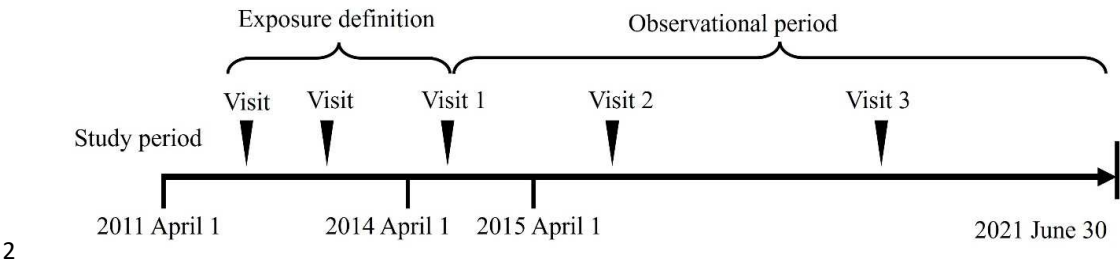


1 **Figure S1. Study time course**



3 Visit 1 represents the first visit for health screening after April 1, 2014.

4

5 **Table S1. Demographic and clinical characteristics of the included and excluded**
6 **participants**

Demographic and clinical characteristics	Included participants	Excluded participants
N	88,744	91,096
Age, year	51.6±7.9	53.6±8.8
Female, no. (%)	25,341 (28.6%)	35,151 (38.6%)
Body mass index, kg/m ²	23.7±3.6	23.6±3.7
Estimated glomerular filtration rate, mL/min/1.73 m ²	78.4±13.9	76.8±14.7
Baseline proteinuria, no. (%)		
-	77,729 (87.9%)	79,132 (87.1%)
±	7,024 (7.9%)	8,041 (8.8%)
1+	2,616 (3.0%)	2,653 (2.9%)
2+	864 (1.0%)	807 (0.9%)
3+	246 (0.3%)	220 (0.2%)
Systolic blood pressure, mmHg	124±17	124.6±17.7
diastolic blood pressure, mmHg	77±12	76.7±12.1
Hemoglobin A1c, %	5.6±0.7	5.7±0.7
LDL cholesterol, mg/dL	128±32.1	125.5±32.2
Use of antihypertensive drugs, no. (%)	14,232 (16.1%)	16,930 (18.6%)
Use of antidiabetic drugs, no. (%)	4,368 (4.9%)	5,053 (5.6%)
Use of antihyperlipidemic drugs, no. (%)	8,612 (9.7%)	10,379 (11.4%)
Current smoking, no. (%)	24,680 (27.8%)	24,453 (26.9%)
History of stroke, no. (%)	1,085 (1.3%)	1,185 (1.5%)
History of cardiovascular disease, no. (%)	1,996 (2.3%)	2,242 (2.8%)

7 Variables are presented as mean ± standard deviation or n (%).

8 **Table S2. Demographic and clinical characteristics of the participants by drop-out**

Demographic and clinical characteristics	Drop-out (-)	Drop-out (+)
N	64,222	24,522
Age, year	49.3±6.6	57.8±7.8
Female, no.(%)	17,455 (27.1%)	7,886 (32.2%)
Body mass index, kg/m ²	23.8±3.7	23.6±3.5
Estimated glomerular filtration rate, mL/min/1.73 m ²	79.5±13.5	75.7±14.3
Baseline proteinuria, no. (%)		
-	56,259 (87.9%)	21,470 (87.8%)
±	5,185 (8.1%)	1,839 (7.5%)
1+	1,847 (2.9%)	769 (3.1%)
2+	571 (0.9%)	293 (1.2%)
3+	150 (0.2%)	96 (0.4%)
Systolic blood pressure, mmHg	123.4±16.3	126.9±17.8
Diastolic blood pressure, mmHg	76.9±12.1	77.6±11.8
Hemoglobin A1c, %	5.7±0.7	5.6±0.8
LDL cholesterol, mg/dL	128.3±32.1	128.2±32.2
Use of antihypertensive drugs, no. (%)	8,158 (12.7%)	6,074 (24.8%)
Use of antidiabetic drugs, no. (%)	2,421 (3.8%)	1,947 (7.9%)
Use of antihyperlipidemic drugs, no. (%)	4,996 (7.8%)	3,616 (14.8%)
Current smoking, no. (%)	18,463 (28.8%)	6,217 (25.4%)
History of stroke, no. (%)	591 (0.9%)	494 (2.1%)
History of cardiovascular disease, no. (%)	1,093 (1.8%)	903 (3.7%)

9 *Variables are presented as mean ± standard deviation or n (%).

10 **Table S3. Hazard ratios for MACE among patients without major risk factors**
11 **(hypertension, diabetes, hyperlipidaemia, and smoking) for CVD**

Group	HR (95% CI)
All-negative	Reference
Once-positive	2.15 (1.15–4.01)
Repetitively-positives	2.81 (1.20–6.56)

12 *Adjusted for age, sex, and eGFR, HbA1c, BMI, SBP, LDL cholesterol, antihypertensive
13 drugs, antidiabetic drugs, antihyperlipidemic drugs, history of myocardial infarction, and
14 history of stroke, smoking, and alcohol intake.

15

16 **Table S4. Number of participants with missing variables**

Variable	Missing	Observed	Total	Missing proportion
Hemoglobin A1c	433	88,311	88,744	0.49%
Body mass index	2	88,742	88,744	0.00%
Systolic blood pressure	6	88,738	88,744	0.01%
LDL cholesterol	9	88,735	88,744	0.01%
Use of antihypertensive drugs	100	88,644	88,744	0.11%
Use of antidiabetic drugs	100	88,644	88,744	0.11%
Use of antihyperlipidemic drugs	100	88,644	88,744	0.11%
History of stroke	2,283	86,461	88,744	2.57%
History of cardiovascular disease	2,284	86,460	88,744	2.57%
Current smoking status	112	88,632	88,744	0.13%
Alcohol consumption	1,262	87,482	88,744	1.42%

17

18 **Table S5. Demographic and clinical characteristics of participants who had missing data**

		N
Age, year	51.2±7.9	2,634
Female, no. (%)	406 (15.4%)	2,634
Body mass index, kg/m ²	24.2±3.6	2,632
Estimated glomerular filtration rate, mL/min/1.73 m ²	77.8±14.1	2,634
Baseline proteinuria, no. (%)		2,625
	-	2,189 (83.4%)
	±	324 (12.3%)
	1+	84 (3.2%)
	2+	23 (0.9%)
	3+	5 (0.2%)
Systolic blood pressure, mmHg	122±16	2,628
diastolic blood pressure, mmHg	77±12	2,628
Hemoglobin A1c, %	5.6±0.7	2,201
LDL cholesterol, mg/dL	124±31	2,625
Use of antihypertensive drugs, no. (%)	455 (18.0%)	2,534
Use of antidiabetic drugs, no. (%)	136 (5.4%)	2,534

Use of antihyperlipidemic drugs, no. (%)	277 (10.9%)	2,534
Current smoking, no. (%)	747 (29.6%)	2,522
History of stroke, no. (%)	7 (2.0%)	351
History of cardio vascular disease, no. (%)	14 (4.0%)	350

*Variables are presented as the mean ± standard deviation or n (%).

21 **Table S6. Hazard ratios for MACE in the survival analyses**

Urine test results	HR (95% CI)
All negative	Reference
Single positive	1.46 (1.14–1.87)
Two positives	2.25 (1.59–3.19)
Three or more positives	2.12 (1.60–2.82)

22 *Adjusted for age, sex, and eGFR, HbA1c, BMI, SBP, LDL cholesterol, antihypertensive
23 drugs, antidiabetic drugs, antihyperlipidemic drugs, history of myocardial infarction, and
24 history of stroke, smoking, and alcohol intake.

25