

Massachusetts Hospital Profiles

Data Through
Hospital Fiscal Year 2022

February 2024

Technical Appendix



HFY 2022 Massachusetts Acute and Non-Acute Care Hospitals (February 2024)

TECHNICAL APPENDIX

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Introduction

Acute and non-acute hospitals included in *Massachusetts Hospital Profiles - Data through Hospital Fiscal Year 2022* were profiled on service, payer mix, utilization, revenue, and financial performance. Details for each of these metrics are included in this technical appendix.

The Center for Health Information and Analysis (CHIA) relied on the following primary data sources to present information: the Hospital Cost Report, the Hospital Discharge Database (HDD), and the Hospital Standardized Financial Statement database.

Unless otherwise noted, metrics included in this report are based on data reported by acute and non-acute hospitals from Hospital Fiscal Year (HFY) 2018 to HFY2022. Descriptive acute and non-acute hospital information is from HFY2022.

Hospital Cost Report:

The Hospital Cost Report is submitted each year by acute and non-acute hospitals and contains data on costs, revenues, and utilization statistics. The Hospital Cost Report requires hospitals to submit based on the same time frames as the Medicare 2552 Cost Report filing schedules, which reflects the unique fiscal year end of each hospital.

Hospital Discharge Database (HDD):

HDD data is submitted quarterly by acute hospitals and contains patient-level data identifying charges, days, and diagnostic information for all acute inpatient discharges. CHIA used FFY2022 HDD data as of March 2023 for the service metrics, which includes discharges between October 1, 2021 and September 30, 2022 for all acute hospitals.

Hospital Standardized Financial Statements:

The Hospital Standardized Financial Statements are submitted quarterly and annually by acute hospitals based on their individual fiscal year end. The Standardized Financial Statements contain information on the hospital's assets, liabilities, revenues, expenses, and profits or losses.

Audited Financial Statements:

Audited Financial Statements are submitted annually by hospitals (or their parent organizations, if applicable). In addition to the financial figures that are found in the Hospital Standardized Financial Statements, the Audited Financial Statements contain an opinion from an independent auditor as well as notes from hospital or system management that elaborate on the financial performance and standing of the hospital or system during the fiscal year. The Audited Financial Statements are used to verify the data submitted in the Hospital Standardized Financial Statements.

Data Verification:

Each year's Hospital Cost Report and hospital and hospital health system financial statements were verified in accordance with respective reporting regulation requirements. Additional data verification forms that included each hospital's reported financial data were sent to each acute and non-acute hospital for HFY2018-HFY2022.

Multi-Acute Hospital System Affiliation and Location

Massachusetts hospitals are generally affiliated with a larger health system. Health systems may include multiple hospitals and/or provider organizations while others may have only one hospital with associated providers or provider organizations. Multi-acute hospital system membership identifies those health systems with more than one acute hospital. This information was derived from Audited Financial Statements.

Below is a list of Massachusetts multi-acute hospital systems and their acute hospital members as of the end of each system's fiscal year 2022:

MULTI-ACUTE HOSPITAL SYSTEM	ACUTE HOSPITAL MEMBER
Baystate Health	Baystate Franklin Medical Center Baystate Medical Center Baystate Noble Baystate Wing Hospital
Berkshire Health Systems	Berkshire Medical Center Fairview Hospital
Beth Israel Lahey Health	Anna Jaques Hospital Beth Israel Deaconess Hospital – Milton Beth Israel Deaconess Hospital – Needham Beth Israel Deaconess Hospital – Plymouth Beth Israel Deaconess Medical Center Lahey Hospital & Medical Center Mount Auburn Hospital New England Baptist Hospital Northeast Hospital Winchester Hospital
Cape Cod Healthcare	Cape Cod Hospital Falmouth Hospital
Heywood Healthcare	Athol Hospital Heywood Hospital
Mass General Brigham	Brigham and Women's Hospital Brigham and Women's Faulkner Hospital Cooley Dickinson Hospital Martha's Vineyard Hospital Massachusetts Eye and Ear Infirmary Massachusetts General Hospital Nantucket Cottage Hospital Newton-Wellesley Hospital North Shore Medical Center
Shriners Hospitals for Children [^]	Shriners Hospitals for Children – Boston Shriners Hospitals for Children – Springfield
Steward Health Care System	Morton Hospital, A Steward Family Hospital

MULTI-ACUTE HOSPITAL SYSTEM**ACUTE HOSPITAL MEMBER**

	Nashoba Valley Medical Center, A Steward Family Hospital Steward Carney Hospital Steward Good Samaritan Medical Center Steward Holy Family Hospital Steward Norwood Hospital Steward Saint Anne's Hospital Steward St. Elizabeth's Medical Center
UMass Memorial Health Care	HealthAlliance-Clinton Hospital Marlborough Hospital UMass Memorial Medical Center Harrington Memorial Hospital
Tufts Medicine	Lowell General Hospital Melrose Wakefield Hospital Tufts Medical Center
Tenet Healthcare [^]	MetroWest Medical Center Saint Vincent Hospital

[^]Tenet Healthcare Corporation and Shriners Hospitals for Children are multi-state health systems with a large presence outside of Massachusetts. Both own two acute hospitals in Massachusetts (Tenet owns MetroWest Medical Center and Saint Vincent Hospital; Shriners owns Shriners Hospitals for Children – Boston and Shriners Hospitals for Children - Springfield).

Regional Definitions

The location for each acute hospital in this report was obtained, where possible, from hospital licensing information collected by the Massachusetts Department of Public Health (DPH). The hospital license includes information on a hospital's campuses and satellite offices.

The geographic regions presented in this report are derived from the Health Policy Commission (HPC) static geographic regions. The HPC regions were rolled up into larger regions for this publication to facilitate better comparison within each geographic area. The acute hospitals and the regions to which they were assigned are:

MASSACHUSETTS REGION**ACUTE HOSPITAL ASSIGNED TO REGION**

Metro Boston	Beth Israel Deaconess Hospital – Milton Beth Israel Deaconess Hospital – Needham Beth Israel Deaconess Medical Center Boston Children's Hospital Boston Medical Center Brigham and Women's Faulkner Hospital Brigham and Women's Hospital Cambridge Health Alliance Dana-Farber Cancer Institute Massachusetts Eye and Ear Infirmary Massachusetts General Hospital Melrose Wakefield Healthcare Mount Auburn Hospital
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MASSACHUSETTS REGION	ACUTE HOSPITAL ASSIGNED TO REGION
	New England Baptist Hospital Newton-Wellesley Hospital Shriners Hospitals for Children – Boston Steward Carney Hospital Steward St. Elizabeth’s Medical Center Tufts Medical Center
Northeastern Massachusetts	Anna Jaques Hospital Emerson Hospital Lahey Hospital & Medical Center Lawrence General Hospital Lowell General Hospital Nashoba Valley Medical Center, A Steward Family Hospital North Shore Medical Center Northeast Hospital Steward Holy Family Hospital Winchester Hospital
Central Massachusetts	Athol Hospital Harrington Memorial Hospital HealthAlliance-Clinton Hospital Heywood Hospital Saint Vincent Hospital UMass Memorial Medical Center
Cape and Islands	Cape Cod Hospital Falmouth Hospital Martha’s Vineyard Hospital Nantucket Cottage Hospital
Metro West	Marlborough Hospital MetroWest Medical Center Milford Regional Medical Center Steward Norwood Hospital Sturdy Memorial Hospital
Western Massachusetts	Baystate Franklin Medical Center Baystate Medical Center Baystate Noble Hospital Baystate Wing Hospital Berkshire Medical Center Cooley Dickinson Hospital Fairview Hospital Holyoke Medical Center Mercy Medical Center Shriners Hospitals for Children – Springfield
Metro South	Beth Israel Deaconess Hospital – Plymouth

MASSACHUSETTS REGION	ACUTE HOSPITAL ASSIGNED TO REGION
	Morton Hospital, A Steward Family Hospital Signature Healthcare Brockton Hospital South Shore Hospital Steward Good Samaritan Medical Center
Southcoast	Steward Saint Anne's Hospital Southcoast Hospitals Group

Hospital Types

In order to develop comparative analytics, CHIA assigns hospitals to peer cohorts. The acute hospitals were assigned to one of the following cohorts according to the criteria below:

Academic Medical Centers (AMCs) are a subset of teaching hospitals. AMCs are characterized by (1) extensive research and teaching programs and (2) extensive resources for tertiary and quaternary care and are (3) principal teaching hospitals for their respective medical schools and (4) full-service hospitals with case mix intensity greater than 5% above the statewide average.

Teaching hospitals are those hospitals that report at least 25 full-time equivalent medical school residents per one hundred inpatient beds in accordance with Medicare Payment Advisory Commission (MedPAC) and do not meet the criteria to be classified as AMCs.

Community hospitals are hospitals that are not teaching hospitals and have a public payer mix of less than 63%.

Community - High Public Payer (HPP) are community hospitals that are disproportionately reliant on public revenues by virtue of a public payer mix of 63% or greater. Public payers include Medicare, Medicaid, and other government payers, including the Health Safety Net.

Specialty hospitals are not included in any cohort comparison analysis due to the unique patient populations they serve and/or the unique sets of services they provide.

We are using the HFY2021 Cohort Designations to be consistent with the HFY 2022 Massachusetts Acute Hospital and Health System Financial Performance published in September 2023.

Note: Hospitals may have been assigned to different cohorts in previous years due to payer mix in that given year or other factors. To remain consistent in comparisons between cohorts across multiple years, hospitals were retroactively assigned to their HFY 2020 cohort designations for all years examined. The number of hospitals included in a given cohort may vary from year to year due to hospital closures.

HOSPITAL TYPE	ACUTE HOSPITAL
Academic Medical Center	Beth Israel Deaconess Medical Center Boston Medical Center Brigham and Women's Hospital

HOSPITAL TYPE	ACUTE HOSPITAL
	Massachusetts General Hospital Tufts Medical Center UMass Memorial Medical Center
Teaching Hospital	Baystate Medical Center Cambridge Health Alliance Lahey Hospital & Medical Center Mount Auburn Hospital Saint Vincent Hospital Steward Carney Hospital Steward St. Elizabeth's Medical Center
Community Hospital	Anna Jaques Hospital Beth Israel Deaconess Hospital – Milton Beth Israel Deaconess Hospital – Needham Brigham and Women's Faulkner Hospital Emerson Hospital Martha's Vineyard Hospital Milford Regional Medical Center Nantucket Cottage Hospital Newton-Wellesley Hospital South Shore Hospital Winchester Hospital
Community – High Public Payer Hospital	Athol Hospital Baystate Franklin Medical Center Baystate Noble Hospital Baystate Wing Hospital Berkshire Medical Center Beth Israel Deaconess Hospital – Plymouth Cape Cod Hospital Cooley Dickinson Hospital Fairview Hospital Falmouth Hospital Harrington Memorial Hospital HealthAlliance-Clinton Hospital Heywood Hospital Holyoke Medical Center Lawrence General Hospital Lowell General Hospital Marlborough Hospital Melrose Wakefield Healthcare Mercy Medical Center MetroWest Medical Center Morton Hospital, A Steward Family Hospital

HOSPITAL TYPE**ACUTE HOSPITAL**

Nashoba Valley Medical Center, A Steward Family Hospital
North Shore Medical Center
Northeast Hospital
Signature Healthcare Brockton Hospital
Southcoast Hospitals Group
Steward Good Samaritan Medical Center
Steward Holy Family Hospital
Steward Norwood Hospital
Sturdy Memorial Hospital
Steward Saint Anne's Hospital

Specialty Hospital

Boston Children's Hospital
Dana-Farber Cancer Institute
Massachusetts Eye and Ear Infirmary
New England Baptist Hospital
Shriners Hospitals for Children – Boston
Shriners Hospitals for Children – Springfield

Acute Hospital Profiles: Overview

City/Town: The city or town where the hospital is located.

Region: The region in which the hospital is located.

Hospital Type: The hospital's designation as an Academic Medical Center, Teaching Hospital, Community Hospital, Community High Public Payer Hospital, or Specialty Hospital.

Total Staffed Beds: The average number of beds during the fiscal year that were in service and staffed for patient use.

The top ten largest hospitals are noted. The remaining hospital sizes are then determined based on the staffed beds with large hospitals having reported greater than 250 beds, mid-size hospitals having reported greater than 100 staffed beds but less than 250 and small hospitals having reported less than 100 staffed beds.

Data Source: Hospital Cost Report Tab 3, Column 3, Line 500.

Hospital System Affiliation: Which multi-acute hospital system, if any, the hospital is affiliated.

Hospital System Surplus (loss): The hospital system's profit/loss in HFY 2022.

Data Source: Standardized Financial Statements: Total Excess of Revenue Gains and Other Support Over Expenses

Change in Ownership: Change in ownership during the period of the analysis.

Tax Status: Indicates if the hospital is a For-Profit or Non-Profit hospital.

Trauma Center Designation: Determined by the Massachusetts Department of Public Health and the American College of Surgeons, with Level 1 being the highest designation given to tertiary care facilities. Facilities can be designated as Adult and/or Pediatric Trauma Centers.¹ While there are five levels of trauma center designations recognized nationally, Massachusetts hospitals only fall under Levels 1, 2, and 3 for Adult and/or Levels 1 and 2 for Pediatric.

Level 1 Trauma Center is a comprehensive regional resource that is a tertiary care facility central to the trauma system. A Level 1 Trauma Center is capable of providing total care for every aspect of injury, from prevention through rehabilitation.

Level 2 Trauma Center is able to initiate definitive care for all injured patients and provide 24-hour immediate coverage by general surgeons, as well as coverage by the specialties of orthopedic surgery, neurosurgery, anesthesiology, emergency medicine, radiology and critical care.

Level 3 Trauma Center has demonstrated an ability to provide prompt assessment, resuscitation, surgery, intensive care and stabilization of injured patients and emergency operations, including the ability to provide

¹ American Trauma Society, Trauma Center Levels Explained. Available at:

<http://www.amtrauma.org/?page=TraumaLevels> (last accessed October 6th, 2017).

24-hour immediate coverage by emergency medicine physicians and prompt availability of general surgeons and anesthesiologists.

Total FTEs: The total number of full-time equivalent (FTE) employees reported at this hospital in HFY 2022.

Data source: Hospital Cost Report Tab 4, Column 1, Line 500.

Case Mix Index (CMI): A relative value assigned to the hospital's mix of inpatients to determine the overall acuity of the hospital's patients and is compared with the CMI of peer hospitals and the statewide average CMI. CHIA calculated each hospital's CMI by applying the 3M™ All Patient Refined (APR) grouper, version 30 with Massachusetts-specific baseline cost weights to each hospital's HDD data. Hospitals validate their HDD data submissions annually with CHIA.

The APR grouper and Massachusetts-specific baseline cost weights used in this year's publication are consistent with those used in last year's publication. All case mix information included in this report has been grouped under APR grouper, version 30.

Public Payer Mix: Determined based upon the hospital's reported Gross Patient Service Revenue (GPSR). This calculation uses HFY2021 GPSR to be consistent with the HFY2022 Massachusetts Acute Hospital and Health System Financial Performance published in September 2023.

Calculation - Public Payer Mix = (Medicaid Managed GPSR + Medicaid Non-Managed GPSR + Medicare Managed GPSR + Medicare Non-Managed GPSR + Other Government GPSR + HSN GPSR) / Total GPSR.

Data sources: Hospital Cost Report Tab 5, Columns 1; 2; 3; 4; 5; 8 & 13, Line 302.

Percent of Total GPSR - Medicare/Medicaid/Commercial: Determined based upon the hospital's reported HFY 2022 Gross Patient Service Revenue.

Calculation - Percent of Total GPSR Medicare = (Medicare Managed GPSR + Medicare Non-Managed GPSR) / Total GPSR.

Calculation - Percent of Total GPSR Medicaid = (Medicaid Managed GPSR + Medicaid Non-Managed GPSR) / Total GPSR.

Calculation - Percent of Total GPSR Commercial = (Commercial Managed GPSR + Commercial Non-Managed GPSR) / Total GPSR.

Data sources: Hospital Cost Report Tab 5, Columns 1; 2; 3; 4; 5; 9 & 10, Line 302.

Calendar Year (CY) 2021 Commercial Statewide Relative Price: A relativity calculated for a given provider across all commercial payers (statewide RP or "S-RP"). For more information on S-RP methodology, refer to <https://www.chiamass.gov/assets/docs/r/pubs/2023/Relative-Price-Executive-Summary-2021.pdf>

Acute Hospital Profiles: Financial

Gross and Net Patient Service Revenues (GPSR & NPSR)

Inpatient Gross Patient Service Revenue (GPSR): The total amount the hospital reported having charged for their inpatient services.

Data source: Hospital Cost Report Tab 5, Column 1, Line 206.

Outpatient Gross Patient Service Revenue (GPSR): The total amount the hospital reported having charged for their outpatient services.

Data source: Hospital Cost Report Tab 5, Column 1, Line 207.

Total Gross Patient Service Revenue (GPSR): The sum of Inpatient Gross Patient Service Revenue and Outpatient Gross Patient Service Revenue.

Data source: Hospital Cost Report Tab 5, Column 1, Line 302.

Inpatient Net Patient Service Revenue (NPSR): The total amount the hospital reported having received for their inpatient services.

Data source: Hospital Cost Report Tab 5, Column 1, Line 208.

Inpatient Net Patient Service Revenue (NPSR) per Case Mix Adjusted Discharge (CMAD): The hospital's NPSR divided by the product of the hospital's discharges and its case mix index.

Calculation: $\text{Inpatient Net Patient Service Revenue (NPSR) per Case Mix Adjusted Discharge (CMAD)} = \frac{\text{Inpatient Net Patient Service Revenue}}{(\text{Hospital Case Mix Index} * \text{Total Hospital Discharges})}$

Data sources: Hospital Cost Report Tab 5, Column 1, Line 206; Tab 3, Column 5, Line 500. & Hospital Discharge Dataset

Outpatient Net Patient Service Revenue (NPSR): The total amount the hospital reported having received for their outpatient services.

Data source: Hospital Cost Report Tab 5, Column 1, Line 209.

Inpatient Costs per Case Mix Adjusted Discharge (CMAD): The hospital's costs are divided by the product of the hospital's discharges and its case mix index (used only for Shriners Boston and Shriners Springfield).

Calculation: $\text{Inpatient Costs per Case Mix Adjusted Discharge (CMAD)} = \frac{\text{Inpatient Costs}}{(\text{Hospital Case Mix Index} * \text{Total Hospital Discharges})}$

Data sources: Hospital Cost Report Tab 2, Column 9, Line 302; Tab 3, Column 5, Line 500. & Hospital Discharge Dataset

Revenue and Expenses

Operating Revenue: Revenue from normal operations of an entity, including patient care and other activities, such as research, gift shops, parking, and cafeteria.

Data Source: Standardized Financial Statements: Total Operating Revenue

COVID Funding Included in Operating Revenue: The total funding received from the federal and state government related to the COVID-19 pandemic and reported as operating revenue.

Calculation - COVID Funding Included in Operating Revenue = Other Operating Revenue: Federal COVID-19 Relief Funds + Other Operating Revenue: State & Other COVID-19 Relief Funds

Data Source: Standardized Financial Statements: Other Operating Revenue: Federal COVID-19 Relief Funds, Other Operating Revenue: State & Other COVID-19 Relief Funds

Non-Operating Revenue: Non-operating revenue includes items that are not related to operations, such as investment income, contributions, gains from the sale of assets and other unrelated business activities.

Data Source: Standardized Financial Statements: Total Non-Operating Revenue

Total Revenue: The combined revenue derived from operating and non-operating activities.

Data Source: Standardized Financial Statements: Total Unrestricted Revenue Gains and Other Support

Total Expenses: The total costs for the hospital derived from operating and non-operating activities.

Data Source: Financial Statements: Total Expenses Including Nonrecurring Gains Losses

Total Surplus (Deficit): The total amount of surplus or deficit derived from operating and non-operating activities.

Data Source: Standardized Financial Statements: Total Excess of Revenue Gains and Other Support Over Expenses

Operating Margin: Operating income is income from normal operations of an entity, including patient care and other activities, such as research, gift shops, parking, and cafeteria, minus the expenses associated with such activities. Operating Margin is a critical ratio that measures how profitable the entity is when looking at the performance of its primary activities.

Calculation - Operating Margin = (Total Operating Revenue – Total Expenses Including Nonrecurring Gains or Losses) / Total Unrestricted Revenue, Gains and Other Support

Data Source: Standardized Financial Statements: Financial Metrics (With COVID-19 Relief Funds) Operating Margin

Non-Operating Margin: Non-operating income includes items that are not related to operations, such as investment income, contributions, gains from the sale of assets and other unrelated business activities.

Calculation - Non-Operating Margin = Total Non-Operating Revenue / Total Unrestricted Revenue, Gains and Other Support

Data Source: Standardized Financial Statements: Financial Metrics (With COVID-19 Relief Funds) Non-Operating Margin

Total Margin This ratio evaluates the overall profitability of the entity using both operating surplus (or loss) and non-operating surplus (or loss).

Calculation - Total Margin = Total Excess of Revenue, Gains and Other Support Over Expenses / Total Unrestricted Revenue, Gains and Other Support

Data Source: Standardized Financial Statements: Financial Metrics (With COVID-19 Relief Funds) Total Margin

Solvency and Liquidity

Total Net Assets or Equity: For not-for-profit entities, this represents the difference between the assets and liabilities of an entity, comprised of retained earnings from operations and contributions from donors. Changes from year to year are attributable to two major categories: (1) increases and/or decreases in Unrestricted Net Assets, which are affected by operations, and (2) changes in Restricted Net Assets (restricted contributions). The for-profit equivalent of Total Net Assets is Owner's Equity.

Data Source: Standardized Financial Statements: Total Net Assets or Equity

Current Ratio: This ratio measures the entity's ability to meet its current liabilities with its current assets (assets expected to be realized in cash during the fiscal year). A ratio of 1.0 or higher indicates that all current liabilities could be adequately covered by the entity's existing current assets.

Calculation - Current Ratio = Total Current Assets / Total Current Liabilities

Data Source: Standardized Financial Statements: FINANCIAL METRICS (With COVID-19 Relief Funds) Current Ratio

Debt Service Coverage Ratio: This ratio measures the ability of an entity to cover current debt obligations with funds derived from both operating and non-operating activity. Higher ratios indicate an entity is better able to meet its financing commitments. A ratio of 1.0 indicates that average income would just cover current interest and principal payments on long term debt.

Calculation - Debt Service Coverage Ratio = (Total Excess of Revenue, Gains, and Other Support Over Expenses + Depreciation and Amortization Expense + Interest Expense) / (Interest Expense + Current Long Term Debt)

Data Source: Standardized Financial Statements: FINANCIAL METRICS (With COVID-19 Relief Funds) Debt Service Coverage Ratio

Cash Flow to Total Debt: This ratio reflects the amount of cash flow being applied to total outstanding debt (all current liabilities in addition to long-term debt) and reflects how much cash can be applied to debt repayment. The lower the ratio, the more likely an entity will be unable to meet debt payments of interest and principal, and the higher the likelihood of violating any debt covenants.

Calculation - Cash Flow to Total Debt = (Total Excess of Revenue, Gains, and Other Support Over Expenses + Depreciation and Amortization Expense) / (Total Current Liabilities + Long Term Debt Net of Current Portion)

Data Source: Standardized Financial Statements: FINANCIAL METRICS (With COVID-19 Relief Funds)
Cash Flow to Total Debt

Equity Financing Ratio: This ratio reflects the ability of an entity to take on more debt and is measured by the proportion of total assets financed by equity. Low values indicate an entity used substantial debt financing to fund asset acquisition and therefore may have difficulty taking on more debt to finance further asset acquisition.

Calculation - Equity Financing = Total Net Assets or Equity / Total Assets

Data Source: Standardized Financial Statements: FINANCIAL METRICS (With COVID-19 Relief Funds)
Equity Financing Ratio

Average Age of Plant: Indicates the financial age of the fixed assets of the organization. The older the average age, the greater the short term need for capital resources.

Calculation - Average Age of Plant = Accumulated Depreciation / Depreciation and Amortization Expense

Data Source: Standardized Financial Statements: FINANCIAL METRICS (With COVID-19 Relief Funds)
Average Age of Plant

Acute Hospital Profiles: Utilization

Licensed Beds: The average number of beds during the fiscal year that the hospital is licensed to have in service and staffed for patient use.

Data Source: Hospital Cost Report Tab 3, Column 1, Line 500.

Available Beds: The average number of beds during the fiscal year that were available to be put in service and staffed for patient use.

Data Source: Hospital Cost Report Tab 3, Column 2, Line 500.

Staffed Beds: The average number of beds during the fiscal year that were in service and staffed for patient use.

Data Source: Hospital Cost Report Tab 3, Column 3, Line 500.

Percentage Occupancy: The median percent of staffed inpatient beds occupied during the reporting period. Percentage of occupancy is calculated as follows: Inpatient Days divided by Weighted Average Staffed Beds times 365 (or the number of days in the reporting period).

Data Source: Hospital Cost Report Tab 3, Column 6, Line 500.

Inpatient Discharges: The total number of discharges reported by the hospital.

Data Source: Hospital Cost Report Tab 3, Column 5, Line 500.

Calculation - Percent Change from HFY2021 = (HFY2022 Discharges – HFY2021 Discharges) / HFY2021 Discharges.

Calculation - Percent of Total Region Discharges = Hospital Discharges / The Sum of the Total Discharges for Each Acute Hospital in the Same Region.

Calculation - Percent of Statewide Total Discharges = Hospital Discharges / The Sum of the Total Discharges for Each Acute Hospital.

Inpatient Days: Total days of care for all patients admitted to each unit. Measure includes the day of admission but not the day of discharge or death. If both admission and discharge or death occur on the same day, the day is considered a day of admission and is counted as one patient day.

Data Source: Hospital Cost Report Tab 3, Column 4, Line 500.

Calculation - Percent Change from HFY2021 = (HFY2022 Inpatient Days – HFY2021 Inpatient Days) / HFY2021 Inpatient Days.

Calculation - Percent of Total Region Discharges = Hospital Inpatient Days / The Sum of the Total Inpatient Days for Each Acute Hospital in the Same Region.

Calculation - Percent of Statewide Total Discharges = Hospital Inpatient Days / The Sum of the Total Inpatient Days for Each Acute Hospital.

Average Length of Stay: The average duration of an inpatient admission.

Data Source: Hospital Cost Report Tab 3, Column 8, Line 500.

Calculation - Percent Change from HFY2021 = (HFY2022 Average Length of Stay – HFY2021 Average Length of Stay) / HFY2021 Average Length of Stay.

Emergency Department Visits: Any visit by a patient to an emergency department that results in registration at the Emergency Department. An Emergency Department visit occurs even if the only service provided to a registered patient is triage or screening.

Data Source: Hospital Cost Report Tab 5, Column 1, Line 91.

Calculation - Percent Change from HFY2021 = (HFY2022 Emergency Department Visits – HFY2021 Emergency Department Visits) / HFY2021 Emergency Department Visits.

Calculation - Percent of Total Region Discharges = Hospital Emergency Department Visits / The Sum of the Total Emergency Department Visits for Each Acute Hospital in the Same Region.

Calculation - Percent of Statewide Total Discharges = Hospital Emergency Department Visits / The Sum of the Total Emergency Department Visits for Each Acute Hospital.

Outpatient Visits: The total outpatient visits reported by the hospital. Please note that outpatient visits may not be uniformly reported across hospitals. Where substantial increases or decreases were observed, hospitals were notified and afforded the opportunity to update the information provided. In most cases, hospitals provided explanations but did not revise their data.

Data Source: Hospital Cost Report Tab 5, Column 1, Line 301.

Calculation - Percent Change from HFY2021 = (HFY2022 Outpatient Visits – HFY2021 Outpatient Visits) / HFY2021 Outpatient Visits.

Acute Hospital Profiles: Top Discharges by Inpatient Case (DRG) and Community

Top Discharges by Inpatient Case (DRG): A report of the top discharges and each of those discharges as a percentage of the hospital's total discharges.

Data Sources: FFY 2022 HDD data as of March 2023 and the 3M™ APR-DRG 34 All Patient Refined Groupers

Hospital Calculation: Each discharge was grouped and ranked by DRG code. The subject hospital's 10 most frequently occurring DRGs were identified, and those discharges were compared to the total hospital discharges in order to get the percentage of the total hospital discharges.

For more information on DRGs, please see Appendix C.

Top Discharges by Community: Where the hospital's inpatient discharges originated and the total percent of all discharges (from Massachusetts hospitals) from that community that went to that hospital.

Data Source: FFY 2022 HDD data as of March 2023 for discharge information; patient origin was determined by the zip codes from where the patients resided. In larger cities, the top communities may reflect postal code neighborhoods.

Hospital Calculation: The zip code for each patient discharge was matched with the USPS community name, and then grouped and ranked. The most frequently occurring communities were then summed for all hospitals in the region to calculate the percent of community discharges that went to the subject hospital.

A hospital's top communities by inpatient origin were determined using a hospital's HFY2022 discharge data from the HDD. Patient origin was determined by the reported zip code for each patient's residence. In larger cities, communities may include multiple zip codes. These zip codes were rolled up to reflect postal code neighborhoods based on the United States Postal Service Database. For more information on the zip codes included within each region, please see the databook.

For example, Boston zip codes were rolled up to the following designations: Boston (Downtown) includes: Back Bay, Beacon Hill, Downtown Boston, the Financial District, East Boston, Fenway/Kenmore, South Boston and South End. The remaining Boston communities with multiple zip codes were rolled up to these designations: Allston, Brighton, Charlestown, Dorchester, Dorchester Center, Hyde Park, Jamaica Plain, Mattapan, Mission Hill, Roslindale, Roxbury, and West Roxbury

Non-Acute Hospital Multi-Hospital System Affiliations and Cohorts

Non-acute hospitals in Massachusetts are typically identified as psychiatric, rehabilitation, chronic care facilities and state-owned non-acute hospitals including department of mental health and department of public health hospitals.

The location for each non-acute hospital in this report was obtained, where possible, from hospital licensing information collected by DPH. The hospital license includes information on a hospital's campuses and satellite offices.

Multi-hospital system membership identifies the health system with which the subject non-acute hospital is a member. This information was derived from the hospital's Audited Financial Statements.

Below is a list of Massachusetts multi-hospital systems and their non-acute hospital members:

MULTI-HOSPITAL SYSTEM	NON-ACUTE HOSPITAL MEMBER
Acadia Healthcare	Haverhill Pavilion Southcoast Behavioral
Encompass Health	Encompass Rehabilitation Hospital of Braintree Encompass Rehabilitation Hospital of Western MA Encompass Rehabilitation Hospital of New England Fairlawn Rehabilitation Hospital, Encompass
Health Partners New England	TaraVista Behavioral Health Center MiraVista Behavioral Health Center (first reporting for 2022)
Mass General Brigham	McLean Hospital Spaulding Rehabilitation Hospital Boston Spaulding Rehabilitation Hospital Cape Cod Spaulding Hospital Cambridge
Signature Healthcare Services	Westborough Behavioral Healthcare Hospital
Steward Health Care	New England Sinai Hospital
Vibra Healthcare	Vibra Hospital of Western MA Vibra New Bedford Rehabilitation Hospital
Universal Health Service	Arbour Hospital Arbour Fuller Arbour HRI Hospital Westwood Lodge Pembroke
Whittier Health System	Whittier Rehabilitation Hospital Bradford Whittier Rehabilitation Hospital Westborough

Non-Acute Hospital Cohorts

Non-acute hospitals were assigned to peer cohorts based upon MassHealth regulatory designations, defined by the criteria below²:

Behavioral health hospitals are licensed by the DMH for behavioral health services, and by DPH for substance abuse services.

Rehabilitation hospitals provide intensive post-acute rehabilitation services, such as physical, occupational, and speech therapy services. For Medicare payment purposes, the federal government classifies hospitals as rehabilitation hospitals if they provide more than 60% of their inpatient services to patients with one or more of 13 diagnoses listed in federal regulations.³

Chronic care hospitals are hospitals with an average length of stay greater than 25 days. These hospitals typically provide longer-term care, such as ventilator-dependent care. Medicare classifies chronic hospitals as Long-Term Care Hospitals, using the same 25-day threshold.

Department of Mental Health Hospitals are state-owned non-acute hospitals that provide behavioral and mental health care for those with otherwise limited access to facilities providing such care.

Department of Public Health Hospitals are multi-specialty hospitals that provide acute and chronic care to those for whom community facilities are not available or access to health care is restricted.

Non-acute specialty hospitals are not included in any cohort comparison analysis due to the unique patient populations they serve and/or the unique sets of services they provide. Non-acute hospitals that were considered specialty hospitals include:

- AdCare Hospital of Worcester - provides substance abuse services.
- Franciscan Hospital for Children - provides specialized children's services.
- Hebrew Rehabilitation Hospital - specializes in providing longer term care than other chronic hospitals.

Below is a list of non-acute hospital cohorts and the hospitals assigned to each:

COHORT DESIGNATION	NON-ACUTE HOSPITAL
Behavioral Health Hospitals	Arbour Hospital Arbour Fuller Memorial

² State-owned non-acute hospitals are included in this publication started with the 2018 report.

³ Code of Federal Regulations: 42 CFR 412.29(b)(2)

COHORT DESIGNATION	NON-ACUTE HOSPITAL
	Arbour HRI Hospital Bournewood Hospital Haverhill Pavillion Hospital for Behavioral Medicine McLean Hospital MiraVista Behavioral Health Center Southcoast Behavioral Hospital TaraVista Behavioral Health Center Walden Behavioral Care Westborough Behavioral Healthcare Hospital Westwood Lodge Pembroke
Rehabilitation Hospitals	Encompass Rehabilitation Hospital of Braintree Encompass Rehabilitation Hospital of New England Encompass Rehabilitation Hospital of Western MA Fairlawn Rehabilitation Hospital, Encompass Spaulding Rehabilitation Hospital Boston Spaulding Rehabilitation Hospital Cape Cod Vibra Hospital of Southeastern Massachusetts Whittier Rehabilitation Hospital Bradford Whittier Rehabilitation Hospital Westborough
Chronic Care Hospitals	Curahealth Stoughton New England Sinai Hospital Spaulding Hospital Cambridge Vibra Hospital of Western Massachusetts
Specialty Non-Acute Hospitals	AdCare Hospital of Worcester Franciscan Hospital for Children Hebrew Rehabilitation Hospital
Department of Mental Health Hospitals	Cape Cod & Islands Community Mental Health Center Corrigan Mental Health Center Solomon Carter Fuller Mental Health Center Taunton State Hospital Worcester State Hospital
Department of Public Health Hospitals	Lemuel Shattuck Hospital Pappas Rehabilitation Hospital for Children Tewksbury Hospital Western Massachusetts Hospital

Non-Acute Hospital Profiles: At a Glance

Total Cohort Staffed Beds: The sum of the average number of beds during the fiscal year that were in service and staffed for patient use for the cohort. Beds ordinarily occupied for less than 24 hours are usually not included. The total staffed beds for the cohort are then compared to the total staffed beds for all non-acute hospitals.

Data source: Hospital Cost Report Tab 3, Column 3, Line 500.

Median Cohort Percent Occupancy Rate: The median percent of staffed inpatient beds occupied during the reporting period. Percentage of occupancy is calculated as follows: Inpatient Days divided by Weighted Average Staffed Beds times 365 (or the number of days in the reporting period). The median is calculated for each hospital in the cohort's percentage occupancy. This cohort median percentage occupancy is compared to the median percentage occupancy for all non-acute hospitals.

Data source: Hospital Cost Report Tab 3, Column 6, Line 500.

Total Inpatient Days: All days of care for all patients admitted to each unit for the entire cohort. Measure includes the day of admission but not the day of discharge or death. If both admission and discharge or death occur on the same day, the day is considered a day of admission and is counted as one patient day. The total inpatient days for the cohort are then compared to the total inpatient days for all non-acute hospitals.

Data source: Hospital Cost Report Tab 3, Column 4, Line 500.

Total Inpatient Discharges: Sourced from Tab 3 of the Massachusetts Hospital Cost Report. The total inpatient discharges for the cohort are then compared to the total inpatient discharges for all non-acute hospitals.

Data source: Hospital Cost Report Tab 3, Column 5, Line 500.

Average Public Payer Mix: Determined based upon hospital's reported GPSR in HFY2022. An average is then taken of each hospital in the cohort's public payer mix. The average public payer mix for the cohort is then compared to the average public payer mix for all non-acute hospitals.

Calculation - Public Payer Mix = (Medicaid Managed GPSR + Medicaid Non-Managed GPSR + Medicare Managed GPSR + Medicare Non-Managed GPSR + Other Government GPSR + HSN GPSR) / Total GPSR.

Data sources: Hospital Cost Report Tab 5, Columns 1; 2; 3; 4; 5; 8 & 13, Line 302.

Total Gross Patient Service Revenue (GPSR): The total amount each hospital in the cohort charged for their inpatient and outpatient services. The total GPSR for the cohort are then compared to the total GPSR for all non-acute hospitals.

Data source: Hospital Cost Report Tab 5, Column 1, Line 302.

Percent of Total GPSR - Medicare/Medicaid/Commercial: Determined based upon the hospital's reported HFY 2022 Gross Patient Service Revenue.

Calculation - Percent of Total GPSR Medicare = (Medicare Managed GPSR + Medicare Non-Managed GPSR) / Total GPSR.

Calculation - Percent of Total GPSR Medicaid = (Medicaid Managed GPSR + Medicaid Non-Managed GPSR) / Total GPSR.

Calculation - Percent of Total GPSR Commercial = (Commercial Managed GPSR + Commercial Non-Managed GPSR) / Total GPSR.

Data sources: Hospital Cost Report Tab 5, Columns 1; 2; 3; 4; 5; 9 & 10, Line 302.

Total Inpatient Gross Patient Service Revenue (GPSR): The total amount each hospital in the cohort charged for their inpatient services. The total inpatient GPSR for the cohort are then compared to the total GPSR discharges for all non-acute hospitals.

Data source: Hospital Cost Report Tab 5, Column 1, Line 206.

Total Outpatient Gross Patient Service Revenue (GPSR): The total amount each hospital in the cohort charged for their outpatient services. The total outpatient GPSR for the cohort are then compared to the total outpatient GPSR for all non-acute hospitals.

Data source: Hospital Cost Report Tab 5, Column 1, Line 207.

Non-Acute Hospital Profiles: Individual Hospital Metrics

Inpatient Days: All days of care for all patients admitted to each unit. Measure includes the day of admission but not the day of discharge or death. If both admission and discharge or death occur on the same day, the day is considered a day of admission and is counted as one patient day.

Data source: Hospital Cost Report Tab 3, Column 4, Line 500.

Average Length of Stay: The average duration of an inpatient admission.

Data source: Hospital Cost Report Tab 3, Column 8, Line 500.

Outpatient Visits: The total outpatient visits reported by the hospital. Note that outpatient visits may not be uniformly reported across hospitals. Where substantial increases / decreases were observed, hospitals were notified and afforded the opportunity to update the information provided. In most cases, hospitals provided explanations but did not revise their data.

Data source: Hospital Cost Report Tab 5, Column 1, Line 301.

Inpatient Revenue per Day: The hospital's net inpatient service revenue (NPSR) divided by its total inpatient days.

Data source: Hospital Cost Report Tab 5, Column 1, Line 208 & Tab 3, Column 4, Line 500.

Total Outpatient Revenue: A hospital's reported net revenue for outpatient services. Note that this measure examines the growth in total outpatient revenue and is not adjusted for patient volume. In addition, several non-acute hospitals do not provide outpatient services.

Data Source: Hospital Cost Report Tab 5, Column 1, Line 209.

Total Revenue, Cost and Profit: The following metrics were reported for each hospital in HFY2022:

Operating Revenue: Revenue from normal operations of an entity, including patient care and other activities, such as research, gift shops, parking, and cafeteria.

Data Source: Hospital Cost Report Tab 11, Column 1, Line 57.2.

Total Revenue: The combined revenue derived from operating and non-operating activities.

Data Source: Hospital Cost Report Tab 11, Column 1, Line 65.

Total Expenses: The total costs for the hospital derived from operating and non-operating activities.

Data Source: Hospital Cost Report Tab 11, Column 1, Line 73.

Income (Loss): The total amount of income or loss derived from operating and non-operating activities.

Data Source: Hospital Cost Report Tab 11, Column 1, Line 74.

Total Margin: This ratio evaluates the overall profitability of the entity using both operating surplus (or loss) and non-operating surplus (or loss).

Calculation - Total Margin = Total Excess of Revenue, Gains and Other Support Over Expenses / Total Unrestricted Revenue, Gains and Other Support

Data Sources: Hospital Cost Report Tab 11, Column 1, Line 74 & Tab 11, Column 1, Line 65.

Note: Some for-profit hospitals are organized as S corporations. For-profit entities that are organized as S corporations, in accordance with Internal Revenue Code, do not pay federal income tax on their taxable income. Instead, the shareholders are liable for individual federal income taxes on their portion of the hospital's taxable income. Therefore, these hospitals may have income that appears higher than hospitals organized as a C corporation, which are taxed separately from their owners.

Appendix A: Acute Hospitals

Beth Israel Lahey Health formed in March, 2019 and includes the following Hospitals: **Addison Gilbert Hospital** (Northeast), **Anna Jaques Hospital**, **BayRidge Hospital** (Northeast), **Beth Israel Deaconess Hospital – Milton**, **Beth Israel Hospital – Needham**, **Beth Israel Hospital – Plymouth**, **Beth Israel Deaconess Medical Center**, **Beverly Hospital** (Northeast), **Lahey Hospital & Medical Center**, **Lahey Medical Center**, **Peabody**, **Mount Auburn Hospital**, **New England Baptist Hospital**, and **Winchester Hospital**.

As Beth Israel Lahey Health became financially consolidated in March 2019, seven months of financial data was reported for HFY 2019 for the system and its affiliated hospitals and physician organizations representing the period from March 1 through September 30, 2019.

Boston Medical Center

Outpatient metrics for Boston Medical Center (BMC) include information for the following freestanding community health centers:

1. East Boston Neighborhood Health Center
2. Codman Square Health Center
3. Dorchester House Multi-Service Center
4. South Boston Community Health Center

Cape Cod Hospital and **Falmouth Hospital** changed their methodology for counting outpatient visits to include all clinic visits for the entity starting in HFY2021.

Harrington Memorial Hospital and parent Harrington Healthcare System joined UMass Memorial Healthcare on July 1, 2021.

Lawrence General Hospital reported a significant increase in outpatient visits related to their COVID testing site operating in HFY 2021.

Massachusetts Eye and Ear Infirmary joined Mass General Brigham effective April 1, 2018.

Partners Health Care changed its name to **Mass General Brigham** in November 2019.

Mount Auburn Hospital changed their methodology for counting outpatient visits to include all clinic visits for the entity starting in HFY2020.

Nantucket Cottage Hospital's outpatient visits in HFY 2020 include the first full year of the rural health clinic.

Shriners Hospitals for Children Springfield is no longer an acute hospital and is now an outpatient center, effective 2023. This year is the last year they will be reported in Hospital Profiles.

Steward Health Care did not provide their audited financial statements, therefore their financial data is as reported or filed.

Steward Norwood Hospital was temporarily closed in July 2020 and remains closed as of this publication. No inpatient services were provided in HFY 2021 though some outpatient services were still available.

Tufts Medical Center's net patient service revenue includes their pharmacy revenue.

Wellforce changed its name to **Tufts Medicine** on March 1, 2022.

All Hospitals

All COVID Funding metrics are presented as reported by the hospital or entity with the exception of Steward Health Care. Steward Health Care did not report any of the COVID relief funding received by their eight hospitals as operating revenue. After obtaining the publicly available audited financial statements, their HFY 2020 data was revised by CHIA to include the Provider Relief Funds received by each of the hospitals in their operating revenue.

Effective HFY 2020 supplemental revenue is not included in net patient service revenue for all hospitals. Prior to HFY 2020, reporting of supplemental revenue varied by hospital.

There was an accounting change adopted by most hospitals beginning in HFY 2020 in which unrealized gains and losses on investments are now recognized as non-operating income.

Appendix B: Non-Acute Hospitals

Curahealth Stoughton is now **PAM Health Specialty Hospital of Stoughton** as of November 2021.

Haverhill Pavilion bought Whittier Pavilion in 2019. Outpatient Services closed.

Hospital for Behavioral Medicine is a new psychiatric hospital that opened in HFY 2019 with first data reported for HFY 2020.

Miravista Behavioral Health is a new psychiatric hospital that opened in 2021 with first data reporting for HFY 2022. It was previously Providence Behavioral Health and reported under Mercy Medical Center (an acute hospital).

Westwood Lodge Pembroke Hospital: Westwood Hospital was closed by the Department of Mental Health in August 2017. The Pembroke Hospital site remains open.

Appendix C: Diagnosis Related Groups

Diagnosis Related Groups (DRGs) are used to classify the patient illnesses a hospital treats.

The 10 most common DRGs for each hospital were determined by categorizing all of a hospital's discharges into DRGs defined in the All Patient Refined Grouper (3M™ APR-DRG 34) and ranked by the total number of discharges. In most cases, it was necessary for CHIA to abbreviate the DRG name in order to fit the space available.

Below is a list of abbreviated DRG descriptions that appear in the report and their full name.

ABBREVIATED DESCRIPTION	DESCRIPTION
Acute Kidney Injury	Acute Kidney Injury
Acute major eye infections	Acute major eye infections

ABBREVIATED DESCRIPTION	DESCRIPTION
Acute myocardial infarction	Acute myocardial infarction
Adjust Dis/Neuroses Exc Dd	Adjustment disorders & neuroses except depressive diagnoses
Alcohol & Drug W/ Rehab	Alcohol & drug dependence w rehab or rehab/detox therapy
Alcohol abuse & dependence	Alcohol abuse & dependence
Bipolar disorders	Bipolar disorders
Bone marrow transplant	Bone marrow transplant
C. Spinal Fusion & Other Procs	Cervical spinal fusion & other back/neck proc exc disc excis/decomp
Cardiac Arrhythmia	Cardiac arrhythmia & conduction disorders
Cardiac Cath - Other Non Coronary	Cardiac catheterization for other non-coronary conditions
Cardiac Valve Proc W/O Ami Or Complex Pdx	Cardiac valve procedures w/o AMI or complex PDX
Cellulitis & Other Skin Infections	Cellulitis & other skin infections
Cesarean delivery	Cesarean delivery
Chemotherapy For Acute Leukemia	Chemotherapy for acute leukemia
Chronic Obstructive Pulmonary Disease	Chronic obstructive pulmonary disease
Coronary Bypass W/O Ami Or Complex Pdx	Coronary bypass w/o AMI or complex PDX
Craniotomy except for trauma	Craniotomy except for trauma
Cva & Precerebral Occlusion W/ Infarct	CVA & precerebral occlusion w infarct
D & L Fusion Exc Curvature	Dorsal & lumbar fusion proc except for curvature of back
D & L Fusion For Curvature	Dorsal & lumbar fusion proc for curvature of back
Degen Nrvs Syst Exc Ms	Degenerative nervous system disorders exc mult sclerosis
Depression Exc Mdd	Depression except major depressive disorder
Diabetes	Diabetes
Digestive malignancy	Digestive malignancy
Disorders Of Pancreas Except Malignancy	Disorders of pancreas except malignancy
Diverticulitis & Diverticulosis	Diverticulitis & diverticulosis
Drug/Alcohol Abuse, Lama	Drug & alcohol abuse or dependence, left against medical advice
Electrolyte Dis Exc Hypovolemia Rel	Electrolyte disorders except hypovolemia related
Extracranial Vascular Procedures	Extracranial vascular procedures
Eye Disorders Except Major Infections	Eye disorders except major infections
Eye procedures except orbit	Eye procedures except orbit

ABBREVIATED DESCRIPTION	DESCRIPTION
Factors Influencing Health Status	Signs, symptoms & other factors influencing health status
Fracture & Dislocation Except Femur, Pelvis & Back	Fractures & dislocations except femur, pelvis & back
Fracture of femur	Fracture of femur
Fracture Of Pelvis Or Dislocation Of Hip	Fracture of pelvis or dislocation of hip
Heart failure	Heart failure
Hip and femur fracture repair	Hip and femur fracture repair
Hip joint replacement	Hip joint replacement
Hypovolemia & Related Electrolyte Disorders	Hypovolemia & related electrolyte disorders
Infectious & Parasitic Diseases Including HIV With/Without O.R. Procedure	Infectious & parasitic diseases including HIV with O.R. procedure
Intervertebral Disc Excision	Intervertebral disc excision & decompression
Intestinal obstruction	Intestinal obstruction
Kidney & Urinary Tract Infections	Kidney & urinary tract infections
Knee & Lower Leg Procedures Except Foot	Knee & lower leg procedures except foot
Knee joint replacement	Knee joint replacement
Lymphoma, Myeloma & Non-Acute Leukemia	Lymphoma, myeloma & non-acute leukemia
Major Cardiothoracic Repair Of Heart	Major cardiothoracic repair of heart anomaly
Major Cranial/Facial Bone Procedures	Major cranial/facial bone procedures
Major Depressive Disorders	Major depressive disorders & other/unspecified psychoses
Major Depressive Disorders	Major depressive disorders & other/unspecified psychoses
Major Hematologic/Immunologic Diagnosis Except Sickle Cell Crisis & Coagulation	Major hematologic/immunologic diagnosis except sickle cell crisis & coagulation
Major Larynx & Trachea Procedures	Major larynx & trachea procedures
Major Respiratory Infection & Inflammation	Major respiratory infections & inflammations
Major Respiratory & Chest Procedures	Major respiratory & chest procedures
Major Small & Large Bowel Procedures	Major small & large bowel procedures
Major Stomach, Esophagus & Duodenum Procedures	Major stomach, esophageal & duodenal procedures
Malignancy - Hepatobiliary/Pancreas	Malignancy of hepatobiliary system & pancreas
Malnutrition, Failure To Thrive & Other	Malnutrition, failure to thrive & other nutritional disorders
Moderately Extensive Procedure Unrelated To Principal Diagnosis	Moderately extensive procedure unrelated to principal diagnosis
Musculoskeletal Malignancy & Pathologic Fracture Due To Musculoskeletal Malignancy	Musculoskeletal malignancy & pathologic fracture due to musculoskeletal malignancy

ABBREVIATED DESCRIPTION	DESCRIPTION
Nervous system malignancy	Nervous system malignancy
Normal Neonate Birth	Neonate birthwt >2499g, normal newborn or neonate w other problem
Normal Neonate Birth	Neonate birthwt >2499g, normal newborn or neonate w other problem
O.R. Proc For Tx Comp	O.R. procedure for other complications of treatment
Opioid abuse & dependence	Opioid abuse & dependence
Orbital procedures	Orbital procedures
Organic Mental Health Disturbances	Organic mental health disturbances
Other Aftercare & Convalescence	Other aftercare & convalescence
Other Anemia And Blood Dis	Other anemia & disorders of blood & blood-forming organs
Other Back & Neck Disorder	Other back & neck disorders, fractures & injuries
Other Cardiothoracic & Thoracic Vascular Procs	Other cardiothoracic & thoracic vascular procedures
Other Chemotherapy	Other Chemotherapy
Other Digestive System Diagnoses	Other digestive system diagnoses
Other Disorders Of Nervous System	Other disorders of nervous system
Other Ear, Nose, Mouth, Throat, Cran/Fac Malign	Other ear, nose, mouth, throat & cranial/facial diagnoses
Other Ent Procedures	Other ear, nose, mouth & throat procedures
Other Gastroenteritis, Nausea & Vomiting	Other gastroenteritis, nausea & vomiting
Other Major Head & Neck Procedures	Other major head & neck procedures
Other Muscl Sys & Tis Proc	Other musculoskeletal system & connective tissue diagnoses
Other Muscl Sys & Tis Proc	Other musculoskeletal system & connective tissue procedures
Other Nervous Syst Procs	Other nervous system & related procedures
Other pneumonia	Other pneumonia
Other Significant Hip And Femur Surgery	Other significant hip and femur surgery
Other Skin, Tis & Rel Procs	Other skin, subcutaneous tissue & related procedures
Other O.R. Procs For Lymph/Hem	Other O.R. procedures for lymphatic/hematopoietic/other neoplasm
Peptic ulcer & gastritis	Peptic ulcer & gastritis
Per Coronary Inter W/ Ami	Percutaneous coronary intervention w AMI
Per Coronary Inter W/O Ami	Percutaneous coronary intervention w/o AMI
Poisoning of medicinal agents	Poisoning of medicinal agents

ABBREVIATED DESCRIPTION	DESCRIPTION
Post-Op, Other Device Infect	Post-operative, post-traumatic, other device infections
Post-Op, Post-Trauma, Other Dev Inf W/ O.R. Proc	Post-op, post-trauma, other device infections w O.R. procedure
Proc w diag of rehab or aftercare	Procedure w diag of rehab, aftercare or oth contact w health servic
Procedures for obesity	Procedures for obesity
Rehabilitation	Rehabilitation
Respiratory Failure	Respiratory Failure
Respiratory malignancy	Respiratory malignancy
Schizophrenia	Schizophrenia
Seizure	Seizure
Septicemia & Disseminated Infections	Septicemia & disseminated infections
Shoulder & Arm Procs Exc Joint Replacement	Shoulder, upper arm & forearm procedures except joint replaceme
Shoulder & Elbow Joint Replacement	Shoulder & elbow joint replacement
Sickle cell anemia crisis	Sickle cell anemia crisis
Sinus & mastoid procedures	Sinus & mastoid procedures
Vaginal delivery	Vaginal delivery