

Supplemental Table S1. NHIS and Synthetic KNHANES (m1-m10) before Matching

Variable	KNHANES										
	NHIS-HEALS (n=910,557)	M1 (n=13,493)	M2 (n=13,662)	M3 (n=13,547)	M4 (n=13,551)	M5 (n=13,635)	M6 (n=13,635)	M7 (n=13,522)	M8 (n=13,522)	M9 (n=13,613)	M10 (n=13,481)
Female sex	8,378 (62.10)	8,457 (62.70)	8,536 (62.50)	8,353 (61.70)	8,537 (63.00)	8,607 (63.10)	8,476 (62.90)	8,376 (61.90)	8,347 (62.20)	8,454 (62.10)	8,378 (62.10)
Age, yr	56.68±11.23	56.48±11.35	56.60±11.29	56.61±11.29	56.81±11.35	56.66±11.24	56.67±11.33	56.61±11.34	56.51±11.21	56.56±11.27	56.68 (11.23)
Region											
Seoul	152,922 (16.80)	2,343 (17.40)	2,347 (17.20)	2,278 (16.80)	2,304 (17.00)	2,252 (16.50)	2,307 (17.10)	2,266 (16.80)	2,282 (17.00)	2,267 (16.70)	2,288 (17.00)
Busan	80,221 (8.80)	788 (5.80)	814 (6.00)	858 (6.30)	843 (6.20)	858 (6.30)	751 (5.60)	766 (5.70)	798 (5.90)	819 (6.00)	785 (5.80)
Daegu	47,976 (5.30)	669 (5.00)	662 (4.80)	633 (4.70)	652 (4.80)	706 (5.20)	669 (5.00)	660 (4.90)	627 (4.70)	684 (5.00)	710 (5.30)
Incheon	45,518 (5.00)	730 (5.40)	758 (5.50)	786 (5.80)	748 (5.50)	752 (5.50)	733 (5.40)	751 (5.60)	733 (5.50)	725 (5.30)	746 (5.50)
Gwangju	28,717 (3.20)	408 (3.00)	413 (3.00)	423 (3.10)	409 (3.00)	425 (3.10)	454 (3.40)	432 (3.20)	420 (3.10)	393 (2.90)	405 (3.00)
Daejeon	29,210 (3.20)	429 (3.20)	434 (3.20)	427 (3.20)	459 (3.40)	418 (3.10)	400 (3.00)	426 (3.20)	414 (3.10)	450 (3.30)	424 (3.11)
Ulsan	29,767 (3.30)	258 (1.90)	310 (2.30)	251 (1.90)	270 (2.00)	295 (2.20)	290 (2.20)	276 (2.00)	265 (2.00)	267 (2.00)	271 (2.00)
Gyeonggi	177,545 (19.50)	2,671 (19.80)	2,733 (20.00)	2,664 (19.70)	2,687 (19.80)	2,726 (20.00)	2,705 (20.10)	2,690 (19.90)	2,657 (19.80)	2,686 (19.70)	2,693 (20.00)
Gangwon	30,327 (3.30)	511 (3.80)	515 (3.80)	465 (3.40)	506 (3.70)	503 (3.70)	477 (3.50)	489 (3.60)	526 (3.90)	477 (3.50)	450 (3.30)
Chungcheong											
Chungcheongbuk-do	32,626 (3.60)	1,175 (8.70)	1,223 (9.00)	1,221 (9.00)	1,234 (9.10)	1,218 (8.90)	1,241 (9.20)	1,235 (9.10)	1,245 (9.30)	1,249 (9.20)	1,289 (9.60)
Chungcheongnam-do	40,199 (4.40)										
Sejong	636 (0.10)										
Jeolla											
Jeollabuk-do	37,201 (4.10)	1,289 (9.60)	1,321 (9.70)	1,348 (10.00)	1,278 (9.40)	1,316 (9.70)	1,253 (9.30)	1,254 (9.30)	1,218 (9.10)	1,372 (10.10)	1,294 (9.60)
Jeollanam-do	41,505 (4.60)										
Gyeonggang											
Gyeonggangbuk-do	62,540 (6.90)	1,876 (13.90)	1,809 (13.20)	1,896 (14.00)	1,841 (13.60)	1,862 (13.70)	1,880 (14.00)	1,965 (14.50)	1,895 (14.10)	1,933 (14.20)	1,833 (13.60)
Gyeonggangnam-do	64,980 (7.10)										
Jeju	8,667 (1.00)	346 (2.60)	323 (2.40)	297 (2.20)	320 (2.40)	304 (2.20)	309 (2.30)	312 (2.30)	339 (2.50)	291 (2.10)	293 (2.20)
Employed insurance	720,858 (79.20)	8,135 (60.30)	8,217 (60.10)	8,064 (59.50)	8,160 (60.20)	8,116 (59.50)	8,179 (60.70)	8,166 (60.40)	8,047 (60.00)	8,159 (59.90)	8,072 (59.90)
Smoking	305,739 (33.60)	4,532 (33.60)	4,592 (33.60)	4,630 (34.20)	4,545 (33.50)	4,542 (33.30)	4,510 (33.50)	4,683 (34.60)	4,553 (33.90)	4,633 (34.00)	4,576 (33.90)
Diabetes mellitus	-	13,493 (100.00)	13,662 (100.00)	13,547 (100.00)	13,551 (100.00)	13,635 (100.00)	13,469 (100.00)	13,522 (100.00)	13,419 (100.00)	13,613 (100.00)	13,481 (100.00)
Hypertension	183,945 (20.20)	3,307 (24.50)	3,397 (24.90)	3,256 (24.00)	3,461 (25.50)	3,447 (25.30)	3,381 (25.10)	3,446 (25.50)	3,320 (24.70)	3,405 (25.00)	3,399 (25.20)
BMI, kg/m ²	23.89±2.86	23.84±3.10	23.82±3.13	23.84±3.13	23.79±3.11	23.82±3.07	23.82±3.12	23.85±3.05	23.84±3.11	23.86±3.10	23.84±3.12
Waist circumference, cm	81.66±8.14	82.14±9.10	82.07±9.15	82.24±9.13	82.07±9.11	82.09±9.05	82.11±9.09	82.20±8.97	82.16±9.11	82.20±9.05	82.14±9.13
Fasting plasma glucose, mg/dL	94.42±11.55	94.63±9.66	94.69±9.67	94.67±9.63	94.70±9.53	94.71±9.60	94.58±9.62	94.74±9.67	94.71±9.71	94.78±9.72	94.62±9.67
Hemoglobin, g/dL	13.91±1.49	13.75±1.53	13.76±1.53	13.78±1.55	13.74±1.53	13.77±1.51	13.73±1.52	13.79±1.52	13.76±1.54	13.78±1.52	13.78±1.52
Systolic BP, mm Hg	124.78±15.08	119.56±17.77	119.40±17.76	119.23±17.57	119.38±17.79	119.78±17.95	119.43±17.59	119.46±17.86	119.54±17.83	119.63±17.91	119.30±17.84
Diastolic BP, mm Hg	77.56±9.93	76.62±10.74	76.60±10.64	76.53±10.54	76.44±10.60	76.63±10.70	76.61±10.57	76.56±10.67	76.78±10.70	76.67±10.62	76.41±10.62
Total cholesterol, mmol/L	199.43±36.54	193.52±35.56	193.42±35.90	193.57±35.61	193.63±35.70	193.87±35.65	193.66±35.58	193.70±35.85	193.99±35.66	193.68±35.43	193.72±35.74

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Supplemental Table S1. Continued

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	NHIS-HEALS (n=910,557)	M1 (n=13,493)	M2 (n=13,662)	M3 (n=13,547)	M4 (n=13,551)	M5 (n=13,635)	M6 (n=13,635)	M7 (n=13,522)	M8 (n=13,522)	M9 (n=13,613)	M10 (n=13,481)
Fasting insulin, $\mu\text{IU/mL}$	-	9.44 \pm 5.88	9.35 \pm 5.59	9.37 \pm 5.71	9.42 \pm 5.45	9.34 \pm 5.28	9.36 \pm 5.15	9.39 \pm 5.37	9.48 \pm 5.45	9.44 \pm 5.33	9.35 \pm 5.31
HbA1c, %	-	5.58 \pm 0.37	5.58 \pm 0.37	5.59 \pm 0.38	5.58 \pm 0.37	5.58 \pm 0.37	5.56 \pm 0.38	5.58 \pm 0.38	5.58 \pm 0.37	5.58 \pm 0.37	5.57 \pm 0.37
HDL-C, mmol/L	55.31 \pm 25.48	48.88 \pm 11.25	49.16 \pm 11.44	48.68 \pm 11.22	49.00 \pm 11.38	48.84 \pm 11.30	49.08 \pm 11.36	49.01 \pm 11.36	48.89 \pm 11.27	48.80 \pm 11.40	48.89 \pm 11.41
Triglycerides, mmol/L	133.52 \pm 84.51	131.76 \pm 97.15	130.97 \pm 100.26	132.69 \pm 107.31	132.50 \pm 106.18	132.98 \pm 106.34	129.73 \pm 97.35	131.13 \pm 100.61	132.16 \pm 101.46	132.20 \pm 100.71	132.47 \pm 97.93

Values are expressed as number (%) or mean \pm standard deviation.

NHIS, National Health Insurance Service; KNHANES, Korea National Health and Nutrition Examination Survey; NHIS-HEALS, National Health Insurance Service-National Health Screening Cohort; BMI, body mass index; BP, blood pressure; HbA1c, glycated hemoglobin; HDL-C, high-density lipoprotein cholesterol.