

## I. BHS Patient Panel

### A. 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.

### B. Gender

Gender	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

### C. Age

Age	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

#### D. Race

Race	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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).

#### E. Patients by Service Area - Zip Codes

Service Area	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

#### F. Payer Mix

Payer Mix	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

#### G. Risk Contract

Contract Type	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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 contract has continued to increase due to the suspension of disenrollment during the Public Health Emergency.

#### H. 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.

## I. Disease Prevalence

Disease Prevalence	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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**

### A. BMC Acute Care Visits

	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>
Number of Acute Care Visits	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.

### B. Gender

<b>Gender</b>	<b>FY20</b>		<b>FY21</b>		<b>FY22</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
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.

### C. Age

<b>Age</b>	<b>FY20</b>		<b>FY21</b>		<b>FY22</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
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.

#### D. Race

Race	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

#### E. Patients by Service Area - Zip Codes

Service Area	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

#### F. Payer Mix

Payer Mix	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

### G. Case Mix Index

	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>
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.

### H. Average Length of Stay

<b>Average Length of Stay (days)</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>
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.

### I. Observation v. Inpatient

<b>Level of Acute Care</b>	<b>FY20</b>		<b>FY21</b>		<b>FY22</b>	
	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>	<b>Number</b>	<b>Percent</b>
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%

## J. Reason for Hospitalization

Diagnosis	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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%



## II. North County Outpatients Patient Population\*\*

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

### A. 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.

### B. Gender

Gender	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

### C. Age

Age	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

**D. Race**

Race	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

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

Payer Mix	FY20		FY21		FY22	
	Number	Percent	Number	Percent	Number	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.

**F. 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		
Zip Code	Service Area	City/Town
01220	PSA	Adams
01247	PSA	North Adams
01256	PSA	Savoy
01267	PSA	Williamstown
01270	PSA	Windsor
01343	PSA	Drury
01350	PSA	Monroe Bridge
01367	PSA	Rowe
01225	PSA	Cheshire
05352	SSA	Stamford VT
05350	SSA	Readsboro VT
05261	SSA	Pownal VT
12022	SSA	Berlin NY
12168	SSA	Stephentown NY
12138	SSA	Petersburg NY

Central Berkshire (BMC) Service Area		
Zip Code	Service Area	City/Town
01201	PSA	Pittsfield
01202	PSA	Pittsfield
01203	PSA	Pittsfield
01223	PSA	Becket
01224	PSA	Berkshire
01226	PSA	Dalton
01227	PSA	Dalton
01229	PSA	Glendale
01235	PSA	Hinsdale
01237	PSA	Lanesboro
01238	PSA	Lee
01240	PSA	Lenox
01242	PSA	Lenoxdale
01254	PSA	Richmond
01260	PSA	South Lee
01262	PSA	Stockbridge
01263	PSA	Stockbridge
01264	PSA	Tyringham
01266	PSA	West Stockbridge
01225	SSA	Cheshire
01253	SSA	Otis

Southern Berkshire (Fairview) Service Area		
Zip Code	Service Area	City/Town
01029	PSA	East Otis
01222	PSA	Ashley Falls
01230	PSA	Great Barrington
01236	PSA	Housatonic
01244	PSA	Mill River
01245	PSA	Monterey
01252	PSA	North Egremont
01253	PSA	Otis
01255	PSA	Sandisfield
01257	PSA	Sheffield
01258	PSA	South Egremont
01259	PSA	Southfield
01264	SSA	Tyringham
01266	SSA	West Stockbridge
01263	SSA	Stockbridge
01262	SSA	Stockbridge
01260	SSA	South Lee
01238	SSA	Lee
01223	SSA	Becket