Supplemental Material

Table S1. Literature Search Strategies.

Database	Search Strategy
PubMed	((((("Time Factors"[MeSH Terms] AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) OR ("Predictive Value of Tests"[MeSH Terms] AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND English[lang])) AND (((("United States"[Mesh] AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) AND (((((("Hospitalization"[Mesh]) OR "Patient Readmission"[Mesh]) OR "Emergency Service, Hospital"[Mesh]) OR ("mortality"[All Fields] OR "mortality"[MeSH Terms])) OR complications)) AND "Heart Failure"[Mesh]) AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang])) AND Journal Article[ptyp] AND hasabstract[text] AND "last 10 years"[PDat] AND Humans[Mesh] AND English[lang]) Filters: Journal Article; Abstract; published in the last 10 years; English
SCOPUS	((TITLE-ABS-KEY (heart AND failure)) AND (TITLE-ABS-KEY (hospitalization OR patient AND readmission OR (emergency AND service, AND hospital) OR mortality OR complications OR hospital AND emergency AND department))) AND ((TITLE-ABSKEY ("Predictive Value of Tests") OR TITLE-ABS-KEY (time AND factors))) AND (LIMITTO (AFFILCOUNTRY, "United States"))
Cumulative Index to Nursing and Allied Health Literature (CINAHL)	((MH "Heart Failure+") OR "heart failure") AND (((MH "Hospitalization+") OR "hospitalization") OR ((MH "Readmission") OR "Readmission") OR (MH "Emergency Service+") OR (MH "Mortality+") OR "complications") AND ((MH "Predictive Value of Tests") OR "Predictive Value of Tests") OR "Predictive Value of Tests") Limiters - Abstract Available; Published Date: 20100101-20201231; English Language
ABI_INFORM	(MAINSUBJECT.EXACT("Heart failure") AND (MAINSUBJECT.EXACT("Patient admissions") OR MAINSUBJECT.EXACT("Hospitalization") OR MAINSUBJECT.EXACT("Emergency services") OR complications OR MAINSUBJECT.EXACT("Mortality"))) AND ((Predict* OR MAINSUBJECT.EXACT("Predictions")) AND Factor) AND (loc.exact("United States US") AND at.exact("Article") AND stype.exact("Scholarly Journals"))
Web of Science	(Heart Failure) AND ((Hospitalization OR Readmission OR (Emergency Service, Hospital) OR mortality OR complications OR (Hospital emergency department)) AND ((Time Factors) OR TOPIC: ("Predictive Value of Tests")) Refined by: LANGUAGES: (ENGLISH) AND DOCUMENT TYPES:(ARTICLE OR REVIEW OR PROCEEDINGS PAPER) AND COUNTRIES/REGIONS: (USA) Indexes=SCI- EXPANDED, SSCI, A&HCI, ESCI Timespan=2010-2020
A&HCI- Arts & H	umanities Citation Index
ABS- Abstract	
	7- Affiliation Country
ESCI- Emerging	Sources Citation Index

KEY- Keyword
Lang- Language
MeSH- Medical Subject Headings
PDat- Publication Date
Ptyp- Publication Type
SCI-EXPANDED- Science Citation Index Expanded[™]
SSCI- Social Sciences Citation Index

Table S2. Detailed Description of Evidence: The Influence of SDoH on HF Outcomes.

Author (Study Type)	Setting (Obs. Dates)	Target Population	Data Source(s)	Control Variables	SDOH Variables	Outcome	Outcome Results†	QR‡
(ettaly rypo)	Datoo			Vallabioo	Analyzed in			
			Ma	ortality and Surviv	Study			
Ahmed 2018 ^{13*}		Deputation				Suminal 1 year		2
Annieu 2016.º	 University of Florida 	 Population: Patients ≥18 		· Age	Insurance	 Survival 1 year post implant 	No statistically significant associations	3
(Retrospective	FIUIUa	years with		· Sex	 Education 	post implant	found	
Observational)	· (Jan 2008-	LVAD implant,			Lucation		lound	
Coscivationaly	Dec 2015)	PS		· Race	· Income			
		assessment, 1						
		year or more			 Marital status 			
		post-op						
					 Urban/ rural 			
		Sample: N=111			residence			
Foraker	Forsyth	Population:	 ARIC study 	· SexSex	 Insurance 	Time to All-	Medicaid recipients:	2
2011 ^{32*}	County, NC;	White and		5		cause mortality	higher risk (HR 1.21,	
(Dreen estive	Washington	Black ARIC	 US Census 	· Race	Neighborhood SES		CI 1.07–1.37)	
(Prospective Observational)	County, MD; suburbs of	participants aged 45-64		· Education	5E5		· Lower HHI: higher risk	
Observational)	Minneapolis,	years		· Education			(HR 1.36, CI 1.08–	
	MN; and	years					1.70)	
	Jackson, MS	 Diagnosis: 						
	···· , ··	incident HFH						
	· (1987-2004)							
		Sample:						
		N=1,342						
Manemann	Clinics and	 Population: ≥18 	· Patient-	· Age	 Social Support 		High social isolation:	2
2018 ^{44*}	hospitals in	years	Reported	0.0		cause Mortality	higher risk (HR 3.74,	
	11 southeast	Diagnasia	Outcomes	 SexSex 			CI 1.82-7.70)	
(Prospective Observational)	Minnesota counties	Diagnosis: First-ever HF	Measurement Information	 Education 				
	Counties	diagnosis	System					
	· (Jan 2013-		Social	Marital status				
	Mar 2013)	· Sample:	Isolation					
	/	N=3,867	Short Form					

			 Rochester Epidemiology Project 					
McNaughton 2015 ^{46*} (Retrospective Observational)	 Quaternary care hospital (Nov 2010 – Jun 2013) 	 Population: Discharged patients ≥18 years Diagnosis: Acute HFH Sample: N=2,132 	 Health Literacy Screening study data EMR 	Insurance	 Age SexSex Race Education/ health literacy 	Time to all- cause Mortality	 Low health literacy (BHLS ≤9): higher risk (aHR 1.32, CI 1.05- 1.66). Age ≥65 years, nonwhite race, and less than high school education: higher risk. 	3
Downing 2018 ^{26*} (Retrospective Observational)	 US non- federal acute care hospitals (Jan 2009- Dec 2011) 	 Population: Hospitals with Medicare FFS beneficiaries ≥65 years Principal Diagnosis: AMI or HF Sample: N=1,265 	 Medicare Standard Analytic Files Medicare Enrollment Database 2011 American Community Survey 	· Age · SexSex	 Race and Ethnicity Income 	Time to All- cause Mortality	 Black patients (AMI): no statistically significant association found Black patients (HF): lower risk (RSMR: - 4.7, P < .001) Low-income neighborhood: no statistically significant association found 	3

Park 2016 ⁵¹ (Prospective Observational)	 Cardiologist offices in Cincinnati, OH and Northern KY (2007-2013) 	 Population: Patients <45 years Diagnosis: CHF Sample: N=191 	 EMR Patient survey 	 SexSex Marital status 	 Age Faith/ spirituality Social support 	Time to All- cause Mortality	 Age: lower risk (HR 1.06, Cl 1.03-1.09). Spiritual: lower risk (HR 0.795, Cl 0.67- 0.95). Social support: no statistically significant association found 	2
Shen 2017 ⁵⁸ (Prospective Observational)	 Cardiology OP clinic at the University of Miami Medical Center (2005- 2009) 	 Population: Patients aged ≥18 years Principal Diagnosis: HF Sample: N=220 	 EMR Patient survey SSDI 	· Age · SexSex	 Marital Status Social Support 	Time to All- cause Mortality	 Not married or partnered: higher odds (OR 2.80, CI 1.38- 5.70) Social support: no statistically significant association found 	2
Kostelanetz 2021 ⁴² (Prospective Observational)	 Vanderbilt University AMC (Oct 2011- Dec 2015) 	 Population: Adult admissions aged ≥18 years Principal Diagnosis: HF Sample: N=1120 	 Patient questionnaire Patient interviews Billing data 	 Age SexSex Race and Ethnicity 	 Neighborhood SES HHI Education Insurance 	Time to All- cause Mortality	 No insurance: lower risk (HR 0.43 CI: 0.24- 0.77) Neighborhood and household below FPL and completed HS: no statistically significant association found . 	2

He 2019 ³⁴	 National 	 Nonsmoking adults ≥18 	 NHANES III Public-Use 	· Age	 Secondhand smoke 	 All-cause Mortality 	 Exposure: higher risk (HR 1.4, CI 1.07–1.84) 	4
(Cross- sectional)	· (1988-Dec 2011)	years	Mortality Linked File	· SexSex	exposure			
		 Diagnosis: HF 	 National 	· Race				
		· Sample: N=572	Death Index	Region				
				· Urban/Rural				
				 Education 				
				• HHI				
Kaiser 2020 ³⁹	 Forsyth County, NC; 	 Medicare eligible adults 	 Cardio- vascular 	· Age	 Social Support 	 Survival after incident HF 	 No statistically significant association 	2
(Prospective Observational)	Sacramento County, CA;	≥65 years	Health Study	· SexSex			found	
	Washington County, MD;	Sample: N=529	 Medicare claims 	· Race				
	and Pittsburgh,		· EMR	Marital Status				
	PA			 Disability 				
	· (1989-Jun 2015)							

Eapen 2015 ^{27*}	 US hospitals, including 	 Population: FFS CMS 	GWTG HF Registry	· Age	 Race and Ethnicity 	 All-cause Mortality, 30d 	 HISP and Black: lower odds 	3
Eapen 2015 ^{27*} (Retrospective Observational)	 US hospitals, including community and large tertiary centers (Jan 2005- Dec 2011) 		 GWTG HF Registry CMS claims data County-level SES AHRF data 	 Age SexSex Urban/rural residence 	 Race and Ethnicity Education Employment Income County level SES 	 All-cause Mortality, 30d . 		3
							 County level SES: no statistically significant association found 	

Eberly 2019 ^{28*} (Retrospective Observational)	 Brigham and Women's Hospital, Boston, MA (Sep 2008- Nov 2017) 	 Population: Black, White, Latinx patients admitted to general medicine or cardiology from ED ≥18 years Principal Diagnosis: HF Sample: N=1,967 	 EMR MA Death Registry 	• None	• Race and Ethnicity	• All-cause Mortality, 30d	 Black Race: lower risk (HR, 0.52, CI: 0.30- 0.91) Latinx (GM admission): no statistically significant association found 	3
Patel 2020 ^{52*} (Retrospective Observational)	 Emory Health Care system, Atlanta, GA (2010-2018) 	 Population: Admitted Black or White patients ≥18 years Diagnosis (primary or secondary): acute HF Sample: N=30,630 	• EMR	 Age Sex Insurance 	 Race Neighborhood SES (EM) 	• All-cause Mortality, 30d	 Black patients: higher risk (RR: 1.17, CI 1.10-1.25). Lower neighborhood SES: no effect modification found for Black patients 	3

Trivedi 2020 ⁶² (Cross- sectional)	 National: Veteran's Affairs Medical Centers (2012-2014) 	 Hospitalized Veterans ≥66 years Diagnosis: HF Sample: N=42,892 	 VA health system's Corporate Data Warehouse CMS Medicare Master Beneficiary Summary File Minimum Data Set US Census 	· Age · Sex	 Neighborhood Disadvantage Race and Ethnicity Living Status Urban/Rural Reason for Medicare Eligibility Insurance Status 	 All-Cause Mortality, 30d 	No statistically significant associations found	
Sterling 2020 ⁵⁹ (Prospective Observational)	 48 US states and DC (2003-2014) 	 Population: REGARDS study participants who were Medicare Part A beneficiaries ≥65 years and discharged Diagnosis: HF Sample: N=598 	 REGARDS study EMR American Hospital Association annual survey Medicare's Hospital Compare 	 Age Sex Region 	 Race and Ethnicity Education Income Neighborhood SES Social Support Urban/rural residence 	 All-cause Mortality, 90d 	 1 SDOH: higher risk (HR 2.78, Cl 1.37- 5.62) ≥2 SDOH: higher risk (HR 2.57, Cl 1.19- 5.54) 	2

Knighton 2018 ^{40*} (Retrospective Observational)	 Intermountain Healthcare System in Utah (2010 and 2014) 	 Population: Inpatient aged ≥18 years Diagnosis: HF Sample: N=4,737 	 EMR State death certificate data 	 Age Sex Race and Ethnicity Marital status Insurance 	 Neighborhood deprivation Faith (EM) Urban/rural residence (EM) 	 All-cause Mortality: 30d, 90d, 180d, and 365d 	 Deprived areas and faith/ spirituality: 30d lower odds (OR 0.35, CI 0.12–0.98) 90d, lower odds (OR 0.49, CI 0.30-0.90) 180 d, lower odds: (OR 0.52, CI 0.35-0.76) 365d: no statistically significant association found 	3
Lu 2016 ^{43*} (Retrospective Observational)	 Einstein Medical Center, Philadelphia, PA (Jan 2011 – Feb 2013) 	 Population: AA patient admissions aged >20 years Diagnosis: ADHF Sample: N=611 	· EMR · SSDI	· Age · Sex	Marital status Living status	 All-cause Mortality, 30d, 90d, 1y 	 30d, Married: no statistically significant association found 1y, Married: lower odds (OR 0.50, CI 0.31 - 0.90) 30d, Living alone: higher odds (OR 2.86, 1.59-5.14) 1y, Living alone: no statistically significant association found 	3

Selim 2015 ^{57*} (Retrospective Observational)	 3 hospitals within the Montefiore Medical Center health system in the Bronx, NY (Jan 2001- Dec 2010) 	 Population: Hospitalized low SES patients aged ≥18 years Diagnosis: ADHF Sample: N=7,516 	 EMR Social Security Death Registry 	· Age · Sex	 Access to Cardiologist Race and Ethnicity (EM) 	 All-cause Mortality, 30d, 60d 	 Access to cardiology 30d: no statistically significant association found Access to Cardiology services (60d): lower risk (HR: 0.70, Cl 0.52-0.96) Race and Ethnicity (30d, 60d): no statistically significant association found 	3
Vivo 2014 ^{63*} (Prospective Observational)	 213 hospitals participating in GWTG-HF (Jan 2005- Dec 2011) 	 Population: Medicare FFS patients ≥65 years Principal Diagnosis: HF Sample: N=47,149 	 GWTG-HF registry Medicare inpatient claims data 	 Age Sex Income Education 	• Race and Ethnicity	 All-cause Mortality (post discharge), 30d, 1y 	 Black, HISP, /Asian (30d): no statistically significant association found Black (1y): reduced risk (HR 0.93, CI 0.87- 1.00) HISP, Asian (1y): no statistically significant association found 	2

Wadhera 2018 ^{64*} (Retrospective Observational)	 391 GWTG registry sites across 40 states (Jan 2010- Jun 2017) 	 Population: Low-income patients <65 years, not eligible for Medicare Diagnosis: HFH Sample: N=58,804 	• GWTG HF Registry	 Age Sex Race and Ethnicity 	 Medicaid Expansion 	 In-Hospital Mortality 	 Medicaid expansion: no statistically significant association found 	3
Watkins 2013 ^{65*} (Retrospective Observational)	 Northwestern Louisiana tertiary care teaching hospital (Jun 2003- Dec 2008) 	 Population: Patients admitted ≥18 years Diagnosis: HF Sample: N=357 	• EMR	 Age Sex Race and Ethnicity Insurance 	Marital Status	 In-Hospital Mortality 	 No statistically significant association found 	3

Yandrapalli 2019 ^{70*} (Retrospective Observational)	 Acute care hospitals (2005 – 2014) 	 Population: Patients ≥18 years without concomitant ACS Diagnosis: HFH Sample: N=8,333,752 	• HCUP NIS	• None	 Age Sex Race and Ethnicity 	 In-hospital Mortality 	 Age: older had higher rates (≥80 years (41.4); 65-79 (29.2); 45-64 (20.6); 18-44 (17.7) Females: higher (30.6 v. 25.4, p<0.001) Race: White had highest rates (White (28.8); HISP (25.8); Black (22.3) 	3
				Readmission§				
DeFilippis 2020 ²¹ (Retrospective Observational)	INTERMACS registry (2008-2017)	 Population: Patients ≥18 years with continuous flow LVAD Sample: N=15,403 	· INTERMACS	None	•PS Risks	 Time to All- cause Readmission 	 Any PS risk: higher risk (HR 1.14, CI 1.08- 1.19) 	3
Foraker 2011 ^{32*} (Prospective Observational)	 Forsyth County, NC; Washington County, MD; suburbs of Minneapolis, MN; and Jackson, MS (1987-2004) 	 Population: White and Black ARIC participants aged 45-64 Diagnosis: incident HFH Sample: N=1,342 	 ARIC study US Census 	 Sex Race Education 	 Insurance Neighborhood SES 	 Time to All- cause Readmission 	 Medicaid recipients: higher risk (HR 1.19, CI 1.05–1.36) Lower neighborhood HHI: higher risk (HR 1.40, CI 1.10–1.77) 	2

McNaughton 2015 ^{46*}	Quaternary care hospital	 Population: Patients discharged from an acute 	Health Literacy Screening study data	 Insurance Age 	 Education/ health literacy 	 Time to All- cause Readmission 	 Low health literacy: higher risk: (aHR 1.32, CI 1.05-1.66, P=0.02) 	3
(Retrospective Observational)	• (Nov 2010 – Jun 2013)	HFH Sample: 	study data · EMR	· Sex · Race				
Watkins 2013 ^{65*} (Retrospective Observational)	 Northwestern Louisiana tertiary care teaching hospital (Jun 2003- Dec 2008) 	N=2,132 · Population: Patients admitted · Diagnosis: HF · Sample: N=357	• EMR	 Age Sex Race Ethnicity Insurance 	Marital Status	Time to All- cause Readmission	 No statistically significant association found 	3
Ahmed 2018 ^{13*} (Retrospective Observational)	 University of Florida (Jan 2008- Dec 2015) 	 Population: Patients ≥18 years with LVAD implant, PS assessment, 1 year or more post-op Sample: N=111 	· EMR	· Age · Sex · Race	 Insurance Education Income Marital status Urban/ rural residence 	 All-cause Readmission, 30d 	 No statistically significant associations found 	3
Amarasingham 2010 ¹⁵ (Prospective Observational)	 Parkland Memorial Hospital, Dallas, TX (Jan 2007 - Aug 2008) 	 Population: Patients ≥18 discharged Principal Diagnosis: HF Sample: N=1,372 	· EMR	• None	 Age Sex Race and Ethnicity Marital Status Insurance Neighborhood SES 	 All-cause Readmission, 30d 	 Age: No statistically significant association found Male sex: higher odds (OR 1.37, CI 1.02 - 1.84) Race: Black race higher odds OR 1.47, CI 1.03-2.08); HISP no statistically significant association found 	2

					 Social Instability 		 Single: higher odds (OR 1.47, Cl 1.08 - 2.01) Medicare insurance: higher odds (OR 1.59, Cl 1.17 - 2.17). Lowest neighborhood SES: higher odds (OR 1.30, Cl 0.98 - 1.74) Social instability: higher odds (OR 1.13, Cl 1.07 - 1.19) 	
DeLia 2014 ^{22*} (Retrospective Observational)	 Hospitals and clinics (2007-2010) 	 Population: Medicare enrollees ≥65 years Diagnosis: ≥1 HFH Sample: N=233,641 	• MPCD	• None	 Age Sex Race and Ethnicity Insurance Region 	 All-cause Readmission, 30d 	 Older age statistically significant association with higher risk (HR NR) Sex: no statistically significant association found Black and HISP associated with higher risk Medicare Advantage: statistically significant association with higher risk (HR NR) Northeast and Midwest: statistically significant association with lower risk (HR NR) 	3

Di Palo 2017 ^{24*} (Intervention)	 Montefiore Medical Center, Bronx, NY (Jun 2015- Dec 2015) 	 Population: Inpatients Diagnosis: HF Sample: N=94 	 EMR Intake assessment 	· Age · Sex	Social support (NT program)	 All-cause Readmission, 30d 	 Intervention group: 17.6% Control group: 25.6% 	2
Downing 2018 ^{26*} (Retrospective Observational)	 US non- federal acute care hospitals (Jan 2009- Dec 2011) 	 Population: Hospitals with Medicare FFS beneficiaries ≥65 years Principal Diagnosis: AMI or HF Sample: N=1,265 	 Medicare Standard Analytic Files Medicare Enrollment Database 2011 American Community Survey 	· Age · Sex	 Race and Ethnicity Income/ wealth 	 All-cause Readmission, 30d 	 Black patients: higher risk (HF- RSRR: 2.8%; P < .001) Low-income neighborhood: No statistically significant association found 	3
Eapen 2015 ^{27*} (Retrospective Observational)	 US hospitals, including community and large tertiary centers (Jan 2005- Dec 2011) 	 Population: FFS CMS beneficiaries ≥65 years old Principal Diagnosis: HF Sample: N=48,338 	 GWTG HF Registry CMS claims data County-level SES AHRF data 	 Age Sex Urban/Rural residence 	 Race and Ethnicity Education Employment Income/ wealth SES (County level) 	 All-cause Readmission, 30d 	 Race: Black race higher odds (OR 1.10, CI 1.01-1.19); HISP higher odds (OR 1.14, CI 1.02-1.28) ≥ High school diploma: lower odds (OR 0.95, CI 0.91–0.99) White-collar workers: higher odds (OR 1.06, CI 1.01-1.11) Income: No statistically significant association found County-level SES: No statistically significant association found 	3

Gilotra 2017 ³³ (Prospective Observational)	 Urban: academic center (Jul 2014- 2015) 	 Admitted patients ≥18 years requiring intravenous diuretics Principal Diagnosis: decompensated HF Sample: N=94 	 EMR Patient survey 	 Age Sex Race Education Level 	 Health Literacy 	 All-cause Readmission, 30d 	Health literate: Lower odds (OR 0.31, CI 0.10–0.91).	2
Joynt Maddox 2019 ³⁸ (Retrospective Observational)	 Inpatient and OP care (Dec 2012 – Nov 2015) 	 Population: FFS Medicare beneficiary admissions ≥65 years old Diagnosis: AMI, CHF, or pneumonia Sample: CHF N=2,874 	 Medicare 100 percent Research Identifiable Files CMS Master Beneficiary Summary File CMS Vital Records File 2017 Inpatient Prospective Payment System final rule impact file 	· Age · Sex · Race	 Housing instability Neighborhood SES Insurance Hospital Safety-Net Status 	 All-cause Readmission, 30d (CHF only) 	 Housing instability: (aOR 1.39, CI 1.29- 1.49) Disadvantaged neighborhood: higher odds (aOR 1.03, CI 1.01-1.04) Medicaid: higher odds (aOR 1.22, CI 1.21- 1.24) Safety-net hospitals: higher rate: (1.037 v. 0.997) 	3
Knighton 2018 ^{40*} (Retrospective Observational)	 Inter- mountain Healthcare System in Utah (2010 and 2014) 	 Population: inpatient. Age inclusion criteria NR Diagnosis: HF Sample: N=4,737 	 EMR State death certificate data 	 Age Sex Race and Ethnicity Marital Status 	 Neighborhood SES Faith/ Spirituality Urban/Rural Residence 	 All-cause Readmission, 30d 	 No statistically significant association found 	3

				Insurance				
Lu 2016 ^{43*} (Retrospective Observational)	 Einstein Medical Center, Philadelphia, PA (Jan 2011 – Feb 2013) 	 Population: AA patient admissions aged >20 years Diagnosis: ADHF 	· EMR · SSDI	· Age · Sex	Marital status Living status	 All-cause Readmission, 30d 	 Married: no statistically significant association found Living alone: higher odds (OR 2.86, CI 1.59-5.14) 	3
McKinley 2018 ⁴⁵ (Intervention)	 WellStar Atlanta Medical Center, Atlanta, GA (May 2012- Dec 2015) 	 Sample: N=611 Population: Admission of AA men Diagnosis: HF (primary or secondary) Sample: N=132 	· EMR	 Age Race and Ethnicity 	HF intervention	 All-cause Readmission, 30d 	Intervention: statistically significant association with lower readmission rates	2
Meddings 2017 ⁴⁷ (Retrospective Observational)	 Hospitals (Jun 1996- Jun 2012) 	 Population: Admission of Patients > 50 years Diagnosis: HF Sample: N=2,068 	 HRS-CMS data ACS-HCUP data (FL, WA) 	· Age · Sex	 Race Social support Individual SES Insurance 	 All-cause Readmission, 30d 	 Black race: higher odds (OR 1.17, Cl 1.06-1.29) Social support: Having children (social support): lower odds (OR = 0.66, Cl 0.44- 0.98); married partnered no statistically significantly association found Highest quartile of wealth: lower (OR = 0.53, Cl = 0.35-0.79) Public insurance: no statistically 	3

							significantly association found	
Mirkin 2017 ⁴⁹ (Retrospective Observational)	 Pennsylvania hospitals (2011-2012) 	 Population: Discharged patients aged ≥18 years Diagnosis: CHF Sample: N=155,146 	 State-wide multi-hospital data set 	• None	 Age Sex Race and Ethnicity Insurance 	 All-cause Readmission, 30d 	 ≥65 years: lower odds (aOR 0.86-0.93) Female: lower odds (aOR 0.94, CI 0.92- 0.97) Black: higher odds (aOR 1.16, CI 1.12- 1.21) Insurance: no statistically significantly association found 	3
Nagasako 2014 ⁵⁰ (Prospective Observational)	 Non-federal acute care and critical- access hospitals in Missouri (Jun 2009- May 2012) 	 Population: Discharged Medicare FFS patients ≥65 years Principal Diagnosis: HF Sample: N=22,433 	 Administrative hospital discharge data Truven Health Analytics Nielsen Pop- Facts data 	 Age Sex Race Income Education Employment 	 Neighborhood SES 	 All-cause Readmission, 30d 	 No statistically significant association found 	2
Schopfer 2012 ⁵⁶ (Retrospective Observational)	 US hospitals (Jan 2008- Dec 2008) 	 Population: Hospitals that admitted patients aged ≥18 years Diagnosis: HF Sample: N=3,655 	 Dartmouth Atlas US Census 	· Age	 Race and Ethnicity Income Education Urban/Rural residence 	 All-cause Readmission, 30d 	 White race: higher odds (OR 1.04, CI 1.01-1.02) Income: no statistically significant association found Bachelor's degree or higher: higher odds 	3

Selim 2015 ^{57*} (Retrospective Observational)	 3 hospitals within the Montefiore Medical Center health system in the Bronx, NY (Jan 2001- Dec 2010) 	 Population: Hospitalized low SES patients aged ≥18 years Diagnosis: ADHF Sample: N=7,516 	 EMR Social Security Death Registry 	· Age · Sex	 Race and Ethnicity Access to Cardiologist 	 All-cause Readmission, 30d, 60d 	 (OR 1.10, CI 1.01- 1.02) Urban/rural: no statistically significant association found White (30d): lower risk (HR 0.49, CI 0.29- 0.83) White (60d): lower risk (HR 0.58, CI 0.39- 0.87) Seen by cardiologist (30d): lower risk (HR 0.76, CI 0.66-0.89, P=0.002) 	3
							 Seen by cardiologist (60d): lower risk (HR 0.81, CI 0.72-0.92) 	
Tabit 2017 ⁶⁰ (Retrospective Observational)	 University of Chicago Medical Center (Jan 2015- Dec 2015) 	 Population: Discharged low SES patients aged ≥18 years Diagnosis: ADHF Sample: N=784 	 EMR Patient survey 	 Age Sex Race/ Ethnicity Income 	 Education/ health literacy Consultation before discharge 	 All-cause Readmission, 30d, 90d 	 Intervention group (received consultation, 30d): lower odds (OR 0.592, CI 0.40-0.87) Intervention group (received consultation, 90d): lower odds (OR NR) 	3
Tripathi 2018 ^{61*} (Cross- sectional)	 HCUP NRD (2013 and 2014) 	 Population: Patients aged ≥18 years admitted to hospitals for LVAD implantation 	· HCUP · NRD	• None	 Age Sex Insurance 	 All-cause Readmission, 90d . 	 Age: no statistically significant association found Sex: no statistically significant association found 	4

		 Sample: N=4,693 					 Private insurance: lower odds (OR 0.75, CI 0.66-0.86) Self-pay: lower odds (OR 0.58, CI 0.42- 0.81) 	
Vivo 2014 ^{63*} (Prospective Observational)	 213 hospitals participating in GWTG-HF (Jan 2005- Dec 2011) 	 Population: Medicare FFS patients ≥65 years Principal diagnosis: HF Sample: N=47,149 	 GWTG-HF registry Medicare inpatient claims data 	 Age Sex Income Education 	 Race and Ethnicity 	 All-Cause Readmission, 30d, 1y . 	 Black/HISP/Asian (30d): no statistically significant association found Black (1y): increased risk (HR 1.10 CI: 1.04- 1.16) HISP/Asian (1y): no statistically significant association found 	2
Bradford 2017 ¹⁷ (Retrospective Observational)	 Sharp Memorial Hospital-San Diego, CA (Oct 2008 – Nov 2014) 	 Population: Discharged patients aged ≥18 years Diagnosis: HF Sample: N=2,420 	• EMR	• None	 Age Sex Race and Ethnicity Marital status Employment Insurance 	HF Readmission, 30d	 Employment (Retired): higher odds (OR 2.30; CI 1.08-4.90) Employment (Disabled): higher odds (OR 2.48; CI, 1.14-5.37). Age, sex, race/ethnicity, marital status, and insurance status: no statistically significant association found 	3
Carlson 2019 ¹⁹ (Retrospective Observational)	 Community hospital near California- Mexico border 	 Population: Primarily HISP, low SES patients discharged aged ≥65 years 	· EMR	Income Length of stay	 Age Sex Race and Ethnicity 	 HF Readmission, 30d 	No statistically significant association found	3

	 (Oct 2013 – Sep 2015) 	 Principal Diagnosis: HF Sample: N=189 			 Language Marital Status Living Status 			
Patel 2020 ^{52*} (Retrospective Observational)	 Emory Health Care System, Atlanta, GA (2010-2018) 	 Population: Admitted AA or White patients ≥18 years Diagnosis: acute HF Sample: N=30,630 	· EMR	 Age Sex Insurance 	Race HHI	• HF Readmission, 30d	 Black patients: higher risk (RR: 1.45, CI: 1.37-1.54) HHI: no statistically significant association found 	3
Schmeida 2012 ⁵⁵ (Retrospective Observational)	 Acute Inpatient hospitals (2006-2009) 	 Population: US states with data on discharged Medicare FFS patients aged ≥65 years Diagnosis: HF Sample: N=50 	 CMS US Census Kaiser Family Foundation 	• None	 Sex Race and Ethnicity Income Language Insurance 	• HF Readmission, 30d	 Sex, race: no statistically significant association found Income: positive association (β 0.000046, P=0.006) Language: negative association (β - 0.362255, P=0.50) Prescription coverage (insurance): positive association (β 0.001, P=<0.001) 	3
Dharmarajan 2013 ²³ (Retrospective Observational)	 Acute care hospitals (2007-2009) 	 Population: Medicare FFS beneficiaries ≥65 years readmitted within 30 days 	 Medicare claims 	• None	· Age · Sex · Race	 CVD Readmission, 30d 	 Age >=85: higher odds (OR 1.07, Cl 1.05- 1.10) Female: higher odds (OR 0.96, Cl 0.95- 0.98) 	3

		after index hospitalization · Diagnosis: HF · Sample: N=1,330,157					 Black: higher odds (OR 1.22, CI 1.19- 1.25) 	
Eberly 2019 ^{28*} (Retrospective Observational)	 Brigham and Women's Hospital, Boston, MA (Sep 2008- Nov 2017) 	 Population: Black, White, Latinx patients admitted to general medicine or cardiology from ED aged ≥18 years Principal Diagnosis: HF Sample: N=1,967 	 EMR MA Death Registry 	 Insurance Neighborhood SES Language 	 Age Sex Race and Ethnicity 	 CVD Readmission, 30d 	 Older age: lower risk 50-75 (HR: 0.61, CI: 0.49-0.76); >75 (HR: 0.54, CI 0.43-0.69) Race: no statistically significant association found 	3
Asthana 2018 ¹⁶ (Intervention)	 Ben Taub Hospital Harris County Hospital, Houston, TX (Jul 2015- Dec 2015) 	 Population: Un- and under- insured patients in ED aged ≥18 years Diagnosis: HF Sample: N=94 	• EMR	 Age Sex Race and Ethnicity Insurance 	Education	 HF Hospital Readmission, 30d, 90d HF ED Revisits, 30d, 90d 	 Hospital readmission 30d, 90d: no statistically significant changes found (30d and 90d) ED 30d RRR 59% (4.80-82.5) ED 90d RRR 43.7% (9.51-64.9) 	2
			Medical De	evices and Transp	plantation		/	
Ahmed 2018 ^{13*} (Retrospective Observational)	 University of Florida (Jan 2008- Dec 2015) 	 Population: Patients ≥18 years with LVAD implant, PS 	EMR	· Age · Sex	 Insurance Education 	 Readmission, 30d 	 No statistically significant association found 	3

		assessment, 1 year or more		· Race	· Income			
		post-op			 Marital status 			
		· Sample: N=111			 Urban/ rural residence 			
Ehsan 2019 ²⁹ (Retrospective Observational)	 Three states that underwent Medicaid expansion (KY, NJ, and MD) and two states that did not expand (FL and NC) 	 Population: Patients aged 18-64 years discharged with continuous-flow LVAD and covered by Medicaid Sample: N=624 	 State Inpatient Database American Hospital Association Survey AHRF 	 Age Sex Income Urban/rural residence Sex Income 	 Race and Ethnicity Insurance 	LVAD utilization	 Race: no statistically significant association found Medicaid expansion states & public insurance: increased utilization (IRR: 5.26; CI:1.23-22.57). 	3
	· (2012-2015)							
Flint 2021 ³¹ (Prospective Observational)	 6 LVAD programs in the Midwest, East and Intermountain West (2015 and 2017) 	destination therapy LVAD aged ≥18 years · Sample: N=212	DECIDE- LVAD Trial	• None	 Race and Ethnicity Marital Status Insurance Education Income 	LVAD implantation	 Partnered (marriage status): higher odds (OR: 2.33, CI 1.12- 4.85). Income, race, educational attainment, or insurance status: No statistically significant associations found 	2
Tripathi 2018 ^{61*} (Cross-	 HCUP NRD (2013 and 2014) 	 Population: Patients aged ≥18 years admitted to 	· HCUP · NRD	• None	· Age · Sex	Complications	Age: unit increases increased odds (OR 1.01, CI 1.01-1.02)	
sectional)	2014)	hospitals for LVAD implantation			· Insurance		 Female: lower odds (OR 0.73, CI 0.62- 0.85) 	
		 Sample: N=4,693 						

							 Insurance: no statistically significant association found 	
Emani 2017 ³⁰ (Retrospective Observational)	 Organ sharing registry (Jun 2006 - Mar 2015) 	 Population: First-time HTx candidates ≥18 and <65 years who had BTT LVAD support while wait-listed Sample: N=3,353 	 United Network of Organ Sharing registry 	· Age · Sex · · Race	 Education Insurance Neighborhood SES 	 Transplantation Probability 	 Education: no statistically significant association found Medicaid: higher risk SHR: 1.56, CI: 1.14- 2.14) Neighborhoods in the second-lowest SES quintile: higher risk (SHR: 1.62; CI: 1.01- 0.52) 	3
Mehra 2009 ⁴⁸ (Prospective Observational)	 OP cardiology and multi- specialty practices (2005-2007) 	 Population: Patients enrolled in IMPROVE HF aged ≥18 years Sample: N=3,659 	IMPROVE HF registry	• None	 Age Sex Race Insurance 	ICD Utilization	 2.58). Older ages: lower odds (OR 0.87 per 10 years, Cl 0.82- 0.93) Men: higher odds (OR 1.4, Cl 1.22-1.61) Black race: lower odds (OR 0.75, Cl 0.60- 0.94) No insurance: lower odds (OR 0.45, Cl 0.26-0.78) 	2
Yandrapalli 2019 ^{70*} (Retrospective Observational)	 Acute care hospitals (2005 – 2014) 	 Population: patients ≥18 years without concomitant ACS Diagnosis: HFH Sample: N=8,333,752 	· HCUP NIS	• None	 Age Sex Race and Ethnicity 	 Mechanical circulatory support device utilization 	 Age: older had higher rates (≥80 years (41.4); 65-79 (29.2); 45-64 (20.6); 18-44 (17.7); (p<0.001) Females: higher (30.6 v. 25.4, p<0.001) 	3

Russell 2019 ^{54*} (Cross- sectional)	• NYC • (2013-2017)	 Hospice patients ≥18 years Diagnosis: HF Sample: N=1.498 	 • EMR • Interviews 	• None	 Age Sex Race and Ethnicity Marital Status Insurance Status 	• Loss Of Eligibility	 Race: White had highest rates (white (28.8); HISP (25.8); Black (22.3); patients p<0.001) HISP: higher odds (AOR 2.32, CI 1.23– 4.34) Age, sex, race, marital status, insurance status: no statistically significant associations 	4
				Other				
Ahmed 2018 ^{13*} (Retrospective Observational)	 University of Florida (Jan 2008- Dec 2015) 	 Population: Patients ≥18 years with LVAD implant, PS assessment, 1 year or more post-op Sample: N=111 	· EMR	· Age · Sex · Race	 Insurance Education Income Marital status Urban/ rural residence 	· LOS	 No statistically significant associations found 	3
Knighton 2018 ^{40*} (Retrospective Observational)	 Inter- mountain Healthcare System in Utah (2010 and 2014) 	 Population: inpatient. Age inclusion criteria NR Diagnosis: HF Sample: N=4,737 	 EMR State death certificate data 	 Age Sex Race and Ethnicity Marital Status Insurance 	 Neighborhood SES Faith Urban/Rural residence 	Index encounter LOS	 No statistically significant associations found 	3

Russell 2019 ^{54*}	· NYC	 Hospice patients ≥18 	· EMR	· None	· Age	 Acute hospitalization 	• Age: 18 to 74 (AOR 2.10, CI 1.34–3.28)	4
(Cross-	· (2013-2017)	years	 Interviews 		· Sex	·	and 75 to 84 (AOR 1.79, CI 1.24–2.62)	
sectional)		• Diagnosis: HF			 Race and Ethnicity 		• HISP (AOR 2.99, CI	
		 Sample: N=1.498 			Marital Status		1.99–4.50), African American (AOR 2.06, Cl 1.31–3.24), and	
					 Insurance Status 		Asian/other patients (AOR 1.96, CI 1.08– 3.57)	
							 Sex, marital status, insurance status: no statistically significant associations found 	
Akwo 2016 ¹⁴	 Urban/rural: 12 	AA and non- HISP White low	· SCCS	· Age	 Neighborhood SES 	Incident HF	 Risk increased with unit increases in 	
(Prospective Observational)	southeastern states	SES patients aged 40-79	 US Census 	· Sex			neighborhood deprivation (HR 1.12,	
	· (2002-2010)	years covered by Medicare or Medicaid and		 Race and Ethnicity 			CI 1.07-1.18	
		participating in SCCS		· HHI				
		 Sample N=27,078 		 Education Level 				
Breathett 2021 ¹⁸	· WHI Study	 Population: Post- 	· WHI study	· Sex	PS factors	Incident HFH	No statistically significant association	3
(Retrospective Observational)	· (1993-2018)	menopausal AA and HISP women in WHI		 Race and Ethnicity 			found	
		study with ≥1 HF risk factors		· Age				
		and a high HF genetic risk		 Education 				
		score. Age		Income				

Pinheiro 2020 ⁵³ · 48 US state and DC(Prospective Observational)· (2003-Dec 2016)	· (2003-Dec	inclusion criteria NR. • Sample: N=11,327 • Population: REGARDS study participants (community- dwelling black and white men	 REGARDS study data Phone interviews EMR 	 Insurance Age Sex Region 	 Race and Ethnicity Education Income 	Incident HFH	 Black race: higher risk (aHR: 1.23, CI 1.09- 1.40) < High school education higher risk (aHR 1.75, CI 1.50- 2.00) 	2
		and women ≥45 years from 48 US states and DC) • Diagnosis: at risk for HF • Sample: N=25,790			 Insurance Neighborhood SES 		 2.03) <\$35,000 income: higher risk (aHR: 1.78, CI 1.55-2.03) No insurance: higher risk (aHR 1.68, CI 1.29-2.19) Neighborhood >25% below poverty (aHR: 1.21, CI 1.05-1.40) 	
Wadhera 2018 ^{64*} (Retrospective Observational)	 · 391 GWTG registry sites across 40 states · (Jan 2010- Jun 2017) 	 Population: Low-income patients <65 years, not eligible for Medicare Diagnosis: HFH Sample: N=58,804 	• GWTG HF Registry	 Age Sex Race/ Ethnicity 	Medicaid expansion	 HF inpatient care (defect free care) 	Expansion states (defect free care): higher odds (aOR: 1.06, CI 1.03-1.08)	3
Ziaeian 2017 ⁷¹ (Retrospective Observational)	 Acute care hospitals (2002-2013) 	 Population: Patients ≥18 years 	HCUP NIS	· Age	Sex Race and Ethnicity	· HFH	Black men and women: higher compared with whites	3

		 Diagnosis: HF Sample: N=12,783,478 					 (229% and 240%, respectively) HISP men and women: higher rates, (men: 32% to 4%, p trend=0.047; women: 55% to 43%) 	
Wu 2013 ⁶⁷ (Prospective Observational)	Academic medical center · (NR)	 Population: Patients ≥18 Diagnosis: HF Sample: N=218 	REMOTE-HF study data	 Age Sex Race and Ethnicity Living Status 	 PSS and Medication Adherence 	Time to CV event	Low PSS and nonadherence: higher risk (HR 2.50, CI 1.20- 5.30)	2
Wu 2016 ⁶⁸ (Prospective Observational)	 Rural US areas in of CA, NV, KY (NR) 	 Population: Patients ≥18 living independently Diagnosis: HFH in the past 12 months Sample: N=575 	REMOTE-HF study data	 Sex Race/ Ethnicity Income Marital status Employment 	 Age Health literacy 	Time to CV event	 Older patients: higher risk (HR 1.491, Cl, 1.12–1.99) Low health literacy: higher risk (HR: 1.84, Cl: 1.40–2.43) 	2
Wu 2010 ⁶⁹ (Prospective Observational)	 OP cardiology clinics and inpatient cardiology units in central Kentucky (NR) 	 Patients ≥18 years Diagnosis: with diagnosis of CHF patients Sample: N=136 	 Patient/ family interviews EMR Hospital administrative data Medication Event Monitoring System 	 Age Race and Ethnicity Marital Status Perceived Social Support 	 Urban/Rural Status 	Time to CV event	 Rurality: lower risk (HR 0.56, CI NR) 	2

Heisler 2013 ³⁵ (Intervention)	 Non-profit community- based teaching hospital (May 2007- Oct 2010) 	 Patients ≥18 years Diagnosis: HF Sample: N=266 	 Hospital administrative data Survey 	 Age Sex Race and Ethnicity- 	 Nurse care management (NCM) v. reciprocal peer support (RPS) program 	Time to CVD event	 No statistically significant association found 	1
Cox 2017 ²⁰ (Prospective Observational)	 Large quaternary health system Texas Medical Center, Houston, TX (NR) 	 Population: Hospitalized patients ≥18 years Diagnosis: HF Sample: N=264 	 Primary survey data 	 Age Sex Race Marital Status Insurance Education Employment 	 Health literacy 	 Healthcare use (Readmission + ED visit), 30d 	 Low health literacy (BHLS ≤9): higher odds (OR: 1.80, CI: 1.04 - 3.11) 	2
DeLia 2014 ^{22*} (Retrospective Observational)	Hospitals and clinics (2007-2010)	 Population: Medicare enrollees >=65 years Diagnosis: >=1 HFH Sample: N=233,641 	• MPCD	None	 Age Sex Race and Ethnicity Insurance Region 	Treat and release, 30d	No statistically significant change in readmission rates found	3
Kociol 2011 ⁴¹ (Retrospective Observational)	 225 hospitals participating in OPTIMIZE or GWTG-HF registries (Jan 2003 – Dec 2006) 	 Population: Patients ≥65 years admitted to hospital for worsening symptoms or discharged 	 Medicare FFS claims OPTIMIZE GWTG-HF registries 	• None	 Age Sex Race Urban/rural residence 	 Early physician follow-up 	 Age 70-74: higher odds (OR 1.12, CI 1.03-1.22); >75 (OR Women: lower odds (OR 0.87, CI 0.83 - 0.91) 	3

		 Primary Diagnosis: HF Sample: N=30,136 			 Income Physician density 		 Black patients: lower odds (OR 0.84, Cl 0.77 - 0.92) Rural areas: lower odds (OR 0.84, Cl 0.78 - 0.91) Lower SES: lower odds (OR 0.79, Cl 0.74-0.85) Living near high physician concentration: higher odds (OR 1.29, Cl 1.12 - 1.48) 	
Manemann 2018 ^{44*} (Prospective Observational)	 Clinics and hospitals in 11 southeast Minnesota counties (Jan 2013- Mar 2013) 	 Population: ≥18 years Diagnosis: first- ever HF diagnosis Sample: N=3,867 	 Patient- Reported Outcomes Measurement Information System Social Isolation Short Form Rochester Epidemiology Project 	 Age Sex Education Marital Status 	Social Support	• ED visits	 High social isolation: higher risk (HR 1.5, CI, 1.09–2.27) 	2
McNaughton 2015 ^{46*} (Retrospective Observational)	 Quaternary care hospital (Nov 2010 – Jun 2013) 	 Population: Patients discharged from an acute HFH aged ≥18 years 	 Health Literacy Screening study data EMR 	Insurance	 Age Sex Race Education/ health literacy 	· ED visit, 90d	 No statistically significant association found 	3

		 Sample: N=2,132 						
Distelhorst 2018 ²⁵ (Retrospective Observational)	 Urban: 3 community hospitals within the Cleveland Clinic Health System in Northeast Ohio 19-months dates NR 	 Population: Patients discharged with de- compensated HF aged ≥18 years Sample: N=701 	• EMR	• None	 Age Sex Race and Ethnicity Insurance status Marital status Social support Access to care 	Appointment Adherence	 Age, sex, insurance status, marital status, social support, access to care: no statistically significant associations found Nonwhite race higher odds (OR 1.85; CI, 1.08-3.16) 	3
Wray 2019 ⁶⁶ (Retrospective Observational)	 VHA hospitals and clinics (2011-2012) 	 Population: Veterans ≥65 years Diagnosis: HFH and CHF Sample: N=1,500 	VHA chart abstraction	• None	 Age Race/Ethnicity Social support Housing Living status 	Missed clinic visits	 Older age: lower odds (OR 0.96, CI 0.94– 0.98) Black race: higher odds (OR 2.71, CI 1.38–5.75) Social support: no statistically significant association found Marginal housing: higher odds (OR 5.69, CI 2.28-14.73) Living alone: higher odds (OR 1.58, CI 1.10- 2.24) 	3
Irani 2019 ³⁶	 Cardiology practices in 	 Patients aged 50-85 years 	 HEART ABC study data 	· Sex	· Age	 HF Self-Care Maintenance 	Age, living arrangements: no	4

(Cross- sectional)	two major hospitals • (August 2010 and October 2013)	Sample: N=370		Race and Ethnicity	 Living Arrangement Social Support Self-Efficacy 		 statistically significant associations found Social support (β = .129, P = .008) Self-efficacy (β = .337, P <.001) 	
Johansson 2020	 Pinellas County, FL NR 	 Patients ≥55 years with HF and enrolled in Program of All- Inclusive Care for the Elderly Sample: N=51 	 Patient surveys 	 Age Sex Race Living Status Social Support 	 Nurse-led telephone support intervention supplemented with mobile phone SMS text messages 	 HF Self-Care HF Knowledge Medication Adherence Physical and Mental Health 	 Improved HF self-care maintenance (t49=0.66; P=.01) Improved HF knowledge (t49=0.71; P=.01) Improved medication adherence (t49=0.92; P=.01) Improved physical and mental health (t49=0.81; P=.01) 	4
Russell 2019 ^{54*} (Cross- sectional)	• NYC • (2013-2017)	 Hospice patients ≥18 years Diagnosis: HF Sample: N=1.498 	 EMR Interviews 	• None	 Age Sex Race and Ethnicity Marital Status Insurance Status 	Elective Revocation	 Age 75 to 84 years: higher odds (AOR 1.99, CI 1.18–3.38) Sex, Race and Ethnicity, marital status, insurance status: no statistically significant associations found 	4
Russell 2019 ^{54*} (Cross- sectional)	• NYC • (2013-2017)	 Hospice patients ≥18 years Diagnosis: HF 	 EMR Interviews 	• None	Age Sex Race and Ethnicity	Transfer	 HISP: higher odds (AOR 2.25, CI 1.10– 4.62) Asian/other: higher odds (AOR 2.25 CI 1.04–6.18) 	4

		 Sample: N=1.498 			 Marital Status Insurance Status 		 Age, sex, marital status, insurance status: no statistically significant associations found 	
the SDOH varia column [‡] QR, quality ra Centre for Evid evaluated for in studies were ra receiving the hi randomized clir without random rated 2; case co case series and case reports (5 [§] A hospital rea who had been of certain period co admission for H	thod to interpret re able on the given of ting was assigned ence-based Medie terrater comparate ted 1 (highest qua ghest rating were nical trials (RCTs) ization or prospect ontrol and retrospect ontrol and retrospect ontrol and retrospect a cross-sectional s rating) were not in dmission is an un discharged from a f time (e.g., 30-, 6 IF.	esults vary by study outcome is address d based on a modifi- cine (cebm.net) rati- polity. Using this me ality) to 5 (lowest qu properly powered a ; well-designed con- ctive comparative c ective cohort studies studies were rated a ncluded in this revie planned episode in hospital is admitte 50-, 90-days) after the efers to a hospitaliz Diseases (ICD) clint F was used as the	sed in this ied Oxford ing scheme and thodology, uality). Studies and conducted ntrolled trials ohort trials were es were rated 3; 4; opinion and ew. which a patient the again within a the index	ADHF- Acute De aHR- Adjusted H AHRF - Area He AMI- Acute Myo aOR- Adjusted C ARIC- Atheroscl BHLS- Brief Hea BTT- Bridge to T CA - California CHF- Chronic H CI- Confidence I CMS- Centers fo CV- Cardiovasc DECIDE-LVAD- Caregivers Offer ED- Emergency EM- Effect Modi EMR- Electronic FL - Florida FFS- Fee for Se GM- General Me GWTG HF- Get HCUP-Healthca HF- Heart Failur HFH- Heart Failur HFH- Heart Failur HFN- Heart Failur HRS- Health and HTX- Heart Tran	onary Syndrome nerican Community ecompensated Hea lazard Ratio alth Resource File cardial Infarction Odds Ratio erosis Risk in Com oth Literacy Screen fransplant eart Failure nterval or Medicare & Medi ular Shared Decision S red Destination The Department fier Medical Record rvice edicine with The Guideline re Cost and Utilizat e ure Hospitalization Income	rt Failure munities caid Services support Interventio erapy for End-Stag	re Cost and Utilization Pro	pject

IMPROVE HF- Improve the Use of Evidence-Based Heart Failure Therapies in the
Outpatient Setting
INTERMACS- Interagency Registry for Mechanically Assisted Circulatory Support
IRR- Incidence Rate Ratio
KY - Kentucky
LOS- Length of Stay
LVAD- Left Ventricular Assist Device
MA - Massachusetts
MD - Maryland
MHI- Median Household Income
MN - Minnesota
MPCD- Multi-Payer Claims Database
MS - Mississippi
NC – North Carolina
NDI- Neighborhood Deprivation Index
NHANES- US National Health and Nutrition Examination Surveys
NIS- National Inpatient Sample
nINC- Neighborhood Median Household Income
NJ – New Jersey
NR- Not Reported
NRD- US Nationwide Readmission Database
NV - Nevada
NYC – New York City
OH - Ohio
OP- Outpatient
OPTIMIZE- Organized Program to Initiate Lifesaving Treatment in Hospitalized
Patients with Heart Failure
OR- Odds Ratio
PS- Psychosocial
REGARDS- Reasons for Geographic and Racial Differences in Stroke
REMOTE-HF- Rural Education to Improve Outcomes in Heart Failure
RRR- Relative Risk Reduction
RSMR-Risk-Standardized Mortality Ratio
RSRR- Risk-Standardized Readmission Rate
RS- Risk standardized
SCCS- Southern Community Cohort Study
SES- Socioeconomic Status
SHR- Subhazard Ratios
SSDI- Social Security Death Index
TX - Texas
17 - 16/43

VHA- Veterans Health Affairs WHI- Women's Health Initiative
30d- 30 day
1y-1 year
90d- 90 days

Table S3. Summar	y of SDoH Analy	yzed in Studies (K=59).
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Social Determinant of Health	Studies	
Race and Ethnicity	13-20,22,23,25-43,45-50,52-57,59,60,62-71	
Age	13-20,22-30,33-54,56-71	
Sex	13-20,22-30,32-55,57-71	
	13,15-17,22,23,25,27-32,38,41,42,47-50,53-	
Insurance	55,59,61-63	
Income/wealth	13,26,27,30,31,38,41,42,47,53,55,56,59,64	
Marital status	13,15,17,19,25,31,43,47,54,58,65	
Education/health literacy	13,20,27,30,31,33,42,46,53,56,59,68	
Individual/neighborhood	14,15,28,32,38,40,42,50,52,53,59,62	
socioeconomic status		
Urban/rural residence	13,40,41,47,56,59,62,68,69	
Social support	21,25,39,44,58,59,66,67	
Living status	18,19,43,47,59,62,66	
Employment	17,27	
Social (in)stability	15,38,66	
Language	19,28,55	
Faith/spirituality	18,40,51	
Children	47	

SDoH – Social Determinants of Health

Social Determinant of	Scale/Measure	Studies
Health		
Neighborhood	Area Deprivation Index	28,38,40.42,62
Socioeconomic	Social Deprivation Index	52
Status	Neighborhood Deprivation Index	14
Health literacy	Brief Health Literacy Screen	20,46
	Short Test of Functional Health Literacy in Adults	68
Spirituality/Faith	Brief Multidimensional Measure of Religiousness and Spirituality	51
Social support	Medical Outcome Study Social Support	16,58
	Psychosocial Assessment of Candidates for Transplantation	21
	Functional Social Support Questionnaire	37
	Lubben Social Network Scale	39
	Interpersonal Support Evaluation List	39
	Patient-Reported Outcomes Measurement Information System Social Isolation Short Form 4a v2.0.13	44
	Enhancing Recovery In Coronary Heart Disease patients Social Support Instrument	51
	Multidimensional Perceived Social Support Scale	67

Table S4. Scales Utilized in Studies.

Figure S1. PRISMA study flow diagram.

