Massachusetts Acute Care Hospital Readmissions Profile: July, 2016 to June, 2017
Marlborough Hospital
March 2019

In December 2018, the Center for Health Information and Analysis (CHIA) released Hospital-Wide Adult All-Payer Readmissions in Massachusetts: 2011-2017, its annual report on hospital-wide all-cause readmissions in the Commonwealth. That report applied the Hospital-Wide All-Cause Unplanned 30-day Readmission Measure developed by the Centers for Medicare and Medicaid Services (CMS) and the Yale Center for Outcomes Research to the adult all-payer population in the Commonwealth. It includes detailed readmission statistics for the state as a whole and hospital-specific readmission rates for Massachusetts acute care hospitals. This readmission profile series provides more in-depth information on each hospital.

This profile contains readmission statistics for Marlborough Hospital presented in the context of the statewide figures and of the patient population that Marlborough Hospital serves. CHIA hopes that these reports will be useful to hospitals and to other stakeholders working to reduce readmissions in the Commonwealth. The profile is based on data submitted by Massachusetts acute care hospitals to CHIA's Hospital Discharge Database (see http://www.chiamass.gov/case-mix-data/). Most of the statistics presented in this profile are available for all Massachusetts acute care hospitals in an Excel workbook from http://www.chiamass.gov/hospital-wide-adult-all-payer-readmissions-in-massachusetts/.

It is important to note a few features of the Yale/CMS readmissions methodology as modified by CHIA for Massachusetts reporting.

- The calculations reflect the all-payer population. CMS reports on Medicare Fee-for-Service patients only.
- Readmissions from Marlborough Hospital back to Marlborough Hospital as well as those back to other acute care hospitals in the Commonwealth are included.
- The calculations exclude primary psychiatric and obstetric discharges.
- The calculations include adults (age 18+) only.
- This profile primarily covers the state fiscal year 2017, from July 1, 2016 to June 30, 2017. Some data displays include additional years.
- Breakouts with fewer than 11 data points (e.g. discharges, readmissions, or patients) are suppressed to protect patient privacy.

With the exception of the table on this page and the first figure on the next, the readmission rates reported here are not risk-adjusted. The patterns and trends reported in this profile reflect this hospital's patient case-mix, practice patterns, and any licensure for providing specialized inpatient services. All analyses were based on discharge data as submitted to CHIA by Massachusetts acute care hospitals. Further detail is available in the Technical Appendix for CHIA's recent annual statewide readmissions report.

This report contains the following information profiling readmissions at Marlborough Hospital. Except where indicated below, all displays cover the period from July 2016 to June 2017.
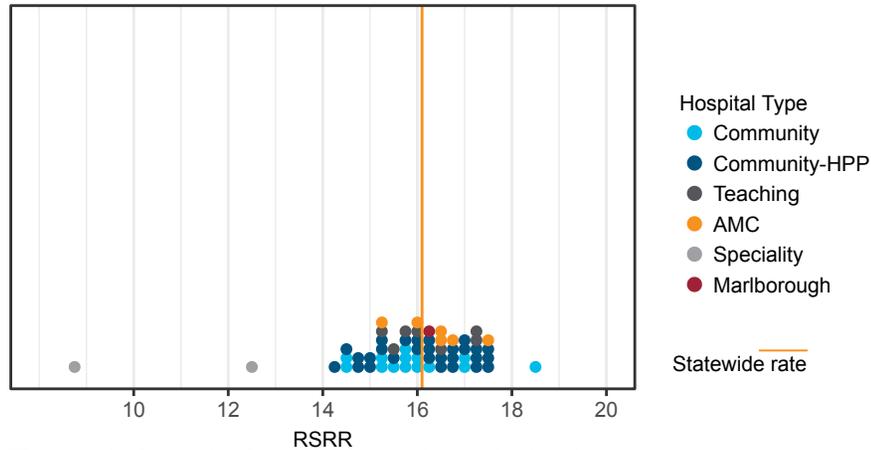
- Overview of readmissions statistics
- Risk-standardized readmission rates by hospital type
- Readmission rates by quarter (July 2010 to June 2017)
- Number of readmissions by time since discharge
- Readmission rates by age
- Readmission rates by payer type
- Readmission rates by discharge setting
- Diagnoses with the highest numbers and rates of readmissions
- Readmissions to other hospitals
- Readmissions among frequently hospitalized patients (July 2014 to June 2017)

Overview of Readmissions Statistics, July 2016 - June 2017

This table contains the overall readmission statistics for Marlborough Hospital for state fiscal year 2017. The statewide figures are provided for comparison.
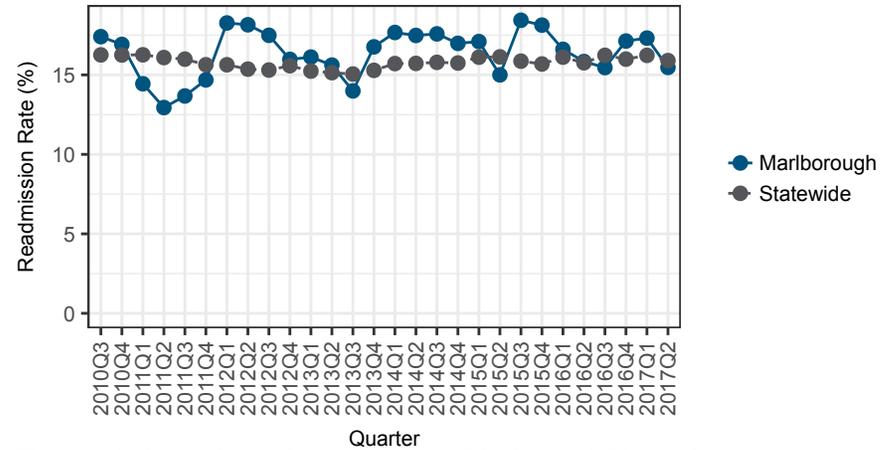
	Marlborough	Statewide
Eligible Discharges	2,479	498,493
Readmissions	405	80,194
Readmission Rate	16.3%	16.1%
Risk-Standardized Readmission Rate	16.3%	16.1%

All-Payer Risk-Standardized Readmission Rates by Hospital Type, July 2016 to June 2017


This graph shows the distribution of risk-standardized readmission rates for hospitals. Marlborough Hospital is indicated by the red dot. Marlborough Hospital is a hospital type of Community - High Public Payer. Please see the statewide report for more information on hospital type.

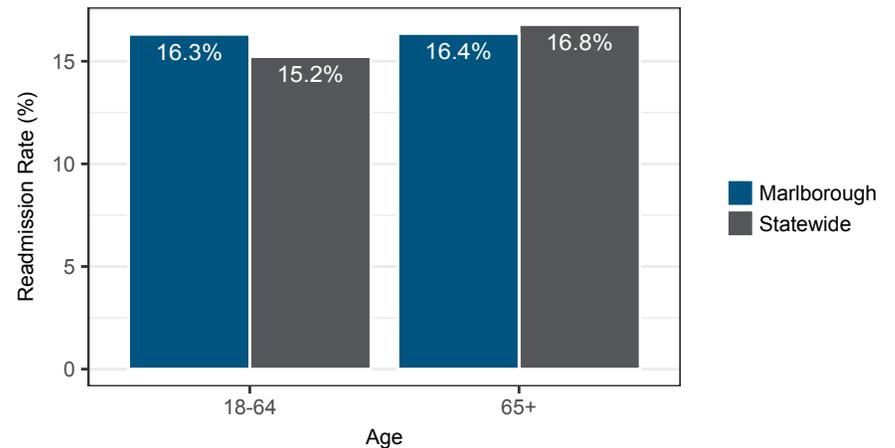## All-Payer Readmission Rate by Quarter, July 2010 to June 2017

This graph shows the readmission rate for Marlborough Hospital over time in comparison to the statewide rate. Cells with < 11 cases are suppressed.

## Length of Time Between Discharge and Readmission, July 2016 to June 2017
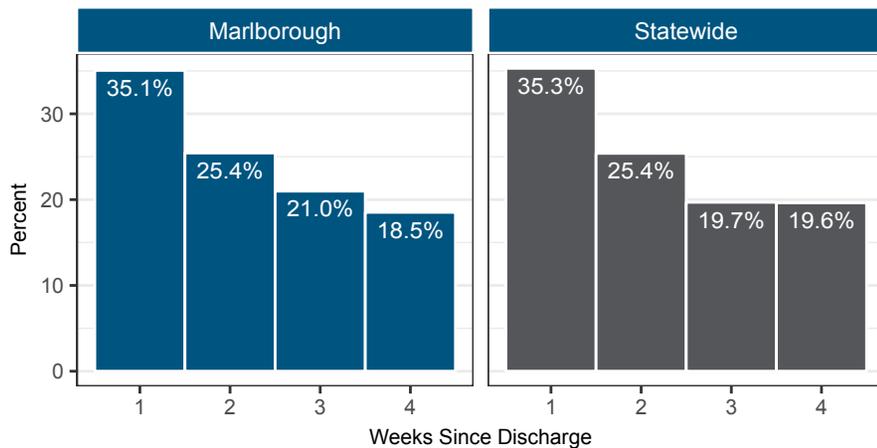
These plots show the percentage of readmissions by week from the time of the initial discharge. Cells with < 11 cases are suppressed.

All-Payer Readmission Rates by Age, July 2016 to June 2017
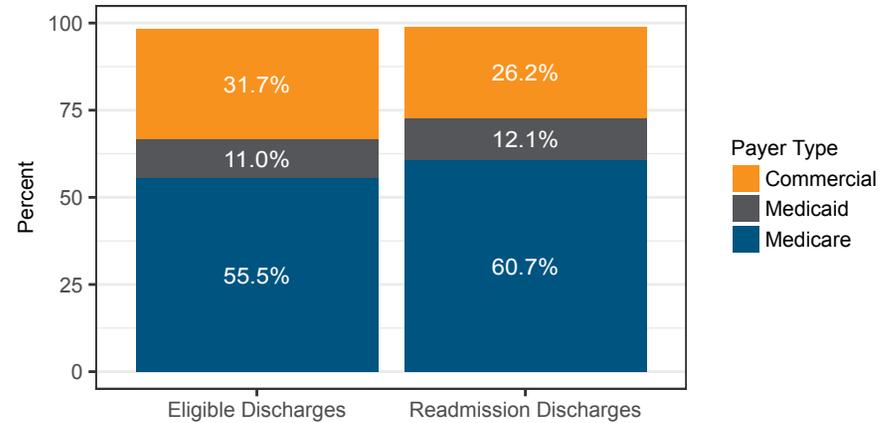

This graph shows readmission rates by age for Marlborough Hospital and for the state. Cells with < 11 cases are suppressed.

## All-Payer Readmission Rate by Payer Type, July 2016 to June 2017
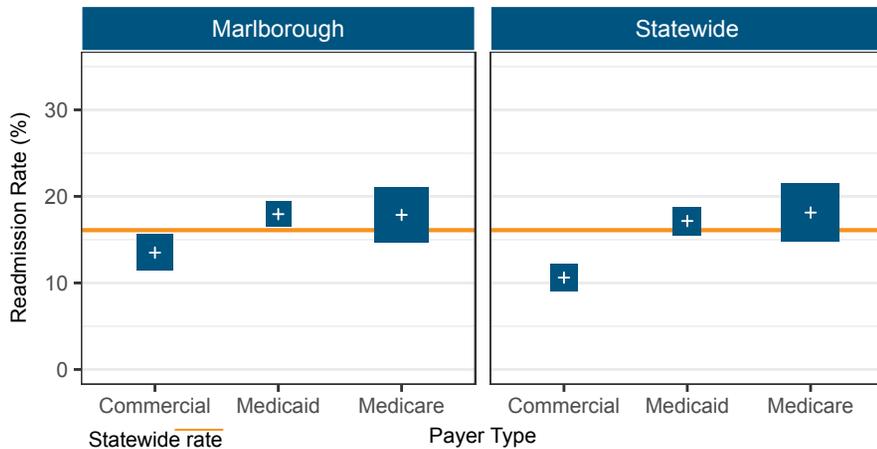
These plots show hospital and statewide readmissions broken out by the expected payer type. Vertical position of the box indicates the rate, and the size of the box is proportional to the number of readmissions. Cells with < 11 cases are suppressed.

Payer Type Profile, July 2016 to June 2017

This chart compares the payer profile of discharges from Marlborough Hospital that resulted in a readmission to the payer profile of all eligible discharges at Marlborough Hospital. Note: "Self-Pay" and "Other" categories not shown. Cells with < 11 cases are suppressed.

All-Payer Readmission Rate by Discharge Setting, July 2016 to June 2017
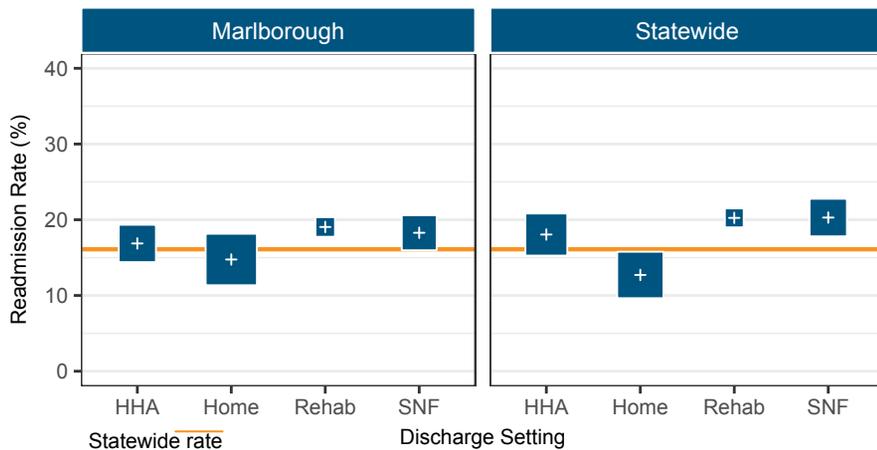
This graph shows readmission rate by the setting to which the patient was originally discharged. Cells with < 11 cases are suppressed. Note: SNF = skilled nursing facility, HHA = home with home health agency care. Hospice category not shown.

Discharge Setting Profile, July 2016 to June 2017
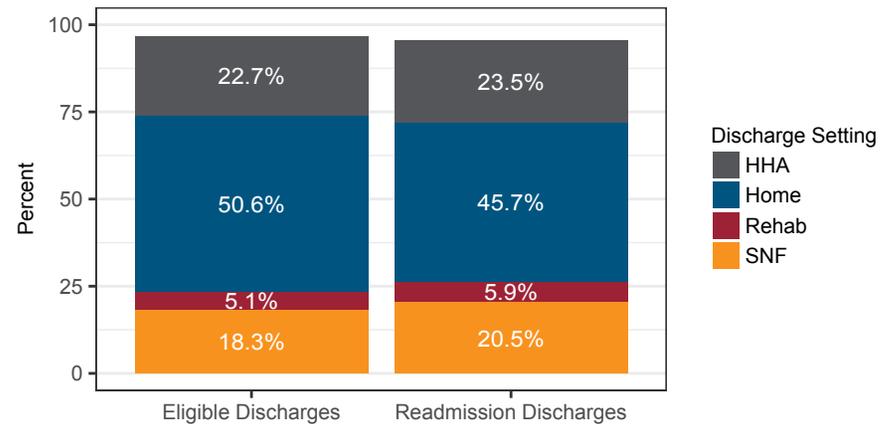
This graph shows the distribution of discharge settings for readmission discharges compared to all the eligible discharges at Marlborough Hospital. Cells with < 11 cases are suppressed. Hospice category not shown.

Top Diagnoses with Highest Rates of Readmission, July 2016 to June 2017

Readmission Rate (%)

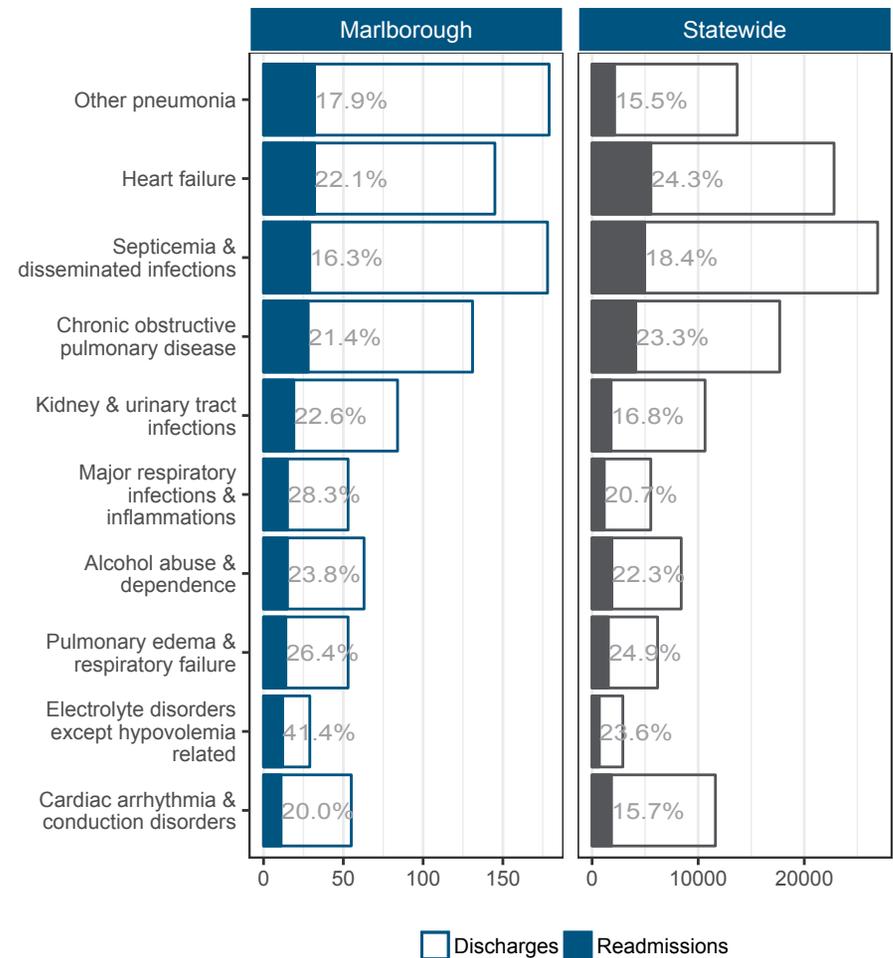| Diagnosis	Marlborough	Statewide
Electrolyte disorders except hypovolemia related	41.4%	23.6%
Major respiratory infections & inflammations	28.3%	20.7%
Pulmonary edema & respiratory failure	26.4%	24.9%
Alcohol abuse & dependence	23.8%	22.3%
Kidney & urinary tract infections	22.6%	16.8%
Heart failure	22.1%	24.3%
Chronic obstructive pulmonary disease	21.4%	23.3%
Cardiac arrhythmia & conduction disorders	20.0%	15.7%
Other pneumonia	17.9%	15.5%
Septicemia & disseminated infections	16.3%	18.4%

— Statewide rate
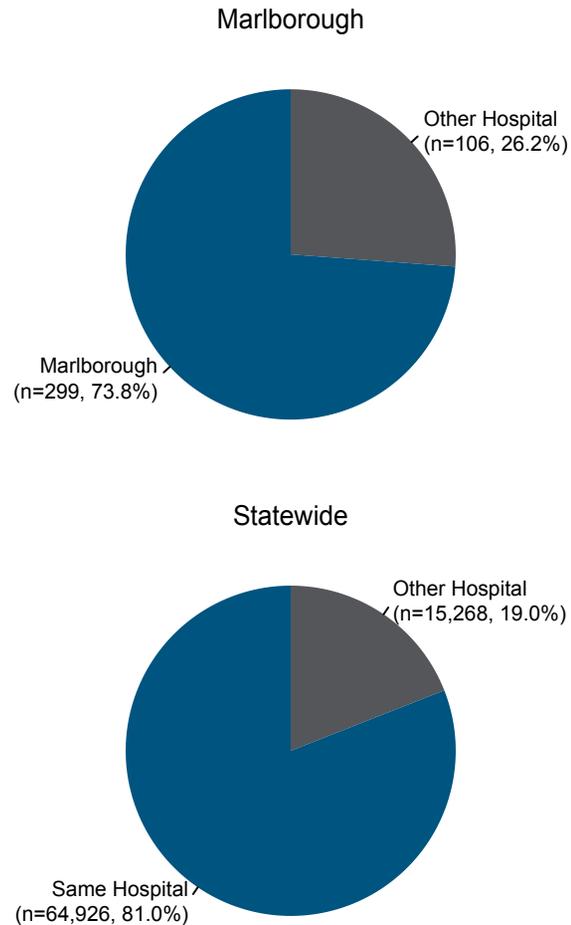
■ Marlborough ■ Statewide

This plot shows the discharge conditions with the highest rates of readmissions for Marlborough Hospital and corresponding figures for those conditions statewide. Up to the top 10 conditions are shown but only conditions with 25 or more discharges and 11 or more readmissions are included.

Top Diagnoses with Highest Numbers of Readmissions, July 2016 to June 2017

| Diagnosis	Marlborough	Statewide
Other pneumonia	17.9%	15.5%
Heart failure	22.1%	24.3%
Septicemia & disseminated infections	16.3%	18.4%
Chronic obstructive pulmonary disease	21.4%	23.3%
Kidney & urinary tract infections	22.6%	16.8%
Major respiratory infections & inflammations	28.3%	20.7%
Alcohol abuse & dependence	23.8%	22.3%
Pulmonary edema & respiratory failure	26.4%	24.9%
Electrolyte disorders except hypovolemia related	41.4%	23.6%
Cardiac arrhythmia & conduction disorders	20.0%	15.7%

□ Discharges ■ Readmissions

These plots show the discharge conditions with the highest numbers of readmissions at Marlborough Hospital and the corresponding figures for those conditions statewide. The outlined bars represent the total number of discharges for each diagnosis, and the filled-in bars show the number of readmissions. The figures next to each bar give the readmissions rate. Up to the top 10 conditions are shown but only conditions with 25 or more discharges and 11 or more readmissions are included.

Readmissions to Other Hospitals, July 2016 to June 2017

Marlborough

Other Hospital
(n=106, 26.2%)

Marlborough
(n=299, 73.8%)

Statewide

Other Hospital
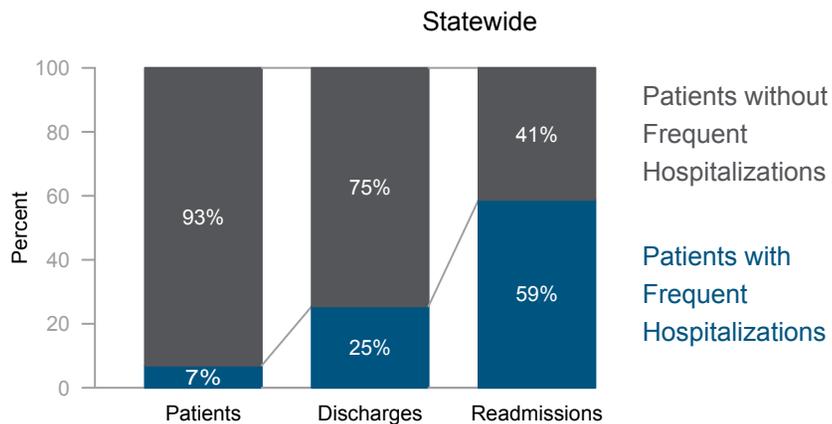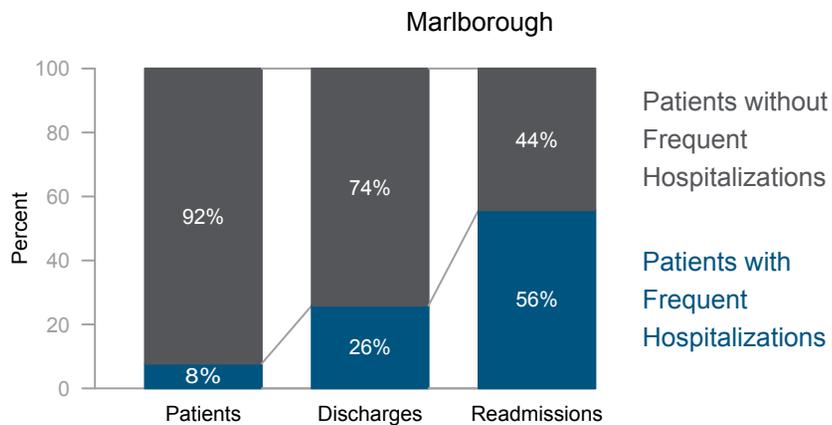(n=15,268, 19.0%)

Same Hospital
(n=64,926, 81.0%)

This figure shows the proportion of the readmissions from Marlborough Hospital that were to another hospital, along with the corresponding statewide figure.

Characteristics of Readmissions to Other Hospitals, July 2016 to June 2017

Hospitals

Regions
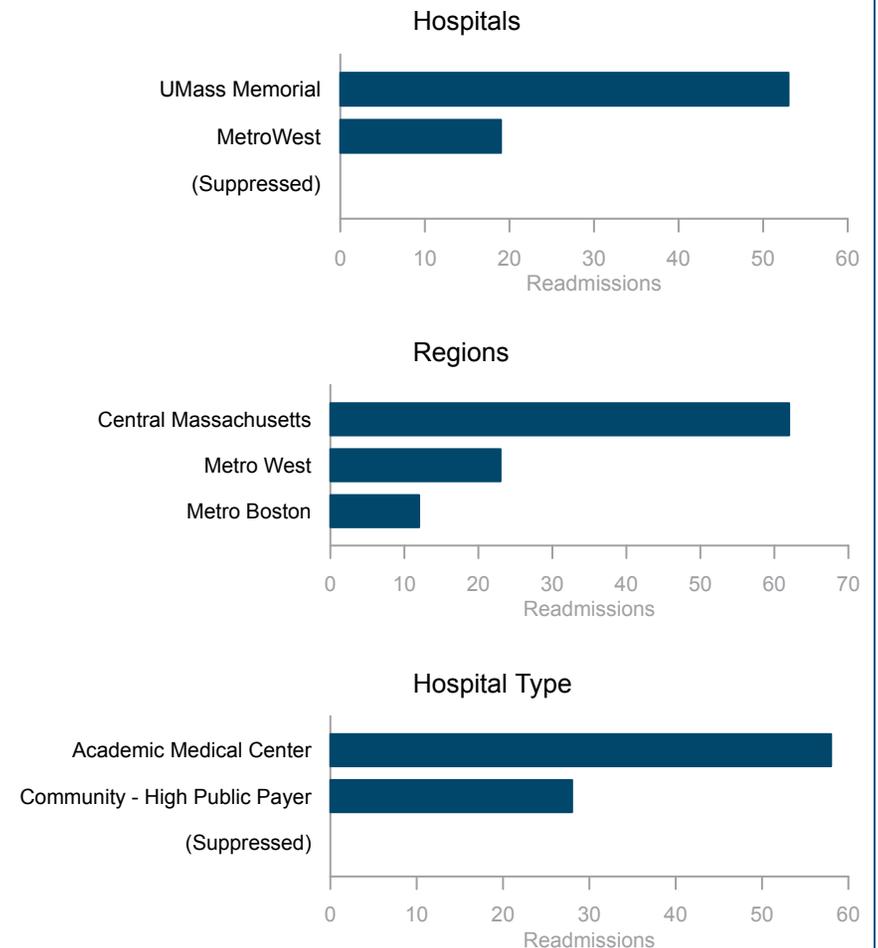
Hospital Type

This display provides more information on discharges from Marlborough Hospital in which the patient was subsequently readmitted to another hospital. The top portion of the figure shows the top three other hospitals to which patients from Marlborough Hospital were readmitted. The middle portion shows the regions in which these patients were readmitted. The bottom portion shows the types of hopsitals to which they were readmitted. Hospital type of Specialty not shown. Each bar represents the total number of readmissions from Marlborough Hospital that were readmitted to other hospitals. Due to data privacy concerns, only groups with 11 or more readmissions are listed. For definitions of the geographic regions, please see the statewide report.

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All-Payer Readmissions among Frequently Hospitalized Patients, July 2014 to June 2017

Marlborough

	Patients	Discharges	Readmissions
Patients without Frequent Hospitalizations	92%	74%	44%
Patients with Frequent Hospitalizations	8%	26%	56%

Statewide

	Patients	Discharges	Readmissions
Patients without Frequent Hospitalizations	93%	75%	41%
Patients with Frequent Hospitalizations	7%	25%	59%

In the statewide report, CHIA reported readmissions for frequently hospitalized patients, defined as those with four or more admissions in any one-year period from July 2014 to June 2017. This chart shows the percentage of patients, discharges, and readmissions accounted for by frequently hospitalized patients at Marlborough Hospital.

Hospital Readmissions among Frequently Hospitalized Patients by Payer Type, July 2014 to June 2017

Marlborough

	Number of Patients	Percentage within Group	Number of Discharges	Number of Readmissions	Readmission Rate (%)
Patients with Frequent Hospitalizations	272	100.0%	1,734	627	36.2%
Commercial	49	18.0%	354	148	41.8%
Medicare	180	66.2%	1,092	379	34.7%
Medicaid	42	15.4%	272	97	35.7%
Patients without Frequent Hospitalizations	3,238	100.0%	4,963	498	10.0%
Commercial	1,141	35.2%	1,639	133	8.1%
Medicare	1,650	51.0%	2,657	297	11.2%
Medicaid	364	11.2%	548	61	11.1%
Total	3,510		6,697	1,125	16.8%

This table shows the breakdown of patients at Marlborough Hospital with frequent hospitalizations by payer type, and the associated readmission rates for these groups. Note: Percentages within groups may not sum to 100 because the table excludes "Self-Pay" and "Other" categories. Patients with frequent hospitalizations are defined as those with four or more admissions in any one-year period from July 2014 to June 2017. Cells with fewer than 11 cases are suppressed to protect patient privacy. Additionally, cells that might be used to derive the contents of suppressed cells are also suppressed. All such cells are indicated by "--".