Webinar

Risk Factors for Cognitive Decline Among Dementia Caregivers

Facilitator

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Risk Factors for Cognitive Decline Among Dementia Caregivers

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Ice Breaker

Let us know where you're joining us from.

Looking ahead, what do you think is the most important way that public health can support caregivers?

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Housekeeping Things

- Recording available to all registrants
- Closed Caption
- Q&A
- Summary Email

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Agenda

- Learning Objectives
- Presenters
- Q&A

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Learning Objectives

Understand how caring for a person with Alzheimer's disease or another dementia can create new or worsen existing health problems for caregivers.

Explore data about risk factors for cognitive decline and how they affect caregivers.

Discuss strategies for integrating caregiver health and well-being initiatives into comprehensive strategic plans.

Presenters

Joe Gaugler, PhD

Director

BOLD Public Health Center of Excellence on Dementia Caregiving

Ben Denno, MS

Senior Health Policy Specialist

Alzheimer's Association

Renée Kidney

Principal Epidemiologist

Minnesota Department of Health

Patty Takawira

Aging and Healthy Communities Unit Manager

Minnesota Department of Health

BOLD PUBLIC HEALTH CENTER OF EXCELLENCE ON DEMENTIA CAREGIVING

Health Implications of Dementia Caregiving

Table 11

Percentage of Dementia Caregivers Who Report Having a Chronic Health Condition Compared with Caregivers of People without Dementia or Non-Caregivers*

Condition	Dementia Caregivers	Non-Dementia Caregivers	Non-Caregivers
Stroke	5.2	3.4	3.2
Coronary heart disease	8.3	7.2	6.6
Cardiovascular disease†	11.8	9.5	8.6
Diabetes	12.8	11.1	11.3
Cancer	14.3	13.3	11.5
Obesity	32.7	34.6	29.5

*Table includes caregivers age 18 and older.

†Combination of coronary heart disease and stroke.

Created from data from the Behavioral Risk Factor Surveillance System survey.[443]

From The Alzheimer's Association, 2024

Health Implications of Dementia Caregiving

- "Compared with those of the same age who were not caregivers, caregivers of people with dementia are estimated to lose between 2.4 hours and 3.5 hours of sleep a week" (Gao et al., 2019)
- "27% of dementia caregivers delayed or did not do things they should to maintain their own health" (National Poll on Healthy Aging, 2017)

Health Implications of Dementia Caregiving

"The chronic stress of caregiving may be associated with an increased incidence of hypertension and a number of physiological changes that could increase the risk of developing chronic conditions, including high levels of stress hormones, impaired immune function, slow wound healing and coronary heart disease" (Allen et al., 2017)

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Data Brief

- Survey data sourced from the 2021-2022 Behavioral Risk Factor Surveillance System (BRFSS) Caregiving Module.

- In 2021-2022, 47 states collected caregiver data using the optional/additional BRFSS Caregiving Module (no FL, MT, TN). This allows for a comprehensive picture of caregiver health on a *nearly* national-level basis.

- BRFSS includes measures on six modifiable risk factors for cognitive decline:
  - **Diabetes** - ever diagnosed;
  - **Obesity** - current, calculated from body measures;
  - **Physical Inactivity** - no exercise outside of work;
  - **Smoking** - current smoker;
  - **Poor Sleep** - averaging less than 6 hours per night;
  - **Hypertension** - ever diagnosed **2021 only**.

Dementia Caregivers

- "Dementia Caregivers" refers to caregivers who provide care to individuals for whom dementia is the "main condition" as well as those who "also have" dementia in addition to some other primary condition.

- Sample Summary:
  - n-value (number of dementia caregivers) = 13,565
  - Percent of adults that are dem. caregivers = 4.3%
  - Percent of caregivers that are dem. caregivers = 20.0%

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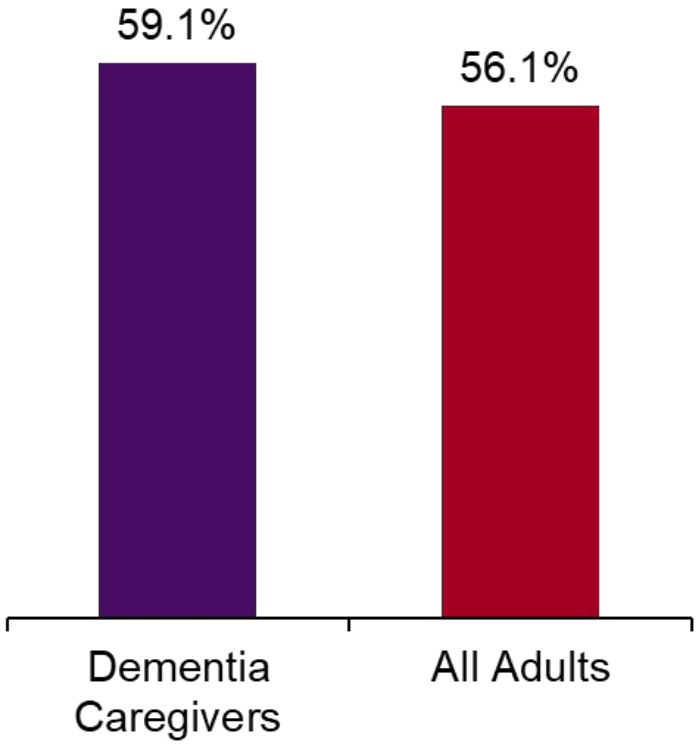
Overall Risk Factor Prevalence

Percent of Adults With At Least One Risk Factor for Cognitive Decline:



- Both the majority of dementia caregivers and the majority of all adults had at least one risk factor for cognitive decline.
- Overall, dementia caregivers were about 5% more likely to have a risk factor compared with all adults.
- Hypertension data was available for 2021 only and was not included in “any risk factor” calculations - however 2021-only findings suggest that the inclusion of hypertension under “any risk factor” would likely have *increased* the disparity between dementia caregivers and all adults.

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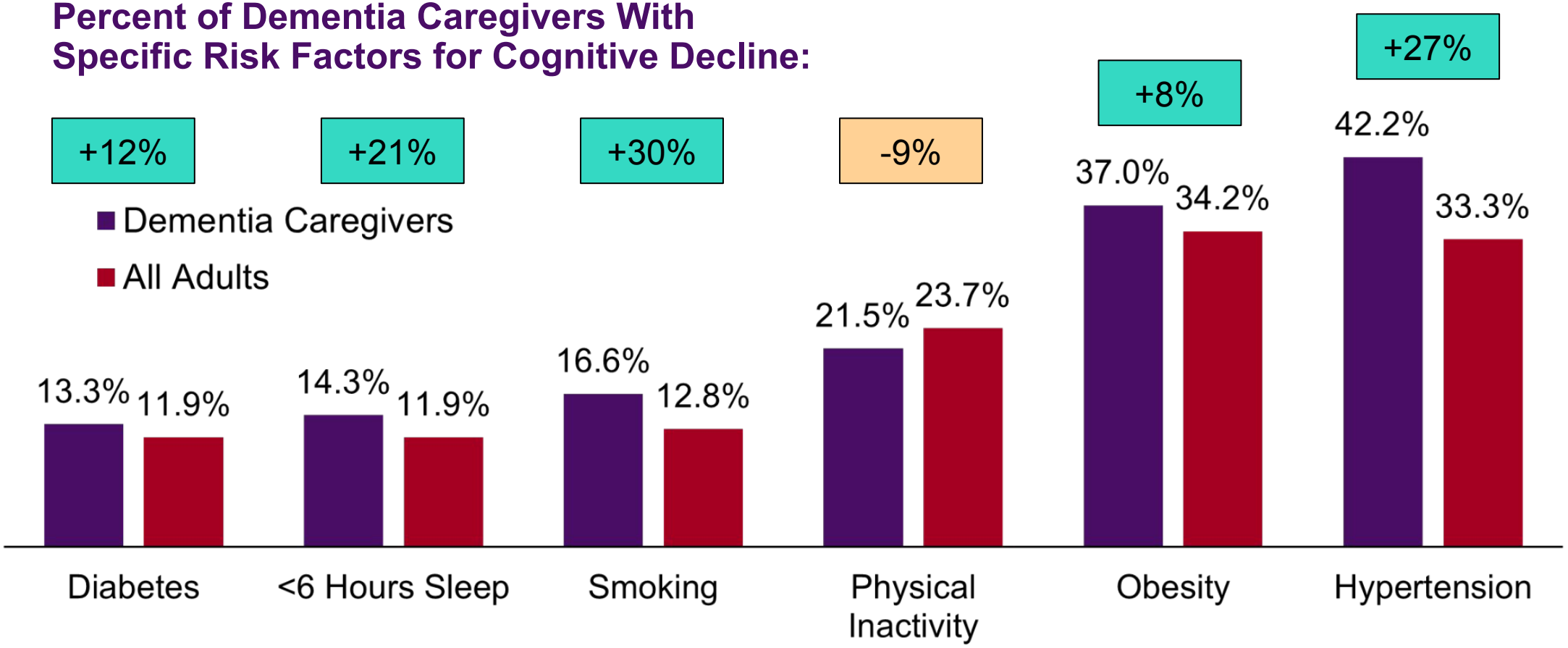
Prevalence of Individual Risk Factors

Percent of Dementia Caregivers With Specific Risk Factors for Cognitive Decline:



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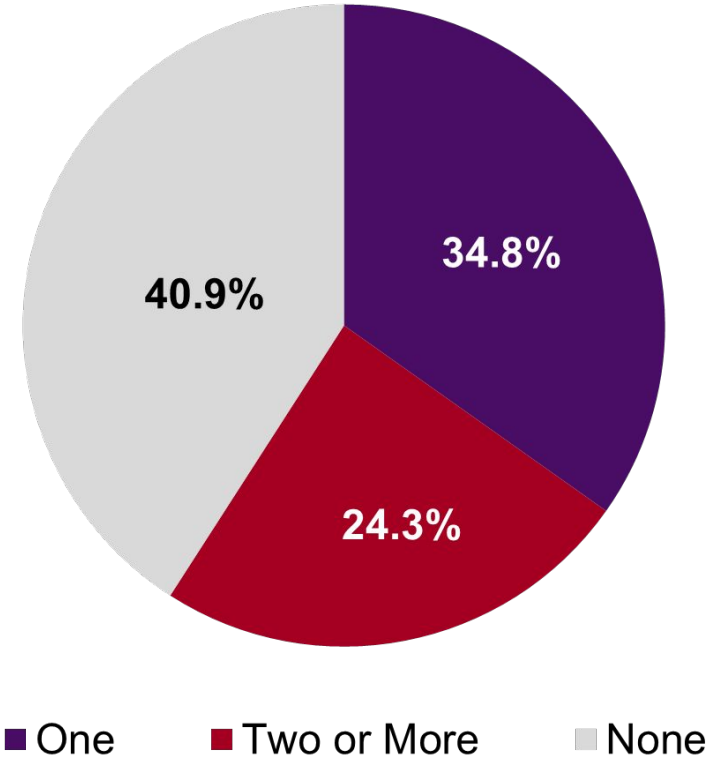
Overall Risk Factor Prevalence Contd.

- Of the 59.1% of dementia caregivers with at least one risk factor - 41.2% reported having multiple risk factors.
- Nearly 1 in 4 dementia caregivers (24.3%) had multiple risk factors for cognitive decline, compared with 21.3% of all adults, excluding hypertension.
- Dementia caregivers were about 14% more likely to have multiple risk factors compared to all adults.

Percent of Dementia Caregivers With Risk Factors for Cognitive Decline:



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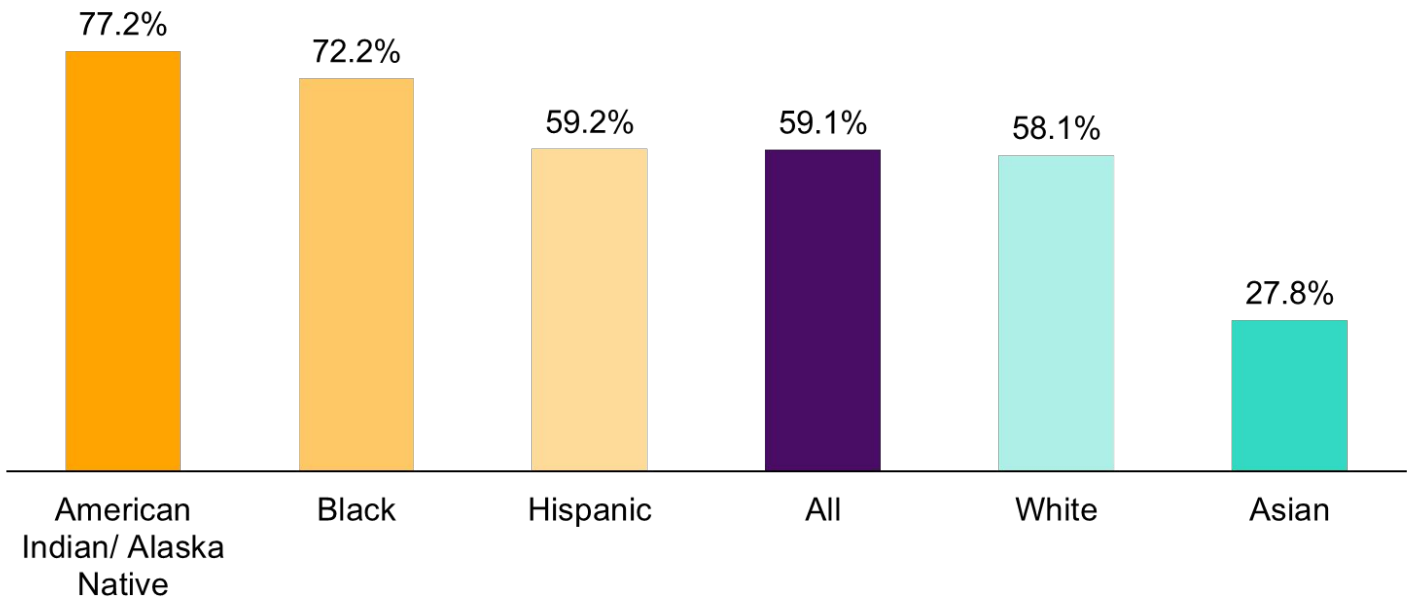
Risk Factors and Race/Ethnicity

Percent of Dementia Caregivers With a Risk Factor for Cognitive Decline by Race/Ethnicity:



- Compared with all dementia caregivers, American Indian/Alaska Native and Black caregivers were significantly *more likely*, while Asian dementia caregivers were significantly *less likely*, to have at least one risk factor for cognitive decline.
- American Indian/Alaska Native dementia caregivers were nearly 2x as likely to report smoking, and Black dementia caregivers were 40% more likely to report obesity, compared with all dementia caregivers.

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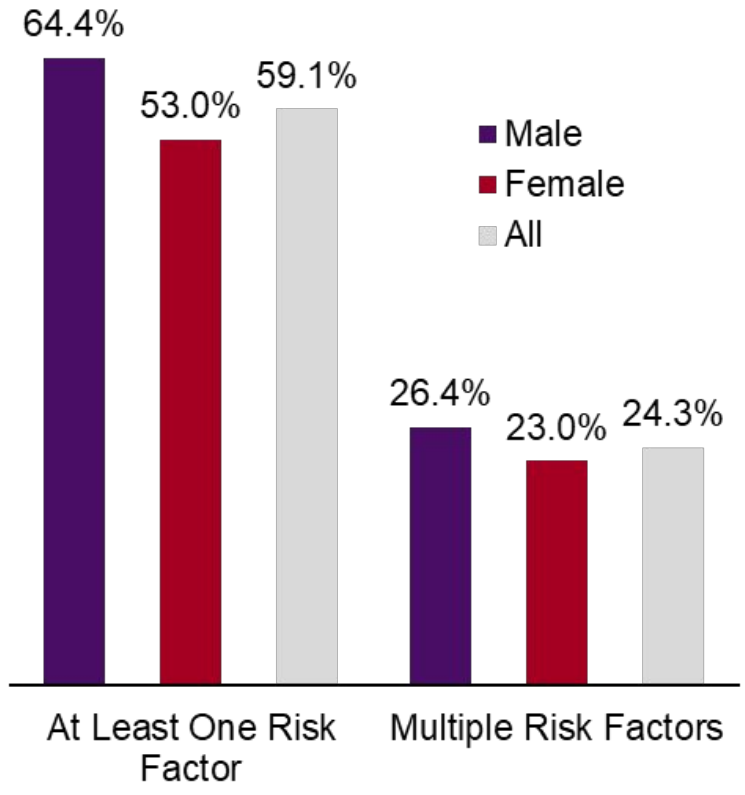
Risk Factors and Sex

- Among dementia caregivers, a majority of both sexes have at least one risk factor for cognitive decline.
- Proportional to risk among female dementia caregivers, male dementia caregivers are about 21% more likely to have one and 15% more likely to have multiple risk factors for cognitive decline.
- Compared with male dementia caregivers, female dementia caregivers were only *more likely* to be physically inactive.

Percent of Dementia Caregivers With Risk Factors for Cognitive Decline by Sex:



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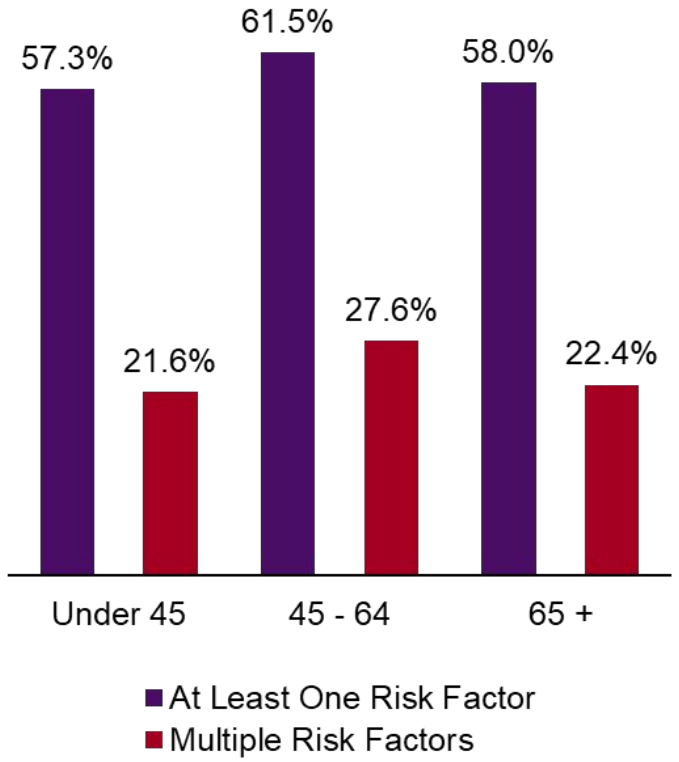
Risk Factors and Age

Percent of Dementia Caregivers with Risk Factors for Cognitive Decline by Age:



- More than half of dementia caregivers had at least one risk factor for cognitive decline across three age groups, and more than 1 in 5 had multiple risk factors.
- Middle age dementia caregivers (age 45-64) were more likely to report both at least one or multiple risk factors, compared with dementia caregivers of other ages.

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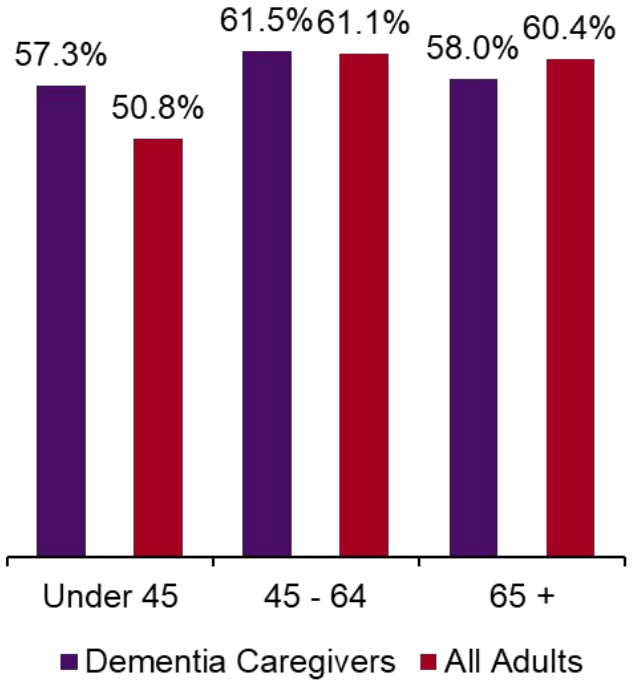
Age & At Least One Risk Factor

Dementia Caregivers & All Adults with at Least One Risk Factor by Age:



- Dementia caregivers under 45 were 13% more likely to have at least one risk factor for cognitive decline compared to all adults under 45.
- Middle-age dementia caregivers were about equally likely to have at least one risk factor compared with all middle-age adults.
- Dementia caregivers 65 and older were slightly less likely to have at least one risk factor compared with all adults 65 and older.

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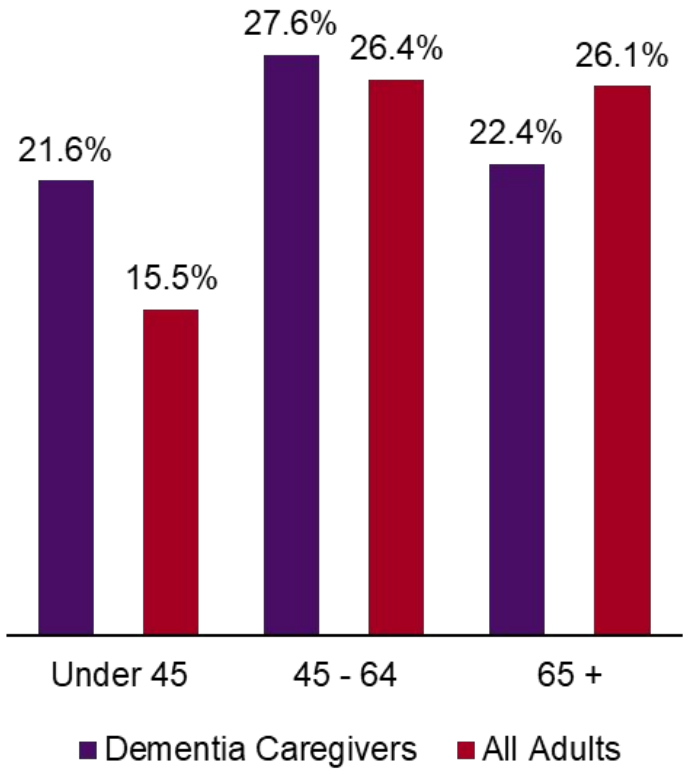
Age & Multiple Risk Factors

Dementia Caregivers & All Adults With Multiple Risk Factors by Age:



- Dementia caregivers under 45 were 40% more likely to have multiple risk factors for cognitive decline compared to all adults under 45.
- Middle-age dementia caregivers were about equally likely to have multiple risk factors compared with all middle-age adults.
- Dementia caregivers 65 and older were 17% less likely to have at least one risk factor compared with all adults 65 and older.

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Individual Risk Factors and Age

- Dementia caregivers under the age of 45, compared with all adults under 45, are:
  - 86% more likely to report smoking;
  - 46% more likely to report hypertension;
  - 29% more likely to report poor sleep.

- Dementia caregivers age 45-64, compared to all middle-age adults, are:
  - 30% more likely to report poor sleep.

- Dementia caregivers 65 and older, compared with all adults 65 and older, are:
  - 24% less likely to report diabetes;
  - 16% less likely to report smoking.

Conclusions

- More than half of both dementia caregivers and all adults had at least one risk factor for cognitive decline in 2021-2022, and between 1 in 4 and 1 in 5 had multiple risk factors.
- Dementia caregivers had higher prevalence rates for 5 out of 6 risk factors compared with all adults; diabetes, poor sleep, smoking, obesity, and hypertension.
- Male dementia caregivers, American Indian/Alaska Native dementia caregivers, and Black dementia caregivers were more likely to have at least one risk factor compared to all other dementia caregivers.
- Among those under the age of 45, dementia caregivers have significantly higher risk factor prevalence rates. This relationship moderates at middle-age, and *reverses* among those 65 and older.

The “Nine PLUS Lives” of our MN BRFSS Caregiving Data Analysis

Renée Kidney | Data Strategist (Epi Principal) Center for Health Promotion

Patty Takawira | Manager Aging and Healthy Communities Unit

DEPARTMENT OF HEALTH

Whole Person Approach

Not just “caregivers need respite services”

Bring in SDOH

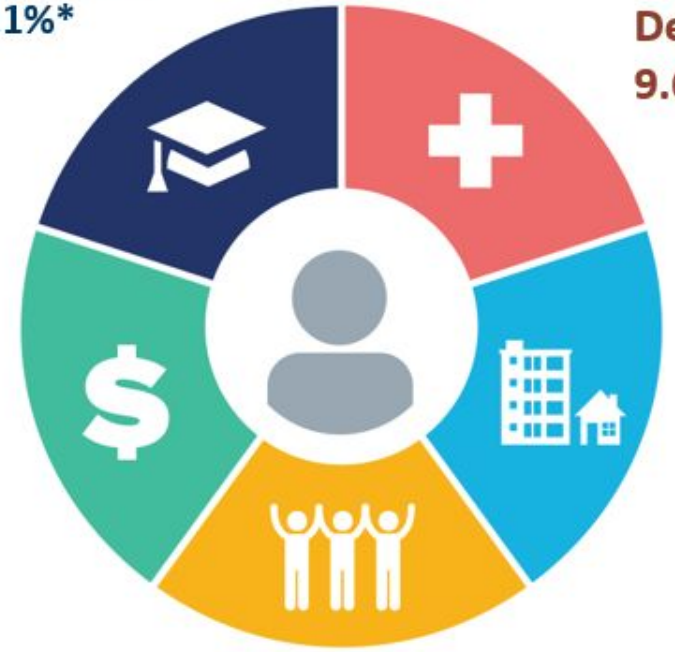
SDOH image Healthy People 2030

MN caregivers are impacted by SDOH

HS or less Education (25+ yrs)
25.7% vs. 30.1%*

Uninsured status
4.3% vs. 4.7%

Delayed care due to cost
9.6% vs. 5.8%



Working age and not employed
37.9% vs. 31.7%

Income <$35
20.3% vs. 17.3%

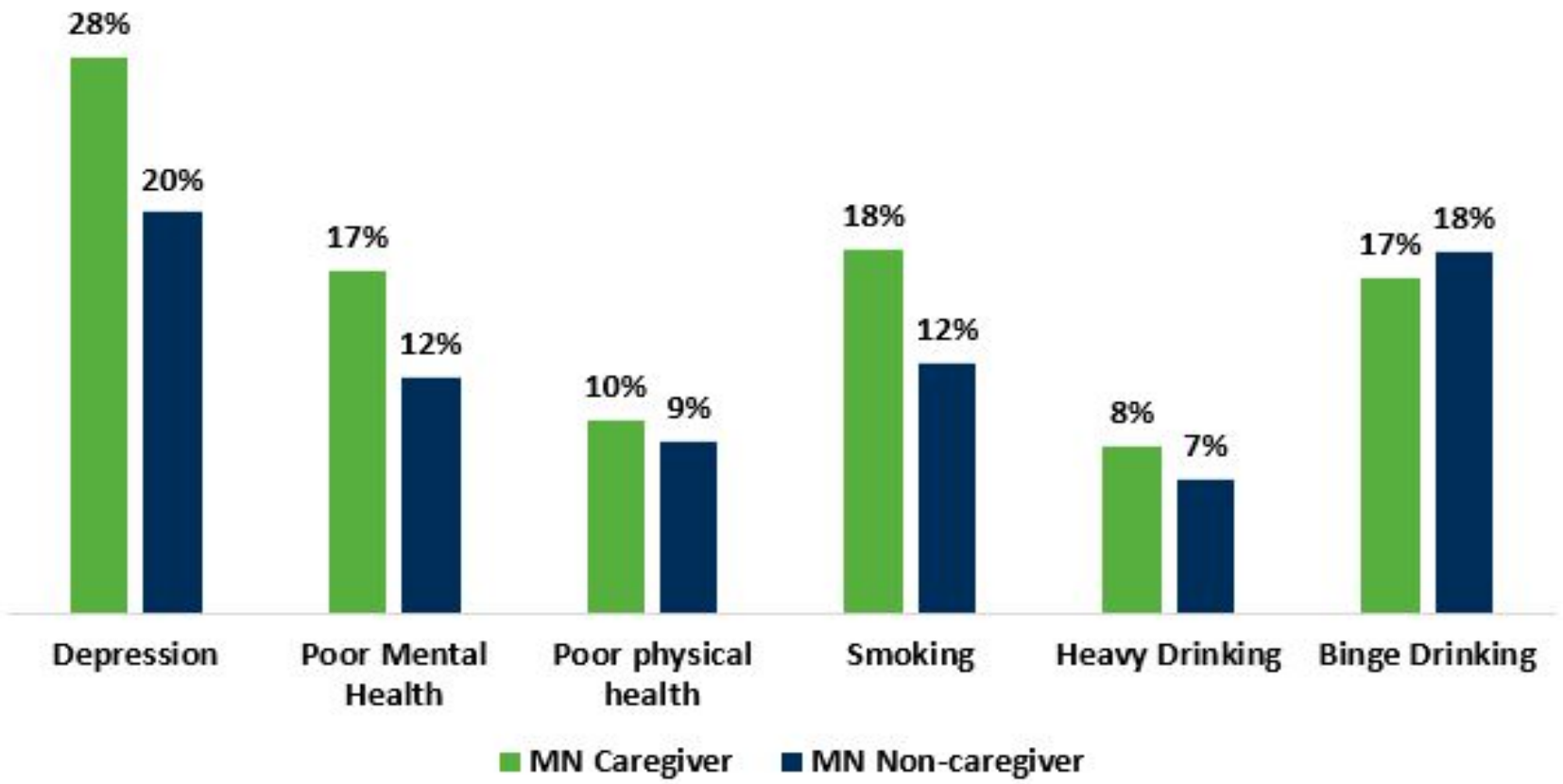
Food insecurity
11.8% vs. 10.0%

Not enough social & emotional support
19.7% vs. 16.8%

Data source: MN BRFSS 2021
SDOH image Healthy People 2030

*education may also track with other variables associated with positive Identification with the term caregiver

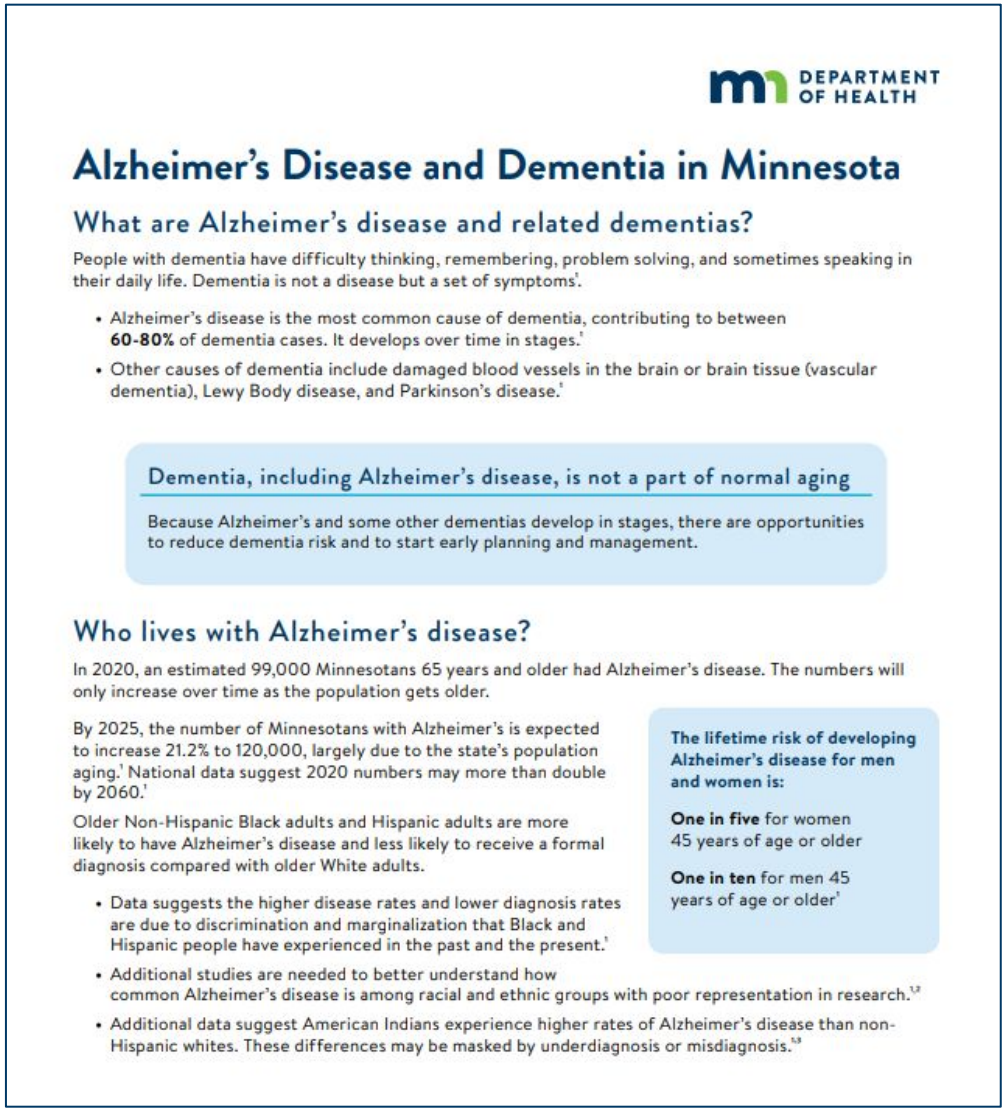
Many measures of health are poorer among MN caregivers



Slide credit: Ke Wang, Rosalynn Carter Institute for Caregivers

One analysis, with many “lives”

How our part-time epi started to use the data



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Alzheimer's Disease and Dementia in Minnesota

What are Alzheimer's disease and related dementias?

People with dementia have difficulty thinking, remembering, problem solving, and sometimes speaking in their daily life. Dementia is not a disease but a set of symptoms[1].

- Alzheimer's disease is the most common cause of dementia, contributing to between **60-80%** of dementia cases. It develops over time in stages.[1]
- Other causes of dementia include damaged blood vessels in the brain or brain tissue (vascular dementia), Lewy Body disease, and Parkinson's disease.[1]

Dementia, including Alzheimer's disease, is not a part of normal aging

Because Alzheimer's and some other dementias develop in stages, there are opportunities to reduce dementia risk and to start early planning and management.

Who lives with Alzheimer's disease?

In 2020, an estimated 99,000 Minnesotans 65 years and older had Alzheimer's disease. The numbers will only increase over time as the population gets older.

By 2025, the number of Minnesotans with Alzheimer's is expected to increase 21.2% to 120,000, largely due to the state's population aging.[1] National data suggest 2020 numbers may more than double by 2060.[1]

Older Non-Hispanic Black adults and Hispanic adults are more likely to have Alzheimer's disease and less likely to receive a formal diagnosis compared with older White adults.

The lifetime risk of developing Alzheimer's disease for men and women is:

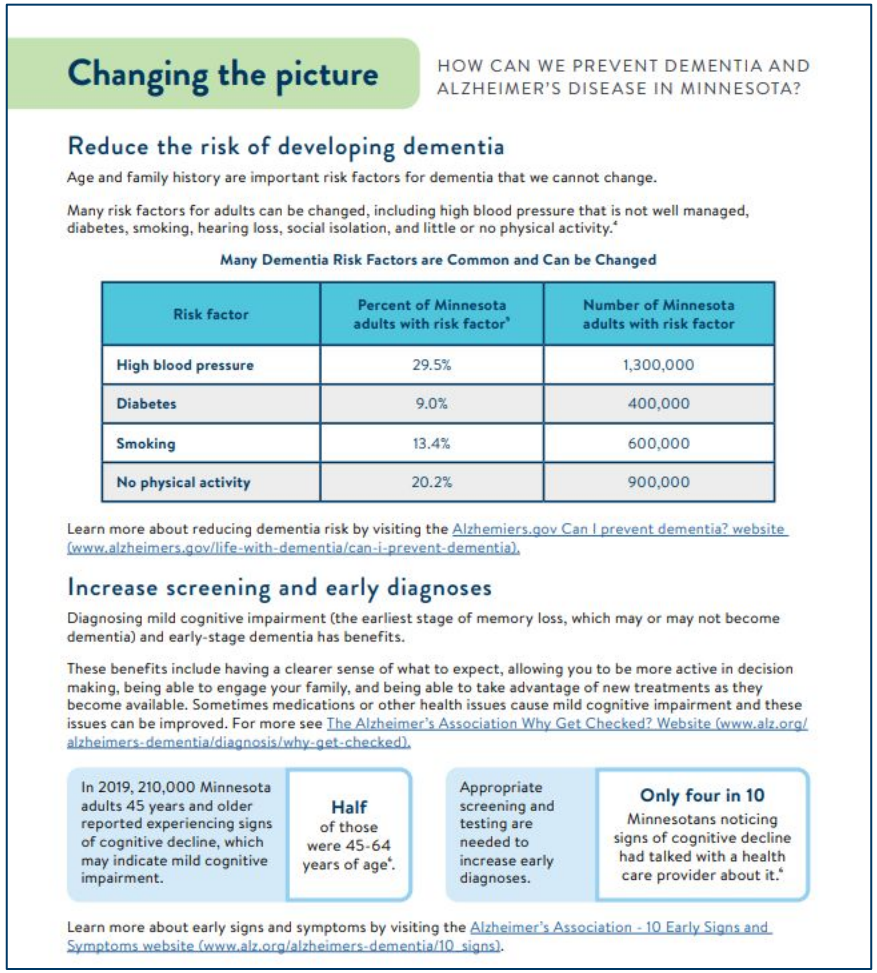
One in five for women 45 years of age or older

One in ten for men 45 years of age or older[1]

- Data suggests the higher disease rates and lower diagnosis rates are due to discrimination and marginalization that Black and Hispanic people have experienced in the past and the present.[1]
- Additional studies are needed to better understand how common Alzheimer's disease is among racial and ethnic groups with poor representation in research.[1,2]
- Additional data suggest American Indians experience higher rates of Alzheimer's disease than non-Hispanic whites. These differences may be masked by underdiagnosis or misdiagnosis.[1,3]

https://www.health.state.mn.us/diseases/alzheimers/docs/alzdementiainmnfactsheet.pdf

Where it all started: Our Dementia Fact Sheet



Changing the picture

HOW CAN WE PREVENT DEMENTIA AND ALZHEIMER'S DISEASE IN MINNESOTA?

Reduce the risk of developing dementia

Age and family history are important risk factors for dementia that we cannot change.

Many risk factors for adults can be changed, including high blood pressure that is not well managed, diabetes, smoking, hearing loss, social isolation, and little or no physical activity.[4]

Many Dementia Risk Factors are Common and Can be Changed

Risk factor	Percent of Minnesota adults with risk factor[5]	Number of Minnesota adults with risk factor
High blood pressure	29.5%	1,300,000
Diabetes	9.0%	400,000
Smoking	13.4%	600,000
No physical activity	20.2%	900,000

Learn more about reducing dementia risk by visiting the Alzheimers.gov Can I prevent dementia? website (www.alzheimers.gov/life-with-dementia/can-i-prevent-dementia).

Increase screening and early diagnoses

Diagnosing mild cognitive impairment (the earliest stage of memory loss, which may or may not become dementia) and early-stage dementia has benefits.

These benefits include having a clearer sense of what to expect, allowing you to be more active in decision making, being able to engage your family, and being able to take advantage of new treatments as they become available. Sometimes medications or other health issues cause mild cognitive impairment and these issues can be improved. For more see The Alzheimer's Association Why Get Checked? Website (www.alz.org/alzheimers-dementia/diagnosis/why-get-checked).

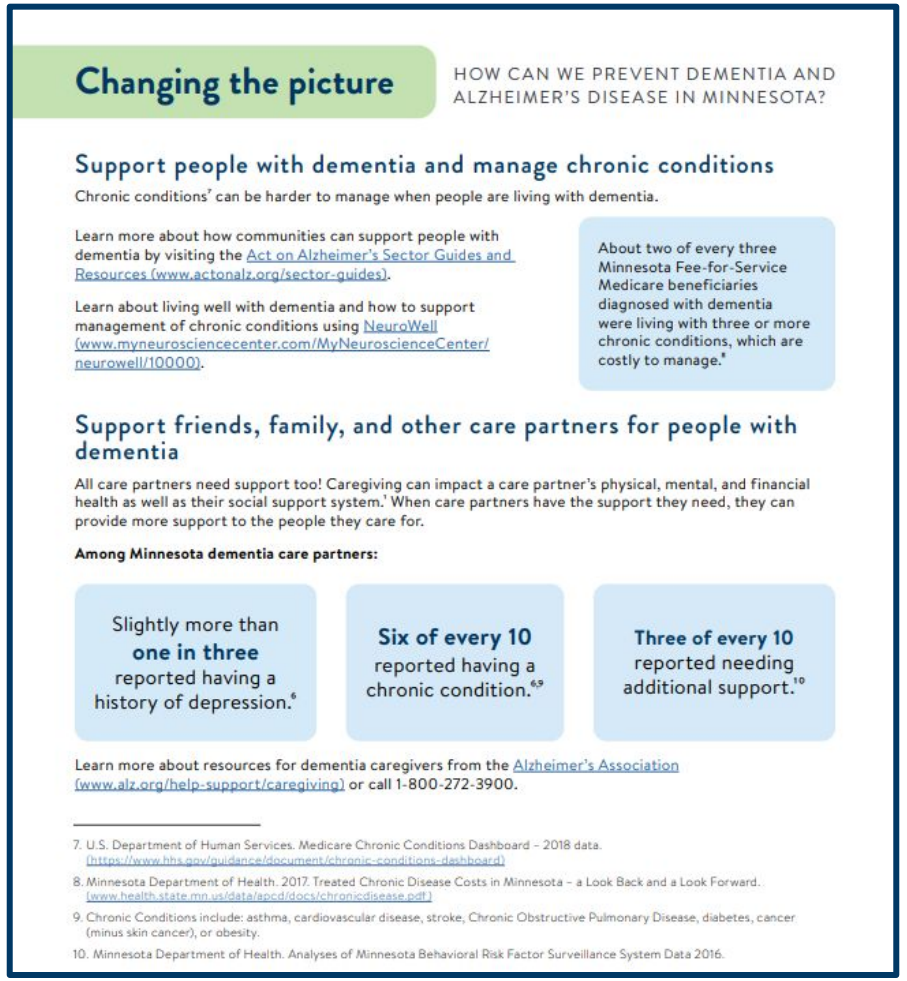
In 2019, 210,000 Minnesota adults 45 years and older reported experiencing signs of cognitive decline, which may indicate mild cognitive impairment.

Half of those were 45-64 years of age[6].

Appropriate screening and testing are needed to increase early diagnoses.

Only four in 10 Minnesotans noticing signs of cognitive decline had talked with a health care provider about it.[6]

Learn more about early signs and symptoms by visiting the Alzheimer's Association - 10 Early Signs and Symptoms website (www.alz.org/alzheimers-dementia/10_signs).



Changing the picture

HOW CAN WE PREVENT DEMENTIA AND ALZHEIMER'S DISEASE IN MINNESOTA?

Support people with dementia and manage chronic conditions

Chronic conditions[7] can be harder to manage when people are living with dementia.

Learn more about how communities can support people with dementia by visiting the Act on Alzheimer's Sector Guides and Resources (www.actonalz.org/sector-guides).

Learn about living well with dementia and how to support management of chronic conditions using NeuroWell (www.myneurosciencecenter.com/MyNeuroscienceCenter/neurowell/10000).

About two of every three Minnesota Fee-for-Service Medicare beneficiaries diagnosed with dementia were living with three or more chronic conditions, which are costly to manage.[8]

Support friends, family, and other care partners for people with dementia

All care partners need support too! Caregiving can impact a care partner's physical, mental, and financial health as well as their social support system.[9] When care partners have the support they need, they can provide more support to the people they care for.

Among Minnesota dementia care partners:

Slightly more than **one in three** reported having a history of depression.[6]

Six of every 10 reported having a chronic condition.[6,9]

Three of every 10 reported needing additional support.[10]

Learn more about resources for dementia caregivers from the Alzheimer's Association (www.alz.org/help-support/caregiving) or call 1-800-272-3900.

7. U.S. Department of Human Services. Medicare Chronic Conditions Dashboard – 2018 data. (https://www.hhs.gov/guidance/document/chronic-conditions-dashboard)
8. Minnesota Department of Health. 2017. Treated Chronic Disease Costs in Minnesota – a Look Back and a Look Forward. (www.health.state.mn.us/data/apcd/docs/chronicdisease.pdf)
9. Chronic Conditions include: asthma, cardiovascular disease, stroke, Chronic Obstructive Pulmonary Disease, diabetes, cancer (minus skin cancer), or obesity.
10. Minnesota Department of Health. Analyses of Minnesota Behavioral Risk Factor Surveillance System Data 2016.

https://www.health.state.mn.us/diseases/alzheimers/docs/alzdementiainmnfactsheet.pdf

How our part-time epi continued to use the data… 8 of its lives

1. Highlighted 3 key facts in our **main fact sheet**
2. Include stats or **data nuggets in GovDelivery Newsletters**
3. Work with a student to complete analysis and **present at MN Gerontological Society Meeting in 2023**
4. **Sharing with** our Department of Human Services and **Board on Aging**
5. (which led to) Participating in **MBA Committing to Caregiving workgroup and collaborative data project**

    -BRFSS coordinator presented

    -Use of BRFSS caregiver data for caregiver projects

6. **Share with dementia workgroup** who chose to include dementia caregivers as its own population of interest for dementia dashboard
7. **Share** caregiver chronic disease and RF prevalence **with Chronic Disease Programs** to pique curiosity CVH program did its own analysis
8. **Presentation at APHA** on caregiving with Rosalynn Carter Institute for Caregivers which led to refining data

How our program team has used the data … 7+ more lives

9. Background in **Healthy Brain Community Grant RFP to make the case for grantees** selecting caregiver-related strategies.

10. **Used the data to frame the need** during Arrowhead Area Agency on Aging Caregiver Conference presentation with partners

11. Shared data about **caregiver mental health and social/emotional support needs** during risk reduction webinar series

12. Presented caregiver data during healthy brain presentation at a **local public health** regional meeting and virtual coffee chats

13. Elevating caregiver data in **state-level aging conversations** led by Legislative Task Force on Aging

14. Highlighted MN caregiver data during presentation for University of MN **Center for Healthy Aging & Innovative Roundtable Series**

15. **Highlight the need to prioritize caregivers' health and wellbeing** during conversations with partners inside and outside of our agency almost daily!

Lessons Learned

- This was a newer frame for analyzing data based on limited FTE
- Need to keep learning from this approach and applying across my work
- Key to this model working is coworkers and partner who are excited about data and data use

So, let's hear from you!

- *How have you used BRFSS caregiving data?*
- *How might you use the data to move the conversation about caregivers BEYOND talking only about respite?*

Thank You!

Renée (Renee.Kidney@state.mn.us)

Patty (Patricia.Takawira@state.mn.us)

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alz.org/publichealthcurriculum

This short, free, innovative online module addresses the role public health plays in supporting dementia caregivers.

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CenterOfExcellence@alz.org