

**Supplemental Table S4.** HR and 95% CI for Dementia According to the Metabolic Syndrome Component Exposure Score (Subgroup Analysis According to the Changes in the Number of Metabolic Syndrome Components between the First Health Examination and the Last Health Examination)

	All-cause dementia				Alzheimer's disease				Vascular dementia			
	No. of events	IR <sup>a</sup>	Model 1	Model 2	No. of events	IR <sup>a</sup>	Model 1	Model 2	No. of events	IR <sup>a</sup>	Model 1	Model 2
Increased or same												
0 (n=83,680)	114	0.26	1 (reference)	1 (reference)	86	0.20	1 (reference)	1 (reference)	19	0.04	1 (reference)	1 (reference)
1 (n=78,062)	176	0.44	1.40 (1.11-1.77)	1.36 (1.08-1.73)	134	0.33	1.41 (1.07-1.85)	1.36 (1.04-1.79)	27	0.07	1.29 (0.72-2.32)	1.28 (0.71-2.30)
2 (n=77,905)	231	0.57	1.60 (1.27-2.00)	1.56 (1.25-1.96)	176	0.44	1.61 (1.24-2.08)	1.56 (1.21-2.03)	32	0.08	1.32 (0.75-2.33)	1.30 (0.74-2.30)
3 (n=81,952)	285	0.67	1.68 (1.35-2.09)	1.64 (1.31-2.04)	215	0.51	1.68 (1.30-2.16)	1.63 (1.27-2.10)	41	0.10	1.43 (0.83-2.48)	1.40 (0.81-2.43)
4 (n=100,731)	419	0.80	1.71 (1.38-2.11)	1.66 (1.34-2.05)	282	0.54	1.51 (1.18-1.94)	1.47 (1.15-1.88)	93	0.18	2.28 (1.38-3.77)	2.21 (1.34-3.65)
5 (n=87,818)	377	0.83	1.67 (1.34-2.06)	1.60 (1.29-1.98)	266	0.58	1.55 (1.21-1.99)	1.48 (1.15-1.90)	65	0.14	1.72 (1.02-2.90)	1.65 (0.98-2.78)
6 (n=81,893)	400	0.94	1.79 (1.45-2.22)	1.69 (1.36-2.10)	276	0.65	1.63 (1.27-2.10)	1.54 (1.20-1.97)	80	0.19	2.14 (1.28-3.58)	2.02 (1.21-3.39)
7 (n=77,110)	420	1.05	1.90 (1.53-2.36)	1.79 (1.44-2.22)	292	0.73	1.75 (1.36-2.24)	1.64 (1.28-2.11)	82	0.21	2.20 (1.31-3.69)	2.07 (1.24-3.48)
8 (n=80,912)	481	1.15	2.02 (1.63-2.50)	1.89 (1.53-2.34)	341	0.81	1.90 (1.48-2.43)	1.78 (1.39-2.27)	93	0.22	2.29 (1.37-3.83)	2.15 (1.29-3.59)
9 (n=64,557)	394	1.18	2.04 (1.64-2.54)	1.86 (1.50-2.32)	287	0.86	1.97 (1.52-2.53)	1.79 (1.39-2.31)	67	0.20	2.05 (1.20-3.50)	1.89 (1.11-3.22)
10 (n=56,524)	355	1.21	2.05 (1.64-2.56)	1.87 (1.49-2.34)	243	0.83	1.85 (1.43-2.40)	1.69 (1.30-2.19)	75	0.26	2.57 (1.51-4.37)	2.34 (1.37-3.98)
11 (n=49,183)	348	1.37	2.31 (1.85-2.90)	2.10 (1.68-2.64)	221	0.87	1.96 (1.50-2.55)	1.78 (1.36-2.32)	80	0.31	3.09 (1.81-5.26)	2.80 (1.64-4.77)
12 (n=50,141)	366	1.41	2.30 (1.84-2.88)	2.06 (1.65-2.58)	243	0.94	2.02 (1.55-2.63)	1.81 (1.39-2.35)	84	0.32	3.11 (1.83-5.28)	2.78 (1.64-4.73)
13 (n=36,141)	238	1.27	2.02 (1.59-2.56)	1.75 (1.38-2.22)	179	0.96	2.01 (1.53-2.65)	1.73 (1.32-2.29)	34	0.18	1.70 (0.94-3.08)	1.49 (0.82-2.71)
14 (n=28,875)	225	1.51	2.35 (1.85-3.00)	2.07 (1.63-2.64)	154	1.03	2.14 (1.61-2.84)	1.88 (1.42-2.50)	43	0.29	2.63 (1.48-4.68)	2.30 (1.29-4.10)
15 (n=22,646)	170	1.46	2.28 (1.76-2.93)	2.00 (1.55-2.58)	116	0.99	2.06 (1.53-2.78)	1.81 (1.34-2.45)	41	0.35	3.18 (1.77-5.71)	2.77 (1.54-4.97)
16 (n=23,041)	202	1.71	2.43 (1.90-3.12)	2.10 (1.64-2.68)	144	1.22	2.31 (1.73-3.08)	1.98 (1.49-2.64)	31	0.26	2.18 (1.19-4.00)	1.86 (1.01-3.41)
17 (n=11,229)	90	1.56	2.25 (1.67-3.02)	1.92 (1.43-2.58)	60	1.04	1.99 (1.40-2.83)	1.70 (1.20-2.42)	22	0.38	3.22 (1.67-6.22)	2.74 (1.42-5.29)
18 (n=7,319)	60	1.59	2.40 (1.72-3.34)	2.12 (1.52-2.95)	41	1.09	2.20 (1.49-3.27)	1.94 (1.31-2.88)	12	0.32	2.73 (1.27-5.87)	2.38 (1.11-5.11)
19 (n=5,141)	43	1.63	2.62 (1.81-3.78)	2.22 (1.54-3.22)	26	0.99	2.13 (1.35-3.37)	1.81 (1.14-2.87)	10	0.38	3.41 (1.52-7.65)	2.85 (1.27-6.41)
20 (n=5,425)	55	1.99	3.02 (2.14-4.25)	2.59 (1.84-3.65)	37	1.34	2.76 (1.83-4.15)	2.37 (1.57-3.57)	9	0.33	2.76 (1.19-6.38)	2.29 (0.99-5.31)
P for trend			<0.0001	<0.0001			<0.0001	<0.0001			<0.0001	0.0006

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Supplemental Table S4. Continued

	All-cause dementia			Alzheimer's disease			Vascular dementia					
	No. of events	IR <sup>a</sup>	Model 1	Model 2	No. of events	IR <sup>a</sup>	Model 1	Model 2	No. of events	IR <sup>a</sup>	Model 1	Model 2
	Decreased											
1 (n=28,171)	61	0.42	1 (reference)	1 (reference)	52	0.36	1 (reference)	1 (reference)	4	0.03	1 (reference)	1 (reference)
2 (n=35,325)	105	0.57	1.22 (0.89–1.67)	1.18 (0.86–1.62)	69	0.38	0.93 (0.65–1.33)	0.90 (0.63–1.29)	16	0.09	2.85 (0.95–8.54)	2.87 (0.96–8.59)
3 (n=35,191)	100	0.55	1.07 (0.78–1.48)	1.08 (0.79–1.49)	71	0.39	0.88 (0.62–1.26)	0.89 (0.62–1.27)	13	0.07	2.14 (0.70–6.58)	2.16 (0.70–6.63)
4 (n=31,641)	107	0.65	1.19 (0.87–1.64)	1.17 (0.86–1.61)	75	0.46	0.96 (0.68–1.38)	0.95 (0.67–1.36)	18	0.11	3.01 (1.02–8.93)	2.97 (1.00–8.81)
5 (n=37,870)	177	0.90	1.40 (1.04–1.88)	1.37 (1.02–1.84)	124	0.63	1.13 (0.81–1.57)	1.10 (0.79–1.53)	33	0.17	3.85 (1.35–10.97)	3.79 (1.33–10.80)
6 (n=36,950)	186	0.97	1.39 (1.04–1.88)	1.36 (1.01–1.83)	133	0.69	1.14 (0.82–1.59)	1.12 (0.80–1.55)	30	0.16	3.33 (1.16–9.55)	3.23 (1.12–9.29)
7 (n=32,355)	186	1.11	1.57 (1.16–2.11)	1.50 (1.11–2.02)	122	0.73	1.17 (0.84–1.64)	1.12 (0.80–1.57)	34	0.20	4.20 (1.46–12.02)	4.00 (1.40–11.48)
8 (n=26,444)	148	1.08	1.52 (1.11–2.07)	1.43 (1.05–1.95)	92	0.67	1.07 (0.75–1.53)	1.01 (0.71–1.44)	26	0.19	3.87 (1.32–11.34)	3.64 (1.24–10.66)
9 (n=26,201)	162	1.20	1.63 (1.20–2.23)	1.53 (1.12–2.08)	116	0.86	1.32 (0.93–1.87)	1.24 (0.87–1.76)	26	0.19	3.76 (1.28–11.08)	3.51 (1.19–10.34)
10 (n=22,753)	131	1.11	1.44 (1.04–1.98)	1.32 (0.95–1.82)	96	0.82	1.17 (0.82–1.68)	1.07 (0.75–1.54)	27	0.23	4.33 (1.47–12.80)	4.06 (1.37–11.98)
11 (n=17,934)	124	1.34	1.67 (1.21–2.33)	1.56 (1.13–2.17)	89	0.96	1.33 (0.92–1.93)	1.25 (0.86–1.81)	21	0.23	4.19 (1.38–12.67)	3.92 (1.30–11.86)
12 (n=12,798)	81	1.23	1.58 (1.11–2.26)	1.46 (1.02–2.09)	49	0.74	1.06 (0.70–1.61)	0.99 (0.65–1.50)	22	0.33	6.18 (2.04–18.78)	5.68 (1.87–17.26)
13 (n=12,361)	98	1.54	1.94 (1.38–2.75)	1.74 (1.23–2.46)	68	1.07	1.49 (1.00–2.21)	1.34 (0.90–1.98)	16	0.25	4.61 (1.47–14.45)	4.15 (1.33–13.02)
14 (n=9,737)	73	1.46	1.78 (1.23–2.56)	1.60 (1.11–2.31)	55	1.10	1.46 (0.97–2.21)	1.33 (0.88–2.01)	12	0.24	4.29 (1.32–13.97)	3.85 (1.18–12.55)
15 (n=6,673)	54	1.57	1.93 (1.30–2.86)	1.70 (1.15–2.52)	33	0.96	1.28 (0.80–2.04)	1.12 (0.70–1.80)	16	0.47	8.38 (2.65–26.53)	7.53 (2.38–23.81)
16 (n=3,354)	27	1.56	1.76 (1.09–2.84)	1.39 (0.86–2.25)	21	1.22	1.45 (0.84–2.49)	1.13 (0.65–1.95)	3	0.17	2.96 (0.63–13.90)	2.55 (0.54–11.98)
17 (n=3,239)	31	1.86	2.15 (1.36–3.40)	1.80 (1.14–2.86)	22	1.32	1.66 (0.98–2.83)	1.41 (0.83–2.41)	6	0.36	5.98 (1.60–22.41)	4.99 (1.33–18.73)
18 (n=2,251)	30	2.61	2.76 (1.73–4.41)	2.38 (1.49–3.81)	21	1.82	2.05 (1.19–3.53)	1.81 (1.05–3.13)	6	0.52	8.19 (2.17–30.94)	6.75 (1.78–25.59)
19 (n=1,243)	11	1.73	1.81 (0.93–3.52)	1.60 (0.82–3.11)	5	0.79	0.88 (0.35–2.26)	0.80 (0.31–2.05)	3	0.47	7.41 (1.57–34.95)	6.16 (1.31–29.02)
P for trend			<0.0001	<0.0001			0.0006	0.0172			0.0004	0.0030

Model 1: adjusted for age, sex, alcohol drinking, smoking, regular exercise, income status, systolic blood pressure, waist circumference, fasting glucose, triglyceride, and high-density lipoprotein cholesterol levels; Model 2: djusted for model 1+ischemic heart disease, stroke, depression, and Parkinson's disease.

HR, hazard ratio; CI, confidence interval; IR, incidence rate.

<sup>a</sup>Per 1,000 person-years.