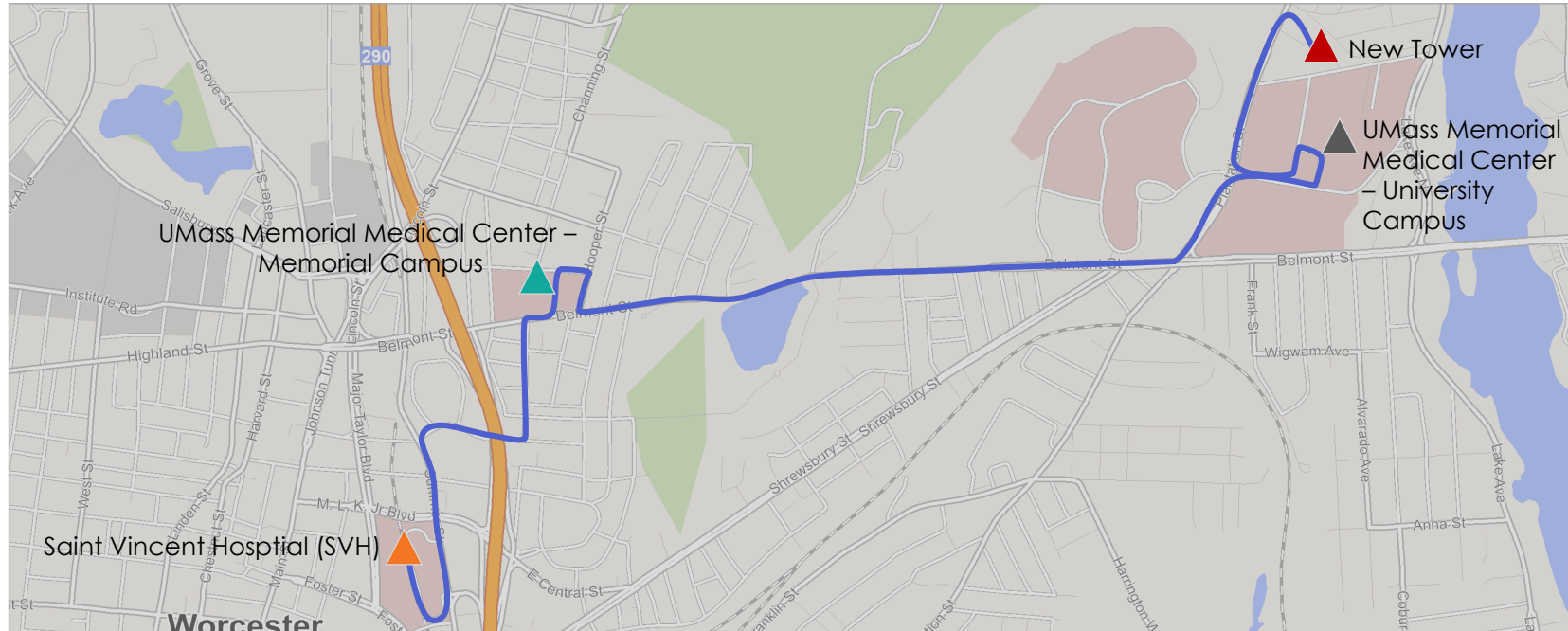


# EXHIBIT 1

## New tower is not closer than community hospitals to existing UMass EDs

▲ UMass Memorial – Memorial Campus ▲ SVH ▲ UMass Memorial – University Campus ▲ New tower



- UMass is expecting to outfit a new 72-bed tower for additional beds; the new tower will support ED to inpatient admissions and require ambulances for transferring patients
- The UMass ED sites serviced by the new facility are similarly distanced to SVH, which has capacity to accommodate transfers

UMass ED	Distance to new UMass tower (mi)	Ambulance required?	Distance to SVH (mi)	Ambulance required?
UMass Memorial Medical Center – University Campus	~0.6	Yes	~2.4	Yes
UMass Memorial Medical Center – Memorial Campus	~1.9	Yes	~1.0	Yes

## EXHIBIT 2

### Occupancy rate (licensed beds)

Source: AHA data, UMass licensed bed statistics, SVH Data by YR provided by Tenet Strategy Team

Healthcare System	Inpatient Days (#)		Licensed Beds (#)		Occupancy Rates (%)	
	2019	2020	2019	2020	2019	2020
<b>UMass Memorial Medical Center</b>	208,648	211,706	733	747	78%	78%
<b>UMass Memorial HealthAlliance-Clinton Hospital</b>	34,881	32,276	152	152	63%	58%
<b>Heywood Hospital</b>	21,772	21,220	134	134	45%	43%
<b>Harrington Hospital*</b>	20,727	20,743	129	129	44%	44%
<b>UMass Memorial-Marlborough Hospital</b>	16,571	16,472	79	79	57%	57%
<b>Athol Hospital</b>	3,340	3,446	21	21	44%	45%
<b>SVH**</b>	69,441	66,819	290	290	66%	63%

\* Harrington Hospital licensed beds not available in AHA data; licensed beds found in 2022 UMass statistics report on licensed beds

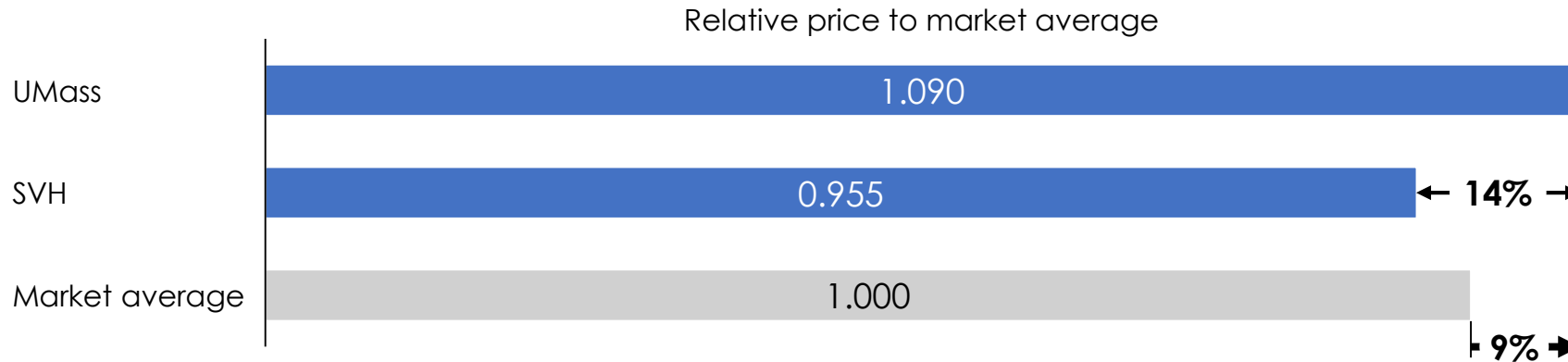
(<https://www.ummhealth.org/about-us/system-statistics>)

\*\* SVH licensed beds provided by Tenet (Carolyn Jackson)

# EXHIBIT 3

## Adding capacity may result in regional increases to cost of care

### Commercial relative price at UMass Medical Center and SVH compared to market average



### Medicare FFS reimbursement at UMass Medical Center and SVH for DRGs representative of the service lines stated by UMass

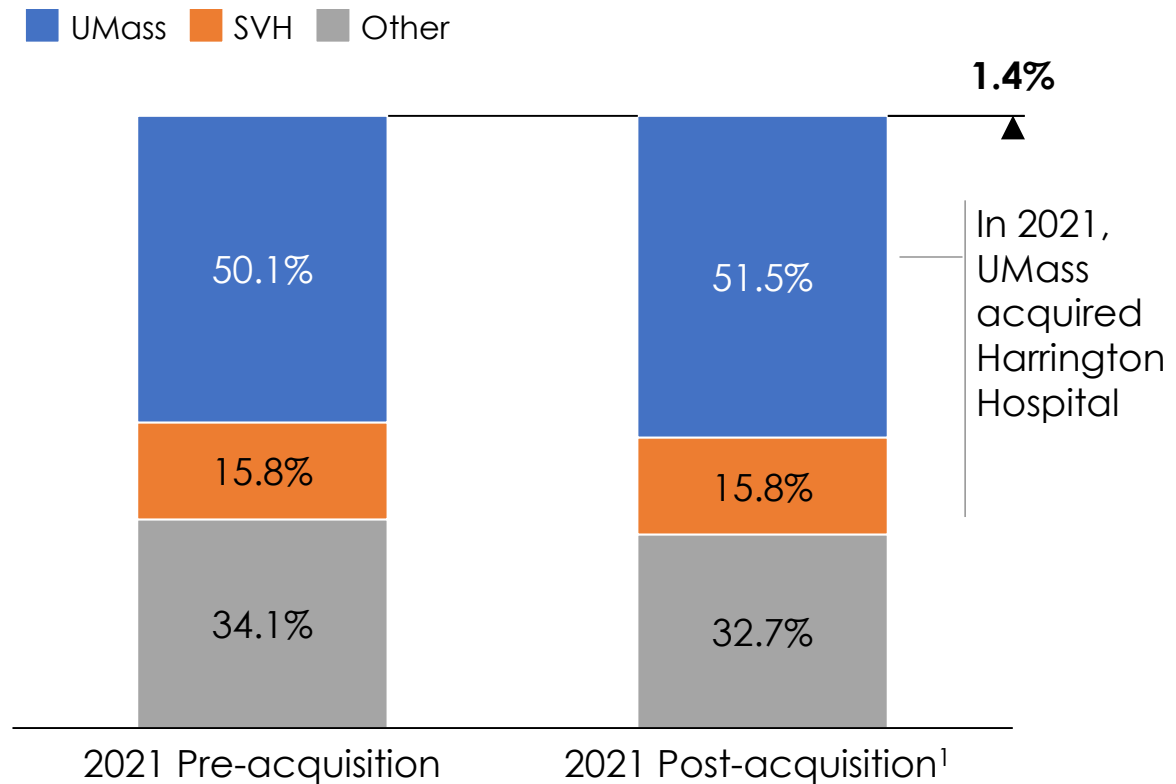
Service type	DRGs	Differential (SVH compared to UMass)
Septicemia / severe sepsis	870, 871, 872	▼ 14.1%
COPD	190, 191, 192	▼ 17.4%
Heart failure	291, 292, 293	▼ 16.9%
Pneumonia	193, 194	▼ 15.9%
Pulmonary edema	189, 208	▼ 16.2%
Respiratory infection	177, 178, 179	▼ 16.2%

- For commercial payers, UMass is ~9% above Massachusetts market average and ~14% above SVH costs
- For DRGs of service lines in UMass' filing, UMass is ~14-17% more expensive than SVH for Medicare FFS
- Due to their relatively high cost of care, introducing additional beds at UMass could potentially increase regional costs

# EXHIBIT 4

## Adding beds will likely further increase UMass market share, potentially further reducing competition in the region

2021 Market share based on inpatient surgery volume for SVH SSA, Medicare FFS only



- Prior to its 2021 acquisition, UMass held the highest market share at 50.1% after acquiring Harrington Hospital, UMass' market share increased by 1.4% to 51.5%
- With the acquisition, other area hospitals lost market share while SVH's remained at 15.8%
- UMass' proposal for additional beds may further decrease market share of other local health systems

1. UMass acquired Harrington Hospital in June 2021

# EXHIBIT 5

## Estimated operating costs for med/surg beds should be measured against national and Massachusetts average

$$\text{Estimated annual cost of inpatient bed} = \frac{\text{Inpatient admissions} \times \text{Average length of stay} \times \text{Average cost per IP day}}{\text{\# of staffed IP beds}}$$

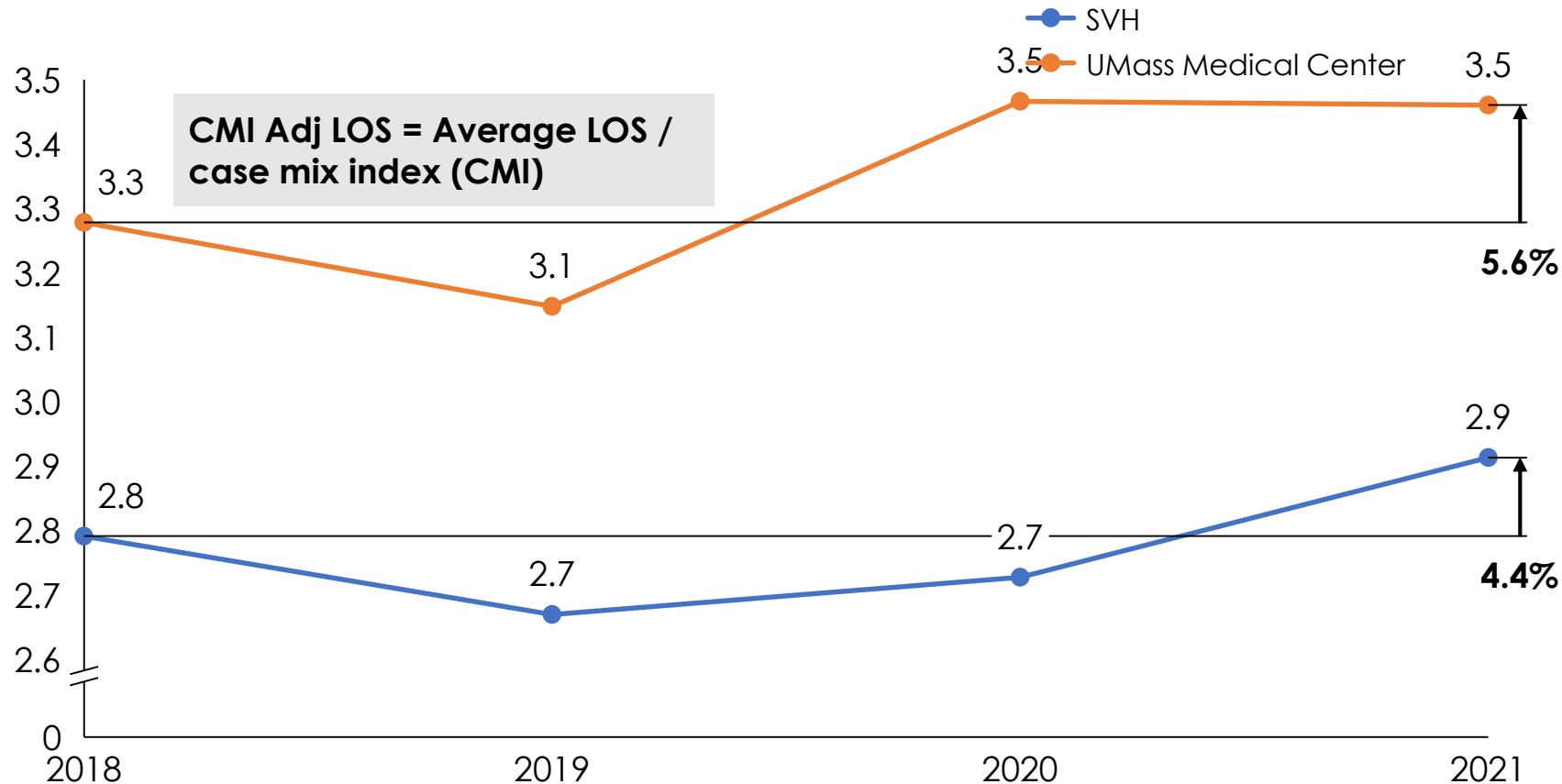
Metric	National average	Massachusetts average
# of inpatient admissions	~33.4M	~809K
Average length of stay	~5.5	~4.9
\$ per inpatient day	~\$2,873	~\$3,462
# of staffed inpatient beds	~921K	~15,000
<b>Estimated annual cost per inpatient bed</b>	<b>~\$550-600K</b>	<b>~\$900-950K</b>

- National estimated operating cost for a med/surg bed is ~\$600K annually
- In Massachusetts, estimated operation costs for a med/surg bed is ~\$900K annually

# EXHIBIT 6

## UMass' CMI adjusted LOS for non-psych inpatients is 20% higher than SVH, and grew faster over 2018-2021

2018 – 2021 Medicare FFS CMI adjusted LOS, inpatient excluding psych



- From 2018 – 2021 UMass CMI adjusted LOS increased by ~5.6%, ~1.3x the increase at SVH, indicating that increase in length of stay is likely disproportionately higher than increase in level of care
- This likely indicates that operational inefficiencies exist and could lead to longer stays

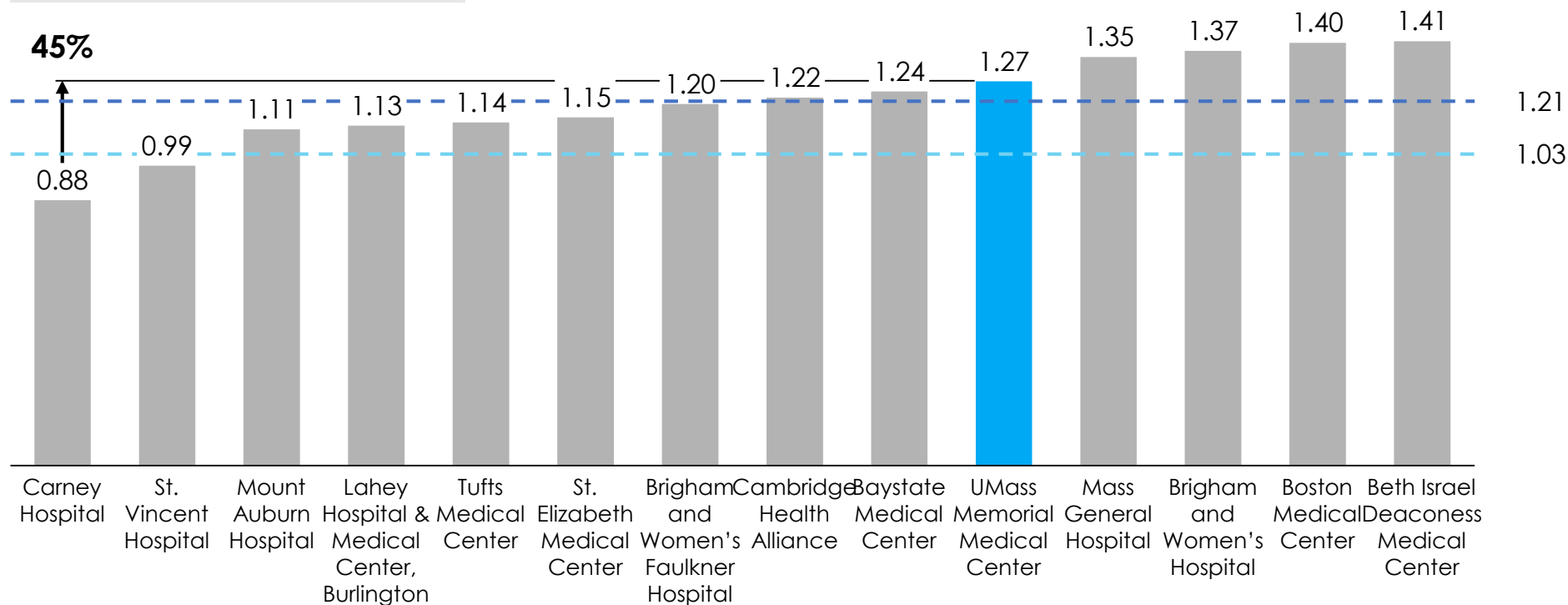
# EXHIBIT 7

## UMass is in the bottom third of teaching hospitals and AMCs in MA for O/E LOS ratio

Q1-Q2 2021 inpatient Medicare O/E length of stay (LOS) for teaching hospitals and AMCs in MA, excluding psych and newborn

O/E = Observed LOS / expected LOS per discharge

--- Median O/E    - - - Top quartile<sup>1</sup> O/E    ■ UMass Memorial Medical Center



- O/E ratio >1 indicates acute inpatient days are often longer than expected days<sup>2</sup>
- UMass O/E is 1.27, indicating average acute inpatient stays are 27% longer than expected
- UMass is outperformed by 9 peers in MA and has an O/E 45% higher than top performing Carney Hospital

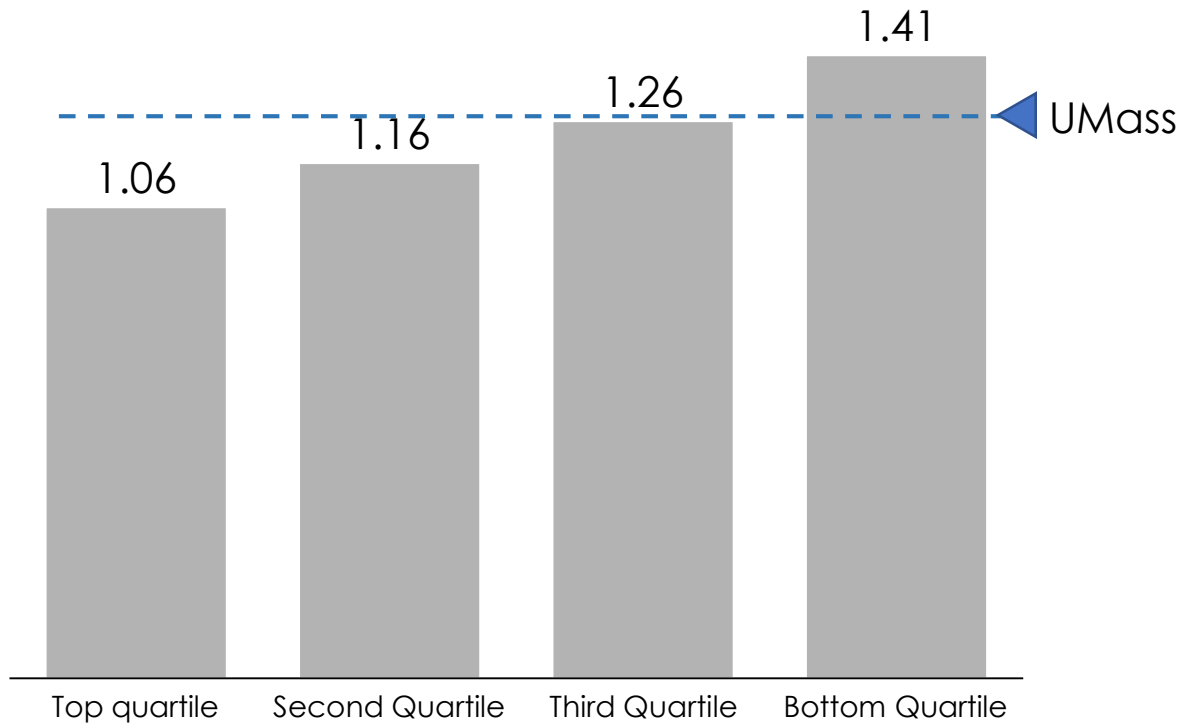
1. Average O/E performance across top 4 hospitals (Carney, St. Vincent, Mount Auburn, Lahey)  
 2. Expected days assessed per reason for hospitalization and patient factors (e.g., age, comorbidities, etc)

# EXHIBIT 8

## UMass could potentially create additional capacity by improving O/E LOS performance compared to other comparable AMCs

Q1-Q2 2021 inpatient Medicare O/E length of stay (LOS) for comparable AMCs<sup>1</sup>

O/E = Observed LOS / expected LOS per discharge<sup>2</sup>



UMass could potentially create additional bed capacity by matching Second Quartile or Top Quartile performance at comparable AMCs

O/E comparison	O/E ratio	Necessary inpatient beds	Potential capacity created
UMass - current state	1.27	747	N/A
Second Quartile Average	1.16	~683	~64
Top Quartile average	1.06	~624	~123

1. Comparable AMCs defined as CMI (>1.8), Teaching level (>25% residents per total beds), Bed size (>350)

2. Expected days assessed per reason for hospitalization and patient factors (e.g., age, comorbidities, etc)



## EXHIBIT 9

2021 O/E LOS (excluding psych and newborn)

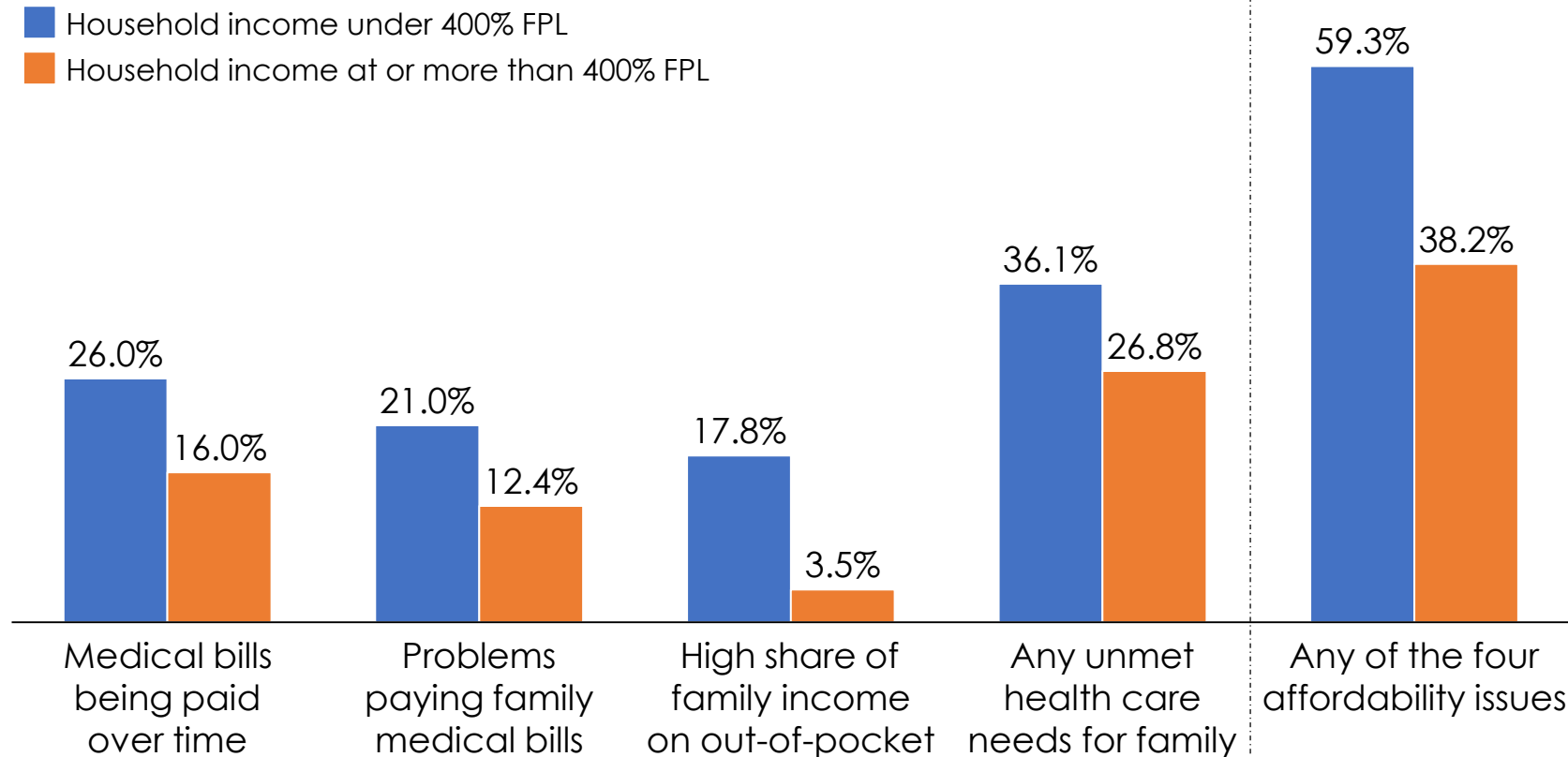
Source: Medicare FFS LDS data & AHA licensed beds for UMass

O/E	Comparison	Inpatient beds	# reduced from current state	Source
1.27	UMass current state O/E	747	0	2021 CMS LDS data (Medicare FFS) for academic medical centers in MA, AHA licensed beds data for UMass
1.22	National AMC average	719	28	2021 CMS LDS data (Medicare FFS) for national academic medical centers

# EXHIBIT 10

## Increasing medical costs may continue to disproportionately impact households under 4x FPL

### 2021 Massachusetts Health Policy Commission Annual Healthcare Cost Trends Report on affordability (% surveyed experiencing affordability issue)



- Increasing regional costs will also impact patients; with 59.3% under 400% FPL and 38.2% above 400% FPL with commercial insurance citing challenges to affordability of healthcare
- Increasing costs to healthcare greater impact on lower income adults across all affordability issues, and rises to regional costs may negatively impact affordability of care

## EXHIBIT 11

### Inpatient beds per 1,000

Source: AHA & CMS LDS data (Medicare FFS)

County	Med / surg staffed beds per 1,000
Plymouth, MA	0.27
Essex, MA	0.50
Norfolk, MA	0.50
Hampshire, MA	0.57
Franklin, MA	0.67
Middlesex, MA	0.80
Nantucket, MA	0.89
Bristol, MA	0.90
Dukes, MA	1.03
<b>Worcester, MA</b>	<b>1.17</b>
Barnstable, MA	1.27
Hampden, MA	1.54
Berkshire, MA	1.55
Suffolk, MA	3.47
<b>Massachusetts avg</b>	<b>1.13</b>
<b>National avg</b>	<b>1.07</b>