



The Public Health Center of Excellence on Dementia Risk Reduction translates the latest science on dementia risk reduction into actionable tools, materials and messaging that public health agencies can use. For more information visit <a href="mailto:alz.org/riskreduction">alz.org/riskreduction</a> or email <a href="mailto:CenterofExcellence@alz.org">CenterofExcellence@alz.org</a>.



The Public Health Center of Excellence on Dementia Caregiving offers technical guidance to, curates and distributes resources for, and brings together public health agencies, service organizations, healthcare providers, and dementia caregivers. For more information visit **bolddementiacaregiving.org**.

# RISK FACTORS FOR COGNITIVE DECLINE AMONG DEMENTIA CAREGIVERS

#### INTRODUCTION

Studies have shown that caring for a person with Alzheimer's disease or another dementia can create new, or worsen existing, health problems for the caregiver. More than 1 in 3 dementia caregivers say their health has gotten worse due to their care responsibilities,1 and more than a quarter of dementia caregivers delay or do not do things they should to maintain their health.<sup>2</sup> This creates an environment where dementia caregivers may be at elevated risk for developing dementia themselves.

The Public Health Center of Excellence on Dementia Risk Reduction at the Alzheimer's Association and the Public Health Center of Excellence on Dementia Caregiving at the University of Minnesota analyzed data from the 2021-2022 Behavioral Risk Factor Surveillance System (BRFSS) to see if dementia caregivers are more likely than the population overall to have modifiable risk factors associated with dementia.

In 2021-2022, 47 states collected caregiver data using the optional BRFSS caregiving module. This allows for a comprehensive picture of caregiver health on a nearly national-level basis, including on the presence of six modifiable risk factors for cognitive decline among individuals caring for someone with dementia: diabetes, obesity, physical inactivity,3 smoking, sleep,4 and hypertension.5

### INDIVIDUAL RISK FACTORS PREVALENCE

Compared with the overall population, dementia caregivers were more likely to report five of the six risk factors examined: obesity, diabetes, poor sleep, smoking, and hypertension. The differences were most significant for smoking (30% more likely), hypertension (27% more likely),

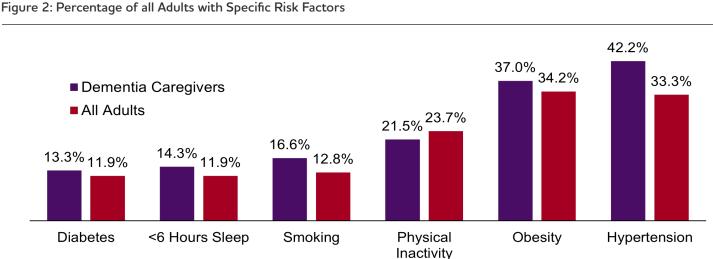
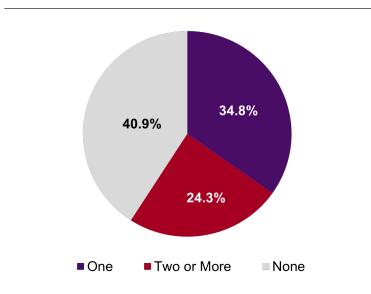


Figure 1: Percentage of Dementia Caregivers with Risk Factors



and poor sleep (21% more likely). Dementia caregivers were also 12% more likely to have diabetes and 8% more likely to be obese.

Conversely, across the 47 states, dementia caregivers were 9% less likely to report being physically inactive, perhaps because of the added physical demands of being a caregiver.

The majority of dementia caregivers, like the majority of all adults, have at least one risk factor. Dementia caregivers were slightly more likely to have at least one (59.1% vs. 56.1%) or multiple (24.3% vs. 21.3%) risk factors for cognitive decline compared with all adults. These percentages would be higher – and the differences between dementia caregivers and the overall population would be greater - if hypertension data were included in the analysis.5,6

### RISK FACTORS, RACE, AND GENDER

Risk factor prevalence rates were higher among certain subpopulations. Male dementia caregivers were about 15% more likely to have at least one (64.4% vs. 56.0%) or multiple (26.4% vs. 23.0%) risk factors than female dementia caregivers. Males were also more likely to have each individual risk factor, except for physical inactivity.

American Indian/Alaska Native dementia caregivers were the most likely to report at least one risk factor (77.2%), followed by Black (72.2%), Hispanic (59.2%), White (58.1%), and Asian (27.8%) Americans. With individual risk factors, the commercial cigarette smoking rate among American Indian/Alaska Native dementia caregivers was nearly double the rate among all dementia caregivers (32.6% vs. 16.6%), and Black dementia caregivers were more than 40% more likely to be obese (52.4% vs. 37.0%).

#### **RISK FACTORS AND AGE**

There are substantial differences in the prevalence of risk factors among dementia caregivers compared with the overall population across age groups. Risk exposure is the largest among dementia caregivers under 45, who are about 13% more likely to have at least one risk factor than all adults under 45 and 40% more likely to have multiple risk factors. Compared with all adults in their age group, these younger dementia caregivers are 86% more likely to smoke, 46% more likely to have hypertension, and 29% more likely to report poor sleep.

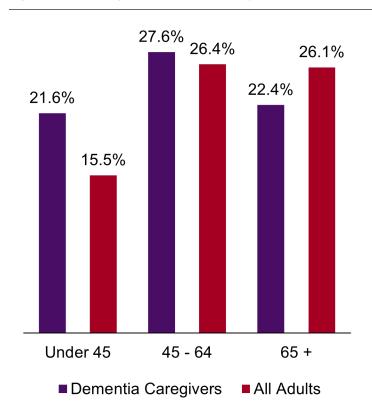
Among those aged 45–64, dementia caregivers are about equally as likely as the overall population in their age group to have one (61.5% vs. 61.1%) or multiple (27.6% vs. 26.4%) risk factors. These middle-aged dementia caregivers were still more likely than the overall



middle-aged population to smoke or have hypertension, but the disparity is not nearly as large as that observed between younger dementia caregivers and the younger population overall. However, in line with the younger group, middle-aged dementia caregivers were 30% more likely to report poor sleep than middle-aged adults.

In contrast to younger and middle-aged dementia caregivers, dementia caregivers 65 and older were less likely than the overall 65+ population to have one (58.0% vs. 60.4%) or multiple (22.4% vs. 26.1%) risk factors and were less likely to report diabetes (18.4% vs. 22.8%) and smoking (7.5% vs. 8.7%). Additionally, a smaller proportion of dementia caregivers 65 and older reported poor sleep (8.8%), compared with middle age (16.2%) and younger (17.1%) dementia caregivers.

Figure 3: Percentage of Adults with Multiple Risk Factors



Because chronic conditions are more common among older adults than younger adults, dementia caregiving may not have much effect on the prevalence of chronic conditions associated with dementia risk, and these data support that notion. In contrast, these chronic conditions are substantially more common among younger dementia caregivers than would be expected for their age group, indicating that younger dementia caregivers, in particular, may incur substantial health burdens.

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#### PUBLIC HEALTH IMPLICATIONS

The findings of this analysis are particularly relevant for two major aims of public health agencies: (1) reducing population-level risks for cognitive decline and dementia, and (2) improving caregiver health and wellbeing. Modifiable risk factors associated with dementia are more common among dementia caregivers, which underscores the need for further work to address caregiver health and identifies a range of priority populations for risk reduction efforts.

By understanding that certain dementia caregiving populations have particularly elevated risk factor prevalence rates compared with the overall population, public health policymakers can prioritize and tailor resources and interventions accordingly. Younger (under 45), American Indian/Alaska Native, Black, and male dementia caregivers are all distinctly more likely to have conditions or behaviors that put them at greater long-term risk for cognitive decline and could benefit from additional attention.



#### References

- 1. National Alliance for Caregiving in partnership with the Alzheimer's Association. Dementia Caregiving the U.S.; February 2017.
- 2. University of Michigan National Poll on Healthy Aging. Dementia Caregivers: Juggling, Delaying and Looking Forward; November 2017.
- 3. Physical inactivity is defined as getting no exercise outside of work.
- 4. Poor sleep is defined as getting less than six hours of sleep per night on average.
- 5. Hypertension data is available only for 2021 (33 states) and is not included in estimates of "at least one" or "multiple" risk factors.
- 6. Gore J, Denno B, Omura JD, et al. Promoting Healthy Aging to Reduce the Risk of Dementia. Generations 2023;47(1):1-11.



