

Supplementary Material

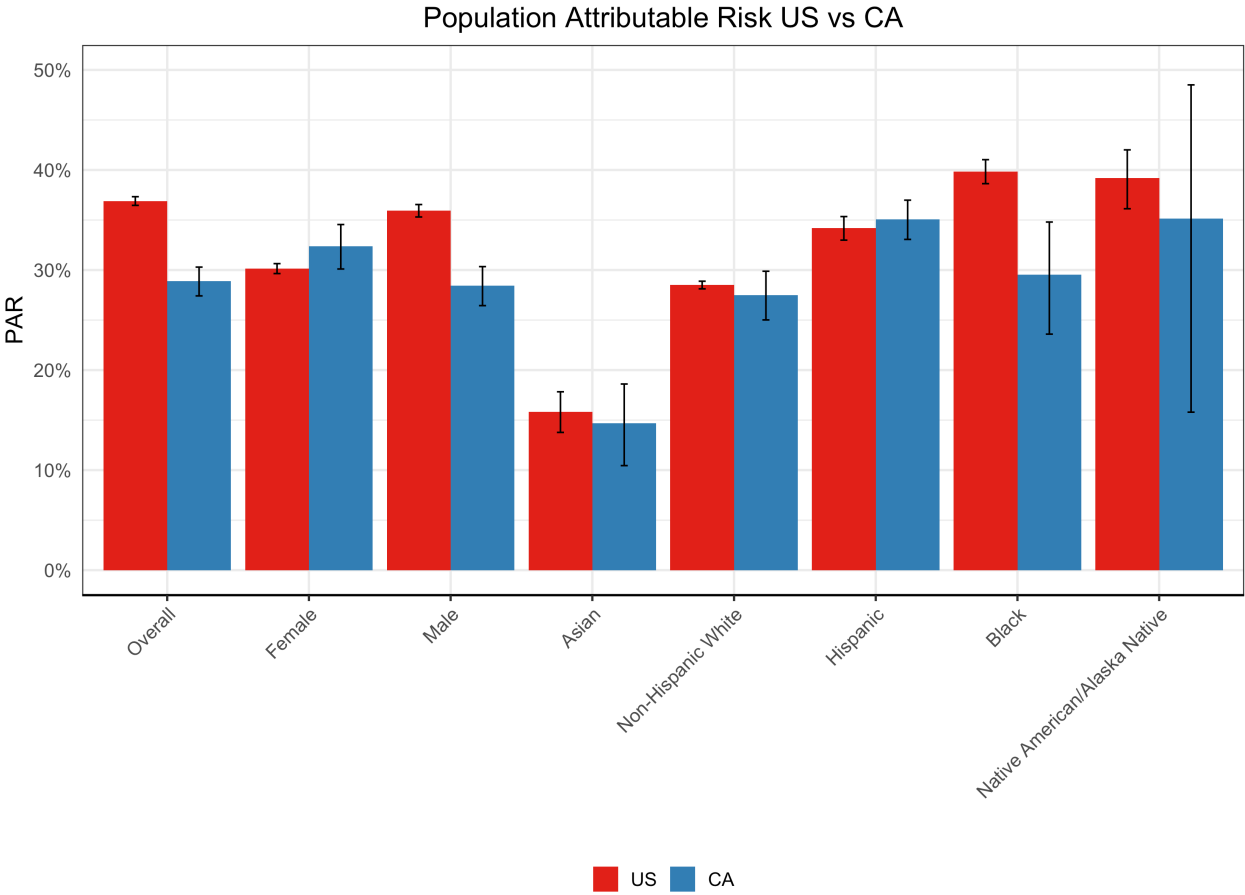
Importance of Accounting for Regional Differences in Modifiable Risk Factors for Alzheimer’s Disease and Related Dementias: The Case for Tailored Interventions

Supplementary Table 1. Variables, questions, and values in the 2018 BRFSS

Variables	Question	Value
Older-than-65-year	<i>Calculated age group from self-reported age in years</i>	1= greater or equal to 65, 0=less than 65
Male sex	<i>"What is your sex? or What was your sex at birth?"</i>	1=Male, 0=Female
Race/ethnicity	Calculated variable from respondent’s reported race as well as their reported ethnicity	Non-Hispanic White =1, Non-Hispanic Black =2, Non-Hispanic Asian=3, Non-Hispanic Native American/Alaska Native =4, Hispanic=5, Other=6
Physical inactivity	<i>"During the past month, other than your regular job, did you participate in any physical activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise?"</i>	1=physically active 0= physically inactive
Depression	<i>"Has a doctor, nurse, or other health professional ever told you that you had depressive disorder (including depression, major depression, dysthymia, or minor depression) "</i>	1=Yes 0=No
Current smoking	Calculated variable using two questions <i>"Have you smoked at least 100 cigarettes in your entire life?"</i> and <i>"Do you now smoke cigarettes every day, some days, or not at all?"</i> . Respondents who reported having smoked at least 100 cigarettes in their lifetime and now smoke every day were classified as currently smoking (Yes) otherwise they were classified as not currently smoking (No)	1=Yes 0=No
Midlife obesity	Calculated variable in age 40-64 using body mass index (BMI) ≥ 30 based on reported weight and height, (weight in kg / height in m ²)	1=Yes 0=No
Low educational attainment	<i>"What is the highest grade or year of school you completed?"</i> Respondent who reported never attended school or only kindergarten, attended only	1 = did not graduate high school and 0 = otherwise

	grades 1 through 8 or attended grade 9 through 11 were classified as “did not graduate high school” (Yes) otherwise they were classified as graduated from high school (No)	
Diabetes	<i>“Has a doctor, nurse, or other health professional ever told you that you had diabetes (excluding Type I diabetes and diabetes during pregnancy)”</i>	1=Yes 0=No
Hearing loss	<i>“Are you deaf or do you have serious difficulty hearing?”</i>	1=Yes 0=No
Midlife hypertension	Assessed in age 40-64 using the question <i>“Have you ever been told by a doctor, nurse or other health professional that you have high blood pressure (excluding told only during pregnancy)?”</i>	1=Yes 0=No

Supplementary Figure 1. Combined Population Attributable Risk (PAR) for Dementia due to Modifiable Risk Factors, U.S. versus California, 2018



Supplementary Table 2. Estimated number of ADRD cases attributable to modifiable risk factors and potentially preventable with 10% risk factor reduction

Risk Factors	Cases attributable	Cases prevented (10% reduction)	Cases prevented lower 95% CI	Cases prevented higher 95% CI
<i>California</i>				
Current smoking	30,587	2,936	2,735	3,135
Midlife obesity	102,708	8,874	8,474	9,259
Depression	50,668	4,729	4,492	4,963
Midlife hypertension	55,953	5,184	4,907	5,455
Diabetes mellitus	46,590	4,374	4,059	4,682
Low education	102,955	8,892	8,498	9,271
Physical inactivity	71,337	6,463	6,181	6,739
Hearing loss	12,877	1,266	1,125	1,406
Combined	199,246	15,673	15,095	16,210
<i>U.S.</i>				
Current smoking	374,413	35,394	34,897	35,889
Midlife obesity	1,100,363	92,143	91,273	93,003
Depression	529,466	48,842	48,285	49,397
Midlife hypertension	545,022	50,152	49,598	50,703
Diabetes mellitus	450,592	42,090	41,397	42,780
Low education	726,974	64,935	63,796	66,061
Physical inactivity	732,497	65,368	64,726	66,006
Hearing loss	142,162	13,922	13,602	14,242
Combined	2,287,683	170,404	169,146	171,628