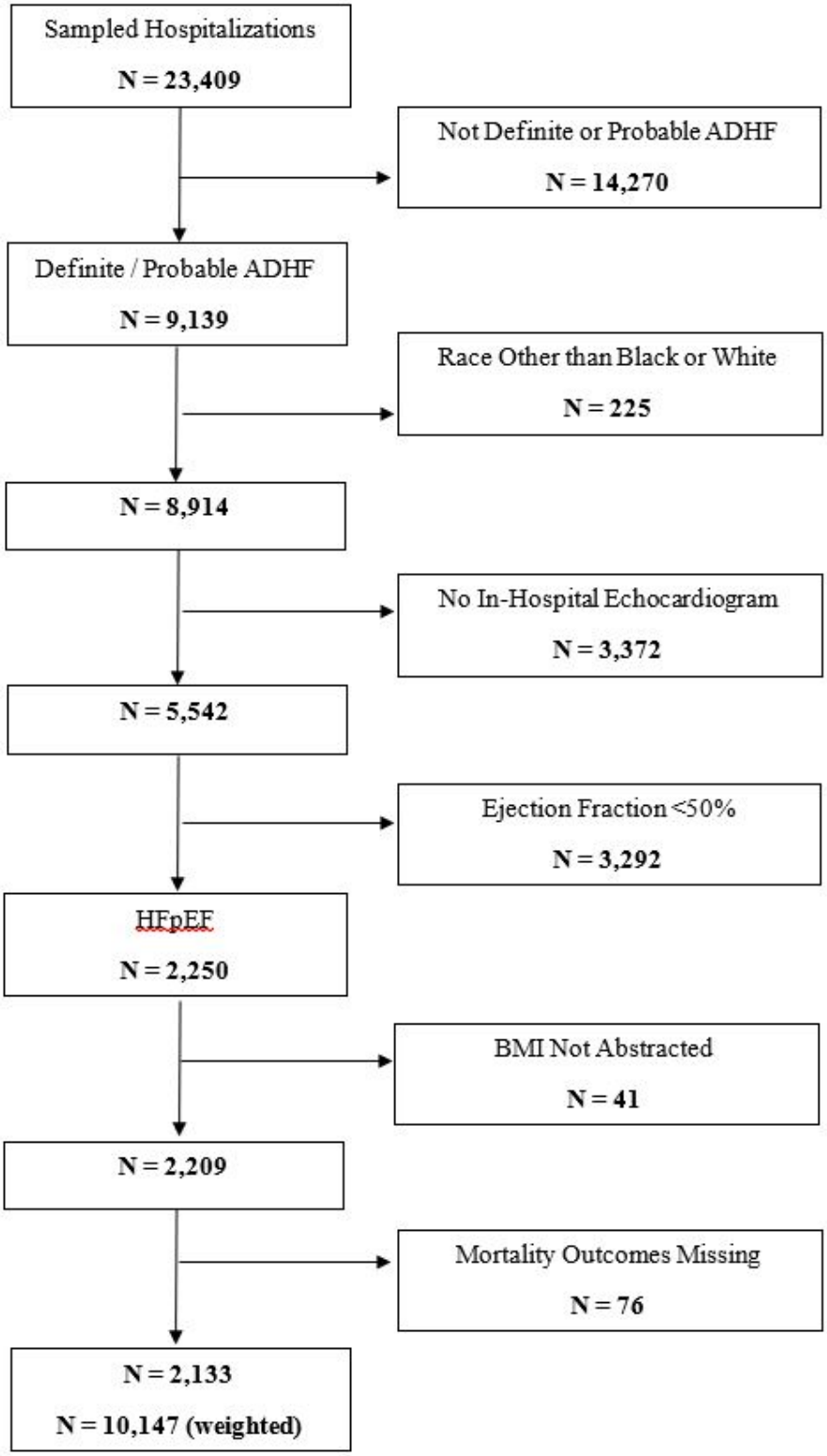
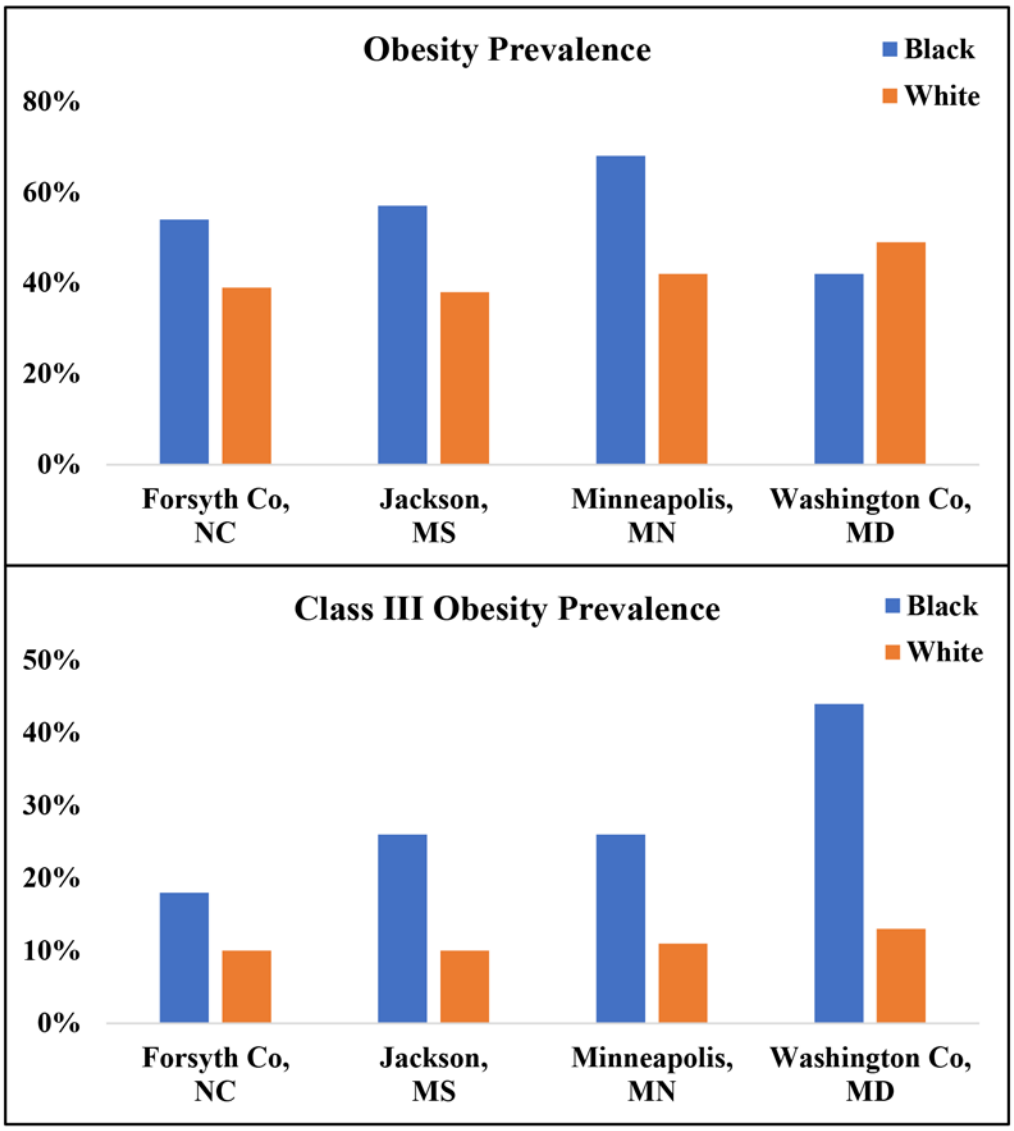
SUPPLEMENTAL MATERIAL

Supplemental Figure S1: Study population selection flowchart

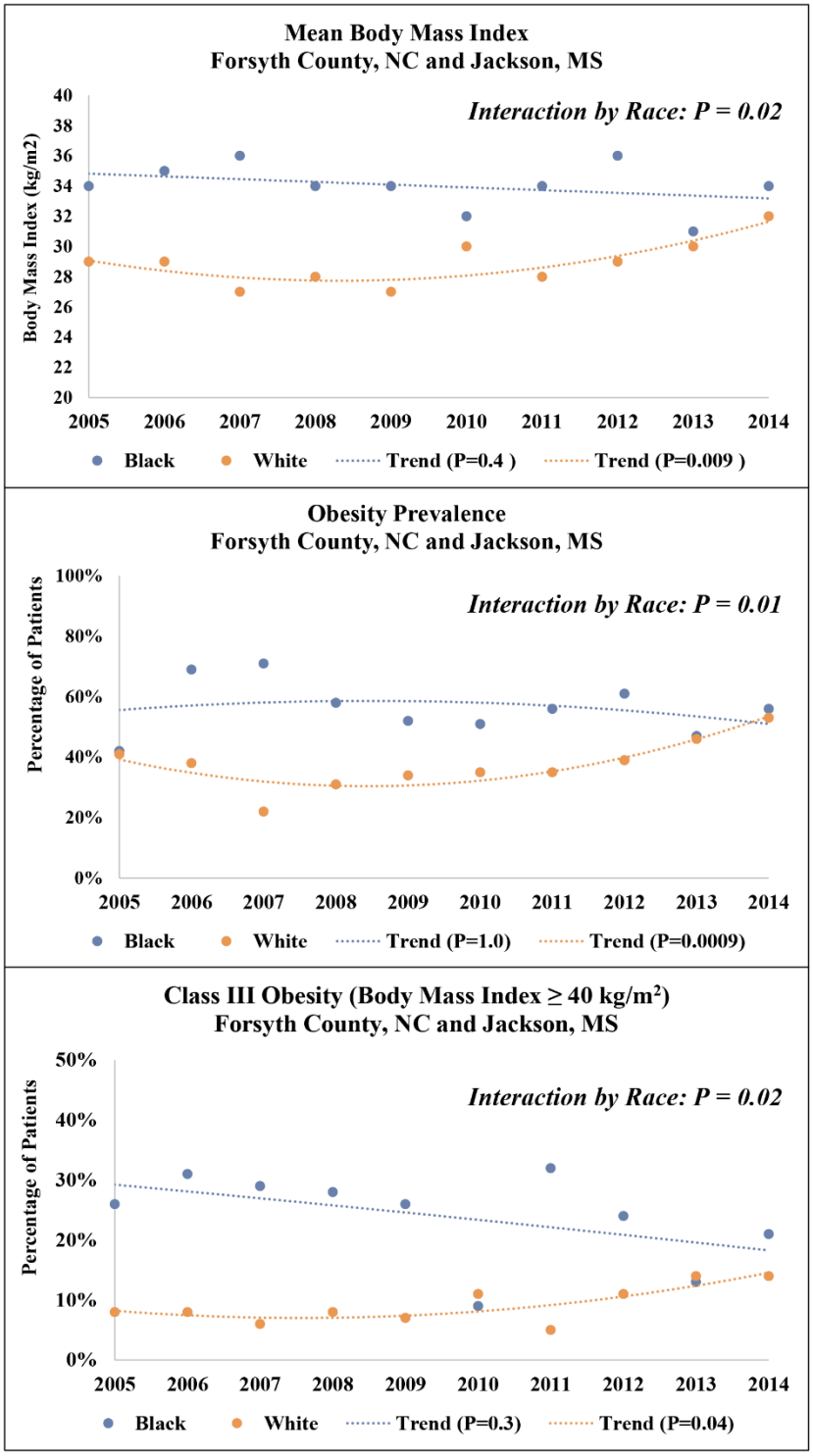


Supplemental Figure S2: Prevalence of obesity (BMI ≥30 kg/m^2) and class III obesity (BMI ≥40 kg/m^2) among black and white patients hospitalized with acute decompensated heart failure with preserved ejection fraction, stratified by ARIC community. The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.

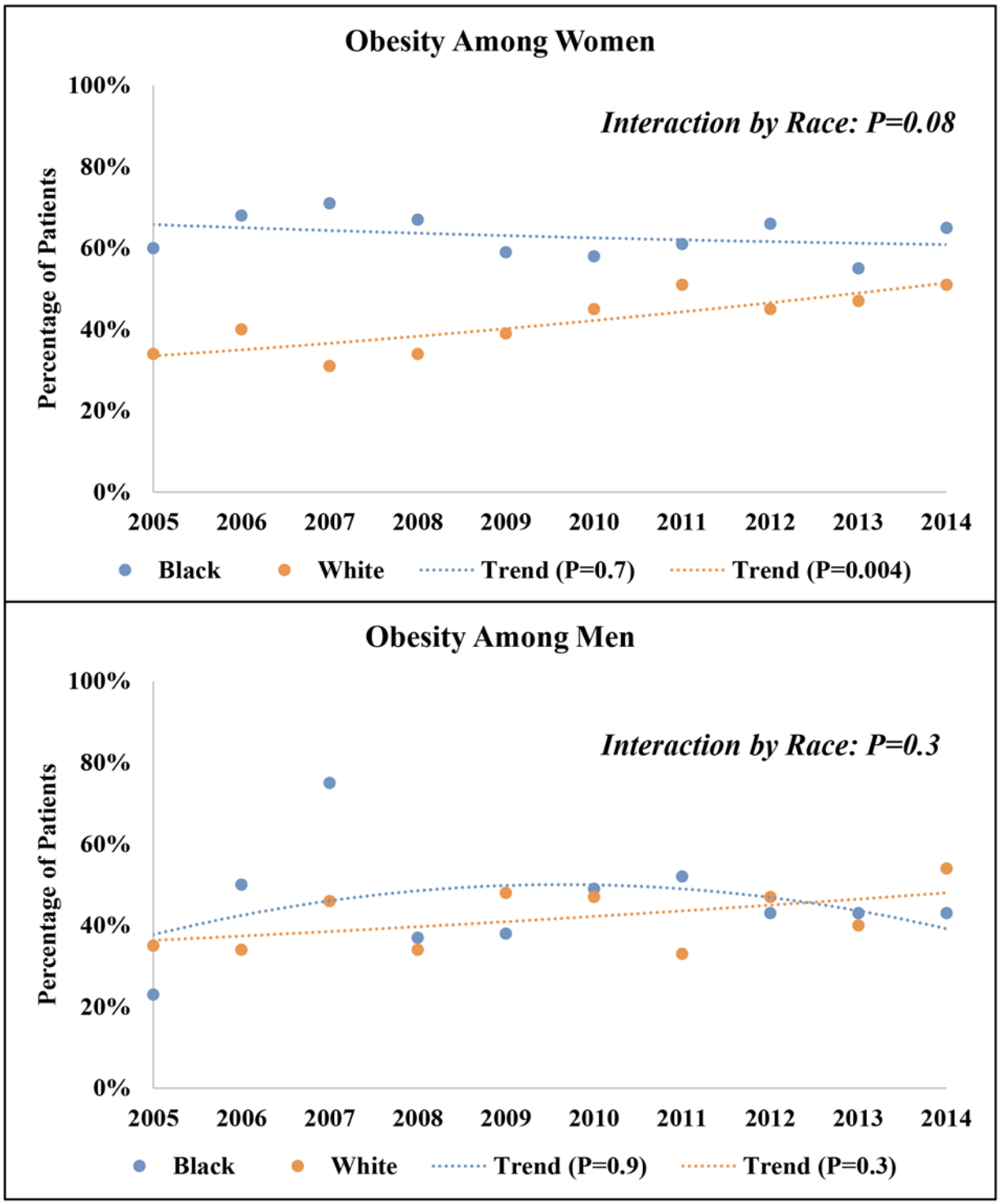


ARIC Community	Black Patients	White Patients
Forsyth County, NC	N = 995	N = 2262
Jackson, MS	N = 1412	N = 518
Minneapolis, MN	N = 179	N = 990
Washington County, MD	N = 98	N = 2346

Supplemental Figure S3: Temporal trends in mean body mass index, and annual prevalence of obesity (≥30 kg/m^2) and class III obesity (≥40 kg/m^2) among black and white patients hospitalized with acute decompensated heart failure with preserved ejection fraction in Forsyth County, NC and Jackson, MS. The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.



Supplemental Figure S4: Sex stratified trends in annual prevalence of obesity among black and white patients hospitalized with acute decompensated heart failure with preserved ejection fraction. The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.



Supplemental Table S1: Adjusted* 1-year hazards of mortality among patients hospitalized with acute decompensated heart failure with preserved ejection fraction and various body mass index categories. The community surveillance component of the Atherosclerosis Risk in Communities Study, 2005-2014.

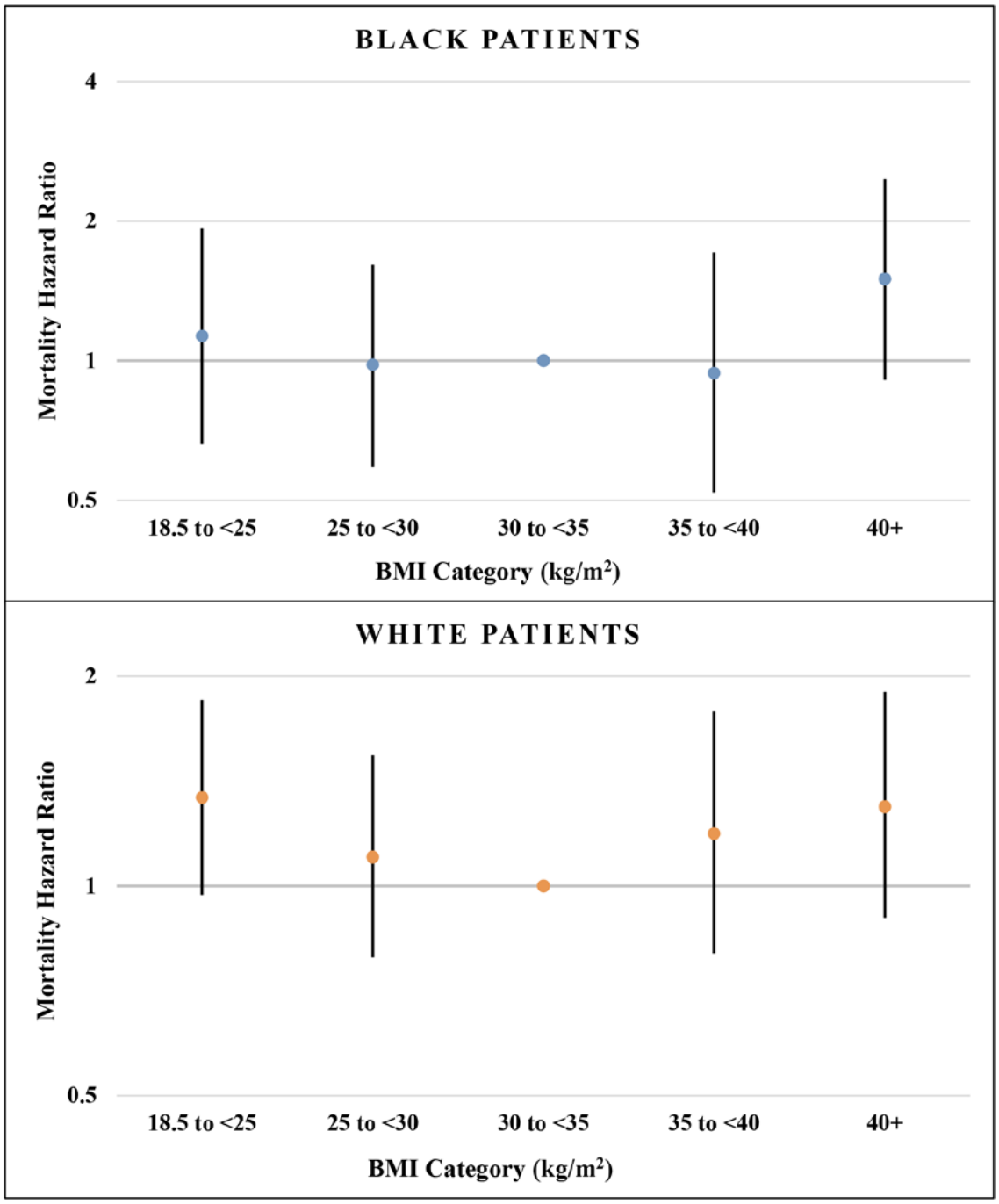
Body Mass Index Category	Model 1	Model 2	Model 3
18.5 to <25 kg/m^2	1.29 (0.97 - 1.70)	1.28 (0.97 - 1.68)	1.36 (1.03 - 1.80)
25 to <30 kg/m^2	1.08 (0.81 - 1.44)	1.07 (0.80 - 1.42)	1.09 (0.82 - 1.46)
30 to <35 kg/m^2	ref.	ref.	ref.
35 to <40 kg/m^2	1.17 (0.83 - 1.64)	1.15 (0.82 - 1.61)	1.13 (0.81 - 1.59)
≥40 kg/m^2	1.39 (1.03 - 1.89)	1.37 (1.01 - 1.87)	1.37 (1.01 - 1.86)

*Model 1: Adjusted for demographics [age, race, sex, year of admission, geographic region (Forsyth County, NC; Jackson, MS; Minneapolis, MN; Washington County, MD)], and length of hospital stay.

*Model 2: Adjusted for demographics, length of stay, and comorbidities (hypertension, smoking, chronic obstructive pulmonary disease, atrial fibrillation, and coronary artery disease)

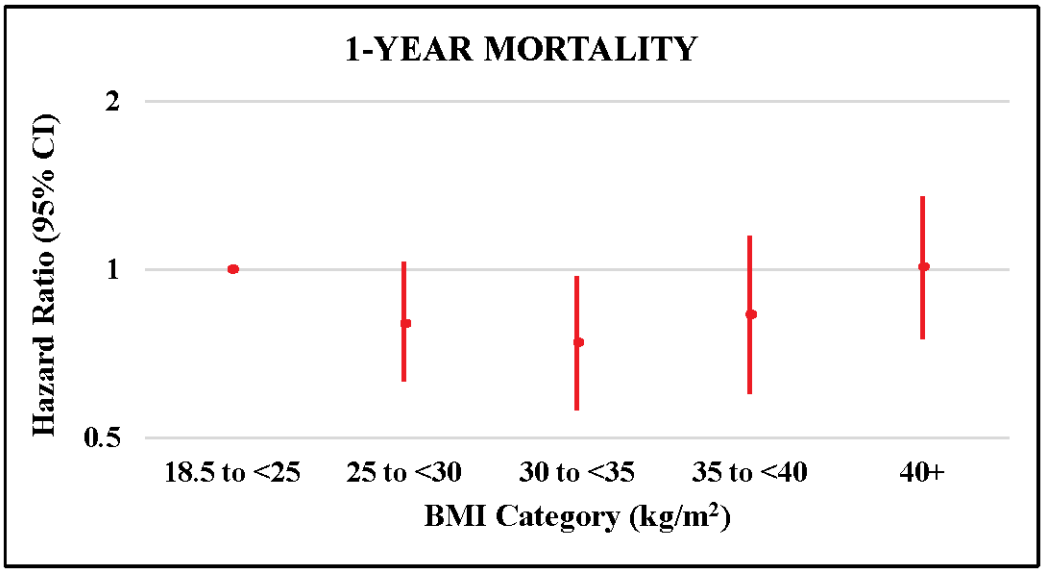
*Model 3: Adjusted for demographics, length of stay, and comorbidities with additional adjustment for diabetes mellitus.

Supplemental Figure S5: Adjusted* hazards of 1-year all-cause mortality among black and white patients of various body mass index categories who were hospitalized with acute decompensated heart failure with preserved ejection fraction. The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.



*Mortality models adjusted for age, sex, year of admission, geographic location (Forsyth County NC, Jackson, MS, Minneapolis, MN, Washington County, MD), length of stay, hypertension, current smoking, chronic obstructive pulmonary disease, atrial fibrillation, coronary artery disease, and diabetes mellitus

Supplemental Figure S6: Adjusted* hazards of 1-year all-cause mortality among black and white patients of various body mass index categories who were hospitalized with acute decompensated heart failure with preserved ejection fraction. The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.



*Mortality models adjusted for age, race, sex, year of admission, geographic location (Forsyth County NC, Jackson, MS, Minneapolis, MN, Washington County, MD), length of stay, hypertension, current smoking, chronic obstructive pulmonary disease, atrial fibrillation, coronary artery disease, and diabetes mellitus

Supplemental Table S2: Adjusted* hazards of 1-year all-cause mortality among black and white patients of various body mass index categories who were hospitalized with acute decompensated heart failure with preserved ejection fraction and had available B-type natriuretic peptide abstractions (N=7,188). The Atherosclerosis Risk in Communities Surveillance Study, 2005-2014.

BMI Category	**Model 1** **HR (95% CI)**	**Model 2** **HR (95% CI)**
18.5 to <25 kg/m^2	1.72 (1.23 – 2.41)	1.64 (1.16 – 2.30)
25 to <30 kg/m^2	1.29 (0.92 – 1.81)	1.27 (0.90 – 1.78)
30 to <35 kg/m^2	Reference	Reference
35 to <40 kg/m^2	1.45 (0.98 – 2.15)	1.47 (0.99 – 2.18)
≥40 kg/m^2	1.51 (1.05 – 2.16)	1.55 (1.07 – 2.22)

*Model 1 adjusted for age, sex, year of admission, geographic location (Forsyth County NC, Jackson, MS, Minneapolis, MN, Washington County, MD), length of stay, hypertension, current smoking, chronic obstructive pulmonary disease, atrial fibrillation, coronary artery disease, and diabetes mellitus

*Model 2 additionally adjusted for B-type natriuretic peptide level