1. **BHS Patient Panel**
2. **Unique Patients Served**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **FY20** | **FY21** | **FY22** |
| Unique Patients | 146,286 | 134,592 | 132,669 |

This represents all unique patients who have visited any BHS location.

1. **Gender**

| **Gender** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Male | 64,745 | 44.26% | 62,279 | 46.27% | 61,430 | 49.30% |
| Female | 81,503 | 55.26% | 71,976 | 53.48% | 71,047 | 53.55% |
| Other/Unspecified | 38 | 0.03% | 337 | 0.25% | 192 | 0.14% |
| Total | 146,286 | 100.00% | 134,592 | 100.00% | 132,669 | 100.00% |

The capture of other/unspecified gender is something that is done consistently, and education is being provided to make sure this is more accurate in the future.

1. **Age**

| **Age** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| 0-18 | 16,802 | 11.49% | 20,776 | 15.44% | 20,871 | 15.73% |
| 19-49 | 47,222 | 32.28% | 46,473 | 34.53% | 44,488 | 33.53% |
| 50-64 | 36,546 | 24.98% | 30,524 | 22.68% | 29,516 | 22.25% |
| 65+ | 45,686 | 31.23% | 36,819 | 27.35% | 37,794 | 28.49% |
| Total | 146,286 | 100.00% | 134,592 | 100.00% | 132,669 | 100.00% |

Berkshire Health System patients age 65 and over reflect a higher percentage of its patient population (31.23%) than of the population at large (25% of Berkshire County and 18% of the Massachusetts population). The increased 65+ group compared to the county, along with increased severity of illness which based on the Case Mix Index, supports the needs for additional inpatient and observation beds.

1. **Race**

| **Race** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| American Indian/Alaska Native | 195 | 0.13% | 187 | 0.13% | 190 | 0.14% |
| Asian | 1,325 | 0.91% | 1,429 | 1.06% | 1,418 | 1.07% |
| Black/African American | 5,200 | 3.55% | 5,010 | 3.72% | 5,221 | 3.94% |
| Native Hawaiian/Pacific Islander | 26 | 0.02% | 32 | 0.02% | 28 | 0.02% |
| White/Caucasian | 128,836 | 88.07% | 114,243 | 84.88% | 112,113 | 84.51% |
| Other | 3,768 | 2.58% | 4,007 | 2.98% | 4,015 | 3.03% |
| Refused/Unknown | 6,936 | 4.74% | 9,684 | 7.20% | 9,684 | 7.30% |
| Total | 146,286 | 100.00% | 134,592 | 100.00% | 132,669 | 100.00% |
| Hispanic Ethnicity | 4,895 | 3.35% | 4,864 | 3.61% | 5,018 | 3.78% |

“Other” is used by patients to represent multiracial or when they do not wish to choose one of the listed options. Hispanic Ethnicity is captured separately from the races listed and would be combined with any of the races listed above. The population of Berkshire County is 5.5% based on data from 7/1/2022 on [www.census.gov](http://www.census.gov).

1. **Patients by Service Area - Zip Codes**

| **Service Area** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Northern Berkshire PSA | 32,384 | 22.14% | 29,119 | 21.63% | 29,298 | 22.09% |
| Central Berkshire PSA | 77,378 | 52.89% | 67,321 | 50.02% | 67,880 | 51.16% |
| Southern Berkshire PSA | 16,190 | 11.07% | 16,312 | 12.12% | 15,496 | 11.68% |
| PSA Sub-total | 125,952 | 86.10% | 112,752 | 83.77% | 112,674 | 84.93% |
| All Other | 20,334 | 13.90% | 21,840 | 16.23% | 19,995 | 15.07% |

Zip codes included in these categories can be found in Appendix 1. All Other includes: 1) patients who live in towns in one of the three states or other Massachusetts counties that boarder Berkshire County, 2) patients who are part-time residents/second homeowners who use a home address as their out of state address, and 3) patients who come to Berkshire County as a visitor.

1. **Payer Mix**

| **Payer Mix** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Public/Medicaid/Medicaid MC | 20,611 | 14.09% | 22,698 | 16.86% | 26,321 | 19.84% |
| Medicare/Medicare MC/Advantage | 47,349 | 32.37% | 36,655 | 27.23% | 37,793 | 28.49% |
| Private/Commercial/HMO | 68,486 | 46.82% | 68,847 | 51.15% | 63,551 | 47.90% |
| Health Safety Net (HSN) | 533 | 0.36% | 438 | 0.33% | 384 | 0.29% |
| Other (self-pay/workers’ comp/VA) | 9,307 | 6.36% | 5,954 | 4.42% | 4,620 | 3.48% |

This categorization is based on the primary payer of the most recent service, as patients may have multiple payers for a single visit or multiple visits in a year with different payer sources. Medicaid payer has continued to increase due to the Public Health Emergency that suspended the disenrollment process throughout this time-period. In FY21/FY22 there was an increase on Private/Commercial/HMO payers in response to the number of private businesses that contracted with the health system to perform COVID surveillance testing for their staff, in addition the DPH funded Stop the Spread testing and monoclonal antibodies is also in this category.

1. **Risk Contract**

| **Contract Type** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Medicare | 14,246 | 9.74% | 18,605 | 13.82% | 19,260 | 14.52% |
| Medicaid | 14,756 | 10.09% | 15,914 | 11.82% | 17,248 | 13.00% |
| Commercial | 938 | 0.64% | 1,139 | 8.46% | 1,420 | 1.07% |

In FY21, a new partner was added to the Medicare risk contract that increased patient attribution to what is seen. The Medicaid risk contact has continued to increase due to the suspension of disenrollment during the Public Health Emergency.

1. **Case Mix Index**

|  | **FY20** | **FY21** | **FY22** |
| --- | --- | --- | --- |
| All Payer | 1.47 | 1.51 | 1.58 |
| Medicare | 1.61 | 1.65 | 1.73 |

The BMC Medicare Case Mix Index (“CMI”) increased from 1.65 in 2021 to 1.73 in 2022. This demonstrates the increasing severity of illness of Berkshire County patients, which combined with the increasing age of our patients, supports the need for additional inpatient and observation level beds.

1. **Disease Prevalence**

| **Disease Prevalence** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Hypertension | 31,205 | 21.13% | 30,746 | 22.84% | 31,273 | 23.57% |
| Mental Health | 19,550 | 13.36% | 19,523 | 14.51% | 23,459 | 17.68% |
| Diabetes | 13,124 | 8.97% | 12,611 | 9.37% | 12,662 | 9.54% |
| Cancer | 10,585 | 7.22% | 10,386 | 7.72% | 10,755 | 8.11% |
| Respiratory Disease | 9,763 | 6.67% | 9,031 | 6.71% | 10,059 | 7.58% |
| Substance Use | 7,997 | 5.47% | 7,356 | 5.47% | 8,172 | 6.16% |
| Coronary Artery Disease | 7,951 | 5.44% | 7,813 | 5.80% | 8,321 | 6.27% |
| Kidney Disease/Failure | 5,312 | 3.63% | 5,272 | 3.92% | 5,427 | 4.09% |
| Chronic Obstructive Pulmonary Disease | 4,853 | 3.32% | 4,538 | 3.37% | 4,496 | 3.39% |
| Heart Failure | 3,989 | 2.72% | 3,978 | 2.96% | 3,975 | 3.00% |

Coding of disease prevalence has improved as our risk contracts have encouraged the capture of chronic conditions along with a clinical documentation program that has focused on accurate and complete coding of chronic conditions.

**II. Berkshire Medical Center (BMC) Acute Care Patients North County Patient Population**

**\*Based on Primary Service Area (PSA) and Secondary Service Area and hospitalizations not individual patients**

1. **BMC Acute Care Visits**

|  |  |  |  |
| --- | --- | --- | --- |
| Number of Acute Care Visits | **FY20** | **FY21** | **FY22** |
|  | 2,279 | 3,827 | 3,890 |

These numbers represent BMC discharges from medical/surgical units that represent the level of care that will be available at the new hospital and represents only those patients from the primary and secondary service areas of the new hospital as identified in Appendix 1. Patients were included regardless of their entry source (main BMC Emergency Department, Satellite Emergency Facility, Same Day Surgery). The following tables will differ from the Stroudwater feasibility study data, as that data only included patients who entered BMC through the Satellite Emergency Facility.

1. **Gender**

| **Gender** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Male | 1,161 | 49.06% | 1,790 | 46.77% | 1,832 | 47.10% |
| Female | 1,118 | 50.94% | 2,037 | 53.23% | 2,058 | 52.90% |
| Other/Unspecified | 0 | 0.00% | 0 | 0.00% | 0 | 0.00% |
| Total | 2,279 | 100.00% | 3,827 | 100.00% | 3,890 | 100.00% |

The capture of other/unspecified gender is something that is done consistently, and education is being provided to make sure this is more accurate in the future.

1. **Age**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| 0-18 | 44 | 1.93% | 54 | 1.41% | 73 | 1.88% |
| 19-49 | 458 | 20.09% | 1,203 | 31.44% | 1,195 | 30.72% |
| 50-64 | 507 | 22.25% | 803 | 20.98% | 822 | 21.13% |
| 65+ | 1,270 | 55.73% | 1,767 | 46.17% | 1,800 | 46.27% |
| Total | 2,279 | 100.00% | 3,827 | 100.00% | 3,890 | 100.00% |

Berkshire Medical Center hospitalized patients age 65 and over reflect a higher percentage of its hospitalized patient population (55.73%) than of the population at large (25% of Berkshire County and 18% of the Massachusetts population). The increased 65+ group compared to the county, along with increased severity of illness which based on the Case Mix Index, supports the needs for additional inpatient and observation beds.

1. **Race**

| **Race** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Black/African American | 52 | 2.38% | 110 | 2.87% | 122 | 3.14% |
| White/Caucasian | 2,098 | 96.19% | 3,634 | 94.96% | 3,684 | 94.70% |
| Other | 31 | 1.42% | 83 | 2.17% | 84 | 2.16% |
| Total | 2,181 | 100.00% | 3,827 | 100.00% | 3,890 | 100.00% |
| Hispanic Ethnicity | 45 | 1.97% | 60 | 1.57% | 76 | 1.95% |

For confidentiality, “Other” includes all races not separately listed which all had patient counts less than 11, patients who use “Other” to represent multiracial, patients who do not wish to choose one of the listed options, or patients who selected refused/unknown. Hispanic Ethnicity is captured separately from the races listed and would be combined with any of the races listed above. The Hispanic Ethnicity of the population of the towns in Northern Berkshire County range from 0% to 6% based on data from US Census, ACS, 2017-2021, Table S0601.

1. **Patients by Service Area - Zip Codes**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Service Area** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| Northern Berkshire PSA | 1,847 | 84.69% | 3,675 | 96.03% | 3,756 | 96.56% |
| North County SSA | 334 | 15.31% | 152 | 3.97% | 134 | 3.44% |
| PSA Sub-total | 2,279 | 100.00% | 3,827 | 100.00% | 3,890 | 100.00% |

Zip codes included in these categories can be found in Appendix 1.

1. **Payer Mix**

| **Payer Mix** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Public/Medicaid/Medicaid MC | 360 | 15.80% | 661 | 17.27% | 667 | 17.15% |
| Medicare/Medicare MC/Advantage | 1,420 | 62.31% | 1,950 | 50.95% | 1,961 | 50.41% |
| Private/Commercial/HMO | 447 | 19.61% | 1,103 | 28.82% | 1,144 | 29.41% |
| Other (self-pay/workers’ comp/VA, HSN) | 52 | 1.84% | 113 | 2.36% | 128 | 2.54% |

This categorization based on the primary payer of the most recent service, as patients may have multiple payers for a single visit or multiple visits in a year with different payer sources. Medicaid payer has continued to increase due to the Public Health Emergency that suspended the disenrollment process in throughout this time-period.

1. **Case Mix Index**

|  | **FY20** | **FY21** | **FY22** |
| --- | --- | --- | --- |
| All Payer | 1.46 | 1.51 | 1.58 |
| Medicare | 1.57 | 1.61 | 1.68 |

The BMC Medicare CMI for the Northern Berkshire Service Area increased from 1.61 in 2021 to 1.68 in 2022. This demonstrates the increasing severity of illness for Berkshire County patients, which combined with the increasing age of our patients, supports the need for additional inpatient and observation level beds.

1. **Average Length of Stay**

| **Average Length of Stay (days)** | **FY20** | **FY21** | **FY22** |
| --- | --- | --- | --- |
| Observation | 1.57 | 1.55 | 2.01 |
| Inpatient | 4.70 | 4.96 | 5.07 |
| Total | 3.85 | 3.92 | 4.13 |

This represents the actual Length of Stay (LOS) for patients selected based on discharge location and home zip code. Though Inpatient LOS is over 4 days (96 hours), there are patients in this group that would not have been eligible for hospitalization at North Adams due to the severity of their illness and expectations of a greater than 96-hour length of stay.

1. **Observation v. Inpatient**

| **Level of Acute Care** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Observation Care | 618 | 27.12% | 981 | 25.61% | 981 | 25.22% |
| Inpatient Care | 1,661 | 72.88% | 2,846 | 74.39% | 2,909 | 74.78% |
| Total Acute Care | 2,279 | 100.00% | 3,827 | 100.00% | 3,890 | 100.00% |

1. **Reason for Hospitalization**

| **Diagnosis** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Sepsis | 209 | 9.17% | 216 | 5.64% | 256 | 6.58% |
| Heart Failure | 130 | 5.18% | 187 | 4.89% | 144 | 3.70% |
| Pneumonia | 89 | 3.91% | 52 | 1.36% | 93 | 2.39% |
| Alcohol Related | 80 | 3.51% | 140 | 3.66% | 140 | 3.60% |
| Total Joint (Knee or Hip) | 63 | 2.76% | 56 | 1.46% | 38 | 0.98% |
| Kidney Failure | 57 | 2.50% | 67 | 1.75% | 52 | 1.34% |
| Chest Pain | 32 | 1.40% | 49 | 1.28% | 38 | 0.98% |
| Syncope and Collapse | 31 | 1.36% | 30 | 0.78% | 33 | 0.85% |
| Transient cerebral ischemic attack | 31 | 1.36% | 30 | 0.78% | 25 | 0.64% |
| COPD | 24 | 1.05% | 31 | 0.81% | 36 | 0.93% |
| COVID-19 | 13 | 0.57% | 82 | 2.14% | 126 | 3.24% |
| Urinary Tract Infection | 14 | 0.61% | 24 | 0.62% | 42 | 1.08% |

1. **North County Outpatients Patient Population\*\***

**\*\* based on North County Primary and Secondary Services Areas and use of current North County outpatient services**

1. **Unique Patients Served**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **FY20** | **FY21** | **FY22** |
| Unique Patients | 36,806 | 35,182 | 35,246 |

This represents two patient populations: 1) Any patient who had an outpatient service at any BHS location and had a home zip code in the North Berkshire Service Area as identified in Appendix 1 or 2) Any patient who had an outpatient service in a North Adams campus location regardless of home zip code.

1. **Gender**

| **Gender** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| Male | 16,328 | 44.36% | 16,260 | 46.22% | 16,248 | 46.10% |
| Female/Other | 20,478 | 55.64% | 18,922 | 52.68% | 18,998 | 53.90% |
| Total | 36,806 | 100.00% | 35,182 | 100.00% | 35,246 | 100.00% |

The capture of other/unspecified gender is something that is done consistently, and education is being provided to make sure this is more accurate in the future. In this table for FY21 and FY22 for confidentiality, “Other” includes patient counts less than 11.

1. **Age**

| **Age** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| --- | --- | --- | --- | --- | --- | --- |
| 0-18 | 4,461 | 12.12% | 4,802 | 13.65% | 5,025 | 14.25% |
| 19-49 | 12,935 | 35.14% | 12,994 | 36.93% | 12,774 | 36.24% |
| 50-64 | 8,917 | 24.23% | 8,325 | 23.66% | 8,089 | 22.95% |
| 65+ | 10,493 | 28.51% | 9,061 | 25.75% | 9,358 | 26.56% |
| Total | 36,806 | 100.00% | 35,182 | 100.00% | 35,246 | 100.00% |

Berkshire Health System outpatients, from the Northern Berkshire service areas, age 65 and over reflect a higher percentage of its patient population (28.51%) than of the population at large (25% of Berkshire County and 18% of the Massachusetts population). The increased 65+ group compared to the county, along with increased severity of illness which based on the Case Mix Index, supports the needs for additional inpatient and observation beds.

1. **Race**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Race** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| American Indian/Alaska Native | 45 | 0.12% | 47 | 0.13% | 48 | 0.14% |
| Asian | 307 | 0.83% | 366 | 1.04% | 387 | 1.10% |
| Black/African American | 899 | 2.44% | 920 | 2.61% | 926 | 2.63% |
| White/Caucasian | 33,779 | 91.77% | 31,621 | 89.88% | 31,389 | 89.06% |
| Other | 494 | 1.34% | 556 | 1.58% | 574 | 1.63% |
| Refused/Unknown | 1,283 | 3.49% | 1,672 | 4.75% | 1,922 | 5.45% |
| Total | 36,807 | 100.00% | 35,182 | 100.00% | 35,246 | 100.00% |
| Hispanic Ethnicity | 652 | 1.77% | 704 | 2.11% | 740 | 2.10% |

For confidentiality, “Other” includes all races not separately listed which all had patient counts less than 11, patients who use “Other” to represent multiracial, or patients who do not wish to choose one of the listed options. Hispanic Ethnicity is captured separately from the races listed and would be combined with any of the races listed above. The Hispanic Ethnicity of the population of the towns in Northern Berkshire County range from 0% to 6% based on data from US Census, ACS, 2017-2021, Table S0601.

1. **Payer Mix (by count and percentage)**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Payer Mix** | **FY20 Number** | **FY20 Percent** | **FY21 Number** | **FY21 Percent** | **FY22 Number** | **FY22 Percent** |
| Public/Medicaid/Medicaid MC | 6278 | 17.05% | 6,047 | 17.19% | 7,219 | 20.48% |
| Medicare/Medicare MC/Advantage | 9978 | 27.11% | 9,630 | 27.37% | 9,875 | 28.03% |
| Private/Commercial/HMO | 19,670 | 53.45% | 18,608 | 52.89% | 17,159 | 48.68% |
| Health Safety Net (HSN) | 120 | 0.33% | 115 | 0.33% | 111 | 0.31% |
| Other (self-pay/workers’ comp/VA) | 760 | 2.06% | 782 | 2.22% | 882 | 2.50% |

This categorization based on the primary payer of the most recent service, as patients may have multiple payers for a single visit or multiple visits in a year with different payer sources. Medicaid payer has continued to increase due to the Public Health Emergency that suspended the disenrollment process in throughout this time-period.

1. **Satellite Emergency Facility (SEF) Transfers to Berkshire Medical Center (BMC) – ED or Inpatient – based on each transfer**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **FY20** | **FY21** | **FY22** |
| Number of SEF Transfer – BMC | 1,196 | 1,192 | 1,285 |

This includes patients who presented to the SEF and transferred to either the main BMC ED or to BMC inpatient services for hospitalization.

**Appendix 1:** Service Areas for North Berkshire (North Adams Regional Hospital), Central Berkshire (Berkshire Medical Center), and Southern Berkshire (Fairview Hospital)



|  |  |  |
| --- | --- | --- |
| North Berkshire Service Area  Southern Berkshire (Fairview) Service Area |  |  |
|  |  |  |