2013 Hospital Profile:
UMASS MEMORIAL MEDICAL CENTER

UMass Memorial Medical Center is a large, non-profit academic medical center (AMC) located in the Central Massachusetts region. UMass Memorial is a member of the UMass Memorial Health Care system, and one of eight organ transplant centers in Massachusetts. It also qualifies as a Disproportionate Share Hospital (DSH). UMass Memorial earned a profit each year from FY09 to FY13, with a total margin of 4.6% in FY13, similar to the median performance of peer cohort hospitals. Its operating margin in FY13 was -2.3%, its only negative operating margin in the five-year period.
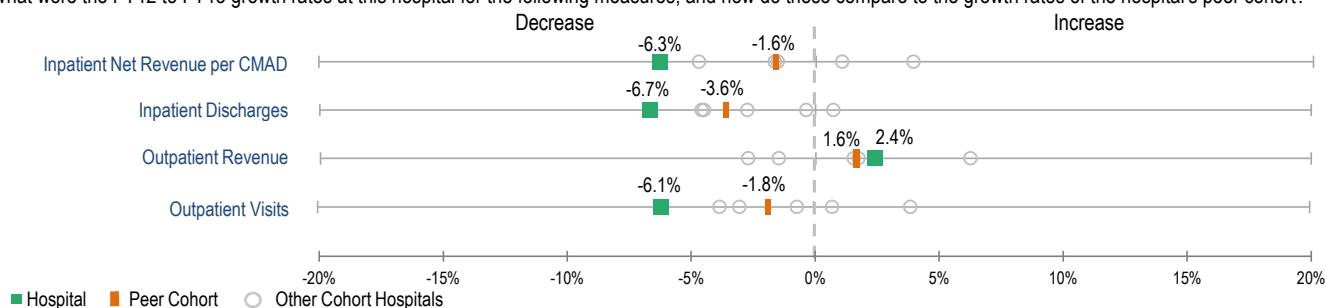
AT A GLANCE

TOTAL STAFFED BEDS: 724, 4th largest acute hospital

% OCCUPANCY: 81%, < cohort avg. (85%)

CASE MIX INDEX in FY13: 1.24, < cohort avg. (1.32); > statewide (0.89)

INPATIENT DISCHARGES in FY13: 41,968

TRAUMA CENTER DESIGNATION: Adult: Level 1, Pedi: Level 1

EMERGENCY DEPT VISITS in FY13: 134,891

PUBLIC PAYER MIX: 64% (DSH* Hospital)

SPECIAL PUBLIC FUNDING: ICB[θ]

CY13 COMMERCIAL PAYER PRICE LEVEL: 76th Percentile

ADJUSTED[‡] COST PER DISCHARGE: $10,122

INPATIENT:OUTPATIENT REVENUE in FY13: 46%:54%

CHANGE IN OWNERSHIP (FY09-FY13): Not Applicable
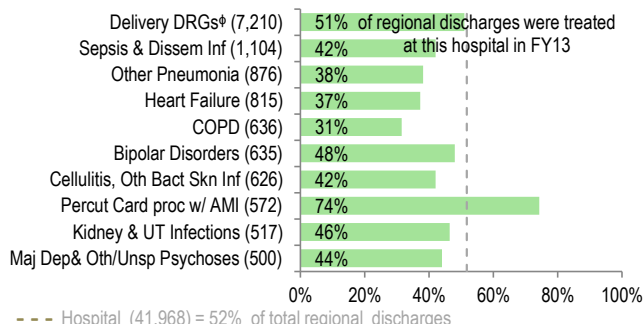
GROWTH MEASURES

What were the FY12 to FY13 growth rates at this hospital for the following measures, and how do these compare to the growth rates of the hospital's peer cohort?

Measure	Hospital	Peer Cohort
Inpatient Net Revenue per CMAD	-6.3%	-1.6%
Inpatient Discharges	-6.7%	-3.6%
Outpatient Revenue	2.4%	1.6%
Outpatient Visits	-6.1%	-1.8%

■ Hospital   ■ Peer Cohort   ○ Other Cohort Hospitals
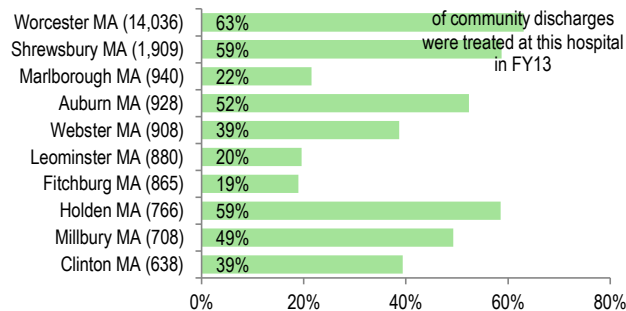
SERVICES

What were the most common inpatient cases (DRGs) treated at the hospital? What proportion of the region's cases did this hospital treat for each service?

Discharges by DRG

DRG	%
Delivery DRGs[φ] (7,210)	51% of regional discharges were treated at this hospital in FY13
Sepsis & Dissem Inf (1,104)	42%
Other Pneumonia (876)	38%
Heart Failure (815)	37%
COPD (636)	31%
Bipolar Disorders (635)	48%
Cellulitis, Oth Bact Skn Inf (626)	42%
Percut Card proc w/ AMI (572)	74%
Kidney & UT Infections (517)	46%
Maj Dep& Oth/Unsp Psychoses (500)	44%

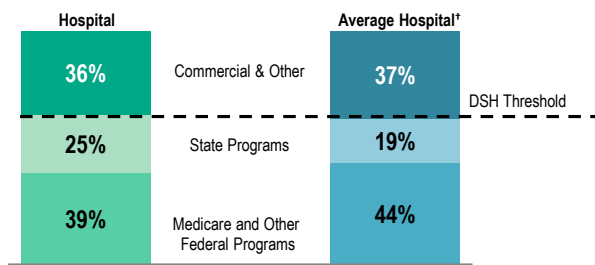- - - Hospital (41,968) = 52% of total regional discharges

Where did most of the hospital's inpatients reside? What proportion of each community's total discharges were attributed to this hospital?

Discharges by Community

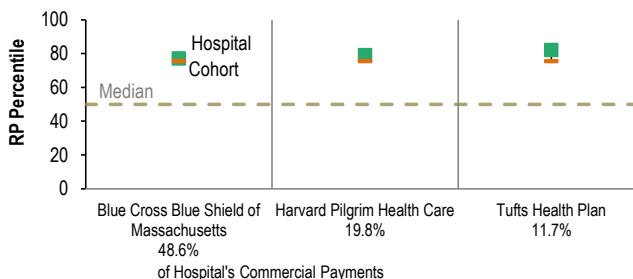| Community	%
Worcester MA (14,036)	63% of community discharges were treated at this hospital in FY13
Shrewsbury MA (1,909)	59%
Marlborough MA (940)	22%
Auburn MA (928)	52%
Webster MA (908)	39%
Leominster MA (880)	20%
Fitchburg MA (865)	19%
Holden MA (766)	59%
Millbury MA (708)	49%
Clinton MA (638)	39%

PAYER MIX

What was the hospital's overall payer mix (gross charges) in FY13, and how does this hospital compare to the average acute hospital's payer mix?

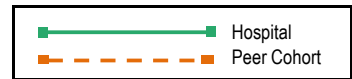|	Hospital	Average Hospital[†]	
Commercial & Other	36%	37%	DSH Threshold
State Programs	25%	19%	
Medicare and Other Federal Programs	39%	44%	

Percentage calculations may not sum to 100% due to rounding

What were the hospital's CY13 payer-specific relative price levels for its top three commercial payers? How does this hospital compare to the average hospital in its peer cohort?
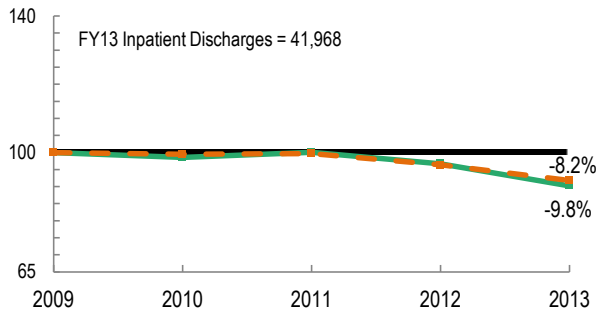

■ Hospital
■ Cohort
Median

Payer	
Blue Cross Blue Shield of Massachusetts 48.6%	of Hospital's Commercial Payments
Harvard Pilgrim Health Care 19.8%	
Tufts Health Plan 11.7%	

For descriptions of the metrics, please see Technical Appendix.

Hospital
Peer Cohort

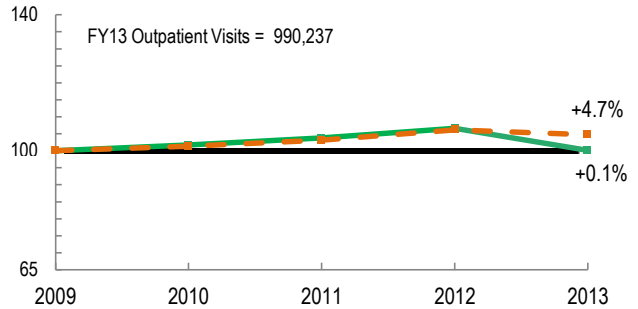## UTILIZATION TRENDS

How has the volume of the hospital's inpatient discharges changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

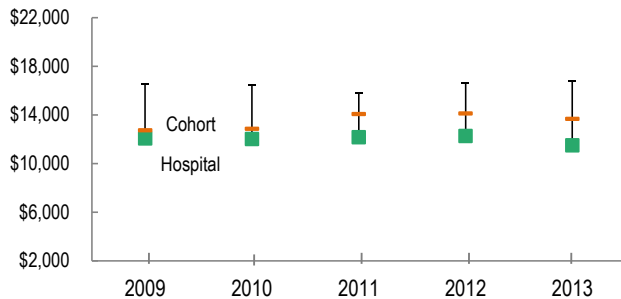FY13 Inpatient Discharges = 41,968

-8.2%
-9.8%

How has the volume of the hospital's outpatient visits changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

FY13 Outpatient Visits = 990,237

+4.7%
+0.1%

PATIENT REVENUE TRENDS

What was the hospital's net inpatient service revenue per case mix adjusted discharge between FY09 and FY13, and how does this hospital compare to the median hospital in its peer cohort?

Cohort

Hospital

FY13 Inpatient Revenue per CMAD = $11,495 | Full Cost per CMAD = $10,793

How has the hospital's total outpatient revenue changed compared to FY09, and how does this hospital compare to the median hospital in its peer cohort? (FY09=100)

FY13 Outpatient Revenue = $582 M

+14.1%
+11.7%
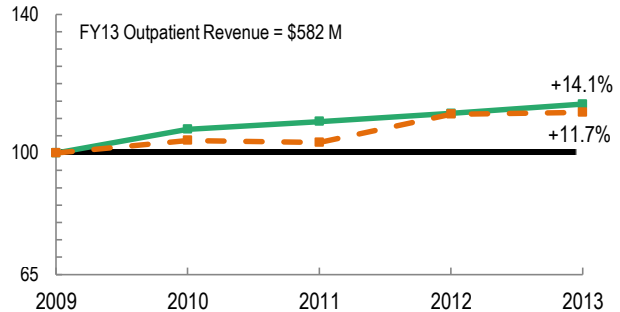
FINANCIAL PERFORMANCE

How have the hospital's total revenue and costs changed between FY09 and FY13?

Revenue, Cost & Profit/Loss (in millions)

FY	Total Revenue	Operating Revenue	Non-Operating Revenue	Total Costs	Total Profit/Loss
2009	$1,330	$1,325	$5	$1,259	$70.6
2010	$1,400	$1,391	$9	$1,343	$57.2
2011	$1,373	$1,375	($2)	$1,330	$42.9
2012	$1,396	$1,380	$17	$1,368	$27.8
2013	$1,512	$1,408	$104	$1,443	$68.9

What were the hospital's total margin and operating margin between FY09 and FY13, and how do these compare to the median of its peer cohort hospitals?

Operating

5.0%
2.7%
2.2%
-2.3%

Total

5.3%
3.5%
4.6%
4.6%

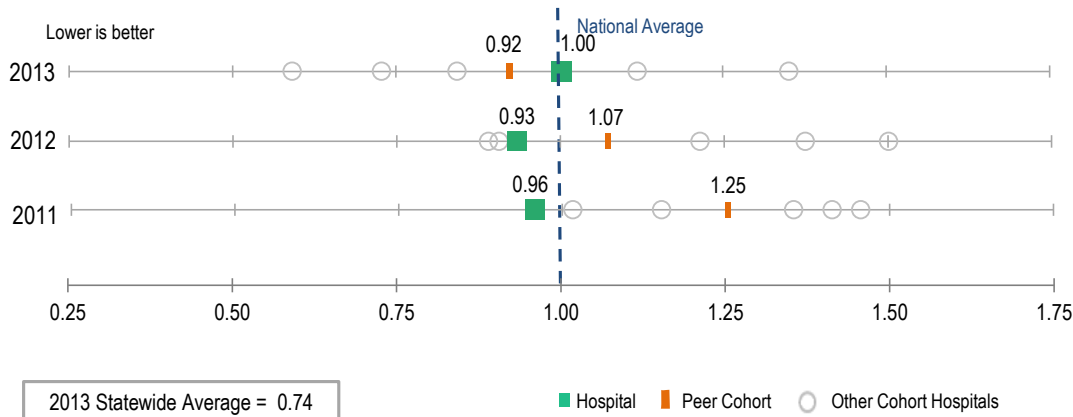For descriptions of the metrics, please see Technical Appendix.

* Disproportionate Share Hospitals (DSH) receive a minimum of 63% of gross patient service revenue from public payers.
θ For more information on Infrastructure and Capacity Building (ICB) special funding, please contact the Massachusetts Executive Office of Health and Human Services (EOHHS).
‡ Costs were adjusted to exclude direct medical education costs and physician compensation.
* Delivery DRG includes Cesarean and Vaginal Deliveries, and Neonate DRG.
† Average Hospital does not include Specialty hospitals.

■ Hospital   ■ Peer Cohort   ■ National Average

QUALITY OVERVIEW

The selected quality measures displayed in this hospital's profile are derived from the Commonwealth's Standard Quality Measure Set (SQMS). CHIA is required to uniformly report hospital performance on SQMS measures. SQMS measures are used by health plans for tiering providers for certain insurance products. They may also be used to inform consumers about the quality and safety of their care providers. The selected indicators are hospital-specific measures based on information that hospitals self-report to CHIA and other entities, including the federal Centers for Medicare and Medicaid Services (CMS) and The Leapfrog Group.

PATIENT SAFETY

How many complications or adverse events were reported at this hospital for conditions included in the **PSI-90 Composite**, relative to the annual national average of 1.00? How does this compare to the median of its peer cohort?

Lower is better

2013 — 0.92 — 1.00 National Average
2012 — 0.93 — 1.07
2011 — 0.96 — 1.25
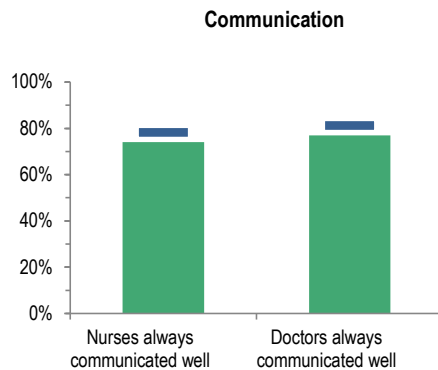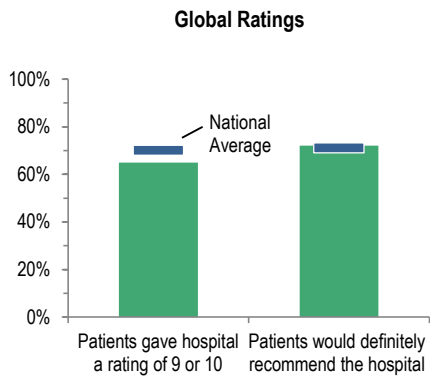
0.25   0.50   0.75   1.00   1.25   1.50   1.75

The PSI-90 is a summary of 11 Patient Safety Indicators (PSIs) that measure adverse events for various procedures.

Population: All patients

Score: Lower is better

Source: Hospital Discharge Data (HDD); CHIA-calculated indicator, risk adjusted

Data Period*: 10/1-9/30

2013 Statewide Average = 0.74
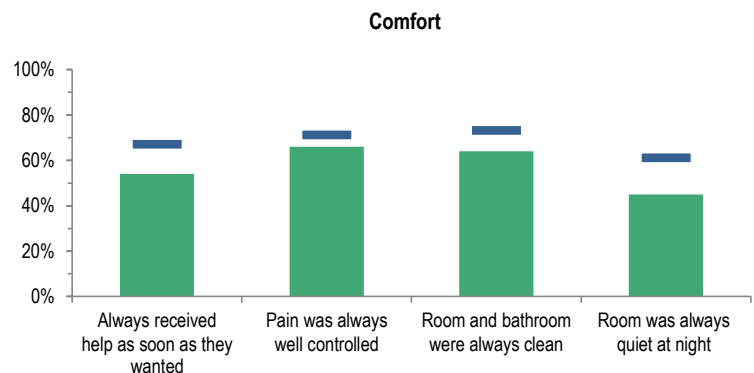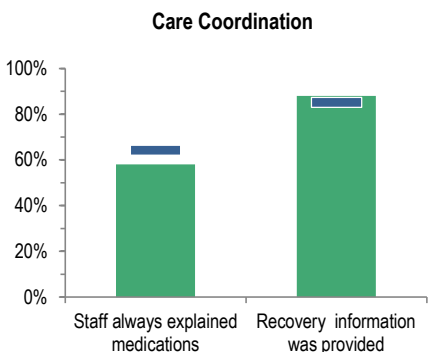
■ Hospital   ■ Peer Cohort   ○ Other Cohort Hospitals

PATIENT EXPERIENCE

How well did the hospital fulfill the following **key expectations for patient experience**, based on patient surveys? How does this compare to the national average?

Global Ratings

- Patients gave hospital a rating of 9 or 10
- Patients would definitely recommend the hospital

National Average

Communication

- Nurses always communicated well
- Doctors always communicated well

The HCAHPS survey measures patient perspectives on key aspects of their care.

Population: All patients

Score: Higher is better

Source: Centers for Medicare and Medicaid Services (CMS) Hospital Compare

Data Period*: 2012-2013

Care Coordination

- Staff always explained medications
- Recovery information was provided

Comfort

- Always received help as soon as they wanted
- Pain was always well controlled
- Room and bathroom were always clean
- Room was always quiet at night

For descriptions of the metrics, please see Technical Appendix.

2013 Hospital Profile: **UMASS MEMORIAL MEDICAL CENTER**
    Cohort: Academic Medical Center

🟩 Hospital   🟧 Peer Cohort   🟦 National Average

CARE PRACTICES

What percentage of **medication orders were entered by a physician using an electronic system** that included error checking? How does this hospital compare to the median hospital in its peer cohort?

Percentage of Orders

0-24%	25-49%	50-74%	75-100%
		1	4

← Number of cohort hospitals in this category of CPOE usage

This hospital reported not having a CPOE system
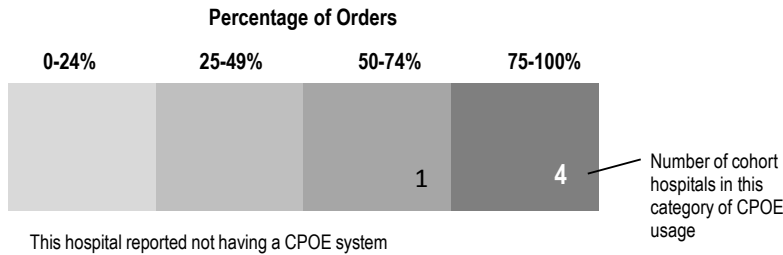
Computerized Physician Order Entry (CPOE) is believed to increase efficiency and reduce transcription errors.

Population: 6 of 6 cohort hospitals responded to this survey

Score: Higher is better

Source: The Leapfrog Group Hospital Survey^

Data Period*: 2012-2013

READMISSIONS

What percentage of Medicare patients who were discharged from this hospital were **readmitted to any hospital within 30 days**? How does this compare to the median hospital in its peer cohort, and the national average?

17.2%

Lower is better

| 17.2% | Peer Cohort |
| 16.0% | National Average |
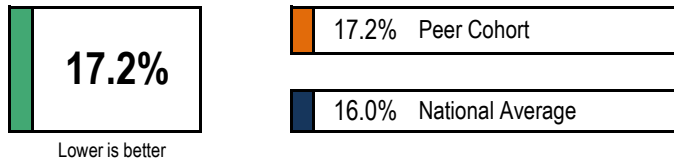
Hospital-Wide All-Cause 30-Day Readmissions follows patients for 30 days from discharge and determines if they are readmitted to any hospital for any unplanned reason.

Population: Medicare Fee For Service (FFS) patients age 65+

Score: Lower is better

Source: CMS Hospital Compare

Data Period*: 2011-2012

OBSTETRIC CARE

What percentage of all newborn deliveries at this hospital were **clinically unnecessary inductions before the recommended 39 weeks of gestation**? How does this compare to the median hospital in its peer cohort, and the national median?
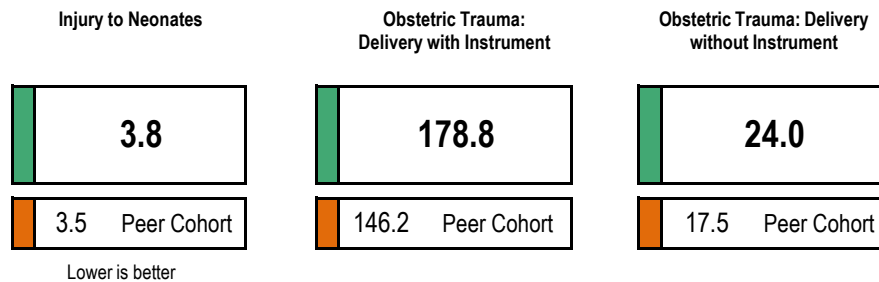
Data for this quality measure is not available, either because the hospital did not report the data or does not provide obstetric services.

Clinically Unnecessary Elective Deliveries before 39 weeks of gestation are associated with higher risks for newborns.

Population: Non-clinically complicated births. 41 hospitals reported data for this measure.

Score: Lower is better

Source: The Leapfrog Group Hospital Survey^

Data Period*: 2011-2012 and 2012-2013

OBSTETRIC CARE COMPLICATIONS

Out of every 1,000 births, how many patients experienced an adverse event? How does this compare to the median hospital in its peer cohort?

Injury to Neonates	**Obstetric Trauma: Delivery with Instrument**	**Obstetric Trauma: Delivery without Instrument**
3.8	**178.8**	**24.0**
3.5 Peer Cohort	146.2 Peer Cohort	17.5 Peer Cohort

Lower is better

Complications and adverse events during birth can harm both the mother and infant.

Population: 42 hospitals are included in this analysis

Score: Lower is better

Source: HDD; CHIA-calculated indicator, not risk adjusted

Data Period*: 2012-2013

For descriptions of the metrics, please see Technical Appendix.

* Data Periods vary by measure based on data source. Please see Technical Appendix for measure-specific reporting periods.

^ Measures from The Leapfrog Survey are voluntarily reported by hospitals. Not all hospitals report this data.

CENTER FOR HEALTH INFORMATION AND ANALYSIS

http://chiamass.gov/hospital-profiles

CHIA.