CENTER FOR HEALTH INFORMATION AND ANALYSIS

MASSACHUSETTS
HOSPITAL
PROFILES

INDUSTRY OVERVIEW

DATA THROUGH
FISCAL YEAR 2018

JANUARY 2020

CHIA

FY 2018 Massachusetts Hospital Profiles

Introduction

The FY 2018 Massachusetts Hospital Profiles provide descriptive and comparative information on acute and non-acute hospitals based on hospital characteristics, services, payer mix, utilization trends, cost trends, financial performance, and quality over a five-year period.

The FY 2018 publication includes an individual profile for each acute hospital, a consolidated profile for each non-acute hospital cohort, and a comprehensive databook. Additionally, this publication includes an interactive dashboard for all acute hospitals. The interactive dashboard allows users to select data views by individual hospital, hospital type, and hospital health system. This hospital industry overview focuses on statewide findings. Aggregate and provider-specific results can be found in individual hospital profiles and the interactive dashboard on CHIA's website.

center for health information and analysis

CHIA.

Table of Contents

Number of Massachusetts Hospitals by System Affiliation and Tax Status in FY 2018

In FY 2018, there were 98 hospitals in Massachusetts, including 61 acute care hospitals and 37 non-acute hospitals. The acute hospital total reflects the merger of HealthAlliance and Clinton Hospitals, which became HealthAlliance-Clinton Hospital in FY 2018. The non-acute total reflects the closing of Curahealth Boston and Curahealth North Shore and the opening of two behavioral health hospitals.

The majority of hospitals were part of hospital health systems that owned more than one hospital. Sixty-five of the 98 hospitals were affiliated with a multi-hospital system in FY 2018, representing 75% of acute care hospitals and 51% of non-acute care hospitals.

The remainder of this overview focuses exclusively on the acute hospitals. Please refer to the individual hospital profiles for more information on the non-acute hospitals.

Sixty-six percent of hospitals were part of multi-hospital systems and 32% were for-profit hospitals.

System Affiliation	Tax Status	Acute Hospitals	Non-Acute Hospitals	Number of Hospitals
Individual Hospitals	Non-Profit or Public	15	12	27
	For Profit	0	6	6
Multi-Hospital Systems	Non-Profit or Public	36	4	40
	For Profit	10	15	25
Statewide Total		61	37	98

Please click here to see full interactive graphics on CHIA's website.

FY 2018 Acute Hospital Types at a Glance

The Academic Medical Center (AMC) cohort had the highest median percent occupancy, average commercial relative price, and total revenue among the four cohorts. The AMC cohort includes six hospitals, making it the smallest of the cohorts.

The community-High Public Payer cohort, which includes the most hospitals (30), had the highest number of staffed beds, discharges, emergency department (ED) visits, and average public payer mix.

	AMCs	Teaching	Community	Community-HPP	Specialty
Total Staffed Beds	4,079	2,209	1,924	5,730	654
Median Percent Occupancy	86.2%	73.9%	61.9%	67.0%	*
Total Discharges	227,556	129,045	115,823	315,621	25,573
Emergency Department Visits	555,058	484,083	445,288	1,581,607	80,471
Average Public Payer Mix	62.4%	66.8%	54.5%	69.4%	*
Average Commercial Statewide Relative Price	1.180	0.948	1.072	0.932	*
Total Revenue in FY 18 (in millions)	$13,159	$4,326	$2,825	$7,505	$4,061

* There are six specialty hospitals whose medians and averages are not calculated or displayed on this table as they are not considered a cohort for analytic purposes.

Please click here to see full interactive graphics on CHIA's website.

Data Source: Hospital Cost Reports and Relative Price data

Change in Utilization, by Hospital Type

Statewide, hospitals reported a small decrease in inpatient discharges from the previous year, while emergency department visits increased slightly and outpatient visits remained stable.

Utilization changes varied by hospital type, with the teaching and community hospitals reporting an increase in discharges, ED visits, and outpatient visits, and the community-High Public Payer hospitals reporting decreases in each of the same metrics. The AMC and specialty hospitals had mixed results, with the AMCs reporting increases in discharges and ED visits, but a decrease in outpatient visits, and the specialty hospitals reporting a decrease in discharges and increases in ED visits and outpatient visits.

Hospital Type	Number of Hospitals	Total Discharges	Inpatient Discharges % Change FY 17-FY 18	Emergency Department Visits	Emergency Department Visits % Change FY 17-FY 18	Outpatient Visits	Outpatient Visits % Change FY 17-FY 18
Academic Medical Center	6	227,556	0.3%	555,058	0.8%	5,236,935	-1.9%
Teaching Hospital	7	129,045	0.2%	484,083	0.9%	2,436,045	0.1%
Community Hospital	12	115,823	2.0%	445,288	1.2%	1,238,205	6.1%
Community-High Public Payer	30	315,621	-1.4%	1,581,607	-0.8%	4,959,564	-0.5%
Specialty Hospital	6	25,573	-1.4%	80,471	0.1%	1,021,285	5.0%
Total Statewide	**61**	**813,618**	**-0.2%**	**3,146,507**	**0.1%**	**14,892,034**	**0.0%**

Please click here to see full interactive graphics on CHIA's website.

Data Source: Hospital Cost Reports

FY 2018 Top Discharges Statewide, by Diagnostic Group

Diagnosis Related Groups (DRGs) are used to classify the types of inpatient cases a hospital treats. Normal neonate birth remained the most common reason for inpatient admission and, combined with vaginal and Cesarean delivery DRGs, accounted for 18% of discharges statewide.

The other most commonly treated DRGs remained consistent with prior fiscal years.

Normal neonate birth remains the most common reason for inpatient admissions in FY 2018.

Rank	DRG	Description	Discharges	% Total Discharges
1	640	Normal neonate birth	60,761	9%
2	560	Vaginal delivery	45,348	6%
3	720	Septicemia & disseminated infections	35,371	4%
4	194	Heart failure	26,893	3%
5	540	Cesarean delivery	21,757	3%
6	302	Knee joint replacement	18,613	2%
7	139	Other pneumonia	17,851	2%
8	140	Chronic obstructive pulmonary disease	15,784	2%
9	301	Hip joint replacement	15,118	2%
10	201	Cardiac arrhythmia & conduction disorders	12,656	2%
		All Other	543,466	65%
		Total Discharges	**813,618**	**100%**

Please click here to see full interactive graphics on CHIA's website.

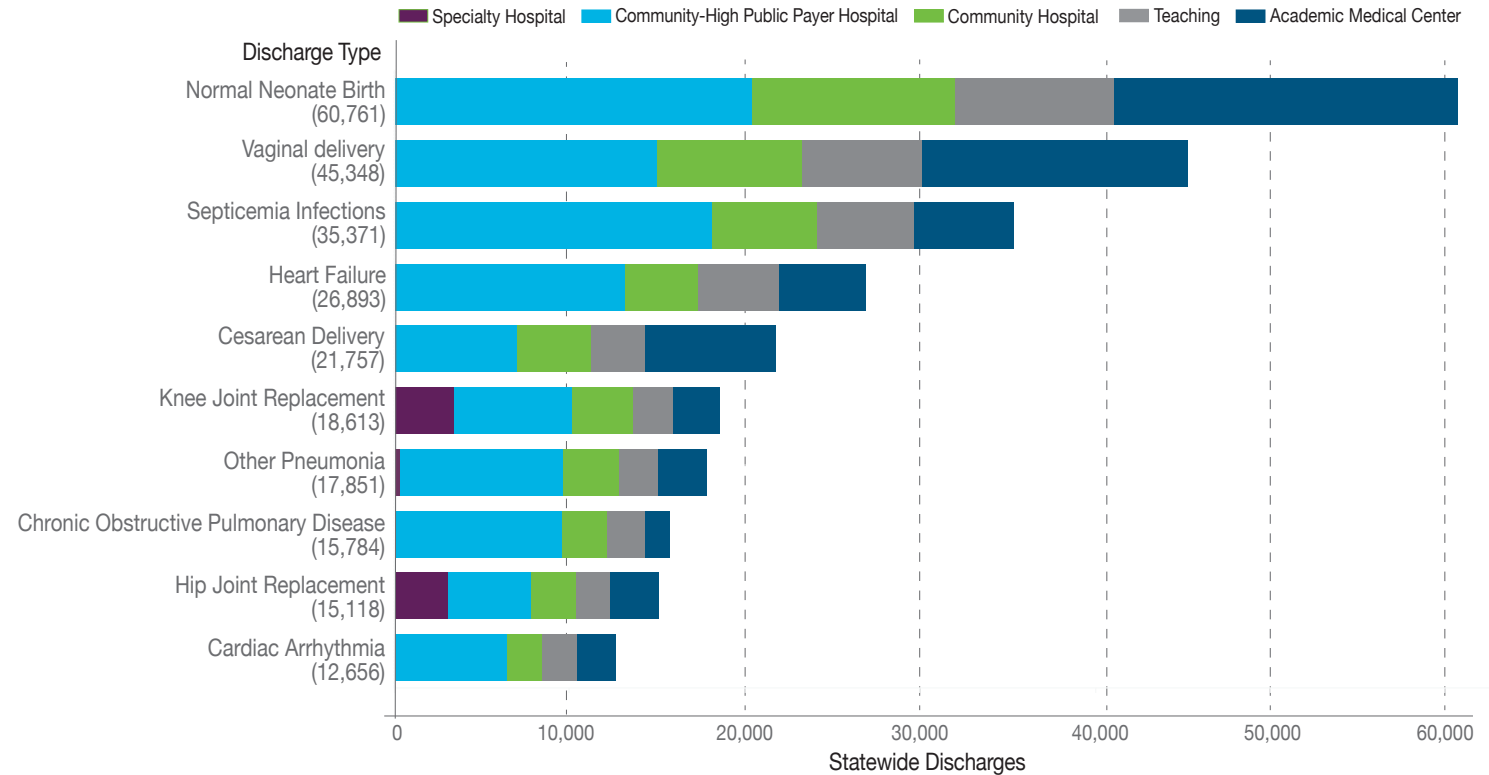Data Source: Hospital Discharge Database

CHIA

FY 2018 Top Discharges Statewide, by Hospital Type

The community-HPP cohort, which has the most hospitals and highest number of total beds, had the most discharges for eight of the top 10 discharge types.

AMCs had the largest share (34%) of vaginal deliveries and Cesarean deliveries.

The specialty hospitals are significantly represented in two of the top 10 statewide discharge types, knee joint replacements, and hip joint replacements.

Community-HPP hospitals have the largest share of all but two of the top 10 discharges types.

Legend: Specialty Hospital | Community-High Public Payer Hospital | Community Hospital | Teaching | Academic Medical Center

Discharge Type:
- Normal Neonate Birth (60,761)
- Vaginal delivery (45,348)
- Septicemia Infections (35,371)
- Heart Failure (26,893)
- Cesarean Delivery (21,757)
- Knee Joint Replacement (18,613)
- Other Pneumonia (17,851)
- Chronic Obstructive Pulmonary Disease (15,784)
- Hip Joint Replacement (15,118)
- Cardiac Arrhythmia (12,656)

x-axis: Statewide Discharges (0 – 60,000)

Please click here to see full interactive graphics on CHIA's website.
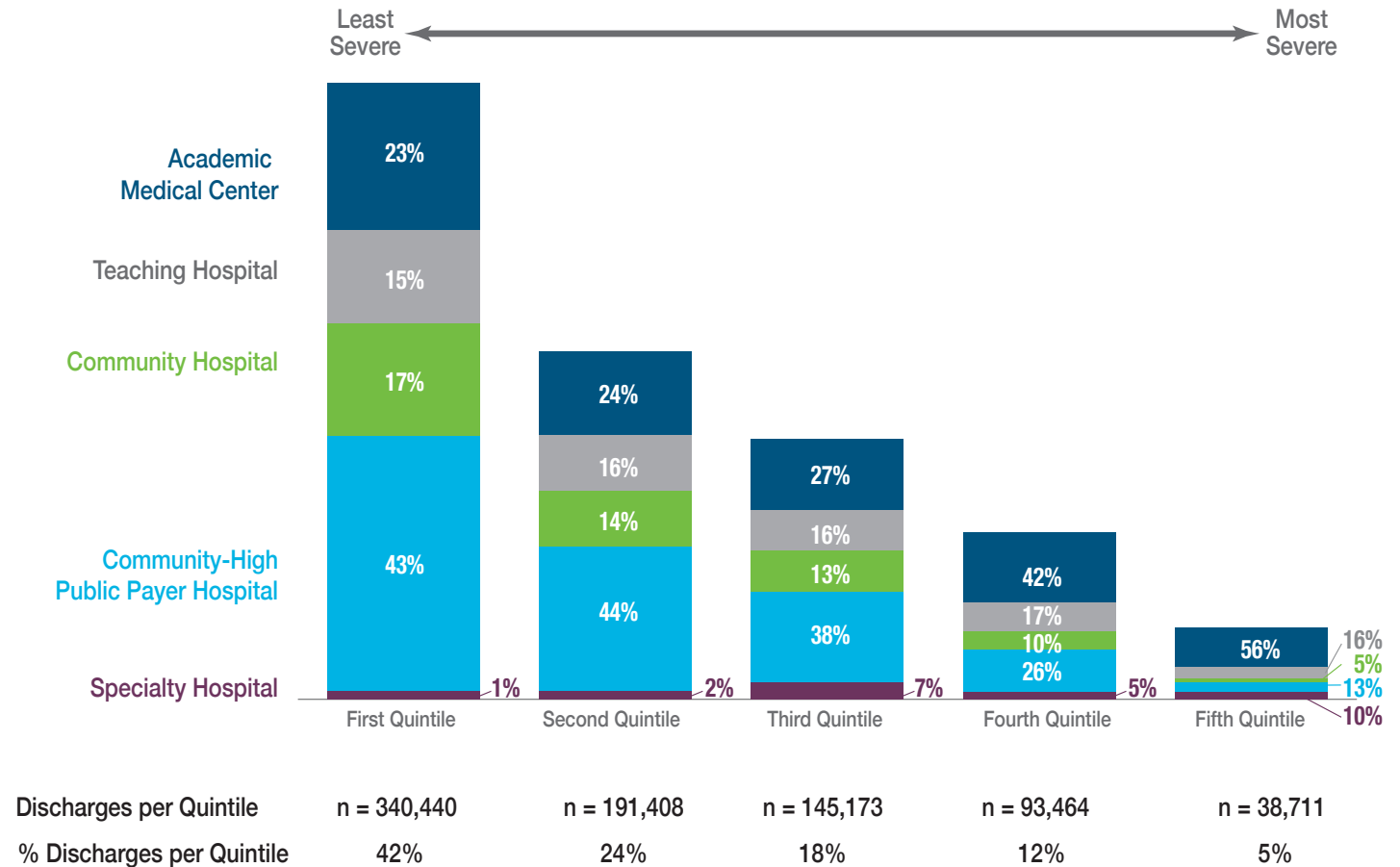Data Source: Hospital Discharge Database

CHIA

FY 2018 Statewide Severity Distribution of Inpatient Cases, by Hospital Type

Inpatient hospitalizations are frequently categorized into DRGs which quantify the predicted resources required to provide care to patients with different medical conditions. This presentation examines the distribution of cases across the range of DRGs by severity grouping (quintiles) and by hospital type.

AMCs and teaching hospitals provided care to 72% of the most severe cases in FY 2018, while 18% of these cases were treated in community hospital settings (community and HPP hospitals). Specialty hospitals provided care to 10% of the most severe cases.

Conversely, AMCs and teaching hospitals treated 38% of the least severe cases, while 60% of this level of care was provided by community hospitals.

The least severe quintile contained the highest number of statewide inpatient discharges, at 42%.

Please click here to see full interactive graphics on CHIA's website.

Data Source: Hospital Discharge Database

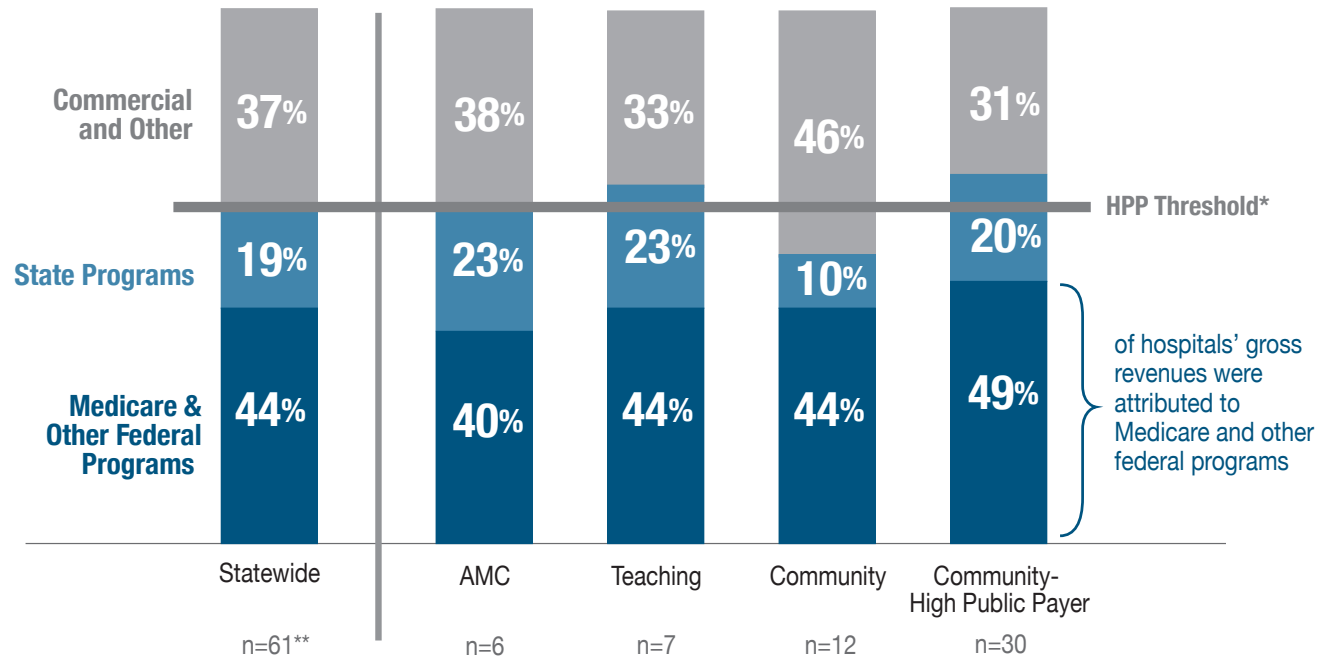Note: Percentages may not add to 100% due to rounding.

FY 2018 Payer Mix

In FY 2018, 63% of statewide acute hospital gross revenue was attributed to public payers, including Medicare, Medicaid, and other programs.

Community hospitals had the lowest proportion of public payer revenue at 54%.

By definition, community-HPP hospitals are more dependent on public payers, which accounted for 69% of their gross revenue in FY 2018.

Other than community-HPP hospitals, teaching hospitals had the second highest share of public payer mix.

	Statewide	AMC	Teaching	Community	Community-High Public Payer
Commercial and Other	37%	38%	33%	46%	31%
State Programs	19%	23%	23%	10%	20%
Medicare & Other Federal Programs	44%	40%	44%	44%	49%
	n=61**	n=6	n=7	n=12	n=30

HPP Threshold*

49% of hospitals' gross revenues were attributed to Medicare and other federal programs

* Hospitals have High Public Payer (HPP) status if they have 63% or more of gross revenues (GPSR) attributable to Medicare, Medicaid, other government, and the Health Safety Net.

** Statewide Total includes specialty hospitals.

Please click here to see full interactive graphics on CHIA's website.
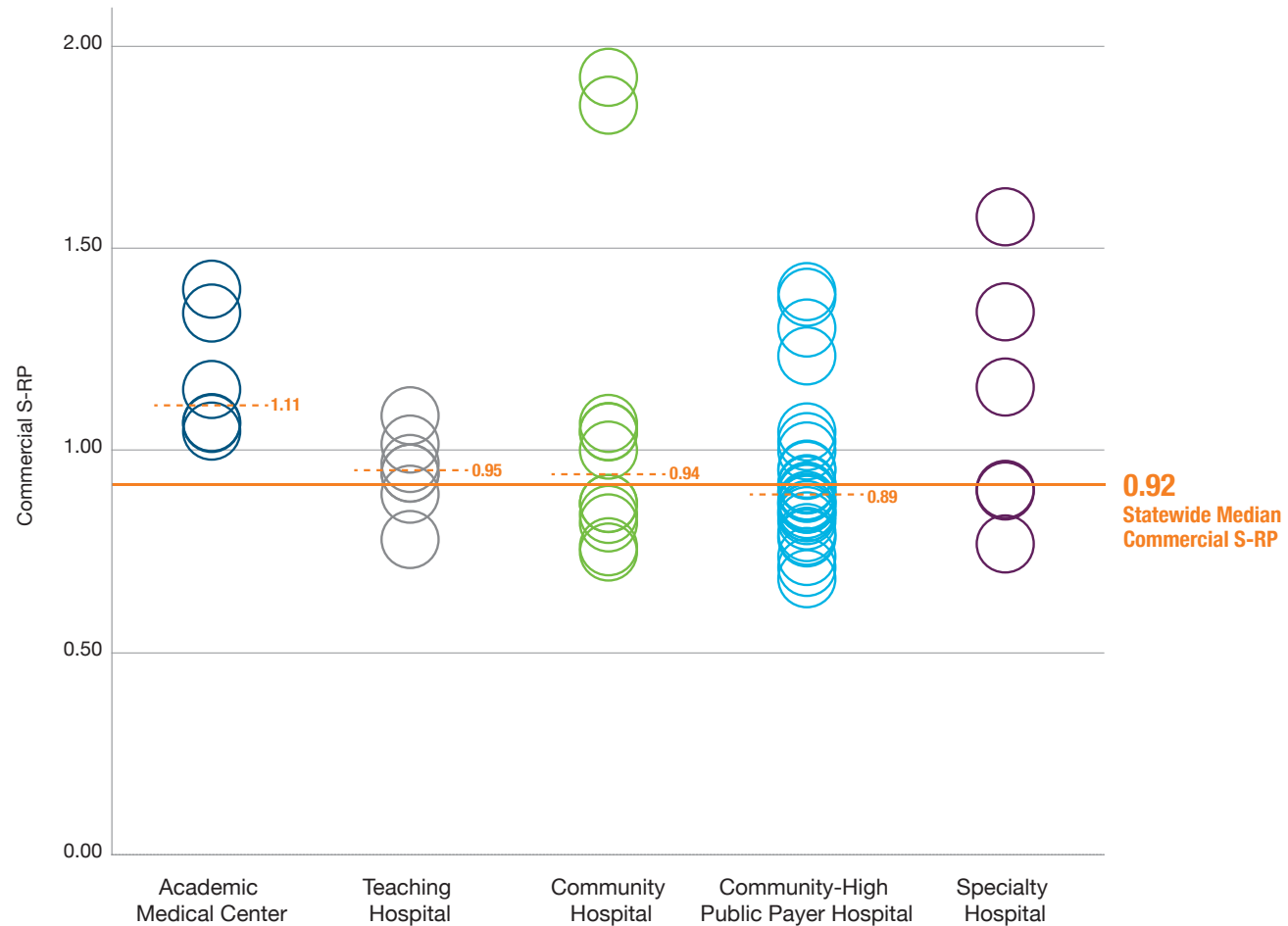
Data Source: Hospital Cost Reports

RELATIVE PRICE

CY 2017 Statewide Median Commercial Relative Price

Statewide commercial relative prices varied across hospital types.

Consistent with prior years, AMCs had the highest median statewide commercial relative price among the hospital cohorts and all AMCs had statewide relative prices that exceeded the statewide median. Community hospitals had the highest variation of statewide commercial relative prices within a cohort though much of the variation was driven by high relative prices at a small number of geographically isolated hospitals.

Data presented here is for calendar year (CY) 2017 which is the latest data available, and is only for the commercial insurance market.

Chart: Commercial S-RP plotted by hospital type. Y-axis from 0.00 to 2.00. Statewide Median Commercial S-RP = 0.92 (orange line). Academic Medical Center: 1.11; Teaching Hospital: 0.95; Community Hospital: 0.94; Community-High Public Payer Hospital: 0.89; Specialty Hospital.
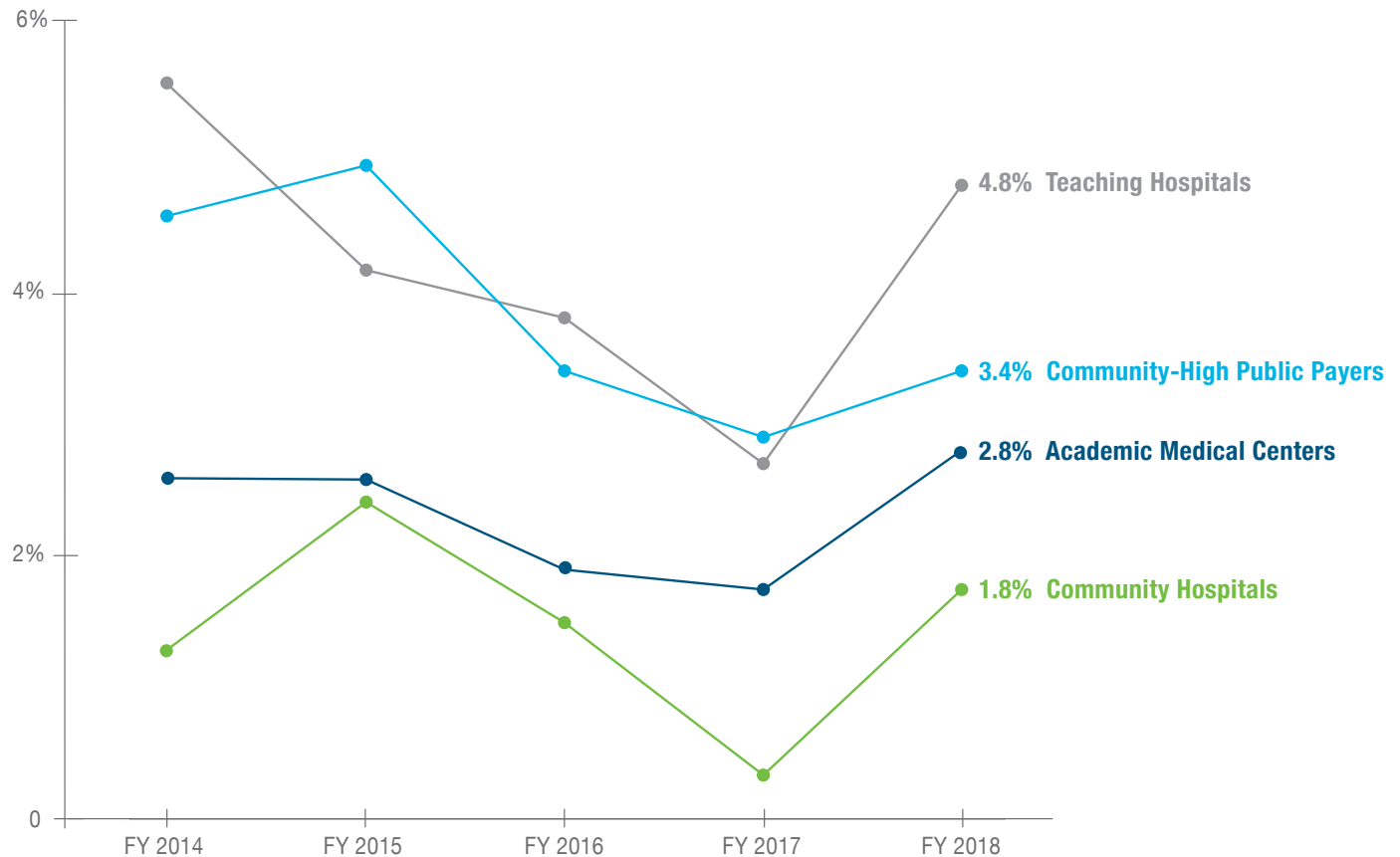
Please click here to see full interactive graphics on CHIA's website.

FY 2018 Median Operating Margin, by Cohort

In FY 2018, all four hospital cohorts saw increases in their median operating margin compared to the previous year.

Over the past five fiscal years (FY 2014-2018), the teaching and community-HPP cohorts saw an overall decrease in median operating margin, while the AMC and community hospital saw an increase.

The teaching hospital cohort had the highest operating margin in FY 2018 at 4.8%.

Please click here to see full interactive graphics on CHIA's website.
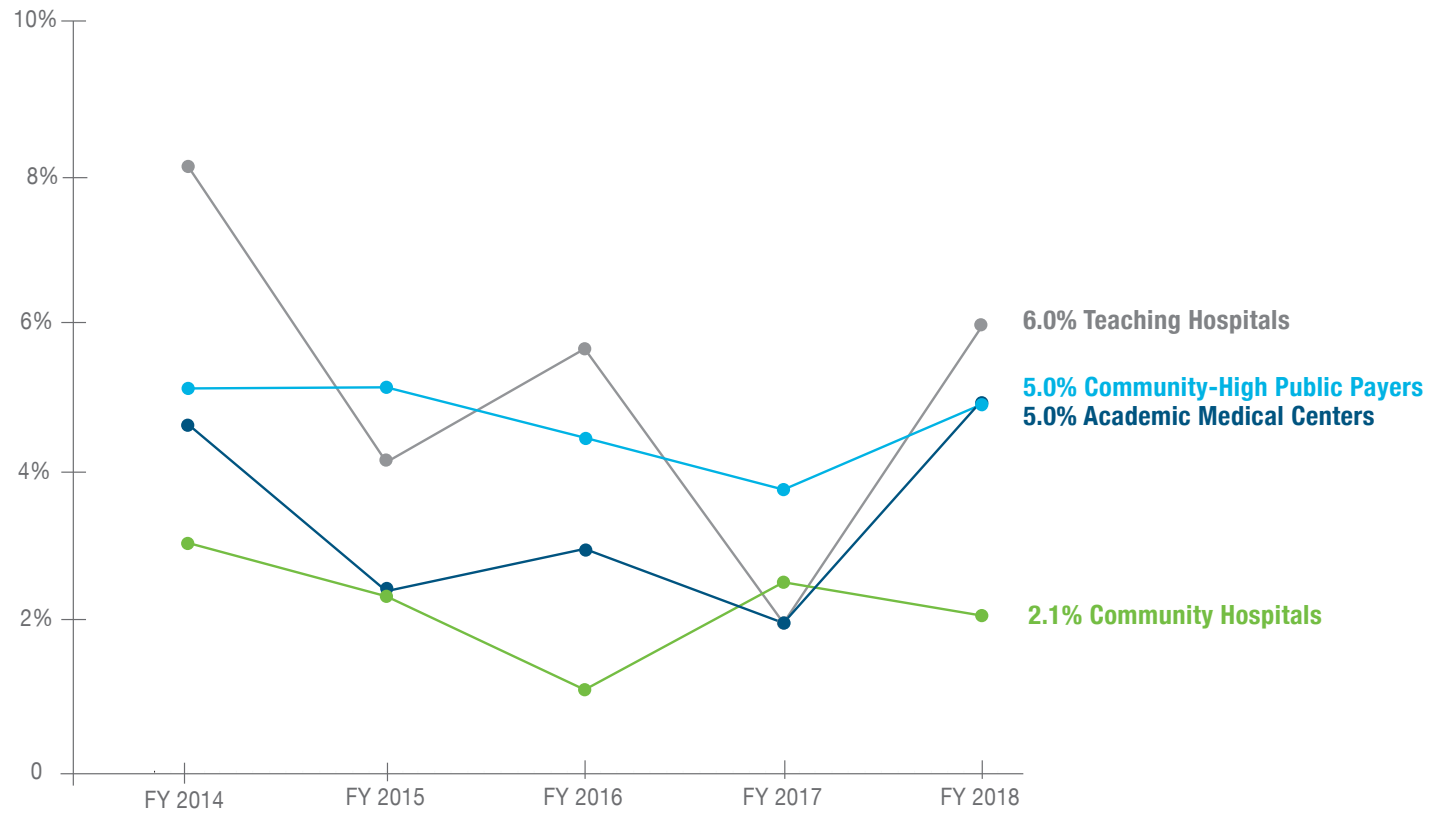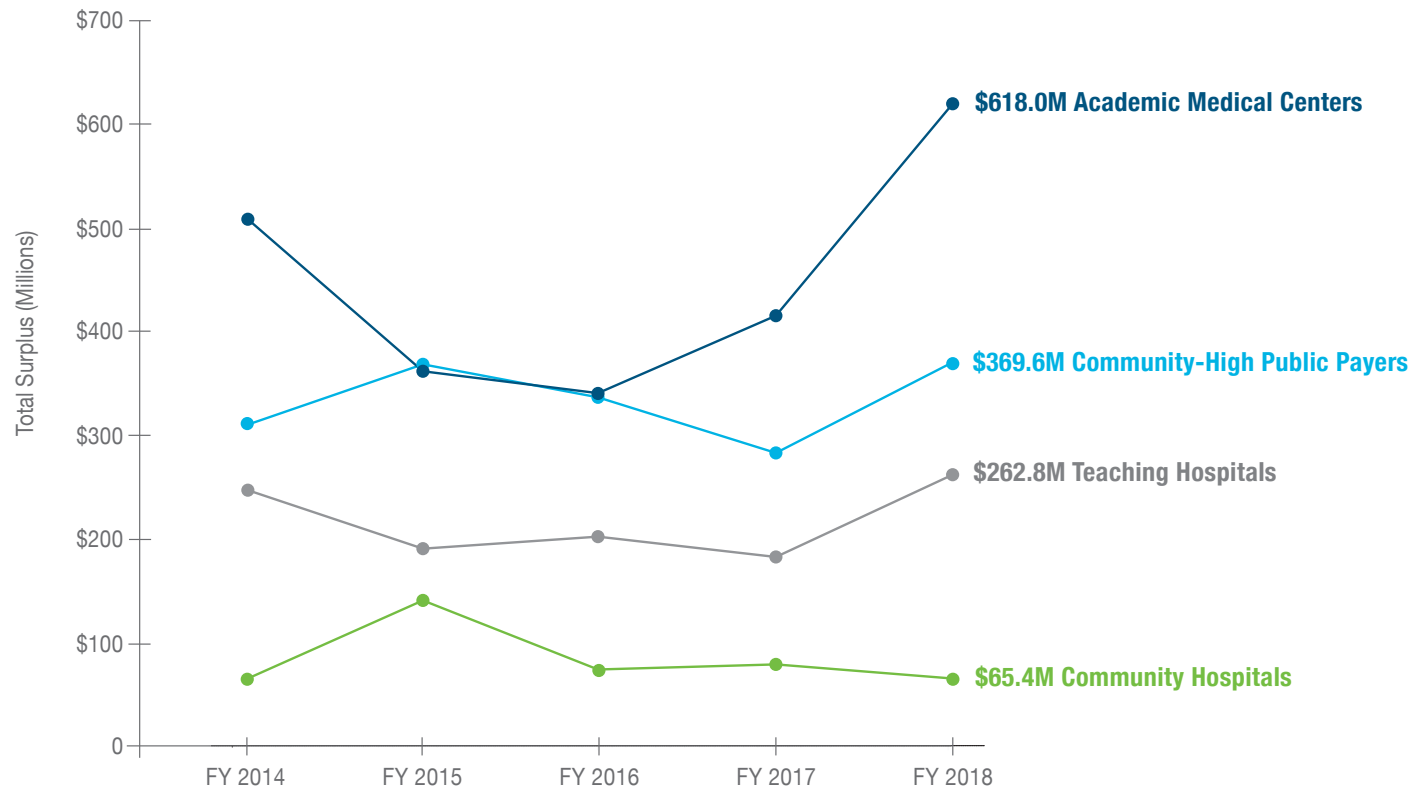
Data Source: Hospital Standardized Financial Statements

FY 2018 Median Total Margin, by Cohort

The AMC, teaching, and community-HPP cohorts saw an increase in median total margin from the previous year, while the community hospital cohort saw a slight decrease.

The teaching hospital cohort reported the greatest increase in median total margin between FY 2017 and 2018 of four percentage points.

The teaching hospital cohort had the highest median total margin in FY 2018 at 6.0%.

6.0% Teaching Hospitals
5.0% Community-High Public Payers
5.0% Academic Medical Centers
2.1% Community Hospitals

Please click here to see full interactive graphics on CHIA's website.
Data Source: Hospital Standardized Financial Statements

FY 2018 Surplus, by Cohort

In FY 2018, the AMC cohort (consisting of six hospitals) reported the largest surplus, a combined $618 million. This is the largest surplus reported during the last five fiscal years (FY 2014 to 2018) by any hospital cohort.

Between FY 2014 and FY 2018, the AMC, teaching, and community-HPP cohorts all experienced increases in their combined surpluses. The community hospital cohort remained stable.

AMCs collectively had the largest surplus in absolute dollars every year from FY 2014 to FY 2018, with the exception of FY 2015.

Please click here to see full interactive graphics on CHIA's website.

Data Source: Hospital Standardized Financial Statements

CHIA.