Supplementary Table 2. Instrumental variable estimates of serum 25(OH)D levels to hypertension outcomes based on genetic risk scores (GRSs)

	Disease hypertension		Blood pressure			
			SBP (mmHg)		DBP (mmHg)	
	OR (95% CI) by IV estimation[†]	*P*-value	β coefficient (95% CI) by IV estimation[†]	*P*-value	β coefficient (95% CI) by IV estimation[†]	*P*-value
Genetic risk scores[‡]						
GRS (5 SNPs; 0-9)	1.04 (0.90, 1.20)	0.62	-0.61 (-1.79, 0.57)	0.31	-0.02 (-0.73, 0.70)	0.97
wGRS (5 SNPs; 0-9.5)	1.04 (0.91, 1.19)	0.60	-0.42 (-1.51, 0.67)	0.45	0.001 (-0.67, 0.67)	0.99
Synthesis score (3 SNPs; 0-6)	1.06 (0.88, 1.28)	0.56	-0.46 (-1.99, 1.08)	0.56	0.07 (-0.87, 1.01)	0.88
Metabolism score (2 SNPs; 0-4)	0.99 (0.81, 1.23)	0.96	-0.92 (-2.70, 0.86)	0.31	-0.19 (-1.24, 0.86)	0.72

[†] OR and β coefficients by IV estimation were obtained from IV regressions using two-stage least squares estimation method (in logistic regression models and in linear regression models, respectively), using individual genetic variants as instrument variables for serum 25(OH)D levels.

[‡] Genetic risk score (GRS) was calculated by summing the total number of circulating 25(OH)D level-increasing alleles. Weighted GRS (wGRS) was calculated by summing the total number of circulating 25(OH)D level-increasing alleles multiplied by their effect sizes, reported by Jiang, et al [30].

Synthesis score was calculated by summing the total number of circulating 25(OH)D level-increasing alleles in *DHCR7* (rs12785878) and *CYP2R1* (rs10741657, and rs12794714). Metabolism score was calculated by summing the total number of circulating 25(OH)D level-increasing alleles in *CYP24A1* (rs6013897) and *GC* (rs2282679). SBP, systolic blood pressure; DBP, diastolic blood pressure; OR, odds ratio; 95% CI, 95% confidence interval