Table Legends

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Table S1. Definition of adverse childhood experiences in the Health and Retirement Study

Domains of ACEs	Questionnaire Items	Answers defined as exposure to the domain
Emotional neglect	How much time and attention did your mother give you when you needed it?	a little/not at all
	How much effort did your mother put into watching over you and making sure you had a good upbringing?	a little/not at all
Parental substance abuse	Before you were 18 years old, did either of your parents drink or use drugs so often that it caused problems in the family?	yes
Physical abuse	Before you were 18 years old, were you ever physically abused by either of your parents?	yes
Economic adversity	Would you say your family during that time was pretty well off financially, about average, or poor?	poor
Downgrade	Before you were 18 years old, did you have to do a year of school over again?	yes
Break the law	Before you were 18 years old, were you ever in trouble with the police?	yes

Notes: ACEs, adverse childhood experiences.

Table S2. Fit statistics for body mass index trajectory during 2004-2010

Number of classes	BIC	AIC	Class proportion	Entropy
Normal weight in 2010 (N=3,505)				
1	32443.61	32431.28	100.00%	1.000
2	30344.34	30319.69	53.5%, 46.5%	0.762
3	**28989.03**	**28952.06**	**61.2%, 31.5%, 7.3%**	**0.868**
4	28310.46	28261.16	43.5%, 37.0%, 15.5%, 4.0%	0.831
Abnormal weight in 2010 (N=7,932)				
1	96170.95	96157	100.00%	1.000
2	87408.72	87380.81	80.3%, 19.7%	0.936
3	**83069.71**	**83027.83**	**64.6%, 29.8%, 5.6%**	**0.916**
4	80483.68	80427.85	48.2%, 34.8%, 14.2%, 2.8%	0.895

Notes: BIC, Bayesian information criteria. AIC, Akaike's information criterion.

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Table S3. Associations of adverse childhood experiences with baseline body mass index, body mass index transition, and body mass index trajectory: multinomial logistic regression

	No. of participants	Number of ACEs		
		0	1	2 or more
		OR (95% CI)		
Baseline BMI (Reference: Normal weight [BMI<25 kg/m^2], N=4,413)				
Overweight (25≤BMI<30 kg/m^2)	5,637	Reference	**1.15 (1.05-1.26)**	1.08 (0.97-1.21)
Obesity (BMI≥30 kg/m^2)	5,232	Reference	1.10 (0.99-1.22)	1.12 (0.99-1.25)
BMI transition (Reference: Maintain normal weight, N=2,780)				
Normal to abnormal weight	831	Reference	1.14 (0.95-1.36)	1.09 (0.88-1.35)
Abnormal to normal weight	738	Reference	0.99 (0.82-1.20)	0.97 (0.77-1.21)
Maintain overweight	2,934	Reference	1.11 (0.98-1.26)	1.07 (0.92-1.23)
Overweight to obesity	875	Reference	1.00 (0.84-1.20)	1.02 (0.83-1.25)
Maintain obesity	2,790	Reference	1.06 (0.93-1.21)	1.11 (0.96-1.29)
Obesity to overweight	544	Reference	1.12 (0.89-1.38)	1.10 (0.86-1.41)
BMI trajectory (Reference: Maintain normal weight, N=3,256)				
Decline to normal weight	249	Reference	1.01 (0.75-1.36)	0.89 (0.62-1.27)
Maintain overweight	5,140	Reference	1.11 (0.99-1.23)	1.08 (0.95-1.22)
Maintain obesity	2,792	Reference	1.06 (0.93-1.20)	1.08 (0.94-1.25)

Notes: ACEs, adverse childhood experiences. OR, odds ratio. CI, confidence interval. Models were adjusted for age, sex, race, education, household income, marital status, smoking history, drinking history, and number of chronic diseases. Bolded refers to statistically significant.

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Table S4. Longitudinal associations of adverse childhood experiences with new-onset all-cause dementia, Alzheimer's disease, and other dementias: Cox proportional hazard regression

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
		Total (N=15,282)		
All-cause dementia				
0	442/6773	1.00 (0.90-1.11)	1.00 (0.90-1.11)	1.00 (0.90-1.11)
1	371/4894	**1.14 (1.03-1.27)**	**1.13 (1.03-1.25)**	**1.14 (1.03-1.26)**
2 or more	274/3615	**1.37 (1.21-1.54)**	**1.35 (1.19-1.52)**	**1.36 (1.20-1.53)**
AD				
0	182/6773	1.00 (0.86-1.16)	1.00 (0.86-1.16)	1.00 (0.86-1.16)
1	141/4894	1.01 (0.86-1.19)	1.02 (0.86-1.20)	1.02 (0.86-1.20)
2 or more	89/3615	1.05 (0.85-1.30)	1.06 (0.86-1.31)	1.07 (0.87-1.32)
Other dementias				
0	260/6773	1.00 (0.88-1.13)	1.00 (0.88-1.13)	1.00 (0.88-1.13)
1	230/4894	**1.23 (1.08-1.40)**	**1.21 (1.06-1.37)**	**1.21 (1.07-1.38)**
2 or more	185/3615	**1.59 (1.37-1.84)**	**1.54 (1.33-1.78)**	**1.55 (1.34-1.80)**
		Men (N=6,395)		
All-cause dementia				
0	146/2564	1.00 (0.86-1.16)	1.00 (0.86-1.16)	1.00 (0.86-1.16)
1	173/2152	**1.29 (1.10-1.50)**	**1.28 (1.09-1.49)**	**1.28 (1.10-1.50)**
2 or more	132/1679	**1.30 (1.07-1.58)**	**1.29 (1.05-1.57)**	**1.30 (1.06-1.58)**
AD				
0	57/2564	1.00 (0.79-1.27)	1.00 (0.79-1.27)	1.00 (0.79-1.27)
1	66/2152	1.06 (0.81-1.38)	1.06 (0.81-1.37)	1.06 (0.82-1.38)
2 or more	42/1679	1.06 (0.76-1.49)	1.07 (0.77-1.50)	1.08 (0.77-1.51)
Other dementias				
0	89/2564	1.00 (0.82-1.21)	1.00 (0.82-1.22)	1.00 (0.82-1.22)
1	107/2152	**1.42 (1.17-1.72)**	**1.41 (1.16-1.71)**	**1.42 (1.17-1.71)**
2 or more	90/1679	**1.44 (1.13-1.84)**	**1.42 (1.11-1.81)**	**1.43 (1.12-1.82)**
		Women (N=8,887)		
All-cause dementia				
0	296/4209	1.00 (0.88-1.13)	1.00 (0.88-1.13)	1.00 (0.88-1.13)
1	198/2742	1.06 (0.92-1.21)	1.05 (0.92-1.20)	1.06 (0.92-1.21)
2 or more	142/1936	**1.42 (1.22-1.65)**	**1.40 (1.20-1.63)**	**1.41 (1.21-1.65)**
AD				
0	125/4209	1.00 (0.83-1.21)	1.00 (0.83-1.21)	1.00 (0.83-1.21)
1	75/2742	0.97 (0.79-1.20)	0.98 (0.80-1.21)	0.99 (0.80-1.22)
2 or more	47/1936	1.03 (0.78-1.35)	1.05 (0.80-1.38)	1.06 (0.81-1.40)
Other dementias				
0	171/4209	1.00 (0.85-1.17)	1.00 (0.85-1.18)	1.00 (0.85-1.18)
1	123/2742	1.11 (0.94-1.32)	1.09 (0.92-1.30)	1.10 (0.92-1.30)
2 or more	95/1936	**1.69 (1.41-2.03)**	**1.63 (1.36-1.96)**	**1.65 (1.37-1.98)**

Notes: ACEs, adverse childhood experiences. AD, Alzheimer's disease. HR, hazard ratio. CI, confidence interval. Model 1 was adjusted for age, sex, race, education, household income, and marital status. Model 2 was further adjusted for smoking history, drinking history, and number of chronic diseases based on model 1. Model 3 was further adjusted for baseline body mass index based on Model 2. Bolded refers to statistically significant.

Table S5. Longitudinal associations of adverse childhood experiences with new-onset all-cause dementia, Alzheimer's disease, and other dementias in cognitively normal participants: sensitivity analysis based on Cox proportional hazard regression

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
All-cause dementia				
0	349/6129	1.00 (0.90-1.11)	1.00 (0.90-1.11)	1.00 (0.90-1.11)
1	284/4342	**1.14 (1.01-1.27)**	1.12 (1.00-1.26)	1.13 (1.00-1.26)
2 or more	210/3180	**1.36 (1.19-1.56)**	**1.33 (1.16-1.53)**	**1.34 (1.17-1.54)**
AD				
0	134/6129	1.00 (0.84-1.19)	1.00 (0.84-1.19)	1.00 (0.84-1.19)
1	99/4342	0.99 (0.82-1.21)	0.99 (0.82-1.21)	1.00 (0.82-1.21)
2 or more	66/3180	1.09 (0.85-1.39)	1.09 (0.85-1.39)	1.09 (0.86-1.40)
Other dementias				
0	215/6129	1.00 (0.87-1.15)	1.00 (0.87-1.15)	1.00 (0.87-1.15)
1	185/4342	**1.22 (1.06-1.41)**	**1.20 (1.04-1.38)**	**1.21 (1.05-1.39)**
2 or more	144/3180	**1.53 (1.30-1.81)**	**1.48 (1.25-1.75)**	**1.49 (1.26-1.76)**

Notes: ACEs, adverse childhood experiences. AD, Alzheimer's disease. HR, hazard ratio. CI, confidence interval. Model 1 was adjusted for age, sex, race, education, household income, and marital status. Model 2 was further adjusted for smoking history, drinking history, and number of chronic diseases based on model 1. Model 3 was further adjusted for baseline body mass index based on Model 2. Bolded refers to statistically significant.

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Table S6. Baseline body mass index-stratified longitudinal associations of adverse childhood experiences with new-onset all-cause dementia, Alzheimer's disease, and other dementias in men and women: Cox proportional hazard regression

	No. of cases	Number of ACEs		
		0	1	2 or more
		HR (95% CI)		
Men (N=6,395)				
Normal weight (BMI<25 kg/m²)				
All-cause dementia	156	1.00 (0.77-1.29)	**1.42 (1.11-1.83)**	1.15 (0.81-1.63)
AD	53	1.00 (0.65-1.53)	1.42 (0.95-2.10)	0.48 (0.20-1.15)
Other dementias	103	1.00 (0.72-1.38)	1.35 (0.98-1.87)	**1.55 (1.06-2.28)**
Overweight (25≤BMI<30 kg/m²)				
All-cause dementia	181	1.00 (0.76-1.32)	**1.37 (1.09-1.72)**	**1.59 (1.21-2.08)**
AD	73	1.00 (0.64-1.57)	**1.48 (1.04-2.11)**	**1.67 (1.09-2.54)**
Other dementias	108	1.00 (0.71-1.42)	1.27 (0.94-1.71)	**1.53 (1.08-2.17)**
Obesity (BMI≥30 kg/m²)				
All-cause dementia	114	1.00 (0.70-1.44)	1.33 (0.97-1.82)	**1.96 (1.45-2.64)**
AD	39	1.00 (0.59-1.70)	0.73 (0.39-1.35)	1.38 (0.81-2.33)
Other dementias	75	1.00 (0.61-1.64)	**1.87 (1.30-2.71)**	**2.45 (1.70-3.53)**
Women (N=8,887)				
Normal weight (BMI<25 kg/m²)				
All-cause dementia	278	1.00 (0.85-1.18)	0.93 (0.74-1.15)	0.94 (0.70-1.27)
AD	117	1.00 (0.78-1.28)	0.84 (0.59-1.18)	0.73 (0.44-1.22)
Other dementias	161	1.00 (0.80-1.25)	1.00 (0.75-1.33)	1.12 (0.78-1.62)
Overweight (25≤BMI<30 kg/m²)				
All-cause dementia	193	1.00 (0.79-1.26)	1.23 (0.97-1.56)	**1.77 (1.33-2.36)**
AD	64	1.00 (0.69-1.44)	0.93 (0.61-1.42)	1.08 (0.61-1.93)
Other dementias	129	1.00 (0.74-1.35)	**1.41 (1.06-1.88)**	**2.14 (1.54-2.97)**
Obesity (BMI≥30 kg/m²)				
All-cause dementia	165	1.00 (0.78-1.28)	1.02 (0.78-1.34)	**1.38 (1.02-1.87)**
AD	66	1.00 (0.67-1.49)	1.09 (0.71-1.67)	1.48 (0.95-2.31)
Other dementias	99	1.00 (0.73-1.36)	0.98 (0.68-1.39)	1.19 (0.81-1.75)

Notes: ACEs, adverse childhood experiences. BMI, body mass index. AD, Alzheimer's disease. HR, hazard ratio. CI, confidence interval. Models was adjusted for age, race, education, household income, marital status, smoking history, drinking history, number of chronic diseases, and baseline BMI. Bolded refers to statistically significant.

Table S7. Body mass index transition-stratified longitudinal associations of adverse childhood experiences with new-onset all-cause dementia, Alzheimer's disease, and other dementias: Cox proportional hazard regression

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
All-cause dementia				
p for interaction between ACEs and BMI transition		**0.012**	**0.009**	**0.008**
Maintain obesity				
0	57/1168	1.00 (0.77-1.30)	1.00 (0.77-1.30)	1.00 (0.77-1.30)
1	56/894	1.20 (0.92-1.55)	1.18 (0.91-1.54)	1.18 (0.91-1.54)
2 or more	59/728	**1.76 (1.36-2.28)**	**1.78 (1.37-2.31)**	**1.78 (1.37-2.31)**
Maintain overweight				
0	72/1312	1.00 (0.79-1.27)	1.00 (0.79-1.27)	1.00 (0.79-1.27)
1	83/996	**1.39 (1.12-1.72)**	**1.39 (1.12-1.72)**	**1.38 (1.12-1.71)**
2 or more	64/626	**1.98 (1.54-2.53)**	**1.95 (1.52-2.50)**	**1.94 (1.51-2.50)**
Obesity to overweight				
0	18/223	1.00 (0.62-1.62)	1.00 (0.62-1.62)	1.00 (0.62-1.62)
1	23/188	**1.57 (1.04-2.37)**	**1.60 (1.07-2.42)**	**1.59 (1.05-2.41)**
2 or more	15/133	**1.74 (1.04-2.92)**	**1.76 (1.03-3.00)**	**1.76 (1.03-3.00)**
Overweight to obesity				
0	22/404	1.00 (0.64-1.55)	1.00 (0.64-1.55)	1.00 (0.64-1.56)
1	14/272	1.07 (0.63-1.79)	1.08 (0.64-1.84)	1.07 (0.63-1.81)
2 or more	13/199	1.36 (0.78-2.39)	1.32 (0.75-2.33)	1.26 (0.71-2.23)
Maintain normal weight				
0	156/1433	1.00 (0.85-1.18)	1.00 (0.85-1.18)	1.00 (0.85-1.18)
1	88/846	0.98 (0.80-1.21)	0.98 (0.80-1.21)	0.98 (0.80-1.21)
2 or more	48/501	0.98 (0.74-1.31)	0.99 (0.74-1.32)	0.99 (0.74-1.32)
Normal to abnormal weight				
0	27/381	1.00 (0.67-1.49)	1.00 (0.67-1.49)	1.00 (0.67-1.49)
1	25/275	1.01 (0.68-1.49)	0.98 (0.66-1.44	0.98 (0.66-1.44)
2 or more	14/175	0.99 (0.58-1.69)	0.93 (0.54-1.59)	0.93 (0.54-1.60)
Abnormal to normal weight				
0	51/347	1.00 (0.75-1.33)	1.00 (0.75-1.33)	1.00 (0.75-1.33)
1	39/241	1.20 (0.88-1.64)	1.18 (0.87-1.62)	1.18 (0.86-1.61)
2 or more	17/150	0.85 (0.53-1.37)	0.82 (0.51-1.32)	0.82 (0.51-1.33)
AD				
p for interaction between ACEs and BMI transition		**0.013**	**0.015**	**0.012**
Maintain obesity				
0	23/1168	1.00 (0.66-1.51)	1.00 (0.66-1.51)	1.00 (0.66-1.51)
1	20/894	1.06 (0.68-1.64)	1.05 (0.68-1.63)	1.04 (0.67-1.62)
2 or more	24/728	**1.78 (1.19-2.66)**	**1.83 (1.22-2.75)**	**1.84 (1.23-2.76)**
Maintain overweight				
0	27/1312	1.00 (0.68-1.48)	1.00 (0.68-1.48)	1.00 (0.68-1.48)
1	33/996	1.38 (0.98-1.95)	1.39 (0.99-1.95)	1.38 (0.98-1.94)

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Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
2 or more	22/626	**1.64 (1.08-2.51)**	**1.67 (1.09-2.56)**	**1.65 (1.08-2.52)**
Obesity to overweight				
0	12/223	1.00 (0.55-1.81)	1.00 (0.54-1.87)	1.00 (0.54-1.86)
1	7/188	0.67 (0.32-1.40)	0.67 (0.33-1.40)	0.71 (0.34-1.47)
2 or more	6/133	0.98 (0.43-2.21)	1.09 (0.47-2.52)	1.08 (0.46-2.52)
Overweight to obesity				
0	5/404	1.00 (0.39-2.59)	1.00 (0.38-2.63)	1.00 (0.38-2.65)
1	3/272	1.13 (0.37-3.45)	1.09 (0.36-3.35)	1.12 (0.37-3.42)
2 or more	4/199	2.45 (0.85-7.05)	2.23 (0.75-6.59)	2.33 (0.79-6.88)
Maintain normal weight				
0	64/1433	1.00 (0.78-1.29)	1.00 (0.77-1.30)	1.00 (0.77-1.30)
1	37/846	0.99 (0.72-1.37)	1.02 (0.74-1.41)	1.02 (0.74-1.41)
2 or more	14/501	0.69 (0.40-1.16)	0.73 (0.43-1.24)	0.73 (0.43-1.24)
Normal to abnormal weight				
0	9/381	1.00 (0.50-1.99)	1.00 (0.50-2.01)	1.00 (0.50-2.02)
1	8/275	0.96 (0.48-1.92)	0.96 (0.48-1.92)	0.97 (0.49-1.93)
2 or more	3/175	0.62 (0.20-1.96)	0.66 (0.21-2.09)	0.56 (0.16-1.92)
Abnormal to normal weight				
0	23/347	1.00 (0.66-1.52)	1.00 (0.65-1.53)	1.00 (0.65-1.54)
1	16/241	1.11 (0.68-1.81)	1.05 (0.64-1.71)	1.00 (0.61-1.64)
2 or more	2/150	**0.24 (0.06-0.98)**	**0.22 (0.06-0.90)**	**0.22 (0.06-0.90)**
Other dementias				
p for interaction between ACEs and BMI transition		0.195	0.150	0.148
Maintain obesity				
0	34/1168	1.00 (0.71-1.40)	1.00 (0.71-1.40)	1.00 (0.71-1.40)
1	36/894	1.29 (0.93-1.78)	1.27 (0.92-1.76)	1.27 (0.92-1.76)
2 or more	35/728	**1.71 (1.22-2.40)**	**1.70 (1.21-2.39)**	**1.71 (1.22-2.39)**
Maintain overweight				
0	45/1312	1.00 (0.74-1.35)	1.00 (0.74-1.35)	1.00 (0.74-1.35)
1	50/996	**1.38 (1.05-1.82)**	**1.37 (1.04-1.81)**	**1.37 (1.04-1.81)**
2 or more	42/626	**2.17 (1.60-2.96)**	**2.10 (1.54-2.86)**	**2.10 (1.54-2.86)**
Obesity to overweight				
0	6/223	1.00 (0.44-2.26)	1.00 (0.44-2.26)	1.00 (0.44-2.27)
1	16/188	**3.31 (2.02-5.42)**	**3.48 (2.10-5.77)**	**3.31 (1.99-5.52)**
2 or more	9/133	**3.01 (1.55-5.85)**	**2.79 (1.40-5.58)**	**2.73 (1.37-5.44**
Overweight to obesity				
0	17/404	1.00 (0.61-1.65)	1.00 (0.61-1.65)	1.00 (0.61-1.65)
1	11/272	1.08 (0.60-1.93)	1.10 (0.61-2.00)	1.07 (0.59-1.94)
2 or more	9/199	1.16 (0.59-2.27)	1.14 (0.58-2.24)	1.08 (0.55-2.13)
Maintain normal weight				
0	91/1433	1.00 (0.81-1.24)	1.00 (0.81-1.24)	1.00 (0.81-1.24)
1	51/846	0.98 (0.75-1.29)	0.97 (0.74-1.27)	0.97 (0.74-1.27)

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
2 or more	34/501	1.22 (0.87-1.71)	1.19 (0.84-1.67)	1.18 (0.84-1.67)
Normal to abnormal weight				
0	18/381	1.00 (0.62-1.63)	1.00 (0.61-1.63)	1.00 (0.61-1.63)
1	17/275	1.02 (0.64-1.64)	0.99 (0.62-1.58)	0.99 (0.62-1.58)
2 or more	11/175	1.20 (0.66-2.19)	1.09 (0.60-2.00)	1.14 (0.62-2.10)
Abnormal to normal weight				
0	28/347	1.00 (0.68-1.46)	1.00 (0.68-1.46)	1.00 (0.68-1.46)
1	23/241	1.27 (0.85-1.91)	1.28 (0.85-1.92)	1.29 (0.86-1.93)
2 or more	15/150	1.36 (0.81-2.27)	1.34 (0.80-2.24)	1.32 (0.79-2.22)

Notes: BMI, body mass index. ACEs, adverse childhood experiences. AD, Alzheimer's disease. other dementias, vascular dementia. HR, hazard ratio. CI, confidence interval. Model 1 was adjusted for age, sex, race, education, household income, and marital status. Model 2 was further adjusted for smoking history, drinking history, and number of chronic diseases based on model 1. Model 3 was further adjusted for baseline BMI based on Model 2. Bolded refers to statistically significant.

Table S8. Body mass index trajectory-stratified longitudinal associations of adverse childhood experiences with new-onset all-cause dementia, Alzheimer's disease, and other dementias: Cox proportional hazard regression

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
All-cause dementia				
p for interaction between ACEs and BMI trajectory		**0.006**	**0.005**	**0.005**
Maintain obesity				
0	58/1176	1.00 (0.77-1.30)	1.00 (0.77-1.30)	1.00 (0.77-1.30)
1	63/897	**1.34 (1.05-1.72)**	**1.34 (1.05-1.71)**	**1.34 (1.04-1.71)**
2 or more	61/719	**1.84 (1.43-2.38)**	**1.85 (1.43-2.39)**	**1.87 (1.45-2.42)**
Maintain overweight				
0	136/2288	1.00 (0.84-1.19)	1.00 (0.84-1.19)	1.00 (0.84-1.19)
1	138/1718	**1.24 (1.05-1.47)**	**1.24 (1.05-1.46)**	**1.23 (1.05-1.46)**
2 or more	102/1134	**1.62 (1.33-1.97)**	**1.59 (1.30-1.94)**	**1.59 (1.30-1.94)**
Decline to normal weight				
0	28/114	1.00 (0.67-1.48)	1.00 (0.67-1.49)	1.00 (0.67-1.49)
1	18/85	0.80 (0.51-1.27)	0.78 (0.49-1.25)	0.78 (0.49-1.24)
2 or more	8/50	0.68 (0.34-1.38)	0.67 (0.33-1.34)	0.66 (0.32-1.33)
Maintain normal weight				
0	178/1661	1.00 (0.86-1.16)	1.00 (0.86-1.17)	1.00 (0.86-1.17)
1	109/996	1.06 (0.88-1.28)	1.06 (0.88-1.28)	1.06 (0.88-1.28)
2 or more	57/599	0.99 (0.76-1.29)	1.00 (0.77-1.30)	1.00 (0.77-1.30)
AD				
p for interaction between ACEs and BMI trajectory		**0.020**	**0.024**	**0.020**
Maintain obesity				
0	23/1176	1.00 (0.66-1.51)	1.00 (0.66-1.52)	1.00 (0.66-1.52)
1	24/897	1.30 (0.87-1.93)	1.31 (0.88-1.94)	1.29 (0.87-1.92)
2 or more	23/719	**1.76 (1.16-2.66)**	**1.81 (1.19-2.74)**	**1.85 (1.22-2.80)**
Maintain overweight				
0	52/2288	1.00 (0.75-1.32)	1.00 (0.75-1.33)	1.00 (0.75-1.33)
1	47/1718	1.03 (0.77-1.36)	1.03 (0.77-1.37)	1.02 (0.77-1.36)
2 or more	35/1134	1.32 (0.95-1.85)	1.35 (0.96-1.89)	1.35 (0.96-1.90)
Decline to normal weight				
0	13/114	1.00 (0.57-1.75)	1.00 (0.56-1.79)	1.00 (0.53-1.90)
1	8/85	0.80 (0.39-1.66)	0.75 (0.36-1.55)	0.67 (0.33-1.35)
2 or more	1/50	0.21 (0.03-1.52)	0.21 (0.03-1.49)	0.16 (0.02-1.19)
Maintain normal weight				
0	74/1661	1.00 (0.79-1.27)	1.00 (0.79-1.27)	1.00 (0.79-1.27)
1	45/996	1.03 (0.77-1.38)	1.04 (0.78-1.40)	1.04 (0.78-1.39)
2 or more	15/599	0.62 (0.37-1.04)	0.64 (0.39-1.07)	0.64 (0.39-1.07)
Other dementias				
p for interaction between ACEs and BMI trajectory		0.317	0.286	0.281
Maintain obesity				

Number of ACEs	Cases/No. of participants	Model 1	Model 2	Model 3
		HR (95% CI)		
0	35/1176	1.00 (0.72-1.40)	1.00 (0.72-1.40)	1.00 (0.72-1.40)
1	39/897	1.36 (1.00-1.87)	1.35 (0.99-1.85)	1.35 (0.99-1.85)
2 or more	38/719	**1.85 (1.34-2.55)**	**1.84 (1.33-2.55)**	**1.85 (1.34-2.57)**
Maintain overweight				
0	84/2288	1.00 (0.80-1.25)	1.00 (0.80-1.25)	1.00 (0.80-1.25)
1	91/1718	**1.37 (1.12-1.68)**	**1.36 (1.11-1.67)**	**1.36 (1.11-1.66)**
2 or more	67/1134	**1.77 (1.39-2.26)**	**1.70 (1.33-2.17)**	**1.70 (1.33-2.18)**
Decline to normal weight				
0	15/114	1.00 (0.59-1.70)	1.00 (0.59-1.70)	1.00 (0.59-1.70)
1	10/85	0.84 (0.45-1.56)	0.82 (0.44-1.53)	0.81 (0.43-1.51)
2 or more	7/50	1.07 (0.50-2.28)	1.07 (0.50-2.27)	1.08 (0.51-2.30)
Maintain normal weight				
0	103/1661	1.00 (0.82-1.22)	1.00 (0.82-1.22)	1.00 (0.82-1.22)
1	64/996	1.08 (0.85-1.38)	1.08 (0.85-1.38)	1.08 (0.85-1.38)
2 or more	42/599	1.29 (0.95-1.74)	1.27 (0.93-1.72)	1.26 (0.93-1.72)

Notes: ACEs, adverse childhood experiences. BMI, body mass index. AD, Alzheimer's disease. HR, hazard ratio. CI, confidence interval. Model 1 was adjusted for age, sex, race, education, household income, and marital status. Model 2 was further adjusted for smoking history, drinking history, and number of chronic diseases based on model 1. Model 3 was further adjusted for baseline BMI based on Model 2. Bolded refers to statistically significant.