Supplementary Tables and Figures

Supplementary Table 1. Baseline Characteristics of subjects without Metabolic Syndrome (MetS) who remained without MetS and developed MetS at the second screening (1 year later)

Characteristics	Total	Remained MetS (-)	Developed MetS	P value
Number of subjects, n (%)	613668	578429	35239	
Age, year	65 (59, 69)	65 (59, 69)	65 (60, 69)	<0.001
Men, n (%)	225,274 (36.7%)	203,720 (35.2%)	21,554 (61.2%)	<0.001
Body weight, kg	54.4 (48.8, 61.0)	53.9 (48.5, 60.2)	64.9 (59.2, 70.9)	<0.001
Height, cm	156.0 (150.8, 162.7)	155.9 (150.7, 162.3)	161.1 (153.9, 167.2)	<0.001
Body mass index, kg/m^2	22.2 (20.5, 24.1)	22.1 (20.4, 23.9)	25.0 (23.5, 26.8)	<0.001
Systolic BP, mm Hg	128 (116, 139)	128 (116, 139)	130 (120, 140)	<0.001
Diastolic BP, mm Hg	76 (69, 82)	76 (69, 82)	79 (71, 84)	<0.001
FBS, mg/dL	93 (87, 102)	93 (87, 102)	95 (89, 104)	<0.001
HbA1c, %	5.2 (5.0, 5.5)	5.2 (5.0, 5.5)	5.2 (5.0, 5.5)	<0.001
Triglyceride, mg/dL	97 (70, 139)	96 (70, 137)	115 (83, 161)	<0.001
HDL-C, mg/dL	62 (52, 73)	62 (52, 74)	56 (47, 65)	<0.001
LDL-C, mg/dL	124 (104, 144)	124 (104, 144)	127 (108, 147)	<0.001
eGFR, mL/min/1.73m^2	74.7 (64.5, 85.7)	74.7 (64.5, 85.7)	73.8 (63.9, 84.3)	<0.001
Current smoking, n (%)	81,289 (13.4%)	75,238 (13.2%)	6,051 (17.3%)	<0.001
Proteinuria (1+) or more, n (%)	27,789 (4.6%)	25,623 (4.5%)	2,166 (6.2%)	<0.001
Hypertension, n (%)	258,106 (43.1%)	240,271 (42.7%)	17,835 (50.6%)	<0.001
Diabetes, n (%)	57,102 (9.7%)	54,384 (9.8%)	2,718 (8.1%)	<0.001
Dyslipidemia, n (%)	346,777 (56.5%)	323,939 (56.0%)	22,838 (64.8%)	<0.001
Antihypertensive medication, n (%)	168,356 (27.8%)	156,767 (27.5%)	11,589 (33.0%)	<0.001
Antidiabetic medication, n (%)	35,878 (5.9%)	34,348 (6.0%)	1,530 (4.4%)	<0.001
Lipid-lowering medication, n (%)	104,648 (17.3%)	99,694 (17.5%)	4,954 (14.1%)	<0.001
Past history				<0.001
Cardiovascular disease, n (%)	31,529 (5.7%)	29,377 (5.6%)	2,152 (6.7%)	<0.001
Stroke, n (%)	17,657 (3.2%)	16,406 (3.1%)	1,251 (3.9%)	<0.001
Renal failure/dialysis, n (%)	3,632 (0.7%)	3,446 (0.7%)	186 (0.6%)	0.115

Supplementary Table 2. Baseline Characteristics of subjects with Metabolic Syndrome (MetS) who remained MetS and disappeared MetS at the second screening (1 year later)

Characteristics	Total	Remained MetS (+)	Disappeared MetS	P value
Number of subjects, n (%)	68880	32624	36256	
Age, year	66 (60, 69)	66 (61, 70)	65 (60, 69)	<0.001
Men, n (%)	43,353 (62.9%)	21,552 (66.1%)	21,801 (60.1%)	<0.001
Body weight, kg	66.4 (61.0, 72.0)	67.8 (62.6, 73.2)	65.0 (59.8, 70.8)	<0.001
Height, cm	161.5 (154.0, 167.5)	162.2 (154.8, 167.9)	160.9 (153.5, 167.1)	<0.001
Body mass index, kg/m^2	25.5 (24.0, 27.3)	25.8 (24.4, 27.7)	25.2 (23.8, 26.9)	<0.001
Systolic BP, mm Hg	132 (122, 142)	134 (124, 144)	131 (122, 141)	<0.001
Diastolic BP, mm Hg	80 (72, 86)	80 (73, 88)	80 (72, 85)	<0.001
FBS, mg/dL	95 (89, 101)	94 (89, 100)	95 (89, 102)	<0.001
HbA1c, %	5.2 (5.0, 5.5)	5.2 (5.0, 5.4)	5.3 (5.0, 5.5)	<0.001
Triglyceride, mg/dL	105 (80, 135)	100 (77, 130)	109 (82, 139)	<0.001
HDL-C, mg/dL	56 (48, 66)	57 (49, 66)	56 (48, 65)	<0.001
LDL-C, mg/dL	128 (109, 148)	126 (108, 146)	130 (110, 150)	<0.001
eGFR, mL/min/1.73m^2	73.8 (63.9, 84.0)	73.5 (63.9, 84.0)	73.8 (63.9, 84.1)	0.011
Current smoking, n (%)	11,470 (16.8%)	5,462 (16.9%)	6,008 (16.7%)	0.434
Proteinuria (1+) or more, n (%)	3,914 (5.7%)	1,920 (5.9%)	1,994 (5.5%)	0.030
Hypertension, n (%)	39,453 (57.3%)	20,820 (63.8%)	18,633 (51.4%)	<0.001
Diabetes, n (%)	2,886 (4.4%)	930 (3.0%)	1956 (5.7%)	<0.001
Dyslipidemia, n (%)	36,472 (53.0%)	15,622 (47.9%)	20,850 (57.5%)	<0.001
Antihypertensive medication, n (%)	25,165 (36.7%)	13,597 (41.9%)	11,568 (32.0%)	<0.001
Antidiabetic medication, n (%)	1,705 (2.5%)	542 (1.7%)	1,163 (3.2%)	<0.001
Lipid-lowering medication, n (%)	5,571 (8.1%)	2,100 (6.5%)	3,471 (9.6%)	<0.001
Past history				
Cardiovascular disease, n (%)	4,116 (6.6%)	1,961 (6.6%)	2,155 (6.5%)	0.493
Stroke, n (%)	2,385 (3.8%)	1,140 (3.9%)	1,245 (3.8%)	0.508
Renal failure/dialysis, n (%)	365 (0.6%)	176 (0.6%)	189 (0.6%)	0.676

BP: blood pressure, FBS: fasting blood sugar, eGFR: estimated glomerular filtration rate. Median (25th, 75th)

Supplementary Table 3. Baseline Characteristics of men and women

Characteristics	Men	Women	P value
Number of subjects	268627	413921	
Age, year	65 (60, 69)	65 (59, 69)	<0.001
Body weight, kg	62.8 (57.3, 69.0)	51.5 (47.0, 56.5)	<0.001
Height, cm	164.8 (160.7, 169.0)	152.4 (148.6, 156.2)	<0.001
Body mass index, kg/m^2	23.2 (21.4, 25.1)	22.1 (20.3, 24.2)	<0.001
Systolic BP, mm Hg	130 (120, 140)	127 (116, 138)	<0.001
Diastolic BP, mm Hg	78 (70, 85)	74 (68, 81)	<0.001
FBS, mg/dL	97 (90, 106)	92 (86, 99)	<0.001
HbA1c, %	5.2 (5.0, 5.5)	5.2 (5.0, 5.5)	<0.001
Triglyceride, mg/dL	107 (76, 154)	93 (69, 129)	<0.001
HDL-C, mg/dL	56 (47, 67)	64 (55, 76)	<0.001
LDL-C, mg/dL	119 (100, 139)	128 (108, 148)	<0.001
eGFR, mL/min/1.73m^2	73.8 (64.6, 85.0)	75.0 (64.2, 87.0)	<0.001
Current smoking, n (%)	69,600 (26.2%)	23,159 (5.7%)	<0.001
Proteinuria (1+) or more, n (%)	18,332 (6.9%)	13,371 (3.2%)	<0.001
Hypertension, n (%)	131,765 (49.8%)	165,794 (41.2%)	<0.001
Diabetes, n (%)	35,197 (13.7%)	24,791 (6.3%)	<0.001
Dyslipidemia, n (%)	144,456 (53.8%)	238,793 (57.7%)	<0.001
Antihypertensive medication, n (%)	84,343 (31.7%)	109,178 (26.7%)	<0.001
Antidiabetic medication, n (%)	21,570 (8.1%)	16,013 (3.9%)	<0.001
Lipid-lowering medication, n (%)	30,704 (11.6%)	79,515 (19.5%)	<0.001
Past history			<0.001
Cardiovascular disease, n (%)	18,214 (7.5%)	17,731 (4.6%)	<0.001
Stroke, n (%)	11,040 (4.6%)	9,002 (2.4%)	<0.001
Renal failure/dialysis, n (%)	1,853 (0.8%)	2,144 (0.6%)	<0.001

BP: blood pressure, FBS: fasting blood sugar, eGFR: estimated glomerular filtration rate. Median (25th, 75th)

Supplementary Table 4. Baseline Characteristics of men by age group

Characteristics	<65 years	≧65 years	P value
Number of subjects, n (%)	123,153 (45.8%)	145,474 (54.2%)	
Age, year	59 (51, 62)	69 (67, 71)	<0.001
Body weight, kg	64.5 (58.8, 71.0)	61.5 (56.2, 67.0)	<0.001
Height, cm	166.7 (162.6, 170.8)	163.2 (159.5, 167.1)	<0.001
Body mass index, kg/m^2	23.3 (21.5, 25.3)	23.1 (21.4, 24.9)	<0.001
Systolic BP, mm Hg	127 (116, 138)	132 (121, 142)	<0.001
Diastolic BP, mm Hg	79 (70, 86)	78 (70, 84)	<0.001
FBS, mg/dL	96 (89, 105)	97 (90, 107)	<0.001
HbA1c, %	5.2 (4.9, 5.5)	5.3 (5.0, 5.6)	<0.001
Triglyceride, mg/dL	112 (79, 166)	102 (74, 144)	<0.001
HDL-C, mg/dL	56 (47, 67)	56 (47, 67)	0.055
LDL-C, mg/dL	121 (101, 142)	118 (99, 137)	<0.001
eGFR, mL/min/1.73m^2	76.5 (67.3, 88.1)	72.6 (63.5, 83.7)	<0.001
Current smoking, n (%)	41,174 (33.9%)	28,426 (19.7%)	<0.001
Proteinuria (1+) or more, n (%)	7,562 (6.2%)	10,770 (7.4%)	<0.001
Hypertension, n (%)	50,179 (41.3%)	81,586 (57.0%)	<0.001
Diabetes, n (%)	13,604 (11.6%)	21,593 (15.4%)	<0.001
Dyslipidemia, n (%)	69,139 (56.2%)	75,317 (51.8%)	<0.001
Antihypertensive medication, n (%)	28,078 (23.1%)	56,265 (39.0%)	<0.001
Antidiabetic medication, n (%)	7,471 (6.2%)	14,099 (9.8%)	<0.001
Lipid-lowering medication, n (%)	10,962 (9.0%)	19,742 (13.7%)	<0.001
Past history			<0.001
Cardiovascular disease, n (%)	5,281 (4.8%)	12,933 (9.7%)	<0.001
Stroke, n (%)	3,247 (3.0%)	7,793 (5.9%)	<0.001
Renal failure/dialysis, n (%)	774 (0.7%)	1,079 (0.8%)	0.003

BP: blood pressure, FBS: fasting blood sugar, eGFR: estimated glomerular filtration rate.
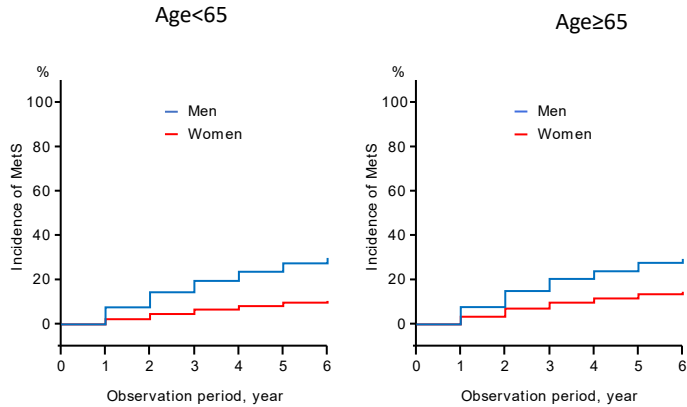Median (25th, 75th)

Supplementary Table 5. Baseline Characteristics of women by age group

Characteristics	<65 years	≧65 years	P value
Number of subjects, n (%)	206,761 (50.0%)	207,160 (50.0%)	
Age, year	59 (54, 62)	69 (67, 71)	<0.001
Body weight, kg	52.0 (47.5, 57.1)	51.0 (46.3, 56.0)	<0.001
Height, cm	154.0 (150.4, 157.8)	150.8 (147.2, 154.3)	<0.001
Body mass index, kg/m^2	21.9 (20.1, 24.0)	22.4 (20.5, 24.5)	<0.001
Systolic BP, mm Hg	123 (111, 134)	130 (120, 140)	<0.001
Diastolic BP, mm Hg	74 (67, 81)	75 (69, 81)	<0.001
FBS, mg/dL	91 (86, 98)	93 (87, 100)	<0.001
HbA1c, %	5.2 (5.0, 5.4)	5.5 (5.3, 5.9)	<0.001
Triglyceride, mg/dL	89 (65, 125)	97 (72, 132)	<0.001
HDL-C, mg/dL	66 (56, 77)	63 (54, 74)	<0.001
LDL-C, mg/dL	127 (107, 149)	128 (109, 148)	<0.001
eGFR, mL/min/1.73m^2	77.4 (66.7, 92.0)	73.8 (62.8, 78.9)	<0.001
Current smoking, n (%)	16,781 (8.3%)	6,378 (3.1%)	<0.001
Proteinuria (1+) or more, n (%)	5,693 (2.8%)	7,678 (3.7%)	<0.001
Hypertension, n (%)	62,883 (31.2%)	102,911 (51.1%)	<0.001
Diabetes, n (%)	9,200 (4.7%)	15,591 (7.8%)	<0.001
Dyslipidemia, n (%)	108,955 (52.7%)	129,838 (62.7%)	<0.001
Antihypertensive medication, n (%)	37,412 (18.4%)	71,766 (35.0%)	<0.001
Antidiabetic medication, n (%)	5,478 (2.7%)	10,535 (5.1%)	<0.001
Lipid-lowering medication, n (%)	27,383 (13.5%)	52,132 (25.4%)	<0.001
Past history			<0.001
Cardiovascular disease, n (%)	5,320 (2.8%)	12,111 (6.4%)	<0.001
Stroke, n (%)	2,781 (1.5%)	6,221 (3.3%)	<0.001
Renal failure/dialysis, n (%)	1,045 (0.6%)	1,099 (0.6%)	0.422

BP: blood pressure, FBS: fasting blood sugar, eGFR: estimated glomerular filtration rate.

Median (25th, 75th)

Supplementary Figure 1 . Kaplan-Meier curve: Incidence of metabolic syndrome among those who were free of metabolic syndrome at the first screening.

Supplementary Figure 2. Kaplan-Meier curve: Maintenance rate of metabolic syndrome among those subjects who were diagnosed metabolic syndrome at the first screening.