Table S1. Sample Characteristics Overall, by Discharge Destination, and Use of Home Health Care (HHC) within 14 Days of Index Hospitalization, column percent unless otherwise noted

|  |  |  |  |
| --- | --- | --- | --- |
| Characteristics | Total | Discharged to HHC | Received HHC |
|  | N=786,758 | n=209,152  | n=213,766 |
| Race/Ethnicity, % |  |  |  |
| White, non-Hispanic |  68.0 | 69.0 | 68.7 |
| Black | 17.1 | 18.2 | 18.6 |
| Hispanic | 11.0 | 9.5 | 9.7 |
| Asian/Pacific Islander | 2.5 | 2.5 | 2.3 |
| American Indian/Alaska Native | 0.7 | 0.6 |  0.6 |
| Unknown/Other | 0.7 | 0.2 | --- |
| Sex, % |  |  |  |
|  Male | 51.2 | 46.3 | 45.3 |
| Age, %  |  |  |  |
| 50-65 | 21.7 | 18.2 | 18.5 |
| 66-75 | 38.0 | 32.1 | 31.0 |
| 76-85 | 29.1 | 32.6 | 33.0 |
| 86+ | 11.1 | 17.2 | 17.5 |
| Insurance, % |  |  |  |
| Fee-for-Service (FFS) | 46.2 | 43.1 | 45.0 |
| FFS and Medicaid | 18.2 | 20.9 | 23.4 |
| Medicare Advantage (MA) | 24.1 |  23.0 | 20.1 |
| MA and Medicaid | 11.5 | 13.0 | 11.5 |
| RUCC-ADI 2.0 (zip code level), % |  |  |  |
|  Rural-Advantaged (ADI 2.0 <85) | 13.6 | 12.0 | 12.6 |
|  Rural-Disadvantaged (ADI 2.0 >85) | 4.1 | 3.8 | 4.3 |
|  Urban-Advantaged (ADI 2.0 <85) | 69.8 | 71.6 | 70.0 |
|  Urban-Disadvantaged (ADI 2.0 >85) | 12.5 | 12.7 | 13.1 |
| Elixhauser score ($\overbar{x}$) | 16.5 | 16.6 |  16.5 |
| Comorbidities, % |  |  |  |
| Chronic pulmonary disease  | 26.2 |  29.3 |  29.7 |
| Congestive heart failure  | 37.4 |  44.3 | 44.6 |
| Dementia | 16.4 |  23.6 | 25.6 |
| Depression | 11.4 |  12.9 | 12.9 |
| Diabetes with complications  | 29.4 |  34.9 | 33.9 |
| Fluid and electrolyte disorders | 34.8 |  40.5 | 39.7 |
| Hypertension | 89.8 |  89.4 | 89.3 |
| Hypothyroidism  | 17.9 |  19.6 |  20.0 |
| Peripheral vascular disease  | 17.2 |  19.4 | 19.2 |
| Renal failure  | 37.2 | 41.7 | 42.0 |
| Prior HHC use % (120-day look back) |  15.4 | 29.6 | 36.9 |
| Length of stay, days ($\overbar{x}$, *SD*) | 3.9 (4.2) | 5.2 (4.2) |  5.0 (4.1) |

Note: Elixhauser score (median, IQR) 26, 14-40; 31, 19-44; 31, 19-43; Length of stay, days (median, IQR) 3, 2-5; 4, 3-6; 4, 3-6; Age (median, IQR) 73, 67-80; 75, 68-83; 76, 68-83.

Table S2. Sample Characteristics Stratified by Neighborhood Profile based on Rural-Urban Designation and the Area Deprivation Index 2.0, row percentage unless otherwise noted

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Rural-Advantaged | Rural-Disadvantaged | Urban-Advantaged | Urban-Disadvantaged |
| Total | 106,828 | 13.6% | 32,183 | 4.1% | 549,175 | 69.8% | 98,572 | 12.5% |
| Race/Ethnicity |  |  |  |  |  |  |  |  |
|  White, non-Hispanic | 92,892 | 17.4% | 21,503 | 4.0% | 380,151 | 71.1% | 40,187 | 7.5% |
|  Black | 8,119 | 6.0% | 7,314 | 5.4% | 82,955 | 61.8% | 35,862 | 26.7% |
|  Hispanic | 3,122 | 3.6% | 2,141 | 2.5% | 61,414 | 70.7% | 20,157 | 23.2% |
|  Asian/Pacific Islander | 579 | 2.9% | 71 | 0.4% | 17,886 | 89.9% | 1,352 | 6.8% |
|  American Indian/Alaska Native | 1,568 | 26.8% | 1,039 | 17.7% | 2,598 | 44.3% | 654 | 11.2% |
| Sex |  |  |  |  |  |  |  |  |
|  Female | 49,349 | 12.9% | 16,575 | 4.3% | 264,023 | 68.8% | 54,020 | 14.1% |
|  Male | 57,479 | 14.3% | 15,608 | 3.9% | 285,152 | 70.8% | 44,552 | 11.1% |
| Age  |  |  |  |  |
|  50-65 | 22,329 | 13.1% | 9,346 | 5.5% | 109,313 | 64.0% | 29,929 | 17.5% |
|  66-75 | 43,049 | 14.4% | 12,322 | 4.1% | 208,527 | 69.7% | 35,351 | 11.8% |
|  76-85 | 31,492 | 13.8% | 8,079 | 3.5% | 164,982 | 72.0% | 24,526 | 10.7% |
|  86+ | 9,958 | 11.4% | 2,436 | 2.8% | 66,353 | 75.8% | 8,766 | 10.0% |
| Insurance, Medicare  |  |  |  |  |  |  |  |  |
|  Fee-For-Service (FFS) | 59,396 | 16.3% | 13,829 | 3.8% | 261,886 | 72.0% | 28,570 | 7.9% |
|  FFS and Medicaid (dual) | 21,239 | 14.8% | 10,579 | 7.4% | 86,569 | 60.5% | 24,793 | 17.3% |
|  Medicare Advantage (MA) | 20,001 | 10.6% | 4,836 | 2.6% | 141,414 | 74.7% | 23,142 | 12.2% |
|  MA and Medicaid (dual) | 6,192 | 6.8% | 2,939 | 3.2% | 59,306 | 65.5% | 22,067 | 24.4% |
| Elixhauser Score ($\overbar{x}$, *SD*) | 27.1 | (16.3) | 27.53 | (16.1) | 27.99 | (16.6) | 28.82 | (16.6) |
| Comorbidities |  |  |  |  |  |  |  |  |
|  Chronic pulmonary disease  | 30,142 | 14.6% | 9,514 | 4.3% | 138,819 | 70.2% | 28,011 | 13.6% |
|  Congestive heart failure  | 40,804 | 13.9% | 12,379 | 4.2% | 203,896 | 69.3% | 37,029 | 12.6% |
|  Dementia  | 16,422 | 12.8% | 5,538 | 4.3% | 90,284 | 70.2% | 16,424 | 12.8% |
|  Depression | 13,053 | 14.5% | 3,542 | 3.9% | 62,386 | 69.5% | 10,849 | 12.1% |
|  Diabetes with complications  | 27,397 | 11.8% | 8,568 | 3.7% | 164,250 | 71.0% | 31,095 | 13.4% |
|  Hypertension | 94,434 | 13.4% | 28,649 | 4.1% | 493,443 | 69.8% | 90,053 | 12.7% |
|  Hypothyroidism  | 19,816 | 14.0% | 5,404 | 3.8% | 100,627 | 71.3% | 15,263 | 10.8% |
|  Fluid and electrolyte disorders | 35,613 | 13.0% | 11,252 | 4.1% | 191,504 | 70.0% | 35,261 | 12.9% |
|  Peripheral vascular disease  | 17,888 | 13.2% | 5,262 | 3.9% | 95,690 | 70.6% | 16,739 | 12.3% |
|  Renal failure  | 37,543 | 12.8% | 11,564 | 3.9% | 205,360 | 70.1% | 38,525 | 13.1% |
| Discharged to home health care | 25,044 | 12.0% | 7,851 | 3.8% | 149,655 | 71.6% | 26,602 | 12.7% |
| Prior HHC (120-day look back) | 14,787 | 12.2% | 6,054 | 5.0% | 81,949 | 67.8% | 18,034 | 14.9% |
| Post-Acute HHC, first 14 days  | 27,017 | 12.6% | 9,264 | 4.3% | 149,489 | 69.9% | 27,996 | 13.1% |
| Hospital Length of Stay ($\overbar{x}$, *SD*) | 3.7 | (3.1) | 3.9 | (3.3) | 3.8 | (3.4) | 4.1 | (3.6) |
| Region |  |  |  |  |  |  |  |  |
|  Pacific | 5,060 | 5.8% | 372 | 0.4% | 76,193 | 87.8% | 5,123 | 5.9% |
|  East North Central | 21,744 | 16.9% | 3,548 | 11.0% | 83,975 | 65.3% | 19,388 | 15.1% |
|  East South Central  | 15,417 | 24.5% | 7,998 | 12.7% | 21,775 | 50.5% | 7,728 | 12.3% |
|  Middle Atlantic | 7,900 | 7.2% | 1,121 | 1.0% | 86,293 | 79.1% | 13,753 | 12.6% |
|  Mountain | 4,797 | 13.2% | 1,114 | 3.1% | 26,484 | 72.9% | 3,942 | 10.9% |
|  New England | 3,515 | 10.9% | 193 | 0.6% | 27,299 | 84.9% | 1,142 | 3.6% |
|  South Atlantic | 21,935 | 12.0% | 8,426 | 4.6% | 129,726 | 70.9% | 22,998 | 23.3% |
|  West North Central | 12,523 | 1.6% | 2,435 | 5.4% | 26,509 | 58.3% | 3,988 | 4.1% |
|  West South Central | 13,876 | 14.8% | 6,547 | 7.0% | 57,139 | 60.8% | 16,425 | 17.5% |
|  Puerto Rico | 59 | 0.7% | 429 | 5.2% | 3,740 | 45.0% | 4,075 | 49.1% |
| Note: HHC: home health care; AIAN: American Indian/ Alaska Native  Hospital Length of stay (median, IQR) 3, 2-5; 3, 2-5; 3, 2-5; 3, 2-5 Age (median, IQR) 73, 67-79; 71, 65-78; 73, 67-81; 71, 65-78 Elixhauser score (median, IQR) 26, 14-38; 26, 14-39; 26, 14-40; 27, 15-41 Disadvantaged: ADI 2.0 ≥ 85th percentile; Advantaged: ADI 2.0 < 85th percentile |

Table S3. Sample Characteristics Stratified by Insurance Type, row percentage unless otherwise noted

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | Medicare fee-for-service only | Dual Medicare fee-for-service/Medicaid | MedicareAdvantage only | Dual Medicare Advantage/Medicaid |
| Total | 363,681 46.2% | 143,180 18.2% | 189,393 24.1% | 90,504 11.5% |
| Race/Ethnicity |  |  |  |  |
|  White, non-Hispanic | 292,162 54.6% | 73,241 13.7% | 133,477 25.0% | 35,853 6.7% |
|  Black | 43,151 32.1% | 36,592 27.3% | 27,862 20.8% | 26,645 19.9% |
|  Hispanic | 17,581 20.3% | 23,948 27.6% | 22,138 25.5% | 23,167 26.7% |
|  Asian/Pacific Islander | 5,392 27.1% | 6,763 34.0% | 3,817 19.2% | 3,916 19.7% |
|  American Indian/Alaska Native | 2,754 47.0% | 2,098 35.8% | 591 10.1% | 416 7.1% |
| Sex |  |  |  |  |
|  Female | 157,751 41.1% | 87,250 22.7% | 83,309 21.7% | 55,657 14.5% |
|  Male | 205,930 26.2% | 55,930 7.1% | 106,084 13.5% | 34,847 4.4% |
| Age ($\overbar{x}$, *SD*) | 74.6 (9.1) | 69.5 (10.9) | 74.2 (8.7) | 70.9 10.2% |
|  50- 65  | 54,820 32.1% | 59,089 34.6% | 28,892 16.9% | 28,116 16.5% |
|  66-75 | 146,173 48.9% | 41,168 13.8% | 79,620 26.6% | 32,288 10.8% |
|  76-85 | 115,847 50.6% | 30,160 13.2% | 60,626 26.5% | 22,446 9.8% |
|  86+  | 46,841 53.5% | 12,763 14.6% | 20,255 23.2% | 7,654 8.8% |
| RUCC-ADI 2.0  |  |  |  |  |
|  Rural-Advantaged (ADI 2.0 <85) | 59,396 55.6% | 21,239 19.9% | 20,001 18.7% | 6,192 5.8% |
|  Rural-Disadvantaged (ADI 2.0 ≥ 85) | 13,829 43.0% | 10,579 32.9% | 4,836 15.0% | 2,939 9.1% |
|  Urban-Advantaged (ADI 2.0 <85) | 261,886 47.7% | 86,569 15.8% | 141,414 25.8% | 59,306 10.8% |
|  Urban-Disadvantaged (ADI 2.0 ≥ 85) | 28,570 29.0% | 24,793 25.2% | 23,142 23.5% | 22,067 22.4% |
| Elixhauser score ($\overbar{x}$, *SD*) | 27.1 (16.4) | 30.7 (16.5) | 27.1 (16.5) | 28.8 (16.5) |
| Comorbidities |  |  |  |  |
|  Chronic pulmonary disease  | 88,115 42.7% | 45,530 22.1% | 45,495 22.0% | 27,346 13.2% |
|  Congestive heart failure  | 134,953 45.9% | 55,680 18.9% | 70,087 23.8% | 33,388 11.4% |
|  Dementia | 69,500 54.0%  | 39,160 30.4% | 8,642 6.7% | 11,366 8.8% |
|  Depression | 38,550 42.9% | 20,466 22.8% | 19,125 21.3% | 11,689 13.0% |
|  Diabetes with complications  | 95,957 41.5% | 47,061 20.4% | 58,485 25.3% | 29,807 12.9% |
|  Fluid and electrolyte disorders | 122,590 44.8% | 56,854 20.8% | 60,701 22.2% | 33,485 12.2% |
|  Hypertension | 324,962 46.0% | 128,659 18.2% | 170,711 24.2% | 82,247 11.6% |
|  Hypothyroidism  | 69,082 49.0% | 24,142 17.1% | 33,517 23.8% | 33,517 10.2% |
|  Peripheral vascular disease  | 60,787 44.8% | 23,318 17.2% | 36,665 27.0% | 14,809 10.9% |
|  Renal failure  | 132,732 45.3% | 58,517 20.0% | 68,934 23.5% | 32,809 11.2% |
| Discharged to Home Health Care | 90,146 43.1% | 43,732 20.9% | 48,140 23.0% | 27,134 13.0% |
| Prior HHC (120-day look back) | 49,067 40.6% | 36,574 30.3% | 19,086 15.8% | 16,097 13.3% |
| Post-Acute HHC, first 14 days | 96,239 45.0% | 50,054 23.4% | 42,877 20.1% | 24,596 11.5% |
| Hospital length of stay, days ($\overbar{x}$, *SD*) | 3.7 (3.2) | 3.7 (3.2) | 3.9 (3.4) | 4.0 (3.6) |
| Notes: FFS = Fee-for-services; HHC = home health care  |
|  Hospital length of stay, days (median, IQR) 3, 2-5; 3, 2-5; 3, 2-5; 3, 2-5  |
|  Age (median, IQR) 74, 68-81; 68, 61-78; 74, 68-80; 71, 64-78 |

 Elixhauser score (median, IQR) 26, 13-39; 30, 18-42; 25, 13-38; 27, 16-40