Supplementary Table 3. Composite analyses for the risk of all-cause mortality, myocardial infarction, and stroke according to the number of high-variability (Q4) metabolic parameters from each baseline eGFR category

eGFR category (mL/min/1.73 m^2)	No. of high-variability (Q4) components[a]	No. of subjects	Mortality				Myocardial infarction				Stroke			
			No. of events	Incidence rate[b]	Age-sex adjusted model, aHR (95% CI)	Multivariable model[c], aHR (95% CI)	Event (n)	Incidence rate[b]	Age-sex adjusted model, aHR (95% CI)	Multivariable model, aHR (95% CI)	Event (n)	Incidence rate[b]	Age-sex adjusted model, aHR (95% CI)	Multivariable model, aHR (95% CI)
ESKD	0	3,777	152	6.78	1.67 (1.42–1.96)	1.72 5 (1.47–2.02)	65	2.91	1.53 (1.20–1.96)	1.49 (1.17–1.90)	50	2.24	1.30 (0.78–1.37)	1.02 (0.77–1.34)
	1	5,469	370	11.57	2.48 (2.23–2.74)	2.44 (2.20–2.71)	126	3.97	1.93 (1.62–2.30)	1.75 (1.47–2.08)	127	4.00	1.64 (1.37–1.95)	1.51 (1.27–1.80)
	2	3,951	410	18.07	3.46 (3.14–3.82)	3.18 (2.88–3.50)	143	6.38	2.91 (2.47–3.43)	2.48 (2.10–2.92)	156	6.98	2.60 (2.22–3.05)	2.27 (1.94–2.66)
	3	1,754	301	31.13	5.96 (5.32–6.68)	5.13 (4.58–5.75)	86	9.06	4.14 (3.35–5.12)	3.29 (2.66–4.07)	70	7.33	2.69 (2.13–3.40)	2.22 (1.76–2.81)
	4	376	78	38.32	8.81 (7.06–11.00)	7.38 (5.91–9.22)	21	10.54	5.26 (3.43–8.06)	4.17 (2.72–6.40)	18	9.01	3.75 (2.36–5.95)	3.10 (1.95–4.92)
<30	0	93,993	4,543	8.19	1.19 (1.15–1.23)	1.22 (1.18–1.26)	1,911	3.47	1.27 (1.21–1.33)	1.18 (1.12–1.24)	2,471	4.51	1.27 (1.21–1.33)	1.19 (1.14–1.25)
	1	137,861	9,556	11.85	1.56 (1.52–1.60)	1.54 (1.50–1.58)	3,512	4.39	1.51 (1.45–1.57)	1.32 (1.27–1.37)	4,545	5.71	1.47 (1.41–1.52)	1.31 (1.26–1.36)
	2	91,721	8,820	16.62	2.03 (1.98–2.08)	1.89 (1.84–1.94)	2,956	5.64	1.83 (1.76–1.91)	1.52 (1.46–1.58)	3,649	6.99	1.66 (1.60–1.73)	1.41 (1.26–1.47)
	3	33,060	4,351	23.15	2.66 (2.57–2.75)	2.33 (2.26–2.41)	1,297	7.00	2.19 (2.06–2.32)	1.72 (1.62–1.82)	1,643	8.93	1.99 (1.89–2.10)	1.62 (1.53–1.71)
	4	5,428	958	31.78	3.54 (3.32–3.78)	2.94 (2.75–3.14)	265	8.94	2.75 (2.43–3.10)	2.07 (1.83–2.34)	325	11.07	2.39 (2.14–2.67)	1.86 (1.66–2.08)
≥30, <60	0	1,767,263	28,946	2.72	0.88 (0.86–0.90)	0.92 (0.90–0.93)	16,922	1.59	1.00 (0.98–1.03)	1.00 (0.98–1.03)	17,949	1.69	1.00 (0.97–1.02)	1.00 (0.98–1.03)
	1	1,975,726	46,021	3.88	1.11 (1.09–1.13)	1.11 (1.09–1.13)	22,582	1.91	1.13 (1.10–1.15)	1.07 (1.04–1.09)	25,415	2.16	1.14 (1.11–1.16)	1.09 (1.07–1.12)
	2	1,001,160	32,801	5.49	1.38 (1.36–1.41)	1.32 (1.29–1.34)	14,030	2.36	1.29 (1.25–1.32)	1.16 (1.13–-1.19)	16,178	2.73	1.28 (1.25–1.31)	1.18 (1.15–1.21)
	3	273,528	13,025	8.03	1.79 (1.75–1.83)	1.62 (1.59–1.66)	4,690	2.91	1.48 (1.43–1.53)	1.28 (1.23–1.32)	5,584	3.48	1.46 (1.41–1.51)	1.29 (1.35–1.34)
	4	33,377	2,225	11.33	2.23 (2.13–2.33)	1.92 (1.83–2.01)	715	3.67	1.73 (1.60–1.86)	1.43 (1.33–1.55)	870	4.48	1.69 (1.58–1.82)	1.44 (1.34–1.54)
≥60	0	1,524,102	17,030	1.85	1 (Reference)	1 (Reference)	10,850	1.18	1 (Reference)	1 (Reference)	10,294	1.12	1 (Reference)	1 (Reference)
	1	1,787,112	26,229	2.44	1.23 (1.20–1.25)	1.18 (1.16–1.20)	14,591	1.36	1.12 (1.09–1.15)	1.07 (1.05–1.10)	14,161	1.32	1.11 (1.08–1.14)	1.07 (1.04–1.10)
	2	937,796	19,051	3.39	1.55 (1.52–1.59)	1.43 (1.40–1.46)	8,985	1.60	1.27 (1.23–1.31)	1.16 (1.13–1.20)	9,176	1.64	1.28 (1.25–1.32)	1.19 (1.15–1.22)
	3	261,973	7,355	4.70	1.96 (1.91–2.01)	1.72 (1.68–1.77)	2,953	1.89	1.44 (1.38–1.50)	1.27 (1.22–1.32)	3,066	1.97	1.43 (1.37–1.49)	1.27 (1.22–1.33)
	4	32,135	1,309	6.85	2.55 (2.41–2.69)	2.12 (2.01–2.25)	440	2.32	1.66 (1.51–1.82)	1.41 (1.28–1.55)	435	2.29	1.52 (1.38–1.67)	1.33 (1.18–1.43)

aHR, adjusted hazard ratio; CI, confidence interval; eGFR, estimated glomerular filtration rate; ESKD, end stage kidney disease.

[a]The number of high-variability components was calculated by summing the presence of high variability (Q4) in a metabolic parameter from each metabolic syndrome domain (body mass index [BMI], fasting blood glucose, systolic blood pressure, and total cholesterol). [b]Incidence rate (/1,000 person-years). [c]The multivariable model was adjusted for age, sex, low-income status, current smoking, alcohol consumption, regular physical activity, history of diabetes mellitus, hypertension, dyslipidemia, and BMI.