

Supplementary data

Table 1 of the supplementary data. Diastolic parameters measured by echocardiography in the study participants according to baPWV categories (N = 16 476)

	Normal (n = 8772)	Borderline (n = 5345)	Elevated (n = 2002)	<i>P</i>
<i>E</i> (cm/s) (n = 16 411)				< .001
Mean ± SD	62.3 ± 14.2	60.2 ± 13.9	59.4 ± 16	
Difference (95%CI)*	Reference	-1.86 (-2.32, -1.39)	-3.15 (-4.07, -2.23)	
<i>A</i> (cm/s) (n = 16 332)				< .001
Mean ± SD	59.5 ± 14.1	66.3 ± 15.3	79.2 ± 16.8	
Difference (95% CI)*	Reference	2.89 (2.43, 3.35)	8.84 (7.93, 9.76)	
<i>e'</i> (cm/s) (n = 16 476)				< .001
Mean ± SD	9.2 ± 3.1	8.3 ± 6.4	7.1 ± 2.2	
Difference (95% CI)*	Reference	-0.43 (-0.59, -0.26)	-1.03 (-1.35, -0.71)	
<i>E/e'</i> (n = 16 409)				< .001
Mean ± SD	7 ± 1.9	7.6 ± 2.3	8.9 ± 3.5	
Difference (95%CI)*	Reference	0.19 (0.11, 0.26)	0.79 (0.65, 0.93)	
<i>LAVI</i> (n = 16 423)				< .001
Mean ± SD	28.5 ± 8.5	29.2 ± 8.7	32.4 ± 9.8	
Difference (95%CI)*	Reference	-0.41 (-0.69, -0.13)	0.36 (-0.19, 0.92)	
<i>LV mass, g</i> (n = 16 436)				< .001
Mean ± SD	81.2 ± 17.6	84.2 ± 51.9	90.1 ± 22.5	
Difference (95%CI)*	Reference	0.37 (-0.87, 1.62)	2.64 (0.18, 5.09)	
<i>TR velocity</i> (n = 12 980)				.002
Mean ± SD	2.3 ± 0.6	2.4 ± 0.7	2.7 ± 0.8	
Difference (95% CI)*	Reference	-0.01 (-0.03, 0.01)	0.15 (0.1, 0.2)	

baPWV, brachial-ankle pulse wave velocity; CI, confidence interval; LAVI, left atrial volume index; SD, standard deviation; TR, tricuspid regurgitation.

*Adjusted for age, sex, BMI, smoking status (never, ever, or missing), drinking status, diabetes, hypertension, hyperlipidemia, atrial fibrillation, use of aspirin and statin at baseline.

Table 2 of the supplementary data. Prevalence ratios for the incidence of diastolic dysfunction by baPWV categories in complete echocardiographic data (n = 12 296)

baPWV category	Number of DD (%)	Adjusted prevalence ratio (95%CI)*
Normal	62 (1.0)	<i>Reference</i>
Borderline	191 (3.6)	1.79 (1.24, 2.34)
Elevated	134 (15.0)	3.86 (2.49, 5.23)

baPWV, brachial-ankle pulse wave velocity; BMI, body mass index; CI, confidence interval; DD, diastolic dysfunction.

*Adjusted for age, sex, BMI categories, smoking status (never, ever, or missing), alcohol consumption, diabetes, hypertension, hyperlipidemia, atrial fibrillation, aspirin use, and statin use at baseline.

Table 3 of the supplementary data. Prevalence ratios for incidence of diastolic dysfunction by baPWV categories adjusted for blood pressure

baPWV category	Adjusted prevalence ratio (95%CI)*
Normal	<i>Reference</i>
Borderline	1.62 (1.14, 2.10)
Elevated	2.82 (2.16, 3.82)

*Adjusted for age, sex, BMI categories, smoking status (never, ever, or missing), alcohol consumption, diabetes, hypertension, systolic blood pressure, diastolic blood pressure, hyperlipidemia, atrial fibrillation, aspirin use, and statin use at baseline.

Table 4 of the supplementary data. Prevalence ratios for the incidence of diastolic dysfunction by baPWV categories excluding participants who take aspirin at baseline (n = 14 585)

baPWV category	Number of DD (%)	Adjusted prevalence ratio (95%CI)*
Normal	54 (0.7)	<i>Reference</i>
Borderline	158 (2.6)	1.79 (1.24, 2.34)
Elevated	106 (11.2)	3.87 (2.50, 5.25)

baPWV, brachial-ankle pulse wave velocity; BMI, body mass index; CI, confidence interval; DD, diastolic dysfunction.

*Adjusted for age, sex, BMI categories, smoking status (never, ever or missing), alcohol consumption, diabetes, hypertension, hyperlipidemia, atrial fibrillation, and statin use at baseline.

Table 5 of the supplementary data. Hazard ratios for the incidence of diastolic dysfunction by baPWV categories among participants without diastolic dysfunction at baseline adjusted for blood pressure

	Model 1	Model 2	Model3
	HR (95% CI)	HR (95%CI)	(95%CI)
No definite DD at baseline			
(n = 5884)			
Normal	<i>Reference</i>	<i>Reference</i>	<i>Reference</i>
Borderline	1.34 (0.96, 1.86)	1.33 (0.97, 1.83)	1.32 (0.95, 1.83)
Elevated	2.55 (1.64, 3.97)	2.74 (1.81, 4.13)	2.41 (1.55, 3.76)

baPWV, brachial-ankle pulse wave velocity; BMI, body mass index; CI, confidence interval; DD, diastolic dysfunction.

Model 1: adjusted for age, sex, BMI categories, smoking status (never, ever, or missing), alcohol consumption, diabetes, hypertension, systolic and diastolic blood pressure, hyperlipidemia, atrial fibrillation, aspirin use, and statin use at baseline.

Model 2: Model 1 as time-varying exposures updated at each visit.

Model 3: Model 3 included antidiabetic and antihypertensive medications as time-varying covariates

The hazard ratio was estimated using inverse probability weighting (see text for details) for generalizability.

Table 6 of the supplementary data. Hazard ratios for the incidence of diastolic dysfunction by baPWV categories among participants without diastolic dysfunction at baseline in complete echocardiographic data

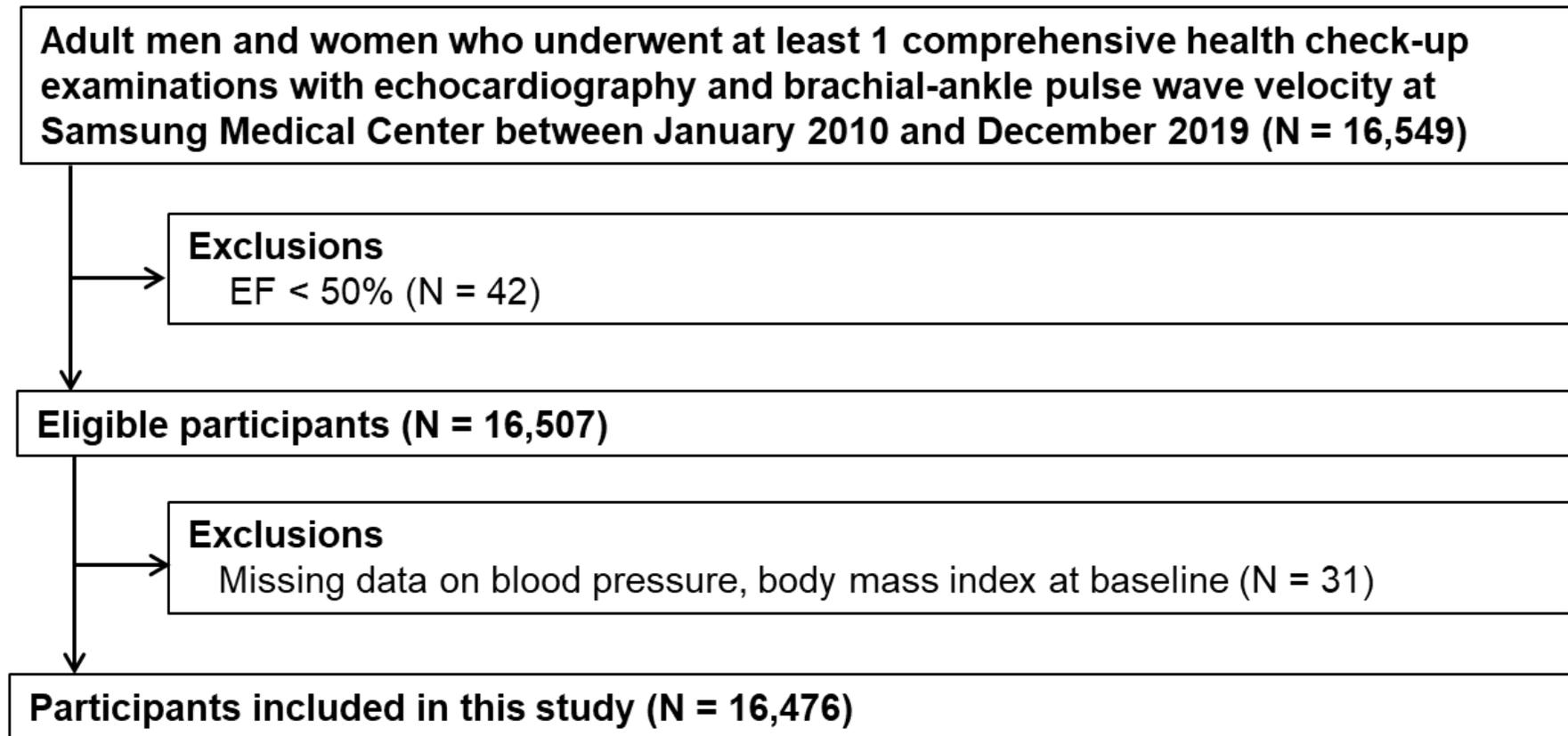
	Number of events (incidents % per year)	Adjusted hazard ratio (95 CI)*
No Definite DD at baseline (n = 4315)		
Normal	44 (0.42)	<i>Reference</i>
Borderline	92 (1.13)	1.68 (1.15, 2.47)
Elevated	43 (4.29)	3.84 (2.35, 6.26)

baPWV, brachial-ankle pulse wave velocity; BMI, body mass index; CI, confidence interval; DD, diastolic dysfunction.

*Adjusted for age, sex, BMI, smoking status (never, ever or missing), alcohol consumption, diabetes, hypertension, hyperlipidemia, atrial fibrillation, history of cancer, aspirin use, and statin use at baseline.

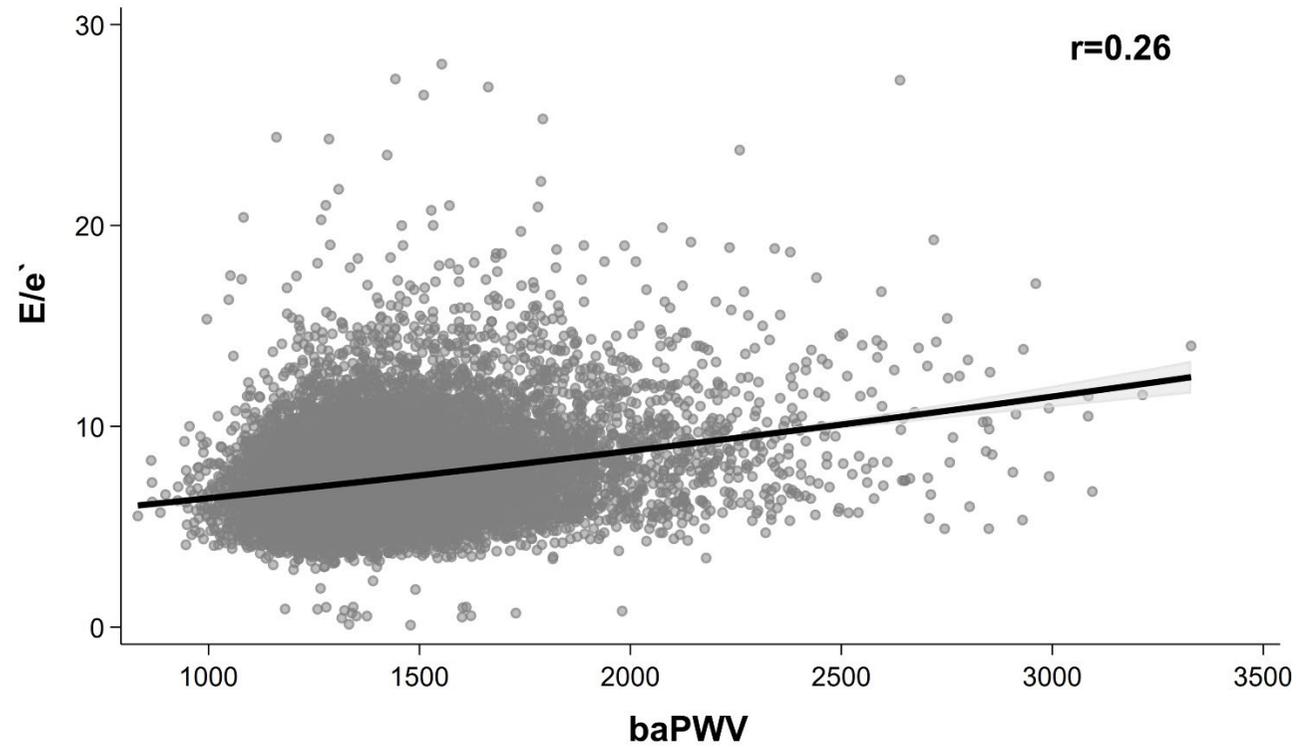
The hazard ratio was estimated using inverse probability weighting (see text for details) for generalizability.

Figure 1 of the supplementary data. Flow chart



EF, ejection fraction

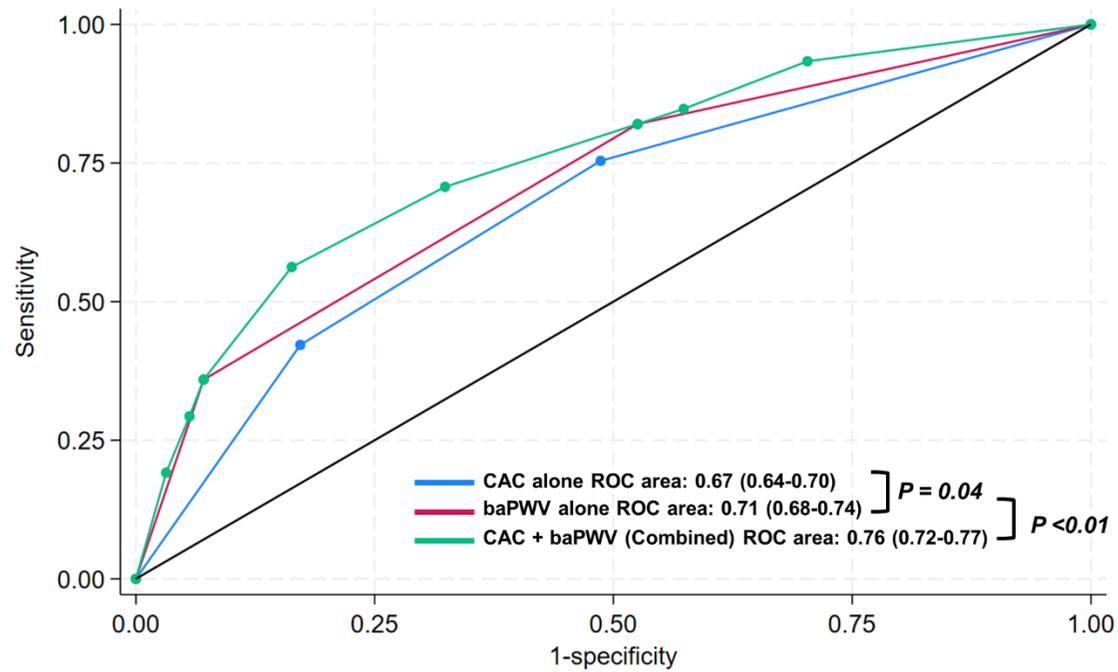
Figure 2 of the supplementary data. Association between baPWV and E/e'



baPWV, brachial-ankle pulse wave velocity.

The adjusted *P* value for linearity between baPWV and E/e' was 0.01. The variables of age, sex, BMI, smoking status, alcohol consumption, diabetes, hypertension, hyperlipidemia, statin use, and aspirin use were included in the multivariable analysis.

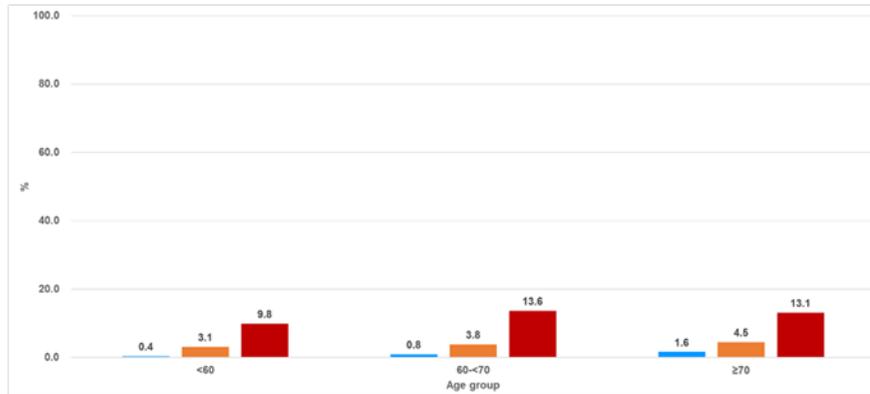
Figure 3 of the supplementary data. Comparison of predictive models for diastolic dysfunction



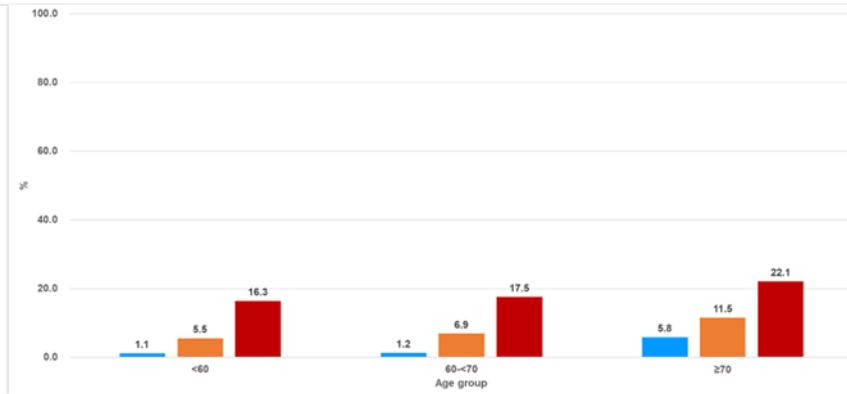
AUC, area under receiver operating characteristic curves; baPWV, brachial-ankle pulse wave velocity; CAC: coronary artery calcium. Among the participants, 9096 (55.2%) were available for the analysis of both CAC and baPWV.

Figure 4 of the supplementary data. Prevalence of DD according to age and sex by baPWV

(A) Definite DD in male



(B) Definite DD in female



baPWV, brachial-ankle pulse wave velocity; DD, diastolic dysfunction.

Definite DD is shown in (A) men and (B) women according to age and baPWV groups. The blue box represents normal baPWV, the orange box indicates borderline baPWV, and the red box represents elevated baPWV.