



Introduction to Alzheimer's Disease and Other Dementias

**Children, Families, Health, and Human
Services Interim Committee**

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Alzheimer's Disease – a Public Health Crisis

- **The burden is large**
 - high prevalence in Montana, US, and the world
- **Underdiagnosed**
 - only half of individuals with the disease have been diagnosed
- **Societal burden is great**
 - it's the most expensive disease in the US
- **Deadly disease –**
 - 6th leading cause of death in the US and Montana
- **No prevention, cure, or effective treatment**
- **Heavy caregiver burden**

Montana Alzheimer's Statistics

- Currently 11% of our seniors have Alzheimer's disease - 19,000 individuals. By 2025 this number will reach 27,000
- 6th leading cause of death in Montana
- Caregiver burden
 - 48,000 caregivers provided
 - 55 million hours of unpaid care valued at
 - \$668 million

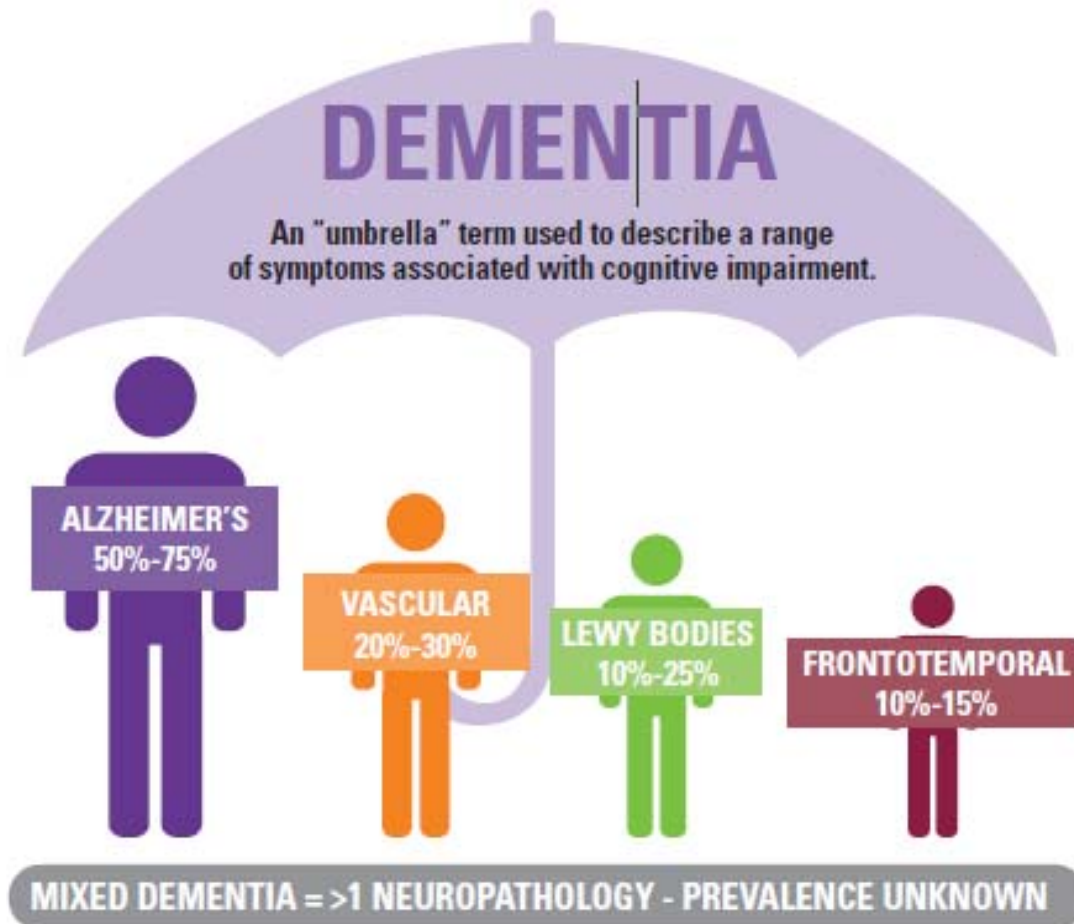
Overview

- Common types of dementia
- Diagnosing dementia
- Stages of Alzheimer's disease (AD)
- Treating Alzheimer's dementia and other dementias
- Levels of care needed to treat individuals with dementia

What is dementia?

Dementia is not a specific disease. It's an general term that describes a wide range of symptoms associated with a decline in memory or other thinking skills severe enough to reduce a person's ability to perform everyday activities.

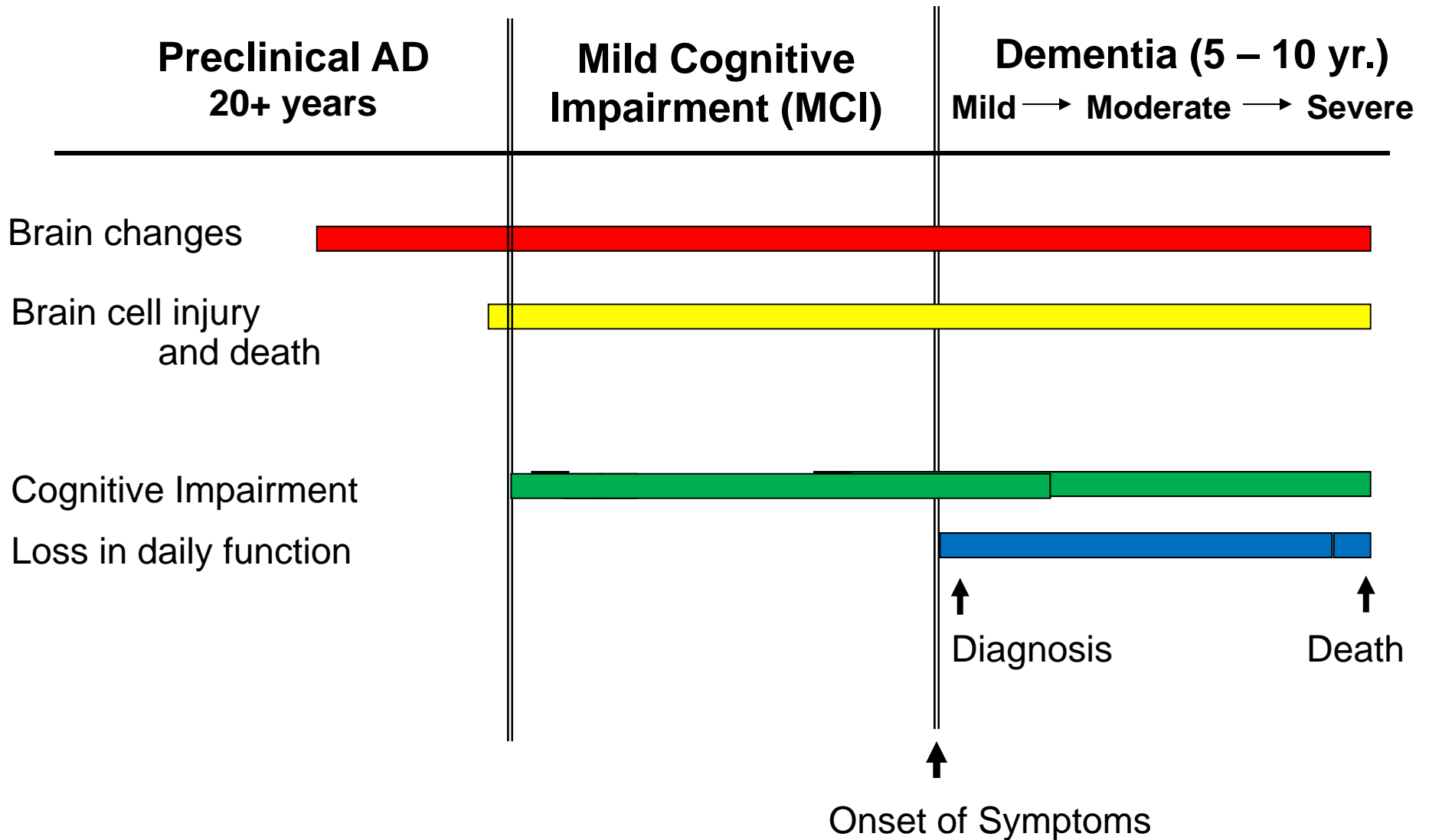
Common Forms of Dementia



Diagnosis of Dementia

- **There is no one test to determine if someone has dementia** but providers can determine that a person has dementia with a high level of certainty based on:
 - Careful medical history and physical examination
 - Laboratory tests and imaging studies
 - Characteristic changes in thinking, day-to-day function and behavior associated with each type.
- **Determining the exact type of dementia** can be harder because the symptoms and brain changes of different dementias can overlap

Stages of Alzheimer's Disease (AD)



Mild Alzheimer's Dementia

In the early stages of Alzheimer's:

- A person may function independently. He or she may still drive, work and be part of social activities.
- Friends, family, neighbors, and employers begin to notice difficulties
- Common difficulties include:
 - Problems coming up with the right word or name
 - Trouble remembering names when introduced to new people
 - Having greater difficulty performing tasks in social or work settings
 - Forgetting material that one has just read
 - Losing or misplacing a valuable object
 - Increasing trouble with planning or organizing

Moderate Alzheimer's Dementia

- Typically the longest stage and can last for many years.
- As the disease progresses, the person with Alzheimer's will require a greater level of care.
- Person with Alzheimer's is confusing words, getting frustrated or angry, or acting in unexpected ways, such as refusing to bathe.
- Difficult to express thoughts and perform routine tasks.

Moderate Alzheimer's Dementia

- Symptoms will be noticeable to others and may include:
 - Forgetfulness of events or about one's own personal history
 - Feeling moody or withdrawn, especially in socially or mentally challenging situations
 - Being unable to recall their own address or telephone number or the high school or college from which they graduated
 - Confusion about where they are or what day it is
 - The need for help choosing proper clothing for the season or the occasion
 - Trouble controlling bladder and bowels in some individuals
 - Changes in sleep patterns, such as sleeping during the day and becoming restless at night
 - An increased risk of wandering and becoming lost
 - Personality and behavioral changes, including suspiciousness and delusions or compulsive, repetitive behavior like hand-wringing or tissue shredding

Severe Alzheimer's Dementia

- In the final stage of this disease, individuals
 - lose the ability to respond to their environment, to carry on a conversation and, eventually, to control movement.
 - As memory and cognitive skills continue to worsen, personality changes may take place and individuals need extensive help with daily activities.
- At this stage, individuals may:
 - Require full-time, around-the-clock assistance with daily personal care
 - Lose awareness of recent experiences as well as of their surroundings
 - Require high levels of assistance with daily activities and personal care
 - Experience changes in physical abilities, including the ability to walk, sit and, eventually, swallow
 - Have increasing difficulty communicating
 - Become vulnerable to infections, especially pneumonia

Distinguishing Alzheimer's from other Types of Dementia

Dementia Type	Prominent Clinical Features
Alzheimer's disease Decline: Gradual	<p><u>Cognitive issues</u>: Memory loss and impaired learning early in the disease, time/space and language deficits in moderate to severe stage of disease,</p> <p><u>Behavior issues</u>: Apathy, delusions, agitation, wandering</p> <p><u>Motor issues</u>: Gait and swallowing problems later in disease</p>
Frontal temporal Decline: Gradual	<p><u>Cognitive issues</u>: Loss of word memory and word finding, grammar and comprehension problems. Difficulty speaking, planning, and organizing</p> <p><u>Behavior issues</u>: Personality change, disinhibition, compulsive behavior, lack of empathy,</p> <p><u>Motor issues</u>: May have Parkinson-like motor problems</p>
Lewy body Decline: Gradual	<p><u>Cognitive issues</u>: Fluctuating cognition, changes in attention, planning and organizing, judgment</p> <p><u>Behavior issues</u>: visual hallucinations, delusions, REM sleep problems</p> <p><u>Motor issues</u>: Parkinson-like motor problems early in disease</p>
Vascular Decline: Stepwise	<p><u>Cognitive and motor</u> deficits based on extent and location of stroke(s) or vascular event. Memory loss is usually secondary to impairments in planning and organizing and judgment.</p> <p><u>Behavior issues</u>: Personality and mood changes</p>

Treating Alzheimer's disease

Currently, there is no cure or disease modifying treatment for Alzheimer's disease. But drug and non-drug treatments may help with both cognitive and behavioral symptoms.

General Treatment Principles

Non-drug

- **Set** realistic goals
- **Identify and treat comorbid medical illnesses**, especially vascular risk factors, e.g., diabetes and high blood pressure
- **Promote brain health** by exercising, eating balanced diet, reducing stress, and keeping socially engaged
- **Supervised exercise** slows disability and prevents fall
- **Avoid medications that can affect cognition**, e.g., many over-the-counter sleep medications
- **For problem behaviors**, identify events or changes in a person environment that trigger the behaviors. Consider non drug strategies.

Treatment Options

Treatment of cognitive symptoms (memory loss, confusion, and problems with thinking and reasoning)

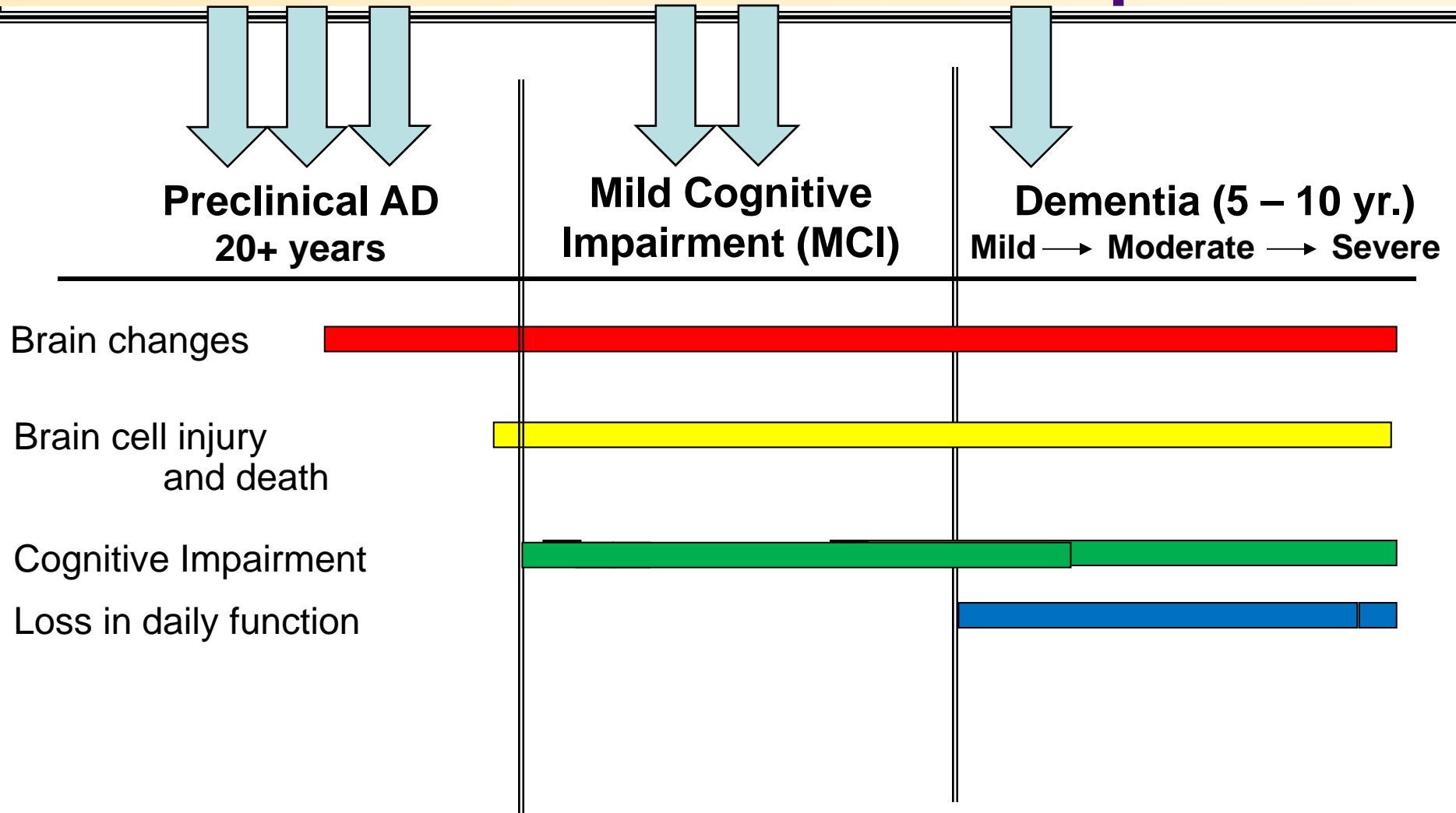
- Cholinesterase inhibitors – Aricept, Exelon, Razedyne
- Memantine (Namenda)
- Vitamin E 2000IU/day

Treatment of problem behaviors (depends on the behavior, use carefully)

- Antidepressants (for mood),
- Anxiolytics (for anxiety/restlessness),
- Antipsychotic medications (for hallucinations)

Stages of Alzheimer's Disease

Focus of New Treatment Options



Level of Care Needs and Dementia

Residence type	Level of care	Dementia stage
<p>Home</p> <p>Retirement Housing Annual Cost: ~Up to \$36,000 but usually less</p>	<p>Fairly independent Live alone safely</p> <p>May have some supervision, socialization, meal, and transportation services</p>	<p>Mild dementia and moderate dementia</p> <p>Potential resource needs: Meals on Wheels Adult day care Respite care Community Home-based services, e.g., Waiver program Hospice</p>
<p>Assisted Living</p> <p>Annual Cost: ~\$57,000 to 60,000</p>	<p>Bridge between living independently and NH care</p> <p>Combination of housing, meals, supportive services and health care. 24-hour staff, recreational activities, housekeeping, laundry and transportation.</p>	<p>Mild and moderate dementia</p> <p>Potential resource needs: Community Home-based services, e.g., Waiver program Hospice</p>
<p>Nursing Home</p> <p>Annual Cost: ~\$88,000 to 105,000</p>	<p>Round-the-clock care and long-term medical treatment.</p> <p>Services and staff address issues such as nutrition, care planning, recreation, spirituality and medical care. Providers round in the facility</p>	<p>Mild, moderate, and severe dementia</p> <p>Potential resource needs: Medicaid Hospice</p>

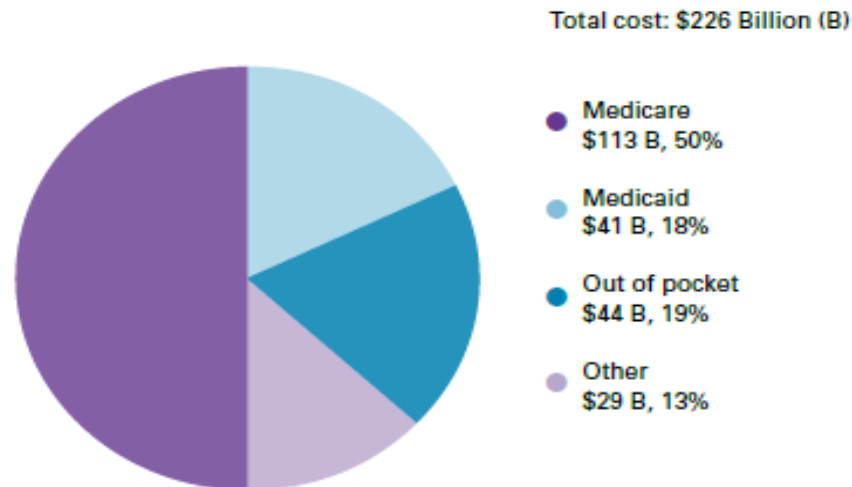
Reasons for Higher Level of Care

	Triggers
Safety Concerns	Unsafe in current residence due to: Mobility issues with difficulty walking and falling Poor nutrition/Failure to thrive Problem behaviors, e.g., wandering, aggressive behaviors Unable to care for home or do daily activities and personal care Health of person with dementia is at risk
Medical Issues	Unable to manage medications Development of new or worsening comorbid conditions Incontinence Behavioral problems/sleep disturbance
Caregiver Issues	Health of caregiver is at risk Caregiver no longer able to assist in care No caregiver available Caregiver burnout and emotional issues (e.g., stress, irritability) Caregiver neglecting work responsibility, family, and own self
Financial and other Issues	Can no longer afford where they live, e.g., assisted living Resources to keep individual at home or lower level of care are not available in his/her community or unaffordable Refuses any help even though at risk Transportation issues

Cost of Alzheimer's Dementia

FIGURE 11

Aggregate Cost of Care by Payment Source
for Americans Age 65 and Older with Alzheimer's
Disease and Other Dementias, 2015*



*Data are in 2015 dollars.

Created from The Lewin Model.^{A20} "Other" payment sources include private insurance, health maintenance organizations, other managed care organizations and uncompensated care. Totals for payment sources may not add to total cost due to rounding.

Medicare, Medicaid, and Out of pocket Expenditures for Individuals With and Without Alzheimer's

TABLE 8

Average Annual Per-Person Payments for Health Care and Long-Term Care Services, Medicare Beneficiaries Age 65 and Older, with and without Alzheimer's Disease and Other Dementias and by Place of Residence, in 2014 Dollars

Payment Source	Beneficiaries with Alzheimer's Disease and Other Dementias by Place of Residence			Beneficiaries without Alzheimer's Disease and Other Dementias
	Overall	Community-Dwelling	Residential Facility	
Medicare	\$21,585	\$19,223	\$24,884	\$8,191
Medicaid	11,021	242	26,086	574
Uncompensated	297	427	117	335
HMO	1,083	1,681	247	1,579
Private insurance	2,463	2,707	2,122	1,657
Other payer	986	178	2,115	156
Out of pocket	10,202	3,449	19,642	2,487
Total*	\$47,752	28,102	75,217	15,115

*Payments from sources do not equal total payments exactly due to the effect of population weighting. Payments for all beneficiaries with Alzheimer's disease and other dementias include payments for community-dwelling and facility-dwelling beneficiaries.

Created from unpublished data from the Medicare Current Beneficiary Survey for 2008.¹⁷⁹

Next Steps

- Devise a state wide strategy that increases public awareness and early detection of Alzheimer's disease and other related dementias.
- Enable individuals with dementia to have the resources to live at home or the least restrictive level of care, e.g., an expanded Waiver program
- Provide caregivers and family members with the support they need to care persons with dementia, e.g., expanded Waiver program, respite care, education and training, support from the workplace
- Create a Alzheimer's/Dementia State Plan for Montana

Thank you!



Questions?

