**Supplemental Table 1.** ICD-10 codes of heart failure diagnoses used in the electronic medical record data extraction to identify the main study cohort:

| ICD-10 code | Heart Failure Diagnosis |
|---|---|
| I50 | Heart failure |
| I50.1 | Left ventricular failure, unspecified |
| I50.2 | Systolic (congestive) heart failure |
| I50.20 | Unspecified systolic (congestive) heart failure |
| I50.21 | Acute systolic (congestive) heart failure |
| I50.22 | Chronic systolic (congestive) heart failure |
| I50.23 | Acute on chronic systolic (congestive) heart failure |
| I50.3 | Diastolic (congestive) heart failure |
| I50.30 | Unspecified diastolic (congestive) heart failure |
| I50.31 | Acute diastolic (congestive) heart failure |
| I50.32 | Chronic diastolic (congestive) heart failure |
| I50.33 | Acute on chronic diastolic (congestive) heart failure |
| I50.4 | Combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.40 | Unspecified combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.41 | Acute combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.42 | Chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.43 | Acute on chronic combined systolic (congestive) and diastolic (congestive) heart failure |
| I50.8 | Other heart failure |
| I50.81 | Right heart failure |
| I50.810 | Right heart failure, unspecified |
| I50.811 | Acute right heart failure |
| I50.812 | Chronic right heart failure |
| I50.813 | Acute on chronic right heart failure |
| I50.814 | Due to left heart failure |
| I50.82 | Biventricular heart failure |
| I50.83 | High output heart failure |
| I50.84 | End-stage heart failure |
| I50.89 | Other heart failure |
| I50.9 | Heart failure, unspecified |
| I42.0 | Dilated cardiomyopathy (includes congestive cardiomyopathy). |
| I42.1 | Obstructive hypertrophic cardiomyopathy (includes hypertrophic subaortic stenosis). |
| I42.2 | Other hypertrophic cardiomyopathy (includes nonobstructive hypertrophic cardiomyopathy) |
| I42.3 | Endomyocardial (eosinophilic) disease (includes endomyocardial fibrosis and Löffler's endocarditis) |
| I42.4 | Endocardial fibroelastosis (includes congenital cardiomyopathy and elastomyofibrosis) |
| I42.5 | Other restrictive cardiomyopathy (includes constrictive cardiomyopathy not otherwise specified) |
| I42.6 | Alcoholic cardiomyopathy |
| I42.7 | Cardiomyopathy due to drug and external agent |
| I42.8 | Other cardiomyopathies |
| I42.9 | Cardiomyopathy, unspecified (includes cardiomyopathy [primary] [secondary] [not otherwise specified]). |
| ICD-10: International Classification of Diseases, Tenth Revision. | |

**Supplemental Table 2.** Baseline characteristics and outcomes of the cohort before matching:
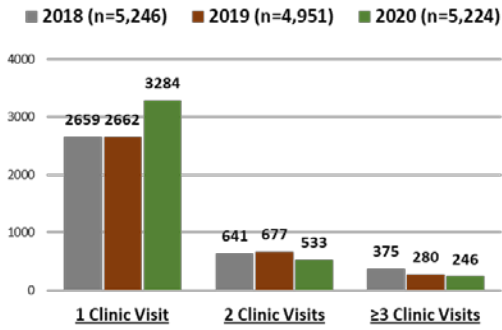
| | 2018-2019 Office (n = 10,197) | 2020 | | | *P*-value (2018-2019 vs. 2020) | *P*-value (Office vs. Virtual) |
|---|---|---|---|---|---|---|
| | | **Total (n = 5,224)** | **Virtual (n = 4,622)** | **Office (n = 602)** | | |
| **A. Demographics** | | | | | | |
| Age, years | 71.4 ± 14.1 | 70.5 ± 14.2 | 70.8 ± 14.1 | 68.3 ± 14.5 | <0.001 | 0.074 |
| Males | 5613 (55%) | 2884 (55.2%) | 2526 (54.7%) | 358 (59.5%) | 0.849 | 0.464 |
| Race | | | | | 0.012 | 0.13 |
| • Caucasian | 8387 (82.2%) | 4222 (80.8%) | 3774 (81.7%) | 448 (74.4%) | | |
| • African American | 1464 (14.4%) | 844 (16.2%) | 718 (15.5%) | 126 (20.9%) | | |
| • Asian | 56 (0.5%) | 32 (0.6%) | 22 (0.5%) | 10 (1.7%) | | |
| • Other | 290 (2.8%) | 126 (2.4%) | 108 (2.3%) | 18 (3%) | | |
| Hispanic ethnicity | 238 (2.3%) | 119 (2.3%) | 103 (2.2%) | 16 (2.8%) | 0.88 | 0.643 |
| Payer source | | | | | <0.001 | 0.004 |
| • Medicare | 5030 (49.3%) | 2352 (45%) | 2152 (46.6%) | 249 (41.4%) | | |
| • Commercial | 4509 (44.2%) | 2401 (46%) | 2080 (45%) | 272 (45.2%) | | |
| • Medicaid | 459 (4.5%) | 297 (5.7%) | 258 (5.6%) | 39 (6.5%) | | |
| • Other government | 51 (0.5%) | 37 (0.7%) | 32 (0.7%) | 5 (0.8%) | | |
| • Self-pay | 93 (0.9%) | 70 (1.3%) | 62 (1.3%) | 8 (1.3%) | | |
| Scheduled within 48 hrs of visit | 827 (8.1%) | 832 (15.9%) | 721 (15.6%) | 111 (18.4%) | <0.001 | <0.001 |
| **B. Comorbidities** | | | | | | |
| Acute heart failure | 1045 (10.2%) | 353 (6.8%) | 269 (5.8%) | 84 (14%) | <0.001 | <0.001 |
| Systolic heart failure | 4691 (46%) | 2390 (45.8%) | 2071 (44.8%) | 319 (53%) | 0.765 | 0.07 |
| Hypertension | 8649 (84.8%) | 4389 (84%) | 3902 (84.4%) | 487 (80.9%) | 0.192 | 0.779 |
| Diabetes | 4452 (43.7%) | 2412 (46.2%) | 2132 (46.1%) | 280 (46.5%) | 0.003 | 0.008 |
| Hyperlipidemia | 6638 (65.1%) | 3421 (65.5%) | 3030 (65.6%) | 391 (65%) | 0.631 | 0.577 |
| Chronic kidney disease stage ≥3 | 3658 (35.9%) | 1751 (33.5%) | 1533 (33.2%) | 218 (36.2%) | 0.004 | 0.001 |
| Coronary artery disease | 5673 (55.6%) | 2719 (52%) | 2394 (51.8%) | 325 (54%) | <0.001 | <0.001 |
| Prior MI, CABG, or PCI | 3989 (39.1%) | 1883 (36%) | 1661 (35.9%) | 222 (36.9%) | <0.001 | <0.001 |
| Prior stroke | 1109 (10.9%) | 538 (10.3%) | 472 (10.2%) | 66 (11%) | 0.272 | 0.218 |
| Atrial fibrillation | 4435 (43.5%) | 2327 (44.5%) | 2070 (44.8%) | 257 (42.7%) | 0.213 | 0.125 |
| Prior ventricular tachycardia | 1929 (18.9%) | 1040 (19.9%) | 903 (19.5%) | 137 (22.8%) | 0.14 | 0.558 |
| ICD | 2616 (25.7%) | 1215 (23.3%) | 1050 (22.7%) | 165 (27.4%) | 0.001 | <0.001 |
| **C. Outcomes** | | | | | | |
| All-cause mortality, 30 days | 0.7% | 0.8% | 0.8% | 1% | 0.424 | 0.603 |
| All-cause mortality, 90 days | 2.4% | 3.1% | 2.9% | 4% | 0.009 | 0.075 |
| ED visits, 30 days | 4.2% | 3.1% | 3% | 3.5% | 0.001 | 0.001 |
| ED visits, 90 days | 11% | 8.8% | 8.5% | 11.3% | <0.001 | <0.001 |
| Hospitalizations, 30 days | 7.4% | 5% | 4.7% | 7.3% | <0.001 | <0.001 |
| Hospitalizations, 90 days | 17% | 13.7% | 13% | 18.4% | <0.001 | <0.001 |
| ICU care, 30 days | 8.2% | 9.8% | 9.6% | 10.8% | 0.141 | 0.261 |
| ICU care, 90 days | 21.1% | 25.6% | 24.5% | 31.5% | 0.013 | 0.153 |

CABG = Coronary artery bypass grafting; HF = Heart failure; ICD = Implantable cardioverter defibrillator; MI = myocardial infarction; PCI = percutaneous coronary intervention.

**Supplemental Figure 1.** A map of the Kansas City Metropolitan area highlighting the different locations within the Saint Luke's Health System where the study cohort had clinic encounters, emergency department (ED) visits and hospitalizations (Map data ©2020 Google).
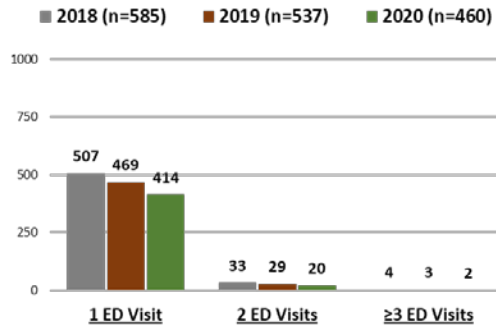
**Supplemental Figure 2.** Total number and frequency of events by year for clinic encounters (panel A and D), ED visits (Panel B and E), and hospitalizations (Panel C and F). All ED visits and hospital admissions were within 90 days of a unique index clinic visits.
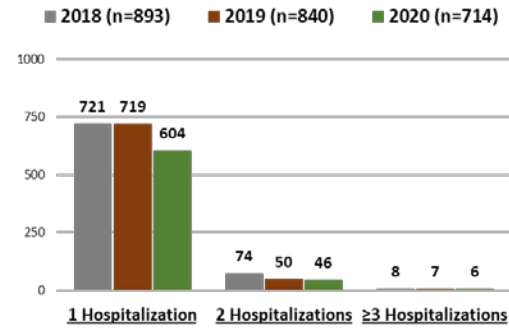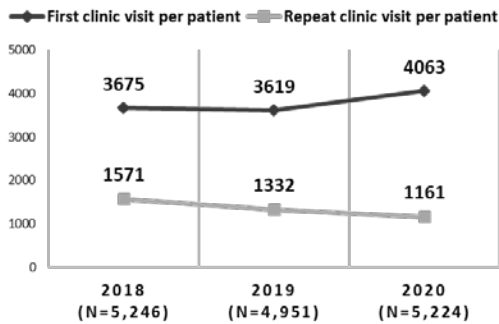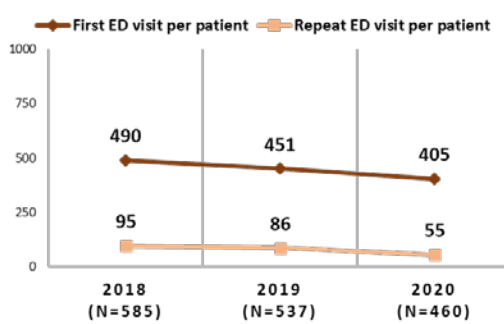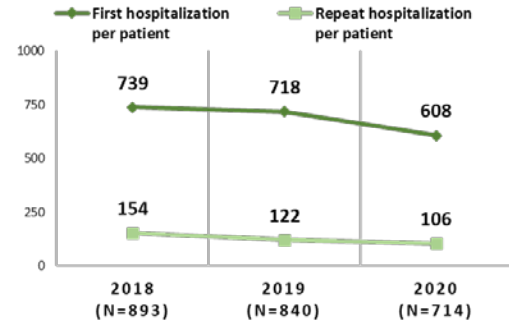
**Supplemental Figure 3**: Standardized difference plot showing that patients in the propensity-matched analysis were well matched.