

Table S1. Pharmaceutical ingredient codes for hypertension medication.

111001ACE	216604ATB	502201ATB	526900ATB	111001ATB	227801ATB	502202ATB	527000ATB	111001ATE
227801ATR	502203ATB	527100ATB	111002ATE	227802ATB	502204ATB	614500ATB	111003ACE	227803ATB
507800ATB	629700ATB	111003ATE	227805ATB	517900ACH	629800ATB	111501ATB	454001ATB	518900ATB
629900ATB	111502ATB	454002ATB	519300ACH	630000ATB	111503ATB	454003ATB	524000ATB	630100ATB
111504ATB	470901ATB	524100ATB	630200ATB	162401ACH	470902ATB	525000ATB	631400ATB	162402ACH
470903ATB	525100ATB	631500ATB	162403ATR	471000ATB	525200ATB	631600ATB	185801ATB	471100ATB
525300ATB	631700ATB	216601ATB	472300ATB	526300ATB	216602ATB	472400ATB	526400ATB	216603ATB
472500ATB	526500ATB							

Table S2. Pharmaceutical ingredient codes for diabetes medication.

100601ATB	100602ATB	165402ATB	165602ATB	165603ATR	165604ATR	165701ATB	165702ATB	165703ATB
165704ATB	165801ATB	191501ATB	191502ATB	191502ATR	191503ATB	191504ATB	191504ATR	191505ATR
249001ATB	249001ATD	249002ATB	249002ATD	379501ATB	379502ATB	379503ATB	406201ATB	430201ATB
430202ATB	430203ATB	431901ATB	431902ATB	443400ATB	443500ATB	471900ATB	474200ATB	474300ATB
474300ATR	486101ATB	497200ATB	498100ATB	498600ATB	500801ATB	501101ATB	501102ATB	501103ATB
502300ATB	502300ATR	502900ATB	507000ATB	507100ATB	513700ATB	513700ATR	518500ATR	518600ATR
518800ATB	519600ATB	520500ATB	520600ATB	520700ATB	523600ATB	523700ATB	523800ATR	524700ATR
525500ATB	525600ATB	525901ATB	527301ATB	527302ATB	613301ATB	613302ATB	616401ATB	619101ATB
624201ATB	624202ATB	624203ATB	627301ATB	628201ATB	628202ATB	630300ATB	630400ATB	630500ATB
630600ATB	631900ATB	632000ATR	632100ATB	635600ATB	635700ATB	636101ATB	637200ATB	639601ATB
639800ATR	641400ATR	641800ATR	641900ATR	642000ATR	644900ATB	645000ATR	645301ATB	648400ATB
648500ATB	648600ATB	649000ATB	649100ATB	649200ATB	649300ATB	649400ATB	649500ATB	649900ATR
650000ATR	650100ATR	653800ATR	653900ATR	654000ATR	654100ATR	655700ATR	664600ATB	664700ATB
664800ATB	170130BIJ	170131BIJ	170430BIJ	170431BIJ	175330BIJ	175331BIJ	175332BIJ	175333BIJ
441330BIJ	441331BIJ	441332BIJ	441333BIJ	441334BIJ	461830BIJ	461831BIJ	461832BIJ	484930BIJ
484931BIJ	488730BIJ	512130BIJ	512131BIJ	626631BIJ	626630BIJ	626700BIJ	626830BIJ	626831BIJ
639701BIJ	639702BIJ	644501BIJ	644502BIJ					

Table S3. Baseline characteristics after Propensity Score Matching (Addition of family history variables of diabetes and hypertension.

Variables	Total (n=480,290)	Screening < 5 times (N = 240,145)	Screening ≥ 5 times (N =240,145)	P value
Sex				0.9804
male	321,822(67.01)	160,907(67.00)	160,915(67.01)	
female	158,468(32.99)	79,238(33.00)	79,230(32.99)	
Age, years	52.88(11.43)	52.88(11.43)	52.87(11.42)	0.8568
				0.9992
30s	64,293(13.39)	32,146(13.39)	32,147(13.39)	
40s	122,950(25.60)	61,497(25.61)	61,453(25.59)	
50s	156,431(32.57)	78,173(32.55)	78,258(32.59)	
60s	92,883(19.34)	46,449(19.34)	46,434(19.34)	
70s	43,733(9.11)	21,880(9.11)	21,853(9.1)	
BMI, kg/m²				<0.0001
< 18.5	7,651(1.59)	4,230(1.76)	3,421(1.42)	
18.5 – 22.9	133,726(27.84)	66,596(27.73)	67,130(27.95)	
23.0 – 24.9	126,171(26.27)	61,440(25.58)	64,731(26.95)	
≥ 25.0	212,742(44.29)	107,879(44.92)	104,863(43.67)	

Diastolic blood pressure, mmHg	80.72(10.45)	80.65(10.56)	80.78(10.33)	0.0302
				0.6490
≤ 79	178,739(37.21)	89,557(37.29)	89,182(37.14)	
80 - 89	206,802(43.06)	103,195(42.97)	103,607(43.14)	
90 - 99	62,908(13.10)	31,455(13.10)	31,453(13.10)	
≥ 100	31,841(6.63)	15,938(6.64)	15,903(6.62)	
Systolic blood pressure, mmHg	125.97(15.14)	128.90(15.35)	129.00(14.94)	0.0437
				0.5519
≤ 119	109,865(22.87)	55,133(22.96)	54,732(22.79)	
120 - 139	266,249(55.44)	132,923(55.35)	133,326(55.52)	
140 - 159	85,124(17.72)	42,573(17.73)	42,551(17.72)	
≥ 160	19,052(3.97)	9,516(3.96)	9,536(3.97)	
Fasting blood sugar, mg/dL	98.34(21.75)	98.46(23.42)	98.21(19.95)	0.0628
				0.9967
< 100	311,192(64.79)	155,598(64.79)	155,594(64.79)	
100 -126	145,744(30.34)	72,876(30.35)	72,868(30.34)	
> 126	23,354(4.86)	11,671(4.86)	11,683(4.86)	
Total cholesterol, mg/dL	200.34(38.81)	200.90(40.59)	199.80(36.93)	<0.0001
Alcohol consumption, times/week				<0.0001
0	227,618(47.39)	116,231(48.40)	111,387(46.38)	
1	89,183(18.57)	39,925(16.63)	49,258(20.51)	
2,3	115,146(23.97)	54,458(22.68)	60,688(25.27)	
4-7	48,343(10.07)	29,531(12.30)	18,812(7.83)	
Smoking				<0.0001
never	251,124(52.29)	125,514(52.27)	125,610(52.31)	
ex	95,805(19.95)	41,025(17.08)	54,780(22.81)	
current	133,361(27.77)	73,606(30.65)	59,755(24.88)	
Physical activity, times/week	910.91(1,200.73)	703.80(1,126.90)	1,1180.00(1,236.10)	<0.0001
Outcomes				
Hypertension				<0.0001
no	353,297(73.56)	166,457(69.32)	186,840(77.80)	
yes	126,993(26.44)	73,688(30.68)	53,305(22.20)	
Diabetes mellitus				<0.0001
no	291,700(60.73)	138,978(57.87)	152,722(63.60)	
yes	188,590(39.27)	101,167(42.13)	87,423(36.40)	
Hypertension and diabetes mellitus				<0.0001
no	437,450(91.08)	213,088(88.73)	224,362(93.43)	
yes	42,840(8.92)	27,057(11.27)	15,783(6.57)	

Data are presented as a n (%) or mean (SD).

Table S4. Logistic regression of hypertension and diabetes mellitus according to screening frequency.

Variable	Hypertension	Diabetes Mellitus	Hypertension and Diabetes Mellitus
	OR (95% CI) *	OR (95% CI) **	OR (95% CI) ***
Screening frequency			
1	2.18(2.13-2.23)	1.39(1.36-1.41)	2.49(2.41-2.57)
2	1.53(1.49-1.57)	1.22(1.19-1.24)	1.71(1.65-1.77)

* Adjusted by age, sex and family history of hypertension
 ** Adjusted by age, sex and family history of Diabetes Mellitus
 *** Adjusted by age, sex, family history of hypertension and Diabetes Mellitus

Variables	Hypertension		Diabetes Mellitus		Hypertension and Diabetes Mellitus	
	OR (95% CI)	Adjusted OR* (95% CI)	OR (95% CI)	Adjusted OR** (95% CI)	OR (95% CI)	Adjusted OR*** (95% CI)
Screening frequency						
≥5 times	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
<5 times	1.55(1.53-1.57)	1.58 (1.55-1.60)	1.27(1.26-1.29)	1.28 (1.26-1.29)	1.81(1.77-1.84)	1.80 (1.76-1.84)
Age						
30s	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
40s	0.72(0.71-0.73)	0.72(0.71-0.74)	1.30(1.28-1.33)	1.31(1.28-1.33)	0.87(0.85-0.90)	0.88(0.86-0.91)
50s	0.45(0.44-0.46)	0.48(0.47-0.49)	1.75(1.72-1.79)	1.76(1.72-1.79)	0.67(0.65-0.69)	0.73(0.71-0.75)
60s	0.30(0.30-0.31)	0.33(0.32-0.33)	2.33(2.28-2.38)	2.35(0.30-2.40)	0.52(0.50-0.54)	0.57(0.55-0.59)
70s	0.22(0.21-0.22)	0.23(0.22-0.23)	2.76(2.69-2.83)	2.79(2.72-2.87)	0.40(0.38-0.42)	0.44(0.42-0.46)
Sex						
male	Ref.	Ref.	Ref.	Ref.	Ref.	Ref.
female	0.47(0.46-0.48)	0.56(0.55-0.57)	1.18(1.16-1.19)	1.03(1.02-1.05)	0.55(0.53-0.56)	0.61(0.59-0.62)
Family history of						

hypertension

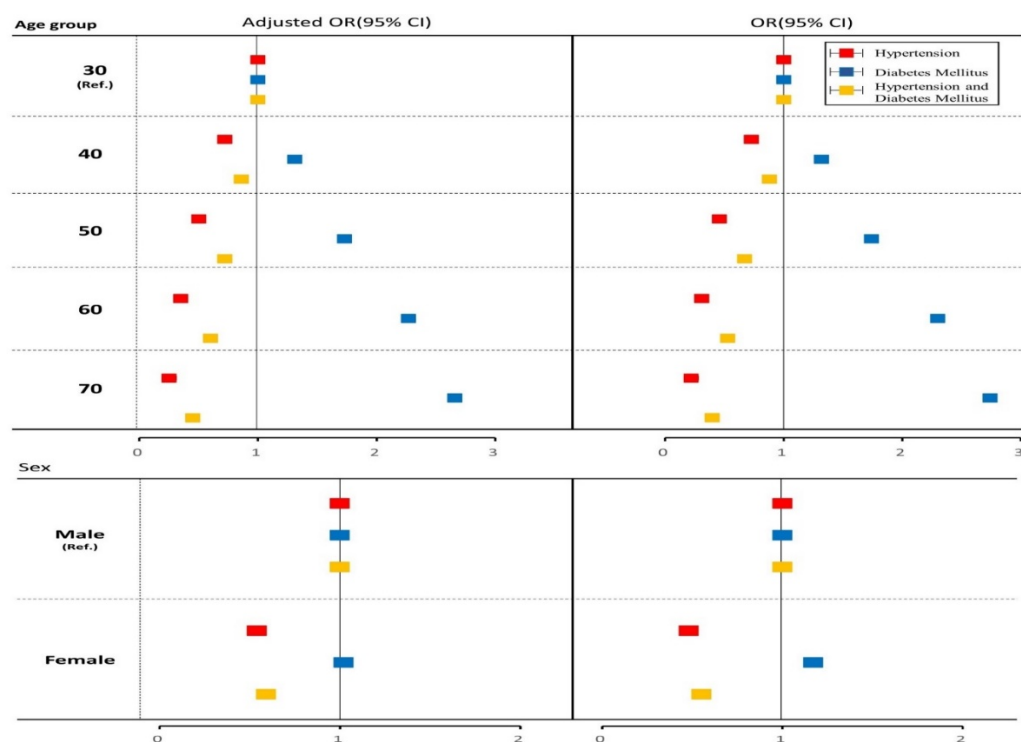
no	Ref.	Ref.	-	-	Ref.	Ref.
yes	0.62(0.61-0.63)	0.58(0.57-0.59)	-	-	0.60(0.59-0.62)	0.58(0.56-0.60)
Family history of Diabetes Mellitus						
no	-	-	Ref.	Ref.	Ref.	Ref.
yes	-	-	1.04(1.02-1.06)	1.17(1.15-1.20)	1.19(1.16-1.23)	1.27(1.23-1.31)
AUC	-	0.67	-	0.59	-	0.64

* Adjusted by age, sex and family history of hypertension

** Adjusted by age, sex and family history of Diabetes Mellitus

*** Adjusted by age, sex, family history of hypertension and Diabetes Mellitus

OR, Odds Ratio; CI, Confidence Interval; Ref., reference.

**Figure S1.** Sensitivity analysis results