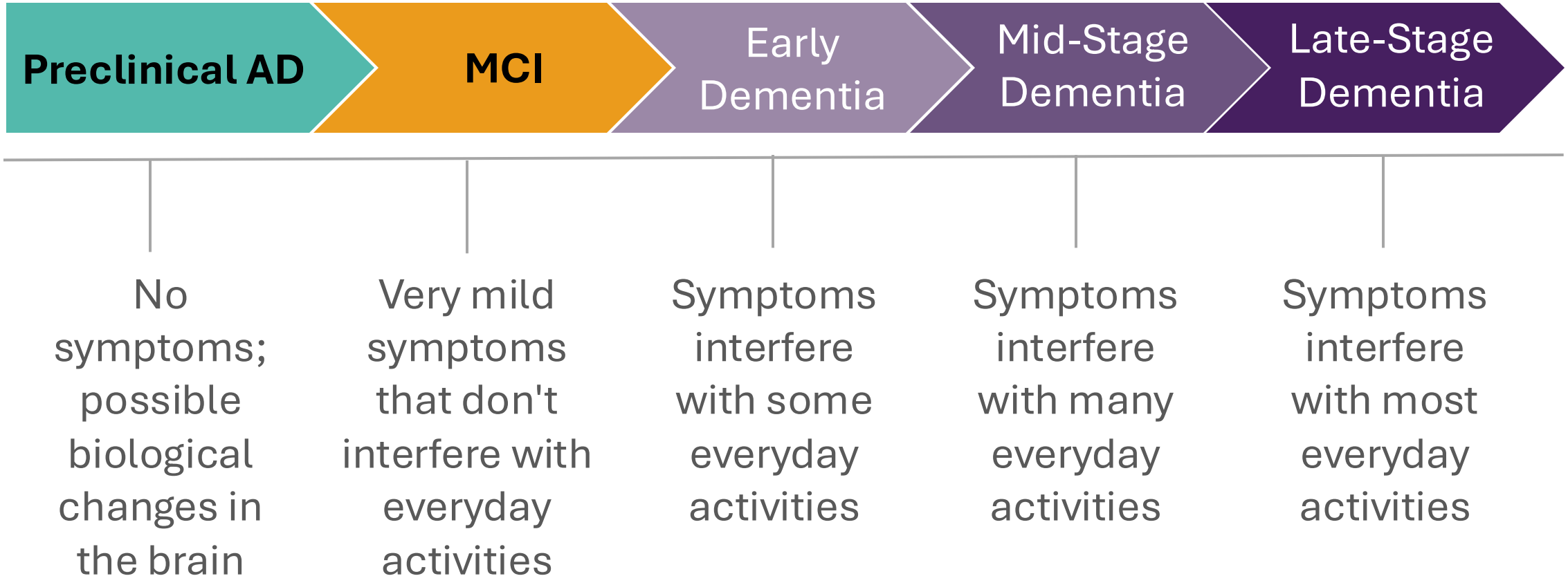
Hallmarks are

- Accumulation of protein beta amyloid outside neurons and twisted strands of protein tau inside neurons
- Death of neurons and damage to brain tissue
- Other changes include inflammation and atrophy of brain tissue



Alzheimer's Disease Continuum

MCI and dementia due to Alzheimer's disease



(Alzheimer's Association, 2024)

Early-Stage Alzheimer's Disease

Cognitive impairments

- Memory loss
- Poor judgement
- Loss of spontaneity
- Repetition
- Getting lost
- Items misplaced
- Mood change

Behavior and functional impairments

- Longer time to complete activities of daily living
- Difficulty handling money and paying bills
- Increased anxiety
- Agitation

Mid-Stage Alzheimer's Disease

Cognitive impairment

- Confusion
- Inability to learn new things
- Difficulty with reading, writing, math
- Inability to organize thoughts; loss of logical and linear thinking
- Shortened attention
- Difficulty coping with new situations
- Difficulty recognizing friends
- Paranoia

Behavior and functional impairment

- Difficulty with multi-step tasks
- Impulsivity
- Verbal outbursts
- Fearfulness or agitation
- Wandering
- Repetitious statements and movements
- Anger

Late-Stage Alzheimer's Disease

Physical impairments

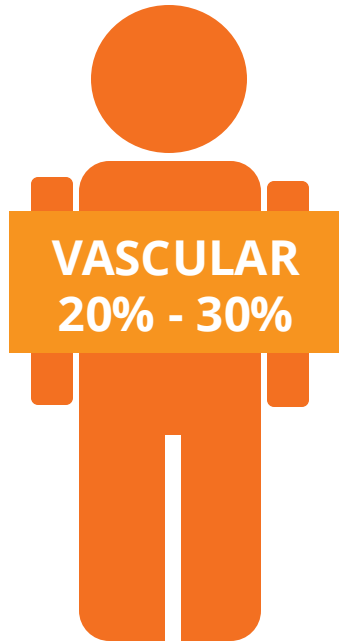
- Inability to use language or communicate
- Unaware of surroundings
- Weight loss
- Immobility with skin breakdown
- Seizures
- Guttural verbalizations
- Somnolence

Behavior and functional impairments

- Inability to carry out activities of daily living
- Inability to tend to personal care needs
- Loss of bladder or bowel control
- Inability to walk and sit upright
- Inability to swallow

Vascular Dementia Key Features

- Frequent history of stroke or transient ischemic attack
- Personality and mood changes
- Slow gait or impaired balance
- Symptoms may worsen abruptly, for example, after large stroke
- Gradual decline in symptoms when due to small blood vessel damage
- Frequent co-occurrence with other dementias



In general population, is often accompanied by another disease process

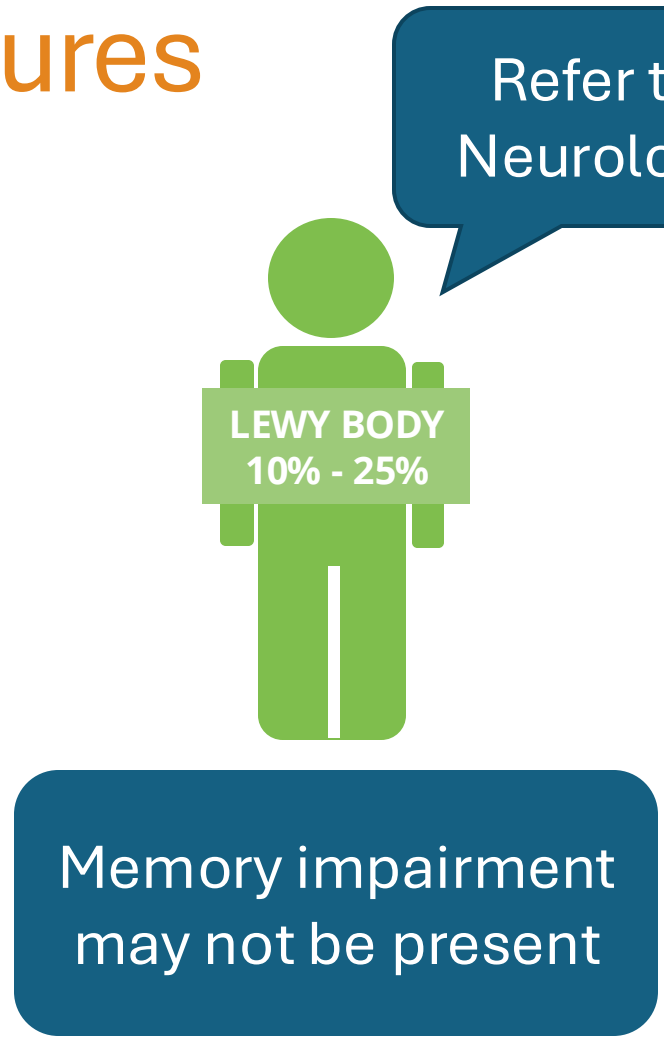
(Alzheimer's Disease Facts and Figures 2024 and Suchy-Dicey, 2024)

Symptoms of Vascular Dementia

- Symptoms depend on area of brain impacted by loss of blood flow
- Gradual decline of
  - Speed of thinking
  - Problem solving rather than memory loss
- Other symptoms include
  - Unsteady gait
  - Sudden bowel or bladder urges
  - Apathy
  - Loss of vision, hearing, balance

Lewy Body Dementia Key Features

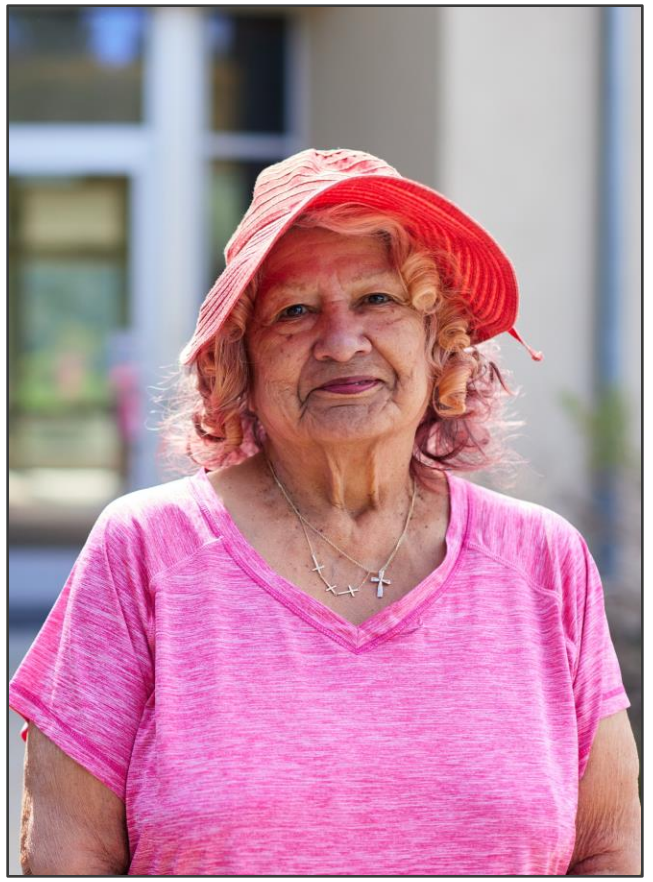
- Small proportion of people over age 65 show clinical evidence of Lewy body dementia alone; most have mixed dementia
- Two types of Lewy body dementia
  - Parkinson's disease: first manifests with motor symptoms
  - Dementia with Lewy bodies: first manifests with cognitive changes
- Brain regions most impacted are parietal, cingulate, temporal, and midbrain



(Alzheimer's Disease Facts and Figures 2021, KAER Toolkit, 2020)

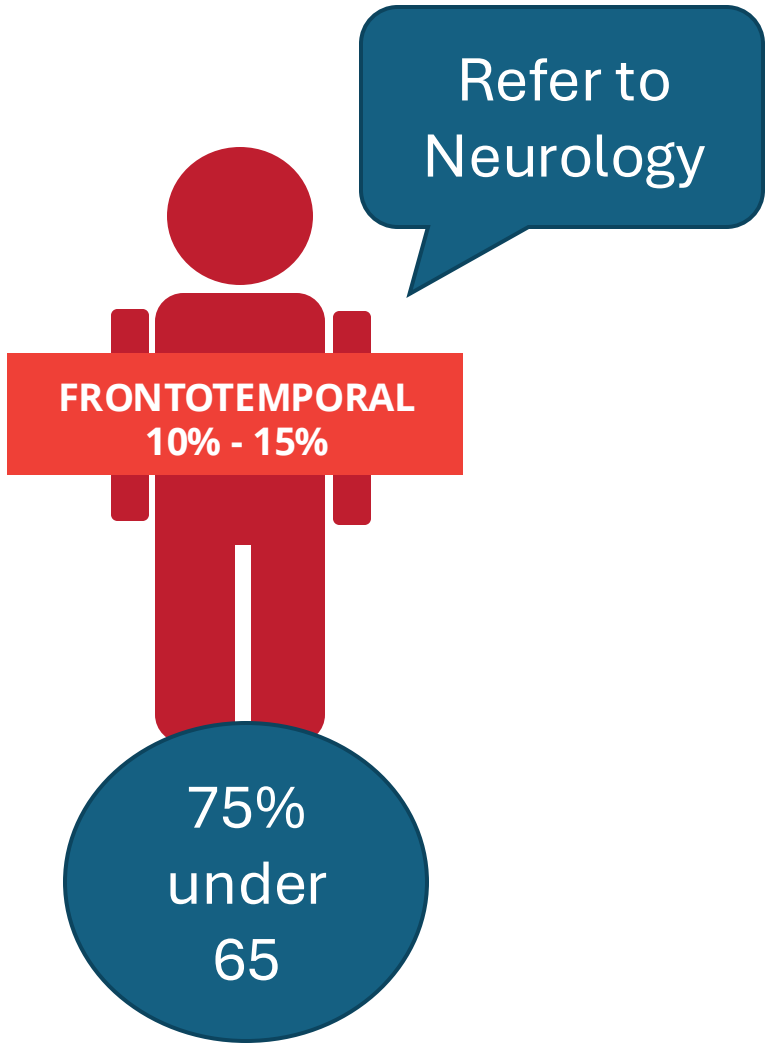
Symptoms of Lewy Body Dementia

- Widely fluctuating cognition; mimics delirium
- Visual hallucinations may occur
- Rapid eye movement sleep disturbances with movement or vocalizations in sleep
- Memory impairment may not be present
- About 50% of patients have severe neuroleptic sensitivity – strong and negative reaction to antipsychotics that can be fatal
- Movement disorders may occur
- Autonomic dysfunction may occur



Frontotemporal Dementia Key Features

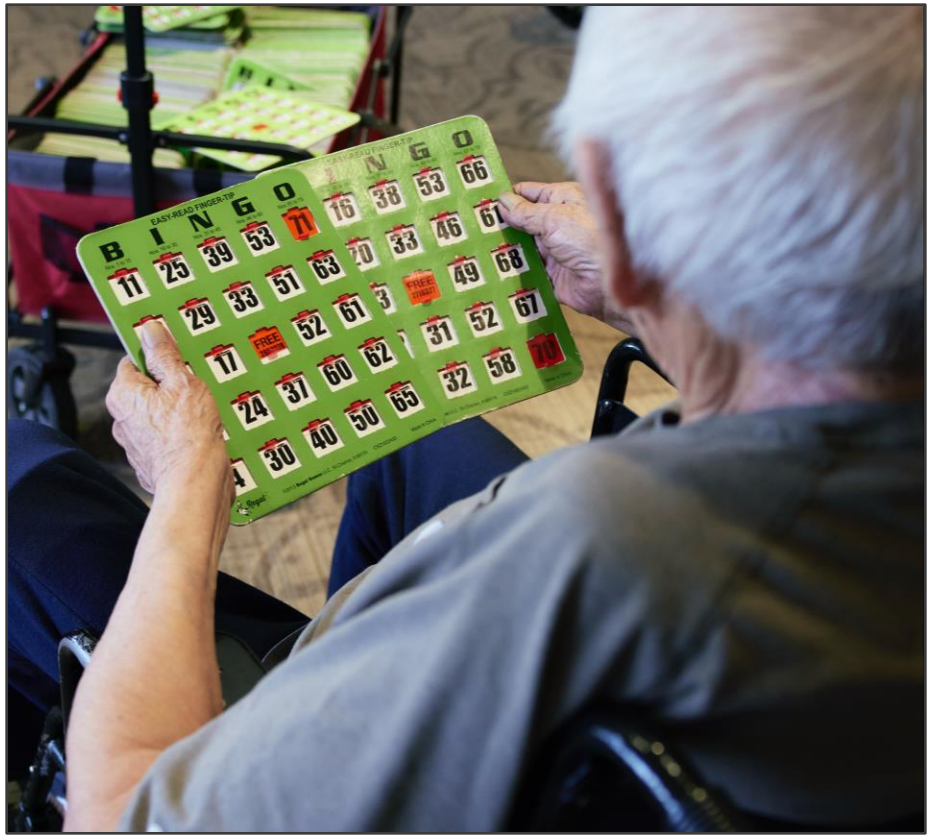
- 60% present between ages of 45 to 60
  - 3% of dementia cases in people ages 65 and older
  - 10% of cases in people younger than age 65
- Mean age of onset is 58.9 years
- Types of frontotemporal dementia
  - Pick's Disease
  - Primary progressive aphasia
  - Frontotemporal dementia with associated movement disorders



(Alzheimer's Disease Facts and Figures 2021, KAER Toolkit, 2020)

Symptoms of Frontotemporal Dementia

- Disinhibition, apathy, compulsive behaviors
- Problems understanding language, producing speech, finding words
- Impaired object recognition or knowledge of how to use familiar objects
- Difficulty making plans, problem-solving, reasoning, judgment
- Memory loss typically less pronounced early compared to other dementia types



Mixed Dementia

Mixed dementia increases with age

Over 50% = mixed dementia

Precise diagnosis often not possible

Screening and Evaluation

Screening for Mrs. Solomon

- 74-year-old woman with diabetes and hypertension
- On a recent doctor visit, her HbA1C jumps to 10%
- As a care coordinator, you are asked to follow-up to be sure she is following recommended treatments
- When you call, she is vague about how she is taking her insulin and antihypertensives
- She tells you that she has been misplacing her glasses and when she can't find them, doesn't take her insulin
- When asked about her daily activities, she reports watching TV and walking the dog

Disclosing your Concerns

- Involve family members and ask the individual for permission to share information
    - **Example:** “Is it okay if I share my thoughts about what may be happening?”
- Acknowledge any fears and offer hope and optimism
    - **Example:** “This is helpful to know so we can be better prepared.”
- Emphasize your commitment to ongoing support
- Frame conversation as beginning of a series of visits

Provide Person-Centered Care

Explore how individual and family perceive cognitive changes

- Normal part of aging, a gift, or a medical problem?
- Family members may have differing perspectives

Clarify if individual and the care partner want your opinion from Western medical framework

Discuss goals and preferences for treatment

- Non-medical or behavioral interventions
- Symptomatic treatments
- Disease-modifying therapies
- Cultural or integrative approaches
- Emphasis on supporting activities of daily living, social connections, and safety

Ask About Cultural Values and Preferences

"What would be helpful for me to know about how you and your family view illness?"

"Are there cultural beliefs, traditional practices or preferences that should be part of your health care?"

"Are there any traditional practices that you use?"

"Do you prefer to make medical decisions for yourself, or do you prefer others in your family or community make them with you?"

Supportive Language

"Living with changes in memory loss may be scary and not easy. Let's find out more so that we focus on helping you stay as healthy as possible and to feel better.

Our goal here is to help you think more clearly, stay independent, and find ways to still enjoy life. We will be with you as we move forward."

Discussion Question

Cultural Considerations

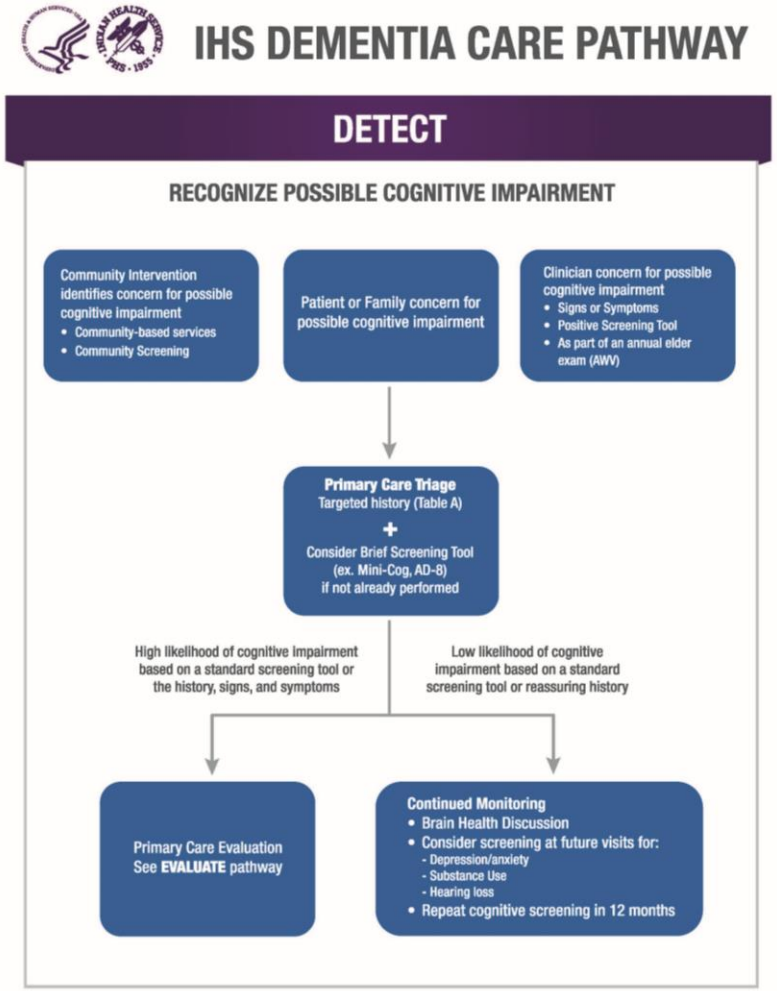
Screening Tools

Screening Tools to Detect Cognitive Impairment

TRIAD TRAINING AND RESOURCES FOR THE IHS ON ALZHEIMER'S AND DEMENTIA

Indian Health Service Dementia Care Pathway

1. **Detect**
   - Two screening tools: Mini-Cog© or AD8
2. **Evaluate**
   - Multi-step process; occurs in primary care
   - Includes further cognitive assessment such as Montreal Cognitive Assessment, Rowland Universal Dementia Assessment Scale, or Saint Louis University Mental Status Examination
3. **Diagnose and Discuss**
   - Evaluation is synthesized to determine cognitive functional status and diagnosis
   - Outcome determines treatment and referrals



(Indian Health Service, 2025)

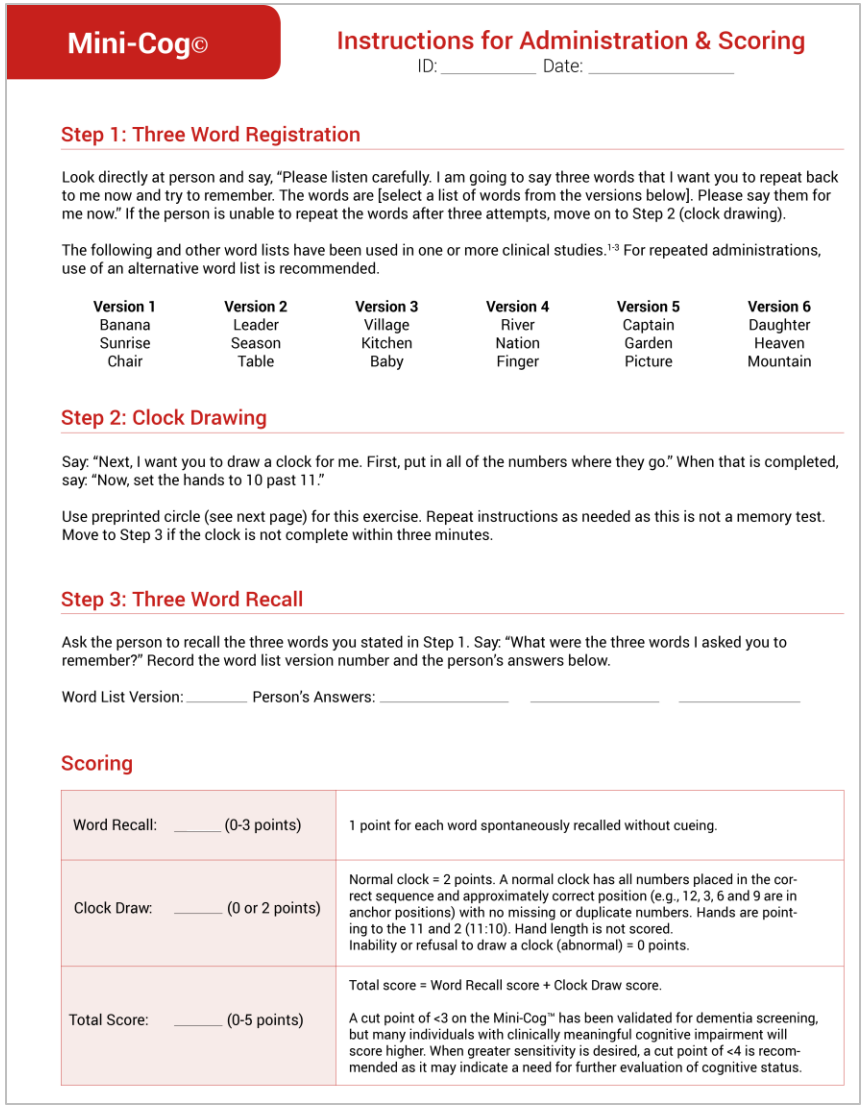
Mini-Cog© Screening Tool

Screening tool

- Identifies people who may benefit from further cognitive evaluation; quick and easy
- Detects potential cognitive impairment; used in primary care and community settings

Not diagnostic

- Not intended to diagnose cognitive disorders
- Follow-up positive Mini-Cog© with further evaluation



Mini-Cog©

Instructions for Administration & Scoring

ID: _____ Date: _____

Step 1: Three Word Registration

Look directly at person and say, "Please listen carefully. I am going to say three words that I want you to repeat back to me now and try to remember. The words are [select a list of words from the versions below]. Please say them for me now." If the person is unable to repeat the words after three attempts, move on to Step 2 (clock drawing).

The following and other word lists have been used in one or more clinical studies.[1-3] For repeated administrations, use of an alternative word list is recommended.

Version 1	Version 2	Version 3	Version 4	Version 5	Version 6
Banana	Leader	Village	River	Captain	Daughter
Sunrise	Season	Kitchen	Nation	Garden	Heaven
Chair	Table	Baby	Finger	Picture	Mountain

Step 2: Clock Drawing

Say: "Next, I want you to draw a clock for me. First, put in all of the numbers where they go." When that is completed, say: "Now, set the hands to 10 past 11."

Use preprinted circle (see next page) for this exercise. Repeat instructions as needed as this is not a memory test. Move to Step 3 if the clock is not complete within three minutes.

Step 3: Three Word Recall

Ask the person to recall the three words you stated in Step 1. Say: "What were the three words I asked you to remember?" Record the word list version number and the person's answers below.

Word List Version: _____ Person's Answers: _____ _____ _____

Scoring

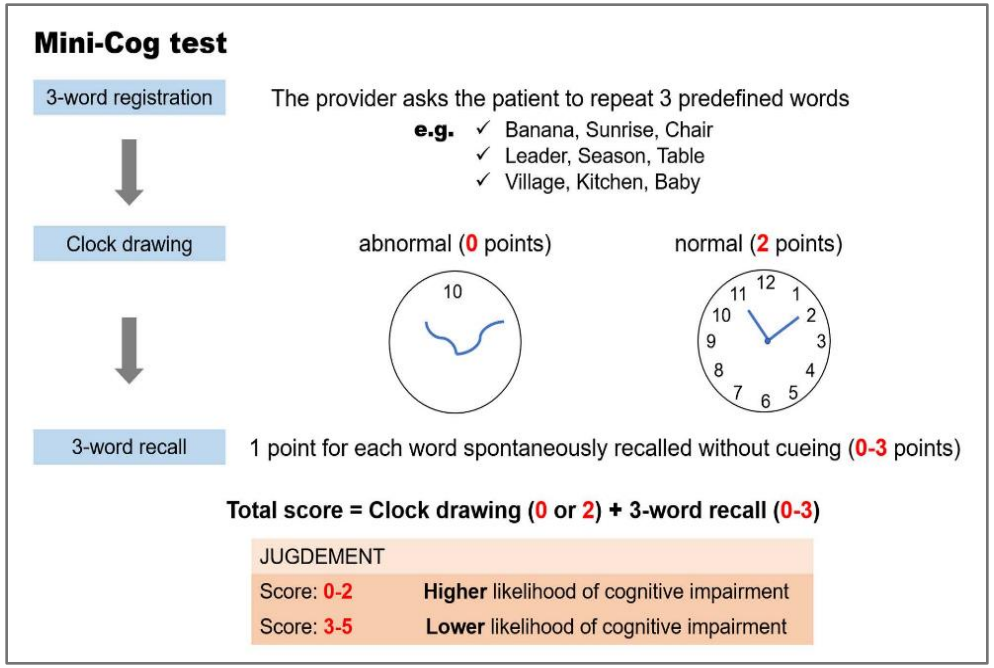
Word Recall: _____ (0-3 points)	1 point for each word spontaneously recalled without cueing.
Clock Draw: _____ (0 or 2 points)	Normal clock = 2 points. A normal clock has all numbers placed in the correct sequence and approximately correct position (e.g., 12, 3, 6 and 9 are in anchor positions) with no missing or duplicate numbers. Hands are pointing to the 11 and 2 (11:10). Hand length is not scored. Inability or refusal to draw a clock (abnormal) = 0 points.
Total Score: _____ (0-5 points)	Total score = Word Recall score + Clock Draw score. A cut point of <3 on the Mini-Cog™ has been validated for dementia screening, but many individuals with clinically meaningful cognitive impairment will score higher. When greater sensitivity is desired, a cut point of <4 is recommended as it may indicate a need for further evaluation of cognitive status.

(Alzheimer's Association, 2016)

Mini-Cog©

Consists of two components

- 3-word recall: 3 unrelated words recited, recalled immediately, again after short delay
- Clock drawing test: Asked to draw clock displaying specific time to assess visual-spatial and executive function
- *Maximum score = 5*
  - 0, 1, or 2: High probability of impairment
  - 3, 4, or 5: Low probability of dementia



(Yajima, Nakanishi, et al, 2022)

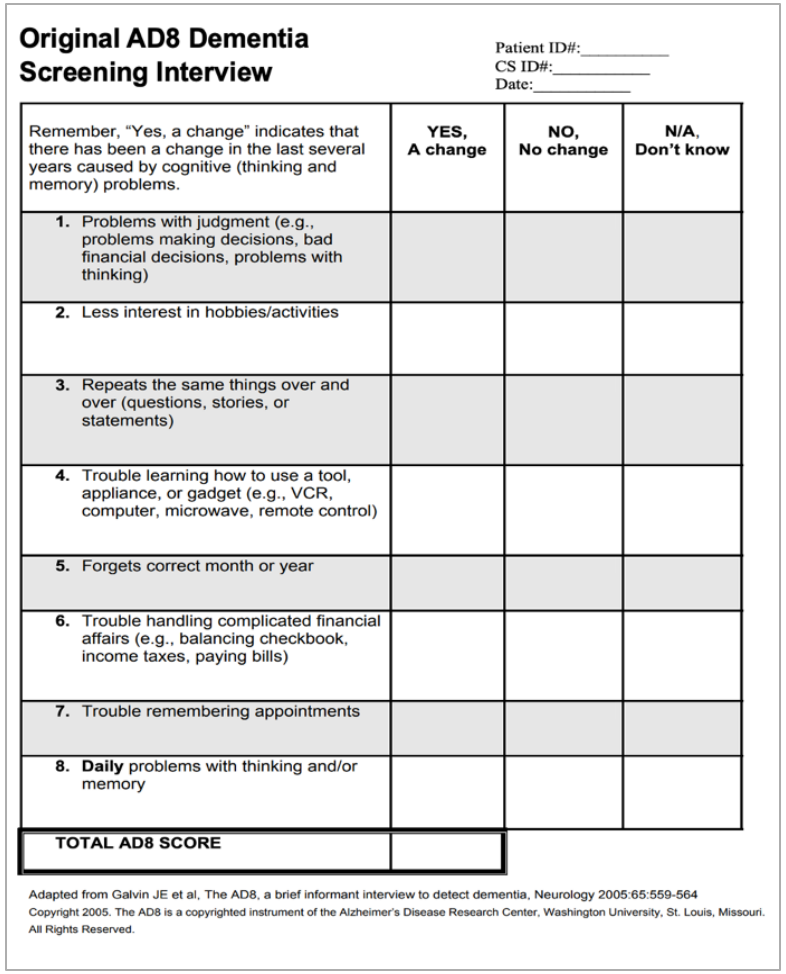
AD8 Screening Tool

8-item interview completed to differentiate aging and dementia

Assesses functional change due to problems with memory, orientation, judgment

Maximum score = 8

- 0 to 1: Normal cognition
- ≥ 2: Likely cognitive impairment



Original AD8 Dementia Screening Interview

Patient ID#:_____
CS ID#:_____
Date:_____

Remember, "Yes, a change" indicates that there has been a change in the last several years caused by cognitive (thinking and memory) problems.	YES, A change	NO, No change	N/A, Don't know
1. Problems with judgment (e.g., problems making decisions, bad financial decisions, problems with thinking)			
2. Less interest in hobbies/activities			
3. Repeats the same things over and over (questions, stories, or statements)			
4. Trouble learning how to use a tool, appliance, or gadget (e.g., VCR, computer, microwave, remote control)			
5. Forgets correct month or year			
6. Trouble handling complicated financial affairs (e.g., balancing checkbook, income taxes, paying bills)			
7. Trouble remembering appointments			
8. **Daily** problems with thinking and/or memory			
TOTAL AD8 SCORE			

Adapted from Galvin JE et al, The AD8, a brief informant interview to detect dementia, Neurology 2005:65:559-564
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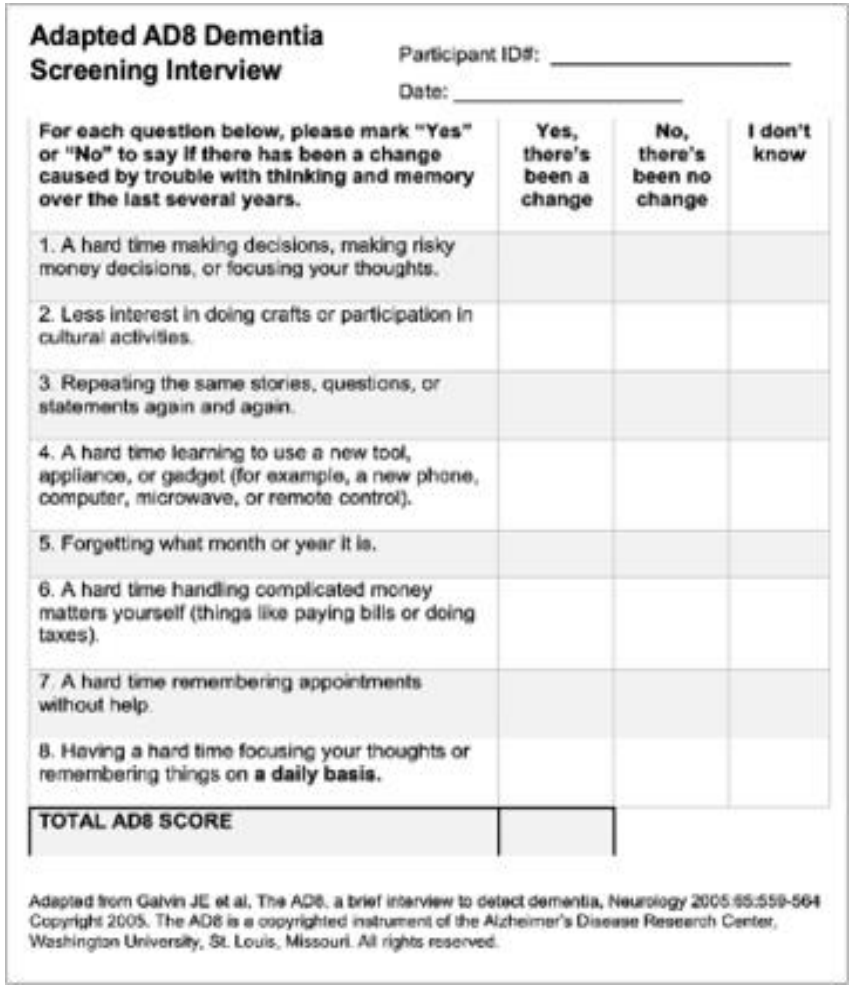
(Wenjun and Jiahui et al, 2025)

AD8 Dementia Screening Questions

1. Problems with judgment and decisions
2. Decreased interest in hobbies or activities
3. Repeated questions, stories, statements
4. Trouble learning how to use a tool, appliance, or gadget such as a computer, microwave, or remote control
5. Retrieval of correct month or year
6. Trouble handling complicated financial affairs, for example, balancing checkbook, calculating income tax, paying bills
7. Trouble remembering appointments
8. Daily problems with thinking or memory



Adapted AD8 Dementia Screening Interview

Participant ID#: _____

Date: _____

For each question below, please mark "Yes" or "No" to say if there has been a change caused by trouble with thinking and memory over the last several years.	Yes, there's been a change	No, there's been no change	I don't know
1. A hard time making decisions, making risky money decisions, or focusing your thoughts.			
2. Less interest in doing crafts or participation in cultural activities.			
3. Repeating the same stories, questions, or statements again and again.			
4. A hard time learning to use a new tool, appliance, or gadget (for example, a new phone, computer, microwave, or remote control).			
5. Forgetting what month or year it is.			
6. A hard time handling complicated money matters yourself (things like paying bills or doing taxes).			
7. A hard time remembering appointments without help.			
8. Having a hard time focusing your thoughts or remembering things on **a daily basis.**			
TOTAL AD8 SCORE			

Adapted from Galvin JE et al. The AD8: a brief interview to detect dementia, Neurology 2005;65:559-564
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(Wenjun and Jiahui et al, 2025)

Clinical Story: Part 3

- Mrs. Solomon agrees to be screened for possible impairment.
- You complete the Mini-cog and she receives a score of 2.

Evaluate in Primary Care

Diagnostic Workup and Evaluation

- Conduct with individual, caregiver, or family for collateral information
- Evaluate over one long visit or series of visits
  - Perform cognitive history and assessment
  - Perform functional assessment
  - Conduct full history and physical examination
  - Obtain laboratory tests; neuroimaging if available

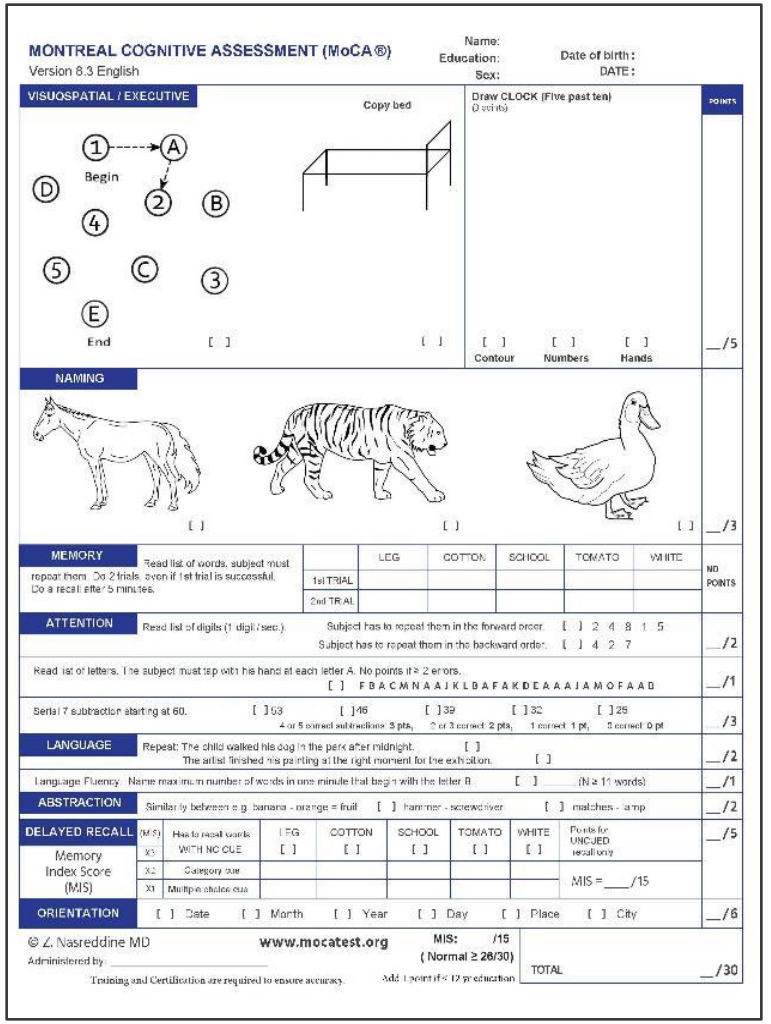
Montreal Cognitive Assessment

Assesses problems with executive function, memory, attention, language

Maximum score = 30 points

Score ranges

- ≤ 23: Probable cognitive impairment
- 24 to 26: Possible cognitive impairment
- ≥ 27: Probable intact cognition



MONTREAL COGNITIVE ASSESSMENT (MoCA®)
Version 8.3 English

Name:
Education:
Sex:
Date of birth:
DATE:

VISUOSPATIAL / EXECUTIVE — Copy bed — Draw CLOCK (Five past ten) (3 points) — POINTS — /5
Begin — End — Contour — Numbers — Hands

NAMING — /3

MEMORY — Read list of words, subject must repeat them. Do 2 trials, even if 1st trial is successful. Do a recall after 5 minutes. — FACE — VELVET — CHURCH — DAISY — RED — NO POINTS
1st TRIAL
2nd TRIAL

ATTENTION — Read list of digits (1 digit/sec.) — Subject has to repeat them in the forward order [ ] 2 4 8 1 5 — Subject has to repeat them in the backward order [ ] 4 2 7 — /2

Read list of letters. The subject must tap with his hand at each letter A. No points if ≥ 2 errors. [ ] F B A C M N A A J K L B A F A K D E A A A J A M O F A A B — /1

Serial 7 subtraction starting at 60. [ ] 53 [ ] 46 [ ] 39 [ ] 32 [ ] 25 — 4 or 5 correct subtractions: 3 pts, 2 or 3 correct: 2 pts, 1 correct: 1 pt, 0 correct: 0 pt — /3

LANGUAGE — Repeat: The child walked his dog in the park after midnight. [ ] — The artist finished his painting at the right moment for the exhibition. [ ] — /2

Language Fluency - Name maximum number of words in one minute that begin with the letter B [ ] ____ (N ≥ 11 words) — /1

ABSTRACTION — Similarity between e.g. banana - orange = fruit [ ] hammer - screwdriver [ ] matches - lamp — /2

DELAYED RECALL — Memory Index Score (MIS) — Has to recall words WITH NO CUE — FACE [ ] — VELVET [ ] — CHURCH [ ] — DAISY [ ] — RED [ ] — Points for UNCUED recall only — Category cue — Multiple choice cue — MIS = ____/15 — /5

ORIENTATION — [ ] Date [ ] Month [ ] Year [ ] Day [ ] Place [ ] City — /6

© Z. Nasreddine MD — www.mocatest.org — MIS: /15 (Normal ≥ 26/30) — Administered by: _____ — Training and Certification are required to ensure accuracy. — Add 1 point if ≤ 12 yr education — TOTAL — /30

(Missouri Geriatric Toolkit, 2018)

Montreal Cognitive Assessment: Domains

Visual-spatial skills	Includes tasks like drawing and copying objects
Executive function	Assesses planning and problem-solving abilities
Memory	Assesses both immediate and delayed recall of information
Language	Requires naming objects and repeating phrases
Attention and focus	Assesses concentration and ability to switch between different tasks
Orientation	Asks date, time, and location to assess person's awareness of their environment

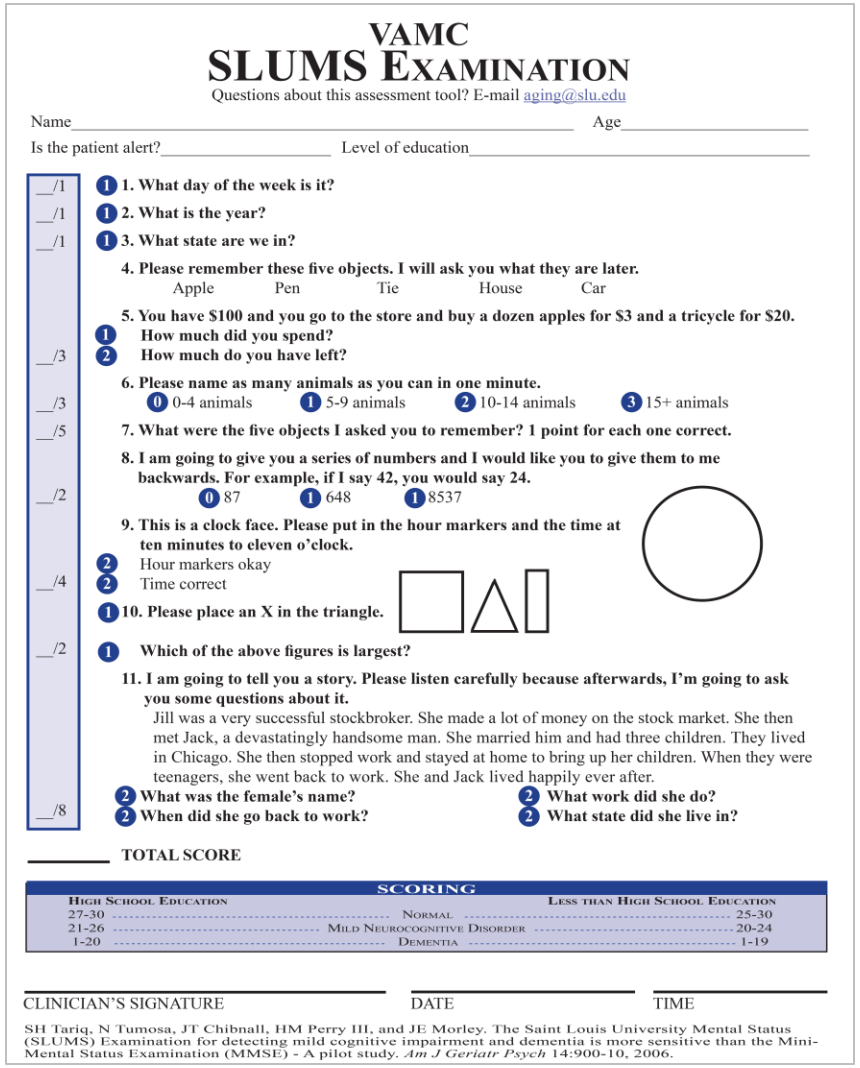
Individuals with Low Literacy

- MoCA can over diagnose impairment in individuals who have very low literacy
- In people with very low education levels, RUDAS test is an option as it features:
  - Low bias in people with limited or no formal education
  - Minimal need for cultural or language adaptation
  - Scores are easily calculated

The Saint Louis University Mental Status Examination (SLUMS)

Domains SLUMS assesses

- **Orientation**: Time and place
- **Memory:** Immediate and delayed recall, with interference tasks
- **Attention:** Focus and concentration
- **Executive function**: Planning, problem-solving, abstract thinking
- **Language:** Animal naming
- **Visuospatial skills:** Clock drawing, recognizing geometric figures



VAMC
SLUMS EXAMINATION
Questions about this assessment tool? E-mail aging@slu.edu

Name_____ Age_____
Is the patient alert?_____ Level of education_____

__/1 1. What day of the week is it?
__/1 2. What is the year?
__/1 3. What state are we in?
4. Please remember these five objects. I will ask you what they are later.
Apple Pen Tie House Car
5. You have $100 and you go to the store and buy a dozen apples for $3 and a tricycle for $20.
1 How much did you spend?
__/3 2 How much do you have left?
6. Please name as many animals as you can in one minute.
__/3 0 0-4 animals 1 5-9 animals 2 10-14 animals 3 15+ animals
__/5 7. What were the five objects I asked you to remember? 1 point for each one correct.
8. I am going to give you a series of numbers and I would like you to give them to me backwards. For example, if I say 42, you would say 24.
__/2 0 87 1 648 1 8537
9. This is a clock face. Please put in the hour markers and the time at ten minutes to eleven o'clock.
2 Hour markers okay
__/4 2 Time correct
1 10. Please place an X in the triangle.
__/2 1 Which of the above figures is largest?
11. I am going to tell you a story. Please listen carefully because afterwards, I'm going to ask you some questions about it.
Jill was a very successful stockbroker. She made a lot of money on the stock market. She then met Jack, a devastatingly handsome man. She married him and had three children. They lived in Chicago. She then stopped work and stayed at home to bring up her children. When they were teenagers, she went back to work. She and Jack lived happily ever after.
__/8 2 What was the female's name? 2 What work did she do?
2 When did she go back to work? 2 What state did she live in?

_____ TOTAL SCORE

SCORING

High School Education		Less than High School Education
27-30	Normal	25-30
21-26	Mild Neurocognitive Disorder	20-24
1-20	Dementia	1-19

CLINICIAN'S SIGNATURE DATE TIME

SH Tariq, N Tumosa, JT Chibnall, HM Perry III, and JE Morley. The Saint Louis University Mental Status (SLUMS) Examination for detecting mild cognitive impairment and dementia is more sensitive than the Mini-Mental Status Examination (MMSE) - A pilot study. *Am J Geriatr Psych* 14:900-10, 2006.

(VeryWell Health, 2024)

Functional Status Assessment

Basic Activities of Daily Living (ADLs)

- Essential self-care tasks crucial for independent living
- Bathing, dressing, eating, toileting, getting in and out of bed or chair, continence, and others
- Decline in ADLs often indicates advanced cognitive impairment

Instrumental Activities of Daily Living (IADLs)

- More complex activities necessary for independent living
- Managing finances, meal preparation, medications, transportation, shopping, housekeeping, communication
- Changes in IADLs among earliest signs of cognitive decline

Anxiety and Depression Screening

Impact of cognitive impairment	Screening importance	Cultural notes for AI/AN communities
Anxiety and depression symptoms can mimic or exacerbate cognitive decline	Routine screening for anxiety and depression essential in diagnostic workup	Mental health stigma and diverse cultural expressions of distress can challenge open discussion
Differentiation between treatable mental health conditions and neurocognitive disorders crucial	Identification and treatment of these conditions can improve well-being and cognitive function	Building trust and ensuring culturally sensitive communication vital when discussing emotional well-being

Cognitive History and Examination Checklist

Cognitive and behavioral symptoms: Memory loss, concentration difficulties, personality changes, mood symptoms, sleep disturbance, hallucinations

AD8 can help guide interview

Sensorimotor symptoms: Abnormal gait, tremor

- ☑ **Medical history:** Risk factors for cerebrovascular disease, hearing and vision loss, traumatic brain injury, sleep apnea, substance abuse, environmental exposures
- ☑ **Medications:** Psychoactive and over-the-counter
- ☑ **Family history:** Cognitive disorders
- ☑ **Physical examination:** Brief neurological examination included
- ☑ **Anxiety and depression:** Patient Health Questionnaire, Geriatric Depression Scale, and Generalized Anxiety Disorder screeners

Laboratory and Radiologic Tests

Labs

- Thyroid-stimulating hormone
- Vitamin B12
- Compete blood count
- Comprehensive metabolic panel
- Hemoglobin A1C
- Syphilis screen; Rapid Plasma Reagin (RPR)
- Human immunodeficiency virus

Neuroimaging

- Non-contrast head CT or non-contrast brain MRI
- Imaging can rule out other causes of cognitive changes such as a mass or infarct
- Usual standard of care but not required for diagnosis of dementia

What Are Alzheimer's Disease Biomarkers?

- Biomarkers are tests used to detect abnormal proteins that are part of underlying brain pathophysiology in Alzheimer's disease
- Used as part of full clinical evaluation, never as standalone diagnostic tool
- Common biomarkers include PET scans and cerebrospinal fluid analysis to measure proteins like amyloid and tau

Emerging **blood biomarkers** offer a less invasive option with one panel FDA-approved for clinical use

❌ **Not currently recommended** as part of initial diagnosis in primary care

❌ **Not used for initial work-up** before diagnosis or individual without impairment

✅ **May be used** to evaluate for anti-amyloid treatment, often in specialty setting

Discussion Question