

Supplementary Material

Socioeconomic disparities and cardio-cerebrovascular disease: A nationwide population-based cross-sectional study

Ji Woong Roh, MD, PhD^{1†}; SungA Bae, MD, PhD^{1†}; Moon-Hyun Kim, MD¹; Je-Wook Park, MD¹; Seok-Jae Heo, PhD²; Minkwan Kim, MD,

PhD¹; Oh-Hyun Lee, MD¹; Yongcheol Kim, MD, PhD¹; Eui Im, MD¹; Jae-Sun Uhm, MD, PhD²; Jung In Hyun, MD, PhD¹;

Deok-Kyu Cho, MD^{1*}; Donghoon Choi, MD, PhD^{3*}

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Supplementary Table S1. The monthly income quartile of the sample population by year.

	Quartile (2007-2009)				Quartile (2010-2012)				Quartile (2013-2015)				Quartile (2016-2018)			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Men																
30-34	664.8	943.6	1218.2	1728.3	918.6	1236.7	1478.7	2172.9	1001.3	1361.8	1848	2480.7	1295.5	1732.4	2287.3	3058.2
35-39	712.5	985.3	1274.9	1732.2	939.9	1292.7	1500.3	2180.4	1030.8	1399.5	1788.9	2412	1257.6	1667.8	2150.5	2850.5
40-44	673.9	1045.4	1354.5	1837.7	979.2	1327.1	1572.4	2435.8	1014.9	1442.8	1940	2559.8	1238.7	1737	2244.6	2948.1
45-49	626.8	949.2	1274.1	1912.2	892.9	1316.8	1585.3	2312.2	935	1440.6	1900.9	2680.8	1235.7	1743.5	2326.3	3103.9
50-54	554	917.1	1349.4	1900.4	876.6	1390.5	1721.5	2816.9	868.9	1359.5	1944.6	2822.1	1178.5	1858.3	2544.9	3578.7
55-59	456.3	796.8	1169.7	1807.7	875.4	1347.8	1629.6	2683.3	785.2	1246.1	1841.1	2705.2	1071.3	1794.1	2445.6	3437.5
60-64	379.8	607.8	875.6	1336.7	658.9	1059.1	1308.5	2209.4	618.7	1066.1	1502.9	2281.3	854.5	1336.9	1895.1	2741.7
Women																
30-34	697.6	933.9	1201.1	1598.3	935.9	1247.1	1577.2	2161.3	973.8	1358.7	1787.8	2521.5	1211.2	1611.8	2071.2	2857.2
35-39	683	997.8	1312.3	1780.6	951.4	1290.9	1623.9	2248.1	935.2	1351.6	1733.3	2308.2	1195.3	1611.4	2072.8	2766.5
40-44	669.7	985.1	1315.6	1905.6	859.2	1260.9	1703.7	2478.6	1009.2	1459.1	1962.5	2676.3	1245.8	1791.8	2316.7	3038.9
45-49	556.7	896.5	1242.3	1894.6	894.1	1374.6	1860.6	2619.8	851.6	1303.3	1864.6	2727.7	1151.9	1730.2	2373.1	3154.5
50-54	496.9	815.1	1205.1	1849.8	878.8	1329.2	1828.3	2701.4	856.2	1367.3	1957.6	2914.3	1158.9	1835.1	2448.6	3429.9
55-59	401.1	643.9	951.5	1466.9	699.9	1102.8	1580.2	2325.7	696.8	1119.9	1611.2	2436.5	940.9	1488.2	2123.3	2959.2
60-64	279.5	463.7	681	1160.3	461.3	753.4	1142.3	1728.4	494.5	821.9	1236.5	1829.5	687.2	1151.6	1643	2414.2

Unit: Dollars

Supplementary Table S2. Trends of prevalence between 2007 and 2018

	Total population (N =47,735)	2007~2010 (N =16,246)	2011~2014 (N =15,768)	2015~2018 (N =15,721)	<i>P</i> value
Demographics					
Age (years)	47.0 (39.0-55.0)	46.0 (38.0-54.0)	47.0 (39.0-55.2)	48.0 (40.0-56.0)	<0.001
Gender, male	20881 (43.7%)	7152 (44.0%)	6819 (43.2%)	6910 (44.0%)	0.303
Urban	38743 (81.2%)	12690 (78.1%)	13001 (82.5%)	13052 (83.0%)	<0.001
Job, white-collar	11468 (24.0%)	3402 (20.9%)	3666 (23.2%)	4400 (28.0%)	<0.001
Percentage of health screening	27376 (57.3%)	8856 (54.5%)	8348 (52.9%)	10172 (64.7%)	<0.001
Poor access to nutrition	21728 (45.5%)	8029 (49.4%)	7563 (48.0%)	6136 (39.0%)	<0.001
Limited access to hospitals	4092 (8.6%)	767 (4.7%)	2018 (12.8%)	1307 (8.3%)	<0.001
*Regular aerobic exercise	10906 (22.8%)	2097 (12.9%)	2467 (15.6%)	6342 (40.3%)	<0.001
BMI > 30	2581 (5.4%)	723 (4.5%)	802 (5.1%)	1056 (6.7%)	<0.001
Current drinking	33661 (70.5%)	11424 (70.3%)	11034 (70.0%)	11203 (71.3%)	<0.001
Current smoking	11824 (24.8%)	5591 (34.4%)	3142 (19.9%)	3091 (19.7%)	<0.001
Low educational and low income	6,246 (13.1%)	2,666 (16.4%)	1,992 (12.6%)	1,588 (10.1%)	<0.001
Cardiovascular comorbidity					
Hypertension	11636 (24.4%)	4083 (25.1%)	3622 (23.0%)	3931 (25.0%)	<0.001
Treatment	5954 (51.2%)	1940 (47.5%)	1844 (50.9%)	2170 (55.2%)	<0.001
Above >140/90mmHg	7188 (15.1%)	2755 (17.0%)	2244 (14.2%)	2189 (13.9%)	<0.001
Diabetes mellitus	4446 (9.3%)	1265 (7.8%)	1569 (10.0%)	1612 (10.3%)	<0.001
Treatment	2322 (52.2%)	720 (56.9%)	749 (47.7%)	853 (53.0%)	<0.001

	Total population (N =47,735)	2007~2010 (N =16,246)	2011~2014 (N =15,768)	2015~2018 (N =15,721)	<i>P</i> value
HbA1c > 7.0%	3256 (6.8%)	854 (5.3%)	1234 (7.8%)	1168 (7.4%)	<0.001
Dyslipidemia	14041 (29.4%)	4232 (26.0%)	4414 (28.0%)	5395 (34.3%)	<0.001
Treatment	2787 (19.8%)	522 (12.3%)	845 (19.1%)	1420 (26.3%)	<0.001
LDL > 130mg/dL	14119 (29.6%)	4446 (27.4%)	4411 (28.0%)	5262 (33.5%)	<0.001
MI or angina	643 (1.3%)	245 (1.5%)	205 (1.3%)	193 (1.2%)	0.077
Treatment	492 (76.5%)	176 (71.8%)	163 (79.5%)	153 (79.3%)	0.090
Stroke	522 (1.1%)	169 (1.0%)	172 (1.1%)	181 (1.2%)	0.634
Treatment	330 (63.2%)	104 (61.5%)	105 (61.0%)	121 (66.9%)	0.454
CVD (MI, angina or stroke)	1113 (2.3%)	399 (2.5%)	362 (2.3%)	352 (2.2%)	0.410
Treatment	794 (71.3%)	272 (68.2%)	258 (71.3%)	264 (75.0%)	0.098

*5 days/week, daily 30 minutes

Values are presented as mean ± SD or n (%).

BMI, body mass index; CVD, cardio-cerebrovascular disease; DBP, diastolic blood pressure; HDL, high density lipoprotein; LDL, low density lipoprotein; MI, myocardial infarction; SBP, systolic blood pressure.

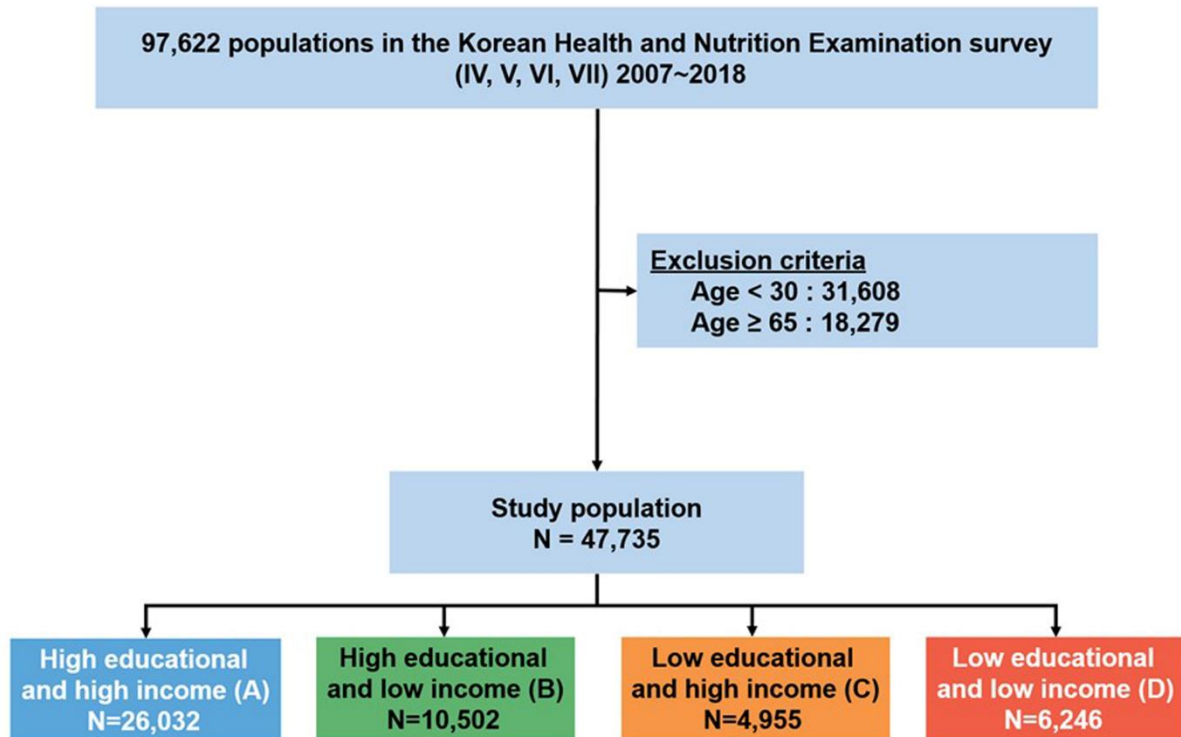
Supplementary Table S3. Relationship between cardiovascular risk factors and CVD by education and income

	Group A (N = 10,502)	Group B (N = 10,502)	Group C (N = 4,955)	Group D (N = 6,246)
		*Adjusted OR (95% CI)	*Adjusted OR (95% CI)	*Adjusted OR (95% CI)
Hypertension	Reference	1.13 (1.05-1.20)	1.28 (1.19-1.39)	1.49 (1.39-1.61)
Diabetes mellitus	Reference	1.28 (1.15-1.43)	1.43 (1.30-1.57)	1.56 (1.42-1.73)
Dyslipidemia	Reference	1.10 (1.04-1.16)	1.15 (1.07-1.23)	1.20 (1.12-1.28)
MI or angina	Reference	1.06 (0.82-1.37)	1.36 (1.06-1.73)	1.53 (1.22-1.91)
Stroke	Reference	1.64 (1.24-2.17)	1.88 (1.40-2.51)	2.54 (1.97-3.28)
CVD (MI, angina or stroke)	Reference	1.29 (1.07-1.57)	1.58 (1.30-1.92)	1.92 (1.61-2.28)

*Adjusted: age, sex, urban, job, obesity

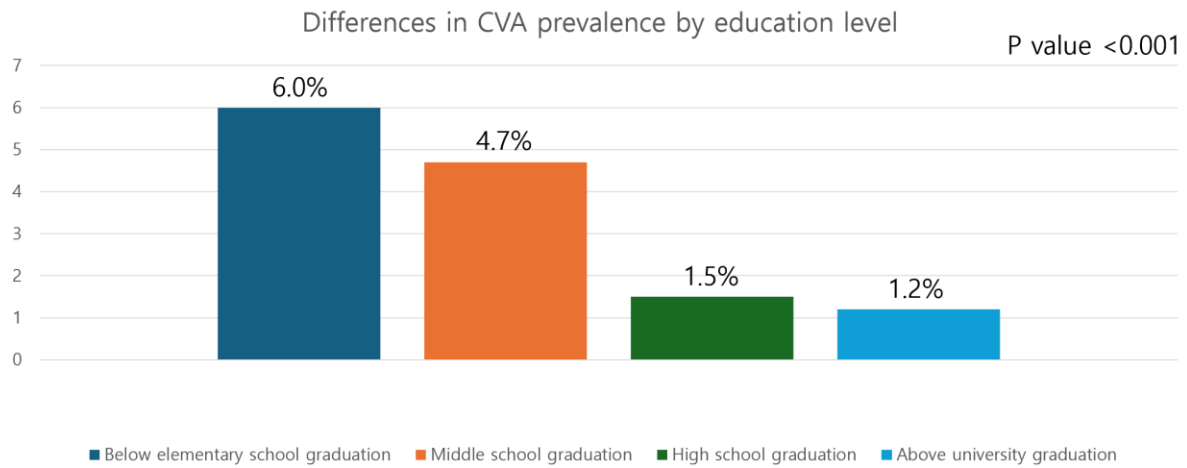
CVD, cardio-cerebrovascular disease; MI, myocardial infarction.

Supplementary Figure S1. Study flow chart



Supplementary Figure S2. Difference in CVD prevalence by education level (A) income level (B) by 4 division

(A)



(B)

