

## Supplemental Material

**Supplementary Table 1.** Baseline Characteristics of Participants Included and Excluded from Study

Demographic and Clinical Characteristics	Study Sample (N=3,819)	Excluded (N=2,995)
Age, year	61.2±10.0	63.3±10.4
Male gender, n (%)	1,774 (46.5)	1,439 (48.0)
Race/ethnicity, n (%)		
Caucasian	1,485 (38.9)	1,137 (38.0)
African American	976 (25.6)	917 (30.6)
Hispanic	859 (22.5)	637 (21.3)
Chinese	499 (13.1)	304 (10.2)
Education level, n (%)		
Less than high school	636 (16.7)	589 (19.8)
High school/GED	690 (18.1)	546 (18.4)
Less than college (more than high school)	1,100 (28.8)	837 (28.2)
Bachelor degree	685 (17.9)	486 (16.4)
Graduate degree	708 (18.5)	514 (17.3)
Body mass index, kg/m <sup>2</sup>	27.9±5.0	29.0±6.0
Smoking status, n (%)		
Never	2,017 (52.8)	3,418 (50.3)
Former	1,343 (35.2)	1,144 (38.5)
Current	459 (12.0)	428 (14.4)
Smoking pack-years	10.7±23.0	12.3±21.3
Diabetes mellitus, n (%)	432 (11.3)	427 (14.2)
Hypertension, n (%)	1,616 (42.3)	1,442 (48.1)
Medications, n (%)		
RAAS inhibitor	632 (16.5)	601 (20.1)
-blocker	352 (9.2)	297 (9.9)
Anti-arrhythmic	21 (0.5)	15 (0.5)

GED, general education development test; RAAS, renin angiotensin aldosterone system

**Supplementary Table 2.** Proportional Hazards Models for Right Ventricular Structure and Function and Incident Atrial Fibrillation in Participants with Lung Function Assessment

	<b>HR</b>	<b>95% CI</b>	<b>P</b>
<b>RV EF</b>			
Unadjusted	1.29	1.11 – 1.49	<0.001
Adjusted*	1.21	1.03 – 1.43	0.02
Adjusted + LV EF	1.23	1.03 – 1.46	0.02
<b>RV EDM</b>			
Unadjusted	0.97	0.84 – 1.12	0.70
Adjusted†	1.31	1.09 – 1.57	0.004
Adjusted + LV EDM	1.26	1.04 – 1.54	0.02
<b>RV EDV</b>			
Unadjusted	0.98	0.85 – 1.14	0.82
Adjusted*	1.27	1.04 – 1.55	0.02
Adjusted + LV EDV	1.14	0.88 – 1.46	0.32
<b>RV ESV</b>			
Unadjusted	0.85	0.73 – 1.00	0.04
Adjusted*	0.99	0.81 – 1.20	0.88
Adjusted + LV ESV	0.93	0.75 – 1.14	0.47

Hazard ratios are per standard deviation increase. \*Adjustment is for age, sex, race, body mass index, hypertension, diabetes, medication use (RAAS,  $\beta$ -blocker, anti-arrhythmic), smoking (status, pack-years), education level, left ventricular hypertrophy, and forced expiratory volume at one second (FEV<sub>1</sub>). †Initial adjusted model for RV EDM does not include adjustment for left ventricular hypertrophy; adjustment for LV mass (LV EDM) is performed subsequently. HR, hazard ratio; CI, confidence interval; RV, right ventricular; LV, left ventricular; EF, ejection fraction; EDM, end-diastolic mass; EDV, end-diastolic volume; ESV, end-systolic volume.

**Supplementary Table 3.** Proportional Hazards Models for Right Ventricular Function with Adjustment for Left Atrial Volume: Nested Case:Control Analysis

	<b>HR</b>	<b>95% CI</b>	<b>P</b>
<b>RV EF</b>			
Age, Sex Adjusted	1.31	1.10 – 1.56	0.002
Multivariable Adjusted*	1.38	1.14 – 1.66	<0.001
Adjusted + LA volume	1.27	1.06-1.53	0.011

Hazard ratios are per standard deviation increase. \*Adjustment is for age, sex, race, body mass index, hypertension, diabetes, medication use (RAAS, -blocker, anti-arrhythmic), smoking (status, pack-years), education level, and left ventricular hypertrophy. HR, hazard ratio; CI, confidence interval; RV, right ventricular; EF, ejection fraction.